



# BURLINGTON RETIREMENT SYSTEM

City of Burlington

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City Hall, Room 20, 149 Church Street, Burlington, VT 05401

Robert Hooper, Chairman of the Board

Munir Kastl, Vice-Chairman

Meeting – Monday, December 20, 2021

Start Time – 9:00 AM – 11:00 AM

Location – Burlington City Hall, 1<sup>st</sup> Floor, Councilor Bushor Conference Room

Or

Join Zoom Meeting:

<https://us02web.zoom.us/j/85261644826?pwd=SmI1amsvSkRmNzFSU29sV2VOMXhNUT09>

Meeting ID: 852- 6164- 4826

Passcode: 834923

You may join by phone, dial +1 929 205 6099, meeting # 852-6164-4826

1. Agenda

2. Public Forum

3. Approve Minutes

- November 15, 2021

4. Approve Return of Contributions

Effective Date of Benefit

- |   |            |
|---|------------|
| • Jack Olson, Class A \$8,541.92            | 12/01/2021 |
| • Jake S. Sawtell, Class A \$25,472.10      | 12/01/2021 |
| • Jeffrey A. Hathaway, Class B \$8,732.92   | 01/01/2022 |
| • Margaret A. Manrique, Class B \$13,523.59 | 12/01/2021 |
| • Michael D. Ferguson, Class A \$2,431.98   | 12/01/2021 |

5. Approve Retirement Applications

Effective Date of Benefit

Actual First  
Payment Date

- |   |            |            |
|---|------------|------------|
| • James D. Leip, Class B \$946.09       | 10/01/2021 | 12/15/2021 |
| • James M. Laflam, Class B \$1,820.58   | 11/01/2021 | 12/15/2021 |
| • Monica Gragg, Class B \$1,094.43      | 07/01/2021 | 12/15/2021 |
| • Robert J. Plante, Class A \$5,732.80  | 12/01/2021 | 12/15/2021 |
| • Sarah R. Jennings, Class B \$1,282.35 | 04/01/2022 | 04/15/2022 |

6. Update from Hooker & Holcombe

- 2021 BERS Preliminary Valuation Report

7. Fiduciant's

- November Investment Update
  - Update on transition to US Bank complete
8. Administrative Updates
- Retirement Administrative Position – interview In January
9. Adjourn

**BURLINGTON RETIREMENT BOARD  
REMOTE MEETING WITH CALL-IN  
BURLINGTON, VERMONT  
MINUTES OF MEETING  
DRAFT  
November 15, 2021**

**MEMBERS PRESENT:** Robert Hooper, Chairperson  
Munir Kasti, Vice-Chairperson  
Patrick Robins  
David Mount  
Ben O'Brien  
Matthew Dow  
Dan Gilligan  
Katherine Schad

**OTHERS PRESENT:** Rich Goodwin  
Chris Rowllins  
Kate Pizzi  
Hayley McClenahan

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**1.0 CALL TO ORDER**

Robert Hooper called the Retirement Board meeting to order.

**MOTION by Katherine Schad, SECOND by Munir Kasti, to adopt the agenda as written.**

**VOTING: unanimous; motion carries.**

**2.0 PUBLIC FORUM (VERBAL)**

2.01 Verbal Comments  
None at this time.

**3.0 APPROVE MINUTES**

3.01 Minutes of October 18, 2021

**MOTION by David Mount, SECOND by Munir Kasti, to approve the minutes as amended.**

The following amendments were made to the minutes:

- On motion to adjourn, David Mount did not both make the motion and second the motion.

**VOTING: unanimous; motion carries.**

#### **4.0 APPROVE RETURN OF CONTRIBUTIONS**

4.01 Approve Return of Contributions

<b>Approve Return of Contributions</b>	<b>Amount</b>	<b>Effective Date of Benefit</b>
Alex Niez-Charest, Class A	\$8,417.98	11/01/2021
Harold Colston, Class B	\$17,698.03	10/01/2021
Kimberly Melissa Jordan, Class B	\$6,523.95	10/01/2021
Kyle Lavalley, Class B	\$3,292.93	10/01/2021
Susan M. Molzon, Class B	\$15,727.00	11/01/2021
Tyler Badeau, Class A	\$104,041.47	11/01/2021

**MOTION by Ben O’Brien, SECOND by Munir to approve the return of contributions as presented.**

**VOTING: unanimous; motion carries.**

#### **5.0 APPROVE RETIREMENT APPLICATIONS**

5.01 Approve Retirement Applications

<b>Approve Retirement Applications</b>	<b>Amount</b>	<b>Effective Date of Benefit</b>	<b>Actual First Payment Date</b>
Brian Difranco, Class A	\$4,324.09	10/01/2021	10/15/2021
Carole Bourneuf, Class B	\$735.67	12/01/2021	12/15/2021
David M. Clements, Class A	\$4,642.31	12/01/2021	12/15/2021
John King, Class B	\$10,078.81	10/01/2021	10/15/2021
Jonathan Young, Class A	\$4,528.06	10/01/2021	10/15/2021
Mark Metivier, Class B	\$528.04	10/01/2021	10/15/2021
Phyllis A. Blank, Class B	\$2,119.09	11/01/2021	11/15/2021
Scott A. Rainville, Class B	\$5,298.75	11/01/2021	11/15/2021

Mr. Robins noted that one retiree’s amount per month is quite high and asked why. Finance Director Goodwin listed the factors that are taken into consideration when calculating monthly payments, and in this instance, the individual had many years of service and additionally chose to retire more than 12 years after he was eligible to do so (at 65).

**MOTION by Patrick Robins, SECOND by Ben O’Brien to approve the retirement applications as presented.**

**VOTING: unanimous; motion carries.**

## **6.0 APPROVAL FOR COST OF LIVING ADJUSTMENT**

6.01 Approval for Cost of Living Adjustment effective January 1, 2022

Finance Director Goodwin noted that the BERS Board has the discretion to approve or disprove COLA increases, also noting that the BERS Board did not approve increases for 2021. He said that staff are recommending a COLA increase for 2022 of 5% for those who retired prior to 7/1/2017, and 2.75% for those who retired after that date. He noted that this recommendation has been reviewed by the City's actuaries and auditors.

Chief Administrative Officer Schad walked through the staff's recommendations in more detail. She said that the City has an ordinance that governs what it can give each year for COLA increases. She noted that there is a standard operating procedure that staff use to calculate COLAs. She noted that the City is using the CPI-U Northeast Region for COLA calculations for retirees post 7/1/2017, and using CPI-U for retirees prior to 7/1/2017. She also noted that there is language in the collective bargaining agreements that says that if the City does not meet its target rates of return or its funded ratios, it has discretion as to whether it will award COLAs. She noted that staff does not recommend exercising this discretion.

Mr. O'Brien asked why the City is using an older valuation calculation for this. Finance Director Goodwin replied that actuarial updates are posted concurrent with when the City needs to develop its COLA recommendation for the BERS Board's consideration, so the timing makes it unfeasible to use more recent valuation calculations.

Mr. Kasti asked if the CBAs are being violated with this decision, since one clause states that no COLAs will be received until the plan reaches 81% funded. Chief Administrative Officer Schad replied that those who retired before July, 2017 are eligible for 5%, and those that retired after are eligible for the 2.75%. She additionally noted that for the Police and Fire Department retirees, the BERS Board can vote to reduce or eliminate COLA if the funded ratio is less than 73%. She said that this also applies to AFSCME and IBEW, which have provisions that allow the BERS Board to decline to apply a COLA if the funded ratio is less than 70% or the fund's rate of return fails to meet what was anticipated.

CAO Schad said that BERS has the option of reducing or applying no COLA for employees who retired after the date of execution of the Police or Fire collective bargaining agreements.

Mr. Robins asked who has the authority to waive the COLA criteria, and what the cost is of that. CAO Schad replied that the staff are recommending not to reduce or eliminate COLA for the upcoming year for Police/Fire. Mr. Gilligan noted that individuals are able to select a COLA or no COLA option for themselves.

**MOTION by Katherine Schad, SECOND by Munir, to approve the recommended Cost of Living Allowance (COLA) adjustment for retirees, as indicated on the COLA index attachment prepared by H&H, effective January 1, 2022, broadly capped at 5% for retirees before July 1, 2017 and 2.75% for those who retired after that date.**

**MOTION TO AMEND** by Katherine Schad, **SECOND** by Patrick Robins, to reduce the COLA increase to 0% on the H&H COLA index attachment in instances where the exception states that the "Board may reduce or vote for no COLA if Class A funding level falls below 73%."

**DISCUSSION ON AMENDMENT:**

- Mr. Gilligan asked why that motion would reduce the COLA increase to zero, rather than reducing it to some number smaller than 2.75%. Chief Administrative Officer Schad replied that based on discussions, this reduction would not affect many people.
- Mr. Mount asked how many retirees take COLA and how many don't. Chief Administrative Officer Schad replied that H&H (the City's actuaries) can quantify that.

**MOTION TO AMEND THE AMENDMENT** by Ben O'Brien, **SECOND** by Dan Gilligan, to amend the 0% reduction back to 2.75% for Class A retirees.

**DISCUSSION ON AMENDMENT TO THE AMENDMENT:**

- Ben O'Brien said that it was above noted that the reduction to 0% would affect few people, and consequently, keeping it at 2.75% would also affect few people (and therefore have little impact).

**VOTING ON AMENDMENT TO THE AMENDMENT:** 5-2 (Katherine Schad and Patrick Robins dissenting); motion carries.

**MOTION** by David Mount, to table this item until information is received from H&H and at that point, vote by email. The motion failed for lack of a second.

**MOTION** by Ben O'Brien to call the question.

**VOTING:** unanimous; motion carries.

## **7.0 ADMINISTRATIVE UPDATES** 7.01 Administrative Updates

Finance Director Goodwin provided an update on the custodial bank for the BERS Board, noting it should be executed by Chief Administrative Officer Schad within the week, after a review by bond counsel. Mr. Hooper asked whether the agreement would need to be approved by the BERS Board, in addition to its previous action to approve the transition to this custodial bank. Mr. Hooper asked whether a delay in execution would present complications from a financial standpoint. Ms. Pizzi replied that it would delay the allocation into BlackRock Strategic Income Fund. Mr. O'Brien noted that for previous agreements of this nature, the contract was executed by both the Chief Administrative Officer and the Chair of the BERS Board. He asked how the current execution arrangement would impact the BERS Board's liability as fiduciaries to the fund.

## **8.0 SET RETIREMENT MEETING DATES FOR NEXT 6 MONTHS**

8.01 Consider 12/20/2021 (Mon), 1/18/2022 (Tues), 2/22/2022 (Tues), 3/21/2022 (Mon), 4/18/2022 (Mon), 5/16/2022 (Mon)

The above dates were approved by the BERS Board as their future meeting schedule.

## **9.0 FIDUCIARY'S**

#### 9.01 October Investment Update

Ms. Pizzi outlined asset class performance. She noted that fixed-income markets were relatively flat for October and that the areas that performed better over the year were the higher-risk areas, such as high yield. She noted that the global public equities market have been strong across developed markets and that emerging markets returns were marginally positive for the month after a volatile third quarter, finishing about flat year to date. She noted that the U.S. outperformed international markets for the month of October. Finally, she noted that the real assets/alternatives markets have performed strongly for the year.

Ms. Pizzi then provided an overview of current asset allocation. She noted that the total plan asset allocation at the end of October was approximately \$251.3 million. She noted areas that were over and under their target allocations.

She then provided an overview of portfolio performance for the month of October. She noted a 1-month increase of 3.5% and year-to-date growth of 13.3%.

## **10.0 ADJOURN**

### 10.01 Motion to Adjourn

**MOTION by Patrick Robins, SECOND by Muni, to adjourn the meeting.**

**VOTING: unanimous; motion carries.**

*RScty: AACoonrad*

# Calculation of Return of Employee Contributions

Burlington Employees' Retirement System

Form A

Jack Olson

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Pension Benefit and Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected. As a Plan participant, you may have made post-tax contributions to the Plan. As a result, a portion of your benefit may be non-taxable. **Consult with your tax advisor if you have any questions.**

## Information Used in Determination

Participant Name:	Jack Olson	Class:	A
Date of Birth:		Department:	Fire Union
Date of Hire:	03/16/2020	Post-Tax Employee Contributions:	\$0.00
Date of Termination:	07/29/2021	Normal Retirement Date (NRD):	05/07/2046
Beneficiary Date of Birth:	N/A	Payment Start Date:	12/01/2021
		Vesting Percentage:	0.0000%

## Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
06/30/2020	Contributions	\$1,579.06	\$1,579.06
06/30/2020	Interest at 2%	\$0.00	\$1,579.06
06/30/2021	Contributions	\$6,074.45	\$7,653.51
06/30/2021	Interest at 2%	\$31.58	\$7,685.09
07/29/2021	Contributions	\$793.16	\$8,478.25
11/30/2021	Interest at 2%	\$63.67	\$8,541.92
(1) Pre-Tax Employee Contributions (Taxable):			\$8,446.67
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):			\$95.25
(3) Total Return of Employee Contributions with Interest:			<b>\$8,541.92</b>

## Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$8,541.92	\$8,541.92	0.00

# Calculation of Return of Employee Contributions

Form A

Burlington Employees' Retirement System

Jake S. Sawtelle

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## Information Used in Determination

Participant Name:	Jake S. Sawtelle	Class:	A
Date of Birth:		Department:	Police Union
Date of Hire:	01/19/2016	Post-Tax Employee Contributions:	\$0.00
Date of Termination:	11/21/2019	Normal Retirement Date (NRD):	12/17/2041
Beneficiary Date of Birth:	N/A	Payment Start Date:	12/01/2021
		Vesting Percentage:	0.0000%

## Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
06/30/2016	Contributions	\$2,231.23	\$2,231.23
06/30/2016	Interest at 5.5%	\$0.00	\$2,231.23
06/30/2017	Contributions	\$5,487.93	\$7,719.16
06/30/2017	Interest at 5.5%	\$122.72	\$7,841.88
12/31/2017	Contributions	\$3,114.82	\$10,956.70
12/31/2017	Interest at 5.5%	\$212.77	\$11,169.47
06/30/2018	Contributions	\$3,176.17	\$14,345.64
06/30/2018	Interest at 2%	\$111.14	\$14,456.78
06/30/2019	Contributions	\$6,404.64	\$20,861.42
06/30/2019	Interest at 2%	\$289.14	\$21,150.56
11/21/2019	Contributions	\$3,193.87	\$24,344.43
06/30/2020	Interest at 2%	\$423.01	\$24,767.44
06/30/2021	Interest at 2%	\$495.35	\$25,262.79
11/30/2021	Interest at 2%	\$209.31	\$25,472.10

