



# **Board of Trustees**

**Meeting of November 18, 2022**







**Please join us using either option.**

**Teleconference dial in number: +1 405-594-0415 Conference ID: 552 554 796#**

**Videoconference link: [Click here to join the meeting](#)**

## **OKLAHOMA MUNICIPAL RETIREMENT FUND BOARD MEETING AGENDA**

Meeting at 10:00 a.m.  
1001 NW 63rd Street, Suite 260; Oklahoma City, OK

November 18, 2022

**Official action can only be taken on items which appear on the agenda. The Trustees may adopt, approve, ratify, deny, defer, recommend, amend, strike or continue any agenda item. When more information is needed to act on an item, the Trustees may refer the matter to the Executive Director or Trust attorney. The Trustees may also refer items to standing Committees of the Trust for additional study. Under certain circumstances, items can be deferred to a specific later date or stricken from the agenda entirely.**

1. Call to Order
2. Approval of Consent Agenda
  - A. Minutes of October 28, 2022, Meeting(s)
  - B. Monthly Valuation of Fund Assets & Unit Values by Custodian
    1. Defined Benefit Balanced Fund
    2. International Investment Equity Fund
    3. Aggressive Equity Fund
    4. Real Assets Fund
    5. Global Equity Index Fund
    6. ESG U.S. Stock Fund
    7. Growth & Value Fund
    8. S&P 500 Index
    9. Total Yield Bond Fund
    10. Bond Index Fund
    11. Voya Fixed Plus III
    12. Target Retirement 2065 Fund
    13. Target Retirement 2060 Fund
    14. Target Retirement 2055 Fund
    15. Target Retirement 2050 Fund
    16. Target Retirement 2045 Fund
    17. Target Retirement 2040 Fund
    18. Target Retirement 2035 Fund
    19. Target Retirement 2030 Fund
    20. Target Retirement 2025 Fund
    21. Target Retirement 2020 Fund
    22. Target Retirement Income Fund
    23. Loan Fund
    24. Self-Directed Brokerage Fund
  - C. Purchases and Sales of Assets
  - D. Administrative Expenses and Fees
  - E. Benefit Payments and Contribution Refunds
  - F. Acknowledgment of Receipt of the Clarion Lion Industrial Trust Amended and Restated Confidential Private Placement Memorandum Dated October 2022
3. Consideration and Possible Action of Items Removed from the Consent Agenda
4. Comments from Public

**Videoconference Attendee and location inside their district:**

Melissa Reames

723 S. Lewis, Room 1084, Stillwater, OK 74076

5. Consideration and Possible Action Regarding Investment Committee Report
  - A. ACG: Review and Discussion of Monthly ASAP and Quarterly Performance Reports
  - B. ACG: Consideration and Possible Action Regarding Hiring an Emerging Markets Equity Manager for the Defined Benefit Portfolio and as a Component of the International Equity Option in the Defined Contribution Plan as Recommended by the Investment Committee and Rejection or Approval of any Amendments Proposed and Considered by the Trustees at the Meeting
  - C. Consideration and Possible Action on Reallocation and/or Rebalancing of Assets Among Investment Managers as Recommended by the Investment Committee and Rejection or Approval of any Amendments Proposed and Considered by the Trustees at the Meeting
6. Consideration and Possible Action Regarding Administrative Committee Report
7. Consideration and Possible Action Regarding Contract Committee Report
8. Dean Actuaries, LLC: Discussion and Possible Action Regarding Actuarial Experience Study and Changes to Actuarial Methods and Assumption as a Result
9. Receive Report on Newly Adopted or Amended OkMRF Member
10. OkMRF Staff Report
11. New Business
12. Trustee/Member Comments
  - A. Discussion, at the Request of a Board Member, Regarding Board Resolution 96-2 Establishing a Policy for Attendance of the OkMRF Trustees
13. Adjourn

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Posted by 10:00 am November 17, 2022  
1001 NW 63<sup>rd</sup> Street 1<sup>st</sup> Floor, Oklahoma City, OK 73116

**Videoconference Attendee and location inside their district:**

Melissa Reames                      723 S. Lewis, Room 1084, Stillwater, OK 74076



2022 OkMRF BOARD OF TRUSTEES’ MEETINGS
CONSULTANT SCHEDULE & CALENDAR OF EVENTS
Oklahoma Municipal Retirement Fund

MEETING DATE	TRUSTEE MEETING TOPICS & SPEAKERS	ANNUAL ACTIVITIES
January 28, 2022	<ul style="list-style-type: none"> <li>✓ ACG: 2021 Annual Summary and 2022 Initiative Review</li> <li>✓ ACG: 2022 Capital Market Assumption Analysis</li> <li>✓ Inv. Manager: JP Morgan Real Estate</li> </ul>	
February 24, 2022	<b>Investment Committee</b> <ul style="list-style-type: none"> <li>✓ ACG: Semi Annual Report</li> <li>✓ ACG: Long-Short Review</li> <li>✓ ACG: Small and SMID Review</li> </ul>	
February 25, 2022		
March 25, 2022	<ul style="list-style-type: none"> <li>✓ ACG: Review Investment Policies &amp; Guidelines</li> <li>✓ Inv. Manager: Blackrock Liquid Absolute Return</li> <li>✓ Dean Actuaries, LLC: Summary of Actuarial Funding Studies</li> </ul>	
April 29, 2022	<ul style="list-style-type: none"> <li>✓ Inv. Manager: Ninety One International Dynamic Equity</li> <li>✓ Dean Actuaries, LLC: Summary of GASB 68</li> </ul>	
May 25, 2022	<b>Administrative Committee</b> <ul style="list-style-type: none"> <li>✓ Budget and Goals</li> </ul>	
May 26, 2022	<ul style="list-style-type: none"> <li>✓ Budget and Updated Contracts</li> <li>✓ Inv. Manager: Harding Loevner International Growth and Emerging Markets</li> <li>✓ Finley &amp; Cook: Audited GASB 68 Statements</li> </ul>	
June 24, 2022	<ul style="list-style-type: none"> <li>✓ Inv. Manager: State Street (S&amp;P Index, Russell Small Cap Index, US Bond Index, Global Equities Index, and Target Retirement Funds)</li> <li>✓ Final Budget Approval, if not approved in May</li> </ul>	<ul style="list-style-type: none"> <li>♦ Trustee Retreat (June 23, 2022)</li> </ul>
July 28, 2022	<b>Investment Committee</b> <ul style="list-style-type: none"> <li>✓ ACG: Mandate and Replacement Search Overview</li> </ul>	
July 29, 2022	<ul style="list-style-type: none"> <li>✓ Inv. Manager: River Road Small Cap Value</li> <li>✓ Dean Actuaries, LLC: Market Impact</li> </ul>	
August 25, 2022	<b>Investment Committee</b> <ul style="list-style-type: none"> <li>✓ ACG: Semi Annual Report</li> <li>✓ ACG: Long-Short Review</li> <li>✓ ACG: Private Equity Discussion</li> </ul>	
August 26, 2022	<ul style="list-style-type: none"> <li>✓ Voya: Recordkeeping, DC Custodial Services and Fixed Plus</li> <li>✓ Northern Trust: DB Custodial Services</li> </ul>	
September 30, 2022		<ul style="list-style-type: none"> <li>♦ OPFTEC Location Doubletree, Tulsa - Warren Place 6110 S Yale Ave.</li> </ul>
October 28, 2022	<ul style="list-style-type: none"> <li>✓ Review 2023 Meeting Schedule</li> <li>✓ Election of Trustee Officers and Committee Assignments</li> <li>✓ Inv. Manager: Amundi Pioneer Core Plus Bonds</li> </ul>	
November 18, 2022	<ul style="list-style-type: none"> <li>✓ Dean Actuaries, LLC: Experience Study</li> </ul>	
December 16, 2022	<ul style="list-style-type: none"> <li>✓ Finley &amp; Cook: Audited Financial Statements 2022</li> </ul>	<ul style="list-style-type: none"> <li>♦ Christmas Luncheon after Board Meeting</li> </ul>

**MINUTES**  
**BOARD OF TRUSTEES**  
**OKLAHOMA MUNICIPAL RETIREMENT FUND**  
**October 28, 2022**

**1. Call To Order**

The Board of the Oklahoma Municipal Retirement Fund met at the Oklahoma Municipal Retirement Fund Offices, Oklahoma City, Oklahoma, on October 28, 2022, at 10:00 a.m. with Chair Doolen presiding. On roll call, the following members were present.

**BOARD OF TRUSTEES**

Chair:	Donna Doolen, Finance Director, City of Ada
Vice-Chair:	Robert Johnston, City Manager, City of Clinton
Treasurer:	Jim Lockett, Jr., Retiree, City of Thomas
Secretary:	Robert Park, Retiree, City of Sallisaw
Members:	Shaun Barnett, City Manager, City of Woodward
	Tamera Johnson, Retiree, City of Shawnee
	Tim Rooney, City Manager, City of Mustang
	Ed Tinker, Retiree, City of Glenpool

**OTHERS PRESENT:**

OkMRF Staff:	Jodi Cox, CEO & Director
	Chris Whatley, Plan Advisor & Portfolio Strategist
	Rhnea Stewart, Fund Accountant
	Katie Girardi, Plan Administrator
Others:	Kevin Moore, ACG
	Andrew Feltus, Amundi Asset Management ( <i>via video</i> )
	Katie Warmington, Amundi Asset Management ( <i>via video</i> )
	Troy Bradley, City of Midwest City ( <i>via video</i> )
	Joe Ebisa, With Intelligence ( <i>via video</i> )

Whatley opened the meeting with prayer and Park led the Pledge of Allegiance.

Doolen welcomed everyone and called the meeting to order.

**NOTICE:** The agenda for October 28, 2022, meeting was posted in Columbus Square, Oklahoma City, Oklahoma, by Gloria Cudjoe by 10:00 a.m. on October 27, 2022.



Signature(s)

**2. Consideration and Possible Action to Administer Trustee Oaths of Office to Donna Doolen and Shaun Barnett and Acknowledge General Incumbency Certificate**

Shaun Barnett, District 8 and Donna Doolen, District 3 were administered the constitutional and statutory oath of office by OkMRF staff member, Lindsay Porter.

### 3. Approval of Consent Agenda

The following items were presented under the consent agenda.

#### A. Minutes of September 30, Meeting(s)

#### B. Monthly Valuation of Fund Assets & Unit Values by Custodian as of September 30, 2022

Option	Value By Fund
Defined Benefit	\$ 616,863,180.22
International Investment Equity	\$ 6,994,038.04
Aggressive Equity	\$ 15,042,491.93
Real Assets Fund	\$ 889,400.42
ESG US Stock Fund	\$ 1,184,932.78
Global Equity	\$ 9,227,520.78
Growth and Value Equity	\$ 19,306,241.95
S & P 500 Index	\$ 30,149,684.35
Target Retirement 2065	\$ 150,633.77
Target Retirement 2060	\$ 5,645,955.48
Target Retirement 2055	\$ 6,272,482.77
Target Retirement 2050	\$ 10,188,009.34
Target Retirement 2045	\$ 13,150,172.55
Target Retirement 2040	\$ 16,915,321.27
Target Retirement 2035	\$ 22,647,110.44
Target Retirement 2030	\$ 25,056,938.55
Target Retirement 2025	\$ 35,450,839.94
Target Retirement 2020	\$ 22,335,093.57
Target Retirement Income	\$ 18,324,637.23
Total Yield Bond Fund	\$ 5,321,413.90
Bond Index	\$ 13,903,207.81
Voya Fixed Plus III	\$ 54,598,930.34
Loan Portfolio	\$ 7,427,407.15
Self Directed Brokerage	\$ 254,179.33
Total Assets	\$ 957,299,823.91



**C. Purchases and Sales of Assets for September 2022**

**D. Administrative Expenses and Fees**

**Expenses and Fees for October**

Actuary & Recordkeeping	\$ 40,847.02
Administration	114,596.55
Attorney	3,750.00
Audit	5,000.00
Board Travel	5,220.16
Employer Directed Expense	0.00
Insurance	0.00
Investment Advisors	141,213.92
Custodial	9,660.98
Investment Consultant	38,434.50
Public Relations	1,504.63
Representative Travel	4,830.79
<b>EXPENSES</b>	<b>\$ 365,058.55</b>

**E. Benefit Payments and Contribution Refunds for September 2022**

Motion made by Lockett, seconded by Park to approve all items on the Consent Agenda.

Motion carried: AYE: Doolen, Johnston, Lockett, Park, Rooney, and Tinker

NAY: None

ABSTAIN: Barnett and Johnson

**4. Consideration and Possible Action of Items Removed from the Consent Agenda**

No action taken.

**5. Comments from the Public**

None.

6. **Amundi Asset Management: Annual Update from Investment Manager – Andrew Feltus and Katie Warmington**

Warmington began the presentation by thanking OkMRF for their continued relationship over the past eleven (11) years. Amundi remains stable within its leadership with no Portfolio Manager changes and minimal turnover within the investment teams. Amundi is the largest asset manager within Europe and ranked in the top ten (10) globally with \$2.2 trillion in assets under management, \$90 billion in domestic assets, and \$47 billion allocated to fixed income within the U.S.

Feltus reviewed Amundi's multi-sector fixed income strategy which includes an experienced stable investment team, an integrated investment process between portfolio managers and investment analysts, diversified security and sector allocations, long-established records in corporate credit driven by investment fundamentals, and full integration of ESG investing into their U.S. fixed income platform. Due to declining markets, all-time high inflation and rising interest rates, fixed income performance has been challenged since the beginning of 2022 and posted a decline of 13.79% year-to-date. Feltus discussed how current high yield spreads have the portfolio gravitating toward positioning for a recessionary climate. A potential recession will put pressure on profits and ultimately increase defaults. Therefore, the portfolio will maintain short duration and take a neutral stance on credit ratings. Moore questioned Feltus on Amundi's stance on emerging markets and non-U.S. debt holdings. Feltus stated while the Euro began the year strong, Ukraine Russia War has directly impacted the European economy due to their reliance on energy imports. Europe is at a large trade disadvantage and will need to prove its competitiveness or cut taxes to strengthen the economy and Euro. China represents almost half of the emerging markets so future investment will be difficult due to exposure to political risks. Feltus stated non-China countries, such as India, are better positioned for growth and potential investment.

7. **Consideration and Possible Action Regarding Investment Committee Report**

A. **ACG: Review and Discussion of Monthly ASAP Reports**

Moore began the presentation with a market overview. September was another volatile month due to continued inflation fears from consumers and upcoming midterm elections. However, October proved to be a stronger month as corporate earnings reports were more favorable than expected. While U.S. equities have seen modest gains throughout October, events such as China's 20<sup>th</sup> National Party Conference, negatively impacted non-U.S. equities, especially Chinese tech stocks. Moore reiterated that although volatility remains high, investors should focus on the long-term outlook.

Moore continued his presentation with a review of the DB ASAP report. The DB portfolio ended September with \$616 million in assets and continued to outperform the policy index while taking on less risk on a ten (10) year annualized basis. Actual and target allocations are reflecting large dispersions as approved transitions are in motion and expected to be completed by the end of 2023. Cash balances were reported as high due to the timing of an additional Clarion Lion Industrial Trust capital call and the replacement of the small/mid cap growth manager. The funds for these investments were deployed at the beginning of October. Year-to-date, the portfolio is down 19.39%, net of fees. While the returns are disappointing, Moore stated this is reflective of what all ACG clients are experiencing. While short-term losses have impacted longer term returns, they remain in the vicinity of the portfolio's target rate of return. Non-U.S. equities are down 30.24%, net of fees year-to-date. Ninety One recently announced the retirement of Portfolio Manager Ian Vose in early 2023 with Assistant Portfolio Manager, Adam Child, being promoted to Co-Portfolio Manager. ACG sees Child as well suited for the position but will continue to monitor the transition. Fixed income reported a loss of 11.37% year-to-date but did provide more downside protection than the broader market. BlackRock

announced the retirement of Bob Miller, Portfolio Manager, for the Strategic Income Opportunities strategy. David Rogal will replace Miller in early 2023. Due to the depth of resources available to BlackRock, ACG does not anticipate any issues with the transition. Real estate was the only positive earning asset class within the portfolio, reporting 8.90% net of fees. The remainder of the Clarion Lion Industrial Trust commitment was called at the beginning of October.

Moore provided a brief overview of the DC portfolio mirroring many of the comments of the DB portfolio. The Growth & Value option remains in negative territory for the shorter term, but longer-term returns remain in double digits. The transition from TimesSquare to William Blair within the Aggressive Equity option occurred in mid-October. Due to Calvert's underweight to technology and overweight to financials, the ESG U.S. Stock Fund continues to outperform. The Real Assets option struggled due to REIT investments but still performed as expected.

**B. ACG: Consideration and Possible Action to Conduct a Search to Replace Emerging Markets Manager, if Deemed Necessary, within the Defined Benefit Portfolio and as a Component of the International Equity Option in the Defined Contribution Plan as Recommended by the Investment Committee and Rejection or Approval of any Amendments Proposed and Considered by the Trustees at the meeting**

Moore discussed ACG's recommendation of replacing Harding Loevner's Emerging Markets strategy within the DB and DC portfolios. Due to the strategy's overweight allocation to Russia, when the war between Ukraine and Russia became imminent, Harding Loevner had ample time to reduce or eliminate exposure but took no action. When markets seized and trades were forbidden, Harding Loevner was required to report all Russian investments at zero. Moore concluded that Harding Loevner did a poor job of communicating to ACG and OkMRF their strategy for dealing with these events.

Motion made by Luckett, seconded by Park to terminate Emerging Markets Manager, Harding Loevner, within the Defined Benefit and Defined Contribution portfolio and instruct ACG to compile a list of replacement money managers to be presented to the Board next month.

Motion carried: AYE: Barnett, Doolen, Johnson, Johnston, Luckett, Park, Rooney, and Tinker

NAY: None

**C. Consideration and Possible Action on Reallocation and/or Rebalancing of Assets Among Investment Managers as Recommended by the Investment Committee and Rejection or Approval of any Amendments Proposed by the Trustees at the Meeting**

No action taken.

**8. Consideration and Possible Action Regarding Administrative Committee Report**

No action taken.

**9. Consideration and Possible Action Regarding Contract Committee Report**

No action taken.



**10. Discussion and Possible Action to Approve OkMRF Executive Director to Serve on the Board of Directors of the Newly Established Not-For-Profit Oklahoma Public Funds Trustee Educational Conference (OPFTEC) Association**

Cox provided background on the potential Oklahoma Public Funds Trustee Educational Conference Association. Due to the difficulty in facilitating vendor payments through an investment consultant for OPFTEC, the collective group of the core eight (8) Oklahoma pension plans desires to create the non-profit organization. The new Board would consist of a representative from each respective organization, typically the CEO.

Motion made by Tinker, seconded by Rooney to approve Cox, Executive Director, to serve on the Board of Directors for the newly established not-for-profit Oklahoma Public Funds Trustee Education Conference (OPFTEC) Association.

Motion carried: AYE: Barnett, Doolen, Johnson, Johnston, Luckett, Park, Rooney, and Tinker

NAY: None

**11. Consideration and Possible Action Regarding the Election of Officers**

Officers are elected annually to serve a one (1) year term.

Motion made by Tinker, seconded by Luckett to approve the current slate of officers as follows:

Chair: Doolen

Vice-Chairman: Johnston

Secretary: Park

Treasurer: Luckett

Motion carried: AYE: Barnett, Doolen, Johnson, Johnston, Luckett, Park, Rooney, and Tinker

NAY: None

**12. Consideration and Possible Approval of Chair's Committee Assignments**

Chair Doolen appointed newly elected Trustee Barnett to the Contract Committee with all other Trustees continuing to serve on the same Committee as the prior year. The Committee Chair appointments remain as follows:

Administrative Chair: Johnston

Contract Committee Chair: Reames

Investment Committee Chair: Luckett

Motion made by Johnson, seconded by Tinker to accept the Chair's Committee assignments.

Motion carried: AYE: Barnett, Doolen, Johnson, Johnston, Luckett, Park, Rooney, and Tinker

NAY: None

**13. Consideration and Possible Approval of 2023 Trustee Meeting Schedule and Staff Holidays**

Cox presented a proposed 2023 Trustee meeting schedule and Staff holidays noting three (3) Thursday Board meetings to be held in May, November, and December.

Motion made by Rooney, seconded by Tinker to approve the schedule for Board meetings and Staff holidays as proposed.

Motion carried:

AYE: Barnett, Doolen, Johnson, Johnston, Luckett,  
Park, Rooney, and Tinker

NAY: None

**14. Receive Report on Newly Adopted or Amended OkMRF Member Plans**

Whatley reported on plan changes for the OkMRF Members.

**15. OkMRF Staff Report**

Girardi discussed this year's philanthropic event to sponsor a family or families in need during the Holidays through Youth & Family Services out of El Reno. Donations will be accepted by cash or electronically through the first week of December.

Cox reported on the following items:

- Expressed her appreciation for those Trustees who were able to attend OPFTEC.
- At next month's meeting, Sean Sullivan of Dean Actuaries, LLC will present the Demographic Experience Study.
- Finley & Cook has begun the financial audit remotely, Cox thanked Stewart, Porter, and team for their collaborative efforts.

**16. New Business**

None.

**17. Trustee/Member Comments**

Trustee Rooney asked for a review of the Trustee attendance policy at next month's meeting.

**18. Adjourn**

With no further business to conduct the meeting adjourned.

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Robert Park, Secretary

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Donna Doolen, Chair

Respectfully submitted by:



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Katie Girardi

Oklahoma Municipal Retirement Fund  
Summary of Assets and Investment Returns  
10/31/2022

Option	Value By Fund	1 Month	3 Month	Year to Date	1 Yr	3 Yr Rolling	5 Yr Rolling	10 Yr Rolling
Defined Benefit	\$ 633,756,739.86	3.04%	-5.19%	-16.53%	-15.58%	4.05%	4.66%	6.69%
International Investment Equity	\$ 7,046,708.05	3.04%	-10.19%	-26.12%	-26.49%	-1.35%	-0.58%	4.75%
Aggressive Equity	\$ 16,385,220.25	9.66%	-1.91%	-19.32%	-21.07%	8.29%	6.77%	9.77%
Real Assets Fund	\$ 910,490.42	2.40%	-9.79%	-10.69%	-8.39%	4.32%	4.55%	2.15%
ESG US Stock Fund	\$ 1,287,950.78	6.73%	-6.65%	-19.72%	-16.02%	10.97%	14.14%	14.00%
Global Equity	\$ 9,668,716.17	6.25%	-7.71%	-20.91%	-19.70%	5.21%	5.57%	8.31%
Growth and Value Equity	\$ 20,801,498.37	7.81%	-6.02%	-20.96%	-19.49%	9.59%	9.83%	12.25%
S & P 500 Index	\$ 32,457,482.57	8.09%	-5.87%	-17.72%	-14.63%	10.17%	10.40%	12.74%
Target Retirement 2065	\$ 158,502.66	5.17%	-8.17%	-21.99%	-21.56%	N/A	N/A	N/A
Target Retirement 2060	\$ 6,172,840.52	5.18%	-8.17%	-21.98%	-21.55%	4.04%	4.82%	N/A
Target Retirement 2055	\$ 6,741,719.49	5.18%	-8.17%	-21.99%	-21.56%	4.04%	4.82%	7.72%
Target Retirement 2050	\$ 10,880,667.03	5.18%	-8.17%	-22.00%	-21.57%	4.04%	4.82%	7.72%
Target Retirement 2045	\$ 13,902,421.33	4.81%	-8.23%	-21.70%	-21.21%	3.88%	4.73%	7.68%
Target Retirement 2040	\$ 17,785,617.87	4.42%	-8.29%	-21.33%	-20.77%	3.56%	4.55%	7.49%
Target Retirement 2035	\$ 23,632,976.77	4.02%	-8.21%	-20.78%	-20.17%	3.24%	4.35%	7.14%
Target Retirement 2030	\$ 26,569,655.09	3.73%	-8.02%	-19.71%	-19.03%	3.04%	4.21%	6.79%
Target Retirement 2025	\$ 35,415,467.92	3.12%	-7.58%	-17.17%	-16.46%	3.04%	4.12%	6.37%
Target Retirement 2020	\$ 22,930,480.92	2.36%	-6.92%	-14.17%	-13.57%	2.46%	3.57%	5.49%
Target Retirement Income	\$ 18,610,095.88	2.01%	-6.47%	-12.87%	-12.34%	1.75%	2.86%	3.54%
Total Yield Bond Fund	\$ 5,174,053.50	-1.12%	-6.51%	-12.95%	-13.02%	-1.69%	0.60%	1.72%
Bond Index <sup>1</sup>	\$ 13,606,237.92	-1.31%	-8.24%	-15.70%	-15.70%	-3.78%	-0.56%	0.71%
Voya Fixed Plus III	\$ 54,590,829.06	0.15%	0.42%	1.38%	1.69%	1.90%	1.87%	1.85%
Loan Portfolio	\$ 7,426,454.35							
Self Directed Brokerage	\$ 254,374.77							
Total Assets	\$ 986,167,201.55							

<sup>1</sup>Returns prior to 10/31/15 represent the existing OkMRF Bond Fund.



**OKLAHOMA MUNICIPAL RETIREMENT FUND**

**Equity/Fixed Asset Split**

**As of October 2022**

	Market Value	Cash	Total Assets	Cash % of Each Mgr's Assets	Managers' Assets as % of Group	Managers' Assets as % of Total
<b>Defined Benefit</b>						
<u><b>Equity Managers:</b></u>						
River Road Small Cap Value	\$ 31,081,835.61	1,504,205.72	32,586,041.33	4.62%	11.91%	5.20%
TimesSquare Growth	0.00	3,011.78	3,011.78	100.00%	0.00%	0.00%
State Street S&P 500	155,779,551.93	91,782.16	155,871,334.09	0.06%	56.97%	24.87%
SMID Equity	30,940,444.09	35,000.00	30,975,444.09	0.11%	11.32%	4.94%
K2 Long/Short Equity**	50,919,796.09	3,267,894.18	54,187,690.27	6.03%	19.80%	8.64%
Equity Totals	<u>\$ 268,721,627.72</u>	<u>4,901,893.84</u>	<u>273,623,521.56</u>	<u>1.79%</u>	<u>100.00%</u>	<u>43.65%</u>
<u><b>Fixed Managers:</b></u>						
JPMorgan Core	\$ 40,359,729.39	0.00	40,359,729.39	0.00%	30.93%	6.44%
Amundi Multi-Sector	42,244,504.02	0.00	42,244,504.02	0.00%	32.37%	6.74%
BlackRock Strategic Income	47,812,194.84	73,816.74	47,886,011.58	0.15%	36.70%	7.64%
Fixed Totals	<u>\$ 130,416,428.25</u>	<u>73,816.74</u>	<u>130,490,244.99</u>	<u>0.06%</u>	<u>100.00%</u>	<u>20.82%</u>
<u><b>International Equity</b></u>						
Artisan Value Institutional	\$ 43,011,162.36	0.00	43,011,162.36	0.00%	31.25%	6.86%
Ninety One Intl Dynamic Equity	38,025,413.78	0.00	38,025,413.78	0.00%	27.63%	6.06%
Harding Loevner Emerging Market Intl	20,382,268.59	0.00	20,382,268.59	0.00%	14.81%	3.25%
WCM Focused Intl Growth	36,155,555.67	68,926.74	36,224,482.41	0.19%	26.31%	5.78%
International Totals	<u>\$ 137,574,400.40</u>	<u>68,926.74</u>	<u>137,643,327.14</u>	<u>0.05%</u>	<u>100.00%</u>	<u>21.95%</u>
<u><b>Real Estate</b></u>						
Clarion Lion Industrial Core	25,613,807.00	0.00	25,613,807.00	0.00%	30.09%	4.09%
JPMorgan Real Estate Strategic	\$ 34,422,249.81	0.00	34,422,249.81	0.00%	40.45%	5.49%
JPMorgan Real Estate Special Situation	24,940,535.37	135,106.27	25,075,641.64	0.54%	29.46%	4.00%
Real Estate Totals	<u>\$ 59,362,785.18</u>	<u>135,106.27</u>	<u>85,111,698.45</u>	<u>0.16%</u>	<u>100.00%</u>	<u>13.58%</u>
Asset Allocation Totals	<u>\$ 596,075,241.55</u>	<u>5,179,743.59</u>	<u>626,868,792.14</u>			
<u><b>Cash and Cash Equivalents*</b></u>						
Miscellaneous	\$ 0.00	3,732,464.19	3,732,464.19			
Deposit	0.00	3,155,483.53	3,155,483.53			
Cash Total	<u>\$ 0.00</u>	<u>6,887,947.72</u>	<u>6,887,947.72</u>			
Asset Totals	<u>\$ 596,075,241.55</u>	<u>\$ 12,067,691.31</u>	<u>\$ 633,756,739.86</u>			
				Equity	Asset Allocation	
				Fixed	Target Split:	Actual Split:
				International	40.00%	43.65%
				Real Estate	20.00%	20.82%
					25.00%	21.95%
					15.00%	13.58%

\* Not included in Target Split or Actual Split Calculations.

\*\* Market Value reported by custodian is one to two month in arrears.

*OKLAHOMA MUNICIPAL RETIREMENT FUND*

*Defined Benefit Plan*

*Statement of Changes in Net Assets*

*For the Month Ended October 31, 2022*

Contributions		
Employer	\$ 1,601,354.94	
Employee	712,073.38	
Total		\$ 2,313,428.32
Investment income:		
Interest	46,464.09	
Dividends	417,393.49	
	463,857.58	
Less: Beginning accrual	(309,434.32)	
Add: Ending accrual	289,448.62	
Net income received	443,871.88	
Appreciation in fair value of investments	18,607,452.83	
Investment expenses	(261,759.93)	
Administrative expenses	(114,171.47)	
Net investment income		18,675,393.31
Total additions		20,988,821.63
Payment of benefits and member refunds	(4,093,639.76)	
Transfers in (out)	(1,622.23)	
Net increase (decrease) for month		16,893,559.64
Net assets available for plan benefits:		
Beginning of month		\$ 616,863,180.22
End of month		\$ 633,756,739.86

## ◆ Asset Summary

Country	Accrued income/expense	Market value	Cost	Market	Unrealized gain/loss Translation	Total	Market values incl. accruals	%
<i>Equities</i>								
<b>Common stock</b>								
Israel - USD	0.00	309,845.58	263,230.30	46,615.28	0.00	46,615.28	309,845.58	0.049%
United States - USD	9,526.61	30,759,566.75	25,765,504.36	4,994,062.39	0.00	4,994,062.39	30,769,093.36	4.855%
<b>Total common stock</b>	<b>9,526.61</b>	<b>31,069,412.33</b>	<b>26,028,734.66</b>	<b>5,040,677.67</b>	<b>0.00</b>	<b>5,040,677.67</b>	<b>31,078,938.94</b>	<b>4.904%</b>
<b>Funds - common stock</b>								
Emerging Markets Region - USD	0.00	30,936,584.97	29,608,055.00	1,328,529.97	0.00	1,328,529.97	30,936,584.97	4.881%
Global Region - USD	0.00	38,025,413.78	34,460,365.23	3,565,048.55	0.00	3,565,048.55	38,025,413.78	6.000%
International Region - USD	0.00	43,011,162.36	37,755,347.71	5,255,814.65	0.00	5,255,814.65	43,011,162.36	6.787%
United States - USD	0.00	176,161,724.80	113,202,635.68	62,959,089.12	0.00	62,959,089.12	176,161,724.80	27.796%
<b>Total funds - common stock</b>	<b>0.00</b>	<b>288,134,885.91</b>	<b>215,026,403.62</b>	<b>73,108,482.29</b>	<b>0.00</b>	<b>73,108,482.29</b>	<b>288,134,885.91</b>	<b>45.465%</b>
<b>Total equities</b>								
	<b>9,526.61</b>	<b>319,204,298.24</b>	<b>241,055,138.28</b>	<b>78,149,159.96</b>	<b>0.00</b>	<b>78,149,159.96</b>	<b>319,213,824.85</b>	<b>50.369%</b>
<i>Fixed Income</i>								
<b>Funds - corporate bond</b>								
United States - USD	113,262.59	82,604,233.41	80,594,082.24	2,010,151.17	0.00	2,010,151.17	82,717,496.00	13.052%
<b>Total funds - corporate bond</b>	<b>113,262.59</b>	<b>82,604,233.41</b>	<b>80,594,082.24</b>	<b>2,010,151.17</b>	<b>0.00</b>	<b>2,010,151.17</b>	<b>82,717,496.00</b>	<b>13.052%</b>
<b>Funds - other fixed income</b>								
United States - USD	136,069.18	47,812,116.46	51,587,779.90	-3,775,663.44	0.00	-3,775,663.44	47,948,185.64	7.566%
<b>Total funds - other fixed income</b>	<b>136,069.18</b>	<b>47,812,116.46</b>	<b>51,587,779.90</b>	<b>-3,775,663.44</b>	<b>0.00</b>	<b>-3,775,663.44</b>	<b>47,948,185.64</b>	<b>7.566%</b>



## ◆ Asset Summary

Country	Accrued income/expense	Market value	Cost	Market	Unrealized gain/loss Translation	Total	Market values incl. accruals	%
<b>Total fixed income</b>	<b>249,331.77</b>	<b>130,416,349.87</b>	<b>132,181,862.14</b>	<b>-1,765,512.27</b>	<b>0.00</b>	<b>-1,765,512.27</b>	<b>130,665,681.64</b>	<b>20.618%</b>

### Real Estate

<b>Real estate</b>								
United States - USD	163.07	84,976,299.48	67,379,381.95	17,596,917.53	0.00	17,596,917.53	84,976,462.55	13.408%
<b>Total real estate</b>	<b>163.07</b>	<b>84,976,299.48</b>	<b>67,379,381.95</b>	<b>17,596,917.53</b>	<b>0.00</b>	<b>17,596,917.53</b>	<b>84,976,462.55</b>	<b>13.408%</b>

<b>Total real estate</b>	<b>163.07</b>	<b>84,976,299.48</b>	<b>67,379,381.95</b>	<b>17,596,917.53</b>	<b>0.00</b>	<b>17,596,917.53</b>	<b>84,976,462.55</b>	<b>13.408%</b>
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### Venture Capital and Partnerships

<b>Partnerships</b>								
United States - USD	0.00	47,468,724.00	27,236,128.69	20,232,595.31	0.00	20,232,595.31	47,468,724.00	7.490%
<b>Total partnerships</b>	<b>0.00</b>	<b>47,468,724.00</b>	<b>27,236,128.69</b>	<b>20,232,595.31</b>	<b>0.00</b>	<b>20,232,595.31</b>	<b>47,468,724.00</b>	<b>7.490%</b>

<b>Total venture capital and partnerships</b>	<b>0.00</b>	<b>47,468,724.00</b>	<b>27,236,128.69</b>	<b>20,232,595.31</b>	<b>0.00</b>	<b>20,232,595.31</b>	<b>47,468,724.00</b>	<b>7.490%</b>
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### Hedge Fund

<b>Hedge equity</b>								
United States - USD	0.00	39,600,004.00	37,994,897.00	1,605,107.00	0.00	1,605,107.00	39,600,004.00	6.248%
<b>Total hedge equity</b>	<b>0.00</b>	<b>39,600,004.00</b>	<b>37,994,897.00</b>	<b>1,605,107.00</b>	<b>0.00</b>	<b>1,605,107.00</b>	<b>39,600,004.00</b>	<b>6.248%</b>

<b>Total hedge fund</b>	<b>0.00</b>	<b>39,600,004.00</b>	<b>37,994,897.00</b>	<b>1,605,107.00</b>	<b>0.00</b>	<b>1,605,107.00</b>	<b>39,600,004.00</b>	<b>6.248%</b>
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### Cash and Cash Equivalents

#### Currency

## ◆ Asset Summary

Description	Accrued income/expense	Market value	Cost	Market	Unrealized gain/loss Translation	Total	Market values incl. accruals	%
<i>Cash and Cash Equivalents</i>								
Currency	-218,672.68	0.00	0.00	0.00	0.00	0.00	-218,672.68	-0.035%
<b>Total currency</b>	<b>-218,672.68</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>-218,672.68</b>	<b>-0.035%</b>
<b>Funds - short term investment</b>								
Funds - Short Term Investment	30,427.17	12,051,110.49	12,051,110.49	0.00	0.00	0.00	12,081,537.66	1.906%
<b>Total funds - short term investment</b>	<b>30,427.17</b>	<b>12,051,110.49</b>	<b>12,051,110.49</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>12,081,537.66</b>	<b>1.906%</b>
<b>Total cash and cash equivalents</b>	<b>-188,245.51</b>	<b>12,051,110.49</b>	<b>12,051,110.49</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>11,862,864.98</b>	<b>1.872%</b>
<i>Adjustments To Cash</i>								
<b>Pending trade purchases</b>								
Pending trade purchases	0.00	-249,331.77	-249,331.77	0.00	0.00	0.00	-249,331.77	-0.039%
<b>Total pending trade purchases</b>	<b>0.00</b>	<b>-249,331.77</b>	<b>-249,331.77</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>-249,331.77</b>	<b>-0.039%</b>
<b>Pending trade sales</b>								
Pending trade sales	0.00	218,672.68	218,672.68	0.00	0.00	0.00	218,672.68	0.035%
<b>Total pending trade sales</b>	<b>0.00</b>	<b>218,672.68</b>	<b>218,672.68</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>218,672.68</b>	<b>0.035%</b>
<b>Other payables</b>								
Other Payables	0.00	-163.07	-163.07	0.00	0.00	0.00	-163.07	0.000%
<b>Total other payables</b>	<b>0.00</b>	<b>-163.07</b>	<b>-163.07</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>-163.07</b>	<b>0.000%</b>
<b>Total adjustments to cash</b>	<b>0.00</b>	<b>-30,822.16</b>	<b>-30,822.16</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>-30,822.16</b>	<b>-0.005%</b>

◆ Asset Summary

Description	Accrued income/expense	Market value	Cost	Market	Unrealized gain/loss Translation	Total	Market values incl. accruals	%
Total Unrealized Gains						141,300,323.49		
Total Unrealized Losses						-25,482,055.96		
Total	70,775.94	633,685,963.92	517,867,696.39	115,818,267.53	0.00	115,818,267.53	633,756,739.86	100.000%

Total Cost incl. Accruals 517,938,472.33

**Total Units 8,068,585.79**

**Value per Unit: \$78.546198**

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**Oklahoma Municipal Retirement Fund**  
**Defined Benefit Plans**  
**Ownership by Plans**  
**October 31, 2022**

Plan Name	Units End of Month	Beginning of Month Market Value	Net Monthly Increase/ Decrease	10/31/2022 Market Value	12/31/2021 Market Value	12/31/2020 Market Value	12/31/2019 Market Value
Town of Adair	4,075.36	\$ 308,721.78	\$ 11,382.33	\$ 320,104.11	\$ 406,519.73	\$ 362,374.27	\$ 308,858.28
City of Altus	270,850.74	20,939,543.79	334,751.93	21,274,295.72	26,251,595.20	24,301,650.00	22,297,601.82
City of Alva	63,527.32	4,833,541.46	156,287.80	4,989,829.26	5,984,867.20	5,287,128.26	4,572,288.55
City of Antlers	19,774.20	1,504,521.89	48,666.56	1,553,188.45	1,867,274.40	1,653,816.62	1,458,192.76
City of Ardmore	489,047.22	37,325,413.23	1,087,386.73	38,412,799.96	46,350,679.90	41,199,766.29	35,792,729.96
City of Bartlesville	293,508.70	22,404,362.73	649,629.59	23,053,992.32	27,807,264.09	24,819,815.57	21,754,947.32
City of Bartlesville RM	6,831.03	523,085.19	13,466.58	536,551.77	669,000.55	603,761.29	559,365.91
City of Bethany	354,332.11	27,117,751.16	713,688.96	27,831,440.12	34,731,307.07	31,826,378.89	28,616,108.52
Bethany/Warr Acres PWA	36,062.70	2,757,900.80	74,687.08	2,832,587.88	3,487,200.98	3,194,658.88	2,847,217.66
Town of Billings	3,241.63	246,855.03	7,762.37	254,617.40	304,179.21	268,170.20	324,267.96
Town of Binger	2,943.00	224,640.88	6,520.92	231,161.80	283,512.90	261,221.50	245,185.12
City of Blackwell	74,104.30	5,652,283.27	168,328.06	5,820,611.33	6,998,479.52	6,345,991.33	6,486,538.14
Town of Blair	8,608.75	654,514.71	21,670.16	676,184.87	789,759.46	684,748.06	577,439.73
City of Boise City	21,045.25	1,610,588.24	42,436.35	1,653,024.59	2,055,730.61	1,883,287.80	1,726,311.06
Town of Bokchito	2,687.98	202,254.34	8,876.07	211,130.41	235,788.60	199,432.61	167,705.09
Town of Braman	1,617.58	124,476.92	2,577.86	127,054.78	177,212.34	183,517.11	189,562.86
City of Bristow	49,306.31	3,760,822.68	112,000.53	3,872,823.21	4,754,159.04	4,323,027.44	3,887,117.84
City of Broken Bow	94,431.10	7,185,948.14	231,255.84	7,417,203.98	8,742,072.34	7,664,768.90	6,593,814.55
Town of Buffalo	13,103.68	1,002,499.58	26,744.98	1,029,244.56	1,273,392.79	1,170,854.49	1,070,779.20
Town of Burns Flat	11,205.59	855,435.26	24,721.46	880,156.72	1,063,466.35	947,979.95	840,119.05
Town of Calera	17,091.58	1,297,550.67	44,927.90	1,342,478.57	1,598,982.05	1,408,033.69	1,193,332.11
Central Oklahoma MCD	27,373.82	2,086,051.46	64,058.25	2,150,109.71	2,578,837.28	2,321,754.29	2,050,319.54
City of Chandler	47,101.70	3,587,172.91	112,486.86	3,699,659.77	4,383,461.41	3,923,358.05	3,330,581.64
City of Checotah	37,693.61	2,871,786.92	88,902.71	2,960,689.63	3,509,547.89	3,074,050.37	2,667,338.19
City of Cherokee	5,973.55	447,097.89	22,101.57	469,199.46	562,622.42	494,163.16	450,807.09
City of Chickasha	218,753.90	16,747,140.13	435,146.83	17,182,286.96	21,381,692.30	19,767,539.33	18,021,288.78
Town of Chouteau	139.41	10,681.02	269.41	10,950.43	13,711.85	12,775.54	11,782.53
City of Claremore	252,710.55	19,285,672.81	563,780.34	19,849,453.15	23,887,587.49	21,476,719.07	19,137,057.05
Town Cleo Springs	2,002.77	154,243.74	3,066.23	157,309.97	217,197.90	224,754.94	228,525.17
City of Cleveland	34,803.23	2,663,420.39	70,241.32	2,733,661.71	3,418,016.29	3,212,835.69	2,931,928.21
City of Clinton	185,002.66	14,165,715.92	365,539.32	14,531,255.24	17,753,782.94	16,071,036.79	14,333,150.33
City of Collinsville	50,355.13	3,833,600.36	121,603.96	3,955,204.32	4,844,092.91	4,192,153.64	3,577,602.37
Town of Copan	1,258.30	95,560.72	3,273.96	98,834.68	110,128.91	96,542.98	75,836.81
City of Cordell	67,931.46	5,199,188.33	136,569.42	5,335,757.75	6,598,523.94	6,024,133.78	5,450,735.89
City of Cushing	266,831.54	20,437,362.59	521,240.28	20,958,602.87	26,073,950.04	24,143,862.79	22,131,487.39
City of Davis	32,166.06	2,455,307.71	71,213.88	2,526,521.59	3,028,986.90	2,719,658.97	2,375,466.61
City of Del City	251,809.45	19,100,807.52	677,867.30	19,778,674.82	23,602,360.42	21,321,583.61	19,083,328.56
City of Dewey	29,801.30	2,269,716.14	71,063.05	2,340,779.19	2,788,710.81	2,459,499.18	2,104,816.00
City of Drumright	32,722.78	2,499,874.66	70,375.01	2,570,249.67	3,181,101.51	2,904,837.48	2,656,969.90
City of Durant	331,277.49	25,328,816.50	691,771.20	26,020,587.70	31,684,920.07	28,653,755.32	25,409,995.26
City of El Reno	85,553.13	6,547,270.63	172,602.85	6,719,873.48	8,122,668.95	7,094,392.17	6,060,460.06
City of Eufaula	18,287.78	1,403,617.12	32,818.75	1,436,435.87	1,763,033.46	1,591,105.62	1,413,490.33
Town of Fort Cobb	3,176.31	243,074.18	6,413.23	249,487.41	309,750.50	287,317.16	260,051.07
Foss Reservoir PWA	12,831.11	979,035.57	28,799.66	1,007,835.23	1,217,576.40	1,091,733.72	994,190.49
City of Frederick	60,976.77	4,654,801.00	134,692.38	4,789,493.38	5,818,322.88	5,291,788.55	4,625,641.46
City of Garber	2,171.94	165,571.10	5,026.70	170,597.80	184,430.53	144,823.03	110,995.79
City of Geary	23,678.91	1,806,583.13	53,305.42	1,859,888.55	2,215,599.77	1,967,750.63	1,715,697.63
Town of Goodwell	4,026.61	307,362.54	8,912.23	316,274.77	402,887.95	362,994.37	316,358.97
Town of Gore	13,071.94	1,001,628.73	25,122.43	1,026,751.16	1,226,330.02	1,067,536.50	893,361.51
Town of Granite	22,801.78	1,746,590.58	44,402.19	1,790,992.77	2,182,754.14	1,954,089.78	1,754,170.19
City of Guthrie	92,603.55	7,074,910.54	198,745.84	7,273,656.38	8,798,075.08	7,869,196.75	6,900,725.50
City of Guymon	77,106.07	5,902,036.69	154,351.87	6,056,388.56	7,528,767.46	6,997,038.59	6,374,153.00
City of Harrah	42,645.54	3,252,860.03	96,784.79	3,349,644.82	4,043,121.42	3,561,360.62	3,015,384.86
City of Healdton	22,499.09	1,714,731.17	52,486.53	1,767,217.70	2,131,343.04	1,912,107.46	1,665,521.34
City of Henryetta	48,007.71	4,151,394.63	(380,571.68)	3,770,822.95	5,100,982.60	4,403,901.24	3,708,551.50
City of Hooker	16,749.64	1,281,502.82	34,118.08	1,315,620.90	1,646,806.51	1,488,825.93	1,288,410.50
Town of Hulbert	12,027.04	919,047.94	25,630.67	944,678.61	1,107,281.57	962,264.79	792,545.46
Town of Hydro	4,709.66	359,586.10	10,339.56	369,925.66	470,613.68	431,563.41	389,568.37
Town of Kansas	1,987.71	152,290.02	3,837.26	156,127.28	181,659.69	162,055.69	142,775.44
Town of Kiefer	2,633.89	201,169.22	5,712.86	206,882.08	230,716.92	187,984.97	146,192.57
Town of Kingston	9,412.78	722,960.74	16,377.60	739,338.34	927,202.38	829,696.97	741,477.43
City of Krebs	8,423.80	638,289.56	23,368.05	661,657.61	757,411.55	641,660.29	546,127.50
Town of Laverne	18,995.40	1,448,285.70	43,730.69	1,492,016.39	1,815,395.83	1,624,239.41	1,417,611.41
City of Lindsay	68,196.39	5,196,981.96	159,585.07	5,356,567.03	6,512,706.58	5,856,424.18	5,191,584.21
City of Madill	47,911.76	3,633,887.74	129,398.49	3,763,286.23	4,446,509.40	3,865,325.30	3,351,652.99
Town of Mannford	48,501.51	3,690,919.64	118,689.87	3,809,609.51	4,413,949.60	3,831,003.93	3,329,701.33
Town of Mannford RM	750.55	57,215.89	1,737.06	58,952.95	70,630.30	66,323.49	64,914.97
City of Marietta	17,377.67	1,322,948.34	42,001.61	1,364,949.95	1,622,652.96	1,464,994.61	1,276,004.33
Marietta PWA	7,180.72	546,733.49	17,285.07	564,018.56	664,216.78	578,808.30	499,377.34

**Oklahoma Municipal Retirement Fund**  
**Defined Benefit Plans**  
**Ownership by Plans**  
**October 31, 2022**

Plan Name	Units End of Month	Beginning of Month Market Value	Net Monthly Increase/ Decrease	10/31/2022 Market Value	12/31/2021 Market Value	12/31/2020 Market Value	12/31/2019 Market Value
City of McCloud	13,170.88	1,000,911.92	33,610.46	1,034,522.38	1,184,506.05	1,009,696.40	850,445.59
City of Medford	46,750.15	3,573,122.39	98,924.54	3,672,046.93	4,609,235.71	4,147,988.74	3,617,878.80
Town of Meeker	10,098.38	769,088.07	24,101.60	793,189.67	950,447.44	851,586.23	765,242.40
City of Miami	159,779.17	12,193,921.37	356,125.27	12,550,046.64	15,130,413.37	13,545,373.52	11,921,161.42
Town of Mooreland	17,894.01	1,390,719.98	14,786.42	1,405,506.40	1,766,367.55	1,630,563.48	1,475,347.60
Mountain Park MCD	13,696.51	1,054,394.00	21,414.46	1,075,808.46	1,321,111.55	1,187,725.21	1,080,760.29
Town of Muldrow	31,565.73	2,409,265.67	70,102.43	2,479,368.10	2,972,788.17	2,691,871.03	2,405,797.33
City of Muskogee	480.89	36,893.63	878.44	37,772.07	48,079.00	45,426.32	42,487.05
City of Mustang	109,985.87	8,386,139.68	252,832.55	8,638,972.23	10,384,236.79	9,114,004.75	7,887,002.46
City of Newkirk	14,060.51	1,074,700.78	29,699.19	1,104,399.97	1,370,794.91	1,331,492.81	1,279,498.08
City of Nichols Hills	145,231.46	11,094,950.72	312,428.05	11,407,378.77	14,166,832.14	12,836,303.09	11,302,402.25
City of Noble	37,969.89	2,882,810.33	99,579.97	2,982,390.30	3,455,039.34	2,946,250.25	2,498,653.34
City of Norman	1,607.81	126,605.06	(317.65)	126,287.41	197,212.28	162,164.30	192,326.84
City of Nowata	34,731.45	2,649,257.80	78,765.79	2,728,023.59	3,236,832.26	2,859,107.24	2,466,632.05
City of Oilton	6,164.86	471,584.02	12,642.12	484,226.14	582,234.99	523,604.69	472,065.77
OkMRF	26,573.77	2,007,633.00	79,635.46	2,087,268.46	2,375,103.58	1,994,654.09	1,614,591.78
Town of Okeene	15,624.22	1,195,030.87	32,191.98	1,227,222.85	1,509,997.84	1,383,862.16	1,240,038.99
City of Okemah	26,828.31	2,047,897.16	59,364.83	2,107,261.99	2,468,179.06	2,121,535.79	1,776,212.09
OML	97,289.92	7,440,944.31	200,809.36	7,641,753.67	9,434,662.97	8,559,637.78	7,780,425.00
City of Okmulgee	237,539.52	18,148,738.15	509,088.26	18,657,826.41	22,753,205.62	20,536,020.67	18,237,841.72
City of Owasso	293,502.47	22,290,211.62	763,291.33	23,053,502.95	27,198,403.68	23,682,462.55	20,149,982.50
City of Pawnee	43,155.25	3,286,836.82	102,843.64	3,389,680.46	4,091,386.46	3,683,099.90	3,233,859.14
City of Perkins	18,277.09	1,394,410.69	41,185.15	1,435,595.84	1,718,964.34	1,519,382.64	1,357,000.10
City of Perry	63,498.77	4,841,402.23	146,184.93	4,987,587.16	5,940,179.43	5,394,273.46	4,808,826.81
City of Piedmont	10,184.47	771,224.69	28,726.79	799,951.48	899,951.51	732,349.13	554,553.61
City of Pond Creek	20,384.60	1,543,867.97	57,264.47	1,601,132.44	1,930,759.95	1,717,878.92	1,436,890.67
Town of Porum	7,015.90	540,449.06	17,023.32	551,072.38	636,554.15	545,347.69	453,716.85
City of Poteau	91,381.27	6,989,010.11	188,641.54	7,177,651.65	8,871,628.60	8,206,149.92	7,425,478.72
Town of Ratliff City	2,508.76	190,471.94	6,582.01	197,053.95	227,759.88	195,453.77	164,021.92
Town of Ringling	2,735.92	208,293.70	6,602.79	214,896.49	251,114.92	226,976.15	199,537.07
Town of Roland	23,181.57	1,769,845.81	50,978.19	1,820,824.00	2,085,769.35	1,786,391.45	1,481,144.00
City of Sallisaw	236,394.16	18,035,264.12	532,598.25	18,567,862.37	22,356,128.67	19,832,085.41	17,314,348.43
Town of Seiling	14,527.29	1,109,199.14	31,864.63	1,141,063.77	1,374,443.03	1,210,401.28	1,053,439.63
City of Shawnee	443,619.95	34,022,215.94	822,444.32	34,844,660.26	43,966,175.80	41,138,360.35	38,238,231.22
City of Skiatook	33,655.77	2,540,447.04	103,085.76	2,643,532.80	2,904,498.85	2,363,982.22	1,833,308.89
City of Spencer	15,851.08	1,208,065.39	36,976.92	1,245,042.31	1,492,173.22	1,333,949.92	1,178,611.80
Town of Spiro	16,195.06	1,238,452.98	33,607.47	1,272,060.45	1,552,178.99	1,405,420.41	1,240,951.15
City of Stillwater	0.00	-	-	-	-	12,270,143.46	10,696,292.33
City of Stilwell	120,830.92	9,239,404.89	251,404.15	9,490,809.04	11,680,415.93	10,770,773.24	9,833,106.26
Town of Stratford	4,555.72	354,815.97	3,018.42	357,834.39	441,895.26	396,334.53	344,722.30
City of Stroud	53,958.53	4,113,229.12	125,007.88	4,238,237.00	5,067,710.15	4,464,890.41	3,915,086.33
City of Sulphur	74,479.05	5,674,000.97	176,045.02	5,850,045.99	7,072,741.26	6,376,154.45	5,627,793.25
Town of Talihina	12,838.42	967,307.69	41,101.67	1,008,409.36	1,149,737.08	985,307.98	854,424.66
City of Tecumseh	1,541.72	118,956.89	2,139.03	121,095.92	160,983.01	141,508.83	126,021.33
City of Thomas	13,185.02	1,008,205.98	27,427.19	1,035,633.17	1,257,373.40	1,136,319.39	1,020,043.53
Town of Tipton	4,021.39	301,241.25	14,623.43	315,864.68	395,245.95	339,394.86	288,189.40
City of Tishomingo	8,054.47	611,850.86	20,797.06	632,647.92	726,109.91	624,396.56	539,110.73
City of Tonkawa	37,652.30	2,877,426.50	80,018.28	2,957,444.78	3,610,918.97	3,252,593.87	2,885,111.44
Town of Valliant	786.50	58,021.16	3,755.64	61,776.80	50,123.50	5,874.88	-
Town of Velma	4,384.67	335,344.69	9,054.15	344,398.84	423,919.51	384,973.56	344,066.56
Town of Vian	6,393.40	472,001.36	30,175.91	502,177.27	543,083.92	448,146.77	365,745.88
City of Vinita	106,773.17	8,241,115.78	145,510.95	8,386,626.73	10,412,933.95	9,512,689.34	8,784,014.62
Town of Wakita	2,750.25	210,598.47	5,423.16	216,021.63	269,180.61	248,210.60	227,220.27
City of Warr Acres	115,204.10	8,786,813.22	262,031.21	9,048,844.43	11,106,413.75	10,139,615.97	9,157,219.99
City of Watonga	59,766.70	4,564,895.43	129,551.66	4,694,447.09	5,740,785.94	5,185,511.66	4,633,773.16
Town of Waukomis	6,926.94	525,544.54	18,540.24	544,084.78	637,639.61	557,610.78	490,181.65
City of Waurika	14,979.13	1,143,453.05	33,100.51	1,176,553.56	1,440,976.17	1,315,462.50	1,176,539.39
City of Weatherford	90,133.22	6,861,913.03	217,708.78	7,079,621.81	8,424,397.04	7,443,651.09	6,403,233.13
City of Weatherford RM	1,489.14	112,989.53	3,976.59	116,966.12	133,821.14	118,766.77	113,286.79
Town of Webbers Falls	2,900.27	220,505.36	7,299.87	227,805.23	272,009.49	237,234.96	204,088.80
Town of Wellston	7,809.86	597,747.28	15,687.54	613,434.82	749,108.37	663,870.98	572,709.75
Westville Utility Auth	9,335.72	708,892.30	24,393.08	733,285.38	858,940.34	796,079.94	673,407.31
City of Wetumka	19,126.71	1,470,486.39	31,844.14	1,502,330.53	1,845,284.52	1,719,560.48	1,626,012.31
City of Wilburton	3,665.88	267,875.08	20,065.63	287,940.71	304,698.77	229,875.82	161,276.28
City of Yale	20,968.39	1,600,976.47	46,010.71	1,646,987.18	2,007,074.52	1,784,340.87	1,576,027.60
City of Yukon	373,559.84	28,594,474.24	747,231.04	29,341,705.28	35,979,483.42	32,317,835.03	28,438,754.57
Rounding	0.01	(1.71)	5.57	3.86	(3.19)	(4.22)	1.75
<b>Totals</b>	<b>8,068,585.79</b>	<b>\$ 616,863,180.22</b>	<b>\$ 16,893,559.64</b>	<b>\$ 633,756,739.86</b>	<b>\$ 771,543,429.31</b>	<b>\$ 707,593,664.67</b>	<b>\$ 628,633,373.09</b>
<b>Unit Values</b>				<b>\$78.546198</b>	<b>\$94.104549</b>	<b>\$83.554884</b>	<b>\$72.823507</b>



**Oklahoma Municipal Retirement Fund  
Defined Benefit Plans as of October, 2022**

City	12/31/20 Mkt.Val	12/31/21 Mkt.Val	9/30/22 Mkt.Val	10/31/22 Mkt.Val	Monthly Dollars	Units BOM	Units New	Units EOM
Totals	707,593,669.03	771,543,432.68	616,863,182.11	633,756,736.16	-1,780,211.44	8,091,938.38	-23,352.60	8,068,585.78
Unit Values	83.554884	94.10455	76.231819	78.546198				
Adair	362,374.26	406,519.73	308,721.78	320,104.11	1,950.40	4,049.78	25.58	4,075.36
Altus	24,301,650.00	26,251,595.21	20,939,543.80	21,274,295.73	-292,099.33	274,682.46	-3,831.72	270,850.74
Alva	5,287,128.26	5,984,867.20	4,833,541.46	4,989,829.26	9,261.51	63,405.83	121.49	63,527.32
Antlers	1,653,816.62	1,867,274.40	1,504,521.89	1,553,188.45	2,901.57	19,736.14	38.06	19,774.20
Ardmore	41,199,766.28	46,350,679.89	37,325,413.22	38,412,799.95	-44,453.89	489,630.36	-583.14	489,047.22
Bartlesville	24,819,815.57	27,807,264.08	22,404,362.73	23,053,992.31	-29,660.78	293,897.78	-389.08	293,508.70
Bartlesville HP	603,761.29	669,000.55	523,085.19	536,551.77	-2,343.03	6,861.77	-30.74	6,831.03
Bethany	31,826,378.88	34,731,307.06	27,117,751.15	27,831,440.12	-106,369.83	355,727.46	-1,395.35	354,332.11
Bethany/Warr Acres	3,194,658.89	3,487,200.99	2,757,900.80	2,832,587.88	-8,775.67	36,177.82	-115.12	36,062.70
Billings	268,170.20	304,179.21	246,855.04	254,617.41	260.02	3,238.22	3.41	3,241.63
Binger	261,221.50	283,512.89	224,640.88	231,161.80	-290.31	2,946.81	-3.81	2,943.00
Blackwell	6,345,991.39	6,998,479.58	5,652,283.33	5,820,611.38	-3,177.39	74,145.99	-41.69	74,104.30
Blair	684,748.06	789,759.45	654,514.71	676,184.87	1,746.24	8,585.85	22.90	8,608.75
Boise City	1,883,287.81	2,055,730.62	1,610,588.25	1,653,024.60	-6,270.34	21,127.51	-82.26	21,045.25
Bokchito	199,432.61	235,788.60	202,254.34	211,130.41	2,655.07	2,653.15	34.83	2,687.98
Braman	183,517.11	177,212.34	124,476.92	127,054.78	-1,165.83	1,632.87	-15.29	1,617.58
Bristow	4,323,027.43	4,754,159.03	3,760,822.68	3,872,823.21	-2,112.96	49,334.03	-27.72	49,306.31
Broken Bow	7,664,768.89	8,742,072.33	7,185,948.14	7,417,203.97	12,706.48	94,264.42	166.68	94,431.10
Buffalo	1,170,854.48	1,273,392.78	1,002,499.57	1,029,244.56	-3,581.91	13,150.67	-46.99	13,103.68
Burns Flat	947,979.95	1,063,466.36	855,435.26	880,156.72	-1,212.53	11,221.50	-15.91	11,205.59
Calera	1,408,033.68	1,598,982.04	1,297,550.67	1,342,478.57	5,371.51	17,021.12	70.46	17,091.58
Central Okla Master Cons	2,321,754.29	2,578,837.28	2,086,051.47	2,150,109.72	704.85	27,364.58	9.24	27,373.82
Chandler	3,923,358.05	4,383,461.40	3,587,172.91	3,699,659.77	3,475.66	47,056.11	45.59	47,101.70
Checotah	3,074,050.38	3,509,547.89	2,871,786.92	2,960,689.63	1,665.41	37,671.76	21.85	37,693.61
Cherokee & CDA	494,163.17	562,622.42	447,097.90	469,199.46	8,276.51	5,864.98	108.57	5,973.55
Chickasha	19,767,539.35	21,381,692.32	16,747,140.14	17,182,286.98	-71,132.59	219,687.01	-933.11	218,753.90
Chouteau	12,775.54	13,711.85	10,681.01	10,950.43	-53.24	140.11	-0.70	139.41
Claremore	21,476,719.07	23,887,587.49	19,285,672.81	19,849,453.15	-21,087.65	252,987.18	-276.63	252,710.55
Cleo Springs	224,754.93	217,197.90	154,243.74	157,309.97	-1,568.94	2,023.35	-20.58	2,002.77
Cleveland	3,212,835.69	3,418,016.28	2,663,420.38	2,733,661.71	-10,306.55	34,938.43	-135.20	34,803.23
Clinton	16,071,036.79	17,753,782.95	14,165,715.94	14,531,255.25	-62,626.95	185,824.19	-821.53	185,002.66
Collinsville	4,192,153.65	4,844,092.92	3,833,600.38	3,955,204.33	5,063.09	50,288.72	66.41	50,355.13
Copan	96,542.98	110,128.91	95,560.72	98,834.67	361.77	1,253.55	4.75	1,258.30
Cordell	6,024,133.78	6,598,523.94	5,199,188.33	5,335,757.74	-20,649.72	68,202.34	-270.88	67,931.46
Cushing	24,143,862.81	26,073,950.05	20,437,362.60	20,958,602.88	-96,309.03	268,094.91	-1,263.37	266,831.54
Davis	2,719,658.97	3,028,986.89	2,455,307.71	2,526,521.59	-3,230.57	32,208.44	-42.38	32,166.06
Del City	21,321,583.61	23,602,360.42	19,100,807.52	19,778,674.82	95,084.80	250,562.14	1,247.31	251,809.45
Dewey	2,459,499.18	2,788,710.81	2,269,716.14	2,340,779.19	2,091.54	29,773.87	27.43	29,801.30
Drumright	2,904,837.48	3,181,101.52	2,499,874.66	2,570,249.68	-5,357.89	32,793.06	-70.28	32,722.78
Durant	28,653,755.32	31,684,920.07	25,328,816.51	26,020,587.70	-74,930.48	332,260.42	-982.93	331,277.49
El Reno	7,094,392.17	8,122,668.95	6,547,270.62	6,719,873.47	-25,399.53	85,886.32	-333.19	85,553.13
Eufaula	1,591,105.62	1,763,033.46	1,403,617.12	1,436,435.87	-9,506.12	18,412.48	-124.70	18,287.78
Fort Cobb	287,317.16	309,750.50	243,074.18	249,487.40	-937.97	3,188.62	-12.31	3,176.31
Foss Reservoir Public Works	1,091,733.73	1,217,576.41	979,035.58	1,007,835.23	-896.41	12,842.87	-11.76	12,831.11
Frederick	5,291,788.54	5,818,322.88	4,654,800.99	4,789,493.38	-6,430.97	61,061.13	-84.36	60,976.77
Garber	144,823.03	184,430.52	165,571.10	170,597.80	0.00	2,171.94	0.00	2,171.94
Geary	1,967,750.64	2,215,599.78	1,806,583.14	1,859,888.55	-1,496.56	23,698.54	-19.63	23,678.91
Goodwell	362,994.38	402,887.96	307,362.54	316,274.77	-406.87	4,031.95	-5.34	4,026.61
Gore & Gore PWA	1,067,536.51	1,226,330.03	1,001,628.73	1,026,751.16	-5,130.99	13,139.25	-67.31	13,071.94
Granite	1,954,089.78	2,182,754.14	1,746,590.58	1,790,992.77	-8,369.76	22,911.57	-109.79	22,801.78
Guthrie	7,869,196.74	8,798,075.08	7,074,910.54	7,273,656.38	-15,573.86	92,807.84	-204.30	92,603.54
Guymon	6,997,038.60	7,528,767.46	5,902,036.69	6,056,388.57	-24,100.79	77,422.22	-316.15	77,106.07
Harrah	3,561,360.62	4,043,121.41	3,252,860.03	3,349,644.81	-1,913.15	42,670.63	-25.09	42,645.54
Haldton	1,912,107.46	2,131,343.04	1,714,731.18	1,767,217.71	415.12	22,493.64	5.45	22,499.09
Henryetta	4,403,901.24	5,100,982.61	4,151,394.63	3,770,822.95	-491,679.71	54,457.50	-6,449.79	48,007.71
Hooker	1,488,825.93	1,646,806.51	1,281,502.82	1,315,620.89	-4,646.95	16,810.60	-60.96	16,749.64
Hulbert	962,264.79	1,107,281.57	919,047.94	944,678.61	-2,204.47	12,055.96	-28.92	12,027.04
Hydro	431,563.41	470,613.68	359,586.10	369,925.66	-560.37	4,717.01	-7.35	4,709.66
Kansas	162,055.69	181,659.69	152,290.02	156,127.28	-763.06	1,997.72	-10.01	1,987.71
Kiefer	187,984.97	230,716.93	201,169.23	206,882.09	-382.96	2,638.91	-5.02	2,633.89
Kingston	829,696.97	927,202.38	722,960.74	739,338.34	-5,407.15	9,483.71	-70.93	9,412.78
Krebs & Krebs Utility Auth.	641,660.28	757,411.54	638,289.55	661,657.60	3,872.18	8,373.01	50.79	8,423.80

**Oklahoma Municipal Retirement Fund**  
**Defined Benefit Plans as of October, 2022**

City	12/31/20 Mkt.Val	12/31/21 Mkt.Val	9/30/22 Mkt.Val	10/31/22 Mkt.Val	Monthly Dollars	Units BOM	Units New	Units EOM
Laverne	1,624,239.41	1,815,395.83	1,448,285.70	1,492,016.39	-231.86	18,998.44	-3.04	18,995.40
Lindsay & LPWA	5,856,424.17	6,512,706.57	5,196,981.95	5,356,567.02	1,752.78	68,173.40	22.99	68,196.39
Madill	3,865,325.30	4,446,509.41	3,633,887.74	3,763,286.23	18,512.53	47,668.91	242.85	47,911.76
Mannford	3,831,003.93	4,413,949.61	3,690,919.65	3,809,609.51	6,438.98	48,417.05	84.46	48,501.51
Mannford HP	66,323.49	70,630.30	57,215.89	58,952.95	0.00	750.55	0.00	750.55
Marietta	1,464,994.61	1,622,652.96	1,322,948.34	1,364,949.95	1,783.09	17,354.28	23.39	17,377.67
Marietta PWA	578,808.30	664,216.78	546,733.49	564,018.55	666.15	7,171.99	8.73	7,180.72
McLoud	1,009,696.40	1,184,506.05	1,000,911.92	1,034,522.37	3,128.05	13,129.84	41.04	13,170.88
Medford	4,147,988.74	4,609,235.72	3,573,122.39	3,672,046.93	-9,273.04	46,871.80	-121.65	46,750.15
Meeker	851,586.24	950,447.44	769,088.07	793,189.67	730.11	10,088.81	9.57	10,098.38
Miami	13,545,373.52	15,130,413.38	12,193,921.38	12,550,046.64	-13,664.30	159,958.42	-179.25	159,779.17
Mooreland	1,630,563.48	1,766,367.54	1,390,719.98	1,405,506.40	-26,627.10	18,243.30	-349.29	17,894.01
Mountain Park Master CD	1,187,725.21	1,321,111.54	1,054,394.00	1,075,808.45	-10,284.45	13,831.42	-134.91	13,696.51
Muldrow	2,691,871.03	2,972,788.17	2,409,265.67	2,479,368.10	-2,952.63	31,604.46	-38.73	31,565.73
Muskogee	45,426.32	48,079.00	36,893.63	37,772.07	-234.52	483.97	-3.08	480.89
Mustang	9,114,004.75	10,384,236.79	8,386,139.67	8,638,972.22	-1,716.45	110,008.39	-22.52	109,985.87
Newkirk	1,331,492.81	1,370,794.92	1,074,700.78	1,104,399.97	-2,842.17	14,097.80	-37.29	14,060.51
Nichols Hills	12,836,303.09	14,166,832.15	11,094,950.73	11,407,378.78	-23,692.58	145,542.25	-310.79	145,231.46
Noble	2,946,250.25	3,455,039.34	2,882,810.32	2,982,390.29	11,703.26	37,816.37	153.52	37,969.89
Norman	162,164.30	197,212.28	126,605.06	126,287.41	-4,038.73	1,660.79	-52.98	1,607.81
Nowata	2,859,107.24	3,236,832.26	2,649,257.80	2,728,023.58	-1,615.96	34,752.65	-21.20	34,731.45
Oilton	523,604.69	582,234.99	471,584.02	484,226.14	-1,625.70	6,186.18	-21.32	6,164.86
OkMRF	1,994,654.08	2,375,103.57	2,007,633.00	2,087,268.46	18,133.69	26,335.89	237.88	26,573.77
Okeene	1,383,862.16	1,509,997.84	1,195,030.87	1,227,222.85	-3,968.38	15,676.27	-52.05	15,624.22
Okemah	2,121,535.78	2,468,179.05	2,047,897.15	2,107,261.98	-2,726.06	26,864.07	-35.76	26,828.31
Oklahoma Municipal League	8,559,637.78	9,434,662.97	7,440,944.30	7,641,753.67	-24,356.39	97,609.43	-319.51	97,289.92
Okmulgee	20,536,020.67	22,753,205.62	18,148,738.15	18,657,826.41	-40,668.22	238,073.00	-533.48	237,539.52
Owasso	23,682,462.54	27,198,403.67	22,290,211.62	23,053,502.95	84,015.38	292,400.36	1,102.11	293,502.47
Pawnee	3,683,099.90	4,091,386.47	3,286,836.82	3,389,680.46	2,966.05	43,116.34	38.91	43,155.25
Perkins	1,519,382.64	1,718,964.33	1,394,410.69	1,435,595.84	-1,114.96	18,291.71	-14.62	18,277.09
Perry	5,394,273.45	5,940,179.43	4,841,402.22	4,987,587.16	-775.29	63,508.94	-10.17	63,498.77
Piedmont	732,349.13	899,951.51	771,224.69	799,951.48	5,156.06	10,116.83	67.64	10,184.47
Pond Creek	1,717,878.92	1,930,759.95	1,543,867.97	1,601,132.44	10,086.79	20,252.28	132.32	20,384.60
Porum	545,347.68	636,554.14	534,049.05	551,072.38	785.87	7,005.59	10.31	7,015.90
Poteau	8,206,149.93	8,871,628.61	6,989,010.11	7,177,651.65	-22,849.36	91,681.01	-299.74	91,381.27
Ratcliff City	195,453.78	227,759.89	190,471.94	197,053.96	775.78	2,498.59	10.18	2,508.77
Ringling	226,976.15	251,114.92	208,293.70	214,896.49	270.82	2,732.37	3.55	2,735.92
Roland	1,786,391.44	2,085,769.34	1,769,845.81	1,820,823.99	-2,672.75	23,216.63	-35.06	23,181.57
Sallisaw	19,832,085.40	22,356,128.66	18,035,264.11	18,567,862.36	-14,507.43	236,584.47	-190.31	236,394.16
Seiling	1,210,401.28	1,374,443.03	1,109,199.14	1,141,063.77	-1,757.04	14,550.34	-23.05	14,527.29
Shawnee	41,138,360.45	43,966,175.91	34,022,216.03	34,844,660.35	-204,260.37	446,299.41	-2,679.46	443,619.95
Skiatook	2,363,982.22	2,904,498.85	2,540,447.03	2,643,532.80	25,193.56	33,325.28	330.49	33,655.77
Spencer	1,333,949.92	1,492,173.22	1,208,065.39	1,245,042.31	291.50	15,847.26	3.82	15,851.08
Spiro	1,405,420.41	1,552,179.00	1,238,452.99	1,272,060.46	-3,874.04	16,245.88	-50.82	16,195.06
Stillwater	12,270,143.46				0.00	0.00	0.00	0.00
Stilwell	10,770,773.24	11,680,415.93	9,239,404.89	9,490,809.04	-28,244.38	121,201.42	-370.50	120,830.92
Stratford	396,334.53	441,895.26	354,815.98	357,834.40	-7,525.24	4,654.43	-98.71	4,555.72
Stroud	4,464,890.41	5,067,710.14	4,113,229.12	4,238,237.00	127.40	53,956.85	1.68	53,958.53
Sulphur	6,376,154.45	7,072,741.26	5,674,000.96	5,850,045.99	3,672.28	74,430.87	48.18	74,479.05
Talihina & TPWA	985,307.99	1,149,737.08	967,307.69	1,008,409.36	11,388.69	12,689.03	149.39	12,838.42
Tecumseh	141,508.83	160,983.01	118,956.89	121,095.92	-1,429.09	1,560.46	-18.74	1,541.72
Thomas	1,136,319.39	1,257,373.41	1,008,205.99	1,035,633.18	-3,087.94	13,225.53	-40.51	13,185.02
Tipton	339,394.87	395,245.95	301,241.25	315,864.68	5,316.42	3,951.65	69.74	4,021.39
Tishomingo	624,396.55	726,109.90	611,850.85	632,647.91	2,155.97	8,026.19	28.28	8,054.47
Tonkawa	3,252,593.87	3,610,918.97	2,877,426.50	2,957,444.78	-7,123.40	37,745.74	-93.44	37,652.30
Valliant	5,874.88	50,123.50	58,021.16	61,776.81	1,935.38	761.11	25.39	786.50
Velma	384,973.56	423,919.51	335,344.69	344,398.84	-1,093.63	4,399.01	-14.34	4,384.67
Vian	448,146.77	543,083.92	472,001.36	502,177.27	15,379.16	6,191.66	201.74	6,393.40
Vinita	9,512,689.34	10,412,933.95	8,241,115.78	8,386,626.73	-101,602.64	108,105.98	-1,332.81	106,773.17
Wakita	248,210.60	269,180.61	210,598.48	216,021.64	-941.96	2,762.61	-12.36	2,750.25
Warr Acres	10,139,615.98	11,106,413.76	8,786,813.22	9,048,844.43	-4,594.75	115,264.38	-60.28	115,204.10
Watonga	5,185,511.65	5,740,785.93	4,564,895.43	4,694,447.09	-8,771.14	59,881.76	-115.06	59,766.70
Waukomis	557,610.78	637,639.62	525,544.55	544,084.80	2,508.68	6,894.03	32.91	6,926.94
Waurika	1,315,462.50	1,440,976.17	1,143,453.05	1,176,553.56	-1,566.87	14,999.68	-20.55	14,979.13

**Oklahoma Municipal Retirement Fund  
Defined Benefit Plans as of October, 2022**

City	12/31/20 Mkt.Val	12/31/21 Mkt.Val	9/30/22 Mkt.Val	10/31/22 Mkt.Val	Monthly Dollars	Units BOM	Units New	Units EOM
Weatherford	7,443,651.09	8,424,397.04	6,861,913.02	7,079,621.80	9,106.35	90,013.76	119.46	90,133.22
Weatherford HP	118,766.76	133,821.14	112,989.52	116,966.11	530.16	1,482.18	6.96	1,489.14
Webbers Falls	237,234.95	272,009.48	220,505.35	227,805.22	587.55	2,892.56	7.71	2,900.27
Wellston	663,870.98	749,108.37	597,747.29	613,434.83	-2,387.44	7,841.18	-31.32	7,809.86
Westville Utility Authority	796,079.94	858,940.33	708,892.29	733,285.38	2,786.69	9,299.17	36.55	9,335.72
Wetumka	1,719,560.48	1,845,284.52	1,470,486.39	1,502,330.53	-12,422.32	19,289.67	-162.96	19,126.71
Wilburton	229,875.82	304,698.77	267,875.08	287,940.71	11,581.40	3,513.95	151.93	3,665.88
Yale	1,784,340.87	2,007,074.52	1,600,976.47	1,646,987.18	-2,518.09	21,001.42	-33.03	20,968.39
Yukon	32,317,835.03	35,979,483.42	28,594,474.24	29,341,705.28	-117,328.02	375,098.94	-1,539.10	373,559.84

<p style="text-align: center;"><b>OKLAHOMA MUNICIPAL RETIREMENT FUND</b></p> <p style="text-align: center;"><b>Defined Contribution Plan</b></p> <p style="text-align: center;"><b>Statement of Changes in Net Assets</b></p> <p style="text-align: center;"><b>For the Month Ended October 31, 2022</b></p>
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Contributions:

Employer	\$	1,376,034.42	
Employee		604,210.40	
Employee rollovers		-	
Total contributions			1,980,244.82

Investment income:

Loan interest payments	27,004.27
Net appreciation in fair value of investments	12,567,286.15
Total investment income	12,594,290.42

Administrative Expense:

OkMRF administrative expenses	84,392.61
Participant administrative loan fees	3,200.00
Participant administrative other fees	9,796.86
Total administrative expense	97,389.47

Net investment income	12,496,900.95
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<b>Total additions</b>	14,477,145.77
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Payment of benefits and member refunds	(2,414,410.04)
Defaulted loans	(88,917.73)

<b>Total deductions</b>	(2,503,327.77)
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<b>Increase &lt;Decrease&gt; in net position</b>	11,973,818.00
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Net assets available for plan benefits:

Beginning of month	340,436,643.69
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Net assets available for plan benefits:

<b>End of month</b>	<b>\$ 352,410,461.69</b>
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**OKLAHOMA MUNICIPAL RETIREMENT FUND**  
**DEFINED CONTRIBUTION**  
**CASH FLOW**  
**For the Month of October 2022**

	INTERNATIONAL INVESTMENT EQUITY	AGGRESSIVE EQUITY	REAL ASSETS	GLOBAL EQUITY	ESG US STOCK FUND
Contributions	\$ 43,529.18	62,675.89	3,895.83	52,729.91	11,814.65
Investment income:					
Loan interest payments					
Net appreciation of investments	208,393.57	1,443,344.52	21,700.13	574,461.04	79,842.84
Total investment income	208,393.57	1,443,344.52	21,700.13	574,461.04	79,842.84
Administrative expense	(2,117.68)	(3,548.67)	(156.44)	(4,152.32)	(272.84)
Net investment income	206,275.89	1,439,795.85	21,543.69	570,308.72	79,570.00
Payment of benefits/member refunds	(107,640.48)	(16,523.86)	(5,690.59)	(261,743.41)	(8,448.28)
Defaulted loans					
Net transfers from <to>	(89,494.58)	(143,219.56)	1,341.07	79,900.17	20,081.63
Total deductions	(197,135.06)	(159,743.42)	(4,349.52)	(181,843.24)	11,633.35
<b>Net increase &lt;decrease&gt; in net position</b>	52,670.01	1,342,728.32	21,090.00	441,195.39	103,018.00
Net assets available for plan benefits:					
Beginning of month	6,994,038.04	15,042,491.93	889,400.42	9,227,520.78	1,184,932.78
<b>End of month</b>	<b>\$ 7,046,708.05</b>	<b>16,385,220.25</b>	<b>910,490.42</b>	<b>9,668,716.17</b>	<b>1,287,950.78</b>



**OKLAHOMA MUNICIPAL RETIREMENT FUND**  
**DEFINED CONTRIBUTION**  
**CASH FLOW**  
**For the Month of October 2022**

	GROWTH & VALUE EQUITY	S&P 500 INDEX	TARGET RETIREMENT 2065	TARGET RETIREMENT 2060	TARGET RETIREMENT 2055
Contributions	80,033.85	132,499.45	107.33	250,907.64	185,202.67
Investment income:					
Loan interest payments					
Net appreciation of investments	1,491,793.18	2,436,260.99	7,793.08	298,138.48	328,214.39
Total investment income	1,491,793.18	2,436,260.99	7,793.08	298,138.48	328,214.39
Administrative expense	(4,046.30)	(8,188.56)	(31.52)	(6,295.59)	(4,777.07)
Net investment income	1,487,746.88	2,428,072.43	7,761.56	291,842.89	323,437.32
Payment of benefits/member refunds	(71,555.63)	(288,667.65)	-	(29,168.80)	(47,485.22)
Defaulted loans					
Net transfers from <to>	(968.68)	35,893.99	-	13,303.31	8,081.95
Total deductions	(72,524.31)	(252,773.66)	-	(15,865.49)	(39,403.27)
<b>Net increase &lt;decrease&gt; in net position</b>	1,495,256.42	2,307,798.22	7,868.89	526,885.04	469,236.72
Net assets available for plan benefits:					
Beginning of month	19,306,241.95	30,149,684.35	150,633.77	5,645,955.48	6,272,482.77
<b>End of month</b>	20,801,498.37	32,457,482.57	158,502.66	6,172,840.52	6,741,719.49

**OKLAHOMA MUNICIPAL RETIREMENT FUND**  
**DEFINED CONTRIBUTION**  
**CASH FLOW**  
**For the Month of October 2022**

	TARGET RETIREMENT 2050	TARGET RETIREMENT 2045	TARGET RETIREMENT 2040	TARGET RETIREMENT 2035	TARGET RETIREMENT 2030
Contributions	205,312.55	215,712.48	230,684.25	236,966.23	260,321.05
Investment income:					
Loan interest payments					
Net appreciation of investments	532,196.89	633,818.00	748,849.58	909,555.31	936,338.46
Total investment income	532,196.89	633,818.00	748,849.58	909,555.31	936,338.46
Administrative expense	(5,757.82)	(6,640.03)	(6,471.41)	(7,262.16)	(7,160.30)
Net investment income	526,439.07	627,177.97	742,378.17	902,293.15	929,178.16
Payment of benefits/member refunds	(42,754.36)	(55,109.56)	(51,132.36)	(80,602.49)	(209,253.77)
Defaulted loans					
Net transfers from <to>	3,660.43	(35,532.11)	(51,633.46)	(72,790.56)	532,471.10
Total deductions	(39,093.93)	(90,641.67)	(102,765.82)	(153,393.05)	323,217.33
<b>Net increase &lt;decrease&gt; in net position</b>	692,657.69	752,248.78	870,296.60	985,866.33	1,512,716.54
Net assets available for plan benefits:					
Beginning of month	10,188,009.34	13,150,172.55	16,915,321.27	22,647,110.44	25,056,938.55
<b>End of month</b>	<b>10,880,667.03</b>	<b>13,902,421.33</b>	<b>17,785,617.87</b>	<b>23,632,976.77</b>	<b>26,569,655.09</b>

**OKLAHOMA MUNICIPAL RETIREMENT FUND**  
**DEFINED CONTRIBUTION**  
**CASH FLOW**  
**For the Month of October 2022**

	TARGET RETIREMENT 2025	TARGET RETIREMENT 2020	TARGET RETIREMENT INCOME	TOTAL YIELD BOND	BOND INDEX
Contributions	191,623.01	91,572.19	35,113.05	17,238.44	52,186.14
Investment income:					
Loan interest payments					
Net appreciation of investments	1,089,080.54	527,692.46	367,434.76	(59,060.91)	(180,986.60)
Total investment income	1,089,080.54	527,692.46	367,434.76	(59,060.91)	(180,986.60)
Administrative expense	(7,527.03)	(4,231.86)	(3,505.13)	(990.16)	(4,769.30)
Net investment income	1,081,553.51	523,460.60	363,929.63	(60,051.07)	(185,755.90)
Payment of benefits/member refunds	(25,857.50)	(35,802.28)	(133,578.42)	(5,038.89)	(163,441.27)
Defaulted loans					
Net transfers from <to>	(1,282,691.04)	16,156.84	19,994.39	(99,508.88)	41.14
Total deductions	(1,308,548.54)	(19,645.44)	(113,584.03)	(104,547.77)	(163,400.13)
<b>Net increase &lt;decrease&gt; in net position</b>	<b>(35,372.02)</b>	<b>595,387.35</b>	<b>285,458.65</b>	<b>(147,360.40)</b>	<b>(296,969.89)</b>
Net assets available for plan benefits:					
Beginning of month	35,450,839.94	22,335,093.57	18,324,637.23	5,321,413.90	13,903,207.81
<b>End of month</b>	<b>35,415,467.92</b>	<b>22,930,480.92</b>	<b>18,610,095.88</b>	<b>5,174,053.50</b>	<b>13,606,237.92</b>

**OKLAHOMA MUNICIPAL RETIREMENT FUND**  
**DEFINED CONTRIBUTION**  
**CASH FLOW**  
**For the Month of October 2022**

	VOYA FIXED PLUS III	LOAN PORTFOLIO	SELF DIRECTED BROKER	TOTAL	RECLASS ENTRIES	GRAND TOTAL
Contributions	109,708.99	-	-	2,469,834.78	(489,589.96)	\$ 1,980,244.82
Investment income:						
Loan interest payments					27,004.27	27,004.27
Net appreciation of investments	80,610.58	27,728.49	2,172.91	12,505,372.69	61,913.46	12,567,286.15
Total investment income	80,610.58	27,728.49	2,172.91	12,505,372.69	88,917.73	12,594,290.42
Administrative expense	(9,487.28)	-	-	(97,389.47)	-	(97,389.47)
Net investment income	71,123.30	27,728.49	2,172.91	12,407,983.22	88,917.73	12,496,900.95
Payment of benefits/member refunds	(1,216,779.14)	(88,917.73)	-	(2,945,191.69)	530,781.65	(2,414,410.04)
Defaulted loans					(88,917.73)	(88,917.73)
Net transfers from <to>	1,027,845.57	60,236.44	(1,977.47)	41,191.69	(41,191.69)	0.00
Total deductions	(188,933.57)	(28,681.29)	(1,977.47)	(2,904,000.00)	400,672.23	(2,503,327.77)
<b>Net increase &lt;decrease&gt; in net position</b>	<b>(8,101.28)</b>	<b>(952.80)</b>	<b>195.44</b>	<b>11,973,818.00</b>	<b>-</b>	<b>11,973,818.00</b>
Net assets available for plan benefits:						
Beginning of month	54,598,930.34	7,427,407.15	254,179.33	340,436,643.69	-	340,436,643.69
<b>End of month</b>	<b>54,590,829.06</b>	<b>7,426,454.35</b>	<b>254,374.77</b>	<b>352,410,461.69</b>	<b>-</b>	<b>\$ 352,410,461.69</b>

**OKLAHOMA MUNICIPAL REITREMENT FUND**  
**DEFINED CONTRIBUTION**  
**October 31, 2022**

PLAN NAME	INTERNATIONAL INVESTMENT EQUITY	AGGRESSIVE EQUITY	REAL ASSETS FUND	GLOBAL EQUITY	ESG US STOCK FUND	GROWTH & VALUE EQUITY	S&P 500 INDEX FUND	TARGET DATE FUNDS*	TOTAL YIELD BOND	BOND INDEX FUND	VOYA FIXED PLUS III	LOAN FUND	SELF DIRECTED BROKER	GRAND TOTAL
ADA	616,117.77	1,208,925.61	73,976.92	1,538,098.03	169,135.54	1,845,777.68	3,396,910.82	9,543,890.42	679,593.87	1,387,245.63	8,295,926.63	377,906.00	-	29,133,504.92
ADA CMO	42,658.02	57,668.25	-	-	-	-	180,781.62	-	40,890.08	38,342.64	-	-	-	360,340.61
AFTON	-	-	-	-	-	-	34,083.66	30,105.75	-	-	89,694.39	8,000.00	-	161,883.80
ALTUS	17,917.07	47,682.71	881.68	25,082.57	-	56,585.12	74,975.36	2,037,266.93	16,700.58	90,186.53	154,710.37	87,818.41	-	2,609,807.33
ALTUS CMO	-	-	-	-	-	-	-	160,195.10	-	-	1,859.70	-	-	162,054.80
ALTUS CMO 2	-	-	-	-	-	34,251.40	-	74,785.67	-	-	-	-	-	109,037.07
ALVA	46,849.03	86,557.90	-	22,185.40	-	240,945.83	303,593.03	443,795.44	249.44	47,811.22	105,485.10	-	-	1,297,472.39
ARAPAHO	-	-	-	-	-	-	-	36,326.18	-	-	205.96	-	-	36,532.14
ARKOMA	9,729.14	267.38	-	-	-	655.19	622.93	208,063.52	28,740.55	3,659.18	16,453.40	-	-	268,191.29
BARTLESVILLE	31,153.60	39,174.98	1,867.40	78,947.08	24,185.08	356,251.92	340,122.28	1,826,625.16	9,870.60	28,548.64	128,990.31	142,120.11	-	3,007,857.16
BETHANY CMO	-	-	-	7,808.72	-	-	5,154.30	31,040.53	-	13,099.46	20,027.44	-	-	77,130.45
BETHANY WARR ACRES	-	-	-	-	-	11,014.10	11,834.72	17,295.67	2,025.86	3,938.13	4,697.96	-	-	50,806.44
BIXBY CMO	-	-	-	-	-	-	-	22,881.65	-	-	-	-	-	22,881.65
BLACKWELL	93.58	7,967.38	-	407.59	-	6,687.14	14,767.40	178,248.39	2,806.81	413.43	46,436.83	-	-	257,828.55
BLACKWELL CMO	4,866.81	1,335.97	-	11,022.40	-	-	11,272.87	13,288.14	-	3,097.72	-	-	-	44,883.91
BROKEN ARROW DC	802,571.94	2,619,245.07	256,653.85	1,217,902.41	184,821.89	3,007,312.80	4,639,217.66	26,074,422.49	463,265.19	883,213.75	6,270,649.56	1,210,284.85	34,670.38	47,664,231.84
BROKEN ARROW CMO-SI	-	-	-	-	-	-	-	91,862.68	-	-	-	-	-	91,862.68
CACHE AND CACHE PWA	167.96	253.12	-	-	-	293.58	300.24	139,852.77	-	148.45	3,765.01	-	-	144,781.13
CADDO AND CADDO PWA	401.07	438.72	-	-	-	430.80	223.61	213,929.28	-	232.23	277.04	-	-	215,932.75
CALUMET	-	-	-	-	-	-	-	36,251.94	-	-	572.65	-	-	36,824.59
CANEY	-	-	-	-	-	-	-	12,306.24	-	182.24	-	-	-	12,488.48
CARLTON LANDING	-	-	-	-	-	-	-	39,222.67	-	-	-	-	-	39,222.67
CARMEN AND CPWA	-	1,455.68	-	-	-	-	-	90,880.16	-	-	29.81	-	-	92,365.65
CASHION	1,206.82	3,611.40	-	-	-	4,562.78	6,555.55	245,982.29	2,059.94	941.52	27,157.96	-	-	292,078.26
CATOOSA CMO	-	-	-	-	-	-	-	111,197.16	-	-	-	5,272.61	-	116,469.77
CATOOSA CMO 2	-	-	-	-	-	-	-	6,018.36	-	-	-	-	-	6,018.36
CATOOSA COP	-	-	-	-	-	-	-	41,026.55	-	-	-	-	-	41,026.55
CENTRAL OK MCD CMO	-	-	-	-	35,877.15	221,890.30	245,993.71	369,844.97	-	-	-	-	-	873,606.13
CHANDLER CMO	-	-	-	-	-	-	-	157,920.60	-	-	0.27	-	-	157,920.87
CHATTANOOGA	2,956.40	-	1,463.22	13,083.80	-	-	9,053.71	38,757.56	-	10,751.53	6,245.90	-	-	82,312.12
CHELSEA	10,575.74	-	-	32,849.11	-	-	32,730.60	161,980.22	-	15,729.59	163,063.37	12,495.13	-	429,423.76
CHELSEA GAS AUTHORITY	-	-	-	-	-	-	-	55,448.24	-	-	1,300.36	786.17	-	57,534.77
CHOCTAW	9,877.48	9,274.99	-	16,903.55	-	58,717.32	20,890.82	3,080,015.94	4,888.28	13,979.32	63,214.71	8,700.89	-	3,286,463.30
CHOCTOW CMO	-	-	-	-	-	-	-	5,687.44	-	-	-	-	-	5,687.44
CHOUTEAU	34,752.63	114,196.40	-	-	-	91,547.23	239.08	229,658.31	-	36.39	172,741.18	16,509.59	-	659,680.81
CLAREMORE CMO 1	-	-	-	-	-	-	-	12,427.90	-	-	-	-	-	12,427.90
CLEVELAND CMO	-	-	-	-	-	-	-	1,809.21	-	-	-	-	-	1,809.21
CLINTON	35,861.42	102,790.90	5,732.76	111,590.39	21,048.46	137,899.83	334,828.35	1,393,115.46	73,213.70	77,902.31	375,868.65	-	-	2,669,852.23
CLINTON CMO	-	-	-	-	-	-	-	35,089.37	-	-	-	-	-	35,089.37
COALGATE	8,229.63	25,737.17	179.09	4,597.01	-	76,249.34	53,192.11	443,226.96	18,376.07	18,019.60	31,643.82	46,455.09	-	725,905.89
COLLINSVILLE CMO	-	-	-	-	-	-	-	17,836.30	-	-	679,112.36	-	-	696,948.66
COLLINSVILLE CMO SI	-	-	-	-	-	-	-	75,399.56	-	-	-	-	-	75,399.56
COMANCHE CMO	-	-	-	-	-	-	-	50,958.95	-	-	-	-	-	50,958.95
COVINGTON	25,907.35	21,211.28	-	-	-	874.77	7,649.63	173,525.88	-	373.68	590.22	-	-	230,132.81
COWETA	70,481.60	66,752.13	1,235.66	65,936.87	89,229.04	194,528.06	205,329.00	1,009,584.39	-	45,335.07	220,584.71	55,753.54	-	2,024,750.07
COWETA CMO	12,993.32	-	-	87,379.58	-	-	93,939.78	765,388.66	-	41,697.18	30,246.41	-	-	1,031,644.93
COWETA CMO SI	-	-	-	-	-	-	-	51,393.48	-	-	-	-	-	51,393.48
CRESCENT	59.50	573.69	4.72	339.12	4.86	605.02	415.31	401,661.83	4.62	273.43	84.00	-	-	404,026.10
CRESCENT CMO	102.90	-	-	32,750.00	-	65,419.28	141.84	-	-	10,398.76	-	-	-	108,812.78
CUSTER CITY	-	124,664.26	-	-	-	-	-	34,712.92	-	-	3.12	-	-	159,380.30
DAVIS CMO	-	-	-	-	-	-	-	64,408.75	-	-	-	-	-	64,408.75
DEWEY CMO	-	-	-	-	-	-	-	191,444.12	-	-	-	-	-	191,444.12
DRUMRIGHT	14,767.20	15,575.41	-	-	-	5,195.67	34,645.18	163,384.06	-	493.59	51,741.73	18,215.81	-	304,018.65
DRUMRIGHT CMO	-	-	-	-	-	-	-	222,021.92	-	-	-	-	-	222,021.92
DUNCAN	14,289.36	65,579.72	10,849.71	43,286.20	-	26,678.92	67,281.40	1,612,647.15	3,597.05	29,231.29	10,531.51	-	770.14	1,884,742.45
DUNCAN CMO	-	-	-	-	-	-	-	219,919.95	-	-	-	-	-	219,919.95

**OKLAHOMA MUNICIPAL REITREMENT FUND**  
**DEFINED CONTRIBUTION**  
**October 31, 2022**

PLAN NAME	INTERNATIONAL INVESTMENT EQUITY	AGGRESSIVE EQUITY	REAL ASSETS FUND	GLOBAL EQUITY	ESG US STOCK FUND	GROWTH & VALUE EQUITY	S&P 500 INDEX FUND	TARGET DATE FUNDS*	TOTAL YIELD BOND	BOND INDEX FUND	VOYA FIXED PLUS III	LOAN FUND	SELF DIRECTED BROKER	GRAND TOTAL
DURANT	32,162.95	289,512.58	7,509.58	112,077.86	47,851.76	228,363.77	234,010.27	942,603.64	13,044.86	250,806.51	794,187.84	145,365.26	-	3,097,496.88
EAKLY	-	-	-	-	-	-	-	133,176.21	-	-	-	13,956.96	-	147,133.17
EAST DUKE AND DMA	-	-	-	-	-	-	-	45,313.82	-	-	597.71	-	-	45,911.53
EL RENO CMO	-	-	-	-	-	-	85,549.84	110,986.77	-	13,446.69	97,273.98	8,595.60	-	315,852.88
EL RENO CMO 2	-	-	-	-	-	-	-	16,212.18	-	-	-	-	-	16,212.18
ELDORADO	13,892.98	12,132.66	-	31,705.75	-	31,336.27	20,122.51	5,596.38	-	21,520.35	20,069.20	1,757.74	-	158,133.84
ELGIN	2,805.49	1,492.96	-	757.59	-	-	8,328.82	279,771.16	-	3,389.07	147,862.97	-	-	444,408.06
ERICK	-	-	-	-	-	-	-	56,635.54	-	-	2,745.24	-	-	59,380.78
ERICK CMO	-	-	-	-	-	-	-	6,598.34	-	-	-	-	-	6,598.34
EUFAULA CMO	-	-	-	-	-	-	103,366.32	-	-	-	-	-	-	103,366.32
FAIRVIEW	15,810.72	45,297.54	-	6,334.97	-	35,571.19	73,252.15	696,211.17	-	21,092.10	114,904.19	32,695.88	-	1,041,169.91
FAIRVIEW CMO	-	-	-	-	-	1,635.87	2,547.07	28,350.80	2,722.09	5,291.40	6,311.85	-	-	46,859.08
FLETCHER	-	-	-	-	-	-	-	46,425.73	-	-	21,802.08	-	-	68,227.81
FORT GIBSON	12,560.49	35,146.61	-	-	-	27,546.24	13,389.51	700,753.83	27,719.30	19,721.02	64,965.49	26,450.89	-	928,253.38
FREDERICK CMO	-	-	-	-	-	-	-	235,161.22	-	-	-	-	-	235,161.22
GAGE	-	-	-	-	-	-	-	25,342.77	-	-	286.21	-	-	25,628.98
GERONIMO	-	-	-	-	-	-	-	10,189.59	-	-	-	-	-	10,189.59
GLENCOE AND GPWA	-	-	-	-	-	-	-	49,558.60	-	-	1,057.94	-	-	50,616.54
GLENPOOL	27,314.07	42,822.73	-	-	-	58,379.84	40,076.08	781,010.71	21,056.29	9,594.22	7,915.90	54,023.15	-	1,042,192.99
GLENPOOL CMO 1	-	33,319.34	-	-	-	34,121.24	-	142,366.95	-	-	-	12,186.60	-	221,994.13
GLENPOOL CMO 2	-	-	-	-	-	-	-	161,025.56	-	-	-	-	-	161,025.56
GLENPOOL COP	-	-	-	-	-	-	23,285.66	-	17,802.87	-	19,222.67	-	-	60,311.20
GOLDSBY	25,817.99	76,173.32	-	-	-	88,895.15	196,987.33	834,589.01	-	889.80	124,697.53	27,373.12	-	1,375,423.25
GOLTRY AND GPWA	-	-	-	-	-	-	-	20,213.02	-	-	68,635.35	-	-	88,848.37
GOODWELL	-	-	-	-	-	-	-	15.01	-	-	-	-	-	15.01
GUTHRIE CMO	-	-	-	-	-	-	-	211,338.62	-	-	-	-	-	211,338.62
GUYMON	39,169.73	147,097.92	-	34,427.99	-	148,008.05	221,134.65	2,103,783.69	35,801.66	242,758.91	320,841.52	30,443.43	-	3,323,467.55
GUYMON CMO	6,316.15	8,998.98	-	25,190.64	-	5,095.40	28,987.13	-	5,652.23	12,389.62	-	-	-	92,630.15
GUYMON CMO DH	1,462.67	11,472.07	-	5,810.29	-	56,659.53	102,736.27	573,999.44	11,490.61	3,115.68	157,855.81	1,646.77	-	926,249.14
HARRAH	13,963.05	1,341.49	-	-	-	8,845.53	48,083.59	552,709.63	519.82	4,640.45	60,320.34	-	-	690,423.90
HARRAH CMO	-	-	-	-	-	-	-	50,222.51	-	-	202,053.52	-	-	252,276.03
HARTSHORNE	-	710.29	-	-	-	1,046.27	11,631.79	166,280.11	-	-	4,485.35	7,920.56	-	192,074.37
HASKELL	-	4,926.18	-	-	-	-	-	613,447.03	-	-	332,424.53	40,457.50	-	991,255.24
HASKELL CMO SI	-	-	-	-	-	-	-	-	-	-	79,043.01	-	-	79,043.01
HEALDTON CMO	-	-	-	-	-	-	-	33,960.67	-	-	-	-	-	33,960.67
HELENA	6,938.28	-	-	-	-	-	55,725.60	158,608.96	-	-	7,440.14	-	-	228,712.98
HENNESSEY	1,837.11	409.96	-	5,673.51	-	709.75	112,675.71	202,923.49	-	983.09	12,785.40	71,062.26	-	409,060.28
HENRYETTA CMO	11,774.72	12,879.34	-	-	-	12,647.65	-	12,889.54	-	-	-	-	-	50,191.25
HOBART	39,134.23	81,582.11	-	11,356.21	-	91,248.64	44,094.88	674,775.58	-	26,271.43	411,251.88	59,026.48	-	1,438,741.44
HOLLIS	-	-	-	-	-	-	-	524,348.72	14,295.92	12,893.34	60,581.46	13,288.55	-	625,407.99
HOMINY	30,631.39	99,422.63	-	64,921.60	-	100,852.46	121,435.80	521,182.49	7,157.64	161,020.08	244,799.53	27,249.54	-	1,378,673.16
HOMINY CMO	3,262.86	1,251.15	-	7,330.41	-	-	7,578.90	-	-	1,723.56	-	-	-	21,146.88
INOLA	-	-	-	-	-	-	-	75,995.51	-	-	44.90	3,700.00	-	79,740.41
JAY	23,332.68	32,677.48	-	10,920.20	-	7,791.91	54,292.18	546,856.00	23,792.15	75,792.86	262,003.25	77,083.34	-	1,114,542.05
JENKS	75,009.38	67,448.77	10,536.28	46,858.75	57,017.89	100,037.54	139,120.30	1,735,733.53	8,021.16	35,888.21	496,789.84	-	-	2,772,461.65
JONES CITY AND JONES PWA	-	-	-	16,867.19	-	-	18,081.82	97,492.19	-	11,529.67	47,676.67	37,360.70	-	229,008.24
KAW CITY	-	-	-	-	-	-	-	22,894.60	-	-	1,019.63	-	-	23,914.23
KONAWA AND KPWA	-	-	-	-	-	-	-	36,198.68	-	-	17,046.51	67.26	-	53,312.45
LAHOMA	1,514.58	6,441.61	-	-	-	4,430.89	4,586.83	110,356.61	3,942.33	1.27	0.13	-	-	131,274.25
LAWTON	5,657.73	1,204.13	18.01	20,825.64	-	5,634.32	25,905.15	1,596,537.89	-	7,080.99	94,292.56	-	-	1,757,156.42
LAWTON CMO	-	-	-	-	-	-	-	67,886.78	-	-	-	-	-	67,886.78
LEHIGH	-	-	-	-	-	-	-	1,576.01	-	-	-	-	-	1,576.01
LINDSAY & LPWA	1,787.02	919.44	19.23	2,822.29	-	-	3,841.78	177,099.63	-	1,104.97	5,197.38	3,673.97	-	196,465.71
LINDSAY AND LPWA CMO	-	-	-	-	-	-	-	60,701.63	-	-	-	-	-	60,701.63
LONE GROVE	3,630.76	3,712.80	349.92	10,901.16	-	29,006.98	13,049.47	275,860.74	3,171.34	7,340.06	194,589.28	25,216.02	-	566,828.53
LONE GROVE CMO	-	-	-	-	-	-	-	62,841.09	-	-	-	23,407.90	-	86,248.99

**OKLAHOMA MUNICIPAL REITREMENT FUND**  
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PLAN NAME	INTERNATIONAL INVESTMENT EQUITY	AGGRESSIVE EQUITY	REAL ASSETS FUND	GLOBAL EQUITY	ESG US STOCK FUND	GROWTH & VALUE EQUITY	S&P 500 INDEX FUND	TARGET DATE FUNDS*	TOTAL YIELD BOND	BOND INDEX FUND	VOYA FIXED PLUS III	LOAN FUND	SELF DIRECTED BROKER	GRAND TOTAL
LUTHER	-	-	-	-	-	-	-	9,285.30	-	-	-	-	-	9,285.30
MANGUM UTILITIES AUTH CMO	-	-	-	54,569.52	69,390.44	39,127.48	42,751.62	329.77	56,729.94	81,351.97	-	-	-	344,250.74
MANNFORD CMO CM	-	-	-	-	-	-	-	735,767.42	-	-	-	-	-	735,767.42
MANNFORD CMO DH	-	-	-	-	-	-	-	383,701.53	-	-	-	-	-	383,701.53
MANNFORD CMO SI	-	-	-	-	-	-	-	19,699.63	-	-	-	-	-	19,699.63
MANNSVILLE	-	-	-	-	-	-	-	74,495.26	-	-	1,264.85	7,352.38	-	83,112.49
MARLOW	16,078.32	109,160.89	499.18	50,118.47	655.29	58,999.10	132,648.09	1,433,714.82	22,924.12	90,631.37	106,293.09	75,063.41	-	2,096,786.15
MARLOW CMO	22,875.22	-	-	41,538.31	-	-	92,778.27	-	-	9,863.48	69,763.13	-	-	236,818.41
MAYSVILLE	1,491.40	492.94	-	-	-	1,721.50	102.73	90,121.30	-	660.22	262.89	-	-	94,852.98
MCALESTER	30,043.22	30,003.06	180.52	9,597.74	-	13,194.70	78,984.62	1,084,864.18	25,386.29	7,832.88	54,480.62	-	-	1,334,567.83
MCALESTER CMO	-	-	-	-	-	-	-	3,786.06	-	-	-	-	-	3,786.06
MCCLOUD CMO	-	-	-	-	-	-	-	70,707.50	-	-	-	-	-	70,707.50
MCCURTAIN	-	-	-	-	-	-	-	1,061.79	-	-	-	-	-	1,061.79
MSCA	-	159.29	-	-	-	-	-	4,701.40	-	-	-	-	-	4,860.69
MEEKER CMO	-	-	-	-	-	-	-	18,489.00	-	-	19.15	-	-	18,508.15
MIDWEST CITY	783,751.01	1,817,802.42	32,256.27	1,419,273.95	195,968.14	2,053,078.20	4,154,091.86	28,035,824.20	1,419,294.55	1,513,493.47	10,475,201.87	859,573.09	-	52,759,609.03
MOORELAND CMO	-	-	-	-	-	-	-	27,832.00	-	-	-	4,710.09	-	32,542.09
MORRIS AND MORRIS PWA	-	-	-	-	-	-	-	65,194.83	-	-	42.33	-	-	65,237.16
MOUNDS	-	-	-	3,884.31	-	-	4,073.90	36,336.33	-	-	-	1,485.52	-	45,780.06
MUSKOGEE	800,151.29	1,148,544.95	73,672.15	754,124.18	157,782.13	1,697,435.27	1,531,422.86	11,520,719.76	283,789.87	1,437,429.09	3,234,751.59	799,042.76	17,418.18	23,456,284.08
MUSKOGEE CMO	2,105.19	3,790.61	-	-	-	133,595.93	136,678.33	196,212.36	-	-	-	-	-	472,382.42
MUSKOGEE REDEVELOPMENT AUTH	-	-	-	-	-	-	-	27,748.27	-	-	1,244.67	2,200.00	-	31,192.94
MUSKOGEE TOURISM AUTHORITY	-	-	-	-	-	-	-	647.38	-	-	2,029.02	-	-	2,676.40
MUSTANG	-	2,085.51	-	-	3,776.35	-	1,045.34	92,911.86	-	-	-	-	-	99,819.06
NEW PRUE	-	-	-	-	-	-	-	13,796.40	-	-	462.11	-	-	14,258.51
NEWKIRK	6,884.97	28,090.64	-	-	-	15,184.84	76,785.41	271,321.74	20,378.23	14,977.93	13,518.00	8,408.27	-	455,550.03
NEWKIRK CMO	3,663.63	7,853.08	7,821.91	-	-	7,734.89	11,819.57	26,366.28	16,370.55	15,985.85	-	-	-	97,615.76
NICOMA PARK	-	-	-	-	-	-	-	786,397.15	-	-	-	17,500.89	-	803,898.04
NOBLE CMO	-	42,160.62	-	-	-	-	-	-	-	-	209,581.37	-	-	251,741.99
OAKLAND	-	-	-	-	-	-	-	62,166.78	-	-	1,524.78	33,097.59	-	96,789.15
OK MUN ASSURANCE GROUP	55,599.66	95,496.05	-	108,088.28	68,383.86	169,004.21	273,949.32	4,511,540.74	138,372.23	469,072.16	3,882,446.72	54,506.55	34,613.21	9,861,072.99
OK MUN MANAGEMENT SERV	-	-	-	-	-	-	-	90,133.69	-	-	-	-	-	90,133.69
OK MUN UTILITY SERV AUTH	-	5,372.79	-	-	-	-	7,334.53	602,158.49	-	-	22,544.18	17,329.22	-	654,739.21
OKEENE CMO	1,432.42	1,494.06	-	-	-	1,715.81	1,172.90	5,370.48	677.48	632.39	705.21	-	-	13,200.75
OKEMAH CMO	-	-	-	-	-	-	-	20,260.40	-	-	-	-	-	20,260.40
OKMRF CMO PLAN	-	228,356.46	-	-	-	410,961.12	-	6,023.37	221,581.04	-	-	-	-	866,921.99
OKMULGEE	105,453.27	447,468.38	-	98,688.62	8,854.26	419,357.78	792,741.63	1,485,062.95	58,682.72	142,985.60	416,215.95	-	-	3,975,511.16
OKMULGEE CMO	11,426.01	15,808.79	-	-	-	-	74,623.27	59,875.20	10,532.91	4,892.19	5,491.20	-	-	182,649.57
OMAG CEO	-	-	-	-	-	-	-	15,633.83	-	-	-	-	-	15,633.83
OMMS	-	-	-	-	-	-	-	15,740.63	-	-	785.72	-	-	16,526.35
OMUSA CMO	-	-	-	-	-	-	-	266,943.23	-	-	-	-	-	266,943.23
OMUSA CMO AGM	-	-	-	-	-	-	-	8,889.18	-	-	-	-	-	8,889.18
OLUSTEE	-	-	-	-	-	-	-	57,203.33	-	-	-	-	-	57,203.33
OWASSO	269,503.26	295,414.66	82,586.80	201,633.34	20,436.27	589,899.00	586,910.72	4,881,225.05	49,653.86	356,874.28	375,790.68	255,567.33	-	7,965,495.25
PAULS VALLEY	55,937.89	141,023.92	-	12,105.11	-	32,558.93	373,570.16	938,972.65	4,553.88	128,826.74	95,139.35	83,915.82	-	1,866,604.45
PAULS VALLEY CMO	-	-	-	-	-	-	38,510.73	6,833.09	-	-	255,630.49	3,570.81	-	304,545.12
PAWHUSKA	68,645.25	77,842.53	64,969.37	9,659.90	-	58,466.55	309,531.60	1,235,368.19	53,558.05	28,628.21	142,687.47	83,375.58	-	2,132,732.70
PERKINS CMO	19,126.22	-	-	47,375.91	-	12,640.45	47,998.50	-	-	12,181.16	-	-	-	139,322.24
PIEDMONT	33,067.84	44,452.53	4,854.69	13,961.63	15.03	57,377.36	80,985.30	247,970.00	37,488.44	22,737.60	47,851.54	-	-	590,761.96
PIEDMONT CMO	-	-	-	-	-	56,746.63	58,200.69	2,696.81	-	-	-	-	-	117,644.13
POCOLA	1,016.03	4,052.82	-	-	-	2,456.54	322.11	227,199.66	-	227.95	4,000.64	28,449.29	-	267,725.04
POCOLA P-T	-	-	-	-	-	-	-	5,858.39	-	-	-	-	-	5,858.39
PORUM	21,061.40	25,404.66	-	-	-	5,686.38	564,086.92	33,607.30	15,864.66	12,299.83	78,121.79	37,615.80	-	793,748.74
PRAGUE	8,172.34	12,137.61	206.16	22,251.34	-	21,618.40	27,915.58	464,012.91	17,085.39	11,764.14	140,848.58	124,157.30	-	850,169.75
PRAGUE CMO	-	-	-	-	-	-	-	119,693.12	-	-	-	-	-	119,693.12
PRAIRIE POINTE AT STROUD	-	-	-	-	-	-	-	19,447.71	-	-	-	-	-	19,447.71



