



To: Norwalk Municipal Employees' Pension Board
From: Tina Fogell, Chief Human Resources Officer
Date: June 7, 2023
Subject: Disability Pension Committee – Wednesday, June 14, 2023 – Hybrid meeting

A meeting of the Norwalk Municipal Employees' Pension Board – Disability Committee will be held on **Wednesday, June 14, 2023 at 5:55p.m.,** via zoom / Room 220.

To allow public access, anyone may access a meeting by telephone, Zoom, and/or the City of Norwalk YouTube channel. Specific instructions and links can be found at norwalkct.org/meetings

A G E N D A

1. Call to Order and Approval of Minutes from April 12, 2023
2. Approval of Disability Pension Application - Resubmission
3. Adjourn

cc: Mayor Harry Rilling
Irene Dixon, City Clerk
Britton Murdoch, Callan Associates Inc.
Kevin Schmidt, Callan Associates Inc.
Billy Ireland, Fire Union President

CITY OF NORWALK
NORWALK MUNICIPAL EMPLOYEES PENSION BOARD
DISABILITY COMMITTEE
REGULAR MEETING
APRIL 12, 2023
VIA TELECONFERENCE

ATTENDANCE: Frank Nash, Chair; Richard Baskin, James Hendrickson, Charles Pirro

OTHERS: Chitsamay Lam, Comptroller; Geri DiStefano, Benefits Manager;
Tina Fogell

Mr. Nash did not call the meeting to order in public session at the scheduled time of 5:50 p.m.

Ms. Lam announced that this portion of sub-committee meeting would not be recorded. She asked those that had joined in to the Teleconference to wait that the recording would be paused until approximately 6:00 p.m.

CALL TO ORDER

The meeting was called to order at 6:25 p.m.

Approval of Minutes – December 9, 2020

- ** MR. HENDRICKSON MOVED TO APPROVE MINUTES OF THE MEETING OF
DECEMBER 9, 2020 AS PRESENTED.
** MR. PIRRO SECONDED THE MOTION.
** MOTION PASSED UNANIMOUSLY.

Ms. DiStefano presented the following pension application:

APPROVAL OF DISABILITY PENSION APPLICATIONS

MEETING OF: April 12, 2023

Name	Years of Service	Age	Type of Pension	Option Selected
Lawrence Taylor	17 Years, 1 Month	57	Disability	Standard
Dept. of Public Works				
Maintainer III				
Commencement Date	October 12, 2022			

** MR. PIRRO MOVED TO TABLE THE PENSION AS PRESENTED.
** MR. HENDRICKSON SECONDED THE MOTION.
** MOTION PASSED UNANIMOUSLY.

** MR. HENDRICKSON MOVED TO ADJOURN THE MEETING.
** MR. PIRRO SECONDED THE MOTION.
** MOTION PASSED UNANIMOUSLY.

The meeting was adjourned at 6:28 p.m.

Respectfully Submitted,

M. Knox
Telesco Secretarial Services.

APPROVAL OF DISABILITY PENSION APPLICATIONS

MEETING OF: June 14, 2023

Name	Years of Service	Type of Pension	Option Selected
Lawrence Taylor Dept. of Public Works Maintainer III Commencement Date:	17 Years, 1 Month October 12, 2022	Disability	Standard
Milton Giddiens Dept. of Public Works Maintainer III Commencement Date:	32 Years, 9 Months August 4, 2022	Disability	Standard

Resubmission
→



To: Norwalk Municipal Employees' Pension Board

From: Tina Fogell, Chief Human Resources Officer

Date: June 7, 2023

Subject: Pension Board Meeting – Wednesday, June 14, 2023 - Hybrid meeting

A meeting of the Norwalk Municipal Employees' Pension Board will be held on **Wednesday, June 14, 2023 at 6:00 p.m.** via zoom / Room 220.

To allow public access, anyone may access a meeting by telephone, Zoom, and/or the City of Norwalk YouTube channel. Specific instructions and links can be found at norwalkct.org/meetings

A G E N D A

1. Call to Order and Approval of Minutes from May 10, 2023
2. Public Comments
3. Approval of Pension Applications
4. Discussion and Decision regarding Pension Plan Consulting Services Contract based upon RFP 4028
5. LSV Presentation
6. Performance Review
7. City Contribution Reinvestment
8. Adjourn

Next meeting scheduled for September 13, 2023.

cc: Mayor Harry Rilling
Irene Dixon, City Clerk
Britton Murdoch, Callan Associates Inc.
Kevin Schmidt, Callan Associates Inc.
Billy Ireland, Fire Union President
Al Palumbo, NASA President

CITY OF NORWALK
NORWALK MUNICIPAL EMPLOYEES PENSION BOARD
REGULAR MEETING
MAY 10, 2023
VIA TELECONFERENCE

ATTENDANCE: Frank Nash, Chair; Richard Baskin, James Hendrickson, David Pramer

STAFF: Chitsamay Lam, Comptroller; Tina Fogell, Director of Human Resources

OTHERS:

Callan Associates LLC: Britton Murdoch, Kevin Schmidt
Brian Downey; Eileen Romeo, Union Representative, NFEP

CALL TO ORDER

Mr. Nash called the meeting to order at 6:13 p.m. A quorum was present.

APPROVAL OF MINUTES – April 12, 2023

- ** MR. BASKIN MOVED TO APPROVE THE MINUTES FROM THE MEETING OF APRIL 12, 2023 AS AMENDED WITH EDITS FROM CALLAN.
- ** MR. HENDRICKSON SECONDED.
- ** MOTION PASSED UNANIMOUSLY.

PUBLIC COMMENT

There was no one present or attending zoom conference who signed up or emailed to comment.

APPROVAL OF PENSION APPLICATIONS

Ms. Fogel presented the following applications as contained in the agenda packet:

Name	<u>Years of Service</u>	<u>Type of Pension</u>	<u>Option Selected</u>
Nancy Griffin	15 yrs. 8 mos.	Regular	Standard
David Rauscher	26 yrs. 4 mos.	Regular	Option 2
Kathleen Rauscher	13 yrs. 7 mos.	Regular	Option 2

- ** MR. BASKIN MOVED TO APPROVE THE ABOVE PENSION APPLICATIONS AS SUBMITTED.
- ** MR. HENDRICKSON SECONDED THE MOTION.

** MOTION PASSED UNANIMOUSLY.

PRINCIPAL DYNAMIC GROWTH BUSINESS REVIEW

Representatives from the Principal Dynamic Growth Fund introduced themselves and provided an overview of the affiliation with Norwalk Pension of the Principal Dynamic Growth Fund. They referred to pages of the presentation handout highlighted fund performance and outlined their investment approach and quantitative measures. Questions and comments from the Board members were fielded throughout the presentation.

Mr. Baskin questioned the performance reports and percentage measurements compared to last month's reports. He noted that reports of absolute return versus actual returns was not a consistent measure. Mr. Murdoch noted that he would examine the reports for consistency, but most likely January numbers had a negative impact on the year to date returns.

PERFORMANCE REVIEW

Mr. Murdoch-Schmidt provided a market update and Mr. Murdoch reviewed investment performance for the period ending March 31, 2023. He referred to the documents and reports as contained in the agenda packet and summarized the performance by asset class. Questions and comments from the Board members were addressed throughout the discussion.

It was noted that a Manager Review for LSV is on the agenda for next month's meeting.

Pension Disbursement Cash Needs

Ms. Lam outlined the need for \$3 million cash for pension disbursements in June 2023. Mr. Schmidt provided an analysis of available liquidity and their recommendation of where to take the funds to meet pension disbursements. There was a discussion on liquidity options by manager.

** MR. BASKIN MOVED TO WITHDRAW \$3 MLLION FROM PIMCO REAL ASSET.
** MR. HENDRICKSON SECONDED THE MOTION.
** MOTION PASSED UNANIMOUSLY.

The meeting went into Executive Session at 7:22 p.m. and returned to public session at 7:36 p.m.

The meeting was adjourned at 7:36 p.m.

Respectfully Submitted,

M. Knox
Telesco Secretarial Services.
City of Norwalk
Municipal Employees Pension Board
Regular Meeting-Teleconference
May 10, 2023

APPROVAL OF PENSION APPLICATIONS

MEETING OF: June 14, 2023

Name	Years of Service	Type of Pension	Option Selected
Charles Horner Board of Education Custodian Commencement Date:	19 Years, 7 Months April 19, 2023	Regular	Standard
Daryl Sheppard Board of Education Custodian Commencement Date	13 Years, 2 Months March 28, 2023	Early	Option III



To: Norwalk Municipal Employees' Pension Board
From: Tina Fogell, Chief Human Resources Officer
Date: June 7, 2023
Subject: OPEB Committee Meeting – Wednesday, June 14, 2023 – Hybrid meeting

A meeting of the Norwalk Municipal Employees' Pension Board's OPEB Committee will be held on **Wednesday, June 14, 2023 at 6:30 p.m.,** via zoom / Room 220.

To allow public access, anyone may access a meeting by telephone, Zoom, and/or the City of Norwalk YouTube channel. Specific instructions and links can be found at norwalkct.org/meetings

A G E N D A

1. Call to Order and Approval of Minutes from March 8, 2023
2. Performance Review
3. Adjourn

cc: Mayor Harry Rilling
Irene Dixon, City Clerk
Kevin Schmidt, Callan Associates, Inc.
Britton Murdoch, Callan Associates Inc.
Billy Ireland, Fire Union President

**CITY OF NORWALK
NORWALK MUNICIPAL EMPLOYEES PENSION BOARD
OPEB ASSET ALLOCATION REVIEW
MARCH 8, 2023**

ATTENDANCE: Frank Nash, Chair; Richard Baskin, James Hendrickson, Charlie Pirro, Eileen Romeo

OTHERS: Chitsamay Lam, Comptroller; Geri DiStefano; Britton Murdoch, Callan LLC; Kevin Schmidt, Callan LLC; Brian Downey

CALL TO ORDER

Mr. Nash called the meeting to order at 7:30 p.m. A quorum was present.

APPROVAL OF MINUTES

• December 14, 2022

**** MR. PIRRO MOVED THE MINUTES OF THE DECEMBER 14, 2022 MEETING.**

**** MR. HENDERSON SECONDED.**

**** THE MOTION TO APPROVE THE MINUTES OF DECEMBER 14, 2022 MEETING AS PRESENTED PASSED UNANIMOUSLY.**

PERFORMANCE REVIEW

Mr. Murdoch presented the January Asset Allocation OPEB asset allocation and reviewed the benchmarks. The discussion moved to OPEB funding and what the contributions would be reviewed OPEB performance ending January 31, 2023. Questions and comments from the Board were fielded throughout the presentation.

ADJOURNMENT

**** MR. PIRRO MOVED TO ADJOURN.**

**** MR. HENDRICKSON SECONDED.**

**** THE MOTION PASSED UNANIMOUSLY.**

The meeting adjourned at 7:35 p.m.

Respectfully submitted,

S. L. Soltes
Telesco Secretarial Services



Norwalk City Employees' Pension Fund

U.S. Small Cap Value Equity

June 14, 2023

Scott S. Kemper

Partner & Director, Client Portfolio Services

P: (312) 327-4334

LSV
Asset Management

Organization

Organizational Update

LSV's Key Organizational Strengths

- Academic foundation
- 28+ years of research
- Successfully applied model for over 28 years
- Value equity focus- our sole business
- Consistency of people, philosophy & portfolio
- Employee ownership

All Strategies Built From Same Model

- \$92.0 billion in firmwide assets under management
- Limited capacity offerings

United States		International (Non-U.S.)		Global	
Large Cap Value	\$22.9 B	Developed Markets Large Cap Value	\$10.9 B	Developed Markets Global Value	\$7.6 B
Mid Cap Value	\$1.4 B	All-Country Large Cap Value	\$11.3 B	All-Country Global Value	\$8.7 B
Small/ Mid Cap Value	\$2.7 B	Developed Markets Small Cap Value	\$3.6 B	Global Small Cap Value	\$1.2 B
Small Cap Value	\$3.2 B	Emerging Markets Value	\$6.1 B	Managed Volatility	\$2.3 B
Micro Cap Value	\$0.2 B	Emerging Markets Small Cap Value	\$0.9 B	Concentrated Value	\$0.7 B
Enhanced Index	\$0.2 B	Regional Strategies - Large & Small Cap - Europe, Asia, Canada, Japan, Australia	\$2.4 B		
Managed Volatility	\$1.9 B	Managed Volatility	\$0.3 B		
		Concentrated Value	\$1.3 B		

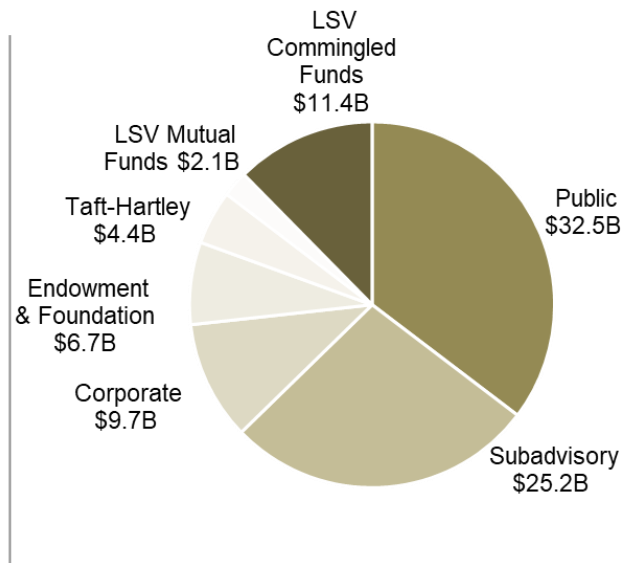
Diversified Asset and Client Base

185+ Clients with Track Records of 10 Years or Longer. 100+ Clients with Multiple Mandates

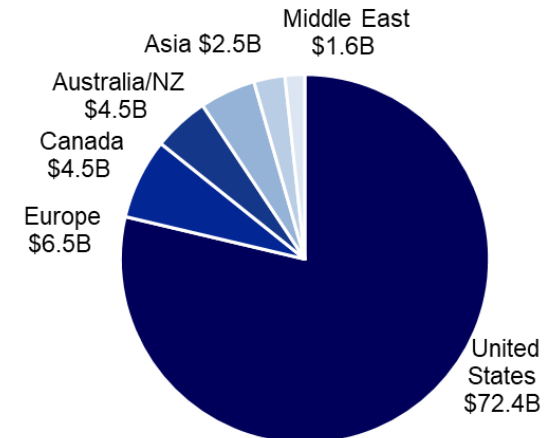
Total Assets – \$92.0 B



Total Clients – 320+



Global Investor Base



Value Equity

Investment Specialists

As of 3/31/23.

It is not known whether such clients approve or disapprove of LSV Asset Management or the advisory services provided.

Representative Client List

20+ Years

Bank of America
BASF
Bridger Coal Company - Reclamation Trust
Cement Masons Local 502 Pension Fund
City of Gainesville Police Officers' & Firefighters' Ret. Plan
City of Kansas City Employee's Retirement System
Deere & Company
Empower Investments
FM Global
Formanek Investment Trust
General Laborers' Local 66 Pension Fund
Hoogovens Pensioenfond
Howard County (MD) Master Trust
I.A.T.S.E. National Pension Fund
I.B.E.W. Local 98 Pension Plan
I.U.O.E. Local 478 Pension Fund
I.U.O.E. Local 825
Illinois State Board of Investment
Laundry & Dry Cleaning Workers Pension Fund, UNITE
Louisiana State Employees' Retirement System
McConnell Foundation
Methodist Le Bonheur Healthcare
Mid-Atlantic Regional Council of Carpenters
Municipal Police Employees' Ret. System of Louisiana
New Jersey Health Foundation
Olin Corporation
PacifiCorp/I.B.E.W. Local 57 Retirement Trust Fund
Parkland Management Company
Parochial Employees' Retirement System of Louisiana
Plumbers & Pipefitters National Pension Fund
Roy J. Carver Charitable Trust
RTD (Denver) Salaried Employees' Pension Trust
SEI Investments
Sheet Metal Workers Local 73
Shell Pensioenfond
Stellantis
Teachers' Retirement System of Louisiana
U.F.C.W. International Union-Industry Pension Fund
Anonymous Clients - 10

Summary

As of 3/31/23:
Approximately \$92 Billion
In Assets Under Management

320+ Total Clients

185+ Clients
with Track Records of
10 Years or Longer

100+ Clients with Multiple Mandates

15-20 Years

1199 National Benefit & Pension Fund
Active Super
Alberta Investment Management Corporation
Alma College Endowment
AMP Capital Investors
ANZ Global Wealth
AustralianSuper
Bayerische Versorgungskammer (BVK)
Bricklayers & Allied Craftworkers Local 5
Bristol County Retirement System
Carpenters Pension Fund of Illinois
Carpenters Pension Trust of St. Louis
Chagnon Foundation
Chicago Area I.B.O.T. Local 703
Chicago Firemen's Annuity & Benefit Fund
Christiana Care Health Services
City of St. Louis Employees Retirement System
Cleveland Bakers & Teamsters
College of the Ozarks
Covenant Health
Daimler NA

15-20 Years (Cont.)

Desjardins Global Asset Management
Detroit Free Press Inc. Newspaper Guild
District of Columbia Retirement Board
Duke Energy
Firefighters' Retirement System of Louisiana
Funds SA
G.C.I.U. Local 119B Pension & Welfare Funds
Harbor Capital Advisors, Inc.
Hess Corporation
I.B.E.W. Local 25 Pension Fund
I.U.O.E. Local 302 & 612
Illinois Municipal Retirement Fund
IN/KY/OH Regional Council of Carpenters Pension Fund
Iron Workers Local Union 16
Irving S. Gilmore Foundation
Jacksonville Plumbers & Pipefitters Pension Fund
Jewish Healthcare Foundation
Kansas City Police Employees' Retirement System
Laborers' Pension Fund - Chicago
Laborers' National Pension Fund
Lattner Family Foundation
Marsh & McLennan Companies, Inc.
McGill University
Midwest Pension Plan
Minnesota State Board of Investment
Municipal Employees' Annuity & Benefit Fund of Chicago
National Asbestos Workers Pension Fund
National Roofing Industry Pension Fund
New England Healthcare Workers
New Jersey Transit Corporation
New York City District Council of Carpenters
Nexcom
Norwalk City Employees' Pension Fund
Ohio Public Employees Retirement System
Ohio School Employees' Retirement System
Operating Engineers Local 428
Paper Products Local 27 Pension & Welfare Funds
Pavers & Roadbuilders Pension Trust
Prudential Investments

Representative Client List

15-20 Years (Cont.)

Retail, Wholesale & Dept. Store Union
Richmond Retirement System
S.E.I.U. Local 25
Sacramento County Employees' Retirement System
Saint Louis University
Salvation Army Central Territory
Southern Alaska Carpenters Retirement Fund
Stanislaus County Employees' Retirement Association
Teachers' Retirement System of Illinois
Teamsters Joint Council No. 83 of Virginia
Texas Presbyterian Foundation
The Seeing Eye, Inc.
Twin Disc, Inc.
U.F.C.W. Local 1546 Pension Fund
U.F.C.W. Midwest Pension Fund
Virginia Retirement System
Wells Fargo
West Virginia Investment Management Board
Anonymous Clients - 31

10-15 Years

Archdiocese of Cincinnati
Asbestos Workers Philadelphia Pension & Welfare Fund
Chicago Transit Authority
Delphi
Denver Employees Retirement Plan
I.B.E.W. Local 103 Pension Fund
Mercy Investment Services Inc.

10-15 Years (Cont.)

Methodist Hospital System
Mine Super
Misericordia Home
New York State Teachers' Retirement System
PORTICO
Salvation Army Eastern Territory
Anonymous Clients - 13

5-10 Years

Alaska Permanent Fund
Arkansas Public Employees Retirement System
Boilermakers-Blacksmith National Pension Fund
Bridge Builder Mutual Funds
City of Newport News
Diocese of Brooklyn
Dogwood Health Trust
Dominican Sisters of Springfield Illinois
E-L Financial Corporation
Emerson Electric
Entergy
Immanuel
Kentucky Public Pensions Authority
Legacy Health
LIUNA Pension Plans
Louisiana School Employees' Retirement System
Mercer
National Elevator Industry Plan
New Mexico State Investment Council
Nova Scotia Health Employees' Pension Plan
Parkland Health & Hospital System

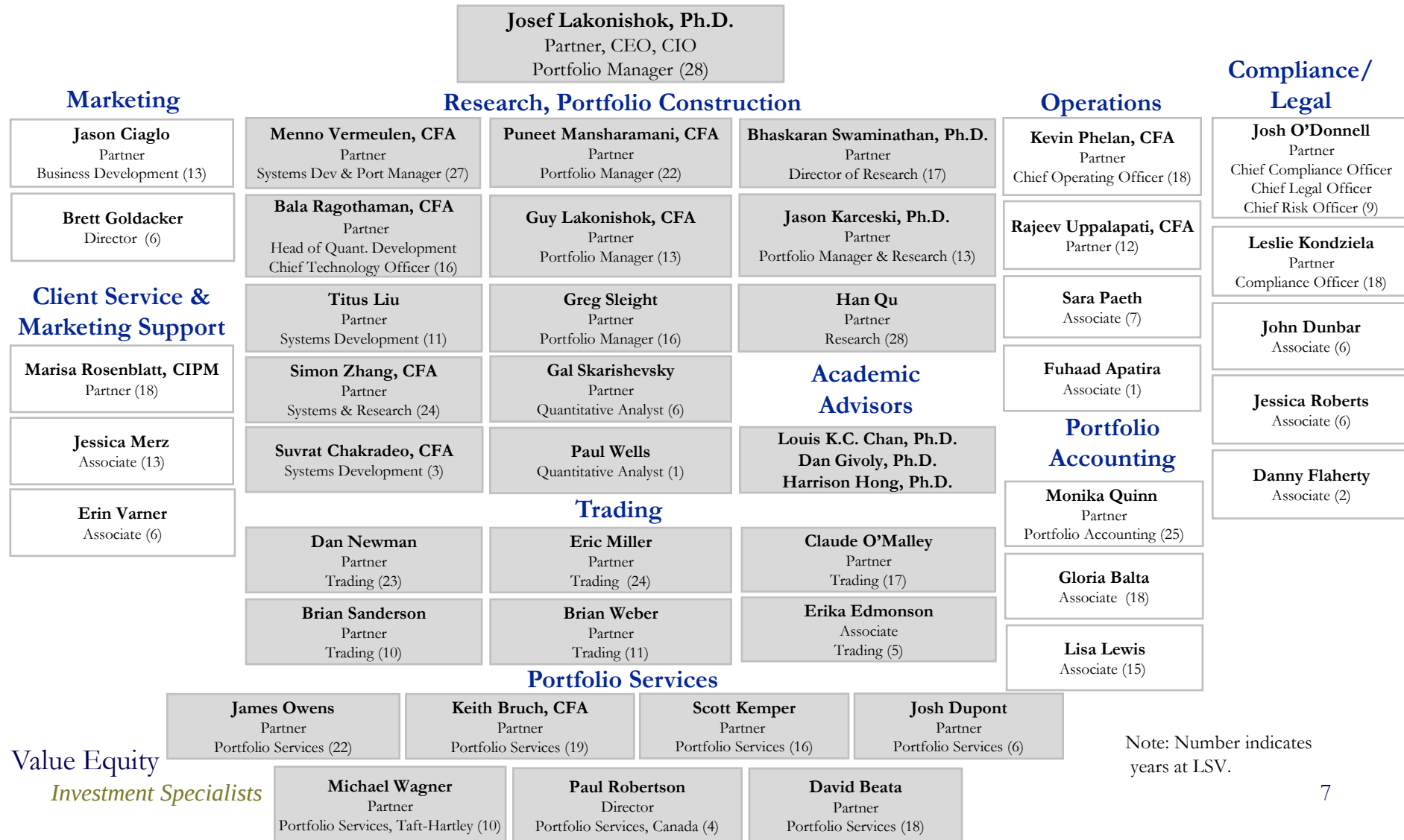
5-10 Years (Cont.)

PGA Tour Inc.
Plumbers & Pipefitters Local Union 25
The General Retirement System for Employees of Jefferson County
The Sisters of the Holy Family of Nazareth
University of Alberta
Voya Investments
Anonymous Clients -40

0-5 Years

Connecticut Laborers' Pension Fund
Crown Cork & Seal Co. Inc. Master Trust
FirstEnergy Corp.
I.B. of T. Union Local No. 710 Pension Fund
IUPAT Industry Pension Plan
Mother Theresa Mission Care and Trust
New York State Common Retirement Fund
Public Employees' Retirement System of Mississippi
University of Idaho Foundation
Velliv
Anonymous Clients - 64

Organizational Structure



Research and Investment Team

Portfolio Construction	Years Experience / LSV	Role & Responsibilities	Education
Josef Lakonishok	45/28	CEO, CIO, Founding Partner Portfolio Management	Ph.D. Cornell University, Finance MS Cornell University, Statistics MBA/BA Tel-Aviv University, Economics & Statistics
Puneet Mansharamani, CFA	24/22	Partner Portfolio Management	MS Case Western University, Engineering BS Delhi University, Engineering
Guy Lakonishok, CFA	22/13	Partner Portfolio Management	MBA University of Chicago, Analytical Finance & Accounting BS Washington University, Electrical Engineering
Greg Sleight	16/16	Partner Portfolio Management	MBA University of Chicago, Econometrics, Econ. & Analytic Finance BS University of Illinois, Material Science & Engineering
Gal Skarishevsky	12/6	Partner Quantitative Analyst	MBA University of Chicago, Finance & Accounting BS Ben-Gurion University, Computer Science
Paul Wells	7/1	Quantitative Analyst	MBA Northwestern University, Finance BS University of California Berkeley, Economics
Research	Years Experience / LSV	Role & Responsibilities	Education
Bhaskaran Swaminathan	33/17	Partner Director of Research	Ph.D. University of California at Los Angeles, Finance MBA University of Denver, Finance BE College of Engineering, Guindy, Madras, India, Mechanical Engineering
Jason Karceski	29/13	Partner Portfolio Management & Research	Ph.D. University of Illinois, Finance MBA University of North Florida BS California Institute of Technology, Electrical Engineering
Han Qu	29/28	Partner Research	MS University of Illinois, Finance & Statistics BS Shanghai University, Computer Science
Systems Development	Years Experience / LSV	Role & Responsibilities	Education
Menno Vermeulen, CFA	31/27	Partner Portfolio Management & Systems Development	MS Erasmus University-Rotterdam, Econometrics
Bala Ragothaman, CFA	25/16	Partner Systems Development Chief Technology Officer	MBA University of Chicago MS University of Iowa, Computer Science & Networks BS PSG College, Bharathiar University, Computer Engineering
Titus Liu	21/11	Partner Systems Development	MS University of Chicago, Finance, Econometrics & Accounting BS University of Illinois, Electrical Engineering
Simon Zhang, CFA	24/24	Partner Systems & Research	MBA/MS University of Illinois, Finance & MIS Civil Engineering MS Tongji University, Shanghai, Engineering Management BS Shanghai Institution of Building Material, Engineering
Suvrat Chakradeo, CFA	14/3	Systems Development	MBA University of Chicago, Finance, Econometrics & Statistics MS Carnegie Mellon University, Information Security & Management BE Government College of Engineering Pune, Computer Engineering

Client Portfolio Services Team

Name	Years Experience / LSV	Role & Responsibilities	Education
James Owens	33/22	Partner Portfolio Services	BA Iowa State University, Finance
Keith Bruch, CFA	34/19	Partner Portfolio Services	MBA University of Chicago, Finance BA Northwestern University, Economics
Scott Kemper	26/16	Partner Portfolio Services	MBA University of Chicago BA DePauw University
Michael Wagner	35/10	Partner Client Portfolio Services, Taft-Hartley	MBA Loyola University, Finance BS Elmhurst College, Marketing
Josh Dupont	12/6	Partner Portfolio Services	MBA University of Chicago, Finance, Economics BA Northwestern University, Economics
Paul Robertson	32/4	Director Client Portfolio Services, Canada	BA University of Hull, United Kingdom, Economics/ Geography
Jason Ciaglo	24/13	Partner Business Development	MBA University of Chicago BA University of California-Berkeley, English
Kevin Phelan, CFA	21/18	Partner Chief Operating Officer	BA University of Chicago, Economics
Josh O'Donnell	18/9	Partner Chief Compliance Officer Chief Legal Officer Chief Risk Officer	JD Vanderbilt University Law School BA Wake Forest University, Politics

Portfolio/Market Review

Relationship Summary

Norwalk City Employees' Pension Fund

			Portfolio Growth
Investment Strategy:	Small Cap Value Equity	Beginning Value - 3/26/03:	\$ 10,000,000
Inception Date:	March 26, 2003	Net Contributions/Withdrawals:	(8,000,000)
Benchmark:	Russell 2000 Value	Net Return on Investment:	18,412,956
Custodian:	The Northern Trust Company	Ending Value - 5/31/23:	\$ 20,412,956
Consultant:	Callan Associates		

Objectives/Investment Process:

The objective of our Small Cap Value Equity (U.S.) strategy is to **outperform the Russell 2000 Value Index** by at least 300 basis points (gross of fees) per annum over a full investment cycle. LSV will attempt to meet this performance objective with a tracking error of approximately 6% relative to the Russell 2000 Value Index.

The process used to select stocks is a **quantitative** approach developed by our founding partners through years of academic research on a variety of investment and investor behavior topics. The process ranks a broad universe of stocks on a combination of **value and momentum** factors and seeks to invest approximately 200 stocks in the most attractive securities possible within our strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio will be **broadly diversified** across industry groups and **fully invested** (cash balances are typically less than 1% of the portfolio). Initial positions must be in stocks with a market capitalization between \$100 million and \$4 billion.

Portfolio Characteristics – May 31, 2023

	Norwalk Portfolio	Russell 2000 Value	Russell 2000
Value Measures			
Price / Earnings (FY1)	8.3x	15.6x	20.8x
Price / Earnings (FY2)	7.7x	13.1x	16.8x
Price / Cash Flow	5.6x	10.1x	13.8x
Price / Book	1.2x	1.2x	1.9x
Dividend Yield	3.0%	2.3%	1.5%
Size Measures			
Weighted Average Market Cap	\$3.3 billion	\$2.3 billion	\$3.0 billion
Weighted Median Market Cap	\$2.7 billion	\$2.0 billion	\$2.6 billion
# of Holdings	207		

Market Update

	Periods Ending 5/31/23				
	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
S&P 500	9.6%	2.9%	12.9%	11.0%	12.0%
Large Cap Value (R1000V)	-1.4%	-4.5%	11.6%	6.8%	8.4%
Large Cap Growth (R1000G)	20.8%	9.5%	12.8%	13.8%	14.8%
Value vs Growth Spread:	-22.2%	-14.1%	-1.2%	-7.1%	-6.3%
Mid Cap Core (RMC)	0.6%	-4.5%	10.2%	6.9%	9.3%
Mid Cap Value (RMCV)	-3.2%	-9.5%	12.3%	5.2%	8.0%
Mid Cap Growth (RMCG)	7.6%	5.8%	5.8%	8.2%	10.6%
Value vs Growth Spread:	-10.8%	-15.2%	6.5%	-2.9%	-2.6%
Small Cap Core (R2000)	0.0%	-4.7%	9.2%	2.7%	7.4%
Small Cap Value (R2000V)	-5.0%	-11.5%	13.6%	2.1%	6.4%
Small Cap Growth (R2000G)	4.9%	2.7%	4.6%	2.7%	7.9%
Value vs Growth Spread:	-9.9%	-14.2%	9.0%	-0.6%	-1.5%
Russell 1000 Defensive	7.3%	3.2%	10.5%	11.0%	11.5%
Russell 2000 Defensive	-2.0%	-3.5%	10.7%	3.5%	8.4%
MSCI USA Minimum Volatility	-0.8%	-1.5%	6.4%	7.8%	9.7%

Periods longer than one year are annualized.

Performance – NET of fees

Periods Ended May 31, 2023

Assets Managed: \$20,412,956

	YTD	One Year	Three Year	Five Year	Seven Year	Ten Year	Fifteen Year	Twenty Year	Since Inception*
Norwalk City	-5.7%	-7.5%	19.1%	2.7%	5.9%	7.1%	7.3%	8.1%	9.0%
Russell 2000 Value	-5.0%	-11.5%	13.6%	2.1%	6.6%	6.4%	6.5%	8.0%	8.9%
Russell 2000	0.0%	-4.7%	9.2%	2.7%	7.5%	7.4%	7.3%	8.6%	9.5%

Calendar Year Summary

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Norwalk City	-4.5%	37.5%	-6.6%	20.4%	-17.1%	5.4%	30.0%	-3.5%	9.1%	39.6%
Russell 2000 Value	-14.5%	28.3%	4.6%	22.4%	-12.9%	7.8%	31.7%	-7.5%	4.2%	34.5%
Russell 2000	-20.4%	14.8%	20.0%	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003*
Norwalk City	15.9%	-6.7%	26.0%	31.6%	-31.4%	-13.5%	19.9%	3.7%	19.8%	54.9%
Russell 2000 Value	18.1%	-5.5%	24.5%	20.5%	-28.9%	-9.8%	23.5%	4.7%	22.3%	52.9%
Russell 2000	16.3%	-4.2%	26.8%	27.2%	-33.8%	-1.5%	18.3%	4.6%	18.3%	52.8%

Value Equity

Investment Specialists

*Inception date: 3/27/2003

Note: All returns are net of fees. Periods greater than one year are annualized.

Consistent Excess Returns – LSV U.S. Small Cap Value

LSV Small Cap Value Composite (Gross) vs. Russell 2000 Value

Annualized Rolling 5-Year Excess Returns

2/1/1997–05/31/2023

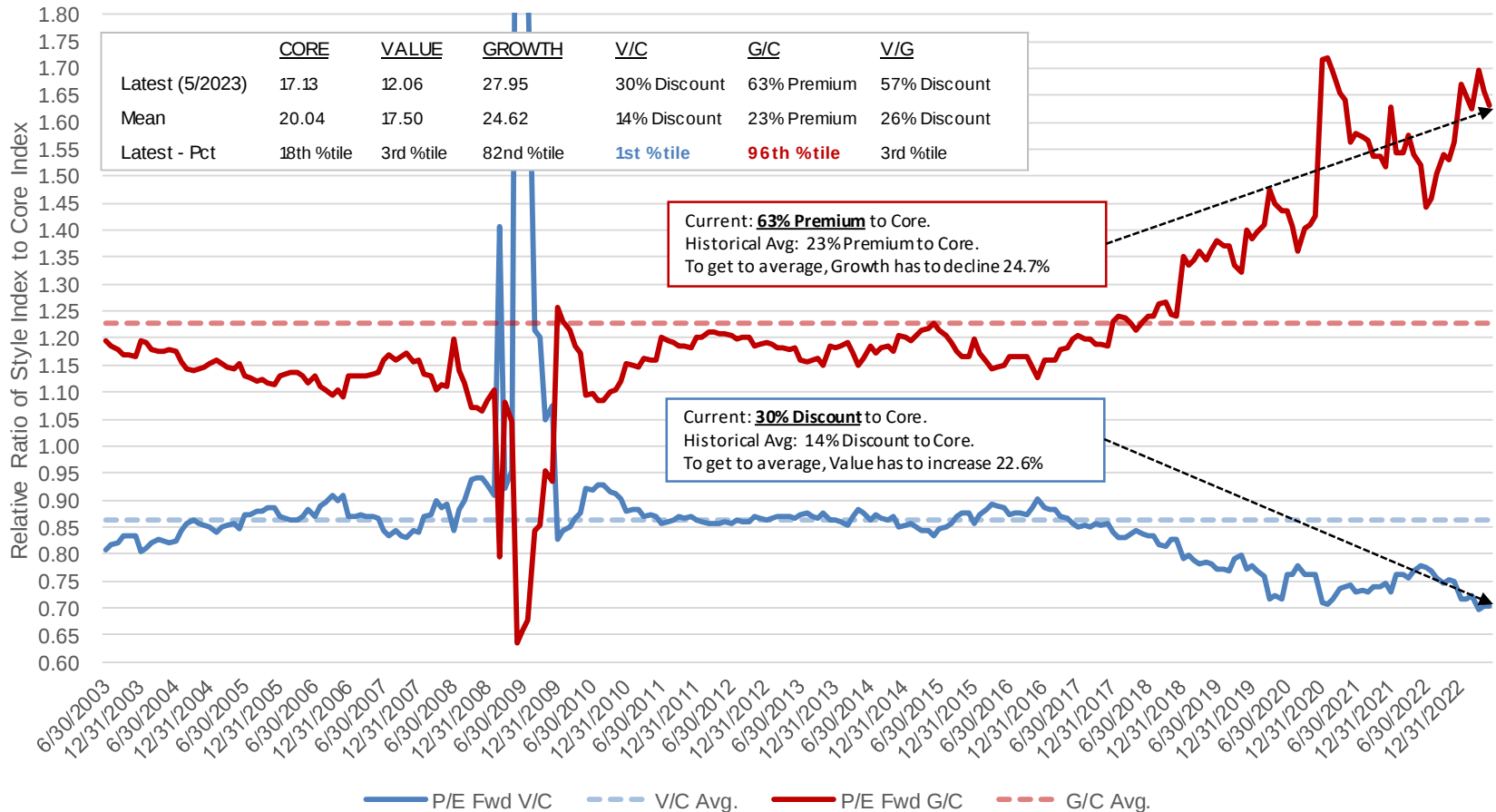
Quarter	Rolling 5-Year Excess Returns	Quarter	Rolling 5-Year Excess Returns	Quarter	Rolling 5-Year Excess Returns	Quarter	Rolling 5-Year Excess Returns
Q1 2002	4.5%	Q3 2008	-1.4%	Q1 2015	4.8%	Q3 2021	-1.8%
Q2 2002	4.8%	Q4 2008	-1.8%	Q2 2015	4.3%	Q4 2021	-1.4%
Q3 2002	5.4%	Q1 2009	-1.9%	Q3 2015	4.4%	Q1 2022	-1.1%
Q4 2002	4.8%	Q2 2009	-0.4%	Q4 2015	4.7%	Q2 2022	-0.4%
Q1 2003	4.3%	Q3 2009	0.3%	Q1 2016	5.0%	Q3 2022	-0.1%
Q2 2003	4.1%	Q4 2009	0.3%	Q2 2016	4.2%	Q4 2022	0.7%
Q3 2003	4.1%	Q1 2010	-0.1%	Q3 2016	4.1%	Q1 2023	1.0%
Q4 2003	4.0%	Q2 2010	0.2%	Q4 2016	3.9%		
Q1 2004	5.6%	Q3 2010	0.2%	Q1 2017	3.5%		
Q2 2004	5.1%	Q4 2010	0.5%	Q2 2017	3.9%		
Q3 2004	4.9%	Q1 2011	0.9%	Q3 2017	3.9%		
Q4 2004	5.1%	Q2 2011	0.9%	Q4 2017	3.8%		
Q1 2005	7.0%	Q3 2011	1.5%	Q1 2018	3.4%		
Q2 2005	6.6%	Q4 2011	1.9%	Q2 2018	1.9%		
Q3 2005	5.3%	Q1 2012	1.8%	Q3 2018	1.6%		
Q4 2005	4.5%	Q2 2012	1.1%	Q4 2018	1.0%		
Q1 2006	3.7%	Q3 2012	1.8%	Q1 2019	0.7%		
Q2 2006	3.9%	Q4 2012	2.5%	Q2 2019	0.2%		
Q3 2006	2.6%	Q1 2013	2.4%	Q3 2019	-0.3%		
Q4 2006	2.6%	Q2 2013	3.8%	Q4 2019	-0.3%		
Q1 2007	1.7%	Q3 2013	4.4%	Q1 2020	-2.7%		
Q2 2007	1.8%	Q4 2013	5.4%	Q2 2020	-1.7%		
Q3 2007	-0.6%	Q1 2014	5.8%	Q3 2020	-2.1%		
Q4 2007	-0.9%	Q2 2014	4.5%	Q4 2020	-2.8%		
Q1 2008	-0.6%	Q3 2014	4.1%	Q1 2021	-2.8%		
Q2 2008	-1.3%	Q4 2014	4.4%	Q2 2021	-2.3%		

LSV has outperformed in:

- 56% of monthly observations
- 62% of quarterly observations
- 60% of calendar year observations
- 71% of rolling 3-Year observations
- 74% of rolling 5-Year observations

Relative Valuations of Value vs. Growth at Extreme Levels

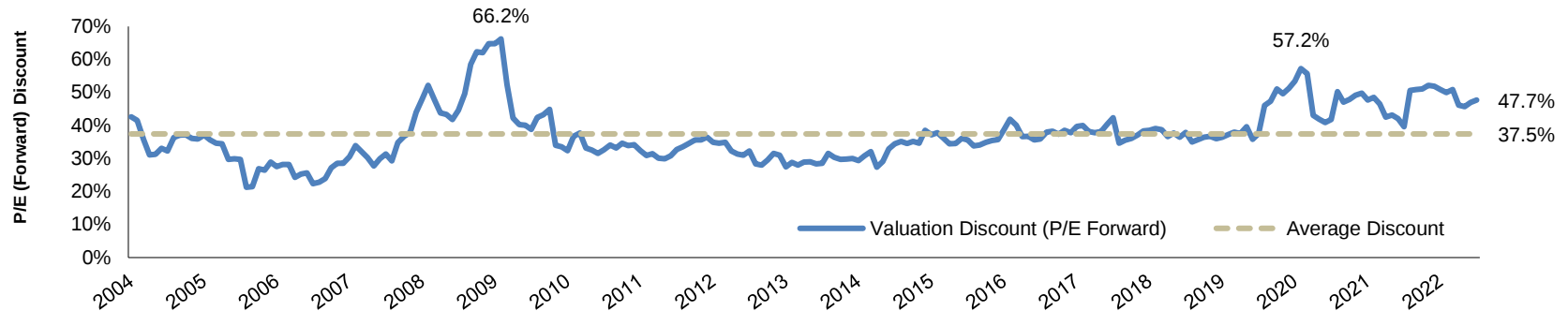
Forward PE Ratio for MSCI US SC Value and Growth Index Relative to MSCI US SC Core (May -2023)



Data as of 05/31/2023. Source: LSV, MSCI. This slide does not represent the composition of any LSV portfolio.