(1) Pre-Tax Employee Contributions (Taxable):	\$23,608.66
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):	\$1,863.44
(3) Total Return of Employee Contributions with Interest:	<b>\$25,472.10</b>

## Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$25,472.10	\$25,472.10	0.00

# Calculation of Return of Employee Contributions

Form A

Burlington Employees' Retirement System

Jeffrey A. Hathaway

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## Information Used in Determination

Participant Name:	Jeffrey A. Hathaway	Class:	B
Date of Birth:		Department:	IBEW Local 300
Date of Hire:	12/15/2019	Post-Tax Employee Contributions:	\$0.00
Date of Termination:	11/15/2021	Normal Retirement Date (NRD):	11/28/2054
Beneficiary Date of Birth:	N/A	Payment Start Date:	01/01/2022
		Vesting Percentage:	0.0000%

## Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
06/30/2020	Contributions	\$2,044.98	\$2,044.98
06/30/2020	Interest at 2%	\$0.00	\$2,044.98
06/30/2021	Contributions	\$4,438.41	\$6,483.39
06/30/2021	Interest at 2%	\$40.90	\$6,524.29
11/15/2021	Contributions	\$2,143.71	\$8,668.00
12/31/2021	Interest at 2%	\$64.92	\$8,732.92

(1) Pre-Tax Employee Contributions (Taxable):	\$8,627.10
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):	\$105.82
(3) Total Return of Employee Contributions with Interest:	<b>\$8,732.92</b>

## Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$8,732.92	\$8,732.92	0.00

# Calculation of Return of Employee Contributions

Form A

Burlington Employees' Retirement System

Margaret A. Manrique

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## Information Used in Determination

Participant Name:	Margaret A. Manrique	Class:	B
Date of Birth:		Department:	School
Date of Hire:	07/27/2016	Post-Tax Employee Contributions:	\$0.00
Date of Termination:	07/02/2021	Normal Retirement Date (NRD):	10/22/2036
Beneficiary Date of Birth:	N/A	Payment Start Date:	12/01/2021
		Vesting Percentage:	0.0000%

## Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
06/30/2017	Contributions	\$1,574.92	\$1,574.92
06/30/2017	Interest at 5.5%	\$0.00	\$1,574.92
12/31/2017	Contributions	\$1,350.04	\$2,924.96
12/31/2017	Interest at 5.5%	\$42.73	\$2,967.69
06/30/2018	Contributions	\$1,410.22	\$4,377.91
06/30/2018	Interest at 2%	\$29.53	\$4,407.44
06/30/2019	Contributions	\$3,070.55	\$7,477.99
06/30/2019	Interest at 2%	\$88.15	\$7,566.14
06/30/2020	Contributions	\$2,693.60	\$10,259.74
06/30/2020	Interest at 2%	\$151.32	\$10,411.06
06/30/2021	Contributions	\$2,771.59	\$13,182.65
06/30/2021	Interest at 2%	\$208.22	\$13,390.87
07/02/2021	Contributions	\$21.77	\$13,412.64
11/30/2021	Interest at 2%	\$110.95	\$13,523.59

(1) Pre-Tax Employee Contributions (Taxable):	\$12,892.69
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):	\$630.90
(3) Total Return of Employee Contributions with Interest:	<b>\$13,523.59</b>

## Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$13,523.59	\$13,523.59	0.00

# Calculation of Return of Employee Contributions

Form A

Burlington Employees' Retirement System

Michael D. Ferguson

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Pension Benefit and Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected. As a Plan participant, you may have made post-tax contributions to the Plan. As a result, a portion of your benefit may be non-taxable. **Consult with your tax advisor if you have any questions.**

## Information Used in Determination

Participant Name:	Michael D. Ferguson	Class:	A
Date of Birth:		Department:	Police Non-Union
Date of Hire:	07/09/2018	Post-Tax Employee Contributions:	\$0.00
Date of Termination:	12/06/2018	Normal Retirement Date (NRD):	05/01/2045
Beneficiary Date of Birth:	N/A	Payment Start Date:	12/01/2021
		Vesting Percentage:	0.0000%

## Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
12/06/2018	Contributions	\$2,318.34	\$2,318.34
06/30/2019	Interest at 2%	\$0.00	\$2,318.34
06/30/2020	Interest at 2%	\$46.37	\$2,364.71
06/30/2021	Interest at 2%	\$47.29	\$2,412.00
11/30/2021	Interest at 2%	\$19.98	\$2,431.98

(1) Pre-Tax Employee Contributions (Taxable):	\$2,318.34
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):	\$113.64
(3) Total Return of Employee Contributions with Interest:	<b>\$2,431.98</b>

## Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$2,431.98	\$2,431.98	0.00

# Calculation of Benefit Options

**Form A**

**Burlington Employees' Retirement System, Class B - BED Non-Union**

**James D. Leip**

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Pension Benefit and Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

## Type of Calculation

Vested - Early Retirement

## Information Used in Benefit Determination

Participant Name:	<b>James D Leip</b>	Class:	B
Date of Birth:		Department:	BED Non-Union
Date of Hire:	12/07/2015	Vesting Percentage:	100.0000%
Date of Termination:	09/07/2021	Normal Retirement Date (NRD):	07/27/2022
Beneficiary Date of Birth:		Payment Start Date:	10/01/2021
		Employee Contribution Balance w/ Interest as of 10/01/2021:	\$28,270.41

## Earnings

Average Final Compensation\*: \$132,117.36

## Determination of Benefit Amount

(1) Years of Creditable Service (CS)	5.75000
(2) Years of CS on or prior to 06/30/2006 [(2) + (3) is not to exceed 25 years]	0.00000
(3) Years of CS after 06/30/2006 [(2) + (3) is not to exceed 25 years]	5.75000
(4) Years of CS in excess of 25 years	N/A

## COLA Option

(5) Accrual Rate on or prior to 06/30/2006 (not to exceed 25 years)	1.400%
(6) Accrual Rate after 06/30/2006 (not to exceed 25 years)	1.400%
(7) Accrual Rate in excess of 25 years	0.500%
(8) Retirement Accrual Percentage = [(2) x (5)] + [(3) x (6)] + [(4) x (7)]	8.0500%
(9) Monthly Vested Benefit Payable at NRD = (8) x Average Final Compensation/12 x Vesting Percentage	\$886.29
(10) Early Retirement Reduction Factor	0.9833
(11) Monthly Vested Benefit Payable at Payment Start Date (9) x (10)	\$871.49

## Benefit Options Available

Form of Payment	Option Factor	Full COLA	
		Initial Benefit	Survivor's Benefit <sup>(1)</sup>
Straight Life Annuity	1.0856	\$946.09	**
10 Year Certain & Life Annuity	1.0000	\$871.49	\$871.49
100% Joint & Survivor Annuity	0.8286	\$722.12	\$722.12
50% Joint & Survivor Annuity	0.9397	\$818.94	\$409.47
100% Joint & Survivor Pop-Up Annuity	0.8181	\$712.97	\$712.97
50% Joint & Survivor Pop-Up Annuity	0.9342	\$814.15	\$407.08
Return of Employee Contributions	N/A	\$28,270.41	N/A

(1) **Survivor Benefits:** for the Joint and Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

\* Average is of the three highest years of base earnings

\*\*Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

# Calculation of Benefit Options

**Form A**

**Burlington Employees' Retirement System, Class B - IBEW Local 300**

**James M. Laflam**

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## Type of Calculation

Vested - Early Retirement

## Information Used in Benefit Determination

Participant Name:	<b>James M Laflam</b>	Class:	B
Date of Birth:		Department:	IBEW Local 300
Date of Hire:	01/28/2008	Vesting Percentage:	100.0000%
Date of Termination:	10/31/2021	Normal Retirement Date (NRD):	10/17/2025
Beneficiary Date of Birth:		Payment Start Date:	11/01/2021
		Employee Contribution Balance w/ Interest as of 11/01/2021:	\$48,197.90

## Earnings

Average Final Compensation\*: \$95,390.88

## Determination of Benefit Amount

(1) Years of Creditable Service (CS)		13.75000	
(2) Years of CS on or prior to 05/04/2008 [(2) + (3) is not to exceed 25 years]		0.25000	
(3) Years of CS after 05/04/2008 [(2) + (3) is not to exceed 25 years]		13.50000	
COLA Option	Full COLA	Half COLA	No COLA
(4) Accrual Rate on or prior to 05/04/2008 (not to exceed 25 years)	1.600%	1.900%	2.200%
(5) Accrual Rate after 05/04/2008 (not to exceed 25 years)	1.600%	1.800%	2.000%
(6) Retirement Accrual Percentage = [(2) x (4)] + [(3) x (5)]	22.0000%	24.7750%	27.5500%
(7) Monthly Vested Benefit Payable at NRD = (6) x Average Final Compensation/12 x Vesting Percentage	\$1,748.83	\$1,969.42	\$2,190.02
(8) Early Retirement Reduction Factor	0.9200	0.9200	0.9200
(9) Monthly Vested Benefit Payable at Payment Start Date (7) x (8)	\$1,608.93	\$1,811.87	\$2,014.81

## Benefit Options Available

Form of Payment	Option Factor	Full COLA		Half COLA		No COLA	
		Initial Benefit	Survivor's Benefit <sup>(1)</sup>	Initial Benefit	Survivor's Benefit <sup>(1)</sup>	Initial Benefit	Survivor's Benefit <sup>(1)</sup>
Straight Life Annuity	1.0601	\$1,705.63	**	\$1,920.76	**	\$2,135.90	**
10 Year Certain & Life Annuity	1.0000	\$1,608.93	\$1,608.93	\$1,811.87	\$1,811.87	\$2,014.81	\$2,014.81
100% Joint & Survivor Annuity	0.9036	\$1,453.83	\$1,453.83	\$1,637.21	\$1,637.21	\$1,820.58	\$1,820.58
50% Joint & Survivor Annuity	0.9757	\$1,569.83	\$784.92	\$1,767.84	\$883.92	\$1,965.85	\$982.93
100% Joint & Survivor Pop-Up Annuity	0.8883	\$1,429.21	\$1,429.21	\$1,609.48	\$1,609.48	\$1,789.76	\$1,789.76
50% Joint & Survivor Pop-Up Annuity	0.9697	\$1,560.18	\$780.09	\$1,756.97	\$878.49	\$1,953.76	\$976.88
Return of Employee Contributions	N/A	\$48,197.90	N/A	\$48,197.90	N/A	\$48,197.90	N/A

(1) **Survivor Benefits:** for the Joint & Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

\* Average is of the three highest years of base earnings

\*\*Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

# Calculation of Benefit Options

## Burlington Employees' Retirement System, Class B - School

Form A

Monica Gragg

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Pension Benefit and Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

### Type of Calculation

Vested - Early Retirement

### Information Used in Benefit Determination

Participant Name:	Monica Gragg	Class:	B
Date of Birth:		Department:	School
Date of Hire:	05/30/1996	Vesting Percentage:	100.0000%
Date of Termination:	06/30/2021	Normal Retirement Date (NRD):	11/11/2023
Beneficiary Date of Birth:		Payment Start Date:	07/01/2021
		Employee Contribution Balance w/ Interest as of 07/01/2021:	\$23,574.08

### Earnings

Average Final Compensation\*: \$45,756.75

### Determination of Benefit Amount

(1) Years of Creditable Service (CS)	14.00000
(2) Years of CS on or prior to 06/30/2006 [(2) + (3) is not to exceed 25 years]	0.00000
(3) Years of CS after 06/30/2006 [(2) + (3) is not to exceed 25 years]	14.00000
COLA Option	Full COLA      Half COLA      No COLA
(4) Accrual Rate on or prior to 06/30/2006 (not to exceed 25 years)	1.600%      1.900%      2.200%
(5) Accrual Rate after 06/30/2006 (not to exceed 25 years)	1.600%      1.800%      2.000%
(6) Retirement Accrual Percentage = [(2) x (4)] + [(3) x (5)]	22.4000%      25.2000%      28.0000%
(7) Monthly Vested Benefit Payable at NRD = (6) x Average Final Compensation / 12 x Vesting Percentage	\$854.13      \$960.89      \$1,067.66
(8) Early Retirement Reduction Factor	0.9517      0.9517      0.9517
(9) Monthly Vested Benefit Payable at Payment Start Date (7) x (8)	\$812.87      \$914.48      \$1,016.09

### Benefit Options Available

Form of Payment	Option Factor	Full COLA		Half COLA		No COLA	
		Initial Benefit	Survivor's Benefit (1)	Initial Benefit	Survivor's Benefit (1)	Initial Benefit	Survivor's Benefit (1)
Straight Life Annuity	1.0771	\$875.54	**	\$984.99	**	\$1,094.43	**
10 Year Certain & Life Annuity	1.0000	\$812.87	\$812.87	\$914.48	\$914.48	\$1,016.09	\$1,016.09
100% Joint & Survivor Annuity	0.8321	\$676.39	\$676.39	\$760.94	\$760.94	\$845.49	\$845.49
50% Joint & Survivor Annuity	0.9387	\$763.04	\$381.52	\$858.42	\$429.21	\$953.80	\$476.90
100% Joint & Survivor Pop-Up Annuity	0.8218	\$668.02	\$668.02	\$751.52	\$751.52	\$835.02	\$835.02
50% Joint & Survivor Pop-Up Annuity	0.9327	\$758.16	\$379.08	\$852.94	\$426.47	\$947.71	\$473.86
Return of Employee Contributions	N/A	\$23,574.08	N/A	\$23,574.08	N/A	\$23,574.08	N/A

(1) **Survivor Benefits:** for the Joint & Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

\* Average is of the three highest years of base earnings

\*\*Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

# Calculation of Benefit Options

**Form A**

**Burlington Employees' Retirement System, Class A - Fire Non-Union**

**Robert J. Plante**

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Pension Benefit and Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

## Type of Calculation

Vested - Early Retirement

## Information Used in Benefit Determination

Participant Name:	<b>Robert J Plante</b>	Class:	A
Date of Birth:		Department:	Fire Non-Union
Date of Hire:	09/08/1997	Vesting Percentage:	100.0000%
Date of Termination:	11/03/2021	Normal Retirement Date (NRD):	09/08/2022
Beneficiary Date of Birth:		Payment Start Date:	12/01/2021
		Employee Contribution Balance w/ Interest as of 12/01/2021:	\$233,071.66