**OKLAHOMA MUNICIPAL REITREMENT FUND**  
**DEFINED CONTRIBUTION**  
**October 31, 2022**

PLAN NAME	INTERNATIONAL INVESTMENT EQUITY	AGGRESSIVE EQUITY	REAL ASSETS FUND	GLOBAL EQUITY	ESG US STOCK FUND	GROWTH & VALUE EQUITY	S&P 500 INDEX FUND	TARGET DATE FUNDS*	TOTAL YIELD BOND	BOND INDEX FUND	VOYA FIXED PLUS III	LOAN FUND	SELF DIRECTED BROKER	GRAND TOTAL
RINGWOOD	-	-	-	-	-	-	-	68,545.03	-	-	-	-	-	68,545.03
ROFF AND ROFF PWA	-	-	-	-	-	-	-	45,095.33	-	-	-	1,845.05	-	46,940.38
ROLAND	425.36	572.58	-	1,381.63	-	199.81	1,411.02	8,993.12	-	-	-	-	-	12,983.52
SALINA	-	-	-	-	-	-	-	15,407.49	-	-	477.17	-	-	15,884.66
SAND SPRINGS	307,839.03	838,013.61	37,818.62	270,093.36	14,950.17	646,171.30	1,375,291.79	7,848,798.85	301,832.20	470,775.53	2,056,515.40	294,381.02	-	14,462,480.88
SAND SPRINGS CMO	17,925.01	11,313.82	7,410.86	-	7,302.07	18,308.78	-	-	7,139.95	-	259,137.99	-	-	328,538.48
SAPULPA	202,854.89	370,405.36	-	11,892.41	-	353,058.82	482,459.66	1,705,824.71	14,577.55	261,169.19	320,785.84	-	-	3,723,028.43
SAPULPA CMO	-	-	-	-	-	-	-	154,222.61	-	-	-	-	-	154,222.61
SAPULPA CMO-SI CA	-	-	-	-	-	-	-	26,812.27	-	-	-	-	-	26,812.27
SAVANNA	-	-	-	-	-	-	-	48,715.01	-	-	3,023.38	-	-	51,738.39
SAYRE	7,465.72	32,482.60	-	-	-	21,426.66	16,352.93	492,428.19	833.94	12,161.76	575,070.75	-	-	1,158,222.55
SAYRE CMO	-	-	-	-	-	-	-	-	-	-	385,690.49	-	-	385,690.49
SEILING	3,845.67	6,364.10	-	1,863.64	-	542.23	8,812.22	83,974.82	-	614.00	2,938.48	-	-	108,955.16
SEILING CMO	5,730.89	5,179.36	-	-	-	8,693.01	15,121.98	58,285.08	3,261.35	4,525.20	-	-	-	100,796.87
SEMINOLE	28,462.64	192,110.78	-	8,885.53	1,264.64	4,451.23	383,042.55	1,647,152.48	32.29	14,259.50	598,928.07	113,433.93	-	2,992,023.64
SEMINOLE CMO	-	-	-	-	-	-	-	177,142.26	-	665,111.76	23,440.52	20,642.09	-	886,336.63
SHAWNEE	109,502.99	522,647.08	-	2,608.85	-	351,521.44	287,286.67	1,915,384.48	25,707.49	141,835.75	178,342.23	147,659.83	-	3,682,496.81
SHAWNEE CMO DH	80,934.40	207,059.35	-	51,354.63	-	181,944.01	367,839.27	745,411.45	18,950.57	87,752.52	36,495.92	13,323.27	-	1,791,065.39
SHAWNEE CMO SI	6,062.87	8,344.65	-	-	-	16,287.55	16,649.89	76,505.07	-	-	-	-	-	123,850.03
SHAWNEE NEW HIRE	9,994.82	19,022.32	844.17	30,180.52	1,104.05	46,808.66	89,705.92	1,173,388.39	3,915.91	14,484.69	17,055.09	99,120.35	-	1,505,624.89
SKIATOOK	52,790.30	148,068.30	-	4,149.18	-	229,434.26	326,589.13	964,096.44	5,484.84	134,783.78	1,261,563.16	113,756.90	-	3,240,716.29
SKIATOOK CMO	-	-	-	-	-	-	-	180,549.81	-	-	-	-	-	180,549.81
SLAUGHTERVILLE	1,310.63	444.23	-	2,980.26	-	-	2,835.95	111,872.83	-	949.94	98,181.05	-	-	218,574.89
SNYDER	-	-	-	-	-	-	-	94,952.27	-	-	10,193.49	4,868.18	-	110,013.94
SPAVINAW	-	-	-	-	-	-	-	2,095.52	-	-	-	-	-	2,095.52
STILLWATER	1,366,719.00	3,292,757.82	136,414.73	2,201,014.40	83,942.79	4,666,292.98	6,055,420.79	22,587,114.73	561,413.89	3,180,190.70	5,239,503.92	921,736.81	166,902.81	50,459,425.37
STILLWATER CMO	-	-	-	70,466.86	-	-	45,304.96	173,518.13	-	100,348.07	79,861.78	-	-	469,499.80
STRINGTOWN	3,748.39	6,718.41	-	-	-	19,197.02	-	13,379.76	-	-	75,961.96	2,961.04	-	121,966.58
STROUD	11,021.32	49,435.15	12,270.32	13,686.13	551.25	36,942.71	81,878.70	548,452.96	17,730.20	5,366.84	78,421.47	48,877.86	-	904,634.91
STROUD CMO	-	-	-	-	-	-	-	257,066.09	-	-	-	-	-	257,066.09
SULPHUR CMO	-	-	-	-	-	-	-	124,041.04	-	-	-	-	-	124,041.04
TECUMSEH	20,434.64	15,728.08	-	-	-	290,531.03	50,990.00	1,004,937.10	62,833.66	90,291.80	238,380.20	101,878.70	-	1,876,005.21
TECUMSEH CMO	-	-	-	-	-	-	-	197,822.01	-	-	19,359.64	-	-	217,181.65
TERRAL	-	-	-	-	-	-	-	16,536.80	-	-	-	11,062.29	-	27,599.09
TEXHOMA AND PWA	14,268.11	465.81	-	68,678.55	-	1,158.93	56,722.80	435,372.21	336.42	49,738.95	52,083.22	26,271.69	-	705,096.69
THACKERVILLE	-	-	-	-	-	-	2,145.00	45,018.17	-	734.93	64.57	-	-	47,962.67
TISHOMINGO	387.70	16,998.89	-	-	-	-	42,374.74	1,016.23	-	-	131.66	-	-	60,909.22
TISHOMINGO CMO	-	-	-	34,568.06	-	-	28,346.26	41,544.44	-	24,402.05	20,415.63	-	-	149,276.44
TONKAWA CMO	-	-	-	-	-	-	-	75,507.84	-	-	-	-	-	75,507.84
TYRONE AND TPWA	-	-	-	-	-	-	-	-	-	-	88.33	-	-	88.33
UNION CITY	-	-	-	-	-	-	-	87,758.46	-	-	1,348.75	-	-	89,107.21
VALLEY BROOK	19,202.04	135,623.94	-	-	-	132,006.62	135,018.33	131,641.50	-	-	851.31	62,566.49	-	616,910.23
VALLEY BROOK NEW HIRE	-	-	-	-	-	-	-	61,160.40	-	-	6,738.69	-	-	67,899.09
VERDIGRIS	28,688.58	32,543.32	-	-	-	28,592.17	16,519.21	120,519.82	-	2,073.23	-	1,439.81	-	230,376.14
VERDEN	-	-	-	-	-	-	-	1,446.62	-	-	-	-	-	1,446.62
WALTERS	651.99	-	-	-	-	117,399.65	154,008.00	441,592.62	-	61,864.61	33,610.16	35,203.74	-	844,330.77
WALTERS CMO	-	-	-	-	-	-	-	26,280.16	-	-	-	-	-	26,280.16
WARNER	4,491.31	-	-	-	-	-	-	126,971.86	-	-	52,957.39	40,527.06	-	224,947.62
WARR ACRES	48,796.50	69,053.15	15,730.62	18,707.16	921.91	35,396.62	283,203.97	527,194.99	41,118.52	94,034.50	242,942.37	76,856.67	-	1,453,956.98
WAURIKA CMO	-	-	-	-	-	-	-	692.41	-	-	-	-	-	692.41
WAYNOKA	4,666.15	7,935.63	-	-	-	18,065.13	9,121.24	504,209.38	-	-	116.53	3,060.51	-	547,174.57
WAYNOKA CMO	-	-	-	-	-	-	-	25,006.93	-	-	-	-	-	25,006.93
WAYNOKA MENTAL HEALTH AU	-	-	-	-	-	-	-	15,776.75	-	-	-	-	-	15,776.75
WEATHERFORD	111,101.21	35,845.85	51,470.09	229,608.02	22,886.06	49,153.19	264,742.30	3,008,129.37	86,034.83	67,610.92	1,254,668.07	-	-	5,181,249.91
WELEETKA	12.38	1,513.77	-	-	-	514.55	145.35	2,514.97	-	5.68	11,047.70	-	-	15,754.40
WEST SILOAM SPRINGS	-	-	-	-	-	-	-	234,990.85	-	-	6,425.12	53,731.68	-	295,147.65

**OKLAHOMA MUNICIPAL REITREMENT FUND**  
**DEFINED CONTRIBUTION**  
**October 31, 2022**

PLAN NAME	INTERNATIONAL INVESTMENT EQUITY	AGGRESSIVE EQUITY	REAL ASSETS FUND	GLOBAL EQUITY	ESG US STOCK FUND	GROWTH & VALUE EQUITY	S&P 500 INDEX FUND	TARGET DATE FUNDS*	TOTAL YIELD BOND	BOND INDEX FUND	VOYA FIXED PLUS III	LOAN FUND	SELF DIRECTED BROKER	GRAND TOTAL
WESTVILLE	-	265.69	-	-	-	313.57	-	-	-	87.55	1,803.09	-	-	2,469.90
WOODWARD	21,543.34	86,727.96	-	-	594.40	41,664.14	138,387.21	2,082,993.03	9,774.01	1,601.61	14,864.76	-	-	2,398,150.46
WOODWARD CMO	-	-	-	-	-	-	-	92,097.13	-	-	-	-	-	92,097.13
YALE CMO	-	-	-	-	-	-	-	18.02	-	-	-	-	-	18.02
YUKON CMO	-	-	-	-	-	-	-	28,960.73	-	-	-	-	-	28,960.73
YUKON DC NEW HIRE	27,969.96	47,775.16	10,205.93	74,774.49	-	104,622.66	278,094.19	2,328,947.14	17,678.76	40,546.49	213,653.49	-	0.05	3,144,268.32
Grand Total	7,046,708.05	16,385,220.25	910,490.42	9,668,716.17	1,287,950.78	20,801,498.37	32,457,482.57	182,800,445.48	5,174,053.50	13,606,237.92	54,590,829.06	7,426,454.35	254,374.77	352,410,461.69

**\*TARGET DATE FUNDS**

TARGET DATE 2065	158,502.66
TARGET DATE 2060	6,172,840.52
TARGET DATE 2055	6,741,719.49
TARGET DATE 2050	10,880,667.03
TARGET DATE 2045	13,902,421.33
TARGET DATE 2040	17,785,617.87
TARGET DATE 2035	23,632,976.77
TARGET DATE 2030	26,569,655.09
TARGET DATE 2025	35,415,467.92
TARGET DATE 2020	22,930,480.92
TARGET DATE RETIREMENT	18,610,095.88
	<u>182,800,445.48</u>

**OKLAHOMA MUNICIPAL RETIREMENT FUND**  
**Monthly Budget Activity**  
**Nov-22**

	CURRENT MONTH		ACTUAL YEAR-TO-DATE		Y-T-D BUDGETED	PROJECTED
	TRANSFERRED	PAID	TRANSFERRED	PAID	AMOUNT	F-Y BUDGET
<b>Actuary &amp; Recordkeeping</b>	41,727.06	41,727.06	209,532.44	209,532.44	257,106.25	617,055.00
<b>Administration</b>	107,374.06	107,374.06	579,416.66	579,416.66	567,083.33	1,361,000.00
<b>Attorney</b>	3,750.00	3,750.00	20,776.50	20,776.50	30,208.33	72,500.00
<b>Audit</b>	5,291.67	0.00	26,458.34	5,000.00	26,458.33	63,500.00
<b>Board Travel</b>	1,450.01	1,450.01	14,906.07	14,906.07	23,583.33	56,600.00
<b>Employer Directed Expense</b>	0.00	0.00	3,987.00	3,987.00	10,416.67	25,000.00
<b>Insurance</b>	15,766.17	0.00	77,943.81	39,307.20	75,125.00	180,300.00
<b>Investment Advisors</b>	30,478.61	0.00	218,488.03	277,829.46	301,090.00	722,616.00
<b>Custodial</b>	11,730.26	11,730.26	51,240.33	51,240.33	65,625.00	157,500.00
<b>Investment Consultant</b>	12,811.50	0.00	64,057.50	38,434.50	64,057.50	153,738.00
<b>Public Relations</b>	0.00	0.00	14,013.95	14,013.95	12,125.00	29,100.00
<b>Representative Travel</b>	3,328.63	3,328.63	14,676.92	14,676.92	20,458.33	49,100.00
<b>EXPENSES BEFORE CREDITS</b>	233,707.97	169,360.02	1,295,497.55	1,269,121.03	1,453,337.06	3,488,009.00
<b>Less: Credits</b>	(11,622.23)	(11,622.23)	(70,473.93)	(70,473.93)	(67,083.33)	(161,000.00)
<b>TOTAL EXPENSES</b>	222,085.74	157,737.79	1,225,023.62	1,198,647.10	1,386,253.73	3,327,009.00

**OKLAHOMA MUNICIPAL RETIREMENT FUND**  
*Income Transfers for Monthly & Prepaid Expenses*  
*Paid in November 2022 based on October 31, 2022 Asset Values*

<b>ASSET ACCOUNT</b>	<b>ADMIN EXPENSES</b>	<b>CUSTODIAL CHARGES</b>	<b>INVESTMENT CHARGES</b>	<b>TOTAL INVESTMENT EXP</b>	<b>TOTAL EXPENSES</b>
DB - SMID EQUITY 447 1596	\$5,463.55	\$334.18	\$0.00	334.18	\$5,797.73
DB ST STR S&P 500 FLAGSHIP FUND 447 1541	\$27,493.30	\$1,848.27	\$0.00	1,848.27	\$29,341.57
DB RIVER ROAD ASSETS 447 1539	\$5,747.67	\$1,227.24	\$24,540.11	25,767.35	\$31,515.02
DB TIMESSQUARE SMID - G 447 1540	\$0.52	\$1,563.50	\$0.00	1,563.50	\$1,564.02
DB LONG/SHORT EQUITY FUND 447 1543	\$9,557.83	\$1,584.60	\$5,938.50	7,523.10	\$17,080.93
DB INTERNATIONAL EQUITY 447 1542	\$24,278.21	\$1,921.62	\$0.00	1,921.62	\$26,199.83
DB FIXED INCOME 447 1555	\$23,016.48	\$1,781.12	\$0.00	1,781.12	\$24,797.60
DB REAL ESTATE 447 1557	\$15,012.43	\$1,251.55	\$0.00	1,251.55	\$16,263.98
DB MISCELLANEOUS 447 1558	\$658.40	\$165.26	\$0.00	165.26	\$823.66
DC VOYA Various	\$68,648.48	\$52.92	\$0.00	52.92	\$68,701.40
<b>TOTAL TRANSFERS</b>	<b>\$179,876.87</b>	<b>\$11,730.26</b>	<b>\$30,478.61</b>	<b>\$42,208.87</b>	<b>\$222,085.74</b>

<p align="center"><b>OKLAHOMA MUNICIPAL RETIREMENT FUND</b></p> <p align="center"><b>Administrative/Expense Accounts Reconciliations</b></p> <p align="center"><b>as of October 31, 2022</b></p>
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**CHECKING ACCOUNT**

Balance as of September 30, 2022	\$5.00
<b>Deposits:</b>	
DB Fees Transferred From Administrative Account	\$165,407.49
DC Fees Transferred From Administrative Account	\$57,414.40
<b>Payment of Fees and Expenses:</b>	
Transfer (In)/Out of Prepaid Expenses	\$117,239.64
Administrative, Custodial and Investment fees paid in current month	<u>(\$340,061.53)</u>
Balance as of October 31, 2022	<u><u>\$5.00</u></u>

**ADMINISTRATIVE RESERVE ACCOUNT**

**Administrative Activity**

Beginning Balance	\$108,512.30
Professional fees paid directly to Trust	\$0.00
Transfer from DB Deposit Account:	
Professional Fees Reimbursement	\$0.00
Interest	\$1,622.23
Transfer from Investment Accounts	
Administrative Expenses	\$114,171.47
Investment Expenses	\$43,087.25
Accrued Interest Earned in Admin. Account	\$1,991.91
Refund of OPFTEC registration - Dunham	\$250.00
Intech & TimesSquare Class action	\$5,982.83
Reimbursement of IRS Filing fees	\$4,000.00
Transfers to Checking Account for Expenses	<u>(\$165,407.49)</u>
Ending Balance	<u><u>\$114,210.50</u></u>

**Prepaid Expenses**

Beginning Balance	\$188,758.46
Transfer In/(Out) of Prepaid Expenses	<u>(\$117,239.64)</u>
Ending Balance	<u><u>\$71,518.82</u></u>

**Reserve Account**

Beginning Balance	\$676,544.34
Sigma Asset from JPMorgan Sec Lending (cost \$193,054.54)	\$0.00
Commission Recapture	\$11,813.23
JPMorgan DC Uncashed checks	\$0.00
DC Administrative Expense/Errors	
DC Fees Collected (VOYA)	\$82,460.96
DC Recordkeeping Expenses (VOYA)	(\$24,997.02)
DC Fees Transferred to Checking Account for Expenses	(\$57,414.40)
DC Misc	\$0.00
DC Class Action Proceeds from JPM	<u>\$2,579.66</u>
Ending Balance	<u><u>\$690,986.77</u></u>

Balance as of October 31, 2022	<u><u>\$876,716.09</u></u>
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**RESERVE FUNDING ANALYSIS:**

Reserve Funding Available	\$690,986.77
Sigma Asset from JPMorgan Sec Lending	(\$165.53)
Insurance Deductible Funding	(\$150,000.00)
DC Administrative Expense/Errors	(\$223,101.61)
JPMorgan DC Uncashed checks	(\$7,107.40)
Net Surplus as of October 31, 2022	<u><u>\$310,612.23</u></u>

# Register Report - Current Month

11/1/2022 through 11/30/2022

11/16/2022

Page 1

Date	Description	Memo	Amount
<b>BALANCE 10/31/2022</b>			<b>5.00</b>
11/18/2022	DEAN ACTUARIES, LLC	DB Annual Studies	-13,348.00
		Server	-915.00
		Retainer	-1,159.00
		DB Misc	-428.00
11/18/2022	DAVID DAVIS	Retainer	-2,000.00
11/18/2022	McAFEE & TAFT	Retainer	-1,750.00
11/18/2022	OK Police Pension & Retirement Syste...	Dec 2022 Rent 7560.98 Parking 300	-7,860.98
11/18/2022	Tammy Johnson	Bd Mtg Travel Exp	-61.25
11/18/2022	Robert Johnston	Bd Mtg Travel Exp	-117.50
		Bd Addtl Trvl	-216.71
11/18/2022	Robert Park	Bd Mtg Trvl Exp	-210.00
11/18/2022	Hollis Tinker	Bd Mtg Trvl Exp	-145.60
11/18/2022	DONNA DOOLEN	Bd Mrg Trvl Exp	-118.75
11/18/2022	Shaun Barnett	Bd Mtg Trvl Exp	-183.75
11/18/2022	Timothy Rooney	Bd Mtg Trvl Exp	-32.50
11/18/2022	JIM LUCKETT Jr	Bd Mtg Trvl Exp	-42.50
11/18/2022	JODI COX	Rep Trvl - Mileage	-17.50
		Phone/Internet	-42.49
11/18/2022	CHRIS WHATLEY	Rep Trvl - Mileage	-325.63
		Rep Trvl - Conf	-145.00
11/18/2022	Katie Girardi	Rep Trvl - Mileage	-144.38
		Rep Trvl - Conf	-325.00
11/18/2022	Gloria Cudjoe	Rep Trvl - Mileage	-60.00
		Bd Mtg Exp	-74.86
11/18/2022	OMRF Payroll Acct	Prefund future payrolls	-92,300.00
11/18/2022	CHASE CARD SERVICES	Supplies	-324.32
		Bd Mtg	-54.86
		Rep Trvl - Conf	-369.26
		Phone/Internet	-1,150.24
		Rep Exp/Dues	-1,361.86
		Tr/Addtl Trvl	-191.73
		Postage	-454.99
		Office Sp/Equip	-685.00
11/18/2022	Cox Communications Inc	Services as of 11-15-22	-2,530.12
11/18/2022	JPMORGAN CHASE BANK, NA	Acct Analysis - Oct 2022	-107.83
11/18/2022	The Northern Trust Company	Custodial Serv Sep 2022 Inv# 97316951352	-11,622.43
11/18/2022	NCPERS	Annual membership renewal Inv #13513	-580.00
11/18/2022	STANDLEY SYSTEMS	Copier #2 usage 8/1/22-10-31/22 Inv #1430...	-285.92
11/18/2022	3Nines Technologies, Inc	Serv Agmt 12-2022 Inv #C165647	-1,740.00
11/18/2022	Deposit	Net Deposit	143,482.96
<b>11/1/2022 - 11/30/2022</b>			<b>0.00</b>
<b>BALANCE 11/30/2022</b>			<b>5.00</b>

## Oklahoma Municipal Retirement Fund - Defined Benefit Plan

For the Periods Ending October 31, 2022

Risk / Return (10 Years Annualized)



Return Statistics (10 Years Annualized)

	Total Portfolio	Policy Index
Return (%)	7.44	7.17
Standard Deviation (%)	9.32	9.57
Sharpe Ratio	0.73	0.68

Benchmark Relative Statistics

Beta	0.96
Up Capture (%)	97.43
Down Capture (%)	94.20

Asset Class	Market Value (\$000s)	Actual Allocation (%)	Target Allocation (%)	Over/Under (%)
<b>Total Portfolio</b>	<b>636,165</b>	<b>100.00</b>	<b>100.00</b>	
<b>Equity</b>	<b>409,376</b>	<b>64.35</b>	<b>65.00</b>	<b>-0.65</b>
US Equity	219,305	34.47	35.00	-0.53
US Large Cap Equity	155,779	24.49	25.00	-0.51
US Small/Mid Cap Equity	63,526	9.99	10.00	-0.01
Non US Equity	137,574	21.63	25.00	-3.37
Int'l Developed Markets Equity	117,192	18.42	20.00	-1.58
Emerging Markets Equity	20,382	3.20	5.00	-1.80
Global Long/Short Equity	52,497	8.25	0.00	8.25
Private Equity	0	0.00	5.00	-5.00
<b>Fixed Income</b>	<b>130,416</b>	<b>20.50</b>	<b>20.00</b>	<b>0.50</b>
<b>Real Assets</b>	<b>84,924</b>	<b>13.35</b>	<b>15.00</b>	<b>-1.65</b>
<b>Cash and Equivalents</b>	<b>11,448</b>	<b>1.80</b>	<b>0.00</b>	<b>1.80</b>



# Oklahoma Municipal Retirement Fund - Defined Benefit Plan

For the Periods Ending October 31, 2022

	Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>OMRF Total Portfolio</b>	<b>988,474</b>		--	--	--	--	--	--	--	--
<b>Total Portfolio (04/91)</b>	<b>636,165</b>	<b>100.00</b>	<b>3.70</b>	<b>-0.53</b>	<b>-15.99</b>	<b>-14.87</b>	<b>4.73</b>	<b>5.35</b>	<b>6.63</b>	<b>7.44</b>
<b>Net of All Fees *</b>			<b>3.64</b>	<b>-0.77</b>	<b>-16.46</b>	<b>-15.43</b>	<b>4.07</b>	<b>4.68</b>	<b>5.95</b>	<b>6.75</b>
<i>Policy Index <sup>1</sup></i>			3.98	-1.76	-16.92	-15.49	3.91	4.78	6.12	7.17
<b>Equity (10/10)</b>	<b>409,376</b>	<b>64.35</b>	<b>6.26</b>	<b>0.65</b>	<b>-20.21</b>	<b>-19.11</b>	<b>6.20</b>	<b>6.56</b>	<b>8.28</b>	<b>9.33</b>
<b>Net of All Fees *</b>			<b>6.23</b>	<b>0.52</b>	<b>-20.48</b>	<b>-19.44</b>	<b>5.77</b>	<b>6.10</b>	<b>7.79</b>	<b>8.85</b>
<i>MSCI ACWI</i>			6.06	-1.05	-20.81	-19.58	5.34	5.76	7.71	8.54
<b>US Equity (06/00)</b>	<b>219,305</b>	<b>34.47</b>	<b>8.20</b>	<b>4.04</b>	<b>-16.63</b>	<b>-13.99</b>	<b>10.02</b>	<b>10.09</b>	<b>11.05</b>	<b>12.25</b>
<b>Net of All Fees *</b>			<b>8.18</b>	<b>3.95</b>	<b>-16.81</b>	<b>-14.21</b>	<b>9.73</b>	<b>9.78</b>	<b>10.72</b>	<b>11.91</b>
<i>Russell 3000</i>			8.20	3.37	-18.44	-16.52	9.79	9.87	10.94	12.46
<b>US Large Cap Equity</b>										
<b>SSgA S&amp;P 500 Non-Lending (02/10)</b>	<b>155,779</b>	<b>24.49</b>	<b>8.10</b>	<b>2.82</b>	<b>-17.70</b>	<b>-14.61</b>	<b>10.20</b>	<b>10.45</b>	<b>11.37</b>	<b>12.82</b>
<b>Net of Manager Fees *</b>			<b>8.10</b>	<b>2.82</b>	<b>-17.71</b>	<b>-14.62</b>	<b>10.18</b>	<b>10.42</b>	<b>11.35</b>	<b>12.79</b>
<i>S&amp;P 500</i>			8.10	2.82	-17.70	-14.61	10.22	10.44	11.35	12.79
<b>US Small/Mid Cap Equity</b>										
<b>River Road (V) (04/16)</b>	<b>32,589</b>	<b>5.12</b>	<b>12.39</b>	<b>9.54</b>	<b>-2.69</b>	<b>1.58</b>	<b>9.59</b>	<b>9.58</b>	--	--
<b>Net of Manager Fees *</b>			<b>12.35</b>	<b>9.27</b>	<b>-3.39</b>	<b>0.70</b>	<b>8.61</b>	<b>8.60</b>	--	--
<i>Russell 2000 Value</i>			12.59	7.40	-11.19	-10.73	8.08	5.31	8.41	9.37
<b>William Blair (G) (11/22)</b>	<b>30,937</b>	<b>4.86</b>	--	--	--	--	--	--	--	--
<b>Net of Manager Fees *</b>			--	--	--	--	--	--	--	--
<i>Russell 2500 Growth</i>			8.13	7.99	-23.81	-27.38	6.62	7.41	9.26	11.38

# Oklahoma Municipal Retirement Fund - Defined Benefit Plan

For the Periods Ending October 31, 2022

	Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>Non US Equity (06/00)</b>	<b>137,574</b>	<b>21.63</b>	<b>4.50</b>	<b>-4.93</b>	<b>-26.69</b>	<b>-26.74</b>	<b>1.79</b>	<b>2.41</b>	<b>5.68</b>	<b>6.17</b>
<b>Net of All Fees *</b>			<b>4.44</b>	<b>-5.16</b>	<b>-27.14</b>	<b>-27.28</b>	<b>1.02</b>	<b>1.62</b>	<b>4.85</b>	<b>5.38</b>
MSCI ACWI ex US			3.00	-7.09	-23.96	-24.35	-1.23	-0.13	3.16	3.75
<b>Artisan International Value (05/10)</b>	<b>43,011</b>	<b>6.76</b>	<b>6.69</b>	<b>-3.58</b>	<b>-15.80</b>	<b>-14.46</b>	<b>5.36</b>	<b>3.45</b>	<b>6.11</b>	<b>8.30</b>
<b>Net of Manager Fees *</b>			<b>6.60</b>	<b>-3.91</b>	<b>-16.51</b>	<b>-15.32</b>	<b>4.29</b>	<b>2.40</b>	<b>5.04</b>	<b>7.20</b>
MSCI EAFE			5.39	-4.41	-22.81	-22.62	-0.82	0.39	3.00	4.61
<b>Ninety One International Dynamic Fund (03/15)</b>	<b>38,025</b>	<b>5.98</b>	<b>3.69</b>	<b>-5.88</b>	<b>-26.74</b>	<b>-26.94</b>	<b>-0.05</b>	<b>0.67</b>	<b>3.61</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>3.68</b>	<b>-5.95</b>	<b>-26.91</b>	<b>-27.16</b>	<b>-0.38</b>	<b>0.33</b>	<b>3.22</b>	<b>--</b>
MSCI ACWI ex US			3.00	-7.09	-23.96	-24.35	-1.23	-0.13	3.16	3.75
<b>WCM Focused Int'l Growth (03/15)</b>	<b>36,155</b>	<b>5.68</b>	<b>5.62</b>	<b>-1.89</b>	<b>-32.56</b>	<b>-32.28</b>	<b>4.84</b>	<b>6.97</b>	<b>8.98</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>5.56</b>	<b>-2.11</b>	<b>-32.99</b>	<b>-32.79</b>	<b>4.12</b>	<b>6.23</b>	<b>8.23</b>	<b>--</b>
MSCI ACWI ex US			3.00	-7.09	-23.96	-24.35	-1.23	-0.13	3.16	3.75
<b>Harding Loevner EM (03/15)</b>	<b>20,382</b>	<b>3.20</b>	<b>-0.23</b>	<b>-10.80</b>	<b>-34.39</b>	<b>-36.44</b>	<b>-7.19</b>	<b>-4.26</b>	<b>1.89</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>-0.31</b>	<b>-11.10</b>	<b>-34.93</b>	<b>-37.07</b>	<b>-8.19</b>	<b>-5.31</b>	<b>0.75</b>	<b>--</b>
MSCI Emerging Markets			-3.09	-14.15	-29.15	-30.73	-4.07	-2.73	2.78	1.16
<b>Global Long/Short Equity (09/11)</b>	<b>52,497</b>	<b>8.25</b>	<b>3.11</b>	<b>1.99</b>	<b>-17.51</b>	<b>-19.30</b>	<b>2.91</b>	<b>3.22</b>	<b>4.11</b>	<b>4.92</b>
<b>Net of All Fees *</b>			<b>3.10</b>	<b>1.94</b>	<b>-17.59</b>	<b>-19.39</b>	<b>2.80</b>	<b>3.02</b>	<b>3.82</b>	<b>4.57</b>
MSCI ACWI			6.06	-1.05	-20.81	-19.58	5.34	5.76	7.71	8.54
HFRI FOF: Strategic			1.32	-0.21	-12.66	-14.24	3.22	2.14	2.87	3.47
<b>Fixed Income (06/03)</b>	<b>130,416</b>	<b>20.50</b>	<b>-0.93</b>	<b>-4.05</b>	<b>-11.98</b>	<b>-11.99</b>	<b>-1.11</b>	<b>1.07</b>	<b>1.96</b>	<b>2.10</b>
<b>Net of All Fees *</b>			<b>-0.96</b>	<b>-4.16</b>	<b>-12.22</b>	<b>-12.28</b>	<b>-1.41</b>	<b>0.77</b>	<b>1.68</b>	<b>1.85</b>
Bloomberg US Aggregate			-1.30	-5.99	-15.72	-15.68	-3.77	-0.54	0.35	0.74
<b>JP Morgan Fixed Income (06/91)</b>	<b>40,360</b>	<b>6.34</b>	<b>-1.44</b>	<b>-5.52</b>	<b>-14.48</b>	<b>-14.49</b>	<b>-2.77</b>	<b>0.26</b>	<b>1.08</b>	<b>1.40</b>
<b>Net of Manager Fees *</b>			<b>-1.45</b>	<b>-5.57</b>	<b>-14.59</b>	<b>-14.62</b>	<b>-2.92</b>	<b>0.11</b>	<b>0.93</b>	<b>1.25</b>
Bloomberg US Aggregate			-1.30	-5.99	-15.72	-15.68	-3.77	-0.54	0.35	0.74
<b>Amundi Pioneer Core Plus Bond Fund (11/11)</b>	<b>42,245</b>	<b>6.64</b>	<b>-1.36</b>	<b>-5.17</b>	<b>-14.96</b>	<b>-15.01</b>	<b>-1.43</b>	<b>0.73</b>	<b>2.04</b>	<b>2.29</b>
<b>Net of Manager Fees *</b>			<b>-1.38</b>	<b>-5.25</b>	<b>-15.13</b>	<b>-15.22</b>	<b>-1.68</b>	<b>0.48</b>	<b>1.79</b>	<b>2.04</b>
Bloomberg Universal			-1.10	-5.50	-15.83	-15.79	-3.57	-0.42	0.65	1.02
<b>BlackRock Strategic Income Opps (07/17)</b>	<b>47,812</b>	<b>7.52</b>	<b>-0.10</b>	<b>-1.74</b>	<b>-6.78</b>	<b>-6.78</b>	<b>1.14</b>	<b>2.22</b>	<b>--</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>-0.15</b>	<b>-1.92</b>	<b>-7.23</b>	<b>-7.31</b>	<b>0.57</b>	<b>1.64</b>	<b>--</b>	<b>--</b>
Bloomberg US Aggregate			-1.30	-5.99	-15.72	-15.68	-3.77	-0.54	0.35	0.74
US T-Bills 30 Day + 4.0%			0.56	2.03	4.18	4.87	4.55	5.14	4.94	4.66

# Oklahoma Municipal Retirement Fund - Defined Benefit Plan

For the Periods Ending October 31, 2022

	Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>Real Assets</b>										
<b>Real Estate (09/11)</b>	<b>84,924</b>	<b>13.35</b>	<b>-0.23</b>	<b>-1.14</b>	<b>9.74</b>	<b>17.46</b>	<b>11.71</b>	<b>9.92</b>	<b>9.78</b>	<b>11.47</b>
<b>Net of All Fees *</b>			<b>-0.31</b>	<b>-1.60</b>	<b>8.57</b>	<b>15.96</b>	<b>10.33</b>	<b>8.56</b>	<b>8.43</b>	<b>10.12</b>
<i>NCREIF Property</i>			<i>0.00</i>	<i>0.57</i>	<i>9.35</i>	<i>16.08</i>	<i>9.92</i>	<i>8.62</i>	<i>8.46</i>	<i>9.48</i>
<b>JP Morgan Special Situation Property (02/07)</b>	<b>24,940</b>	<b>3.92</b>	<b>-0.11</b>	<b>-3.52</b>	<b>6.59</b>	<b>14.41</b>	<b>11.63</b>	<b>10.63</b>	<b>10.72</b>	<b>12.89</b>
<b>Net of Manager Fees *</b>			<b>-0.27</b>	<b>-4.05</b>	<b>5.16</b>	<b>12.60</b>	<b>9.87</b>	<b>8.89</b>	<b>8.99</b>	<b>11.16</b>
<i>NFI ODCE Net</i>			<i>0.00</i>	<i>0.35</i>	<i>12.40</i>	<i>21.01</i>	<i>11.39</i>	<i>9.27</i>	<i>8.88</i>	<i>9.92</i>
<b>JP Morgan Strategic Property (05/07)</b>	<b>34,422</b>	<b>5.41</b>	<b>-0.47</b>	<b>-1.74</b>	<b>9.59</b>	<b>17.06</b>	<b>10.97</b>	<b>8.98</b>	<b>8.82</b>	<b>10.32</b>
<b>Net of Manager Fees *</b>			<b>-0.56</b>	<b>-2.06</b>	<b>8.69</b>	<b>15.90</b>	<b>9.87</b>	<b>7.90</b>	<b>7.73</b>	<b>9.23</b>
<i>NFI ODCE Net</i>			<i>0.00</i>	<i>0.35</i>	<i>12.40</i>	<i>21.01</i>	<i>11.39</i>	<i>9.27</i>	<i>8.88</i>	<i>9.92</i>
<b>Clarion Lion Industrial Trust (07/22)</b>	<b>25,563</b>	<b>4.02</b>	<b>0.00</b>	<b>5.25</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>0.00</b>	<b>4.50</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>NFI ODCE Net</i>			<i>0.00</i>	<i>0.35</i>	<i>12.40</i>	<i>21.01</i>	<i>11.39</i>	<i>9.27</i>	<i>8.88</i>	<i>9.92</i>
<b>Cash and Equivalents</b>										
<b>Northern Trust Miscellaneous Assets (07/03)</b>	<b>7,765</b>	<b>1.22</b>	<b>0.19</b>	<b>0.59</b>	<b>0.71</b>	<b>0.71</b>	<b>0.44</b>	<b>0.98</b>	<b>0.81</b>	<b>0.57</b>
<b>Residual Manager Cash <sup>2</sup></b>	<b>3,683</b>	<b>0.58</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

\* The net of all fees includes administrative costs, custodial fees, transaction costs, and investment manager fees associated with the fund. The net of all fee calculation began January 1, 2011.

The net of manager fees includes the investment manager fees and transaction costs associated with each portfolio. The net of manager fee calculation began January 1, 2011.

<sup>1</sup> Policy Index: Effective October 2021, the index consists of 70.00% MSCI ACWI, 20.00% Bloomberg US Aggregate, 10.00% NCREIF Property.

From January 2021 through September 2021, the Policy Index is comprised of 70% MSCI ACWI, 25% Bloomberg Aggregate, and 5% NCREIF Property. From March 2016 through December 2020, the Policy Index is comprised of 65% MSCI ACWI, 30% Bloomberg Aggregate, and 5% NCREIF Property.

<sup>2</sup> Residual Manager Cash includes cash held in the Large Cap Equity, Small/Mid Cap Equity, Non US Equity, Global Long/Short, Fixed Income and Real Assets holding accounts.

Fiscal year end is June.

All index returns are gross of dividends.

## Market Overview

For the Periods Ending October 31, 2022

	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>US Equity Markets Value</b>								
Russell 1000 Value	10.25	4.06	-9.32	-7.00	7.31	7.21	8.54	10.30
S&P 500 Value	11.50	5.01	-6.97	-3.66	8.05	8.26	9.55	10.91
Russell 2000 Value	12.59	7.40	-11.19	-10.73	8.08	5.31	8.41	9.37
<b>US Equity Markets Core</b>								
S&P 500	8.10	2.82	-17.70	-14.61	10.22	10.44	11.35	12.79
Russell 1000	8.02	3.04	-18.54	-16.38	9.99	10.19	11.14	12.66
Russell 2000	11.01	8.58	-16.86	-18.54	7.05	5.56	8.28	9.93
Russell 2500	9.59	6.51	-16.72	-17.58	7.94	7.07	8.97	10.70
<b>US Equity Markets Growth</b>								
Russell 1000 Growth	5.84	2.04	-26.61	-24.60	11.75	12.59	13.32	14.69
S&P 500 Growth	4.49	0.46	-27.29	-24.43	10.90	11.68	12.33	14.02
Russell 2000 Growth	9.49	9.76	-22.57	-26.02	5.11	5.17	7.67	10.15
NASDAQ Comp	3.90	-0.37	-29.77	-29.10	9.84	10.31	11.73	13.95
<b>Non US Equity Markets</b>								
MSCI EAFE	5.39	-4.41	-22.81	-22.62	-0.82	0.39	3.00	4.61
MSCI ACWI ex US	3.00	-7.09	-23.96	-24.35	-1.23	-0.13	3.16	3.75
MSCI World	7.21	0.69	-19.74	-18.09	6.62	6.92	8.38	9.52
S&P EPAC LargeMidCap	5.29	-4.63	-23.86	-23.83	-0.85	0.19	3.01	4.53
<b>Fixed Income</b>								
Bloomberg Intermediate G/C	-0.44	-3.49	-10.02	-10.03	-1.91	0.30	0.75	0.94
Bloomberg Gov't/Credit	-1.24	-5.74	-16.15	-16.04	-3.64	-0.32	0.60	0.86
Bloomberg US Aggregate	-1.30	-5.99	-15.72	-15.68	-3.77	-0.54	0.35	0.74
Citigroup Broad Investment Grd	-1.26	-6.01	-15.93	-15.94	-3.80	-0.54	0.36	0.74
JPM Gov't ex US UnH	0.15	-10.03	-26.90	-27.80	-10.21	-5.01	-2.53	-3.07
FTSE High-Yield Market	3.09	2.39	-11.79	-10.99	0.46	2.01	4.02	3.91
FTSE World Govt Bond	-0.52	-8.09	-21.68	-22.23	-7.36	-3.07	-1.35	-1.75
US T-Bills 90 Day	0.16	0.62	0.76	0.78	0.58	1.16	0.98	0.70
FTSE 1 Yr T-Bill	0.04	-0.37	-1.67	-1.80	0.12	0.98	0.87	0.70

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Oklahoma Municipal Retirement Fund - Defined Contribution Investment Options

For the Periods Ending October 31, 2022

	Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>Total Investment Options (ex. other assets)</b>	<b>161,964</b>	<b>45.97</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>Growth and Value Option (06/00)</b>	<b>20,804</b>	<b>5.90</b>	<b>7.83</b>	<b>3.22</b>	<b>-20.82</b>	<b>-19.31</b>	<b>9.85</b>	<b>10.06</b>	<b>11.06</b>	<b>12.63</b>
<b>Net of All Fees *</b>			<b>7.81</b>	<b>3.14</b>	<b>-20.96</b>	<b>-19.49</b>	<b>9.60</b>	<b>9.81</b>	<b>10.78</b>	<b>12.25</b>
S&P 500			8.10	2.82	-17.70	-14.61	10.22	10.44	11.35	12.79
<b>Vanguard Windsor II (V) (06/03)</b>	<b>5,305</b>	<b>1.51</b>	<b>9.90</b>	<b>3.92</b>	<b>-13.77</b>	<b>-11.63</b>	<b>11.02</b>	<b>9.79</b>	<b>10.23</b>	<b>11.35</b>
<b>Net of Manager Fees *</b>			<b>9.87</b>	<b>3.83</b>	<b>-13.95</b>	<b>-11.86</b>	<b>10.73</b>	<b>9.50</b>	<b>9.94</b>	<b>11.04</b>
Russell 1000 Value			10.25	4.06	-9.32	-7.00	7.31	7.21	8.54	10.30
<b>Vanguard Total Stock (C) (02/08)</b>	<b>10,436</b>	<b>2.96</b>	<b>8.18</b>	<b>3.37</b>	<b>-18.73</b>	<b>-16.87</b>	<b>9.75</b>	<b>9.85</b>	<b>10.95</b>	<b>12.49</b>
<b>Net of Manager Fees *</b>			<b>8.18</b>	<b>3.36</b>	<b>-18.75</b>	<b>-16.89</b>	<b>9.72</b>	<b>9.82</b>	<b>10.91</b>	<b>12.44</b>
S&P 500			8.10	2.82	-17.70	-14.61	10.22	10.44	11.35	12.79
<b>T. Rowe Price (G) (07/21)</b>	<b>5,062</b>	<b>1.44</b>	<b>5.05</b>	<b>2.16</b>	<b>-31.50</b>	<b>-31.10</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>5.01</b>	<b>1.97</b>	<b>-31.81</b>	<b>-31.49</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
Russell 1000 Growth			5.84	2.04	-26.61	-24.60	11.75	12.59	13.32	14.69
<b>S&amp;P 500 Option</b>										
<b>SSgA S&amp;P 500 Option Non-Lending (02/10)</b>	<b>32,446</b>	<b>9.21</b>	<b>8.10</b>	<b>2.82</b>	<b>-17.71</b>	<b>-14.62</b>	<b>10.20</b>	<b>10.40</b>	<b>11.32</b>	<b>12.85</b>
<b>Net of Manager Fees *</b>			<b>8.09</b>	<b>2.81</b>	<b>-17.72</b>	<b>-14.64</b>	<b>10.17</b>	<b>10.37</b>	<b>11.30</b>	<b>12.74</b>
S&P 500			8.10	2.82	-17.70	-14.61	10.22	10.44	11.35	12.79
<b>Aggressive Equity Option (06/00)</b>	<b>16,387</b>	<b>4.65</b>	<b>9.70</b>	<b>8.51</b>	<b>-18.96</b>	<b>-20.67</b>	<b>8.86</b>	<b>7.30</b>	<b>9.31</b>	<b>10.51</b>
<b>Net of All Fees *</b>			<b>9.66</b>	<b>8.33</b>	<b>-19.31</b>	<b>-21.09</b>	<b>8.29</b>	<b>6.73</b>	<b>8.72</b>	<b>9.77</b>
Russell 2000			11.01	8.58	-16.86	-18.54	7.05	5.56	8.28	9.93
Russell 2500			9.59	6.51	-16.72	-17.58	7.94	7.07	8.97	10.70
<b>Integrity Small Cap Value (V) (09/15)</b>	<b>4,224</b>	<b>1.20</b>	<b>13.23</b>	<b>9.49</b>	<b>-7.13</b>	<b>-4.52</b>	<b>11.24</b>	<b>6.44</b>	<b>8.97</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>13.14</b>	<b>9.14</b>	<b>-7.86</b>	<b>-5.43</b>	<b>10.19</b>	<b>5.43</b>	<b>7.89</b>	<b>--</b>
Russell 2000 Value			12.59	7.40	-11.19	-10.73	8.08	5.31	8.41	9.37
<b>SSgA Russell Small Cap Completeness Fund (05/10)</b>	<b>8,110</b>	<b>2.30</b>	<b>8.53</b>	<b>5.94</b>	<b>-22.83</b>	<b>-26.04</b>	<b>7.24</b>	<b>6.73</b>	<b>8.78</b>	<b>10.72</b>
<b>Net of Manager Fees *</b>			<b>8.52</b>	<b>5.91</b>	<b>-22.88</b>	<b>-26.09</b>	<b>7.15</b>	<b>6.65</b>	<b>8.71</b>	<b>10.64</b>
Russell Small Cap Completeness			8.48	5.91	-22.91	-26.15	7.25	6.74	8.81	10.73
<b>William Blair (G) (11/22)</b>	<b>4,053</b>	<b>1.15</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
Russell 2000 Growth			9.49	9.76	-22.57	-26.02	5.11	5.17	7.67	10.15

# Oklahoma Municipal Retirement Fund - Defined Contribution Investment Options

For the Periods Ending October 31, 2022

	Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>International Investment Equity Option (06/00)</b>	<b>7,047</b>	<b>2.00</b>	<b>3.11</b>	<b>-6.83</b>	<b>-25.66</b>	<b>-25.94</b>	<b>-0.58</b>	<b>0.18</b>	<b>3.95</b>	<b>5.66</b>
<b>Net of All Fees *</b>			<b>3.04</b>	<b>-7.07</b>	<b>-26.12</b>	<b>-26.49</b>	<b>-1.34</b>	<b>-0.61</b>	<b>3.14</b>	<b>4.73</b>
MSCI ACWI ex US			3.00	-7.09	-23.96	-24.35	-1.23	-0.13	3.16	3.75
<b>Artisan International Value (05/10)</b>	<b>1,820</b>	<b>0.52</b>	<b>6.69</b>	<b>-3.58</b>	<b>-15.80</b>	<b>-14.48</b>	<b>5.35</b>	<b>3.42</b>	<b>6.12</b>	<b>8.29</b>
<b>Net of Manager Fees *</b>			<b>6.60</b>	<b>-3.91</b>	<b>-16.52</b>	<b>-15.34</b>	<b>4.29</b>	<b>2.38</b>	<b>5.03</b>	<b>7.18</b>
MSCI EAFE			5.39	-4.41	-22.81	-22.62	-0.82	0.39	3.00	4.61
<b>SSgA Global Equity ex US (11/14)</b>	<b>1,768</b>	<b>0.50</b>	<b>3.44</b>	<b>-7.28</b>	<b>-24.08</b>	<b>-24.47</b>	<b>-1.42</b>	<b>-0.35</b>	<b>2.96</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>3.44</b>	<b>-7.30</b>	<b>-24.14</b>	<b>-24.54</b>	<b>-1.52</b>	<b>-0.48</b>	<b>2.82</b>	<b>--</b>
MSCI ACWI ex US			3.00	-7.09	-23.96	-24.35	-1.23	-0.13	3.16	3.75
<b>Harding Loevner International Equity (07/16)</b>	<b>1,758</b>	<b>0.50</b>	<b>2.53</b>	<b>-5.75</b>	<b>-28.11</b>	<b>-27.72</b>	<b>0.64</b>	<b>1.55</b>	<b>--</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>2.46</b>	<b>-6.01</b>	<b>-28.60</b>	<b>-28.31</b>	<b>-0.18</b>	<b>0.72</b>	<b>--</b>	<b>--</b>
MSCI ACWI ex US			3.00	-7.09	-23.96	-24.35	-1.23	-0.13	3.16	3.75
<b>Harding Loevner Emerging Markets (09/15)</b>	<b>1,701</b>	<b>0.48</b>	<b>-0.22</b>	<b>-10.72</b>	<b>-34.11</b>	<b>-36.18</b>	<b>-7.13</b>	<b>-4.20</b>	<b>1.95</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>-0.31</b>	<b>-11.05</b>	<b>-34.71</b>	<b>-36.88</b>	<b>-8.18</b>	<b>-5.33</b>	<b>0.73</b>	<b>--</b>
MSCI Emerging Markets			-3.09	-14.15	-29.15	-30.73	-4.07	-2.73	2.78	1.16
<b>Global Equity Option</b>										
<b>SSgA Global Equity NL (11/15)</b>	<b>9,699</b>	<b>2.75</b>	<b>6.26</b>	<b>-1.14</b>	<b>-20.87</b>	<b>-19.65</b>	<b>5.31</b>	<b>5.71</b>	<b>7.65</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>6.25</b>	<b>-1.17</b>	<b>-20.94</b>	<b>-19.73</b>	<b>5.19</b>	<b>5.57</b>	<b>7.49</b>	<b>--</b>
MSCI ACWI			6.06	-1.05	-20.81	-19.58	5.34	5.76	7.71	8.54
<b>ESG U.S. Stock Fund Option</b>										
<b>Calvert Equity Fund (04/20)</b>	<b>1,284</b>	<b>0.36</b>	<b>6.79</b>	<b>2.63</b>	<b>-19.27</b>	<b>-15.50</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>Net of Manager Fees *</b>			<b>6.73</b>	<b>2.40</b>	<b>-19.72</b>	<b>-16.06</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
Russell 1000			8.02	3.04	-18.54	-16.38	9.99	10.19	11.14	12.66

# Oklahoma Municipal Retirement Fund - Defined Contribution Investment Options

For the Periods Ending October 31, 2022

	Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>Total Yield Option (02/12)</b>	<b>5,175</b>	<b>1.47</b>	<b>-1.08</b>	<b>-4.53</b>	<b>-12.67</b>	<b>-12.41</b>	<b>-1.21</b>	<b>1.04</b>	<b>1.98</b>	<b>2.15</b>
<b>Net of All Fees *</b>			<b>-1.11</b>	<b>-4.65</b>	<b>-12.95</b>	<b>-12.74</b>	<b>-1.59</b>	<b>0.66</b>	<b>1.60</b>	<b>1.74</b>
Bloomberg US Aggregate			-1.30	-5.99	-15.72	-15.68	-3.77	-0.54	0.35	0.74
<b>JP Morgan Core Bond Fund (02/12)</b>	<b>2,577</b>	<b>0.73</b>	<b>-1.43</b>	<b>-5.59</b>	<b>-14.38</b>	<b>-14.37</b>	<b>-2.62</b>	<b>0.37</b>	<b>1.16</b>	<b>1.46</b>
<b>Net of Manager Fees *</b>			<b>-1.46</b>	<b>-5.68</b>	<b>-14.59</b>	<b>-14.63</b>	<b>-2.91</b>	<b>0.07</b>	<b>0.86</b>	<b>1.20</b>
Bloomberg US Aggregate			-1.30	-5.99	-15.72	-15.68	-3.77	-0.54	0.35	0.74
<b>Amundi Pioneer Core Plus Bond Fund (02/12)</b>	<b>1,288</b>	<b>0.37</b>	<b>-1.36</b>	<b>-5.16</b>	<b>-14.99</b>	<b>-13.96</b>	<b>-1.01</b>	<b>1.02</b>	<b>2.27</b>	<b>2.46</b>
<b>Net of Manager Fees *</b>			<b>-1.39</b>	<b>-5.27</b>	<b>-15.23</b>	<b>-14.26</b>	<b>-1.35</b>	<b>0.67</b>	<b>1.92</b>	<b>2.14</b>
Bloomberg Universal			-1.10	-5.50	-15.83	-15.79	-3.57	-0.42	0.65	1.02
<b>BlackRock Strategic Income Opps (07/17)</b>	<b>1,311</b>	<b>0.37</b>	<b>-0.10</b>	<b>-1.73</b>	<b>-6.77</b>	<b>-6.77</b>	<b>1.15</b>	<b>2.23</b>	--	--
<b>Net of Manager Fees *</b>			<b>-0.15</b>	<b>-1.92</b>	<b>-7.22</b>	<b>-7.30</b>	<b>0.57</b>	<b>1.65</b>	--	--
Bloomberg US Aggregate			-1.30	-5.99	-15.72	-15.68	-3.77	-0.54	0.35	0.74
US T-Bills 30 Day + 4.0%			0.56	2.03	4.18	4.87	4.55	5.14	4.94	4.66
<b>Bond Index Option (11/11)</b>	<b>13,621</b>	<b>3.87</b>	<b>-1.31</b>	<b>-5.97</b>	<b>-15.66</b>	<b>-15.65</b>	<b>-3.70</b>	<b>-0.47</b>	<b>0.40</b>	<b>0.78</b>
<b>Net of All Fees *</b>			<b>-1.31</b>	<b>-5.99</b>	<b>-15.70</b>	<b>-15.70</b>	<b>-3.76</b>	<b>-0.53</b>	<b>0.34</b>	<b>0.64</b>
Bloomberg US Aggregate			-1.30	-5.99	-15.72	-15.68	-3.77	-0.54	0.35	0.74
<b>SSgA US Aggregate Bond Fund (11/11)</b>	<b>13,621</b>	<b>3.87</b>	<b>-1.31</b>	<b>-5.97</b>	<b>-15.66</b>	<b>-15.65</b>	<b>-3.70</b>	<b>-0.47</b>	<b>0.40</b>	<b>0.79</b>
<b>Net of Manager Fees *</b>			<b>-1.31</b>	<b>-5.99</b>	<b>-15.70</b>	<b>-15.70</b>	<b>-3.76</b>	<b>-0.53</b>	<b>0.34</b>	<b>0.73</b>
<b>Real Assets Option (01/17)</b>	<b>911</b>	<b>0.26</b>	<b>2.70</b>	<b>-3.96</b>	<b>-10.17</b>	<b>-7.79</b>	<b>4.75</b>	<b>4.97</b>	--	--
<b>Net of Fees *</b>			<b>2.66</b>	<b>-4.10</b>	<b>-10.48</b>	<b>-8.17</b>	<b>4.32</b>	<b>4.54</b>	--	--
Real Assets Blended Benchmark <sup>1</sup>			2.57	-4.27	-11.02	-8.87	3.56	4.17	3.67	2.01
<b>PIMCO Diversified Real Assets (01/17)</b>	<b>911</b>	<b>0.26</b>	<b>2.70</b>	<b>-3.96</b>	<b>-10.17</b>	<b>-7.79</b>	<b>4.75</b>	<b>4.97</b>	--	--
<b>Net of Manager Fees *</b>			<b>2.66</b>	<b>-4.10</b>	<b>-10.48</b>	<b>-8.17</b>	<b>4.32</b>	<b>4.54</b>	--	--
<b>Fixed Fund Option</b>										
<b>Voya Fixed Plus III (10/15) *</b>	<b>54,591</b>	<b>15.50</b>	<b>0.15</b>	<b>0.56</b>	<b>1.38</b>	<b>1.70</b>	<b>1.90</b>	<b>1.87</b>	<b>1.81</b>	--

<sup>1</sup> Real Assets Blended Benchmark: Effective August 2016, the index consists of 40.00% Bloomberg US TIPS, 25.00% Bloomberg Commodity, 35.00% DJ US Select REIT.



## Oklahoma Municipal Retirement Fund - Defined Contribution Investment Options

For the Periods Ending October 31, 2022

	Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>SSgA Target Retirement Options</b>	<b>182,919</b>	<b>51.92</b>	--	--	--	--	--	--	--	--
SSgA Target Retirement Income (11/15)	18,613		2.02	-2.56	-12.78	-12.24	1.86	2.98	3.69	--
Net of Manager Fees *			2.01	-2.60	-12.87	-12.34	1.74	2.86	3.57	--
SSgA Target Retirement 2020 (11/15)	22,932		2.37	-2.61	-14.09	-13.46	2.60	3.71	4.92	--
Net of Manager Fees *			2.36	-2.65	-14.17	-13.57	2.47	3.58	4.80	--
SSgA Target Retirement 2025 (11/15)	35,420		3.13	-2.58	-17.09	-16.36	3.15	4.23	5.71	--
Net of Manager Fees *			3.12	-2.62	-17.17	-16.46	3.03	4.11	5.58	--
SSgA Target Retirement 2030 (11/15)	26,564		3.74	-2.59	-19.63	-18.94	3.17	4.34	6.00	--
Net of Manager Fees *			3.73	-2.62	-19.71	-19.04	3.04	4.22	5.87	--
SSgA Target Retirement 2035 (11/15)	23,669		4.03	-2.62	-20.70	-20.07	3.37	4.48	6.25	--
Net of Manager Fees *			4.02	-2.66	-20.78	-20.17	3.24	4.35	6.13	--
SSgA Target Retirement 2040 (11/15)	17,786		4.43	-2.51	-21.25	-20.68	3.67	4.69	6.56	--
Net of Manager Fees *			4.42	-2.55	-21.33	-20.77	3.55	4.56	6.43	--
SSgA Target Retirement 2045 (11/15)	13,945		4.82	-2.22	-21.62	-21.11	3.98	4.86	6.82	--
Net of Manager Fees *			4.81	-2.26	-21.70	-21.21	3.86	4.73	6.69	--
SSgA Target Retirement 2050 (11/15)	10,905		5.19	-1.93	-21.92	-21.48	4.15	4.95	6.88	--
Net of Manager Fees *			5.18	-1.97	-22.00	-21.57	4.02	4.83	6.75	--
SSgA Target Retirement 2055 (11/15)	6,744		5.19	-1.94	-21.91	-21.46	4.15	4.96	6.90	--
Net of Manager Fees *			5.18	-1.98	-21.99	-21.56	4.02	4.83	6.77	--
SSgA Target Retirement 2060 (11/15)	6,183		5.19	-1.94	-21.91	-21.46	4.14	4.94	6.85	--
Net of Manager Fees *			5.18	-1.97	-21.98	-21.55	4.01	4.82	6.72	--
SSgA Target Retirement 2065 (05/20)	159		5.18	-1.94	-21.91	-21.46	--	--	--	--
Net of Manager Fees *			5.17	-1.98	-21.99	-21.56	--	--	--	--
<b>Loan Fund</b>	<b>7,426</b>	<b>2.11</b>	--	--	--	--	--	--	--	--

\* The net of all fees includes administrative costs, custodial fees, transaction costs, and investment manager fees associated with the fund. The net of all fee calculation began January 1, 2011.

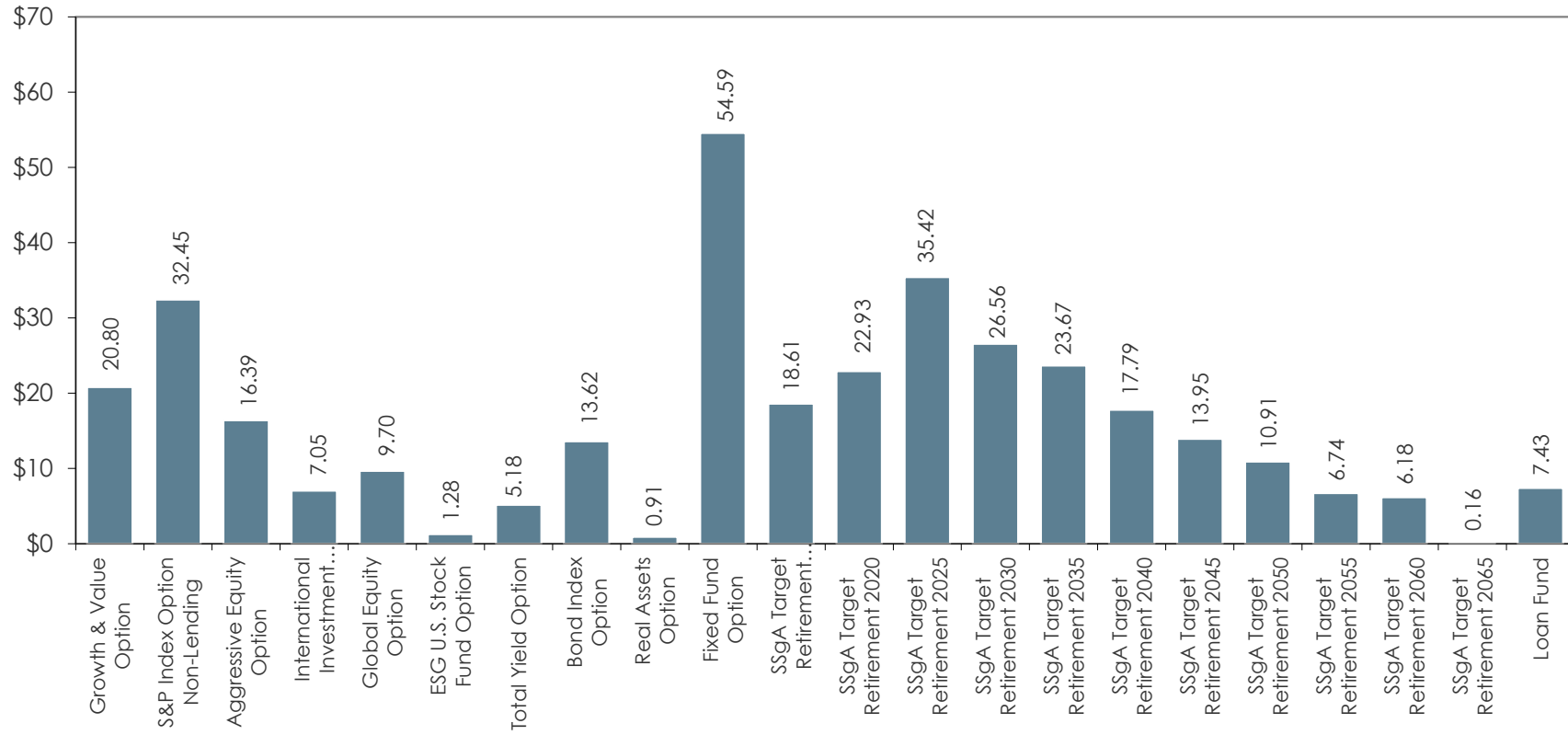
\* The net of manager fees includes the investment manager fees and transaction costs associated with each portfolio. The net of manager fee calculation began January 1, 2011.

Fiscal year end is June

All index returns are gross of dividends.

## Oklahoma Municipal Retirement Fund - Defined Contribution

*For the Periods Ending October 31, 2022 (In \$ Millions)*



## Market Overview

For the Periods Ending October 31, 2022

	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>US Equity Markets Value</b>								
Russell 1000 Value	10.25	4.06	-9.32	-7.00	7.31	7.21	8.54	10.30
S&P 500 Value	11.50	5.01	-6.97	-3.66	8.05	8.26	9.55	10.91
Russell 2000 Value	12.59	7.40	-11.19	-10.73	8.08	5.31	8.41	9.37
<b>US Equity Markets Core</b>								
S&P 500	8.10	2.82	-17.70	-14.61	10.22	10.44	11.35	12.79
Russell 1000	8.02	3.04	-18.54	-16.38	9.99	10.19	11.14	12.66
Russell 2000	11.01	8.58	-16.86	-18.54	7.05	5.56	8.28	9.93
Russell 2500	9.59	6.51	-16.72	-17.58	7.94	7.07	8.97	10.70
<b>US Equity Markets Growth</b>								
Russell 1000 Growth	5.84	2.04	-26.61	-24.60	11.75	12.59	13.32	14.69
S&P 500 Growth	4.49	0.46	-27.29	-24.43	10.90	11.68	12.33	14.02
Russell 2000 Growth	9.49	9.76	-22.57	-26.02	5.11	5.17	7.67	10.15
NASDAQ Comp	3.90	-0.37	-29.77	-29.10	9.84	10.31	11.73	13.95
<b>Non US Equity Markets</b>								
MSCI EAFE	5.39	-4.41	-22.81	-22.62	-0.82	0.39	3.00	4.61
MSCI ACWI ex US	3.00	-7.09	-23.96	-24.35	-1.23	-0.13	3.16	3.75
MSCI World	7.21	0.69	-19.74	-18.09	6.62	6.92	8.38	9.52
S&P EPAC LargeMidCap	5.29	-4.63	-23.86	-23.83	-0.85	0.19	3.01	4.53
<b>Fixed Income</b>								
Bloomberg Intermediate G/C	-0.44	-3.49	-10.02	-10.03	-1.91	0.30	0.75	0.94
Bloomberg Gov't/Credit	-1.24	-5.74	-16.15	-16.04	-3.64	-0.32	0.60	0.86
Bloomberg US Aggregate	-1.30	-5.99	-15.72	-15.68	-3.77	-0.54	0.35	0.74
Citigroup Broad Investment Grd	-1.26	-6.01	-15.93	-15.94	-3.80	-0.54	0.36	0.74
JPM Gov't ex US UnH	0.15	-10.03	-26.90	-27.80	-10.21	-5.01	-2.53	-3.07
FTSE High-Yield Market	3.09	2.39	-11.79	-10.99	0.46	2.01	4.02	3.91
FTSE World Govt Bond	-0.52	-8.09	-21.68	-22.23	-7.36	-3.07	-1.35	-1.75
US T-Bills 90 Day	0.16	0.62	0.76	0.78	0.58	1.16	0.98	0.70
FTSE 1 Yr T-Bill	0.04	-0.37	-1.67	-1.80	0.12	0.98	0.87	0.70

## Disclosures and Legal Notice

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## Oklahoma Municipal Retirement Fund

### *Investment Performance Review*

*September 30, 2022*





***We are proud to announce that ACG has again been named a Greenwich Associates Quality Leader - recognized as one of the top consultants in the industry.***

**Methodology and Disclosure:** Between July and October 2021, Coalition Greenwich (previously known as Greenwich Associates), conducted in-person and phone interviews and online surveys with 811 professionals at 661 of the largest tax-exempt funds in the United States, including corporate and union funds, public funds, endowments and foundations, insurance general accounts, and healthcare organizations, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset managers and investment consultants, including qualitative assessments of those firms soliciting their business and detailed information on important market trends. ACG is one of four firms recognized in the mid-size investment consultant category. The ratings may not be representative of any one client's experience with ACG; rather they are representative of those clients that chose to participate in the survey. The results are not indicative of ACG's future performance. ACG does not pay to have its clients participate in the study.





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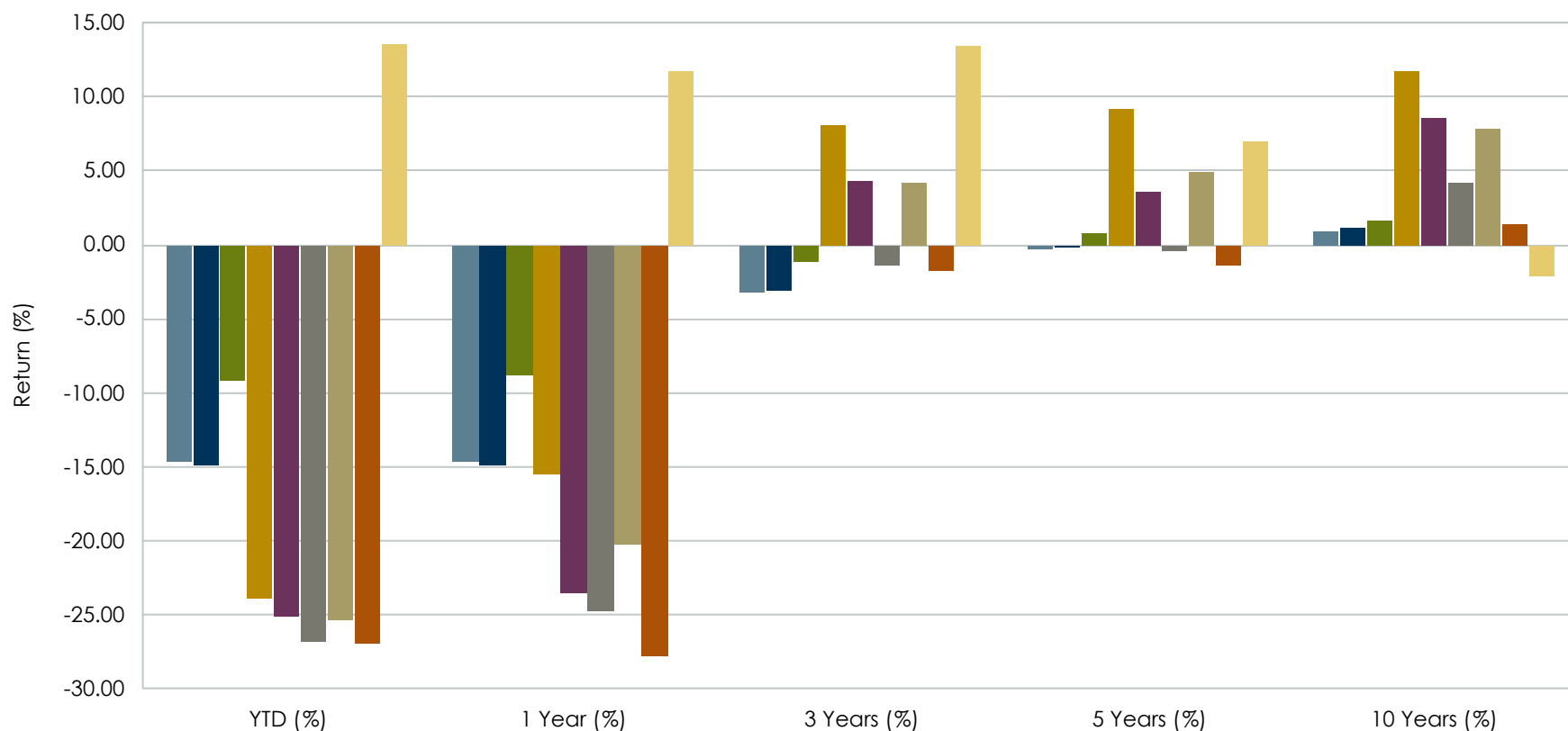
Tab 1	Market Overview
Tab 2	Defined Benefit Plan Performance
Tab 3	Balanced Fund Managers
Tab 4	Defined Contribution Plan Performance
Appendix	Policy Index History
	Definitions of Statistical Measures
	Quality Rating Scale



**Market Overview**

## Market Environment

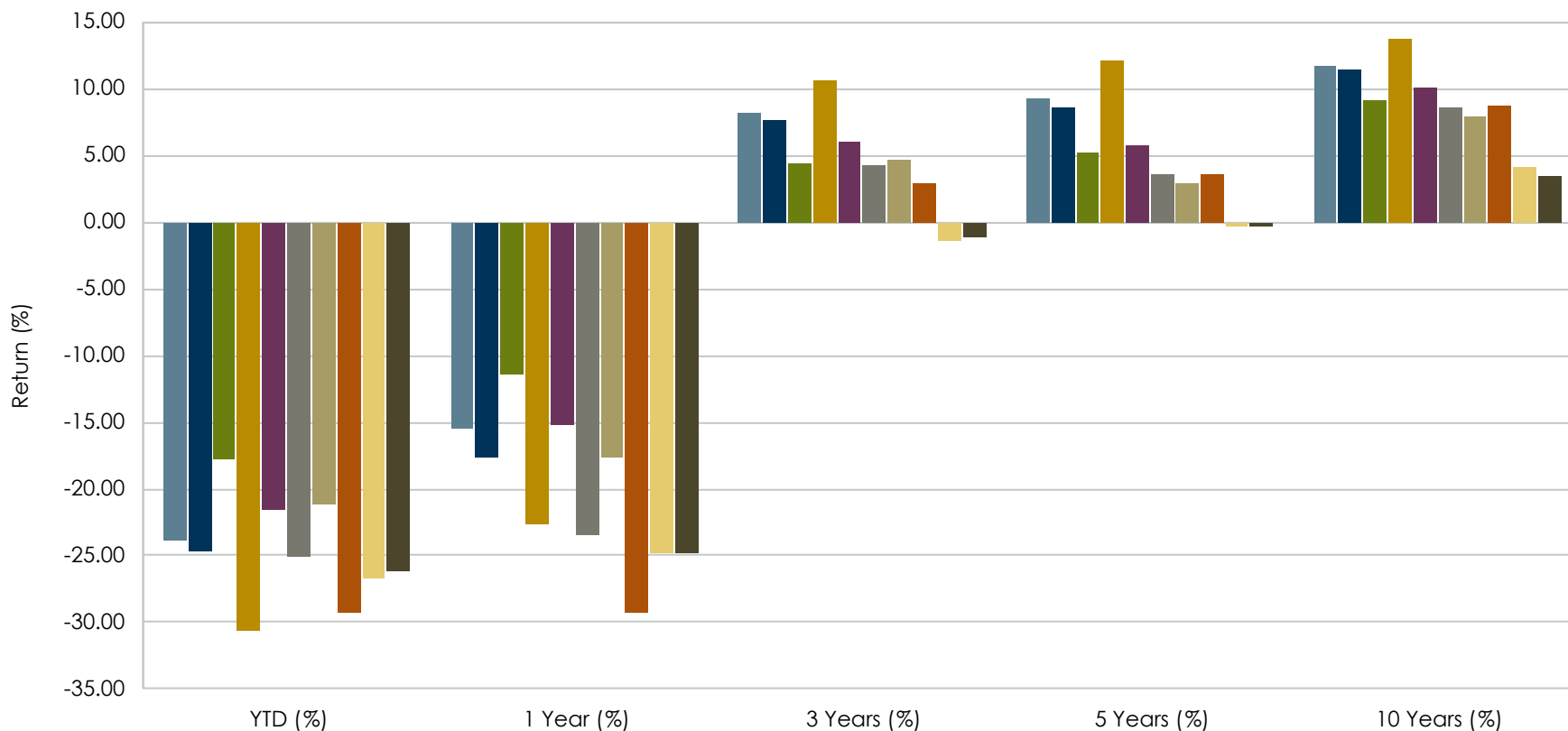
For the Periods Ending September 30, 2022



Bloomberg US Aggregate	-14.61	-14.60	-3.26	-0.27	0.89
Bloomberg Universal	-14.90	-14.92	-3.11	-0.18	1.17
Bloomberg 1-15 Yr Municipal	-9.21	-8.87	-1.12	0.76	1.64
S&P 500	-23.87	-15.47	8.16	9.24	11.70
Russell 2000	-25.10	-23.50	4.29	3.55	8.55
MSCI EAFE	-26.76	-24.75	-1.38	-0.36	4.15
MSCI ACWI	-25.34	-20.29	4.23	4.96	7.84
MSCI Emerging Markets	-26.89	-27.80	-1.71	-1.44	1.42
Bloomberg Commodity	13.57	11.80	13.45	6.96	-2.14

## Equity Index Returns

For the Periods Ending September 30, 2022

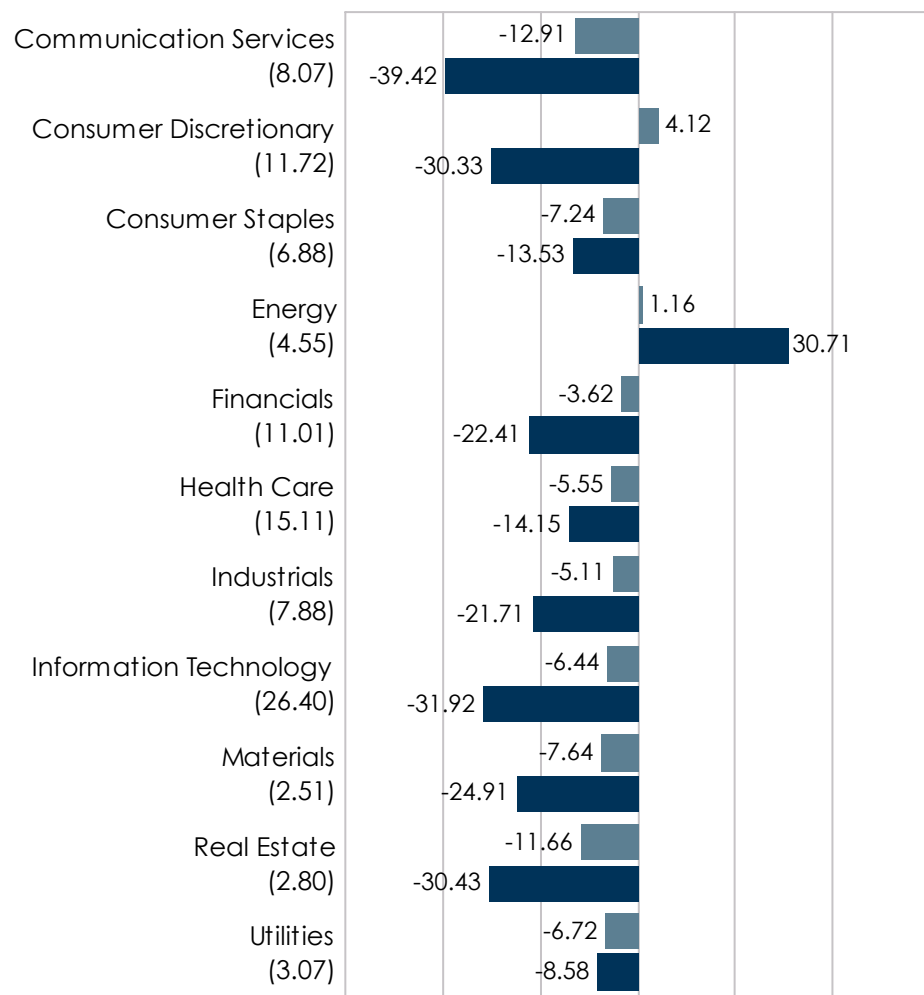


S&P 500	-23.87	-15.47	8.16	9.24	11.70
Russell 3000	-24.62	-17.63	7.70	8.62	11.39
Russell 1000 Value	-17.75	-11.36	4.36	5.29	9.17
Russell 1000 Growth	-30.66	-22.59	10.67	12.17	13.70
S&P Mid Cap 400	-21.52	-15.25	6.01	5.82	10.04
Russell 2000	-25.10	-23.50	4.29	3.55	8.55
Russell 2000 Value	-21.12	-17.69	4.72	2.87	7.94
Russell 2000 Growth	-29.28	-29.27	2.94	3.60	8.81
MSCI EAFE	-26.76	-24.75	-1.38	-0.36	4.15
MSCI ACWI ex US	-26.18	-24.79	-1.07	-0.34	3.48

## US Markets - Performance Breakdown

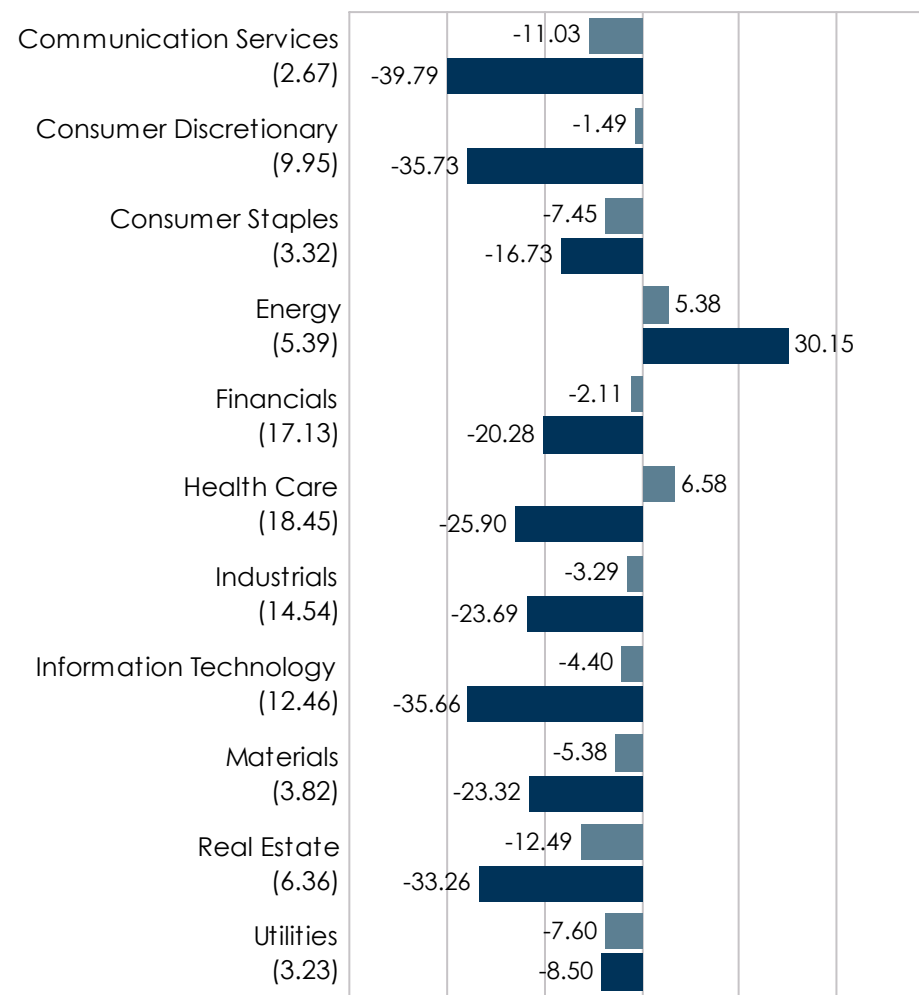
For the Periods Ending September 30, 2022

### S&P 500 - Sector Returns (%)



■ 3 Months ■ YTD

### Russell 2000 - Sector Returns (%)



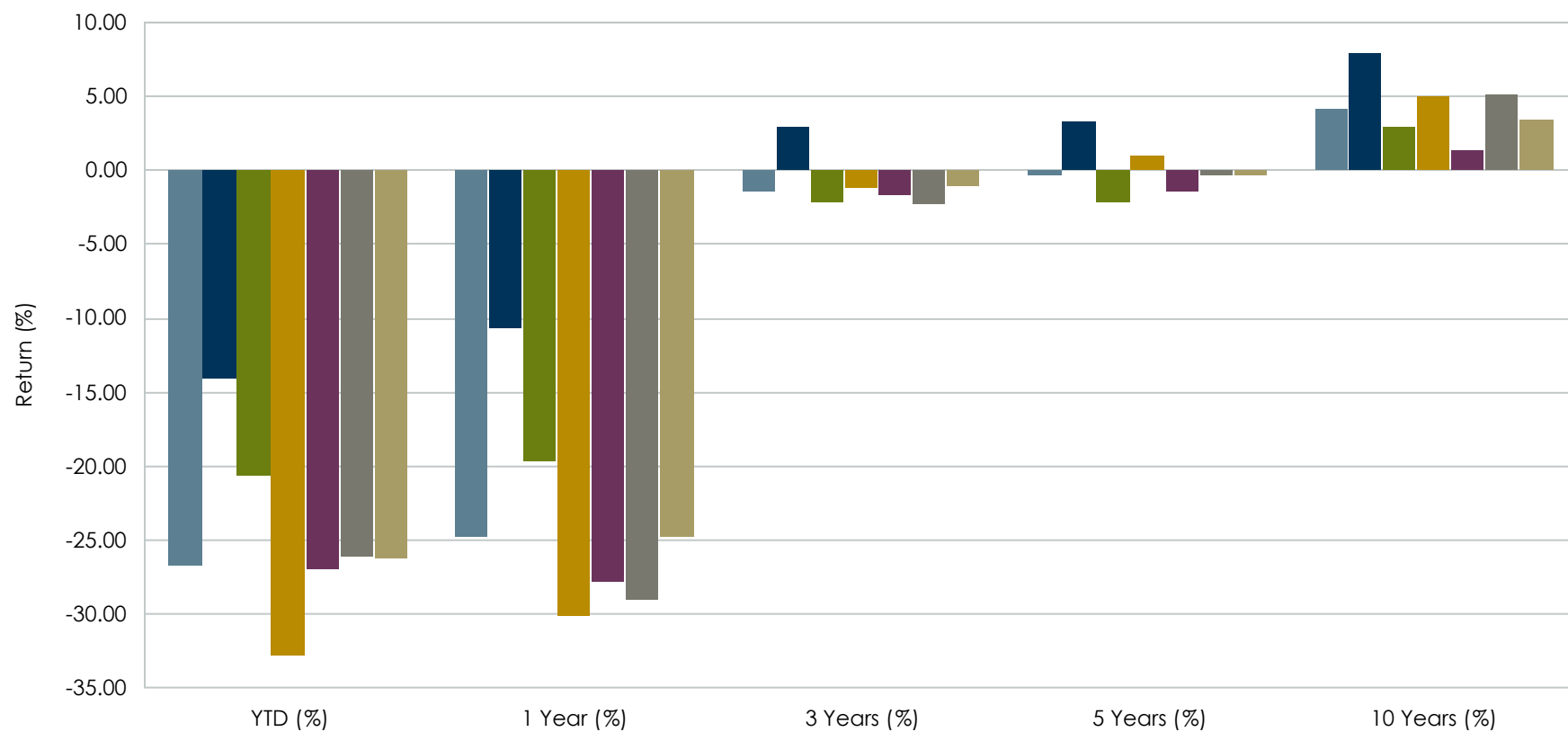
Numbers in parenthesis represent sector weightings of the index. Sector weights may not add to 100% due to rounding or securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

Source: ACG Research, Bloomberg

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## Non-US Equity Index Returns

For the Periods Ending September 30, 2022



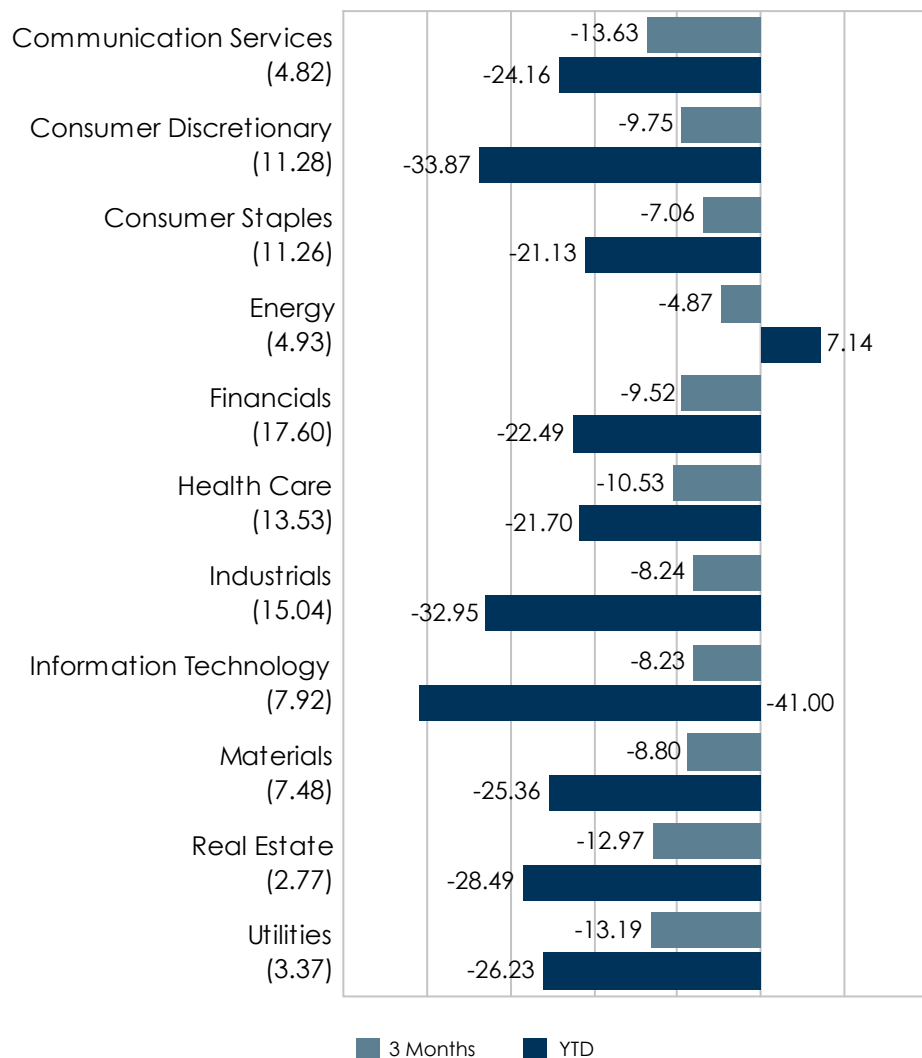
MSCI EAFE	-26.76
MSCI EAFE Local Currency	-14.06
MSCI EAFE Value	-20.61
MSCI EAFE Growth	-32.82
MSCI Emerging Markets	-26.89
MSCI Japan	-26.11
MSCI ACWI ex US	-26.18

YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	10 Years (%)
-26.76	-24.75	-1.38	-0.36	4.15
-14.06	-10.66	2.98	3.33	7.94
-20.61	-19.62	-2.20	-2.14	2.98
-32.82	-30.06	-1.18	1.03	5.08
-26.89	-27.80	-1.71	-1.44	1.42
-26.11	-29.02	-2.29	-0.26	5.18
-26.18	-24.79	-1.07	-0.34	3.48

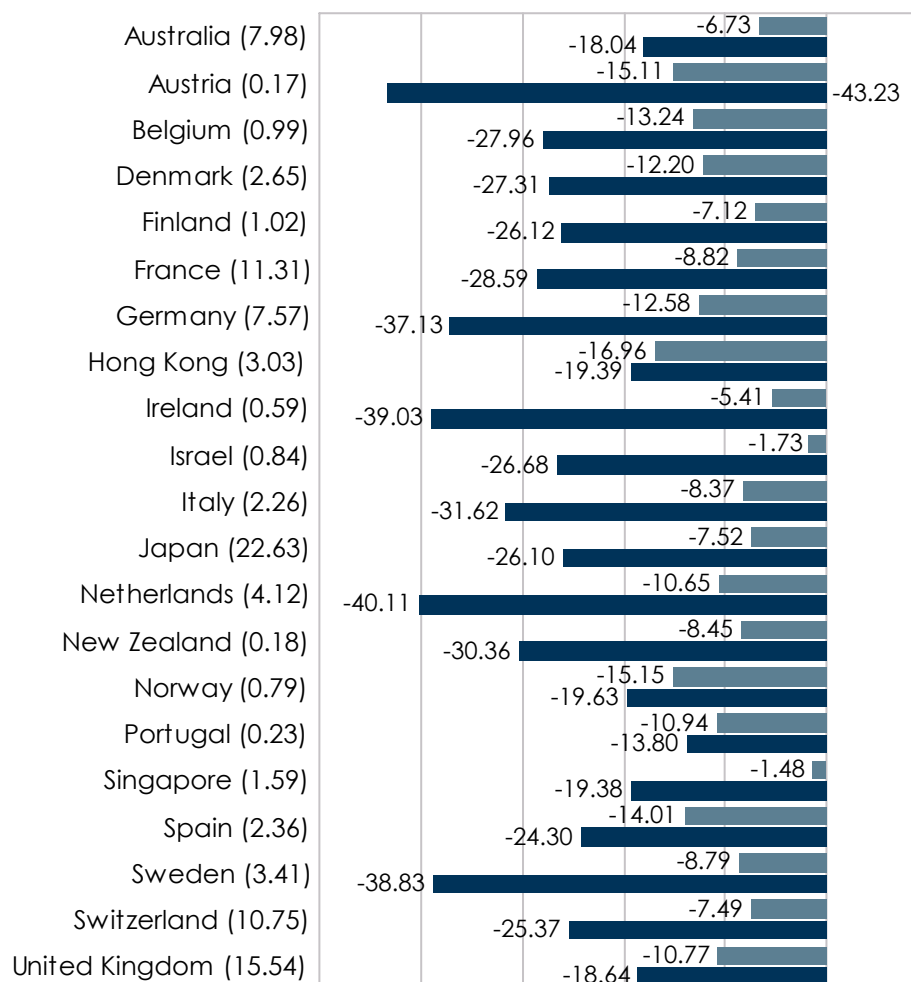
## Non-US Equity - Performance Breakdown

For the Periods Ending September 30, 2022

### MSCI EAFE - Sector Returns (%)



### MSCI EAFE - Country Returns (%)



Numbers in parenthesis represent sector or country weights of the index. Sector or country weights may not add to 100% due to rounding.

Source: ACG Research, Bloomberg

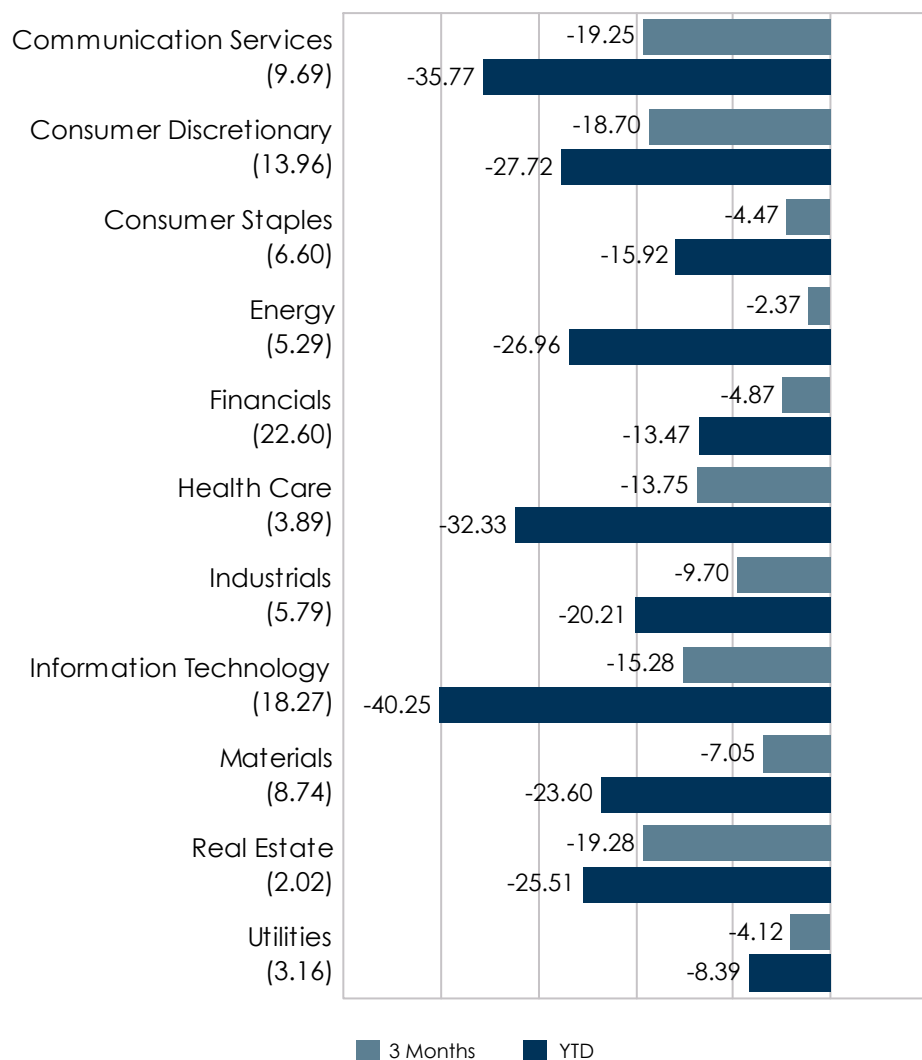
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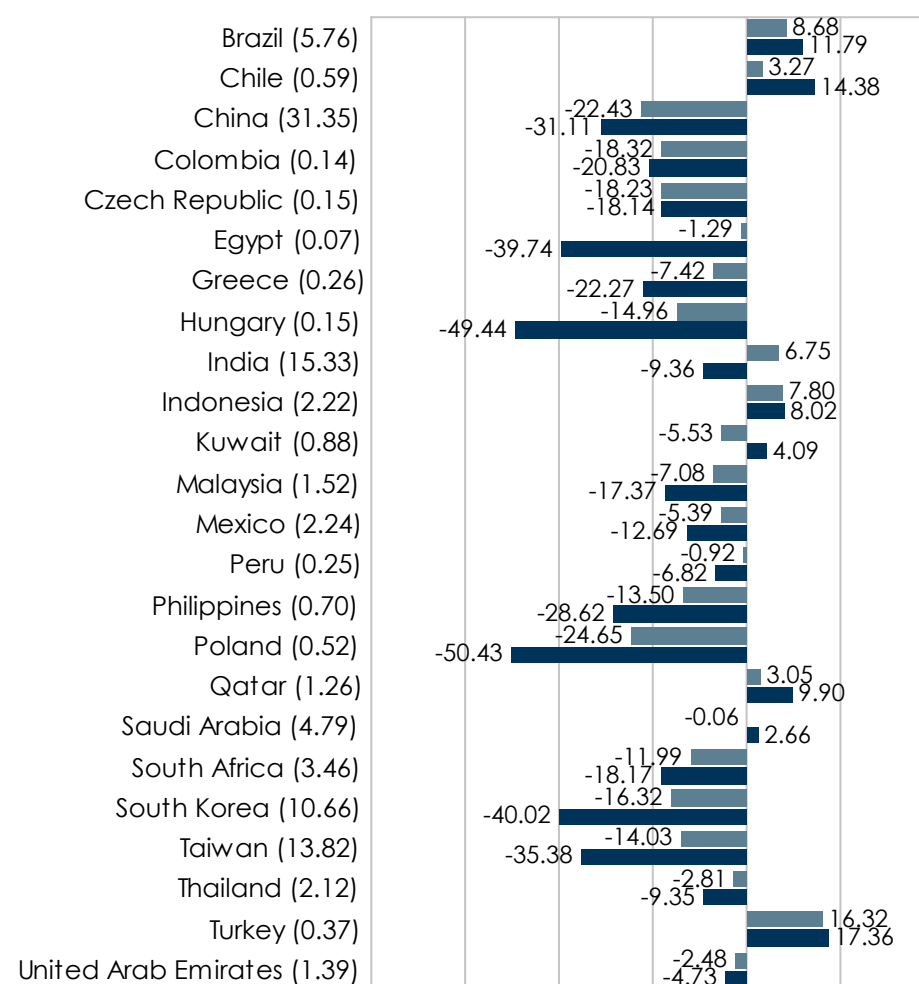
## Emerging Markets - Performance Breakdown

For the Periods Ending September 30, 2022

### MSCI Emerging Markets - Sector Returns (%)



### MSCI Emerging Markets - Country Returns (%)



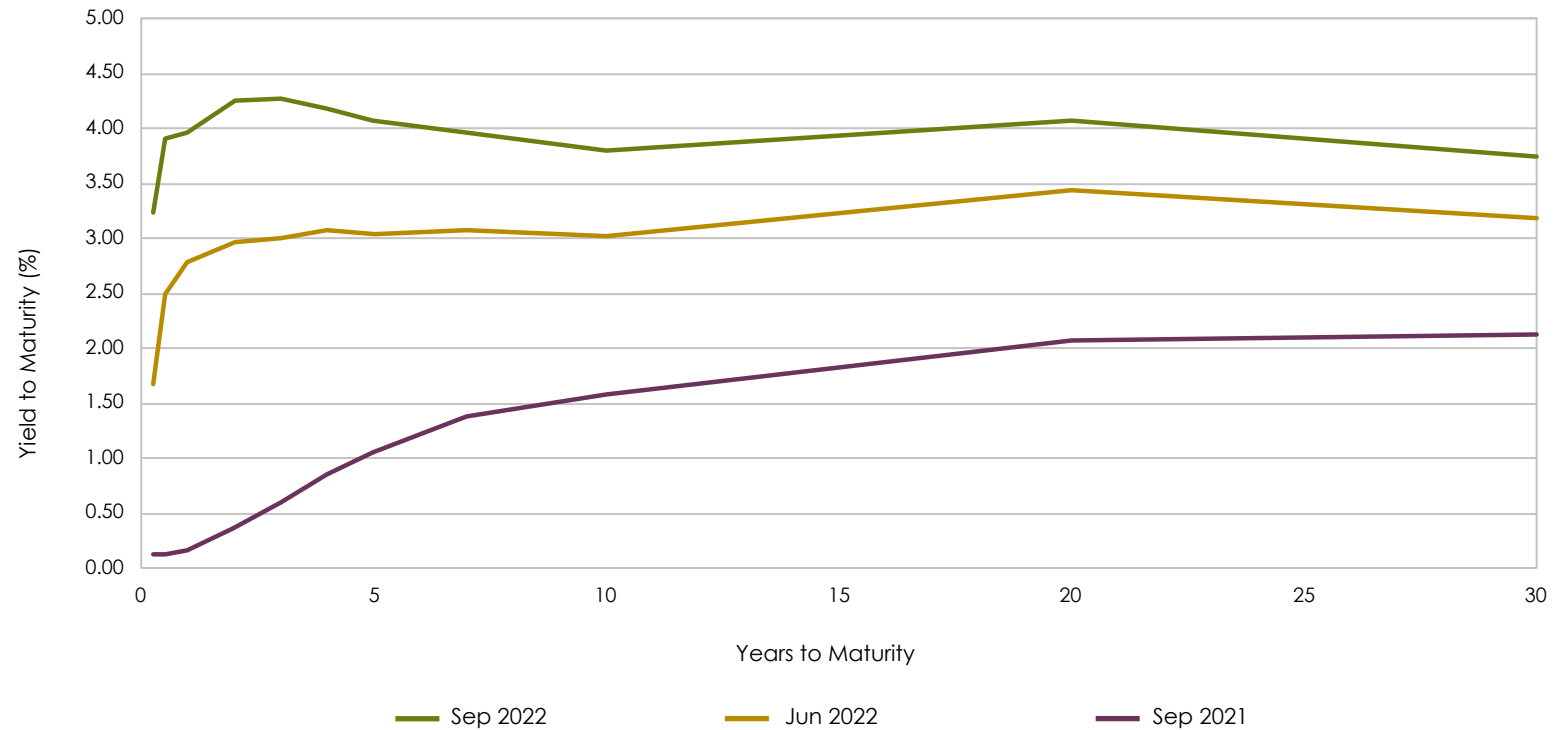
Numbers in parenthesis represent sector or country weights of the index. Sector or country weights may not add to 100% due to rounding.