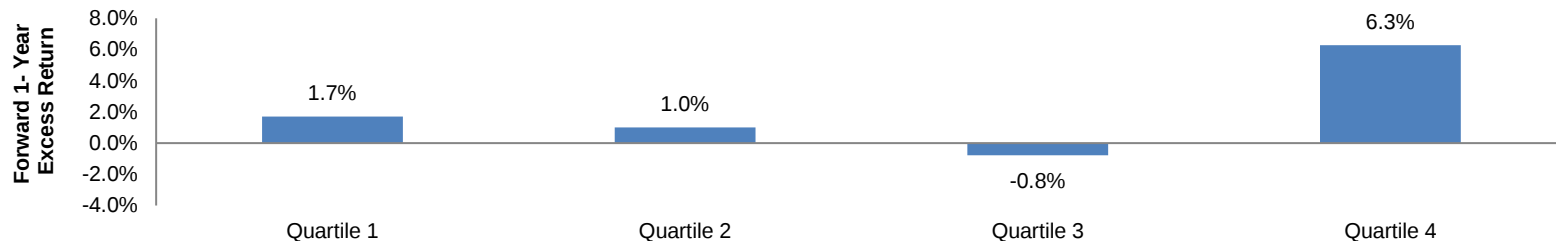
Portfolio Valuations are Attractive Relative to History

LSV U.S. Small Cap Value Valuation Spreads Relative to Russell 2000 Value Index



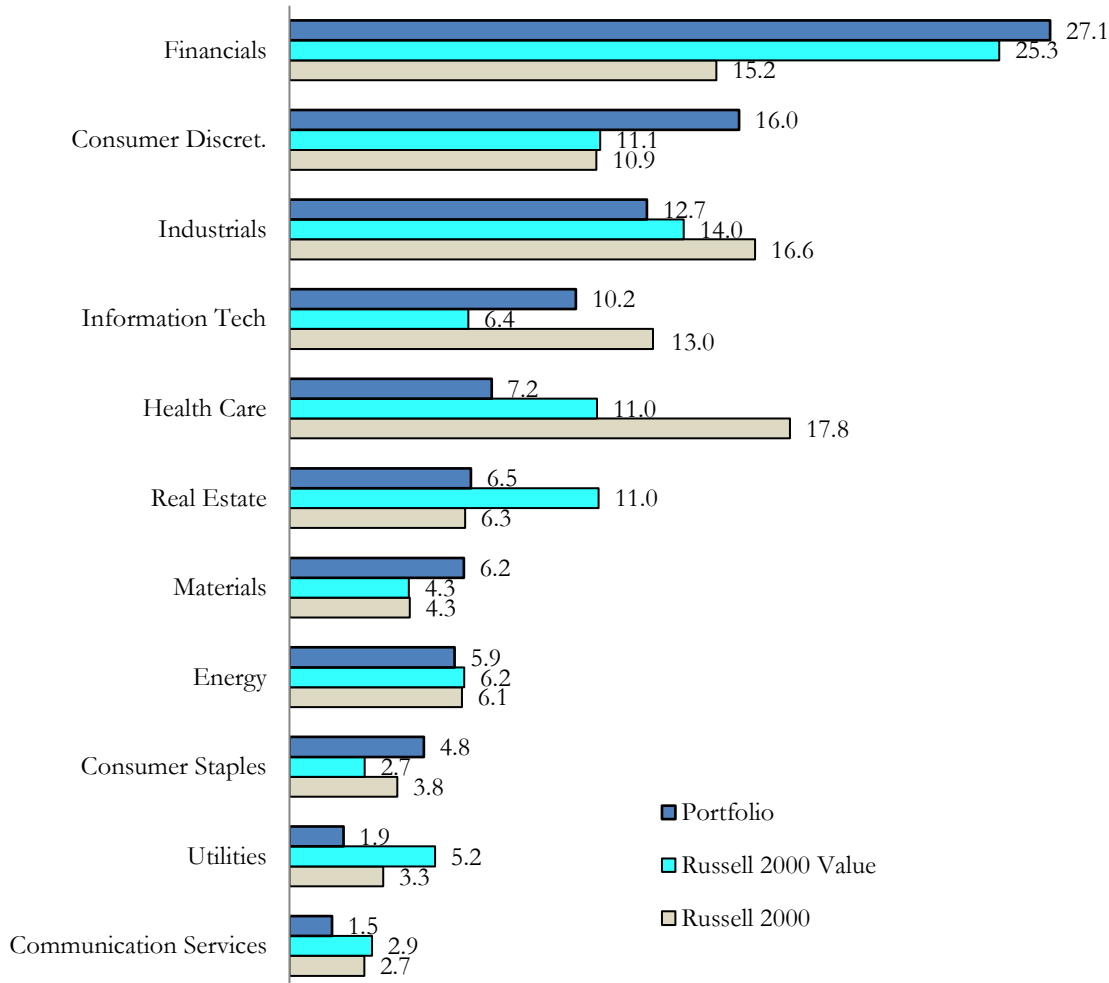
Historical Relationship between Current Valuation Discount and Forward 1-Year Excess Returns

	P/E Discount	Average Forward 1-Year LSV Return	Average Forward 1-Year Benchmark Return	Excess Return	Hit Ratio
Quartile 1	21.3% ---> 31.5%	0.0%	-1.7%	1.7%	55%
Quartile 2	31.5% ---> 35.9%	12.7%	11.7%	1.0%	50%
Quartile 3	35.9% ---> 41.8%	8.6%	9.4%	-0.8%	35%
Quartile 4	41.8% ---> 66.2%	24.6%	18.4%	6.3%	95%



Data as of 05/31/2023. Source: FTSE Russell, LSV. Inception Date 2/1/1997. Returns are gross of fees and in USD; indices shown net of withholding taxes. Past performance is not indicative of future results.

Portfolio Characteristics – May 31, 2023



Top 10 Holdings	% of Portfolio
MODINE MFG CO	1.4%
IRONWOOD PHARMACEUTICALS INC	1.3%
PDC ENERGY INC	1.3%
NATL FUEL GAS CO	1.3%
ATKORE INC	1.3%
CNO FINL GROUP INC	1.2%
BEL FUSE INC	1.2%
GREIF INC	1.1%
MOOG INC	1.1%
AVNET INC	1.1%

Portfolio Holdings by Sector – May 31, 2023

SECTOR	MKT. VALUE	% PORT
FINANCIALS	5,442,106	26.7%
Cno Financial Group Inc	251,836	1.2%
Popular Inc	182,976	0.9%
First American Financial Corp	159,297	0.8%
Reinsurance Group Of America Inc	154,000	0.8%
First Business Financial Services Inc	149,912	0.7%
Fs Kkr Capital Corp	148,995	0.7%
Axis Capital Holdings Ltd	145,320	0.7%
Ofg Bancorp	143,134	0.7%
Radian Group Inc	140,470	0.7%
Mgic Investment Corp	130,032	0.6%
Associated Banc-Corp	122,923	0.6%
Navient Corp	121,200	0.6%
Victory Capital Holdings Inc	120,783	0.6%
First Financial Corp/In	113,540	0.6%
American Financial Group Inc/Oh	112,270	0.6%
First Bancorp/Puerto Rico	108,252	0.5%
First Commonwealth Financial Corp	104,995	0.5%
Farmers National Banc Corp	100,130	0.5%
Ladder Capital Corp	99,112	0.5%
Zions Bancorp Na	95,515	0.5%
Hanmi Financial Corp	93,600	0.5%
Banco Latinoamericano De Comercio Exterior Sa	93,552	0.5%
First Busey Corp	93,500	0.5%
Evertec Inc	89,648	0.4%
Hancock Whitney Corp	87,672	0.4%
Mercantile Bank Corp	85,899	0.4%
Acnb Corp	85,405	0.4%
Independent Bank Corp/Mi	85,020	0.4%
Genworth Financial Inc	84,530	0.4%
Pcb Bancorp	83,131	0.4%
Fulton Financial Corp	82,584	0.4%
Meridian Corp	80,552	0.4%

SECTOR	MKT. VALUE	% PORT
FINANCIALS (continued)		
Sixth Street Specialty Lending Inc	80,080	0.4%
Bankwell Financial Group Inc	79,975	0.4%
Shore Bancshares Inc	78,820	0.4%
Regional Management Corp	78,450	0.4%
Cnb Financial Corp/Pa	78,067	0.4%
Brookline Bancorp Inc	76,446	0.4%
Midwestone Financial Group Inc	75,935	0.4%
Republic Bancorp Inc/Ky	75,852	0.4%
Golub Capital Bdc Inc	68,952	0.3%
Hope Bancorp Inc	65,764	0.3%
Lazard Ltd	63,118	0.3%
Mid Penn Bancorp Inc	62,104	0.3%
Community Trust Bancorp Inc	60,660	0.3%
Flushing Financial Corp	60,580	0.3%
Old National Bancorp/In	59,616	0.3%
Simmons First National Corp	58,572	0.3%
Blue Ridge Bankshares Inc	58,223	0.3%
Wesbanco Inc	57,936	0.3%
Horizon Bancorp Inc/In	57,785	0.3%
Premier Financial Corp	57,475	0.3%
Guaranty Bancshares Inc/Tx	55,522	0.3%
Blackrock Tcp Capital Corp	54,908	0.3%
Northrim Bancorp Inc	50,799	0.2%
Towne Bank/Portsmouth Va	46,480	0.2%
Redwood Trust Inc	37,296	0.2%
Primis Financial Corp	27,269	0.1%
Universal Insurance Holdings Inc	15,785	0.1%
Mfa Financial Inc	15,606	0.1%
Veritex Holdings Inc	13,816	0.1%
Homestreet Inc	12,576	0.1%
Invesco Mortgage Capital Inc	7,855	0.0%

SECTOR	MKT. VALUE	% PORT
CONSUMER DISCRETIONARY	3,215,943	15.8%
Modine Manufacturing Co	278,358	1.4%
Dick'S Sporting Goods Inc	191,265	0.9%
Toll Brothers Inc	189,560	0.9%
Group 1 Automotive Inc	178,808	0.9%
Odp Corp/The	175,062	0.9%
Kb Home	160,321	0.8%
Ethan Allen Interiors Inc	147,677	0.7%
Academy Sports & Outdoors Inc	141,984	0.7%
Bloomin' Brands Inc	136,173	0.7%
Pvh Corp	120,428	0.6%
Thor Industries Inc	101,751	0.5%
Winnebago Industries Inc	100,152	0.5%
Carriage Services Inc	94,176	0.5%
Kohl'S Corp	93,432	0.5%
Carter'S Inc	93,255	0.5%
H&R Block Inc	92,535	0.5%
Sally Beauty Holdings Inc	88,954	0.4%
G-iii Apparel Group Ltd	86,832	0.4%
La-Z-Boy Inc	85,504	0.4%
Harley-Davidson Inc	80,886	0.4%
Goodyear Tire & Rubber Co/The	75,515	0.4%
Dine Brands Global Inc	71,796	0.4%
Marriott Vacations Worldwide Corp	70,482	0.3%
Jack In The Box Inc	69,248	0.3%
Sonic Automotive Inc	49,728	0.2%
Playa Hotels & Resorts Nv	46,228	0.2%
Haverty Furniture Cos Inc	44,863	0.2%
Foot Locker Inc	40,512	0.2%
Johnson Outdoors Inc	39,732	0.2%
Rocky Brands Inc	34,398	0.2%
Aaron'S Co Inc/The	30,600	0.2%
Qurate Retail Inc	5,728	0.0%

Portfolio Holdings by Sector – May 31, 2023

SECTOR	MKT. VALUE	% PORT
INDUSTRIALS	2,557,377	12.5%
Atkore Inc	256,894	1.3%
Moog Inc	233,304	1.1%
Wesco International Inc	164,856	0.8%
Gms Inc	158,325	0.8%
Alaska Air Group Inc	134,790	0.7%
Ryder System Inc	126,128	0.6%
Wabash National Corp	119,595	0.6%
Universal Logistics Holdings Inc	111,510	0.5%
Arcbest Corp	108,914	0.5%
Triton International Ltd	107,432	0.5%
Timken Co/The	100,170	0.5%
Emcor Group Inc	98,904	0.5%
Covenant Logistics Group Inc	95,425	0.5%
Builders Firstsource Inc	92,760	0.5%
Mueller Industries Inc	81,686	0.4%
Hillenbrand Inc	76,752	0.4%
Mdu Resources Group Inc	72,950	0.4%
Csg Systems International Inc	71,970	0.4%
Kelly Services Inc	68,172	0.3%
Acco Brands Corp	62,920	0.3%
Werner Enterprises Inc	61,488	0.3%
Arc Document Solutions Inc	59,565	0.3%
Bgsf Inc	48,919	0.2%
Deluxe Corp	33,484	0.2%
Quad/Graphics Inc	10,464	0.1%
INFORMATION TECHNOLOGY	2,049,354	10.1%
Bel Fuse Inc	236,112	1.2%
Avnet Inc	227,968	1.1%
Super Micro Computer Inc	223,950	1.1%
Amkor Technology Inc	223,020	1.1%
Sanmina Corp	196,248	1.0%
Progress Software Corp	156,000	0.8%
Vishay Intertechnology Inc	136,634	0.7%
Vishay Precision Group Inc	136,188	0.7%
Insight Enterprises Inc	94,654	0.5%
Diodes Inc	89,840	0.4%
Information Services Group Inc	78,030	0.4%
Cirrus Logic Inc	77,680	0.4%
Td Synnex Corp	73,292	0.4%
Ttm Technologies Inc	65,760	0.3%
Immersion Corp	21,240	0.1%
Photonics Inc	12,738	0.1%

SECTOR	MKT. VALUE	% PORT
MATERIALS	1,247,969	6.1%
Greif Inc	234,390	1.1%
Graphic Packaging Holding Co	203,150	1.0%
O-I Glass Inc	157,472	0.8%
Commercial Metals Co	141,075	0.7%
Chemours Co/The	105,960	0.5%
Advansix Inc	105,280	0.5%
Silgan Holdings Inc	103,477	0.5%
Cabot Corp	89,024	0.4%
Ingevity Corp	84,942	0.4%
Tredegar Corp	23,199	0.1%
ENERGY	1,181,004	5.8%
Pdc Energy Inc	260,756	1.3%
Hf Sinclair Corp	190,624	0.9%
Comstock Resources Inc	175,216	0.9%
Civitas Resources Inc	146,960	0.7%
Sfl Corp Ltd	112,398	0.6%
California Resources Corp	90,096	0.4%
Pbf Energy Inc	62,577	0.3%
Berry Corp	54,180	0.3%
Nacco Industries Inc	47,175	0.2%
Southwestern Energy Co	41,022	0.2%
CONSUMER STAPLES	959,915	4.7%
Ingles Markets Inc	216,729	1.1%
Sprouts Farmers Market Inc	210,816	1.0%
Ingredion Inc	156,900	0.8%
Coca-Cola Consolidated Inc	148,892	0.7%
Energizer Holdings Inc	114,100	0.6%
Spartannash Co	54,960	0.3%
Village Super Market Inc	33,208	0.2%
Natural Grocers By Vitamin Cottage Inc	24,310	0.1%
UTILITIES	388,303	1.9%
National Fuel Gas Co	259,641	1.3%
Ugi Corp	128,662	0.6%
COMMUNICATION SERVICES	303,989	1.5%
Nexstar Media Group Inc	135,828	0.7%
Tegna Inc	130,116	0.6%
Amc Networks Inc	26,013	0.1%
Altice Usa Inc	12,032	0.1%

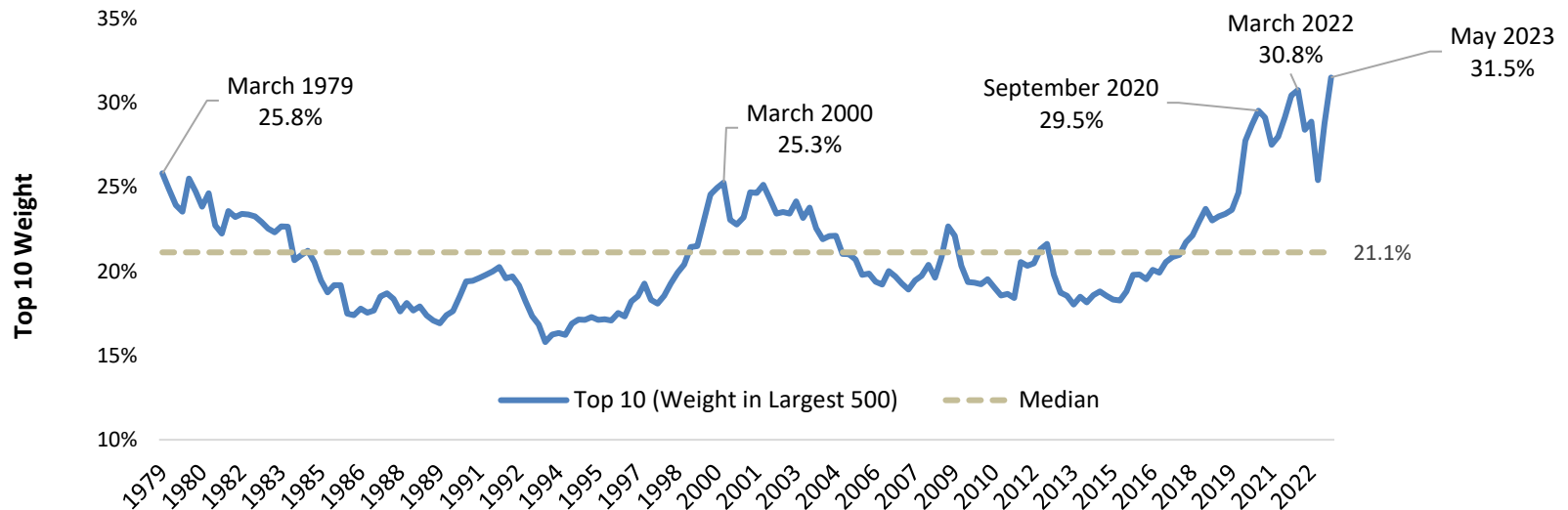
SECTOR	MKT. VALUE	% PORT
HEALTH CARE	1,447,231	7.1%
Ironwood Pharmaceuticals Inc	262,208	1.3%
United Therapeutics Corp	188,766	0.9%
Select Medical Holdings Corp	153,272	0.8%
Prestige Consumer Healthcare Inc	148,798	0.7%
Exelixis Inc	96,400	0.5%
Amn Healthcare Services Inc	85,464	0.4%
Quidelortho Corp	85,140	0.4%
Medpace Holdings Inc	82,788	0.4%
Collegium Pharmaceutical Inc	79,452	0.4%
Premier Inc	72,500	0.4%
Organon & Co	58,170	0.3%
Computer Programs And Systems Inc	54,878	0.3%
Eagle Pharmaceuticals Inc/De	53,950	0.3%
Amphastar Pharmaceuticals Inc	13,311	0.1%
Emergent Biosolutions Inc	12,113	0.1%
REAL ESTATE	1,297,913	6.4%
Tanger Factory Outlet Centers Inc	154,812	0.8%
Necessity Retail Reit Inc/The	127,161	0.6%
Epr Properties	120,959	0.6%
Apple Hospitality Reit Inc	116,240	0.6%
Sabra Health Care Reit Inc	108,096	0.5%
Braemar Hotels & Resorts Inc	95,297	0.5%
Rlj Lodging Trust	92,520	0.5%
American Assets Trust Inc	80,010	0.4%
Urstadt Biddle Properties Inc	61,920	0.3%
Brixmor Property Group Inc	60,090	0.3%
Service Properties Trust	41,050	0.2%
City Office Reit Inc	40,317	0.2%
Kite Realty Group Trust	38,880	0.2%
Gladstone Commercial Corp	37,408	0.2%
Uniti Group Inc	30,430	0.1%
Franklin Street Properties Corp	25,488	0.1%
Piedmont Office Realty Trust Inc	24,920	0.1%
Plymouth Industrial Reit Inc	19,719	0.1%
Office Properties Income Trust	13,742	0.1%
Industrial Logistics Properties Trust	6,639	0.0%
Coreenergy Infrastructure Trust Inc	1,394	0.0%
CASH	292,715	1.4%
TOTAL	20,412,956	100%

LSV
Asset Management

Supplemental Slides

Are There Signs of Irrational Exuberance?

Weight of Top 10 Stocks in the U.S. Over Time

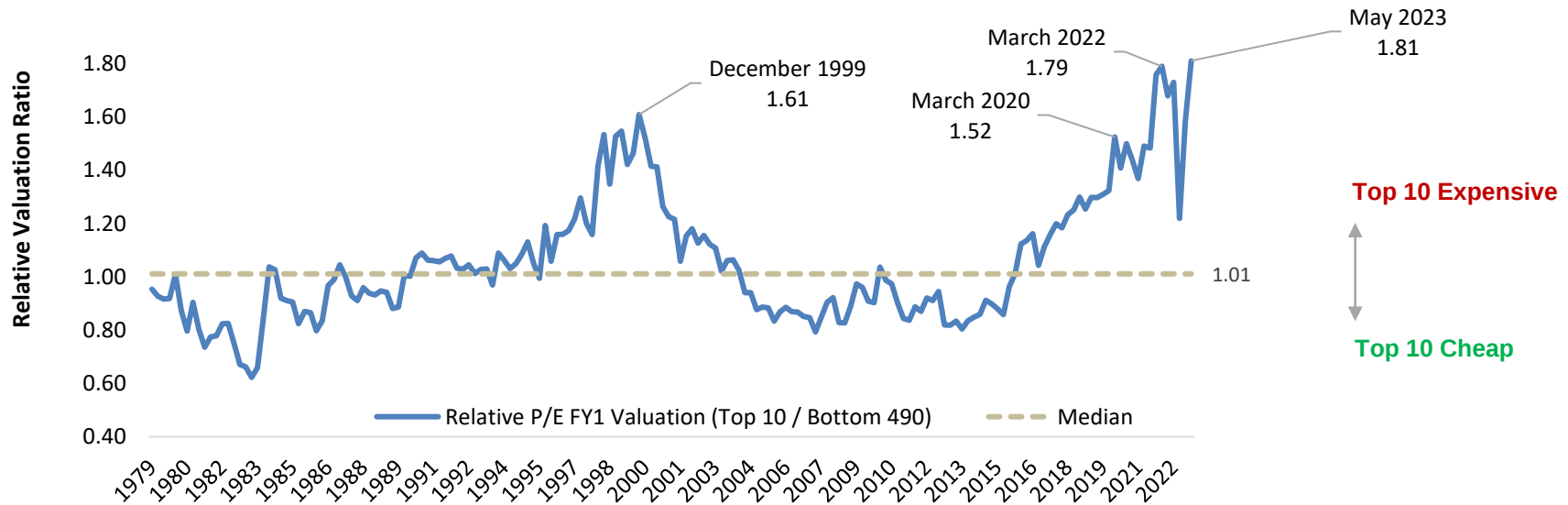


- **As of May 2023, the Top 10 stocks in the U.S. represent 31.5% of the market cap of the largest 500 companies, One of the highest on record dating back to the 1970's**
 - The historical median weight of the top 10 names is 21.1%

Data as of 05/31/2023. Sources: LSV, NYSE. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of the market segment discussed on these slides. The sample includes all U.S. common stocks in NYSE.

Are There Signs of Irrational Exuberance?

Relative Valuation of Top 10 Stocks vs. Bottom 490 in the U.S. Over Time

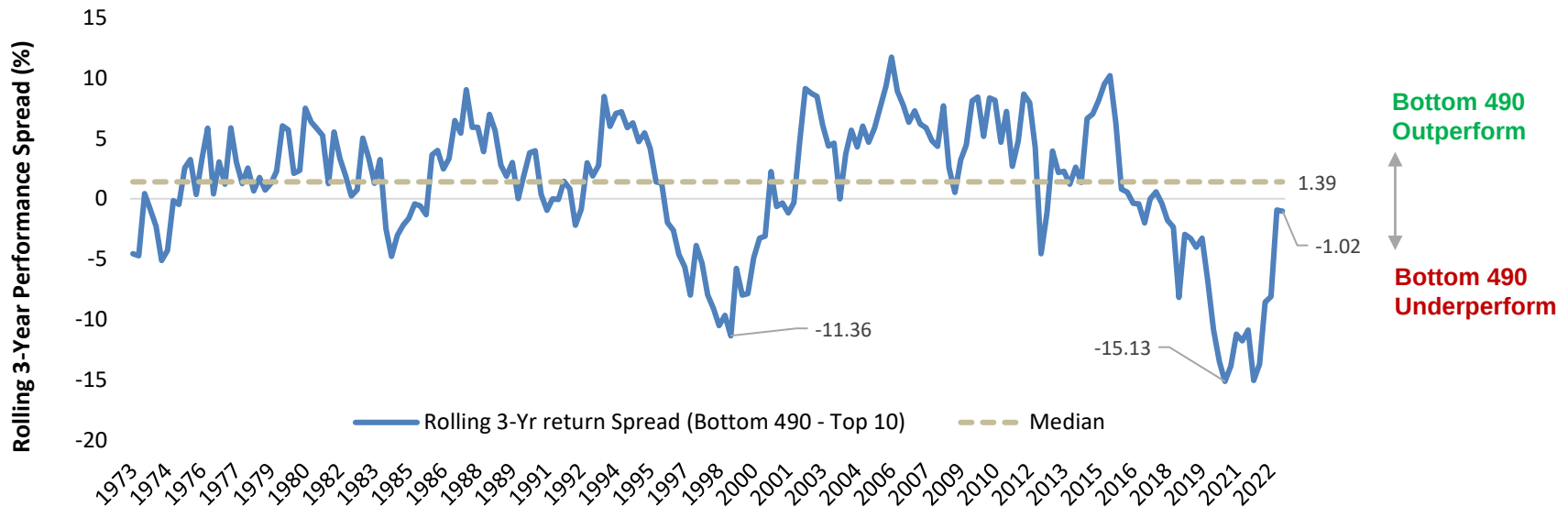


- **The Top 10 stocks in the U.S. are also incredibly expensive today relative to the Bottom 490 companies**
 - Historically, the Top 10 stocks and Bottom 490 trade on par with one another
 - As of May 2023, the relative valuation ratio stands at 1.81

Data as of 05/31/2023. Sources: LSV, NYSE. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of the market segment discussed on these slides. The sample includes all U.S. common stocks in NYSE.

Are There Signs of Irrational Exuberance?

Performance of Top 10 Stocks in the U.S. Over Time (Through March 2023)



- Historically, the Top 10 stocks in the U.S. have underperformed the Bottom 490 by 1.39% annualized over rolling 3-year periods (historical median)
 - Over the past 3 years, the Top 10 stocks outperformed the Bottom 490 by 1.02% annualized
- It is extremely rare to find periods in which the Top 10 stocks are 1) highly concentrated 2) expensive and 3) have outperformed significantly over the past 3 years. History would suggest that now is a good time to be contrarian.

Data as of 03/31/2023. Sources: LSV, NYSE. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of the market segment discussed on these slides. The sample includes all U.S. common stocks in NYSE.

LSV *Asset Management*

Philosophy & Process

Investment Philosophy

LSV believes in the systematic implementation of fundamental investment ideas

Deep Value

- We identify cheap companies that are underappreciated by the market
 - A patient approach that focuses on undervalued companies can deliver superior returns
-

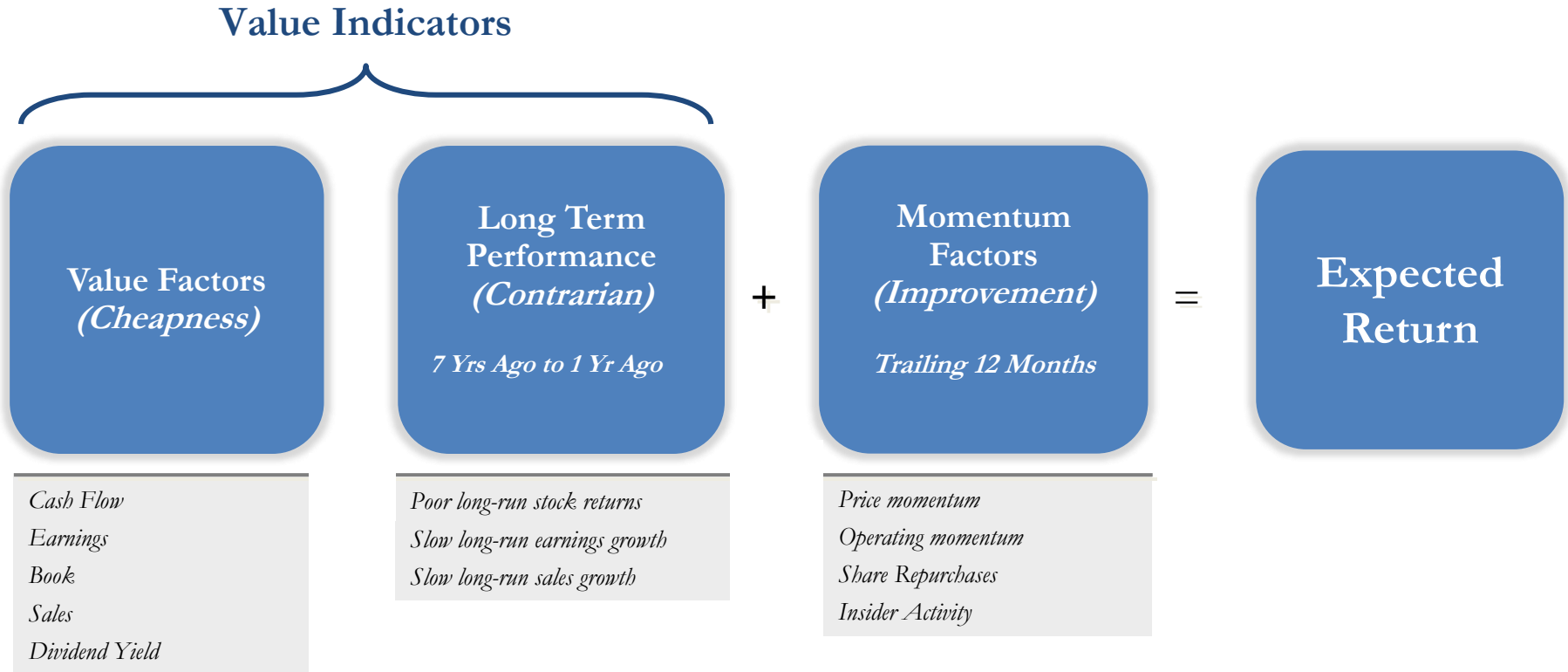
Quantitative

- LSV's quantitative investment strategy is based on comprehensive empirical research which addresses the complexities of financial statements
 - Our common sense approach avoids the pitfalls of data mining
-

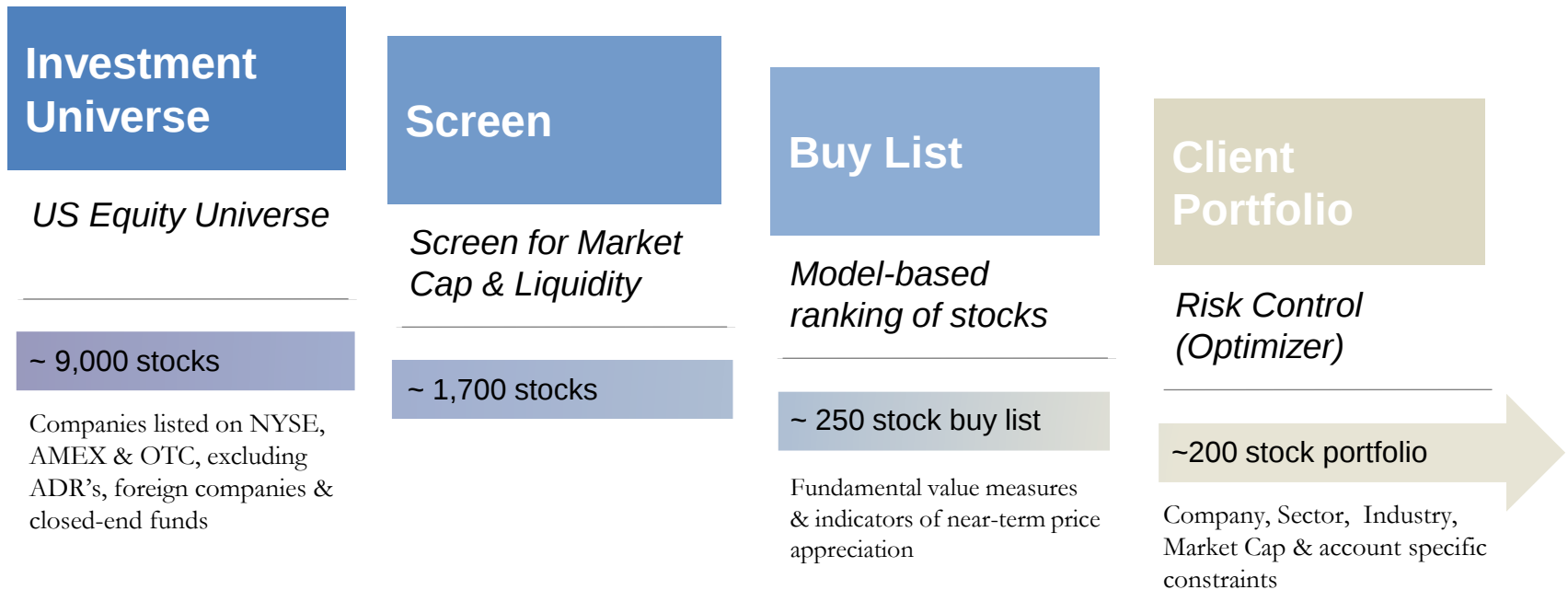
Risk Control

- We construct well diversified portfolios across sectors, industries and individual names utilizing our proprietary optimization process

Investment Process – Expected Return Model



Investment Process



Sell Discipline

A stock is sold when:

- Model ranking deteriorates

A stock is cut back when:

- Portfolio weight becomes excessive

Turnover

- Approximately 25% per year

April 30, 2023

**City of Norwalk
OPEB Monthly Report**

**Investment Measurement Service
Monthly Review**

Table of Contents
City of Norwalk
April 30, 2023

Asset Distribution	1
Manager Performance	2

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of April 30, 2023, with the distribution as of March 31, 2023. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	April 30, 2023					March 31, 2023		
	Market Value	Weight	Target	Net New Inv.	Inv. Return	Market Value	Weight	Target
Total Equity	\$83,434,197	65.76%	68.00%	\$0	\$1,077,530	\$82,356,667	65.61%	68.00%
Domestic Equity	\$52,061,154	41.03%	41.00%	\$0	\$539,171	\$51,521,983	41.04%	41.00%
Vanguard Total Stock Market	52,061,154	41.03%		0	539,171	51,521,983	41.04%	
International Equity	\$31,373,043	24.73%	27.00%	\$0	\$538,359	\$30,834,684	24.56%	27.00%
Vanguard Total Int'l. Stock	31,373,043	24.73%		0	538,359	30,834,684	24.56%	
Fixed Income	\$22,937,510	18.08%	20.00%	\$(4,157)	\$144,406	\$22,797,260	18.16%	20.00%
Metropolitan West Fund	8,691,626	6.85%		0	48,866	8,642,761	6.88%	
Prudential Cons Core Bond Fnd	14,245,883	11.23%		(4,157)	95,541	14,154,500	11.28%	
Liquid Real Assets	\$14,425,961	11.37%	12.00%	\$0	\$106,269	\$14,319,692	11.41%	12.00%
PIMCO All Assets	14,425,961	11.37%		0	106,269	14,319,692	11.41%	
Cash	\$6,082,298	4.79%	0.00%	\$0	\$23,516	\$6,058,782	4.83%	0.00%
Residual Cash	6,082,298	4.79%		0	23,516	6,058,782	4.83%	
Total Fund	\$126,879,966	100.0%	100.0%	\$(4,157)	\$1,351,721	\$125,532,401	100.0%	100.0%

Investment Manager Returns

The table below details the rates of return for the fund's investment managers over various time periods ended April 30, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended April 30, 2023

	Fiscal YTD	Last 12 Months	Last 36 Months	Last 60 Months	Last 84 Months
Total Equity	11.07%	2.18%	12.58%	7.48%	9.67%
Domestic Equity	10.85%	1.32%	13.94%	10.51%	12.00%
Vanguard Total Stock Market (2)	10.85%	1.32%	13.94%	10.51%	12.00%
CRSP U.S. Total Market Index	10.87%	1.32%	13.95%	10.52%	12.01%
Russell 3000 Index	10.92%	1.50%	14.07%	10.60%	12.06%
International Equity	11.40%	3.58%	10.47%	2.72%	5.98%
Vanguard Total Int'l. Stock (3)	11.40%	3.58%	10.47%	2.72%	5.98%
GI All Cap ex US Index	11.88%	2.62%	10.52%	2.94%	6.18%
Fixed Income	0.73%	(0.57%)	(2.94%)	1.30%	1.01%
Metropolitan West Fund	0.48%	(1.29%)	(2.88%)	1.37%	1.14%
Prudential Cons Core Bond Fnd	0.86%	(0.16%)	(2.96%)	1.27%	0.98%
Blmbg Aggregate Index	0.51%	(0.43%)	(3.15%)	1.18%	0.91%
Liquid Real Assets	4.68%	(2.43%)	9.16%	4.13%	-
PIMCO All Asset Fund	4.68%	(2.43%)	9.16%	4.13%	5.61%
Blmbg US TIPS 1-10	0.71%	(1.82%)	2.27%	3.24%	2.52%
Cash	2.57%	2.69%	0.94%	1.37%	1.21%
Residual Cash	2.57%	2.69%	0.94%	1.37%	1.21%
3-month Treasury Bill	2.72%	2.81%	0.99%	1.44%	1.26%
Total Fund	7.91%	0.82%	8.96%	5.97%	7.32%
Total Fund Benchmark (1)	8.05%	1.44%	8.05%	6.10%	7.07%
Annual Discount Rate:6.5%					

*Fiscal year starts 7/1 and ends 6/30.

(1) Current Total Fund Custom Benchmark = 41.0% Russell 3000 Index, 27.0% MSCI ACWI xUS, 20.0% Blmbg Aggregate and 12.0% Blmbg TIPS 1-10 Yr.

(2) On October 27, 2014 switched from Signal Shares to Admiral Shares, On November 14th, 2014 switched to Institutional Shares

(3) On November 14, 2014 switched from Admiral Shares to Institutional Shares

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April 30, 2023



City of Norwalk Monthly Report

Investment Measurement Service Monthly Review

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City of Norwalk
April 30, 2023

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Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of April 30, 2023, with the distribution as of March 31, 2023. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	April 30, 2023					March 31, 2023		
	Market Value	Weight	Target	Net New Inv.	Inv. Return	Market Value	Weight	Target
Total Equity	\$315,404,825	67.20%	69.00%	\$(5,088,384)	\$2,221,073	\$318,272,136	67.83%	69.00%
U.S. Equity	\$157,738,996	33.61%	35.00%	\$(75,918)	\$532,363	\$157,282,550	33.52%	35.00%
BR Russell 1000 Index Non-Lend	116,197,692	24.76%		0	1,423,074	114,774,618	24.46%	
LSV	21,017,726	4.48%		(75,918)	(540,454)	21,634,098	4.61%	
Principal Dynamic Growth	20,523,578	4.37%		0	(350,256)	20,873,834	4.45%	
International Equity	\$109,852,847	23.41%	23.00%	\$(37,554)	\$1,639,477	\$108,250,925	23.07%	23.00%
Developed Markets	\$91,376,002	19.47%	-	\$(37,554)	\$2,037,028	\$89,376,528	19.05%	-
Silchester	58,357,087	12.43%		(37,554)	1,459,673	56,934,968	12.13%	
Walter Scott	33,018,915	7.04%		0	577,355	32,441,560	6.91%	
Emerging Markets	\$18,476,845	3.94%	-	\$0	\$(397,551)	\$18,874,397	4.02%	-
BlackRock EM Alpha Tilts	18,476,845	3.94%		0	(397,551)	18,874,397	4.02%	
Global Equity/Long Short	\$24,759,181	5.28%	8.00%	\$(4,974,912)	\$49,233	\$29,684,860	6.33%	8.00%
ABS Global	19,742,202	4.21%		0	7,166	19,735,036	4.21%	
Blackstone Park Ave. NT	5,016,979	1.07%		(4,974,912)	42,067	9,949,824	2.12%	
Private Equity*	\$23,053,801	4.91%	3.00%	\$0	\$0	\$23,053,801	4.91%	3.00%
Pantheon USA IV	178,762	0.04%		0	0	178,762	0.04%	
Pantheon USA VI	153,054	0.03%		0	0	153,054	0.03%	
Pantheon USA VII	711,563	0.15%		0	0	711,563	0.15%	
Pantheon Europe Fund V A	408,743	0.09%		0	0	408,743	0.09%	
Pantheon Global Fund III	59,955	0.01%		0	0	59,955	0.01%	
Pantheon US Select 2014	21,541,724	4.59%		0	0	21,541,724	4.59%	
Domestic Fixed-Income	\$85,745,133	18.27%	19.00%	\$(11,036)	\$519,598	\$85,236,571	18.17%	19.00%
Prudential Cons Core Bond	37,935,720	8.08%		(11,036)	257,867	37,688,888	8.03%	
Metropolitan West CIT	47,809,413	10.19%		0	261,730	47,547,683	10.13%	
Absolute Return	\$27,438,521	5.85%	4.00%	\$0	\$(41,526)	\$27,480,047	5.86%	4.00%
UBS AIS	27,438,521	5.85%		0	(41,526)	27,480,047	5.86%	
Real Assets	\$35,443,206	7.55%	6.00%	\$0	\$261,092	\$35,182,114	7.50%	6.00%
PIMCO All Asset	35,443,206	7.55%		0	261,092	35,182,114	7.50%	
Cash	\$5,320,045	1.13%	2.00%	\$2,272,482	\$11,619	\$3,035,944	0.65%	2.00%
Cash Account	5,320,045	1.13%		2,272,482	11,619	3,035,944	0.65%	
Total Fund	\$469,351,730	100.0%	100.0%	\$(2,826,937)	\$2,971,855	\$469,206,812	100.0%	100.0%

*Market values are preliminary and adjust for asset flows.

Investment Manager Returns

The table below details the rates of return for the fund's investment managers over various time periods ended April 30, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended April 30, 2023

	Last Month	Fiscal YTD	Last 12 Months	Last 36 Months	Last 60 Months
Total Equity	0.72%	9.70%	2.55%	12.18%	7.00%
U.S. Long Equity	0.34%	9.79%	0.46%	14.90%	10.22%
Russell 3000 Index	1.07%	10.92%	1.50%	14.07%	10.60%
BR Russell 1000 Index Non-Lendable	1.24%	11.30%	1.83%	14.22%	11.07%
Russell 1000 Index	1.24%	11.29%	1.82%	14.22%	11.07%
LSV	(2.50%)	5.35%	(0.71%)	21.49%	4.59%
Russell 2000 Value Index	(2.49%)	0.18%	(7.99%)	15.44%	3.66%
Principal Dynamic Growth	(1.68%)	6.25%	(5.33%)	14.22%	12.07%
Russell 2500 Growth Index	(1.26%)	10.03%	(0.07%)	8.74%	6.69%
International Equity	1.52%	14.23%	6.93%	9.72%	2.66%
MSCI ACWI ex US Index	1.81%	12.38%	3.61%	10.25%	3.00%
Developed Markets	2.28%	17.73%	10.12%	10.94%	3.57%
MSCI EAFE Index	2.82%	18.62%	8.42%	11.68%	3.63%
Silchester	2.57%	16.81%	9.86%	13.42%	3.35%
MSCI EAFE Val Idx	3.22%	17.48%	8.38%	13.80%	1.78%
Walter Scott	1.78%	-	-	-	-
MSCI EAFE Index	2.82%	18.62%	8.42%	11.68%	3.63%
MSCI EAFE Growth	2.43%	19.79%	8.23%	9.21%	5.07%
Emerging Markets	(2.11%)	0.18%	(5.95%)	4.58%	(1.25%)
BlackRock EM Alpha Tilts	(2.11%)	0.18%	(5.95%)	4.58%	-
MSCI Emerging Mkts Idx	(1.11%)	0.04%	(6.09%)	4.71%	(0.67%)
Global Equity/Long Short	0.17%	2.61%	0.36%	4.81%	3.24%
HFRI FOF: Strategic Index	0.41%	2.51%	(1.44%)	5.69%	2.32%
ABS Global	0.04%	3.42%	0.01%	5.41%	3.48%
MSCI World Index	1.75%	12.88%	3.18%	13.10%	8.14%
Blackstone Park Ave. NT	0.46%	1.31%	0.21%	3.71%	2.66%
S&P 500 Index	1.56%	11.70%	2.66%	14.52%	11.45%
Private Equity(1)	0.00%	(0.78%)	(2.12%)	22.39%	16.54%
Pantheon USA IV	0.00%	(1.24%)	-	-	-
Pantheon USA VI	0.00%	0.62%	-	-	-
Pantheon USA VII	0.00%	(3.27%)	-	-	-
Pantheon Europe Fund V A	0.00%	(3.94%)	-	-	-
Pantheon Global Secondary Fund III	0.00%	0.36%	-	-	-
Pantheon US Select 2014	0.00%	(0.66%)	-	-	-
Private Equity Benchmark(2)	0.00%	(0.78%)	(2.12%)	22.39%	16.54%

*Fiscal year starts 7/1 and ends 6/30.