## Earnings

Average Final Compensation\*: \$104,878.42

## Determination of Benefit Amount

(1) Years of Creditable Service (CS)		24.16667	
(2) Years of CS on or prior to June 30, 2006 [(2)+(3) is not to exceed 25 years] (8.83333 of overtime service)		8.83333	
(3) Years of CS after June 30, 2006 [(2) + (3) is not to exceed 25 years] (15.33333 of overtime service)		15.33333	
COLA Option	Full COLA	Half COLA	No COLA
(4) Accrual Rate on or prior to June 30, 2006 (not to exceed 25 years)	2.750%	3.250%	3.800%
(5) Accrual Rate after June 30, 2006 (not to exceed 25 years)	2.750%	3.250%	3.600%
(6) Retirement Accrual Percentage = [1.17 x (8.83333) x (4)] + [1.17 x (15.33333) x (5)]	77.7563%	91.8938%	103.8570%
(7) Monthly Vested Benefit Payable at NRD = (6) x Average Final Compensation/12 x Vesting Percentage	\$6,795.80	\$8,031.40	\$9,076.97
(8) Early Retirement Reduction Factor	0.9848	0.9848	0.9848
(9) Monthly Vested Benefit Payable at Payment Start Date (7) x (8)	\$6,692.50	\$7,909.32	\$8,939.00

## Benefit Options Available

Form of Payment	Option Factor	Full COLA		Half COLA		No COLA	
		Initial Benefit	Survivor's Benefit <sup>(1)</sup>	Initial Benefit	Survivor's Benefit <sup>(1)</sup>	Initial Benefit	Survivor's Benefit <sup>(1)</sup>
Straight Life Annuity	1.0101	\$6,760.09	**	\$7,989.20	**	\$9,029.28	**
5 Year Certain & Life Annuity	1.0000	\$6,692.50	\$6,692.50	\$7,909.32	\$7,909.32	\$8,939.00	\$8,939.00
100% Joint & Survivor Annuity	0.8566	\$5,732.80	\$5,732.80	\$6,775.12	\$6,775.12	\$7,657.15	\$7,657.15
50% Joint & Survivor Annuity	0.9270	\$6,203.95	\$3,101.98	\$7,331.94	\$3,665.97	\$8,286.45	\$4,143.23
100% Joint & Survivor Pop-Up Annuity	0.8483	\$5,677.25	\$5,677.25	\$6,709.48	\$6,709.48	\$7,582.95	\$7,582.95
50% Joint & Survivor Pop-Up Annuity	0.9223	\$6,172.49	\$3,086.25	\$7,294.77	\$3,647.39	\$8,244.44	\$4,122.22
Return of Employee Contributions	N/A	\$233,071.66	N/A	\$233,071.66	N/A	\$233,071.66	N/A

(1) **Survivor Benefits:** for the Joint & Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

\* Average is of the three highest years of base earnings

\*\*Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

# Calculation of Benefit Options

Form A

Burlington Employees' Retirement System, Class B - Non-Union

Sarah R. Jennings

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Pension Benefit and Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

## Type of Calculation

Vested - Early Retirement

## Information Used in Benefit Determination

Participant Name:	Sarah R Jennings	Class:	B
Date of Birth:		Department:	Non-Union
Date of Hire:	01/13/2005	Vesting Percentage:	100.0000%
Date of Termination:	07/09/2020	Normal Retirement Date (NRD):	03/11/2028
Beneficiary Date of Birth:		Payment Start Date:	04/01/2022
		Employee Contribution Balance w/ Interest as of 04/01/2022:	\$26,249.14

## Earnings

Average Final Compensation\*: \$53,364.97

## Determination of Benefit Amount

(1) Years of Creditable Service (CS)		15.50000	
(2) Years of CS on or prior to 06/30/2006 [(2) + (3) is not to exceed 25 years]		1.50000	
(3) Years of CS after 06/30/2006 [(2) + (3) is not to exceed 25 years]		14.00000	
COLA Option	Full COLA	Half COLA	No COLA
(4) Accrual Rate on or prior to 06/30/2006 (not to exceed 25 years)	1.600%	1.900%	2.200%
(5) Accrual Rate after 06/30/2006 (not to exceed 25 years)	1.600%	1.800%	2.000%
(6) Retirement Accrual Percentage = [(2) x (4)] + [(3) x (5)]	24.8000%	28.0500%	31.3000%
(7) Monthly Vested Benefit Payable at NRD = (6) x Average Final Compensation / 12 x Vesting Percentage	\$1,102.88	\$1,247.41	\$1,391.94
(8) Early Retirement Reduction Factor	0.8800	0.8800	0.8800
(9) Monthly Vested Benefit Payable at Payment Start Date (7) x (8)	\$970.53	\$1,097.72	\$1,224.90

## Benefit Options Available

Form of Payment	Option Factor	Full COLA		Half COLA		No COLA	
		Initial Benefit	Survivor's Benefit (1)	Initial Benefit	Survivor's Benefit (1)	Initial Benefit	Survivor's Benefit (1)
Straight Life Annuity	1.0469	\$1,016.05	**	\$1,149.20	**	\$1,282.35	**
10 Year Certain & Life Annuity	1.0000	\$970.53	\$970.53	\$1,097.72	\$1,097.72	\$1,224.90	\$1,224.90
100% Joint & Survivor Annuity	0.8744	\$848.63	\$848.63	\$959.85	\$959.85	\$1,071.05	\$1,071.05
50% Joint & Survivor Annuity	0.9529	\$924.82	\$462.41	\$1,046.02	\$523.01	\$1,167.21	\$583.61
100% Joint & Survivor Pop-Up Annuity	0.8644	\$838.93	\$838.93	\$948.87	\$948.87	\$1,058.80	\$1,058.80
50% Joint & Survivor Pop-Up Annuity	0.9478	\$919.87	\$459.94	\$1,040.42	\$520.21	\$1,160.96	\$580.48
Return of Employee Contributions	N/A	\$26,249.14	N/A	\$26,249.14	N/A	\$26,249.14	N/A

(1) **Survivor Benefits:** for the Joint & Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

\* Average is of the three highest years of base earnings

\*\* Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

**Burlington Employees' Retirement System  
June 30, 2021 Actuarial Valuation - Preliminary Results**

**\*\*\*\* WORK PAPER \*\*\*\***

	June 30, 2020 Valuation	June 30, 2021 Valuation				
Discount Rate	7.30%	7.30%	<b>7.20%</b>	<b>7.20%</b>	<b>7.20%</b>	<b>7.20%</b>
IBEW Changes	Before	Before	Before	<b>After</b>	<b>After</b>	<b>After</b>
Asset Smoothing	10 Years	10 Years	10 Years	10 Years	<b>5 Years<sup>1</sup></b>	<b>5 Years<sup>2</sup></b>
Actuarial Accrued Liability	293,171,198	303,708,645	306,889,918	310,778,910	310,778,910	310,778,910
Actuarial Value of Assets	<u>209,861,722</u>	<u>220,703,246</u>	<u>220,703,246</u>	<u>220,703,246</u>	<u>219,377,787</u>	<u>225,281,196</u>
Unfunded Accrued Liability (UAL)	83,309,476	83,005,399	86,186,672	90,075,664	91,401,123	85,497,714
<b>Funded Ratio</b>	<b>71.6%</b>	<b>72.7%</b>	<b>71.9%</b>	<b>71.0%</b>	<b>70.6%</b>	<b>72.5%</b>
Actuarially Determined Employer Contribution (ADEC) <sup>3</sup>						
City Normal Cost	3,737,288	3,642,053	3,778,013	3,783,557	3,783,557	3,783,557
Amortization of UAL	<u>7,948,943</u>	<u>8,018,513</u>	<u>8,236,339</u>	<u>8,579,078</u>	<u>8,695,892</u>	<u>8,175,620</u>
<b>Total ADEC</b>	<b>11,686,231</b>	<b>11,660,566</b>	<b>12,014,352</b>	<b>12,362,635</b>	<b>12,479,449</b>	<b>11,959,177</b>

1. 5-Year Asset Smoothing for All Years

2. 5-Year Asset Smoothing for Prospective Years Only starting with 2020-21

3. Fiscal Year Ending June 30, 2022 for June 30, 2020 Valuation; Fiscal Year Ending June 30, 2023 for June 30, 2021 Valuation; Amounts Have Been Adjusted with Inflation

**Burlington Employees' Retirement System**  
**Preliminary Valuation Results as of June 30, 2021**  
**10-Year (Retroactive) and 5-Year (Prospective) Smoothing of Asset Returns**

Summary of Fund Activity		
	Market Value	Actuarial Value
<b>1. Beginning value of assets June 30, 2020</b>		
Trust assets	\$194,606,624	\$209,861,722
<b>2. Contributions</b>		
City contributions during year	10,236,862	10,236,862
Employee contributions during year	3,522,346	3,522,346
Total for plan year	13,759,208	13,759,208
<b>3. Disbursements</b>		
Benefit payments during year	18,411,850	18,411,850
Administrative expenses during year	762,205	762,205
Other disbursements	50,100	50,100
Total for plan year	19,224,155	19,224,155
<b>4. Net investment return</b>		
Interest and dividends	11,771,317	N/A
Realized and unrealized gain / (loss)	48,458,023	N/A
Expected return	N/A	14,013,747
Recognized gain / (loss)	N/A	6,870,674
Required adjustment due to corridor	N/A	0
Reversal of prior year required adjustment	N/A	0
Investment-related expenses	(436,095)	N/A
Total for plan year	59,793,245	20,884,421
<b>5. Ending value of assets June 30, 2021</b>		
Trust assets: (1) + (2) - (3) + (4)	248,934,922	225,281,196
<b>6. Approximate rate of return</b>	31.1%	10.1%

**Burlington Employees' Retirement System**  
**Preliminary Valuation Results as of June 30, 2021**  
**10-Year (Retroactive) and 5-Year (Prospective) Smoothing of Asset Returns**

**Relationship of Actuarial Value to Market Value**

1. Market value 6/30/2021	\$248,934,922
2. Gain / (loss) not recognized in actuarial value 6/30/2021	23,653,726
3. Preliminary actuarial value 6/30/2021: (1) - (2)	225,281,196
4. Preliminary actuarial value as a percentage of market value: (3) ÷ (1)	90.5%
5. Gain / (loss) recognized for corridor minimum / maximum	N/A
6. Actuarial value 6/30/2021 after corridor minimum / maximum: (3) + (5)	225,281,196
7. Actuarial value as a percentage of market value: (6) ÷ (1)	90.5%

**Development of Market Value Gain / Loss for 2020-2021 Plan Year**

1. Market value 6/30/2020	\$194,606,624
2. City contributions	10,236,862
3. Employee contributions	3,522,346
4. Benefit payments and other disbursements	18,461,950
5. Administrative expenses	762,205
6. Expected return at 7.30%	14,013,747
7. Expected value 6/30/2021: (1) + (2) + (3) - (4) - (5) + (6)	203,155,424
8. Market value 6/30/2021	248,934,922
9. Market value gain / (loss) for 2020-2021 plan year: (8) - (7)	45,779,498

**Recognition of Gain / Loss in Actuarial Value**

Year	(a) Gain / (loss)	(b) Total recognized as of 6/30/2020	(c) Recognized in current year	(d) Total recognized as of 6/30/2021: (b) + (c)	(e) Not recognized as of 6/30/2021: (a) - (d)
2012-2013	(\$498,233)	(\$398,585)	(\$49,823)	(\$448,408)	(\$49,825)
2013-2014	8,081,381	5,656,966	808,138	6,465,104	1,616,277
2014-2015	(13,616,950)	(8,170,170)	(1,361,695)	(9,531,865)	(4,085,085)
2015-2016	(14,912,281)	(7,456,140)	(1,491,228)	(8,947,368)	(5,964,913)
2016-2017	9,463,116	3,785,248	946,312	4,731,560	4,731,556
2017-2018	2,849,687	854,907	284,969	1,139,876	1,709,811
2018-2019	(4,474,973)	(894,994)	(447,497)	(1,342,491)	(3,132,482)
2019-2020	(9,744,015)	(974,402)	(974,402)	(1,948,804)	(7,795,211)
2020-2021	45,779,498	0	9,155,900	9,155,900	36,623,598
Total			6,870,674		23,653,726

12/15/2021



**Burlington Employees' Retirement System**  
**Preliminary Valuation Results as of June 30, 2021**  
**5-Year Smoothing of Asset Returns**

Summary of Fund Activity		
	Market Value	Actuarial Value
<b>1. Beginning value of assets June 30, 2020</b>		
Trust assets	\$194,606,624	\$209,861,722
<b>2. Contributions</b>		
City contributions during year	10,236,862	10,236,862
Employee contributions during year	3,522,346	3,522,346
Total for plan year	13,759,208	13,759,208
<b>3. Disbursements</b>		
Benefit payments during year	18,411,850	18,411,850
Administrative expenses during year	762,205	762,205
Other disbursements	50,100	50,100
Total for plan year	19,224,155	19,224,155
<b>4. Net investment return</b>		
Interest and dividends	11,771,317	N/A
Realized and unrealized gain / (loss)	48,458,023	N/A
Expected return	N/A	14,013,747
Recognized gain / (loss)	N/A	967,265
Required adjustment due to corridor	N/A	0
Reversal of prior year required adjustment	N/A	0
Investment-related expenses	(436,095)	N/A
Total for plan year	59,793,245	14,981,012
<b>5. Ending value of assets June 30, 2021</b>		
Trust assets: (1) + (2) - (3) + (4)	248,934,922	219,377,787
<b>6. Approximate rate of return</b>	31.1%	7.2%

**Burlington Employees' Retirement System**  
**Preliminary Valuation Results as of June 30, 2021**  
**5-Year Smoothing of Asset Returns**

**Relationship of Actuarial Value to Market Value**

1. Market value 6/30/2021	\$248,934,922
2. Gain / (loss) not recognized in actuarial value 6/30/2021	29,557,135
3. Preliminary actuarial value 6/30/2021: (1) - (2)	219,377,787
4. Preliminary actuarial value as a percentage of market value: (3) ÷ (1)	88.1%
5. Gain / (loss) recognized for corridor minimum / maximum	N/A
6. Actuarial value 6/30/2021 after corridor minimum / maximum: (3) + (5)	219,377,787
7. Actuarial value as a percentage of market value: (6) ÷ (1)	88.1%

**Development of Market Value Gain / Loss for 2020-2021 Plan Year**

1. Market value 6/30/2020	\$194,606,624
2. City contributions	10,236,862
3. Employee contributions	3,522,346
4. Benefit payments and other disbursements	18,461,950
5. Administrative expenses	762,205
6. Expected return at 7.30%	14,013,747
7. Expected value 6/30/2021: (1) + (2) + (3) - (4) - (5) + (6)	203,155,424
8. Market value 6/30/2021	248,934,922
9. Market value gain / (loss) for 2020-2021 plan year: (8) - (7)	45,779,498