Source: ACG Research, Bloomberg

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## Interest Rate Term Structure

Government Issues - 3 Months to 30 Years Maturity

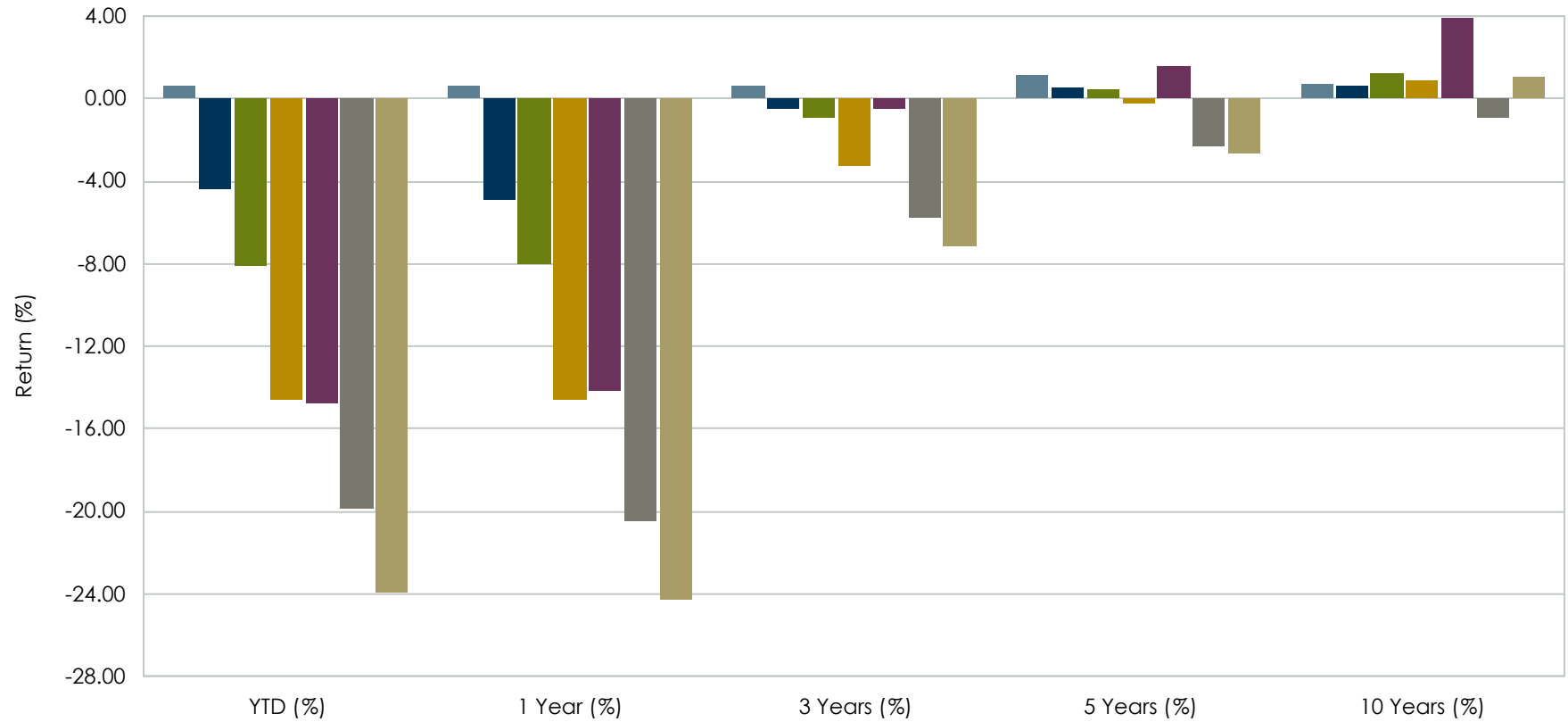


90 Days	3.27	1.67	0.04
180 Days	3.93	2.49	0.05
1 Year	3.99	2.78	0.07
2 Years	4.28	2.96	0.28
3 Years	4.29	3.01	0.51
4 Years	4.21	3.07	0.77
5 Years	4.09	3.04	0.97
7 Years	3.98	3.07	1.29
10 Years	3.83	3.02	1.49
20 Years	4.09	3.44	1.99
30 Years	3.78	3.18	2.05

Source: Bloomberg

## Fixed Income Index Returns

For the Periods Ending September 30, 2022



US T-Bills 90 Day	0.61
ICE BofA ML 1-3 Yr Treasury	-4.35
Bloomberg 5 Yr Municipal	-8.06
Bloomberg US Aggregate	-14.61
Bloomberg US Corp High Yield	-14.74
Bloomberg Global Aggregate	-19.89
JPM EMBI Global Diversified	-23.95

0.62	0.59	1.15	0.68
-4.86	-0.48	0.57	0.60
-8.03	-0.94	0.48	1.20
-14.60	-3.26	-0.27	0.89
-14.14	-0.45	1.57	3.94
-20.43	-5.74	-2.32	-0.93
-24.28	-7.15	-2.62	1.08

## US Fixed Income Market Environment

For the Periods Ending September 30, 2022

### Nominal Returns By Sector (%)

	<u>3 Months</u>	<u>YTD</u>	<u>1 Year</u>	<u>3 Years</u>
US Aggregate	-4.76	-14.62	-14.61	-3.26
US Treasury	-4.35	-13.09	-12.93	-3.11
US Agg: Gov't-Related	-3.90	-12.71	-12.71	-2.91
US Corporate IG	-5.06	-18.72	-18.53	-3.66
MBS	-5.35	-13.66	-13.98	-3.66
CMBS	-3.85	-11.81	-12.38	-2.08
ABS	-1.33	-5.04	-5.59	-0.24
US Corp High Yield	-0.64	-14.74	-14.14	-0.44

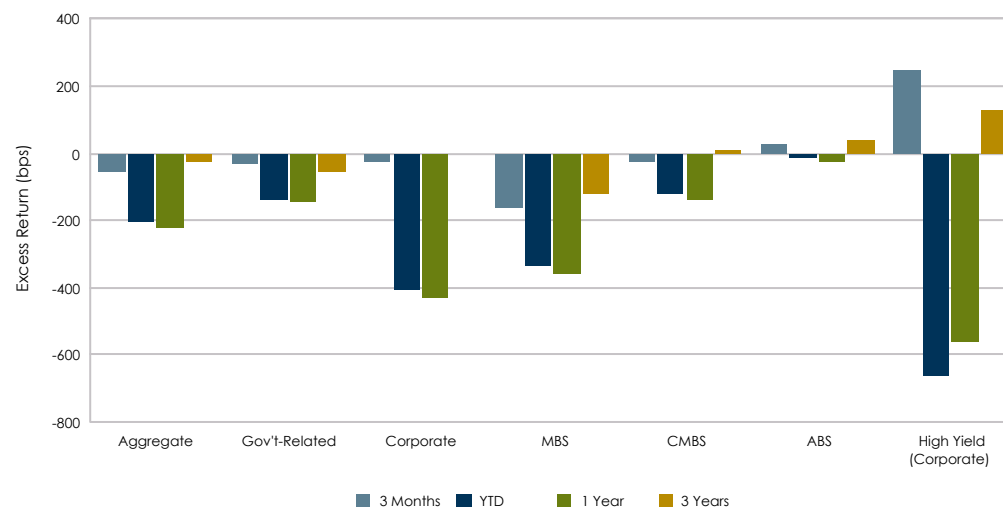
### Nominal Returns by Quality (%)

	<u>3 Months</u>	<u>YTD</u>	<u>1 Year</u>	<u>3 Years</u>
AAA	-4.66	-13.12	-13.19	-3.21
AA	-4.92	-16.57	-16.37	-3.67
A	-5.17	-17.79	-17.67	-3.65
BAA	-4.85	-19.30	-19.03	-3.65
BA	-0.71	-14.47	-13.82	0.34
B	-0.66	-14.48	-13.77	-1.27
CAA	-0.42	-16.70	-16.26	-1.37

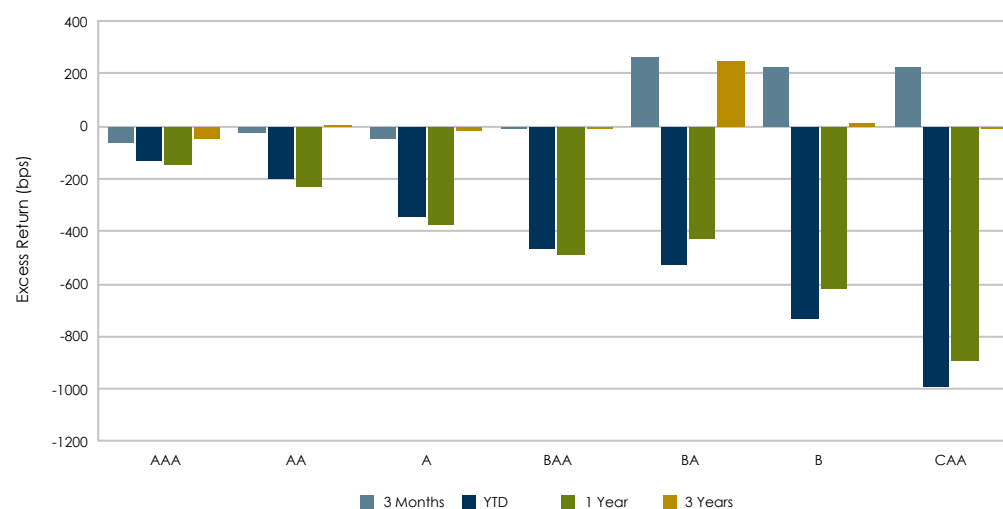
### Nominal Returns by Maturity (%)

	<u>3 Months</u>	<u>YTD</u>	<u>1 Year</u>	<u>3 Years</u>
1-3 Yr.	-1.50	-4.59	-5.13	-0.53
3-5 Yr.	-3.30	-9.35	-10.08	-1.83
5-7 Yr.	-4.69	-12.59	-13.09	-2.52
7-10 Yr.	-5.61	-16.63	-16.63	-3.62
10+ Yr.	-9.00	-28.87	-27.35	-7.32

### Excess Returns by Sector



### Excess Returns by Quality



Source: Bloomberg

Excess returns are relative to the duration-neutral Treasury.

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## Monthly Index Returns

For the Periods Ending September 30, 2022

Index Name	3 Months (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>Equity</b>							
S&P 500	-4.88	-23.87	-15.47	8.16	9.24	11.40	11.70
Russell 1000	-4.61	-24.59	-17.22	7.95	9.00	11.15	11.60
Russell 1000 Growth	-3.60	-30.66	-22.59	10.67	12.17	13.74	13.70
Russell 1000 Value	-5.62	-17.75	-11.36	4.36	5.29	8.15	9.17
Russell 2500	-2.82	-24.01	-21.11	5.36	5.45	8.39	9.58
Russell 2000	-2.19	-25.10	-23.50	4.29	3.55	7.51	8.55
Russell 2000 Growth	0.24	-29.28	-29.27	2.94	3.60	7.12	8.81
Russell 2000 Value	-4.61	-21.12	-17.69	4.72	2.87	7.42	7.94
Wilshire 5000 Cap Wtd	-4.45	-21.60	-14.09	9.39	9.65	11.73	11.93
MSCI ACWI	-6.71	-25.34	-20.29	4.23	4.96	7.98	7.84
MSCI ACWI ex US	-9.80	-26.18	-24.79	-1.07	-0.34	3.78	3.48
MSCI EAFE	-9.29	-26.76	-24.75	-1.38	-0.36	3.34	4.15
MSCI EAFE Local Currency	-3.52	-14.06	-10.66	2.98	3.33	5.77	7.94
MSCI EAFE Growth	-8.45	-32.82	-30.06	-1.18	1.03	4.31	5.08
MSCI EAFE Value	-10.12	-20.61	-19.62	-2.20	-2.14	2.04	2.98
MSCI Emerging Markets	-11.42	-26.89	-27.80	-1.71	-1.44	4.26	1.42
<b>Fixed Income</b>							
ICE BofA ML 1-3 Yr Treasury	-1.56	-4.35	-4.86	-0.48	0.57	0.57	0.60
Bloomberg 5 Yr Municipal	-2.71	-8.06	-8.03	-0.94	0.48	0.93	1.20
Bloomberg US Aggregate	-4.75	-14.61	-14.60	-3.26	-0.27	0.54	0.89
Bloomberg Gov't Bond	-4.30	-12.95	-12.81	-3.05	-0.20	0.19	0.53
Bloomberg US Credit	-4.95	-18.07	-17.89	-3.61	-0.05	1.39	1.58
Bloomberg 10 Yr Municipal	-2.54	-10.59	-10.10	-1.32	0.92	1.61	2.05
Bloomberg US Corp High Yield	-0.65	-14.74	-14.14	-0.45	1.57	4.13	3.94
FTSE World Govt Bond	-7.61	-21.27	-22.14	-7.03	-3.07	-1.29	-1.76
Bloomberg Global Aggregate	-6.94	-19.89	-20.43	-5.74	-2.32	-0.64	-0.93
Bloomberg Multiverse	-6.76	-19.79	-20.35	-5.63	-2.26	-0.45	-0.76
JPM EMBI Global Diversified	-4.57	-23.95	-24.28	-7.15	-2.62	0.90	1.08
<b>Real Assets</b>							
NCREIF Property	0.57	9.35	16.08	9.92	8.62	8.46	9.48
NFI ODCE Net	0.35	12.40	21.01	11.39	9.27	8.88	9.92
FTSE NAREIT Equity REITs	-9.94	-28.13	-16.41	-2.05	2.93	4.86	6.26
Bloomberg Commodity	-4.11	13.57	11.80	13.45	6.96	4.49	-2.14
<b>Cash and Equivalents</b>							
US T-Bills 90 Day	0.46	0.61	0.62	0.59	1.15	0.95	0.68

## Monthly Index Returns

For the Periods Ending October 31, 2022

Index Name	1 Month (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
<b>Equity</b>							
S&P 500	8.10	-17.70	-14.61	10.22	10.44	11.35	12.79
Russell 1000	8.02	-18.54	-16.38	9.99	10.19	11.14	12.66
Russell 1000 Growth	5.84	-26.61	-24.60	11.75	12.59	13.32	14.69
Russell 1000 Value	10.25	-9.32	-7.00	7.31	7.21	8.54	10.30
Russell 2500	9.59	-16.72	-17.58	7.94	7.07	8.97	10.70
Russell 2000	11.01	-16.86	-18.54	7.05	5.56	8.28	9.93
Russell 2000 Growth	9.49	-22.57	-26.02	5.11	5.17	7.67	10.15
Russell 2000 Value	12.59	-11.19	-10.73	8.08	5.31	8.41	9.37
Wilshire 5000 Cap Wtd	8.21	-15.17	-12.90	11.50	10.92	11.76	13.02
MSCI ACWI	6.06	-20.81	-19.58	5.34	5.76	7.71	8.54
MSCI ACWI ex US	3.00	-23.96	-24.35	-1.23	-0.13	3.16	3.75
MSCI EAFE	5.39	-22.81	-22.62	-0.82	0.39	3.00	4.61
MSCI EAFE Local Currency	5.34	-9.48	-7.92	4.20	3.80	5.40	8.38
MSCI EAFE Growth	4.33	-29.91	-29.35	-0.94	1.44	3.76	5.48
MSCI EAFE Value	6.46	-15.48	-15.80	-1.31	-1.07	1.91	3.50
MSCI Emerging Markets	-3.09	-29.15	-30.73	-4.07	-2.73	2.78	1.16
<b>Fixed Income</b>							
ICE BofA ML 1-3 Yr Treasury	-0.10	-4.45	-4.66	-0.62	0.57	0.57	0.60
Bloomberg Municipal	-0.83	-12.86	-11.98	-2.18	0.37	1.15	1.68
Bloomberg US Aggregate	-1.30	-15.72	-15.68	-3.77	-0.54	0.35	0.74
Bloomberg Gov't Bond	-1.37	-14.14	-13.94	-3.52	-0.45	0.05	0.40
Bloomberg US Credit	-1.03	-18.92	-18.91	-4.13	-0.32	1.17	1.36
Bloomberg 10 Yr Municipal	-0.53	-11.06	-10.23	-1.54	0.77	1.48	1.96
Bloomberg US Corp High Yield	2.60	-12.53	-11.76	0.31	2.01	4.10	4.12
FTSE World Govt Bond	-0.52	-21.68	-22.23	-7.36	-3.07	-1.35	-1.75
Bloomberg Global Aggregate	-0.69	-20.44	-20.79	-6.16	-2.38	-0.77	-0.98
Bloomberg Multiverse	-0.56	-20.24	-20.57	-6.03	-2.30	-0.59	-0.81
<b>Real Assets</b>							
Bloomberg Commodity	1.99	15.83	11.15	13.44	6.92	4.85	-1.56
<b>Cash and Equivalents</b>							
US T-Bills 90 Day	0.16	0.76	0.78	0.58	1.16	0.98	0.70

**Defined Benefit Plan Performance**

## Performance vs. Objectives

For the Periods Ending September 30, 2022

	Benchmark (%)	Rank	Total Portfolio (%)	Rank	Objective Met?	Benchmark (%)	Rank	Total Portfolio (%)	Rank	Objective Met?
	5 Years					10 Years				
■ The Pension Plan gross annualized total return should equal or exceed the Plan's actuarial interest rate assumption.	7.25		4.88		No	7.25		7.02		No
■ The Pension Plan gross annualized total return should equal or exceed the annualized total return of the policy index.	4.25		4.88		Yes	6.69		7.02		Yes
■ The Pension Plan gross annualized total return should rank at median or above when compared to a universe of total fund portfolios with a similar allocation to equities (55%-70%).	3.99	50th	4.88	23rd	Yes	6.30	50th	7.02	23rd	Yes
■ Gross volatility or standard deviation should be in line with that of the Policy Index.	12.41		11.69		Yes	9.99		9.27		Yes

Performance and Statistics are calculated using monthly return data. \* Indicates net of fee data.

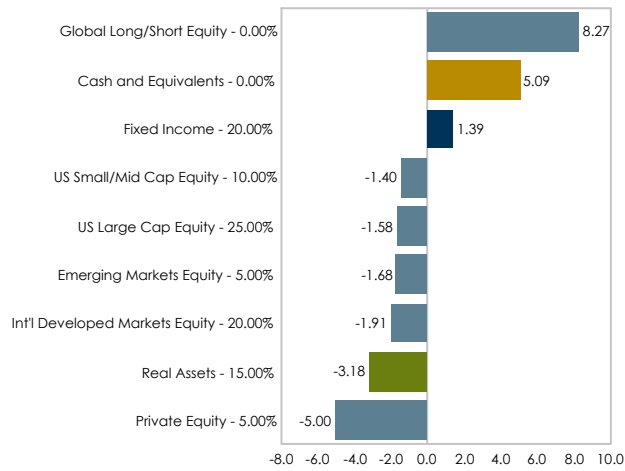
Policy Index: Effective October 2021, the index consists of 70.00% MSCI ACWI, 20.00% Bloomberg US Aggregate, 10.00% NCREIF Property.



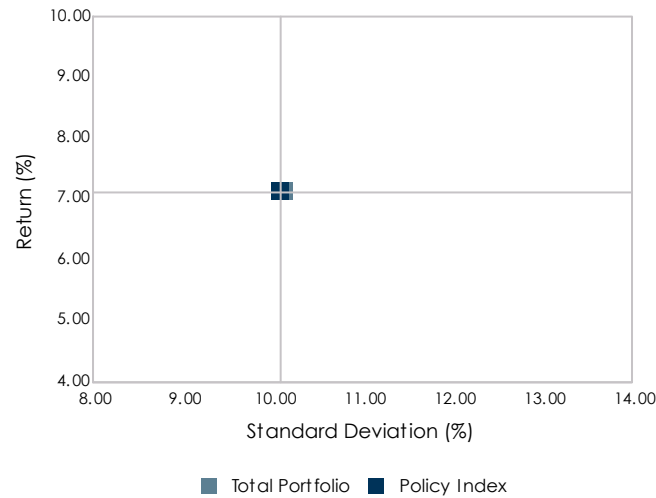
## Total Portfolio

For the Periods Ending September 30, 2022

### Actual vs. Target Allocation (Over / Under)



### Risk / Return Since Apr 1991



### Portfolio Statistics Since Apr 1991

	Total Portfolio	Policy Index
Return (%)	7.13	7.13
Standard Deviation (%)	10.11	10.08
Sharpe Ratio	0.48	0.48

### Benchmark Relative Statistics

Beta	0.98
Up Capture (%)	98.07
Down Capture (%)	97.39

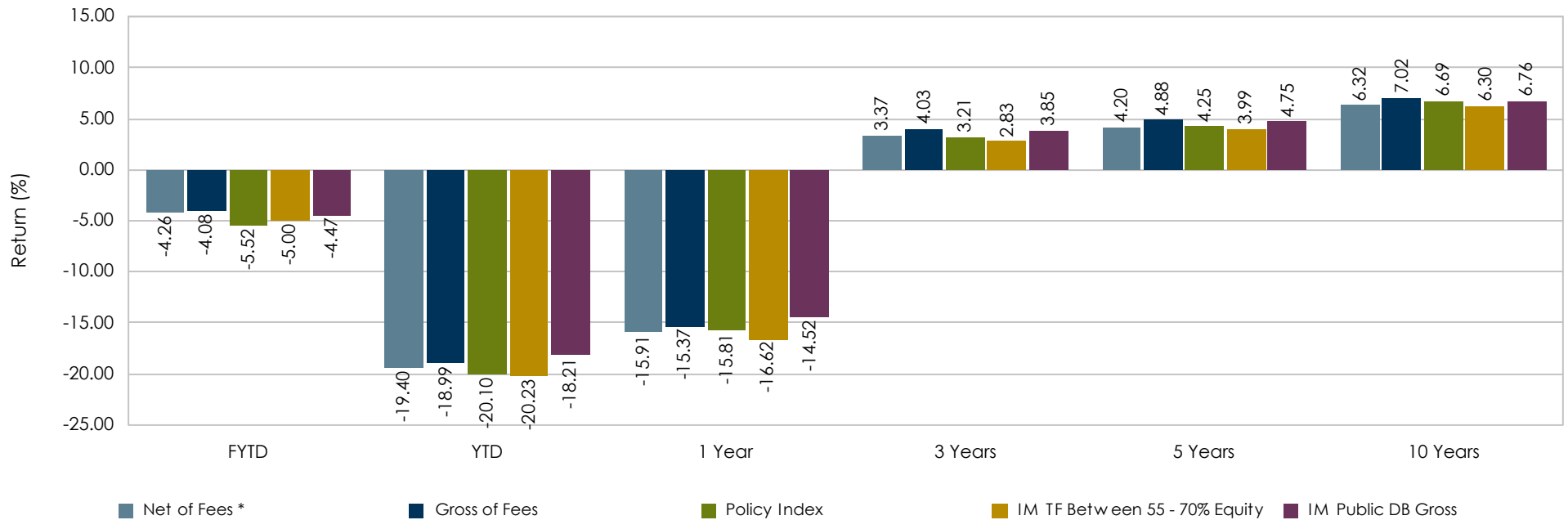
Performance by Broad Asset Class	Market Value (\$000s)	Actual Allocation (%)	Target Allocation (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	10 Years (%)	Since Incp. (%)
<b>Total Portfolio (04/91)</b>	<b>615,782</b>	<b>100.00</b>	<b>100.00</b>	<b>-4.08</b>	<b>-18.99</b>	<b>-15.37</b>	<b>4.03</b>	<b>4.88</b>	<b>7.02</b>	<b>7.13</b>
Policy Index				-5.52	-20.10	-15.81	3.21	4.25	6.69	7.13
<b>Equity (10/10)</b>	<b>379,905</b>	<b>61.69</b>	<b>65.00</b>	<b>-5.28</b>	<b>-24.91</b>	<b>-20.60</b>	<b>4.87</b>	<b>5.69</b>	<b>8.57</b>	<b>8.95</b>
MSCI ACWI				-6.71	-25.34	-20.29	4.23	4.96	7.84	7.73
<b>Fixed Income (06/03)</b>	<b>131,736</b>	<b>21.39</b>	<b>20.00</b>	<b>-3.15</b>	<b>-11.15</b>	<b>-11.16</b>	<b>-0.65</b>	<b>1.29</b>	<b>2.27</b>	<b>4.12</b>
Bloomberg US Aggregate				-4.75	-14.61	-14.60	-3.26	-0.27	0.89	2.89
<b>Real Assets (09/11)</b>	<b>72,807</b>	<b>11.82</b>	<b>15.00</b>	<b>-0.92</b>	<b>9.99</b>	<b>18.67</b>	<b>11.98</b>	<b>10.06</b>	<b>11.57</b>	<b>11.81</b>
NCREIF Property				0.57	9.35	16.08	9.92	8.62	9.48	9.86
<b>Cash and Equivalents (09/11)</b>	<b>31,335</b>	<b>5.09</b>	<b>0.00</b>	<b>0.40</b>	<b>0.52</b>	<b>0.52</b>	<b>0.43</b>	<b>0.94</b>	<b>0.56</b>	<b>0.52</b>

Returns and statistics are calculated using monthly return data.

Percentages following the asset classes represent the target allocation.

## Total Portfolio

For the Periods Ending September 30, 2022



Ranking	17 / 32	32 / 61	35 / 66	22 / 45	23 / 45	23 / 35
5th Percentile	-3.36 / -2.68	-15.77 / -11.56	-11.36 / -7.61	5.41 / 6.72	6.04 / 6.84	7.95 / 8.19
25th Percentile	-4.35 / -3.93	-18.26 / -16.20	-14.41 / -12.00	3.87 / 4.81	4.78 / 5.42	6.95 / 7.37
50th Percentile	-5.00 / -4.47	-20.23 / -18.21	-16.62 / -14.52	2.83 / 3.85	3.99 / 4.75	6.30 / 6.76
75th Percentile	-5.72 / -5.07	-21.61 / -19.84	-18.23 / -16.38	1.83 / 2.68	3.22 / 4.04	5.49 / 6.13
95th Percentile	-6.68 / -5.90	-23.78 / -22.02	-20.56 / -18.93	-0.22 / 1.00	1.91 / 2.81	4.20 / 5.01
Observations	584 / 278	576 / 278	572 / 275	546 / 266	504 / 257	373 / 222

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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## Rates of Return Summary &amp; Universe Rankings

For the Periods Ending September 30, 2022

	Market Value (\$000s)	Actual Allocation (%)	FYTD (%)	Rank	YTD (%)	Rank	1 Year (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
<b>Total Portfolio (04/91)</b>	<b>615,782</b>	<b>100.00</b>	<b>-4.08</b>	<b>17 / 32</b>	<b>-18.99</b>	<b>32 / 61</b>	<b>-15.37</b>	<b>35 / 66</b>	<b>4.03</b>	<b>22 / 45</b>	<b>4.88</b>	<b>23 / 45</b>	<b>7.02</b>
Policy Index <sup>1</sup>			-5.52		-20.10		-15.81		3.21		4.25		6.69
IM TF Between 55 - 70% Equity			-5.00		-20.23		-16.62		2.83		3.99		6.30
IM Public DB Gross			-4.47		-18.21		-14.52		3.85		4.75		6.76
<b>Equity (10/10)</b>	<b>379,905</b>	<b>61.69</b>	<b>-5.28</b>		<b>-24.91</b>		<b>-20.60</b>		<b>4.87</b>		<b>5.69</b>		<b>8.57</b>
MSCI ACWI			-6.71		-25.34		-20.29		4.23		4.96		7.84
<b>US Equity (06/00)</b>	<b>197,173</b>	<b>32.02</b>	<b>-3.84</b>		<b>-22.95</b>		<b>-15.65</b>		<b>7.88</b>		<b>8.83</b>		<b>11.21</b>
Russell 3000			-4.46		-24.62		-17.63		7.70		8.62		11.39
<b>US Large Cap Equity (09/04)</b>	<b>144,189</b>	<b>23.42</b>	<b>-4.89</b>		<b>-23.87</b>		<b>-15.48</b>		<b>8.24</b>		<b>9.16</b>		<b>11.75</b>
S&P 500			-4.88		-23.87		-15.47		8.16		9.24		11.70
<b>SSgA S&amp;P 500 Non-Lending (02/10)</b>	<b>144,189</b>	<b>23.42</b>	<b>-4.89</b>	<b>53</b>	<b>-23.87</b>	<b>63</b>	<b>-15.48</b>	<b>55</b>	<b>8.14</b>	<b>40</b>	<b>9.25</b>	<b>41</b>	<b>11.74</b>
S&P 500			-4.88		-23.87		-15.47		8.16		9.24		11.70
eA US Large Cap Core Equity			-4.83		-22.94		-15.04		7.75		8.98		11.52
<b>US Small/Mid Cap Equity</b>	<b>52,984</b>	<b>8.60</b>											
<b>River Road Small Cap Value (04/16)</b>	<b>29,012</b>	<b>4.71</b>	<b>-2.53</b>	<b>14</b>	<b>-13.41</b>	<b>9</b>	<b>-6.60</b>	<b>6</b>	<b>6.51</b>	<b>45</b>	<b>7.06</b>	<b>12</b>	<b>--</b>
Russell 2000 Value			-4.61		-21.12		-17.69		4.72		2.87		7.94
eA US Small Cap Value Equity			-4.64		-19.73		-14.13		6.13		4.34		9.64
<b>TimesSquare (04/09) <sup>2</sup></b>	<b>23,972</b>	<b>3.89</b>											
Russell 2500 Growth			-0.12		-29.54		-29.39		4.76		6.30		10.30
<b>Non-US Equity (06/00)</b>	<b>131,818</b>	<b>21.41</b>	<b>-9.03</b>		<b>-29.84</b>		<b>-27.74</b>		<b>1.42</b>		<b>1.92</b>		<b>5.74</b>
MSCI ACWI ex US			-9.80		-26.18		-24.79		-1.07		-0.34		3.48
<b>International Developed Market</b>	<b>111,372</b>	<b>18.09</b>											
<b>Artisan International Value (05/10)</b>	<b>40,349</b>	<b>6.55</b>	<b>-9.62</b>	<b>58</b>	<b>-21.08</b>	<b>13</b>	<b>-17.34</b>	<b>6</b>	<b>3.93</b>	<b>4</b>	<b>2.51</b>	<b>11</b>	<b>7.67</b>
MSCI EAFE			-9.29		-26.76		-24.75		-1.38		-0.36		4.15
eA EAFE All Cap Equity			-9.24		-27.19		-25.37		-0.79		-0.27		4.69

## Rates of Return Summary &amp; Universe Rankings

For the Periods Ending September 30, 2022

	Market Value (\$000s)	Actual Allocation (%)	FYTD (%)	Rank	YTD (%)	Rank	1 Year (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
<b>Ninety One International Dynamic Fund (03/15)</b>	<b>36,773</b>	<b>5.97</b>	<b>-9.23</b>	<b>41</b>	<b>-29.34</b>	<b>64</b>	<b>-28.16</b>	<b>69</b>	<b>0.30</b>	<b>43</b>	<b>0.27</b>	<b>49</b>	<b>--</b>
<i>MSCI ACWI ex US</i>			-9.80		-26.18		-24.79		-1.07		-0.34		3.48
<i>eA ACWI ex-US Core Equity</i>			-9.42		-28.00		-25.91		-0.01		0.22		4.75
<b>WCM Focused Int'l Growth (03/15)</b>	<b>34,251</b>	<b>5.56</b>	<b>-7.11</b>	<b>15</b>	<b>-36.15</b>	<b>60</b>	<b>-32.53</b>	<b>44</b>	<b>3.70</b>	<b>21</b>	<b>6.42</b>	<b>5</b>	<b>--</b>
<i>MSCI ACWI ex US</i>			-9.80		-26.18		-24.79		-1.07		-0.34		3.48
<i>eA ACWI ex-US Growth Equity</i>			-8.60		-35.02		-33.31		0.39		1.72		5.96
<b>Emerging Markets Equity (03/15)</b>	<b>20,446</b>	<b>3.32</b>	<b>-10.60</b>		<b>-34.24</b>		<b>-35.41</b>		<b>-5.85</b>		<b>-3.90</b>		<b>--</b>
<i>MSCI Emerging Markets</i>			-11.42		-26.89		-27.80		-1.71		-1.44		1.42
<b>Harding Loevner Emerging Markets (03/15)</b>	<b>20,446</b>	<b>3.32</b>	<b>-10.60</b>	<b>55</b>	<b>-34.24</b>	<b>93</b>	<b>-35.41</b>	<b>93</b>	<b>-5.85</b>	<b>97</b>	<b>-3.90</b>	<b>96</b>	<b>--</b>
<i>MSCI Emerging Markets</i>			-11.42		-26.89		-27.80		-1.71		-1.44		1.42
<i>eA Global Emerging Mkts Equity</i>			-10.22		-27.07		-27.60		-0.93		-0.90		2.36
<b>Global Long/Short Equity (09/11) <sup>3</sup></b>	<b>50,913</b>	<b>8.27</b>	<b>-1.09</b>		<b>-20.00</b>		<b>-21.38</b>		<b>2.27</b>		<b>2.93</b>		<b>4.48</b>
<i>MSCI ACWI</i>			-6.71		-25.34		-20.29		4.23		4.96		7.84
<i>HFRI FOF: Strategic</i>			-1.94		-14.18		-13.75		2.98		2.01		3.26
<b>Fixed Income (06/03)</b>	<b>131,736</b>	<b>21.39</b>	<b>-3.15</b>		<b>-11.15</b>		<b>-11.16</b>		<b>-0.65</b>		<b>1.29</b>		<b>2.27</b>
<i>Bloomberg US Aggregate</i>			-4.75		-14.61		-14.60		-3.26		-0.27		0.89
<b>JP Morgan Fixed Income (06/91)</b>	<b>41,025</b>	<b>6.66</b>	<b>-4.14</b>	<b>24</b>	<b>-13.23</b>	<b>17</b>	<b>-13.31</b>	<b>17</b>	<b>-2.21</b>	<b>24</b>	<b>0.57</b>	<b>22</b>	<b>1.58</b>
<i>Bloomberg US Aggregate</i>			-4.75		-14.61		-14.60		-3.26		-0.27		0.89
<i>eA US Core Fixed Income</i>			-4.49		-14.38		-14.36		-2.68		0.23		1.40
<b>Amundi Pioneer Core Plus Bond Fund (11/11)</b>	<b>42,827</b>	<b>6.95</b>	<b>-3.86</b>	<b>22</b>	<b>-13.78</b>	<b>19</b>	<b>-13.63</b>	<b>17</b>	<b>-0.76</b>	<b>15</b>	<b>1.04</b>	<b>21</b>	<b>2.54</b>
<i>Bloomberg Universal</i>			-4.45		-14.90		-14.92		-3.11		-0.18		1.17
<i>eA US Core Plus Fixed Income</i>			-4.30		-14.93		-14.83		-2.37		0.49		1.88
<b>BlackRock Strategic Income Opportunities (07/17)</b>	<b>47,883</b>	<b>7.78</b>	<b>-1.64</b>	<b>49</b>	<b>-6.69</b>	<b>30</b>	<b>-6.75</b>	<b>27</b>	<b>1.36</b>	<b>17</b>	<b>2.32</b>	<b>11</b>	<b>--</b>
<i>Bloomberg US Aggregate</i>			-4.75		-14.61		-14.60		-3.26		-0.27		0.89
<i>US T-Bills 30 Day + 4.0%</i>			1.46		3.59		4.63		4.52		5.11		4.64
<i>eA Global Unconstrained Fixed Income</i>			-1.86		-10.62		-10.36		-0.71		1.09		1.97

## Rates of Return Summary & Universe Rankings

For the Periods Ending September 30, 2022

	Market Value (\$000s)	Actual Allocation (%)	FYTD (%)	Rank	YTD (%)	Rank	1 Year (%)	Rank	3 Years (%)	Rank	5 Years (%)	Rank	10 Years (%)
<b>Real Assets (09/11)</b>	<b>72,807</b>	<b>11.82</b>	<b>-0.92</b>		<b>9.99</b>		<b>18.67</b>		<b>11.98</b>		<b>10.06</b>		<b>11.57</b>
NCREIF Property			0.57		9.35		16.08		9.92		8.62		9.48
<b>JP Morgan Special Situation Property (02/07)</b>	<b>25,072</b>	<b>4.07</b>	<b>-3.41</b>		<b>6.71</b>		<b>14.79</b>		<b>11.75</b>		<b>10.74</b>		<b>13.00</b>
NFI ODCE Net			0.35		12.40		21.01		11.39		9.27		9.92
<b>JP Morgan Strategic Property (05/07)</b>	<b>34,672</b>	<b>5.63</b>	<b>-1.27</b>		<b>10.11</b>		<b>19.06</b>		<b>11.39</b>		<b>9.18</b>		<b>10.44</b>
NFI ODCE Net			0.35		12.40		21.01		11.39		9.27		9.92
<b>Clarion Lion Industrial Trust (07/22)</b>	<b>13,063</b>	<b>2.12</b>	<b>5.25</b>		<b>--</b>		<b>--</b>		<b>--</b>		<b>--</b>		<b>--</b>
NFI ODCE Net			0.35		12.40		21.01		11.39		9.27		9.92
<b>Cash and Equivalents (09/11)</b>	<b>31,335</b>	<b>5.09</b>	<b>0.40</b>		<b>0.52</b>		<b>0.52</b>		<b>0.43</b>		<b>0.94</b>		<b>0.56</b>

**Notes:**

<sup>1</sup> Policy Index: Effective October 2021, the index consists of 70.00% MSCI ACWI, 20.00% Bloomberg US Aggregate, 10.00% NCREIF Property.

<sup>2</sup> Manager is in liquidation.

<sup>3</sup> Performance is net of manager fees.

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### **Balanced Fund Managers**

## SSgA S&P 500 Non-Lending

For the Periods Ending September 30, 2022

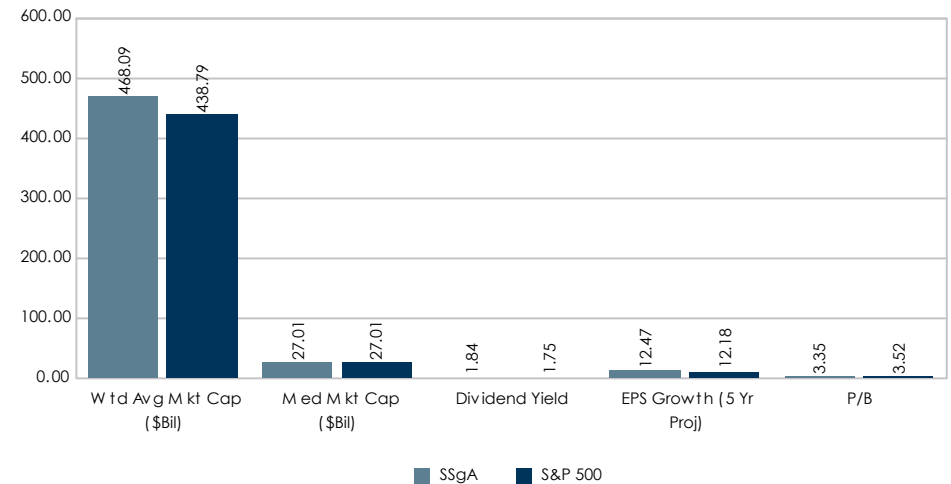
### Account Description

- **Strategy** US Large Cap Equity
- **Vehicle** Non-Mutual Commingled
- **Benchmark** S&P 500
- **Performance Inception Date** February 2010
- **Fees** 1 bp

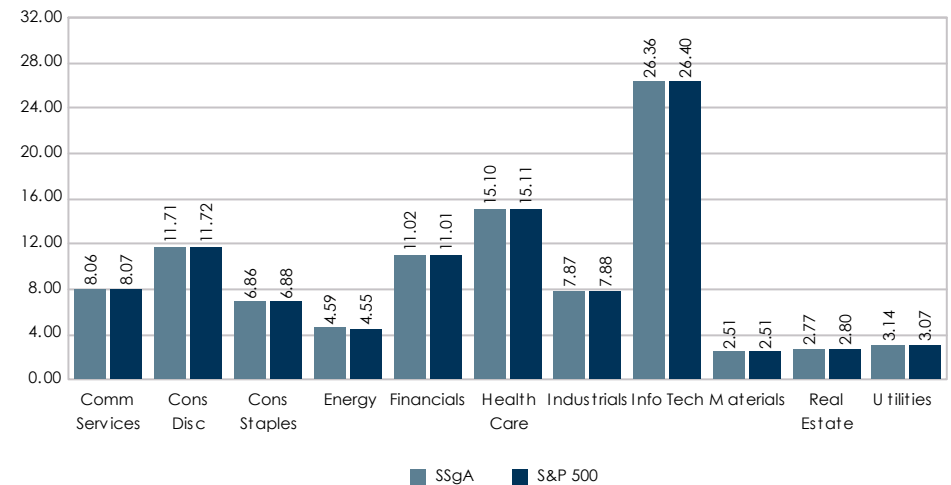
### Performance Goals

- Mirror the risk and return profile of the S&P 500 over all time periods.

### Characteristics



### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>151,697</b>	<b>226,013</b>
Net Additions	-104	-32,305
Return on Investment	-7,403	-49,519
<b>Ending Market Value</b>	<b>144,189</b>	<b>144,189</b>

Characteristic and allocation charts represents data of the State Street S&P 500 Flagship Non-Lending Fund (Non-Mutual Commingled).

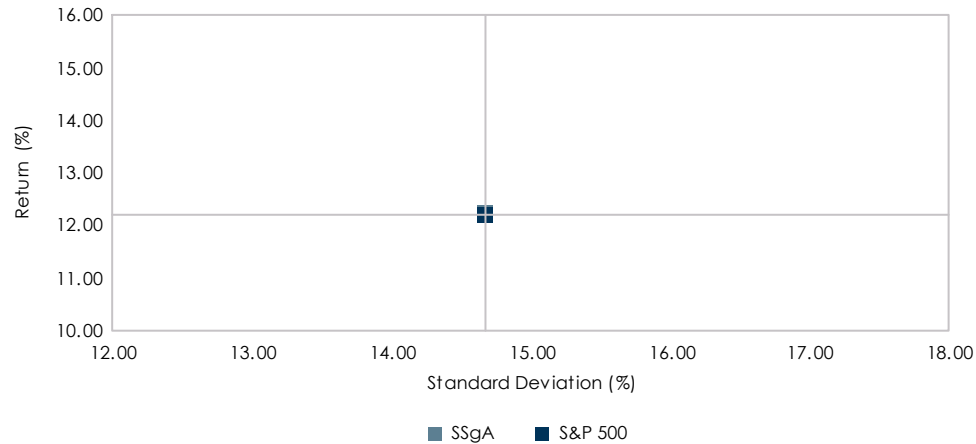
Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.



## SSgA S&P 500 Non-Lending

For the Periods Ending September 30, 2022

### Risk / Return Since Feb 2010



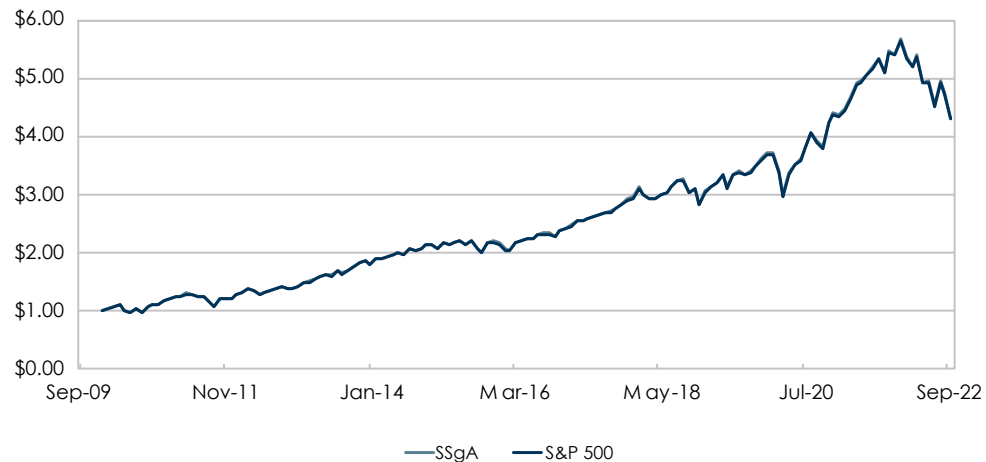
### Portfolio Statistics Since Feb 2010

	SSgA	S&P 500
Return (%)	12.22	12.19
Standard Deviation (%)	14.68	14.67
Sharpe Ratio	0.80	0.80

### Benchmark Relative Statistics

Beta	1.00
R Squared (%)	100.00
Alpha (%)	0.03
Tracking Error (%)	0.04
Batting Average (%)	59.87
Up Capture (%)	100.12
Down Capture (%)	99.97

### Growth of a Dollar Since Feb 2010

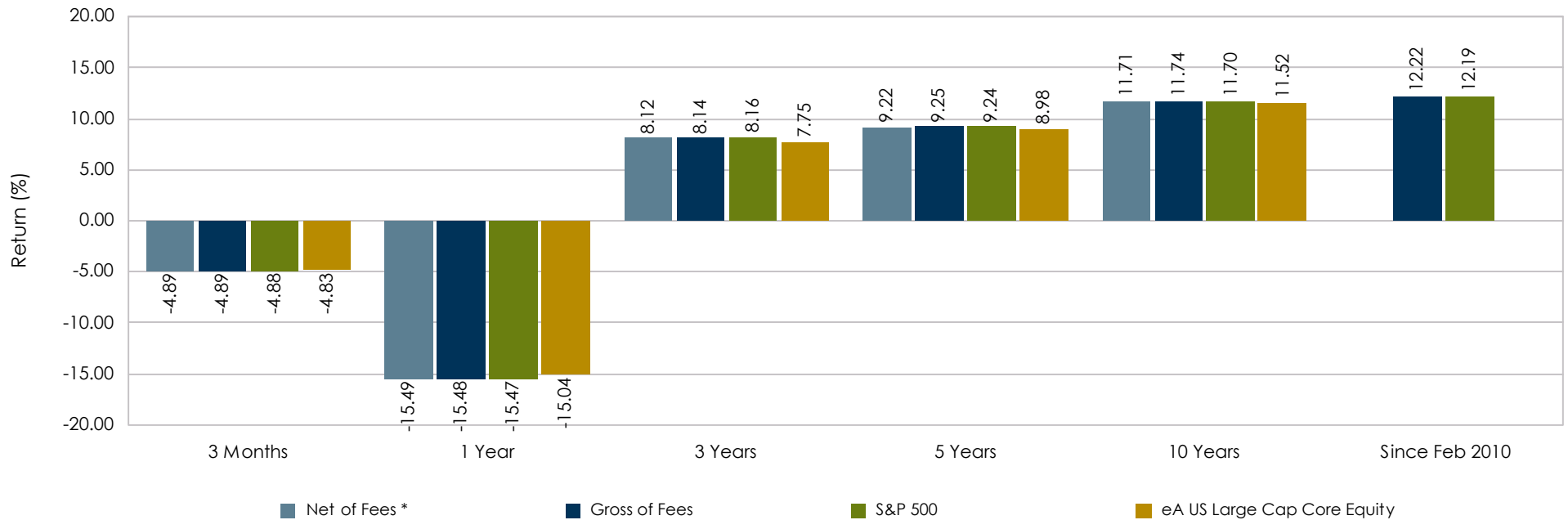


### Return Analysis Since Feb 2010

	SSgA	S&P 500
Number of Months	152	152
Highest Monthly Return (%)	12.82	12.82
Lowest Monthly Return (%)	-12.37	-12.35
Number of Positive Months	105	105
Number of Negative Months	47	47
% of Positive Months	69.08	69.08

### SSgA S&P 500 Non-Lending

For the Periods Ending September 30, 2022



Ranking	53	55	40	41	40
5th Percentile	-2.35	-5.68	11.13	11.68	13.54
25th Percentile	-4.17	-11.59	8.88	10.05	12.08
50th Percentile	-4.83	-15.04	7.75	8.98	11.52
75th Percentile	-5.64	-17.24	6.27	7.70	10.67
95th Percentile	-7.00	-21.43	3.35	5.83	8.56
Observations	361	361	350	334	263

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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## River Road Small Cap Value

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** US Small/Mid Cap Value
- **Vehicle** Separately Managed Account
- **Benchmark** Russell 2000 Value
- **Performance Inception Date** April 2016
- **Fees** First \$10M at 95 bps; next \$15M at 90 bps; next \$25M at 85 bps

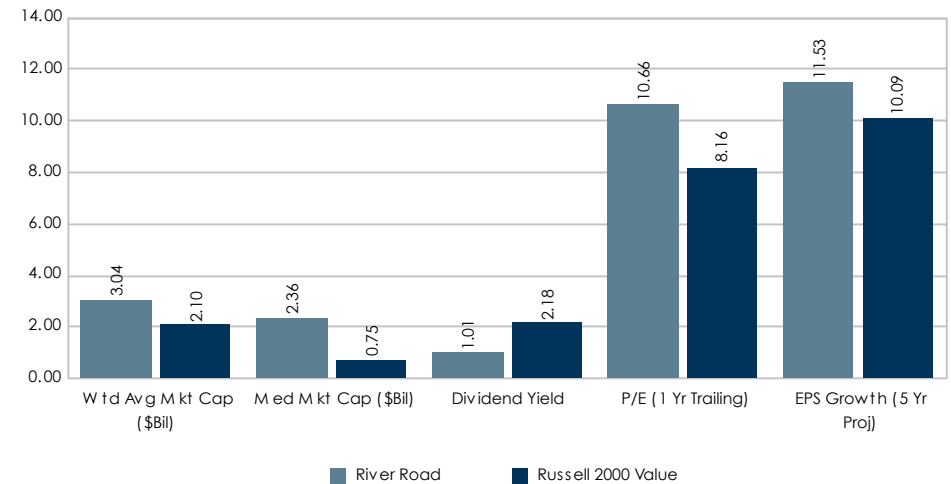
### Performance Goals

- Outperform the Russell 2000 Value over a complete market cycle (typically 3 to 5 years).
- Rank above median in the eA US Small Cap Value Equity universe over a complete market cycle (3 to 5 years).

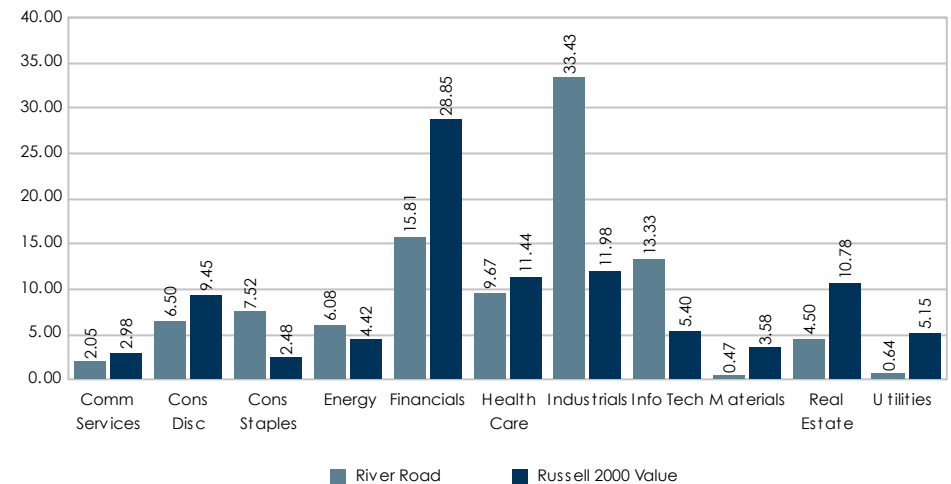
### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>35,397</b>	<b>40,076</b>
Net Additions	-5,779	-5,996
Return on Investment	-605	-5,068
Income	96	261
Gain/Loss	-701	-5,328
<b>Ending Market Value</b>	<b>29,012</b>	<b>29,012</b>

### Characteristics



### Sector Allocation

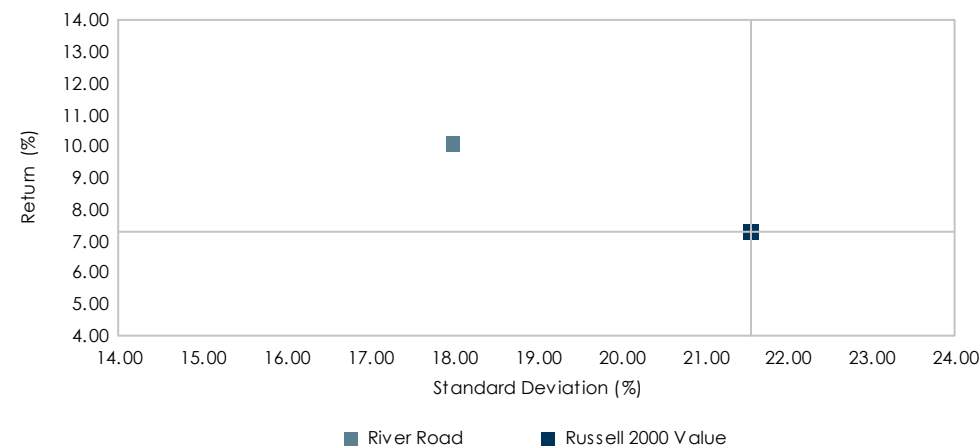


Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

River Road Small Cap Value

For the Periods Ending September 30, 2022

Risk / Return Since Apr 2016



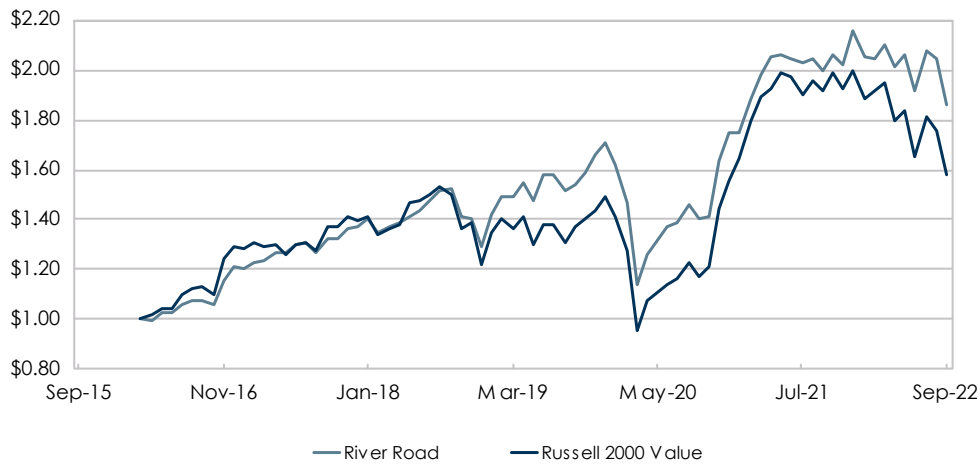
Portfolio Statistics Since Apr 2016

	River Road	Russell 2000 Value
Return (%)	10.05	7.26
Standard Deviation (%)	17.99	21.57
Sharpe Ratio	0.51	0.29

Benchmark Relative Statistics

Beta	0.80
R Squared (%)	92.25
Alpha (%)	3.80
Tracking Error (%)	6.59
Batting Average (%)	55.13
Up Capture (%)	83.09
Down Capture (%)	78.14

Growth of a Dollar Since Apr 2016

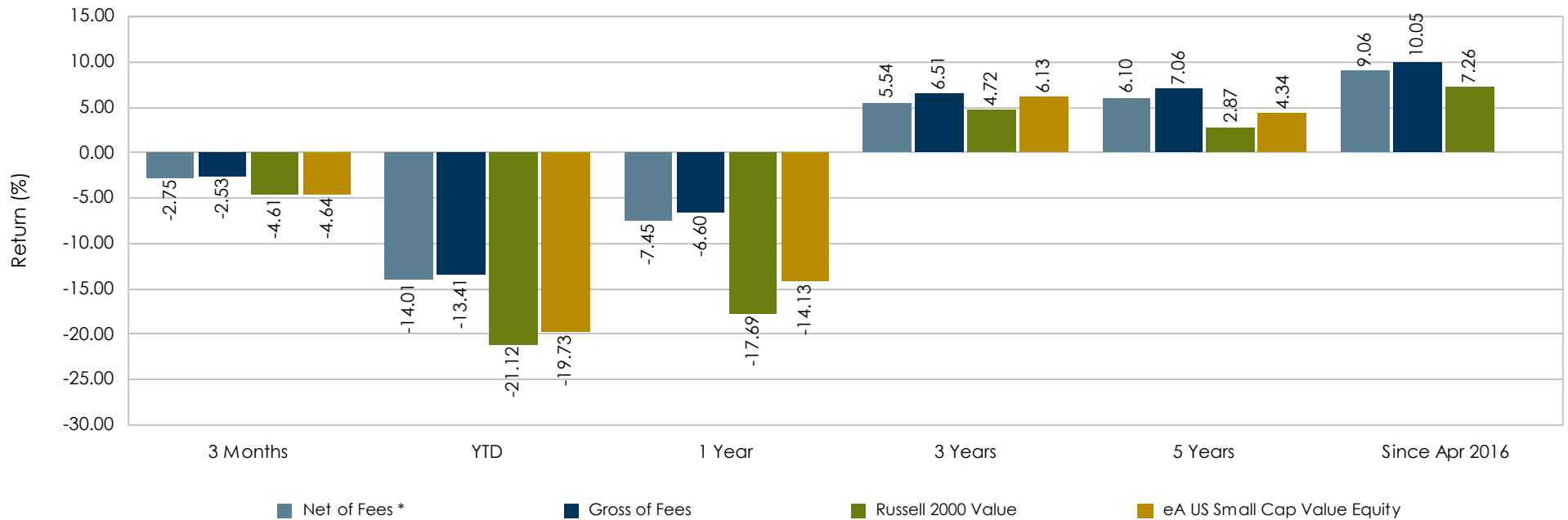


Return Analysis Since Apr 2016

	River Road	Russell 2000 Value
Number of Months	78	78
Highest Monthly Return (%)	15.86	19.31
Lowest Monthly Return (%)	-22.26	-24.67
Number of Positive Months	48	52
Number of Negative Months	30	26
% of Positive Months	61.54	66.67

### River Road Small Cap Value

For the Periods Ending September 30, 2022



Ranking	14	9	6	45	12
5th Percentile	-0.54	-12.15	-5.91	12.52	8.62
25th Percentile	-3.21	-17.48	-11.78	8.54	5.83
50th Percentile	-4.64	-19.73	-14.13	6.13	4.34
75th Percentile	-5.92	-22.47	-17.39	4.24	3.33
95th Percentile	-8.33	-27.16	-23.43	1.24	1.19
Observations	209	209	209	205	193

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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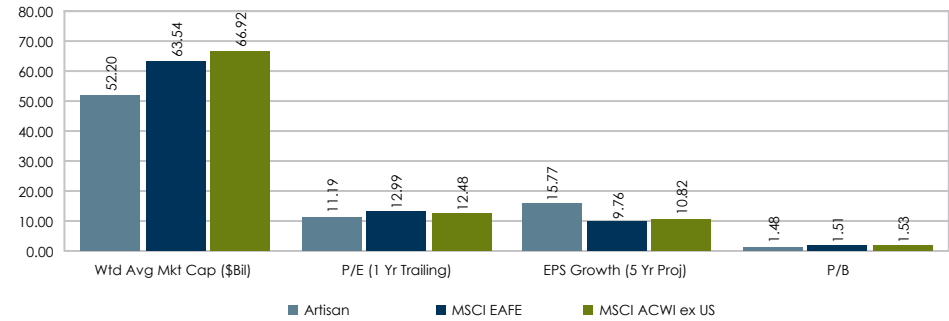
## Artisan International Value

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Int'l Developed Markets Equity
- **Vehicle** Mutual Fund: Institutional Class (APHKX)
- **Benchmarks** MSCI EAFE and MSCI ACWI ex US
- **Performance Inception Date** May 2010
- **Expense Ratio** 102 bps

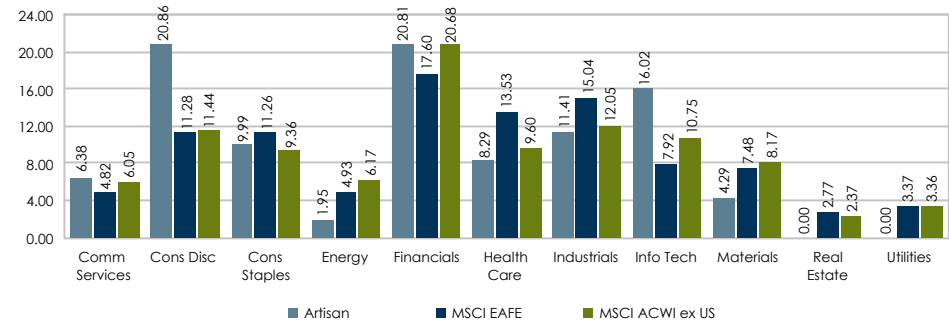
### Characteristics



### Performance Goals

- Exceed the returns of the MSCI EAFE over a complete market cycle (3 to 5 years).
- Rank above the median in the eA EAFE All Cap Equity universe over a complete market cycle (3 to 5 years).

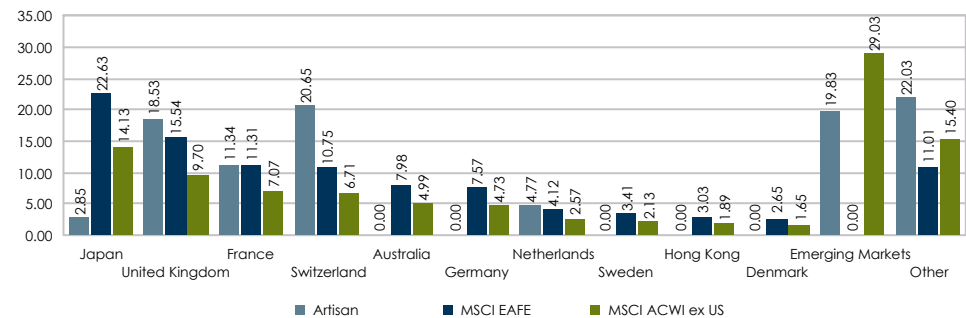
### Sector Allocation



### Net Dollar Growth Summary (\$000s)

	3 Months	YTD
Beginning Market Value	44,761	51,520
Net Additions	0	0
Return on Investment	-4,412	-11,171
Ending Market Value	40,349	40,349

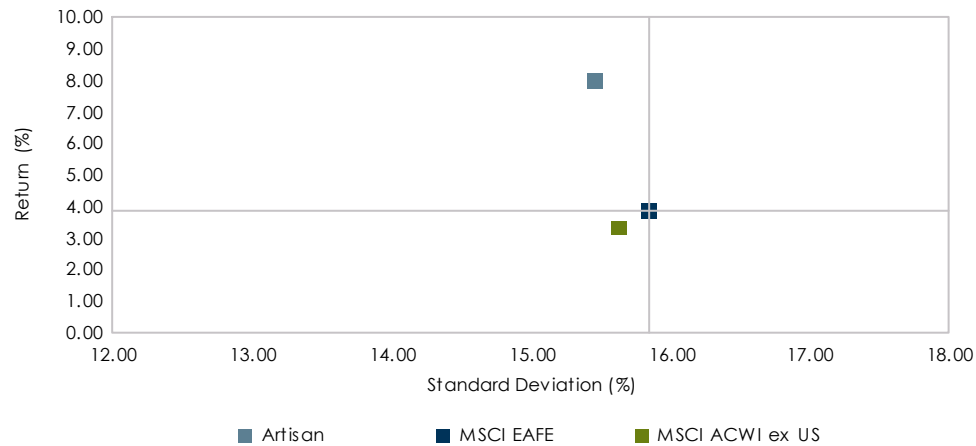
### Country Allocation



## Artisan International Value

For the Periods Ending September 30, 2022

### Risk / Return Since May 2010



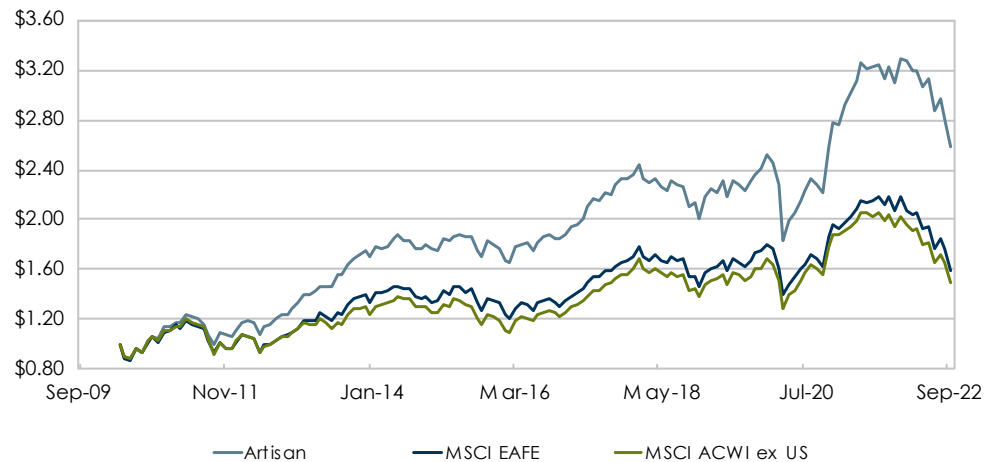
### Portfolio Statistics Since May 2010

	Artisan	MSCI EAFE	MSCI ACWI ex US
Return (%)	7.97	3.86	3.31
Standard Deviation (%)	15.46	15.85	15.63
Sharpe Ratio	0.48	0.21	0.18

### Benchmark Relative Statistics

Beta	0.93	0.94
R Squared (%)	90.08	89.73
Alpha (%)	4.30	4.79
Tracking Error (%)	5.01	5.05
Batting Average (%)	57.05	57.05
Up Capture (%)	100.68	104.81
Down Capture (%)	84.11	84.95

### Growth of a Dollar Since May 2010

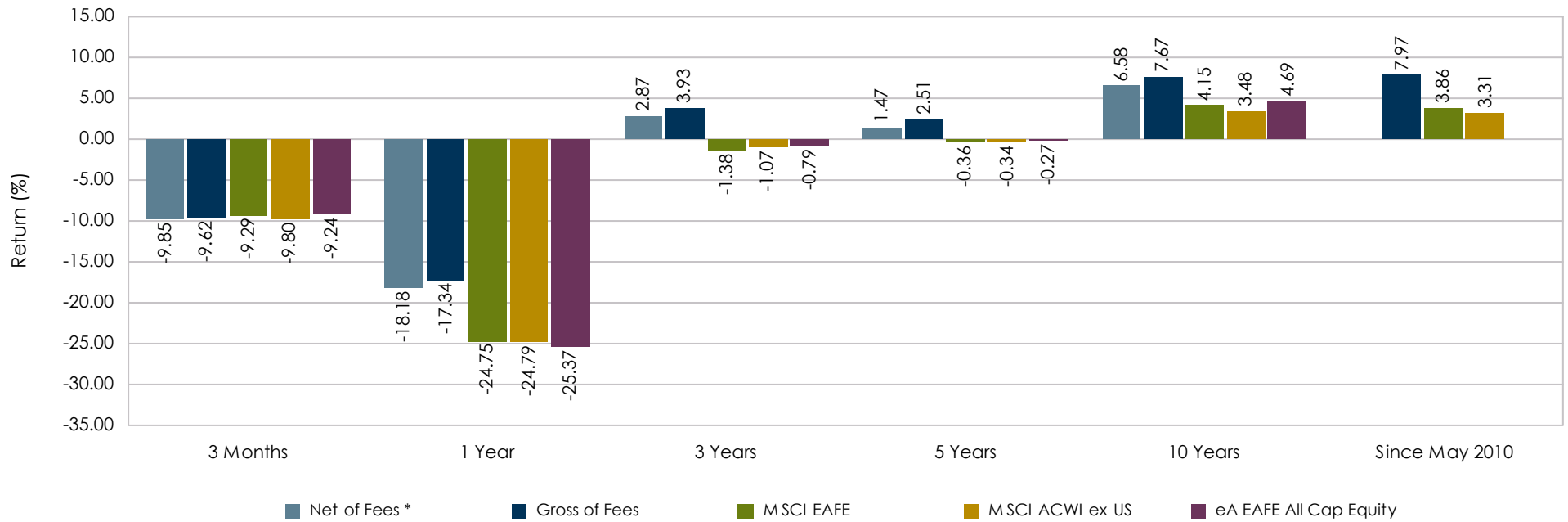


### Return Analysis Since May 2010

	Artisan	MSCI EAFE	MSCI ACWI ex US
Number of Months	149	149	149
Highest Monthly Return (%)	16.60	15.51	13.46
Lowest Monthly Return (%)	-19.43	-13.25	-14.40
Number of Positive Months	85	82	85
Number of Negative Months	64	67	64
% of Positive Months	57.05	55.03	57.05

### Artisan International Value

For the Periods Ending September 30, 2022



Ranking	58	6	4	11	5
5th Percentile	-6.19	-17.31	3.58	3.13	7.62
25th Percentile	-8.10	-22.02	0.22	0.86	5.77
50th Percentile	-9.24	-25.37	-0.79	-0.27	4.69
75th Percentile	-10.33	-27.78	-2.13	-1.15	4.00
95th Percentile	-12.79	-36.71	-4.21	-2.90	2.18
Observations	118	118	116	110	85

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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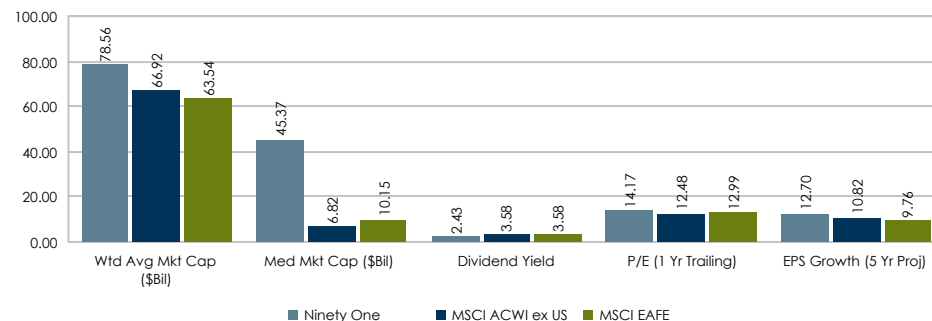
# Ninety One International Dynamic Fund

For the Periods Ending September 30, 2022

## Account Description

- **Strategy** Int'l Developed Markets Equity
- **Vehicle** Non-Mutual Commingled
- **Benchmarks** MSCI ACWI ex US and MSCI EAFE
- **Performance Inception Date** March 2015
- **Fees** 35 bps

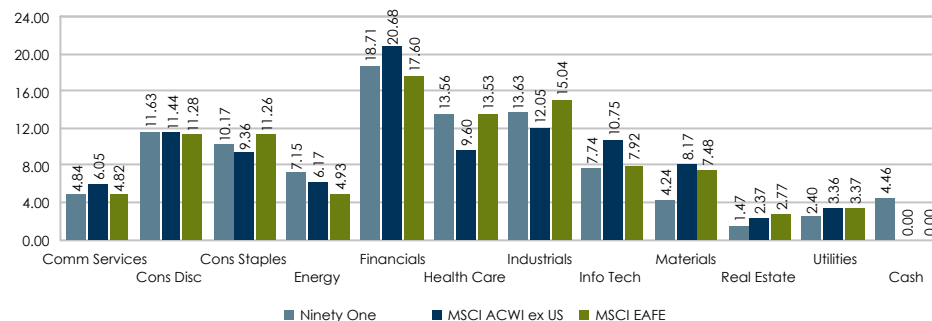
## Characteristics



## Performance Goals

- Exceed the returns of the MSCI ACWI ex US over a complete market cycle (3 to 5 years).
- Rank above the median in the eA ACWI ex-US Core Equity universe over a complete market cycle (3 to 5 years).

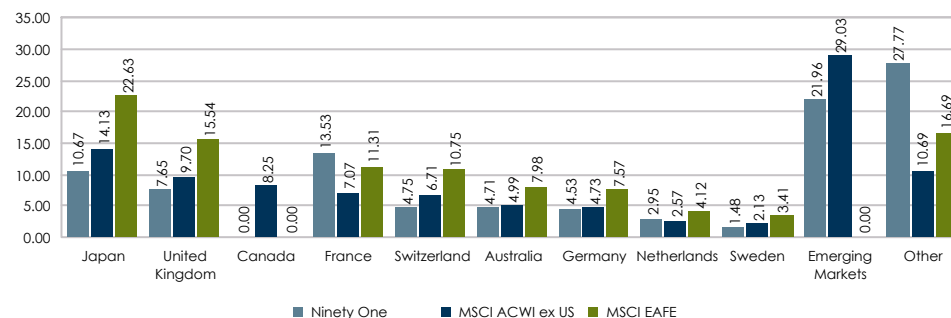
## Sector Allocation



## Dollar Growth Summary (\$000s)

	3 Months	YTD
Beginning Market Value	40,599	52,437
Net Additions	-90	-339
Return on Investment	-3,736	-15,326
Ending Market Value	36,773	36,773

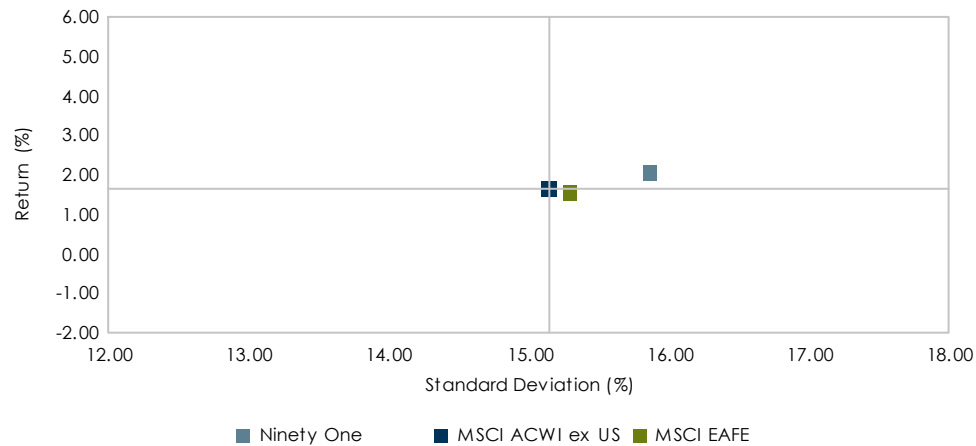
## Country Allocation



## Ninety One International Dynamic Fund

For the Periods Ending September 30, 2022

### Risk / Return Since Mar 2015



### Portfolio Statistics Since Mar 2015

	Ninety One	MSCI ACWI ex US	MSCI EAFE
Return (%)	2.06	1.63	1.55
Standard Deviation (%)	15.87	15.14	15.30
Sharpe Ratio	0.08	0.05	0.05

### Benchmark Relative Statistics

Beta	1.00	0.98
R Squared (%)	91.82	89.54
Alpha (%)	0.53	0.65
Tracking Error (%)	4.54	5.14
Batting Average (%)	53.85	56.04
Up Capture (%)	102.63	100.13
Down Capture (%)	100.19	98.09

### Growth of a Dollar Since Mar 2015

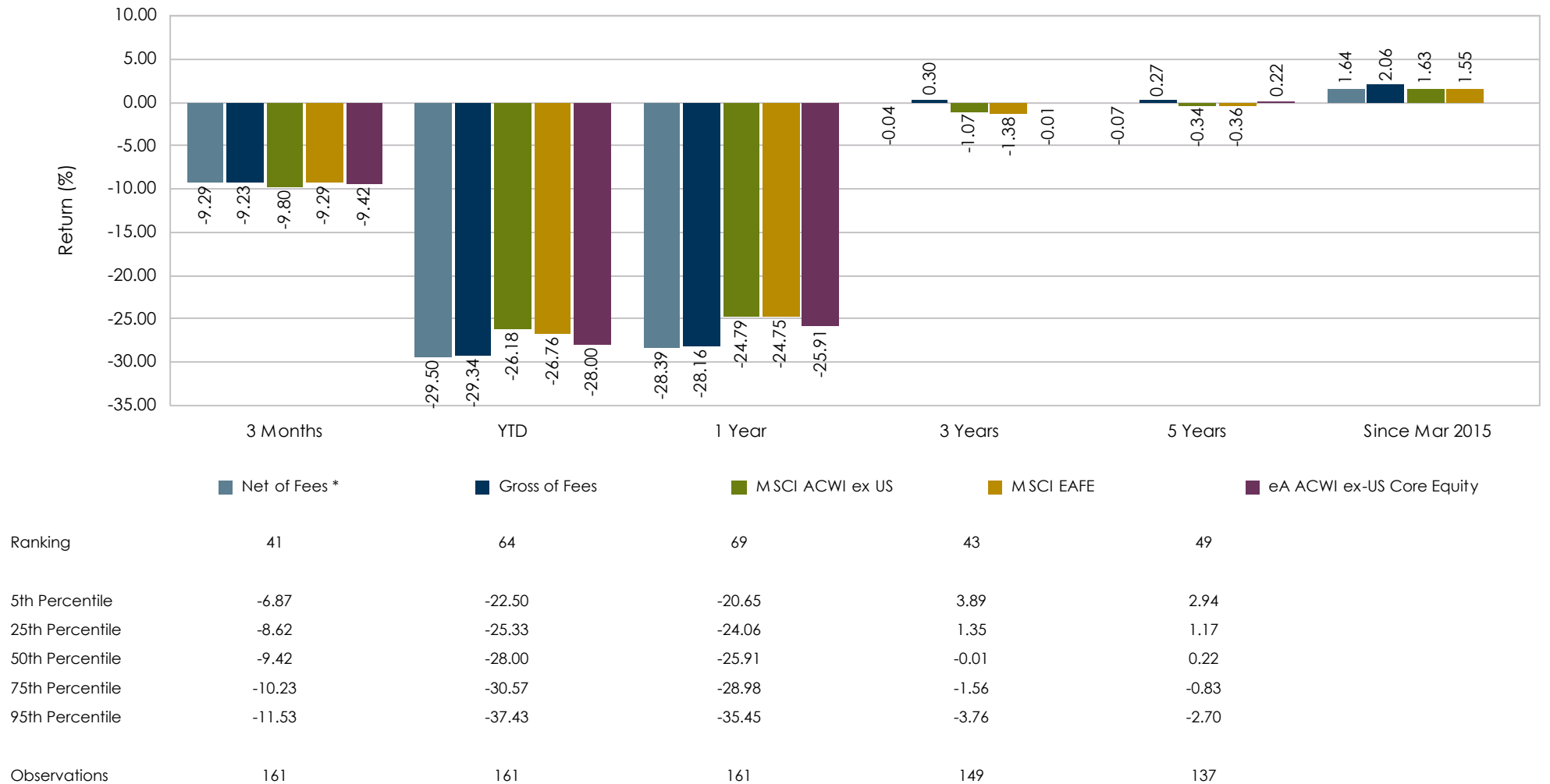


### Return Analysis Since Mar 2015

	Ninety One	MSCI ACWI ex US	MSCI EAFE
Number of Months	91	91	91
Highest Monthly Return (%)	12.16	13.46	15.51
Lowest Monthly Return (%)	-16.64	-14.40	-13.25
Number of Positive Months	52	52	50
Number of Negative Months	39	39	41
% of Positive Months	57.14	57.14	54.95

## Ninety One International Dynamic Fund

For the Periods Ending September 30, 2022



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

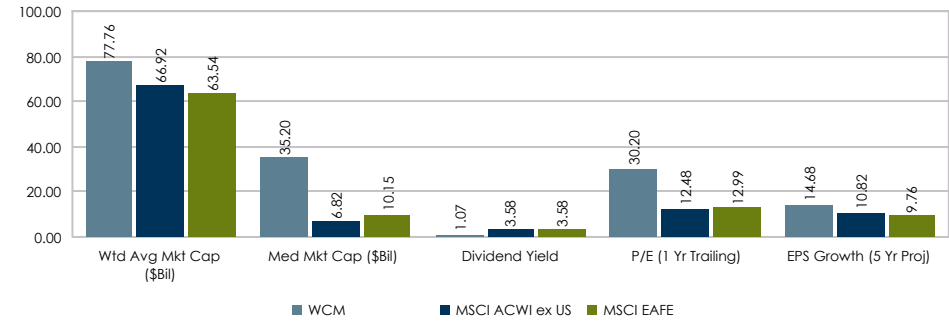
## WCM Focused Int'l Growth

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Int'l Developed Markets Equity
- **Vehicle** Non-Mutual Commingled
- **Benchmarks** MSCI ACWI ex US and MSCI EAFE
- **Performance Inception Date** March 2015
- **Fees** 70 bps

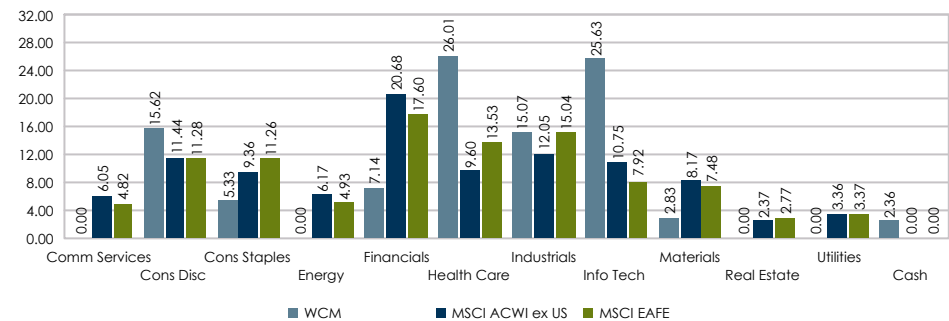
### Characteristics



### Performance Goals

- Exceed the returns of the MSCI ACWI ex US over a complete market cycle (3 to 5 years).
- Rank above the median in the eA ACWI ex-US Growth Equity universe over a complete market cycle (3 to 5 years)

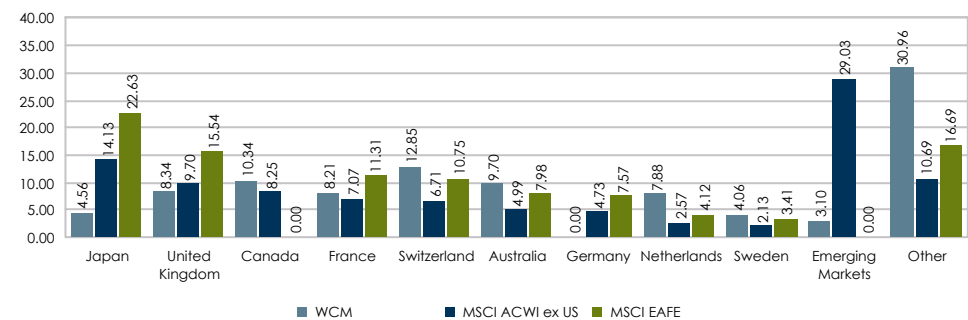
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
Beginning Market Value	36,936	53,952
Net Additions	-65	-238
Return on Investment	-2,621	-19,464
Ending Market Value	34,251	34,251

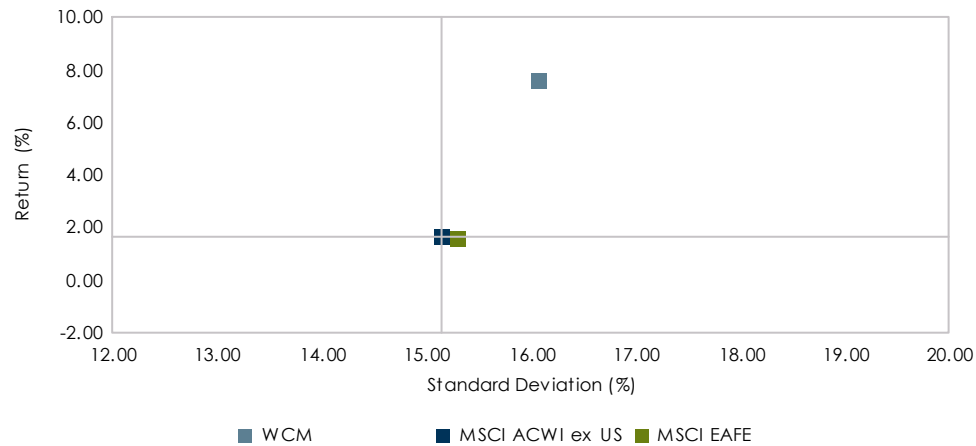
### Country Allocation



## WCM Focused Int'l Growth

For the Periods Ending September 30, 2022

### Risk / Return Since Mar 2015



### Portfolio Statistics Since Mar 2015

	WCM	MSCI ACWI ex US	MSCI EAFE
Return (%)	7.54	1.63	1.55
Standard Deviation (%)	16.09	15.14	15.30
Sharpe Ratio	0.42	0.05	0.05

### Benchmark Relative Statistics

Beta	0.93	0.93
R Squared (%)	76.57	77.64
Alpha (%)	6.19	6.26
Tracking Error (%)	7.86	7.69
Batting Average (%)	58.24	60.44
Up Capture (%)	106.21	107.14
Down Capture (%)	80.72	81.28

### Growth of a Dollar Since Mar 2015

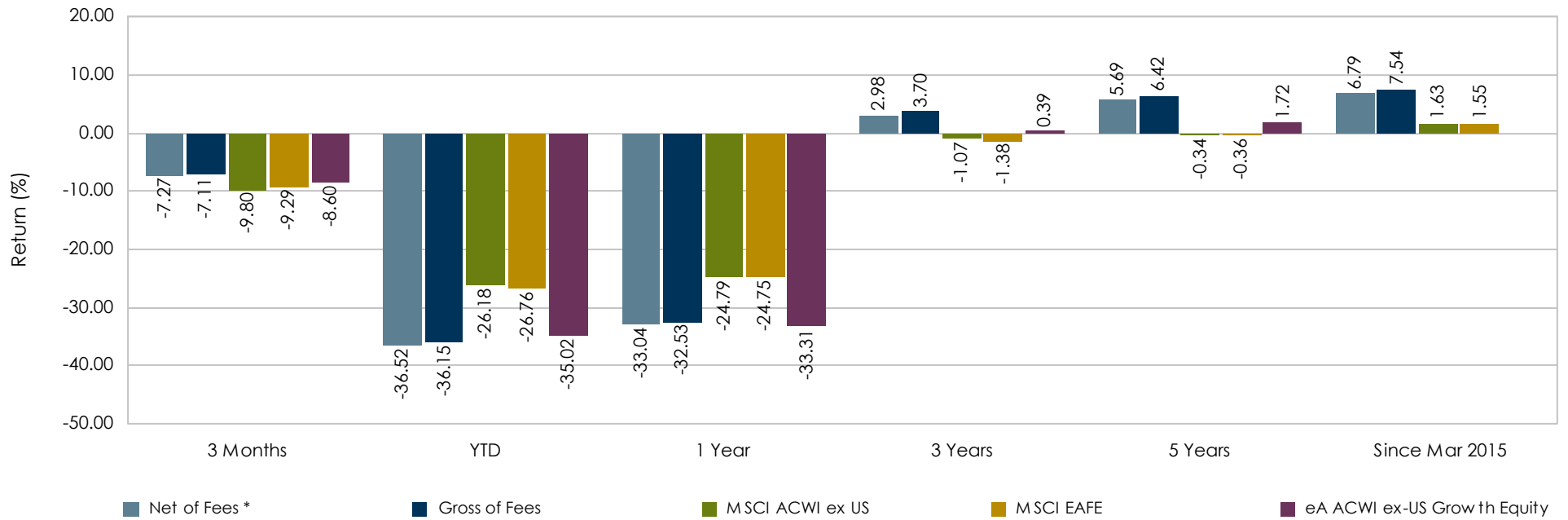


### Return Analysis Since Mar 2015

	WCM	MSCI ACWI ex US	MSCI EAFE
Number of Months	91	91	91
Highest Monthly Return (%)	11.94	13.46	15.51
Lowest Monthly Return (%)	-12.87	-14.40	-13.25
Number of Positive Months	58	52	50
Number of Negative Months	33	39	41
% of Positive Months	63.74	57.14	54.95

### WCM Focused Int'l Growth

For the Periods Ending September 30, 2022



Ranking	15	60	44	21	5
5th Percentile	-5.99	-25.03	-20.61	5.71	6.41
25th Percentile	-7.54	-30.14	-28.30	3.00	3.04
50th Percentile	-8.60	-35.02	-33.31	0.39	1.72
75th Percentile	-9.55	-38.28	-37.90	-1.92	-0.27
95th Percentile	-11.22	-46.12	-46.70	-4.75	-1.38
Observations	108	108	108	99	91

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

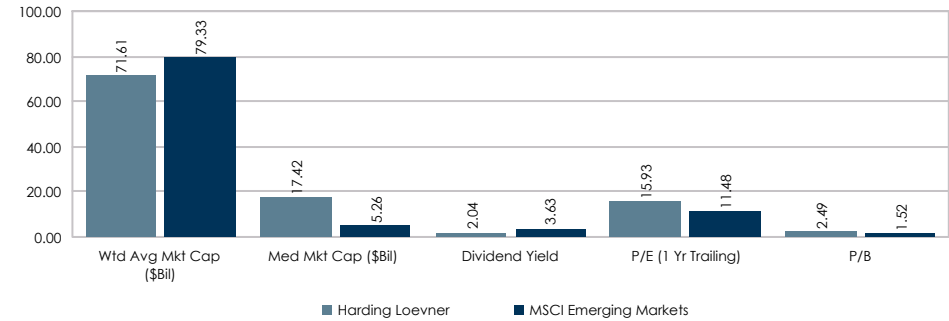
## Harding Loevner Emerging Markets

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Emerging Markets Equity
- **Vehicle** Mutual Fund: Institutional Class (HLEZX)
- **Benchmark** MSCI Emerging Markets
- **Performance Inception Date** March 2015
- **Expense Ratio** 100 bps

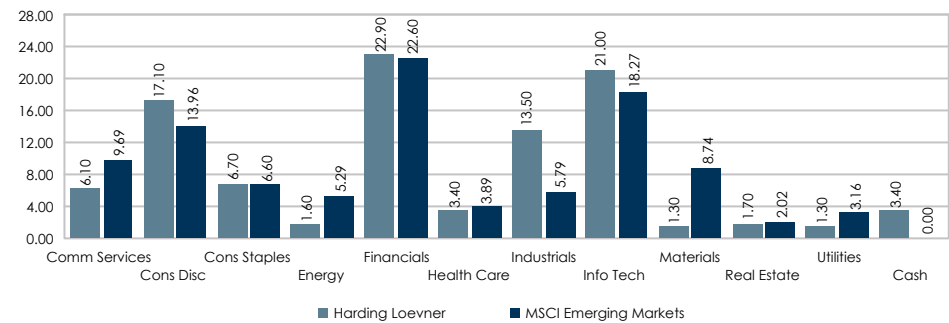
### Characteristics



### Performance Goals

- Exceed the returns of the MSCI Emerging Markets over a complete market cycle (3 to 5 years).
- Rank above the median in the eA Global Emerging Mkts Equity universe over a complete market cycle (3 to 5 years).

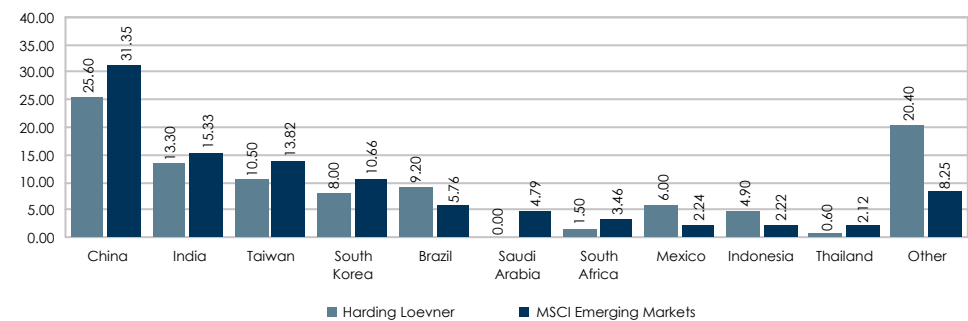
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>22,927</b>	<b>31,324</b>
Net Additions	-55	-184
Return on Investment	-2,426	-10,695
<b>Ending Market Value</b>	<b>20,446</b>	<b>20,446</b>

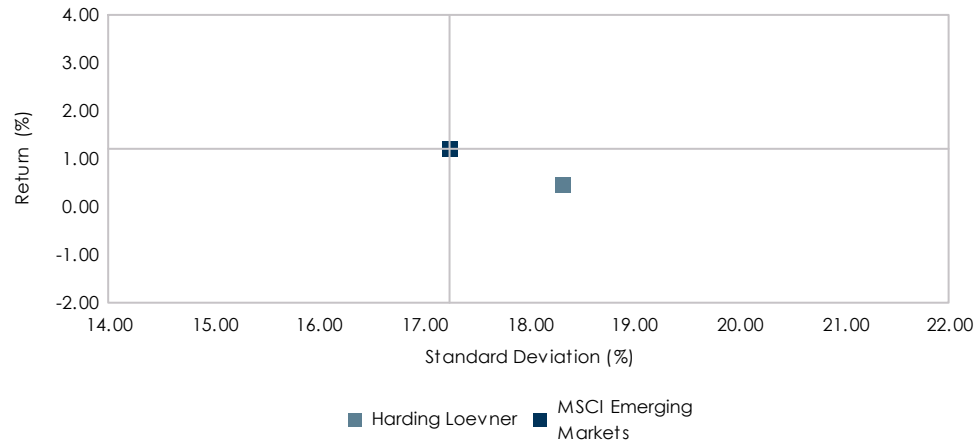
### Country Allocation



## Harding Loevner Emerging Markets

For the Periods Ending September 30, 2022

### Risk / Return Since Mar 2015



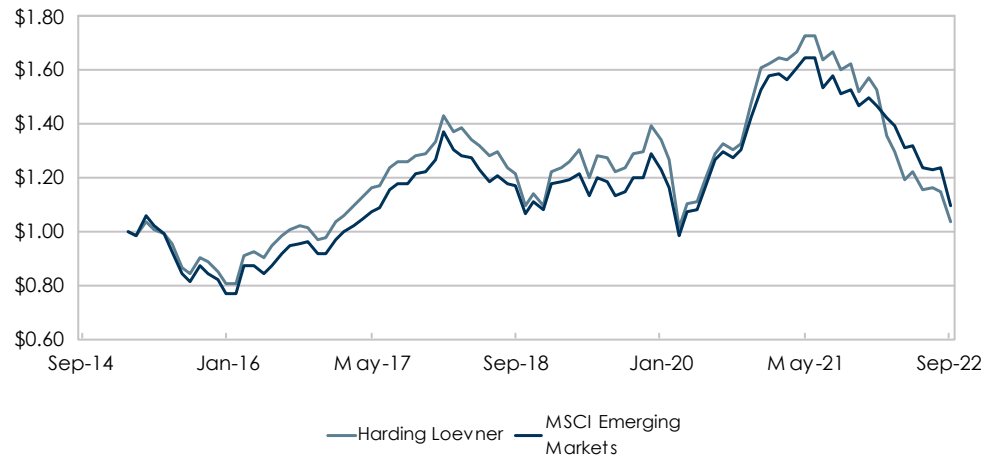
### Portfolio Statistics Since Mar 2015

	Harding Loevner	MSCI Emerging Markets
Return (%)	0.46	1.20
Standard Deviation (%)	18.34	17.25
Sharpe Ratio	-0.02	0.02

### Benchmark Relative Statistics

Beta	1.01
R Squared (%)	91.02
Alpha (%)	-0.56
Tracking Error (%)	5.50
Batting Average (%)	57.14
Up Capture (%)	100.93
Down Capture (%)	103.13

### Growth of a Dollar Since Mar 2015



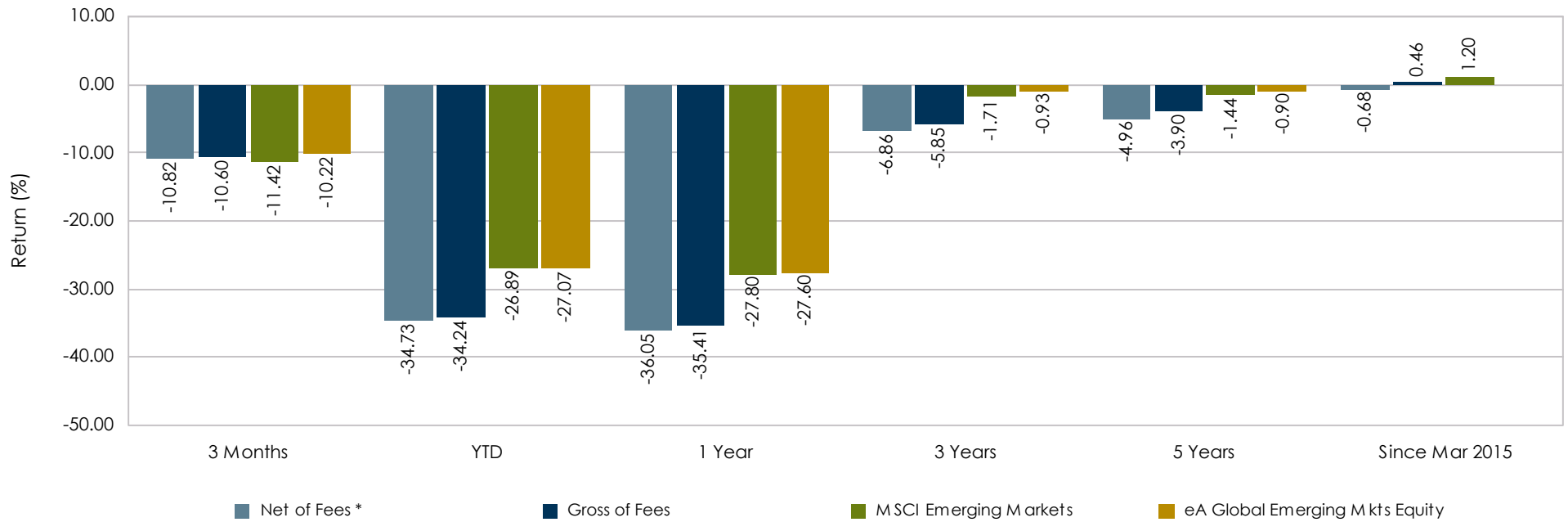
### Return Analysis Since Mar 2015

	Harding Loevner	MSCI Emerging Markets
Number of Months	91	91
Highest Monthly Return (%)	12.53	13.26
Lowest Monthly Return (%)	-19.96	-15.38
Number of Positive Months	53	50
Number of Negative Months	38	41
% of Positive Months	58.24	54.95



### Harding Loevner Emerging Markets

For the Periods Ending September 30, 2022



Ranking	55	93	93	97	96
5th Percentile	-3.73	-16.58	-16.40	7.89	4.16
25th Percentile	-7.38	-23.73	-23.52	1.60	0.76
50th Percentile	-10.22	-27.07	-27.60	-0.93	-0.90
75th Percentile	-11.77	-29.98	-31.10	-2.74	-1.99
95th Percentile	-13.36	-34.99	-37.08	-5.55	-3.67
Observations	517	517	517	466	417

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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## Global Long/Short Equity

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Global Long/Short Equity
- **Benchmark** MSCI ACWI
- This composite includes a combination of equity long/short managers that are diversified across geographies, sectors and market caps. The composite transitioned from a fund of funds strategy to a number of direct strategies in February 2014.
- Performance and statistics on the following Global Long/Short pages are presented net of fees.

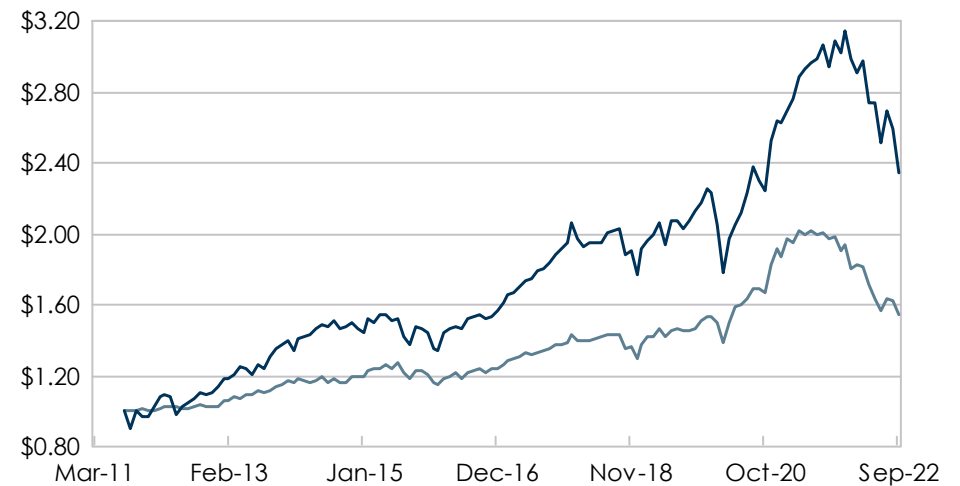
### Performance Goals

- Approximate the return of the MSCI All Country World Index with 2/3 of the risk over longer-term time periods (greater than 5 years).

### Net Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>54,405</b>	<b>67,573</b>
Net Additions	-2,982	-3,292
Return on Investment	-509	-13,367
<b>Ending Market Value</b>	<b>50,913</b>	<b>50,913</b>

### Growth of a Dollar

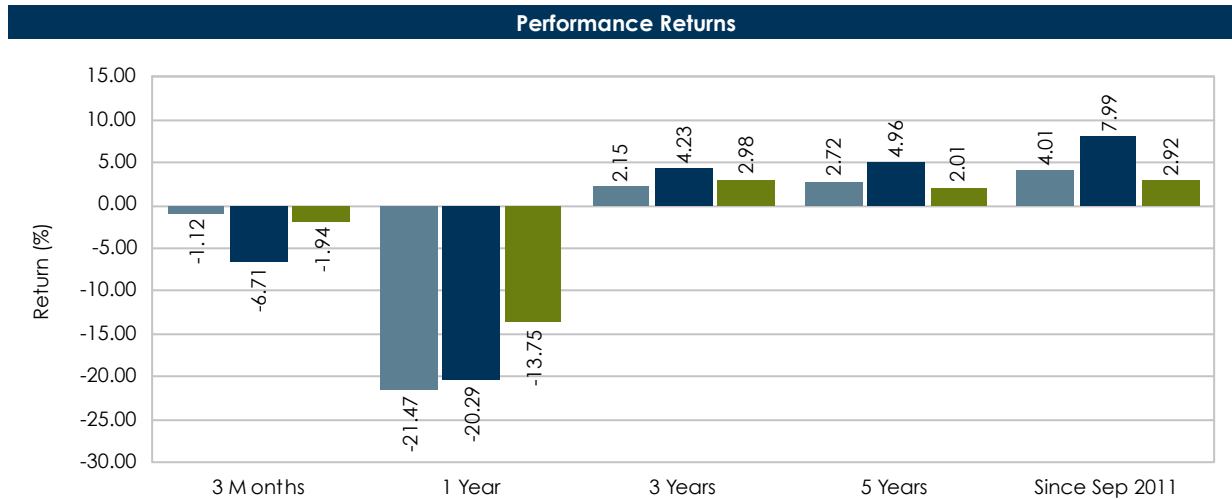


— Global Long/Short \* — MSCI ACWI

\* Performance is calculated using net of fee returns.

## Global Long/Short Equity

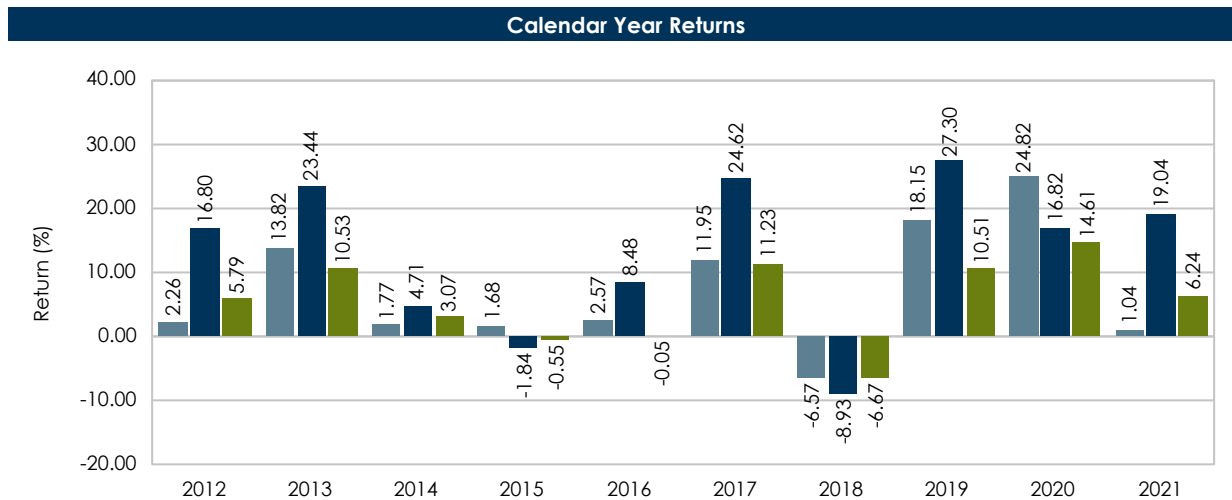
For the Periods Ending September 30, 2022



	Return (%)	Std Dev (%)	Sharpe Ratio
<b>3 Months</b>			
Global Long/Short *	-1.12	--	--
MSCI ACWI	-6.71	--	--
HFRI FOF: Strategic	-1.94	--	--

<b>1 Year</b>			
Global Long/Short *	-21.47	12.19	-1.81
MSCI ACWI	-20.29	19.12	-1.09
HFRI FOF: Strategic	-13.75	7.40	-1.94

<b>3 Years</b>			
Global Long/Short *	2.15	13.68	0.12
MSCI ACWI	4.23	19.40	0.19
HFRI FOF: Strategic	2.98	10.25	0.24



<b>5 Years</b>			
Global Long/Short *	2.72	11.71	0.14
MSCI ACWI	4.96	17.15	0.23
HFRI FOF: Strategic	2.01	8.68	0.11

<b>Since Sep 2011</b>			
Global Long/Short *	4.01	8.83	0.39
MSCI ACWI	7.99	14.53	0.51
HFRI FOF: Strategic	2.92	6.83	0.35

\* Performance is calculated using net of fee returns.

Statistics are calculated using monthly return data.

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## Global Long/Short Equity

For the Periods Ending September 30, 2022

Monthly Returns (%)	Sep 22	Aug 22	Jul 22	Jun 22	May 22	Apr 22	Mar 22	Feb 22	Jan 22	Dec 21	Nov 21	Oct 21
<b>Global Long/Short Equity *</b>	<b>-4.90</b>	<b>-0.57</b>	<b>4.57</b>	<b>-4.53</b>	<b>-4.19</b>	<b>-5.89</b>	<b>-0.71</b>	<b>1.45</b>	<b>-6.76</b>	<b>1.42</b>	<b>-3.56</b>	<b>0.44</b>
MSCI ACWI	-9.53	-3.64	7.02	-8.39	0.19	-7.97	2.22	-2.55	-4.89	4.03	-2.38	5.13
HFRI FOF: Strategic	-3.75	0.31	1.57	-1.72	-2.17	-3.07	-0.10	-1.26	-4.80	0.15	-1.95	2.34

Calendar Year Returns (%)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	Performance Stats (120 Months)				
											Pos.	Neg.	Best	Worst	Med.
<b>Global Long/Short Equity *</b>	<b>1.04</b>	<b>24.82</b>	<b>18.15</b>	<b>-6.57</b>	<b>11.95</b>	<b>2.57</b>	<b>1.68</b>	<b>1.77</b>	<b>13.82</b>	<b>2.26</b>	<b>76</b>	<b>44</b>	<b>9.45</b>	<b>-7.35</b>	<b>0.64</b>
MSCI ACWI	19.04	16.82	27.30	-8.93	24.62	8.48	-1.84	4.71	23.44	16.80	79	41	12.36	-13.44	1.30
HFRI FOF: Strategic	6.24	14.61	10.51	-6.67	11.23	-0.05	-0.55	3.07	10.53	5.79	73	47	5.52	-9.70	0.54

Statistics	Return (%)	Standard Deviation (%)	Sharpe Ratio	Beta	R2 (%)	Alpha (%)	Tracking Error (%)	Batting Average (%)	Up Capture (%)	Down Capture (%)
1 Year										
<b>Global Long/Short Equity *</b>	<b>-21.47</b>	<b>12.19</b>	<b>-1.81</b>							
MSCI ACWI	-20.29	19.12	-1.09	0.50	62.66	-12.04	12.04	41.67	6.71	67.17
HFRI FOF: Strategic	-13.75	7.40	-1.94	1.42	74.15	-2.71	6.93	25.00	133.71	148.53
3 Years										
<b>Global Long/Short Equity *</b>	<b>2.15</b>	<b>13.68</b>	<b>0.12</b>							
MSCI ACWI	4.23	19.40	0.19	0.61	73.83	-0.61	10.37	41.67	48.58	62.84
HFRI FOF: Strategic	2.98	10.25	0.24	1.19	79.60	-1.09	6.48	47.22	124.31	127.50
5 Years										
<b>Global Long/Short Equity *</b>	<b>2.72</b>	<b>11.71</b>	<b>0.14</b>							
MSCI ACWI	4.96	17.15	0.23	0.60	76.12	-0.40	8.99	40.00	48.98	60.96
HFRI FOF: Strategic	2.01	8.68	0.11	1.21	80.18	0.50	5.52	55.00	130.14	121.41
Since Inception										
<b>Global Long/Short Equity *</b>	<b>4.01</b>	<b>8.83</b>	<b>0.39</b>							
MSCI ACWI	7.99	14.53	0.51	0.48	62.27	0.12	9.30	40.60	43.10	51.31
HFRI FOF: Strategic	2.92	6.83	0.35	1.11	73.20	0.88	4.63	56.39	118.60	108.13

\* Performance and statistics are presented net of fees.

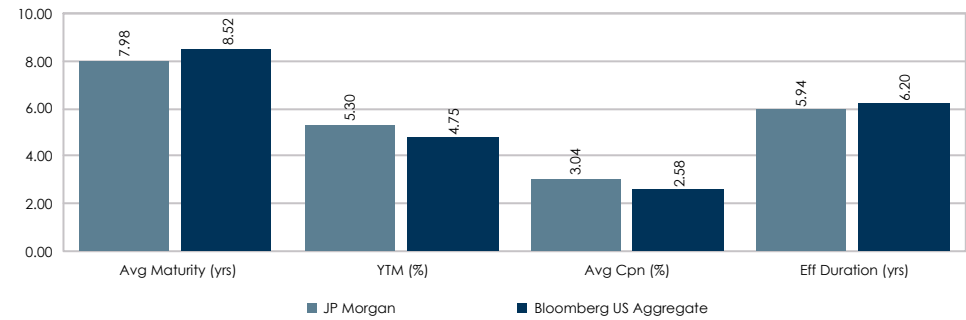
## JP Morgan Fixed Income

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** US Investment Grade
- **Vehicle** Non-Mutual Commingled
- **Performance Inception Date** June 1991
- **Benchmark** Bloomberg US Aggregate
- **Fees** 30 bps

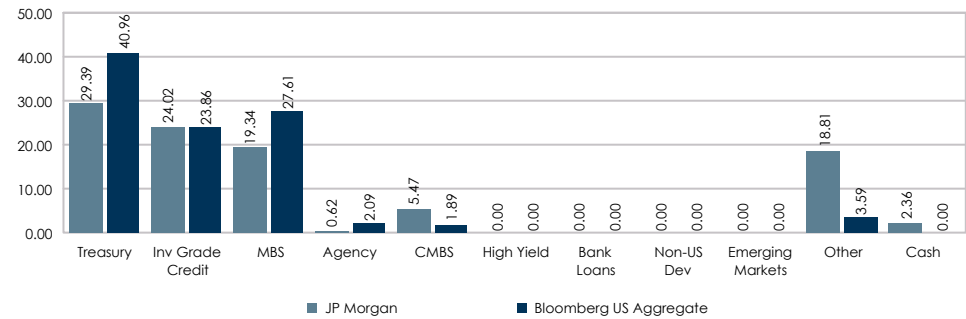
### Characteristics



### Performance Goals

- Exceed the returns of the Bloomberg US Aggregate over a complete market cycle (3 to 5 years).
- Rank above median in the eA US Core Fixed Income universe over a complete market cycle (3 to 5 years).

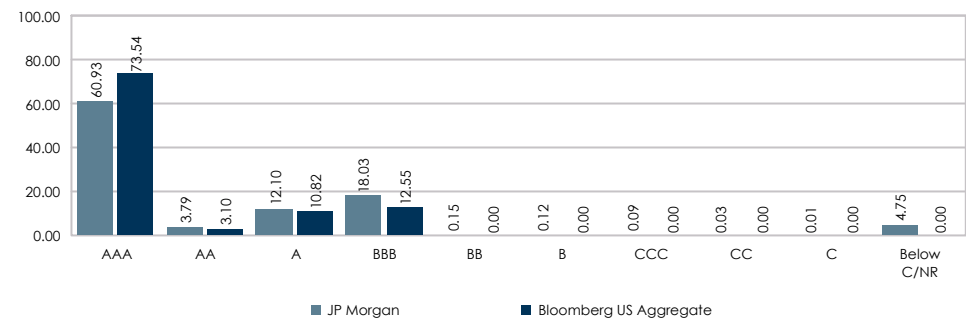
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>42,874</b>	<b>47,567</b>
Net Additions	-76	-269
Return on Investment	-1,772	-6,273
Income	331	916
Gain/Loss	-2,103	-7,189
<b>Ending Market Value</b>	<b>41,025</b>	<b>41,025</b>

### Quality Allocation



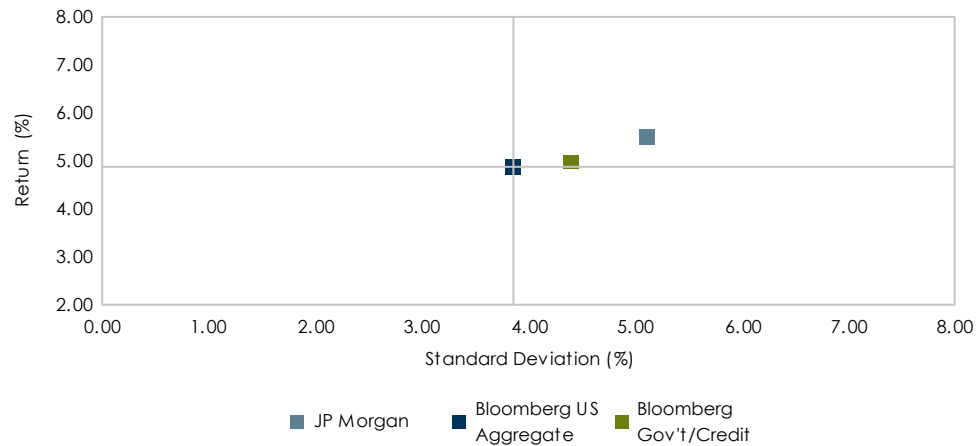
Characteristic and allocation charts represents data of the JPMorgan Core Bond Trust (Non-Mutual Commingled).