(1) Private Equity has a 1 quarter lag in valuation.

(2) Private Equity benchmark is a composite of Private Equity performance.

Investment Manager Returns

The table below details the rates of return for the fund's investment managers over various time periods ended April 30, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended April 30, 2023

	Last Month	Fiscal YTD	Last 12 Months	Last 36 Months	Last 60 Months
Domestic Fixed Income	0.61%	0.71%	(0.74%)	(2.90%)	1.30%
Prudential Cons Core Bond	0.68%	0.92%	(0.13%)	(2.92%)	1.14%
Metropolitan West Fund (2)	0.55%	0.55%	(1.23%)	(2.86%)	1.39%
Blmbg Aggregate Index	0.61%	0.51%	(0.43%)	(3.15%)	1.18%
Absolute Return	(0.15%)	4.13%	4.34%	8.15%	5.65%
UBS AIS	(0.15%)	4.13%	4.34%	8.15%	5.65%
HFRI FOF: Conservative Index	0.24%	2.85%	1.11%	7.11%	3.89%
Real Assets	0.74%	4.68%	(2.43%)	9.15%	4.33%
PIMCO All Asset Fund	0.74%	4.68%	(2.43%)	9.16%	4.13%
Blmbg US TIPS 1-10	0.19%	0.71%	(1.82%)	2.27%	3.24%
Cash	0.32%	3.10%	3.28%	1.27%	1.66%
Cash	0.32%	3.10%	3.28%	1.27%	1.66%
3-month Treasury Bill	0.31%	2.72%	2.81%	0.99%	1.44%
Total Fund	0.64%	7.23%	1.67%	8.70%	5.58%
Total Fund Custom Benchmark (1)	0.95%	7.13%	1.29%	7.67%	5.79%
Annual Discount Rate: 6.625%					

*Fiscal year starts 7/1 and ends 6/30.

(1) The Total Fund Custom Benchmark is 35.0% Russell 3000 Index, 23.0% MSCI ACWI ex-US, 19.0% Bloomberg Aggregate Index 3.0% Norwalk Private Equity, 8.0% HFRI FOF Strategic, 6.0% Bloomberg US TIPS 1-10 Year Index, 4.0% HFRI FOF Conservative, 2% 3-month Treasury Bill.

(2) On August 24, 2022 switched from Mutual Fund to CIT.

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March 31, 2023

City of Norwalk DC Plans

**Investment Measurement Service
Quarterly Review**

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Higher Interest Rates Work! That's Good?

ECONOMY

2 Fed rate hikes seem to be working as designed, but there is always a delicate balancing act in trying to avoid a recession. The U.S. economy has held up pretty well, but GDP is slowing and the bond market is signaling a recession is ahead. The risks of that event have increased.

After Worst Year Ever, A Rebound for Bonds

FIXED INCOME

8 Following the worst year ever for core fixed income, the Bloomberg US Aggregate Bond Index rose 3.0% in 1Q. As with equities, it was a bumpy ride with solid returns in January and March sandwiching a negative February. Global indices also rose in the quarter

Interest Continues as IRRs Stay Steady

PRIVATE CREDIT

12 Private credit generated net IRRs between 7% and 10% for trailing periods ended 9/30/22. Interest in the asset class remains strong and a renewed focus has been placed on relative value, downside protection, and managers' internal workout resources.

4Q22 and 1Q23 Gains Help Ease the Pain

INSTITUTIONAL INVESTORS

4 All investor types saw declines for the trailing year ended 1Q23, but the pain was eased by rebounds for stocks and bonds in 4Q22 and 1Q23. And while 2022 was a tough year, the silver lining is that return expectations going forward are now materially higher.

Private RE Mixed; REITs Lag Equities

REAL ESTATE/REAL ASSETS

10 Income returns for the NCREIF Property Index were positive but appreciation fell for the four major property sectors. REITs lagged equities in the quarter, and real assets were mixed but also lagged equities. Transaction volume continues to decrease on a rolling four-quarter basis.

Steady Gains Amid Volatile Markets

HEDGE FUNDS/MACs

13 Hedge funds ended the quarter in positive territory, although they underperformed broader equity indices, as the group provided steady performance through a volatile market environment. The median manager in the Callan Institutional Hedge Fund Peer Group rose 1.3%.

Increase but the Ride Was Bumpy in 1Q

EQUITY

6 The S&P 500 posted a second straight quarter of positive performance, gaining 7.5% in 1Q23; large cap growth led all style and cap indices higher, advancing 14.4%. Results were mixed across developed markets but most delivered positive returns.

Asset Class Adjusts To Tighter Conditions

PRIVATE EQUITY

11 Except for fundraising dollar volume, virtually all activity measures moderated in 1Q23. Company-level entry and exit transactions retreated to levels seen in 2020, which remain healthy but look meager compared to 2021's stimulus-fueled liquidity peak, and 2022's gradual slowdown.

Index Rises After 3 Quarters of Losses

DEFINED CONTRIBUTION

15 The Callan DC Index rose 6.3% in 4Q22 after three straight quarterly declines. Balances also rose, driven by investment gains. TDFs continued to see the largest inflows. Allocations to equities rose slightly. Fees fell but the amount varied by plan size.

Broad Market Quarterly Returns

U.S. Equity Russell 3000



Global ex-U.S. Equity MSCI ACWI ex USA



U.S. Fixed Income Bloomberg Agg



Global ex-U.S. Fixed Income Bloomberg Global Agg ex US



Sources: Bloomberg, FTSE Russell, MSCI

Higher Interest Rates Work! That's Good, Right?!

ECONOMY | Jay Kloepfer

The Federal Reserve has two very public mandates: to support employment growth and to maintain low, stable inflation. When the economy falls into recession (GDP and jobs are contracting) and unemployment rises, the Fed typically steps in and lowers interest rates. Lower rates stimulate borrowing by consumers and businesses, and thereby spur demand that will ultimately pull the economy back into the black with positive economic growth and a resumption of hiring. When inflation rises, the Fed typically steps in and raises interest rates. Higher rates slow borrowing by consumers and businesses, and thereby lessen demand and slow the upward pressure on prices.

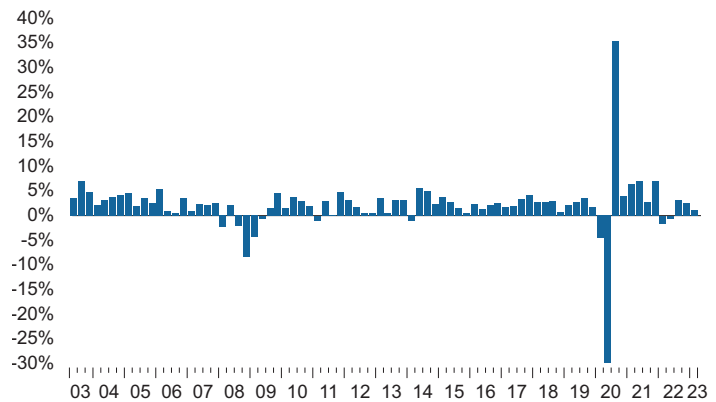
There is a balancing act on both sides of this policy equation: How much stimulus is enough to get the economy growing and spur recovery in the job market to pull down unemployment, before the resumption in demand pushes up prices? How high can interest rates go before the economy slows enough to tip into recession and unemployment shoots up? While this characterization is incredibly simplistic compared to the complex inner workings of the Fed, and ignores for the moment the impact of the Fed balance sheet and monetary tightening or easing, the story works to help explain the conundrum we currently face as we move into 2Q23.

The last three years saw incredible mayhem in the supply chains, capital flows, and job markets of the world, with equally volatile yet weirdly out-of-sync (at times) mayhem in the capital markets. We suffered through a pandemic with an uneven global policy response, and the invasion of Ukraine in winter 2022. Global energy fell to an effective price of zero in 2020 only to skyrocket immediately thereafter. Inflation surged hard after more than a decade of suppression, and central bank responses to withdraw stimulus and put out the inflation fire in 2022 spooked equity markets and drove fixed income returns to their worst year ever.

Underneath all this, the U.S. economy has actually held up pretty darn well. We regained the pre-pandemic levels of GDP and employment in fairly short order, given the depth of the declines. The job market in the U.S. has been particularly robust; even in 2022 as the capital markets plummeted, we added 4.8 million jobs

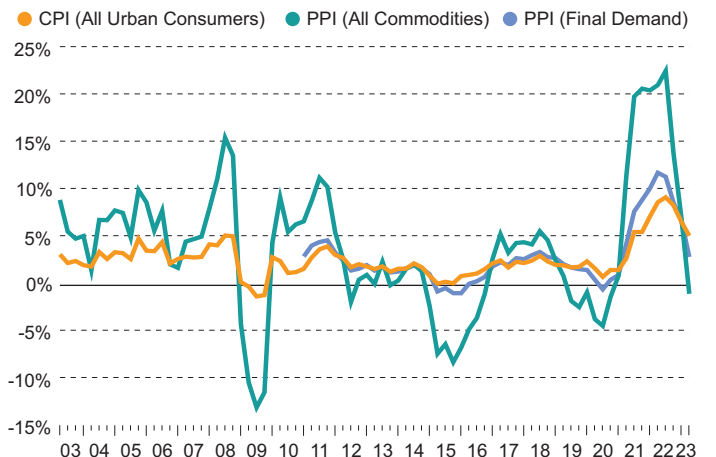
Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

during the year, with two monster months in February and July, and an average of 330,000 new jobs in the other 10 months of 2022. On the downside, overall gains in jobs hide the continued mismatch between the supply of jobs from employers and the type of jobs workers are demanding. Many trade and service industries remain woefully understaffed. Personal income surged, first through pandemic support in 2020 and the inability to spend in lockdown, and then as wages and salaries rose when economic growth burst into the open in 2021 and 2022. However, inflation ate into income gains and drove up prices for businesses, crimping real returns and company margins. Now that the Fed Funds rate has reached 5% and mortgage rates are at 7%, is it time for us to tip into recession? Did the Fed do “too much, too late?”

1Q23 GDP grew 1.1%, a definite slowdown from the second half of 2022, and below consensus expectations of 2%. Two culprits for the slower growth were weaker retail sales and a drop in new home construction. Another culprit was inventory reduction—companies worked down their stockpiles. Reducing inventories in anticipation of slower demand can be a self-fulfilling prophecy, as inventory reduction is a negative to GDP, but it can also set the economy up for a stronger 2Q, with the potential to rebuild inventory in the coming months. The consensus among economic forecasters is for substantial slowdown in 2023, to near zero growth in 2Q and 3Q, reaching the soft landing that is the holy grail of central banks.

Over history, however, we have not enjoyed soft landings in recessions; unemployment has spiked far beyond what would be thought of as a soft landing. The data for tracking recessions are all lagged, but the sequence of events in the economy is typically 1) slowing activity that takes a while to show up in the GDP data, then 2) cutting back in the form of spending and hiring, 3) layoffs starting in high-flying industries, leading to 4) the multiplier effects of the slowdown snowballing into significant job losses across the broad economy. The stock market usually prices in recession first, often far ahead of the economic data, and then the market begins to advance, pricing in the recovery while the recession is still unfolding.

The bond market has been signaling belief in recession with an inverted yield curve. The market fully believed in the Fed's interest rate plans in March 2022 when inflation took off, and the yield curve shifted up sharply. As the year went on, the bond market then began worrying that the Fed would have to reverse course "soon" and start cutting rates to stave off recession, hence the inversion of the yield curve. The Fed has made it clear that inflation remains concern

Recent Quarterly Economic Indicators

	1Q23	4Q22	3Q22	2Q22
Employment Cost: Total Compensation Growth	4.8%	5.1%	5.0%	5.1%
Nonfarm Business: Productivity Growth	-2.7%	1.6%	1.2%	-3.7%
GDP Growth	1.1%	2.6%	3.2%	-0.9%
Manufacturing Capacity Utilization	78.3%	78.5%	79.4%	79.6%
Consumer Sentiment Index (1966=100)	64.6	58.8	56.1	57.8

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan

The Long-Term View

Index	1Q23	Periods Ended 3/31/23			
		1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	7.2	-8.6	10.5	11.7	7.4
S&P 500	7.5	-7.7	11.2	12.2	7.4
Russell 2000	2.7	-11.6	4.7	8.0	6.8
Global ex-U.S. Equity					
MSCI EAFE	8.5	-1.4	3.5	5.0	4.3
MSCI ACWI ex USA	6.9	-5.1	2.5	4.2	--
MSCI Emerging Markets	4.0	-10.7	-0.9	2.0	--
MSCI ACWI ex USA Small Cap	4.7	-10.4	1.7	5.1	6.5
Fixed Income					
Bloomberg Agg	3.0	-4.8	0.9	1.4	4.0
90-Day T-Bill	1.1	2.5	1.4	0.9	1.9
Bloomberg Long G/C	5.8	-13.4	0.6	2.3	5.6
Bloomberg GI Agg ex US	3.1	-10.7	-3.2	-1.0	2.8
Real Estate					
NCREIF Property	-1.8	-1.6	6.7	8.3	8.8
FTSE Nareit Equity	2.7	-19.2	6.0	6.0	8.0
Alternatives					
CS Hedge Fund	0.2	-0.9	4.2	3.9	5.5
Cambridge PE*	0.8	-8.2	16.1	15.1	14.1
Bloomberg Commodity	-5.4	-12.5	5.4	-1.7	1.8
Gold Spot Price	8.8	1.6	8.4	2.2	7.8
Inflation – CPI-U	1.7	5.0	3.9	2.6	2.5

*Data for most recent period lags. Data as of 9/30/22.

Sources: Bloomberg, Bureau of Economic Analysis, Credit Suisse, FTSE Russell, MSCI, NCREIF, Refinitiv/Cambridge, S&P Dow Jones Indices

No. 1, and the potential to cause a recession has not entered its deliberations. The strong job market in 1Q—almost a million new jobs—gives the Fed cover to continue course. The storm clouds on the horizon are the various measures of inflation: CPI-U and PCE both rose 5% in the first quarter, and the employment cost index for private industry rose 4.8%. While these rates are high relative to longer term history, they are down substantially from the peaks of mid-2022.

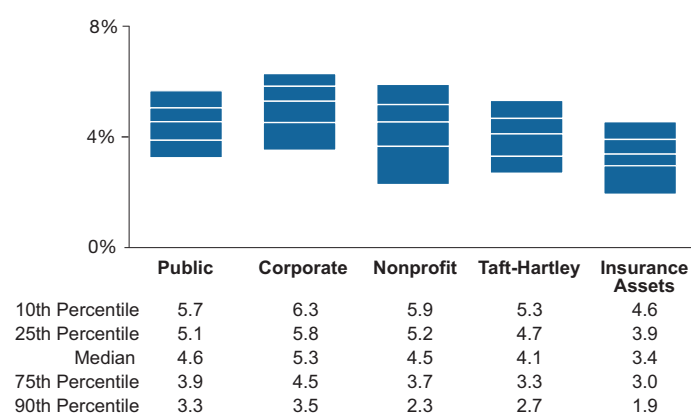
So higher interest rates are working, slowing demand and lessening price pressure, but inflation has a habit of being sticky on the downside. Squeezed margins means pressure to trim costs (and raise prices if possible). Highly visible layoffs in technology may soon expand to the broader economy. The chance of a recession in 2023 remains high.

Returns Fall for Trailing Year, but 4Q22, 1Q23 Gains Help Ease the Pain

INSTITUTIONAL INVESTORS

- Gains for stocks and bonds at the end of 2022 and beginning of 2023 eased the pain of a tough year for all institutional investors in 2022.
- While all investor types saw losses for the trailing one-year ending 1Q23, the declines were less than the double-digit losses they had experienced last year.
- Most investor types topped a 60% S&P 500/40% Bloomberg Aggregate benchmark over the trailing one year, with the exception of corporate plans.
- Results over the last 20 years for all investor types are in line with the stock-bonds benchmark.
- Entering 2023, for all investor types inflation is still an issue, despite recent declines.
 - Even if the rate goes to zero, the level of prices is permanently higher unless we get to deflation. The impact on individual and business real net income is substantial and portends slower growth in 2023 and 2024.
- Rate hikes from the Fed are another key concern.
 - The Fed has increased rates 475 bps since March 2022, from 0.0%-0.25% to 4.75%-5.0% in March 2023.
- While the painful losses across the board for investors in 2022 were a challenge, the silver lining is that higher returns are expected going forward.
 - Return targets are now in sight.
 - Risk reduction is on the table.

Quarterly Returns, Callan Database Groups (3/31/23)



Source: Callan

Callan Database Median and Index Returns* for Periods Ended 3/31/23

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	4.6	-4.8	11.2	6.2	7.2	7.9
Corporate Database	5.3	-7.3	5.5	4.2	5.9	7.3
Nonprofit Database	4.5	-4.7	11.2	5.8	6.7	7.7
Taft-Hartley Database	4.1	-4.0	11.2	6.4	7.3	7.5
Insurance Assets Database	3.4	-3.0	4.4	3.2	3.6	5.1
All Institutional Investors	4.6	-4.9	10.6	5.7	6.8	7.6
Large (>\$1 billion)	4.2	-4.9	11.2	6.5	7.3	8.0
Medium (\$100mm - \$1bn)	4.7	-4.9	10.7	5.8	7.0	7.6
Small (<\$100 million)	4.6	-4.9	10.4	5.5	6.6	7.2
60% S&P 500/40% Bloomberg Agg	5.7	-6.3	9.9	7.5	8.1	7.8

*Returns less than one year are not annualized.

Source: Callan. Callan's database includes the following groups: public defined benefit (DB) plans, corporate DB plans, nonprofits, insurance assets, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

- Private markets are now over target allocations.
 - Downward market valuations are slower in coming, distorting true exposures.
 - Interest remains strong in all private assets.
 - Sharpened interest in real assets continues.
 - But current real assets exposures did not help, given losses in the asset class.
- Strategic themes in client conversations: How much has the world changed, and does it alter how we should view and implement our portfolio?

Corporated Defined Benefit (DB) Plans

- Liabilities fell sharply with rising interest rates. Liability-driven investing (LDI) portfolios were hammered by long duration exposure; typical LDI plan treaded water in funded status.
- Plans are questioning what they are doing with LDI, and why. Funded status no longer translates directly to contributions, or expense. Funding relief changed views.
- Total return-oriented plans saw funded status improve as equities declined less than liabilities.
- We expect higher interest rates will increase discussions about pension risk transfer. Most of our corporate DB clients are inclined to keep the plan on the balance sheet.

Public DB Plans

- Downward pressure on actuarial discount rates may now abate as capital markets expectations are higher following the market decline.
- Higher return expectations and lowered discount rates have led to a number of discussions of de-risking, after years of risking-up to chase returns.
- Inflation impacts future liabilities through pressure on salary and hits plans now with COLAs. Political pressures are high on plans with discretionary COLAs. Most COLAs are NOT funded, which is the reason why many plans suspended or eliminated them to address funding shortfalls over the past decade.

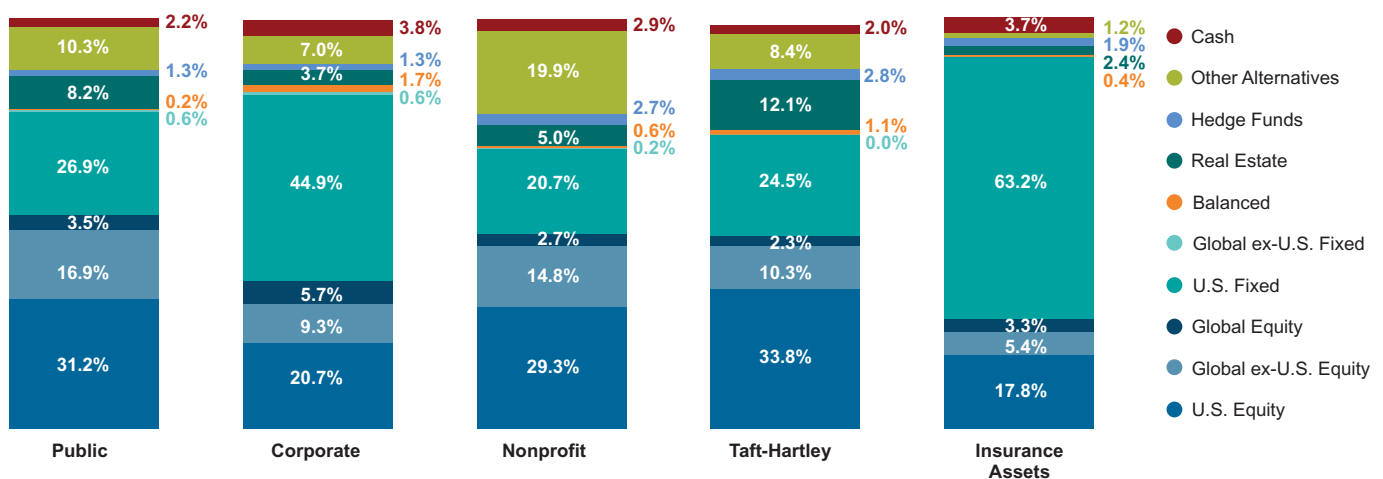
Nonprofits

- They are expanding the depth and breadth of their private markets allocations to diversify a prior focus on growth.
- Inflation concerns will lead to reconsideration of spending policies in 2023.

Defined Contribution (DC) Plans

- Pressure on investment management fees shows no signs of abating.
- Plans are also focused on compliance as they digest the implications of SECURE 2.0.

Average Asset Allocation, Callan Database Groups



Note: Charts may not sum to 100% due to rounding. Other alternatives include but is not limited to: diversified multi-asset, private credit, private equity, and real assets.
Source: Callan

Equity

U.S. Equities

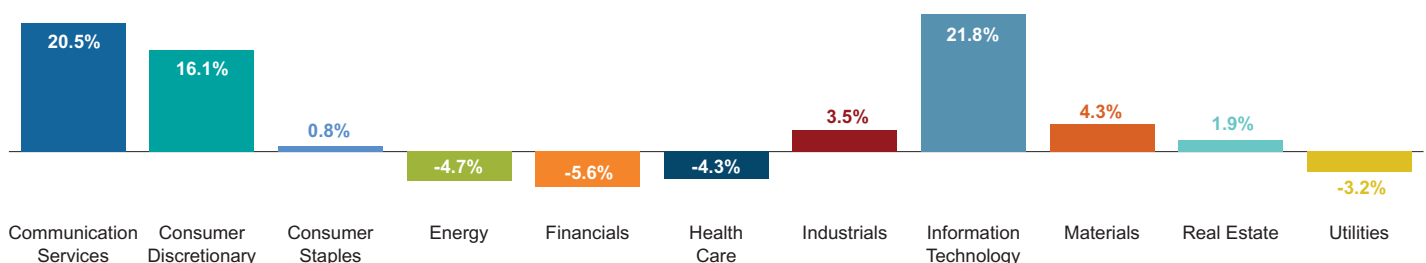
Markets gain, with exception of small cap value

- The S&P 500 posted a second straight quarter of positive performance, gaining 7.5% in 1Q23; large cap growth led all style and cap indices higher, advancing 14.4%.
- Russell 2000 Value was a notable exception and experienced a slight decline of 0.7% due to greater exposure to Financials, specifically banks.
- During the quarter, three sectors comprising 44% of the S&P 500 (and 63% of the Russell 1000 Growth Index) drove performance: Technology (+21.8%), Communication Services (+20.5%), and Consumer Discretionary (+16.1%).
- Financials, Energy, and Health Care posted negative returns for the quarter but had only a modest impact on total returns given smaller weights in respective benchmarks.
- Small caps (Russell 2000) underperformed large caps (Russell 1000) and growth outperformed value during the quarter, a reversal from 2022. Greater exposure to banks in Russell 2000 (8.3%) versus Russell 1000 (3.3%) was one differentiator for returns; strong returns for mega-cap Technology also increased divergence.

Large cap growth outperformance drivers

- The large cap growth outperformance was driven by increased valuations as interest rates declined and expectations of a more dovish Fed emerged.
- Asset managers may take a more cautious approach in equity markets into coming quarters as earnings estimates decline; expect a focus on quality, cash flow, defensive value names, and profitable growth stocks.

Quarterly Performance of Industry Sectors (12/31/22)

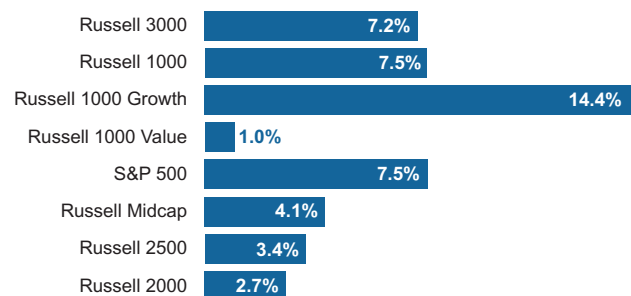


Source: S&P Dow Jones Indices

- Price multiples continue to be important as elevated valuations may compress if markets anticipate that monetary easing is not on the near-term horizon.
- Analyst estimates for future earnings are diverging, typically a sign of elevated economic turbulence.
- Investors “bought the dip” as stock performance reversed from the prior year; the worst-performing stocks for 2022 became best-performing stocks during 1Q23.

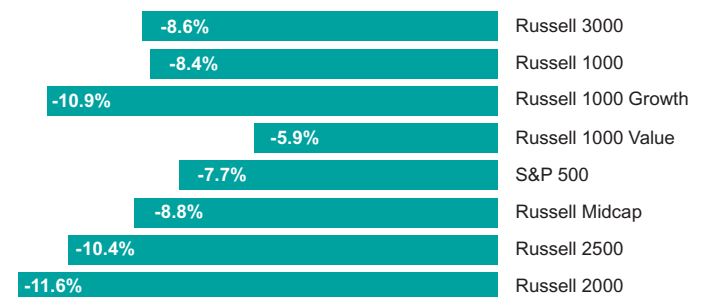
U.S. Equity: Quarterly Returns

(3/31/23)



U.S. Equity: One-Year Returns

(3/31/23)



Sources: FTSE Russell and S&P Dow Jones Indices

Global Equity

1Q23 brought global equity markets back to black

- Positive results despite hiccups
- 1Q23 was marked by the collapse of Silicon Valley Bank and Credit Suisse, which sent fears of a banking crisis across global markets.
- Despite a Fed hike during the period, investors began to price in lower rate expectations.
- Europe outperformed other regions, making up ground lost in 2022 as inflation eased and recession fears lessened.

Growth vs. value

- Growth outpaced value across developed and emerging markets.
- In a reversal from 2022, investors preferred growth alongside a drawdown in banks; Information Technology was the largest outperformer.

U.S. dollar vs. other currencies

- After some strength early in the quarter, the U.S. dollar declined 1% as interest rate differentials narrowed globally.

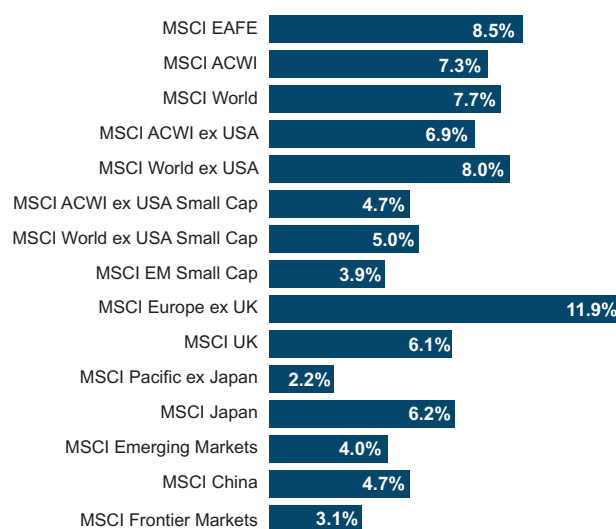
Developed markets outpace U.S.

- Outperformance of developed markets over the past year has been driven by Europe.
- Europe beat U.S. as the worst fears in the wake of the Russia-Ukraine War were not realized.
- Europe benefited from falling gas prices and China reopening.
- Value-growth dispersion was impacted less in developed markets relative to U.S. given the composition of the markets.
- EAFE Value outperformed Growth by 2.5 percentage points.
- S&P 500 Value outperformed Growth by 15.2 percentage points.
- Weak dollar in recent quarters helped global ex-U.S. equities.
- Since DXY Index reached a 20-year high in September 2022, it has fallen by 10%.

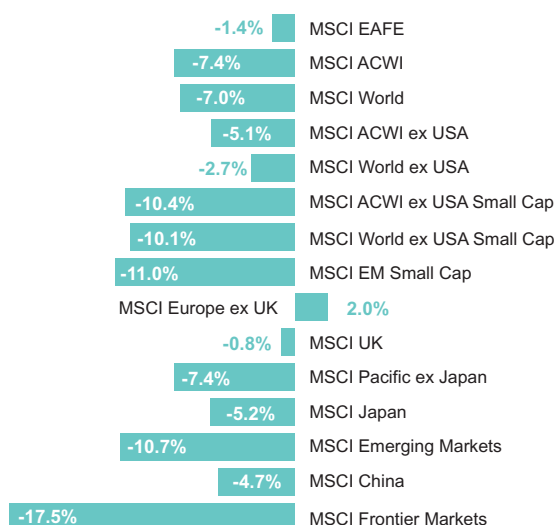
Will Europe continue to be a source of return?

- EPS growth expectations have fallen for both S&P 500 (-7%) and Europe (-9%).
- However, euro zone provides valuation support relative to the U.S.
- Euro zone trades at a 30% discount vs. the U.S.

Global ex-U.S. Equity: Quarterly Returns (U.S. Dollar, 3/31/23)



Global ex-U.S. Equity: One-Year Returns (U.S. Dollar, 3/31/23)



Source: MSCI

Fixed Income

U.S. Fixed Income

Bloomberg Aggregate was positive in 1Q but mixed

- January: +3.1%
- February: -2.6%
- March: +2.5%

U.S. Treasury volatility was pronounced

- 2-year U.S. Treasury yield high was 5.08% on 3/8 and low was 3.77% on 3/24
- MOVE Index highest since 2008

Yield curve remained inverted but also volatile

- 2yr/10yr | 3/31: -58 bps; max 3/8: -109; min 3/23: -38
- 1yr/10yr | 3/31: -116 bps

Fed raised rates, bringing target to 4.75%–5.00%

- Median expectation from Fed is 5.1% for year-end 2023; market pricing in Fed cuts by year-end
- Inflation moderated but still high and job market tight

Sector performance mixed

- Corporate Industrials excess return: +58 bps
- Corporate Financials excess return: -39 bps
- RMBS excess return: -50 bps
- CMBS excess return: -74 bps
- High yield excess return: +123 bps

Valuations fair

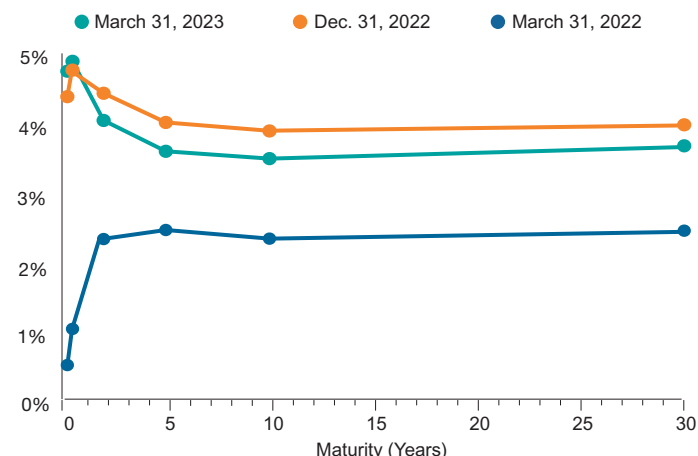
- Credit spreads have not widened materially and are close to historical averages

Municipal Bonds

Indices gained in 1Q23

- Lower quality outperformed (AAA: +2.5%; AA: +2.7%; A: +3.0%; BBB: +3.7%)
- Muni curve inverted but less so than U.S. Treasuries
- 2-year AAA yield: 2.41%; 10-year AAA yield: 2.28%
- Valuations relative to U.S. Treasuries are rich

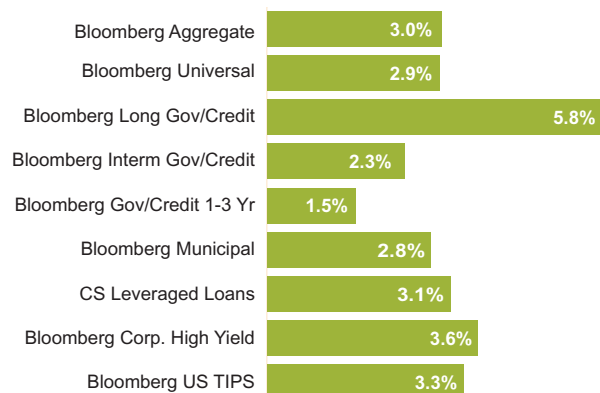
U.S. Treasury Yield Curves



Source: Bloomberg

U.S. Fixed Income: Quarterly Returns

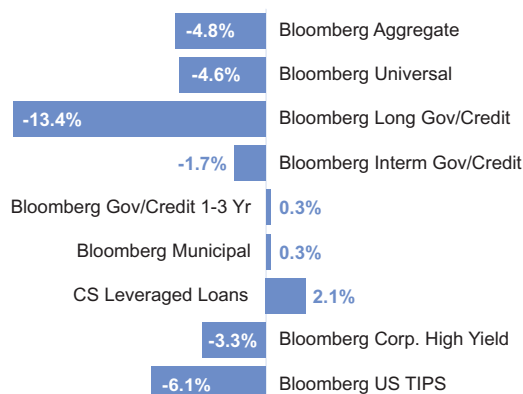
(3/31/23)



Sources: Bloomberg and Credit Suisse

U.S. Fixed Income: One-Year Returns

(3/31/23)



Sources: Bloomberg and Credit Suisse

FIXED INCOME (Continued)

- 10-year AAA Muni/10-year U.S. Treasury yield ratio 65%; below 10-year average of 88%
- Over the last 10 years, 10-year ratio was richer 4% of the time
- After-tax yield of Muni Bond Index = 5.5%; Bloomberg IG Corporate = 5.2% (Source: Eaton Vance)

Supply/demand

- Outflows nearly \$2 billion but lower than the \$22 billion in 1Q22
- Supply about 25% lower year-over-year
- Munis not immune to turmoil in banking, but fundamentals remain sound
- Banks are third largest holder of munis (about 15%) but thus far have not been sellers
- Municipals could be affected by tighter lending standards but likely result would be more public issuance
- “Rainy Day” fund balances and state tax revenues robust

Global Fixed Income

Global Aggregate was positive in 1Q but mixed

- January: +3.3%
- February: -3.3%
- March: +3.2%
- ECB and UK hiked rates; Japan held steady

U.S. dollar was mixed but mostly lower

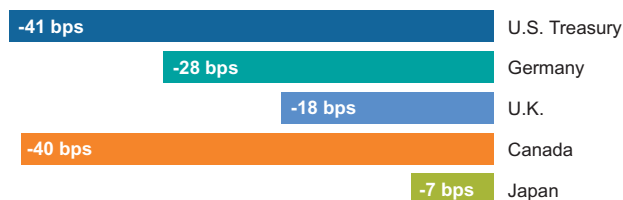
- Euro: +2% vs dollar
- British pound: +3% vs dollar
- Japanese yen: -1% vs dollar
- Australian dollar: -1% vs dollar
- Mexican peso: +8% vs dollar
- Brazilian real: +4% vs dollar

Emerging market debt delivered solid results

- EM currencies did well versus U.S. dollar, especially in Latin America; Latin America local currency return: +4.1%; unhedged in \$US: +9.8%

Change in 10-Year Global Government Bond Yields

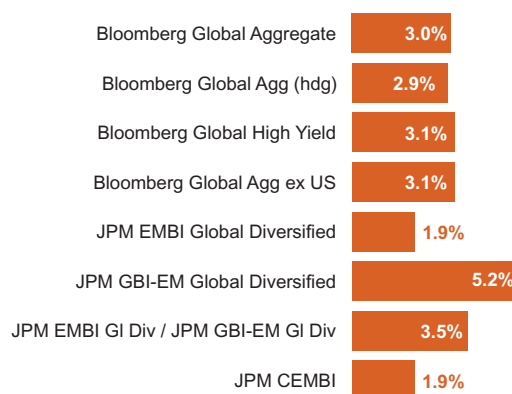
4Q22 to 1Q23



Source: Bloomberg

Global Fixed Income: Quarterly Returns

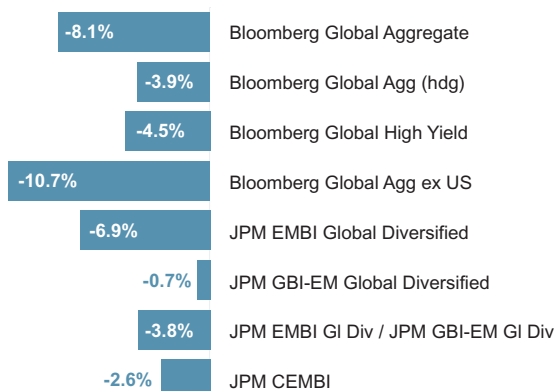
(3/31/23)



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns

(3/31/23)



Sources: Bloomberg and JPMorgan Chase

Private Real Estate Sees Mixed Results, While REITs Lag Equities

REAL ESTATE/REAL ASSETS | Kristin Bradbury, Munir Iman, and Aaron Quach

Income returns positive but appreciation negative

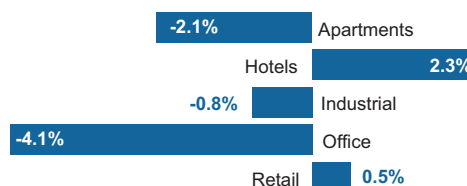
- Income returns were positive across all property sectors and regions in the NCREIF Property Index.
- All sectors and regions, except for Hotel, experienced negative appreciation.
- Valuations are reflective of higher interest rates, which have put upward pressure on capitalization rate and discount rate assumptions.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.
- Outstanding redemption requests for most large ODCE funds are approximately 8% to 16% of net asset value.
- There is more than \$200 billion of capital waiting to be deployed in North America.
- Majority of dry powder capital in opportunistic, value-add, and debt funds
- Transaction volume continues to decrease on a rolling four-quarter basis and is now below five-year averages.
- The rise in interest rates is the driving force behind the slowdown in transactions. A bid-ask spread remains and price discovery continues to occur among market participants.

REITs Underperform Equity Indices

- Global REITs underperformed in 1Q23, rising 0.8% compared to a 7.7% rise for global equities (MSCI World).

Sector Quarterly Returns by Property Type

(3/31/23)



Source: NCREIF

- U.S. REITs gained 2.7% in 1Q23, in contrast with the S&P 500 Index, which rose 7.5%.
- REITs are now trading at a discount to NAV (-12%) and offer relative value given the strength of underlying fundamentals.
- Historically, global REITs have traded at a -5.1% discount to NAV.

Real assets mixed but lagged global equities

- Real assets were mixed in 1Q but generally underperformed global equities.
- Gold (S&P Gold Spot Price Index: +8.8%), REITs (MSCI US REIT: +2.7%), infrastructure (DJB Global Infrastructure: +2.5%), and TIPS (Bloomberg TIPS: +2.0%) all posted positive returns.
- The S&P GSCI Index fell 4.9% with oil down about 7%. WTI Crude closed the quarter at \$74/barrel, just before OPEC announced its intention to cut production in May.

Callan Database Median and Index Returns* for Periods Ended 3/31/23

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
Real Estate ODCE Style	-1.7	-1.7	-2.2	8.4	7.5	9.0	5.1
NFI-ODCE (value-weighted, net)	-3.4	-3.4	-3.9	7.5	6.6	8.5	5.0
NCREIF Property	-1.8	-1.8	-1.6	7.2	6.7	8.3	6.3
NCREIF Farmland	2.1	2.1	8.9	7.5	6.5	8.5	10.2
NCREIF Timberland	1.8	1.7	11.3	8.1	5.5	5.8	4.6
Public Real Estate							
Global Real Estate Style	1.8	1.8	-20.2	7.9	3.3	4.7	4.5
FTSE EPRA Nareit Developed	0.8	0.8	-21.4	6.6	0.9	2.5	2.5
Global ex-U.S. Real Estate Style	0.1	0.0	-21.9	2.8	-0.7	3.4	2.4
FTSE EPRA Nareit Dev ex US	-1.7	-1.6	-23.0	1.1	-3.1	0.3	0.7
U.S. REIT Style	3.1	3.1	-19.0	11.4	7.2	6.9	7.3
FTSE EPRA Nareit Equity REITs	2.7	2.7	-19.2	12.1	6.0	6.0	6.3

*Returns less than one year are not annualized. Sources: Callan, FTSE Russell, NCREIF

Deceleration in 2022, with Trends for 2023 Very Unclear

PRIVATE EQUITY | Gary Robertson

Private equity continued the trend of slower activity in 1Q23, after the frothy 2021 peak period. Fundraising dollar volume ticked up slightly, but overall combined company-level entry and exit volumes averaged drops of about 34% by count and 54% by dollar volume from 4Q22. Exits continue to suffer more than fund commitments and new investments.

Fundraising ► Based on preliminary data, 1Q23 private equity partnerships holding final closes totaled \$188.7 billion, up 20% from 4Q22. New partnerships formed dropped 47% to 339, with the trend continuing of larger funds consolidating most commitments. Secondary funds surged to 17% of commitments, which is an anomaly for the strategy that normally has a low single-digit market share. New buyout funds with 44% of commitments remains low. Venture capital has declined from recent 30%-plus levels but remains significant. (Unless otherwise noted, all data comes from PitchBook.)

Buyouts ► Funds closed 2,429 investments with \$123 billion in disclosed deal value, a 21% decline in count and a 53% drop in dollar value from 4Q.

VC Investments ► New investments in venture capital companies totaled 10,271 rounds of financing, down 10%, with \$78 billion of announced value, down 11%.

Exits ► There were 462 private M&A exits of private equity-backed companies, a 3% increase. Disclosed values declined 36% to \$89 billion. There were 47 private equity-backed IPOs, down 20%, which raised an aggregate \$5 billion, down 44%.

Venture-backed M&A exits totaled 527 with disclosed value of \$22 billion. The number of sales rose only 1% from 4Q, but announced value jumped 175%. There were 58 VC-backed IPOs, down 51%, and the combined float totaled \$6 billion, a 33% decrease.

Returns ► Preliminary numbers (finals will be published in mid-May) for 4Q22 indicate a modestly up quarter for All Private Equity, with Buyout and Credit-related strategies offsetting continued declines in Venture Capital and Growth Equity.

Funds Closed 1/1/23 to 3/31/23

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	200	31,629	17%
Growth Equity	14	15,316	8%
Buyouts	93	83,346	44%
Mezzanine Debt	8	16,012	8%
Distressed/Special Credit	3	10,515	6%
Energy	0	0	0%
Secondary and Other	20	31,608	17%
Fund-of-Funds	1	274	0%
Totals	339	188,700	100%

Source: PitchBook (Figures may not total due to rounding.)