**Recognition of Gain / Loss in Actuarial Value**

Year	(a) Gain / (loss)	(b) Total recognized as of 6/30/2020	(c) Recognized in current year	(d) Total recognized as of 6/30/2021: (b) + (c)	(e) Not recognized as of 6/30/2021: (a) - (d)
2012-2013	(\$498,233)	(\$398,585)	(\$99,648)	(\$498,233)	\$0
2013-2014	8,081,381	5,656,966	2,424,415	8,081,381	0
2014-2015	(13,616,950)	(8,170,170)	(5,446,780)	(13,616,950)	0
2015-2016	(14,912,281)	(7,456,140)	(7,456,141)	(14,912,281)	0
2016-2017	9,463,116	3,785,248	5,677,868	9,463,116	0
2017-2018	2,849,687	854,907	1,424,845	2,279,752	569,935
2018-2019	(4,474,973)	(894,994)	(1,789,988)	(2,684,982)	(1,789,991)
2019-2020	(9,744,015)	(974,402)	(2,923,206)	(3,897,608)	(5,846,407)
2020-2021	45,779,498	0	9,155,900	9,155,900	36,623,598
<b>Total</b>			967,265		29,557,135

12/15/2021



**Burlington Employees' Retirement System**  
**Preliminary Valuation Results as of June 30, 2021**  
**10-Year Smoothing of Asset Returns**

Summary of Fund Activity		
	Market Value	Actuarial Value
<b>1. Beginning value of assets June 30, 2020</b>		
Trust assets	\$194,606,624	\$209,861,722
<b>2. Contributions</b>		
City contributions during year	10,236,862	10,236,862
Employee contributions during year	3,522,346	3,522,346
Total for plan year	13,759,208	13,759,208
<b>3. Disbursements</b>		
Benefit payments during year	18,411,850	18,411,850
Administrative expenses during year	762,205	762,205
Other disbursements	50,100	50,100
Total for plan year	19,224,155	19,224,155
<b>4. Net investment return</b>		
Interest and dividends	11,771,317	N/A
Realized and unrealized gain / (loss)	48,458,023	N/A
Expected return	N/A	14,013,747
Recognized gain / (loss)	N/A	2,292,724
Required adjustment due to corridor	N/A	0
Reversal of prior year required adjustment	N/A	0
Investment-related expenses	(436,095)	N/A
Total for plan year	59,793,245	16,306,471
<b>5. Ending value of assets June 30, 2021</b>		
Trust assets: (1) + (2) - (3) + (4)	248,934,922	220,703,246
<b>6. Approximate rate of return</b>	31.1%	7.8%

**Burlington Employees' Retirement System**  
**Preliminary Valuation Results as of June 30, 2021**  
**10-Year Smoothing of Asset Returns**

**Relationship of Actuarial Value to Market Value**

1. Market value 6/30/2021	\$248,934,922
2. Gain / (loss) not recognized in actuarial value 6/30/2021	28,231,676
3. Preliminary actuarial value 6/30/2021: (1) - (2)	220,703,246
4. Preliminary actuarial value as a percentage of market value: (3) ÷ (1)	88.7%
5. Gain / (loss) recognized for corridor minimum / maximum	N/A
6. Actuarial value 6/30/2021 after corridor minimum / maximum: (3) + (5)	220,703,246
7. Actuarial value as a percentage of market value: (6) ÷ (1)	88.7%

**Development of Market Value Gain / Loss for 2020-2021 Plan Year**

1. Market value 6/30/2020	\$194,606,624
2. City contributions	10,236,862
3. Employee contributions	3,522,346
4. Benefit payments and other disbursements	18,461,950
5. Administrative expenses	762,205
6. Expected return at 7.30%	14,013,747
7. Expected value 6/30/2021: (1) + (2) + (3) - (4) - (5) + (6)	203,155,424
8. Market value 6/30/2021	248,934,922
9. Market value gain / (loss) for 2020-2021 plan year: (8) - (7)	45,779,498

**Recognition of Gain / Loss in Actuarial Value**

Year	(a) Gain / (loss)	(b) Total recognized as of 6/30/2020	(c) Recognized in current year: 10% of (a)	(d) Total recognized as of 6/30/2021: (b) + (c)	(e) Not recognized as of 6/30/2021: (a) - (d)
2012-2013	(\$498,233)	(\$398,585)	(\$49,823)	(\$448,408)	(\$49,825)
2013-2014	8,081,381	5,656,966	808,138	6,465,104	1,616,277
2014-2015	(13,616,950)	(8,170,170)	(1,361,695)	(9,531,865)	(4,085,085)
2015-2016	(14,912,281)	(7,456,140)	(1,491,228)	(8,947,368)	(5,964,913)
2016-2017	9,463,116	3,785,248	946,312	4,731,560	4,731,556
2017-2018	2,849,687	854,907	284,969	1,139,876	1,709,811
2018-2019	(4,474,973)	(894,994)	(447,497)	(1,342,491)	(3,132,482)
2019-2020	(9,744,015)	(974,402)	(974,402)	(1,948,804)	(7,795,211)
2020-2021	45,779,498	0	4,577,950	4,577,950	41,201,548
Total			2,292,724		28,231,676



# City of Burlington Employees Retirement System

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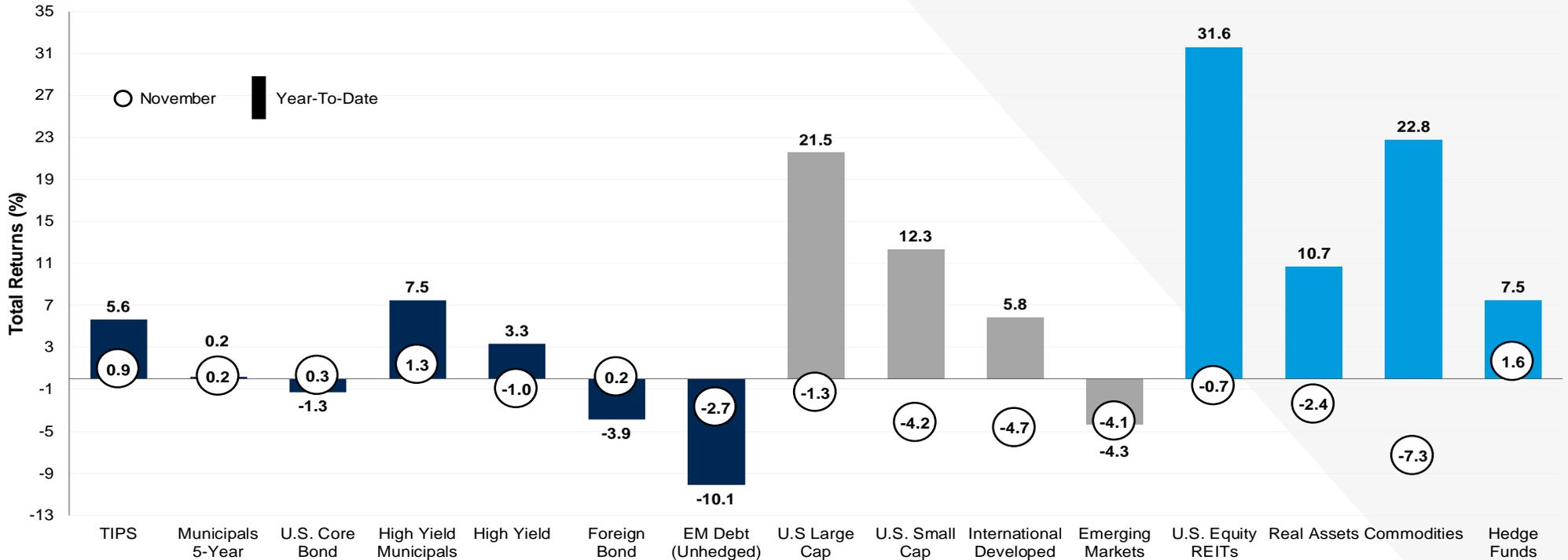
## Monthly Performance Update - November 2021

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*Past performance does not indicate future performance and there is possibility of a loss.*



# Asset Class Performance



\*Hedge fund returns are lagged 1 month. Sources: FactSet, J.P. Morgan, Russell, MSCI, FTSE Russell, Alerian.

## Fixed Income (November)

- + Rates rose during most of the month as the Fed began tapering its asset purchases. However, discovery of the omicron variant at the end of the month induced volatility and led rates lower.
- The sell-off at the end of the month pushed credit spreads higher, breaking their steady downtrend in recent months.

## Equity (November)

- US equity markets closed the month lower on COVID-induced selling after gaining over most of the month on strong economic data. Small cap stocks lagged large caps.
- Non-US equity markets lagged domestic equities as the dollar rallied over the month.

## Real Asset / Alternatives (November)

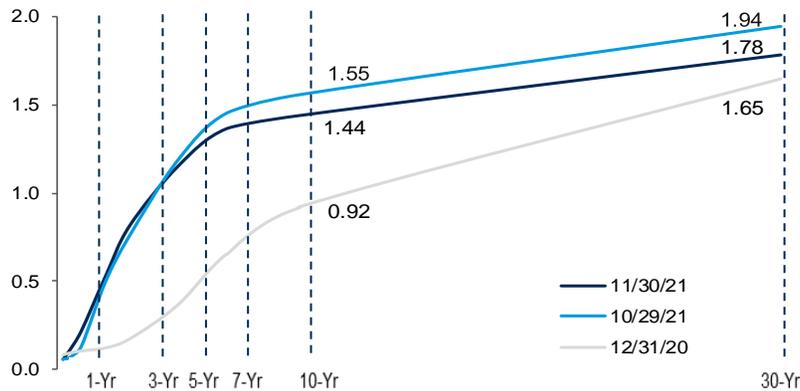
- Real Assets, REITs and Commodities were all led lower over November by prospects of further lockdowns, especially in European markets.
- + Hedge funds gained in October as equity markets saw a risk-on appetite.



# Fixed Income Market Update

## U.S. Treasury Yields Curve

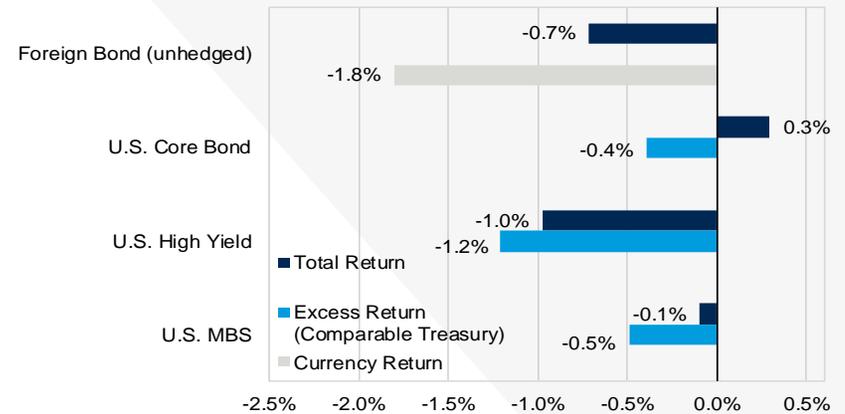
Although rates rose through most of the month, preference for “safe-haven” assets following discovery of the omicron variant pushed rates lower by 11bps and 16bps for 10-year and 30-year Treasuries, respectively.



Source: FactSet

## Index Performance Attribution (November 2021)

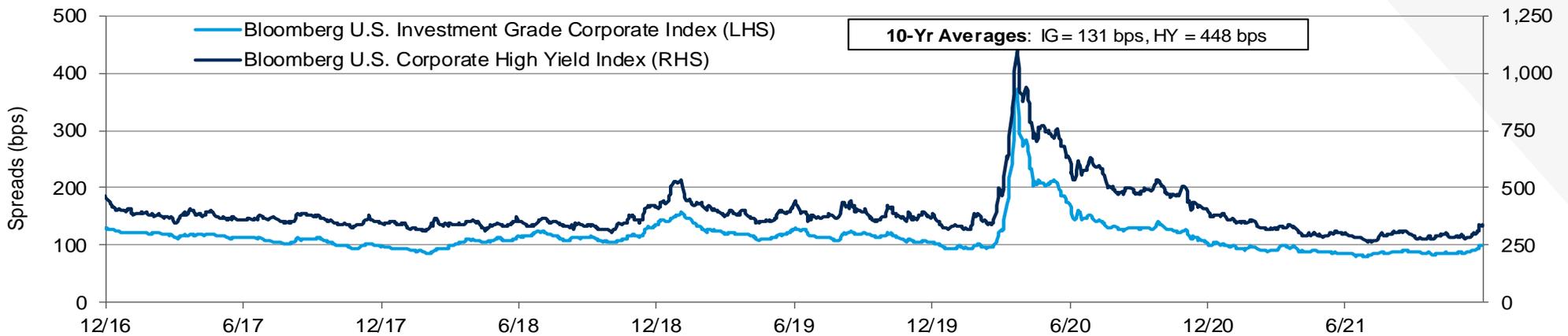
A strong risk-off appetite at month-end led to reallocations into core bonds while other segments were lower. A strengthening dollar pressured foreign bonds during the month.



Source: FactSet

## Credit Market Spreads – Trailing 5 Years

Credit spreads were higher on late-month selling. Investment grade spreads rose 12bps while high yield spreads were 50bps higher.