The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.

## JP Morgan Fixed Income

For the Periods Ending September 30, 2022

### Risk / Return Since Jun 1991



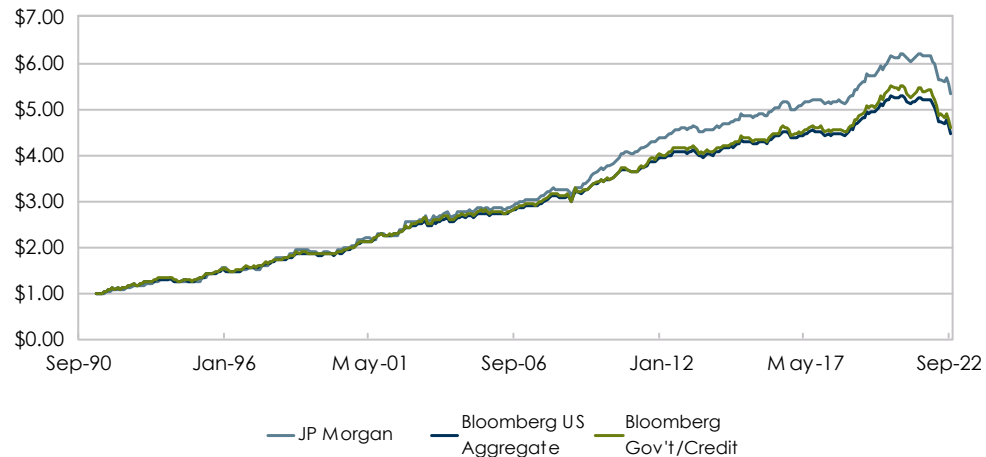
### Portfolio Statistics Since Jun 1991

	JP Morgan	Bloomberg US Aggregate	Bloomberg Gov't/Credit
Return (%)	5.49	4.88	4.98
Standard Deviation (%)	5.11	3.85	4.40
Sharpe Ratio	0.64	0.69	0.63

### Benchmark Relative Statistics

Beta	0.79	0.69
R Squared (%)	35.76	35.36
Alpha (%)	1.65	2.07
Tracking Error (%)	4.17	4.33
Batting Average (%)	53.46	48.67
Up Capture (%)	95.41	87.05
Down Capture (%)	71.35	60.41

### Growth of a Dollar Since Jun 1991

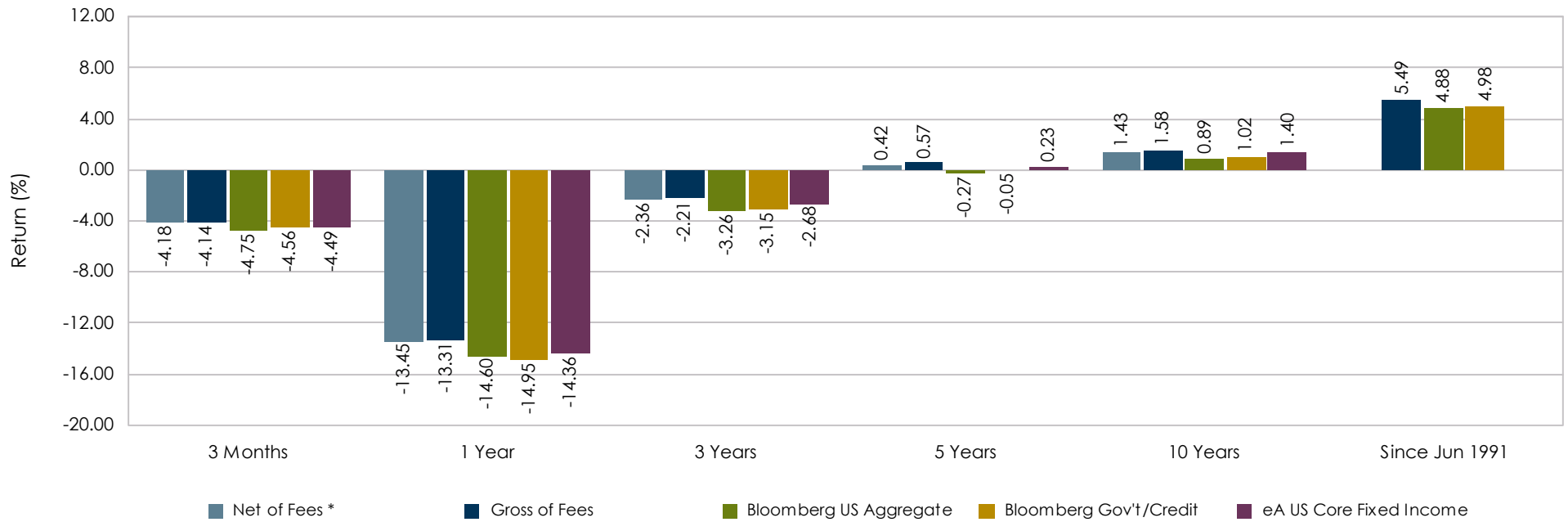


### Return Analysis Since Jun 1991

	JP Morgan	Bloomberg US Aggregate	Bloomberg Gov't/Credit
Number of Months	376	376	376
Highest Monthly Return (%)	8.30	3.87	4.53
Lowest Monthly Return (%)	-4.88	-4.32	-4.19
Number of Positive Months	282	248	243
Number of Negative Months	94	128	133
% of Positive Months	75.00	65.96	64.63

## JP Morgan Fixed Income

For the Periods Ending September 30, 2022



Ranking	24	17	24	22	30
5th Percentile	-2.88	-9.54	-1.21	1.07	2.06
25th Percentile	-4.22	-13.84	-2.23	0.50	1.62
50th Percentile	-4.49	-14.36	-2.68	0.23	1.40
75th Percentile	-4.68	-14.92	-2.96	0.04	1.23
95th Percentile	-5.08	-15.94	-3.35	-0.27	0.97
Observations	223	222	214	211	199

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

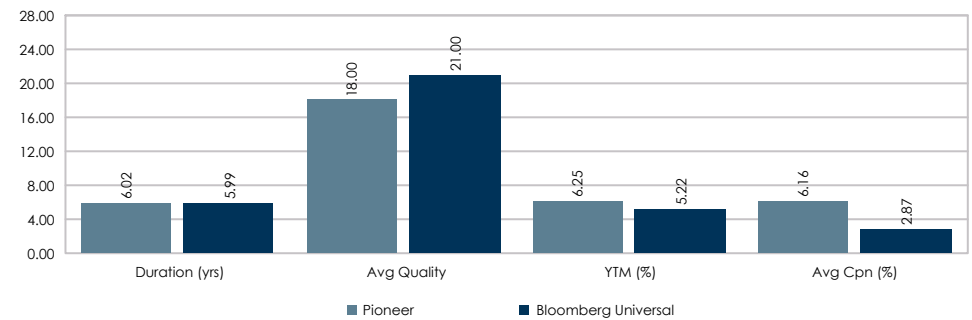
## Amundi Pioneer Core Plus Bond Fund

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Multi-Sector Fixed Income
- **Vehicle** Non-Mutual Commingled
- **Benchmark** Bloomberg Universal
- **Performance Inception Date** November 2011
- **Fees** 25 bps

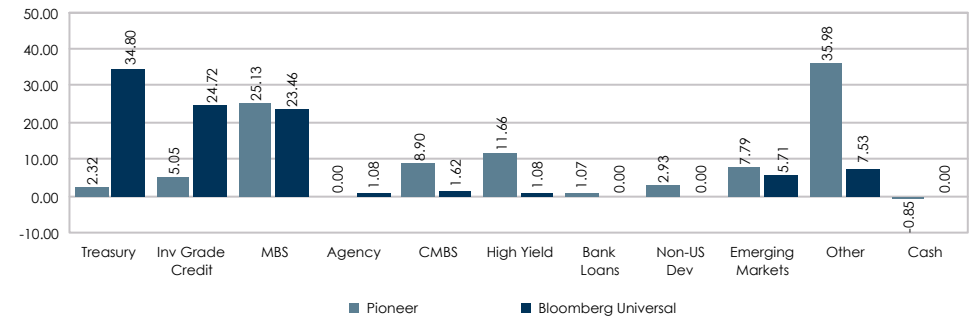
### Characteristics



### Performance Goals

- Exceed the returns of the Bloomberg Universal over a complete market cycle (3 to 5 years).
- Rank above the median in the eA US Core Plus Fixed Income universe over a complete market cycle (3 to 5 years).

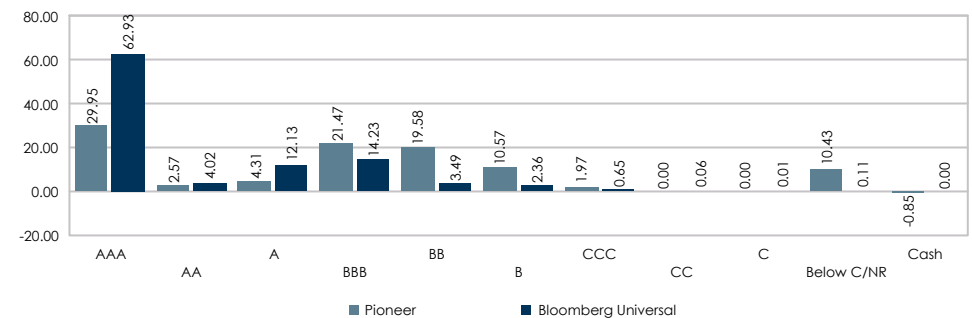
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>44,546</b>	<b>49,706</b>
Net Additions	0	-31
Return on Investment	-1,719	-6,848
<b>Ending Market Value</b>	<b>42,827</b>	<b>42,827</b>

### Quality Allocation



Characteristic and allocation charts represents the composite data of the Amundi\Multi-Sector Fixed Income.

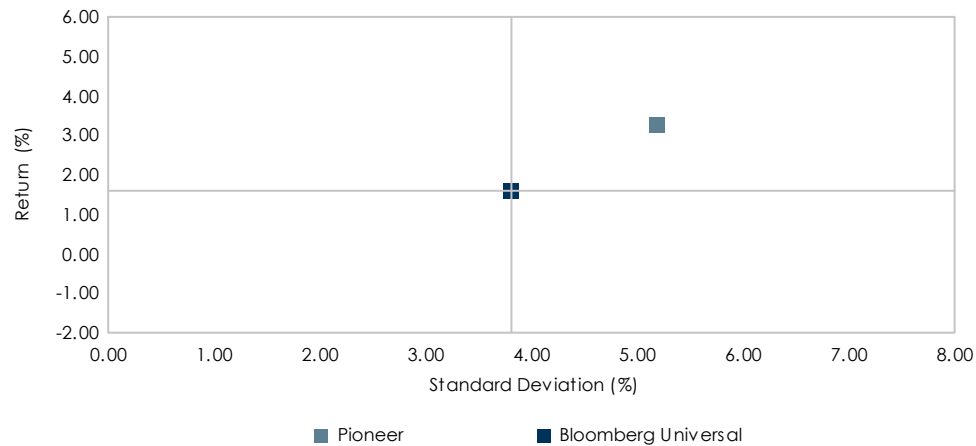
The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.



## Amundi Pioneer Core Plus Bond Fund

For the Periods Ending September 30, 2022

### Risk / Return Since Nov 2011



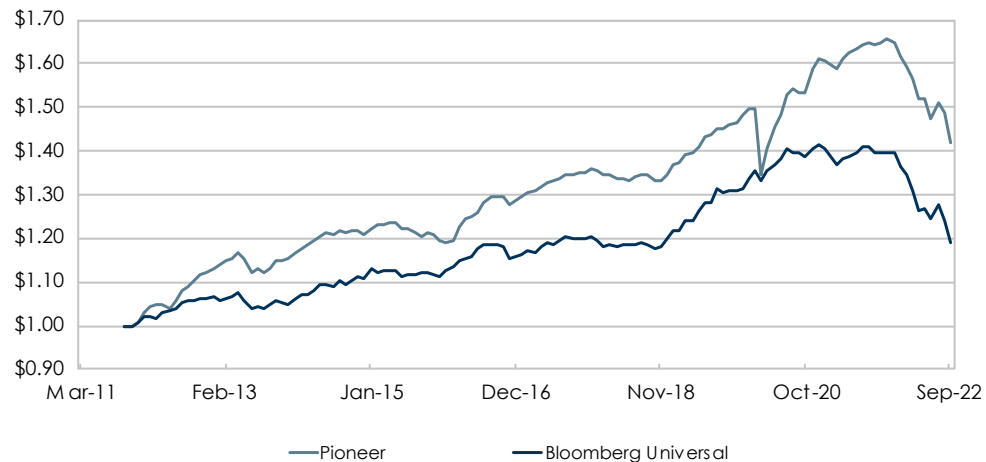
### Portfolio Statistics Since Nov 2011

	Pioneer	Bloomberg Universal
Return (%)	3.26	1.59
Standard Deviation (%)	5.18	3.82
Sharpe Ratio	0.52	0.27

### Benchmark Relative Statistics

Beta	1.00
R Squared (%)	53.90
Alpha (%)	1.71
Tracking Error (%)	3.52
Batting Average (%)	63.36
Up Capture (%)	119.04
Down Capture (%)	86.26

### Growth of a Dollar Since Nov 2011

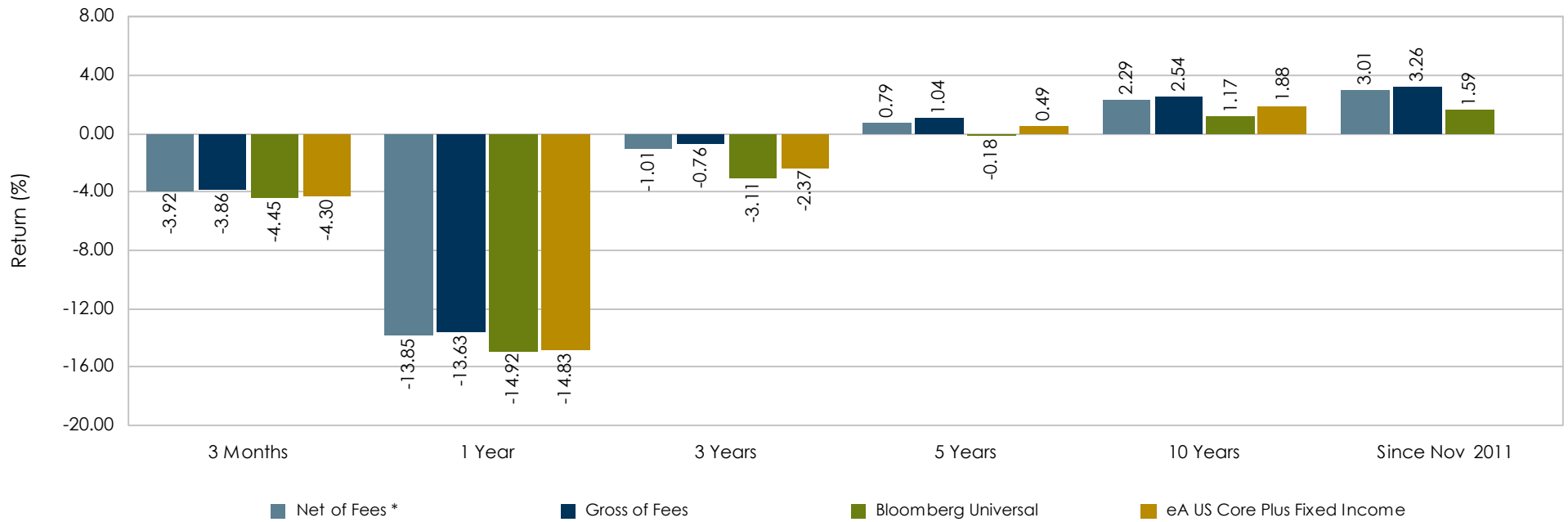


### Return Analysis Since Nov 2011

	Pioneer	Bloomberg Universal
Number of Months	131	131
Highest Monthly Return (%)	4.37	2.51
Lowest Monthly Return (%)	-9.88	-4.31
Number of Positive Months	90	80
Number of Negative Months	41	51
% of Positive Months	68.70	61.07

### Amundi Pioneer Core Plus Bond Fund

For the Periods Ending September 30, 2022



Ranking	22	17	15	21	13
5th Percentile	-1.56	-9.89	0.50	2.22	3.11
25th Percentile	-3.91	-14.06	-1.70	0.86	2.16
50th Percentile	-4.30	-14.83	-2.37	0.49	1.88
75th Percentile	-4.64	-15.84	-2.71	0.27	1.66
95th Percentile	-5.37	-16.99	-3.18	0.01	1.34
Observations	129	129	127	122	108

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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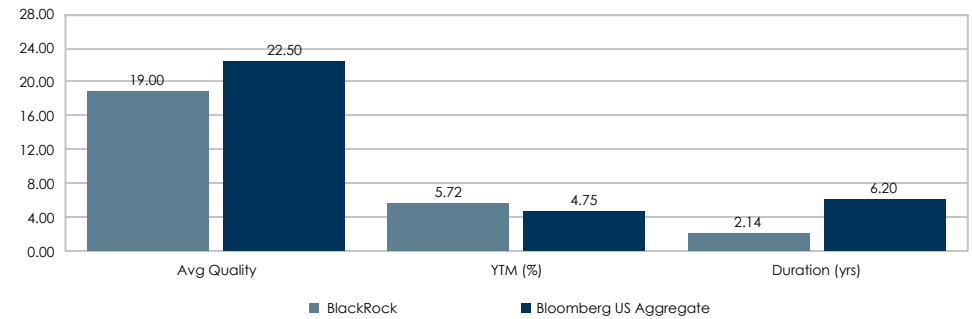
## BlackRock Strategic Income Opportunities

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Absolute Return
- **Vehicle** Mutual Fund: Institutional Class (BSIKX)
- **Benchmarks** Bloomberg US Aggregate and US T-Bills 30 Day + 4.0%
- **Performance Inception Date** July 2017
- **Expense Ratio** 59 bps

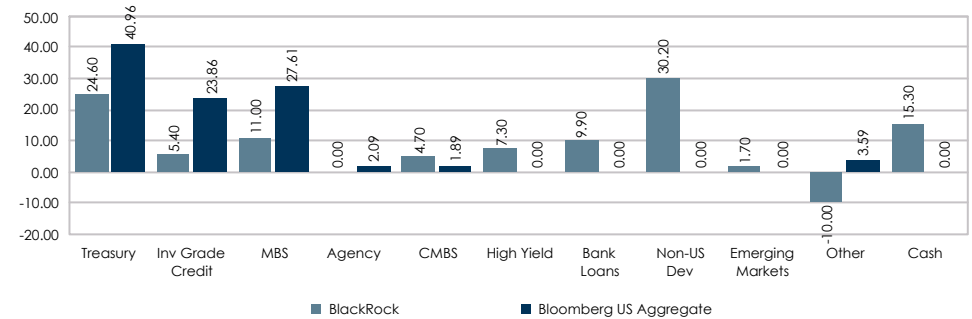
### Characteristics



### Performance Goals

- Meet or exceed the targeted return of the Bloomberg US Aggregate over a complete market cycle (typically 3-5 years).
- Meet or exceed the targeted return of US T-Bills + 4-6% over a complete market cycle (typically 3-5 years).

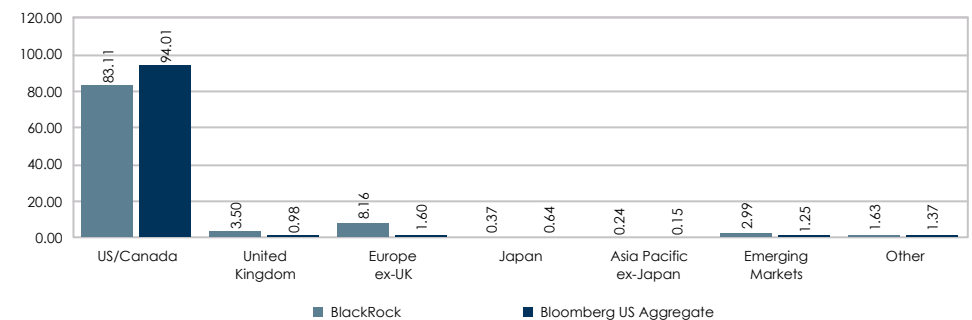
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>48,750</b>	<b>51,536</b>
Net Additions	-70	-212
Return on Investment	-798	-3,441
<b>Ending Market Value</b>	<b>47,883</b>	<b>47,883</b>

### Regional Allocation



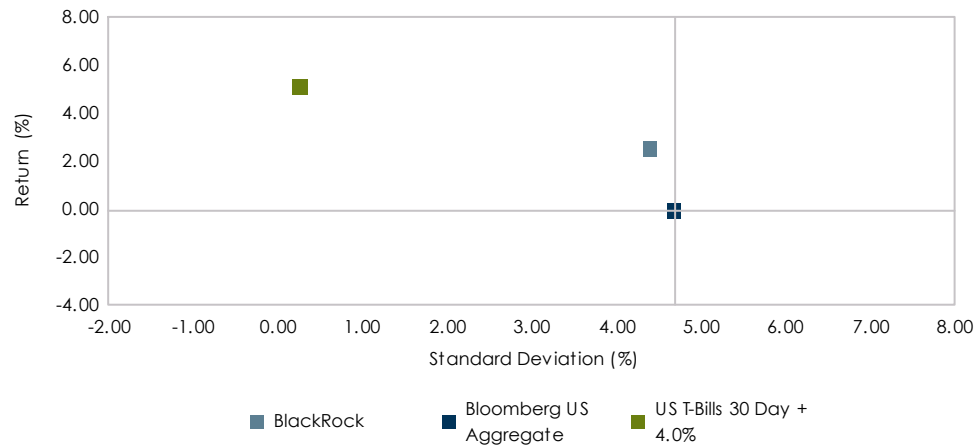
Characteristic and allocation charts represents the composite data of the BlackRock Strategic Income Opportunities.

The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.

## BlackRock Strategic Income Opportunities

For the Periods Ending September 30, 2022

### Risk / Return Since Jul 2017



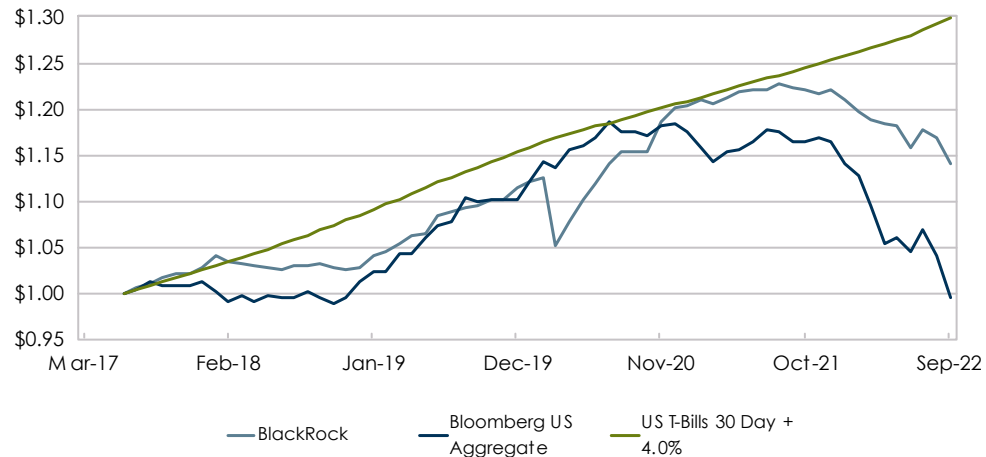
### Portfolio Statistics Since Jul 2017

	BlackRock	Bloomberg US Aggregate	US T-Bills 30 Day + 4.0%
Return (%)	2.53	-0.10	5.10
Standard Deviation (%)	4.40	4.68	0.27
Sharpe Ratio	0.33	-0.25	15.11

### Benchmark Relative Statistics

Beta	0.45	-1.83
R Squared (%)	22.72	1.24
Alpha (%)	2.62	12.40
Tracking Error (%)	4.65	4.43
Batting Average (%)	66.67	39.68
Up Capture (%)	76.52	49.51
Down Capture (%)	35.76	

### Growth of a Dollar Since Jul 2017

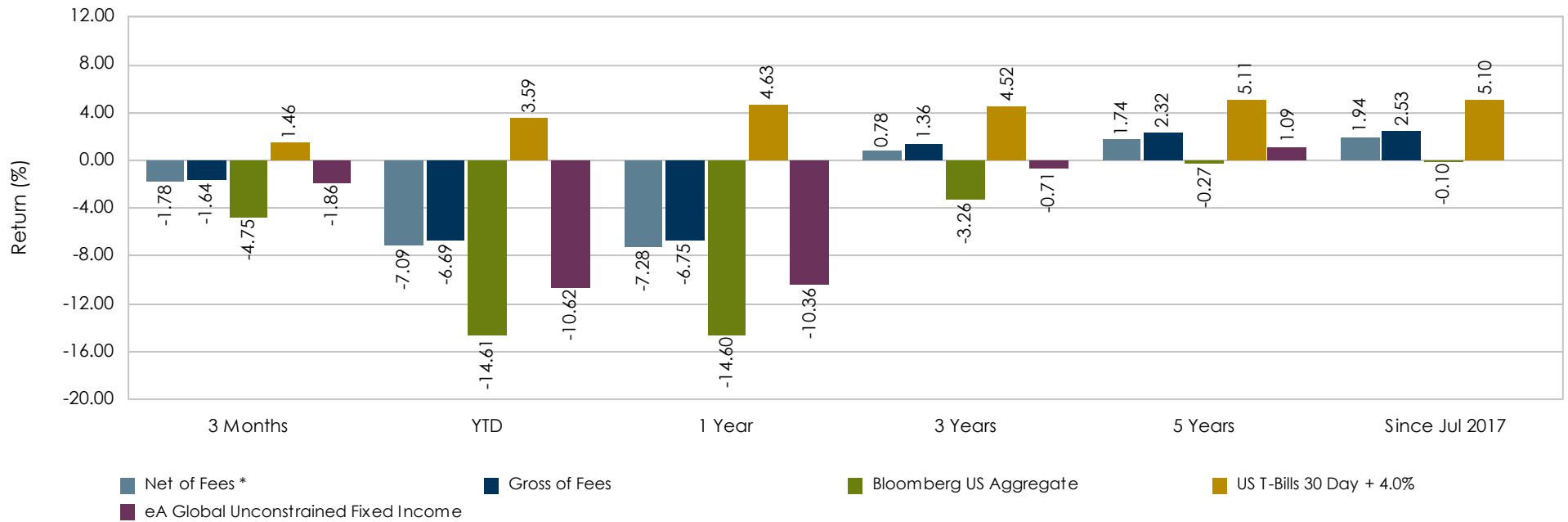


### Return Analysis Since Jul 2017

	BlackRock	Bloomberg US Aggregate	US T-Bills 30 Day + 4.0%
Number of Months	63	63	63
Highest Monthly Return (%)	2.90	2.59	0.54
Lowest Monthly Return (%)	-6.59	-4.32	0.33
Number of Positive Months	42	33	63
Number of Negative Months	21	30	0
% of Positive Months	66.67	52.38	100.00

## BlackRock Strategic Income Opportunities

For the Periods Ending September 30, 2022



Ranking	49	30	27	17	11
5th Percentile	1.26	-0.17	0.68	3.26	3.68
25th Percentile	-0.23	-5.87	-6.36	0.65	1.78
50th Percentile	-1.86	-10.62	-10.36	-0.71	1.09
75th Percentile	-6.13	-18.23	-18.20	-2.91	-2.14
95th Percentile	-9.77	-27.60	-28.15	-6.67	-4.56
Observations	94	94	94	92	86

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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## JP Morgan Special Situation Property

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Core Real Estate
- **Vehicle** Non-Mutual Commingled
- **Performance Inception Date** February 2007
- **Benchmarks** NFI ODCE Net and NCREIF Property
- **Fees** 125 bps of account's pro-rata share of NAV plus 62.5 bps on outstanding debt balance; fee is capped at 187.5 bps.

### Performance Goals

- Outperform the NFI ODCE Net by 100 basis points over 3 to 5 years.

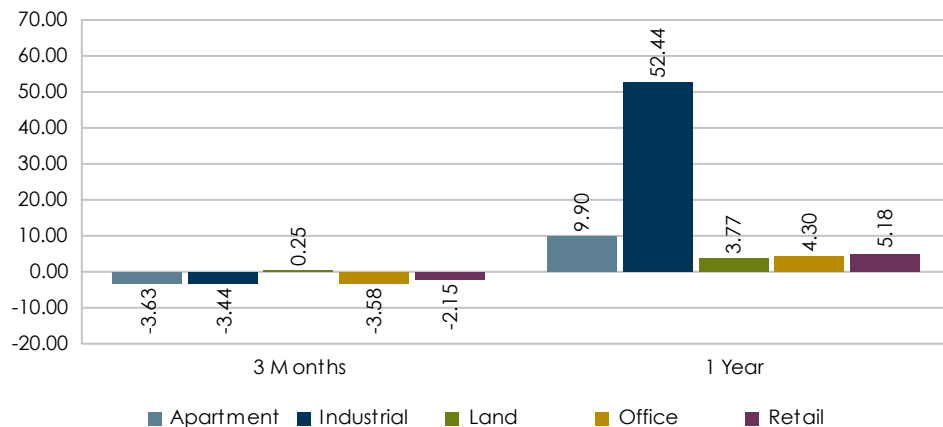
### Account Information

- **Ending Market Value** \$25,072,075

### Fund Information

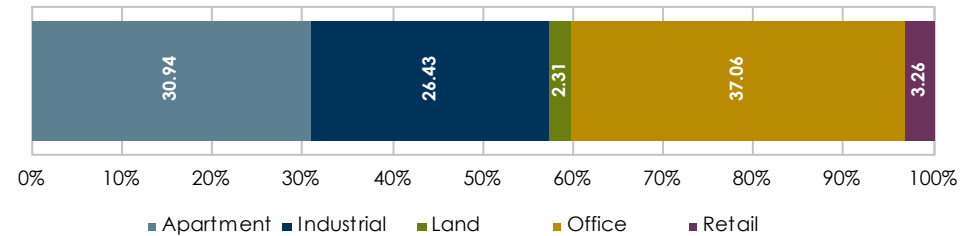
- **Gross Market Value** \$8,923,309,056
- **Net Market Value** \$4,994,094,697
- **Cash Balance of Fund** \$119,361,512
- **Quarter Income Return (%)** 0.34
- **# of Properties** 86
- **# of Participants** 98

### Returns by Property Type (%)

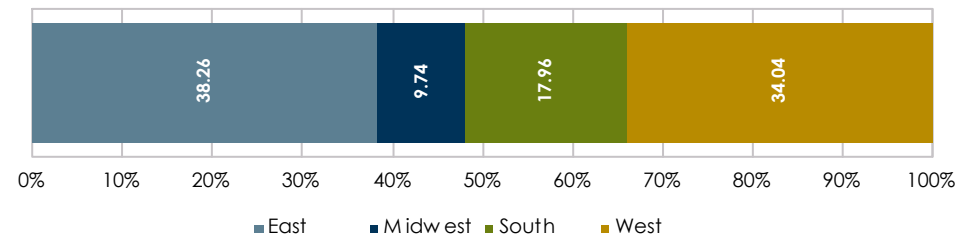


### Allocations

#### Property Type

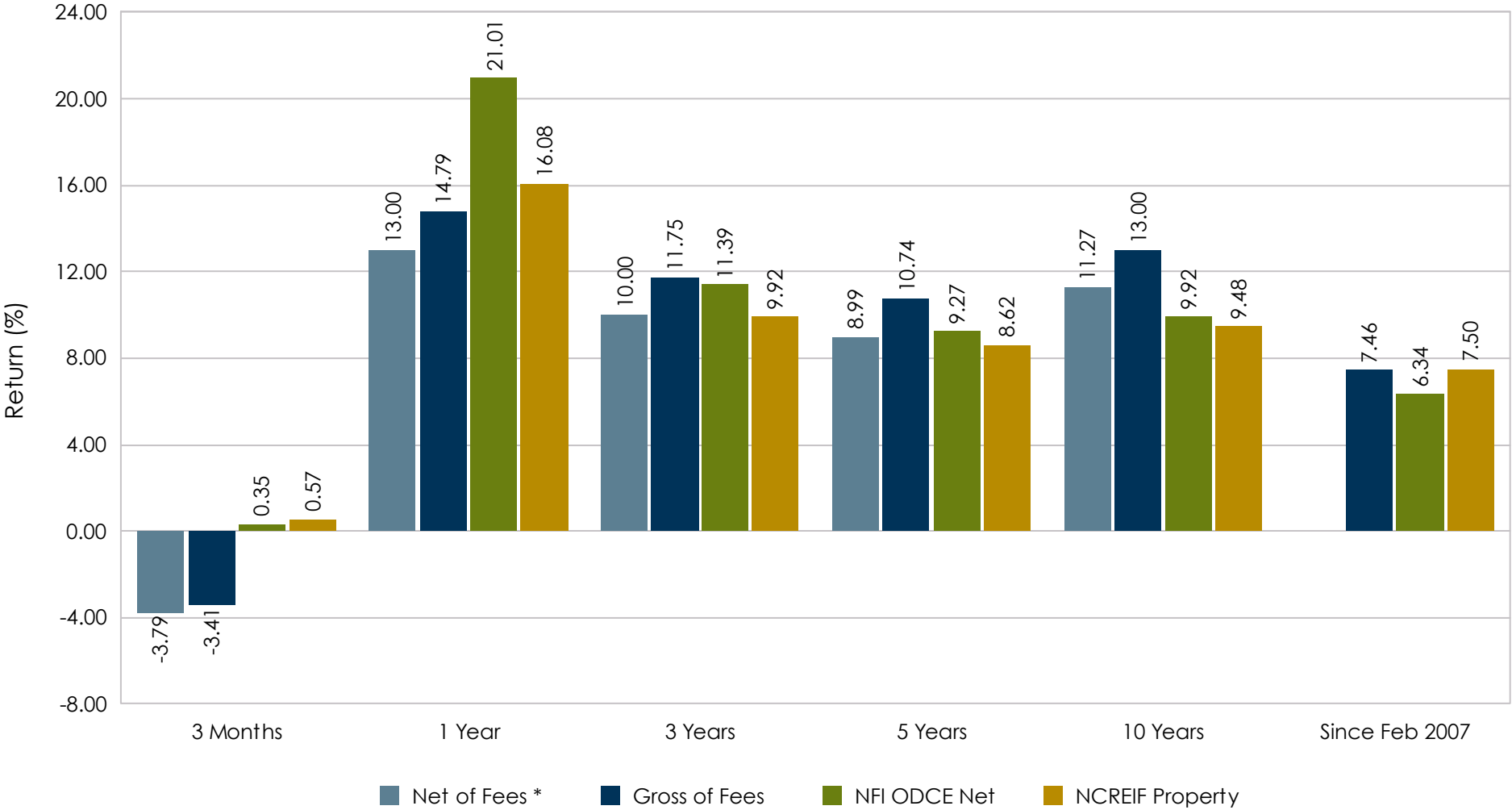


#### Geographic Region



JP Morgan Special Situation Property

For the Periods Ending September 30, 2022



\* Performance is calculated using net of fee returns.

## JP Morgan Strategic Property

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Core Real Estate
- **Vehicle** Non-Mutual Commingled
- **Performance Inception Date** May 2007
- **Benchmarks** NFI ODCE Net and NCREIF Property
- **Fees** 100 bps per annum on account's net asset value

### Performance Goals

- Exceed the total return of the NFI ODCE Net.

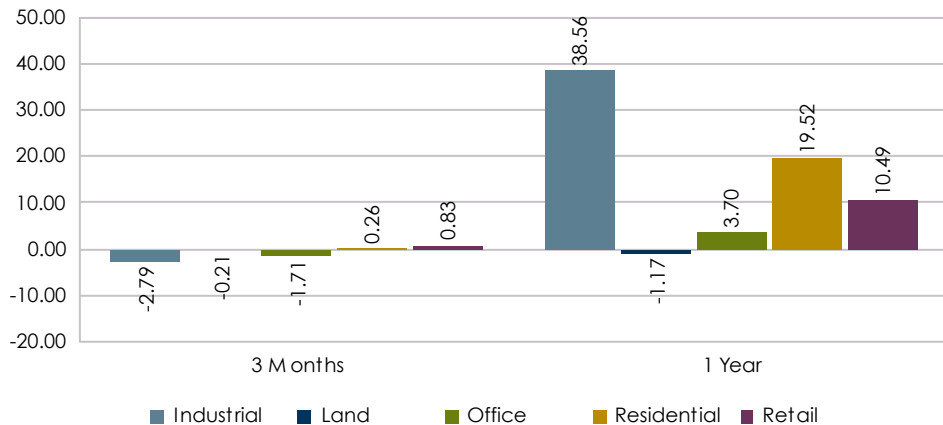
### Account Information

- **Ending Market Value** \$34,672,143

### Fund Information

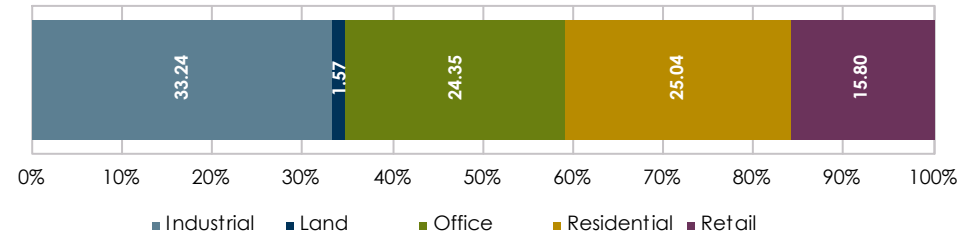
- **Gross Market Value** \$46,924,721,469
- **Net Market Value** \$35,262,292,424
- **Cash Balance of Fund** \$754,309,911
- **Quarter Income Return (%)** 0.70
- **# of Properties** 161
- **# of Participants** 315

### Returns by Property Type (%)

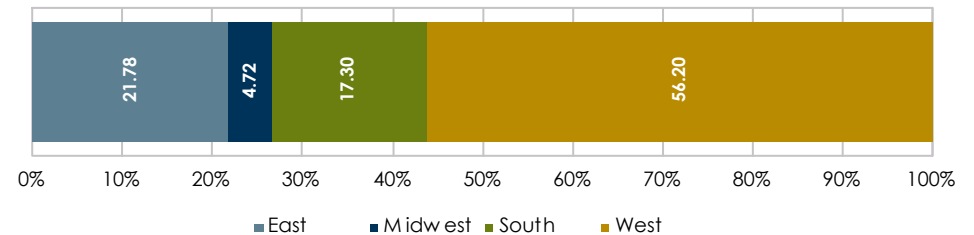


### Allocations

#### Property Type

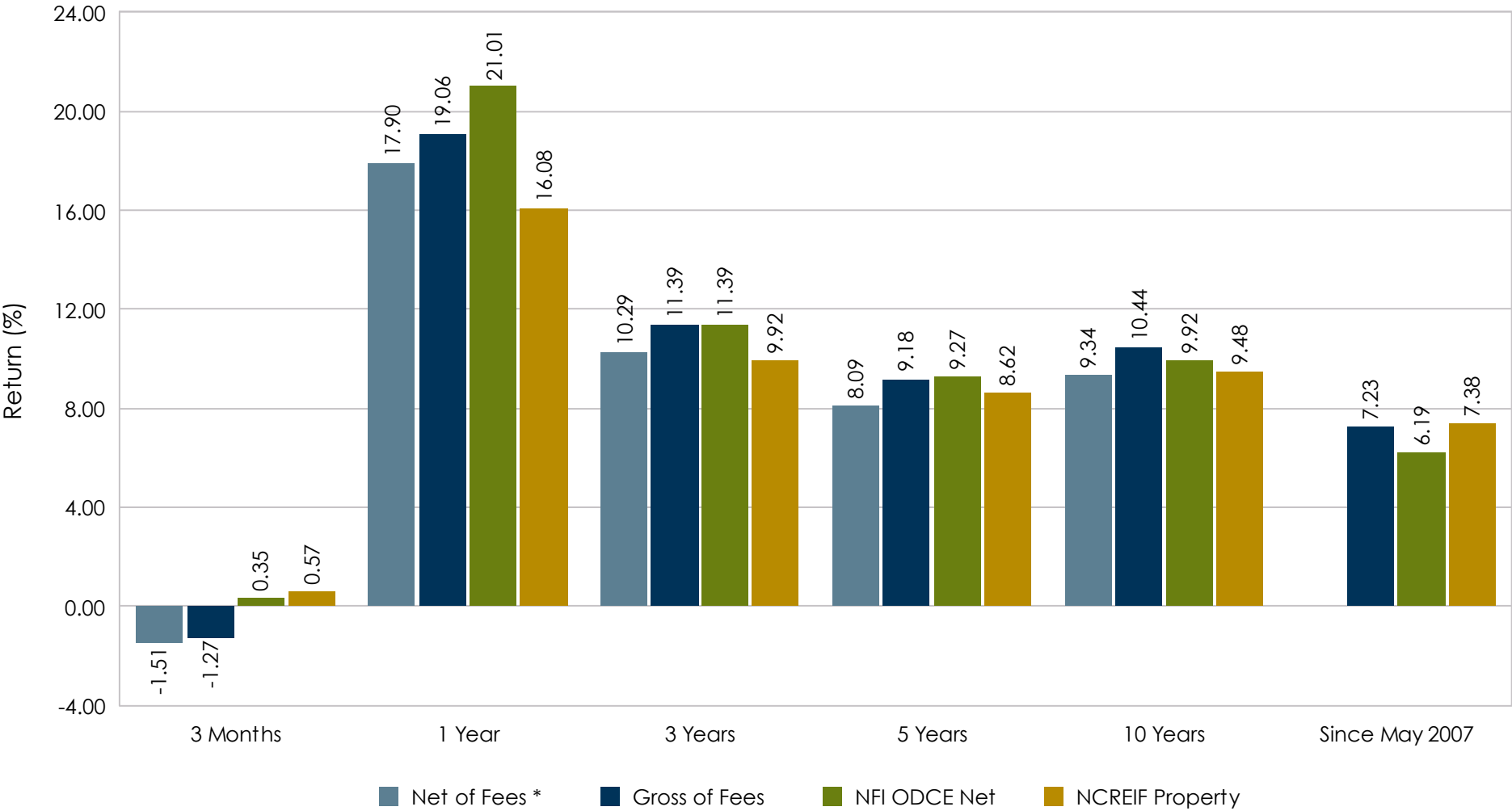


#### Geographic Region





**JP Morgan Strategic Property**  
For the Periods Ending September 30, 2022



\* Performance is calculated using net of fee returns.  
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## Clarion Lion Industrial Trust

For the Periods Ending September 30, 2022

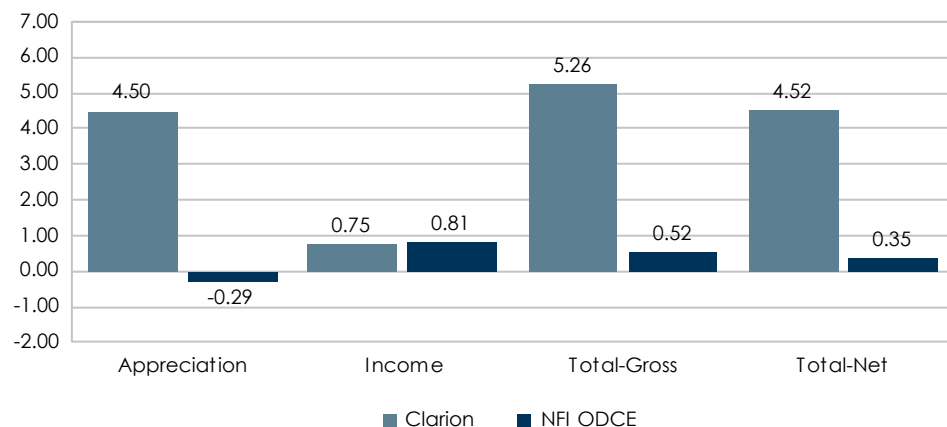
### Account Description

- **Strategy** Core Real Estate
- **Vehicle** Limited Partnership
- **Benchmark** NFI ODCE Net
- **Performance Inception Date** July 2022
- **Fees** 135 bps on First \$10 M of NAV; 130 bps on NAV between \$10 – \$50 M.  
Incentive fee: 15% over an 9% net IRR hurdle.

### Performance Goals

- Achieve a 9.5% - 11.5% internal rate of return over a complete market cycle.
- Outperform the NFI ODCE Net by 100 basis points over 3 to 5 years.

### Current Quarter Returns (%)



### Account Information

■ **Ending Market Value** \$13,062,570

### Fund Information

■ **Gross Market Value** \$34,061,000,000

■ **Net Market Value** \$25,847,000,000

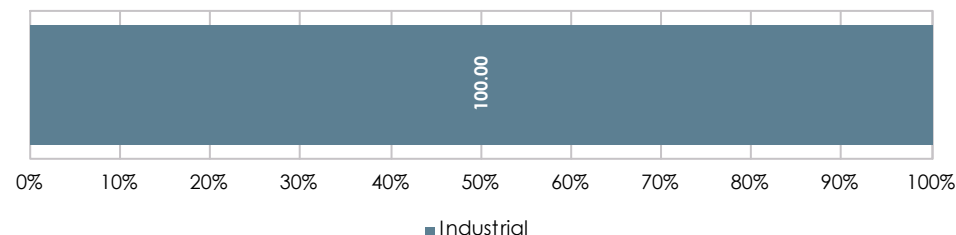
■ **Cash Balance of Fund** \$613,098,000

■ **# of Properties** 764

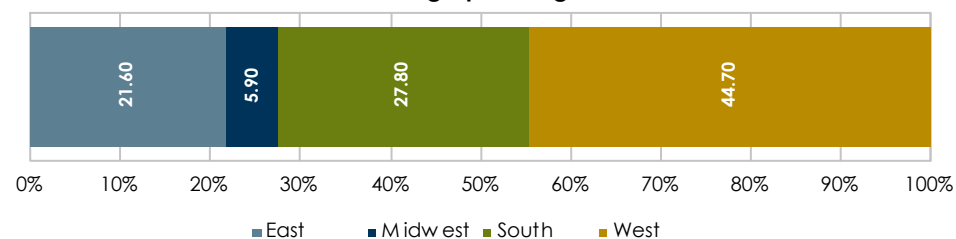
■ **# of Participants** 203

### Allocations

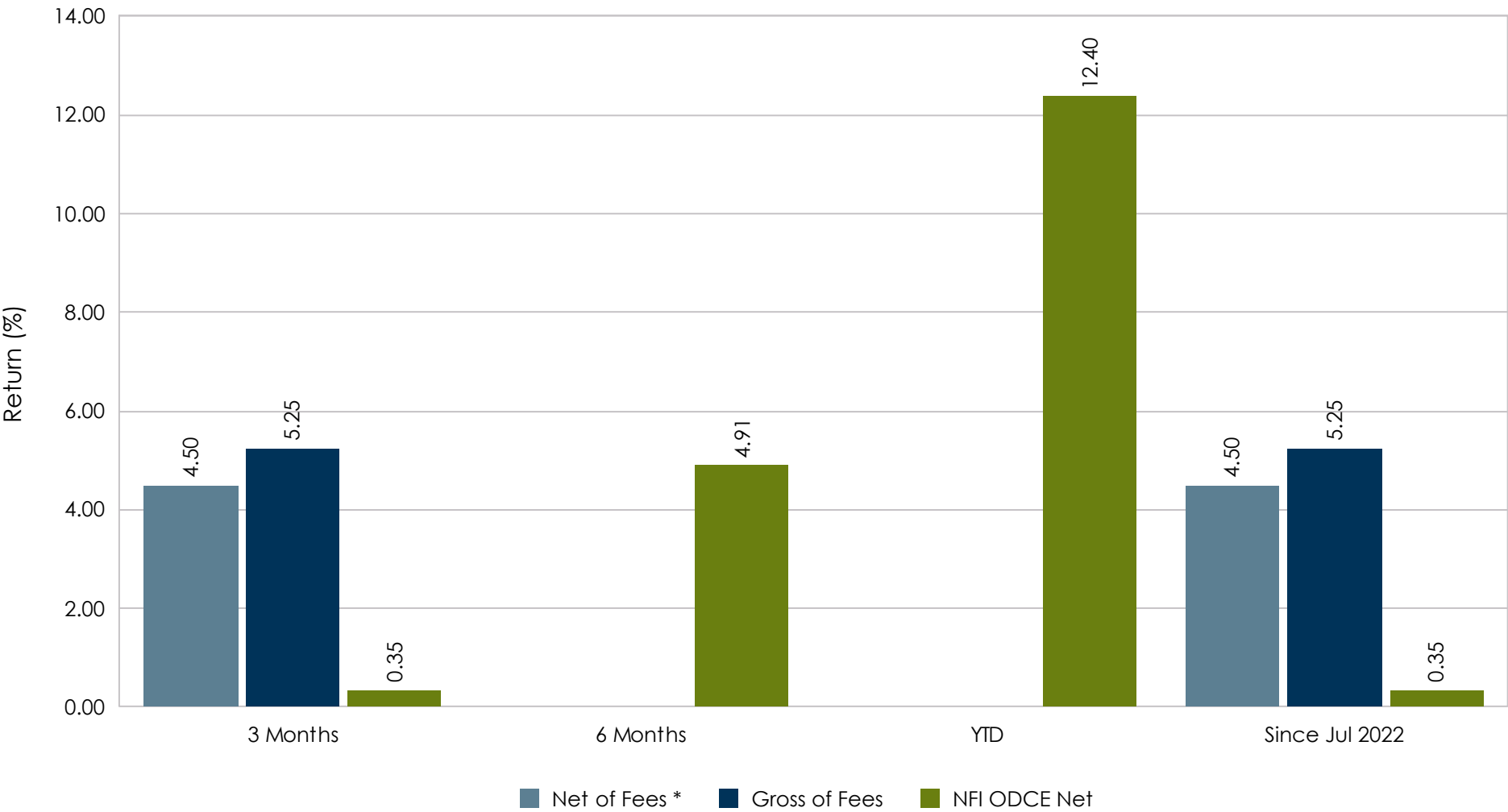
#### Property Type



#### Geographic Region



**Clarion Lion Industrial Trust**  
For the Periods Ending September 30, 2022



\* Performance is calculated using net of fee returns.  
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**Defined Contribution Plan Performance**

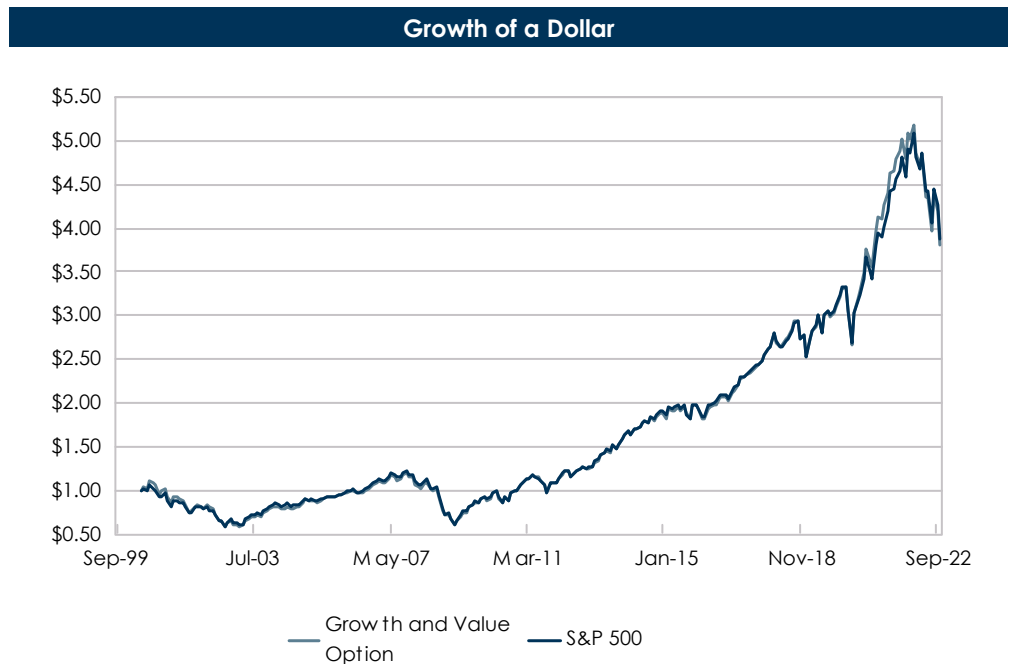
## Growth and Value Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
<b>Total</b>	<b>19,312</b>	<b>100.00</b>
Vanguard Total Stock	9,660	50.02
T. Rowe Price	4,875	25.24
Vanguard Windsor II	4,776	24.73

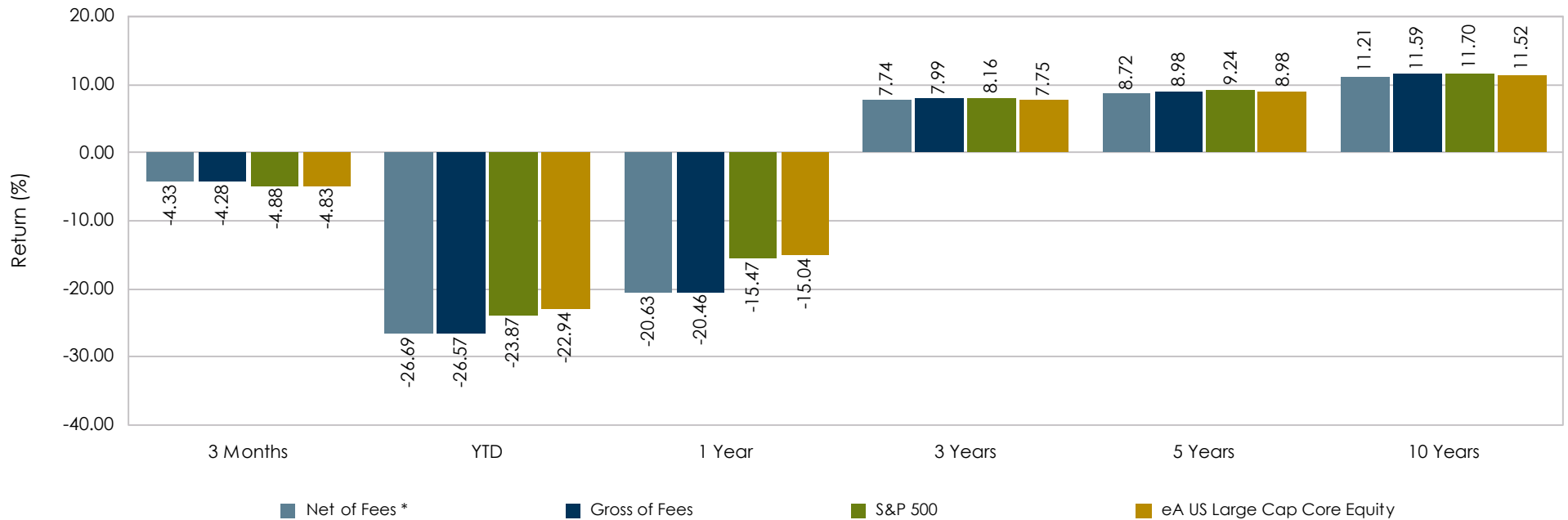
Portfolio Information
<ul style="list-style-type: none"> <li>Large Cap Core Equity Option - Large cap equities are companies with market capitalizations greater than \$10 billion.</li> <li>This option includes a combination of "growth" and "value" portfolios focused in the large cap asset class.</li> <li>Performance goals 1) to achieve returns 100 basis points in excess of the S&amp;P 500 index, and 2) to rank above median in a universe of large cap core managers over a complete market cycle.</li> </ul>

Dollar Growth Summary (\$000s)		
	3 Months	YTD
<b>Beginning Market Value</b>	<b>20,803</b>	<b>29,193</b>
Net Additions	-639	-2,460
Return on Investment	-852	-7,422
<b>Ending Market Value</b>	<b>19,312</b>	<b>19,312</b>



## Growth and Value Option

For the Periods Ending September 30, 2022



Ranking	30	90	93	45	51	48
5th Percentile	-2.35	-14.63	-5.68	11.13	11.68	13.54
25th Percentile	-4.17	-20.30	-11.59	8.88	10.05	12.08
50th Percentile	-4.83	-22.94	-15.04	7.75	8.98	11.52
75th Percentile	-5.64	-24.87	-17.24	6.27	7.70	10.67
95th Percentile	-7.00	-28.04	-21.43	3.35	5.83	8.56
Observations	361	361	361	350	334	263

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

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## Vanguard Windsor II

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** US Large Cap Value
- **Vehicle** Mutual Fund: Institutional Class (VWNAX)
- **Benchmark** Russell 1000 Value
- **Performance Inception Date** June 2003
- **Expense Ratio** 26 bps

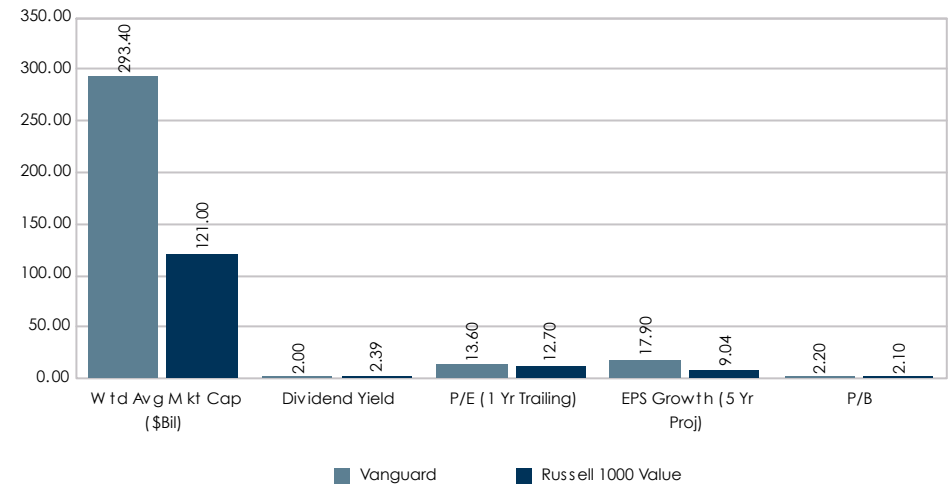
### Performance Goals

- Exceed the returns of the Russell 1000 Value over a complete market cycle (3 to 5 years).

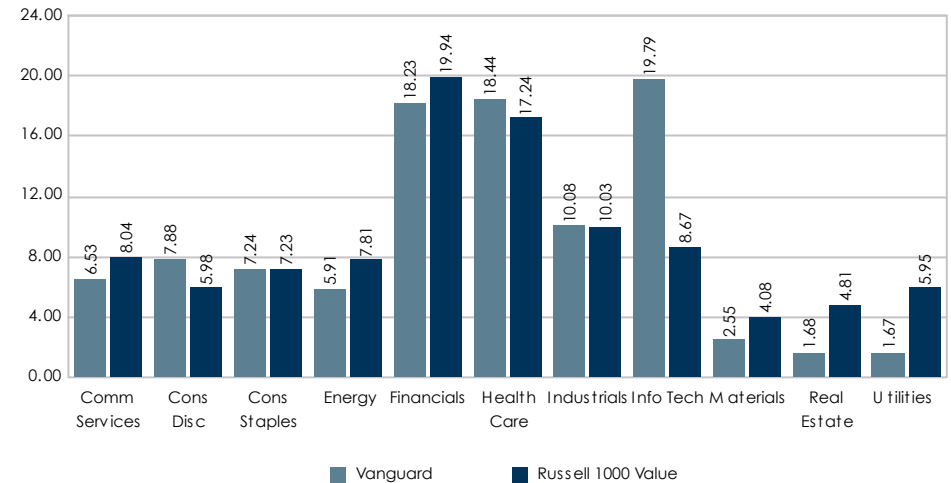
### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>5,439</b>	<b>7,295</b>
Net Additions	-391	-1,085
Return on Investment	-272	-1,433
<b>Ending Market Value</b>	<b>4,776</b>	<b>4,776</b>

### Characteristics



### Sector Allocation



Characteristic and allocation charts represents data of the Vanguard Windsor II Admiral (Mutual Fund: Institutional Class: VWNAX).

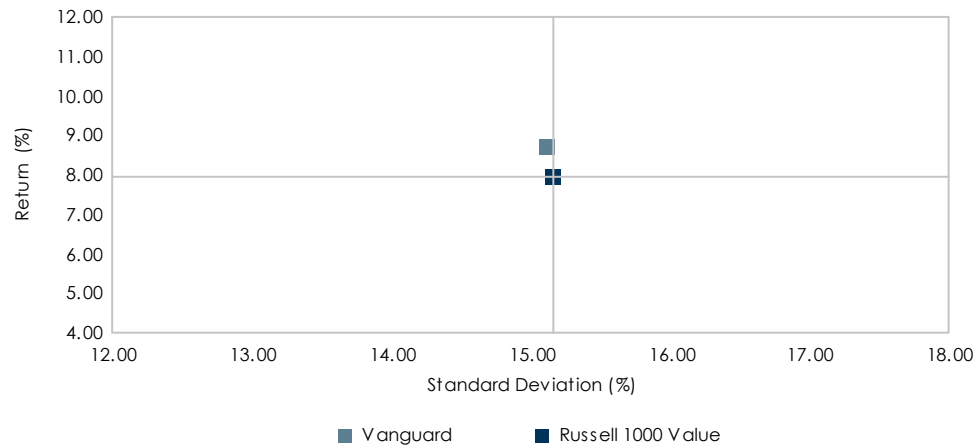
Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.



## Vanguard Windsor II

For the Periods Ending September 30, 2022

### Risk / Return Since Jun 2003



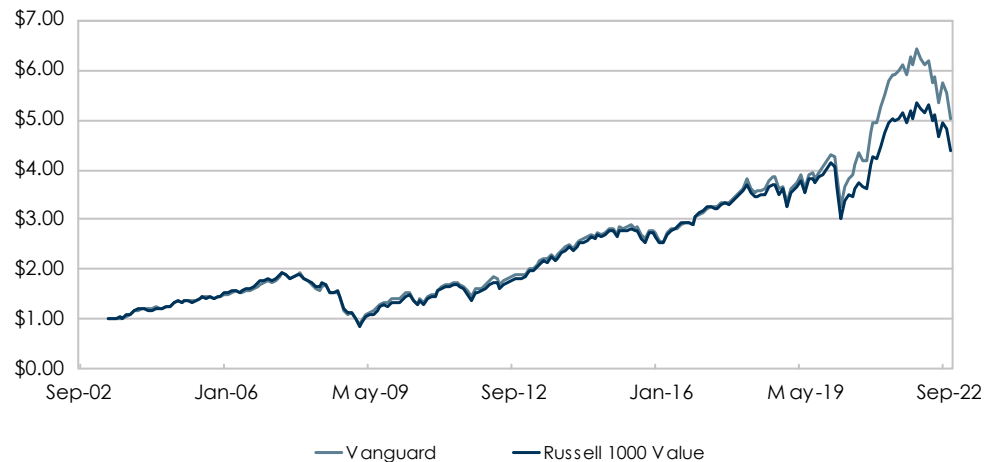
### Portfolio Statistics Since Jun 2003

	Vanguard	Russell 1000 Value
Return (%)	8.72	7.94
Standard Deviation (%)	15.12	15.16
Sharpe Ratio	0.50	0.45

### Benchmark Relative Statistics

Beta	0.98
R Squared (%)	96.86
Alpha (%)	0.88
Tracking Error (%)	2.69
Batting Average (%)	54.74
Up Capture (%)	99.98
Down Capture (%)	96.45

### Growth of a Dollar Since Jun 2003

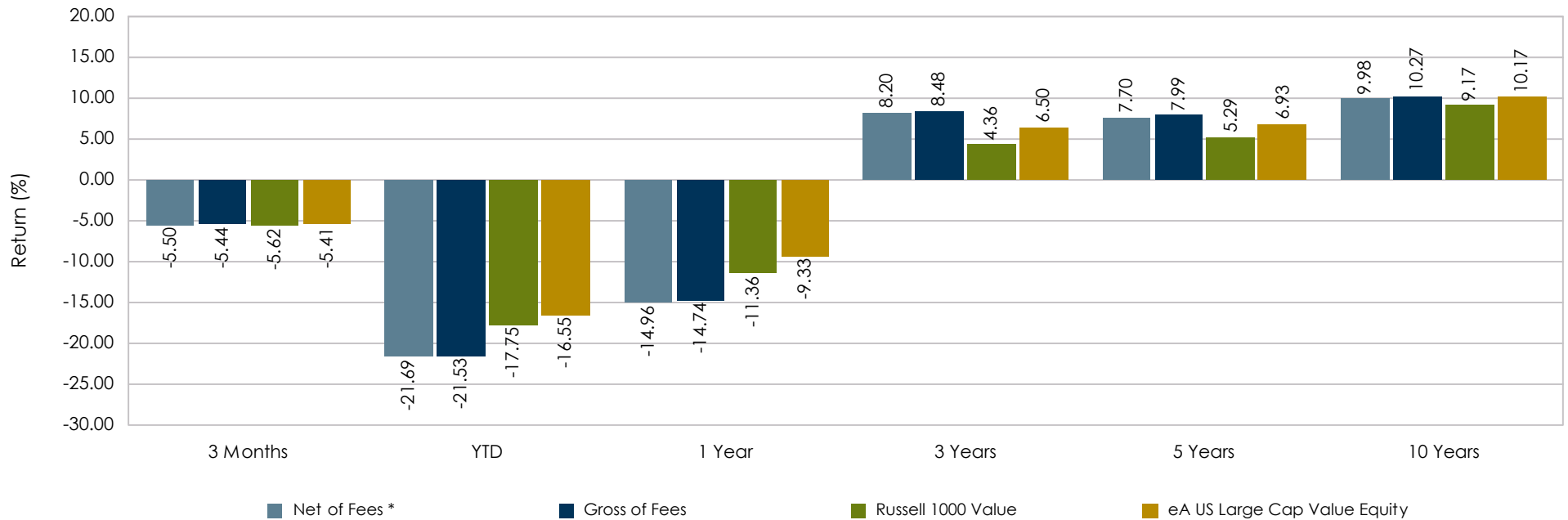


### Return Analysis Since Jun 2003

	Vanguard	Russell 1000 Value
Number of Months	232	232
Highest Monthly Return (%)	13.35	13.45
Lowest Monthly Return (%)	-17.40	-17.31
Number of Positive Months	153	148
Number of Negative Months	79	84
% of Positive Months	65.95	63.79

## Vanguard Windsor II

For the Periods Ending September 30, 2022



Ranking	51	88	88	22	26	48
5th Percentile	-2.21	-10.12	-2.11	10.95	10.16	12.58
25th Percentile	-4.38	-13.85	-6.59	8.13	8.01	10.99
50th Percentile	-5.41	-16.55	-9.33	6.50	6.93	10.17
75th Percentile	-6.44	-18.94	-12.03	5.13	5.62	9.39
95th Percentile	-8.19	-25.41	-18.27	2.78	3.34	7.98
Observations	365	365	365	355	343	312

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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## Vanguard Total Stock

For the Periods Ending September 30, 2022

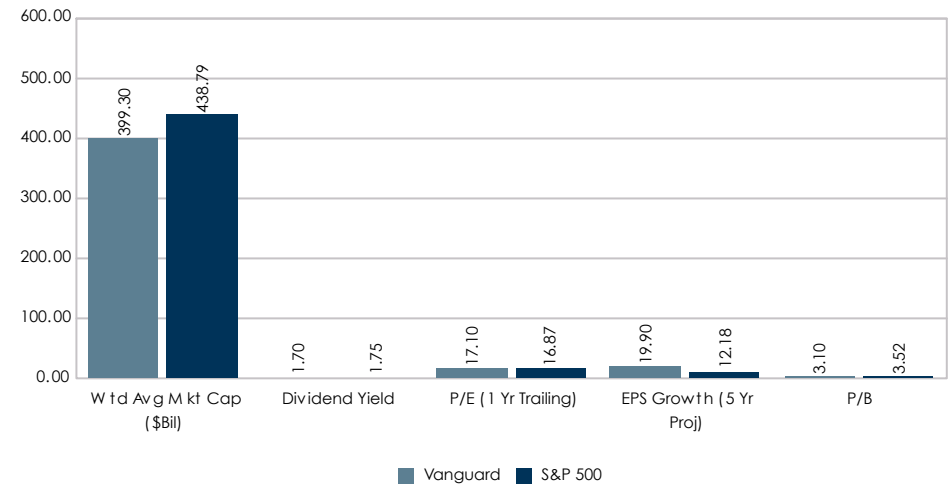
### Account Description

- **Strategy** US All Cap Core
- **Vehicle** Mutual Fund: Institutional Class (VITSX)
- **Benchmark** S&P 500
- **Performance Inception Date** February 2008
- **Expense Ratio** 3 bps

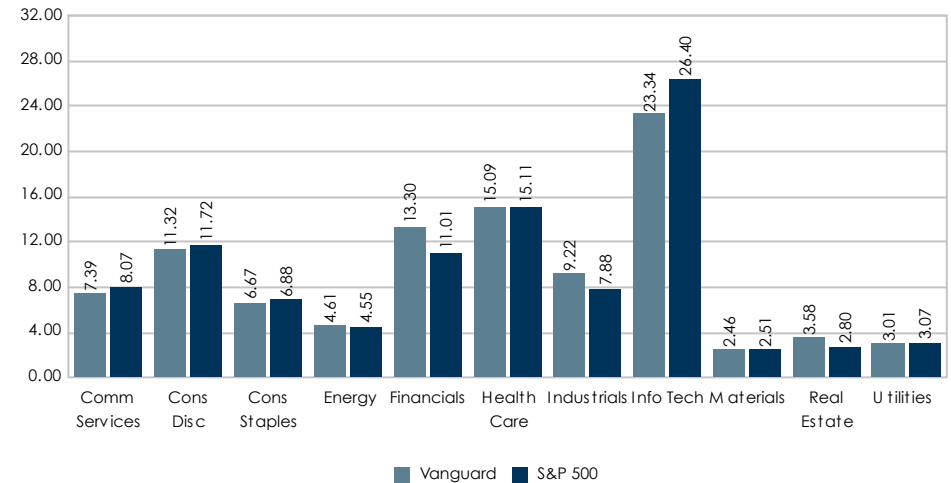
### Performance Goals

- Approximate the risk and return profile of the S&P 500 Index.

### Characteristics



### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>10,507</b>	<b>14,704</b>
Net Additions	-402	-1,620
Return on Investment	-444	-3,424
<b>Ending Market Value</b>	<b>9,660</b>	<b>9,660</b>

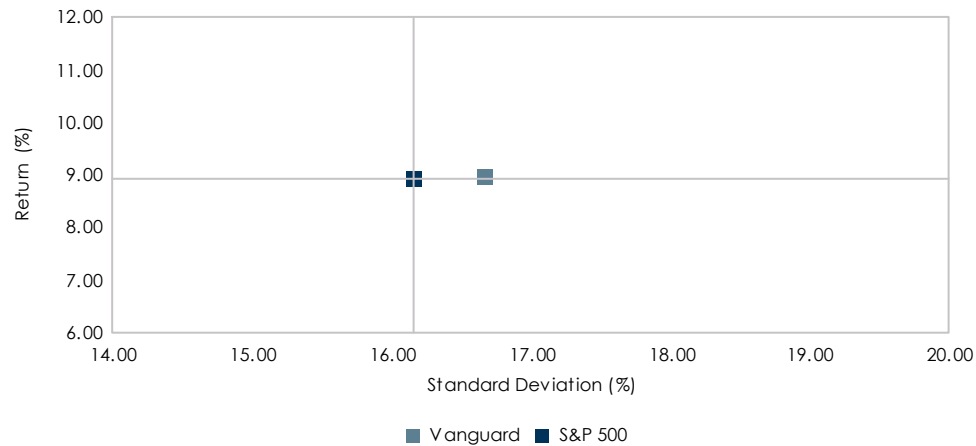
Characteristic and allocation charts represents data of the Vanguard Total Stock Market Index Fund (Mutual Fund: Institutional Class: VITSX).

Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

## Vanguard Total Stock

For the Periods Ending September 30, 2022

### Risk / Return Since Feb 2008



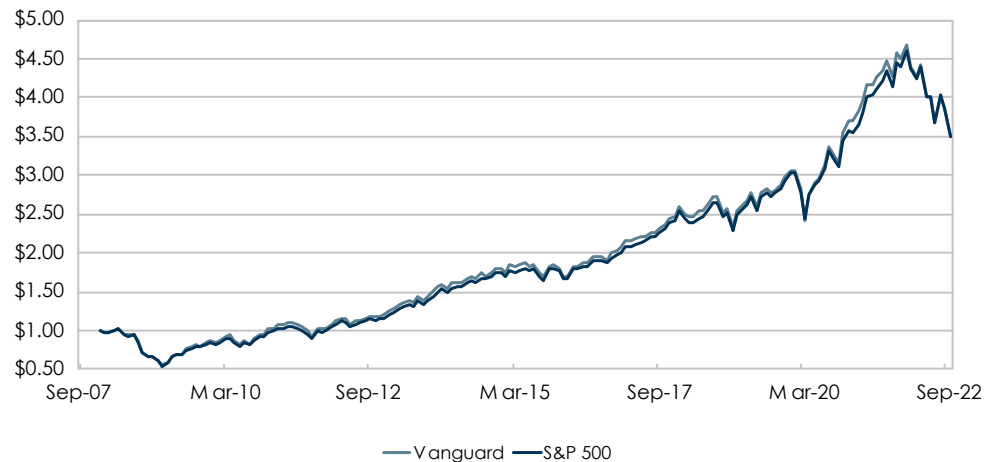
### Portfolio Statistics Since Feb 2008

	Vanguard	S&P 500
Return (%)	8.93	8.93
Standard Deviation (%)	16.68	16.16
Sharpe Ratio	0.50	0.52

### Benchmark Relative Statistics

Beta	1.03
R Squared (%)	99.38
Alpha (%)	-0.20
Tracking Error (%)	1.40
Batting Average (%)	51.14
Up Capture (%)	102.56
Down Capture (%)	102.33

### Growth of a Dollar Since Feb 2008

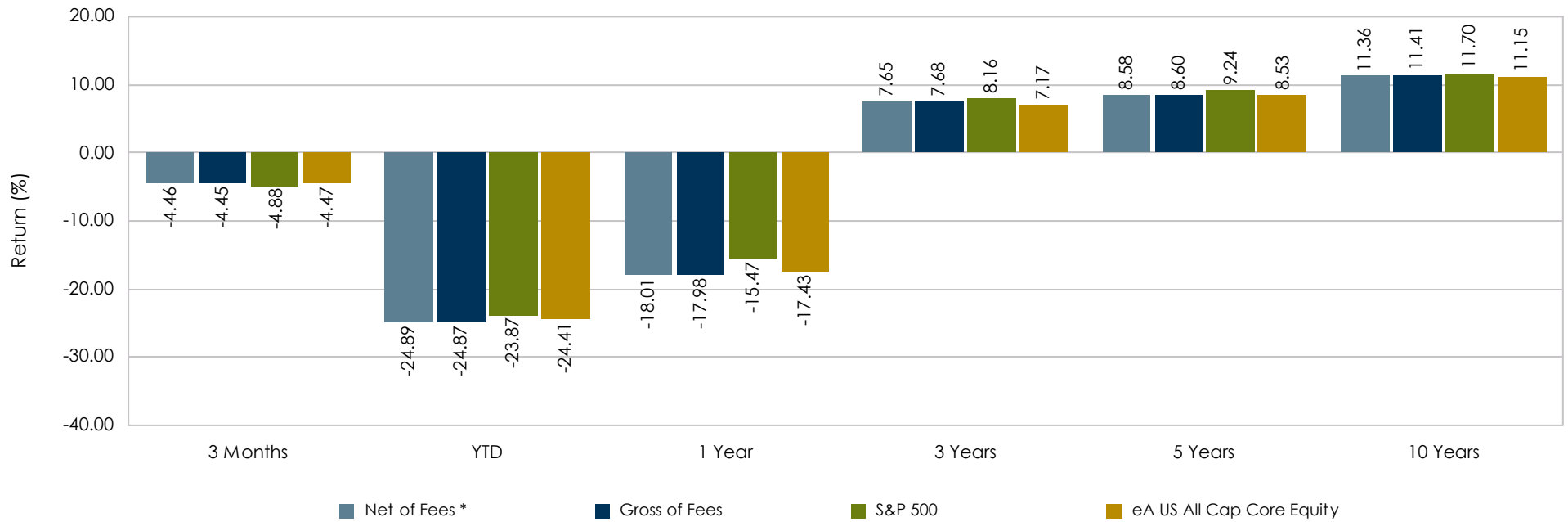


### Return Analysis Since Feb 2008

	Vanguard	S&P 500
Number of Months	176	176
Highest Monthly Return (%)	13.26	12.82
Lowest Monthly Return (%)	-17.62	-16.80
Number of Positive Months	117	118
Number of Negative Months	59	58
% of Positive Months	66.48	67.05

### Vanguard Total Stock

For the Periods Ending September 30, 2022



Ranking	50	59	57	43	49	42
5th Percentile	-2.04	-16.26	-7.84	11.96	12.27	13.21
25th Percentile	-3.69	-21.89	-14.69	9.04	9.80	12.16
50th Percentile	-4.47	-24.41	-17.43	7.17	8.53	11.15
75th Percentile	-5.67	-26.51	-20.10	5.94	7.18	10.20
95th Percentile	-7.69	-31.96	-27.58	3.17	4.70	9.09
Observations	141	141	140	128	120	89

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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## T. Rowe Price

For the Periods Ending September 30, 2022

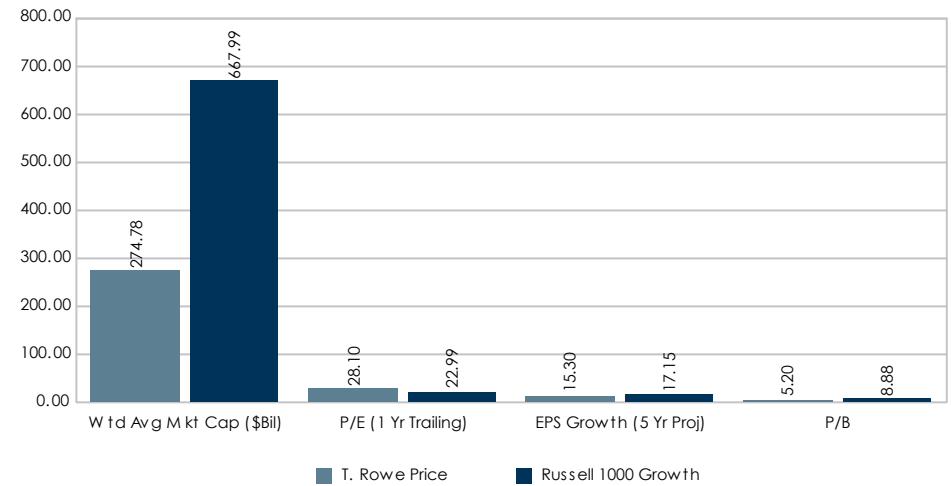
### Account Description

- **Strategy** US Large Cap Equity
- **Vehicle** Mutual Fund: Institutional Class (TRLGX)
- **Benchmark** Russell 1000 Growth
- **Performance Inception Date** July 2021
- **Expense Ratio** 55 bps

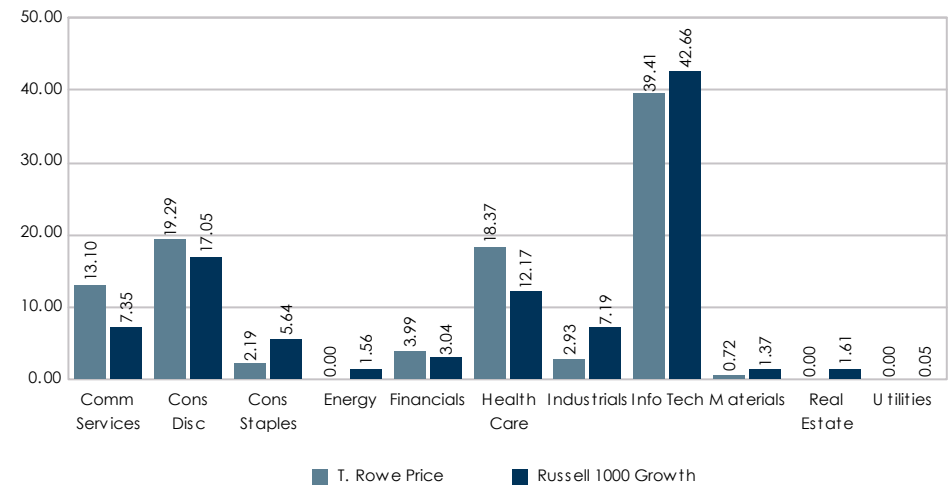
### Performance Goals

- Exceed the returns of the Russell 1000 Growth over a complete market cycle (3 to 5 years).

### Characteristics



### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>4,857</b>	<b>7,194</b>
Net Additions	153	246
Return on Investment	-136	-2,565
<b>Ending Market Value</b>	<b>4,875</b>	<b>4,875</b>

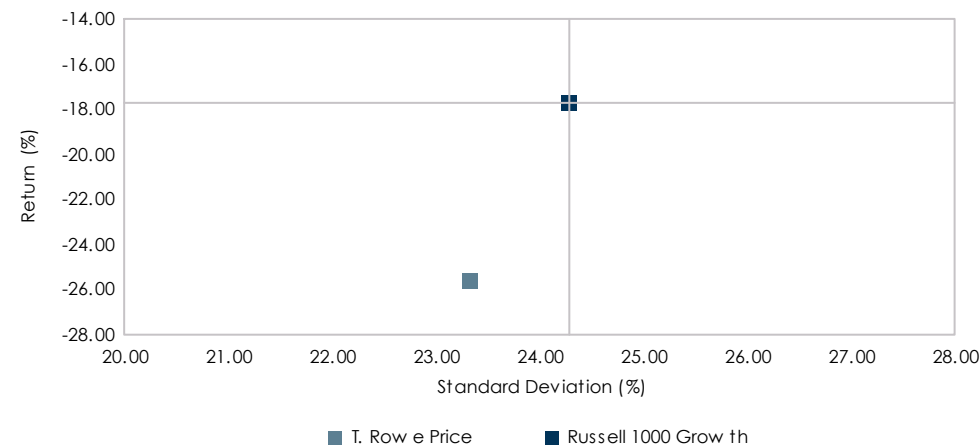
Characteristic and allocation charts represents data of the T. Rowe Price Institutional LCG (Mutual Fund: Institutional Class: TRLGX).

Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

T. Rowe Price

For the Periods Ending September 30, 2022

Risk / Return Since Jul 2021



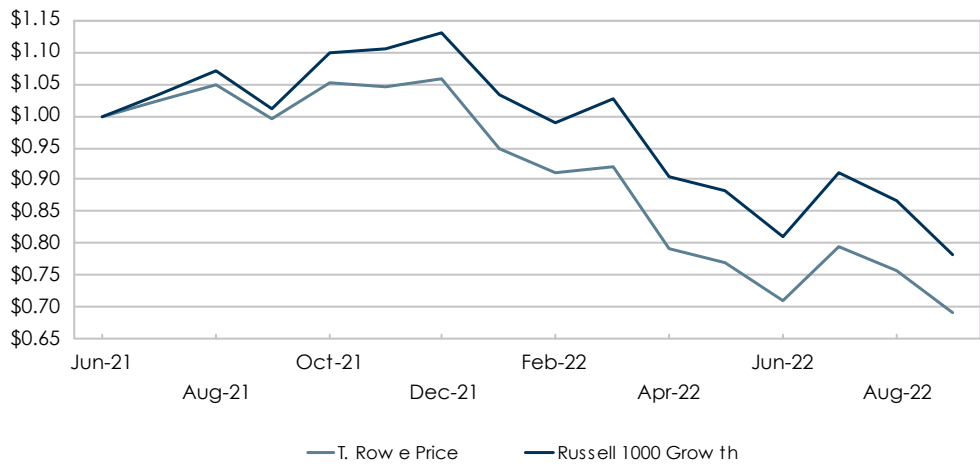
Portfolio Statistics Since Jul 2021

	T. Rowe Price	Russell 1000 Growth
Return (%)	-25.64	-17.77
Standard Deviation (%)	23.32	24.29
Sharpe Ratio	-1.12	-0.75

Benchmark Relative Statistics

Beta	0.95
R Squared (%)	97.15
Alpha (%)	-10.40
Tracking Error (%)	4.15
Batting Average (%)	33.33
Up Capture (%)	66.95
Down Capture (%)	103.55

Growth of a Dollar Since Jul 2021

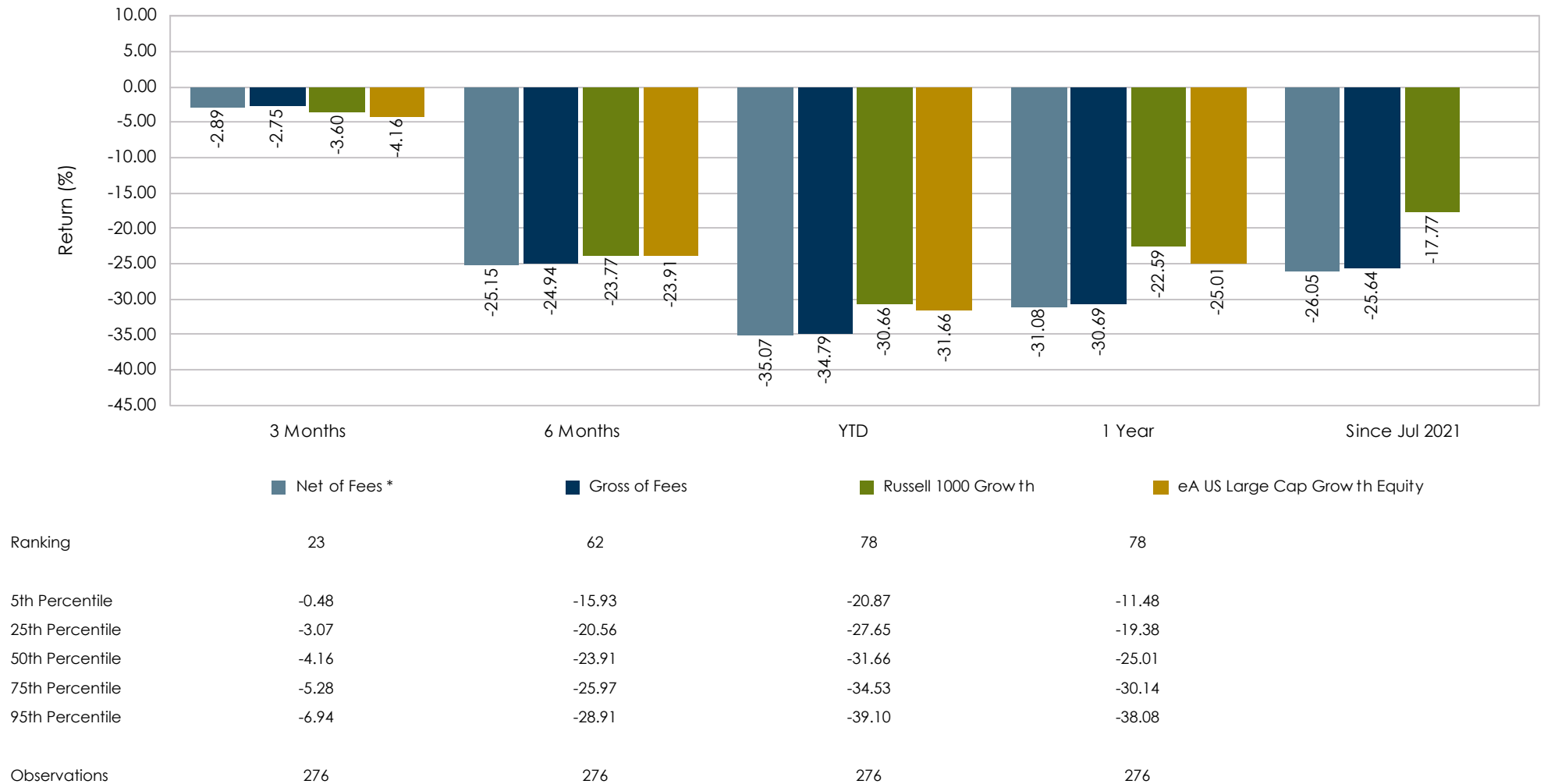


Return Analysis Since Jul 2021

	T. Rowe Price	Russell 1000 Growth
Number of Months	15	15
Highest Monthly Return (%)	12.11	12.00
Lowest Monthly Return (%)	-13.96	-12.08
Number of Positive Months	6	7
Number of Negative Months	9	8
% of Positive Months	40.00	46.67

**T. Rowe Price**

For the Periods Ending September 30, 2022



The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.



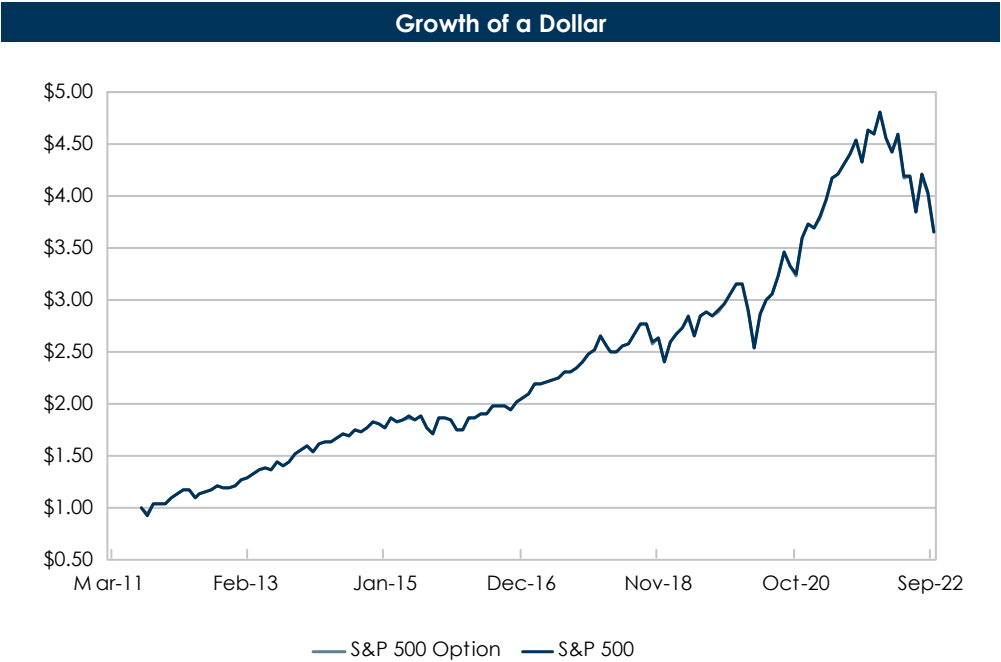
S&P 500 Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
Total	30,153	100.00
SSGA S&P 500 Non Lending	30,153	100.00

Portfolio Information
<ul style="list-style-type: none"><li>■ S&amp;P 500 Index Option</li><li>■ This option includes the passively managed SSgA S&amp;P 500 Index Fund.</li><li>■ Performance Goal - Mirror the risk and return profile of the S&amp;P 500 over all time periods.</li></ul>

Dollar Growth Summary (\$000s)		
	3 Months	YTD
Beginning Market Value	32,218	42,411
Net Additions	-576	-2,514
Return on Investment	-1,489	-9,744
Ending Market Value	30,153	30,153



## SSGA S&P 500 Non Lending

For the Periods Ending September 30, 2022

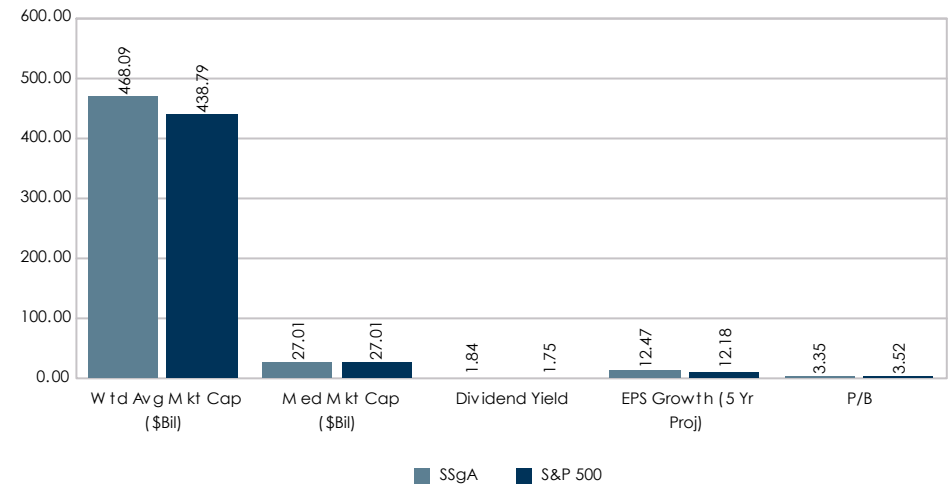
### Account Description

- **Strategy** US Large Cap Equity
- **Vehicle** Non-Mutual Commingled
- **Benchmark** S&P 500
- **Performance Inception Date** February 2010
- **Fees** 3 bps

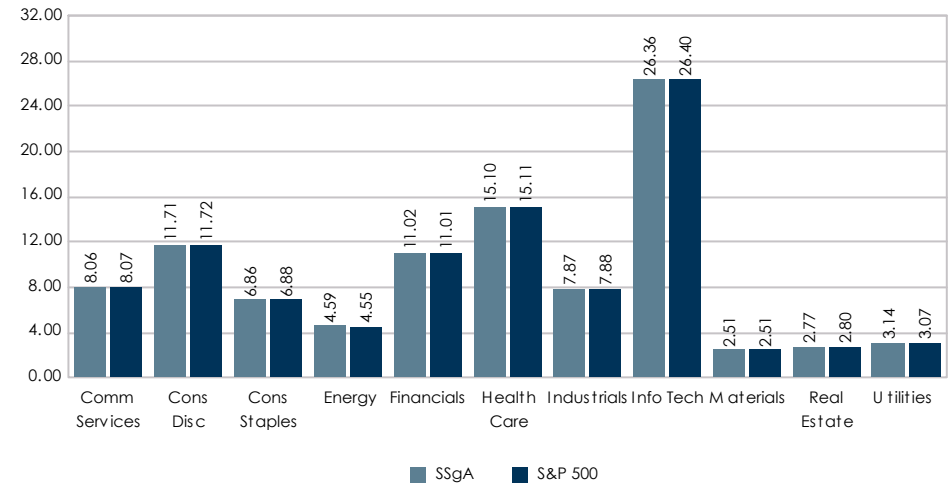
### Performance Goals

- Mirror the risk and return profile of the S&P 500 over all time periods.

### Characteristics



### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>32,218</b>	<b>42,411</b>
Net Additions	-576	-2,514
Return on Investment	-1,489	-9,744
<b>Ending Market Value</b>	<b>30,153</b>	<b>30,153</b>

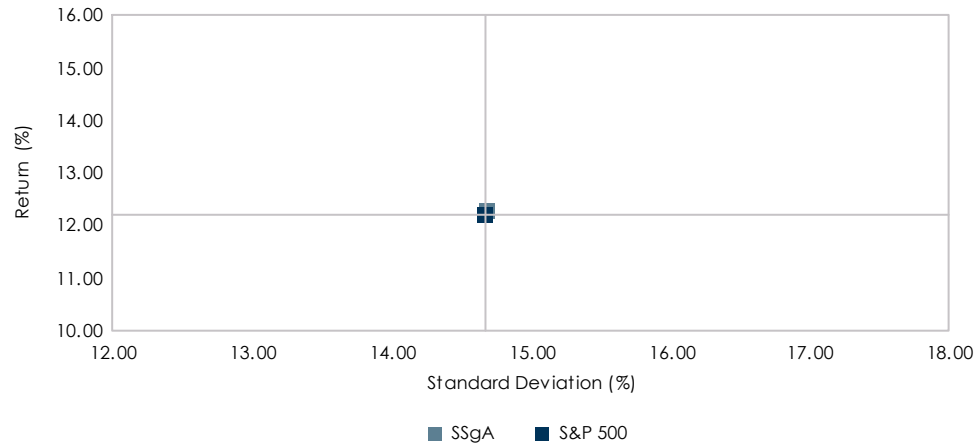
Characteristic and allocation charts represents data of the State Street S&P 500 Flagship Non-Lending Fund (Non-Mutual Commingled).

Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

## SSGA S&P 500 Non Lending

For the Periods Ending September 30, 2022

### Risk / Return Since Feb 2010



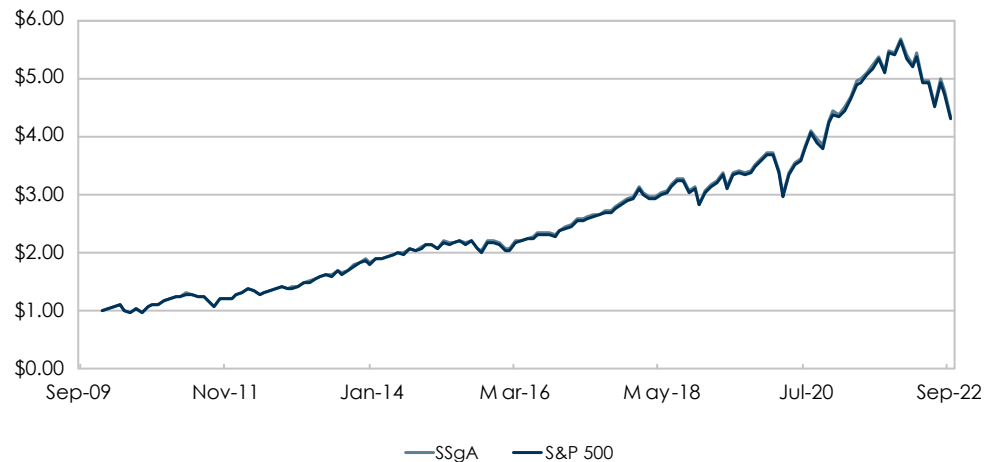
### Portfolio Statistics Since Feb 2010

	SSgA	S&P 500
Return (%)	12.27	12.19
Standard Deviation (%)	14.68	14.67
Sharpe Ratio	0.80	0.80

### Benchmark Relative Statistics

Beta	1.00
R Squared (%)	99.99
Alpha (%)	0.07
Tracking Error (%)	0.12
Batting Average (%)	53.95
Up Capture (%)	100.30
Down Capture (%)	99.94

### Growth of a Dollar Since Feb 2010

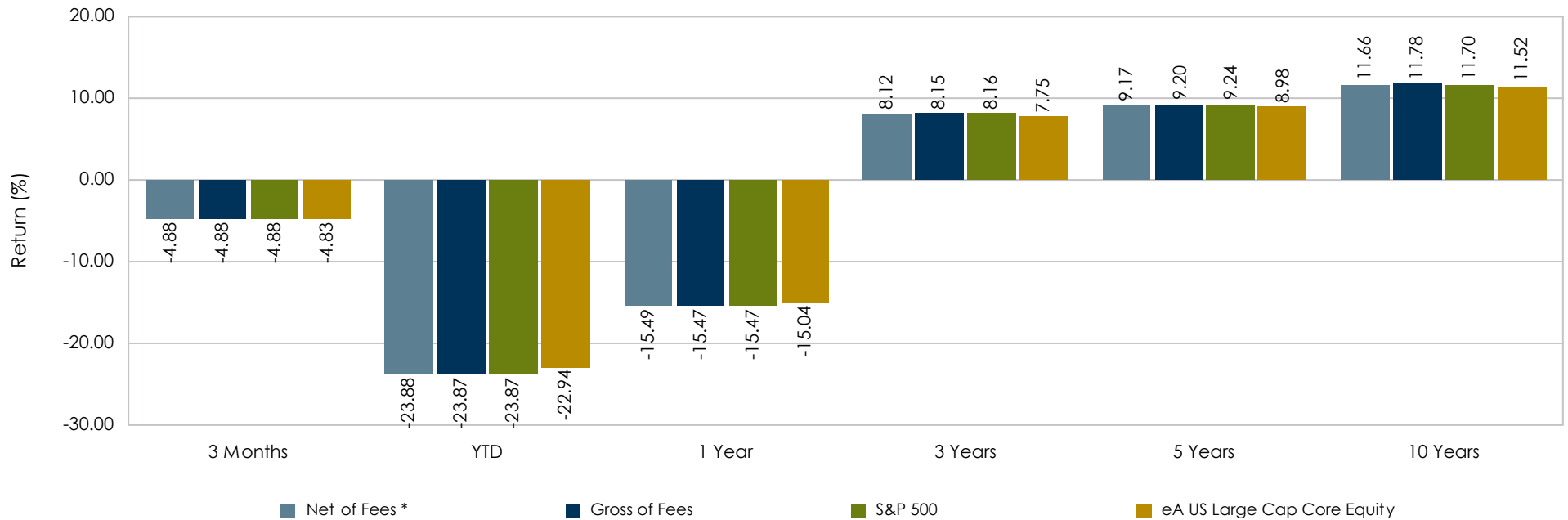


### Return Analysis Since Feb 2010

	SSgA	S&P 500
Number of Months	152	152
Highest Monthly Return (%)	12.81	12.82
Lowest Monthly Return (%)	-12.35	-12.35
Number of Positive Months	105	105
Number of Negative Months	47	47
% of Positive Months	69.08	69.08

### SSGA S&P 500 Non Lending

For the Periods Ending September 30, 2022



Ranking	52	63	55	40	42	38
5th Percentile	-2.35	-14.63	-5.68	11.13	11.68	13.54
25th Percentile	-4.17	-20.30	-11.59	8.88	10.05	12.08
50th Percentile	-4.83	-22.94	-15.04	7.75	8.98	11.52
75th Percentile	-5.64	-24.87	-17.24	6.27	7.70	10.67
95th Percentile	-7.00	-28.04	-21.43	3.35	5.83	8.56
Observations	361	361	361	350	334	263

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

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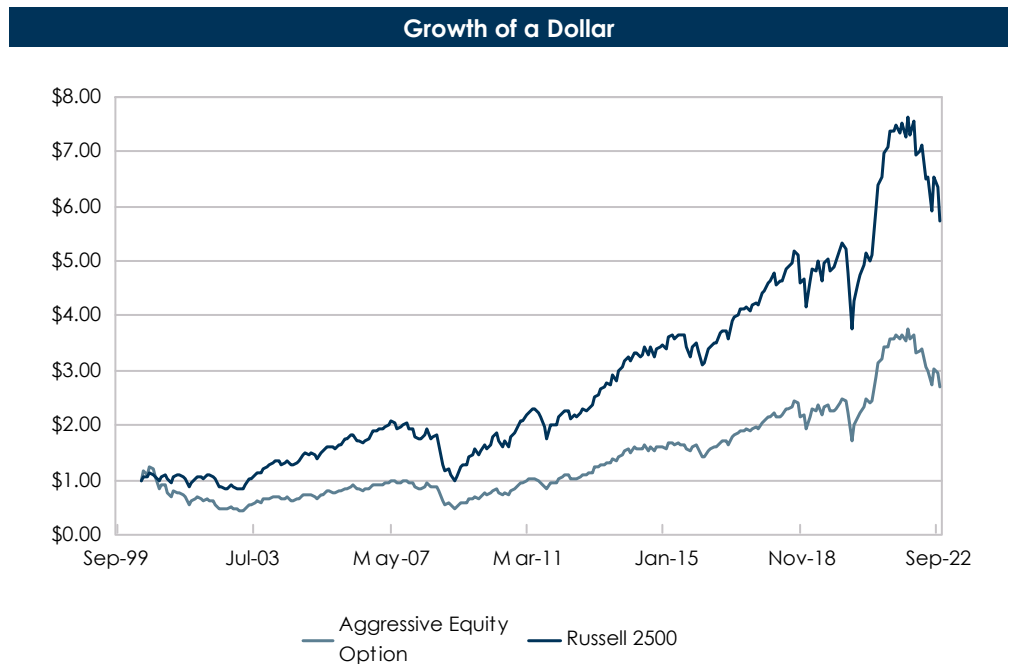
## Aggressive Equity Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
<b>Total</b>	<b>15,049</b>	<b>100.00</b>
SSgA Russell Small Cap Completeness	7,419	49.30
TimesSquare Small Cap Growth	3,941	26.19
Integrity Small Cap Value	3,689	24.51

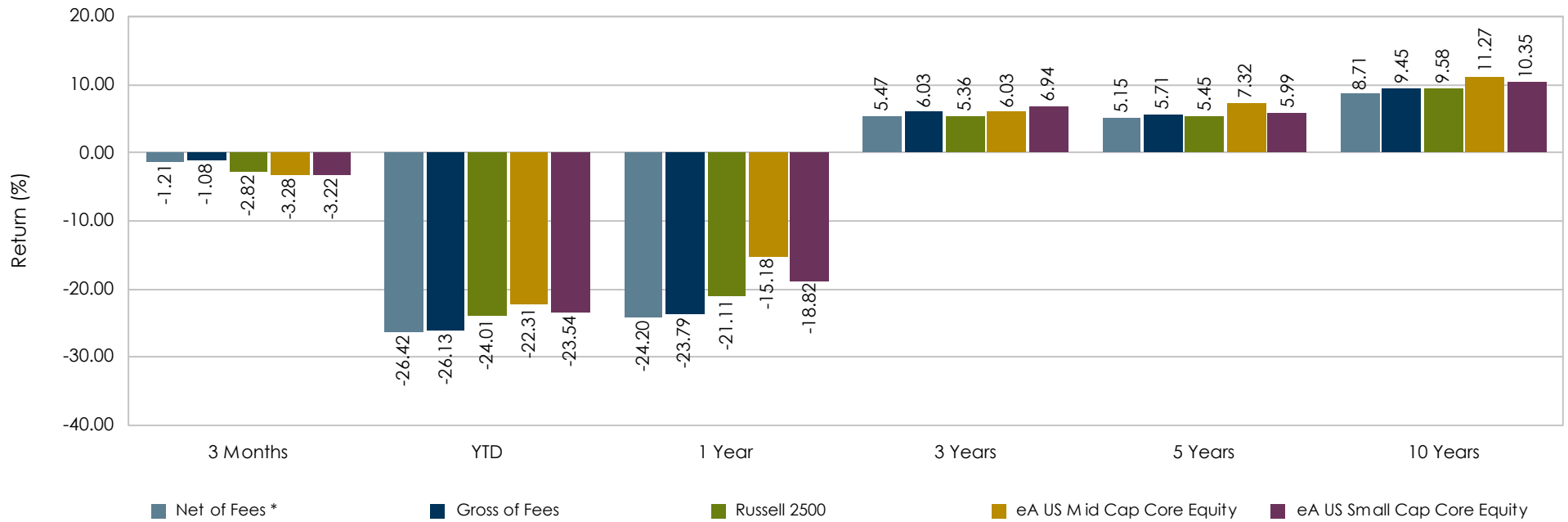
Portfolio Information
<ul style="list-style-type: none"> <li>Small to Mid Cap Equity Option</li> <li>This option includes a combination of portfolios focused in the small and mid cap asset classes.</li> <li>Performance goals - 1) to achieve returns 100 basis points in excess of the Russell 2500 Index, and 2) to exceed the return of the median small/mid cap core manager over a complete market cycle (3 to 5 years).</li> </ul>

Dollar Growth Summary (\$000s)		
	<b>3 Months</b>	<b>YTD</b>
<b>Beginning Market Value</b>	<b>15,412</b>	<b>21,855</b>
Net Additions	-209	-1,273
Return on Investment	-154	-5,533
<b>Ending Market Value</b>	<b>15,049</b>	<b>15,049</b>



### Aggressive Equity Option

For the Periods Ending September 30, 2022



Ranking	7 / 13	73 / 76	89 / 83	51 / 62	74 / 54	93 / 72
5th Percentile	-0.71 / -0.08	-14.29 / -17.28	-7.08 / -10.41	9.46 / 12.34	10.68 / 9.59	13.21 / 12.95
25th Percentile	-2.36 / -2.02	-20.00 / -21.60	-12.25 / -16.14	7.98 / 8.43	8.77 / 7.05	11.79 / 11.48
50th Percentile	-3.28 / -3.22	-22.31 / -23.54	-15.18 / -18.82	6.03 / 6.94	7.32 / 5.99	11.27 / 10.35
75th Percentile	-4.35 / -4.45	-27.28 / -26.06	-20.18 / -22.26	4.42 / 4.97	5.66 / 4.31	10.03 / 9.22
95th Percentile	-6.02 / -7.09	-31.55 / -30.72	-26.60 / -28.16	1.05 / 1.50	3.30 / 1.92	8.84 / 7.27
Observations	53 / 170	53 / 170	53 / 170	52 / 163	51 / 157	38 / 128

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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## Integrity Small Cap Value

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** US Small Cap Value
- **Vehicle** Mutual Fund (MVSSX)
- **Benchmark** Russell 2000 Value
- **Performance Inception Date** September 2015
- **Expense Ratio** 96 bps

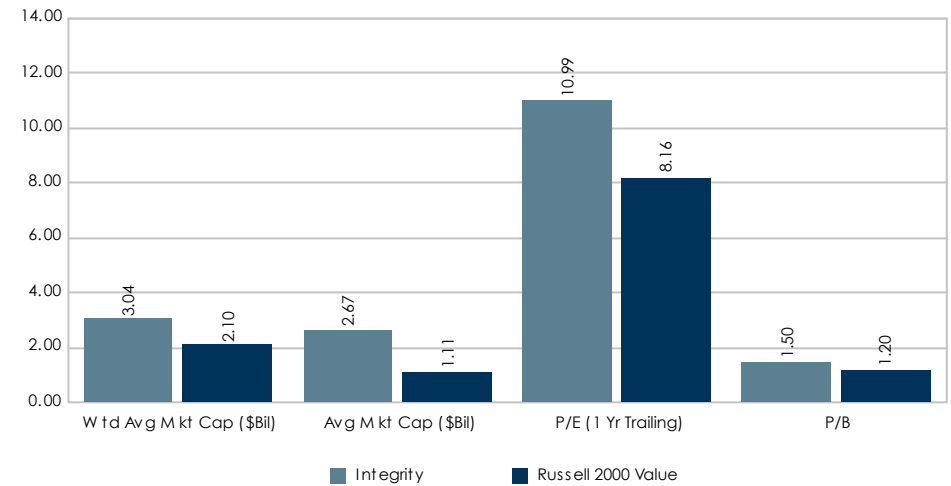
### Performance Goals

- Exceed the returns of the Russell 2000 Value over a complete market cycle (3 to 5 years).