Private Equity Performance (%) (Pooled Horizon IRRs through 12/31/22*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	-5.40	-19.17	24.33	22.38	19.22	13.19	12.60	23.50
Growth Equity	-1.29	-14.64	19.32	18.13	15.85	12.62	14.76	15.15
All Buyouts	4.15	-3.00	17.52	15.75	15.14	10.06	15.01	12.77
Mezzanine	3.82	4.34	11.60	11.04	11.23	10.19	11.19	10.00
Credit Opportunities	2.53	4.37	8.60	7.02	8.24	8.74	9.79	9.54
Control Distressed	1.98	3.91	19.76	13.44	12.29	10.49	11.92	11.71
All Private Equity	0.67	-8.32	18.62	16.60	15.20	10.90	13.83	13.71
S&P 500	7.56	-18.11	7.66	9.42	12.56	8.81	9.80	7.64
Russell 3000	1.87	-13.01	-2.71	0.02	1.06	2.66	3.10	3.97

Note: Private equity returns are net of fees. Sources: Refinitiv/Cambridge and S&P Dow Jones Indices

*Most recent data available at time of publication

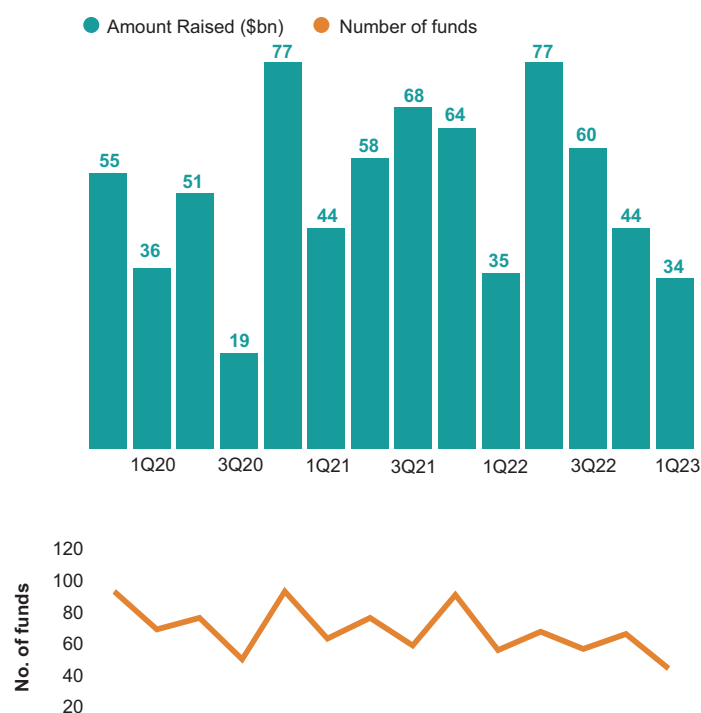
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

Net IRRs Range Between 7%-10%; Interest Remains Strong

PRIVATE CREDIT | Catherine Beard

- Private credit performance varies across sub-asset class and underlying return drivers. On average, the asset class has generated net IRRs of 7% to 10% for trailing periods ended Sept. 30, 2022. Higher-risk strategies performed better than lower-risk strategies.
- As interest rates declined after the Global Financial Crisis (GFC), private credit attracted increased interest from institutional investors.
- Private credit fundraising was robust leading into the COVID dislocation with a particular focus on direct lending, asset-based lending, and distressed strategies.
- In the current rate environment, a renewed focus has been placed on relative value, downside protection, and managers' internal workout resources.
- There is renewed interest in strategies with strong collateral protection such as asset-based lending.
- Larger sponsor-backed lending is seeing a new focus due to the high yield/broadly syndicated loan disintermediation by private debt.
 - U.S. sub-investment grade corporate yields rose dramatically at the beginning of 2022 with yields peaking in September. This was a combination of higher interest rates due to tighter Fed policy and a widening of high yield spreads.
 - Spreads widened during the first half of 2022 due to weaker credit conditions as the U.S. economic outlook worsened. This has since moderated.
 - Default rates for U.S. corporate bonds ticked up in 1Q but remained well below the historical average of 3%-4%. Callan expects defaults to increase somewhat in coming months as economic growth slows and

Private Credit Fundraising (\$bn)



Source: Preqin

potentially turns negative.

- The Corporate Bond Market Distress Index (CMDI) rose rapidly during the first nine months of 2022, especially for investment grade bonds, highlighting market volatility and a drying up of liquidity, but has fallen since then. In 2023, as the IG distress index continues to fall, the HY bond indicator is on the rise. The CMDI incorporates a range of indicators, including new issuance and pricing for primary and secondary market bonds and relative pricing between traded and nontraded bonds.

Private Credit Performance (%) (Pooled Horizon IRRs through 9/30/22*)

Strategy	Quarter	1 Year	3 Years	5 Years	8 Years	10 Years	15 Years	20 Years
Senior Debt	-2.4	-3.5	4.6	5.1	5.7	5.9	6.3	6.1
Mezzanine	0.2	5.0	11.8	11.1	10.8	11.3	10.5	11.3
Credit Opportunities	0.7	3.9	8.4	7.2	6.6	8.3	8.6	9.7
Total Private Credit	-0.1	2.6	8.4	7.7	7.4	8.6	8.8	9.7

Source: Refinitiv/Cambridge

*Most recent data available at time of publication

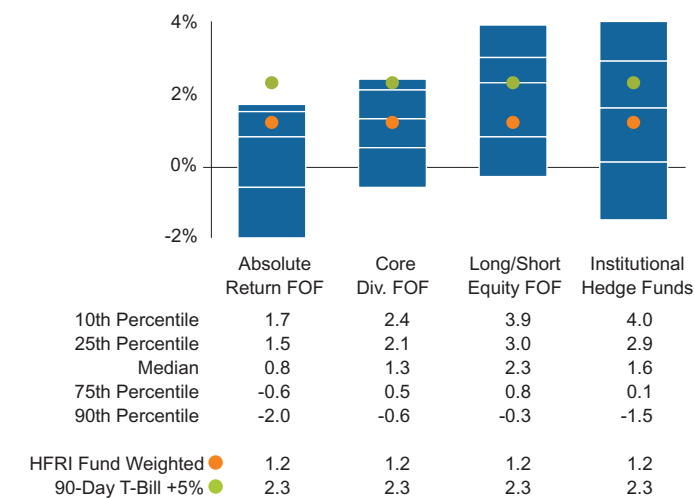
Steady Gains Amid Volatile Markets

HEDGE FUNDS/MACs | Joe McGuane

- Equity and credit markets saw volatility spike during 1Q23, as sentiment on inflation and Federal Reserve policy whipsawed in response to signs of persistent inflation following strong economic data on the labor market.
- Both stocks and bonds gained ground, and hedge funds ended the quarter in positive territory, although they underperformed broader equity indices, as the group provided steady performance through a volatile market environment.
- Equity hedge strategies had a strong start to the year, as tech-focused managers saw performance soar.
- Relative value managers also had a nice quarter, as fixed income relative value strategies were able to profit off the move in short-term rates in March.
- Event-driven strategies posted gains, as some managers profited from merger arbitrage exposures as spreads tightened with the completion of several large strategic deals.

Hedge Fund Style Group Returns

(3/31/23)



Sources: Callan, Credit Suisse, Federal Reserve

Callan Peer Group Median and Index Returns* for Periods Ended 3/31/23

Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	1.6	2.6	9.2	5.7	5.8	6.1
Callan Fund-of-Funds Peer Group	1.2	0.9	8.1	4.2	4.2	3.7
Callan Absolute Return FOF Style	0.8	2.3	8.8	4.1	4.5	3.6
Callan Core Diversified FOF Style	1.3	1.5	8.1	4.0	4.0	3.4
Callan Long/Short Equity FOF Style	2.3	-2.3	6.6	4.5	4.6	4.1
HFRI Fund-Weighted Index	1.2	-2.1	10.5	4.7	4.4	4.0
HFRI Fixed Convertible Arbitrage	1.4	1.0	9.1	5.3	5.0	5.4
HFRI Distressed/Restructuring	0.9	-4.6	12.2	4.7	4.4	4.5
HFRI Emerging Markets	1.9	-4.9	8.0	1.0	2.8	2.0
HFRI Equity Market Neutral	0.8	2.5	4.1	1.9	2.9	2.0
HFRI Event-Driven	1.4	-2.2	11.7	4.5	4.6	4.5
HFRI Relative Value	1.3	0.0	7.7	3.6	3.9	4.7
HFRI Macro	-2.4	-0.4	7.0	4.6	2.7	2.4
HFRI Equity Hedge	2.5	-3.7	12.4	5.0	5.3	4.2
HFRI Multi-Strategy	1.4	-6.3	7.1	2.4	2.8	3.1
HFRI Merger Arbitrage	-1.8	-0.3	9.7	5.3	4.3	4.0
90-Day T-Bill + 5%	2.3	7.5	5.9	6.4	5.9	5.7

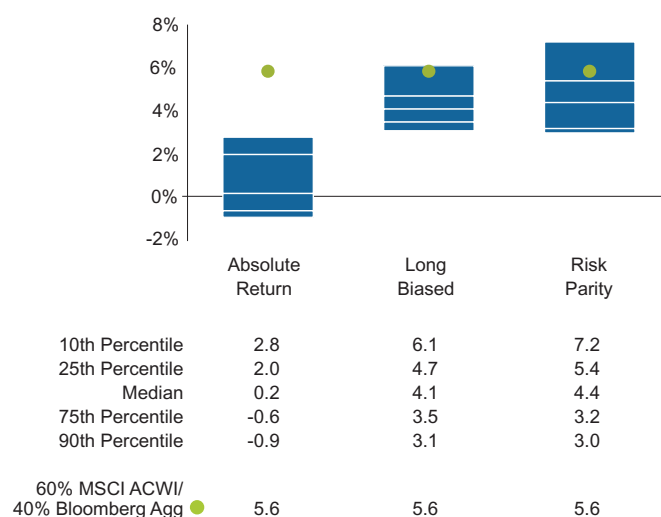
*Net of fees. Sources: Callan, Credit Suisse, Hedge Fund Research

- Macro strategies generated negative performance on the quarter, as losses came from short positions in U.S. rates, and short positions in U.S. equity indices detracted from performance.
- The median manager in the Callan Institutional Hedge Fund Peer Group rose 1.6%.
- Within this style group of 50 peers, the average hedged credit manager gained 2.1%, as high yield markets had a strong start to the year as near-term recession risks receded and capital market access improved.
- Hedged rates managers rose 1.5%, as those strategies were able to profit off short-term rates falling in March, as the banking crisis flared up.
- The average hedged equity manager fell 0.3%, as managers with a focus on tech, media, and telecom (TMT) and consumer stocks led the rally after lagging for all of 2022.
- Within the HFRI Indices, the best-performing strategy in 1Q was the equity hedge index (+2.5%), as managers that were focused on growth stocks saw a strong bounce in performance compared to last year.
- Event-driven strategies finished up 1.4%, as hard catalyst situations contributed to performance along with select merger arbitrage exposures as spreads tightened.

- Macro strategies ended the quarter 2.4% lower, primarily due to losses in short fixed income exposures, as banking turmoil abruptly shifted rate expectations.
- Across the Callan Hedge FOF Database, the median Callan Long-Short Equity FOF gained 2.3%, as managers benefited from a strong S&P 500 during 1Q.
- The median Callan Core Diversified FOF rose 1.3%, as equity hedge exposure offset negative performance from macro managers during the quarter.
- Callan Absolute Return FOF was up 0.8%, as multi-strategy and equity hedge exposure was able to offset the underperformance from macro managers in the quarter.
- The median Callan MAC Risk Parity manager gained 4.4%, as equities and fixed income drove performance during the quarter.
- The Callan MAC Long Biased peer group rose 4.1%, as strong equity performance led the group higher.
- The Callan MAC Absolute Return manager finished up 0.2%, as a bias toward value equities caused underperformance relative to the other peer groups, as growth equities had a strong start to the year.

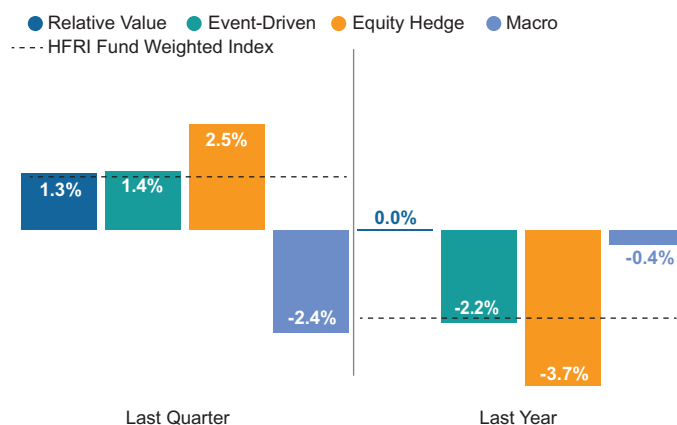
MAC Style Group Returns

(3/31/23)



HFRI Hedge Fund-Weighted Strategy Returns

(3/31/23)



Source: HFRI

Sources: Bloomberg, Callan, Eurekahedge, S&P Dow Jones Indices

Index Rises After Three Straight Quarters of Losses

DEFINED CONTRIBUTION | Scotty Lee

Performance: Index gains 6.3%, breaking streak of losses

- The Callan DC Index™ rose 6.3% in 4Q22 after three previous quarterly declines.
- The Age 45 Target Date Fund gained 8.4%.

Growth Sources: Investment gains lead to rise in balances

- Balances rose by 5.8% after a 4.7% decrease the previous quarter, driven by investment gains.

Turnover: Net transfers increase slightly

- Turnover (net transfer activity levels within DC plans) slightly increased to 0.18% from the previous quarter's 0.14%.
- Despite the small increase, the Index's historical average (0.56%) remained steady.

Net Cash Flow: TDFs remain in top spot

- Target date funds (TDFs) received the largest net inflows in the DC Index, garnering 84.6% of quarterly net flows.
- Investors withdrew assets from U.S. large cap equity (-19.5%) and global ex-U.S. equity (-9.5%).
- Stable value (-34.7%) saw relatively large outflows.

Equity Allocation: Exposure rises

- The Index's overall allocation to equity (70.1%) rose slightly from the previous quarter's level (69.3%).

Asset Allocation: Capital preservation declines

- Global ex-U.S. equity (5.0%) and U.S. large cap (25.2%) were among the asset classes with the largest percentage increases in allocation.
- Stable value (10.0%) had a decrease in allocation from the previous quarter's level (10.5%).

Prevalance: Balanced funds dip—again

- The prevalence of a balanced fund (40.8%) decreased again to its lowest level since the inception of the Index in 2006.

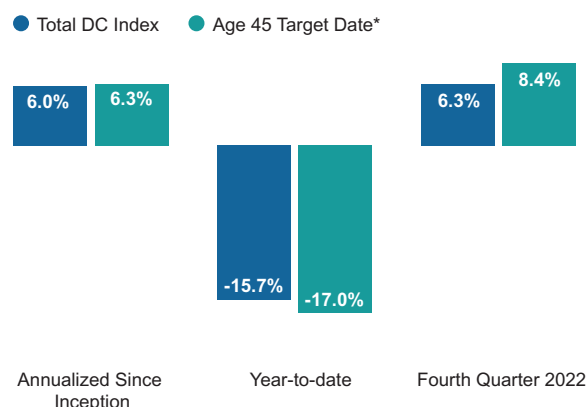
Management Fees: Declines vary by plan size

- Less than \$500 million in assets: fees fell by 1 basis point.
- \$500 million-\$1 billion: -2 bps.
- More than \$1 billion: -4 bps.

Underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately \$400 billion in assets are tracked in the Callan DC Index.

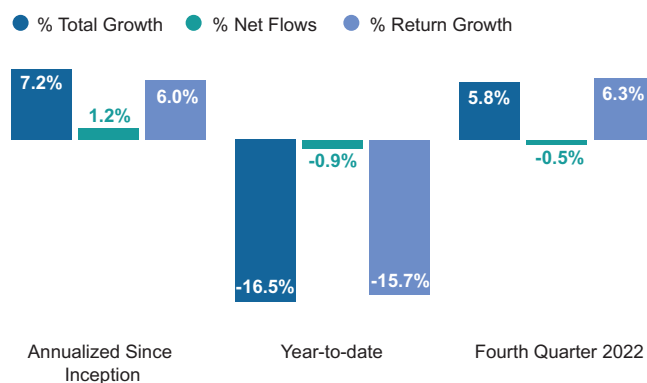
Investment Performance

(12/31/22)



Growth Sources

(12/31/22)



Net Cash Flow Analysis (4Q22)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	84.6%
Money Market	8.0%
U.S. Large Cap	-19.5%
Stable Value	-34.7%
Total Turnover**	0.2%

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

Note: DC Index inception date is January 2006.

* The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.

** Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

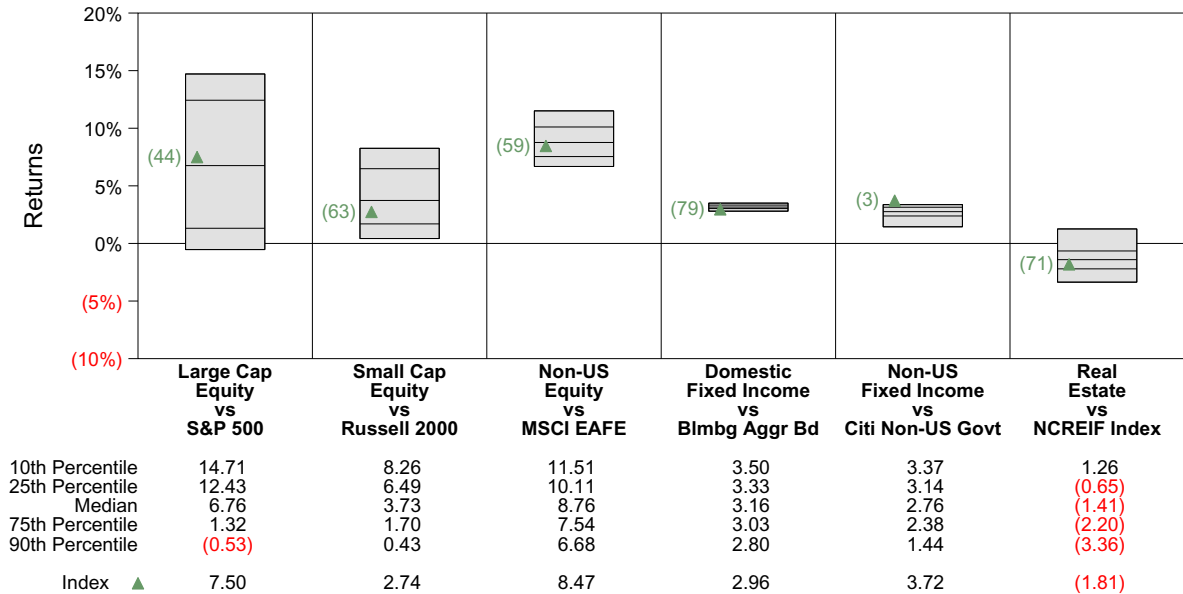
Market Overview

Active Management vs Index Returns

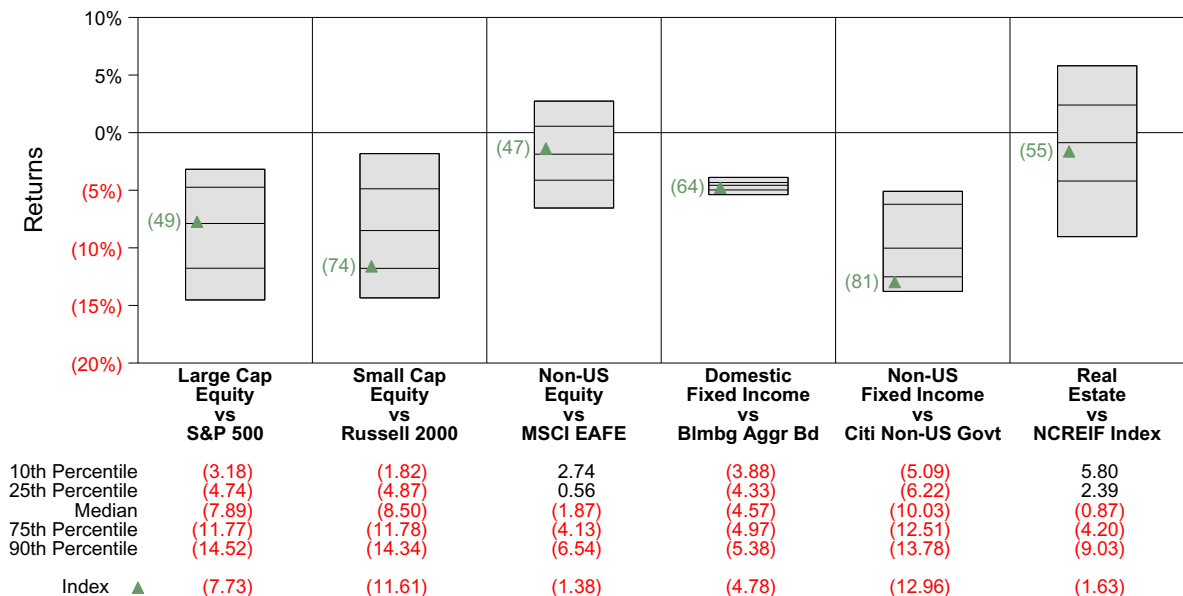
Market Overview

The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also shown for each asset class for comparison purposes. As an example, the first bar in the upper chart illustrates the range of returns for domestic equity managers over the last quarter. The triangle represents the S&P 500 return. The number next to the triangle represents the ranking of the S&P 500 in the Large Cap Equity manager database.

Range of Separate Account Manager Returns by Asset Class One Quarter Ended March 31, 2023



Range of Separate Account Manager Returns by Asset Class One Year Ended March 31, 2023

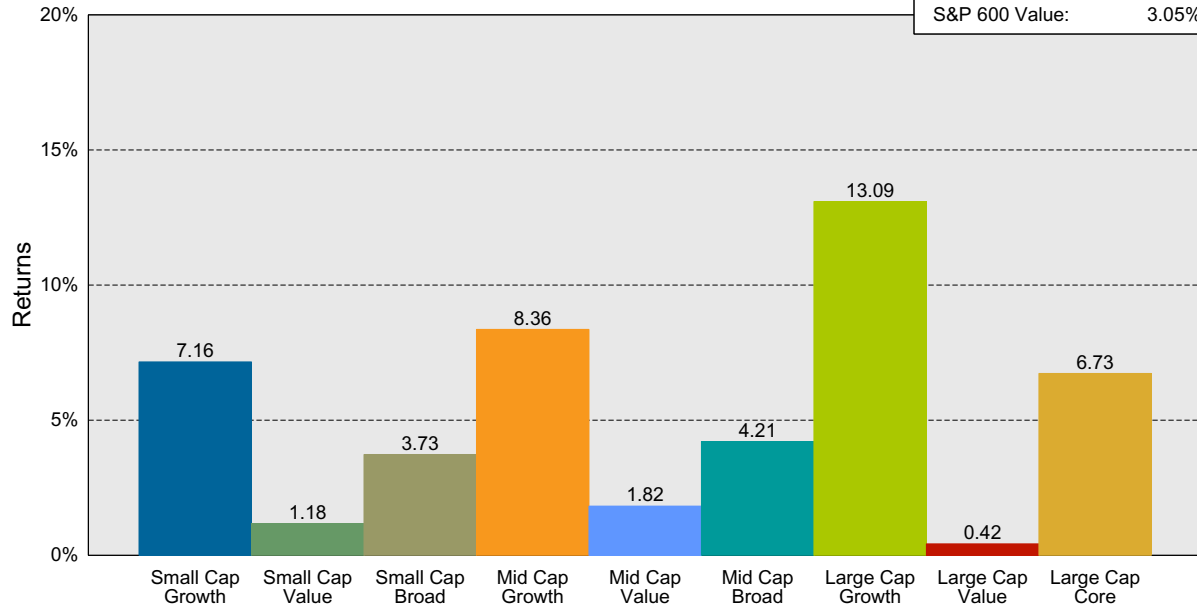


Domestic Equity Active Management Overview

U.S. stock indices posted positive returns in 1Q but it was not smooth sailing; strong returns in January were followed by negative results in February and mixed performance across sectors and styles in March. The S&P 500 Index rose 7.5% for the quarter and the tech-heavy Nasdaq 100 soared 20.8%. Within the S&P 500, Technology (+22%), Communication Services (+21%), and Consumer Discretionary (+16%) rose sharply while Financials (-6%), Energy (-5%), Health Care (-4%), and Utilities (-3%) fell. Growth stocks trounced value for the quarter (Russell 1000 Growth: +14.4%; Russell 1000 Value: +1.0%) due largely to the sharp outperformance of Technology relative to Financials. Small value (Russell 2000 Value: -0.7%) was the one sector to post negative returns, hurt by its exposure to smaller banks. Small cap stocks underperformed mid and large (Russell 2000: +2.7%; Russell MidCap: +4.1%; Russell 1000: +7.5%) across the style spectrum.

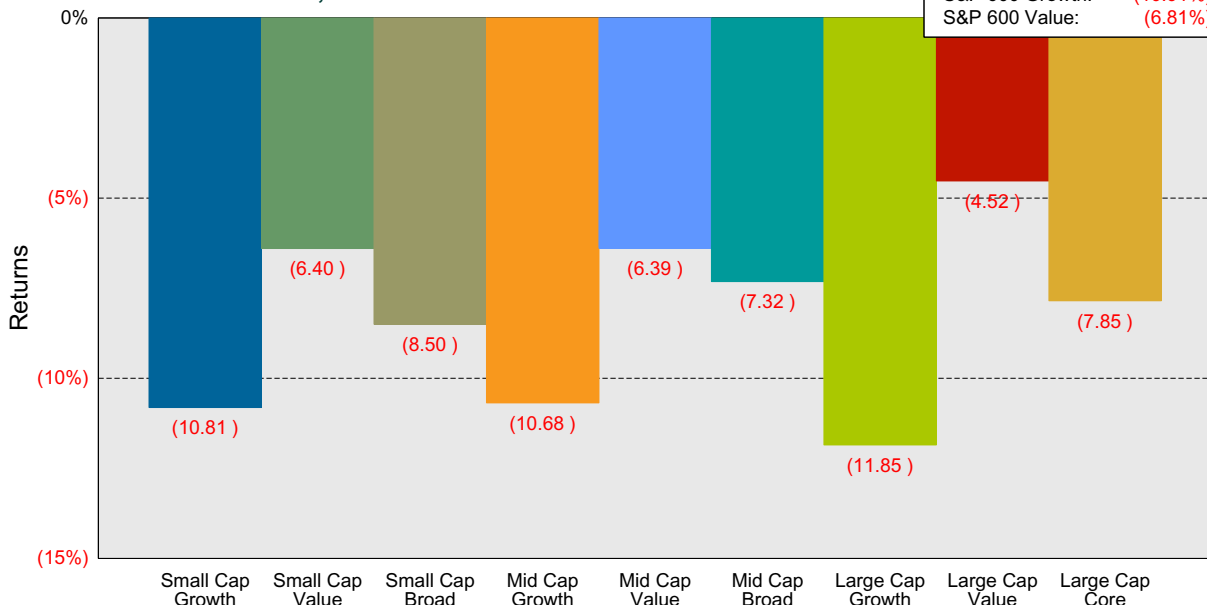
S&P 500:	7.50%
S&P 500 Growth:	9.63%
S&P 500 Value:	5.17%
S&P Mid Cap:	3.81%
S&P 600:	2.57%
S&P 600 Growth:	2.14%
S&P 600 Value:	3.05%

Separate Account Style Group Median Returns for Quarter Ended March 31, 2023



S&P 500:	(7.73%)
S&P 500 Growth:	(15.33%)
S&P 500 Value:	(0.16%)
S&P Mid Cap:	(5.12%)
S&P 600:	(8.82%)
S&P 600 Growth:	(10.91%)
S&P 600 Value:	(6.81%)

Separate Account Style Group Median Returns for One Year Ended March 31, 2023

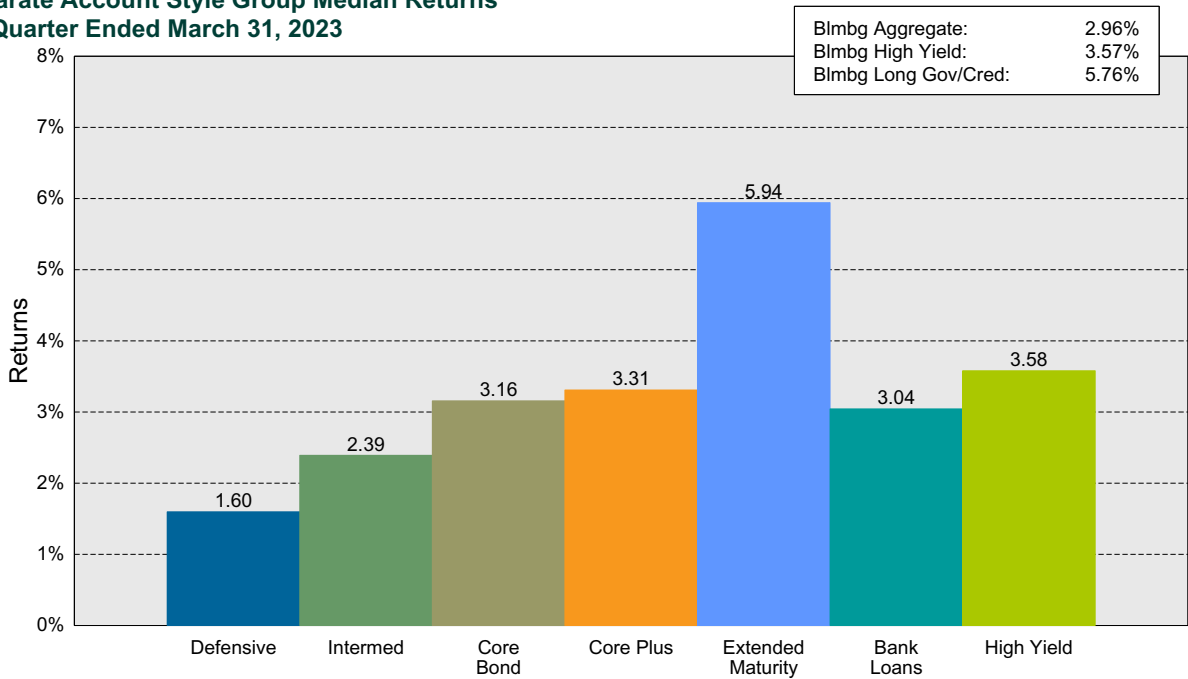


Domestic Fixed Income

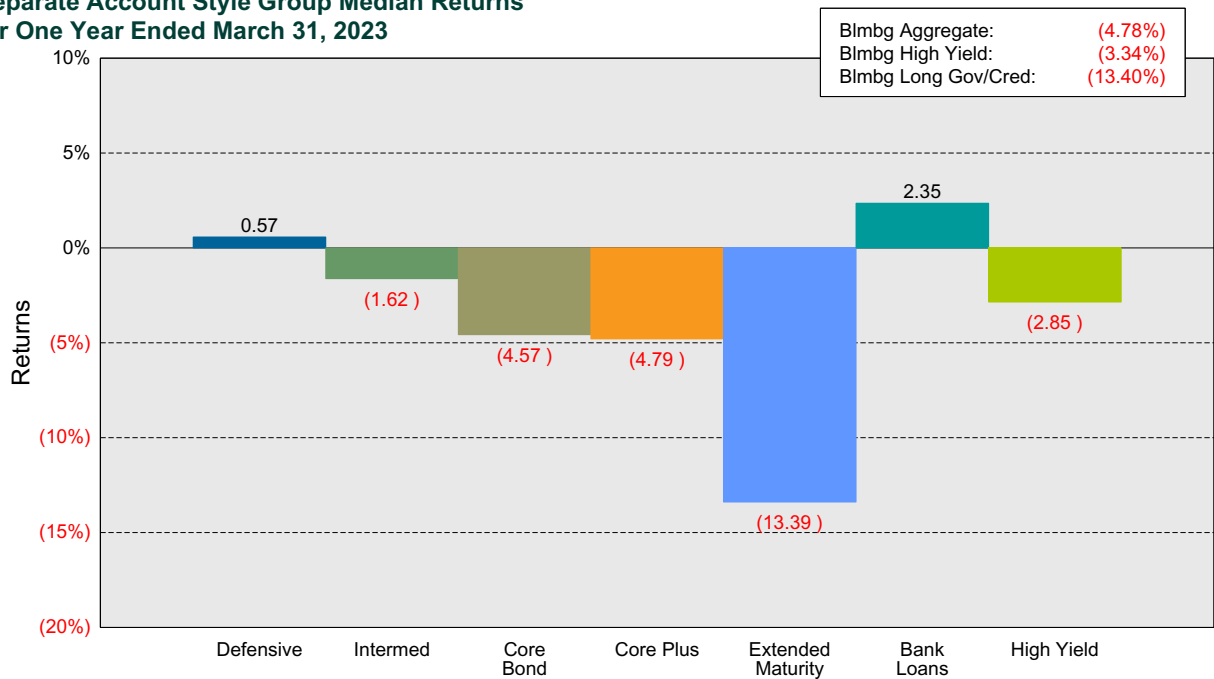
Active Management Overview

The Bloomberg US Aggregate Bond Index rose 3.0% in 1Q. It was a bumpy ride with solid returns in January and March sandwiching a negative February. The yield curve remained inverted as of quarter-end by 58 bps for the 2-year/10-year and 116 bps for the 1-year/10-year. Sector performance was mixed over the quarter with residential and commercial mortgages underperforming U.S Treasuries and corporates outperforming (except Financials). TIPS (Bloomberg TIPS: +3.3%) also did well; 10-year breakeven spreads were 2.3% as of quarter-end. High yield (Bloomberg High Yield Index: +3.6%) outperformed but dispersion within the Index is meaningfully higher than it was two years ago.

Separate Account Style Group Median Returns
for Quarter Ended March 31, 2023



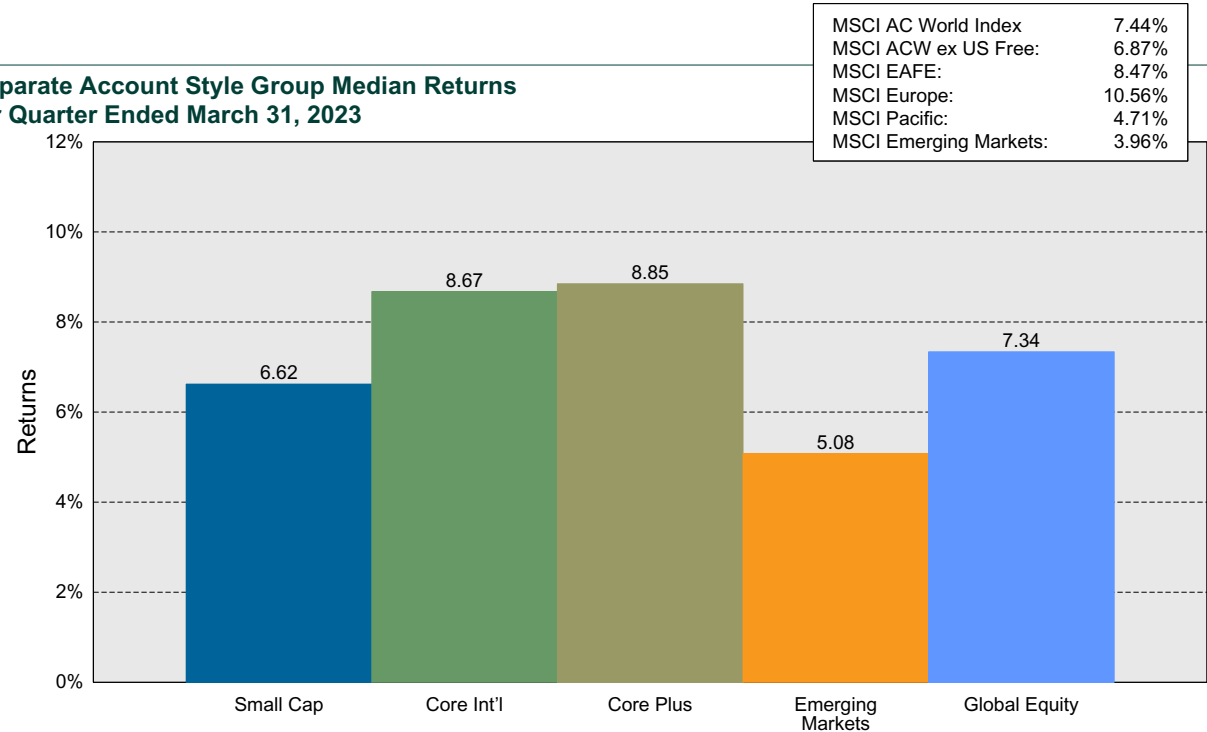
Separate Account Style Group Median Returns
for One Year Ended March 31, 2023



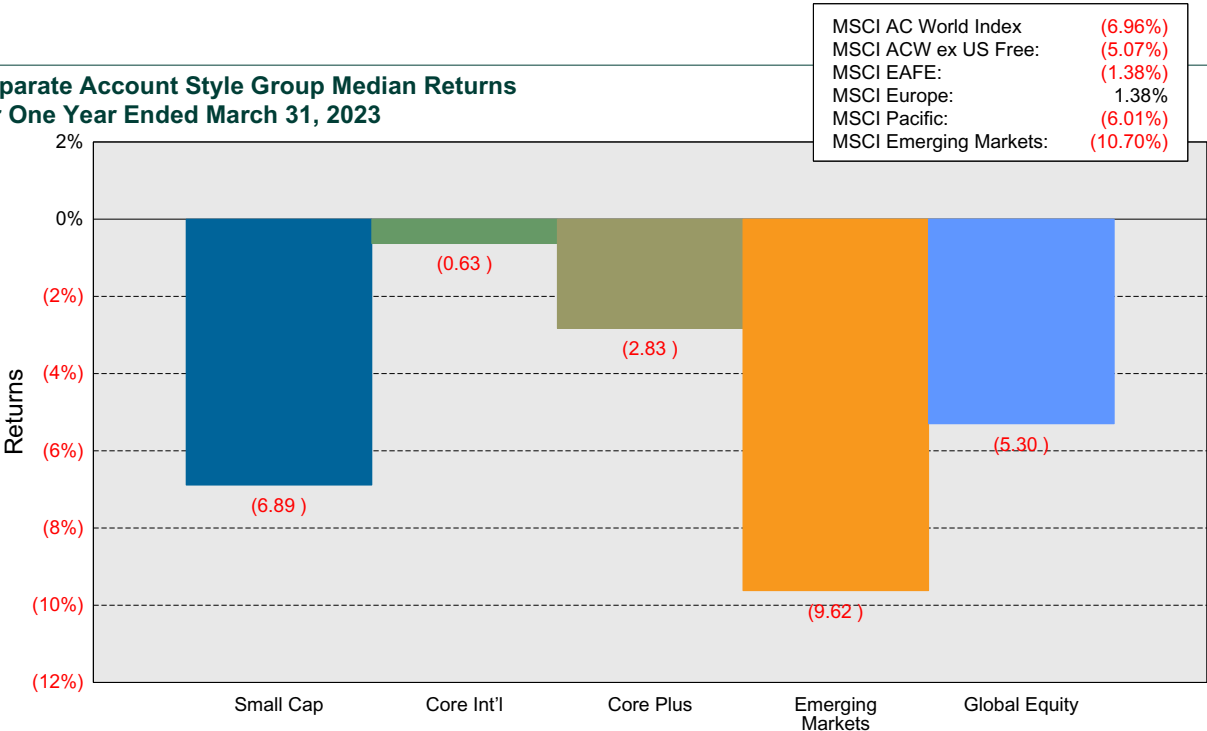
International Equity Active Management Overview

Global ex-U.S. markets posted solid results for the quarter. The MSCI ACWI ex USA Index gained 6.9% (Local: +6.2%). Performance varied across developed market countries but most delivered positive returns. Europe ex-U.K. (+12%) outperformed Japan (+6%), the U.K. (+6%), and Canada (+4%). As in the U.S., growth outperformed value but by smaller margin (MSCI ACWI ex USA Value: +5.2%: MSCI ACWI ex USA Growth: +8.6%). Technology (+17%) was the best performing sector while Energy (-0.3%) was the only sector to post a negative return. Financials (+1%) also lagged. Emerging markets returns (MSCI Emerging Markets: +4.0) were mixed across countries. India (-6%) and Brazil (-3%) weighed on broad market returns while China (+5%) and Korea (+10%) outperformed. Quarterly returns were positive across regions: Latin America (+3.9%), Emerging Europe (+1.5%), and Emerging Asia (+4.8%).

Separate Account Style Group Median Returns
for Quarter Ended March 31, 2023



Separate Account Style Group Median Returns
for One Year Ended March 31, 2023



Investment Manager Asset Allocation

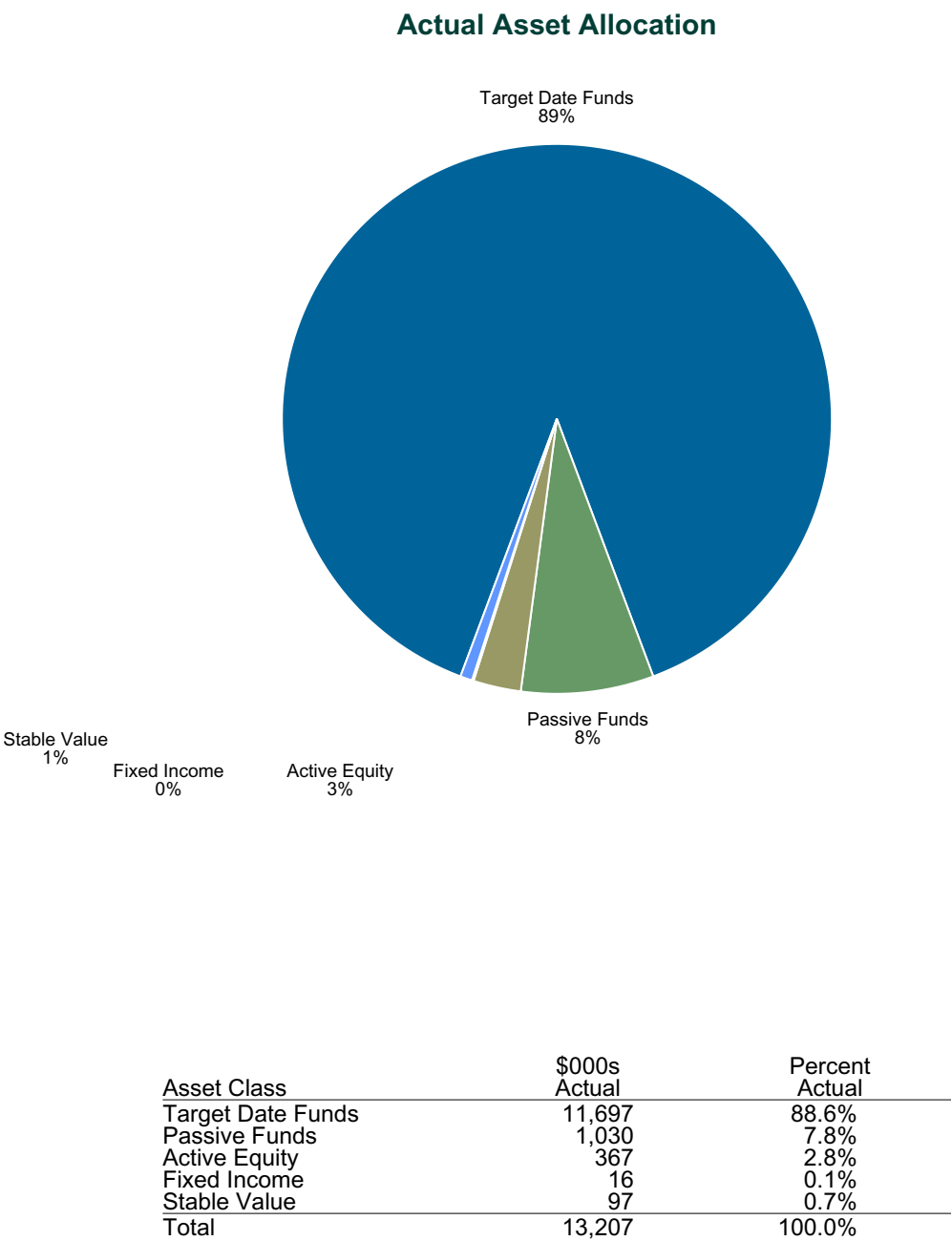
The table below contrasts the distribution of assets across the Fund's investment managers as of March 31, 2023, with the distribution as of December 31, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	March 31, 2023				December 31, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
City of Norwalk 401(a) Plan						
Target Date Funds	\$11,697,105	88.57%	\$567,052	\$547,693	\$10,582,360	88.88%
American Funds TDF 2010	279,084	2.11%	8,086	6,791	264,207	2.22%
American Funds TDF 2015	102,047	0.77%	7,327	2,577	92,142	0.77%
American Funds TDF 2020	573,153	4.34%	(26,806)	18,141	581,818	4.89%
American Funds TDF 2025	1,324,825	10.03%	45,757	45,445	1,233,624	10.36%
American Funds TDF 2030	1,568,231	11.87%	49,738	65,406	1,453,087	12.20%
American Funds TDF 2035	1,180,391	8.94%	80,156	53,512	1,046,722	8.79%
American Funds TDF 2040	1,487,959	11.27%	52,265	76,714	1,358,979	11.41%
American Funds TDF 2045	1,375,921	10.42%	72,413	72,256	1,231,251	10.34%
American Funds TDF 2050	1,495,429	11.32%	61,617	82,151	1,351,661	11.35%
American Funds TDF 2055	1,666,508	12.62%	139,512	91,504	1,435,493	12.06%
American Funds TDF 2060	643,557	4.87%	76,986	33,195	533,376	4.48%
Passive Funds	\$1,030,415	7.80%	\$81,073	\$57,906	\$891,436	7.49%
BlackRock S&P 500 Idx Fund	579,036	4.38%	65,968	37,397	475,671	4.00%
BlackRock Russell 2500 Idx Fund	228,531	1.73%	(13,740)	8,218	234,053	1.97%
BlackRock MSCI ACWI ex US Idx	183,992	1.39%	9,085	11,469	163,439	1.37%
Fidelity US Bond Idx Fund	38,856	0.29%	19,760	822	18,273	0.15%
Active Equity	\$366,711	2.78%	\$34,929	\$5,462	\$326,321	2.74%
J.P. Morgan Equity Income Fund	182,405	1.38%	1,869	(4,050)	184,586	1.55%
MFS US Large Cap Growth Equity	88,831	0.67%	3,083	6,297	79,451	0.67%
GW&K Small/Mid Cap Core	29,086	0.22%	24,391	(697)	5,391	0.05%
MFS Intl Diversification Fund	66,389	0.50%	5,586	3,911	56,892	0.48%
Fixed Income	\$15,952	0.12%	\$(14,967)	\$1,003	\$29,916	0.25%
Met West Total Return Fund	226	0.00%	(30,217)	526	29,916	0.25%
TCW MetWest Total Return Fund	15,727	0.12%	15,250	477	-	-
Stable Value	\$96,886	0.73%	\$20,224	\$475	\$76,186	0.64%
Invesco Stable Value Fund	0	0.00%	(76,542)	357	76,186	0.64%
Invesco Stable Value Fund	96,886	0.73%	96,767	119	-	-
Total Fund	\$13,207,069	100.0%	\$688,312	\$612,538	\$11,906,219	100.0%

Actual Asset Allocation
As of March 31, 2023

The below charts show the asset allocation of the City of Norwalk 401(a) plan.