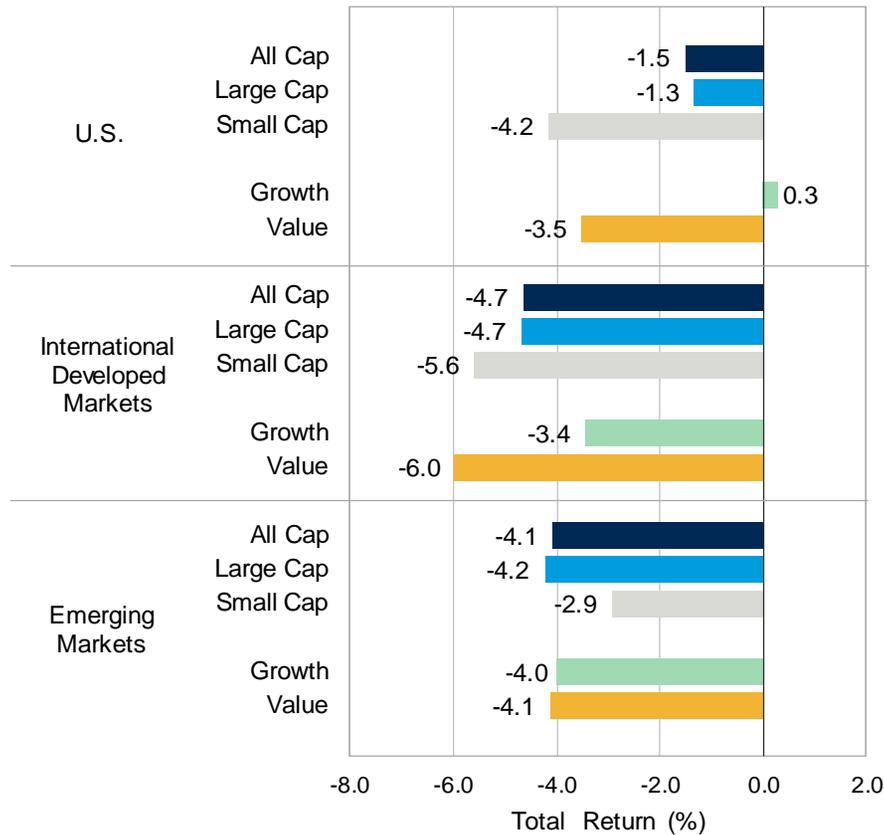
Source: FactSet



# Equity Market Update

## Market Capitalization and Style Performance (November 2021)

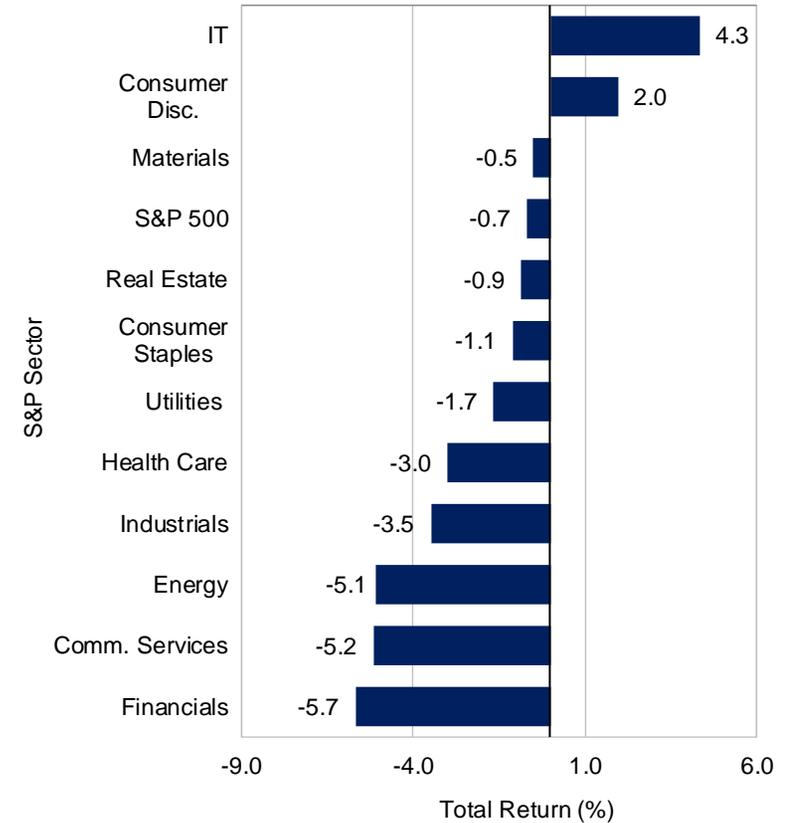
Growth outperformed value across all geographies in a lockdown trade. While small caps lagged in the US and International Developed markets, the opposite was true in Emerging Markets.



Source: FactSet

## U.S. Equities – Returns by Sector (November 2021)

Omicron uncertainty caused concerns of new lockdowns, leading markets to reward technology and consumer discretionary names, while punishing energy and industrials. Financials were lower as interest rates fell.



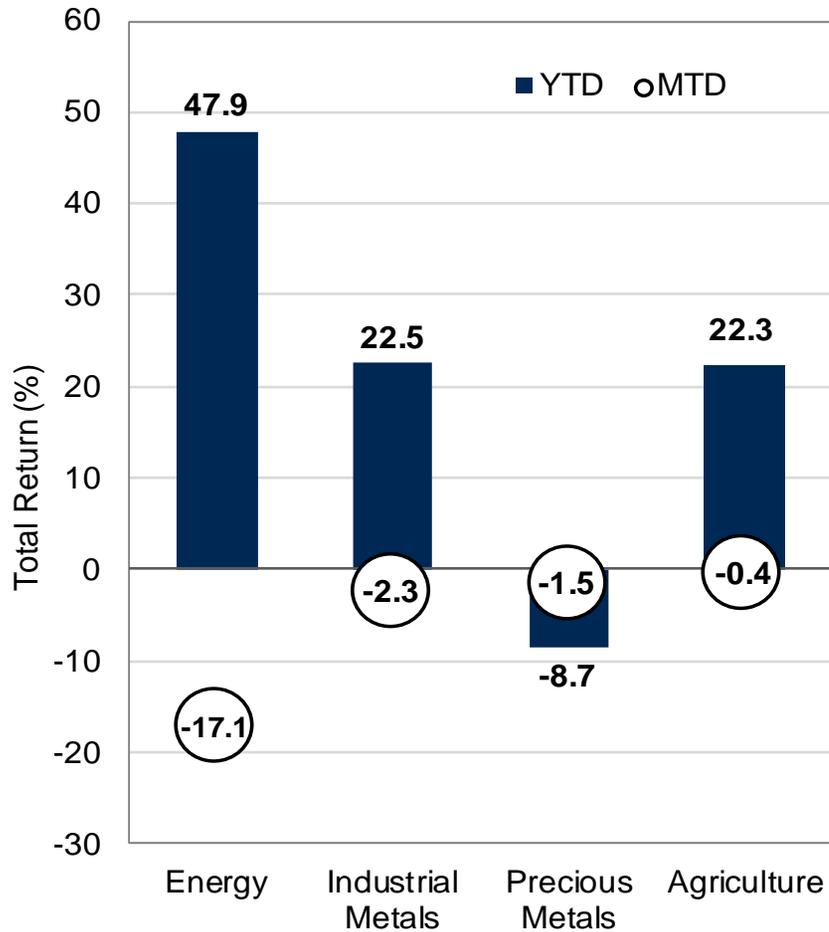
Source: FactSet



# Real Assets Market Update

## Real Assets Performance

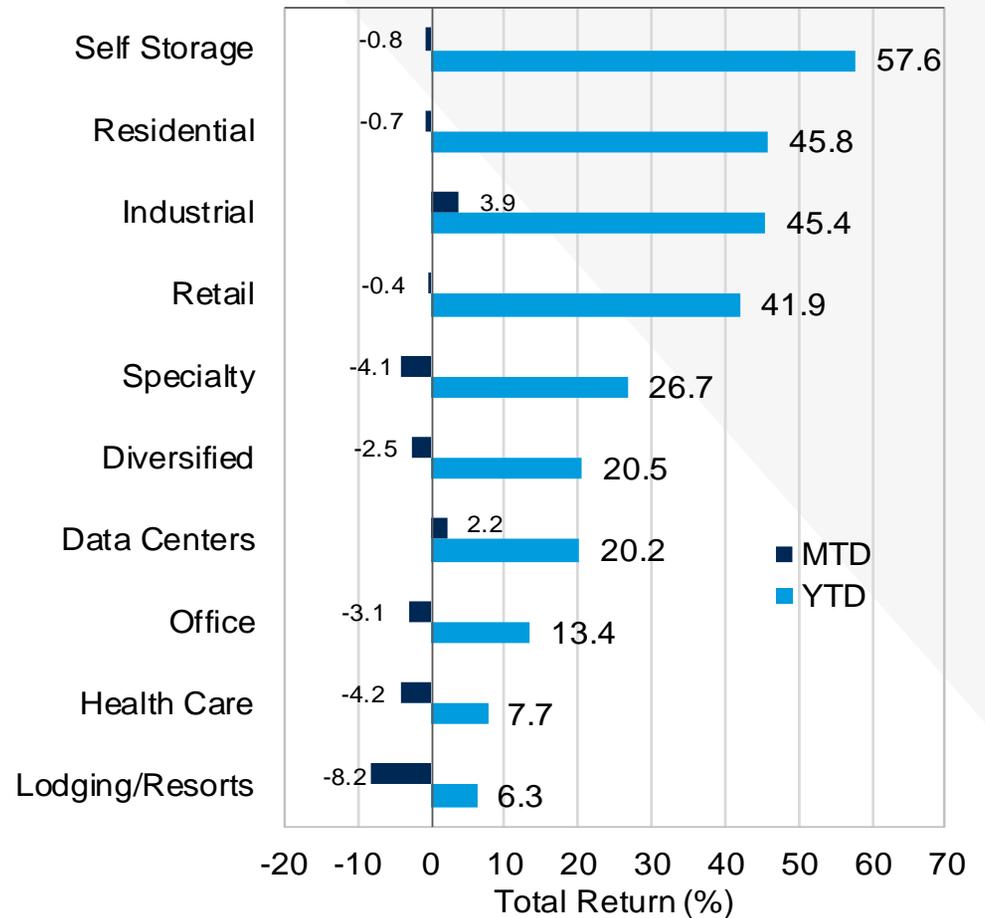
All real asset sectors were lower during the month. Energy was the weakest performer: positive results early in the month on strong economic data were outweighed by month-end concerns over COVID.



Source: FactSet

## REIT Sector Performance

REIT performance was mixed over the month with a lockdown trade that favored industrial and data center REITs while punishing other sectors, especially lodging/resorts.



Source: FactSet



# Financials Markets Performance

**Total return as of November 30, 2021**  
*Periods greater than one year are annualized*  
*All returns are in U.S. dollar terms*

<b>Global Fixed Income Markets</b>	<b>MTD</b>	<b>YTD</b>	<b>1YR</b>	<b>3YR</b>	<b>5YR</b>	<b>7YR</b>	<b>10YR</b>	<b>15YR</b>
Bloomberg 1-3-Month T-Bill	0.0%	0.0%	0.0%	1.0%	1.1%	0.8%	0.6%	0.9%
Bloomberg U.S. TIPS	0.9%	5.6%	6.8%	8.5%	5.3%	4.0%	3.1%	4.5%
Bloomberg Municipal Bond (5 Year)	0.2%	0.2%	0.6%	3.6%	3.0%	2.3%	2.5%	3.5%
Bloomberg High Yield Municipal Bond	1.3%	7.5%	9.5%	8.0%	7.8%	6.1%	6.9%	5.2%
Bloomberg U.S. Aggregate	0.3%	-1.3%	-1.2%	5.5%	3.7%	3.1%	3.0%	4.1%
Bloomberg U.S. Corporate High Yield	-1.0%	3.3%	5.3%	7.4%	6.3%	5.6%	6.9%	7.0%
Bloomberg Global Aggregate ex-U.S. Hedged	1.1%	-0.8%	-0.4%	3.9%	3.3%	3.3%	4.1%	4.0%
Bloomberg Global Aggregate ex-U.S. Unhedged	-0.7%	-6.9%	-4.9%	3.2%	2.9%	1.3%	0.9%	2.5%
Bloomberg U.S. Long Gov / Credit	1.3%	-1.7%	-1.9%	12.3%	7.7%	6.1%	6.2%	6.9%
JPMorgan GBI-EM Global Diversified	-2.7%	-10.1%	-7.0%	2.0%	2.9%	-0.1%	0.4%	3.5%
<b>Global Equity Markets</b>	<b>MTD</b>	<b>YTD</b>	<b>1YR</b>	<b>3YR</b>	<b>5YR</b>	<b>7YR</b>	<b>10YR</b>	<b>15YR</b>
S&P 500	-0.7%	23.2%	27.9%	20.4%	17.9%	14.2%	16.2%	10.4%
Dow Jones Industrial Average	-3.5%	14.6%	18.5%	12.9%	15.1%	12.5%	13.8%	9.9%
NASDAQ Composite	0.3%	21.3%	28.2%	29.6%	25.1%	19.5%	20.8%	14.3%
Russell 3000	-1.5%	20.9%	26.3%	20.2%	17.5%	13.9%	16.0%	10.4%
Russell 1000	-1.3%	21.5%	26.7%	20.6%	17.9%	14.2%	16.2%	10.5%
Russell 1000 Growth	0.6%	25.0%	30.7%	29.2%	25.1%	19.0%	19.5%	13.6%
Russell 1000 Value	-3.5%	17.7%	22.2%	11.5%	10.4%	8.9%	12.5%	7.2%
Russell Mid Cap	-3.5%	17.8%	23.3%	17.5%	14.4%	11.6%	14.4%	9.9%
Russell Mid Cap Growth	-4.2%	12.3%	17.7%	23.3%	19.8%	14.8%	16.4%	11.6%
Russell Mid Cap Value	-3.0%	20.8%	26.3%	13.0%	10.3%	9.1%	12.9%	8.4%
Russell 2000	-4.2%	12.3%	22.0%	14.2%	12.1%	10.9%	13.1%	8.6%
Russell 2000 Growth	-4.9%	2.4%	12.0%	16.1%	14.7%	12.1%	14.1%	9.9%
Russell 2000 Value	-3.4%	23.2%	33.0%	11.5%	9.1%	9.2%	11.8%	7.0%
MSCI ACWI	-2.4%	14.0%	19.3%	16.0%	14.0%	10.0%	11.4%	6.9%
MSCI ACWI ex. U.S.	-4.5%	3.5%	9.1%	10.0%	9.3%	5.4%	6.7%	3.7%
MSCI EAFE	-4.7%	5.8%	10.8%	9.8%	9.2%	5.5%	7.4%	3.5%
MSCI EAFE Growth	-3.4%	6.6%	11.8%	15.4%	13.1%	8.5%	9.5%	5.4%
MSCI EAFE Value	-6.0%	4.7%	9.3%	4.0%	5.1%	2.3%	5.1%	1.4%
MSCI EAFE Small Cap	-5.6%	5.5%	12.7%	11.5%	10.7%	8.8%	10.1%	5.5%
MSCI Emerging Markets	-4.1%	-4.3%	2.7%	9.3%	9.5%	5.1%	5.2%	4.6%
<b>Alternatives</b>	<b>MTD</b>	<b>YTD</b>	<b>1YR</b>	<b>3YR</b>	<b>5YR</b>	<b>7YR</b>	<b>10YR</b>	<b>15YR</b>
Consumer Price Index*	0.9%	5.5%	6.2%	3.0%	2.7%	2.2%	2.0%	2.1%
FTSE NAREIT Equity REITs	-0.7%	31.6%	35.9%	11.9%	9.9%	8.3%	10.9%	6.2%
S&P Real Assets	-2.4%	10.7%	13.9%	8.5%	7.0%	4.4%	5.6%	5.2%
FTSE EPRA NAREIT Developed	0.6%	29.9%	31.6%	8.7%	6.8%	7.6%	11.0%	5.3%
FTSE EPRA NAREIT Developed ex U.S.	-4.4%	5.5%	9.6%	5.5%	6.7%	4.2%	7.2%	2.6%
Bloomberg Commodity Total Return	-7.3%	22.8%	28.9%	6.1%	3.3%	-1.5%	-3.6%	-3.1%
HFRI Fund of Funds Composite*	1.6%	7.5%	15.8%	8.1%	6.2%	4.5%	4.5%	3.1%
HFRI Fund Weighted Composite*	1.3%	11.1%	23.0%	10.1%	7.6%	5.8%	5.7%	4.9%
Alerian MLP	-7.5%	35.4%	38.8%	-2.3%	-2.5%	-6.3%	0.0%	4.2%

\*One month lag.