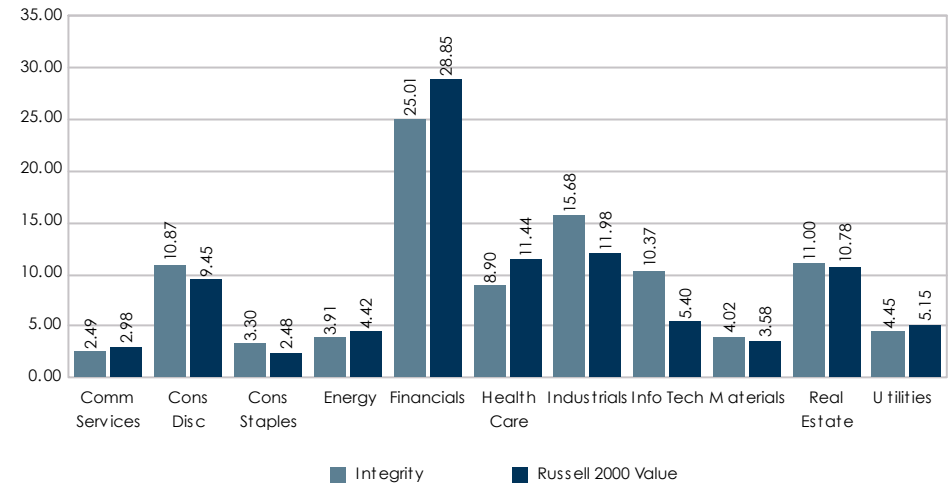
### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>4,018</b>	<b>5,645</b>
Net Additions	-207	-1,107
Return on Investment	-122	-849
<b>Ending Market Value</b>	<b>3,689</b>	<b>3,689</b>

### Characteristics



### Sector Allocation



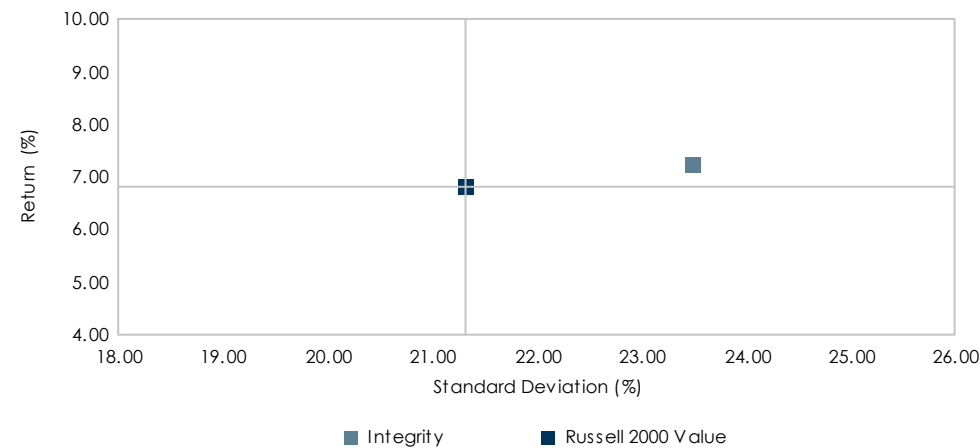
Characteristic and allocation charts represents data of the Victory Integrity Small Value R6 (Mutual Fund: MVSSX).

Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

Integrity Small Cap Value

For the Periods Ending September 30, 2022

Risk / Return Since Sep 2015



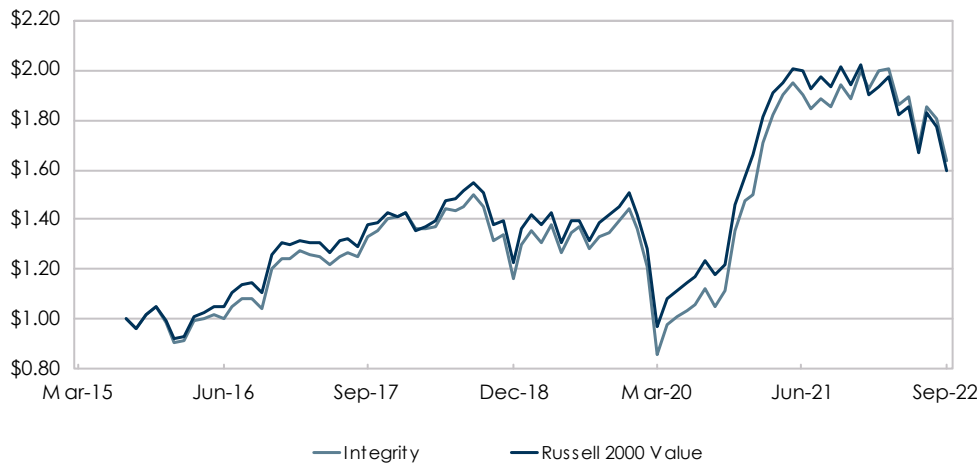
Portfolio Statistics Since Sep 2015

	Integrity	Russell 2000 Value
Return (%)	7.21	6.79
Standard Deviation (%)	23.49	21.31
Sharpe Ratio	0.27	0.28

Benchmark Relative Statistics

Beta	1.09
R Squared (%)	96.99
Alpha (%)	0.15
Tracking Error (%)	4.46
Batting Average (%)	50.59
Up Capture (%)	106.23
Down Capture (%)	103.15

Growth of a Dollar Since Sep 2015



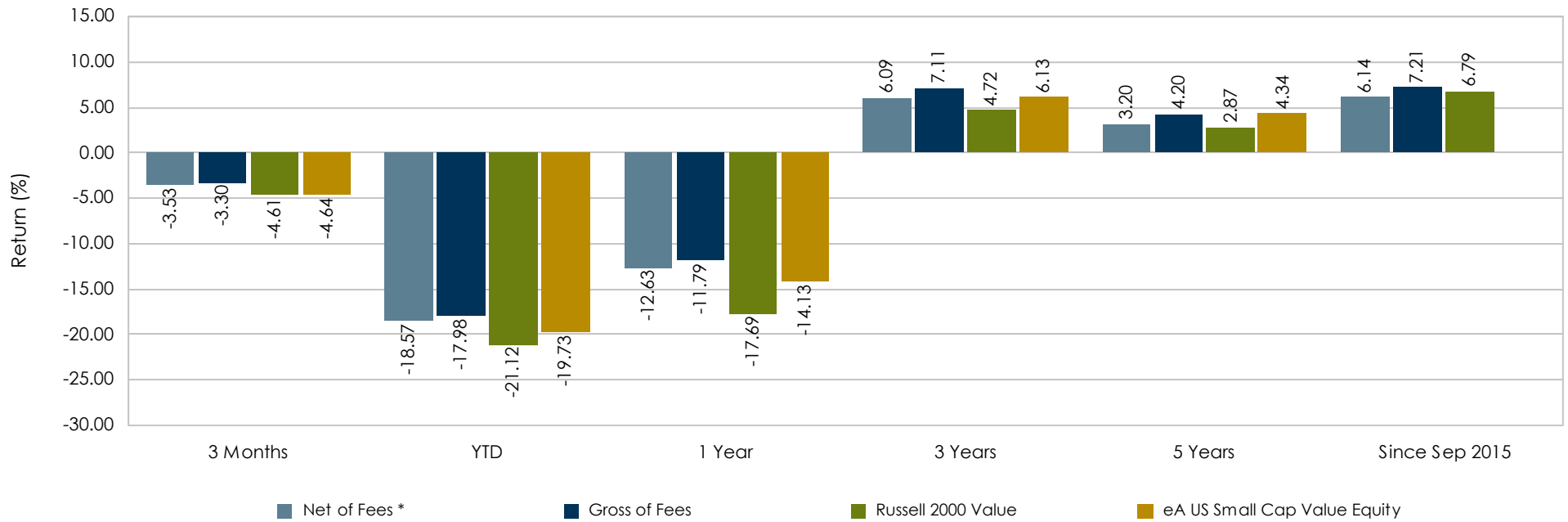
Return Analysis Since Sep 2015

	Integrity	Russell 2000 Value
Number of Months	85	85
Highest Monthly Return (%)	21.66	19.31
Lowest Monthly Return (%)	-29.00	-24.67
Number of Positive Months	55	56
Number of Negative Months	30	29
% of Positive Months	64.71	65.88



### Integrity Small Cap Value

For the Periods Ending September 30, 2022



Ranking	26	33	26	37	53
5th Percentile	-0.54	-12.15	-5.91	12.52	8.62
25th Percentile	-3.21	-17.48	-11.78	8.54	5.83
50th Percentile	-4.64	-19.73	-14.13	6.13	4.34
75th Percentile	-5.92	-22.47	-17.39	4.24	3.33
95th Percentile	-8.33	-27.16	-23.43	1.24	1.19
Observations	209	209	209	205	193

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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## SSgA Russell Small Cap Completeness

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** US Small Cap Core
- **Vehicle** Non-Mutual Commingled
- **Benchmark** Russell Small Cap Completeness
- **Performance Inception Date** May 2010
- **Fees** First \$50M at 8 bps, next \$50M at 6 bps, balance at 4 bps

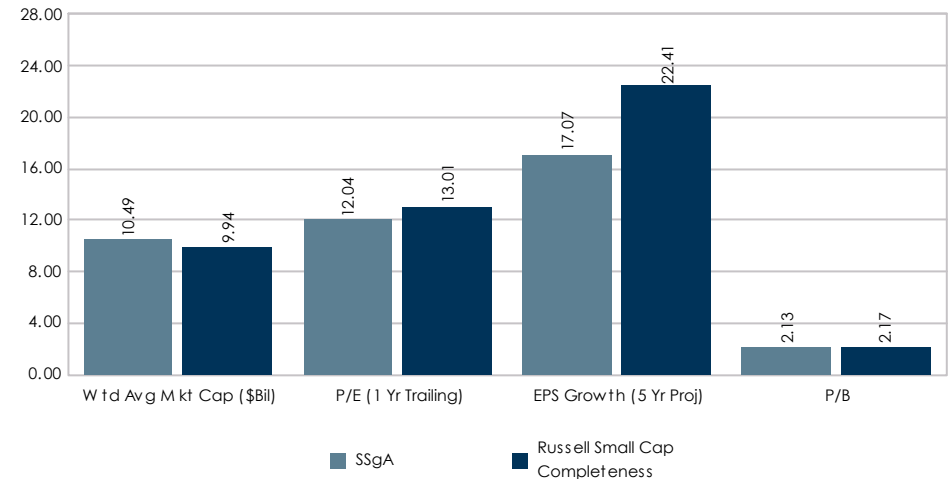
### Performance Goals

- Mirror the risk and return profile of the Russell Small Cap Completeness over all time periods.

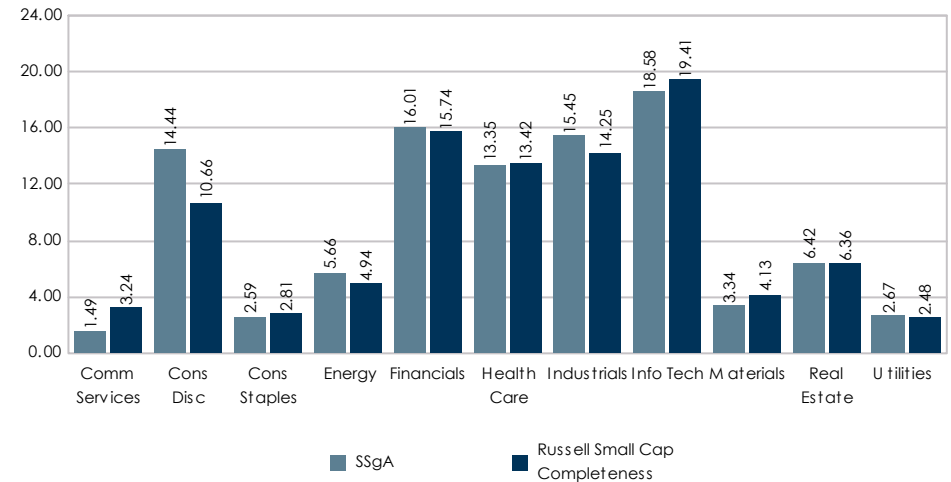
### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>7,628</b>	<b>10,766</b>
Net Additions	-31	-253
Return on Investment	-178	-3,093
<b>Ending Market Value</b>	<b>7,419</b>	<b>7,419</b>

### Characteristics



### Sector Allocation



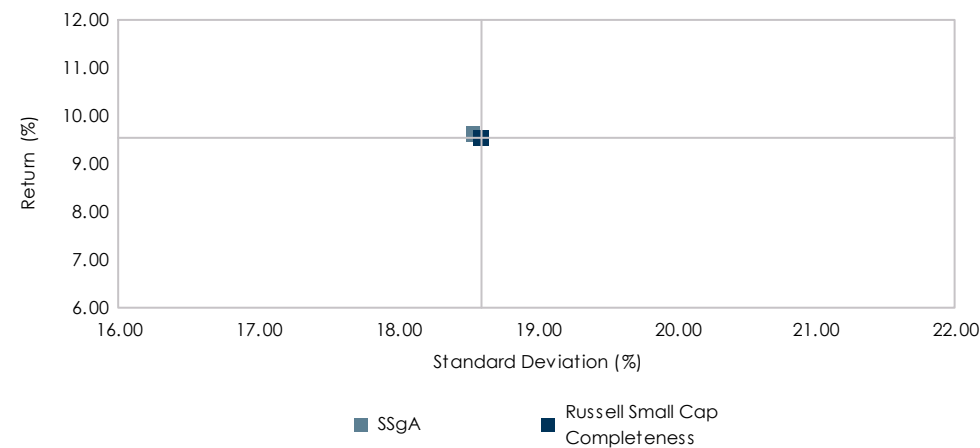
Characteristic and allocation charts represents data of the Small/Mid Cap Index Non-Lending Series Fund (Non-Mutual Commingled).

Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

SSgA Russell Small Cap Completeness

For the Periods Ending September 30, 2022

Risk / Return Since May 2010



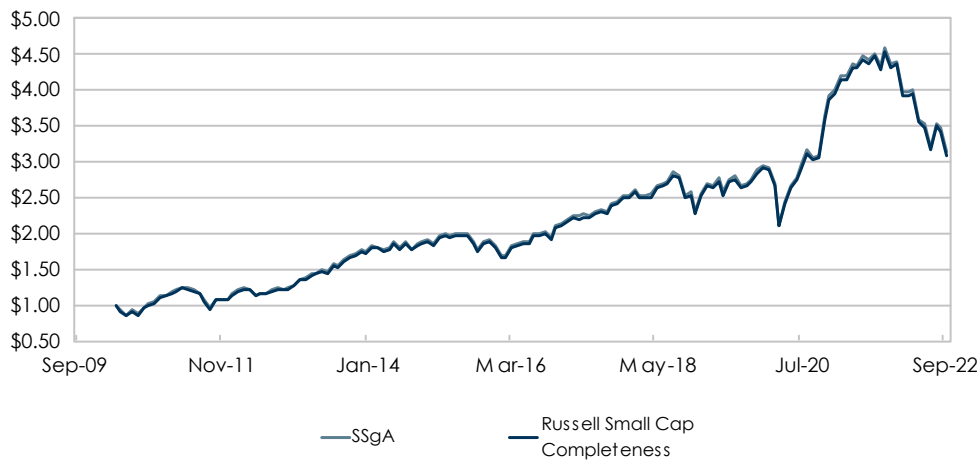
Portfolio Statistics Since May 2010

	SSgA	Russell Small Cap Completeness
Return (%)	9.64	9.53
Standard Deviation (%)	18.54	18.60
Sharpe Ratio	0.49	0.48

Benchmark Relative Statistics

Beta	1.00
R Squared (%)	99.96
Alpha (%)	0.13
Tracking Error (%)	0.36
Batting Average (%)	49.66
Up Capture (%)	99.98
Down Capture (%)	99.59

Growth of a Dollar Since May 2010

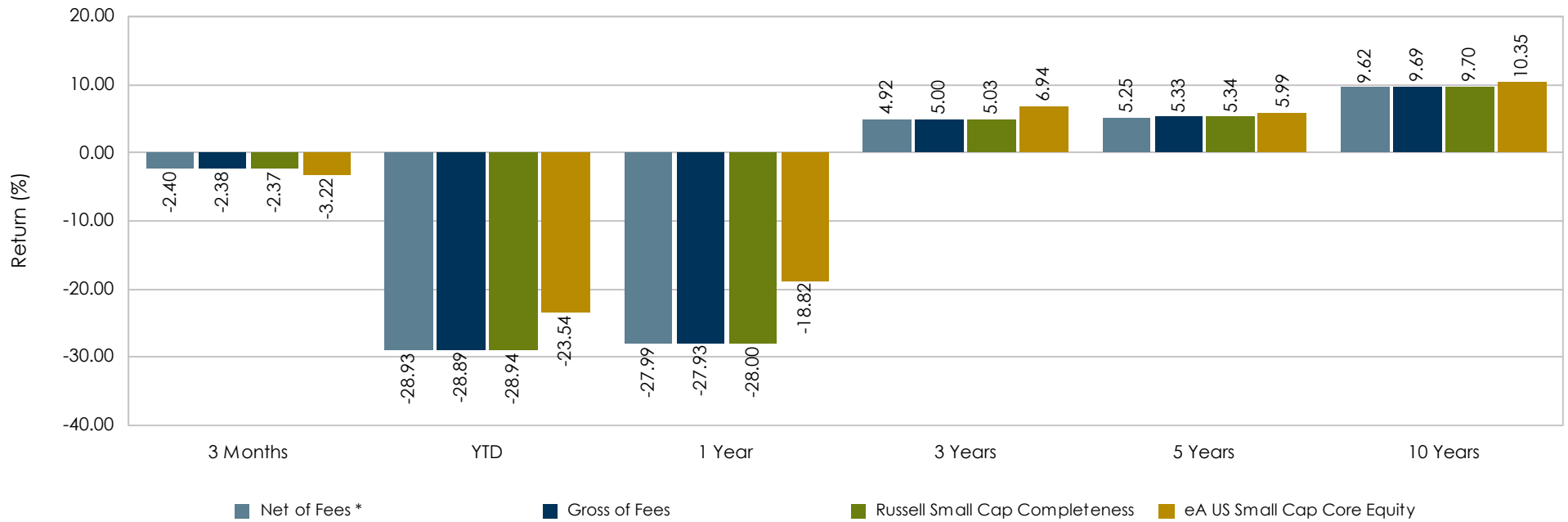


Return Analysis Since May 2010

	SSgA	Russell Small Cap Completeness
Number of Months	149	149
Highest Monthly Return (%)	18.17	18.17
Lowest Monthly Return (%)	-21.22	-21.22
Number of Positive Months	92	92
Number of Negative Months	57	57
% of Positive Months	61.74	61.74

### SSgA Russell Small Cap Completeness

For the Periods Ending September 30, 2022



Ranking	33	90	95	75	58	68
5th Percentile	-0.08	-17.28	-10.41	12.34	9.59	12.95
25th Percentile	-2.02	-21.60	-16.14	8.43	7.05	11.48
50th Percentile	-3.22	-23.54	-18.82	6.94	5.99	10.35
75th Percentile	-4.45	-26.06	-22.26	4.97	4.31	9.22
95th Percentile	-7.09	-30.72	-28.16	1.50	1.92	7.27
Observations	170	170	170	163	157	128

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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## TimesSquare Small Cap Growth

For the Periods Ending September 30, 2022

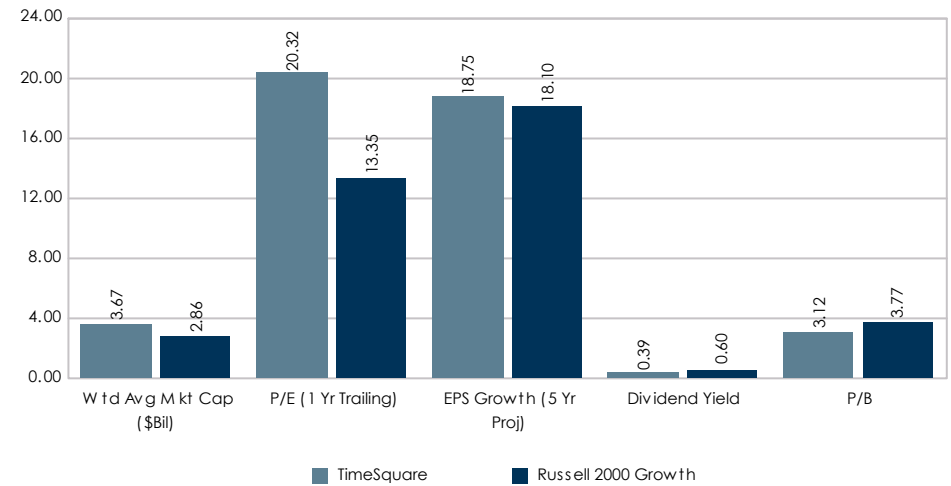
### Account Description

- **Strategy** US Small Cap Growth
- **Vehicle** Non-Mutual Commingled
- **Benchmark** Russell 2000 Growth
- **Performance Inception Date** September 2015
- **Fees** 80 bps

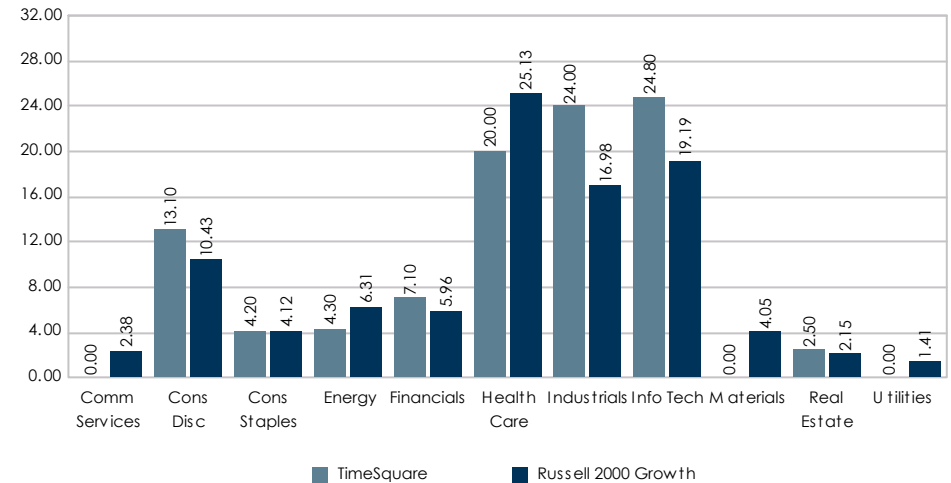
### Performance Goals

- Exceed the returns of the Russell 2000 Growth over a complete market cycle (3 to 5 years).

### Characteristics



### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>3,766</b>	<b>5,444</b>
Net Additions	29	88
Return on Investment	146	-1,591
<b>Ending Market Value</b>	<b>3,941</b>	<b>3,941</b>

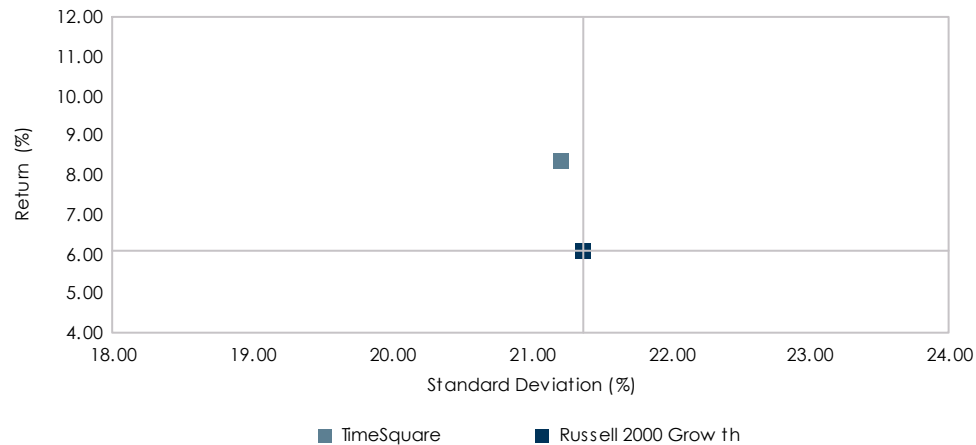
Characteristic and allocation charts represents the composite data of the TimesSquare Small Growth.

Sector weights may not add to 100% due to securities that are not assigned to a Global Industry Classification Standard (GICS) sector.

## TimesSquare Small Cap Growth

For the Periods Ending September 30, 2022

### Risk / Return Since Sep 2015



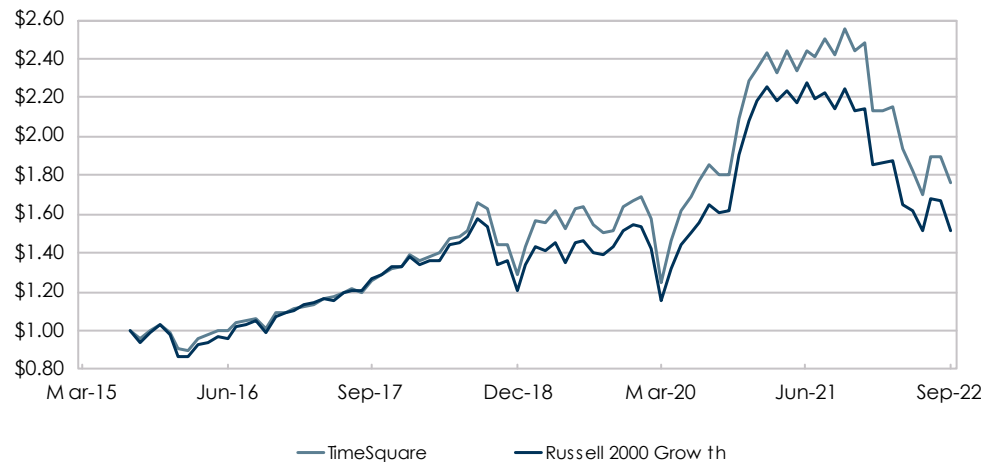
### Portfolio Statistics Since Sep 2015

	TimesSquare	Russell 2000 Growth
Return (%)	8.35	6.05
Standard Deviation (%)	21.22	21.37
Sharpe Ratio	0.35	0.24

### Benchmark Relative Statistics

Beta	0.97
R Squared (%)	94.88
Alpha (%)	2.42
Tracking Error (%)	4.85
Batting Average (%)	57.65
Up Capture (%)	102.18
Down Capture (%)	95.27

### Growth of a Dollar Since Sep 2015

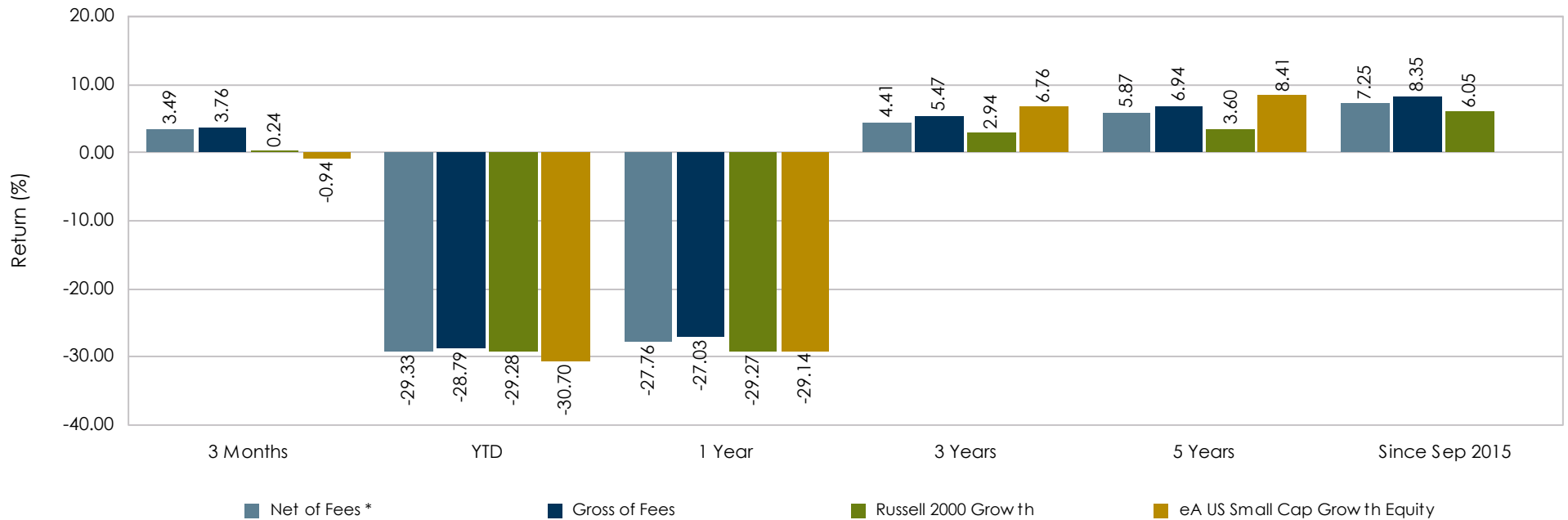


### Return Analysis Since Sep 2015

	TimesSquare	Russell 2000 Growth
Number of Months	85	85
Highest Monthly Return (%)	17.19	17.63
Lowest Monthly Return (%)	-21.00	-19.10
Number of Positive Months	55	54
Number of Negative Months	30	31
% of Positive Months	64.71	63.53

### TimesSquare Small Cap Growth

For the Periods Ending September 30, 2022



Ranking	5	35	34	68	72
5th Percentile	3.61	-23.49	-18.27	14.40	14.84
25th Percentile	0.89	-27.96	-24.67	9.42	10.52
50th Percentile	-0.94	-30.70	-29.14	6.76	8.41
75th Percentile	-2.86	-34.30	-33.77	4.89	6.57
95th Percentile	-5.76	-40.12	-42.37	1.68	3.80
Observations	163	163	163	159	156

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

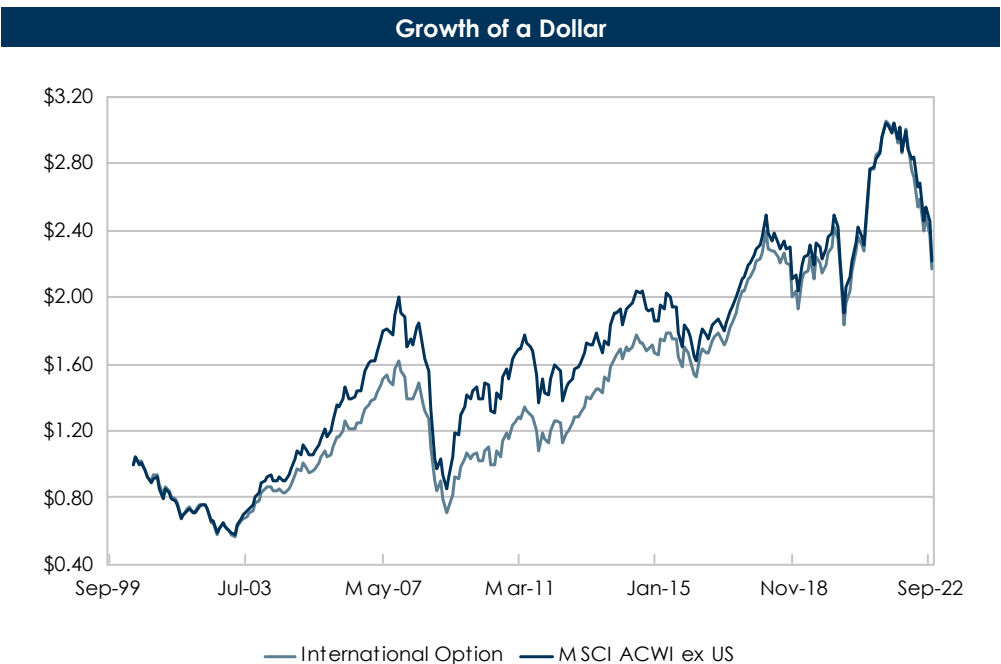
## International Investment Equity Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
<b>Total International Option</b>	<b>6,991</b>	<b>100.00</b>
Harding Loevner International Equity	1,783	25.50
Artisan	1,749	25.02
SSgA Global Equity Ex US	1,730	24.75
Harding Loevner Emerging Markets	1,728	24.72

Portfolio Information
<ul style="list-style-type: none"> <li>International Equity Option</li> <li>This option includes a combination of international equity portfolios across complimentary styles of management.</li> <li>Performance goals - 1) to achieve returns 100 basis points in excess of the MSCI ACWI ex US, and 2) to exceed the return of the median international developed markets equity manager over a complete market cycle (3 to 5 years).</li> </ul>

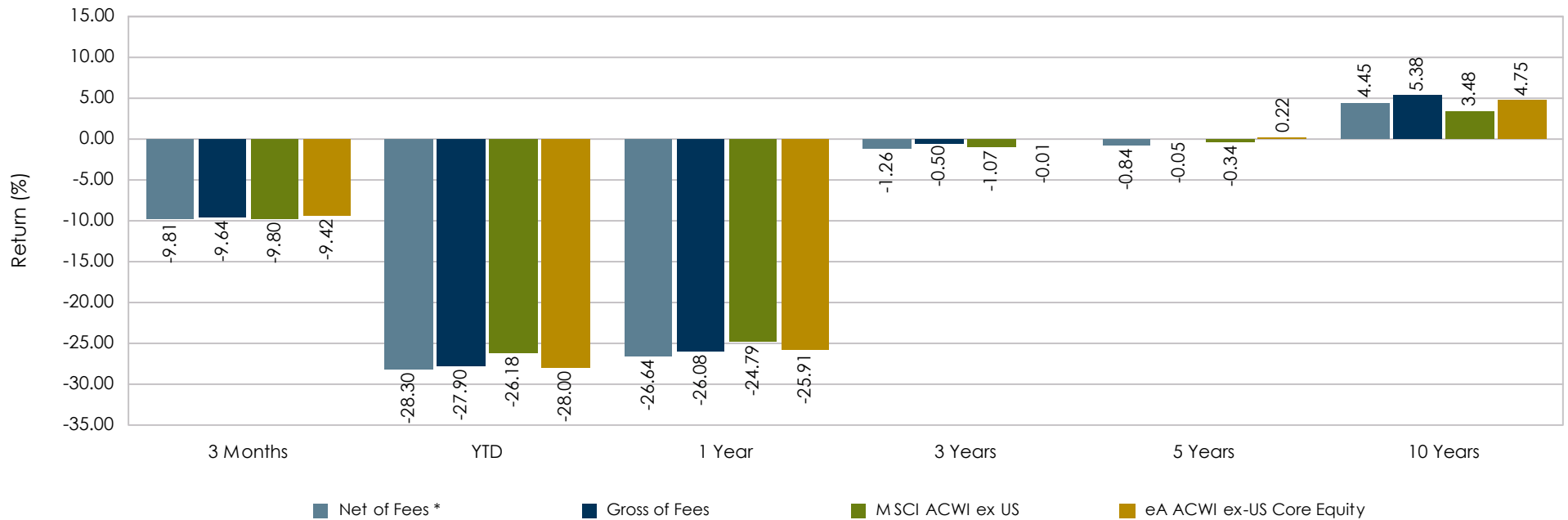
Dollar Growth Summary (\$000s)		
	3 Months	YTD
<b>Beginning Market Value</b>	<b>7,829</b>	<b>10,140</b>
Net Additions	-94	-370
Return on Investment	-744	-2,779
<b>Ending Market Value</b>	<b>6,991</b>	<b>6,991</b>





## International Investment Equity Option

For the Periods Ending September 30, 2022



Ranking	59	49	53	60	62	26
5th Percentile	-6.87	-22.50	-20.65	3.89	2.94	7.40
25th Percentile	-8.62	-25.33	-24.06	1.35	1.17	5.41
50th Percentile	-9.42	-28.00	-25.91	-0.01	0.22	4.75
75th Percentile	-10.23	-30.57	-28.98	-1.56	-0.83	3.82
95th Percentile	-11.53	-37.43	-35.45	-3.76	-2.70	2.77
Observations	161	161	161	149	137	107

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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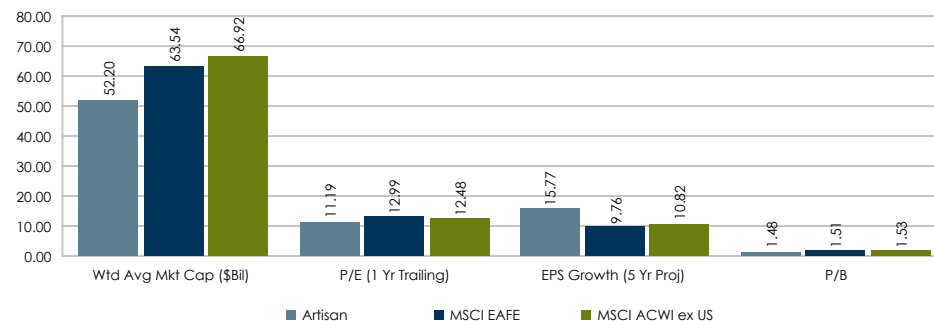
## Artisan

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Int'l Developed Markets Equity
- **Vehicle** Mutual Fund: Institutional Class (APHKX)
- **Benchmarks** MSCI EAFE and MSCI ACWI ex US
- **Performance Inception Date** May 2010
- **Expense Ratio** 102 bps

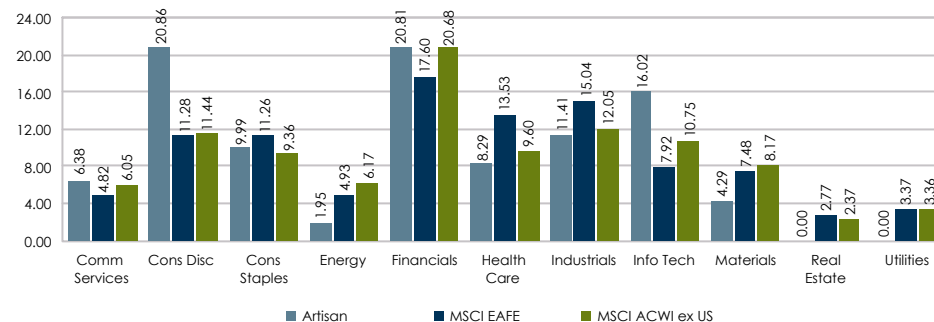
### Characteristics



### Performance Goals

- Exceed the returns of the MSCI EAFE over a complete market cycle (3 to 5 years).

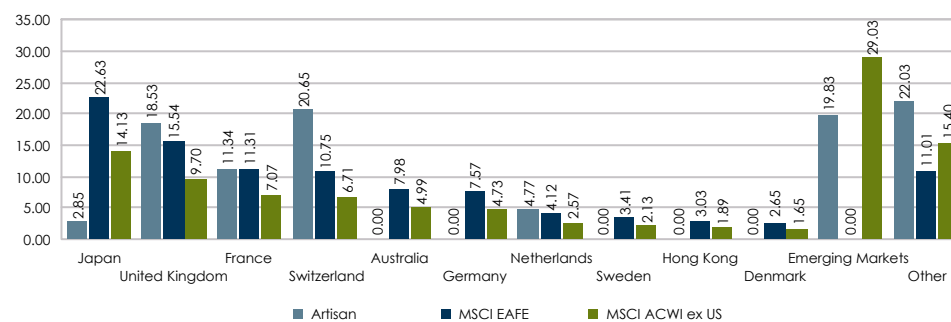
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
Beginning Market Value	2,000	2,576
Net Additions	-64	-340
Return on Investment	-186	-486
Ending Market Value	1,749	1,749

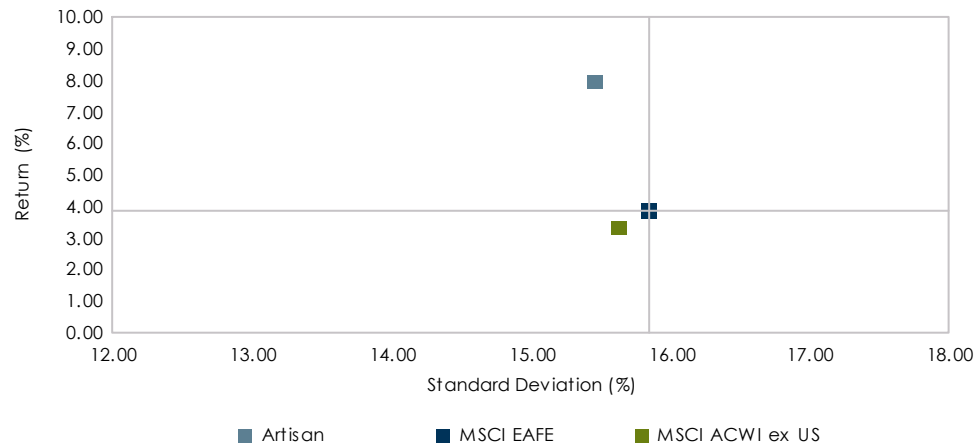
### Country Allocation



## Artisan

For the Periods Ending September 30, 2022

### Risk / Return Since May 2010



### Portfolio Statistics Since May 2010

	Artisan	MSCI EAFE	MSCI ACWI ex US
Return (%)	7.93	3.86	3.31
Standard Deviation (%)	15.47	15.85	15.63
Sharpe Ratio	0.48	0.21	0.18

### Benchmark Relative Statistics

Beta	0.93	0.94
R Squared (%)	90.09	89.75
Alpha (%)	4.27	4.76
Tracking Error (%)	5.01	5.05
Batting Average (%)	57.05	57.05
Up Capture (%)	100.70	104.85
Down Capture (%)	84.27	85.12

### Growth of a Dollar Since May 2010

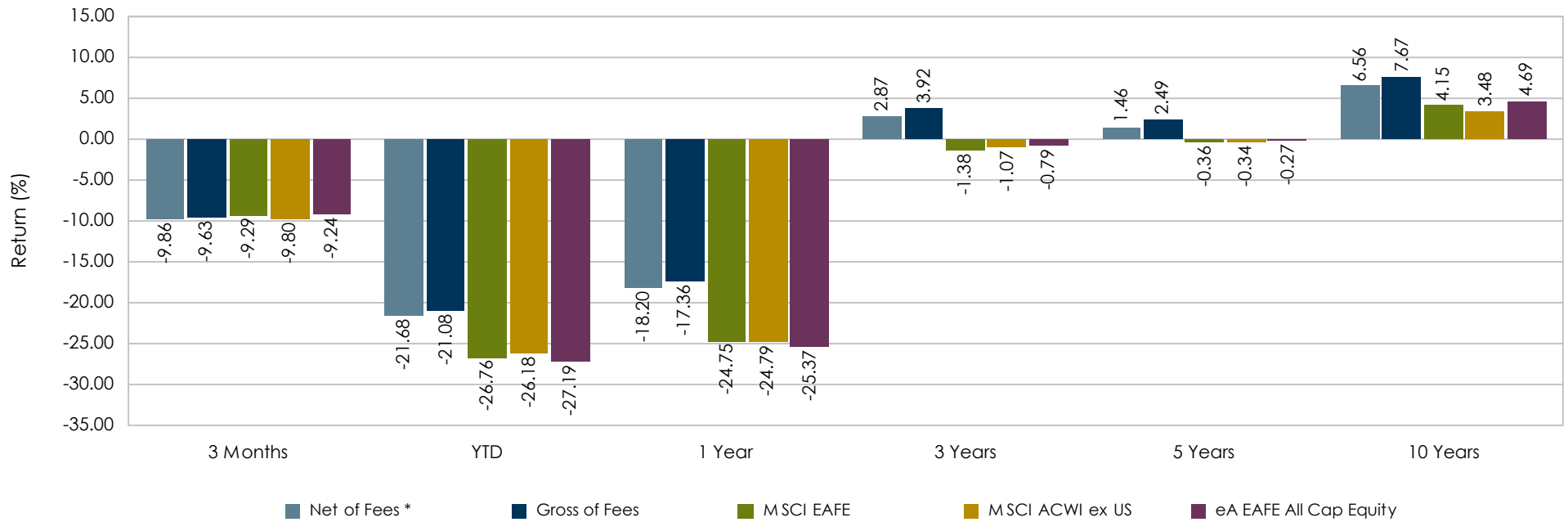


### Return Analysis Since May 2010

	Artisan	MSCI EAFE	MSCI ACWI ex US
Number of Months	149	149	149
Highest Monthly Return (%)	16.61	15.51	13.46
Lowest Monthly Return (%)	-19.43	-13.25	-14.40
Number of Positive Months	85	82	85
Number of Negative Months	64	67	64
% of Positive Months	57.05	55.03	57.05

**Artisan**

For the Periods Ending September 30, 2022



Ranking	58	13	6	4	11	5
5th Percentile	-6.19	-19.10	-17.31	3.58	3.13	7.62
25th Percentile	-8.10	-23.06	-22.02	0.22	0.86	5.77
50th Percentile	-9.24	-27.19	-25.37	-0.79	-0.27	4.69
75th Percentile	-10.33	-30.14	-27.78	-2.13	-1.15	4.00
95th Percentile	-12.79	-37.40	-36.71	-4.21	-2.90	2.18
Observations	118	118	118	116	110	85

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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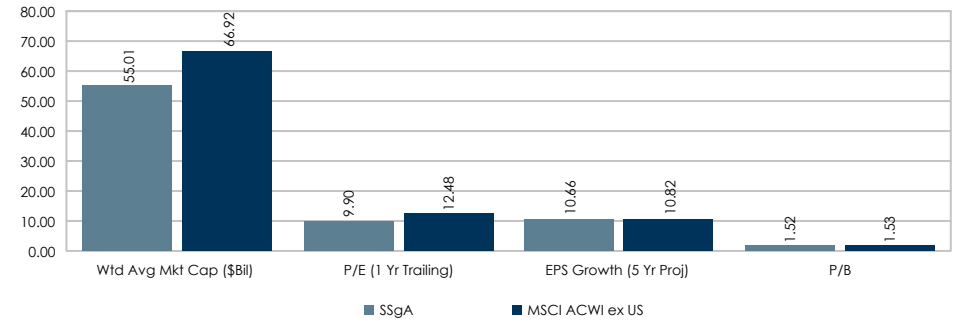
## SSgA Global Equity Ex US

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Int'l Developed Markets Equity
- **Vehicle** Non-Mutual Commingled
- **Benchmark** MSCI ACWI ex US
- **Performance Inception Date** November 2014
- **Fees** 9 bps

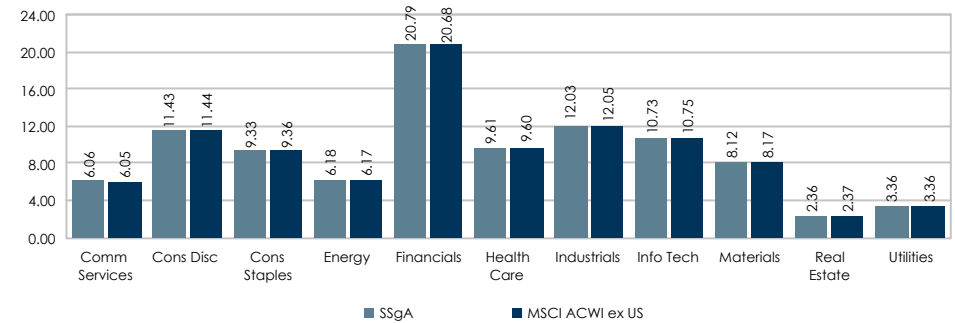
### Characteristics



### Performance Goals

- Mirror the risk and return profile of the MSCI ACWI ex US over all time periods.

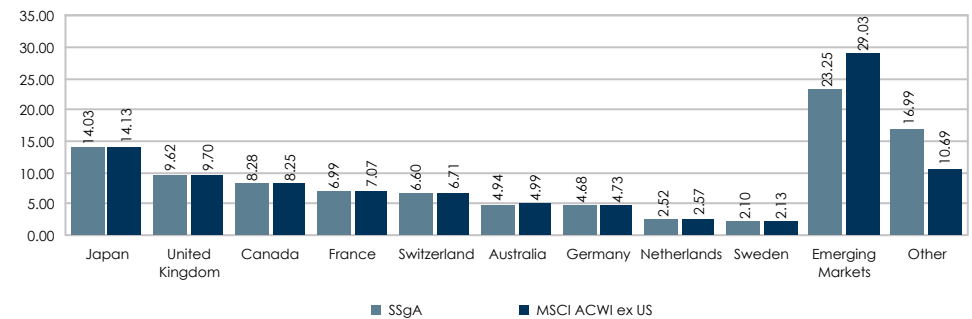
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>1,939</b>	<b>2,532</b>
Net Additions	-9	-158
Return on Investment	-199	-643
<b>Ending Market Value</b>	<b>1,730</b>	<b>1,730</b>

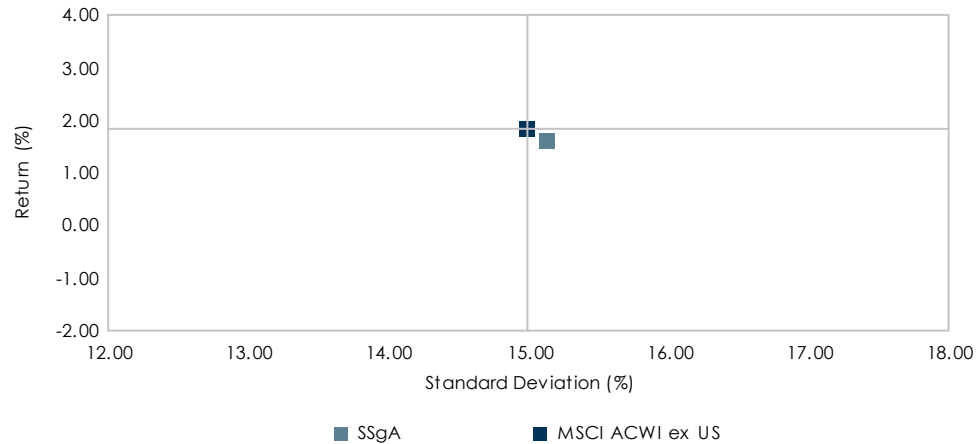
### Country Allocation



## SSgA Global Equity Ex US

For the Periods Ending September 30, 2022

### Risk / Return Since Nov 2014



### Portfolio Statistics Since Nov 2014

	SSgA	MSCI ACWI ex US
Return (%)	1.60	1.84
Standard Deviation (%)	15.13	14.99
Sharpe Ratio	0.05	0.07

### Benchmark Relative Statistics

Beta	1.01
R Squared (%)	99.24
Alpha (%)	-0.23
Tracking Error (%)	1.33
Batting Average (%)	34.74
Up Capture (%)	100.05
Down Capture (%)	101.02

### Growth of a Dollar Since Nov 2014

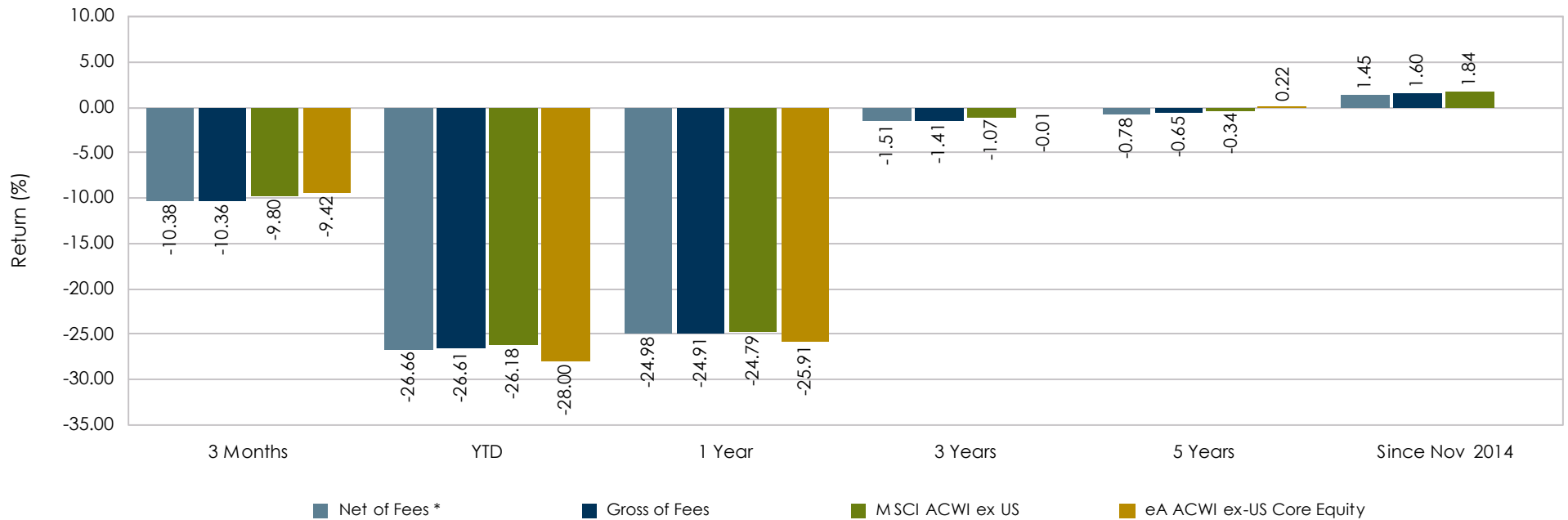


### Return Analysis Since Nov 2014

	SSgA	MSCI ACWI ex US
Number of Months	95	95
Highest Monthly Return (%)	13.26	13.46
Lowest Monthly Return (%)	-15.51	-14.40
Number of Positive Months	53	54
Number of Negative Months	42	41
% of Positive Months	55.79	56.84

**SSgA Global Equity Ex US**

For the Periods Ending September 30, 2022



Ranking	79	37	36	74	73
5th Percentile	-6.87	-22.50	-20.65	3.89	2.94
25th Percentile	-8.62	-25.33	-24.06	1.35	1.17
50th Percentile	-9.42	-28.00	-25.91	-0.01	0.22
75th Percentile	-10.23	-30.57	-28.98	-1.56	-0.83
95th Percentile	-11.53	-37.43	-35.45	-3.76	-2.70
Observations	161	161	161	149	137

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

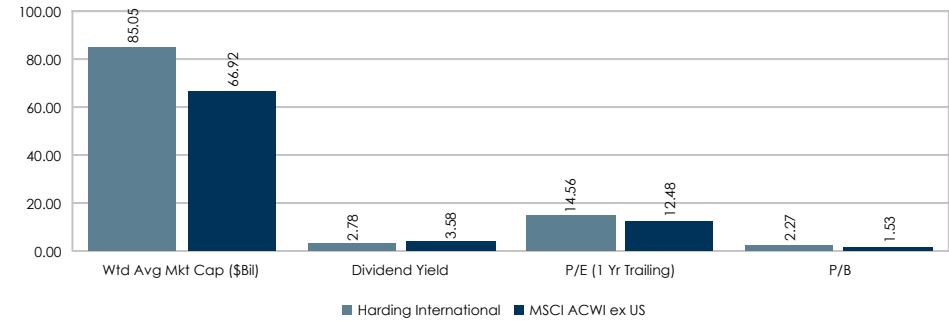
## Harding Loevner International Equity

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Int'l Developed Markets Equity
- **Vehicle** Non-Mutual Commingled
- **Benchmark** MSCI ACWI ex US
- **Performance Inception Date** July 2016
- **Fees** 81 bps

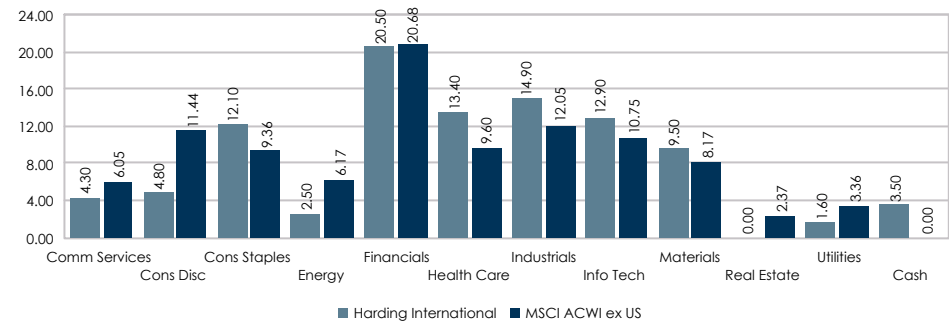
### Characteristics



### Performance Goals

- Exceed the returns of the MSCI ACWI ex US over a complete market cycle (3 to 5 years).

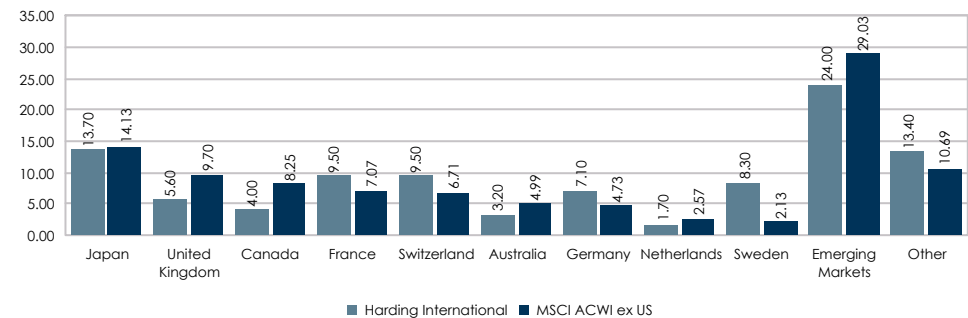
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>1,906</b>	<b>2,595</b>
Net Additions	33	-52
Return on Investment	-156	-760
<b>Ending Market Value</b>	<b>1,783</b>	<b>1,783</b>

### Country Allocation

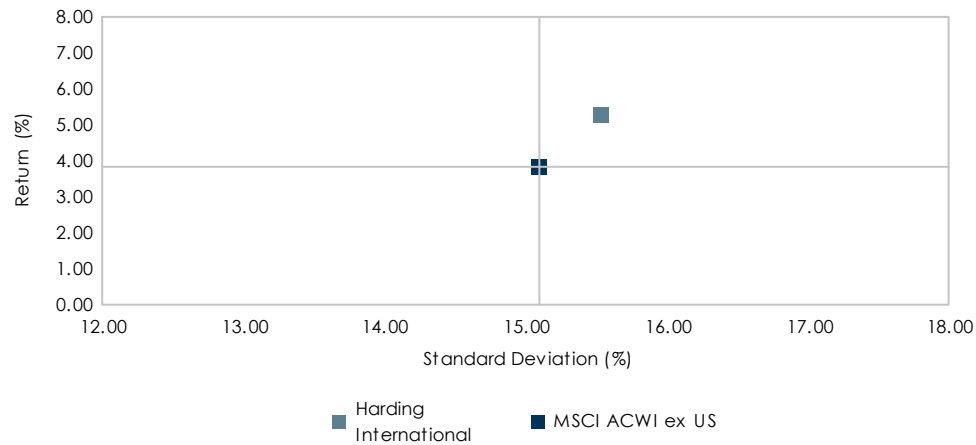




## Harding Loevner International Equity

For the Periods Ending September 30, 2022

### Risk / Return Since Jul 2016



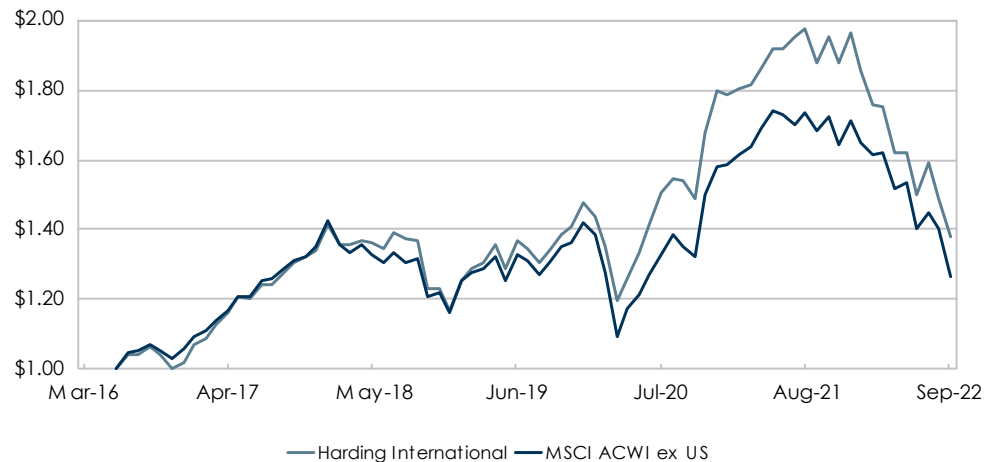
### Portfolio Statistics Since Jul 2016

	Harding International	MSCI ACWI ex US
Return (%)	5.26	3.82
Standard Deviation (%)	15.53	15.09
Sharpe Ratio	0.28	0.19

### Benchmark Relative Statistics

Beta	0.98
R Squared (%)	90.84
Alpha (%)	1.54
Tracking Error (%)	4.71
Batting Average (%)	52.00
Up Capture (%)	105.87
Down Capture (%)	98.81

### Growth of a Dollar Since Jul 2016

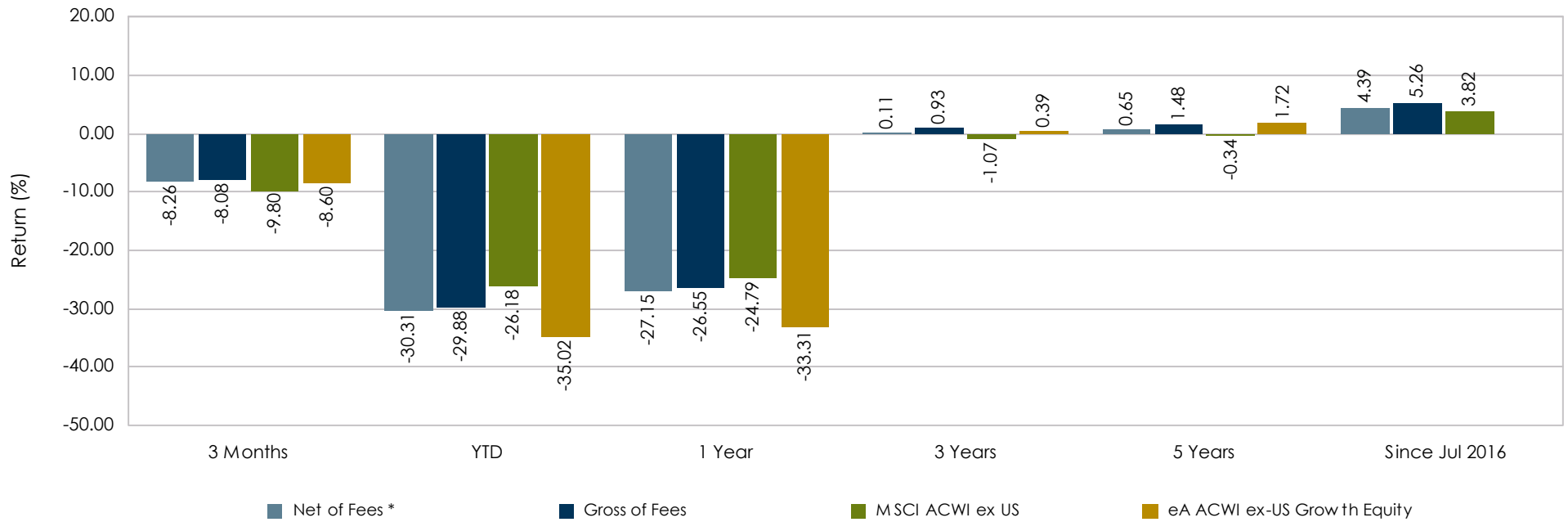


### Return Analysis Since Jul 2016

	Harding International	MSCI ACWI ex US
Number of Months	75	75
Highest Monthly Return (%)	12.85	13.46
Lowest Monthly Return (%)	-11.69	-14.40
Number of Positive Months	45	48
Number of Negative Months	30	27
% of Positive Months	60.00	64.00

## Harding Loevner International Equity

For the Periods Ending September 30, 2022



Ranking	38	24	19	44	54
5th Percentile	-5.99	-25.03	-20.61	5.71	6.41
25th Percentile	-7.54	-30.14	-28.30	3.00	3.04
50th Percentile	-8.60	-35.02	-33.31	0.39	1.72
75th Percentile	-9.55	-38.28	-37.90	-1.92	-0.27
95th Percentile	-11.22	-46.12	-46.70	-4.75	-1.38
Observations	108	108	108	99	91

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

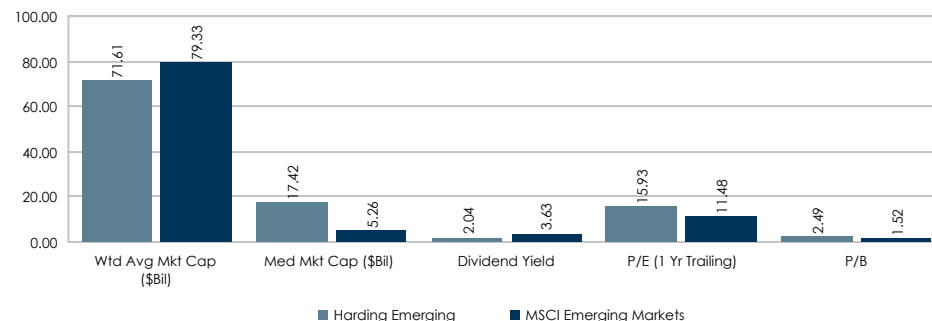
## Harding Loevner Emerging Markets

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Emerging Markets Equity
- **Vehicle** Non-Mutual Commingled
- **Benchmark** MSCI Emerging Markets
- **Performance Inception Date** September 2015
- **Fees** 99 bps

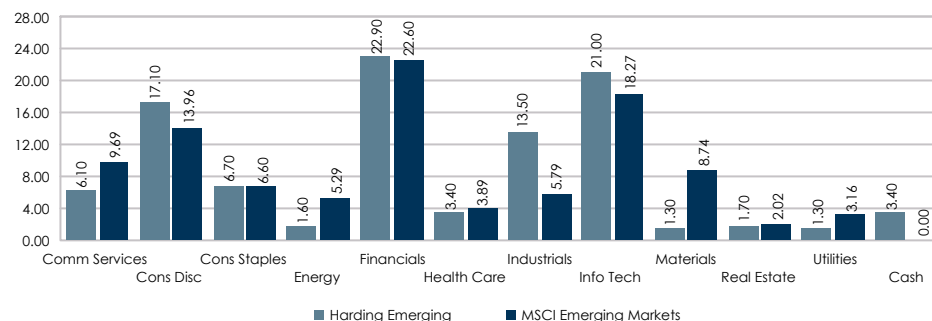
### Characteristics



### Performance Goals

- Exceed the returns of the MSCI Emerging Markets over a complete market cycle (3 to 5 years).

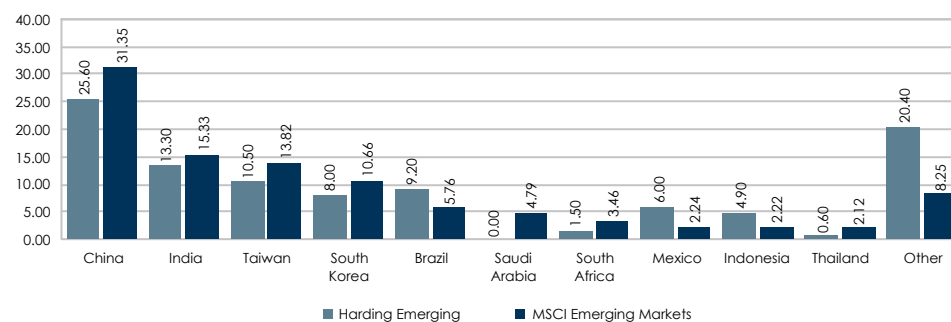
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>1,985</b>	<b>2,437</b>
Net Additions	-54	181
Return on Investment	-203	-890
<b>Ending Market Value</b>	<b>1,728</b>	<b>1,728</b>

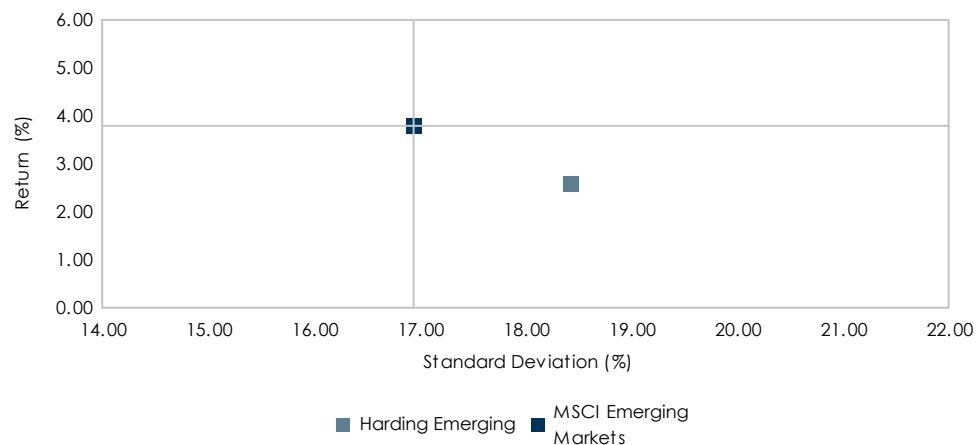
### Country Allocation



## Harding Loevner Emerging Markets

For the Periods Ending September 30, 2022

### Risk / Return Since Sep 2015



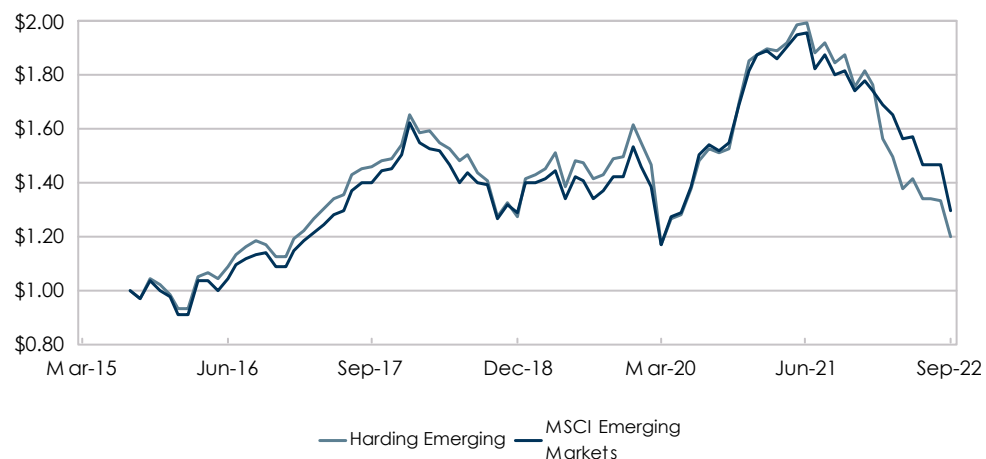
### Portfolio Statistics Since Sep 2015

	Harding Emerging	MSCI Emerging Markets
Return (%)	2.60	3.77
Standard Deviation (%)	18.44	16.94
Sharpe Ratio	0.09	0.17

### Benchmark Relative Statistics

Beta	1.04
R Squared (%)	91.54
Alpha (%)	-1.06
Tracking Error (%)	5.41
Batting Average (%)	57.65
Up Capture (%)	103.08
Down Capture (%)	106.46

### Growth of a Dollar Since Sep 2015

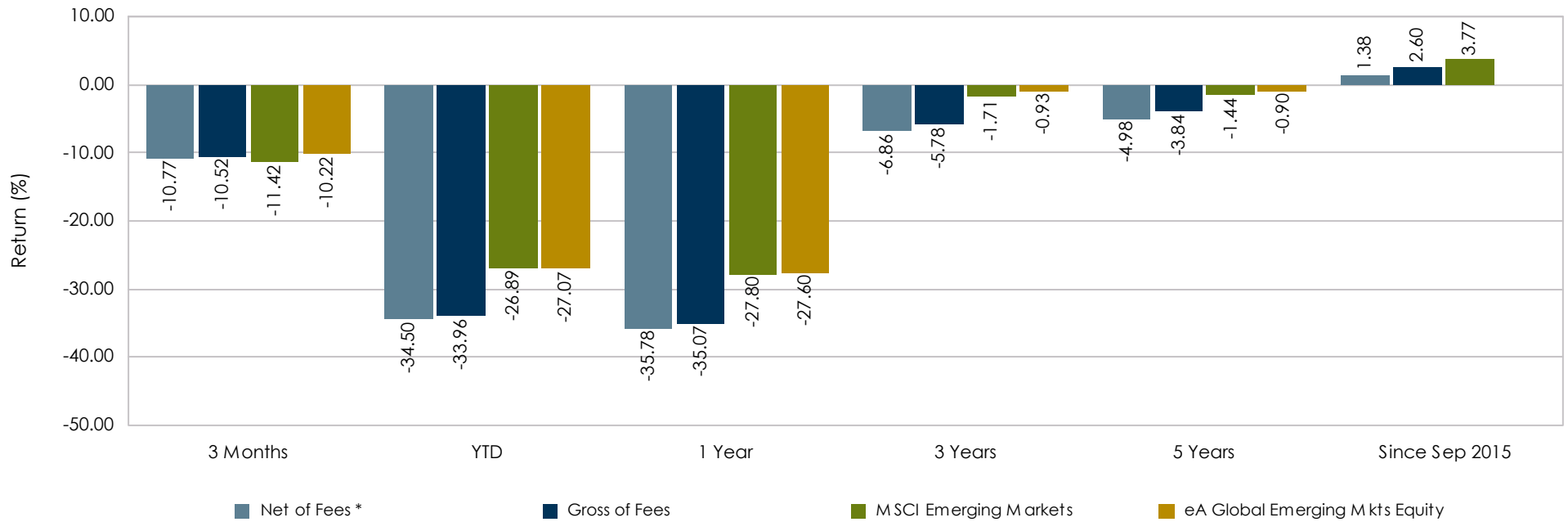


### Return Analysis Since Sep 2015

	Harding Emerging	MSCI Emerging Markets
Number of Months	85	85
Highest Monthly Return (%)	12.55	13.26
Lowest Monthly Return (%)	-20.10	-15.38
Number of Positive Months	52	49
Number of Negative Months	33	36
% of Positive Months	61.18	57.65

### Harding Loevner Emerging Markets

For the Periods Ending September 30, 2022



Ranking	53	92	92	97	96
5th Percentile	-3.73	-16.58	-16.40	7.89	4.16
25th Percentile	-7.38	-23.73	-23.52	1.60	0.76
50th Percentile	-10.22	-27.07	-27.60	-0.93	-0.90
75th Percentile	-11.77	-29.98	-31.10	-2.74	-1.99
95th Percentile	-13.36	-34.99	-37.08	-5.55	-3.67
Observations	517	517	517	466	417

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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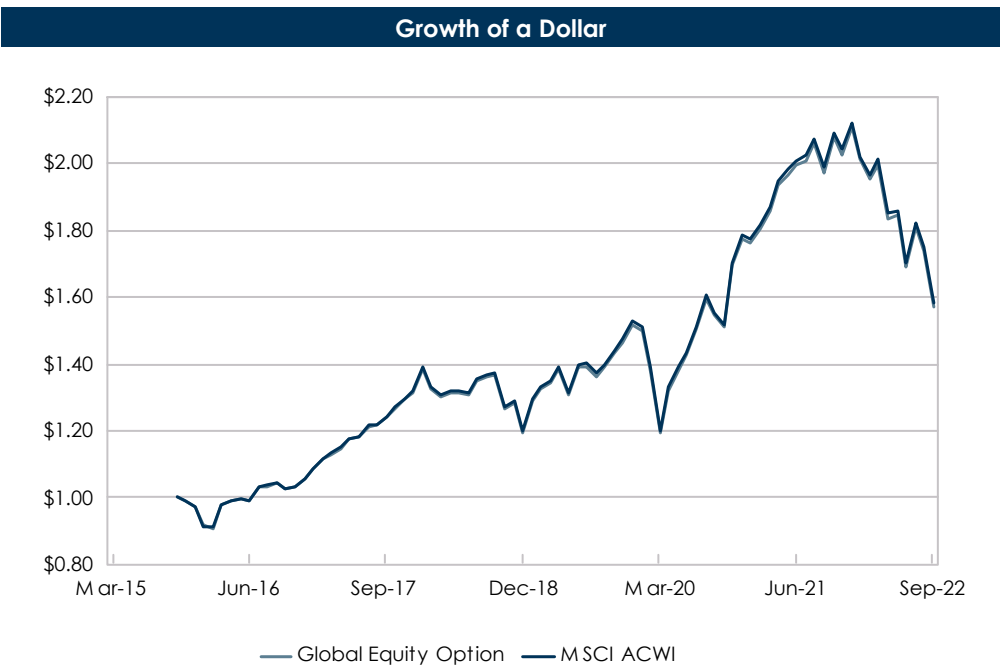
## Global Equity Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
<b>Total</b>	<b>9,230</b>	<b>100.00</b>
SSgA Global Equity Index	9,230	100.00

Portfolio Information
<ul style="list-style-type: none"> <li>Global Equity Option</li> <li>This option includes the passively managed SSgA Global Equity Index Fund.</li> <li>Performance Goal - Mirror the risk and return profile of the MSCI All Country World Index over all time periods.</li> </ul>

Dollar Growth Summary (\$000s)		
	3 Months	YTD
<b>Beginning Market Value</b>	<b>9,764</b>	<b>12,440</b>
Net Additions	155	-62
Return on Investment	-689	-3,147
<b>Ending Market Value</b>	<b>9,230</b>	<b>9,230</b>



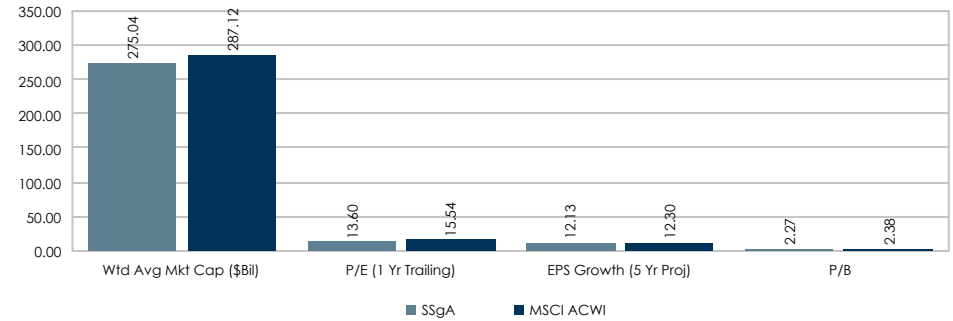
## SSgA Global Equity Index

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Global All Cap Equity
- **Vehicle** Non-Mutual Commingled
- **Benchmark** MSCI ACWI
- **Performance Inception Date** November 2015
- **Fees** 10 bps

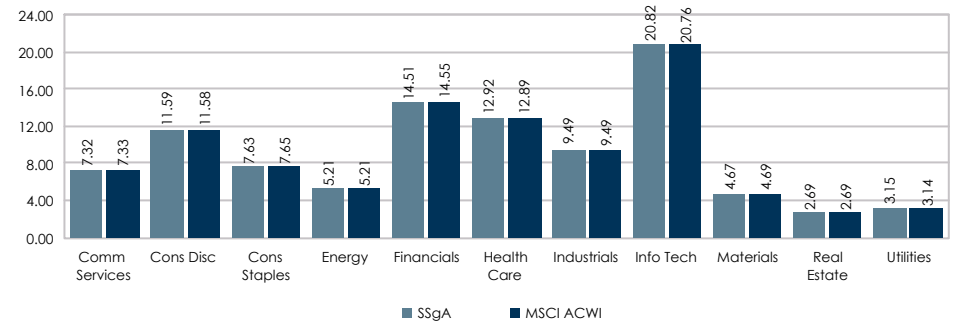
### Characteristics



### Performance Goals

- Mirror the risk and return profile of the MSCI ACWI over all time periods.

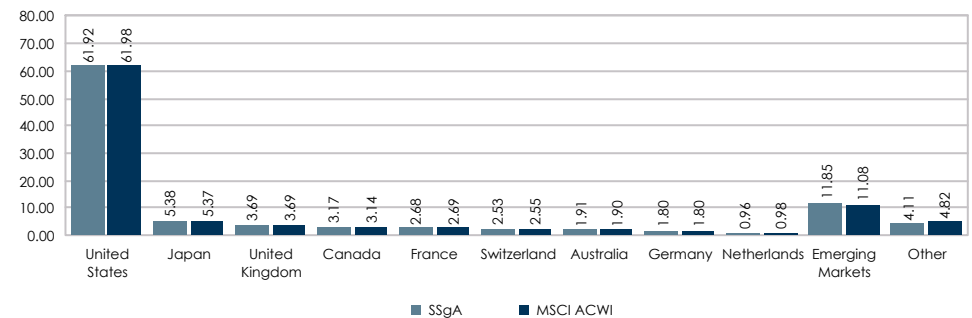
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>9,764</b>	<b>12,440</b>
Net Additions	155	-62
Return on Investment	-689	-3,147
<b>Ending Market Value</b>	<b>9,230</b>	<b>9,230</b>

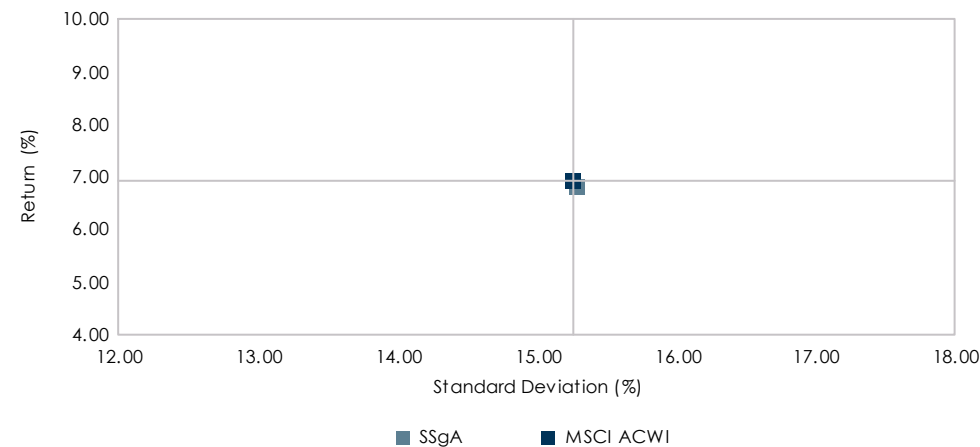
### Country Allocation



SSgA Global Equity Index

For the Periods Ending September 30, 2022

Risk / Return Since Nov 2015



Portfolio Statistics Since Nov 2015

	SSgA	MSCI ACWI
Return (%)	6.80	6.90
Standard Deviation (%)	15.29	15.26
Sharpe Ratio	0.39	0.39

Benchmark Relative Statistics

Beta	1.00
R Squared (%)	99.85
Alpha (%)	-0.10
Tracking Error (%)	0.59
Batting Average (%)	40.96
Up Capture (%)	99.98
Down Capture (%)	100.40

Growth of a Dollar Since Nov 2015



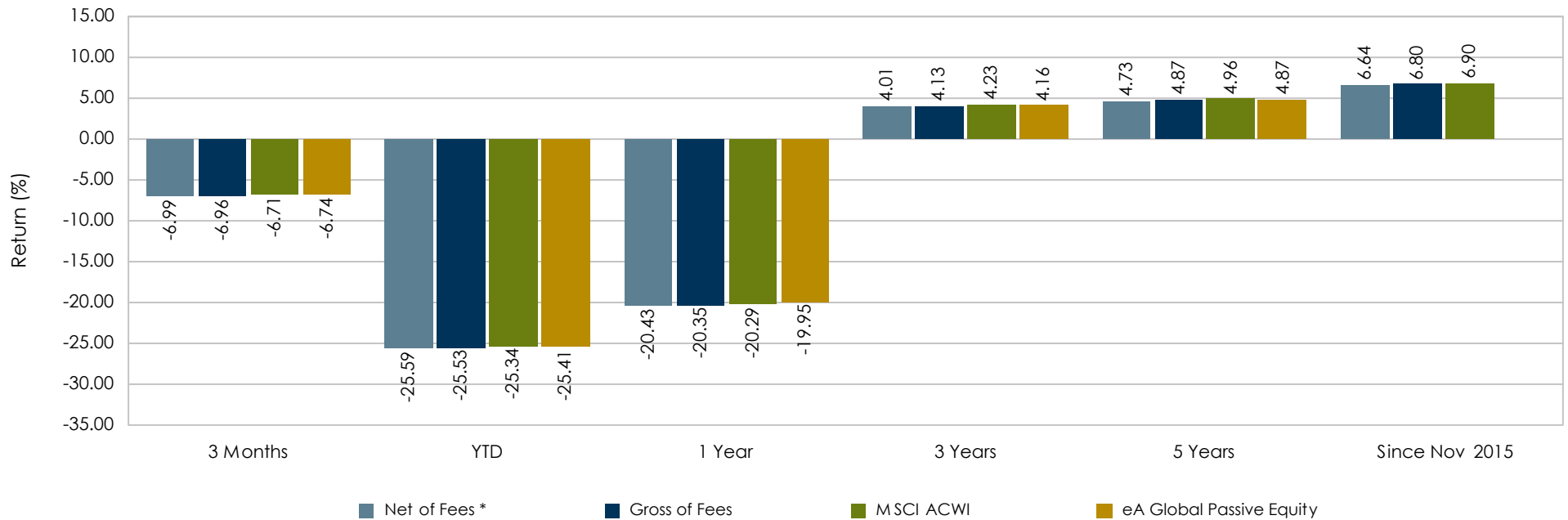
Return Analysis Since Nov 2015

	SSgA	MSCI ACWI
Number of Months	83	83
Highest Monthly Return (%)	12.28	12.36
Lowest Monthly Return (%)	-13.80	-13.44
Number of Positive Months	56	56
Number of Negative Months	27	27
% of Positive Months	67.47	67.47



### SSgA Global Equity Index

For the Periods Ending September 30, 2022



Ranking	63	62	56	53	50
5th Percentile	-5.21	-18.62	-12.77	6.42	6.02
25th Percentile	-6.12	-25.00	-19.15	4.96	5.69
50th Percentile	-6.74	-25.41	-19.95	4.16	4.87
75th Percentile	-7.60	-26.44	-21.36	2.85	3.43
95th Percentile	-11.26	-32.10	-26.35	-0.30	0.50
Observations	103	103	103	101	88

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

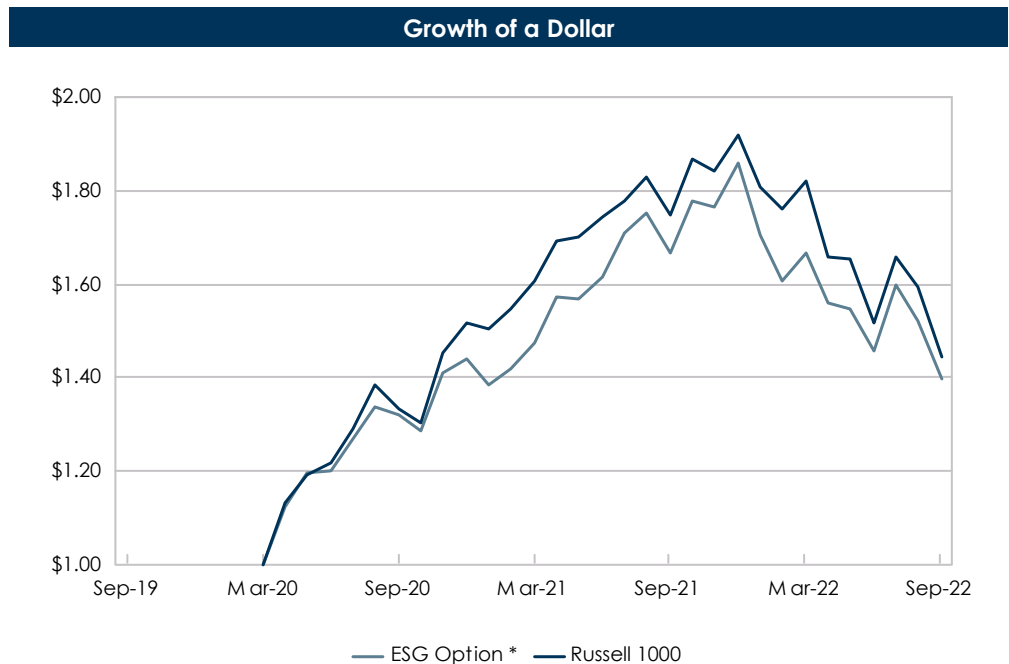
## ESG US Stock Fund Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
<b>Total ESG Option</b>	<b>1,185</b>	<b>100.00</b>
Calvert Equity Fund	1,185	100.00

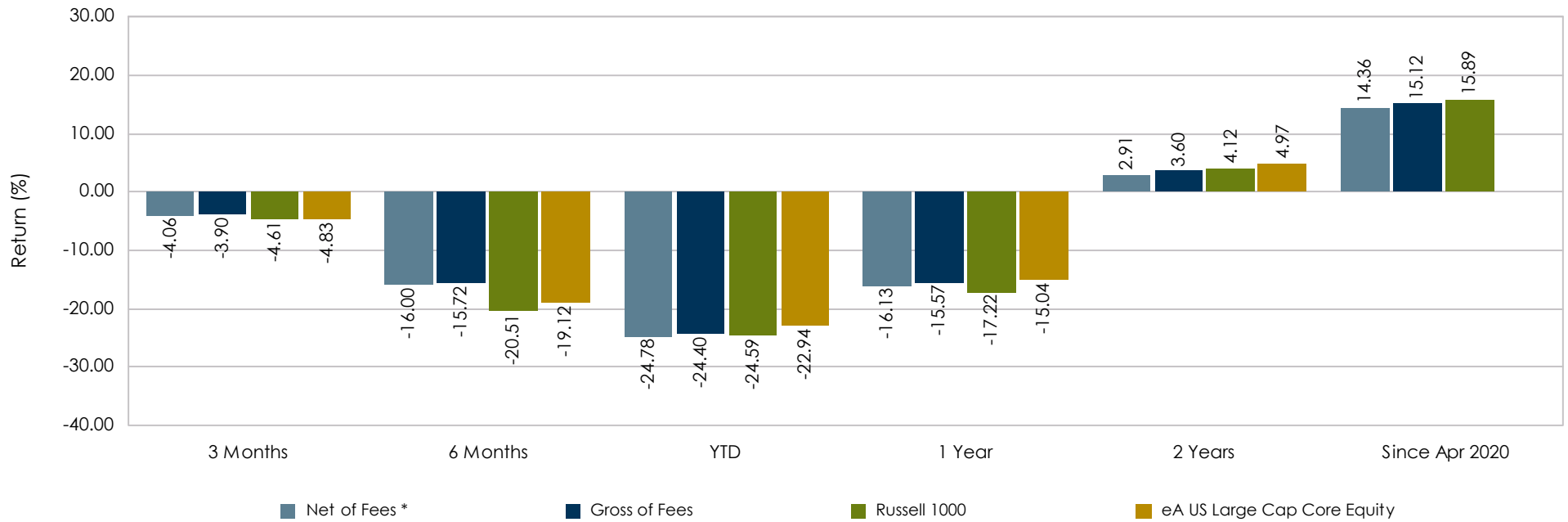
Portfolio Information
<ul style="list-style-type: none"> <li>ESG US Large and Mid Cap Equity Option</li> <li>This option includes the Calvert Equity Fund</li> <li>Performance Goal - Outperform the Russell 1000 over a complete market cycle (typically 3 to 5 years).</li> </ul>

Net Dollar Growth Summary (\$000s)		
	3 Months	YTD
<b>Beginning Market Value</b>	<b>1,086</b>	<b>1,659</b>
Net Additions	155	-71
Return on Investment	-56	-403
<b>Ending Market Value</b>	<b>1,185</b>	<b>1,185</b>



### ESG US Stock Fund Option

For the Periods Ending September 30, 2022



Ranking	20	19	68	56	72
5th Percentile	-2.35	-13.17	-14.63	-5.68	11.30
25th Percentile	-4.17	-16.70	-20.30	-11.59	7.07
50th Percentile	-4.83	-19.12	-22.94	-15.04	4.97
75th Percentile	-5.64	-20.29	-24.87	-17.24	3.38
95th Percentile	-7.00	-22.13	-28.04	-21.43	-0.06
Observations	361	361	361	361	358

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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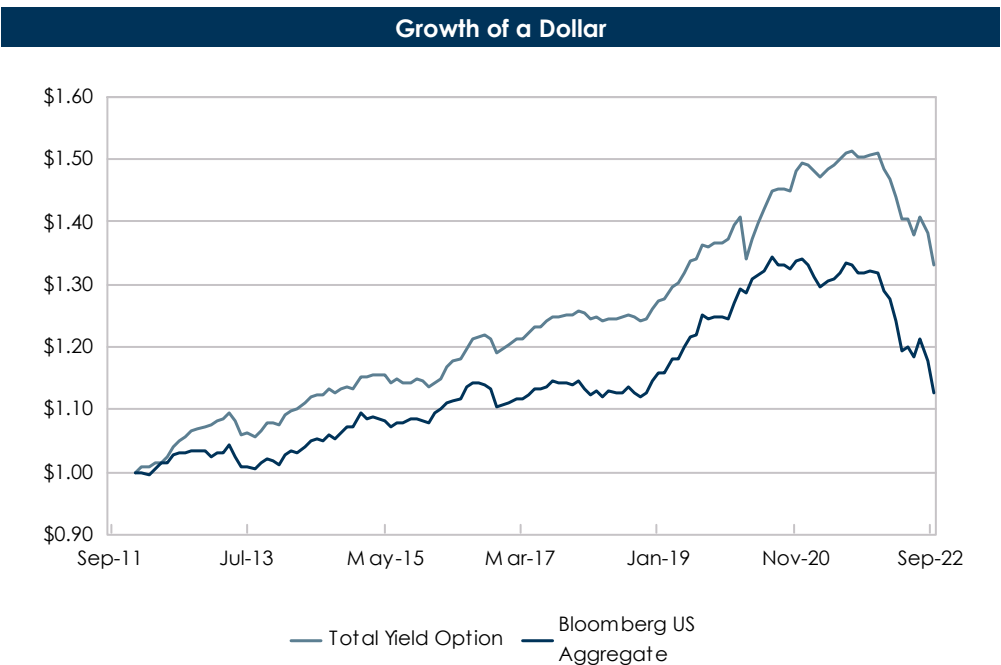
## Total Yield Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
<b>Total</b>	<b>5,322</b>	<b>100.00</b>
JP Morgan Fixed Income	2,643	49.67
BlackRock Strategic Income Opportunities	1,354	25.44
Amundi Pioneer Core Plus	1,325	24.89

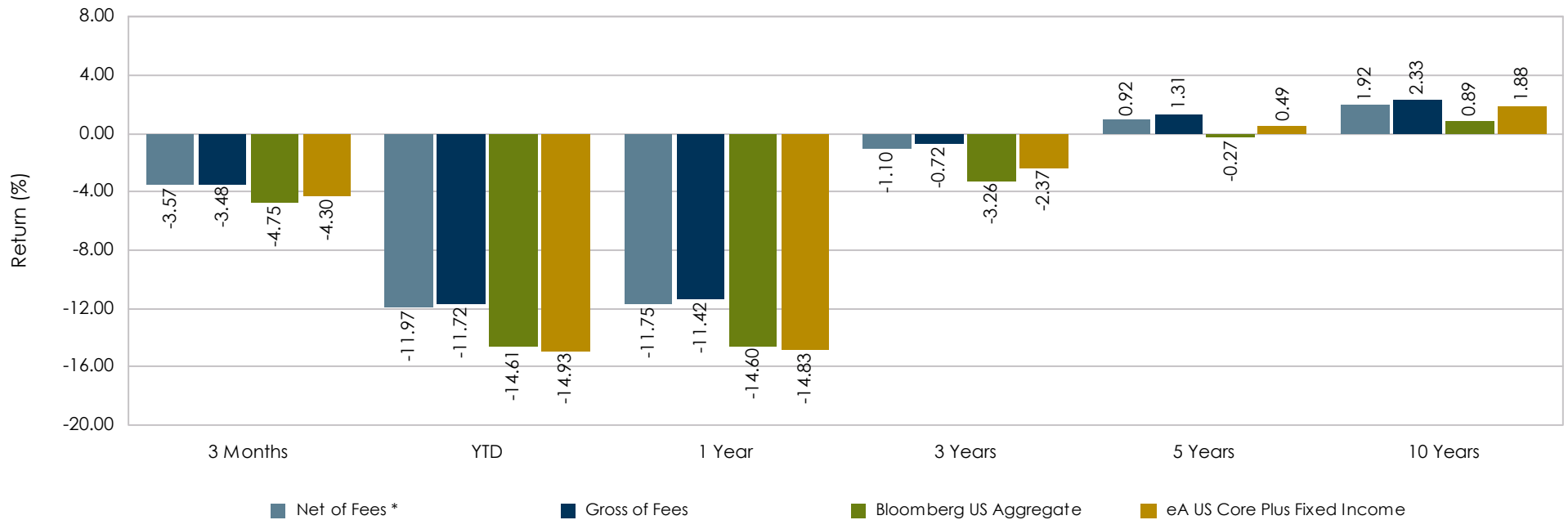
- Total Yield Option
- This option includes a combination of portfolios in the core and multi-sector fixed income asset classes.
- Performance Goals - 1) to achieve returns 100 basis points in excess of the Bloomberg US Aggregate, and 2) to exceed the return of the median core bond manager over a complete market cycle (3 to 5 years).

Dollar Growth Summary (\$000s)		
	3 Months	YTD
<b>Beginning Market Value</b>	<b>5,726</b>	<b>6,715</b>
Net Additions	-210	-660
Return on Investment	-194	-733
<b>Ending Market Value</b>	<b>5,322</b>	<b>5,322</b>



### Total Yield Option

For the Periods Ending September 30, 2022



Ranking	13	10	9	15	16	21
5th Percentile	-1.56	-9.37	-9.89	0.50	2.22	3.11
25th Percentile	-3.91	-14.23	-14.06	-1.70	0.86	2.16
50th Percentile	-4.30	-14.93	-14.83	-2.37	0.49	1.88
75th Percentile	-4.64	-15.79	-15.84	-2.71	0.27	1.66
95th Percentile	-5.37	-17.03	-16.99	-3.18	0.01	1.34
Observations	129	129	129	127	122	108

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

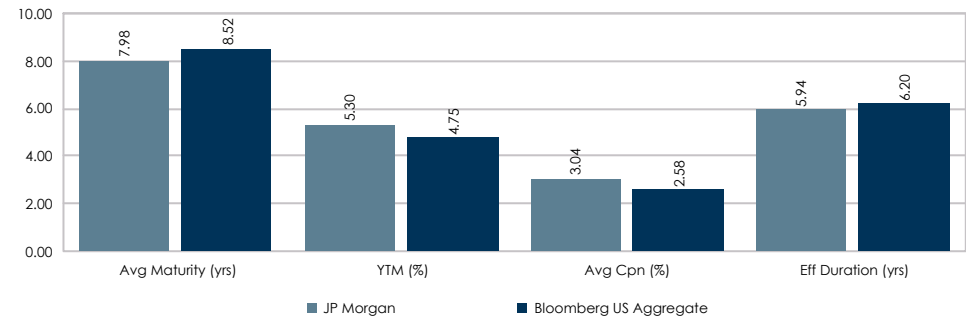
## JP Morgan Fixed Income

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Core Bonds
- **Vehicle** Non-Mutual Commingled
- **Benchmark** Bloomberg US Aggregate
- **Performance Inception Date** February 2012
- **Fees** 30 bps

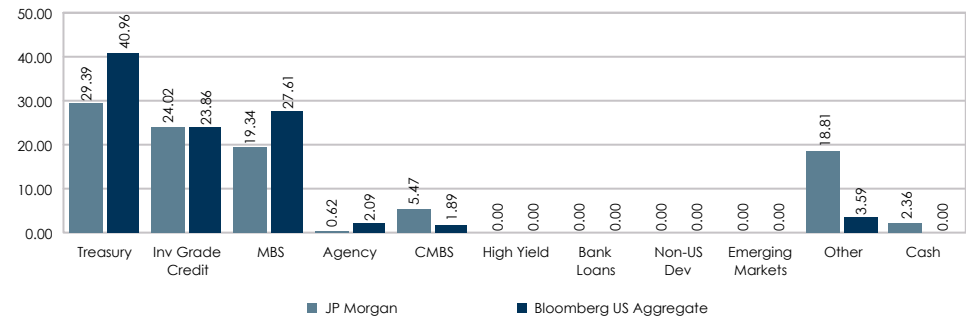
### Characteristics



### Performance Goals

- Exceed the returns of the Bloomberg US Aggregate over a complete market cycle (3 to 5 years).

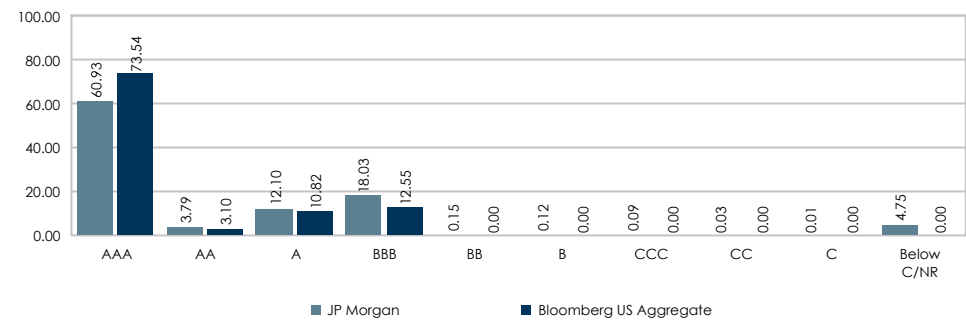
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>2,860</b>	<b>3,355</b>
Net Additions	-99	-299
Return on Investment	-118	-413
<b>Ending Market Value</b>	<b>2,643</b>	<b>2,643</b>

### Quality Allocation



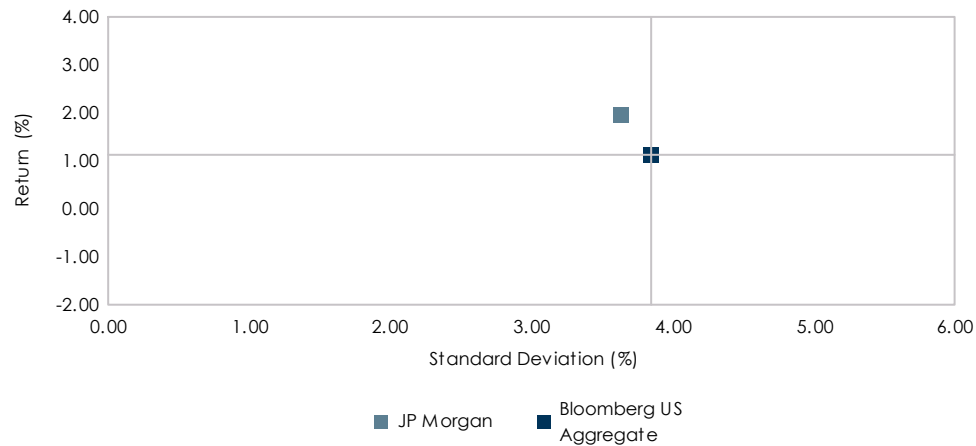
Characteristic and allocation charts represents data of the JPMorgan Core Bond Trust (Non-Mutual Commingled).

The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.

## JP Morgan Fixed Income

For the Periods Ending September 30, 2022

### Risk / Return Since Feb 2012



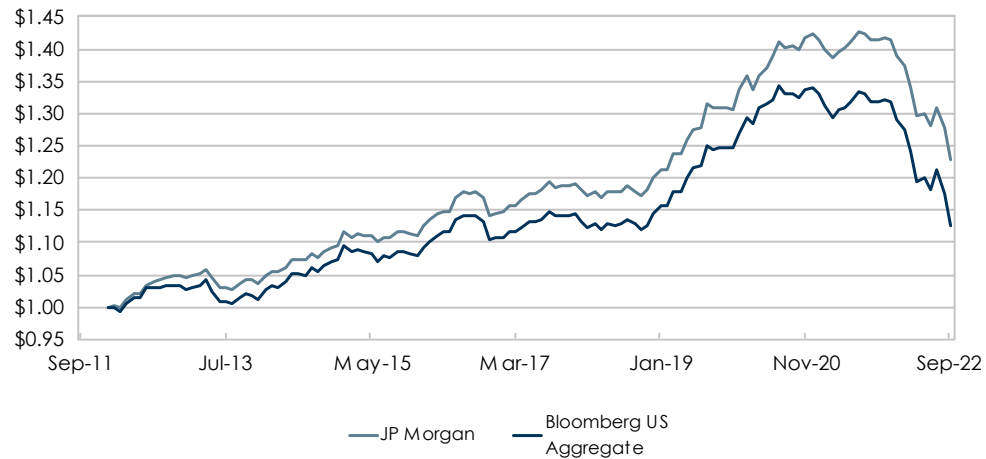
### Portfolio Statistics Since Feb 2012

	JP Morgan	Bloomberg US Aggregate
Return (%)	1.94	1.12
Standard Deviation (%)	3.64	3.85
Sharpe Ratio	0.37	0.14

### Benchmark Relative Statistics

Beta	0.93
R Squared (%)	97.02
Alpha (%)	0.88
Tracking Error (%)	0.68
Batting Average (%)	66.41
Up Capture (%)	103.36
Down Capture (%)	85.75

### Growth of a Dollar Since Feb 2012

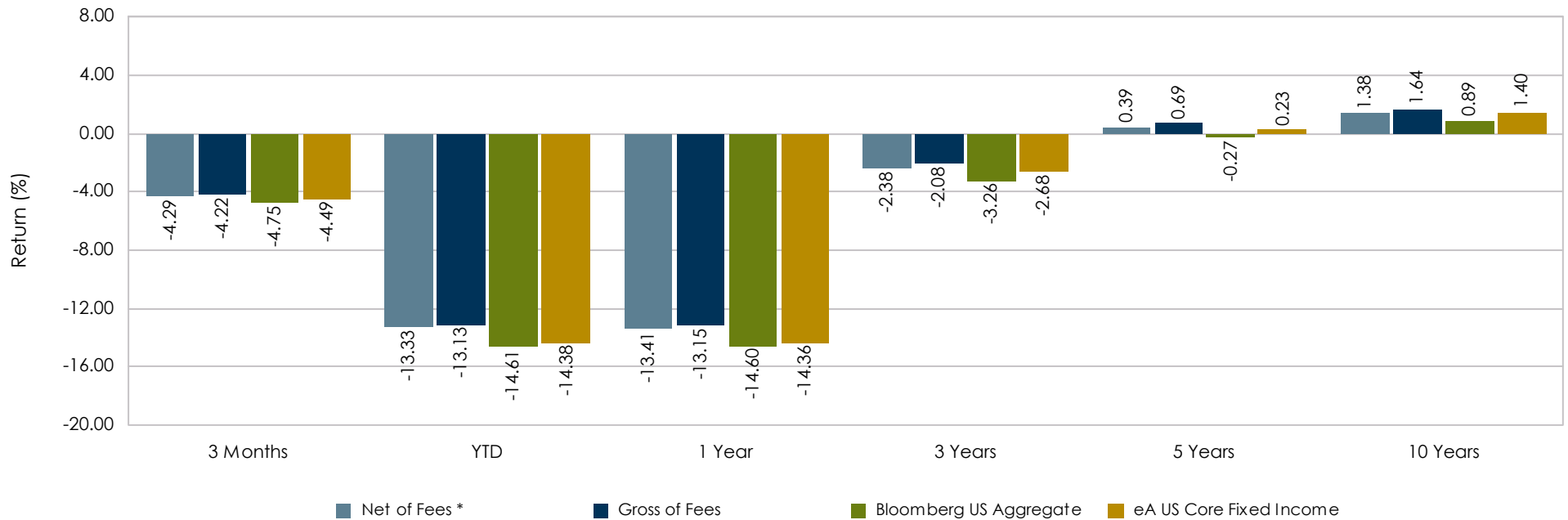


### Return Analysis Since Feb 2012

	JP Morgan	Bloomberg US Aggregate
Number of Months	128	128
Highest Monthly Return (%)	2.81	2.59
Lowest Monthly Return (%)	-3.92	-4.32
Number of Positive Months	78	73
Number of Negative Months	50	55
% of Positive Months	60.94	57.03

**JP Morgan Fixed Income**

For the Periods Ending September 30, 2022



Ranking	25	16	15	19	15	24
5th Percentile	-2.88	-9.16	-9.54	-1.21	1.07	2.06
25th Percentile	-4.22	-13.78	-13.84	-2.23	0.50	1.62
50th Percentile	-4.49	-14.38	-14.36	-2.68	0.23	1.40
75th Percentile	-4.68	-14.94	-14.92	-2.96	0.04	1.23
95th Percentile	-5.08	-15.92	-15.94	-3.35	-0.27	0.97
Observations	223	223	222	214	211	199

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.



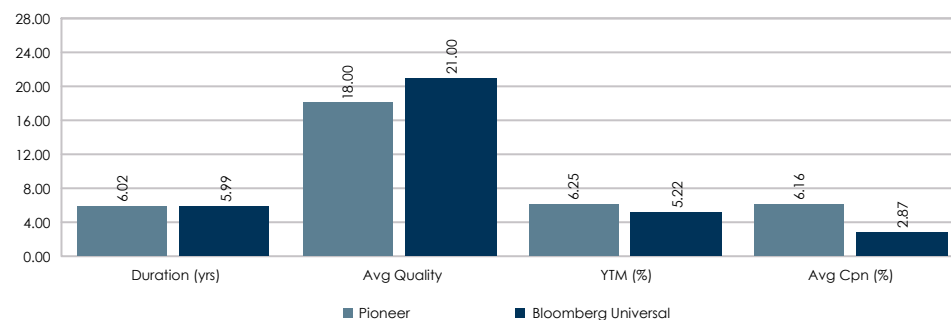
# Amundi Pioneer Core Plus

For the Periods Ending September 30, 2022

## Account Description

- **Strategy** Multi-Sector Fixed Income
- **Vehicle** Non-Mutual Commingled
- **Benchmark** Bloomberg Universal
- **Performance Inception Date** February 2012
- **Fees** 35 bps

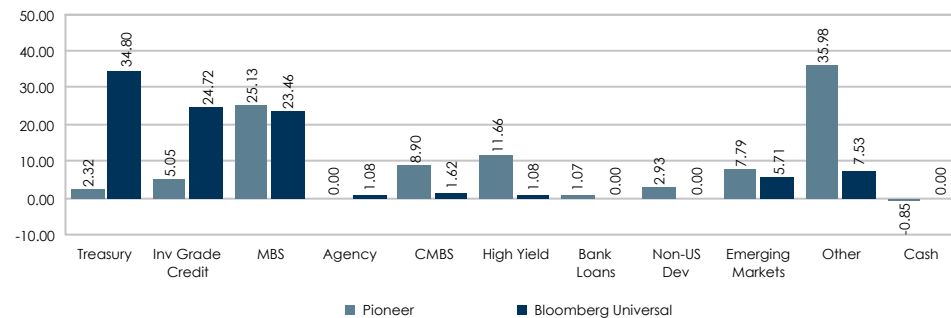
## Characteristics



## Performance Goals

- Exceed the returns of the Bloomberg Universal over a complete market cycle (3 to 5 years).