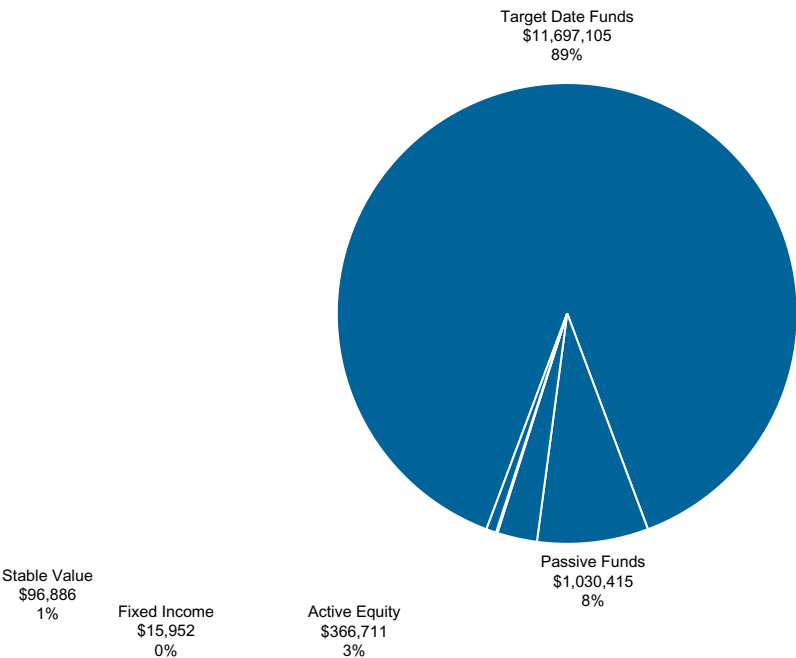


Changes in Investment Fund Balances

Period Ended March 31, 2023

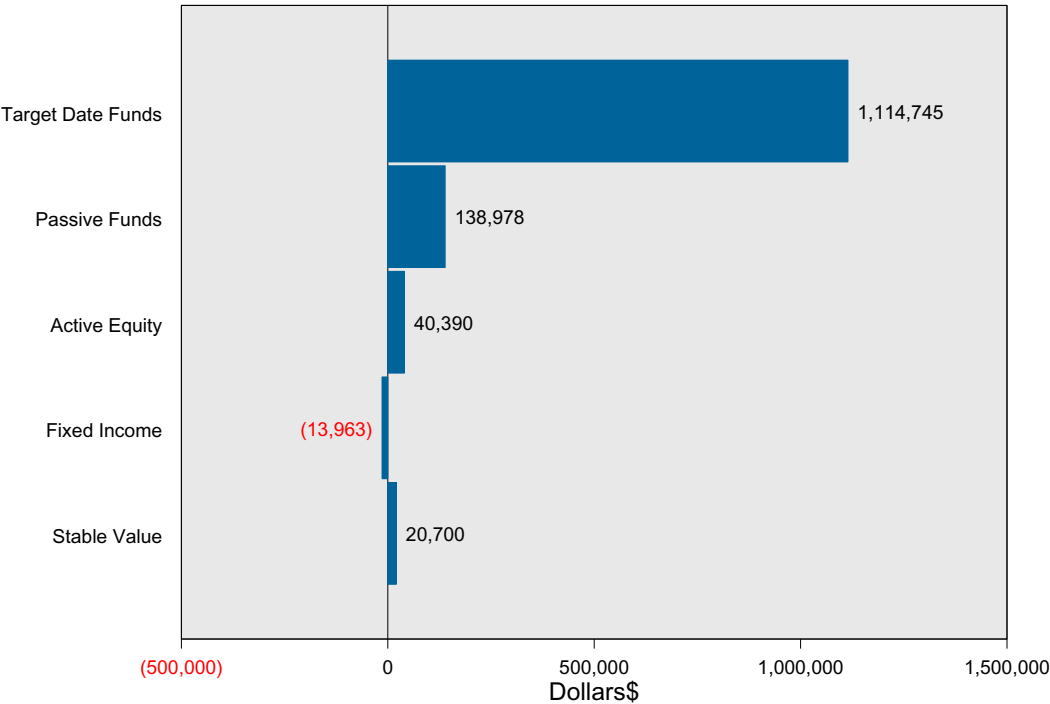
Allocation Across Investment Options

The chart below illustrates the allocation of the aggregate fund assets across the various investment options for the quarter ended March 31, 2023.



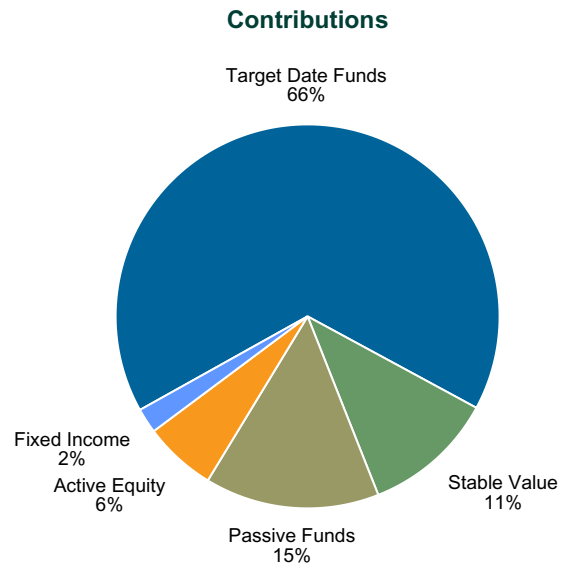
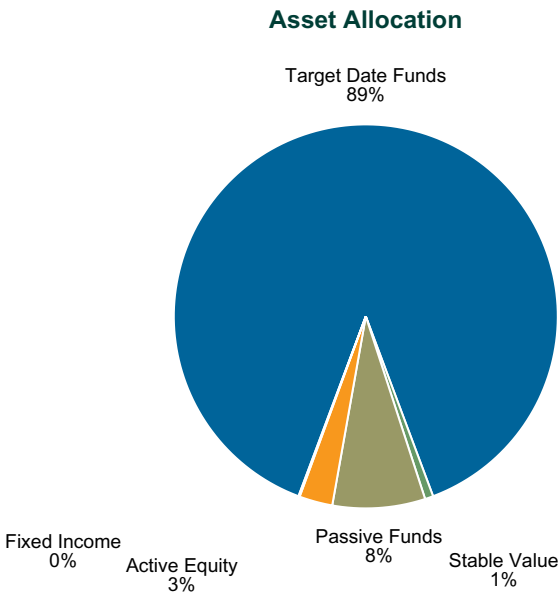
Changes in Fund Values

The chart below shows the net change in fund values across the various investment options for the quarter ended March 31, 2023. The change in value for each fund is the result of a combination of 3 factors: 1) market movements; 2) contributions or disbursements into or out of the funds by the participants (and any matching done by the company); and 3) transfers between funds by the participants.

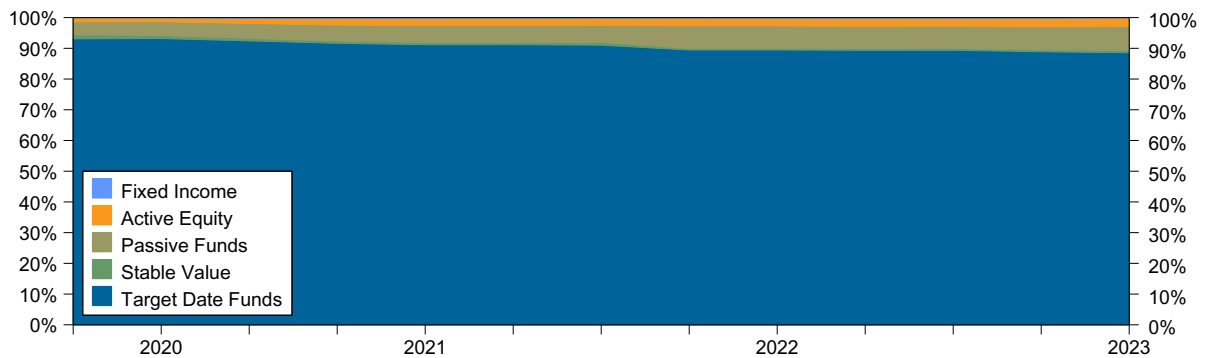


Asset Allocation

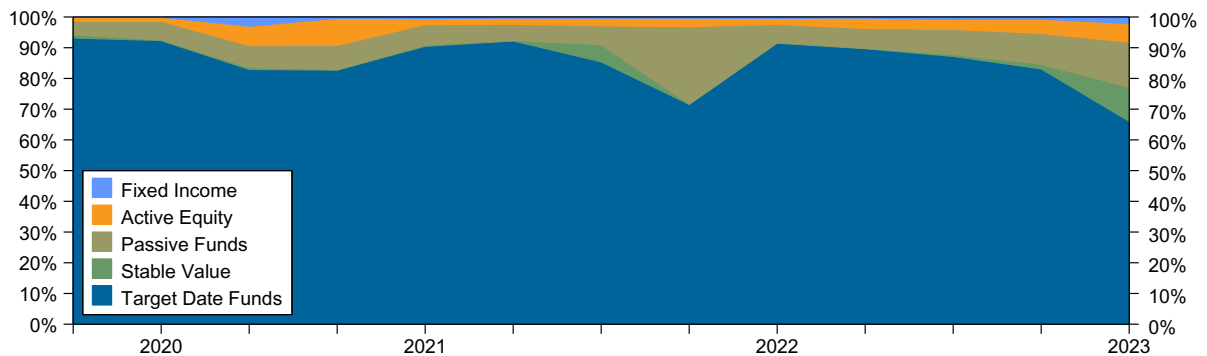
The charts below illustrate the historical asset allocation of the fund as well as the historical allocations of contributions to the fund. The pie charts on the top show the most recent allocations of both assets and contributions which include exchanges and transfers within the plan. The middle chart displays the historical allocation of fund assets. The bottom chart illustrates the historical allocation of contributions.



Historical Asset Allocation



Historical Allocation of Contributions



Investment Manager Asset Allocation

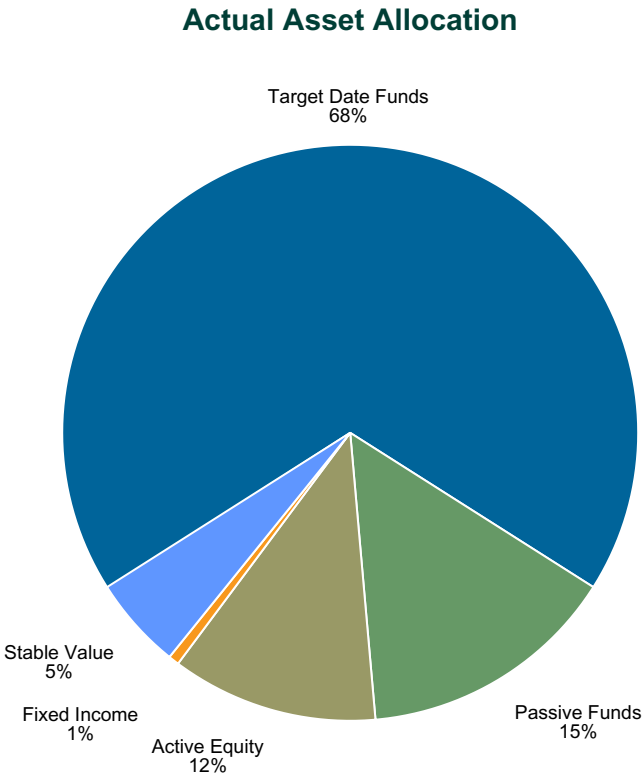
The table below contrasts the distribution of assets across the Fund's investment managers as of March 31, 2023, with the distribution as of December 31, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	March 31, 2023				December 31, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
City of Norwalk 457(b) Plan						
Target Date Funds	\$30,227,099	68.07%	\$(500,380)	\$1,349,552	\$29,377,927	67.84%
American Funds TDF 2010	853,017	1.92%	1,401	21,166	830,450	1.92%
American Funds TDF 2015	1,721,247	3.88%	(39,353)	47,203	1,713,398	3.96%
American Funds TDF 2020	2,143,844	4.83%	(30,151)	65,498	2,108,497	4.87%
American Funds TDF 2025	5,436,902	12.24%	(682,954)	214,455	5,905,402	13.64%
American Funds TDF 2030	6,792,488	15.30%	88,865	290,526	6,413,097	14.81%
American Funds TDF 2035	2,996,447	6.75%	26,657	142,145	2,827,644	6.53%
American Funds TDF 2040	3,366,485	7.58%	79,360	176,872	3,110,254	7.18%
American Funds TDF 2045	3,118,046	7.02%	55,493	170,029	2,892,524	6.68%
American Funds TDF 2050	2,776,634	6.25%	(38,353)	162,692	2,652,294	6.12%
American Funds TDF 2055	734,793	1.65%	28,614	42,266	663,914	1.53%
American Funds TDF 2060	287,195	0.65%	10,042	16,700	260,453	0.60%
Passive Funds	\$6,472,578	14.58%	\$517,018	\$378,765	\$5,576,795	12.88%
BlackRock S&P 500 Idx Fund	4,281,468	9.64%	387,281	277,005	3,617,182	8.35%
BlackRock Russell 2500 Idx Fund	685,790	1.54%	(294,961)	48,978	931,772	2.15%
BlackRock MSCI ACWI ex US Idx	581,590	1.31%	46,886	34,109	500,595	1.16%
Fidelity US Bond Index Fund	923,730	2.08%	377,811	18,674	527,245	1.22%
Active Equity	\$5,162,884	11.63%	\$45,860	\$163,357	\$4,953,667	11.44%
J.P. Morgan Equity Income Fund	1,790,126	4.03%	(41,465)	(39,290)	1,870,882	4.32%
MFS US Large Cap Growth Fund	1,597,278	3.60%	(34,574)	117,107	1,514,745	3.50%
GW&K Small/Mid Cap Equity Fund	835,683	1.88%	228,050	13,095	594,538	1.37%
MFS Intl Diversification Fund	939,797	2.12%	(106,152)	72,445	973,503	2.25%
Fixed Income	\$255,334	0.57%	\$(695,252)	\$20,789	\$929,796	2.15%
Met West Total Return Fund	0	0.00%	(942,670)	12,874	929,796	2.15%
TCW MetWest Total Return Fund	255,334	0.57%	247,418	7,915	-	-
Stable Value	\$2,288,511	5.15%	\$(191,745)	\$13,923	\$2,466,334	5.70%
Invesco Stable Value Fund	0	0.00%	(2,476,798)	10,465	2,466,334	5.70%
Invesco Stable Value Fund	2,288,511	5.15%	2,285,053	3,458	-	-
Total Fund	\$44,406,405	100.0%	\$(824,500)	\$1,926,387	\$43,304,518	100.0%

Actual Asset Allocation
As of March 31, 2023

The below charts show the asset allocation for the City of Norwalk 457(b) plan.



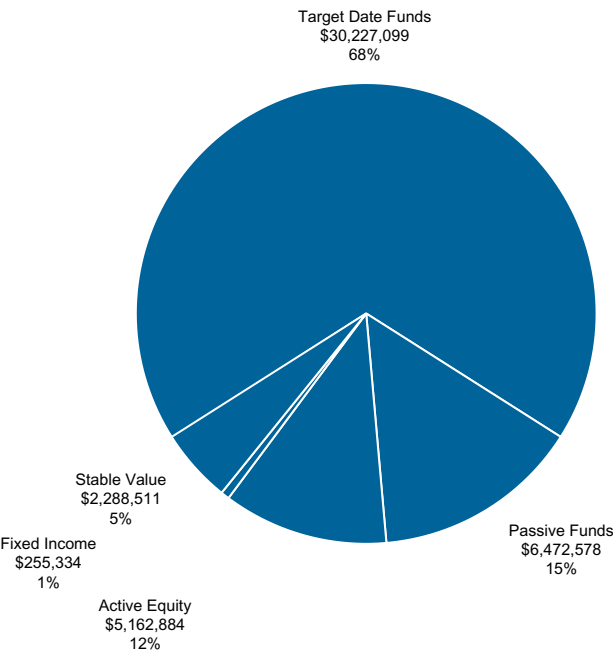
Asset Class	\$000s Actual	Percent Actual
Target Date Funds	30,227	68.1%
Passive Funds	6,473	14.6%
Active Equity	5,163	11.6%
Fixed Income	255	0.6%
Stable Value	2,289	5.2%
Total	44,406	100.0%

Changes in Investment Fund Balances

Period Ended March 31, 2023

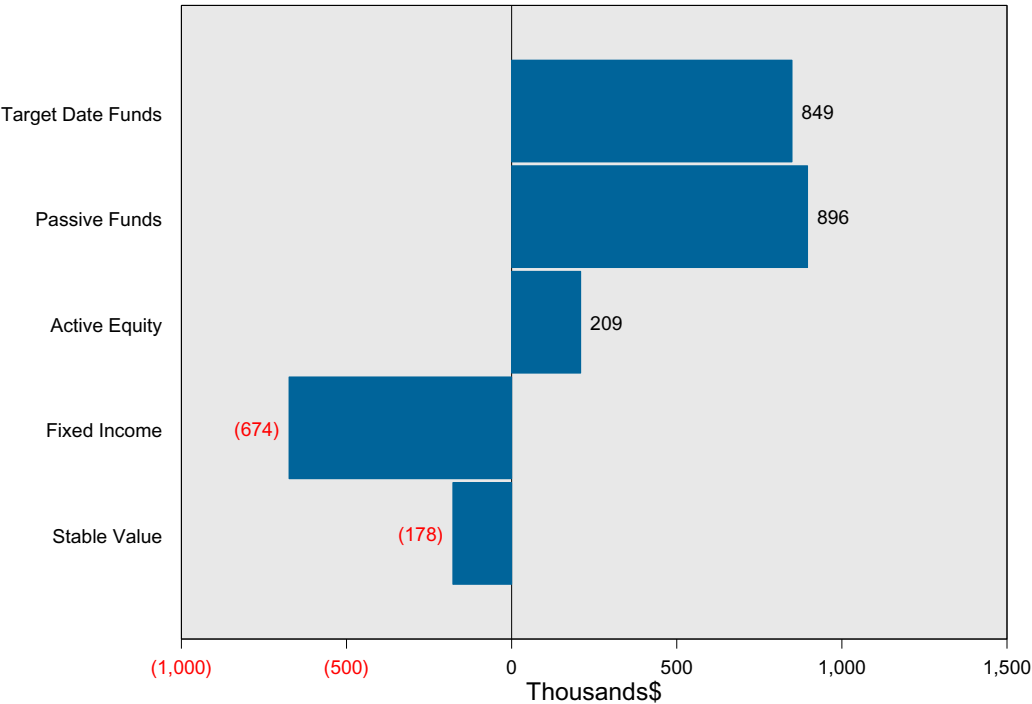
Allocation Across Investment Options

The chart below illustrates the allocation of the aggregate fund assets across the various investment options for the quarter ended March 31, 2023.



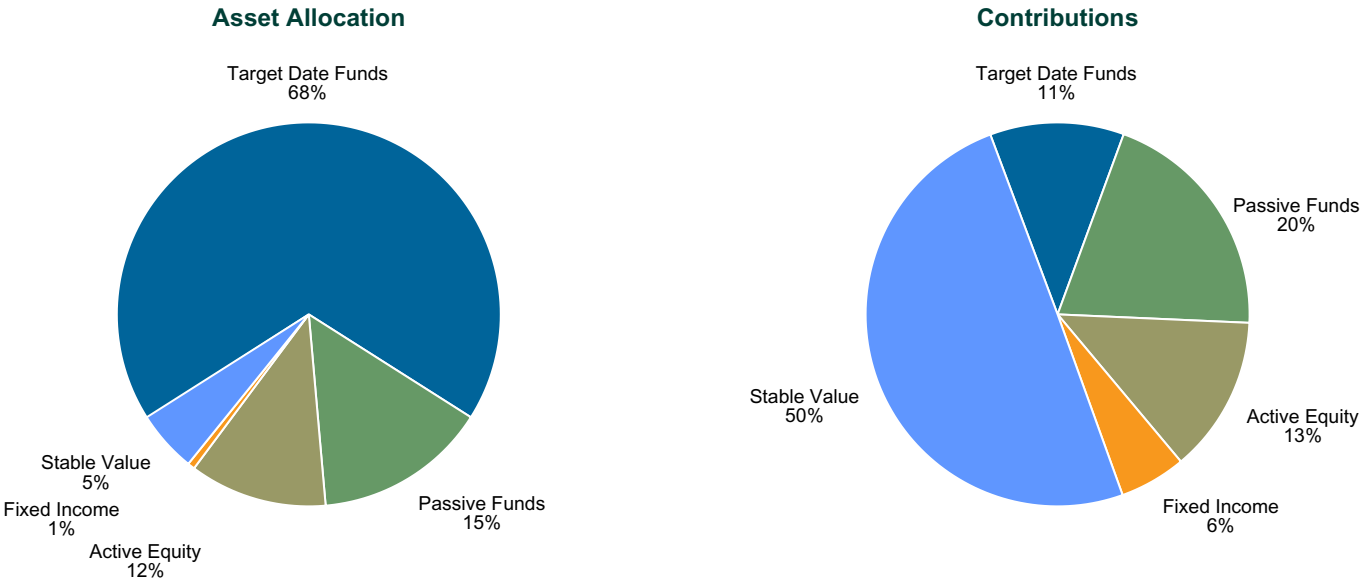
Changes in Fund Values

The chart below shows the net change in fund values across the various investment options for the quarter ended March 31, 2023. The change in value for each fund is the result of a combination of 3 factors: 1) market movements; 2) contributions or disbursements into or out of the funds by the participants (and any matching done by the company); and 3) transfers between funds by the participants.

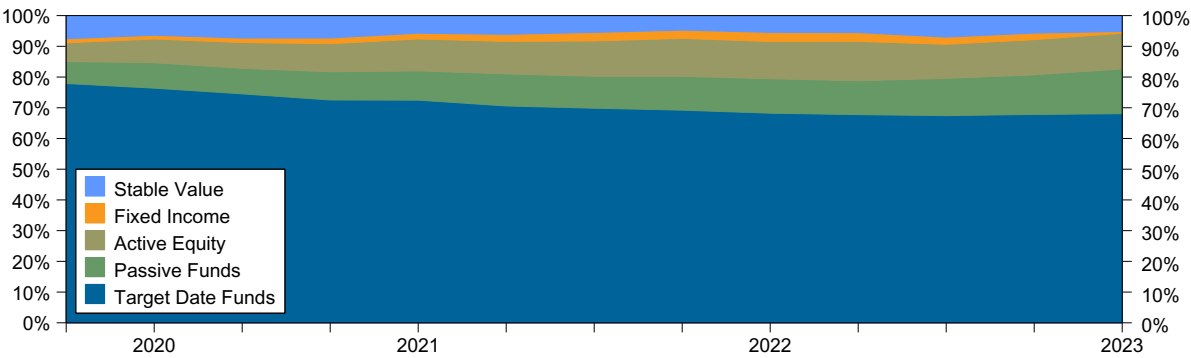


Asset Allocation

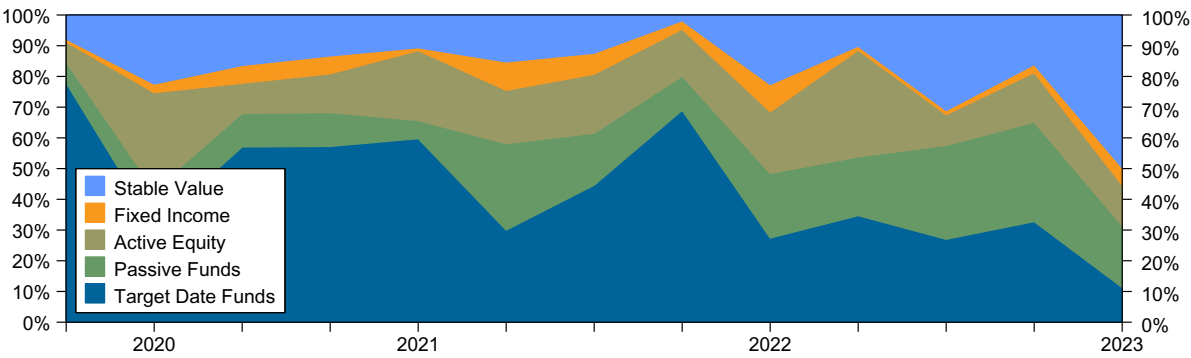
The charts below illustrate the historical asset allocation of the fund as well as the historical allocations of contributions to the fund. The pie charts on the top show the most recent allocations of both assets and contributions which include exchanges and transfers within the plan. The middle chart displays the historical allocation of fund assets. The bottom chart illustrates the historical allocation of contributions.



Historical Asset Allocation



Historical Allocation of Contributions



Investment Fund Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment funds over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns and Rankings for Periods Ended March 31, 2023

	Last Quarter		Last Year		Last 2 Years		Last 3 Years		Last 5 Years	
Target Date Funds										
American Funds TDF 2010	2.59%	91	(3.68%)	6	(0.11%)	11	6.46%	21	4.54%	9
AF Target Date 2010 Idx	4.70%	1	(5.37%)	87	(1.89%)	41	4.89%	61	4.20%	23
Callan Target Date 2010	4.19%		(4.98%)		(2.10%)		5.28%		3.74%	
American Funds TDF 2015	2.83%	95	(4.27%)	5	(0.31%)	8	7.01%	24	4.78%	7
AF Target Date 2015 Idx	4.79%	6	(5.52%)	61	(1.77%)	40	5.66%	68	4.52%	16
Callan Target Date 2015	4.20%		(5.38%)		(2.02%)		6.23%		3.98%	
American Funds TDF 2020	3.11%	92	(4.51%)	10	(0.43%)	9	7.32%	37	4.99%	12
AF Target Date 2020 Idx	4.96%	14	(5.48%)	47	(1.55%)	26	6.05%	68	4.68%	18
Callan Target Date 2020	4.40%		(5.52%)		(1.99%)		6.97%		4.29%	
American Funds TDF 2025	3.70%	87	(4.99%)	10	(0.76%)	11	8.50%	34	5.51%	5
AF Target Date 2025 Idx	5.13%	28	(5.61%)	38	(1.18%)	14	7.71%	61	5.21%	11
Callan Target Date 2025	4.72%		(5.82%)		(2.03%)		8.00%		4.56%	
American Funds TDF 2030	4.52%	82	(5.45%)	16	(0.87%)	11	10.02%	36	6.03%	7
AF Target Date 2030 Idx	5.57%	27	(4.74%)	6	(0.06%)	5	9.97%	37	6.11%	5
Callan Target Date 2030	5.30%		(6.19%)		(1.93%)		9.67%		5.07%	
American Funds TDF 2035	5.08%	81	(6.10%)	28	(0.91%)	17	12.33%	20	6.86%	2
AF Target Date 2035 Idx	6.04%	23	(6.33%)	39	(0.15%)	5	11.91%	33	6.51%	8
Callan Target Date 2035	5.74%		(6.60%)		(1.65%)		11.48%		5.65%	
American Funds TDF 2040	5.68%	65	(6.45%)	34	(1.05%)	31	13.37%	34	7.20%	3
AF Target Date 2040 Idx	6.56%	14	(6.26%)	30	0.41%	3	13.32%	35	7.05%	4
Callan Target Date 2040	6.10%		(6.71%)		(1.40%)		12.84%		6.06%	
American Funds TDF 2045	5.89%	71	(6.72%)	44	(1.24%)	52	13.53%	62	7.24%	5
AF Target Date 2045 Idx	6.69%	16	(6.34%)	21	0.53%	3	13.71%	57	7.24%	5
Callan Target Date 2045	6.33%		(6.93%)		(1.22%)		14.08%		6.33%	
American Funds TDF 2050	6.15%	67	(6.93%)	49	(1.57%)	62	13.54%	77	7.20%	10
AF Target Date 2050 Idx	6.73%	28	(6.35%)	19	0.51%	2	13.96%	58	7.35%	6
Callan Target Date 2050	6.42%		(6.96%)		(1.26%)		14.18%		6.43%	
American Funds TDF 2055	6.36%	60	(7.11%)	52	(1.83%)	71	13.31%	89	7.07%	13
AF Target Date 2055 Idx	6.77%	30	(6.36%)	20	0.53%	2	13.98%	74	7.36%	7
Callan Target Date 2055	6.49%		(7.09%)		(1.24%)		14.34%		6.46%	
American Funds TDF 2060	6.38%	58	(7.22%)	57	(1.92%)	69	13.20%	84	7.01%	16
AF Target Date 2060 Idx	6.77%	33	(6.36%)	19	0.53%	3	13.98%	72	7.36%	8
Callan Target Date 2060	6.51%		(7.05%)		(1.27%)		14.38%		6.46%	

1) Funds were added to lineup in 1Q2020.

Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns and Rankings for Periods Ended March 31, 2023

	Last Quarter		Last Year		Last 2 Years		Last 3 Years		Last 5 Years	
Passive Funds										
BlackRock S&P 500 Idx Fund	7.49%	25	(7.75%)	50	3.27%	36	18.55%	42	11.17%	26
S&P 500 Index	7.50%	25	(7.73%)	50	3.30%	35	18.60%	39	11.19%	26
Callan Large Cap Core MFs	6.58%		(7.69%)		2.80%		17.99%		10.02%	
BlackRock Russell 2500 Idx Fund	3.39%	67	(10.41%)	70	(5.18%)	55	19.35%	48	6.65%	54
Russell 2500 Index	3.39%	67	(10.39%)	70	(5.18%)	55	19.42%	48	6.65%	54
Callan SMID Broad MFs	5.32%		(8.75%)		(3.72%)		19.13%		6.85%	
BlackRock MSCI ACW ex US Idx Fund	7.16%	79	(4.43%)	75	(3.53%)	72	11.86%	68	2.28%	76
MSCI ACWI ex US	6.87%	84	(5.07%)	77	(3.29%)	71	11.80%	69	2.47%	67
Callan Non US Equity MFs	9.42%		(0.60%)		(1.14%)		13.23%		3.12%	
Fidelity US Bond Idx Fund	3.06%	71	(4.78%)	33	(4.50%)	49	(2.91%)	99	0.89%	74
Blmbg Aggregate	2.96%	79	(4.78%)	35	(4.47%)	41	(2.77%)	98	0.91%	71
Callan Core Bond MFs	3.29%		(5.02%)		(4.51%)		(1.79%)		1.17%	
Active Equity										
J.P. Morgan Equity Income Fund	(2.22%)	85	(4.05%)	21	4.93%	19	18.16%	64	9.19%	17
Russell 1000 Value Index	1.01%	37	(5.91%)	58	2.50%	70	17.93%	66	7.50%	55
Callan Lg Cap Value MF	0.19%		(5.72%)		3.57%		18.74%		7.64%	
MFS Large Cap Growth Fund	7.84%	91	(5.67%)	8	3.36%	8	18.24%	8	13.60%	9
Russell 1000 Growth Index	14.37%	41	(10.90%)	28	1.21%	14	18.58%	7	13.66%	8
Callan Large Cap Grwth MF	13.72%		(13.05%)		(3.00%)		14.82%		10.89%	
GW&K Small/Mid Cap Equity Fund	4.02%	63	(6.89%)	29	(1.12%)	29	20.40%	38	9.84%	10
Russell 2500 Index	3.39%	67	(10.39%)	70	(5.18%)	55	19.42%	48	6.65%	54
Callan SMID Broad MFs	5.32%		(8.75%)		(3.72%)		19.13%		6.85%	
MFS Intl Diversification Fund	7.61%	74	(1.91%)	58	(2.79%)	67	11.44%	82	4.56%	21
MSCI ACWI ex US	6.87%	84	(5.07%)	77	(3.29%)	71	11.80%	69	2.47%	67
Callan Non US Equity MFs	9.42%		(0.60%)		(1.14%)		13.23%		3.12%	
Fixed Income										
TCW MetWest Total Return Fund	3.32%	51	(5.71%)	58	(5.05%)	78	(2.42%)	95	1.12%	59
Blmbg Aggregate	2.96%	83	(4.78%)	27	(4.47%)	43	(2.77%)	98	0.91%	75
Callan Core Plus MFs	3.34%		(5.33%)		(4.55%)		(0.90%)		1.24%	
Stable Value										
Invesco Stable Value Fund	0.62%	14	1.98%	19	1.64%	29	1.73%	19	2.03%	12
3-month Treasury Bill	1.07%	1	2.50%	2	1.28%	76	0.89%	99	1.41%	88
Callan Stable Value CT	0.54%		1.70%		1.47%		1.49%		1.71%	

1) Funds were added to lineup in 1Q2020.

Investment Fund Returns

The table below details the rates of return for the Fund's investment funds over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

	12/2022- 3/2023	2022	2021	2020	2019
American Funds TDF 2010	2.59%	(9.15%)	9.32%	9.25%	13.88%
AF Target Date 2010 Idx	4.70%	(14.54%)	7.63%	11.30%	16.64%
Callan Target Date 2010	4.19%	(13.10%)	6.82%	10.78%	14.43%
American Funds TDF 2015	2.83%	(10.25%)	10.27%	9.96%	14.94%
AF Target Date 2015 Idx	4.79%	(14.71%)	8.42%	11.93%	17.44%
Callan Target Date 2015	4.20%	(13.55%)	7.83%	11.56%	15.03%
American Funds TDF 2020	3.11%	(11.01%)	10.64%	10.99%	15.59%
AF Target Date 2020 Idx	4.96%	(14.79%)	9.03%	11.89%	17.97%
Callan Target Date 2020	4.40%	(13.89%)	8.75%	11.38%	16.23%
American Funds TDF 2025	3.70%	(12.74%)	11.44%	13.67%	17.85%
AF Target Date 2025 Idx	5.13%	(14.99%)	10.74%	12.37%	19.89%
Callan Target Date 2025	4.72%	(15.14%)	10.04%	12.58%	18.53%
American Funds TDF 2030	4.52%	(14.50%)	13.16%	15.16%	20.06%
AF Target Date 2030 Idx	5.57%	(14.47%)	12.96%	13.26%	21.67%
Callan Target Date 2030	5.30%	(16.04%)	11.63%	13.23%	20.43%
American Funds TDF 2035	5.08%	(16.24%)	15.54%	17.55%	23.29%
AF Target Date 2035 Idx	6.04%	(16.17%)	15.75%	13.45%	24.09%
Callan Target Date 2035	5.74%	(16.79%)	13.92%	14.28%	22.16%
American Funds TDF 2040	5.68%	(17.55%)	16.83%	18.77%	24.40%
AF Target Date 2040 Idx	6.56%	(16.45%)	17.54%	14.23%	25.03%
Callan Target Date 2040	6.10%	(17.40%)	15.85%	14.91%	23.62%
American Funds TDF 2045	5.89%	(18.18%)	17.18%	19.21%	24.68%
AF Target Date 2045 Idx	6.69%	(16.59%)	18.06%	14.67%	25.26%
Callan Target Date 2045	6.33%	(17.95%)	16.83%	15.52%	24.60%
American Funds TDF 2050	6.15%	(18.89%)	17.27%	19.42%	25.04%
AF Target Date 2050 Idx	6.73%	(16.63%)	18.26%	14.96%	25.48%
Callan Target Date 2050	6.42%	(18.07%)	17.17%	15.73%	24.89%
American Funds TDF 2055	6.36%	(19.50%)	17.28%	19.39%	25.09%
AF Target Date 2055 Idx	6.77%	(16.66%)	18.31%	14.96%	25.48%
Callan Target Date 2055	6.49%	(18.21%)	17.27%	15.83%	24.97%
American Funds TDF 2060	6.38%	(19.66%)	17.19%	19.44%	25.01%
AF Target Date 2060 Idx	6.77%	(16.66%)	18.31%	14.96%	25.48%
Callan Target Date 2060	6.51%	(18.27%)	17.41%	15.90%	25.08%

1) Funds were added to lineup in 1Q2020.

Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2022- 3/2023	2022	2021	2020	2019
Passive Funds					
BlackRock S&P 500 Idx Fund	7.49%	(18.13%)	28.65%	18.43%	31.43%
S&P 500 Index	7.50%	(18.11%)	28.71%	18.40%	31.49%
Callan Large Cap Core MFs	6.58%	(17.10%)	27.20%	14.87%	29.58%
BlackRock Russell 2500 Idx Fund	3.39%	(18.38%)	18.15%	20.26%	27.66%
Russell 2500 Index	3.39%	(18.37%)	18.18%	19.99%	27.77%
Callan SMID Broad MFs	5.32%	(21.59%)	19.56%	24.00%	29.40%
BlackRock MSCI ACW ex US Idx Fund	7.16%	(16.39%)	7.70%	10.76%	21.22%
MSCI ACWI ex US	6.87%	(16.00%)	7.82%	10.65%	21.51%
Callan Non US Equity MFs	9.42%	(15.77%)	9.47%	11.12%	22.83%
Fidelity US Bond Idx Fund	3.06%	(13.03%)	(1.79%)	7.80%	8.48%
Blmbg Aggregate	2.96%	(13.01%)	(1.54%)	7.51%	8.72%
Callan Core Bond MFs	3.29%	(13.47%)	(1.17%)	8.65%	9.17%
Active Equity					
J.P. Morgan Equity Income Fund	(2.22%)	(1.64%)	25.44%	3.88%	26.60%
Russell 1000 Value Index	1.01%	(7.54%)	25.16%	2.80%	26.54%
Callan Lg Cap Value MF	0.19%	(5.35%)	26.02%	2.65%	26.01%
MFS Large Cap Growth Fund	7.84%	(18.95%)	26.66%	22.84%	40.35%
Russell 1000 Growth Index	14.37%	(29.14%)	27.60%	38.49%	36.39%
Callan Large Cap Grwth MF	13.72%	(31.70%)	22.39%	37.35%	33.54%
GW&K Small/Mid Cap Equity Fund	4.02%	(18.14%)	26.35%	23.41%	31.28%
Russell 2500 Index	3.39%	(18.37%)	18.18%	19.99%	27.77%
Callan SMID Broad MFs	5.32%	(21.59%)	19.56%	24.00%	29.40%
MFS Intl Diversification Fund	7.61%	(17.02%)	7.78%	15.43%	26.09%
MSCI ACWI ex US	6.87%	(16.00%)	7.82%	10.65%	21.51%
Callan Non US Equity MFs	9.42%	(15.77%)	9.47%	11.12%	22.83%
Fixed Income					
TCW MetWest Total Return Fund	3.32%	(14.30%)	(1.36%)	9.38%	8.87%
Blmbg Aggregate	2.96%	(13.01%)	(1.54%)	7.51%	8.72%
Callan Core Plus MFs	3.34%	(13.89%)	(0.42%)	8.94%	9.50%
Stable Value					
Invesco Stable Value Fund	0.62%	1.67%	1.37%	2.13%	2.55%
3-month Treasury Bill	1.07%	1.46%	0.05%	0.67%	2.28%
Callan Stable Value CT	0.54%	1.46%	1.27%	1.76%	2.10%

1) Funds were added to lineup in 1Q2020.