Source: FactSet & Morningstar as of October 31, 2021. Periods greater than 1 year are annualized. All returns are in U.S. dollar terms.

## Asset Allocation

As of November 30, 2021

	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)
<b>Total Plan</b>	<b>245,228,429</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>
<b>Short Term Liquidity</b>	<b>-106,846</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Key Bank Cash Portfolio	2,680,274	1.1	0.0	1.1
Pooled Cash	-2,787,119	-1.1	0.0	-1.1
<b>Fixed Income</b>	<b>40,160,944</b>	<b>16.4</b>	<b>18.0</b>	<b>-1.6</b>
JIC Core Bond Fund I	40,160,944	16.4	18.0	-1.6
<b>Equity</b>	<b>189,696,118</b>	<b>77.4</b>	<b>75.0</b>	<b>2.4</b>
<b>Domestic Equity</b>	<b>109,486,085</b>	<b>44.6</b>	<b>41.5</b>	<b>3.1</b>
Mellon Large Cap Core	82,842,353	33.8	31.0	2.8
Mellon Smid Cap Core	26,643,732	10.9	10.5	0.4
<b>International Equity</b>	<b>78,954,387</b>	<b>32.2</b>	<b>33.0</b>	<b>-0.8</b>
Mellon EAFE Fund	55,590,891	22.7	23.0	-0.3
Mellon Emerging Markets	23,363,496	9.5	10.0	-0.5
<b>Private Equity</b>	<b>1,255,646</b>	<b>0.5</b>	<b>0.5</b>	<b>0.0</b>
Hamilton Lane II	67,811	0.0	-	-
Hamilton Lane VII A	809,566	0.3	-	-
Hamilton Lane VII B	378,269	0.2	-	-
<b>Real Assets</b>	<b>15,478,213</b>	<b>6.3</b>	<b>7.0</b>	<b>-0.7</b>
UBS Trumbull Property Fund	13,543,228	5.5	6.0	-0.5
Molpus SWF II	1,934,985	0.8	1.0	-0.2

Pooled Cash represents the amount due to the City for prepayment of benefit payments and other expenses.

Investments with a zero balance were held in the portfolio during the reporting period and will be removed once they no longer impact portfolio performance.

Asset Allocation weightings may not add up to 100% due to rounding.

# City of Burlington Employees Retirement System

Performance Update As Of November 30, 2021

## Portfolio Performance

	Value	Performance(%)										
		1 Month	QTD	YTD	Jul-2021 To Nov-2021	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Total Plan</b>	<b>245,228,429</b>	<b>-2.1</b>	<b>1.3</b>	<b>10.9</b>	<b>0.4</b>	<b>25.0</b>	<b>10.6</b>	<b>10.9</b>	<b>8.4</b>	<b>8.7</b>	<b>6.1</b>	<b>01/01/2008</b>
<i>Policy Benchmark</i>		<i>-2.1</i>	<i>1.2</i>	<i>10.4</i>	<i>0.7</i>	<i>14.7</i>	<i>13.1</i>	<i>11.4</i>	<i>9.1</i>	<i>10.4</i>	<i>7.3</i>	

## Calendar Year Performance

	2020	2019	2018	2017	2016	2015	2014
<b>Total Plan</b>	<b>12.7</b>	<b>19.1</b>	<b>-5.2</b>	<b>17.0</b>	<b>8.7</b>	<b>-2.2</b>	<b>4.0</b>
<i>Policy Benchmark</i>	<i>14.5</i>	<i>20.6</i>	<i>-5.2</i>	<i>16.9</i>	<i>9.0</i>	<i>-0.2</i>	<i>7.3</i>

## Allocation Mandate

### May-2021

	Weight (%)
Blmbg. U.S. Aggregate Index	18.00
S&P 500 Index	31.50
Russell 2500 Index	10.50
MSCI EAFE (Net) Index	23.00
MSCI Emerging Markets (Net) Index	10.00
NCREIF Fund Index - ODCE (net)	6.00
NCREIF Timberland Index	1.00

The allocation mandate represents the current benchmark composition for the portfolio. Please keep in mind that the investment objective may have changed over time.

# Manager Performance Overview

As of November 30, 2021

	1 Month	QTD	YTD	Jul-2021 To Nov-2021	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Fixed Income</b>	<b>0.3</b>	<b>0.3</b>	<b>-1.6</b>	<b>0.2</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.6</b>	<b>01/01/2021</b>
<i>Blmbg. U.S. Aggregate Index</i>	0.3	0.3	-1.3	0.3	N/A	N/A	N/A	N/A	N/A	-1.3	
<b>JIC Core Bond Fund I</b>	<b>0.3 (12)</b>	<b>0.3 (12)</b>	<b>-1.6 (78)</b>	<b>0.2 (37)</b>	<b>-1.5 (82)</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.9 (53)</b>	<b>03/01/2020</b>
<i>Blmbg. U.S. Aggregate Index</i>	0.3	0.3	-1.3	0.3	-1.2	N/A	N/A	N/A	N/A	1.3	
IM U.S. Broad Market Core Fixed Income (MF) Median	0.1	0.1	-1.1	0.1	-0.8	N/A	N/A	N/A	N/A	1.9	
<b>Equity</b>	<b>-2.8</b>	<b>1.7</b>	<b>13.9</b>	<b>0.1</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>13.9</b>	<b>01/01/2021</b>
<i>MSCI AC World Index (Net)</i>	-2.4	2.6	14.0	1.5	N/A	N/A	N/A	N/A	N/A	14.0	
<b>Domestic Equity</b>											
<b>Mellon Large Cap Core</b>	<b>-0.7 (21)</b>	<b>6.3 (24)</b>	<b>23.2 (24)</b>	<b>6.9 (19)</b>	<b>27.9 (25)</b>	<b>20.3 (29)</b>	<b>17.9 (25)</b>	<b>N/A</b>	<b>N/A</b>	<b>17.2 (24)</b>	<b>04/01/2016</b>
<i>S&amp;P 500 Index</i>	-0.7	6.3	23.2	6.9	27.9	20.4	17.9	N/A	N/A	17.3	
IM U.S. Large Cap Core Equity (MF) Median	-1.4	5.0	20.9	5.0	25.4	18.5	16.3	N/A	N/A	15.6	
<b>Mellon Smid Cap Core</b>	<b>-4.1 (61)</b>	<b>0.6 (55)</b>	<b>14.7 (51)</b>	<b>-2.1 (66)</b>	<b>23.4 (49)</b>	<b>16.2 (49)</b>	<b>13.6 (52)</b>	<b>N/A</b>	<b>N/A</b>	<b>14.7 (49)</b>	<b>04/01/2016</b>
<i>Russell 2500 Index</i>	-4.2	0.5	14.4	-2.2	23.1	16.0	13.5	N/A	N/A	14.6	
IM U.S. SMID Cap Equity (MF) Median	-3.7	1.1	14.9	-0.5	23.0	16.0	14.1	N/A	N/A	14.5	
<b>International Equity</b>											
<b>Mellon EAFE Fund</b>	<b>-4.7 (56)</b>	<b>-2.3 (65)</b>	<b>6.1 (43)</b>	<b>-2.7 (38)</b>	<b>11.0 (48)</b>	<b>10.3 (39)</b>	<b>9.7 (24)</b>	<b>N/A</b>	<b>N/A</b>	<b>8.7 (24)</b>	<b>04/01/2016</b>
<i>MSCI EAFE (Net) Index</i>	-4.7	-2.3	5.8	-2.7	10.8	9.8	9.2	N/A	N/A	8.2	
IM International Large Cap Core Equity (MF) Median	-4.5	-1.5	5.6	-3.6	10.7	9.4	8.1	N/A	N/A	7.4	
<b>Mellon Emerging Markets</b>	<b>-4.1 (43)</b>	<b>-3.2 (49)</b>	<b>-4.3 (58)</b>	<b>-11.0 (58)</b>	<b>2.7 (59)</b>	<b>9.2 (62)</b>	<b>9.5 (43)</b>	<b>N/A</b>	<b>N/A</b>	<b>9.2 (45)</b>	<b>04/01/2016</b>
<i>MSCI Emerging Markets (Net) Index</i>	-4.1	-3.1	-4.3	-11.0	2.7	9.3	9.5	N/A	N/A	9.3	
IM Emerging Markets Equity (MF) Median	-4.4	-3.2	-3.2	-10.6	4.1	10.0	9.1	N/A	N/A	9.0	

Returns for periods less than one year are not annualized. Returns are net of fees unless otherwise noted.

# Manager Performance Overview

As of November 30, 2021

	1 Month	QTD	YTD	Jul-2021 To Nov-2021	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
<b>Private Equity</b>											
<b>Hamilton Lane II</b>	0.0	0.0	-5.3	0.0	-5.3	21.4	17.5	16.3	16.0	18.0	03/01/2009
<b>Hamilton Lane VII A</b>	0.0	0.0	25.9	0.0	25.9	18.8	16.8	14.1	14.3	13.7	07/01/2011
<b>Hamilton Lane VII B</b>	0.0	0.0	4.6	0.0	4.6	10.4	10.4	10.2	11.5	11.1	07/01/2011
<b>Real Assets</b>	0.0	-0.2	8.3	5.0	N/A	N/A	N/A	N/A	N/A	8.3	01/01/2021
<b>UBS Trumbull Property Fund</b>	0.0	-0.2	9.6	5.7	7.1	0.8	2.6	N/A	N/A	2.9	07/01/2016
<i>NCREIF Fund Index - ODCE (net)</i>	0.0	0.0	12.6	6.6	13.9	6.2	6.6	N/A	N/A	6.4	
<b>Molpus SWF II</b>	0.0	0.0	-0.6	0.0	-0.6	0.3	-0.8	0.8	0.8	1.7	03/01/2009
<i>NCREIF Timberland Index</i>	0.0	0.0	4.4	1.9	5.0	2.4	2.9	3.6	4.7	3.3	

The inception date expressed on the Manager Performance Overview page(s) represents the first day of the first full month following the purchase of the investment. Performance figures shown at the fund level begin on this inception date. Inception dates for asset class composites reflect the start date at which these returns could be calculated using historical and existing system capabilities and may vary from the inception dates of underlying component strategies. Composite performance includes all funds held in the composite since inception.

Returns are net of fees unless otherwise stated. Mutual fund performance stated above may differ slightly from the current share class' historical performance due to share class exchanges.

**Valuations data as of:**

Hamilton Lane and Molpus - 6-30-2021

UBS Trumbull Property Fund - 9-30-2021

All private equity and real estate assets are adjusted for any capital activity.

Returns for periods less than one year are not annualized. Returns are net of fees unless otherwise noted.

# Manager Gain/Loss Summary

1 Month Ending November 30, 2021

	Market Value As of 11/01/2021	Net Flows	Return On Investment	Market Value As of 11/30/2021
<u>Short Term Liquidity</u>				
Key Bank Cash Portfolio	2,680,274	-	-	2,680,274
Pooled Cash	-2,787,119	-	-	-2,787,119
<b>Total Short Term Liquidity</b>	<b>-106,846</b>	-	-	<b>-106,846</b>
<u>Fixed Income</u>				
JIC Core Bond Fund I	40,030,260	-	130,684	40,160,944
<b>Total Fixed Income</b>	<b>40,030,260</b>	-	<b>130,684</b>	<b>40,160,944</b>
<u>Domestic Equity</u>				
Mellon Large Cap Core	83,418,302	-	-575,949	82,842,353
Mellon Smid Cap Core	27,797,011	-	-1,153,279	26,643,732
<b>Total Domestic Equity</b>	<b>111,215,313</b>	-	<b>-1,729,228</b>	<b>109,486,085</b>
<u>International Equity</u>				
Mellon EAFE Fund	58,302,447	-	-2,711,556	55,590,891
Mellon Emerging Markets	24,365,097	-	-1,001,601	23,363,496
<b>Total International Equity</b>	<b>82,667,544</b>	-	<b>-3,713,157</b>	<b>78,954,387</b>
<u>Real Assets</u>				
UBS Trumbull Property Fund	13,543,228	-	-	13,543,228
Molpus SWF II	1,934,985	-	-	1,934,985
<b>Total Real Assets</b>	<b>15,478,213</b>	-	-	<b>15,478,213</b>
<u>Private Equity</u>				
Hamilton Lane II	67,811	-	-	67,811
Hamilton Lane VII A	809,566	-	-	809,566
Hamilton Lane VII B	378,269	-	-	378,269
<b>Total Private Equity</b>	<b>1,255,646</b>	-	-	<b>1,255,646</b>
<b>Total Plan</b>	<b>250,540,130</b>	-	<b>-5,311,701</b>	<b>245,228,429</b>

# Definitions & Disclosures

Please note: Due to rounding methodologies of various data providers, certain returns in this report might differ slightly when compared to other sources

## REGULATORY DISCLOSURES

**Offer of ADV Part 2A:** Rule 204-3 under the Investment Advisers Act of 1940 requires that we make an annual offer to clients to send them, without charge, a written disclosure statement meeting the requirements of such rule. We will be glad to send a copy of our ADV Part 2A to you upon your written request to [compliance@fiducient.com](mailto:compliance@fiducient.com).

## ASSET CLASS REPRESENTATIONS

All material and information is intended for Fiducient Advisors L.L.C. business only. Any use or public dissemination outside firm business is prohibited. Information is obtained from a variety of sources which are believed though not guaranteed to be accurate. Any forecast represents future expectations and actual returns, volatilities and correlations will differ from forecasts. Past performance does not indicate future performance. This presentation does not represent a specific investment recommendation. Please consult with your advisor, attorney and accountant, as appropriate, regarding specific advice.