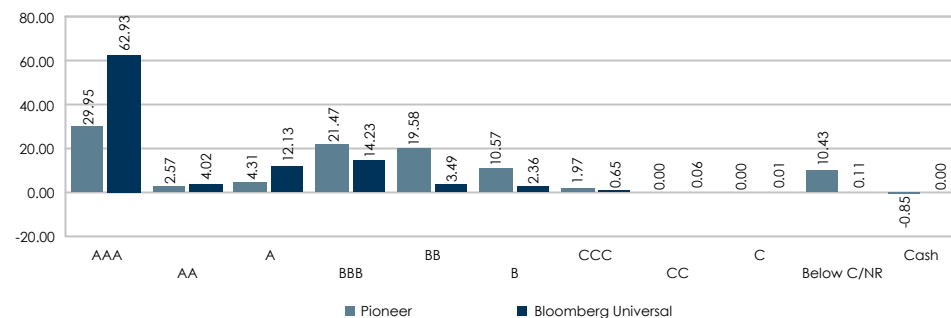
## Sector Allocation



## Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>1,409</b>	<b>1,682</b>
Net Additions	-31	-141
Return on Investment	-53	-217
<b>Ending Market Value</b>	<b>1,325</b>	<b>1,325</b>

## Quality Allocation



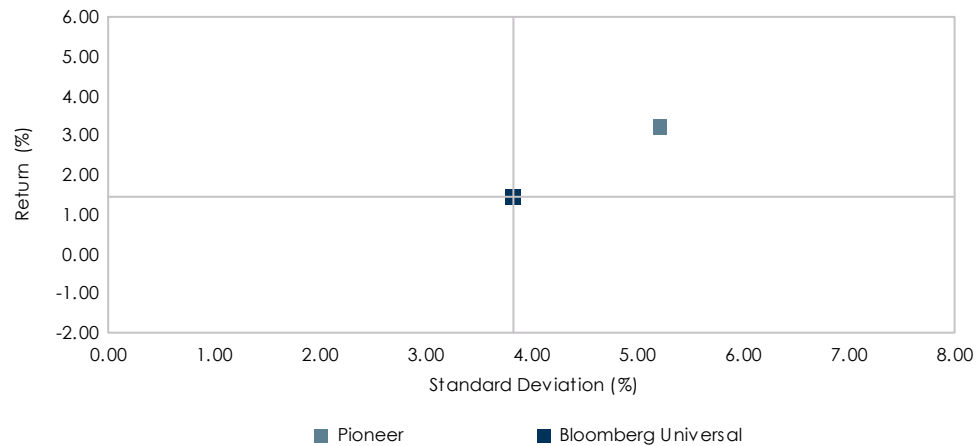
Characteristic and allocation charts represents the composite data of the Amundi\Multi-Sector Fixed Income.

The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.

## Amundi Pioneer Core Plus

For the Periods Ending September 30, 2022

### Risk / Return Since Feb 2012



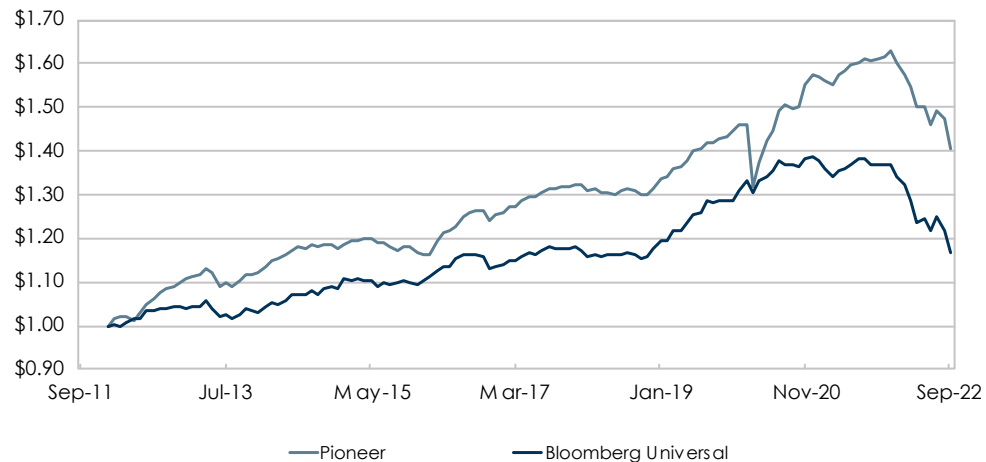
### Portfolio Statistics Since Feb 2012

	Pioneer	Bloomberg Universal
Return (%)	3.23	1.45
Standard Deviation (%)	5.21	3.83
Sharpe Ratio	0.51	0.23

### Benchmark Relative Statistics

Beta	1.00
R Squared (%)	53.80
Alpha (%)	1.83
Tracking Error (%)	3.54
Batting Average (%)	65.63
Up Capture (%)	119.22
Down Capture (%)	83.70

### Growth of a Dollar Since Feb 2012

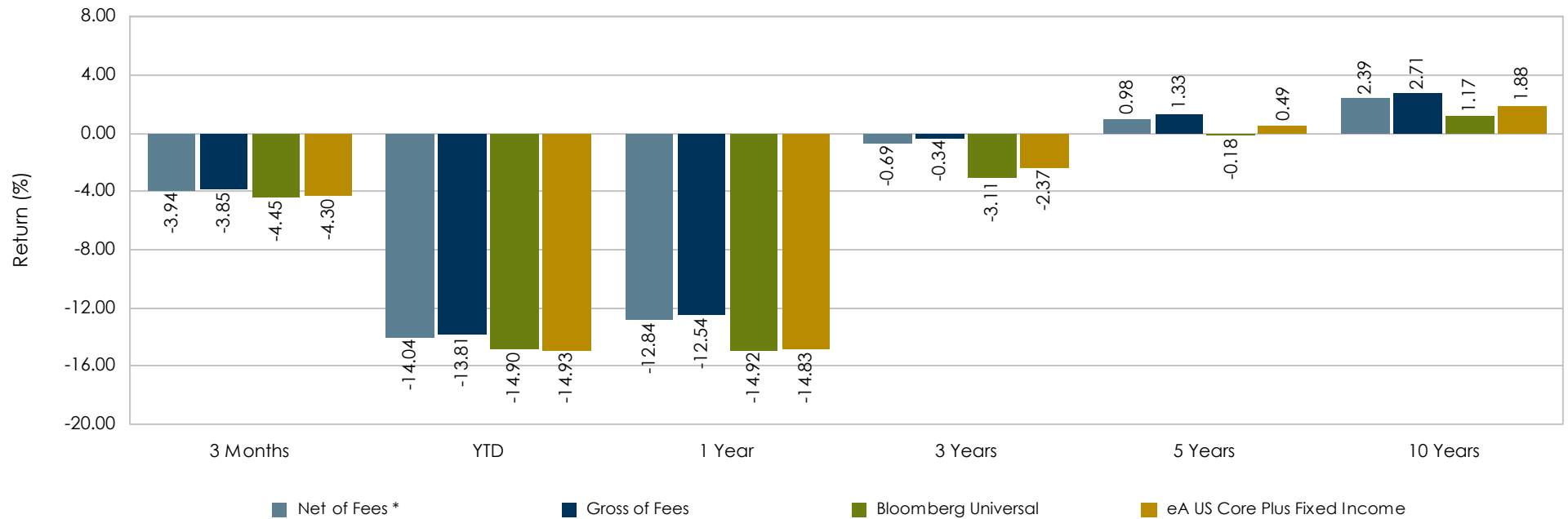


### Return Analysis Since Feb 2012

	Pioneer	Bloomberg Universal
Number of Months	128	128
Highest Monthly Return (%)	4.31	2.51
Lowest Monthly Return (%)	-9.90	-4.31
Number of Positive Months	90	78
Number of Negative Months	38	50
% of Positive Months	70.31	60.94

### Amundi Pioneer Core Plus

For the Periods Ending September 30, 2022



Ranking	22	19	11	9	16	10
5th Percentile	-1.56	-9.37	-9.89	0.50	2.22	3.11
25th Percentile	-3.91	-14.23	-14.06	-1.70	0.86	2.16
50th Percentile	-4.30	-14.93	-14.83	-2.37	0.49	1.88
75th Percentile	-4.64	-15.79	-15.84	-2.71	0.27	1.66
95th Percentile	-5.37	-17.03	-16.99	-3.18	0.01	1.34
Observations	129	129	129	127	122	108

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

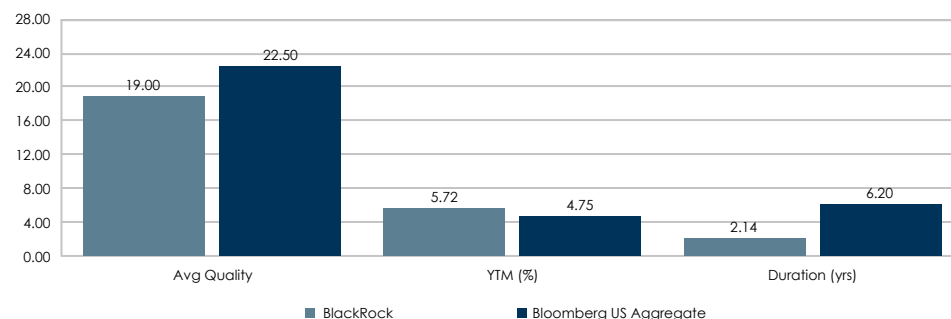
## BlackRock Strategic Income Opportunities

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** Absolute Return
- **Vehicle** Mutual Fund: Institutional Class (BSIKX)
- **Benchmarks** Bloomberg US Aggregate and US T-Bills 30 Day + 4.0%
- **Performance Inception Date** July 2017
- **Expense Ratio** 59 bps

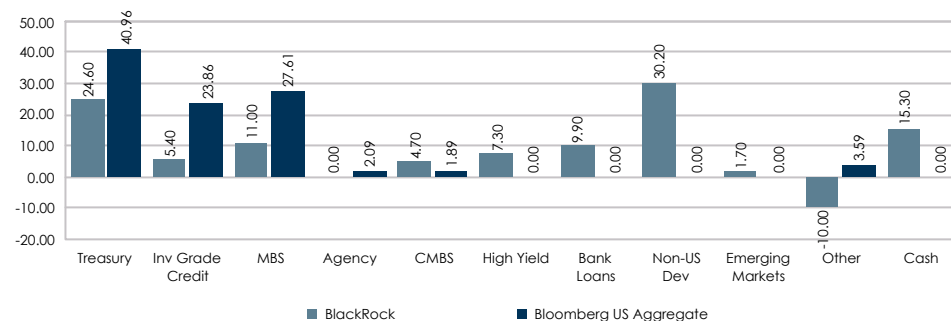
### Characteristics



### Performance Goals

- Meet or exceed the targeted return of the Bloomberg US Aggregate over a complete market cycle (typically 3-5 years).
- Meet or exceed the targeted return of US T-Bills + 4-6% over a complete market cycle (typically 3-5 years).

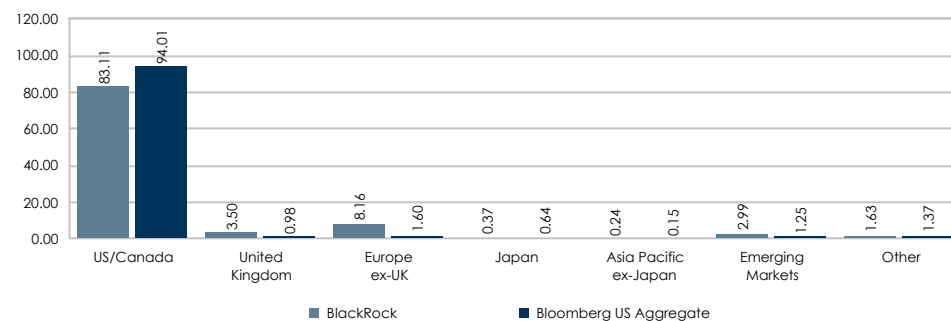
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>1,457</b>	<b>1,678</b>
Net Additions	-80	-220
Return on Investment	-22	-103
<b>Ending Market Value</b>	<b>1,354</b>	<b>1,354</b>

### Regional Allocation



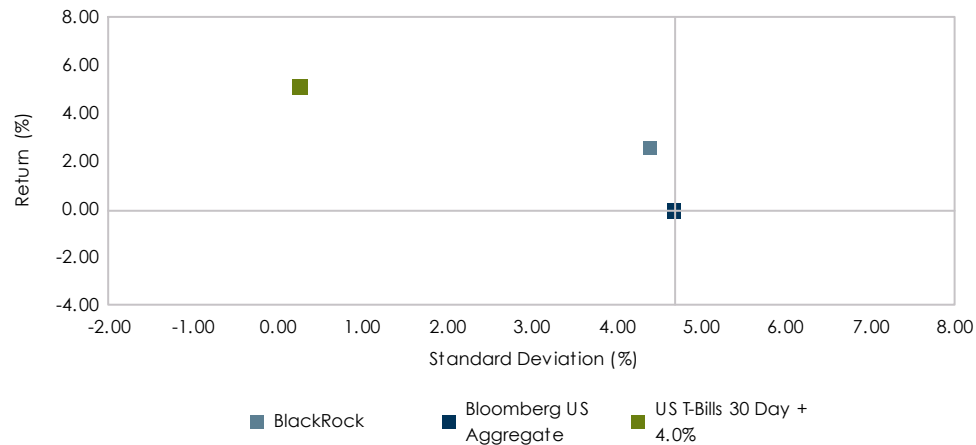
Characteristic and allocation charts represents the composite data of the BlackRock Strategic Income Opportunities.

The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.

## BlackRock Strategic Income Opportunities

For the Periods Ending September 30, 2022

### Risk / Return Since Jul 2017



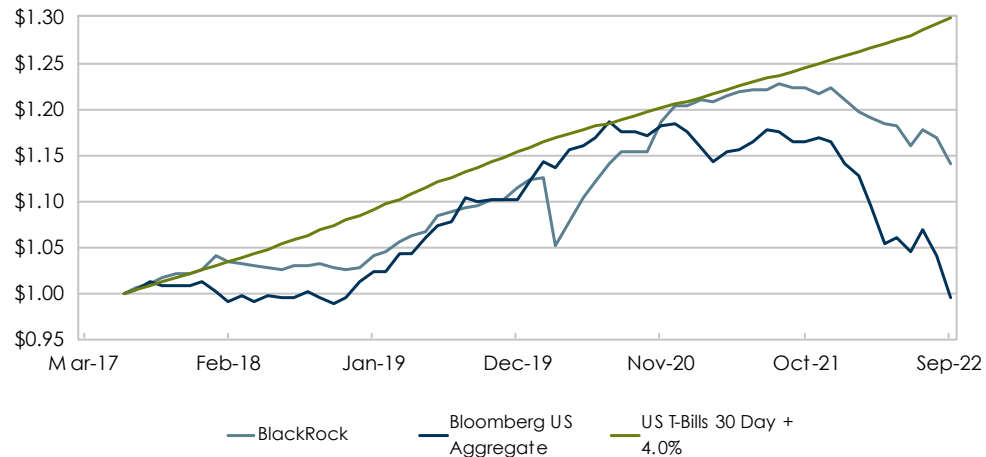
### Portfolio Statistics Since Jul 2017

	BlackRock	Bloomberg US Aggregate	US T-Bills 30 Day + 4.0%
Return (%)	2.54	-0.10	5.10
Standard Deviation (%)	4.40	4.68	0.27
Sharpe Ratio	0.33	-0.25	15.11

### Benchmark Relative Statistics

Beta	0.45	-1.83
R Squared (%)	22.72	1.24
Alpha (%)	2.63	12.39
Tracking Error (%)	4.65	4.44
Batting Average (%)	66.67	39.68
Up Capture (%)	76.67	49.72
Down Capture (%)	35.72	

### Growth of a Dollar Since Jul 2017

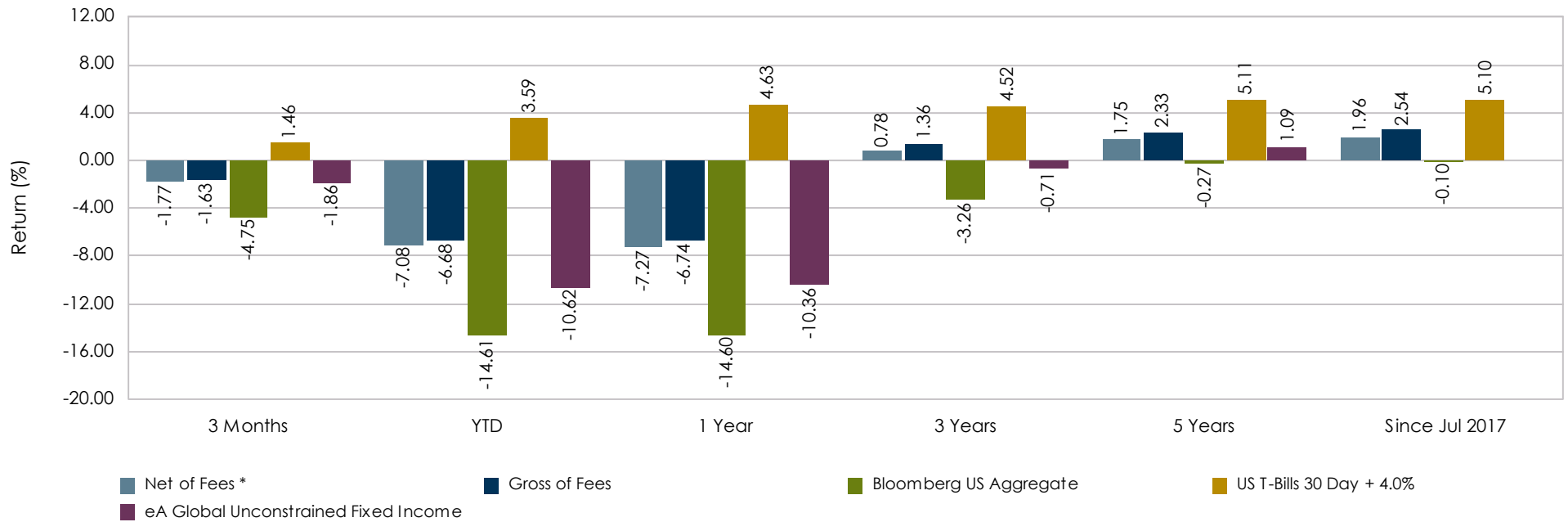


### Return Analysis Since Jul 2017

	BlackRock	Bloomberg US Aggregate	US T-Bills 30 Day + 4.0%
Number of Months	63	63	63
Highest Monthly Return (%)	2.90	2.59	0.54
Lowest Monthly Return (%)	-6.60	-4.32	0.33
Number of Positive Months	42	33	63
Number of Negative Months	21	30	0
% of Positive Months	66.67	52.38	100.00

## BlackRock Strategic Income Opportunities

For the Periods Ending September 30, 2022



Ranking	49	30	27	17	10
5th Percentile	1.26	-0.17	0.68	3.26	3.68
25th Percentile	-0.23	-5.87	-6.36	0.65	1.78
50th Percentile	-1.86	-10.62	-10.36	-0.71	1.09
75th Percentile	-6.13	-18.23	-18.20	-2.91	-2.14
95th Percentile	-9.77	-27.60	-28.15	-6.67	-4.56
Observations	94	94	94	92	86

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

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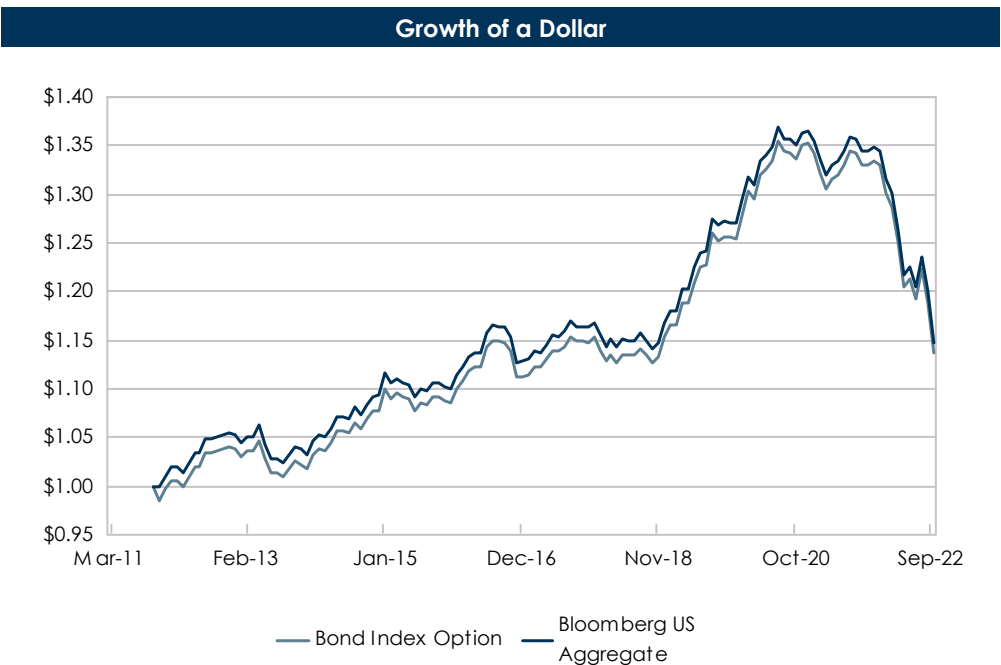
## Bond Index Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
<b>Total</b>	<b>13,905</b>	<b>100.00</b>
SSgA US Aggregate Bond	13,905	100.00

Portfolio Information
<ul style="list-style-type: none"> <li>■ Bond Index Option</li> <li>■ This option includes the passively managed SSgA US Aggregate Bond Index Fund.</li> <li>■ Performance Goal - Mirror the risk and return profile of the BloomBar US Aggregate over all time periods.</li> </ul>

Dollar Growth Summary (\$000s)		
	3 Months	YTD
<b>Beginning Market Value</b>	<b>14,587</b>	<b>16,601</b>
Net Additions	7	-312
Return on Investment	-689	-2,384
<b>Ending Market Value</b>	<b>13,905</b>	<b>13,905</b>



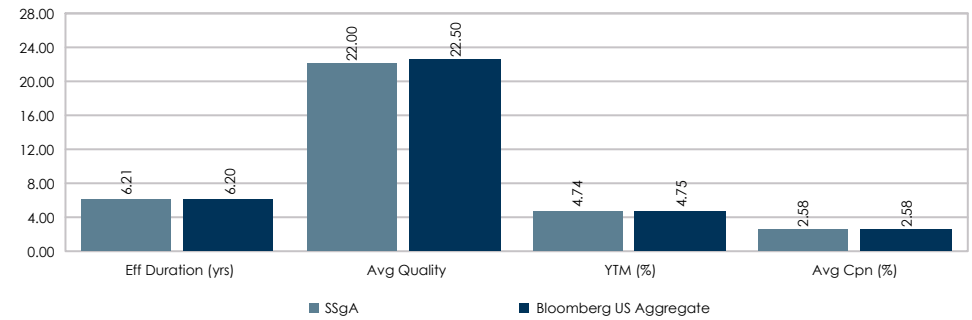
## SSgA US Aggregate Bond

For the Periods Ending September 30, 2022

### Account Description

- **Strategy** US Investment Grade
- **Vehicle** Non-Mutual Commingled
- **Benchmark** Bloomberg US Aggregate
- **Performance Inception Date** November 2011
- **Fees** 6 bps

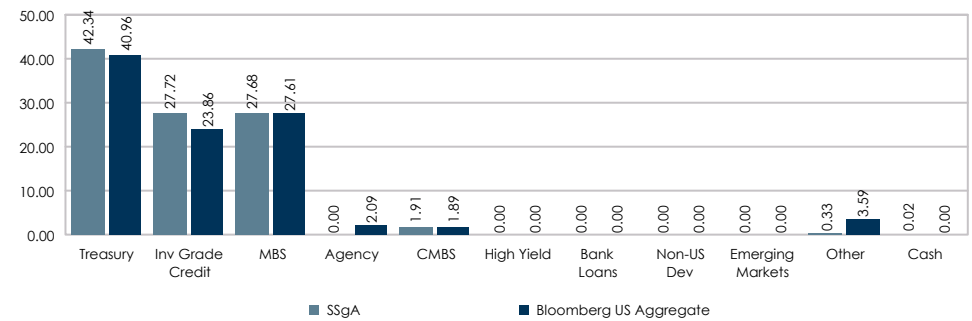
### Characteristics



### Performance Goals

- Mirror the risk and return profile of the Bloomberg US Aggregate over all time periods.

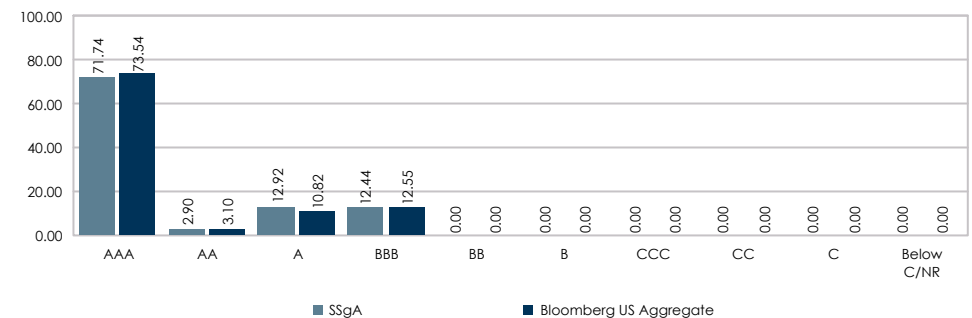
### Sector Allocation



### Dollar Growth Summary (\$000s)

	3 Months	YTD
<b>Beginning Market Value</b>	<b>14,587</b>	<b>16,601</b>
Net Additions	7	-312
Return on Investment	-689	-2,384
<b>Ending Market Value</b>	<b>13,905</b>	<b>13,905</b>

### Quality Allocation



Characteristic and allocation charts represents data of the US Aggregate Bond Index SL Fund (Non-Mutual Commingled).

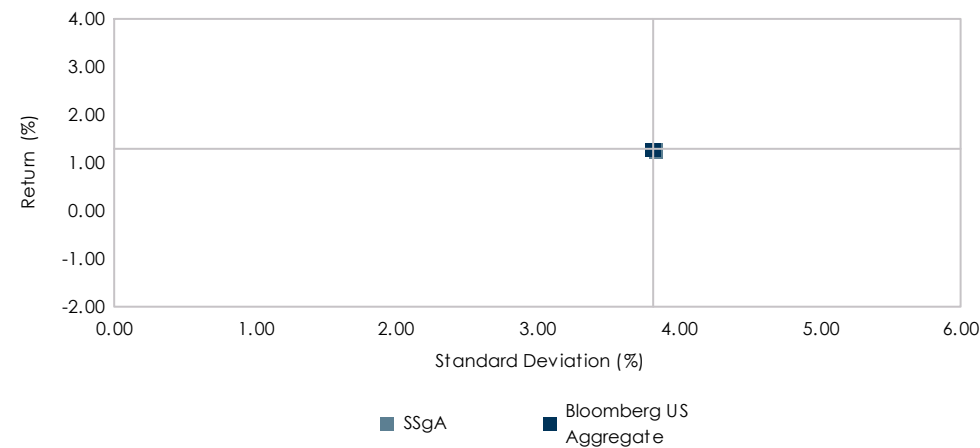
The Other sector consists of ABS, CMO, Convertibles, Municipals, Private Placements/144As and TIPS.



SSgA US Aggregate Bond

For the Periods Ending September 30, 2022

Risk / Return Since Nov 2011



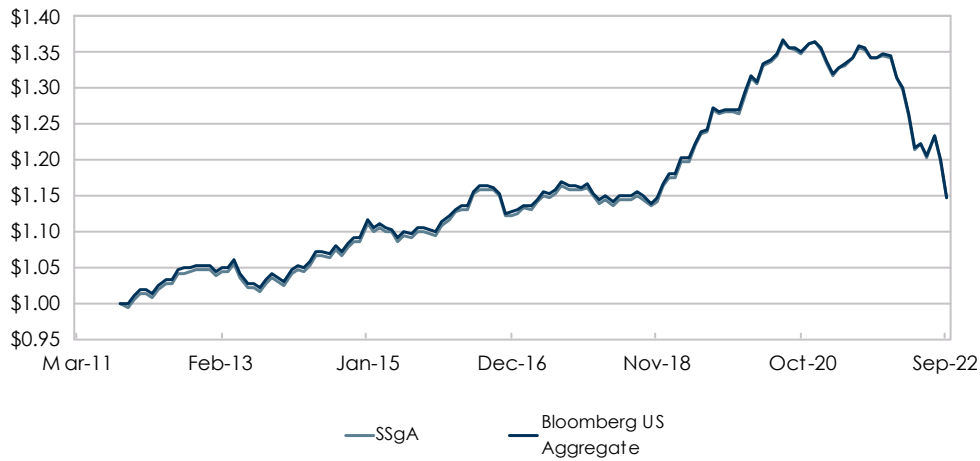
Portfolio Statistics Since Nov 2011

	SSgA	Bloomberg US Aggregate
Return (%)	1.26	1.27
Standard Deviation (%)	3.84	3.82
Sharpe Ratio	0.18	0.18

Benchmark Relative Statistics

Beta	1.00
R Squared (%)	99.79
Alpha (%)	-0.01
Tracking Error (%)	0.18
Batting Average (%)	55.73
Up Capture (%)	100.76
Down Capture (%)	101.07

Growth of a Dollar Since Nov 2011

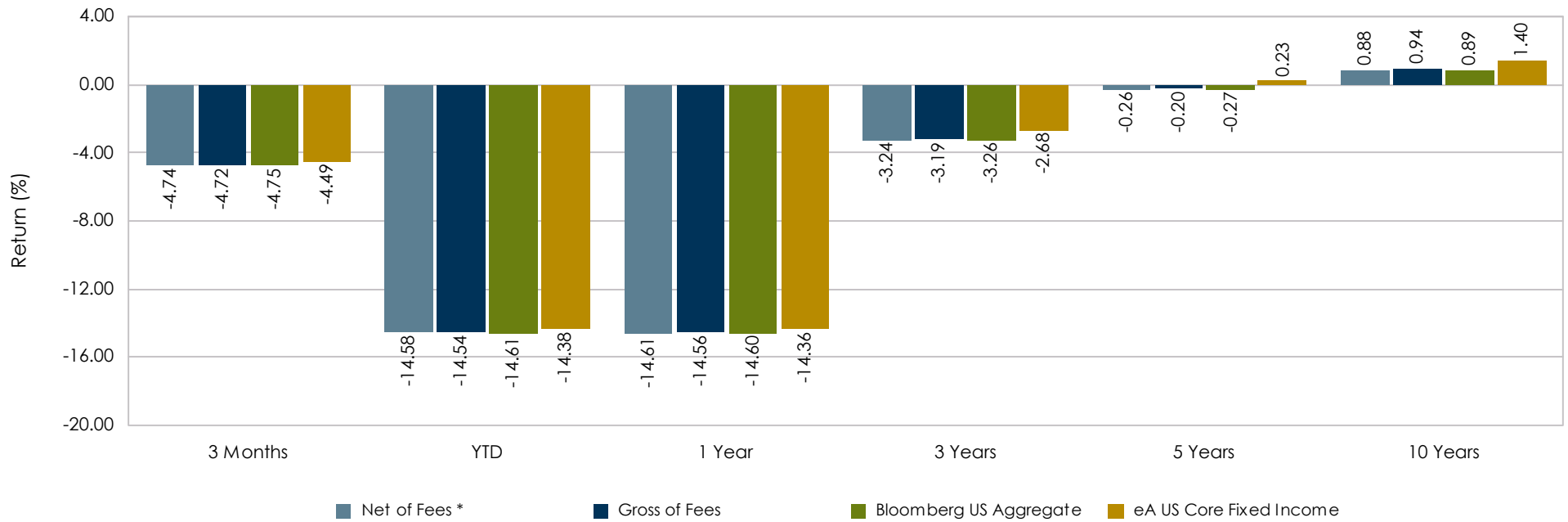


Return Analysis Since Nov 2011

	SSgA	Bloomberg US Aggregate
Number of Months	131	131
Highest Monthly Return (%)	2.61	2.59
Lowest Monthly Return (%)	-4.32	-4.32
Number of Positive Months	75	75
Number of Negative Months	56	56
% of Positive Months	57.25	57.25

### SSgA US Aggregate Bond

For the Periods Ending September 30, 2022



Ranking	81	59	59	93	93	97
5th Percentile	-2.88	-9.16	-9.54	-1.21	1.07	2.06
25th Percentile	-4.22	-13.78	-13.84	-2.23	0.50	1.62
50th Percentile	-4.49	-14.38	-14.36	-2.68	0.23	1.40
75th Percentile	-4.68	-14.94	-14.92	-2.96	0.04	1.23
95th Percentile	-5.08	-15.92	-15.94	-3.35	-0.27	0.97
Observations	223	223	222	214	211	199

The rankings represent the portfolio's returns versus a peer universe. The rankings are on a scale of 1 to 100 with 1 being the best.

\* Performance is calculated using net of fee returns.

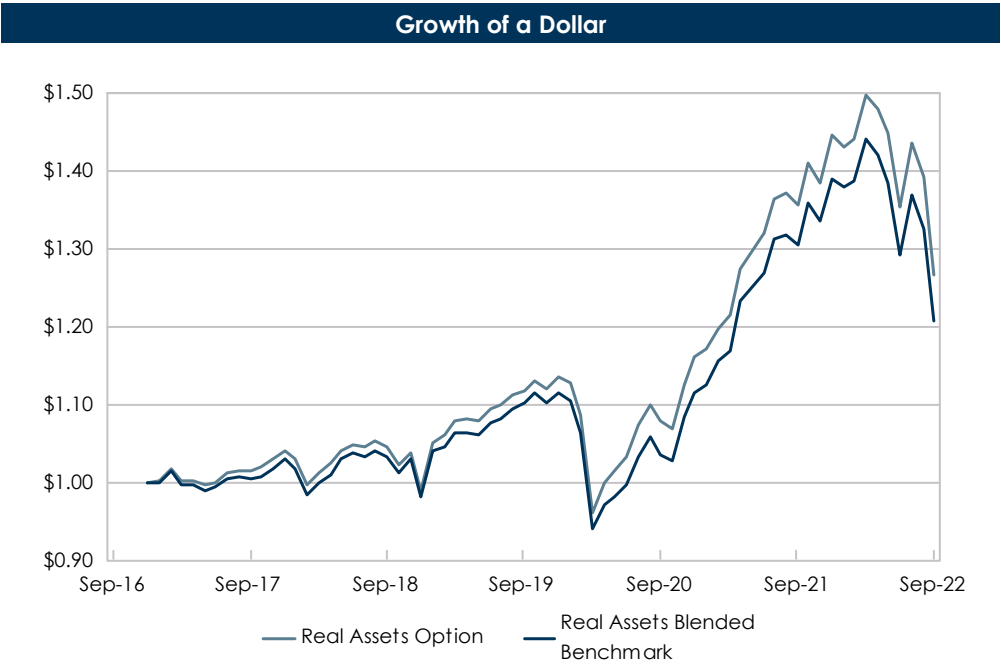
Real Assets Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
Total	890	100.00
PIMCO Diversified Real Assets	890	100.00

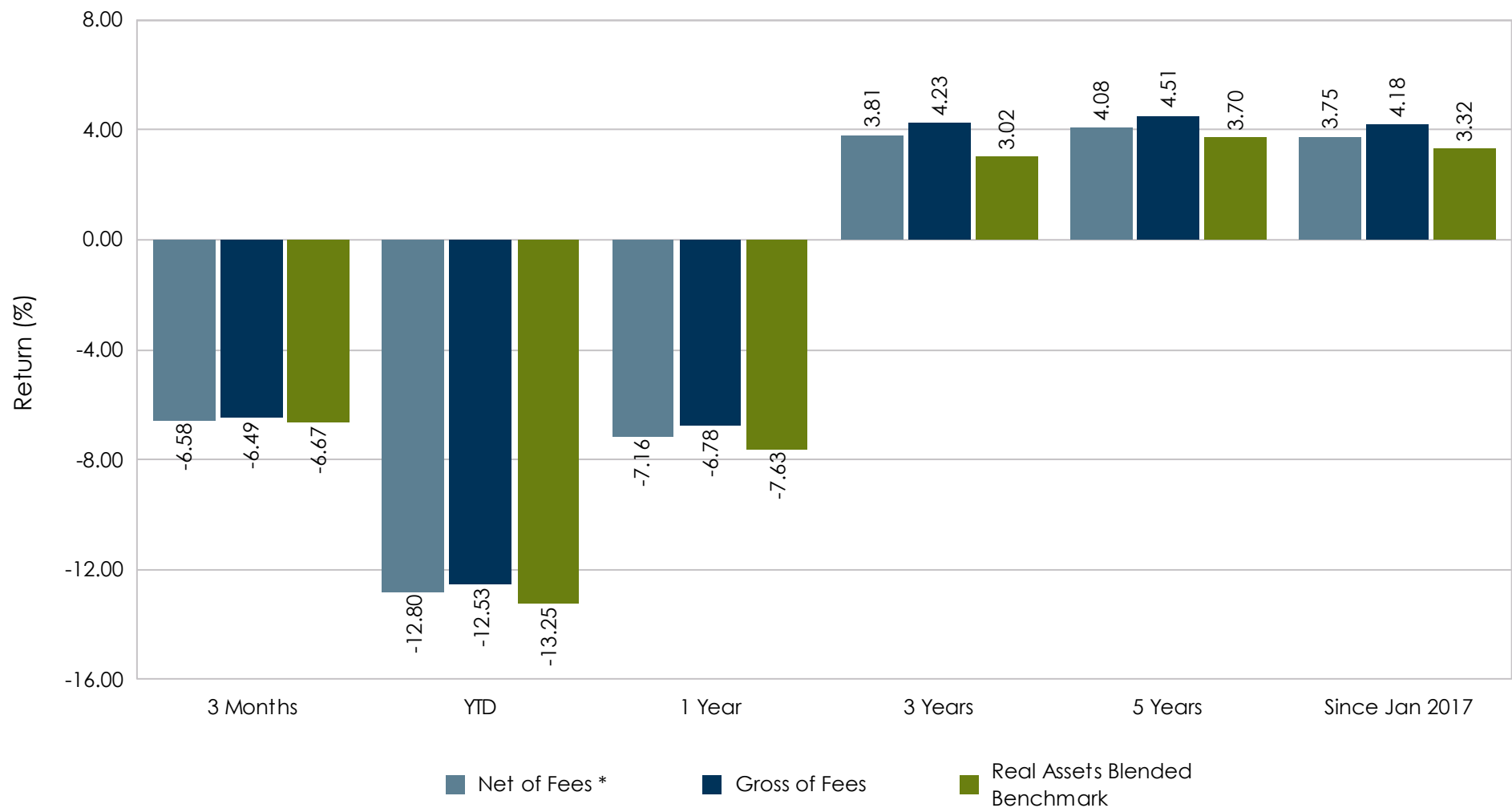
Portfolio Information
■ Real Asset Option
■ This option includes a REIT, Commodity and TIPS strategy.
■ Performance Goal - Outperform the custom benchmark over a complete market cycle (typically 3 to 5 years)

Dollar Growth Summary (\$000s)		
	3 Months	YTD
Beginning Market Value	1,067	914
Net Additions	-117	125
Return on Investment	-60	-149
Ending Market Value	890	890



Real Assets Option

For the Periods Ending September 30, 2022



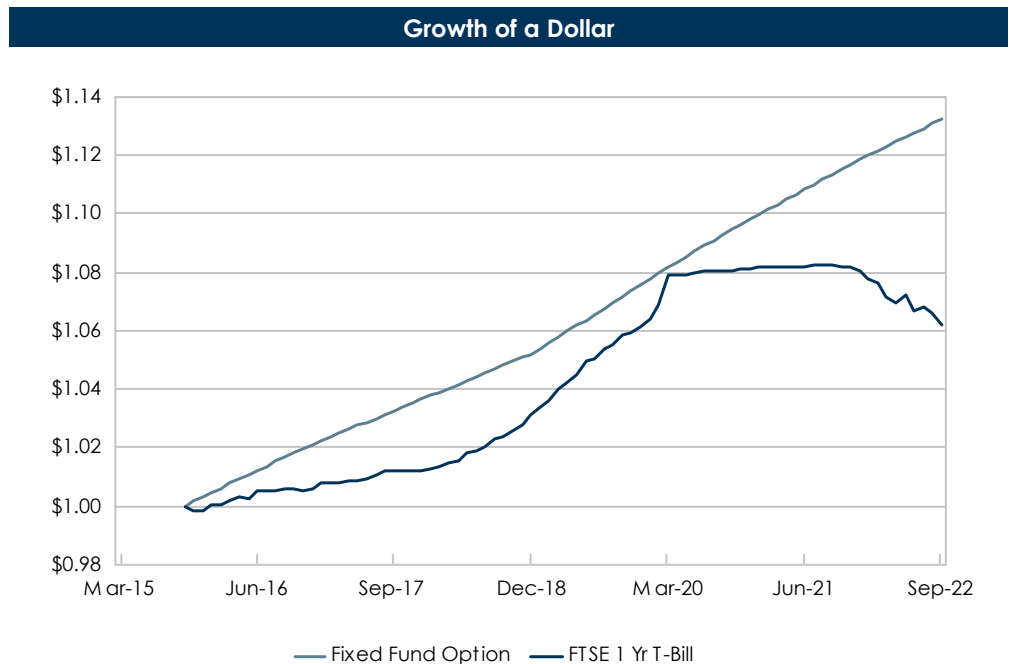
## Fixed Fund Option

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
<b>Total</b>	<b>54,599</b>	<b>100.00</b>
Voya Fixed Plus III	54,599	100.00

Portfolio Information
<ul style="list-style-type: none"> <li>Fixed account designed to provide participants with principal stability over a long-term investment horizon. The Fixed Account is backed by the Voya Retirement Insurance and Annuity Company (VRIAC) general account.</li> <li>The manager's performance will be evaluated on absolute return, relative return, volatility profile and consistency with stated style relative to similar fixed income strategies.</li> </ul>

Dollar Growth Summary (\$000s)		
	3 Months	YTD
<b>Beginning Market Value</b>	<b>53,869</b>	<b>44,681</b>
Net Additions	507	9,296
Return on Investment	222	622
<b>Ending Market Value</b>	<b>54,599</b>	<b>54,599</b>



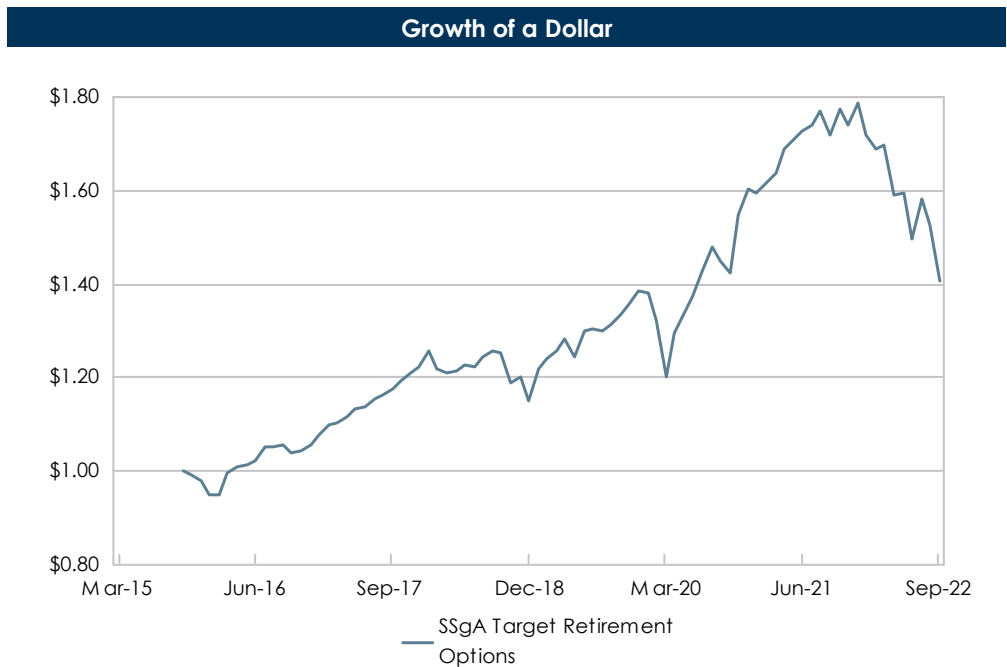
## SSgA Target Retirement Options

For the Periods Ending September 30, 2022

Manager Allocation		
Name	Market Value (\$000s)	Allocation (%)
<b>Total</b>	<b>176,410</b>	<b>100.00</b>
SSgA Target Retirement 2025	35,450	20.10
SSgA Target Retirement 2030	25,067	14.21
SSgA Target Retirement 2035	22,669	12.85
SSgA Target Retirement 2020	22,340	12.66
SSgA Target Retirement Income	18,312	10.38
SSgA Target Retirement 2040	16,923	9.59
SSgA Target Retirement 2045	13,181	7.47
SSgA Target Retirement 2050	10,232	5.80
SSgA Target Retirement 2055	6,327	3.59
SSgA Target Retirement 2060	5,758	3.26
SSgA Target Retirement 2065	151	0.09

Portfolio Information
<ul style="list-style-type: none"> <li>■ This option includes a combination of passive SSgA strategies across global equity, fixed income and real assets.</li> <li>■ The risk/return profile of the target date funds are based upon each participant's age and time horizon.</li> <li>■ The target date funds automatically shift the asset allocation from more aggressive to more conservative as the participant approaches the stated retirement date.</li> <li>■ The manager's performance will be evaluated on absolute return, relative return, volatility profile and consistency with stated style relative to similar target date funds.</li> </ul>

Dollar Growth Summary (\$000s)		
	3 Months	YTD
<b>Beginning Market Value</b>	<b>187,955</b>	<b>235,726</b>
Net Additions	-433	-10,343
Return on Investment	-11,112	-48,972
<b>Ending Market Value</b>	<b>176,410</b>	<b>176,410</b>



**Appendix**

### Historical Benchmark Composition

#### OMRF DB Policy Index

04/30/1987	The index consists of 100.0% OMRF DB Policy Index History.
07/31/2003	The index consists of 55.00% S&P 500, 10.00% MSCI EAFE, 35.00% Bloomberg US Aggregate.
03/31/2004	The index consists of 40.00% S&P 500, 15.00% Russell 2500, 10.00% MSCI EAFE, 35.00% Bloomberg US Aggregate.
02/28/2007	The index consists of 40.00% S&P 500, 15.00% Russell 2500, 10.00% MSCI EAFE, 30.00% Bloomberg US Aggregate, 5.00% NCREIF Property.
10/31/2010	The index consists of 35.00% S&P 500, 10.00% Russell 2500, 20.00% MSCI EAFE, 30.00% Bloomberg US Aggregate, 5.00% NCREIF Property.
04/30/2014	The index consists of 25.00% S&P 500, 10.00% Russell 2500, 10.00% MSCI ACWI, 20.00% MSCI EAFE, 30.00% Bloomberg US Aggregate, 5.00% NCREIF Property.
03/31/2016	The index consists of 65.00% MSCI ACWI, 30.00% Bloomberg US Aggregate, 5.00% NCREIF Property.
01/31/2021	The index consists of 70.00% MSCI ACWI, 25.00% Bloomberg US Aggregate, 5.00% NCREIF Property.
10/31/2021	The index consists of 70.00% MSCI ACWI, 20.00% Bloomberg US Aggregate, 10.00% NCREIF Property.



## Definitions of Statistical Measures

**Alpha** - the annualized difference between the manager's actual return and the manager's expected return given its relative risk vs. the benchmark (which is represented by beta, a measure that tracks volatility to an index).

**Batting Average** - a measure used to quantify a manager's ability to meet or beat a benchmark. A manager who outperforms the benchmark 20 out of a possible 40 times has a batting average of 50.

**Beta** - measures the portfolio's sensitivity of returns to market movements represented by the primary benchmark.

**Down Capture** - demonstrates the ratio of the portfolio's average returns relative to the benchmark in periods in which the benchmark had a negative return. For instance, a down-capture of 96% indicates that, on average, the portfolio is down 96% when the benchmark is down 100%. Lower portfolio down-capture is preferred.

**R Squared** - the amount of the manager's return that can be explained by the benchmark. A R Squared of 100 indicates a perfect correlation, while a R Squared of 0 indicates no correlation at all.

**Sharpe Ratio** - a measure of return per unit of risk. Higher sharpe ratios are preferred while negative ratios are generally meaningless and cannot be used for comparison purposes.

**Standard Deviation** - a measure of the portfolio's volatility. A large standard deviation relative to the benchmark represents volatile portfolio returns.

**Tracking Error** - a measure that reports the difference between the return of a manager that is received and that of a benchmark that the manager is attempting to track.

**Up Capture** - demonstrates the ratio of the portfolio's average returns relative to the benchmark in periods in which the benchmark had a positive return. For instance, an up-capture of 96% indicates that, on average, the portfolio is up 96% when the benchmark is up 100%. Higher portfolio up-capture is preferred.

### Quality Rating Scale

Moody's Rating	S&P Rating	Prior to 1Q09	Beginning 1Q09	Beginning 3Q11	Moody's Rating	S&P Rating	Prior to 1Q09	Beginning 1Q09	Beginning 3Q11
TSY	TSY	10	26	24	Ba2	BB	6	13	13
AGY	AGY	10	25	24	Ba	BB		13	13
Aaa	AAA	10	24	24	MIG4		6	13	13
Aa1	AA+	9.3	23	23	Ba3	BB-	5.7	12	12
Aa2	AA		22	22	B1	B+	5.3	11	11
Aa	AA	9	22	22	B2	B	5	10	10
MIG1		9	22	22	B	B		10	10
Aa3	AA-	8.7	21	21	B3	B-	4.7	9	9
A1	A+	8.3	20	20	Caa1	CCC+	4.3	8	8
A-1			20	20	Caa2	CCC	4	7	7
A2	A	8	19	19	Caa	CCC		7	7
A	A		19	19	Caa3	CCC-	3.7	6	6
MIG2		8	19	19	Ca	CC	3	5	5
A3	A-		18	18	C	C	2	4	4
Baa1	BBB+	7.7	17	17		DDD	1	3	3
Baa2	BBB	7.3	16	16		DD		2	2
Baa	BBB	7	16	16		D		1	1
MIG3			16	16	NR	NR	N/A	-1	-1
Baa3	BBB-	7	15	15	NA	NA	N/A		
Ba1	BB+	6.7	14	14	N/A	N/A			

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**Oklahoma Municipal Retirement Fund**  
***Emerging Markets Equity***  
***Manager Replacement Search Overview***

November 18, 2022



2018 2019 2020 2021

**We are proud to announce that ACG has again been named a Greenwich Associates Quality Leader – recognized as one of the top consultants in the industry.**

**Methodology and Disclosure:** Between July and October 2021, Coalition Greenwich (previously known as Greenwich Associates), conducted in-person and phone interviews and online surveys with 811 professionals at 661 of the largest tax-exempt funds in the United States, including corporate and union funds, public funds, endowments and foundations, insurance general accounts, and healthcare organizations, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset managers and investment consultants, including qualitative assessments of those firms soliciting their business and detailed information on important market trends. ACG is one of four firms recognized in the mid-size investment consultant category. The ratings may not be representative of any one client's experience with ACG; rather they are representative of those clients that chose to participate in the survey. The results are not indicative of ACG's future performance. ACG does not pay to have its clients participate in the study.

### Harding Loevner EM Equity Termination Rationale:

- The Defined Benefit (DB) and Defined Contribution (DC) Plans' **Emerging Markets Equity allocation** and the DC Plan's **International Growth Equity mandate** have been managed by Harding Loevner.
  - As of September 30<sup>th</sup>, **Harding Loevner managed approximately \$20 million of Emerging Markets Equity assets for the DB Plan and approximately \$1.7 million for the DC Plan.** Harding Loevner also managed \$1.8 million of International Growth Equity assets for the DC Plan.
  - Harding Loevner's Emerging Markets Equity strategy has experienced **qualitative and quantitative disruptions** recently.
  - From a qualitative standpoint, effective June 30<sup>th</sup>, **co-Portfolio Manager Craig Shaw stepped back from his role** as part of the strategy's succession planning. Craig will remain at the firm as a senior analyst, and Pradipta Chakraborty has been elevated to the co-Portfolio Manager role.
  - From a performance standpoint, **Harding Loevner has underperformed the MSCI Emerging Markets benchmark** meaningfully this year. The bulk of the underperformance stems from an **overweight to Russian stocks**, which fell dramatically following the escalation of the Russia-Ukraine crisis.
  - After multiple due diligence calls with Harding Loevner, **ACG's conviction level began to decline** due to poor communication regarding the exit plan for the Russian stock positions. In addition, per Harding Loevner, the **co-Portfolio Manager change may lead to future investment tilts** that have not been in the strategy historically (more value names/Frontier Markets exposure).
  - As such, ACG recommended the DB and DC Plans **redeem from Harding Loevner's Emerging Markets Equity strategy** and re-invest the proceeds into a higher-conviction manager.
  - Following today's discussion, **ACG will be making a recommendation** on which Emerging Markets Equity manager is best-suited for the DB and DC Plans going forward.
  - ACG will also be reviewing Harding Loevner's International Growth Equity strategy when **OkMRF's Investment Committee dives deeper into the Non-US Equity portfolio implementation in February.**

### Emerging Markets Equity Search Details:

- **ACG conducted an Emerging Markets Equity search for the DB and DC Plans**, utilizing the same search process and analysis that has been used historically. A summary of ACG's process is included below:
  - We recommend Harding Loevner's Emerging Markets Equity strategy be **replaced with a strategy that complements the existing DB and DC Plans' portfolio structures**.
  - **We reviewed qualitative factors** for the Emerging Markets Equity manager universe, including the stability of the firm and the consistency of people, investment philosophy/process and risk management parameters. We also reviewed fees and client servicing capabilities.
  - **We conducted quantitative analysis** for the same broad pool of Emerging Markets Equity managers, focusing on performance, volatility, ability to perform in up and down markets (i.e, up/down capture) and consistency of performance measured by metrics such as returns, information ratio and Sharpe Ratio (risk-adjusted return).
  - **We conducted thorough investment vehicle due diligence** for an appropriate vehicle for DB and DC assets (with no revenue sharing arrangements).
  - For this search, **we recommend the Board consider the following candidates** for the DB and DC Plans' Emerging Markets Equity mandates:
    - Aberdeen Emerging Markets
    - Allspring Emerging Markets
    - Axiom Investors Emerging Markets
    - Delaware Emerging Markets (Macquarie)

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Tab 1	Defined Benefit Plan: Emerging Markets Equity Search Manager Characteristics Manager Performance & Statistics Portfolio Combinations
Tab 2	Defined Contribution Plan: Emerging Markets Equity Search Manager Characteristics Manager Performance & Statistics Portfolio Combinations
Tab 3	Appendix – Manager Abstracts



**Defined Benefit Plan: Emerging Markets Equity Search**

Manager Characteristics
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## Firm & Strategy Details

9/30/2022	Harding Loevner Emerging Markets	Aberdeen Global Emerging Markets	AllSpring (Berk. St.) Emerging Markets	Axiom Investors Emerging Markets	Macquarie Emerging Markets
<b>Ownership</b>	62% Affiliated Managers Group / 38% Employee-owned	100% owned subsidiary of Standard Life Aberdeen	GTCR/Reverence Capital, Employees	100% Employee-Owned	100% Macquarie Group (ASX: MQG)
<b>Team Location(s)</b>	Bridgewater, New Jersey	London, UK	Boston, MA	Greenwich, Connecticut	Boston, Massachusetts
<b>Firm AUM</b>	\$52.1B	\$469.2B	\$370.9B	\$14.8B	\$537.2B
<b>Strategy AUM</b>	\$7.2B	\$14.2B	\$8.2B	\$5.4B	\$6.2B
<b>Strategy Inception</b>	11/1/1998	1/1/1996	10/1/1997	8/1/2007	10/1/2005
<b>Investment Style</b>	GARP	Core	Core	Growth	Core
<b>Research Technique(s)</b>	Bottom-Up Fundamental	Bottom-Up Fundamental	Bottom-Up Fundamental	Bottom-Up Fundamental	Bottom-Up Fundamental
<b>Benchmark</b>	MSCI Emerging Markets	MSCI Emerging Markets NetDiv	MSCI Emerging Markets NetDiv	MSCI Emerging Markets NetDiv	MSCI Emerging Markets NetDiv
<b>Holdings Range</b>	50 - 80	50 - 70	90 - 120	70 - 85	115 - 130
<b>Annual Turnover Range</b>	20% - 30%	10% - 30%	10% - 30%	45% - 80%	15% - 30%
<b>Vehicle Type</b>	Mutual Fund	Commingled Fund	Commingled Fund	Commingled Fund	Commingled Fund
<b>Vehicle Minimum</b>	\$10,000,000	\$150,000,000	\$30,000,000	\$5,000,000	\$50,000,000
<b>Fee Schedule</b>	All assets at 100 bps	First \$50M at 90 bps, next \$50M at 85 bps, balance at 80 bps	First \$50M at 95 bps, next \$50M at 90 bps, balance at 80 bps	First \$25M at 100 bps, next \$75M at 90 bps, next \$25M at 80 bps, next \$50M at 70 bps, balance at 60 bps	First \$50M at 82 bps, balance at 60 bps
<b>Notes</b>		Negotiated minimum and 80 bps fee (includes operating expenses)	Negotiated minimum and 90 bps fee (includes operating expenses)	Negotiated 75 bps fee (includes operating expenses)	Negotiated minimum and 82 bps (includes operating expenses)

## Market Capitalization Allocations (%)

9/30/2022	MSCI Emerging Markets	Aberdeen Global Emerging Markets	AllSpring (Berk. St.) Emerging Markets	Axiom Investors Emerging Markets	Macquarie Emerging Markets
> \$50B	38.00	38.24	38.43	42.02	52.67
\$15B - \$50B	25.80	45.20	20.31	32.54	19.36
\$7.5B - \$15B	15.30	9.01	16.37	15.94	10.12
\$1.5B - \$7.5B	20.53	7.55	22.72	9.50	15.55
\$750M - \$1.5B	0.32	0.00	0.79	0.00	0.64
\$400 - \$750M	0.02	0.00	0.83	0.00	0.97
< \$400M	0.00	0.00	0.55	0.00	0.69
Weighted Average Market Cap	\$79.3B	\$84.4B	\$84.3B	\$99.5B	\$83.6B

Represents the 3 largest market capitalization allocations

## Sector Allocations (%)

9/30/2022	MSCI Emerging Markets	Aberdeen Global Emerging Markets	AllSpring (Berk. St.) Emerging Markets	Axiom Investors Emerging Markets	Macquarie Emerging Markets
Communication Services	9.69	6.25	15.63	8.62	12.67
Consumer Discretionary	13.96	12.23	17.54	14.43	12.83
Consumer Staples	6.60	8.76	20.81	6.27	15.18
Energy	5.29	2.06	5.31	5.33	11.47
Financials	22.60	27.19	15.84	24.34	6.25
Health Care	3.89	2.37	3.63	5.04	1.22
Industrials	5.79	6.34	1.37	10.26	1.03
Information Technology	18.27	21.30	15.43	20.18	31.52
Materials	8.74	8.86	2.25	3.16	6.65
Real Estate	2.02	1.16	2.18	0.00	0.17
Utilities	3.16	1.42	0.01	2.38	0.86

Represents the 3 largest sector allocations

## Regional Breakdown (%)

9/30/2022	MSCI Emerging Markets	Aberdeen Global Emerging Markets	AllSpring (Berk. St.) Emerging Markets	Axiom Investors Emerging Markets	Macquarie Emerging Markets
Latin America	8.98	14.00	20.00	14.74	15.64
Emerging Europe	1.45	0.00	0.44	0.00	1.09
Africa/Middle East	6.18	3.23	3.26	1.99	0.27
China	31.35	33.00	24.71	33.40	29.15
Emerging Asia Pacific ex-China	46.37	44.34	45.32	44.76	49.84
Frontier Markets	0.00	0.00	0.60	0.00	0.71
Developed Markets	0.00	5.43	5.67	4.68	3.23
Other	0.00	0.00	0.00	0.43	0.00

 Represents allocations of at least 10%

Manager Performance & Statistics
----------------------------------

	1 Yr Return Sep-2022	5 Yr Return Sep-2022	10 Yr Return Sep-2022	1 Yr Std Dev Sep-2022	5 Yr Std Dev Sep-2022	10 Yr Std Dev Sep-2022	1 Yr Sharpe Sep-2022	5 Yr Sharpe Sep-2022	10 Yr Sharpe Sep-2022	
MSCI Emerging Markets NetDiv	-28.11	-1.81	1.05	13.54	17.68	16.08	-2.12	-0.16	0.03	
MSCI Emerging Markets	-27.80	-1.44	1.42	13.53	17.69	16.08	-2.10	-0.14	0.05	
Harding Loevner Emerging Markets *	-36.05	-4.96		16.95	19.89		-2.16	-0.30		
Aberdeen Global Emerging Markets *	-34.45	-2.26	0.42	14.29	19.36	17.01	-2.45	-0.17	-0.01	
AllSpring (Berk. St.) Emerging Markets *	-31.08	-2.25	1.16	12.76	18.49	16.45	-2.48	-0.18	0.03	
Axiom Investors Emerging Markets *	-35.75	-1.94	2.02	13.46	18.31	16.41	-2.70	-0.16	0.09	
Macquarie Emerging Markets *	-32.62	-2.65	2.58	15.19	19.86	18.41	-2.19	-0.19	0.11	
	1 Yr Return Dec-2021	1 Yr Return Dec-2020	1 Yr Return Dec-2019	1 Yr Return Dec-2018	1 Yr Return Dec-2017	1 Yr Return Dec-2016	1 Yr Return Dec-2015	1 Yr Return Dec-2014	1 Yr Return Dec-2013	1 Yr Return Dec-2012
MSCI Emerging Markets NetDiv	-2.54	18.31	18.42	-14.57	37.28	11.19	-14.92	-2.19	-2.60	18.22
MSCI Emerging Markets	-2.22	18.69	18.88	-14.24	37.75	11.60	-14.60	-1.82	-2.27	18.63
Harding Loevner Emerging Markets *	-3.29	14.03	25.97	-18.97	35.04	13.44				
Aberdeen Global Emerging Markets *	-4.16	27.39	20.32	-14.34	28.75	12.05	-13.43	-1.32	-6.95	26.18
AllSpring (Berk. St.) Emerging Markets *	-11.71	23.25	28.10	-15.60	35.48	12.21	-12.46	-4.67	-1.73	12.99
Axiom Investors Emerging Markets *	-4.16	29.99	24.79	-16.59	41.22	8.20	-12.19	-1.26	3.26	21.74
Macquarie Emerging Markets *	-1.84	25.24	24.06	-15.96	42.17	14.98	-14.57	-7.56	10.65	15.09

Results in Red indicate underperformance relative to MSCI Emerging Markets NetDiv.

Statistics calculated using monthly return data.

\* Statistics calculated using net of fee return data.



	3 Yr Return Sep-2022	3 Yr Return Sep-2021	3 Yr Return Sep-2020	3 Yr Return Sep-2019	3 Yr Return Sep-2018	3 Yr Return Sep-2017	3 Yr Return Sep-2016	3 Yr Return Sep-2015	3 Yr Return Sep-2014	3 Yr Return Sep-2013
MSCI Emerging Markets NetDiv	-2.07	8.58	2.42	5.97	12.36	4.90	-0.56	-5.27	7.19	-0.33
MSCI Emerging Markets	-1.71	8.96	2.79	6.37	12.77	5.28	-0.21	-4.93	7.56	0.00
Harding Loevner Emerging Markets *	-6.86	8.43	0.04	5.36	11.66					
Aberdeen Global Emerging Markets *	-3.19	13.57	2.59	4.63	8.88	4.31	0.08	-5.61	8.59	3.61
AllSpring (Berk. St.) Emerging Markets *	-3.64	10.92	4.34	6.63	12.81	6.50	0.23	-5.98	5.12	1.16
Axiom Investors Emerging Markets *	-3.00	13.03	6.41	6.98	12.52	7.14	1.80	-2.62	10.13	2.75
Macquarie Emerging Markets *	-2.33	11.18	4.45	7.18	17.11	6.87	-0.67	-4.62	11.43	2.81
	5 Yr Return Sep-2022	5 Yr Return Sep-2021	5 Yr Return Sep-2020	5 Yr Return Sep-2019	5 Yr Return Sep-2018	5 Yr Return Sep-2017	5 Yr Return Sep-2016	5 Yr Return Sep-2015	5 Yr Return Sep-2014	5 Yr Return Sep-2013
MSCI Emerging Markets NetDiv	-1.81	9.23	8.97	2.33	3.61	3.99	3.03	-3.58	4.42	7.22
MSCI Emerging Markets	-1.44	9.62	9.37	2.71	3.99	4.36	3.39	-3.25	4.76	7.56
Harding Loevner Emerging Markets *	-4.96	8.12	7.95							
Aberdeen Global Emerging Markets *	-2.26	9.66	8.45	2.22	1.64	3.16	4.52	-1.33	8.30	12.97
AllSpring (Berk. St.) Emerging Markets *	-2.25	9.49	11.43	3.80	3.03	4.68	2.92	-3.48	5.04	8.99
Axiom Investors Emerging Markets *	-1.94	11.71	11.93	4.08	4.90	6.13	5.91	-0.66	7.49	11.24
Macquarie Emerging Markets *	-2.65	11.23	14.15	2.75	3.96	8.10	5.17	-3.86	6.23	9.05

Results in **Red** indicate underperformance relative to MSCI Emerging Markets NetDiv.

Statistics calculated using monthly return data.

\* Statistics calculated using net of fee return data.

	5 Yr Up Cap Sep-2022	5 Yr Down Cap Sep-2022	10 Yr Up Cap Sep-2022	10 Yr Down Cap Sep-2022	5 Yr Trac Error Sep-2022	10 Yr Trac Error Sep-2022	5 Yr Info Ratio Sep-2022	10 Yr Info Ratio Sep-2022	5 Yr Bat Avg Sep-2022	10 Yr Bat Avg Sep-2022
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MSCI Emerging Markets NetDiv

MSCI Emerging Markets

Harding Loevner Emerging Markets *	102.74	111.38			6.12		-0.52		53.33	
Aberdeen Global Emerging Markets *	111.37	107.64	103.96	104.94	4.66	4.73	-0.10	-0.13	53.33	51.67
AllSpring (Berk. St.) Emerging Markets *	101.72	102.37	100.63	100.02	4.26	3.69	-0.10	0.03	48.33	49.17
Axiom Investors Emerging Markets *	107.08	104.38	104.34	99.37	4.12	3.57	-0.03	0.27	58.33	62.50
Macquarie Emerging Markets *	106.60	106.31	115.20	104.37	5.27	5.20	-0.16	0.30	46.67	53.33

	10 Yr Return Sep-2022	10 Yr Return Sep-2021	10 Yr Return Sep-2020	10 Yr Return Sep-2019	10 Yr Return Sep-2018	10 Yr Return Sep-2017	10 Yr Return Sep-2016	10 Yr Return Sep-2015	10 Yr Return Sep-2014	10 Yr Return Sep-2013
MSCI Emerging Markets NetDiv	1.05	6.09	2.50	3.37	5.40	1.32	3.94	4.27	10.68	12.80
MSCI Emerging Markets	1.42	6.46	2.87	3.73	5.76	1.65	4.28	4.60	11.03	13.16

Harding Loevner Emerging Markets \*

Aberdeen Global Emerging Markets *	0.42	7.06	3.44	5.22	7.16	5.30	8.03	8.17	15.15	17.98
AllSpring (Berk. St.) Emerging Markets *	1.16	6.15	3.71	4.42	5.97	3.06	5.73	6.30	12.72	14.94
Axiom Investors Emerging Markets *	2.02	8.77	5.44	5.77	8.03	4.25				
Macquarie Emerging Markets *	2.58	8.16	4.76	4.47	6.48	3.40	5.81	5.33		

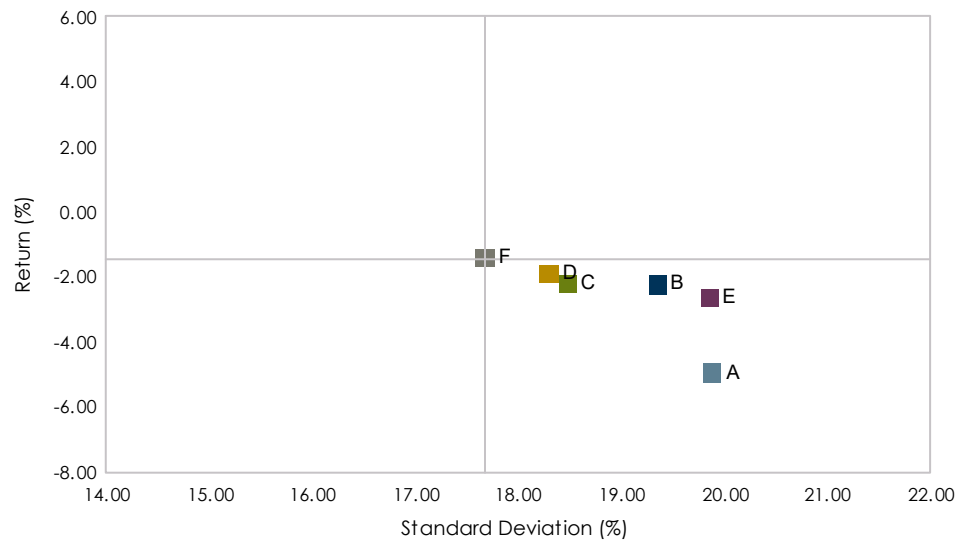
Results in Red indicate underperformance relative to MSCI Emerging Markets NetDiv.

Statistics calculated using monthly return data.

\* Statistics calculated using net of fee return data.

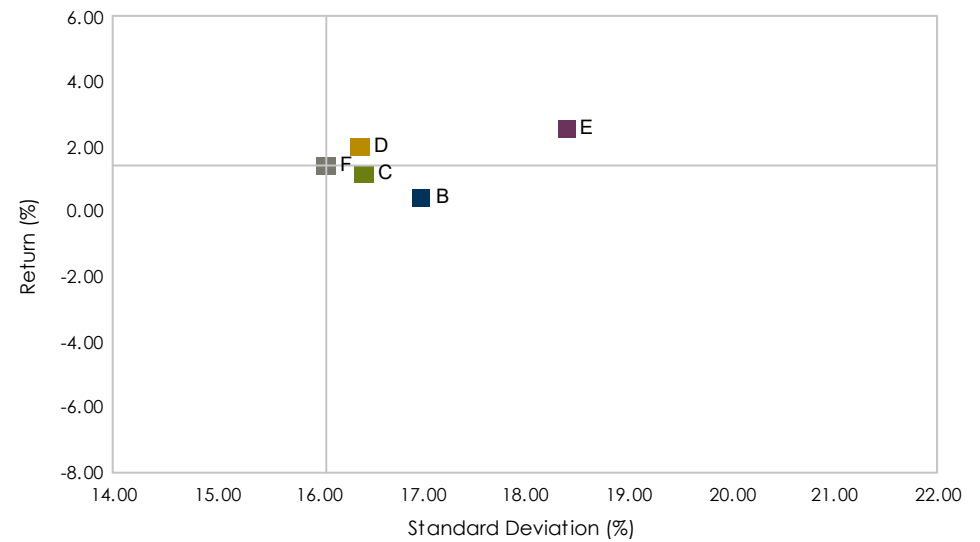
For the Periods Ending September 30, 2022

#### 5 Year Risk / Return



	Return %	Standard Deviation %	Sharpe Ratio
A Harding Loevner Emerging Markets *	-4.96	19.89	-0.30
B Aberdeen Global Emerging Markets *	-2.26	19.36	-0.17
C AllSpring (Berk. St.) Emerging Markets *	-2.25	18.49	-0.18
D Axiom Investors Emerging Markets *	-1.94	18.31	-0.16
E Macquarie Emerging Markets *	-2.65	19.86	-0.19
F MSCI Emerging Markets	-1.44	17.69	-0.14

#### 10 Year Risk / Return



	Return %	Standard Deviation %	Sharpe Ratio
A Harding Loevner Emerging Markets *	0.42	17.01	-0.01
B Aberdeen Global Emerging Markets *	0.42	17.01	-0.01
C AllSpring (Berk. St.) Emerging Markets *	1.16	16.45	0.03
D Axiom Investors Emerging Markets *	2.02	16.41	0.09
E Macquarie Emerging Markets *	2.58	18.41	0.11
F MSCI Emerging Markets	1.42	16.08	0.05

Statistics calculated using monthly return data.

\* Statistics calculated using net of fee return data.

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Portfolio Combinations

	1 Yr Return Sep-2022	5 Yr Return Sep-2022	7 Yr Return Sep-2022	1 Yr Std Dev Sep-2022	5 Yr Std Dev Sep-2022	7 Yr Std Dev Sep-2022	1 Yr Sharpe Sep-2022	5 Yr Sharpe Sep-2022	7 Yr Sharpe Sep-2022	
MSCI ACWI ex US NetDiv	-25.17	-0.81	3.29	15.97	16.40	15.18	-1.61	-0.11	0.16	
MSCI ACWI ex US	-24.79	-0.34	3.78	15.97	16.38	15.18	-1.59	-0.09	0.19	
International DB - Current	-28.57	0.89	4.83	16.15	17.48	15.79	-1.81	-0.01	0.25	
International DB - 20% Aberdeen	-28.25	1.46	5.10	15.90	17.31	15.63	-1.82	0.02	0.27	
International DB - 20% Allspring	-27.50	1.47	5.35	15.33	17.11	15.53	-1.83	0.02	0.29	
International DB - 20% Axiom	-28.54	1.52	5.29	15.81	17.09	15.52	-1.84	0.03	0.28	
International DB - 20% Delaware	-27.84	1.39	5.67	15.91	17.34	15.82	-1.79	0.02	0.30	
	1 Yr Return Dec-2021	1 Yr Return Dec-2020	1 Yr Return Dec-2019	1 Yr Return Dec-2018	1 Yr Return Dec-2017	1 Yr Return Dec-2016	1 Yr Return Dec-2015	1 Yr Return Dec-2014	1 Yr Return Dec-2013	1 Yr Return Dec-2012
MSCI ACWI ex US NetDiv	7.82	10.65	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83
MSCI ACWI ex US	8.29	11.13	22.13	-13.77	27.77	5.01	-5.25	-3.44	15.78	17.39
International DB - Current	10.41	18.31	28.25	-14.44	29.91	3.68				
International DB - 20% Aberdeen	10.24	20.99	27.07	-13.47	28.69	3.49				
International DB - 20% Allspring	8.52	20.16	28.66	-13.76	30.00	3.47				
International DB - 20% Axiom	10.26	21.50	27.99	-13.95	31.10	2.71				
International DB - 20% Delaware	10.83	20.59	27.87	-13.82	31.29	4.02				

Results in **Red** indicate underperformance relative to MSCI ACWI ex US NetDiv.

Statistics calculated using monthly net of fee return data.

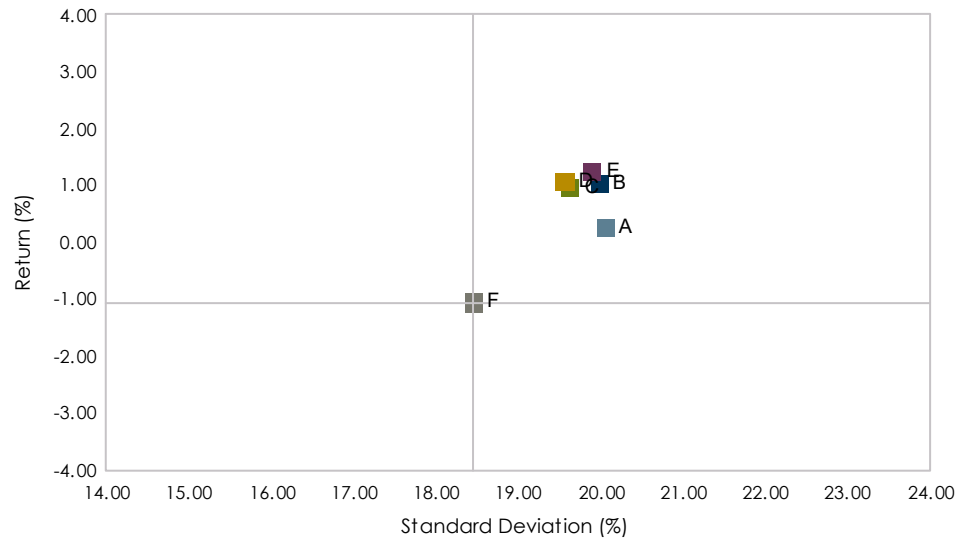
	3 Yr Return Sep-2022	3 Yr Return Sep-2021	3 Yr Return Sep-2020	3 Yr Return Sep-2019	3 Yr Return Sep-2018	3 Yr Return Sep-2017	3 Yr Return Sep-2016	3 Yr Return Sep-2015	3 Yr Return Sep-2014	3 Yr Return Sep-2013
MSCI ACWI ex US NetDiv	-1.52	8.03	1.16	6.33	9.97	4.70	0.18	2.34	11.79	5.95
MSCI ACWI ex US	-1.07	8.52	1.65	6.85	10.49	5.19	0.64	2.78	12.29	6.43
International DB - Current	0.23	12.87	4.51	7.52	10.64					
International DB - 20% Aberdeen	1.02	13.94	5.04	7.39	10.10					
International DB - 20% Allspring	0.94	13.41	5.38	7.77	10.86					
International DB - 20% Axiom	1.06	13.84	5.80	7.85	10.81					
International DB - 20% Delaware	1.22	13.48	5.42	7.90	11.73					
	5 Yr Return Sep-2022	5 Yr Return Sep-2021	5 Yr Return Sep-2020	5 Yr Return Sep-2019	5 Yr Return Sep-2018	5 Yr Return Sep-2017	5 Yr Return Sep-2016	5 Yr Return Sep-2015	5 Yr Return Sep-2014	5 Yr Return Sep-2013
MSCI ACWI ex US NetDiv	-0.81	8.94	6.23	2.90	4.12	6.97	6.04	1.82	6.03	6.26
MSCI ACWI ex US	-0.34	9.45	6.74	3.39	4.60	7.45	6.52	2.27	6.50	6.74
International DB - Current	0.89	11.88	8.72							
International DB - 20% Aberdeen	1.46	12.21	8.84							
International DB - 20% Allspring	1.47	12.17	9.41							
International DB - 20% Axiom	1.52	12.62	9.51							
International DB - 20% Delaware	1.39	12.54	9.97							

Results in **Red** indicate underperformance relative to MSCI ACWI ex US NetDiv.

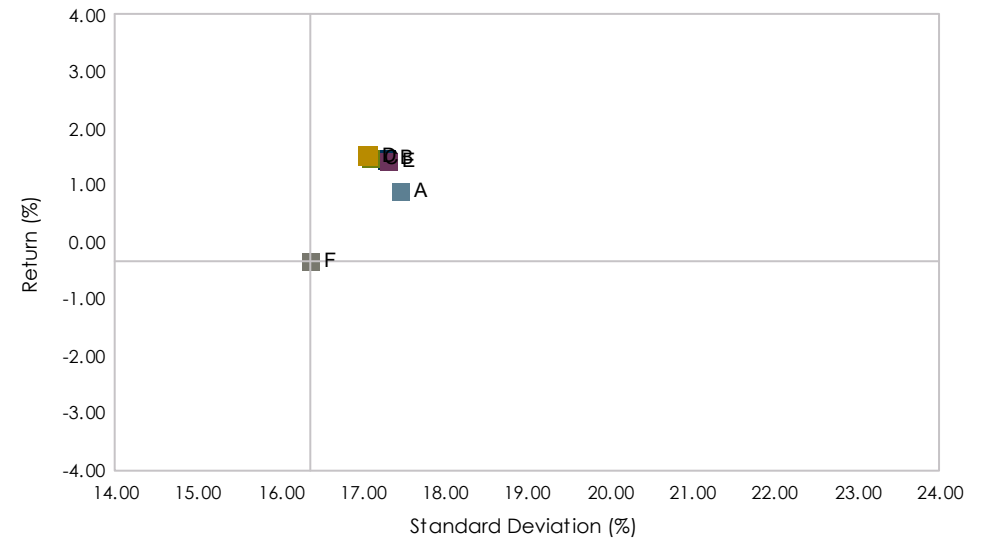
Statistics calculated using monthly net of fee return data.

For the Periods Ending September 30, 2022

### 3 Year Risk / Return



### 5 Year Risk / Return



Statistics calculated using monthly net of fee return data.

**Defined Contribution Plan: Emerging Markets Equity Search**



Manager Characteristics
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## Firm & Strategy Details

9/30/2022	Harding Loevner Emerging Markets	Aberdeen Global Emerging Markets	AllSpring (Berk. St.) Emerging Markets	Axiom Investors Emerging Markets	Macquarie Emerging Markets
<b>Ownership</b>	62% Affiliated Managers Group / 38% Employee-owned	100% owned subsidiary of Standard Life Aberdeen	GTCR/Reverence Capital, Employees	100% Employee-Owned	100% Macquarie Group (ASX: MQG)
<b>Team Location(s)</b>	Bridgewater, New Jersey	London, UK	Boston, MA	Greenwich, Connecticut	Boston, Massachusetts
<b>Firm AUM</b>	\$52.1B	\$469.2B	\$370.9B	\$14.8B	\$537.2B
<b>Strategy AUM</b>	\$7.2B	\$14.2B	\$8.2B	\$5.4B	\$6.2B
<b>Strategy Inception</b>	11/1/1998	1/1/1996	10/1/1997	8/1/2007	10/1/2005
<b>Investment Style</b>	GARP	Core	Core	Growth	Core
<b>Research Technique(s)</b>	Bottom-Up Fundamental	Bottom-Up Fundamental	Bottom-Up Fundamental	Bottom-Up Fundamental	Bottom-Up Fundamental
<b>Benchmark</b>	MSCI Emerging Markets	MSCI Emerging Markets NetDiv	MSCI Emerging Markets NetDiv	MSCI Emerging Markets NetDiv	MSCI Emerging Markets NetDiv
<b>Holdings Range</b>	50 - 80	50 - 70	90 - 120	70 - 85	115 - 130
<b>Annual Turnover Range</b>	20% - 30%	10% - 30%	10% - 30%	45% - 80%	15% - 30%
<b>Vehicle Type</b>	Commingled Fund	Commingled Fund	Commingled Fund	Commingled Fund	Commingled Fund
<b>Vehicle Minimum</b>	\$1,000,000	\$150,000,000	\$30,000,000	\$5,000,000	\$50,000,000
<b>Fee Schedule</b>	All assets at 99 bps	First \$50M at 90 bps, next \$50M at 85 bps, balance at 80 bps	First \$50M at 95 bps, next \$50M at 90 bps, balance at 80 bps	First \$25M at 100 bps, next \$75M at 90 bps, next \$25M at 80 bps, next \$50M at 70 bps, balance at 60 bps	First \$50M at 82 bps, balance at 60 bps
<b>Notes</b>		Negotiated minimum and 80 bps fee (includes operating expenses)	Negotiated minimum and 90 bps fee (includes operating expenses)	Negotiated 75 bps fee (includes operating expenses)	Negotiated minimum and 82 bps (includes operating expenses)

## Market Capitalization Allocations (%)

9/30/2022	MSCI Emerging Markets	Aberdeen Global Emerging Markets	AllSpring (Berk. St.) Emerging Markets	Axiom Investors Emerging Markets	Macquarie Emerging Markets
> \$50B	38.00	38.24	38.43	42.02	52.67
\$15B - \$50B	25.80	45.20	20.31	32.54	19.36
\$7.5B - \$15B	15.30	9.01	16.37	15.94	10.12
\$1.5B - \$7.5B	20.53	7.55	22.72	9.50	15.55
\$750M - \$1.5B	0.32	0.00	0.79	0.00	0.64
\$400 - \$750M	0.02	0.00	0.83	0.00	0.97
< \$400M	0.00	0.00	0.55	0.00	0.69
Weighted Average Market Cap	\$79.3B	\$84.4B	\$84.3B	\$99.5B	\$83.6B

Represents the 3 largest market capitalization allocations

## Sector Allocations (%)

9/30/2022	MSCI Emerging Markets	Aberdeen Global Emerging Markets	AllSpring (Berk. St.) Emerging Markets	Axiom Investors Emerging Markets	Macquarie Emerging Markets
Communication Services	9.69	6.25	15.63	8.62	12.67
Consumer Discretionary	13.96	12.23	17.54	14.43	12.83
Consumer Staples	6.60	8.76	20.81	6.27	15.18
Energy	5.29	2.06	5.31	5.33	11.47
Financials	22.60	27.19	15.84	24.34	6.25
Health Care	3.89	2.37	3.63	5.04	1.22
Industrials	5.79	6.34	1.37	10.26	1.03
Information Technology	18.27	21.30	15.43	20.18	31.52
Materials	8.74	8.86	2.25	3.16	6.65
Real Estate	2.02	1.16	2.18	0.00	0.17
Utilities	3.16	1.42	0.01	2.38	0.86

Represents the 3 largest sector allocations

## Regional Breakdown (%)

9/30/2022	MSCI Emerging Markets	Aberdeen Global Emerging Markets	AllSpring (Berk. St.) Emerging Markets	Axiom Investors Emerging Markets	Macquarie Emerging Markets
Latin America	8.98	14.00	20.00	14.74	15.64
Emerging Europe	1.45	0.00	0.44	0.00	1.09
Africa/Middle East	6.18	3.23	3.26	1.99	0.27
China	31.35	33.00	24.71	33.40	29.15
Emerging Asia Pacific ex-China	46.37	44.34	45.32	44.76	49.84
Frontier Markets	0.00	0.00	0.60	0.00	0.71
Developed Markets	0.00	5.43	5.67	4.68	3.23
Other	0.00	0.00	0.00	0.43	0.00

 Represents allocations of at least 10%

Manager Performance & Statistics
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	1 Yr Return Sep-2022	5 Yr Return Sep-2022	10 Yr Return Sep-2022	1 Yr Std Dev Sep-2022	5 Yr Std Dev Sep-2022	10 Yr Std Dev Sep-2022	1 Yr Sharpe Sep-2022	5 Yr Sharpe Sep-2022	10 Yr Sharpe Sep-2022	
MSCI Emerging Markets NetDiv	-28.11	-1.81	1.05	13.54	17.68	16.08	-2.12	-0.16	0.03	
MSCI Emerging Markets	-27.80	-1.44	1.42	13.53	17.69	16.08	-2.10	-0.14	0.05	
Harding Loevner Emerging Markets *	-35.78	-4.98		16.94	19.88		-2.15	-0.30		
Aberdeen Global Emerging Markets *	-34.45	-2.26	0.42	14.29	19.36	17.01	-2.45	-0.17	-0.01	
AllSpring (Berk. St.) Emerging Markets *	-31.08	-2.25	1.16	12.76	18.49	16.45	-2.48	-0.18	0.03	
Axiom Investors Emerging Markets *	-35.75	-1.94	2.02	13.46	18.31	16.41	-2.70	-0.16	0.09	
Macquarie Emerging Markets *	-32.62	-2.65	2.58	15.19	19.86	18.41	-2.19	-0.19	0.11	
	1 Yr Return Dec-2021	1 Yr Return Dec-2020	1 Yr Return Dec-2019	1 Yr Return Dec-2018	1 Yr Return Dec-2017	1 Yr Return Dec-2016	1 Yr Return Dec-2015	1 Yr Return Dec-2014	1 Yr Return Dec-2013	1 Yr Return Dec-2012
MSCI Emerging Markets NetDiv	-2.54	18.31	18.42	-14.57	37.28	11.19	-14.92	-2.19	-2.60	18.22
MSCI Emerging Markets	-2.22	18.69	18.88	-14.24	37.75	11.60	-14.60	-1.82	-2.27	18.63
Harding Loevner Emerging Markets *	-3.26	13.57	25.32	-18.61	35.05	13.38				
Aberdeen Global Emerging Markets *	-4.16	27.39	20.32	-14.34	28.75	12.05	-13.43	-1.32	-6.95	26.18
AllSpring (Berk. St.) Emerging Markets *	-11.71	23.25	28.10	-15.60	35.48	12.21	-12.46	-4.67	-1.73	12.99
Axiom Investors Emerging Markets *	-4.16	29.99	24.79	-16.59	41.22	8.20	-12.19	-1.26	3.26	21.74
Macquarie Emerging Markets *	-1.84	25.24	24.06	-15.96	42.17	14.98	-14.57	-7.56	10.65	15.09

Results in Red indicate underperformance relative to MSCI Emerging Markets NetDiv.

Statistics calculated using monthly return data.

\* Statistics calculated using net of fee return data.

	3 Yr Return Sep-2022	3 Yr Return Sep-2021	3 Yr Return Sep-2020	3 Yr Return Sep-2019	3 Yr Return Sep-2018	3 Yr Return Sep-2017	3 Yr Return Sep-2016	3 Yr Return Sep-2015	3 Yr Return Sep-2014	3 Yr Return Sep-2013
MSCI Emerging Markets NetDiv	-2.07	8.58	2.42	5.97	12.36	4.90	-0.56	-5.27	7.19	-0.33
MSCI Emerging Markets	-1.71	8.96	2.79	6.37	12.77	5.28	-0.21	-4.93	7.56	0.00
Harding Loevner Emerging Markets *	-6.86	8.08	-0.08	5.32	11.82					
Aberdeen Global Emerging Markets *	-3.19	13.57	2.59	4.63	8.88	4.31	0.08	-5.61	8.59	3.61
AllSpring (Berk. St.) Emerging Markets *	-3.64	10.92	4.34	6.63	12.81	6.50	0.23	-5.98	5.12	1.16
Axiom Investors Emerging Markets *	-3.00	13.03	6.41	6.98	12.52	7.14	1.80	-2.62	10.13	2.75
Macquarie Emerging Markets *	-2.33	11.18	4.45	7.18	17.11	6.87	-0.67	-4.62	11.43	2.81
	5 Yr Return Sep-2022	5 Yr Return Sep-2021	5 Yr Return Sep-2020	5 Yr Return Sep-2019	5 Yr Return Sep-2018	5 Yr Return Sep-2017	5 Yr Return Sep-2016	5 Yr Return Sep-2015	5 Yr Return Sep-2014	5 Yr Return Sep-2013
MSCI Emerging Markets NetDiv	-1.81	9.23	8.97	2.33	3.61	3.99	3.03	-3.58	4.42	7.22
MSCI Emerging Markets	-1.44	9.62	9.37	2.71	3.99	4.36	3.39	-3.25	4.76	7.56
Harding Loevner Emerging Markets *	-4.98	8.01	7.85							
Aberdeen Global Emerging Markets *	-2.26	9.66	8.45	2.22	1.64	3.16	4.52	-1.33	8.30	12.97
AllSpring (Berk. St.) Emerging Markets *	-2.25	9.49	11.43	3.80	3.03	4.68	2.92	-3.48	5.04	8.99
Axiom Investors Emerging Markets *	-1.94	11.71	11.93	4.08	4.90	6.13	5.91	-0.66	7.49	11.24
Macquarie Emerging Markets *	-2.65	11.23	14.15	2.75	3.96	8.10	5.17	-3.86	6.23	9.05

Results in **Red** indicate underperformance relative to MSCI Emerging Markets NetDiv.

Statistics calculated using monthly return data.

\* Statistics calculated using net of fee return data.



	5 Yr Up Cap Sep-2022	5 Yr Down Cap Sep-2022	10 Yr Up Cap Sep-2022	10 Yr Down Cap Sep-2022	5 Yr Trac Error Sep-2022	10 Yr Trac Error Sep-2022	5 Yr Info Ratio Sep-2022	10 Yr Info Ratio Sep-2022	5 Yr Bat Avg Sep-2022	10 Yr Bat Avg Sep-2022
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MSCI Emerging Markets NetDiv

MSCI Emerging Markets

Harding Loevner Emerging Markets *	102.74	111.38			6.12		-0.52		53.33	
Aberdeen Global Emerging Markets *	111.37	107.64	103.96	104.94	4.66	4.73	-0.10	-0.13	53.33	51.67
AllSpring (Berk. St.) Emerging Markets *	101.72	102.37	100.63	100.02	4.26	3.69	-0.10	0.03	48.33	49.17
Axiom Investors Emerging Markets *	107.08	104.38	104.34	99.37	4.12	3.57	-0.03	0.27	58.33	62.50
Macquarie Emerging Markets *	106.60	106.31	115.20	104.37	5.27	5.20	-0.16	0.30	46.67	53.33

	10 Yr Return Sep-2022	10 Yr Return Sep-2021	10 Yr Return Sep-2020	10 Yr Return Sep-2019	10 Yr Return Sep-2018	10 Yr Return Sep-2017	10 Yr Return Sep-2016	10 Yr Return Sep-2015	10 Yr Return Sep-2014	10 Yr Return Sep-2013
MSCI Emerging Markets NetDiv	1.05	6.09	2.50	3.37	5.40	1.32	3.94	4.27	10.68	12.80
MSCI Emerging Markets	1.42	6.46	2.87	3.73	5.76	1.65	4.28	4.60	11.03	13.16

Harding Loevner Emerging Markets \*

Aberdeen Global Emerging Markets *	0.42	7.06	3.44	5.22	7.16	5.30	8.03	8.17	15.15	17.98
AllSpring (Berk. St.) Emerging Markets *	1.16	6.15	3.71	4.42	5.97	3.06	5.73	6.30	12.72	14.94
Axiom Investors Emerging Markets *	2.02	8.77	5.44	5.77	8.03	4.25				
Macquarie Emerging Markets *	2.58	8.16	4.76	4.47	6.48	3.40	5.81	5.33		

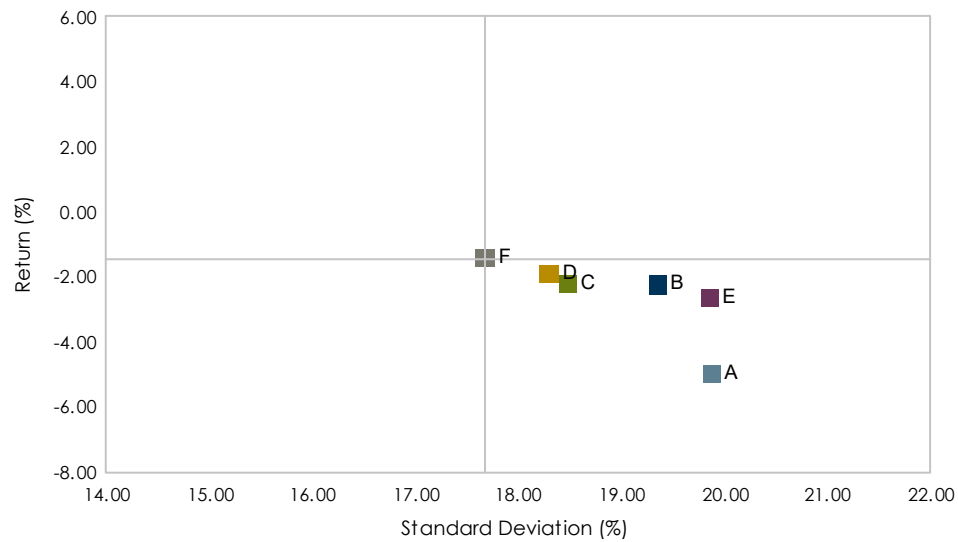
Results in Red indicate underperformance relative to MSCI Emerging Markets NetDiv.

Statistics calculated using monthly return data.

\* Statistics calculated using net of fee return data.

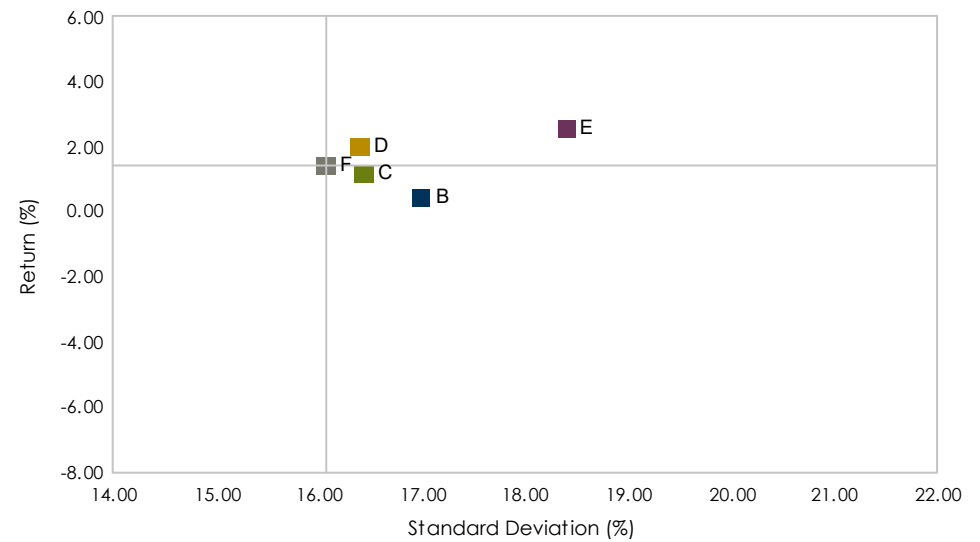
For the Periods Ending September 30, 2022

#### 5 Year Risk / Return



	Return %	Standard Deviation %	Sharpe Ratio
A Harding Loevner Emerging Markets *	-4.98	19.88	-0.30
B Aberdeen Global Emerging Markets *	-2.26	19.36	-0.17
C AllSpring (Berk. St.) Emerging Markets *	-2.25	18.49	-0.18
D Axiom Investors Emerging Markets *	-1.94	18.31	-0.16
E Macquarie Emerging Markets *	-2.65	19.86	-0.19
F MSCI Emerging Markets	-1.44	17.69	-0.14

#### 10 Year Risk / Return



	Return %	Standard Deviation %	Sharpe Ratio
A Harding Loevner Emerging Markets *	0.42	17.01	-0.01
B Aberdeen Global Emerging Markets *	0.42	17.01	-0.01
C AllSpring (Berk. St.) Emerging Markets *	1.16	16.45	0.03
D Axiom Investors Emerging Markets *	2.02	16.41	0.09
E Macquarie Emerging Markets *	2.58	18.41	0.11
F MSCI Emerging Markets	1.42	16.08	0.05

Statistics calculated using monthly return data.

\* Statistics calculated using net of fee return data.

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Portfolio Combinations
------------------------

	1 Yr Return Sep-2022	5 Yr Return Sep-2022	7 Yr Return Sep-2022	1 Yr Std Dev Sep-2022	5 Yr Std Dev Sep-2022	7 Yr Std Dev Sep-2022	1 Yr Sharpe Sep-2022	5 Yr Sharpe Sep-2022	7 Yr Sharpe Sep-2022	
MSCI ACWI ex US NetDiv	-25.17	-0.81	3.29	15.97	16.40	15.18	-1.61	-0.11	0.16	
MSCI ACWI ex US	-24.79	-0.34	3.78	15.97	16.38	15.18	-1.59	-0.09	0.19	
International DC - Current	-26.66	-0.83		15.99	17.30		-1.71	-0.11		
International DC - 25% Aberdeen	-26.31	-0.12		15.57	17.07		-1.73	-0.07		
International DC - 25% Allspring	-25.36	-0.12		14.96	16.84		-1.74	-0.07		
International DC - 25% Axiom	-26.67	-0.04		15.32	16.75		-1.78	-0.07		
International DC - 25% Delaware	-25.80	-0.20		15.65	17.11		-1.69	-0.07		
	1 Yr Return Dec-2021	1 Yr Return Dec-2020	1 Yr Return Dec-2019	1 Yr Return Dec-2018	1 Yr Return Dec-2017	1 Yr Return Dec-2016	1 Yr Return Dec-2015	1 Yr Return Dec-2014	1 Yr Return Dec-2013	1 Yr Return Dec-2012
MSCI ACWI ex US NetDiv	7.82	10.65	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83
MSCI ACWI ex US	8.29	11.13	22.13	-13.77	27.77	5.01	-5.25	-3.44	15.78	17.39
International DC - Current	7.42	13.53	24.23	-15.44	29.16					
International DC - 25% Aberdeen	7.21	16.88	22.96	-14.34	27.65					
International DC - 25% Allspring	5.12	15.87	24.89	-14.69	29.27					
International DC - 25% Axiom	7.23	17.50	24.08	-14.93	30.63					
International DC - 25% Delaware	7.92	16.41	23.91	-14.77	30.87					

Results in **Red** indicate underperformance relative to MSCI ACWI ex US NetDiv.

Statistics calculated using monthly net of fee return data.

	3 Yr Return Sep-2022	3 Yr Return Sep-2021	3 Yr Return Sep-2020	3 Yr Return Sep-2019	3 Yr Return Sep-2018	3 Yr Return Sep-2017	3 Yr Return Sep-2016	3 Yr Return Sep-2015	3 Yr Return Sep-2014	3 Yr Return Sep-2013
MSCI ACWI ex US NetDiv	-1.52	8.03	1.16	6.33	9.97	4.70	0.18	2.34	11.79	5.95
MSCI ACWI ex US	-1.07	8.52	1.65	6.85	10.49	5.19	0.64	2.78	12.29	6.43

International DC - Current

-1.26 9.21 1.43 6.23

International DC - 25% Aberdeen

-0.30 10.60 2.12 6.08

International DC - 25% Allspring

-0.40 9.94 2.52 6.56

International DC - 25% Axiom

-0.23 10.47 3.03 6.65

International DC - 25% Delaware

-0.05 10.04 2.58 6.71

	5 Yr Return Sep-2022	5 Yr Return Sep-2021	5 Yr Return Sep-2020	5 Yr Return Sep-2019	5 Yr Return Sep-2018	5 Yr Return Sep-2017	5 Yr Return Sep-2016	5 Yr Return Sep-2015	5 Yr Return Sep-2014	5 Yr Return Sep-2013
MSCI ACWI ex US NetDiv	-0.81	8.94	6.23	2.90	4.12	6.97	6.04	1.82	6.03	6.26
MSCI ACWI ex US	-0.34	9.45	6.74	3.39	4.60	7.45	6.52	2.27	6.50	6.74

International DC - Current

-0.83 9.49

International DC - 25% Aberdeen

-0.12 9.93

International DC - 25% Allspring

-0.12 9.88

International DC - 25% Axiom

-0.04 10.44

International DC - 25% Delaware

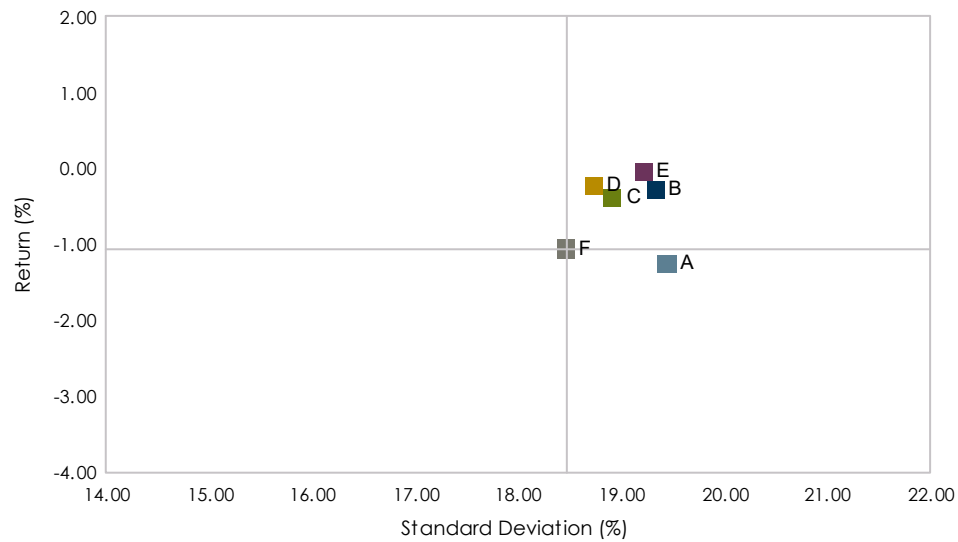
-0.20 10.34

Results in Red indicate underperformance relative to MSCI ACWI ex US NetDiv.

Statistics calculated using monthly net of fee return data.

For the Periods Ending September 30, 2022

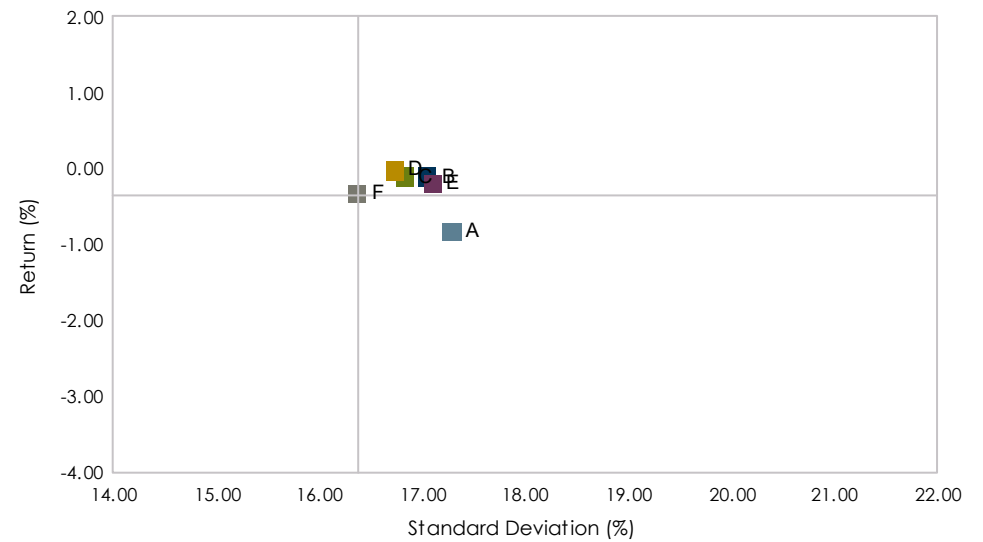
### 3 Year Risk / Return



- A International DC - Current
- B International DC - 25% Aberdeen
- C International DC - 25% Allspring
- D International DC - 25% Axiom
- E International DC - 25% Delaware
- F MSCI ACWI ex US

Return %	Standard Deviation %	Sharpe Ratio
-1.26	19.45	-0.09
-0.30	19.34	-0.04
-0.40	18.92	-0.05
-0.23	18.74	-0.04
-0.05	19.22	-0.03
-1.07	18.47	-0.09

### 5 Year Risk / Return



- A International DC - Current
- B International DC - 25% Aberdeen
- C International DC - 25% Allspring
- D International DC - 25% Axiom
- E International DC - 25% Delaware
- F MSCI ACWI ex US

Return %	Standard Deviation %	Sharpe Ratio
-0.83	17.30	-0.11
-0.12	17.07	-0.07
-0.12	16.84	-0.07
-0.04	16.75	-0.07
-0.20	17.11	-0.07
-0.34	16.38	-0.09

Statistics calculated using monthly net of fee return data.

## **Appendix – Manager Abstracts**

## Global Emerging Markets

For the Period Ending September 30, 2022

### Firm Details

Aberdeen Asset Management has been providing investment management services since 1983 and was listed on the London Stock Exchange in 1991. Aberdeen manages assets across various domestic and international fixed income and equity strategies. The organization is headquartered in Aberdeen (Scotland) with the U.S. operations headquartered in Philadelphia. There are additional investment offices located in London, Paris, New York, Toronto, Singapore, Sydney, Bangkok, Kuala Lumpur, Sao Paulo, Budapest, and Edinburgh. Aberdeen Asset Management is now a wholly owned subsidiary of Standard Life Aberdeen. Standard Life Aberdeen plc was created in August 2017 following the merger of Aberdeen Asset Management plc and Standard Life plc. Aberdeen Standard Investments is the brand name of the asset management division of Standard Life Aberdeen plc.

### Organization

Address	Standard Life House, 30 Lothian Road Edinburgh, United Kingdom EH1 2DH
Firm Inception	1983
Team Location(s)	London, UK
Firm Assets	\$469,200 (Millions)
Ownership Structure	100% owned subsidiary of Standard Life Aberdeen

### Investment Strategy

Aberdeen believes that superior long-term returns are achieved in the inefficient emerging markets by buying good quality companies at a reasonable price and holding them to capitalize on strong fundamentals that drive stock prices. Bottom-up stock selection using a disciplined approach and direct company visits are the primary source of alpha for the strategy with top-down factors incorporated during portfolio construction to provide appropriate diversification. The process starts by screening the theoretical universe of all EM stocks for those that pass a primary "quality" screen and a secondary "price" screen. The EM investment team looks to identify good quality companies selling at reasonable prices from a "buy list" created by regional equity teams. The buy list of approximately 200 stocks has passed both the quality and price screen/filter. The quality screen identifies companies with a core franchise, sustainable earnings growth, quality management, a strong balance sheet, and interests aligned with shareholders. Companies passing the quality screen are then screened on price to determine fair valuation and downside risk potential. Company visits are an integral part of the process. All stocks are ranked from one (best) to five (worst) with a minimum score of three necessary for inclusion in the portfolio. Research reports are circulated and discussed at bi-weekly investment meetings with team decision-making. The portfolio typically consists of 50-70 stocks.

### Strategy Information

Benchmark	MSCI Emerging Markets - Net
Strategy Assets	\$14,175 (Millions)
Strategy Inception	01/01/1996
Holdings Range	50 - 70
Turnover Range	10% - 30%
Research Technique / Investment Style	Bottom-Up Fundamental / Core
Vehicles / Minimums	SMA: \$100M; CF: \$10M; CIT (CL A): \$10M; MF (ABEMX): \$1M.
Fees/Expense Ratios	SMA and CF: 90 bps on first \$50M, 85 bps on next \$50M, 80 bps on balance; CIT (CL A) 85 bps; MF (ABEMX): 110 bps.