City of Norwalk DC Plans
Investment Manager Performance Monitoring Summary Report
March 31, 2023

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	5 Year Sharpe Ratio	Expense Ratio
Target Date Funds						
American Funds TDF 2010 Callan Target Date 2010 AF Target Date 2010 Idx	2.6 91	-3.7 6	6.5 21	4.5 9	0.3 8	0.28 76
	4.7 1	-5.4 87	4.9 61	4.2 23	0.3 18	
American Funds TDF 2015 Callan Target Date 2015 AF Target Date 2015 Idx	2.8 95	-4.3 5	7.0 24	4.8 7	0.3 4	0.30 80
	4.8 6	-5.5 61	5.7 68	4.5 16	0.3 12	
American Funds TDF 2020 Callan Target Date 2020 AF Target Date 2020 Idx	3.1 92	-4.5 10	7.3 37	5.0 12	0.3 4	0.30 79
	5.0 14	-5.5 47	6.1 68	4.7 18	0.3 7	
American Funds TDF 2025 Callan Target Date 2025 AF Target Date 2025 Idx	3.7 87	-5.0 10	8.5 34	5.5 5	0.3 3	0.32 77
	5.1 28	-5.6 38	7.7 61	5.2 11	0.3 5	
American Funds TDF 2030 Callan Target Date 2030 AF Target Date 2030 Idx	4.5 82	-5.5 16	10.0 36	6.0 7	0.3 6	0.33 78
	5.6 27	-4.7 6	10.0 37	6.1 5	0.3 6	
American Funds TDF 2035 Callan Target Date 2035 AF Target Date 2035 Idx	5.1 81	-6.1 28	12.3 20	6.9 2	0.3 3	0.35 76
	6.0 23	-6.3 39	11.9 33	6.5 8	0.3 4	
American Funds TDF 2040 Callan Target Date 2040 AF Target Date 2040 Idx	5.7 65	-6.4 34	13.4 34	7.2 3	0.3 4	0.36 77
	6.6 14	-6.3 30	13.3 35	7.0 4	0.3 4	
American Funds TDF 2045 Callan Target Date 2045 AF Target Date 2045 Idx	5.9 71	-6.7 44	13.5 62	7.2 5	0.3 3	0.37 76
	6.7 16	-6.3 21	13.7 57	7.2 5	0.3 2	
American Funds TDF 2050 Callan Target Date 2050 AF Target Date 2050 Idx	6.2 67	-6.9 49	13.5 77	7.2 10	0.3 5	0.38 72
	6.7 28	-6.4 19	14.0 58	7.4 6	0.3 4	
American Funds TDF 2055 Callan Target Date 2055 AF Target Date 2055 Idx	6.4 60	-7.1 52	13.3 89	7.1 13	0.3 6	0.38 71
	6.8 30	-6.4 20	14.0 74	7.4 7	0.3 2	

Returns:

- above median
- third quartile
- fourth quartile

Sharpe Ratio:

- above median
- third quartile
- fourth quartile

City of Norwalk DC Plans
Investment Manager Performance Monitoring Summary Report
March 31, 2023

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	5 Year Sharpe Ratio	Expense Ratio
American Funds TDF 2060 Callan Target Date 2060 AF Target Date 2060 Idx	6.4 58	-7.2 57	13.2 84	7.0 16	0.3 8	0.38 71
Passive Funds						
BlackRock S&P 500 Idx Fund (i) Callan Large Cap Core MFs S&P 500 Index	7.5 25	-7.8 50	18.6 42	11.2 26	0.5 24	0.03 99
BlackRock Russell 2500 Idx Fund (i) Callan SMID Broad MFs Russell 2500 Index	3.4 67	-10.4 70	19.3 48	6.7 54	0.2 53	0.08 98
BlackRock MSCI ACW ex US Idx Fund (i) Callan Non US Equity MFs MSCI ACWI ex US	7.2 79	-4.4 75	11.9 68	2.3 76	0.0 72	0.10 99
Fidelity US Bond Idx Fund (i) Callan Core Bond MFs Blmbg Aggregate	3.1 71	-4.8 33	-2.9 99	0.9 74	-0.1 78	0.03 98
Active Equity						
J.P. Morgan Equity Income Fund Callan Lg Cap Value MF Russell 1000 Value Index	-2.2 85	-4.1 21	18.2 64	9.2 17	0.4 11	0.45 90
MFS Large Cap Growth Fund Callan Large Cap Grwth MF Russell 1000 Growth Index	7.8 91	-5.7 8	18.2 8	13.6 9	0.6 3	0.37 96
GW&K Small/Mid Cap Equity Fund Callan SMID Broad MFs Russell 2500 Index	4.0 63	-6.9 29	20.4 38	9.8 10	0.4 8	0.65 91
MFS Intl Diversification Fund Callan Non US Equity MFs MSCI ACWI ex US	7.6 74	-1.9 58	11.4 82	4.6 21	0.2 17	0.72 74

Returns:

■ above median
■ third quartile
■ fourth quartile

Sharpe Ratio:

■ above median
■ third quartile
■ fourth quartile

(i) - Indexed scoring method used. Green: manager & index ranking differ by <= +/- 10%tile. Gold: manager & index ranking differ by <= +/- 20%tile. Blue: manager & index ranking differ by > +/- 20%tile.

City of Norwalk DC Plans
Investment Manager Performance Monitoring Summary Report
March 31, 2023

Investment Manager	Last Quarter Return	Last Year Return	3 Year Return	5 Year Return	5 Year Sharpe Ratio	Expense Ratio
Fixed Income						
TCW MetWest Total Return Fund	3.3 51	-5.7 58	-2.4 95	1.1 59	-0.0 60	0.35 90
Callan Core Plus MFs						
Bimbg Aggregate	3.0 83	-4.8 27	-2.8 98	0.9 75	-0.1 85	
Stable Value						
Invesco Stable Value Fund	0.6 14	2.0 19	1.7 19	2.0 12	2.5 40	0.30 96
Callan Stable Value CT						
3-month Treasury Bill	1.1 1	2.5 2	0.9 99	1.4 88	0.0 88	

Returns:

above median

third quartile

fourth quartile

Sharpe Ratio:

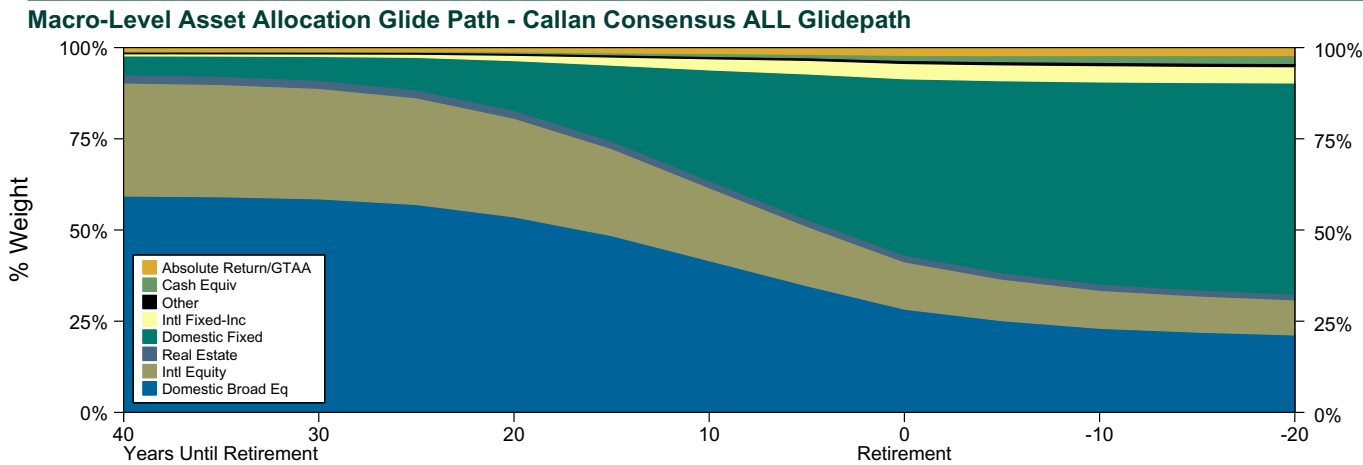
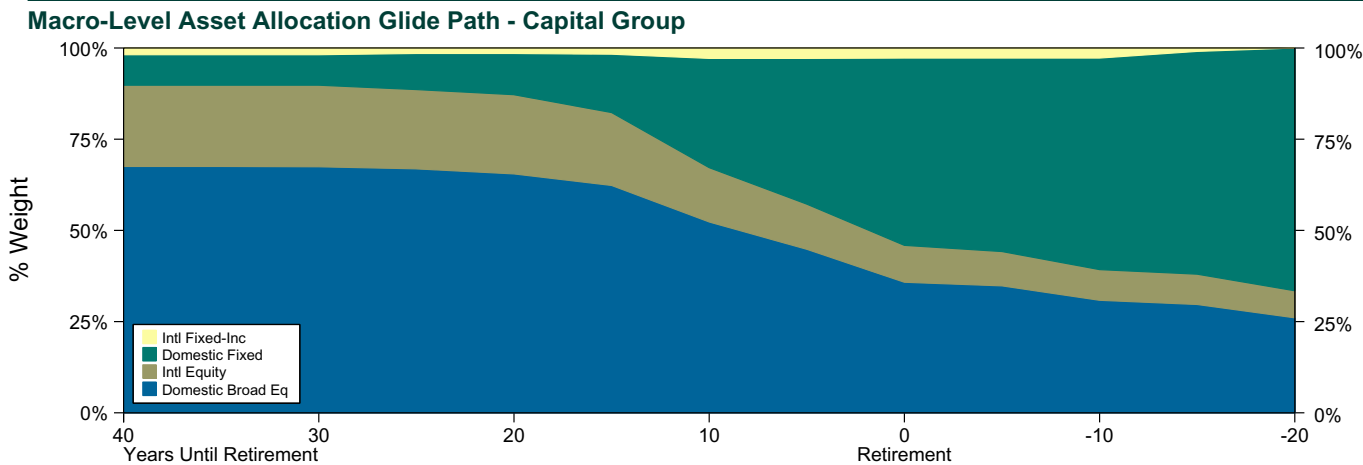
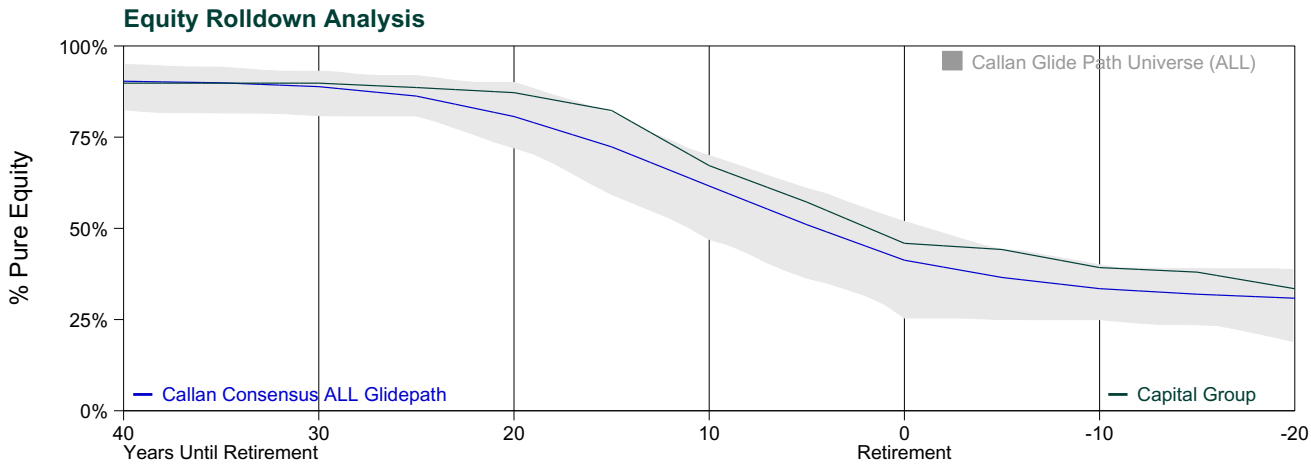
above median

third quartile

fourth quartile

Capital Group
Target Date Glide Path Analysis as of March 31, 2023

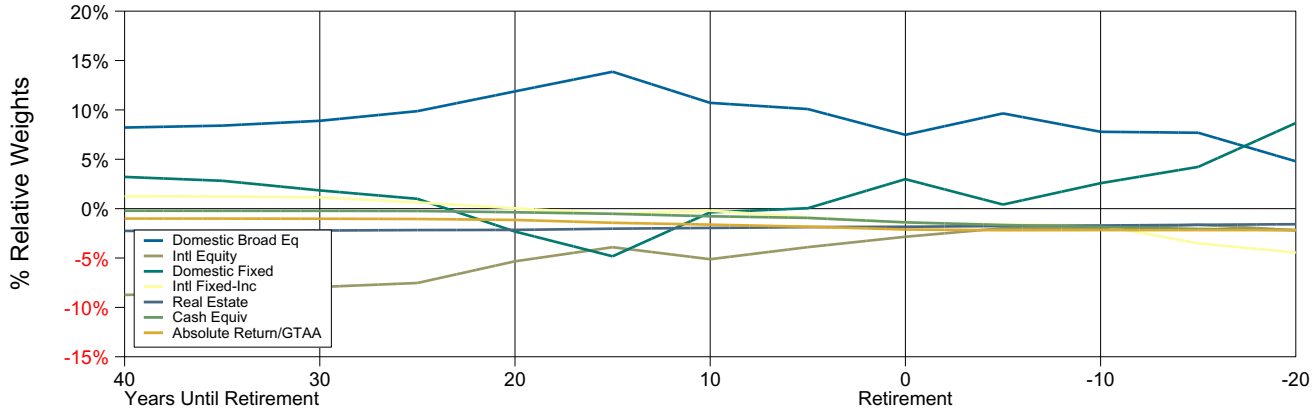
The following charts illustrate the asset allocation "glide path" underlying the relevant suite of target date funds. This analysis covers forty years of investor wealth accumulation up to retirement, as well as twenty years of wealth decumulation following retirement. The top chart shows the "pure" equity exposure (public equities excluding REITs) versus the peer group and index. The subsequent charts show more asset allocation detail at the high "macro" level.



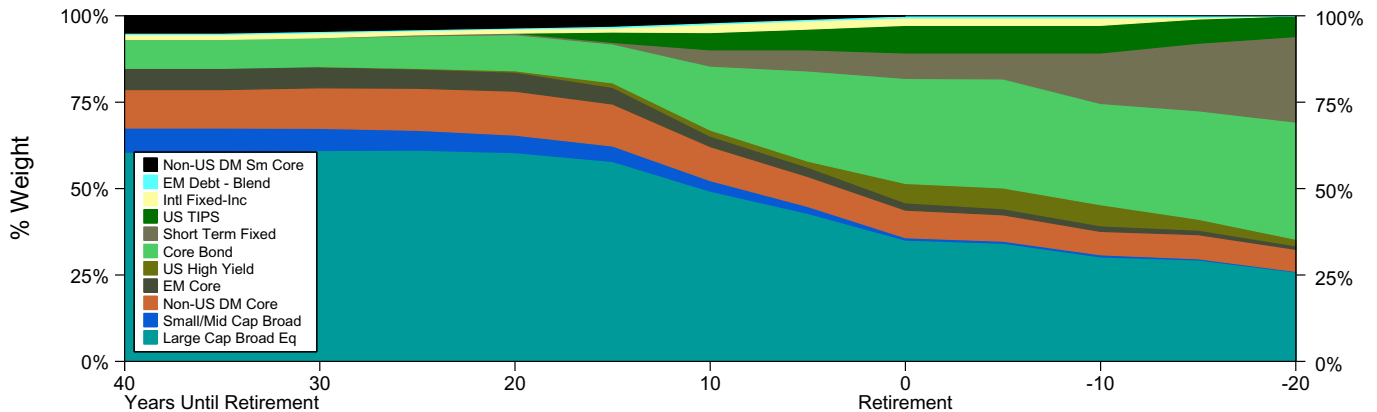
Capital Group Target Date Glide Path Analysis as of March 31, 2023

The following charts illustrate the asset allocation "glide path" underlying the relevant suite of target date funds. This analysis covers forty years of investor wealth accumulation up to retirement, as well as twenty years of wealth decumulation following retirement. The top chart highlights any significant "macro-level" differences between the manager's asset allocation glide path and that of the glide path index. The bottom two charts illustrate the asset allocation glide paths of both the manager and index at the more detailed "micro" level.

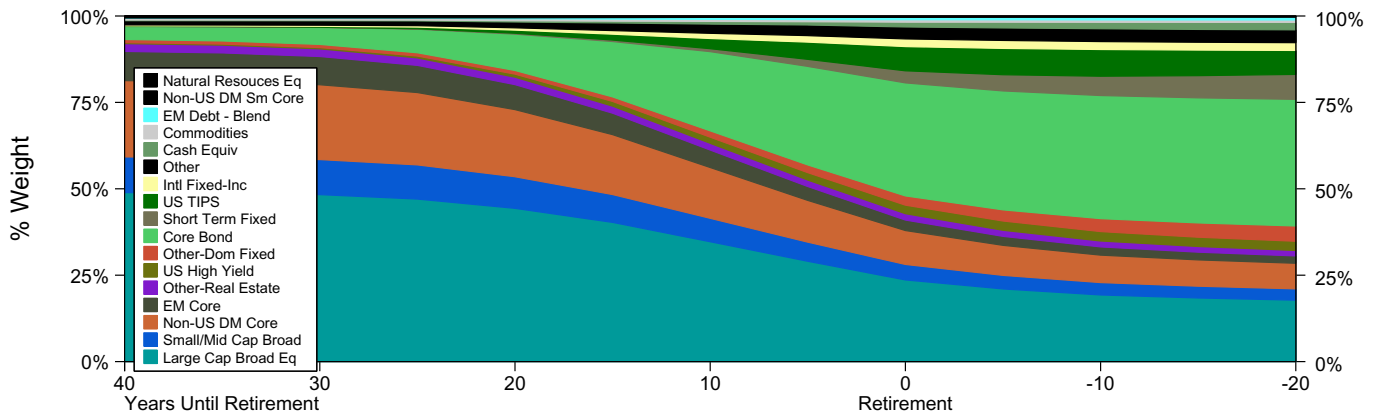
Relative Macro Asset Allocation - Capital Group vs. Callan Consensus ALL Glidepath



Micro-Level Asset Allocation Glide Path - Capital Group



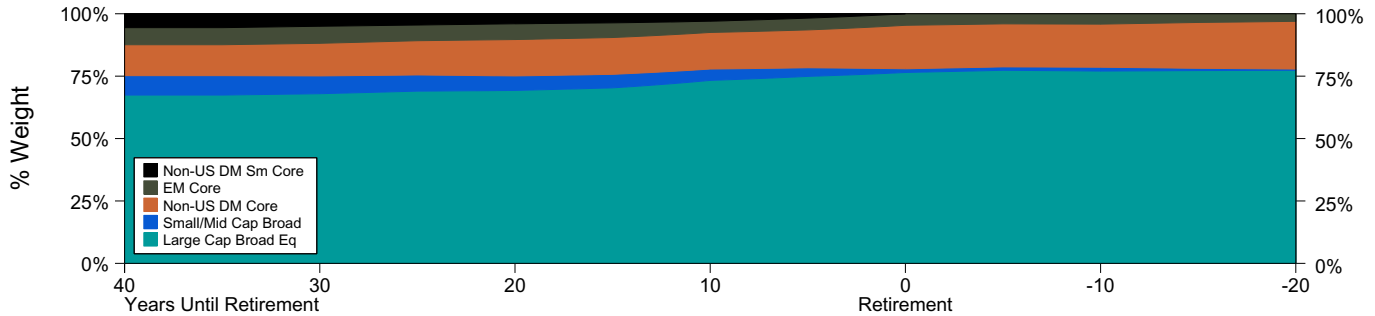
Micro-Level Asset Allocation Glide Path - Callan Consensus ALL Glidepath



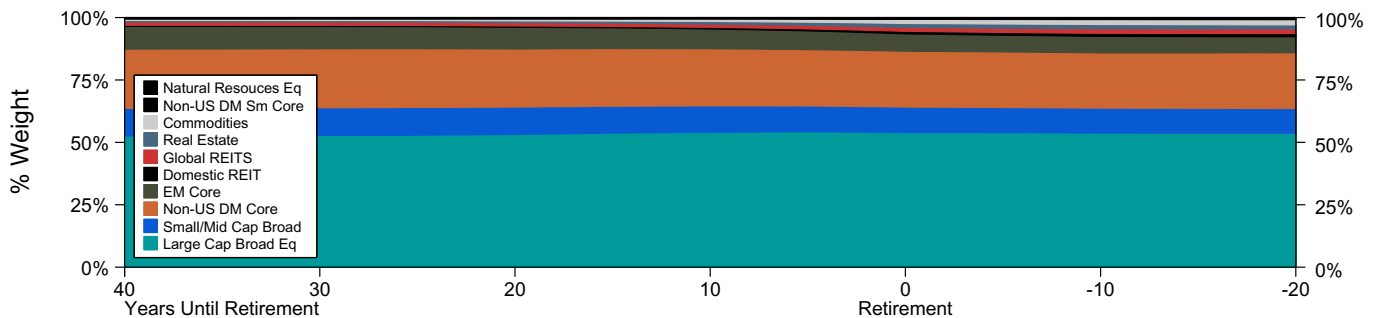
Capital Group Target Date Glide Path Analysis as of March 31, 2023

The first two charts below illustrate the detailed composition over time of the "risky", or "growth" portion of the glide paths for both the manager and index, defined to be all public equity and real estate asset classes. These charts highlight both the levels of diversification and aggressiveness within the wealth creation portion of the glide paths. The last two charts serve a similar purpose but focus on the composition over time of the remaining wealth preservation portion (non-equity) of the manager and index glide paths.

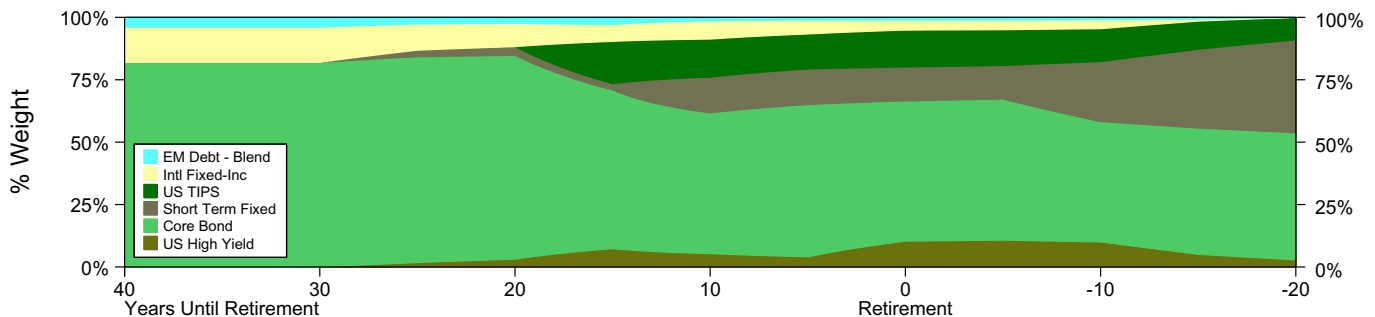
Micro-Level Equity Allocation Glide Path - Capital Group



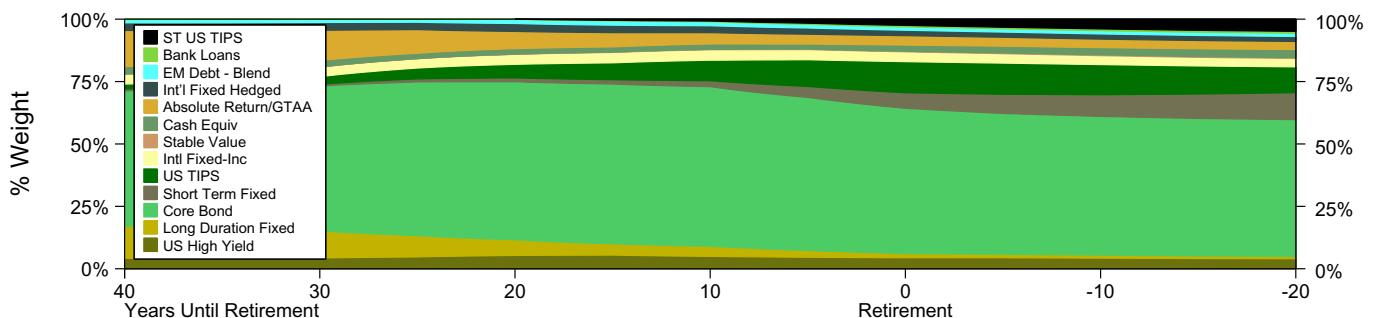
Micro-Level Equity Asset Allocation Glide Path - Callan Consensus ALL Glidepath



Micro-Level Non-Equity Allocation Glide Path - Capital Group



Micro-Level Non-Equity Asset Allocation Glide Path - Callan Consensus ALL Glidep



Equal-Weighted - Capital Group Target Date Fund Family Analysis as of March 31, 2023

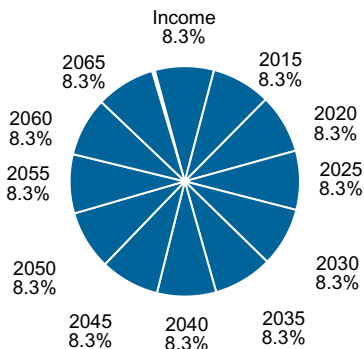
The following is an analysis of the suite of target date funds as an aggregated portfolio using equal-weighting by target date. The upper-left pie chart shows equal-weighting across target dates. The rest of the charts compare different attributes of the aggregated target date portfolio to a peer group of target date fund families, as well as target date indices, by mimicking the equal-weighted target date suites using these alternatives. The first two charts evaluate the aggregate equity exposure and expense ratio via target date funds. The last two charts analyze aggregate target date performance on both an actual return basis as well as a "glide path return" basis (simulated returns using each funds' asset allocation "glide path" weights and index returns).

Glidepath Peer Group: ALL

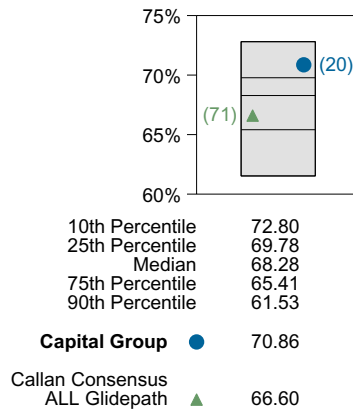
Passive and Non-Passive

Fee/Return Type: Institutional Net

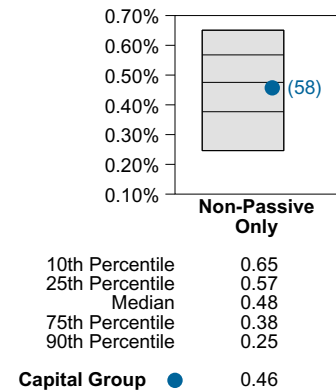
Fund Family Allocation



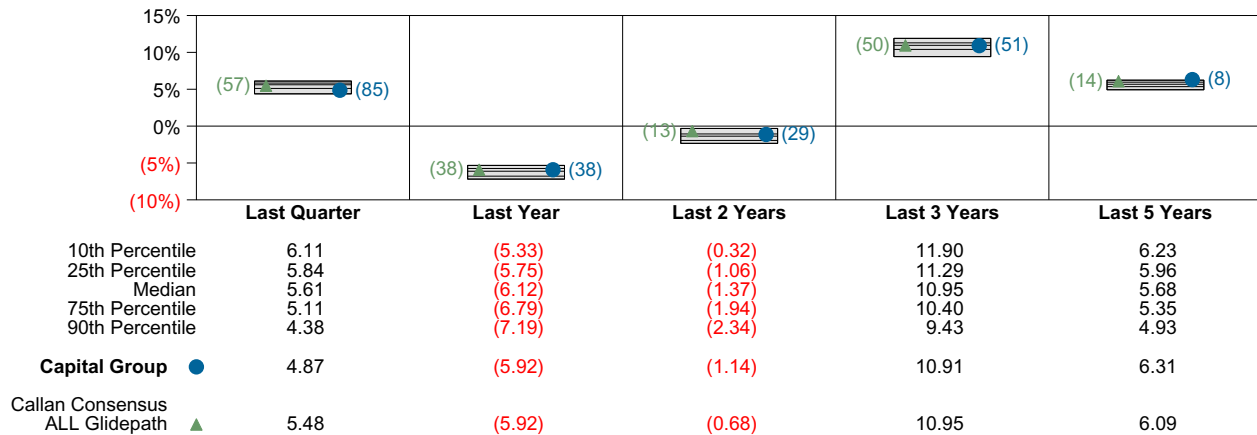
Equity Exposure



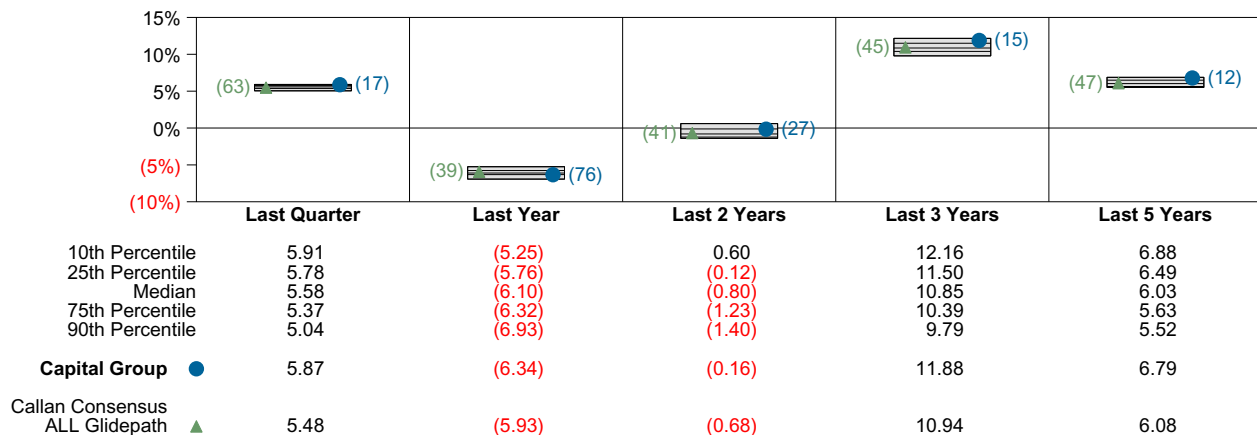
Expense Ratio



Target Date Family Performance vs Peer Families



Target Date Family Glide Path Returns vs Peer Families



American Funds TDF 2010 (RFTTX) Period Ended March 31, 2023

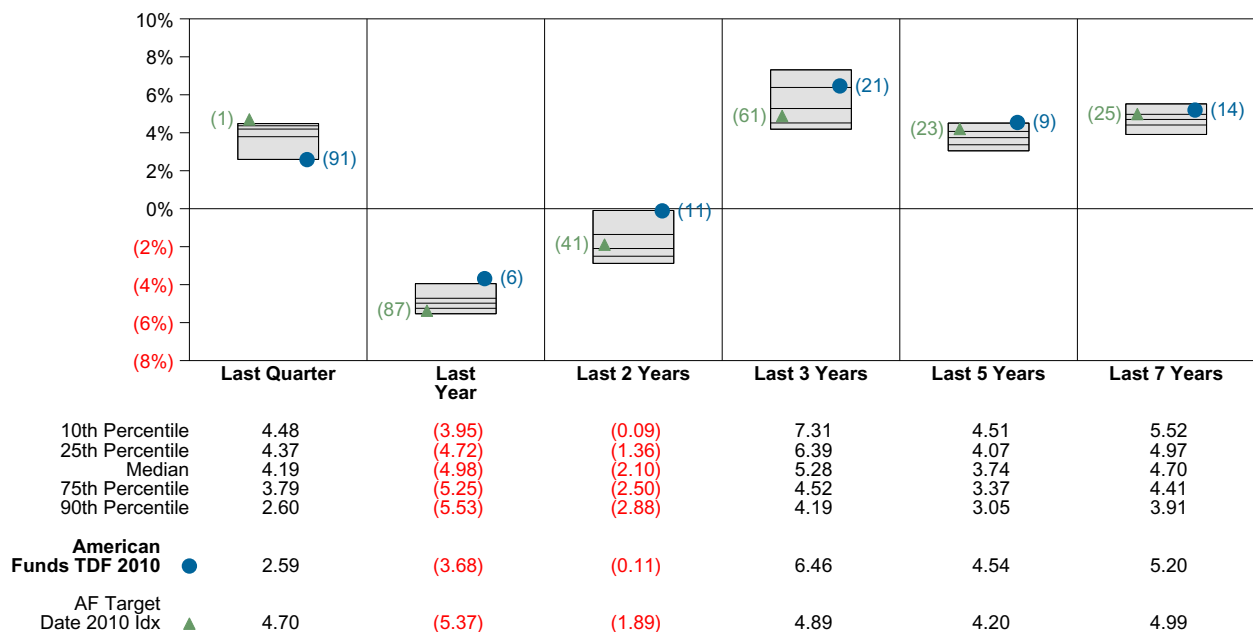
Investment Philosophy

Capital Group's Target Date philosophy is distinguished by four key beliefs: 1) They believe that solid research is fundamental to sound investment decisions - their companies employ teams of analysts who regularly gather in-depth, first-hand information on markets and companies around the globe; 2) they believe that an investment decision should not be made lightly - in addition to providing extensive research, their investment professionals go to great lengths to determine the difference between the fundamental value of a company and its price in the marketplace; 3) they believe in a long-term approach - investment professionals typically target a low turnover of portfolio holdings, and they are compensated according to their investment results over time; and 4) they believe in the value of multiple perspectives - the assets of each fund or portfolio are divided among a number of portfolio managers.

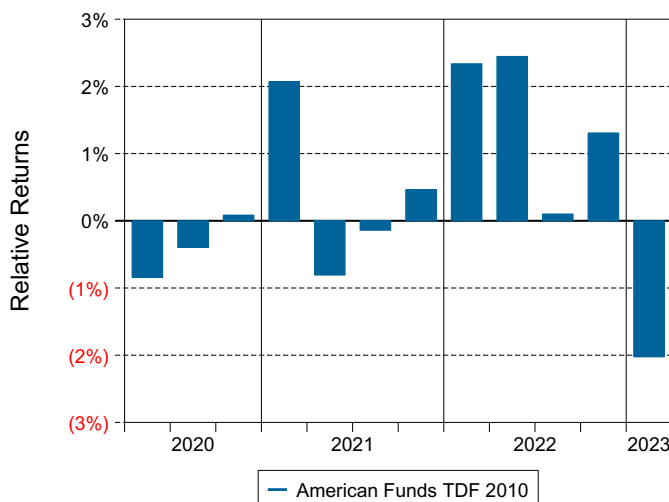
Quarterly Summary and Highlights

- American Funds TDF 2010's portfolio posted a 2.59% return for the quarter placing it in the 91 percentile of the Callan Target Date 2010 group for the quarter and in the 6 percentile for the last year.
- American Funds TDF 2010's portfolio underperformed the AF Target Date 2010 Idx by 2.12% for the quarter and outperformed the AF Target Date 2010 Idx for the year by 1.69%.

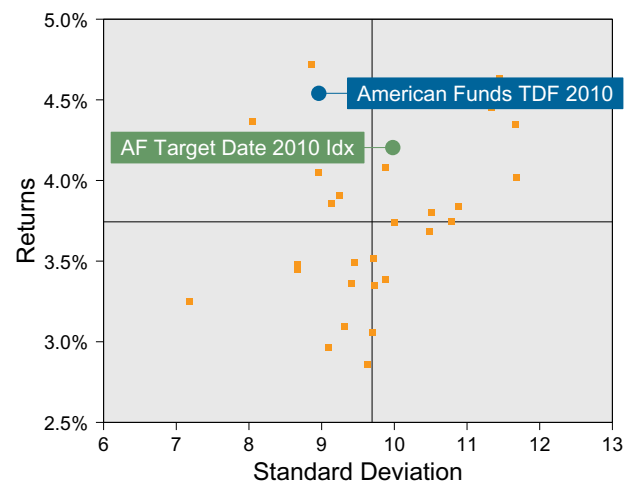
Performance vs Callan Target Date 2010 (Net)



Relative Return vs AF Target Date 2010 Idx



Callan Target Date 2010 (Net) Annualized Five Year Risk vs Return

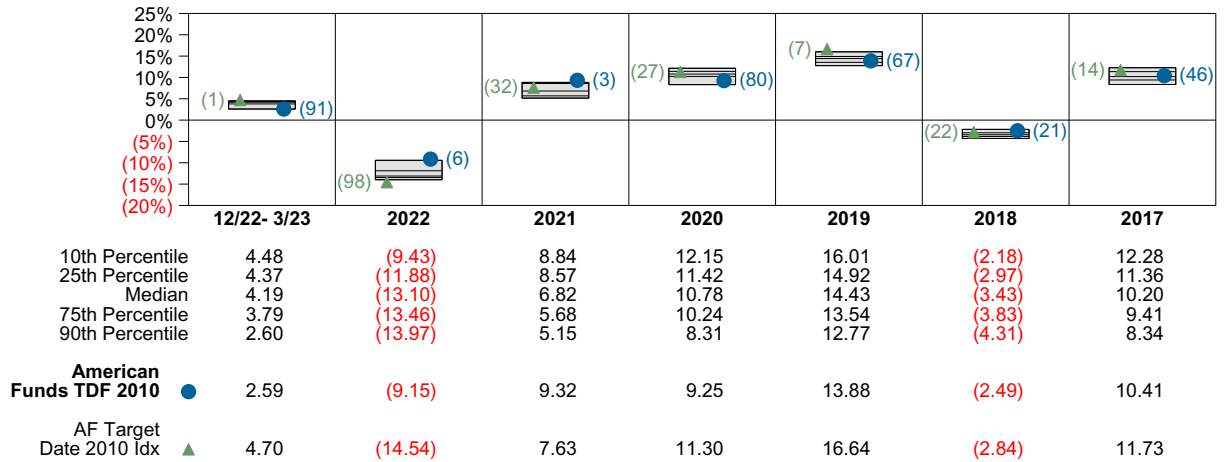


American Funds TDF 2010 Return Analysis Summary

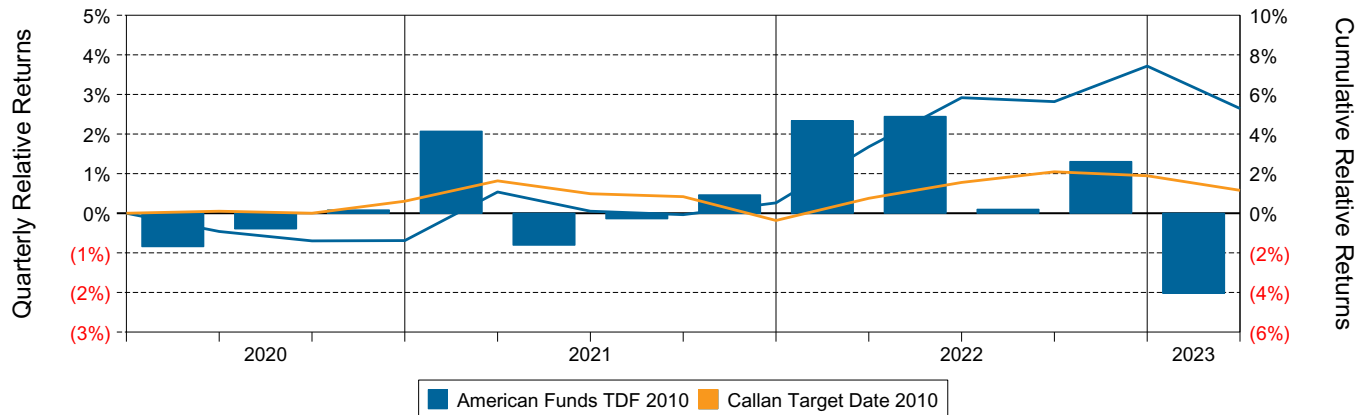
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

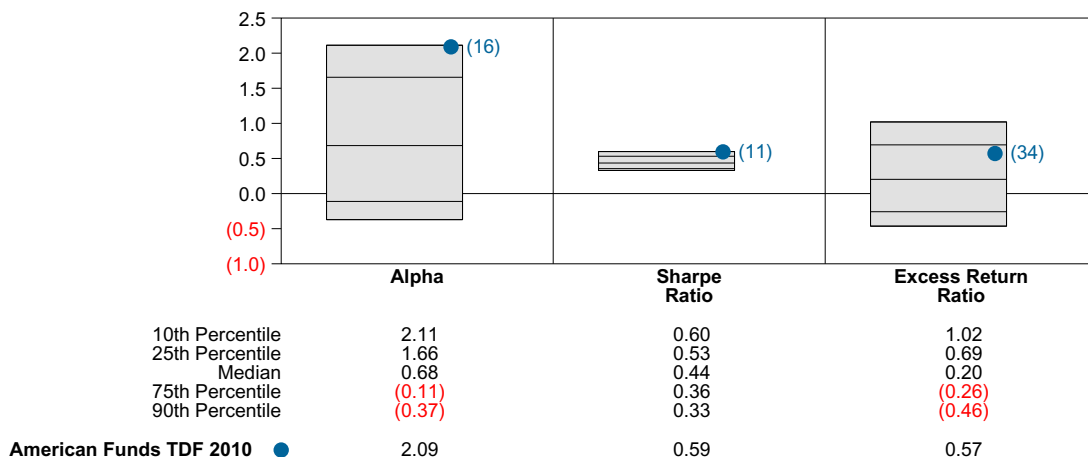
Performance vs Callan Target Date 2010 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2010 Idx



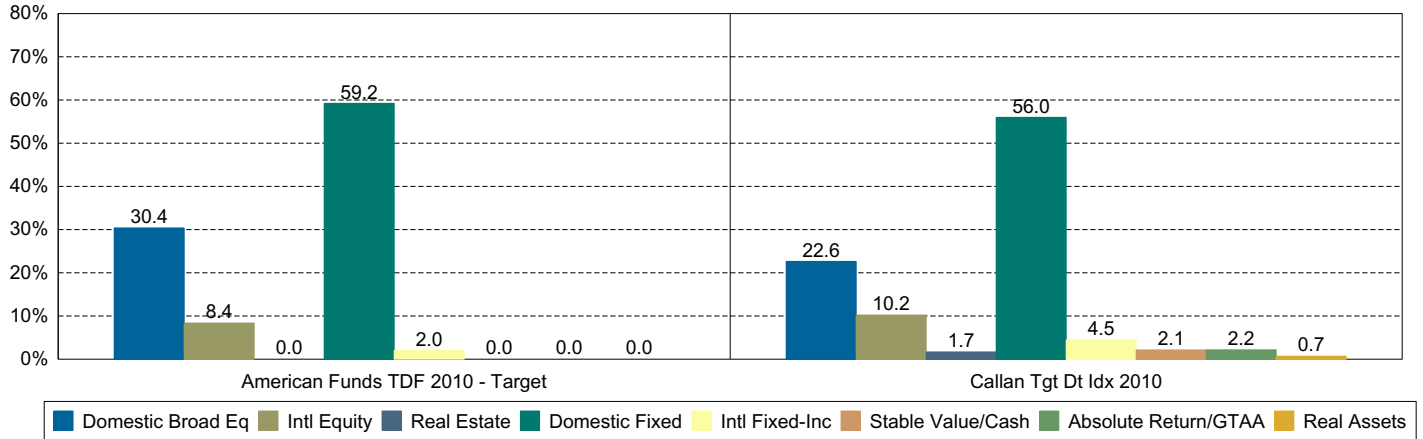
Risk Adjusted Return Measures vs AF Target Date 2010 Idx Rankings Against Callan Target Date 2010 (Net) Three Years Ended March 31, 2023



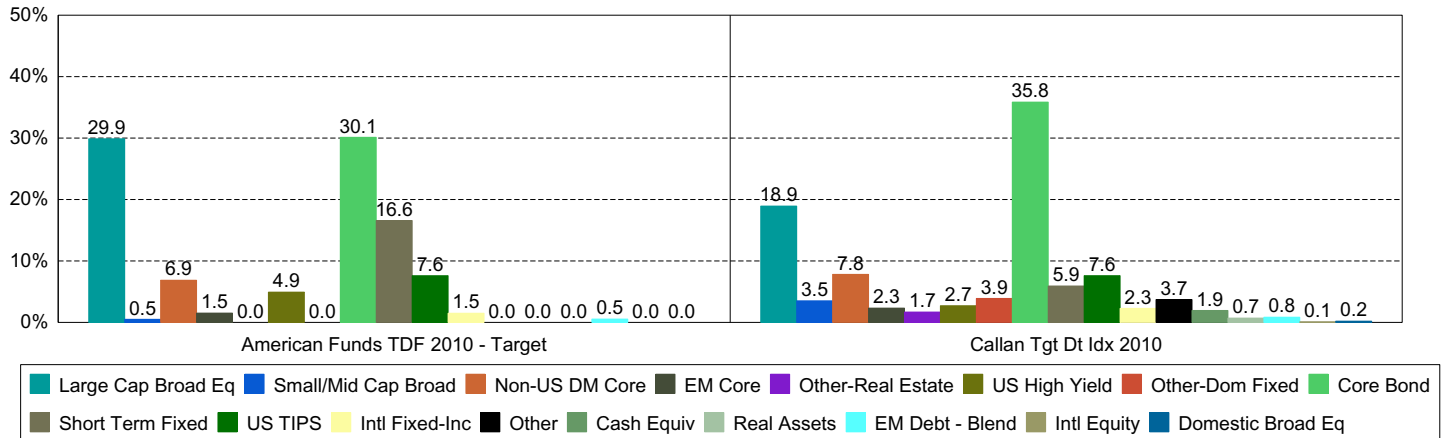
American Funds TDF 2010 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

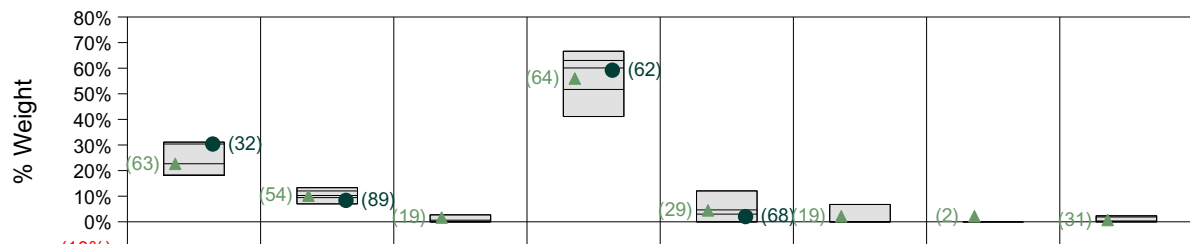
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2010



American Funds TDF 2010 - Target

American Funds TDF 2010 - Target	30.38	8.37	-	59.22	2.03	-	-	-
Callan Tgt Dt Idx 2010	22.64	10.22	1.68	55.98	4.46	2.15	2.17	0.70

American Funds TDF 2015 (RFJTX) Period Ended March 31, 2023

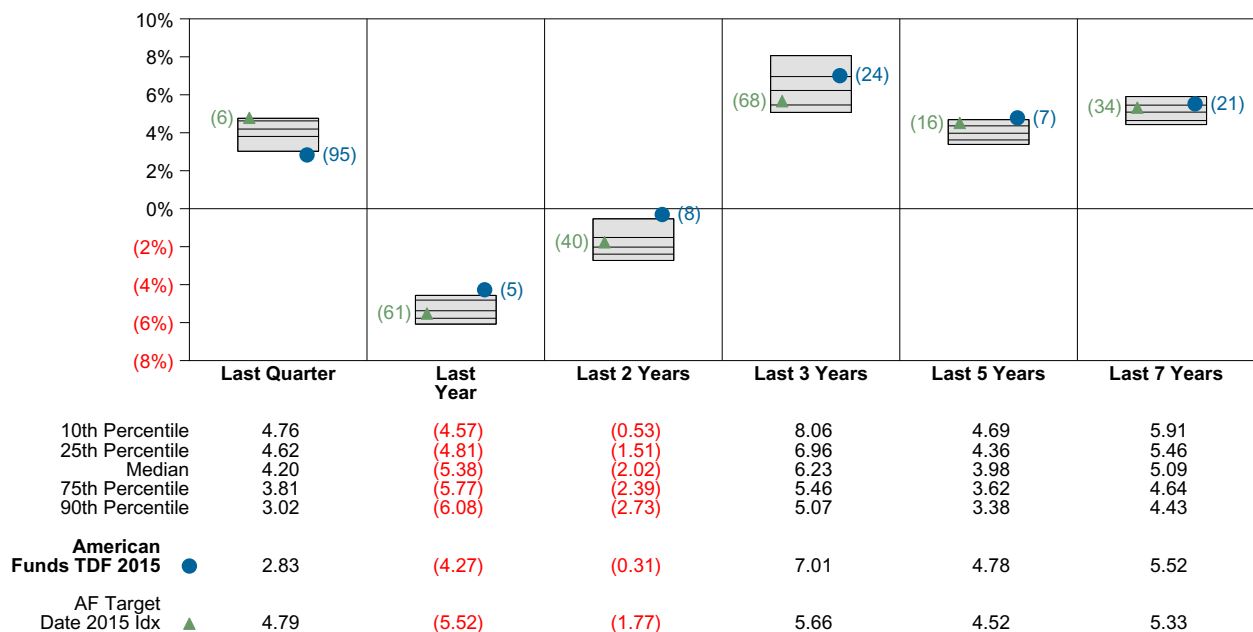
Investment Philosophy

Capital Group's Target Date philosophy is distinguished by four key beliefs: 1) They believe that solid research is fundamental to sound investment decisions - their companies employ teams of analysts who regularly gather in-depth, first-hand information on markets and companies around the globe; 2) they believe that an investment decision should not be made lightly - in addition to providing extensive research, their investment professionals go to great lengths to determine the difference between the fundamental value of a company and its price in the marketplace; 3) they believe in a long-term approach - investment professionals typically target a low turnover of portfolio holdings, and they are compensated according to their investment results over time; and 4) they believe in the value of multiple perspectives - the assets of each fund or portfolio are divided among a number of portfolio managers.