When referencing asset class returns or statistics, the following indices are used to represent those asset classes, unless otherwise notes. Each index is unmanaged and investors can not actually invest directly into an index:

**TIPS:** Bloomberg Barclays Global Inflation-Linked: U.S. TIPS Total Return Index Unhedged

**Municipals 5-Year:** Bloomberg Barclays Municipal Bond 5 Year (4-6) Total Return Index Unhedged USD

**Core Bond:** Bloomberg Barclays US Agg Total Return Value Unhedged USD

**High Yield Municipals:** Bloomberg Barclays Muni High Yield Total Return Index Value Unhedged USD

**High Yield:** Bloomberg Barclays US Corporate High Yield Total Return Index Value Unhedged USD

**Foreign Bond:** Bloomberg Barclays Global Aggregate ex-USD Total Return Index Value USD (50/50 blend of hedged and unhedged)

**EM Debt (unhedged):** J.P. Morgan GBI-EM Global Diversified Composite Unhedged USD

**U.S. Large Cap:** S&P 500 Total Return Index

**U.S. Small Cap:** Russell 2000 Total Return Index

**International Developed:** MSCI EAFE Net Total Return USD Index

**Emerging Markets:** MSCI Emerging Markets Net Total Return USD Index

**World:** MSCI ACWI Net Total Return USD Index

**U.S. Equity REITs:** FTSE Nareit Equity REITs Total Return Index USD

**S&P Real Assets:** S&P Real Assets Total Return Index

**Commodities:** Bloomberg Commodity Total Return Index

**Hedge Funds:** Hedge Fund Research HFRI Fund of Funds Composite Index

**Balanced:** 3% TIPS, 33% Core Bond, 4% High Yield, 2% Foreign Bond, 2% EM Debt (unhedged), 18% U.S. Large Cap, 6% U.S. Small Cap, 16% International, 8% Emerging Markets, 5% U.S. Equity REITs, 3% Commodities

**U.S.:** MSCI USA Net Total Return USD Index

**China:** MSCI CHINA Net Total Return USD Index

**Japan:** MSCI Japan Net Total Return USD Index

**Germany:** MSCI Germany Net Total Return USD Index

**India:** MSCI India Net Total Return USD Index

**United Kingdom:** MSCI UK Net Total Return USD Index

**France:** MSCI France Net Total Return USD Index

**Italy:** MSCI Italy Net Total Return USD Index

**Brazil:** MSCI Brazil Net Total Return USD Index

**Canada:** MSCI Canada Net Total Return USD Index

## INDEX DEFINITIONS

- **Citigroup 3 Month T-Bill** measures monthly return equivalents of yield averages that are not marked to market. The Three-Month Treasury Bill Indexes consist of the last three three-month Treasury bill issues.
- **Ryan 3 Yr. GIC** is an arithmetic mean of market rates of \$1 million Guaranteed Interest Contracts held for three years.
- **Bloomberg Barclays Treasury U.S. T-Bills-1-3 Month Index** includes aged U.S. Treasury bills, notes and bonds with a remaining maturity from 1 up to (but not including) 3 months. It excludes zero coupon strips.
- **Bloomberg Barclays Capital US Treasury Inflation Protected Securities Index** consists of Inflation-Protection securities issued by the U.S. Treasury.
- **Bloomberg Barclays Muni Index** is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. Bonds must be rated investment-grade by at least two ratings agencies.
- **Bloomberg Barclays Muni 1 Year Index** is the 1-year (1-2) component of the Municipal Bond index.
- **Bloomberg Barclays Muni 3 Year Index** is the 3-year (2-4) component of the Municipal Bond index.
- **Bloomberg Barclays Muni 5 Year Index** is the 5-year (4-6) component of the Municipal Bond index.
- **Bloomberg Barclays Muni 7 Year Index** is the 7-year (6-8) component of the Municipal Bond index.
- **Bloomberg Barclays Intermediate U.S. Gov't/Credit** is the Intermediate component of the U.S. Government/Credit index, which includes securities in the Government and Credit Indices. The Government Index includes treasuries and agencies, while the credit index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

- **Bloomberg Barclays U.S. Aggregate Index** covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.
- **Bloomberg Barclays Global Aggregate ex. USD Indices** represent a broad-based measure of the global investment-grade fixed income markets. The two major components of this index are the Pan-European Aggregate and the Asian-Pacific Aggregate Indices. The index also includes Eurodollar and Euro-Yen corporate bonds and Canadian government, agency and corporate securities.
- **Bloomberg Barclays U.S. Corporate High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.
- **JP Morgan Government Bond Index-Emerging Market (GBI-EM) Index** is a comprehensive, global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure.
- **The S&P 500** is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.
- **The Dow Jones Industrial Index** is a price-weighted average of 30 blue-chip stocks that are generally the leaders in their industry.
- **The NASDAQ** is a broad-based capitalization-weighted index of stocks in all three NASDAQ tiers: Global Select, Global Market and Capital Market.
- **Russell 3000** is a market-cap-weighted index which consists of roughly 3,000 of the largest companies in the U.S. as determined by market capitalization. It represents nearly 98% of the investable U.S. equity market.
- **Russell 1000** consists of the largest 1000 companies in the Russell 3000 Index.
- **Russell 1000 Growth** measures the performance of those Russell 1000 companies with higher P/B ratios and higher forecasted growth values.
- **Russell 1000 Value** measures the performance of those Russell 1000 companies with lower P/B ratios and lower forecasted growth values.
- **Russell Mid Cap** measures the performance of the 800 smallest companies in the Russell 1000 Index.
- **Russell Mid Cap Growth** measures the performance of those Russell Mid Cap companies with higher P/B ratios and higher forecasted growth values.
- **Russell Mid Cap Value** measures the performance of those Russell Mid Cap companies with lower P/B ratios and lower forecasted growth values.
- **Russell 2000** consists of the 2,000 smallest U.S. companies in the Russell 3000 index.
- **Russell 2000 Growth** measures the performance of the Russell 2000 companies with higher P/B ratios and higher forecasted growth values.
- **Russell 2000 Value** measures the performance of those Russell 2000 companies with lower P/B ratios and lower forecasted growth values.
- **Russell 2500** consists of the 2,500 smallest U.S. companies in the Russell 3000 index.
- **Russell 2500 Growth** measures the performance of the Russell 2500 companies with higher P/B ratios and higher forecasted growth values.
- **Russell 2500 Value** measures the performance of those Russell 2500 companies with lower P/B ratios and lower forecasted growth values.
- **MSCI World** captures large and mid-cap representation across 23 Developed Markets countries. With 1,645 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
- **MSCI ACWI (All Country World Index) ex. U.S. Index** captures large and mid-cap representation across 22 of 23 Developed Markets countries (excluding the United States) and 23 Emerging Markets countries. With 1,859 constituents, the index covers approximately 85% of the global equity opportunity set outside the US.
- **MSCI ACWI (All Country World Index) ex. U.S. Small Cap Index** captures small cap representation across 22 of 23 Developed Markets countries (excluding the US) and 23 Emerging Markets countries. With 4,368 constituents, the index covers approximately 14% of the global equity opportunity set outside the US.
- **MSCI EAFE** is an equity index which captures large and mid-cap representation across Developed Markets countries around the world, excluding the US and Canada. With 930 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
- **MSCI EAFE Value** captures large and mid-cap securities exhibiting overall value style characteristics across Developed Markets countries around the world, excluding the US and Canada. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield. With 507 constituents, the index targets 50% coverage of the free float-adjusted market capitalization of the MSCI EAFE Index.
- **MSCI EAFE Growth** captures large and mid-cap securities exhibiting overall growth style characteristics across Developed Markets countries around the world, excluding the US and Canada. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend. With 542 constituents, the index targets 50% coverage of the free float-adjusted market capitalization of the MSCI EAFE Index.
- **MSCI Emerging Markets** captures large and mid-cap representation across 23 Emerging Markets countries. With 836 constituents, the index covers approximately 85% of the free-float adjusted market capitalization in each country.
- **Consumer Price Index** is a measure of prices paid by consumers for a market basket of consumer goods and services. The yearly (or monthly) growth rates represent the inflation rate.
- **FTSE NAREIT Equity REITs Index** contains all Equity REITs not designed as Timber REITs or Infrastructure REITs.
- **S&P Developed World Property** defines and measures the investable universe of publicly traded property companies domiciled in developed markets. The companies in the index are engaged in real estate related activities, such as property ownership, management, development, rental and investment.
- **S&P Developed World Property x U.S.** defines and measures the investable universe of publicly traded property companies domiciled in developed countries outside of the U.S. The companies included are engaged in real estate related activities, such as property ownership, management, development, rental and investment.
- **Fund Specific Broad Real Asset Benchmarks:**
  - **DWS Real Assets:** 30%: Dow Jones Brookfield Infrastructure Index, 30%: FTSE EPRA/NAREIT Developed Index, 15%: Bloomberg Commodity Index, 15%: S&P Global Natural Resources Index, 10%: Barclays U.S. Treasury Inflation Notes Total Return Index
  - **PIMCO Inflation Response Multi Asset Fund:** 45% Barclays U.S. TIPS, 20% Bloomberg Commodity Index, 15% JP Morgan Emerging Local Markets Plus, 10% Dow Jones Select REIT, 10% Bloomberg Gold Subindex Total Return
  - **Principal Diversified Real Assets:** 35% BBgBarc U.S. Treasury TIPS Index, 20% S&P Global Infrastructure Index NTR, 20% S&P Global Natural Resources Index NTR, 15% Bloomberg Commodity Index, and 10% FTSE EPRA/NAREIT Developed Index NTR
  - **Wellington Diversified Inflation H:** 50% MSCI ACWI Commodity Producers Index, 25% Bloomberg Commodity Index, and 25% Bloomberg Barclays US TIPS 1 – 10 Year Index
- **Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification.
- **HFRI Fund Weighted Composite Index** is a global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net of all fees performance in US Dollar and have a minimum of \$50 Million under management or a twelve (12) month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.
- **The Alerian MLP Index** is the leading gauge of energy Master Limited Partnerships (MLPs). The float adjusted, capitalization-weighted index, whose constituents represent approximately 85% of total float-adjusted market capitalization, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis.
- **The Adjusted Alerian MLP Index** is commensurate with 65% of the monthly returns of the Alerian MLP Index to incorporate the effect of deferred tax liabilities incurred by MLP entities.
- **Cambridge Associates U.S. Private Equity Index** is based on data compiled from more than 1,200 institutional-quality buyout, growth equity, private equity energy, and mezzanine funds formed between 1986 and 2015.

- **Cambridge Associates U.S. Venture Capital Index** is based on data compiled from over 1,600 institutional-quality venture capital funds formed between 1986 and 2015.
- **Vanguard Spliced Bloomberg Barclays US1-5Yr Gov/Cr Flt Adj Index:** Bloomberg Barclays U.S. 1–5 Year Government/Credit Bond Index through December 31, 2009; Bloomberg Barclays U.S. 1–5 Year Government/Credit Float Adjusted Index thereafter.
- **Vanguard Spliced Bloomberg Barclays US5-10Yr Gov/Cr Flt Adj Index:** Bloomberg Barclays U.S. 5–10 Year Government/Credit Bond Index through December 31, 2009; Bloomberg Barclays U.S. 5–10 Year Government/Credit Float Adjusted Index thereafter.
- **Vanguard Spliced Bloomberg Barclays US Agg Flt Adj Index:** Bloomberg Barclays U.S. Aggregate Bond Index through December 31, 2009; Bloomberg Barclays U.S. Aggregate Float Adjusted Index thereafter.
- **Vanguard Spliced Bloomberg Barclays US Long Gov/Cr Flt Adj Index:** Bloomberg Barclays U.S. Long Government/Credit Bond Index through December 31, 2009; Bloomberg Barclays U.S. Long Government/Credit Float Adjusted Index thereafter.
- **Vanguard Balanced Composite Index:** Made up of two unmanaged benchmarks, weighted 60% Dow Jones U.S. Total Stock Market Index (formerly the Dow Jones Wilshire 5000 Index) and 40% Bloomberg Barclays U.S. Aggregate Bond Index through May 31, 2005; 60% MSCI US Broad Market Index and 40% Bloomberg Barclays U.S. Aggregate Bond Index through December 31, 2009; 60% MSCI US Broad Market Index and 40% Bloomberg Barclays U.S. Aggregate Float Adjusted Index through January 14, 2013; and 60% CRSP US Total Market Index and 40% Bloomberg Barclays U.S. Aggregate Float Adjusted Index thereafter.
- **Vanguard Spliced Intermediate-Term Tax-Exempt Index:** Bloomberg Barclays 1–15 Year Municipal Bond Index.
- **Vanguard Spliced Extended Market Index:** Dow Jones Wilshire 4500 Index through June 17, 2005; S&P Transitional Completion Index through September 16, 2005; S&P Completion Index thereafter.
- **Vanguard Spliced Value Index:** S&P 500 Value Index (formerly the S&P 500/Barra Value Index) through May 16, 2003; MSCI US Prime Market Value Index through April 16, 2013; CRSP US Large Cap Value Index thereafter.
- **Vanguard Spliced Large Cap Index:** Consists of MSCI US Prime Market 750 Index through January 30, 2013, and the CRSP US Large Cap Index thereafter.
- **Vanguard Spliced Growth Index:** S&P 500 Growth Index (formerly the S&P 500/Barra Growth Index) through May 16, 2003; MSCI US Prime Market Growth Index through April 16, 2013; CRSP US Large Cap Growth Index thereafter.
- **Vanguard Spliced Mid Cap Value Index:** MSCI US Mid Cap Value Index through April 16, 2013; CRSP US Mid Cap Value Index thereafter.
- **Vanguard Spliced Mid Cap Index:** S&P MidCap 400 Index through May 16, 2003; the MSCI US Mid Cap 450 Index through January 30, 2013; and the CRSP US Mid Cap Index thereafter.
- **Vanguard Spliced Mid Cap Growth Index:** MSCI US Mid Cap Growth Index through April 16, 2013; CRSP US Mid Cap Growth Index thereafter.
- **Vanguard Spliced Total Stock Market Index:** Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005; MSCI US Broad Market Index through June 2, 2013; and CRSP US Total Market Index thereafter.
- **Vanguard Spliced Small Cap Value Index:** SmallCap 600 Value Index (formerly the S&P SmallCap 600/Barra Value Index) through May 16, 2003; MSCI US Small Cap Value Index through April 16, 2013; CRSP US Small Cap Value Index thereafter.
- **Vanguard Spliced Small Cap Index:** Russell 2000 Index through May 16, 2003; the MSCI US Small Cap 1750 Index through January 30, 2013; and the CRSP US Small Cap Index thereafter.
- **Vanguard Spliced Small Cap Growth Index:** S&P SmallCap 600 Growth Index (formerly the S&P SmallCap 600/Barra Value Index) through May 16, 2003; MSCI US Small Cap Growth Index through April 16, 2013; CRSP US Small Cap Growth Index thereafter.
- **Vanguard Spliced Total International Stock Index:** Consists of the Total International Composite Index through August 31, 2006; the MSCI EAFE + Emerging Markets Index through December 15, 2010; the MSCI ACWI ex USA IMI Index through June 2, 2013; and FTSE Global All Cap ex US Index thereafter. Benchmark returns are adjusted for withholding taxes.
- **Vanguard Spliced Developed Markets Index:** MSCI EAFE Index through May 28, 2013; FTSE Developed ex North America Index through December 20, 2015; FTSE Developed All Cap ex US Transition Index through May 31, 2016; FTSE Developed All Cap ex US Index thereafter. Benchmark returns are adjusted for withholding taxes.
- **Vanguard Spliced Emerging Markets Index:** Select Emerging Markets Index through August 23, 2006; MSCI Emerging Markets Index through January 9, 2013; FTSE Emerging Transition Index through June 27, 2013; FTSE Emerging Index through November 1, 2015; and FTSE Emerging Markets All Cap China A Transition Index thereafter. Benchmark returns are adjusted for withholding taxes.
- **Vanguard REIT Spliced Index:** MSCI US REIT Index adjusted to include a 2% cash position (Lipper Money Market Average) through April 30, 2009; MSCI US REIT Index through January 31, 2018; MSCI US Investable Market Real Estate 25/50 Transition Index through July 24, 2018; MSCI US Investable Market Real Estate 25/50 Index thereafter.