### Key Personnel Responsible for Strategy

Name	Title	Start
Devan Kaloo	Head of Equities	2000
Joanne Irvine	Deputy Head of GEM	1996
Hugh Young	Managing Director - Asia	1985
Flavia Cheong	Head of Equities - Asia Pacific	1996

### Key Personnel Departures

Name	Title	Start	End
Orsen Karnburisudthi	Head of Equities - Thailand	2006	Jan 2022
Peter Taylor	Head of Brazilian Equities	2007	Dec 2020
Adithip Vanabriksha	Chief Investment Officer - Thailand	2002	Dec 2019



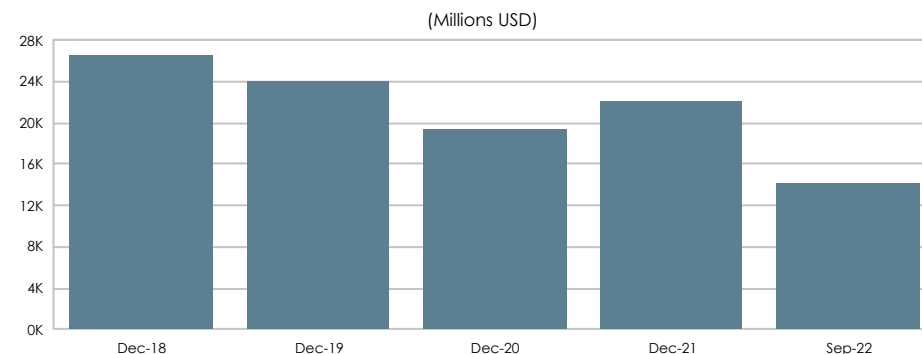
## Global Emerging Markets

For the Period Ending September 30, 2022

## Recent Meetings

ACG Attendee	Manager Attendee	Location	Date
C. Coleman	D. Kaloo, E. Kaicher	Video Conference	11/03/2022
C. Lowry, C. Coleman	D. Kaloo, E. Kaicher	Video Conference	07/15/2022
C. Coleman	S. Conlon, E. Kaicher	Video Conference	04/13/2022
R. Willis	S. Conlon, R. Hultman, E. Kaicher	Video Conference	01/27/2022

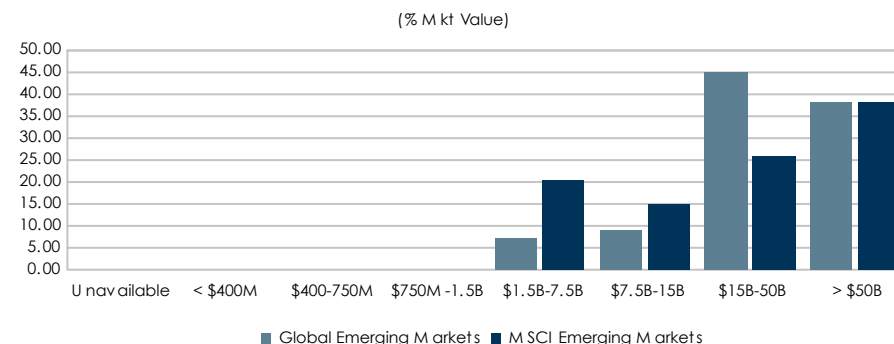
## Strategy Assets



## Investment Thesis

Aberdeen has been managing international and emerging market equities for many years with a great deal of success. The firm has extensive resources and research capabilities with over 250 portfolio managers and analysts across the globe, including a large team dedicated to emerging markets. Regional investment teams (and analysts) provide their best ideas using on-the-ground research and management visits from their area to the emerging markets team who is responsible for constructing the highest quality portfolio. This is a large asset manager that is a leader in international and emerging market research with a very experienced and talented investment team. This strategy is defensive and has benefited during difficult market environments because of its process which is focused on buying high quality companies at the right price. The strategy has grown quite large, but it is a moderately diversified, low turnover strategy with most holdings being mid to large cap names, so capacity and liquidity are less of an issue.

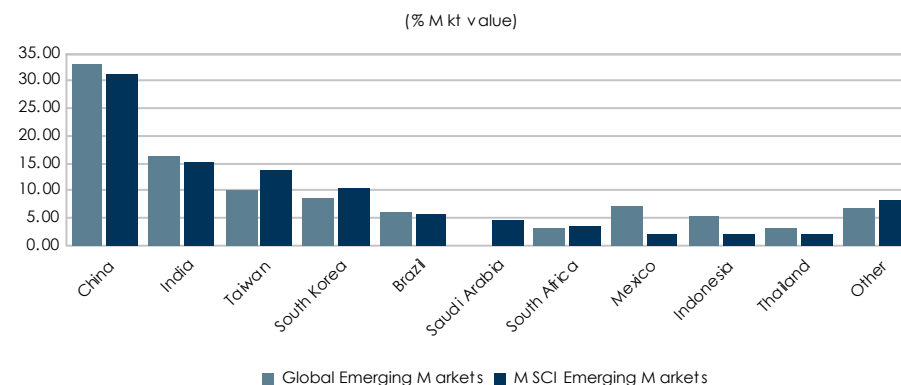
## Market Cap



## Commentary

Aberdeen's Global Emerging Market strategy outperformed the MSCI Emerging Markets Index by 63 bps in the quarter (-10.79% vs. -11.67%). During the quarter, an overweight position and strong stock selection in Brazil added approximately 50 bps. Positioning in Brazil was the largest drag on relative performance during 2Q; however this positioning turned to a positive during 3Q and Aberdeen continues to view Brazil as one of the few relative safe havens in emerging markets. In addition to country positioning, stock selection in financials was the leading contributor from a sector positioning standpoint. Stock selection in financials contributed approximately 120 bps to relative performance during the quarter and six of the top ten individual contributors came from banks in China, Brazil and India. From a positioning perspective, Aberdeen views financials as proxies for economic growth in developing countries, particularly in their respective domestic markets. Conversely, the strategy has maintained its underweight to communication services with concerns of increasing regulations, competition, and new technology.

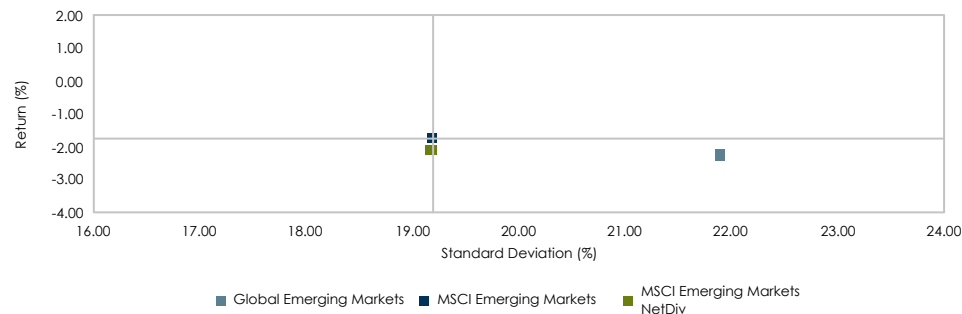
## Country Allocation



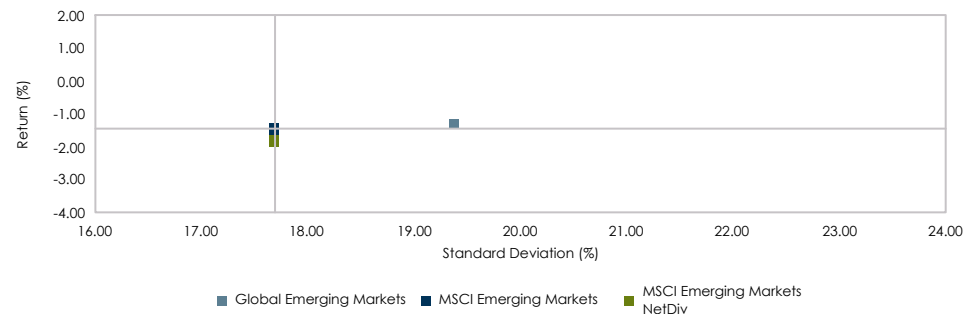
## Global Emerging Markets

For the Periods Ending September 30, 2022

### 3 Year Risk/Return



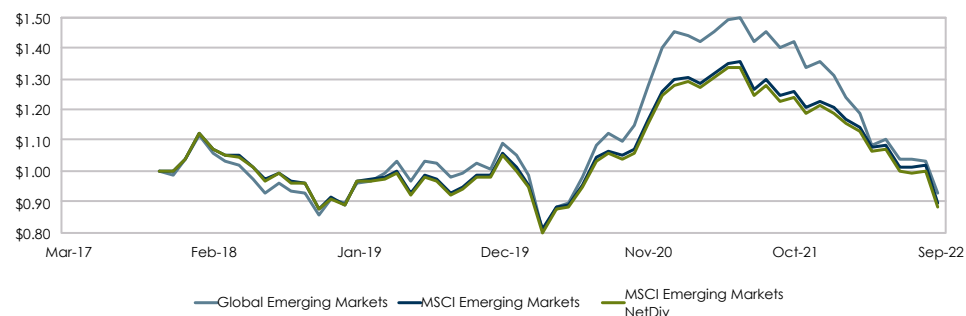
### 5 Year Risk/Return



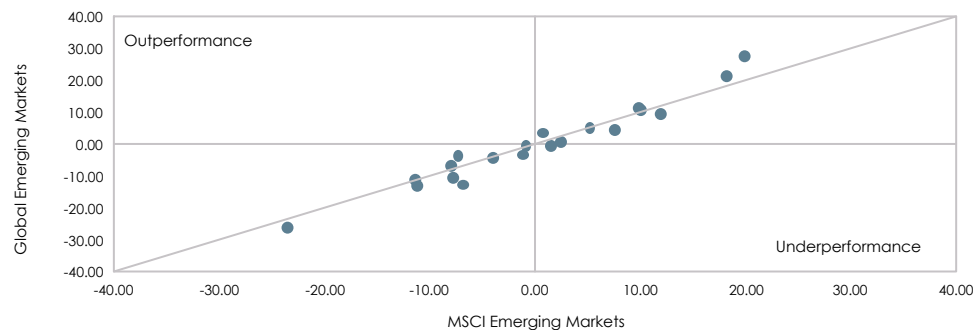
### eA Global Emerging Mkts Equity

	Global Emerging Markets	MSCI Emerging Markets	MSCI Emerging Markets NetDiv
1 Year Return	-33.79	-27.80	-28.11
Rank	88	53	56
3 Year Return	-2.22	-1.71	-2.07
Rank	69	62	66
5 Year Return	-1.28	-1.44	-1.81
Rank	58	61	71

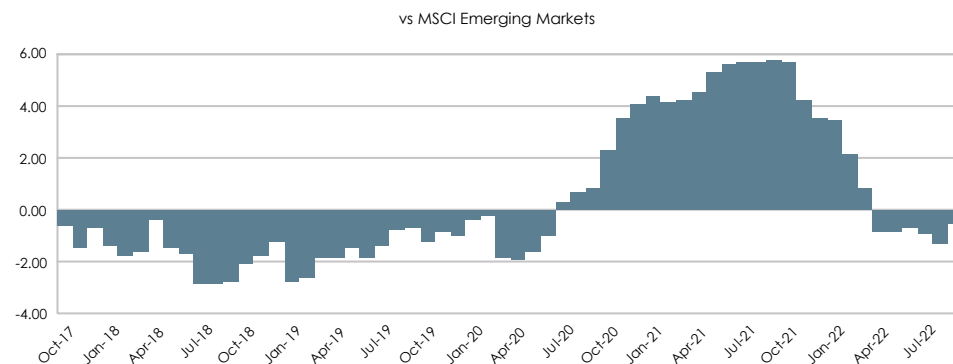
### Growth of a Dollar Since Oct 2017



### Quarterly Performance Last 20 Quarters



### 3 Year Excess Rolling Returns Since Oct 2017



## Global Emerging Markets

For the Periods Ending September 30, 2022

Monthly Returns (%)	Sep 22	Aug 22	Jul 22	Jun 22	May 22	Apr 22	Mar 22	Feb 22	Jan 22	Dec 21	Nov 21	Oct 21
<b>Aberdeen Global Emerging Markets</b>	<b>-10.17</b>	<b>-0.63</b>	<b>-0.06</b>	<b>-5.99</b>	<b>1.81</b>	<b>-8.76</b>	<b>-3.86</b>	<b>-5.76</b>	<b>-3.27</b>	<b>1.39</b>	<b>-5.90</b>	<b>1.65</b>
<i>MSCI Emerging Markets</i>	-11.67	0.45	-0.16	-6.56	0.47	-5.55	-2.22	-2.98	-1.89	1.92	-4.07	1.00
<i>MSCI Emerging Markets NetDiv</i>	-11.72	0.42	-0.25	-6.64	0.44	-5.56	-2.26	-2.99	-1.89	1.88	-4.08	0.99

Calendar Year Returns (%)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	Performance Stats (120 Months)				
											Pos.	Neg.	Best	Worst	Med.
<b>Aberdeen Global Emerging Markets</b>	<b>-3.20</b>	<b>28.66</b>	<b>21.52</b>	<b>-13.47</b>	<b>30.05</b>	<b>13.18</b>	<b>-12.55</b>	<b>-0.32</b>	<b>-6.01</b>	<b>27.47</b>	<b>67</b>	<b>53</b>	<b>13.33</b>	<b>-18.17</b>	<b>0.82</b>
<i>MSCI Emerging Markets</i>	-2.22	18.69	18.88	-14.24	37.75	11.60	-14.60	-1.82	-2.27	18.63	67	53	13.26	-15.38	0.46
<i>MSCI Emerging Markets NetDiv</i>	-2.54	18.31	18.42	-14.57	37.28	11.19	-14.92	-2.19	-2.60	18.22	67	53	13.23	-15.40	0.43

	Return	Standard	Sharpe		R2	Alpha	Tracking	Batting	Up	Down
Statistics	(%)	Deviation	Ratio	Beta	(%)	(%)	Error	Average	Capture	Capture
		(%)					(%)	(%)	(%)	(%)
1 Year										
Aberdeen Global Emerging Markets	-33.79	14.31	-2.41							
MSCI Emerging Markets	-27.80	13.53	-2.10	0.98	85.88	-8.58	5.38	41.67	109.37	119.64
MSCI Emerging Markets NetDiv	-28.11	13.54	-2.12	0.98	85.64	-8.27	5.43	41.67	113.12	118.80
3 Years										
Aberdeen Global Emerging Markets	-2.22	21.89	-0.12							
MSCI Emerging Markets	-1.71	19.19	-0.12	1.12	95.68	0.02	5.06	55.56	118.36	110.92
MSCI Emerging Markets NetDiv	-2.07	19.18	-0.13	1.12	95.62	0.42	5.09	55.56	119.56	110.39
5 Years										
Aberdeen Global Emerging Markets	-1.28	19.37	-0.12							
MSCI Emerging Markets	-1.44	17.69	-0.14	1.07	94.63	0.47	4.64	53.33	113.27	106.88
MSCI Emerging Markets NetDiv	-1.81	17.68	-0.16	1.07	94.55	0.87	4.67	53.33	114.39	106.25

## Intrinsic Emerging Markets

*For the Period Ending September 30, 2022*

### Firm Details

Wells Fargo Asset Management was rebranded to Allspring Global Investments in November 2021 after the acquisition by GTCR LLC and Reverence Capital Partners, two private equity firms. Allspring employees now hold a passive equity interest in the firm and is no longer a publicly traded shop. Allspring (fka Wells Fargo Asset Management) is a multi-boutique asset manager with 18 offices globally and over 480 investment professionals across the globe. Allspring will now utilize its headquarters in Charlotte, North Carolina. As a result of this transaction, Allspring Global Investments now operates formally as an independent global asset manager. Allspring believes this rebranding/reorganization into an independent asset management firm will allow for increased investment into the firm's technology platform, wealth distribution network and global footprint.

### Organization

Address	525 Market Street, 12th Floor San Francisco, California 94105
Firm Inception	1981
Team Location(s)	Boston, MA
Firm Assets	\$370,931 (Millions)
Ownership Structure	GTCR/Reverence Capital, Employees

### Investment Strategy

The Berkeley Street EM strategy is a fundamentally driven core investment strategy that seeks to benefit from the pricing inefficiencies that exist in EM equity markets. It seeks to deliver an attractive risk/return profile by investing in quality companies at prices below their intrinsic value. Quality characteristics that the team focuses on include: strong competitive position, demonstrable financial strength and profitability, quality management dedicated to shareholders' interest, and favorable growth prospects. The team places an equal emphasis on understanding each company's intrinsic value and will only invest when a company trades at a meaningful discount to this value. The process begins with a quantitative screen that identifies a pool of potential investments that have demonstrated the team's quality emphasis over time. From here, analysts begin a fundamental review process that has three primary phases: 1. Fundamental appraisal (focus on a company's competitive position and growth prospects); 2. Intrinsic value analysis (DCF-based, establishes a price which the team believes the company to be truly worth); 3. Thesis and expectation (seeking companies with secular and structural drivers for underestimated growth potential as well as companies which are either experiencing temporary setbacks or are neglected by investors, for anticipated recovery). With heavy team input, PM Jerry Zhang makes all final purchase decisions for a portfolio of 90-120 holdings.

### Strategy Information

Benchmark	MSCI Emerging Markets - Net
Strategy Assets	\$8,152 (Millions)
Strategy Inception	10/01/1997
Holdings Range	90 - 120
Turnover Range	10% - 30%
Research Technique / Investment Style	Bottom-Up Fundamental / Core
Vehicles / Minimums	SMA: \$25M; CF: \$5M; CIT: \$5M; MF (EMGD/EMGNX): \$0/\$1M.
Fees/Expense Ratios	SMA: 95 bps on first \$50M, 90 bps on next \$50M, 80 bps on balance; CF: 95 bps on first \$50M, 90 bps on next \$50M, 80 bps on balance; CIT (CL E) 95 bps on all assets over \$5M; MF (EMGD/EMGNX): 112 bps/118 bps.

### Key Personnel Responsible for Strategy

Name	Title	Start
Jerry Zhang	Senior Portfolio Manager	2004
Derrick Irwin	Portfolio Manager	2005
Richard Peck	Portfolio Manager	2010
Prashant Paroda	Portfolio Manager	2012

### Key Personnel Departures

Name	Title	Start	End
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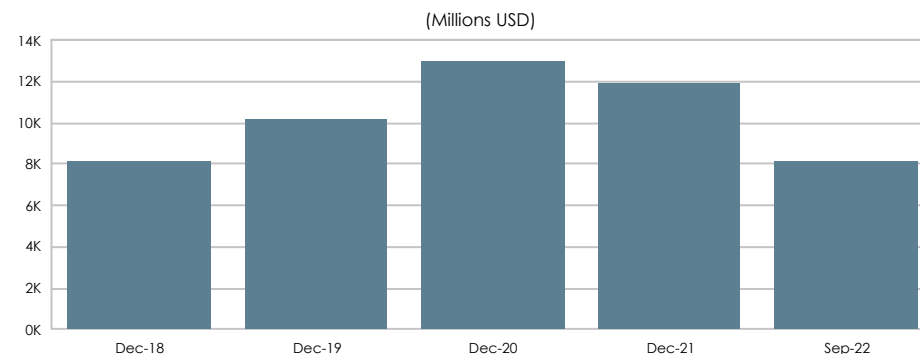
## Intrinsic Emerging Markets

For the Period Ending September 30, 2022

### Recent Meetings

ACG Attendee	Manager Attendee	Location	Date
C. Coleman	D. Irwin, M. Malone	Video Conference	10/19/2022
C. Coleman	D. Irwin, R. Hrabchak	Video Conference	04/22/2022
W. Rorie, T. Side	M. Malone, J. Sullivan, J. Rosenthal	Conference Call	08/06/2021
W. Rorie	D. Irwin, M. Malone, R. Hrabchak, A. Witte	Conference Call	08/03/2021

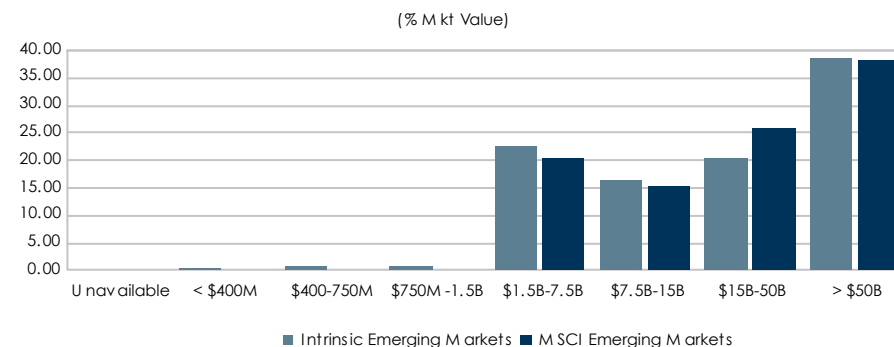
### Strategy Assets



### Investment Thesis

This strategy is managed by Jerry Zhang, who has been the lead PM since 2006. Jerry has been a part of the team since 2004, and was named senior portfolio manager when Liu-Er Chen left Wells to manage Delaware's EM strategy in 2006. Under the leadership of Jerry, the Berkeley Street emerging markets strategy is deep with talent and all members of the team are 100% dedicated to emerging markets. This fund follows a core approach to investing that seeks to identify and exploit pricing inefficiencies in high quality companies. Over time, given its high quality focus, this strategy tends to protect more on the downside than it will participate during an up-market. Overall, this is a solid emerging markets option that has exhibited strong performance under its very experienced and dedicated leadership.

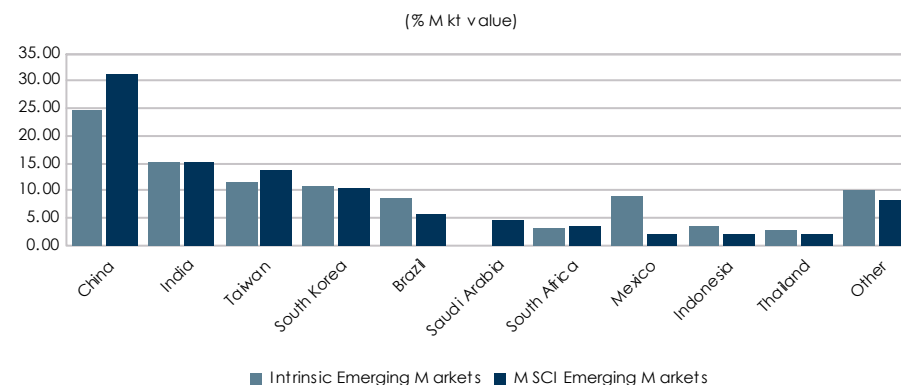
### Market Cap



### Commentary

The Allspring Intrinsic Emerging Markets Strategy outperformed the MSCI EM Index by 193 bps in the quarter (-9.49% vs.-11.42%). Leading country contributors included Brazil, China, and Mexico due to stock selection in Brazil and China, relative overweight to the outperforming Brazil and Mexico markets and a relative under weight to the underperforming China Market. The largest sector contributors included consumer discretionary and health care. Allspring continues to be cautious in this environment and believes the strength of the US dollar is likely to continue be a headwind for emerging and international markets. However, almost half of the emerging market countries began tightening rates before the US potentially getting ahead of rising inflationary pressures. The strategy continues to like Brazil against this economic backdrop.

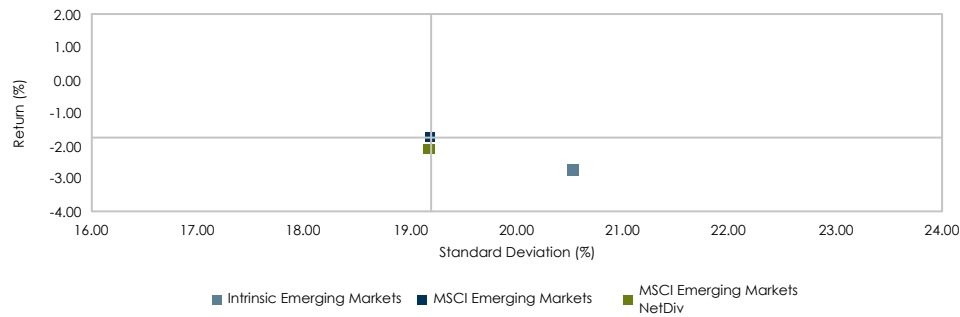
### Country Allocation



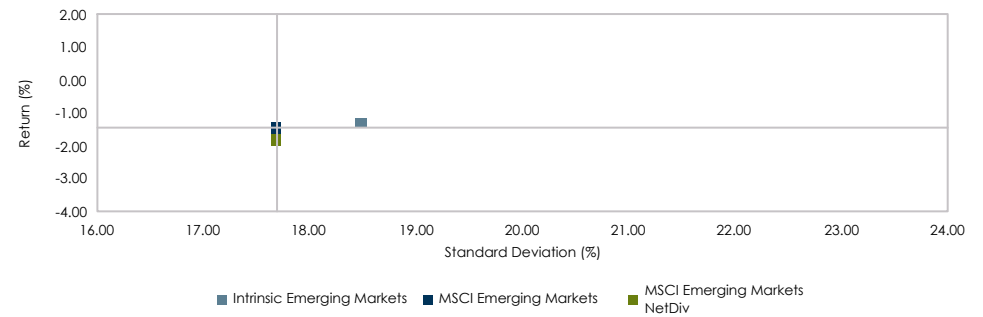
## Intrinsic Emerging Markets

For the Periods Ending September 30, 2022

### 3 Year Risk/Return



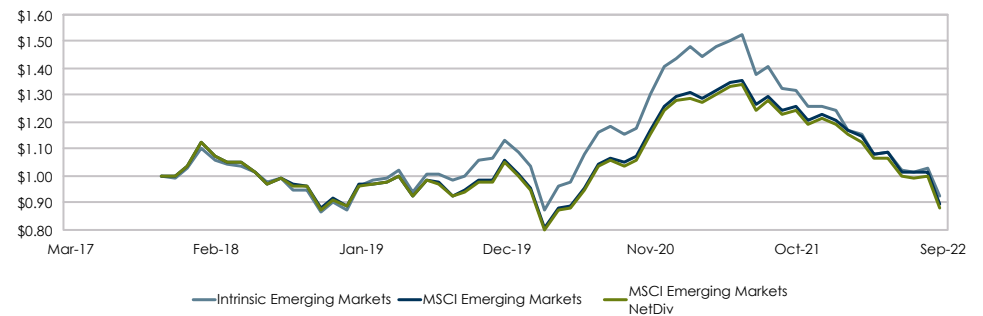
### 5 Year Risk/Return



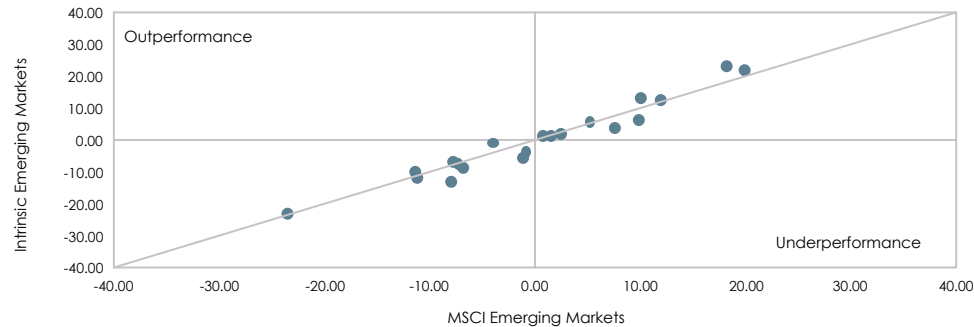
### eA Global Emerging Mkts Equity

	Intrinsic Emerging Markets	MSCI Emerging Markets	MSCI Emerging Markets NetDiv
1 Year Return	-30.40	-27.80	-28.11
Rank	72	53	56
3 Year Return	-2.71	-1.71	-2.07
Rank	75	62	66
5 Year Return	-1.29	-1.44	-1.81
Rank	58	61	71

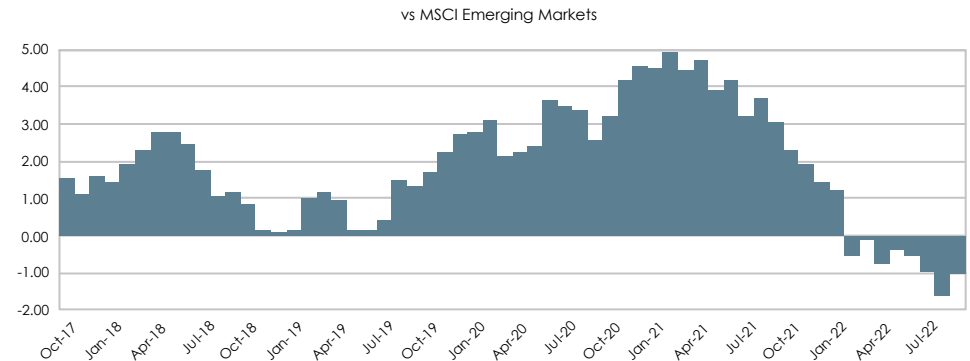
### Growth of a Dollar Since Oct 2017



### Quarterly Performance Last 20 Quarters



### 3 Year Excess Rolling Returns Since Oct 2017



## Intrinsic Emerging Markets

For the Periods Ending September 30, 2022

Monthly Returns (%)	Sep 22	Aug 22	Jul 22	Jun 22	May 22	Apr 22	Mar 22	Feb 22	Jan 22	Dec 21	Nov 21	Oct 21
AllSpring (Berk. St.) Emerging Markets	-10.17	1.32	-0.55	-6.52	0.93	-6.37	-1.20	-5.91	-1.10	0.04	-4.85	-0.53
MSCI Emerging Markets	-11.67	0.45	-0.16	-6.56	0.47	-5.55	-2.22	-2.98	-1.89	1.92	-4.07	1.00
MSCI Emerging Markets NetDiv	-11.72	0.42	-0.25	-6.64	0.44	-5.56	-2.26	-2.99	-1.89	1.88	-4.08	0.99

Calendar Year Returns (%)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	Performance Stats (120 Months)				
											Pos.	Neg.	Best	Worst	Med.
AllSpring (Berk. St.) Emerging Markets	-10.86	24.42	29.36	-14.74	36.81	13.32	-11.51	-3.61	-0.64	14.23	66	54	12.52	-15.80	0.72
MSCI Emerging Markets	-2.22	18.69	18.88	-14.24	37.75	11.60	-14.60	-1.82	-2.27	18.63	67	53	13.26	-15.38	0.46
MSCI Emerging Markets NetDiv	-2.54	18.31	18.42	-14.57	37.28	11.19	-14.92	-2.19	-2.60	18.22	67	53	13.23	-15.40	0.43

Statistics	Return (%)	Standard Deviation (%)	Sharpe Ratio	Beta	R2 (%)	Alpha (%)	Tracking Error (%)	Batting Average (%)	Up Capture (%)	Down Capture (%)
1 Year										
AllSpring (Berk. St.) Emerging Markets	-30.40	12.76	-2.43							
MSCI Emerging Markets	-27.80	13.53	-2.10	0.89	88.25	-6.99	4.64	50.00	45.13	103.58
MSCI Emerging Markets NetDiv	-28.11	13.54	-2.12	0.88	88.16	-6.68	4.66	50.00	46.68	102.86
3 Years										
AllSpring (Berk. St.) Emerging Markets	-2.71	20.54	-0.16							
MSCI Emerging Markets	-1.71	19.19	-0.12	1.04	95.19	-0.77	4.58	50.00	106.46	106.33
MSCI Emerging Markets NetDiv	-2.07	19.18	-0.13	1.04	95.22	-0.39	4.57	50.00	107.53	105.82
5 Years										
AllSpring (Berk. St.) Emerging Markets	-1.29	18.49	-0.13							
MSCI Emerging Markets	-1.44	17.69	-0.14	1.02	94.68	0.30	4.27	51.67	103.44	101.49
MSCI Emerging Markets NetDiv	-1.81	17.68	-0.16	1.02	94.71	0.67	4.26	51.67	104.47	100.89

## Emerging Markets

For the Period Ending September 30, 2022

### Firm Details

Axiom International was officially formed on September 1, 1998, as an independent investment advisor specializing in managing international equity portfolios by Andrew Jacobson and his team of research analysts. Prior to forming Axiom, the investment team was responsible for developing and managing the international equity strategy at Columbus Circle Investors (CCI), a division of PIMCO Advisors LP. Axiom is completely independent and 100% owned by the current employees of the firm. The research team has the advantage of working together in one location. All portfolio managers at Axiom are equity partners, have an average of 25 years' experience in the industry and have been collaborating together at Axiom for an average of 10 years.

### Organization

Address	33 Benedict Place Greenwich, Connecticut 06830
Firm Inception	1998
Team Location(s)	Greenwich, Connecticut
Firm Assets	\$14,825 (Millions)
Ownership Structure	100% Employee-Owned

### Investment Strategy

Axiom identifies companies whose key business drivers are both improving and exceeding expectations through its systematic process of data collection, analysis and portfolio construction. Axiom employs an active, fundamental, bottom-up, growth-oriented investment discipline across all strategies firm-wide. The firm does not begin the research process with screening databases. This approach tends to be more backward looking, assumptions need to be made on future growth and valuation metrics and there can be an inordinate amount of forecast error associated with these assumptions. Conversely, in order to reduce forecast error and better understand how enterprises currently operate and will perform going forward, Axiom's investment team conducts detailed fundamental stock analysis to identify companies whose current operational metrics are materially pacing ahead of market expectations, where these operational improvements are not yet reflected by the market and where these improvements will lead to earnings upgrades and share price appreciation. The investment team monitors these operational metrics against consensus expectations in real time and Axiom seeks to provide 200 - 300 basis points of outperformance over a full market cycle by investing in dynamic growth opportunities.

### Strategy Information

Benchmark	MSCI Emerging Markets - Net
Strategy Assets	\$5,359 (Millions)
Strategy Inception	08/01/2007
Holdings Range	70 - 85
Turnover Range	45% - 80%
Research Technique / Investment Style	Bottom-Up Fundamental / Growth
Vehicles / Minimums	SMA: \$50M; CF: \$5M
Fees/Expense Ratios	SMA/CF: First \$25M at 100 bps, next \$75M at 90 bps, next \$25M at 80 bps, next \$50M at 70 bps, balance at 60 bps

### Key Personnel Responsible for Strategy

Name	Title	Start
Andrew Jacobson	CEO / Chief Investment Officer	1998
Donald Elefson	Senior Vice President / Portfolio Manager	2012
Jose Morales	Senior Vice President / Portfolio Manager	2017
Young Kim	Senior Vice President/Portfolio Manager	2021

### Key Personnel Departures

Name	Title	Start	End
Christopher Lively	Managing Director / Portfolio Manager	2007	Apr 2021



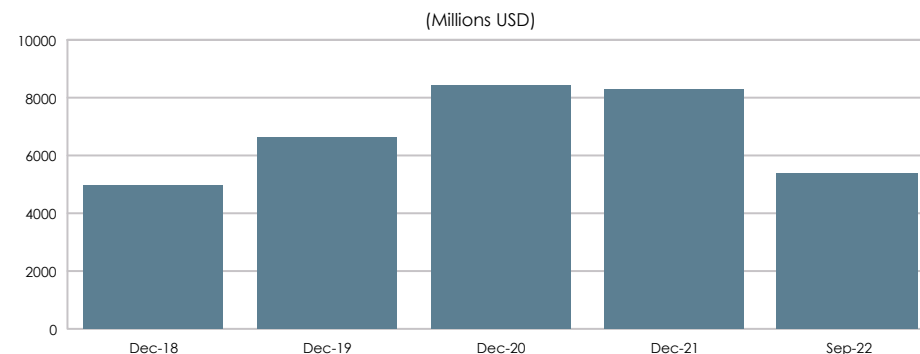
## Emerging Markets

For the Period Ending September 30, 2022

### Recent Meetings

ACG Attendee	Manager Attendee	Location	Date
C. Coleman	J. Morales, S. Hanson	Video Conference	07/22/2022
N. Burk, C. Coleman	J. Morales, M. Welling	Client Office	03/25/2022
C. Coleman	S. Hanson, J. Morales	Video Conference	03/10/2022
C. Coleman	S. Hanson	Video Conference	02/08/2022

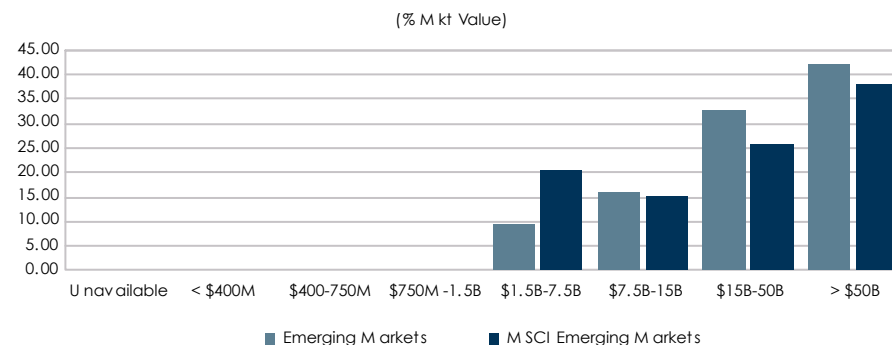
### Strategy Assets



### Investment Thesis

Axiom is a 100% employee owned investment boutique with no outside equity interests. The investment team has the advantage of implementing one investment discipline, together, in one location across synergistic asset classes. Over time, this consistent, time-tested, forward looking investment approach has generated attractive investment performance since each strategy's inception. All portfolio managers at Axiom are partners and this real equity ownership assists in creating stability on the team. Most recently, Axiom has added equity ownership opportunities for senior career analysts.

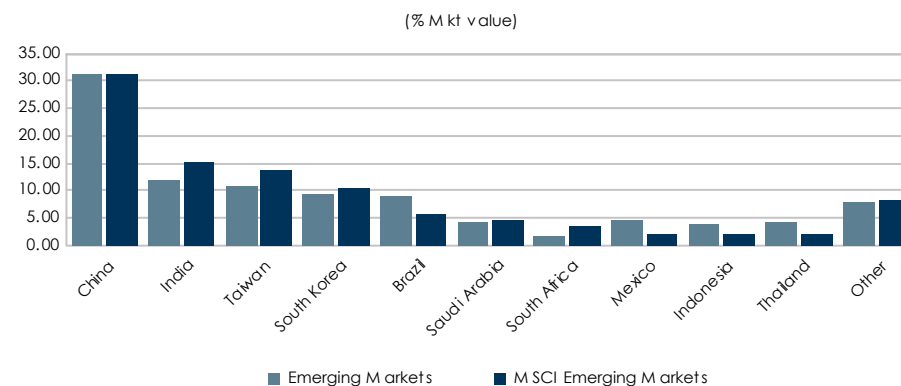
### Market Cap



### Commentary

Axiom's Emerging Markets strategy underperformed the MSCI EM Index by 229 bps (-13.71% vs. -11.42%) during the quarter. Poor stock selection in China detracted approximately 250 bps during and accounted for substantially all of the relative underperformance during the quarter. The largest detractors in China were Country Garden Services, BYD, due to a stake sale by a major shareholder, China Longyuan Power Group, Yunnan Energy and Baidu. On the positive side, the strategy had strong contributors in Brazil, India, health care, and communication services. Going forward, the strategy continues to like Latin America (Brazil in particular) as they believe Brazil is behind peak inflation and the election overhang will likely clear soon with few surprises. Conversely, they remain relatively negative on China post the Party Congress in China and a weak export macro.

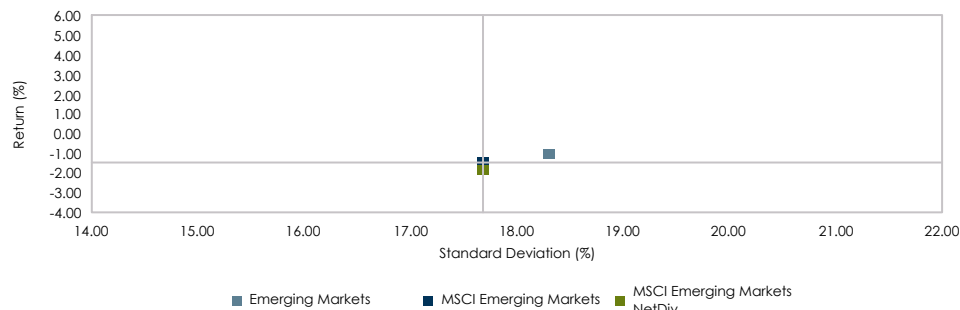
### Country Allocation



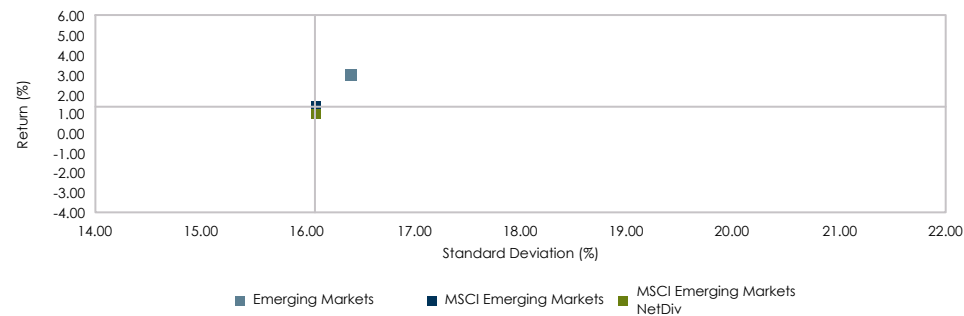
## Emerging Markets

For the Periods Ending September 30, 2022

### 5 Year Risk/Return



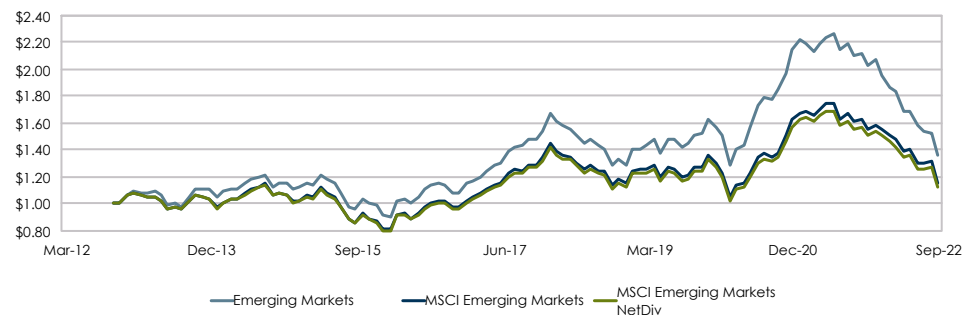
### 10 Year Risk/Return



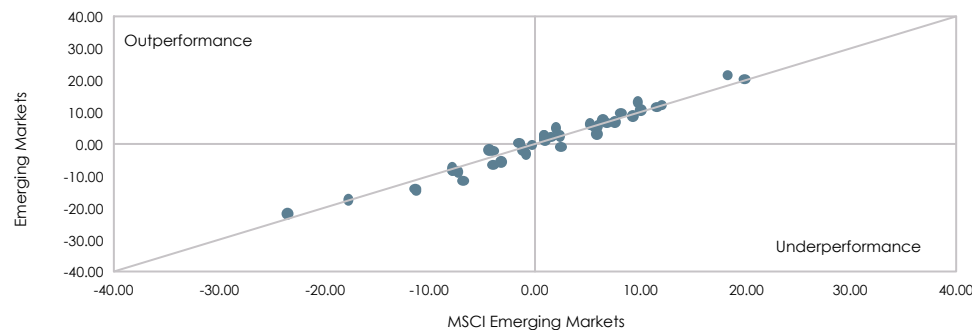
### eA Global Emerging Mkts Equity

	Emerging Markets	MSCI Emerging Markets	MSCI Emerging Markets NetDiv
1 Year Return	-35.10	-27.80	-28.11
Rank	93	53	56
3 Year Return	-2.05	-1.71	-2.07
Rank	66	62	66
5 Year Return	-0.98	-1.44	-1.81
Rank	53	61	71
10 Year Return	3.02	1.42	1.05
Rank	37	78	86

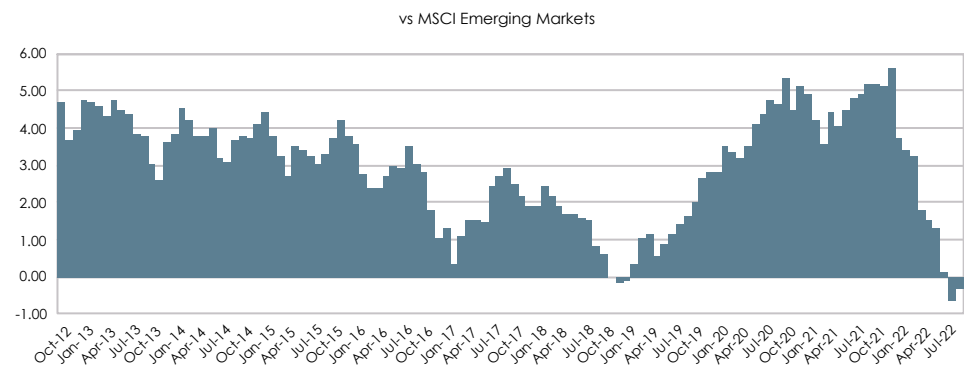
### Growth of a Dollar Since Oct 2012



### Quarterly Performance Last 40 Quarters



### 3 Year Excess Rolling Returns Since Oct 2012



## Emerging Markets

For the Periods Ending September 30, 2022

Monthly Returns (%)	Sep 22	Aug 22	Jul 22	Jun 22	May 22	Apr 22	Mar 22	Feb 22	Jan 22	Dec 21	Nov 21	Oct 21
<b>Axiom Investors Emerging Markets</b>	<b>-10.52</b>	<b>-0.99</b>	<b>-2.60</b>	<b>-6.29</b>	<b>-0.01</b>	<b>-8.54</b>	<b>-1.43</b>	<b>-4.06</b>	<b>-5.96</b>	<b>2.39</b>	<b>-4.37</b>	<b>0.78</b>
<i>MSCI Emerging Markets</i>	-11.67	0.45	-0.16	-6.56	0.47	-5.55	-2.22	-2.98	-1.89	1.92	-4.07	1.00
<i>MSCI Emerging Markets NetDiv</i>	-11.72	0.42	-0.25	-6.64	0.44	-5.56	-2.26	-2.99	-1.89	1.88	-4.08	0.99

Calendar Year Returns (%)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	Performance Stats (120 Months)				
											Pos.	Neg.	Best	Worst	Med.
<b>Axiom Investors Emerging Markets</b>	<b>-3.22</b>	<b>31.22</b>	<b>25.98</b>	<b>-15.76</b>	<b>42.58</b>	<b>9.30</b>	<b>-11.29</b>	<b>-0.26</b>	<b>4.30</b>	<b>22.94</b>	<b>65</b>	<b>55</b>	<b>12.31</b>	<b>-14.97</b>	<b>0.29</b>
<i>MSCI Emerging Markets</i>	-2.22	18.69	18.88	-14.24	37.75	11.60	-14.60	-1.82	-2.27	18.63	67	53	13.26	-15.38	0.46
<i>MSCI Emerging Markets NetDiv</i>	-2.54	18.31	18.42	-14.57	37.28	11.19	-14.92	-2.19	-2.60	18.22	67	53	13.23	-15.40	0.43

Statistics	Return (%)	Standard Deviation (%)	Sharpe Ratio	Beta	R2 (%)	Alpha (%)	Tracking Error (%)	Batting Average (%)	Up Capture (%)	Down Capture (%)
1 Year										
<b>Axiom Investors Emerging Markets</b>	<b>-35.10</b>	<b>13.46</b>	<b>-2.65</b>							
<i>MSCI Emerging Markets</i>	-27.80	13.53	-2.10	0.91	83.68	-12.38	5.57	33.33	55.38	119.55
<i>MSCI Emerging Markets NetDiv</i>	-28.11	13.54	-2.12	0.91	83.56	-12.09	5.60	33.33	57.28	118.72
3 Years										
<b>Axiom Investors Emerging Markets</b>	<b>-2.05</b>	<b>20.04</b>	<b>-0.13</b>							
<i>MSCI Emerging Markets</i>	-1.71	19.19	-0.12	1.01	93.79	-0.20	5.00	58.33	109.09	105.86
<i>MSCI Emerging Markets NetDiv</i>	-2.07	19.18	-0.13	1.01	93.75	0.17	5.01	58.33	110.19	105.35
5 Years										
<b>Axiom Investors Emerging Markets</b>	<b>-0.98</b>	<b>18.31</b>	<b>-0.11</b>							
<i>MSCI Emerging Markets</i>	-1.44	17.69	-0.14	1.01	94.98	0.57	4.10	58.33	108.77	103.54
<i>MSCI Emerging Markets NetDiv</i>	-1.81	17.68	-0.16	1.01	94.95	0.94	4.12	60.00	109.85	102.93
10 Years										
<b>Axiom Investors Emerging Markets</b>	<b>3.02</b>	<b>16.41</b>	<b>0.15</b>							
<i>MSCI Emerging Markets</i>	1.42	16.08	0.05	1.00	95.26	1.65	3.57	64.17	106.15	98.25
<i>MSCI Emerging Markets NetDiv</i>	1.05	16.08	0.03	1.00	95.26	2.02	3.57	65.00	107.31	97.65

## Emerging Markets Equity

For the Period Ending September 30, 2022

### Firm Details

The firm was established in 1972 to provide investment advisory services for separately managed institutional accounts. In April 1995, Delaware Investments (prior name) was acquired by Lincoln National Corporation. In January 2010, Delaware Investments was sold to Macquarie Group Limited. As a result of the acquisition, Delaware Investments' clients gained the opportunity to invest in new products with access to Macquarie's investment strategies, notably in real assets, global fixed income, and alternatives. Macquarie clients, across its global network, will be offered investment solutions involving Delaware's investment strategies. On March 31, 2017, Delaware Investments adopted the name of its parent and became Macquarie Investment Management (MIM) to reflect the firm's global investment capabilities.

### Organization

Address	One Commerce Square, 2005 Market Street Philadelphia, Pennsylvania 19103
Firm Inception	1929
Team Location(s)	Boston, Massachusetts
Firm Assets	\$537,178 (Millions)
Ownership Structure	100% Macquarie Group (ASX: MQG)

### Investment Strategy

Macquarie believes that investment opportunities in emerging markets can best be captured through comprehensive analysis focused on identifying the divergence between stock price and intrinsic business value. The strategy seeks to provide consistent investment returns utilizing a bottom-up, fundamental, investment process that attempts to identify companies with sustainable business franchises. Top-down market analysis is also a consideration in the process. Investment ideas are generated via three primary sources: a multi-factor screen, external events, and internal team discussion. Securities in the MSCI Emerging Markets Index are segmented into quintiles utilizing a multi-factor screen which includes: valuation, profitability, balance-sheet strength, and earnings-growth factors. Factors are weighted differently across countries and sectors depending on their judgment of each factor's relevance for a particular country or sector. Stocks are selected for further fundamental review based on their relative attractiveness versus other investment candidates. After initial quantitative screens, analysis, and a discussion is complete, the team is left with a core list of 250 stocks requiring greater evaluation. Buy candidates possess the following characteristics: strong business franchise, proven management, financial strength, minimal operational risk, supportive regulatory environment, identifiable catalyst for change, and are priced at a discount to intrinsic value.

### Strategy Information

Benchmark	MSCI Emerging Markets
Strategy Assets	\$6,183 (Millions)
Strategy Inception	10/01/2005
Holdings Range	115 - 130
Turnover Range	15% - 30%
Research Technique / Investment Style	Bottom-Up Fundamental / Core
Vehicles / Minimums	SMA: \$75M; MF (DEMIX/DEMZX): \$0/\$0M.
Fees/Expense Ratios	SMA: First \$50M at 110 bps, next \$50M at 90 bps, next \$100M at 75 bps, balance at 60 bps; MF (DEMIX/DEMZX): 123 bps/114 bps.

### Key Personnel Responsible for Strategy

Name	Title	Start
Liu-Er Chen	SVP, CIO - Emerging Markets	2006
Wei Xiao	VP, Senior Equity Analyst	2011
Jeffrey Wang	VP, Senior Equity Analyst	2007
Daniel Ko	Equity Analyst	2012

### Key Personnel Departures

Name	Title	Start	End
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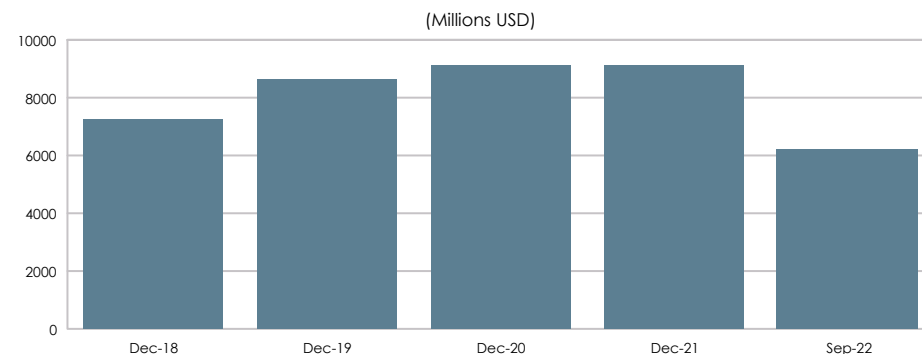
## Emerging Markets Equity

For the Period Ending September 30, 2022

### Recent Meetings

ACG Attendee	Manager Attendee	Location	Date
C. Coleman	D. Yates, D. Schneider	Video Conference	07/18/2022
C. Coleman	D. Ko, W. Xiao, D. Yates	Video Conference	04/12/2022
W. Rorie	D. Ko	Video Conference	06/08/2021

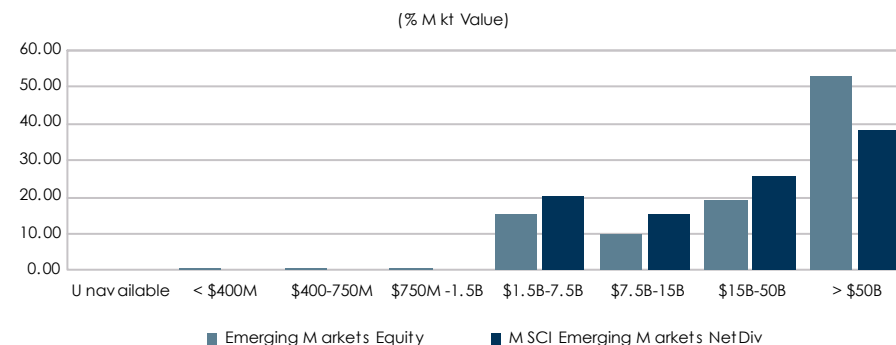
### Strategy Assets



### Investment Thesis

The Chief Investment Officer Liu-Er ("Nu") Chen has a proven track record dating back to 1999-2001 where he co-managed the Evergreen Emerging Markets Growth fund and became sole manager from 2001-2006. The mutual fund associated with this strategy had been managed by Mondrian from 1996-2006 before they resigned as the sub-advisor in June 2006. Nu's team at Delaware is considered close knit and collaborative. Each analyst in the group has specific regional research responsibilities. This strategy been able to outperform across a variety of market environments (see outperformance in both (2009, 2013 and 2017). This is an attractive emerging markets strategy that has underperformed the index in only four calendar years since the team's inception in 2006.

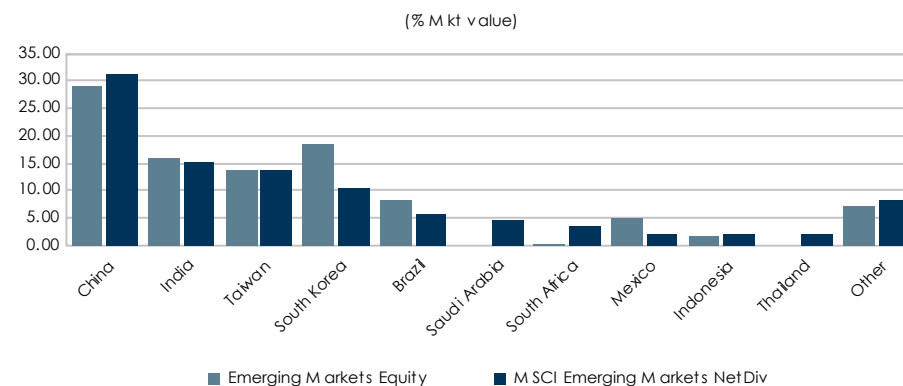
### Market Cap



### Commentary

Macquarie's (Delaware) Emerging Markets strategy underperformed the MSCI Emerging Markets Index by 115 bps (-12.56% vs. -11.42%) in the quarter. Relative underperformance for the quarter and for the YTD period have been driven by three themes; the ongoing conflict in the Ukraine and the resulting oil/gas supply fallout hindering economic growth in the region. Second, the continued hard-line Zero-Covid policy in China and the continued strength of the US dollar. During the quarter, India detracted the most from relative performance due to an overweight position to Reliance Industries which came under pressure after the Indian government announced windfall taxes on the energy sector. An overweight position to semiconductors in Taiwan and South Korea also detracted as demand started to deteriorate leading to concerns over rising inventories and potential price declines.

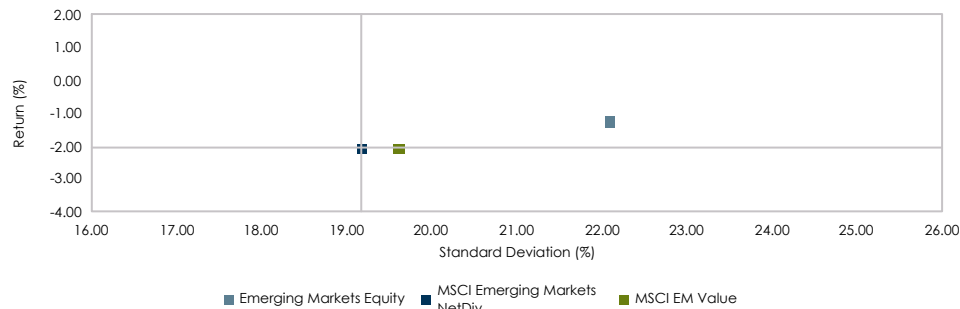
### Country Allocation



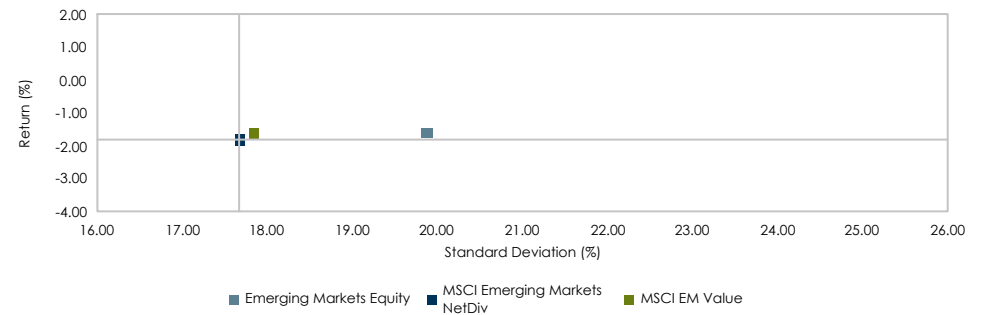
## Emerging Markets Equity

For the Periods Ending September 30, 2022

### 3 Year Risk/Return



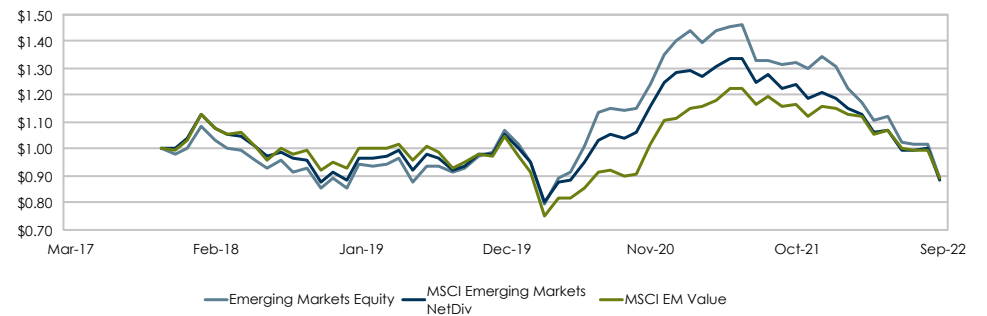
### 5 Year Risk/Return



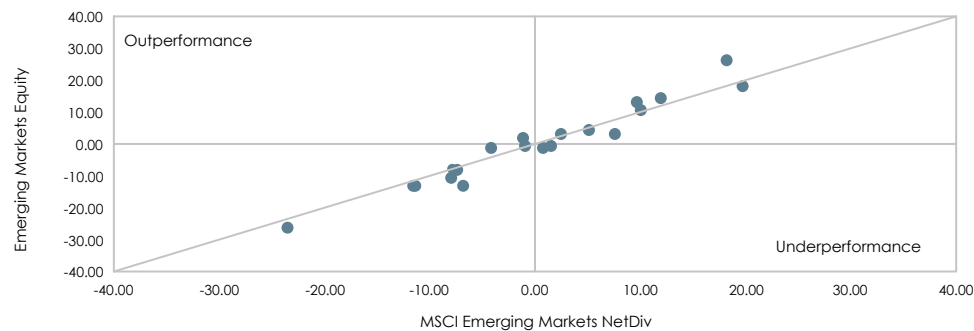
### eA Global Emerging Mkts Equity

	Emerging Markets Equity	MSCI Emerging Markets NetDiv	MSCI EM Value
1 Year Return	-31.88	-28.11	-23.17
Rank	81	56	24
3 Year Return	-1.25	-2.07	-2.07
Rank	54	66	66
5 Year Return	-1.57	-1.81	-1.62
Rank	64	71	65

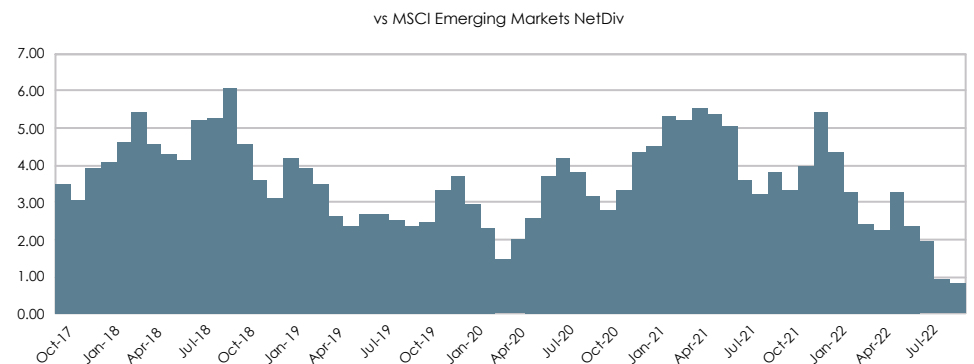
### Growth of a Dollar Since Oct 2017



### Quarterly Performance Last 20 Quarters



### 3 Year Excess Rolling Returns Since Oct 2017



## Emerging Markets Equity

For the Periods Ending September 30, 2022

Monthly Returns (%)	Sep 22	Aug 22	Jul 22	Jun 22	May 22	Apr 22	Mar 22	Feb 22	Jan 22	Dec 21	Nov 21	Oct 21
<b>Macquarie Emerging Markets</b>	<b>-11.79</b>	<b>-0.14</b>	<b>-0.74</b>	<b>-8.37</b>	<b>1.16</b>	<b>-5.66</b>	<b>-4.33</b>	<b>-6.24</b>	<b>-2.75</b>	<b>3.54</b>	<b>-1.74</b>	<b>0.40</b>
<i>MSCI Emerging Markets NetDiv</i>	-11.72	0.42	-0.25	-6.64	0.44	-5.56	-2.26	-2.99	-1.89	1.88	-4.08	0.99
<i>MSCI EM Value</i>	-10.18	0.17	-0.76	-6.21	0.90	-5.61	-1.04	-1.63	-0.73	3.62	-4.12	0.35

Calendar Year Returns (%)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	Performance Stats (120 Months)				
											Pos.	Neg.	Best	Worst	Med.
<b>Macquarie Emerging Markets</b>	<b>-0.76</b>	<b>26.63</b>	<b>25.43</b>	<b>-15.03</b>	<b>43.75</b>	<b>16.26</b>	<b>-13.63</b>	<b>-6.53</b>	<b>11.88</b>	<b>16.37</b>	<b>68</b>	<b>52</b>	<b>13.98</b>	<b>-16.15</b>	<b>0.46</b>
<i>MSCI Emerging Markets NetDiv</i>	-2.54	18.31	18.42	-14.57	37.28	11.19	-14.92	-2.19	-2.60	18.22	67	53	13.23	-15.40	0.43
<i>MSCI EM Value</i>	4.50	5.97	12.52	-10.26	28.67	15.48	-18.16	-3.60	-4.70	16.38	66	54	14.68	-17.51	0.38

Statistics	Return (%)	Standard Deviation (%)	Sharpe Ratio	Beta	R2 (%)	Alpha (%)	Tracking Error (%)	Batting Average (%)	Up Capture (%)	Down Capture (%)
1 Year										
<b>Macquarie Emerging Markets</b>	<b>-31.88</b>	<b>15.20</b>	<b>-2.14</b>							
<i>MSCI Emerging Markets NetDiv</i>	-28.11	13.54	-2.12	1.05	87.88	-3.28	5.34	25.00	133.08	114.34
<i>MSCI EM Value</i>	-23.17	13.07	-1.82	1.05	82.09	-9.60	6.47	33.33	98.41	130.63
3 Years										
<b>Macquarie Emerging Markets</b>	<b>-1.25</b>	<b>22.10</b>	<b>-0.08</b>							
<i>MSCI Emerging Markets NetDiv</i>	-2.07	19.18	-0.13	1.12	93.71	1.45	5.97	50.00	118.12	107.10
<i>MSCI EM Value</i>	-2.07	19.62	-0.13	1.03	83.87	1.33	8.90	58.33	111.26	103.66
5 Years										
<b>Macquarie Emerging Markets</b>	<b>-1.57</b>	<b>19.88</b>	<b>-0.13</b>							
<i>MSCI Emerging Markets NetDiv</i>	-1.81	17.68	-0.16	1.09	93.56	0.66	5.28	50.00	109.89	104.77
<i>MSCI EM Value</i>	-1.62	17.84	-0.15	1.02	84.55	0.42	7.82	51.67	107.32	104.02

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## Oklahoma Municipal Retirement Fund

### ANALYSIS OF DEMOGRAPHIC EXPERIENCE through Calendar Year 2021

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November 18, 2022

Prepared by

**DEAN ACTUARIES, LLC**  
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DALLAS, TX 75206  
(214) 891-0990

# Actuarial Terms and Concepts

## Credibility

- Volume of data
- Frequency of event
- Recentness of data
- Market cycles
- Treatment of unusual data

## Exposure

- Actively employed participants
- Annuitants in pay status
- Participant "Life Years"

# Overview

## Credible Demographic Experience

- Termination
- Retirement
- Pay Increase

## Relative Demographic Experience

- Annuitant Mortality

## Other Demographic Experience (not reviewed)

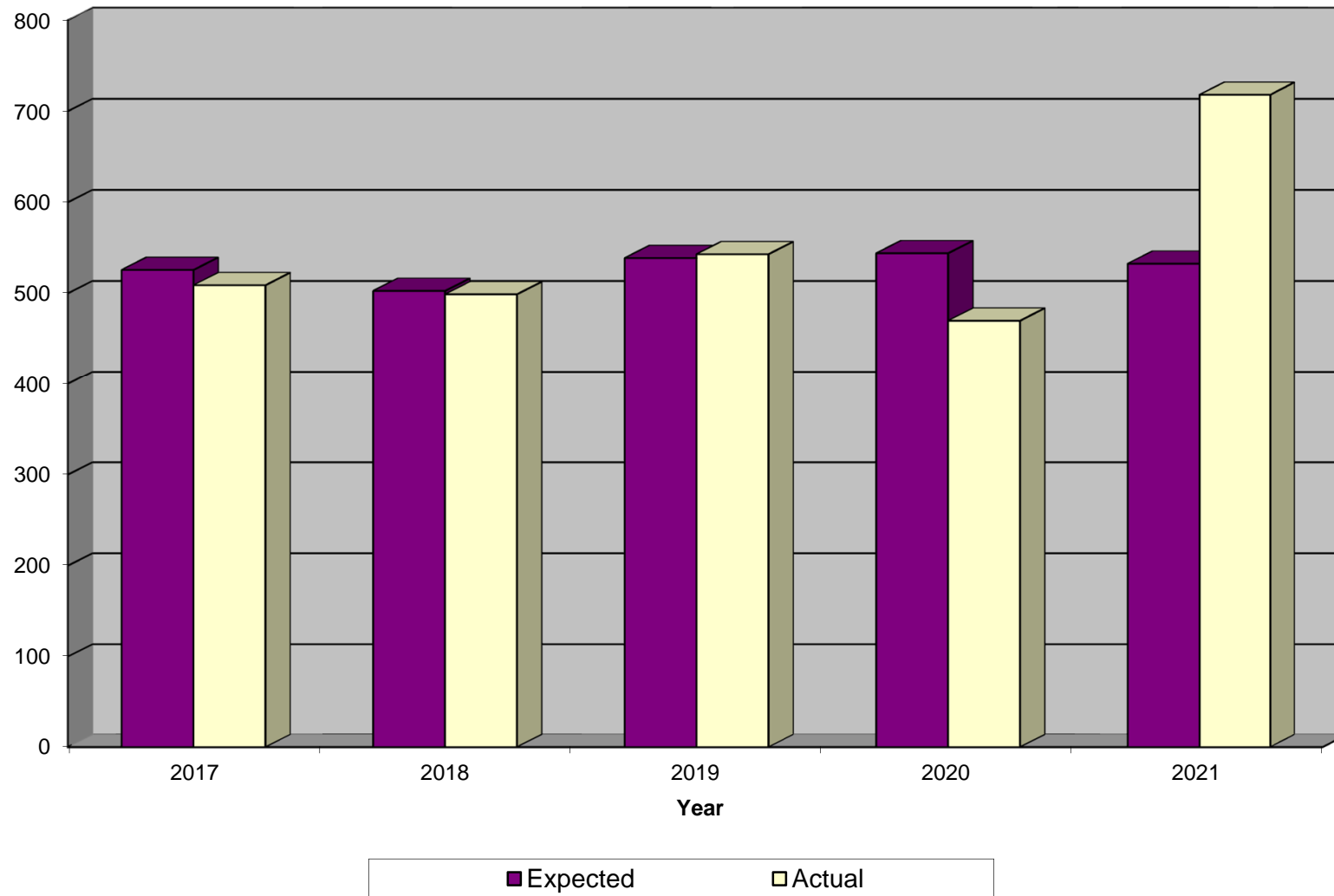
- Active Participant Mortality
- Deferred Terminee Mortality
- Disablement

# **Termination Experience**

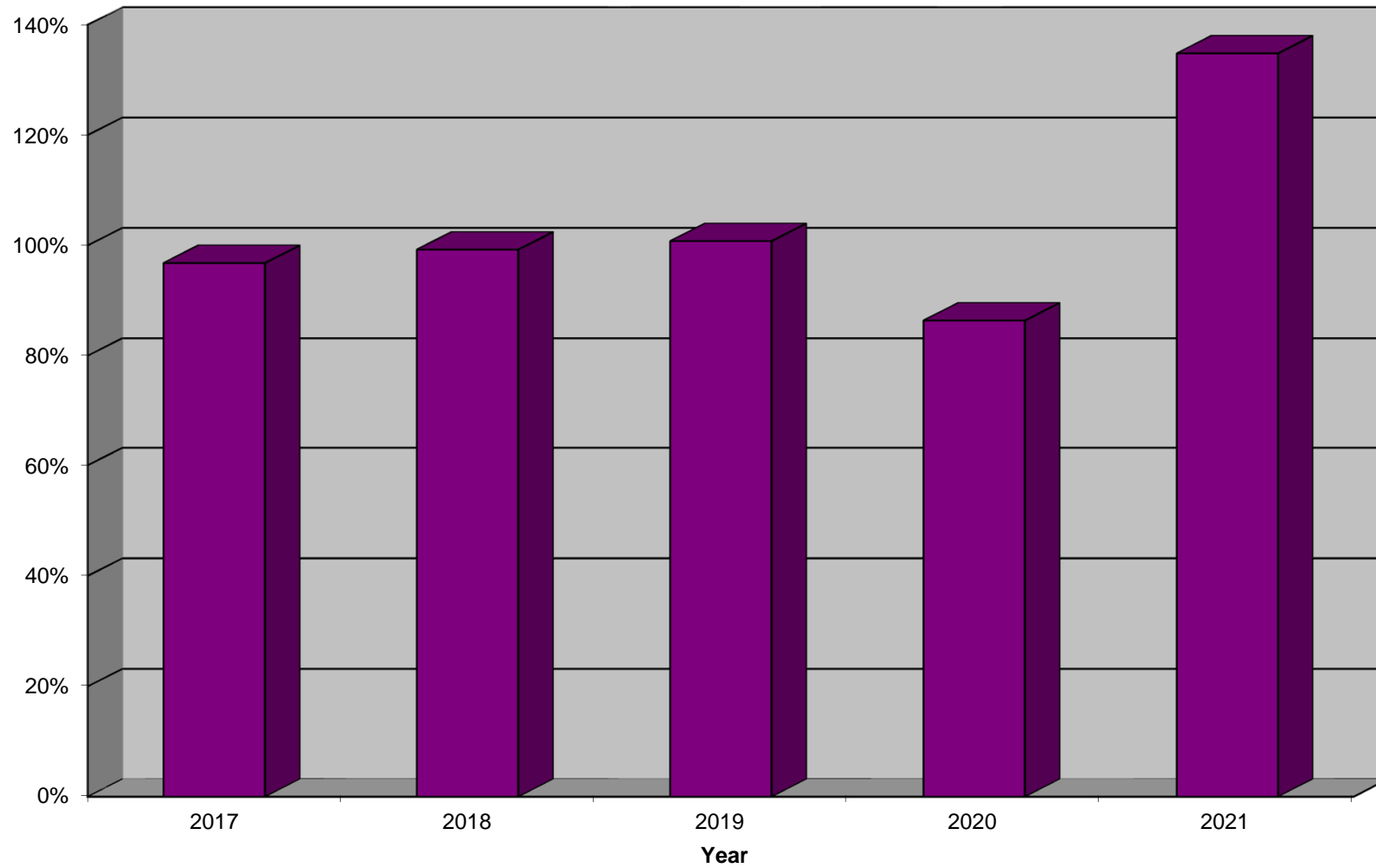
2017-2021

15,493 Participant Life Years

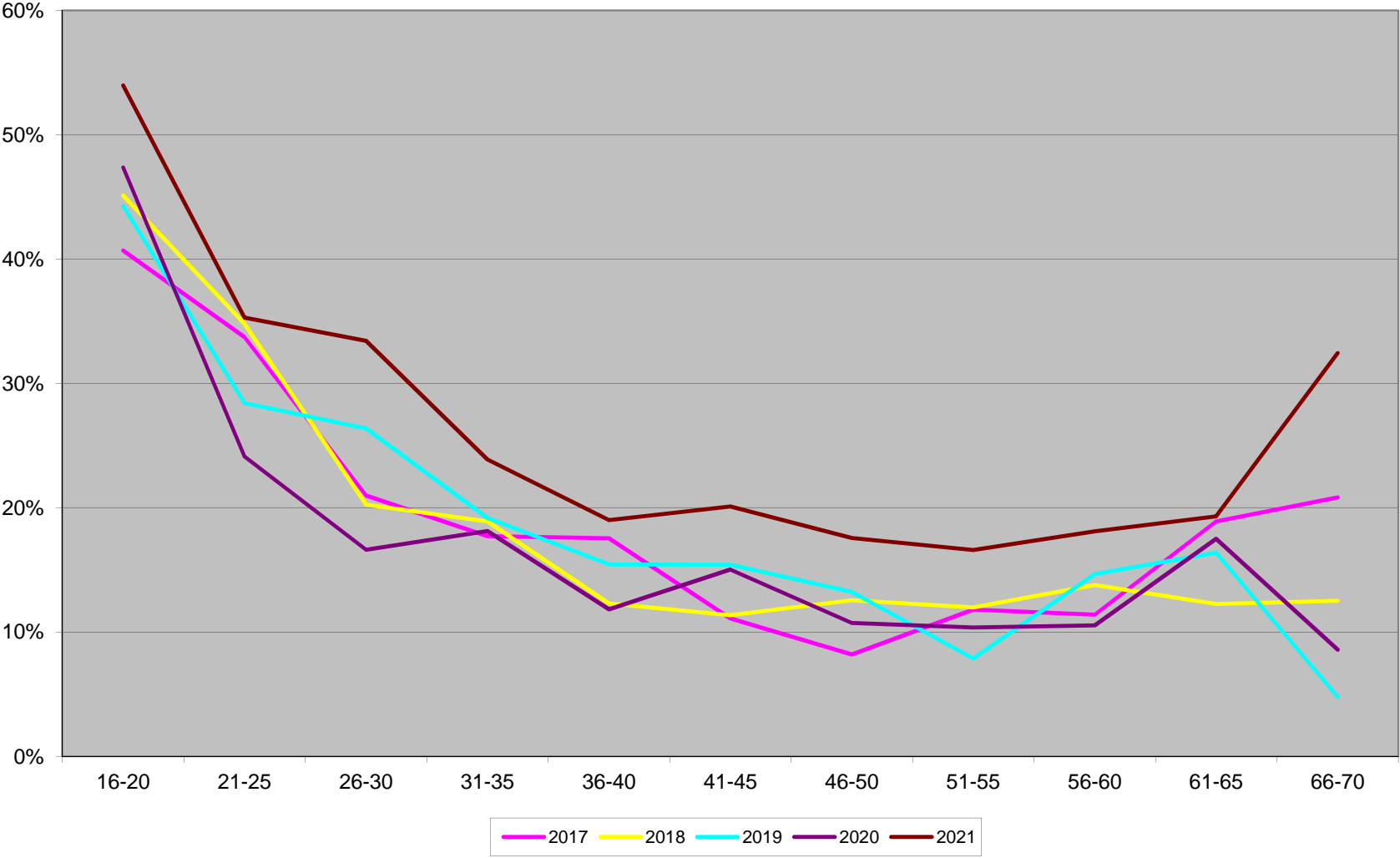
### Actual Versus Expected Terminations



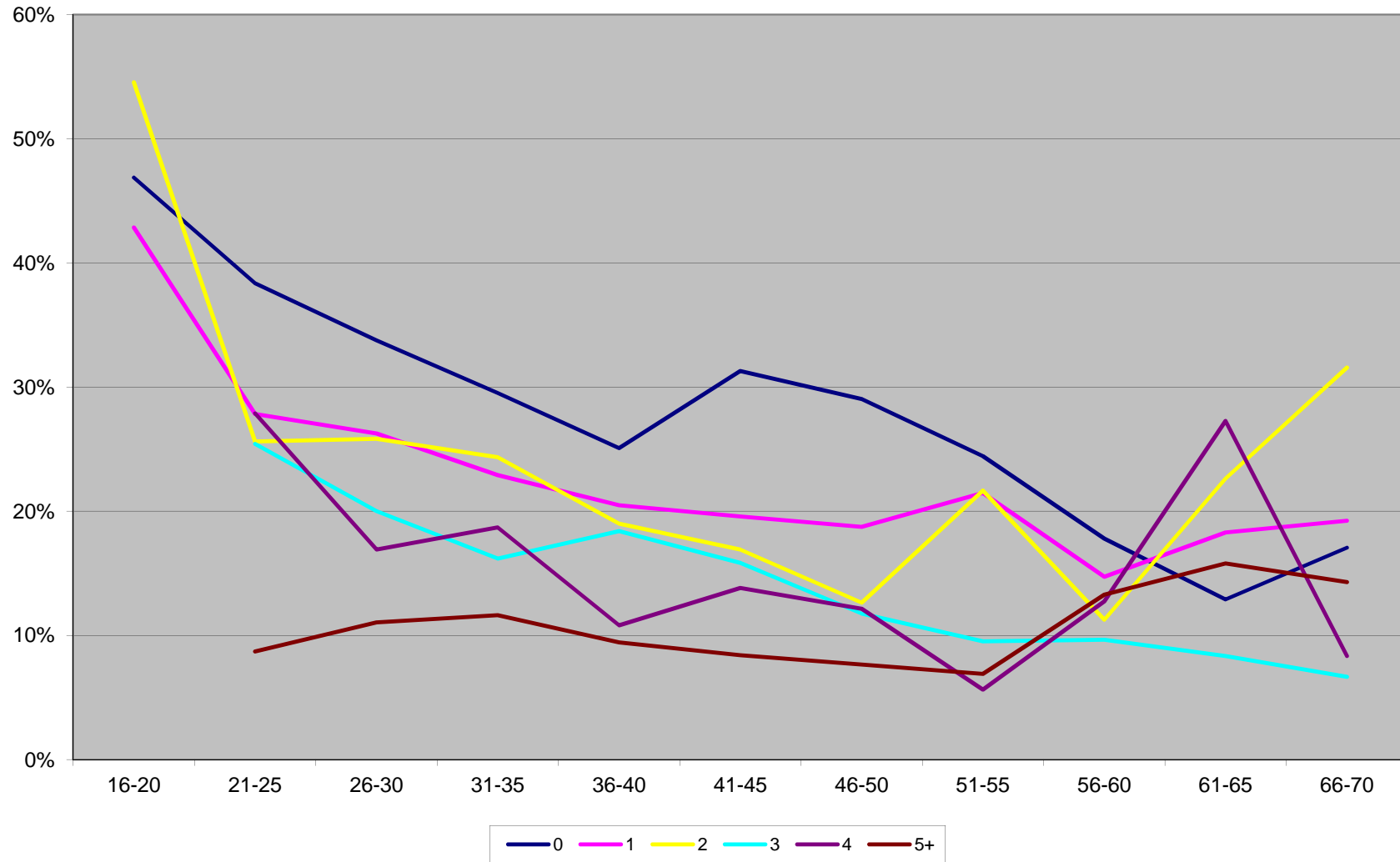
**Ratio of Actual Versus Expected Terminations**



Termination Rates by Age

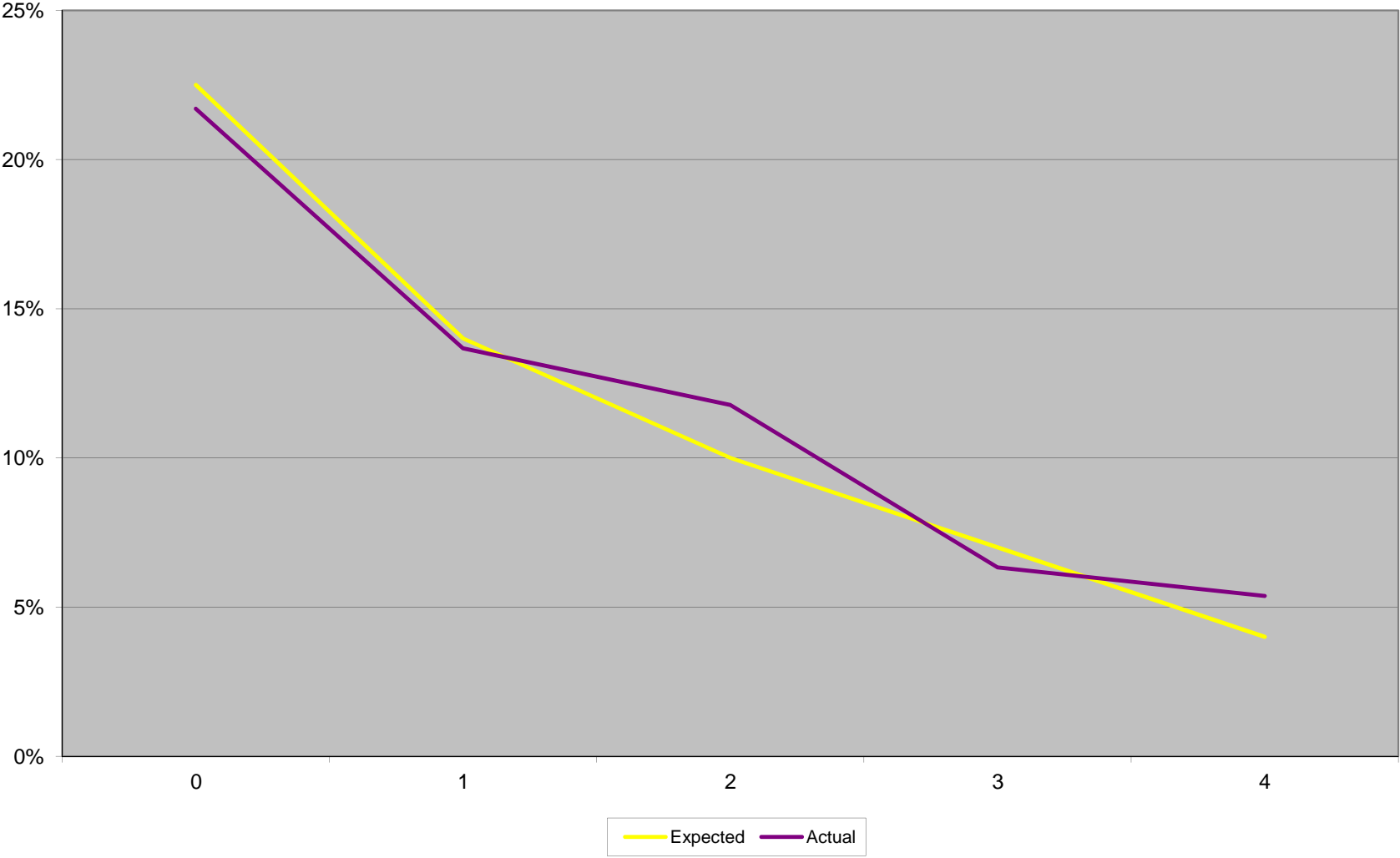


Termination Rates by Age and Service

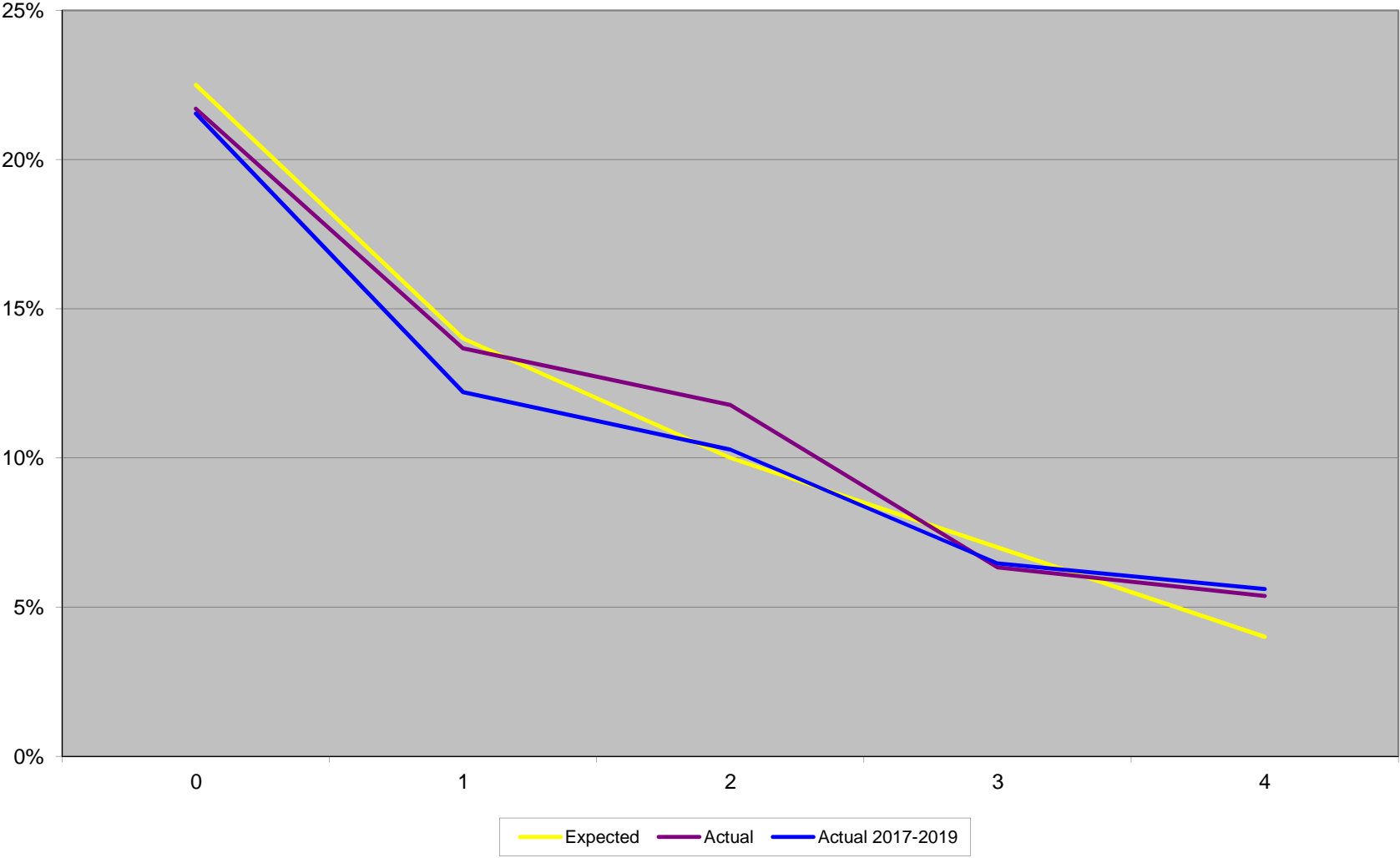




Incremental Termination Rates by Completed Years of Service



Incremental Termination Rates by Completed Years of Service



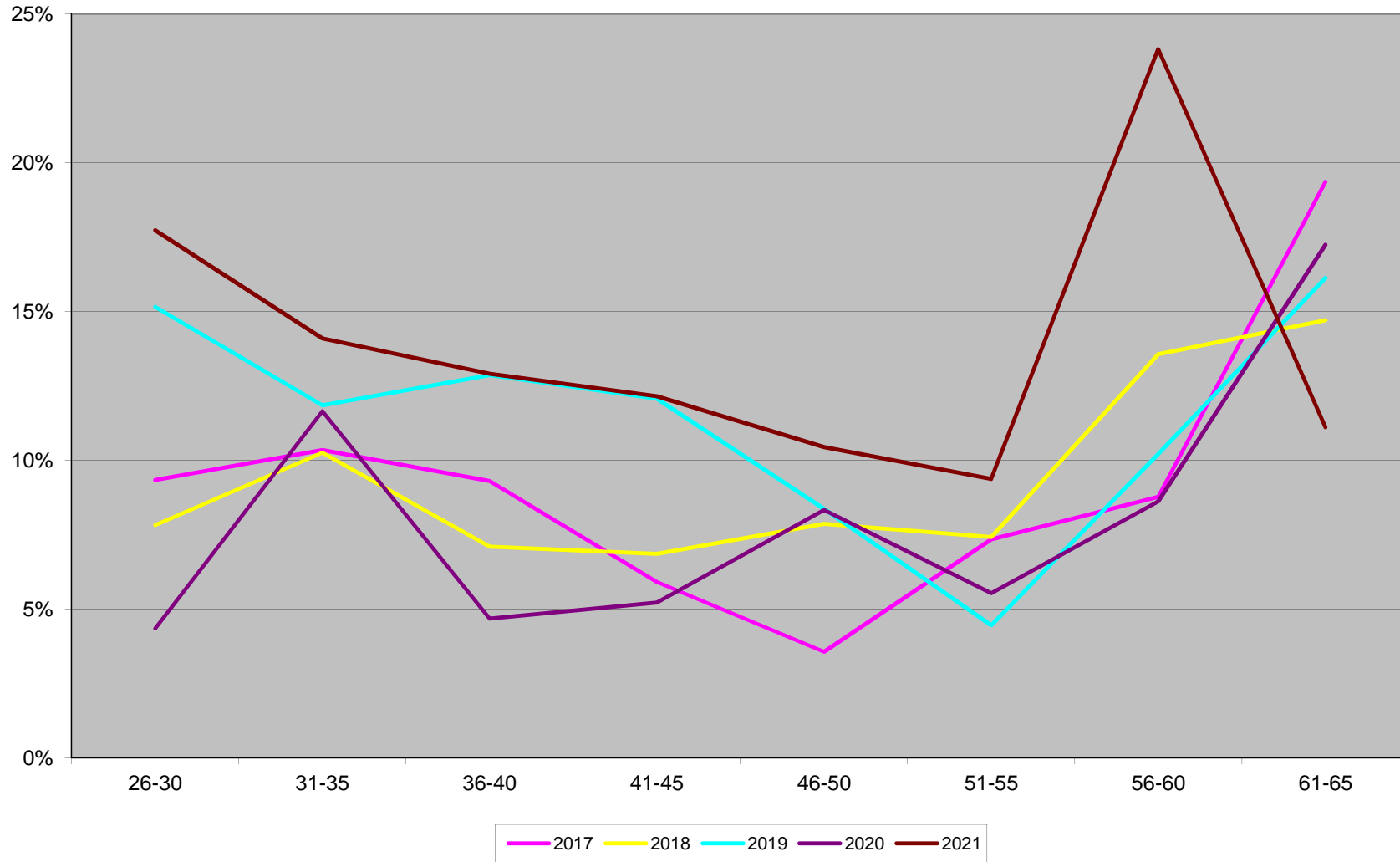
# Termination Experience Recommendations

Level service increment (independent of age)

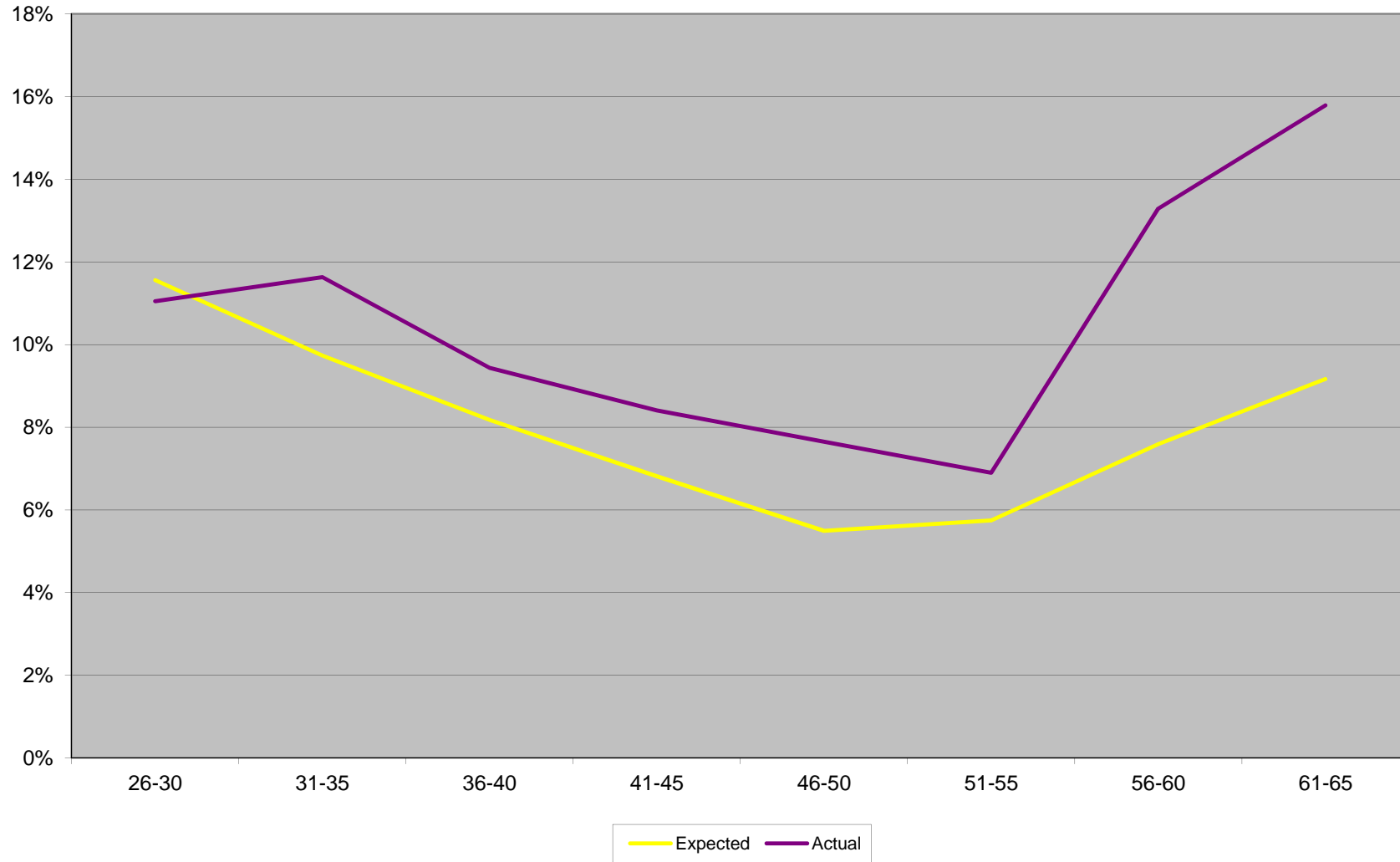
No changes to incremental service rates

	0	1	2	3	4
Assumption	22.5%	14.0%	10.0%	7.0%	4.0%
2007-2011 experience	22.4%	14.3%	9.3%	6.1%	5.4%
2012-2016 experience	22.4%	14.1%	11.0%	9.8%	4.4%
2017-2021 experience	21.7%	13.7%	11.8%	6.3%	5.4%
2017-2019 experience	21.5%	12.2%	10.3%	6.5%	5.6%
Recommendation	22.5%	14.0%	10.0%	7.0%	4.0%

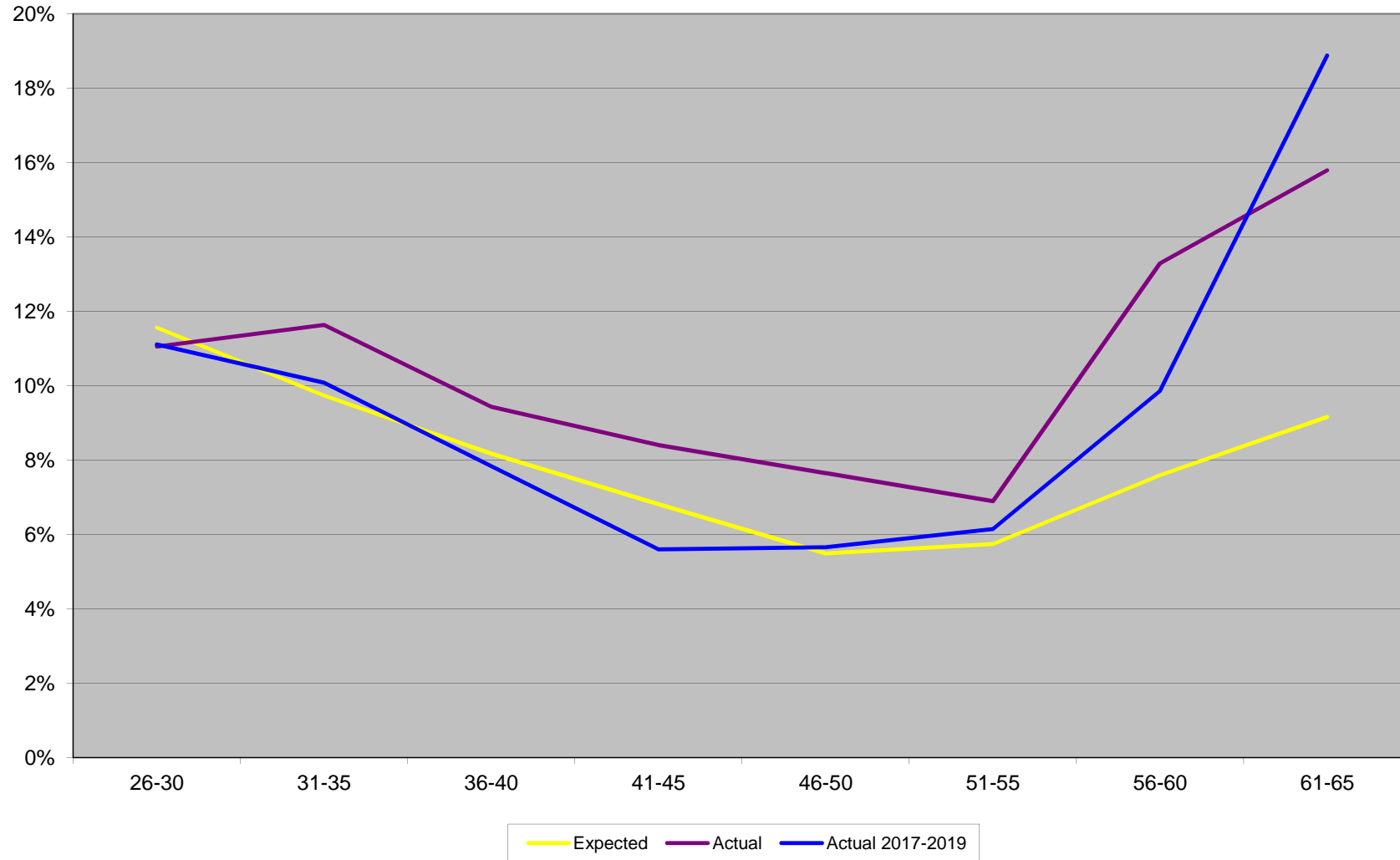
Termination Rates by Age, 5+ Years of Service



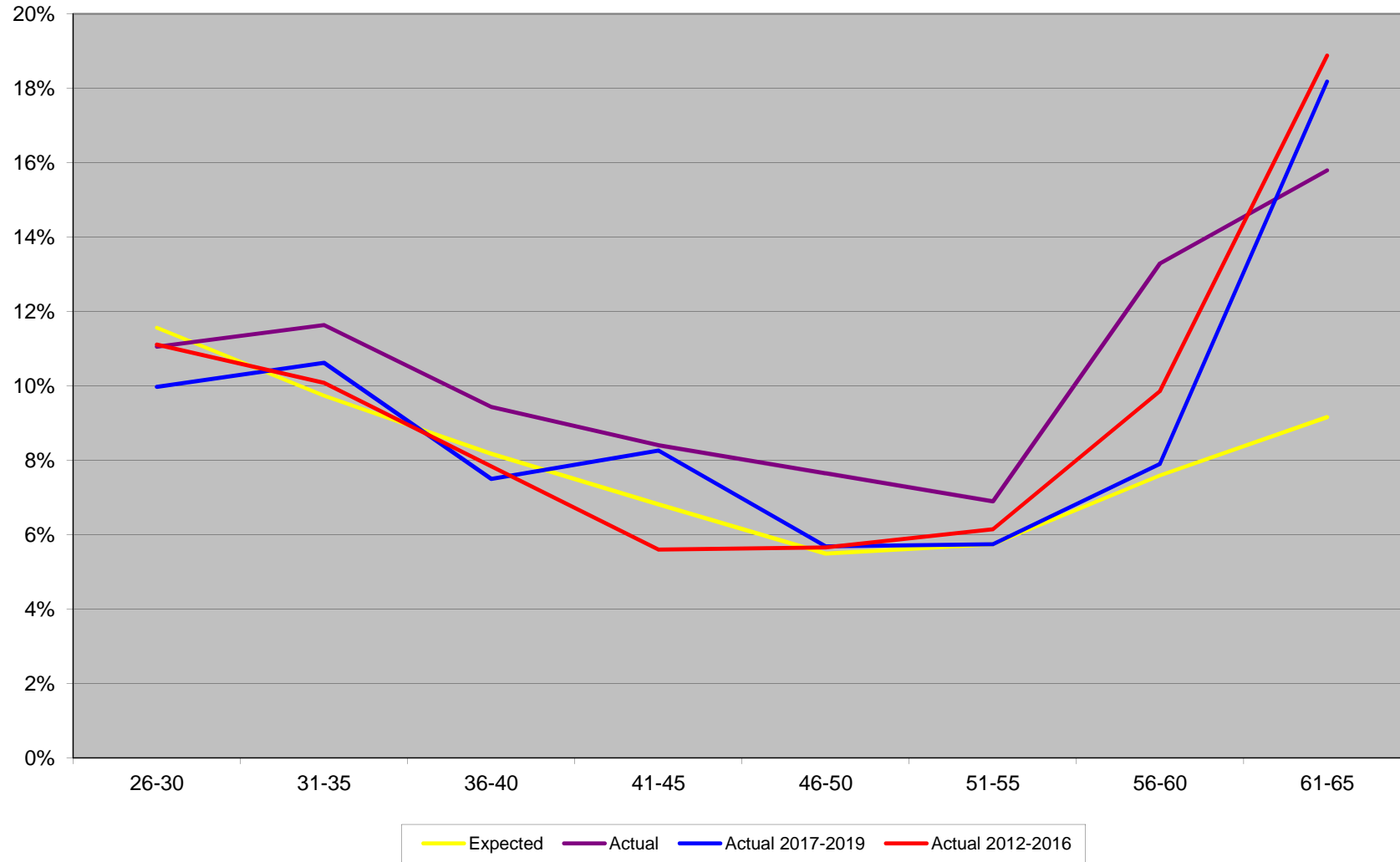
**Actual Versus Expected Termination Rates by Age, 5+ Years of Service**



**Actual Versus Expected Termination Rates by Age, 5+ Years of Service**



**Actual Versus Expected Termination Rates by Age, 5+ Years of Service**



# Termination Experience

## Recommendations

Maintain adopt asymmetric U-shape of ultimate rates

Increase age 65 bend point from 10% to 15%

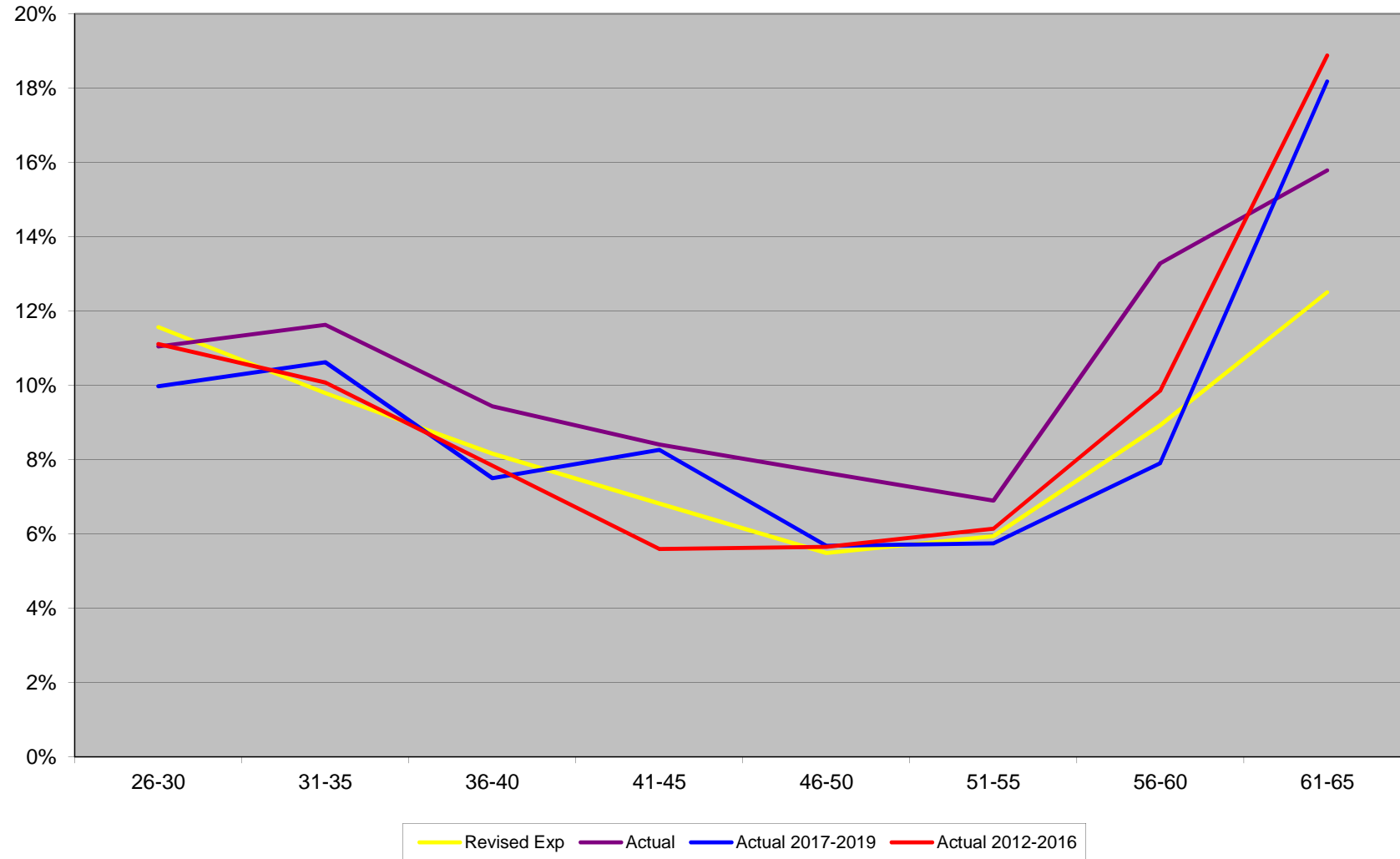
Rates geometrically progress over 15-year intervals

- from 15% at age 20 to 9% at age 35
- from 9% at age 35 to 5% at age 50
- from 5% at age 50 to **15%** at age 65