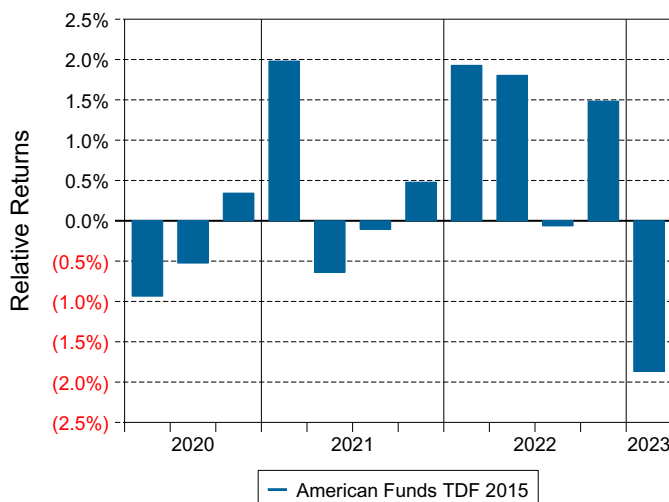
Quarterly Summary and Highlights

- American Funds TDF 2015's portfolio posted a 2.83% return for the quarter placing it in the 95 percentile of the Callan Target Date 2015 group for the quarter and in the 5 percentile for the last year.
- American Funds TDF 2015's portfolio underperformed the AF Target Date 2015 Idx by 1.96% for the quarter and outperformed the AF Target Date 2015 Idx for the year by 1.25%.

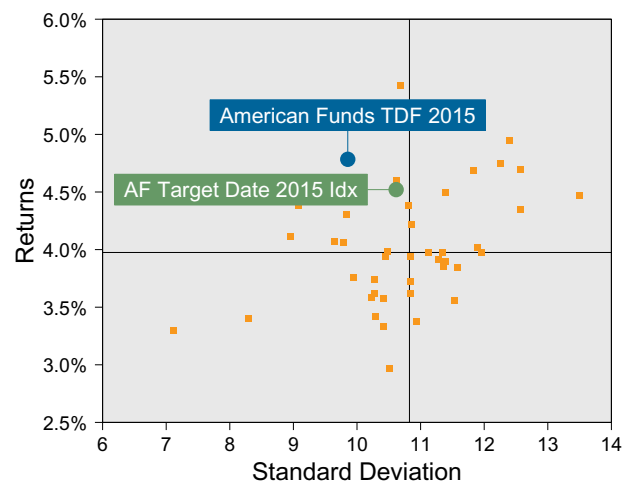
Performance vs Callan Target Date 2015 (Net)



Relative Return vs AF Target Date 2015 Idx



Callan Target Date 2015 (Net) Annualized Five Year Risk vs Return

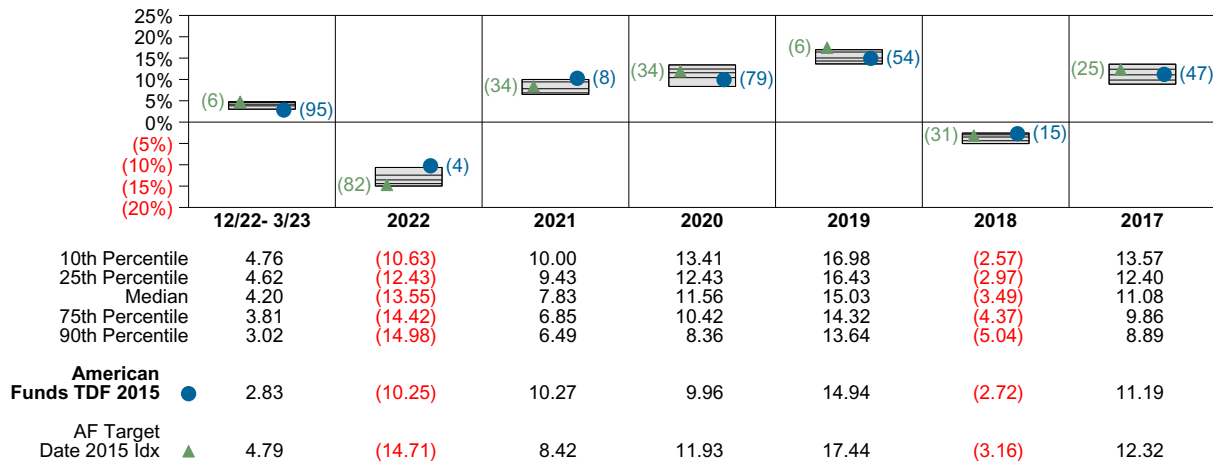


American Funds TDF 2015 Return Analysis Summary

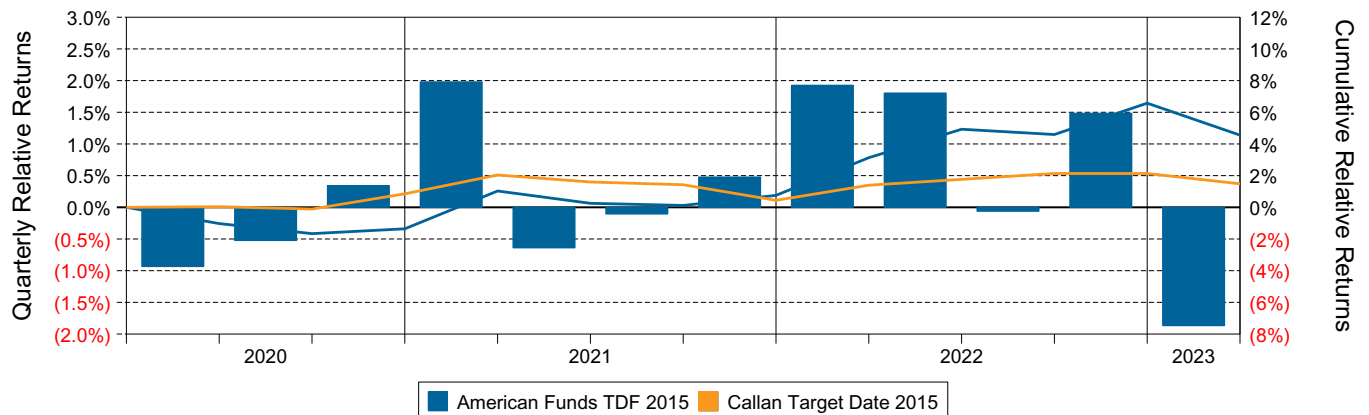
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

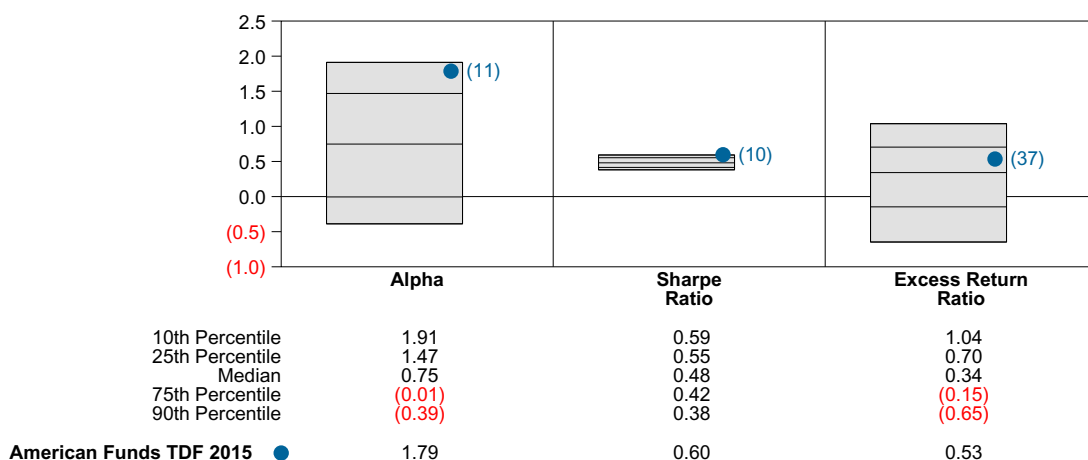
Performance vs Callan Target Date 2015 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2015 Idx



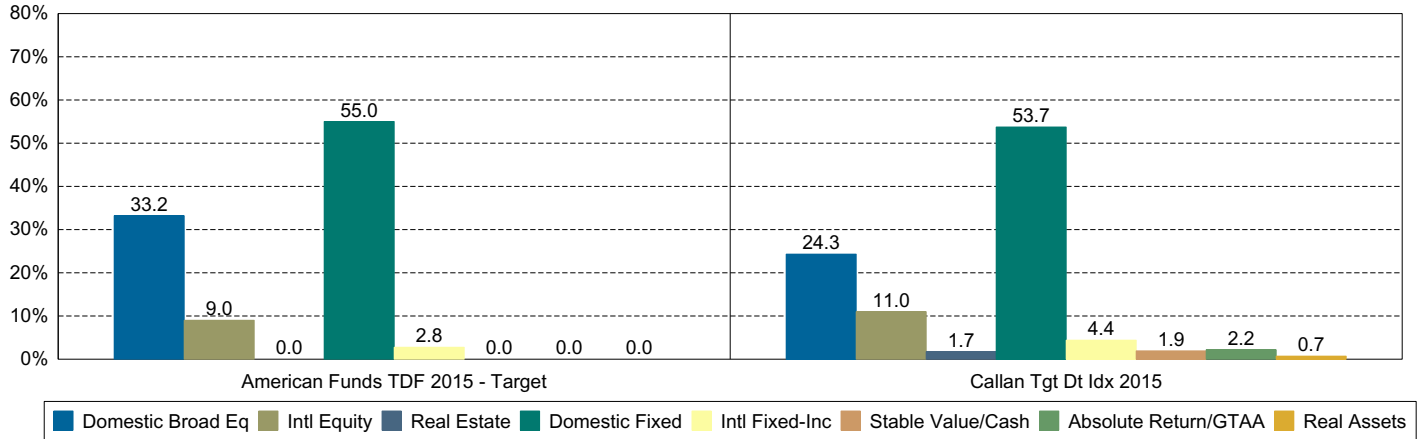
Risk Adjusted Return Measures vs AF Target Date 2015 Idx Rankings Against Callan Target Date 2015 (Net) Three Years Ended March 31, 2023



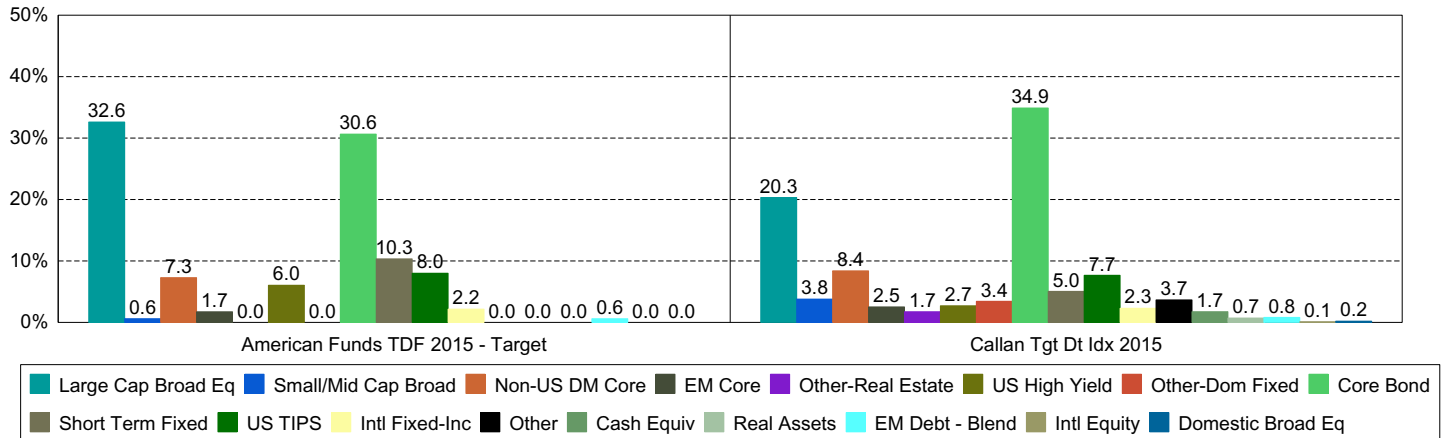
American Funds TDF 2015 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

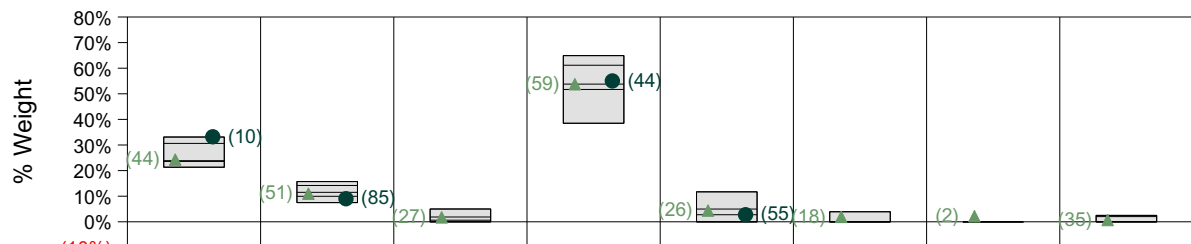
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2015



	Domestic Broad Eq	Intl Equity	Real Estate	Domestic Fixed	Intl Fixed-Inc	Stable Value/Cash	Absolute Return/GTAA	Real Assets
10th Percentile	33.11	15.72	5.00	64.92	11.71	3.93	0.00	2.50
25th Percentile	30.62	14.19	1.88	61.15	4.98	0.00	0.00	2.03
Median	23.88	11.51	0.62	53.78	2.76	0.00	0.00	0.00
75th Percentile	23.58	9.96	0.00	51.70	0.00	0.00	0.00	0.00
90th Percentile	21.32	7.50	0.00	38.49	0.00	0.00	0.00	0.00

American Funds TDF 2015 - Target	●	33.21	9.01	-	55.02	2.76	-	-	-
Callan Tgt Dt Idx 2015	▲	24.31	11.00	1.74	53.74	4.40	1.92	2.18	0.71

American Funds TDF 2020 (RRCTX) Period Ended March 31, 2023

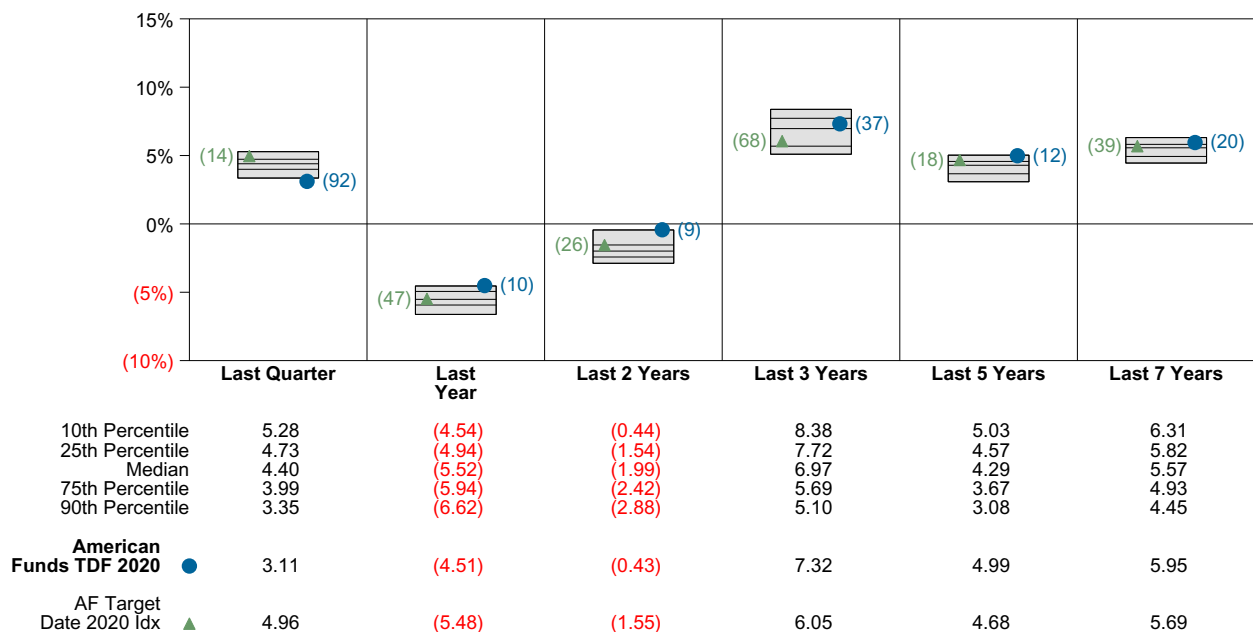
Investment Philosophy

Capital Group's Target Date philosophy is distinguished by four key beliefs: 1) They believe that solid research is fundamental to sound investment decisions - their companies employ teams of analysts who regularly gather in-depth, first-hand information on markets and companies around the globe; 2) they believe that an investment decision should not be made lightly - in addition to providing extensive research, their investment professionals go to great lengths to determine the difference between the fundamental value of a company and its price in the marketplace; 3) they believe in a long-term approach - investment professionals typically target a low turnover of portfolio holdings, and they are compensated according to their investment results over time; and 4) they believe in the value of multiple perspectives - the assets of each fund or portfolio are divided among a number of portfolio managers.

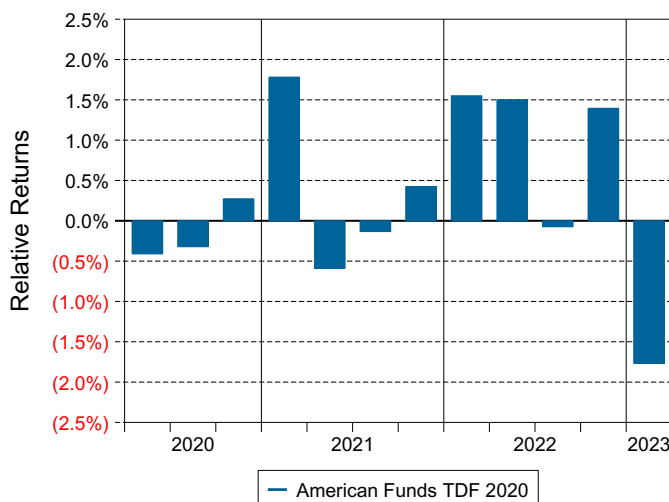
Quarterly Summary and Highlights

- American Funds TDF 2020's portfolio posted a 3.11% return for the quarter placing it in the 92 percentile of the Callan Target Date 2020 group for the quarter and in the 10 percentile for the last year.
- American Funds TDF 2020's portfolio underperformed the AF Target Date 2020 Idx by 1.85% for the quarter and outperformed the AF Target Date 2020 Idx for the year by 0.97%.

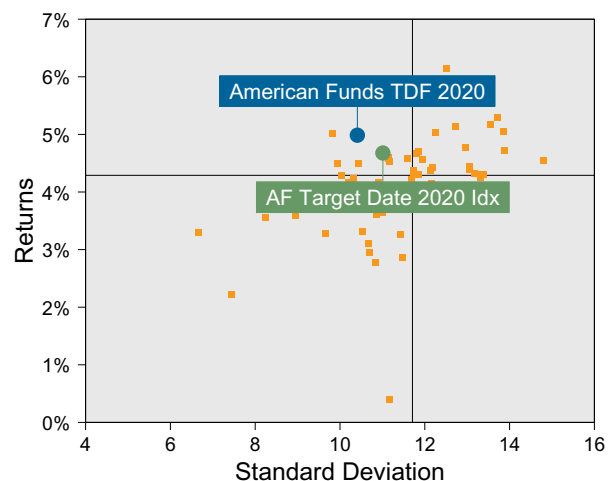
Performance vs Callan Target Date 2020 (Net)



Relative Return vs AF Target Date 2020 Idx



Callan Target Date 2020 (Net) Annualized Five Year Risk vs Return

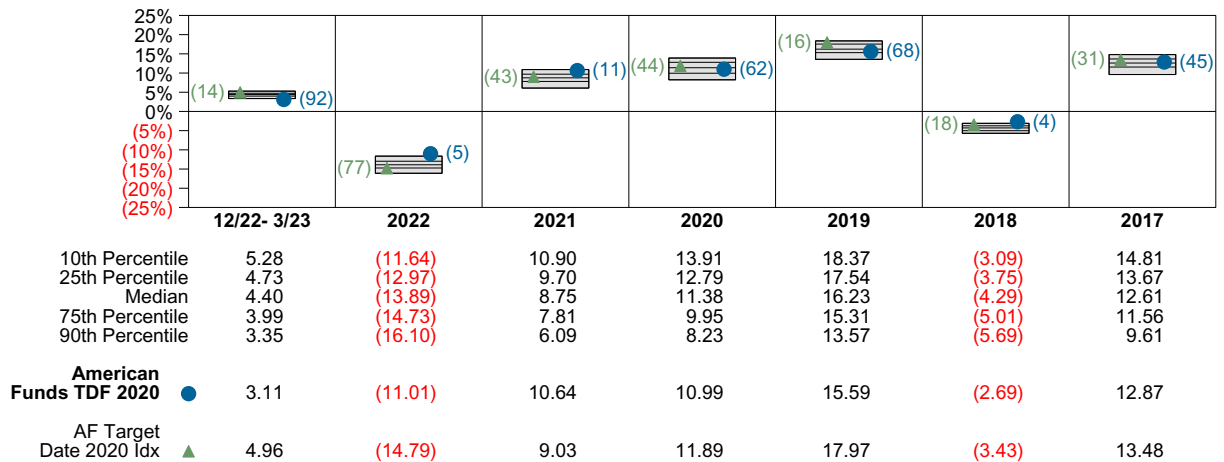


American Funds TDF 2020 Return Analysis Summary

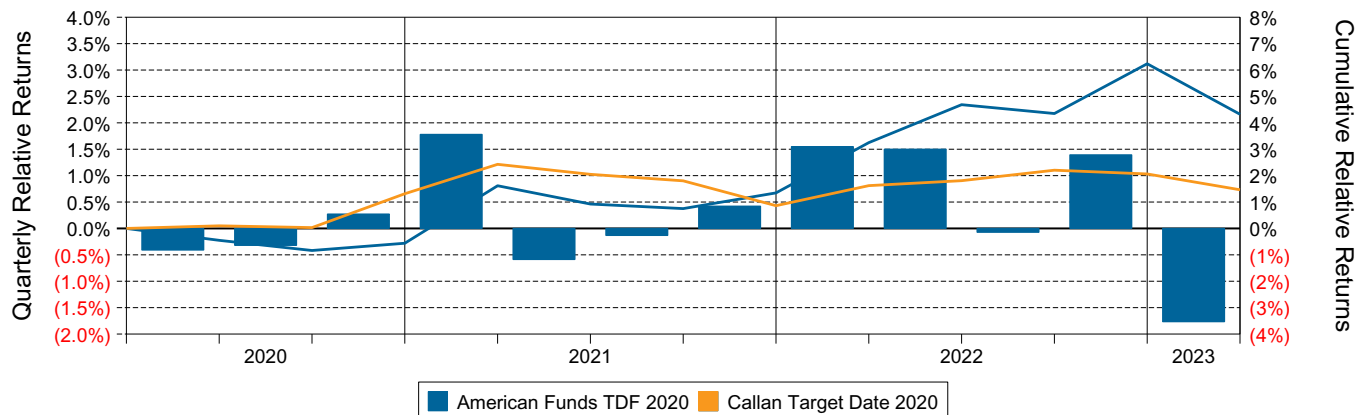
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

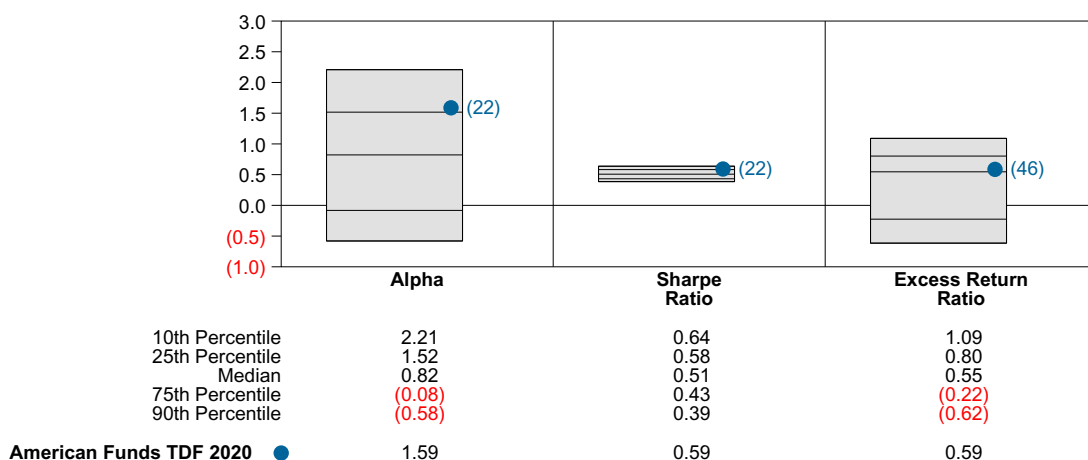
Performance vs Callan Target Date 2020 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2020 Idx



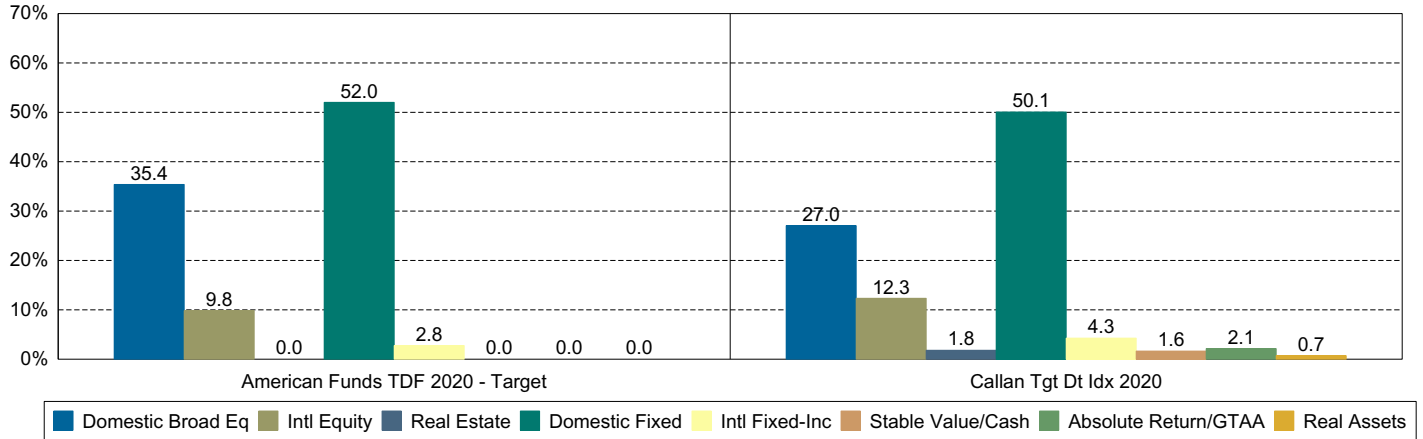
Risk Adjusted Return Measures vs AF Target Date 2020 Idx Rankings Against Callan Target Date 2020 (Net) Three Years Ended March 31, 2023



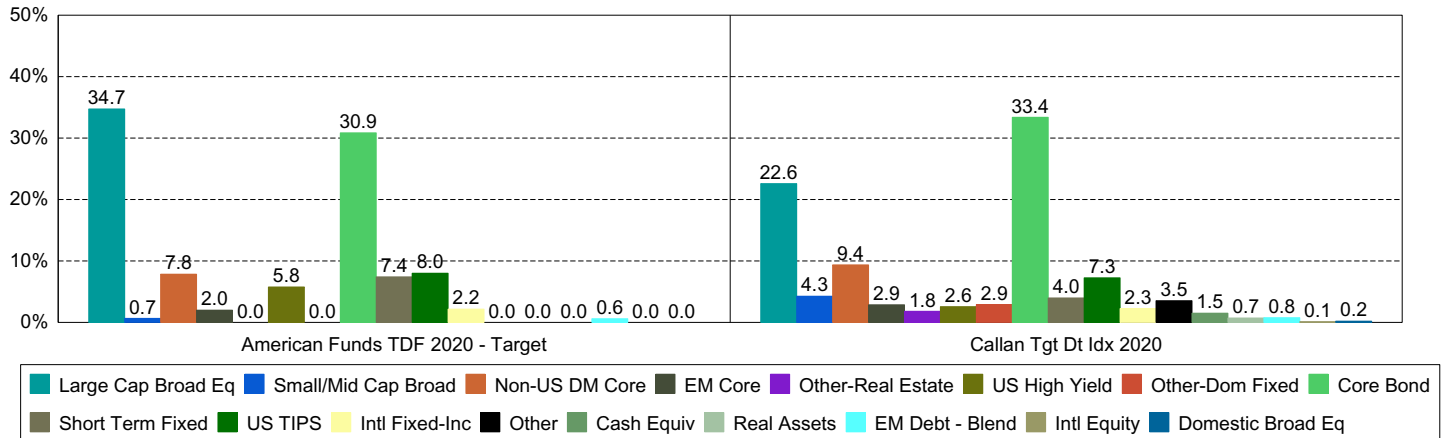
American Funds TDF 2020 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

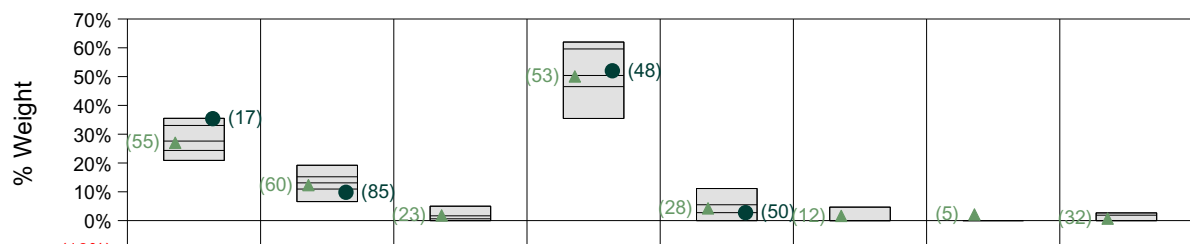
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2020



American Funds TDF 2020 - Target

●	35.39	9.83	-	52.02	2.76	-	-	-
▲	27.05	12.33	1.80	50.06	4.26	1.64	2.14	0.71

American Funds TDF 2025 (RFDTX) Period Ended March 31, 2023

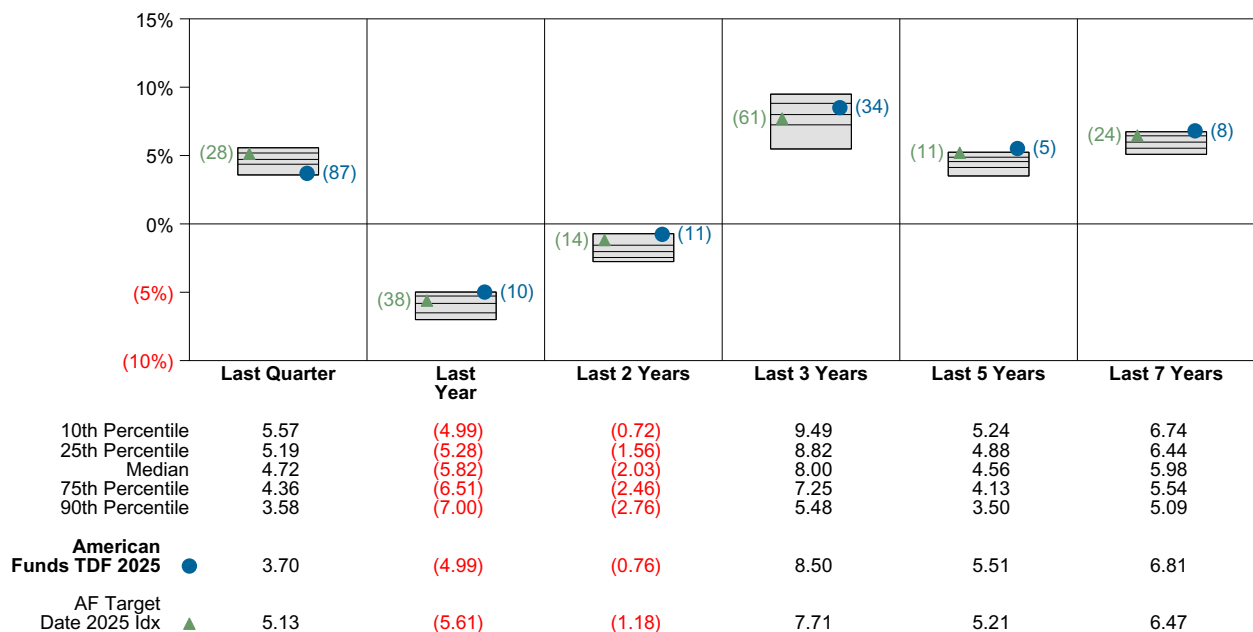
Investment Philosophy

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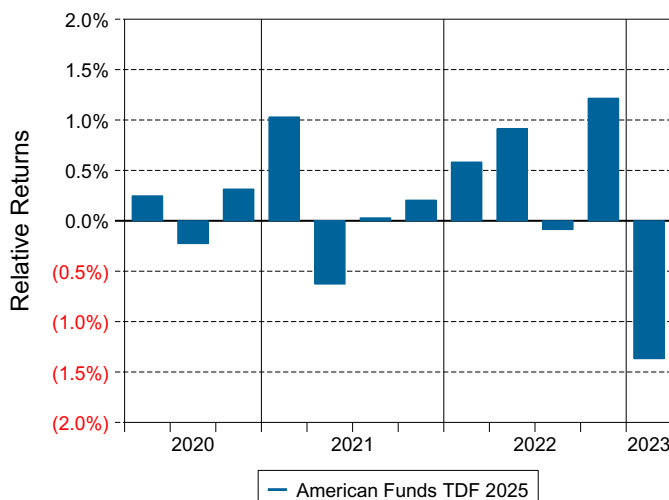
Quarterly Summary and Highlights

- American Funds TDF 2025's portfolio posted a 3.70% return for the quarter placing it in the 87 percentile of the Callan Target Date 2025 group for the quarter and in the 10 percentile for the last year.
- American Funds TDF 2025's portfolio underperformed the AF Target Date 2025 Idx by 1.44% for the quarter and outperformed the AF Target Date 2025 Idx for the year by 0.62%.