#### Additional:

- Equity sector returns are calculated by Russell and MSCI for domestic and international markets, respectively. MSCI sector definitions correspond to the MSCI GICS® classification (Global Industry Classification System); Russell uses its own sector and industry classifications.
- MSCI country returns are calculated by MSCI and are free float-adjusted market capitalization indices that are designed to measure equity market performance in each specific country.
- Currency returns are calculated using Bloomberg's historical spot rate indices and are calculated using the U.S. dollar as the base currency.
- The Index of Leading Economic Indicators, calculated by The Conference Board, is used as a barometer of economic activity over a range of three to six months. The index is used to determine the direction and stability of the economy. The composite index of leading indicators, which is derived from 10 leading indicators, helps to signal turning points in the economy and forecast economic cycles. The leading indicators are the following: average weekly hours, average weekly initial claims, manufacturers' new orders, both consumer and non-defense capital goods, vendor performance, building permits, stock prices, money supply (M2), the interest rate spread and the index of consumer expectations.
- S&P Target Date Indexes are constructed using a survey method of current target date investments with \$100 million or more in assets under management. Allocations for each vintage are comprised of exchange-traded funds that represent respective asset classes used in target date portfolios. The indexes are designed to represent a market consensus glide path.

#### **DEFINITION OF KEY STATISTICS AND TERMS**

- **Returns:** A percentage figure used when reporting historical average compounded rate of investment return. All returns are annualized if the period for which they are calculated exceeds one year.
- **Universe Comparison:** The universe compares the fund's returns to a group of other investment portfolios with similar investment strategies. The returns for the fund, the index and the universe percentiles are displayed. A percentile ranking of 1 is the best, while a percentile ranking of 100 is the worst. For example, a ranking of 50 indicates the fund outperformed half of the universe. A ranking of 25 indicates the fund was in the top 25% of the universe, outperforming 75%.
- **Returns In Up/Down Markets:** This measures how the fund performed in both up and down markets. The methodology is to segregate the performance for each time period into the quarters in which the market, as defined by the index, was positive and negative. Quarters with negative index returns are treated as down markets, and quarters with positive index returns are treated as up markets. Thus, in a 3 year or 12 quarter period, there might be 4 down quarters and 8 up quarters. A simple arithmetic average of returns is calculated for the fund and the index based on the up quarters. A simple arithmetic average of returns is calculated for the fund and the index based on the down quarters. The up market capture ratio is the ratio of the fund's return in up markets to the index. The down market capture ratio is the ratio of the fund's return in down markets to the index. Ideally, the fund would have a greater up market capture ratio than down market capture ratio.

- **Standard Deviation:** Standard deviation is a statistical measure of the range of performance within which the total returns of a fund fall. When a fund has a high standard deviation, the range of performance is very wide, meaning there is a greater volatility. Approximately 68% of the time, the total return of any given fund will differ from the average total return by no more than plus or minus the standard deviation figure. Ninety-five percent of the time, a fund's total return will be within a range of plus or minus two times the standard deviation from the average total return. If the quarterly or monthly returns are all the same the standard deviation will be zero. The more they vary from one another, the higher the standard deviation. Standard deviation can be misleading as a risk indicator for funds with high total returns because large positive deviations will increase the standard deviation without a corresponding increase in the risk of the fund. While positive volatility is welcome, negative is not.
- **R-Squared:** This reflects the percentage of a fund's movements that are explained by movements in its benchmark index. An R-squared of 100 means that all movements of a fund are completely explained by movements in the index. Conversely, a low R-squared indicates very few of the fund's movements are explained by movements in the benchmark index. R-squared can also be used to ascertain the significance of a particular beta. Generally, a higher R-squared will indicate a more reliable beta figure. If the R-squared is lower, then the beta is less relevant to the fund's performance. A measure of diversification, R-squared indicates the extent to which fluctuations in portfolio returns are explained by market. An R-squared = 0.70 implies that 70% of the fluctuation in a portfolio's return is explained by the fluctuation in the market. In this instance, overweighting or underweighting of industry groups or individual securities is responsible for 30% of the fund's movement.
- **Beta:** This is a measure of a fund's market risk. The beta of the market is 1.00. Accordingly, a fund with a 1.10 beta is expected to perform 10% better than the market in up markets and 10% worse than the market in down markets. It is important to note, however, a low fund beta does not imply the fund has a low level of volatility; rather, a low beta means only that the fund's market-related risk is low. Because beta analyzes the market risk of a fund by showing how responsive the fund is to the market, its usefulness depends on the degree to which the markets determine the fund's total risk (indicated by R-squared).
- **Alpha:** The Alpha is the nonsystematic return, or the return that can't be attributed to the market. It can be thought of as how the manager performed if the market's return was zero. A positive alpha implies the manager added value to the return of the portfolio over that of the market. A negative alpha implies the manager did not contribute any value over the performance of the market.
- **Sharpe Ratio:** The Sharpe ratio is the excess return per unit of total risk as measured by standard deviation. Higher numbers are better, indicating more return for the level of risk experienced. The ratio is a fund's return minus the risk-free rate of return (30-day T-Bill rate) divided by the fund's standard deviation. The higher the Sharpe ratio, the more reward you are receiving per unit of total risk. This measure can be used to rank the performance of mutual funds or other portfolios.
- **Treynor Ratio:** The Treynor ratio measures returns earned in excess of that which could have been earned on a riskless investment per each unit of market risk. The ratio relates excess return over the risk-free rate to the additional risk taken; however, systematic risk is used instead of total risk. The Treynor ratio is similar to the Sharpe ratio, except in the fact that it uses the beta to evaluate the returns rather than the standard deviation of portfolio returns. High values mean better return for risk taken.
- **Tracking Error:** Tracking error measures the volatility of the difference in annual returns between the manager and the index. This value is calculated by measuring the standard deviation of the difference between the manager and index returns. For example, a tracking error of +/- 5 would mean there is about a 68% chance (1 standard deviation event) that the manager's returns will fall within +/- 5% of the benchmark's annual return.
- **Information Ratio:** The information ratio is a measure of the consistency of excess return. This value is determined by taking the annualized excess return over a benchmark (style benchmark by default) and dividing it by the standard deviation of excess return.
- **Consistency:** Consistency shows the percent of the periods the fund has beaten the index and the percent of the periods the index has beat the fund. A high average for the fund (e.g., over 50) is desirable, indicating the fund has beaten the index frequently.
- **Downside Risk:** Downside risk is a measure similar to standard deviation but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the factor, the riskier the product.
- **M-Squared:** M-squared, or the Modigliani risk-adjusted performance measure is used to characterize how well a portfolio's return rewards an investor for the amount of risk taken, relative to that of some benchmark portfolio and to the risk-free rate.

## DEFINITION OF KEY PRIVATE EQUITY TERMS

- **PIC (Paid in Capital):** The amount of committed capital that has been transferred from the limited partner to the general partner.
- **TVPI (Total Value to Paid in Capital):** Money returned to limited partners plus the fund's unrealized investments, divided by money paid-in to the partnership. The TVPI should equal RVPI plus DPI.
- **DPI (Distribution to Paid In Capital):** Money returned (distributions) to limited partners divided by money paid in to the partnership. Also called cash-on-cash multiple.
- **RVPI (Residual Value to Paid In Capital):** The value of a fund's unrealized investments divided by money paid-in to the partnership.
- **Internal rate of return (IRR):** This is the most appropriate performance benchmark for private equity investments. It is a time-weighted return expressed as a percentage. IRR uses the present sum of cash drawdowns (money invested), the present value of distributions (money returned from investments) and the current value of unrealized investments and applies a discount.
- **Commitment:** Every investor in a private equity fund commits to investing a specified sum of money in the fund partnership over a specified period of time. The fund records this as the limited partnership's capital commitment. The sum of capital commitments is equal to the size of the fund.
- **Capital Distribution:** These are the returns that an investor in a private equity fund receives. It is the income and capital realized from investments less expenses and liabilities. Once a limited partner has had their cost of investment returned, further distributions are actual profit. The partnership agreement determines the timing of distributions to the limited partner. It will also determine how profits are divided among the limited partners and general partner.
- **Carried Interest:** The share of profits that the fund manager is due once it has returned the cost of investment to investors. Carried interest is normally expressed as a percentage of the total profits of the fund.
- **Co-Investment:** Co-Investments are minority investments made alongside a private equity investor in an LBO, a recapitalization, or an expansion capital transaction. It is a passive, non-controlling investment, as the private equity firm involved will typically exercise control and perform monitoring functions.
- **General Partner (GP):** This can refer to the top-ranking partners at a private equity firm as well as the firm managing the private equity fund.
- **GP Commitments:** It is normal practice for the GP managing a private equity fund to also make a financial commitment to the fund on the same basis as the LPs in the fund, and this is seen as an important factor driving the alignment of GP and LP interests. The historic benchmark for GP commitments has been 1% of the total fund size, but this is by no means universal, and many GPs commit significantly larger amounts. Furthermore, there has been a marked trend towards GPs making larger commitments to their funds over recent years.
- **Leveraged Buy-Out (LBO):** The acquisition of a company using debt and equity finance.
- **Limited Partner (LP):** Institutions or high-net-worth individuals/sophisticated investors that contribute capital to a private equity fund.
- **Public Market Equivalent (PME):** Performance measure used to evaluate performance relative to the market. It is calculated as the ratio of the discounted value of the LP's inflows divided by the discounted value of outflows, with the discounting performed using realized market returns.
- **Primaries:** An original investment vehicle that invests directly into a company or asset.

## **VALUATION POLICY**

Fiducient Advisors does not engage an independent third-party pricing service to value securities. Our reports are generated using the security prices provided by custodians used by our clients. Our custodial pricing hierarchy is available upon request. If a client holds a security not reported by the first custodian within the hierarchy, the valuation is generated from the next custodian within the hierarchy, and so forth. Each custodian uses pricing services from outside vendors, where the vendors may generate nominally different prices. Therefore, this report can reflect minor valuation differences from those contained in a custodian's report. In rare instances where Fiducient Advisors overrides a custodial price, prices are taken from Bloomberg.

## **REPORTING POLICY**

This report is intended for the exclusive use of the client listed within the report. Content is privileged and confidential. Any dissemination or distribution is strictly prohibited. Information has been obtained from a variety of sources believed to be reliable though not independently verified. Any forecast represents median expectations and actual returns, volatilities and correlations will differ from forecasts. Please note each client has customized investment objectives and constraints and the investment strategy for each portfolio is based on a client-specific asset allocation model. Past performance does not indicate future performance and there is a possibility of a loss. Performance calculated net of investment fees. Certain portfolios presented may be gross of Fiducient Advisors' fees and actual performance would be reduced by investment advisory fees. This report does not represent a specific investment recommendation. Please consult with your advisor, attorney, and accountant, as appropriate, regarding specific advice.

Custodian reports are the reports that govern the account. There will be different account values between Fiducient Advisors' reports and the custodian reports based on whether the report utilizes trade date or settlement date to calculate value. Additionally, difference between values contained on reports may be caused by different accrued income values. Any forecasts represent future expectations and actual returns, volatilities and correlations will differ from forecasts. This report does not represent a specific investment recommendation. Please consult with your advisor, attorney, and accountant, as appropriate, regarding specific advice. Past performance does not indicate future performance and there is a possibility of a loss.

Manager performance for mutual funds and ETFs is based on NAV and provided by Lipper. Performance for non-mutual fund or ETF investments is based on the returns provided by managers, calculations based on a manager statement, or calculations based on a statement or data from the client's custodian. Unless specified otherwise, all returns are net of individual manager fees, represent total returns and are annualized for periods greater than one year. The deduction of fees produces a compounding effect that reduces the total rate of return over time. As an example, the effect of investment management fees on the total value of a client's portfolio assuming (a) quarterly fee assessment, (b) \$1,000,000 investment, (c) portfolio return of 8% a year, and (d) 0.50% annual investment advisory fee would be \$5,228 in the first year, and cumulative effects of \$30,342 over five years and \$73,826 over ten years. Additional information on advisory fees charged by Fiducient Advisors are described in Part 2 of the Form ADV.

## **OTHER**

By regulation, closed-end funds utilizing debt for leverage must report their interest expense, as well as their income tax expense, as part of their total expense ratio. To make for a useful comparison between closed-end funds and both open-end funds and exchange-traded funds, adjusted expense ratios excluding interest and income tax expenses are utilized for closed-end funds within this report. See disclosure on closed-end fund fact sheets for information regarding the total expense ratio of each closed-end fund.

Please advise us of any changes in your objectives or circumstances.

## **CUSTODIAN STATEMENTS**

Please remember to review the periodic statements you receive from you custodian. If you do not receive periodic statements from your custodian or notice issues with the activity reported in those statements, please contact Fiducient Advisors or your custodian immediately.