Ultimate rate levels out at **15%** for ages 65 and above



Actual Versus Revised Termination Rates by Age, 5+ Years of Service

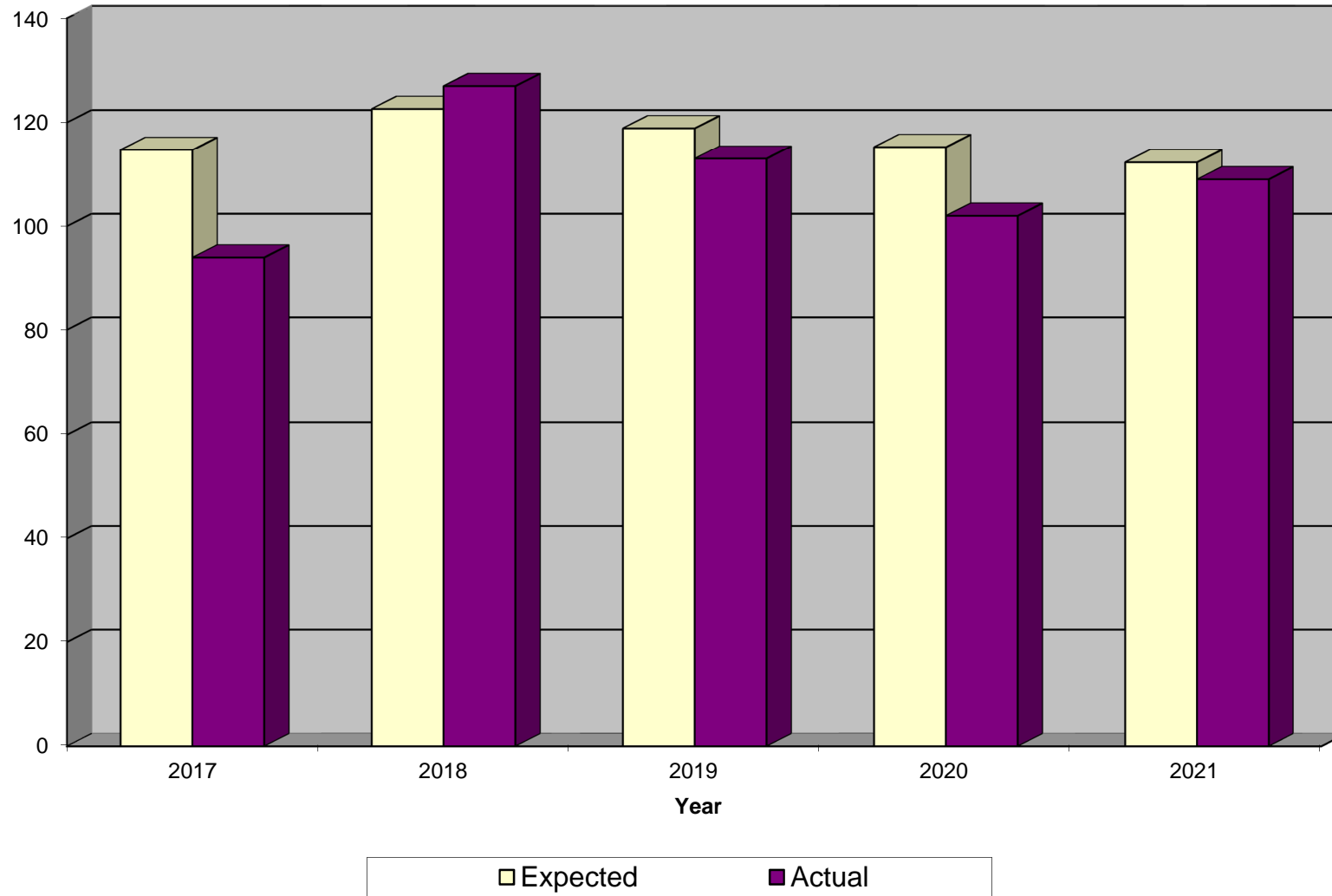


# **Retirement Experience**

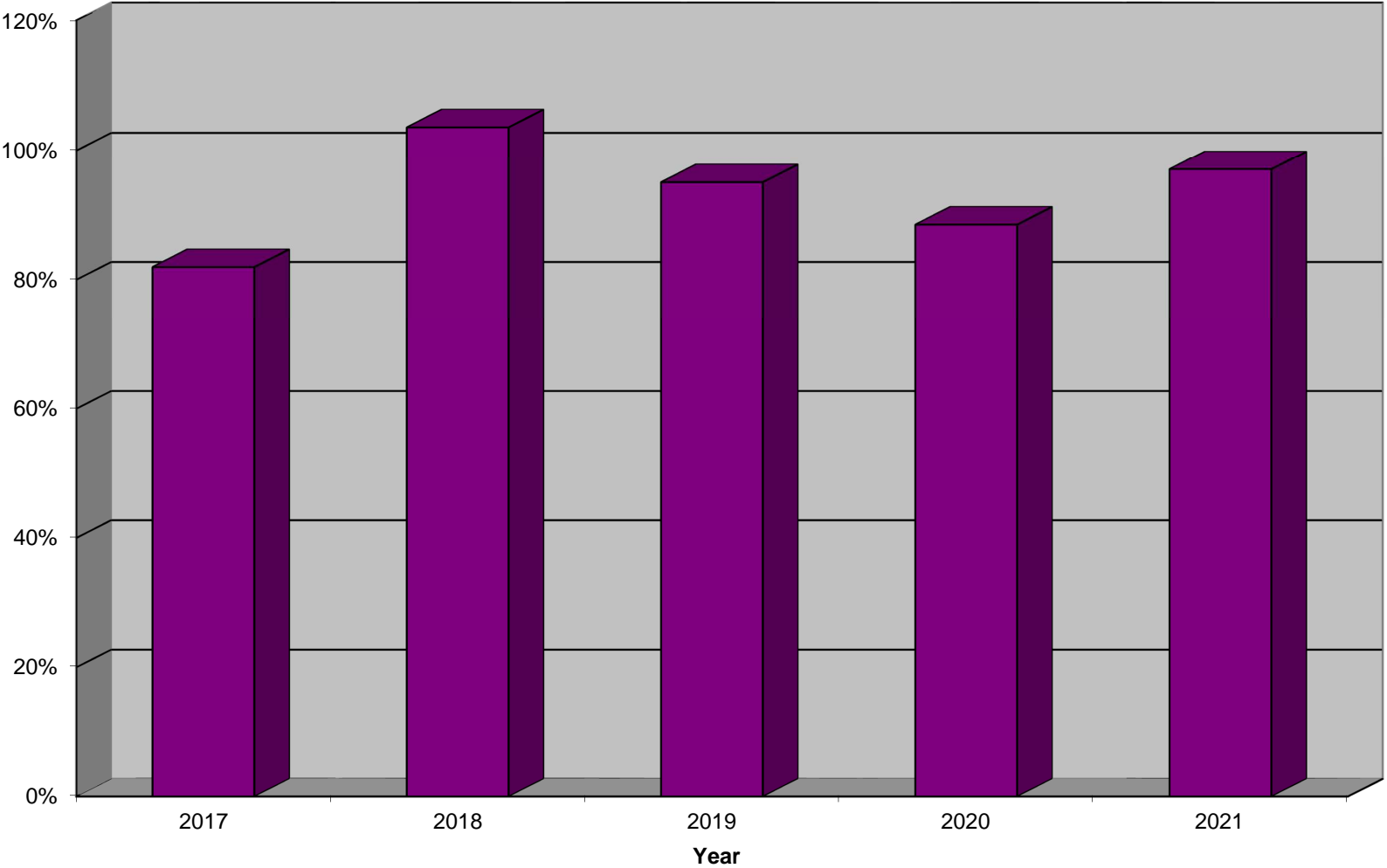
2017-2021

3,925 Participant Life Years

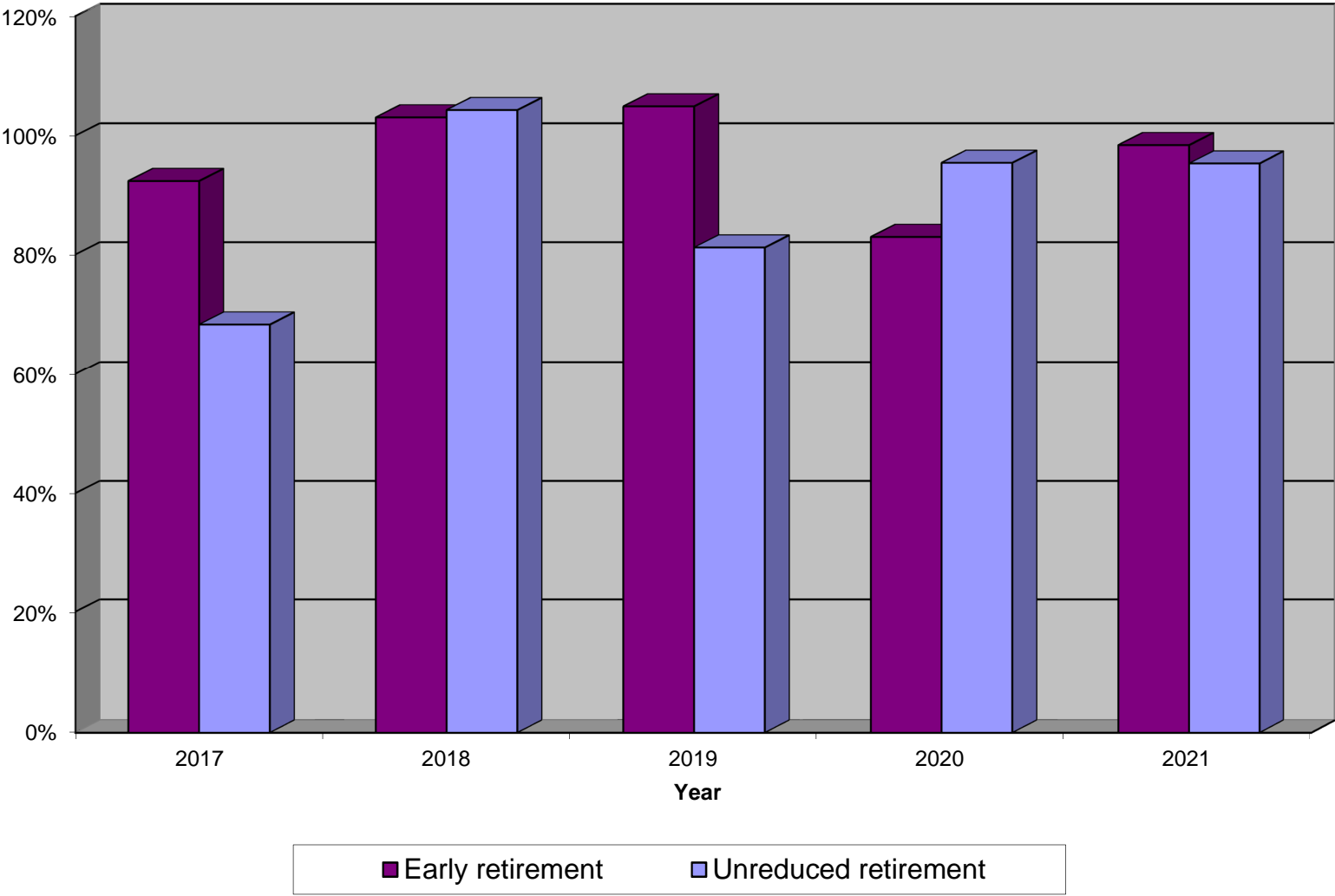
### Actual Versus Expected Retirements



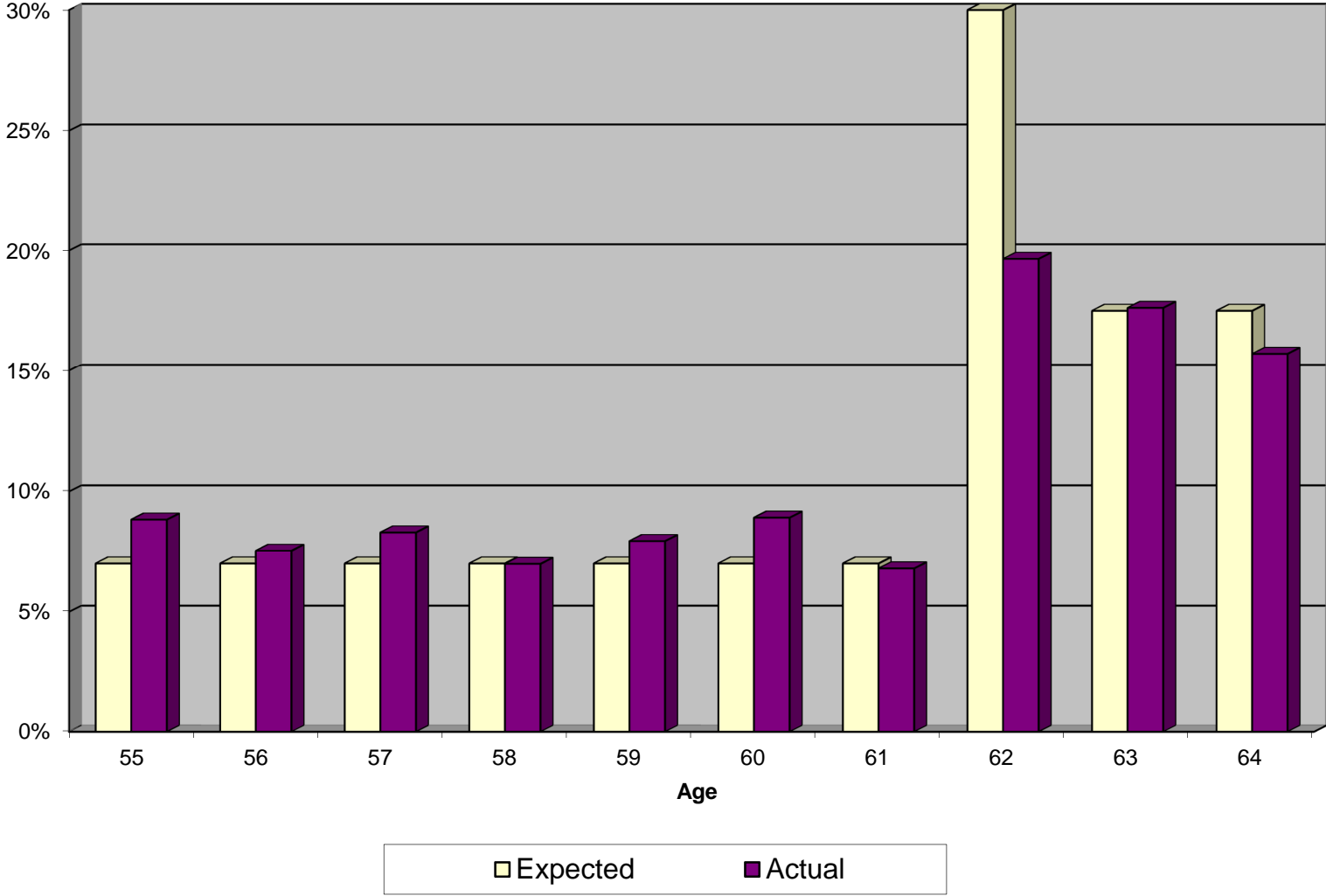
Ratio of Actual Versus Expected Retirements



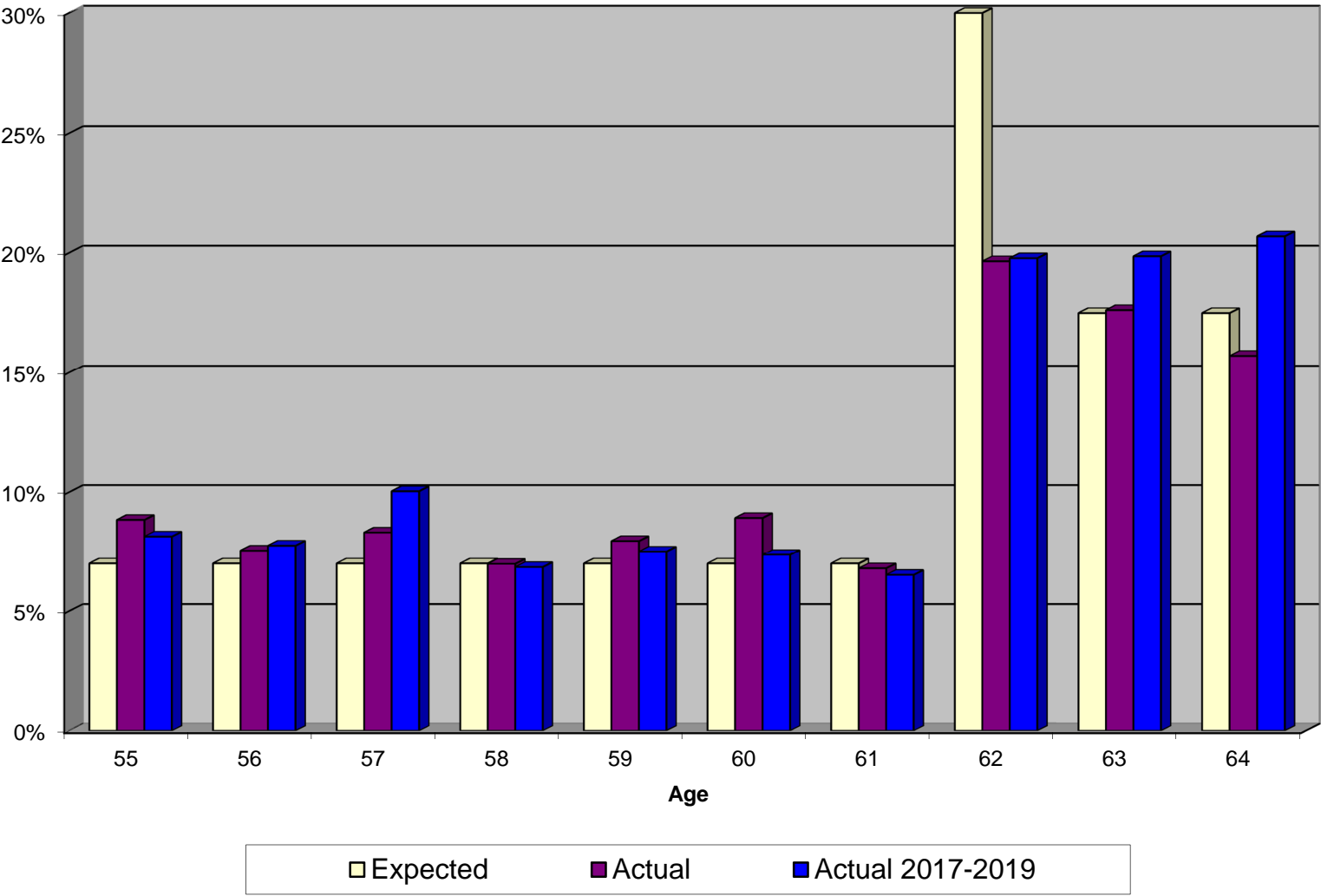
Ratio of Actual Versus Expected Retirements



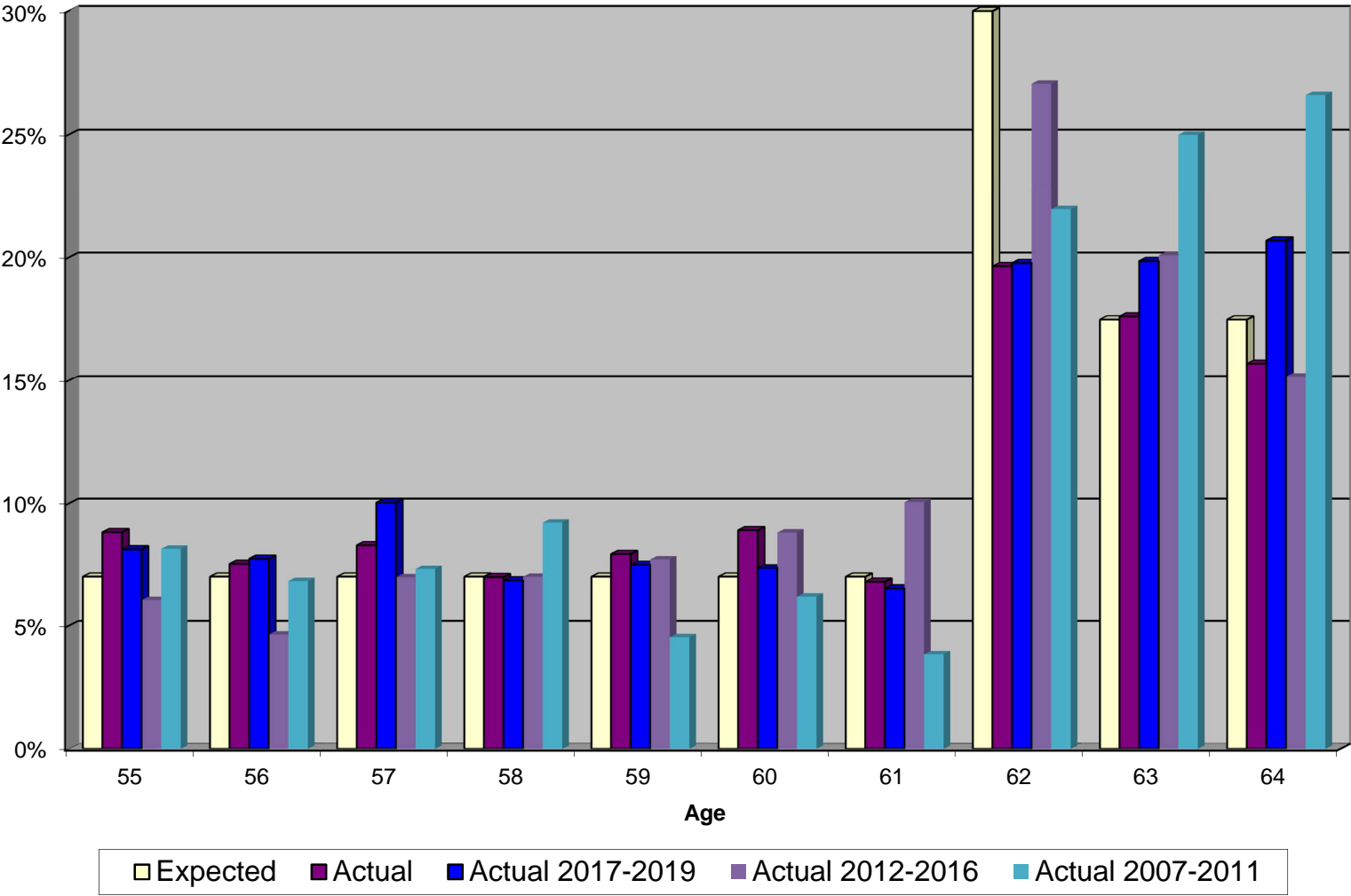
Early (Reduced) Retirement Rates by Age



Early (Reduced) Retirement Rates by Age



Early (Reduced) Retirement Rates by Age



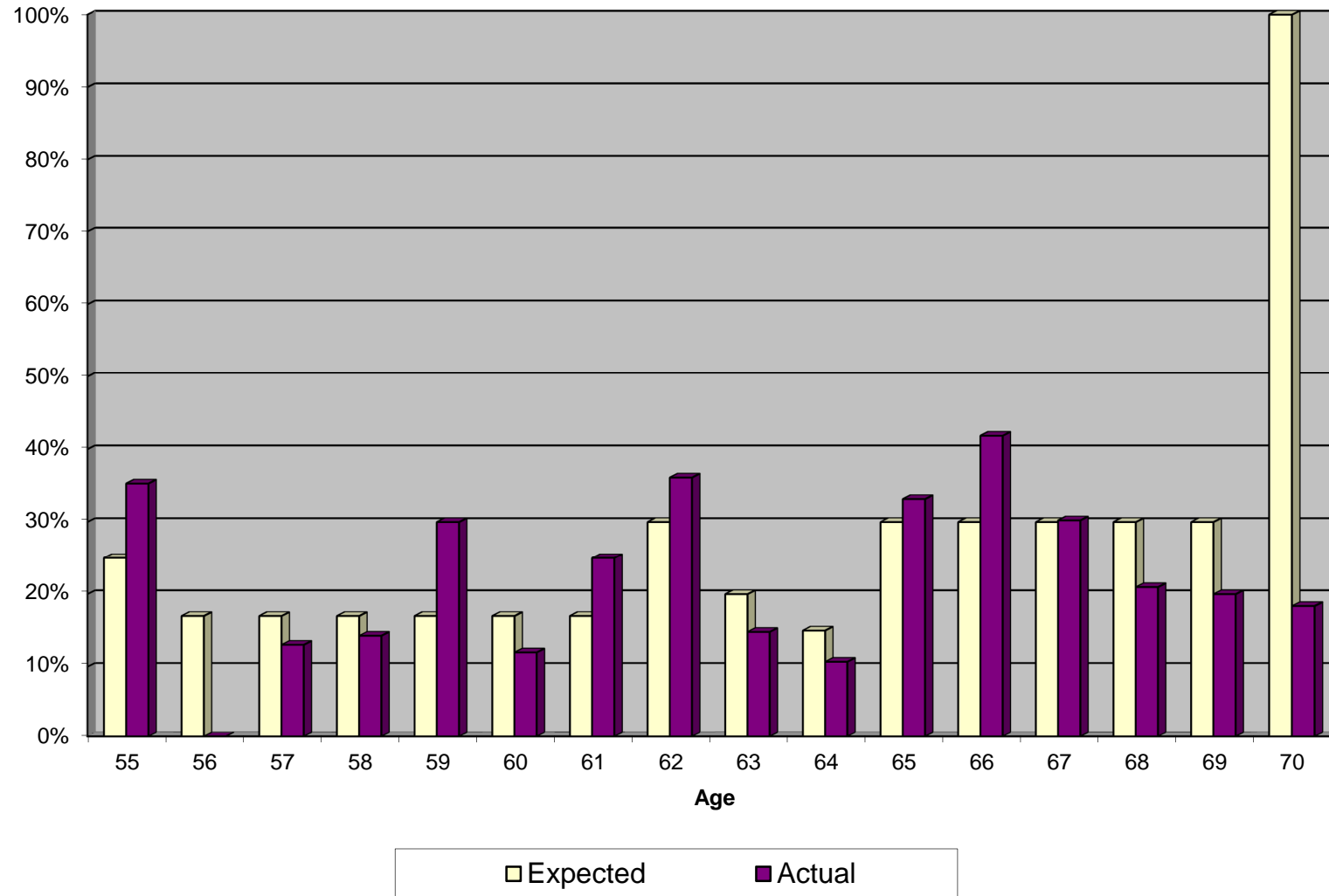


# Early Retirement Experience

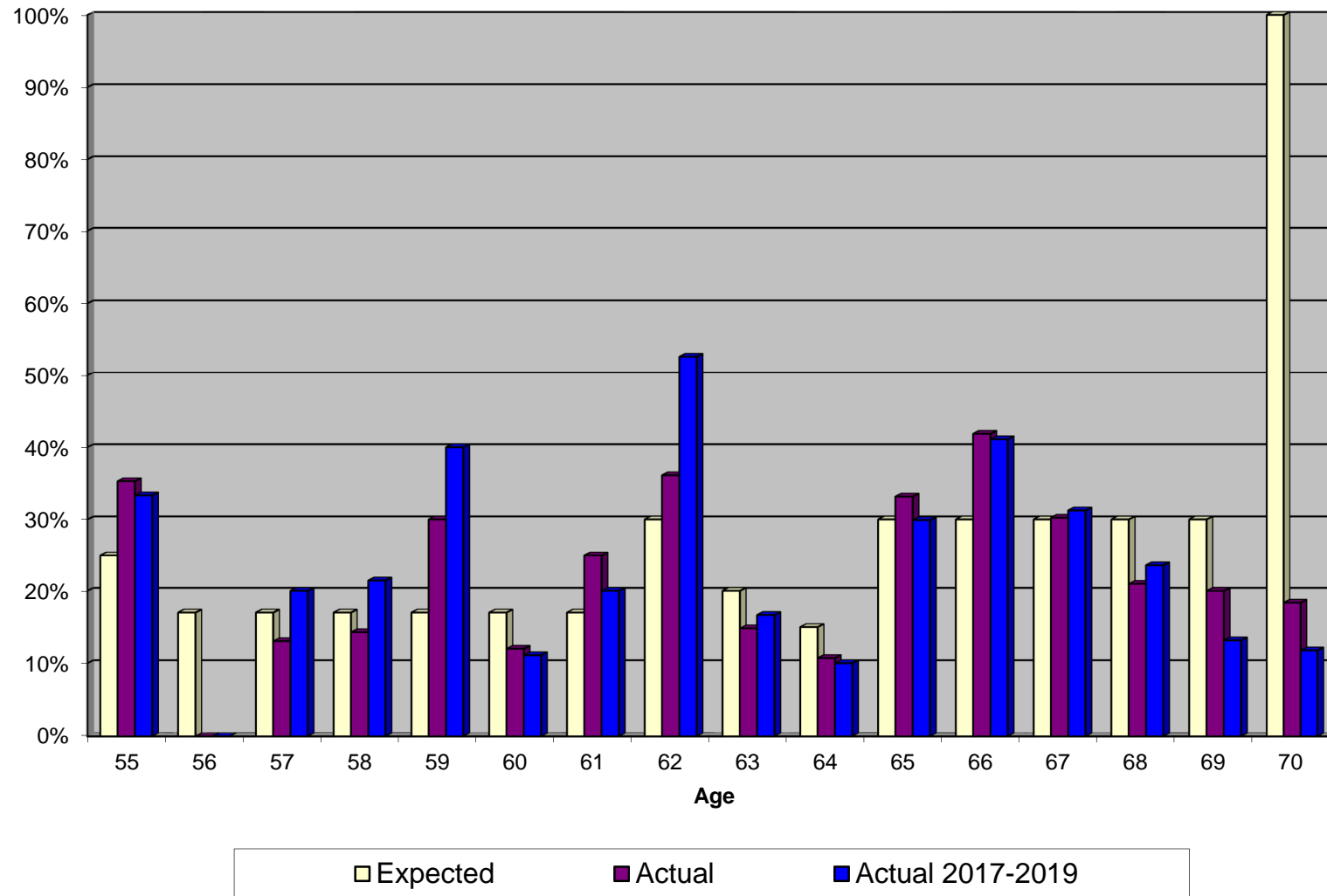
## Possible revisions

	Current	Revised
55	7.0%	7.0%
56	7.0%	7.0%
57	7.0%	7.0%
58	7.0%	7.0%
59	7.0%	7.0%
60	7.0%	7.0%
61	7.0%	7.0%
62	30.0%	<b>20.0%</b>
63	17.5%	<b>20.0%</b>
64	17.5%	<b>20.0%</b>

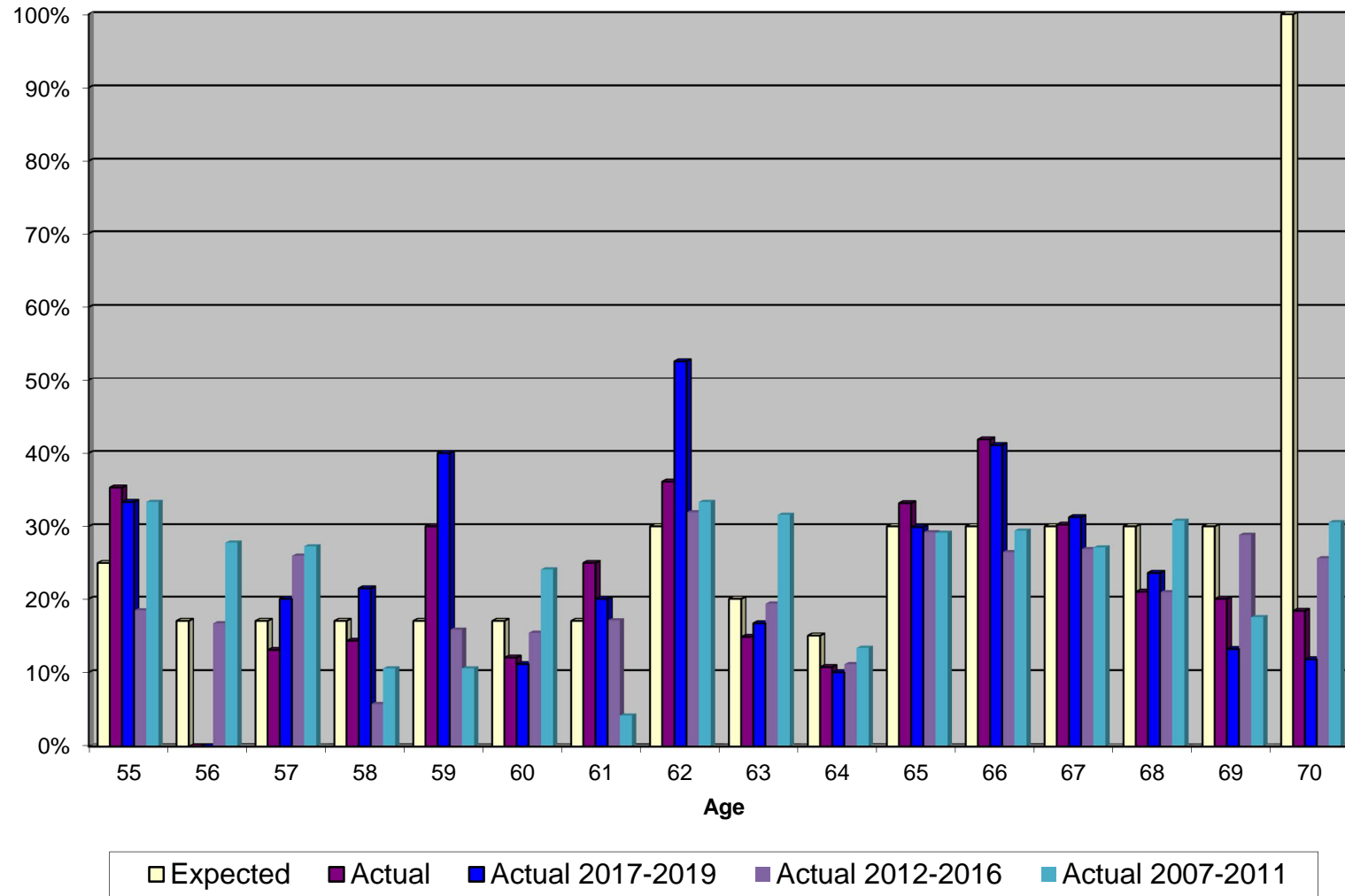
### Unreduced Retirement Rates by Age



### Unreduced Retirement Rates by Age



### Unreduced Retirement Rates by Age



# Unreduced Retirement Experience

## Possible revisions

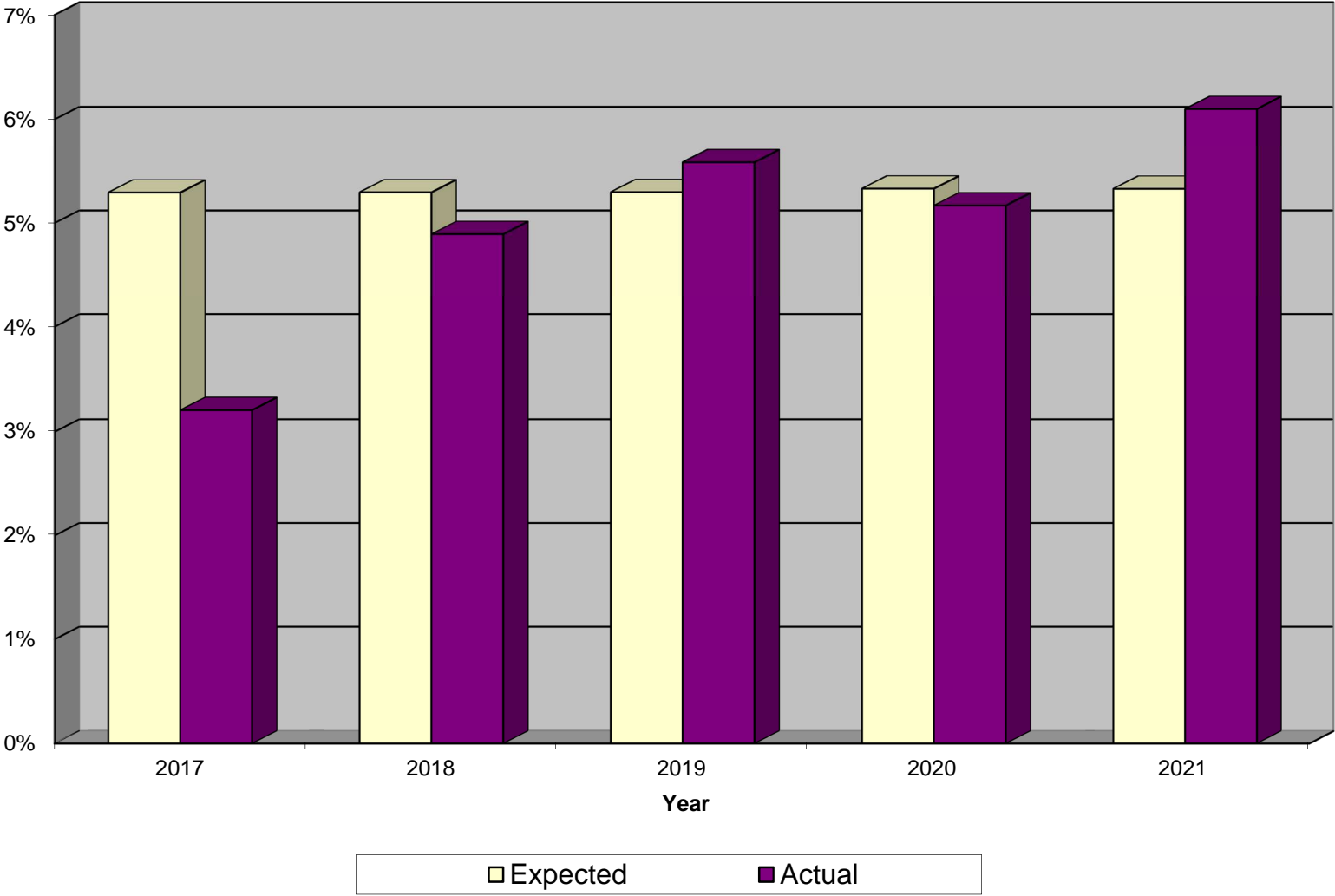
	Current	Revised
55	25%	<b>35%</b>
56	17%	<b>15%</b>
57	17%	<b>15%</b>
58	17%	<b>15%</b>
59	17%	<b>15%</b>
60	17%	<b>15%</b>
61	17%	<b>15%</b>
62	30%	<b>35%</b>
63	20%	<b>15%</b>
64	15%	15%
65	30%	30%
66	30%	30%
67	30%	30%
68	30%	30%
69	30%	30%
70	100%	100%

# **Pay Increase Experience**

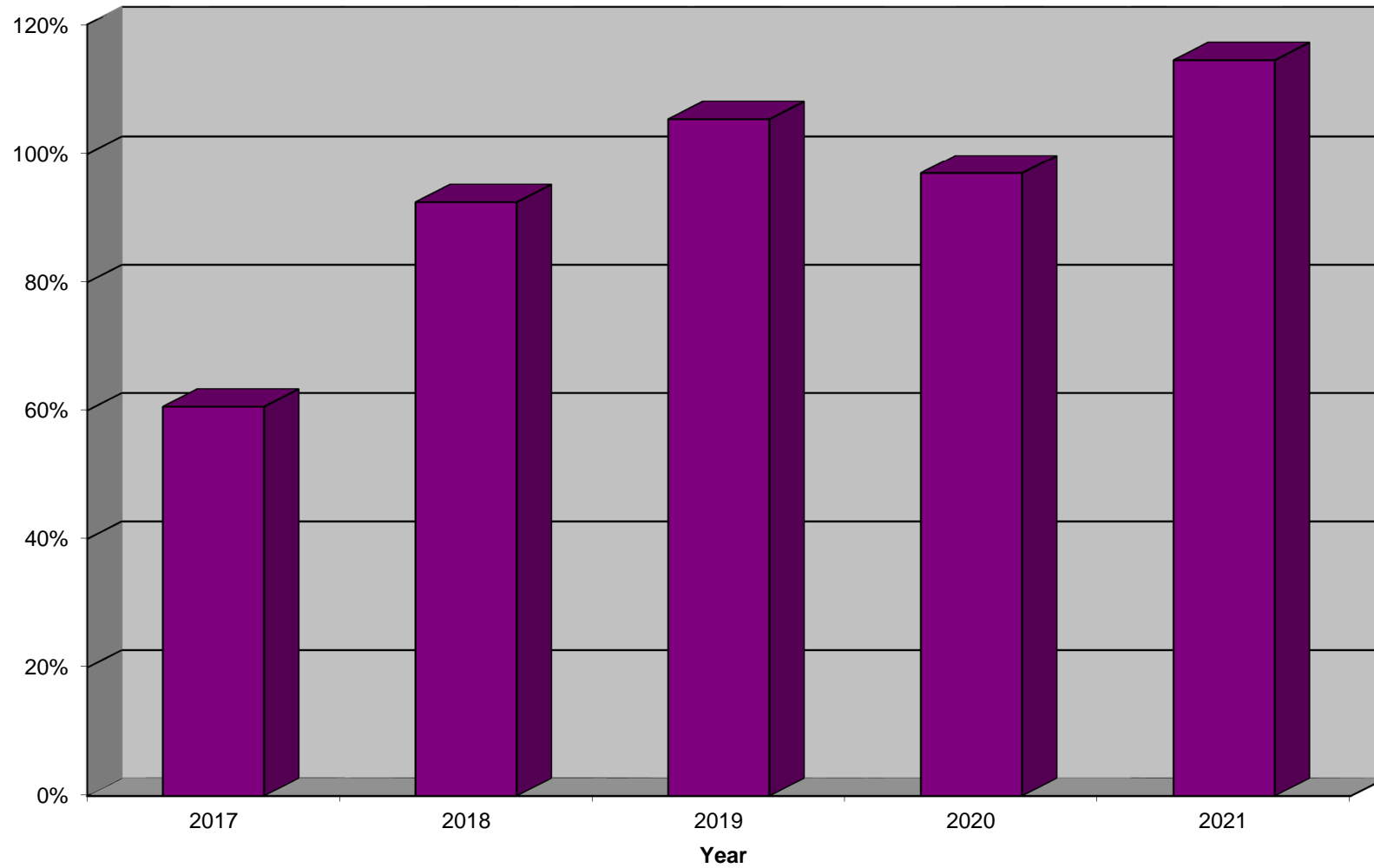
2016-2021

13,289 Participant Life Years

**Actual Versus Expected Pay Increases**

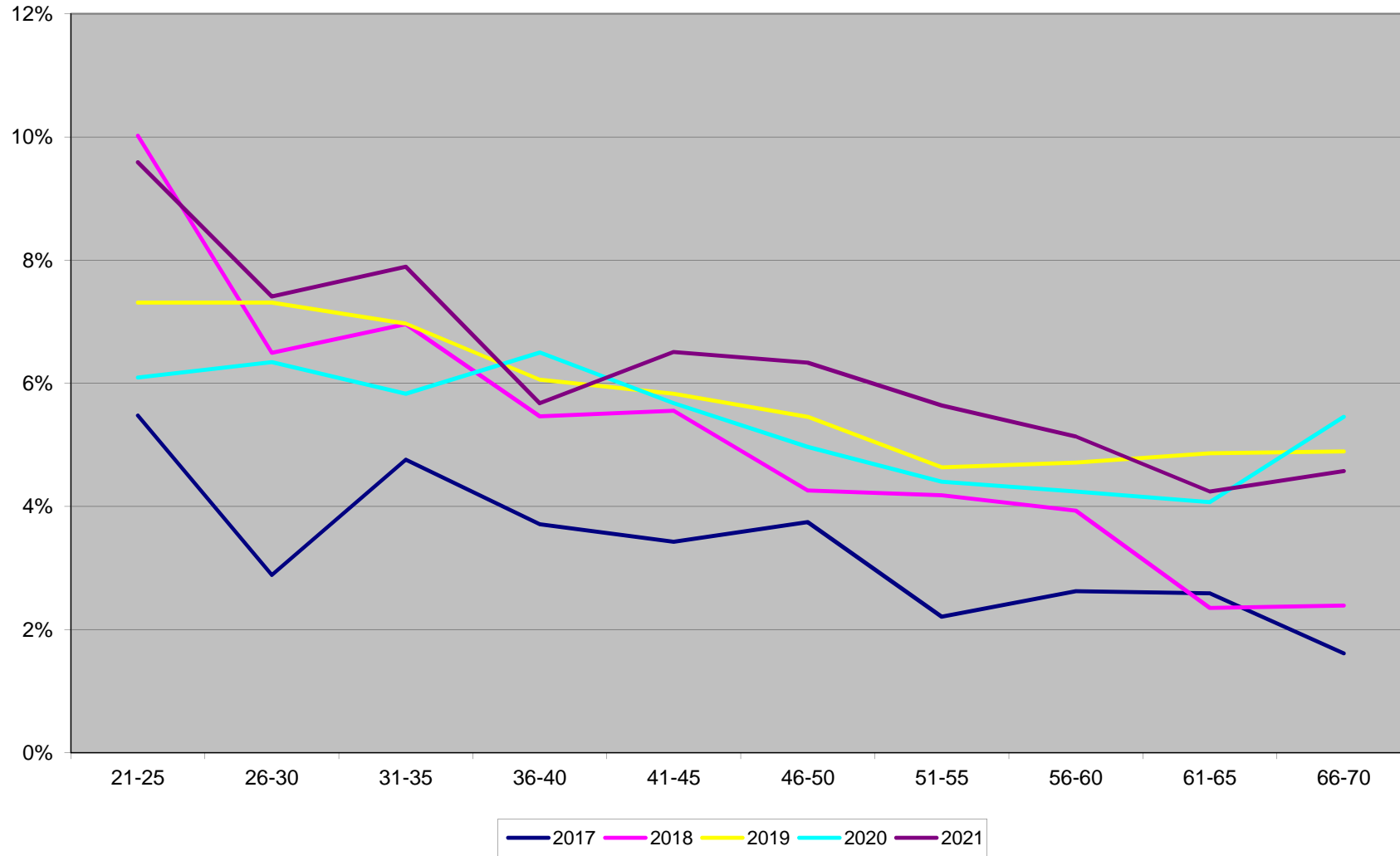


### Ratio of Actual Versus Expected Pay Increases

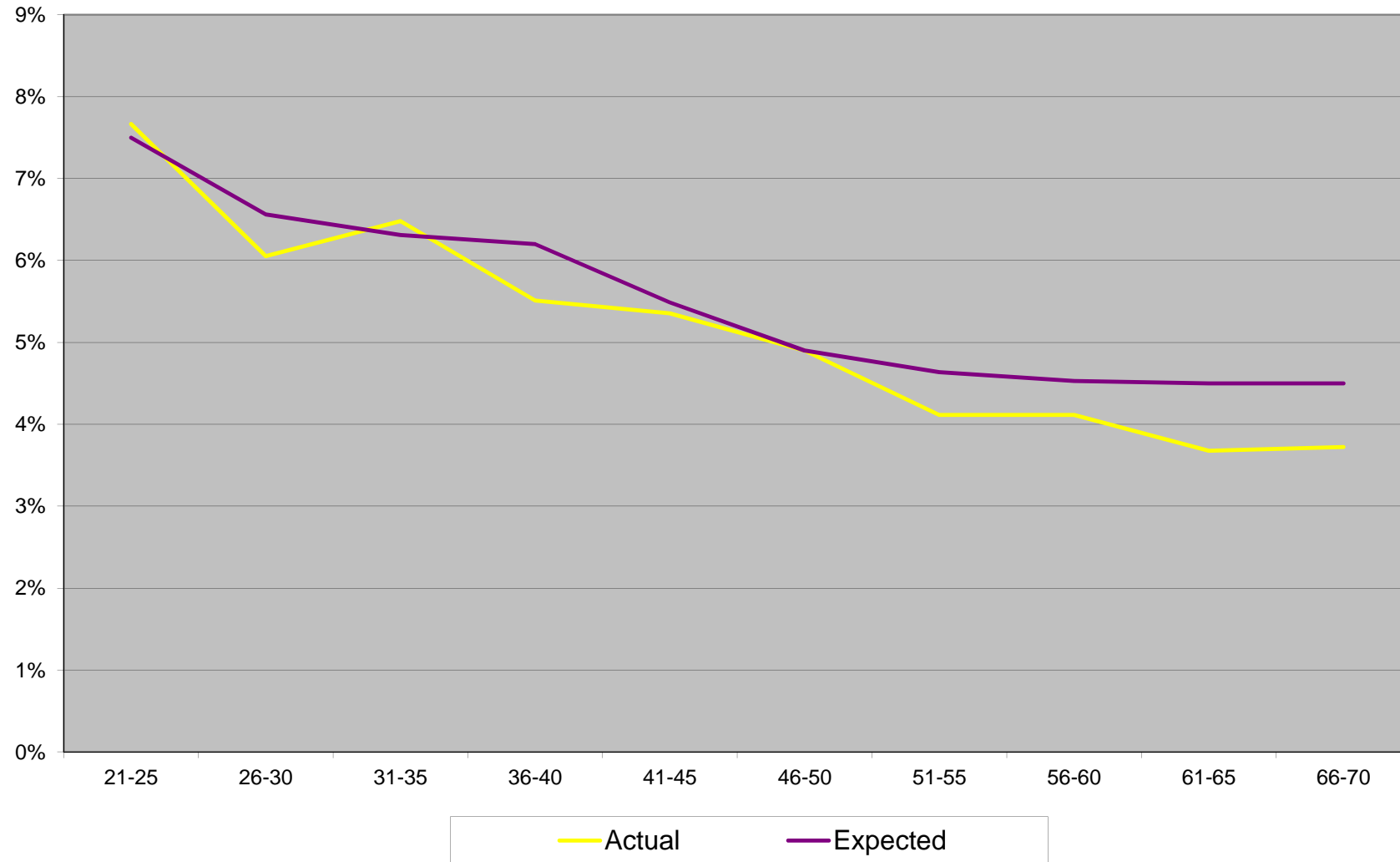




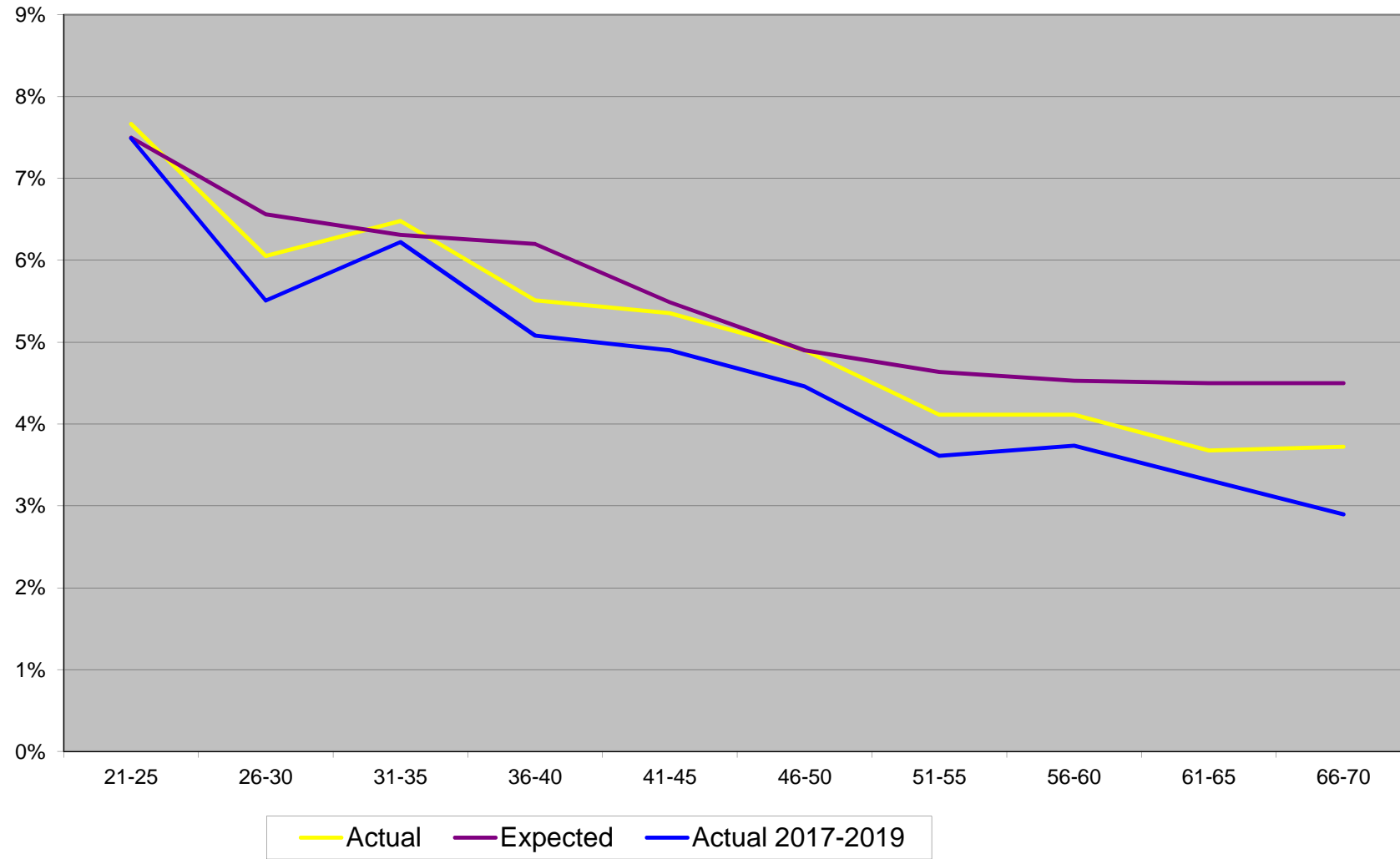
Year by Year Pay Increases by Age



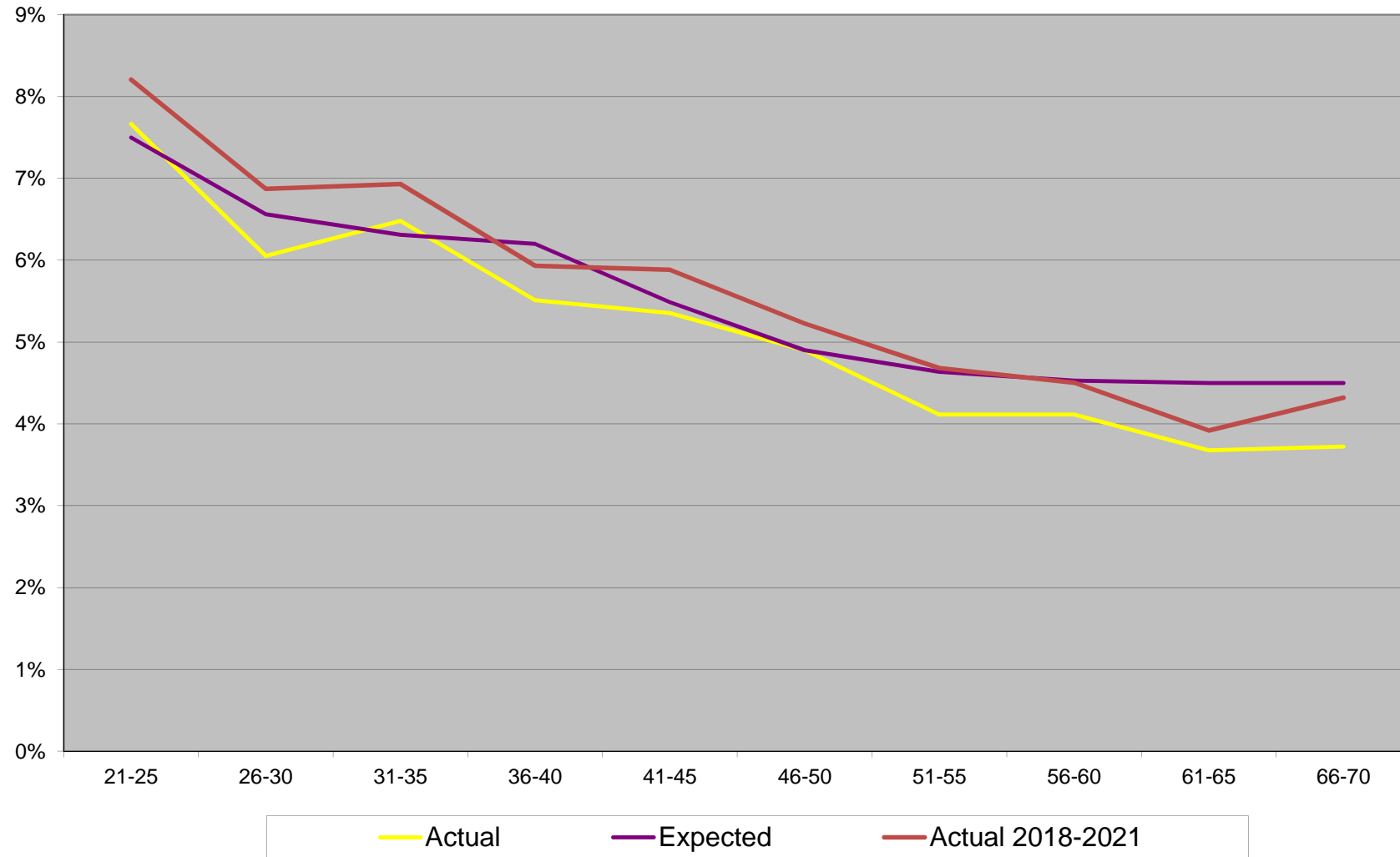
Average Pay Increases by Age



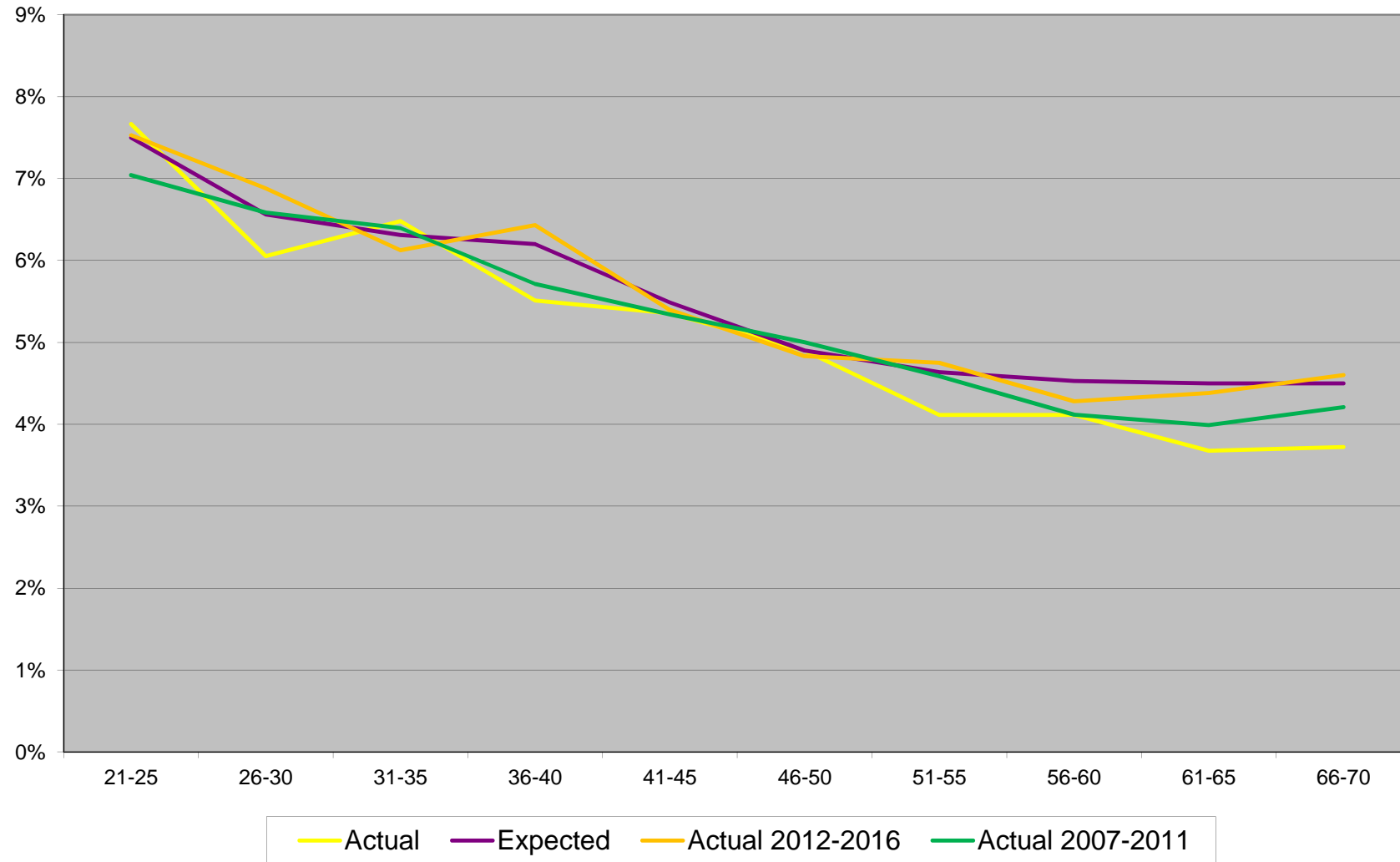
### Average Pay Increases by Age



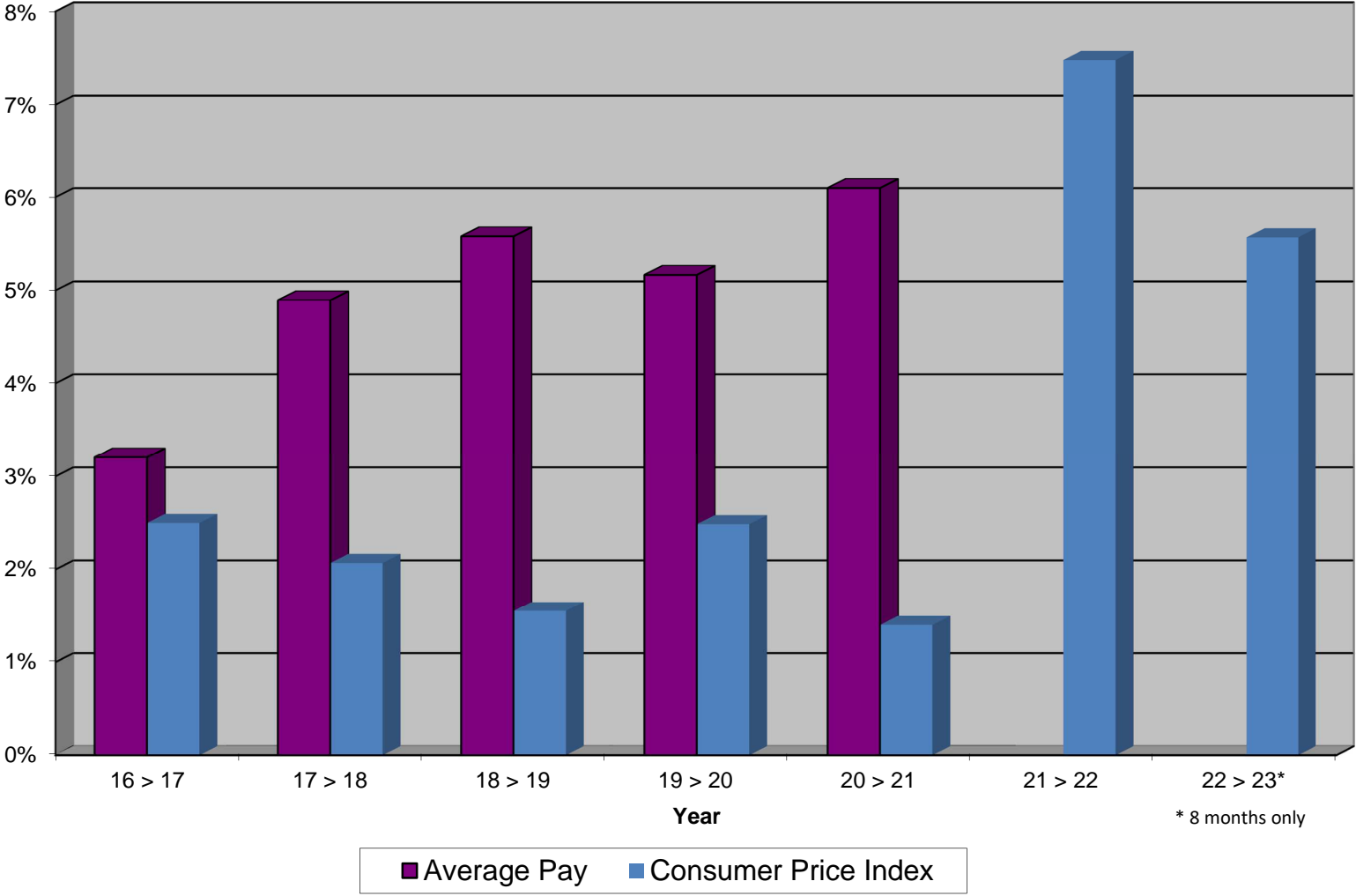
### Average Pay Increases by Age



### Average Pay Increases by Age



Pay Increases Versus Inflation



# **Pay Increase Experience Recommendations**

Maintain shape of pay increase curve

Parallel shift to reflect future expectations

- inflation will come under control
- probably will not return to historically low levels
- increase all ages 0.5%

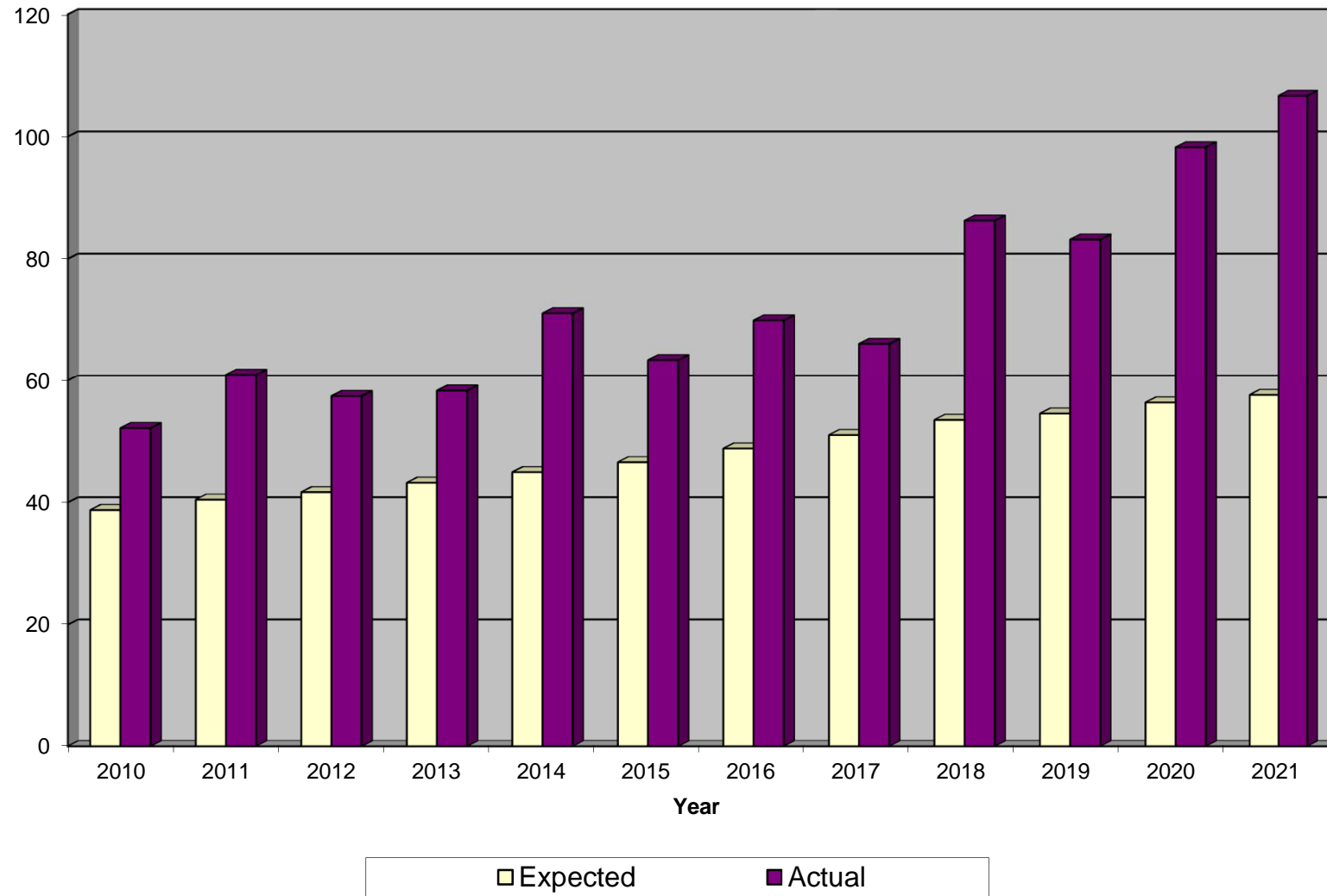
# **Annuitant Mortality Experience**

2010-2021

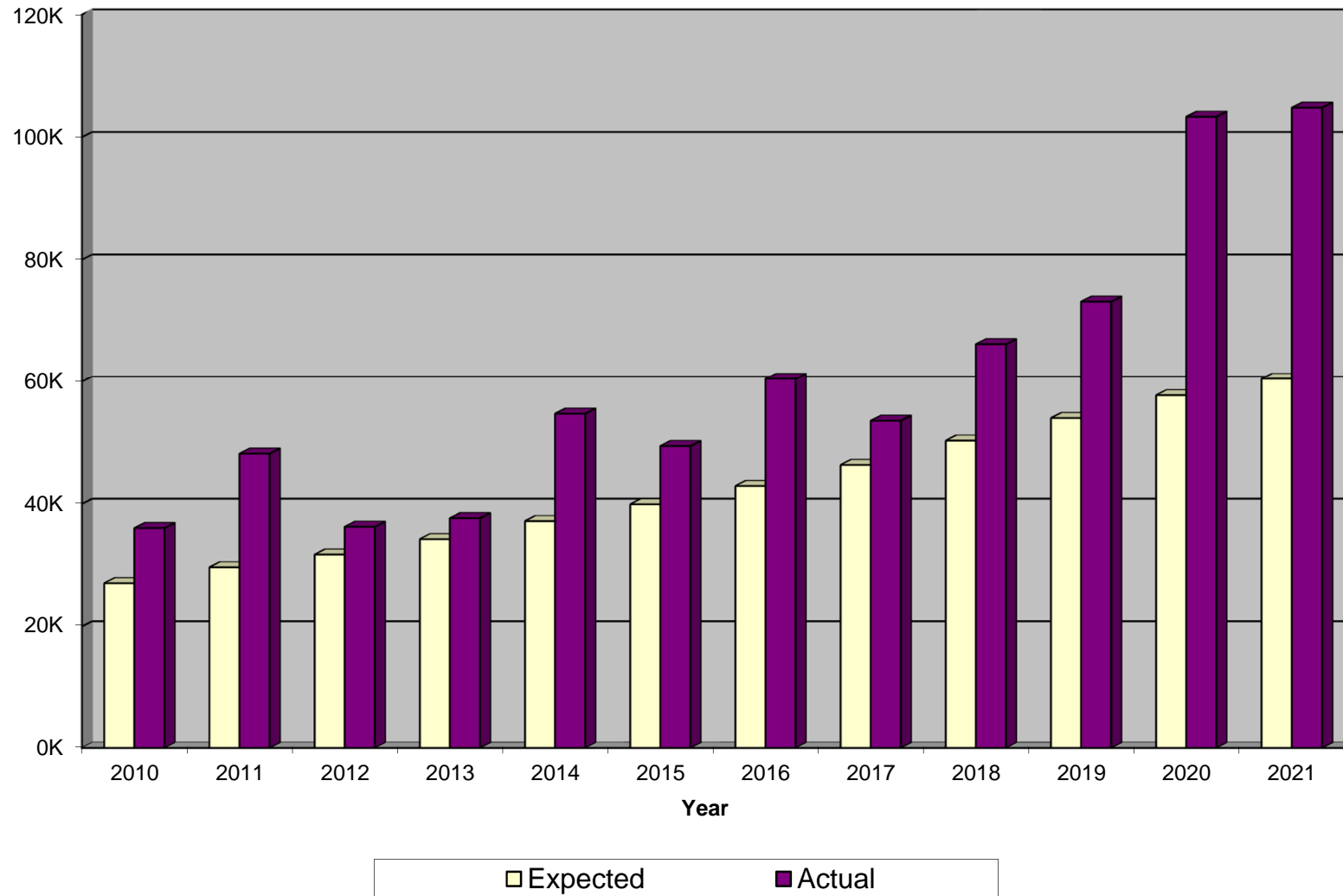
21,832 Participant Life Years



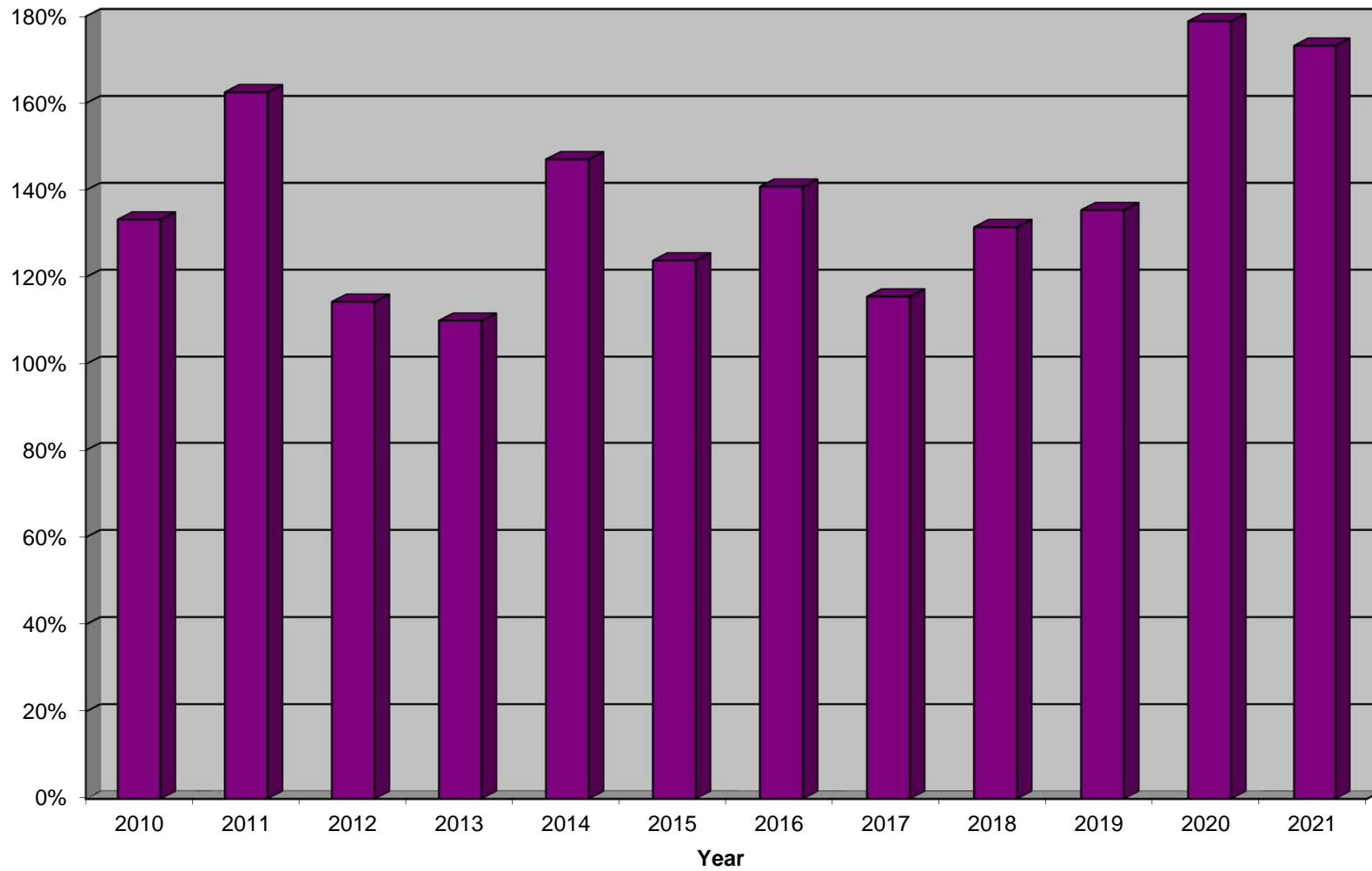
**Actual Versus Expected Deaths (Participant Count)**



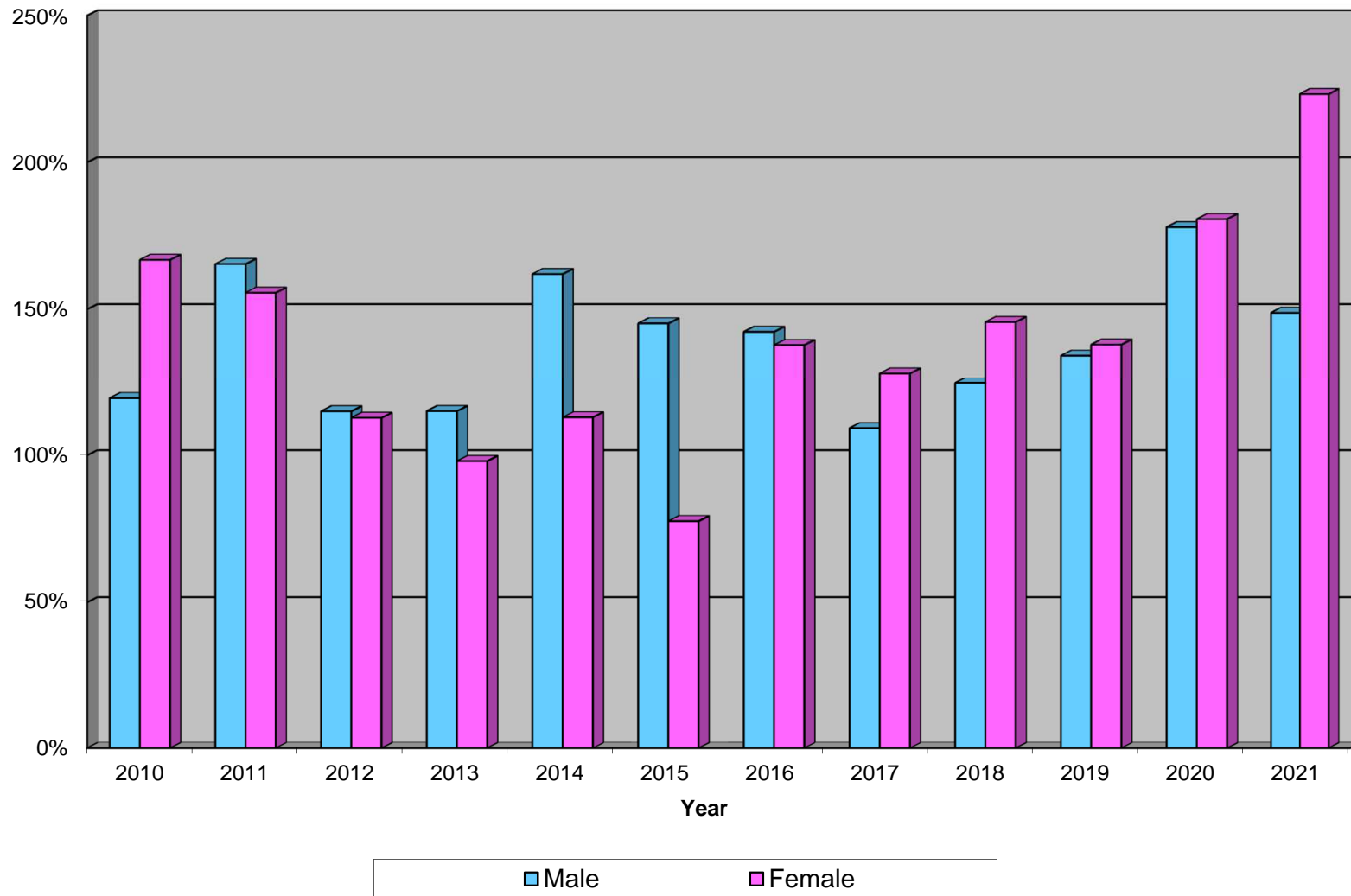
**Actual Versus Expected Deaths (Annuity Amount)**



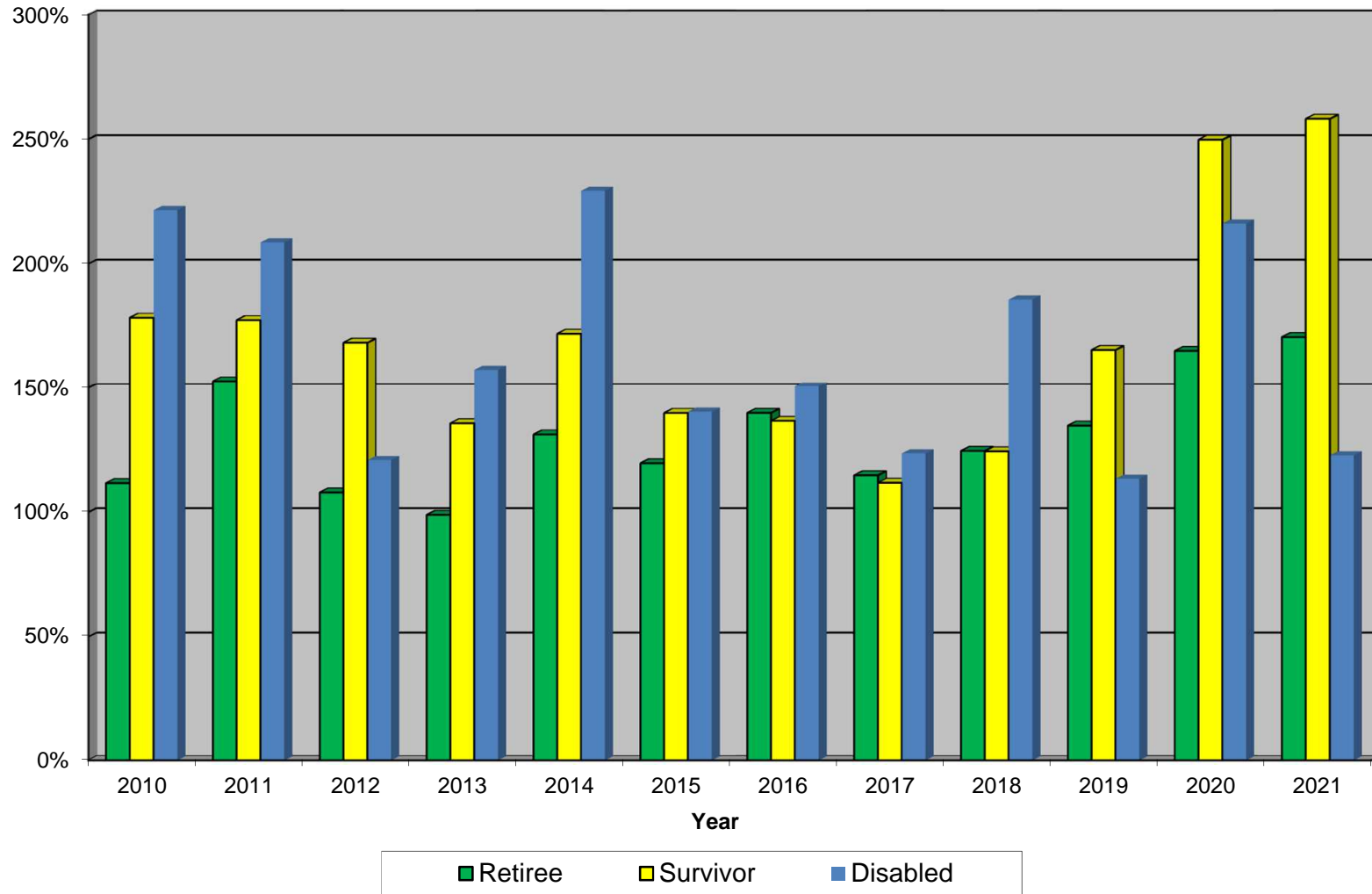
**Ratio of Actual Versus Expected Deaths (Annuity Amount)**



**Ratio of Actual Versus Expected Deaths (Annuity Amount)**



**Ratio of Actual Versus Expected Deaths (Annuity Amount)**



## Mortality Experience versus assumed rates

	2010 - 2021	2010 - 2019	2020 - 2021
All payees	141%	131%	176%
Male	140%	133%	163%
Female	145%	127%	202%
Retiree	135%	124%	168%
Survivor	173%	147%	254%
Disabled	164%	163%	169%

# Disabled Life Mortality

Mortality varies greatly with severity of disability

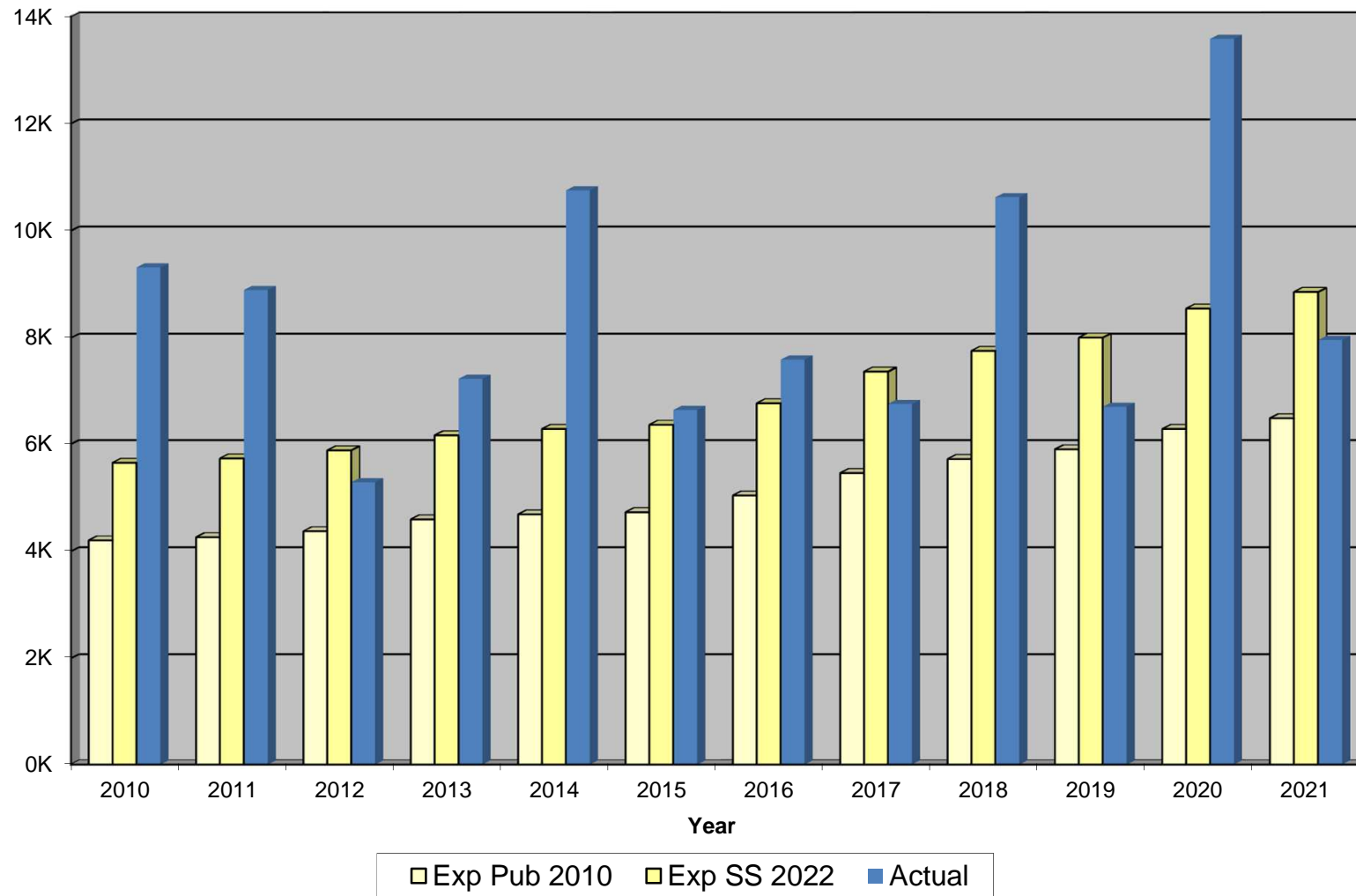
Plan experience will vary due to differences in:

- definition of disability (your job vs any job)
- diligence of administration
- elapsed time since disablement

OkMRF plan definition probably stricter than Pub-2010 universe

Social security ultimate rates (disabled 10 or more years) may be better proxy for OkMRF plans

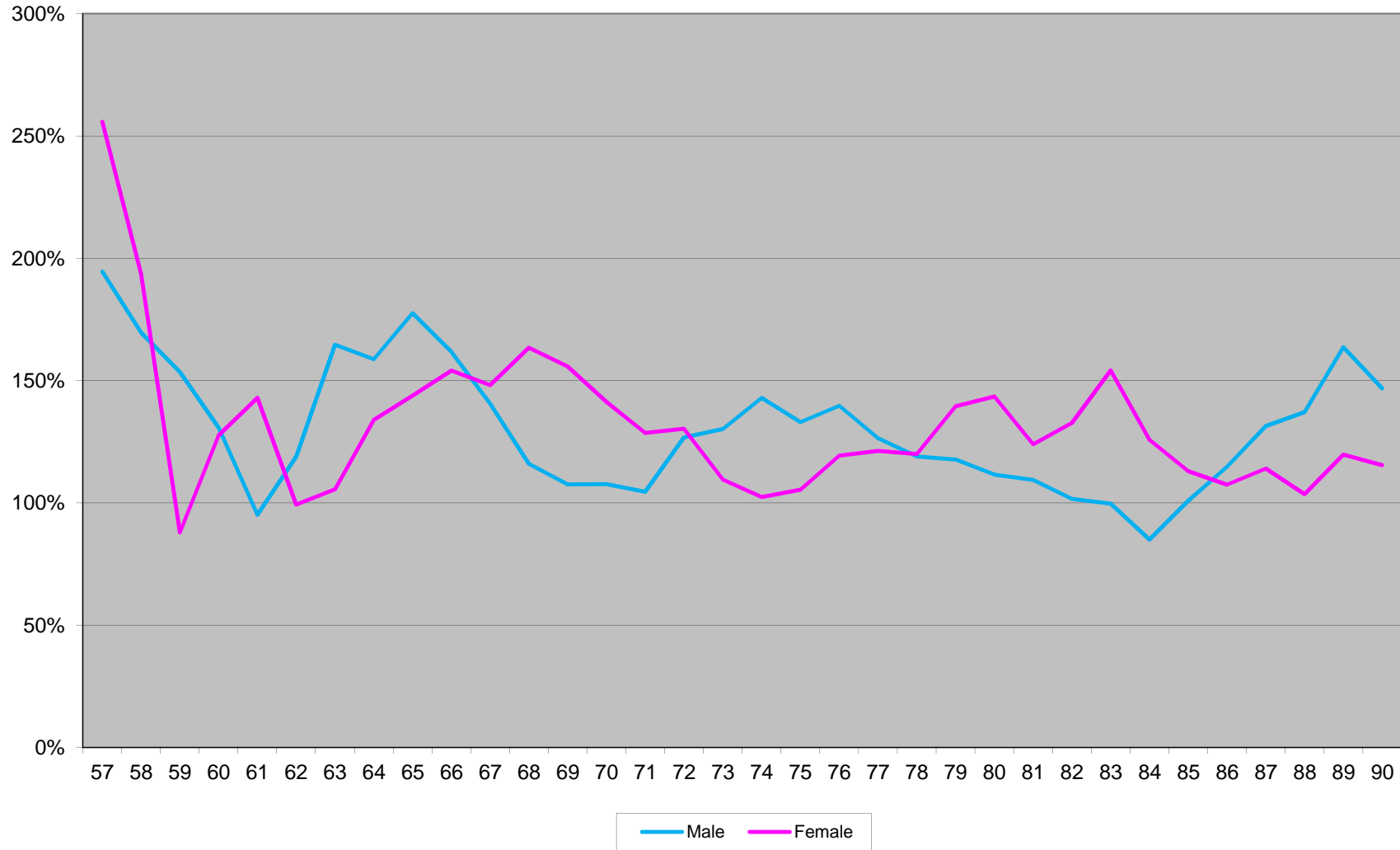
**Actual Versus Expected Deaths Among Disabled Participants (Annuity Amount)**





# Ratio of Actual Versus Expected Deaths, 5-Year Central Averages, 2010-2019

## Retirees and Survivors



# **Mortality Experience Recommendations**

Increase healthy life mortality 20% at all ages

Adopt the ultimate disabled life mortality rates from the 2022 OASDI [Social Security] Trustees report

## **Mortality Experience versus revised assumptions**

	2010 - 2021	2010 - 2019	2020 - 2021
All payees	116%	108%	145%
Male	114%	109%	133%
Female	120%	105%	168%
Retiree	112%	104%	140%
Survivor	144%	122%	212%
Disabled	122%	121%	124%

# Other Considerations

## Active Participant Mortality

no credible data

## Economic Assumptions

- Inflation

effect of 3% annual cap

- Investment return

significant change to market outlook

# Cost Impact of Recommended Changes

*Pro forma* Impact on 7/1/2021 Valuation Results

	<b>Nonactive Liability</b>	<b>Active Liability</b>	<b>Normal Cost</b>
Termination	0.00%	-0.16%	-1.19%
Retirement	0.00%	0.11%	0.19%
Pay Increase	0.00%	2.26%	5.06%
Mortality	-4.42%	-3.27%	-2.76%
<b>Cumulative</b>	<b>-4.42%</b>	<b>-1.15%</b>	<b>1.07%</b>

## ***Pro forma* Impact on 7/1/2021 Valuation and 2022-23 Contribution Rates**

	Liability						Change in Contribution Rate		
City	Nonactive	Active	Total		Normal Cost		Muni	Employee	Total
Adair	-4.7%	-2.6%	-3.4%		-3.5%		-0.74%	0.00%	-0.74%
Altus	-4.2%	-0.8%	-2.8%		+2.0%		-0.84%	0.00%	-0.84%
Alva	-3.9%	-2.8%	-3.2%		+0.6%		-0.75%	0.00%	-0.75%
Antlers	-2.9%	-1.6%	-2.4%		-0.2%		-0.28%	0.00%	-0.28%
Ardmore	-4.2%	-1.4%	-2.6%		+0.6%		-0.79%	0.00%	-0.79%
Bartlesville	-3.4%	-4.7%	-4.0%		0.0%		-2.47%	0.00%	-2.47%
Bethany	-4.9%	-1.5%	-3.6%		+0.4%		-2.29%	0.00%	-2.29%
Bethany/Warr Acres	-3.4%	-1.1%	-2.4%		+5.4%		-1.40%	0.00%	-1.40%
Billings	-3.8%	-4.9%	-3.8%		-2.2%		0.00%	0.00%	0.00%
Binger	-3.4%	-2.8%	-3.2%		-5.7%		-0.74%	0.00%	-0.74%
Blackwell	-4.2%	-0.6%	-2.6%		+1.2%		-0.36%	0.00%	-0.36%
Blair	-3.4%	-1.7%	-1.8%		+3.3%		-0.33%	0.00%	-0.33%
Boise City	-4.8%	-2.1%	-3.8%		-2.3%		-1.21%	0.00%	-1.21%
Bokchito	-12.9%	-0.5%	-4.6%		-0.8%		-0.34%	0.00%	-0.34%
Bristow	-5.7%	-1.0%	-4.0%		-2.1%		-1.57%	0.00%	-1.57%
Broken Bow	-3.5%	-1.4%	-2.1%		-0.0%		-0.58%	0.00%	-0.58%
Buffalo	-5.3%	-1.3%	-3.4%		+2.3%		-0.95%	0.00%	-0.95%
Burns Flat	-3.3%	-0.5%	-2.1%		+2.6%		-0.34%	0.00%	-0.34%
Calera	-3.6%	-1.0%	-2.1%		+0.8%		-0.30%	0.00%	-0.30%
Central Oklahoma MCD	-5.0%	-3.4%	-3.9%		-0.4%		-1.91%	0.00%	-1.91%
Chandler	-4.2%	-2.3%	-2.4%		+1.2%		-0.47%	0.00%	-0.47%
Checotah	-4.2%	-0.7%	-1.9%		+1.6%		-0.25%	0.00%	-0.25%
Cherokee & CDA	-4.6%	+0.4%	-2.3%		+1.0%		-0.16%	0.00%	-0.16%
Chickasha	-5.3%	-2.0%	-4.5%		-1.4%		-3.36%	0.00%	-3.36%
Claremore	-4.8%	-0.5%	-2.6%		+2.0%		-0.54%	0.00%	-0.54%

## ***Pro forma* Impact on 7/1/2021 Valuation and 2022-23 Contribution Rates**

	Liability						Change in Contribution Rate		
City	Nonactive	Active	Total		Normal Cost		Muni	Employee	Total
Cleo Springs	-6.5%	+0.9%	-6.1%		+1.5%		-4.06%	0.00%	-4.06%
Cleveland	-4.9%	-1.3%	-4.1%		-0.1%		-2.87%	0.00%	-2.87%
Clinton	-5.3%	-1.7%	-3.9%		-0.5%		-2.12%	0.00%	-2.12%
Collinsville	-5.0%	-1.1%	-2.2%		-0.3%		-0.48%	0.00%	-0.48%
Copan	-5.9%	-1.8%	-3.5%		+0.1%		-0.23%	0.00%	-0.23%
Cordell	-5.5%	-2.9%	-4.4%		+0.1%		-2.51%	0.00%	-2.51%
Cushing	-3.8%	-0.8%	-2.8%		+1.3%		-1.20%	0.00%	-1.20%
Davis	-4.6%	-1.9%	-3.0%		+0.7%		-0.60%	0.00%	-0.60%
Del City	-4.4%	-0.7%	-2.9%		+1.6%		-1.64%	0.00%	-1.64%
Dewey	-4.4%	-0.7%	-1.6%		+2.3%		-0.41%	0.00%	-0.41%
Drumright	-4.1%	-0.8%	-3.2%		+1.5%		-1.25%	0.00%	-1.25%
Durant	-4.9%	-1.4%	-3.6%		+0.7%		-1.24%	0.00%	-1.24%
El Reno	-4.7%	-0.3%	-1.7%		+2.1%		-0.17%	0.00%	-0.17%
Eufaula	-4.1%	-1.5%	-3.0%		+2.0%		-0.36%	0.00%	-0.36%
Fort Cobb	-3.2%	-10.1%	-3.8%		-1.6%		-0.93%	0.00%	-0.93%
Foss Reservoir Public Works	-3.9%	-0.5%	-1.7%		+5.9%		-0.15%	0.00%	-0.15%
Frederick	-3.6%	-1.2%	-2.5%		+0.9%		-1.11%	0.00%	-1.11%
Garber	-3.4%	-1.0%	-1.1%		-6.4%		-0.71%	0.00%	-0.71%
Geary	-5.3%	-0.5%	-2.7%		+2.0%		-0.34%	-0.00%	-0.35%
Goodwell	-4.1%	+0.3%	-3.6%		-1.7%		0.00%	0.00%	0.00%
Gore and Gore PWA	-3.9%	+0.2%	-1.3%		+1.0%		-0.06%	0.00%	-0.06%
Granite	-4.2%	-2.9%	-3.7%		-2.9%		-2.50%	0.00%	-2.50%
Guthrie	-3.2%	-0.5%	-1.5%		+1.1%		-0.30%	0.00%	-0.30%
Harrah	-2.4%	-1.0%	-1.8%		+1.1%		-0.63%	0.00%	-0.63%
Healdton	-3.7%	-0.9%	-2.1%		+1.4%		-0.57%	0.00%	-0.57%

## ***Pro forma* Impact on 7/1/2021 Valuation and 2022-23 Contribution Rates**

	Liability						Change in Contribution Rate		
City	Nonactive	Active	Total		Normal Cost		Muni	Employee	Total
Henryetta	-3.4%	-0.8%	-1.6%		+1.7%		-0.35%	0.00%	-0.35%
Hooker	-5.9%	-0.2%	-3.3%		+2.7%		-1.00%	0.00%	-1.00%
Hulbert	-3.5%	+0.4%	-1.4%		+4.5%		0.00%	0.00%	0.00%
Hydro	-3.7%	+2.3%	-2.4%		+2.2%		-0.27%	0.00%	-0.27%
Kansas	-3.7%	+0.6%	-1.7%		+3.9%		+0.01%	0.00%	+0.01%
Kiefer	-4.1%	+0.1%	-0.6%		+1.7%		+0.07%	0.00%	+0.07%
Kingston	-5.3%	-1.0%	-3.7%		+0.0%		-0.51%	0.00%	-0.51%
Krebs & Krebs Utility Auth.	-4.3%	-1.2%	-1.8%		+0.4%		-0.11%	0.00%	-0.11%
Laverne	-4.1%	+1.7%	-2.1%		+3.0%		-0.32%	0.00%	-0.32%
Lindsay	-5.5%	-1.0%	-3.6%		-0.0%		-0.78%	0.00%	-0.78%
Madill	-6.1%	-1.9%	-2.9%		+1.2%		-0.71%	0.00%	-0.71%
Mannford	-5.9%	-0.8%	-3.2%		+2.3%		-0.79%	0.00%	-0.79%
Marietta	-6.0%	+0.2%	-2.7%		+5.5%		+0.04%	0.00%	+0.04%
Marietta PWA	-6.1%	+0.3%	-2.7%		+1.8%		-0.69%	0.00%	-0.69%
McCloud	-7.3%	-0.8%	-3.6%		+0.2%		-0.29%	0.00%	-0.29%
Medford	-4.7%	-1.3%	-2.7%		+3.9%		-1.63%	0.00%	-1.63%
Meeker	-3.4%	-0.9%	-2.7%		-1.3%		-0.58%	0.00%	-0.58%
Miami	-3.9%	-0.1%	-2.4%		+1.7%		-0.49%	0.00%	-0.49%
Mooreland	-3.1%	+3.1%	-1.8%		+1.5%		-0.38%	0.00%	-0.38%
Mountain Park MCD	-3.0%	-1.6%	-2.7%		-1.2%		-1.76%	0.00%	-1.76%
Muldrow	-5.1%	+0.9%	-2.7%		+1.9%		-0.52%	0.00%	-0.52%
Mustang	-3.2%	-1.0%	-2.0%		-0.3%		-0.66%	0.00%	-0.66%
Nichols Hills	-4.5%	-1.9%	-3.4%		+1.3%		-0.82%	0.00%	-0.82%
Noble	-5.7%	-1.6%	-2.8%		+2.3%		-0.46%	0.00%	-0.46%
Nowata	-3.7%	-0.3%	-1.6%		+0.8%		-0.18%	0.00%	-0.18%



## ***Pro forma* Impact on 7/1/2021 Valuation and 2022-23 Contribution Rates**

	Liability						Change in Contribution Rate		
City	Nonactive	Active	Total		Normal Cost		Muni	Employee	Total
Oilton	-8.8%	-0.0%	-4.4%		+3.0%		-0.37%	0.00%	-0.37%
Okeene	-3.5%	-0.5%	-2.5%		+0.8%		-0.64%	0.00%	-0.64%
Okemah	-4.0%	-1.2%	-1.9%		+0.8%		-0.26%	0.00%	-0.26%
Oklahoma Municipal League	-5.1%	-2.2%	-4.1%		-1.0%		-2.71%	0.00%	-2.71%
OkMRF Staff	-3.4%	-1.0%	-1.3%		+1.8%		-0.14%	0.00%	-0.14%
Okmulgee	-5.9%	-1.9%	-3.6%		+0.8%		-1.67%	0.00%	-1.67%
Owasso	-3.8%	-0.6%	-1.5%		+1.4%		-0.23%	0.00%	-0.23%
Pawnee	-3.1%	-0.4%	-1.8%		-0.1%		-0.44%	0.00%	-0.44%
Perkins	-5.0%	+0.3%	-2.6%		-0.1%		-0.56%	0.00%	-0.56%
Perry	-4.3%	+0.6%	-1.0%		+3.4%		+0.14%	0.00%	+0.14%
Piedmont	-3.3%	+2.2%	+0.4%		+1.3%		+0.10%	0.00%	+0.10%
Pond Creek	-4.4%	+0.4%	-2.4%		+3.5%		-0.76%	0.00%	-0.76%
Porum	-3.7%	-0.2%	-1.5%		+3.6%		+0.02%	0.00%	+0.02%
Poteau	-3.9%	-1.2%	-2.7%		+2.9%		-1.10%	0.00%	-1.10%
Ratliff City	-3.6%	+0.3%	-1.2%		+2.0%		-0.01%	0.00%	-0.01%
Ringling	-9.6%	-2.0%	-4.9%		-1.1%		-0.65%	0.00%	-0.65%
Roland	-4.2%	-0.9%	-1.6%		+2.0%		-0.05%	0.00%	-0.05%
Sallisaw	-4.0%	-1.1%	-2.3%		+3.0%		-0.57%	0.00%	-0.57%
Seiling	-4.7%	-1.1%	-1.7%		+3.9%		0.00%	0.00%	0.00%
Shawnee	-4.4%	+0.0%	-3.9%		+2.8%		-11.72%	0.00%	-11.72%
Skiatook	-4.6%	-1.0%	-1.8%		-0.8%		-0.26%	0.00%	-0.26%
Spencer	-4.0%	+2.2%	-1.5%		+5.4%		+0.40%	0.00%	+0.40%
Spiro	-4.7%	-2.6%	-3.8%		-0.1%		-0.89%	0.00%	-0.89%
Stilwell	-4.8%	+0.6%	-2.8%		+3.1%		-0.60%	0.00%	-0.60%
Stratford	-3.0%	+0.7%	-0.8%		+0.8%		0.00%	0.00%	0.00%

## ***Pro forma* Impact on 7/1/2021 Valuation and 2022-23 Contribution Rates**

	Liability						Change in Contribution Rate		
City	Nonactive	Active	Total		Normal Cost		Muni	Employee	Total
Stroud	-5.1%	-0.5%	-2.5%		+0.8%		-0.60%	0.00%	-0.60%
Sulphur	-3.5%	-0.7%	-2.2%		+0.9%		-0.93%	0.00%	-0.93%
Talihina & TPWA	-3.9%	-1.0%	-1.6%		+3.0%		-0.14%	0.00%	-0.14%
Thomas	-5.2%	-1.0%	-3.1%		+2.7%		-1.13%	0.00%	-1.13%
Tipton	-2.2%	-2.7%	-2.6%		+2.3%		-0.38%	0.00%	-0.38%
Tishomingo	-5.2%	-1.3%	-2.2%		+0.6%		-0.20%	0.00%	-0.20%
Tonkawa	-5.1%	+0.7%	-2.6%		+2.0%		-0.52%	0.00%	-0.52%
Valliant	0.0%	-1.2%	-1.2%		-0.8%		-0.12%	0.00%	-0.12%
Velma	-3.1%	+4.5%	-1.3%		+2.0%		-0.00%	0.00%	-0.00%
Vian	-4.3%	-1.3%	-1.7%		-0.6%		-0.18%	0.00%	-0.18%
Vinita	-5.8%	-2.6%	-4.7%		+0.3%		-2.80%	0.00%	-2.80%
Wakita	-5.0%	-1.1%	-4.4%		-0.5%		0.00%	0.00%	0.00%
Warr Acres	-3.9%	-1.4%	-2.7%		+1.3%		-1.26%	0.00%	-1.26%
Watonga	-5.0%	-1.8%	-3.4%		-0.7%		-1.39%	0.00%	-1.39%
Waukomis	-3.4%	+0.3%	-1.6%		+2.6%		+0.12%	0.00%	+0.12%
Waurika	-3.7%	+0.1%	-2.3%		+1.2%		-0.71%	0.00%	-0.71%
Weatherford	-4.4%	-0.7%	-2.4%		+0.4%		-0.48%	0.00%	-0.48%
Webbers Falls	-5.2%	-1.1%	-2.2%		+1.4%		-0.02%	0.00%	-0.02%
Wellston	-6.4%	-1.4%	-4.5%		+1.5%		-0.54%	0.00%	-0.54%
Westville Utility Authority	-3.7%	+2.0%	+0.2%		+3.2%		+0.44%	0.00%	+0.44%
Wetumka	-4.7%	-1.2%	-3.8%		-0.6%		-1.28%	0.00%	-1.28%
Wilburton	-4.4%	-0.0%	-0.5%		+1.9%		+0.03%	0.00%	+0.03%
Yale	-5.1%	-0.4%	-3.0%		-0.7%		-0.88%	0.00%	-0.88%
Yukon	-4.1%	-0.7%	-2.1%		+1.7%		-1.09%	0.00%	-1.09%

## ***Pro forma* Impact on 7/1/2021 Valuation and 2022-23 Contribution Rates**

City	Liability			Normal Cost	Change in Contribution Rate		
	Nonactive	Active	Total		Muni	Employee	Total
Braman	-8.7%	0.0%	-8.7%				(2,335)
Chouteau	-6.0%		-6.0%				0
Guymon	-3.7%	-3.6%	-3.7%				0
Muskogee	-13.6%		-13.6%				0
Newkirk	-4.0%	-4.2%	-4.0%				(9,960)
Norman	-10.6%		-10.6%				(31)
Tecumseh	-8.6%		-6.7%				0
<b>Total</b>	<b>-4.4%</b>	<b>-1.2%</b>	<b>-2.9%</b>	<b>+1.1%</b>			<b>-0.92%</b>

RESOLUTION NO. 96-2

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE OKLAHOMA MUNICIPAL RETIREMENT FUND ESTABLISHING A POLICY FOR ATTENDANCE OF THE TRUSTEES AT THE MEETINGS OF THE OKLAHOMA MUNICIPAL RETIREMENT FUND, AND PROVIDING FOR MEANS OF ENFORCEMENT OF SAID POLICY.

WHEREAS, the Oklahoma Municipal Retirement Fund is a public trust providing certain administrative and investment services to the retirement systems of its beneficiary employers; and,

WHEREAS, the Oklahoma Municipal Retirement Fund establishes policy and guidelines which directly affect the retirement systems of member employers; and,

WHEREAS, the Board of Trustees deems it necessary that the members of the Board of Trustees regularly attend meetings of the Board of Trustees so that the participants in the plan can be effectively represented in the Board's decision making process.

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Oklahoma Municipal Retirement Fund that the following attendance policy is hereby adopted:

"Whenever a member of the Board of Trustees is absent from more than one-half (1/2) of all regular meetings of the Trustees held within a period of six consecutive months, the member shall immediately cease to hold office, and the vacancy created shall be filled as provided in the Trust Indenture."

This policy shall be submitted to the participating employers as a proposed amendment to the Trust Indenture at the next regular election held for selection of Trustees.

\*\*\*END\*\*\*

The foregoing resolution was duly adopted and approved by the Chairman and Board of Trustees of the Oklahoma Municipal Retirement Fund on the 20<sup>th</sup> day of December, 1996, after compliance

with notice requirements of the Open Meeting Law (25 OSA, Sections 301, et seq.).

ATTEST:

George Wilkison  
CHAIRMAN

Principal Retirement  
SECRETARY



Approved as to form and legality on January 31, 1977.

Paul D. [Signature]  
TRUST ATTORNEY