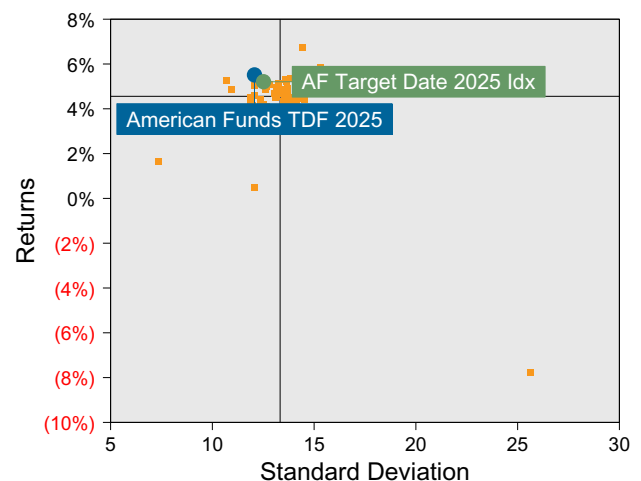
Performance vs Callan Target Date 2025 (Net)



Relative Return vs AF Target Date 2025 Idx



Callan Target Date 2025 (Net) Annualized Five Year Risk vs Return

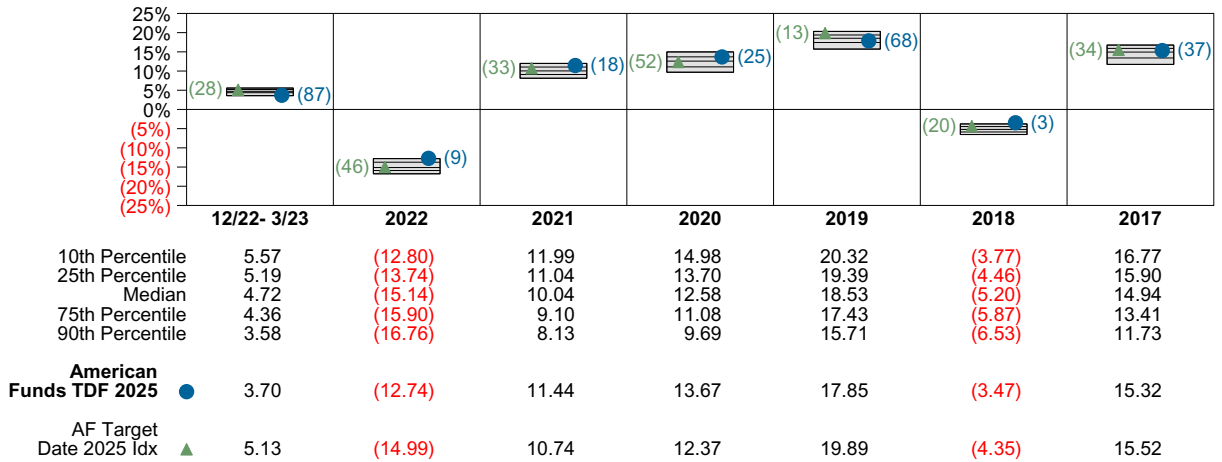


American Funds TDF 2025 Return Analysis Summary

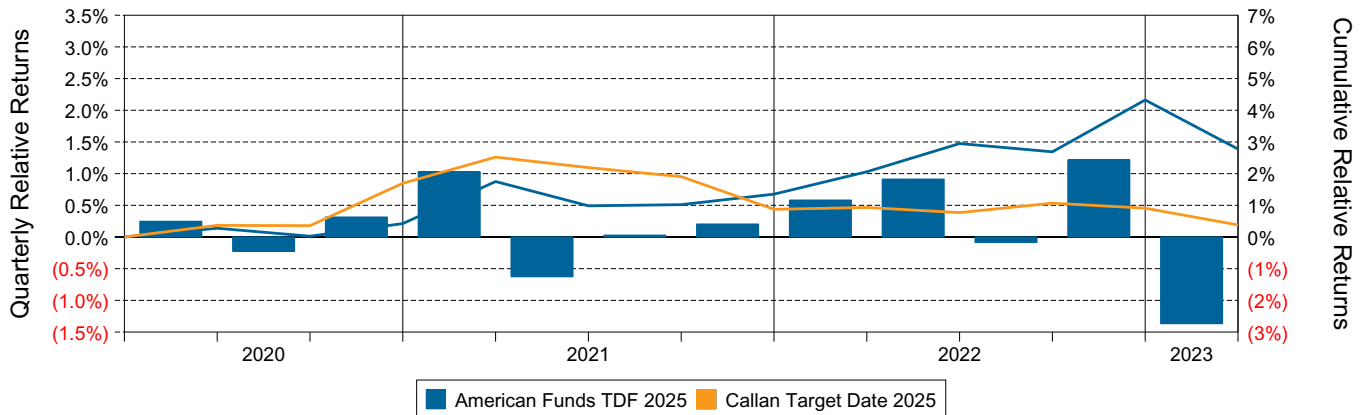
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

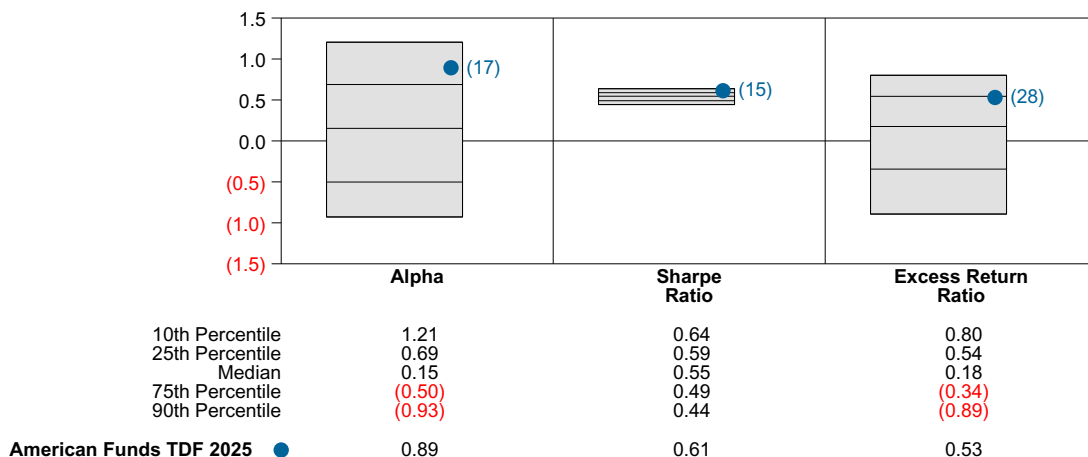
Performance vs Callan Target Date 2025 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2025 Idx



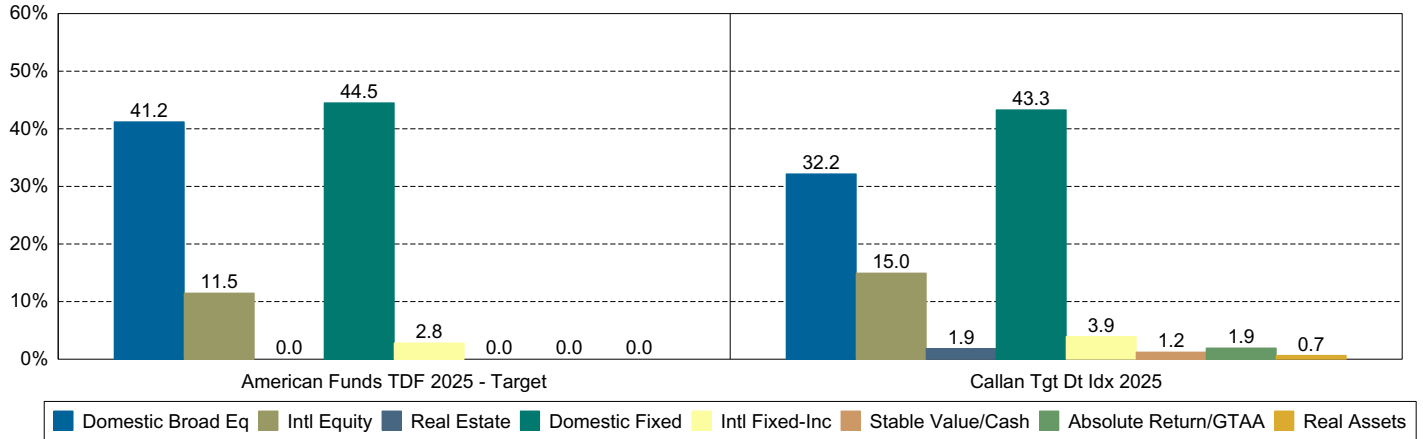
Risk Adjusted Return Measures vs AF Target Date 2025 Idx Rankings Against Callan Target Date 2025 (Net) Three Years Ended March 31, 2023



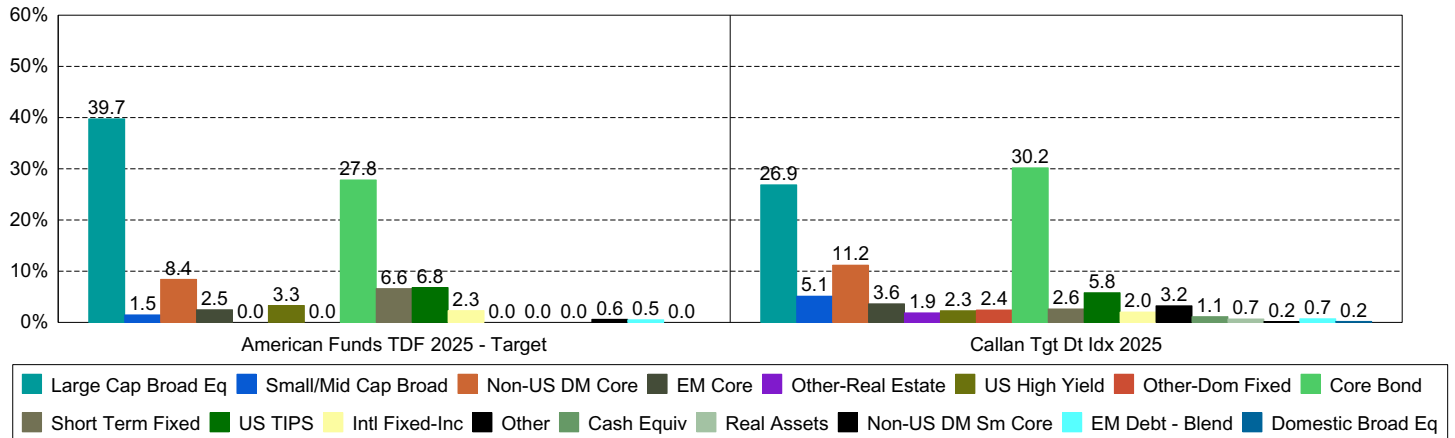
American Funds TDF 2025 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

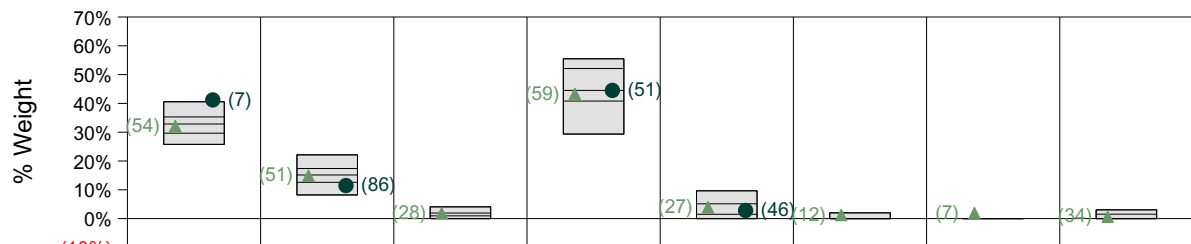
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2025



American Funds TDF 2025 - Target

●	41.21	11.47	-	44.51	2.81	-	-	-
▲	32.17	14.95	1.86	43.29	3.91	1.23	1.94	0.66

American Funds TDF 2030 (RFETX) Period Ended March 31, 2023

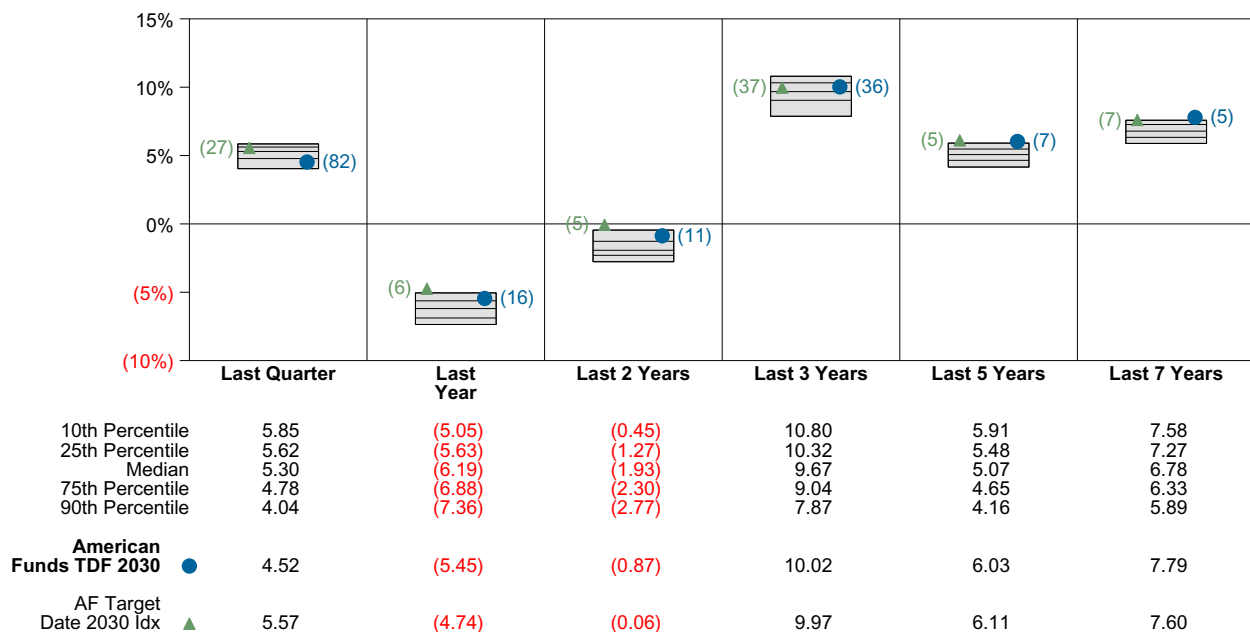
Investment Philosophy

Capital Group's Target Date philosophy is distinguished by four key beliefs: 1) They believe that solid research is fundamental to sound investment decisions - their companies employ teams of analysts who regularly gather in-depth, first-hand information on markets and companies around the globe; 2) they believe that an investment decision should not be made lightly - in addition to providing extensive research, their investment professionals go to great lengths to determine the difference between the fundamental value of a company and its price in the marketplace; 3) they believe in a long-term approach - investment professionals typically target a low turnover of portfolio holdings, and they are compensated according to their investment results over time; and 4) they believe in the value of multiple perspectives - the assets of each fund or portfolio are divided among a number of portfolio managers.

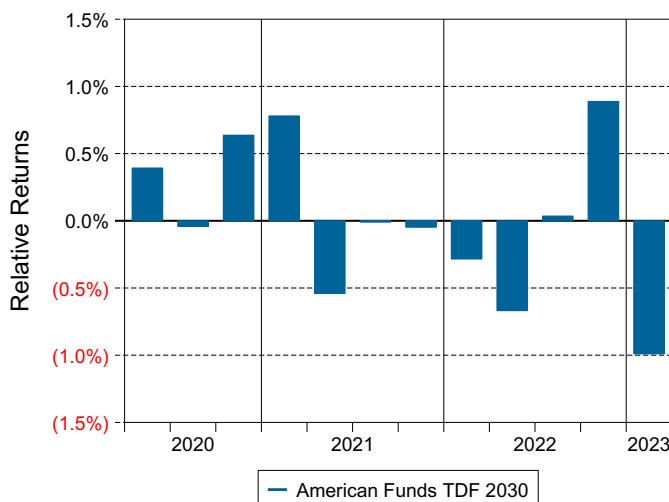
Quarterly Summary and Highlights

- American Funds TDF 2030's portfolio posted a 4.52% return for the quarter placing it in the 82 percentile of the Callan Target Date 2030 group for the quarter and in the 16 percentile for the last year.
- American Funds TDF 2030's portfolio underperformed the AF Target Date 2030 Idx by 1.04% for the quarter and underperformed the AF Target Date 2030 Idx for the year by 0.71%.

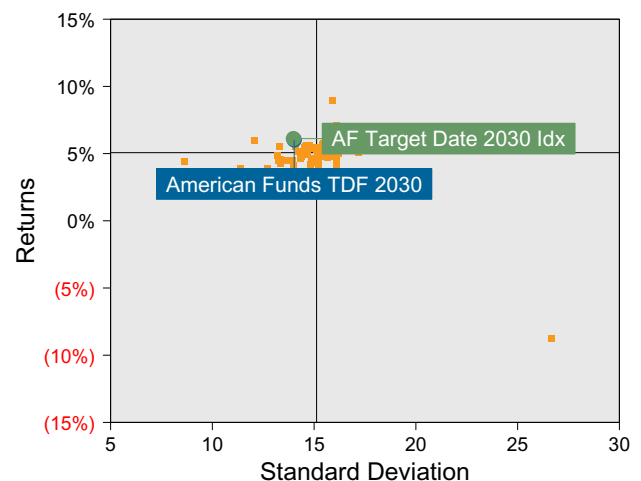
Performance vs Callan Target Date 2030 (Net)



Relative Return vs AF Target Date 2030 Idx



Callan Target Date 2030 (Net) Annualized Five Year Risk vs Return

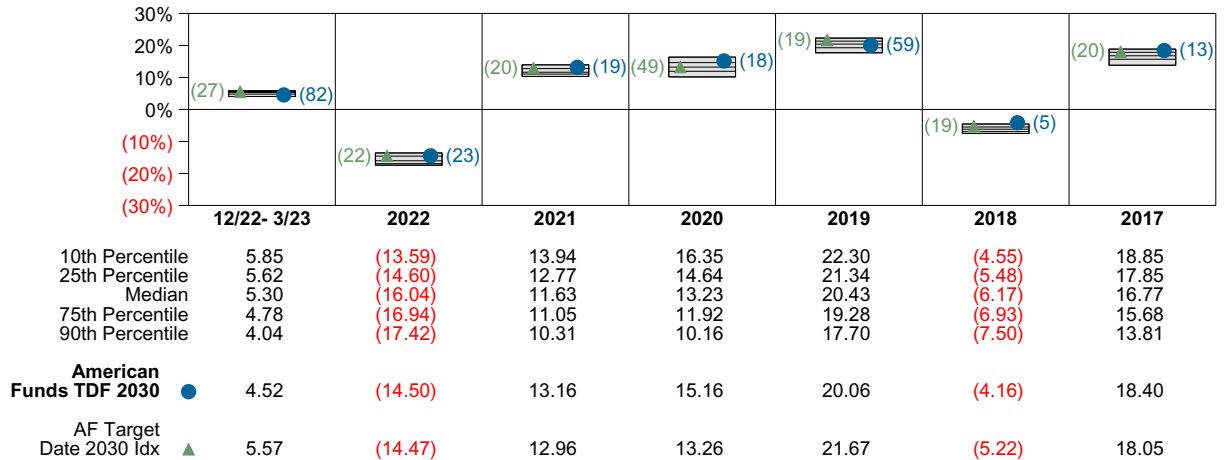


American Funds TDF 2030 Return Analysis Summary

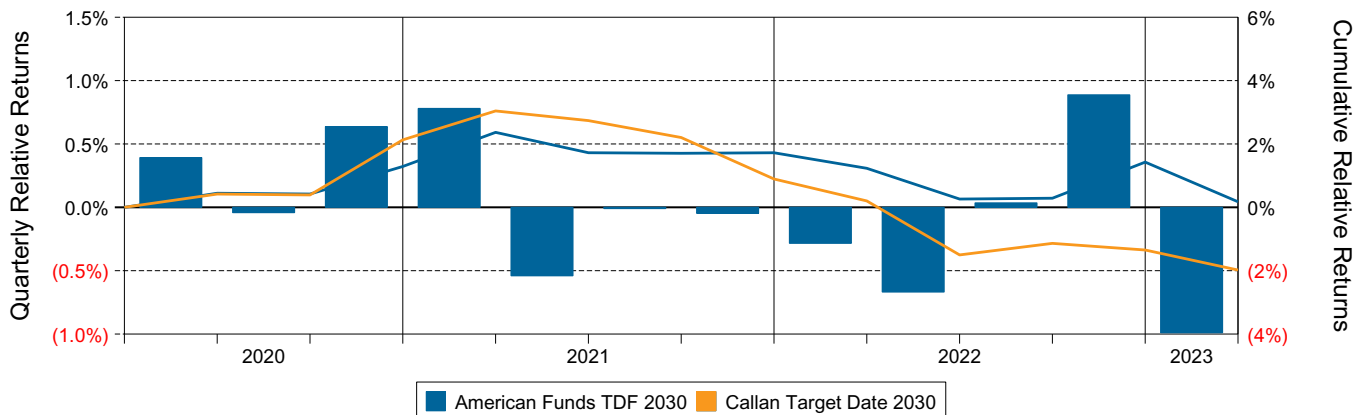
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

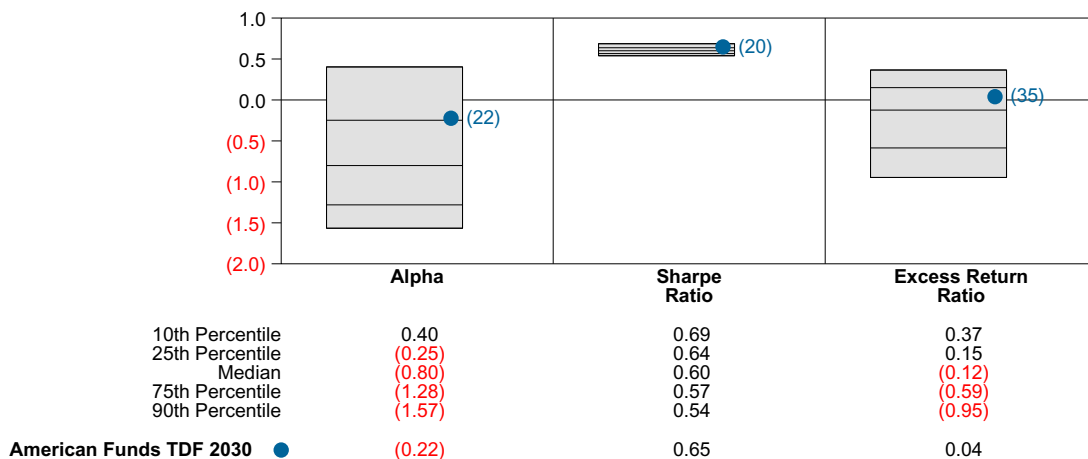
Performance vs Callan Target Date 2030 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2030 Idx



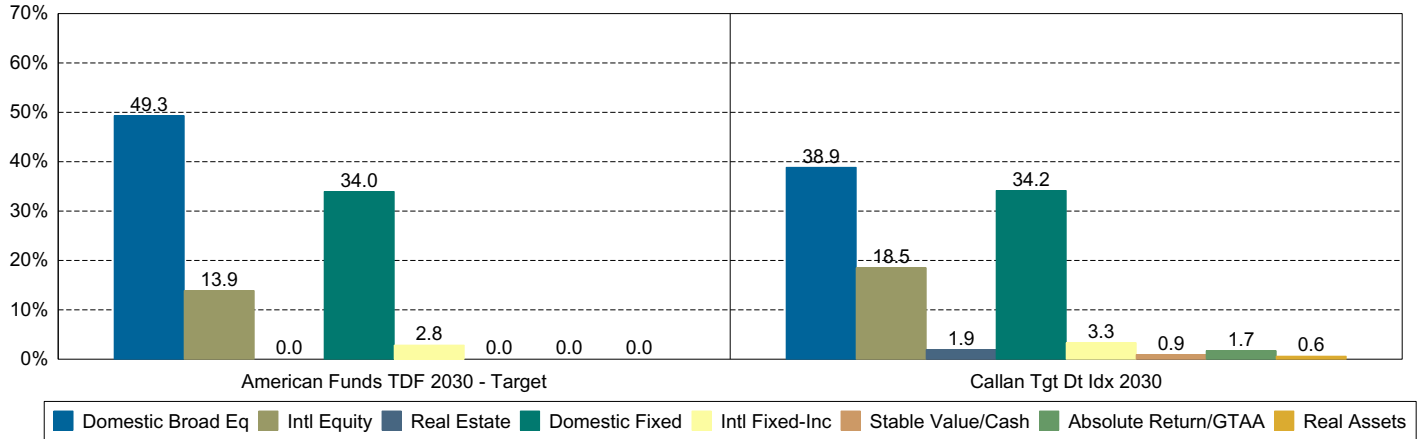
Risk Adjusted Return Measures vs AF Target Date 2030 Idx Rankings Against Callan Target Date 2030 (Net) Three Years Ended March 31, 2023



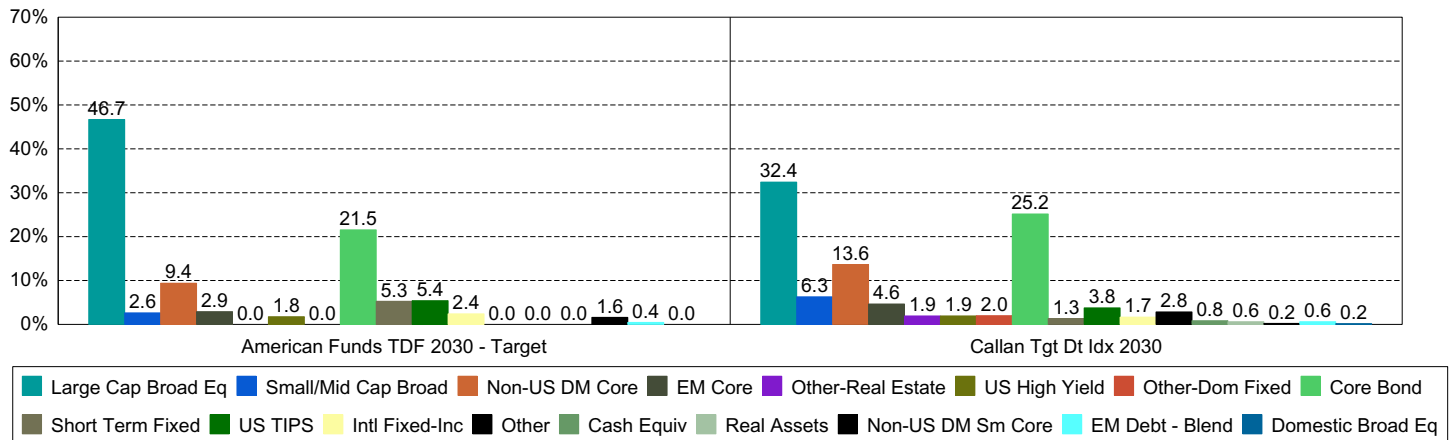
American Funds TDF 2030 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

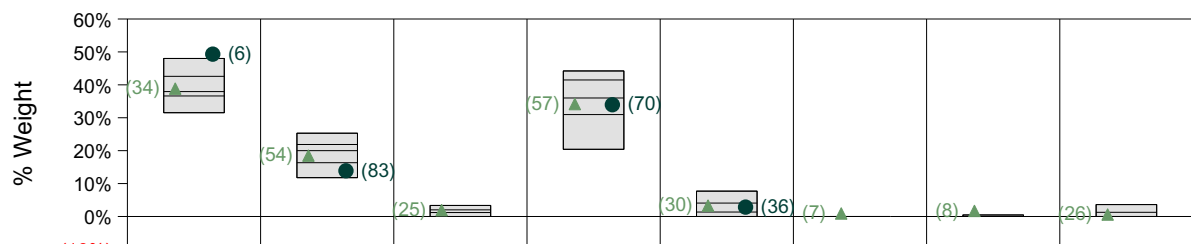
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2030



American Funds TDF 2030 - Target

●	49.32	13.88	-	33.95	2.85	-	-	-
▲	38.86	18.51	1.92	34.16	3.32	0.92	1.70	0.61

American Funds TDF 2035 (RFFTX) Period Ended March 31, 2023

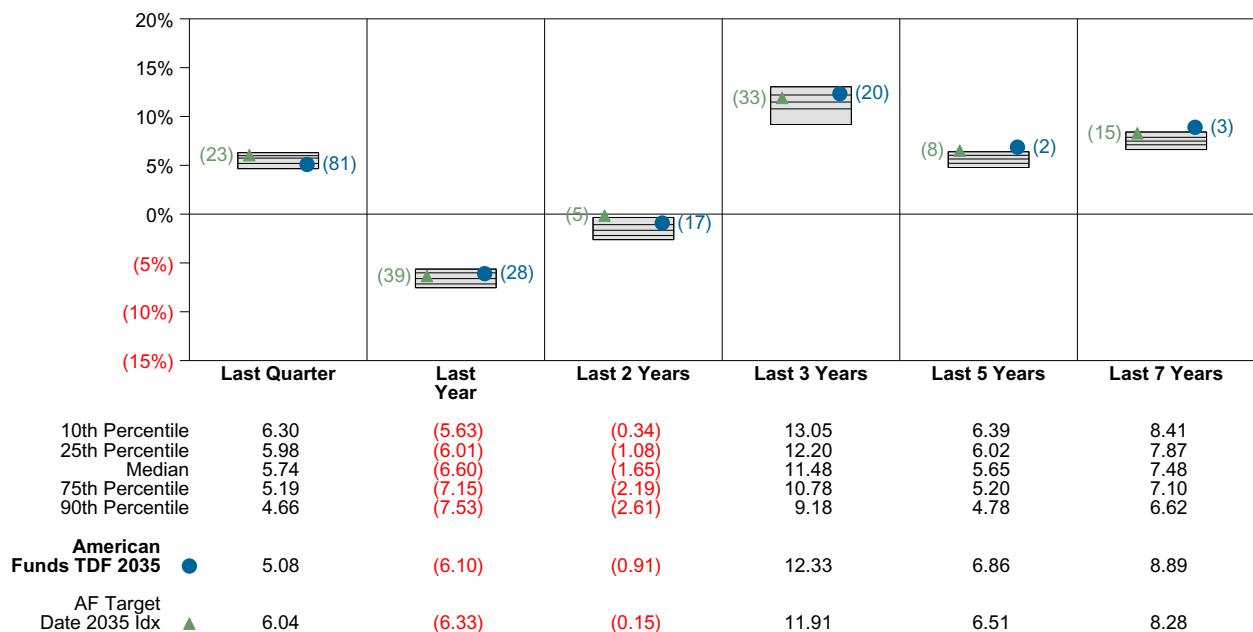
Investment Philosophy

Capital Group's Target Date philosophy is distinguished by four key beliefs: 1) They believe that solid research is fundamental to sound investment decisions - their companies employ teams of analysts who regularly gather in-depth, first-hand information on markets and companies around the globe; 2) they believe that an investment decision should not be made lightly - in addition to providing extensive research, their investment professionals go to great lengths to determine the difference between the fundamental value of a company and its price in the marketplace; 3) they believe in a long-term approach - investment professionals typically target a low turnover of portfolio holdings, and they are compensated according to their investment results over time; and 4) they believe in the value of multiple perspectives - the assets of each fund or portfolio are divided among a number of portfolio managers.

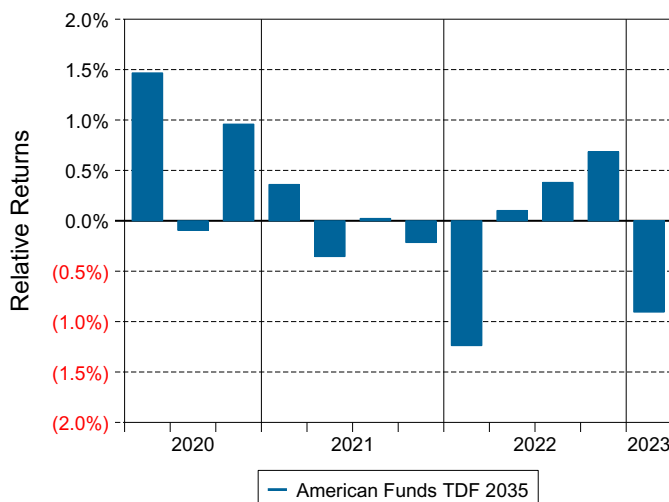
Quarterly Summary and Highlights

- American Funds TDF 2035's portfolio posted a 5.08% return for the quarter placing it in the 81 percentile of the Callan Target Date 2035 group for the quarter and in the 28 percentile for the last year.
- American Funds TDF 2035's portfolio underperformed the AF Target Date 2035 Idx by 0.96% for the quarter and outperformed the AF Target Date 2035 Idx for the year by 0.24%.

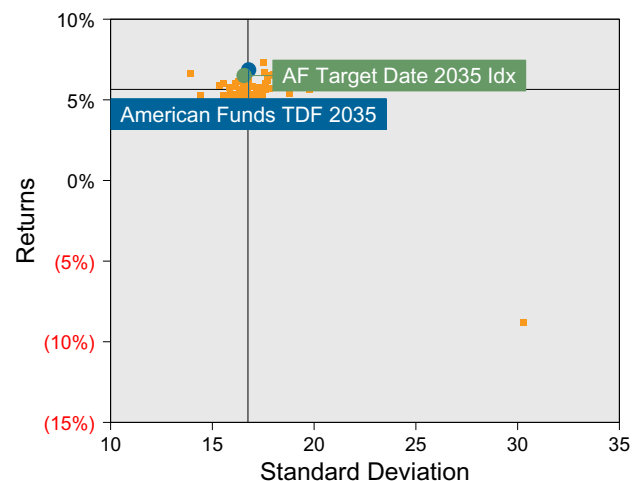
Performance vs Callan Target Date 2035 (Net)



Relative Return vs AF Target Date 2035 Idx



Callan Target Date 2035 (Net) Annualized Five Year Risk vs Return

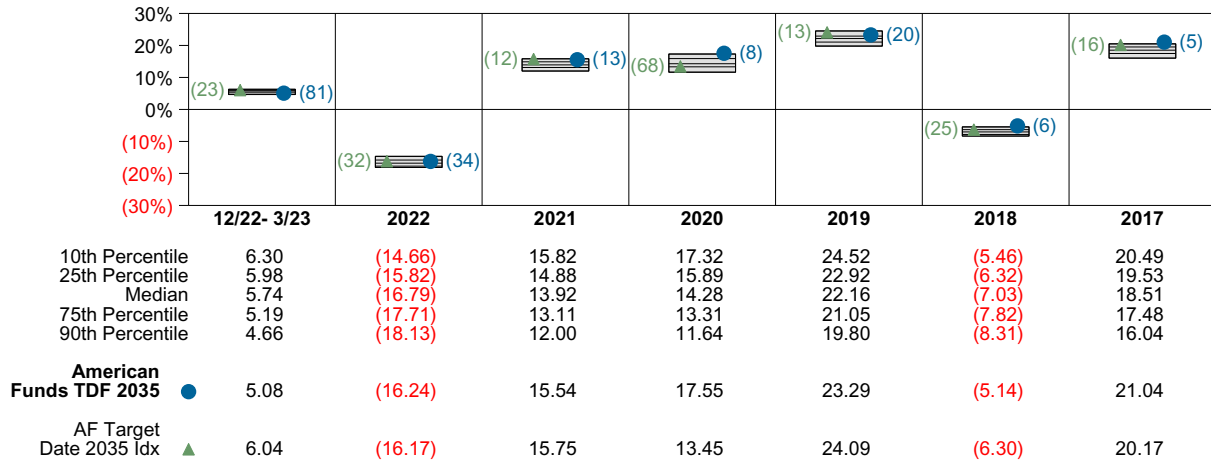


American Funds TDF 2035 Return Analysis Summary

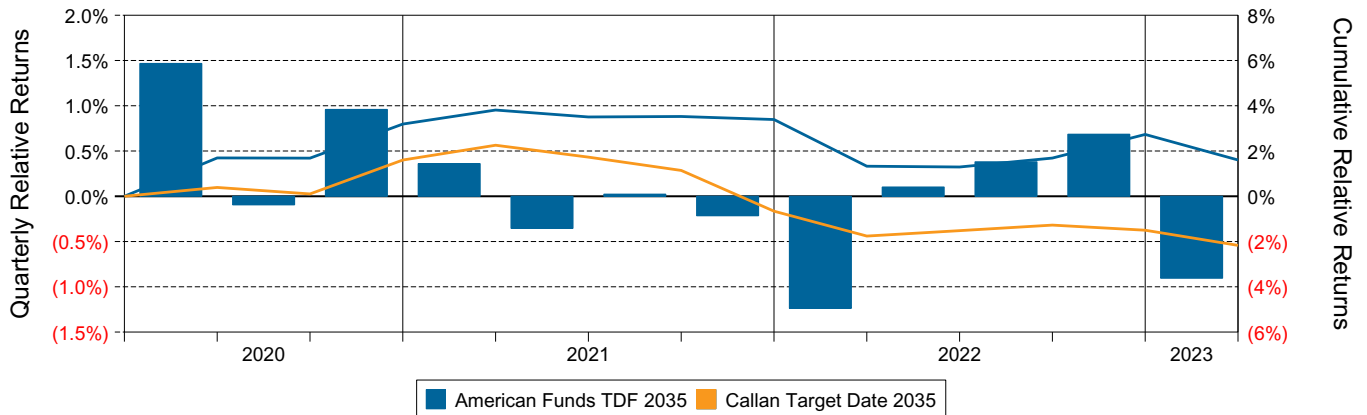
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

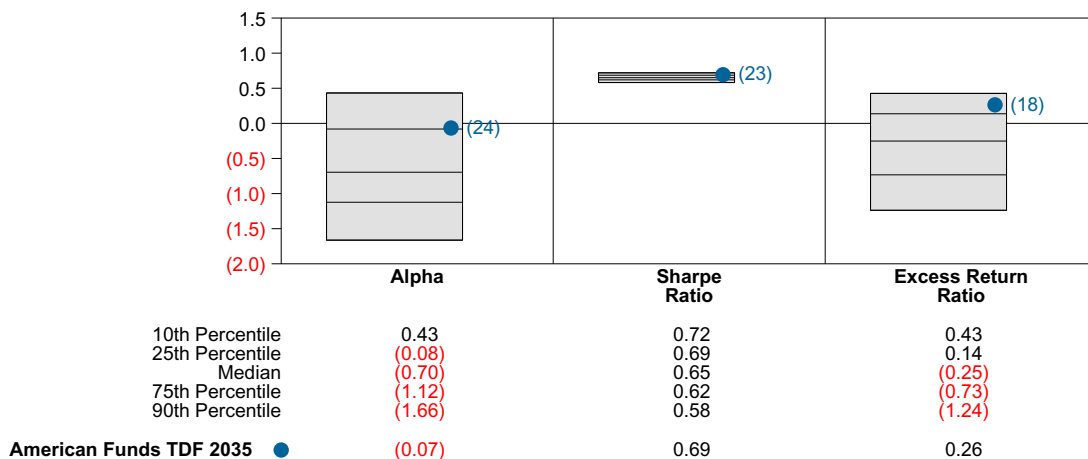
Performance vs Callan Target Date 2035 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2035 Idx



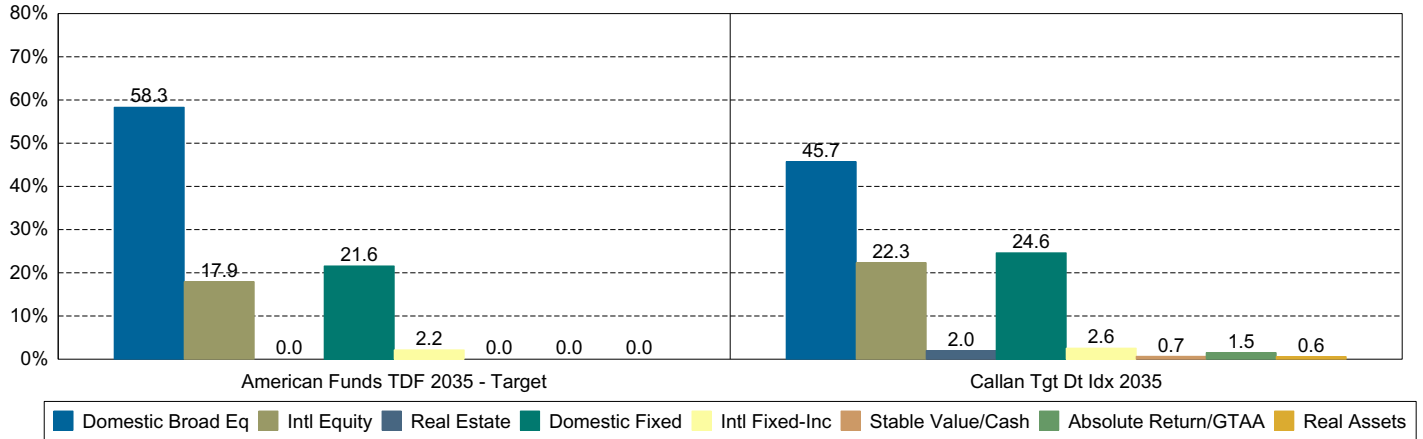
Risk Adjusted Return Measures vs AF Target Date 2035 Idx Rankings Against Callan Target Date 2035 (Net) Three Years Ended March 31, 2023



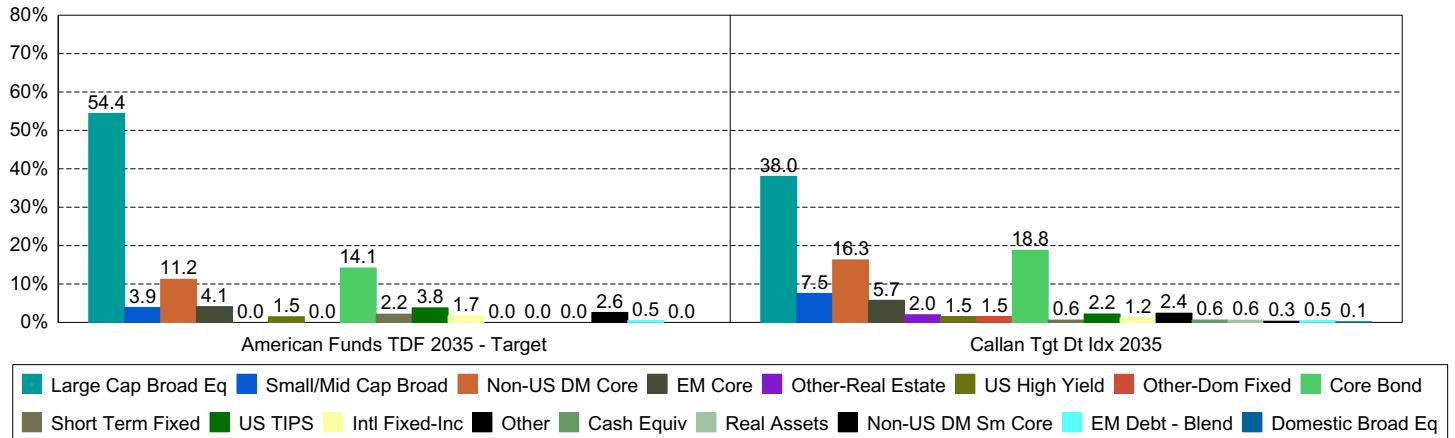
American Funds TDF 2035 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

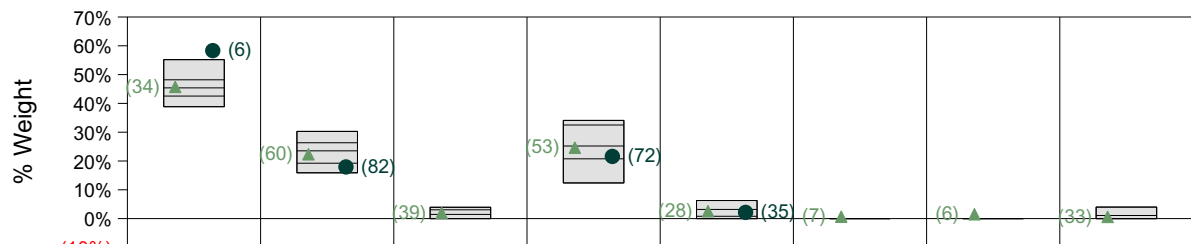
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2035



American Funds TDF 2035 - Target

●	58.32	17.94	-	21.58	2.16	-	-	-
Callan Tgt Dt Idx 2035 ▲	45.72	22.33	2.00	24.63	2.56	0.67	1.51	0.59

American Funds TDF 2040 (RFGTX) Period Ended March 31, 2023

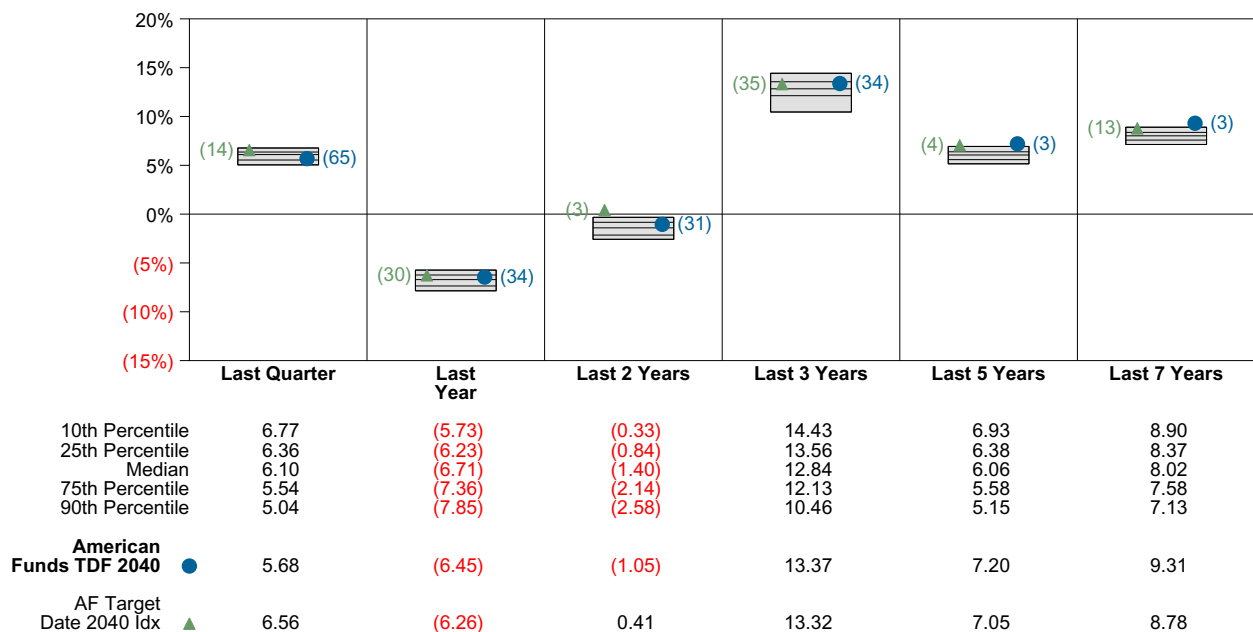
Investment Philosophy

Capital Group's Target Date philosophy is distinguished by four key beliefs: 1) They believe that solid research is fundamental to sound investment decisions - their companies employ teams of analysts who regularly gather in-depth, first-hand information on markets and companies around the globe; 2) they believe that an investment decision should not be made lightly - in addition to providing extensive research, their investment professionals go to great lengths to determine the difference between the fundamental value of a company and its price in the marketplace; 3) they believe in a long-term approach - investment professionals typically target a low turnover of portfolio holdings, and they are compensated according to their investment results over time; and 4) they believe in the value of multiple perspectives - the assets of each fund or portfolio are divided among a number of portfolio managers.

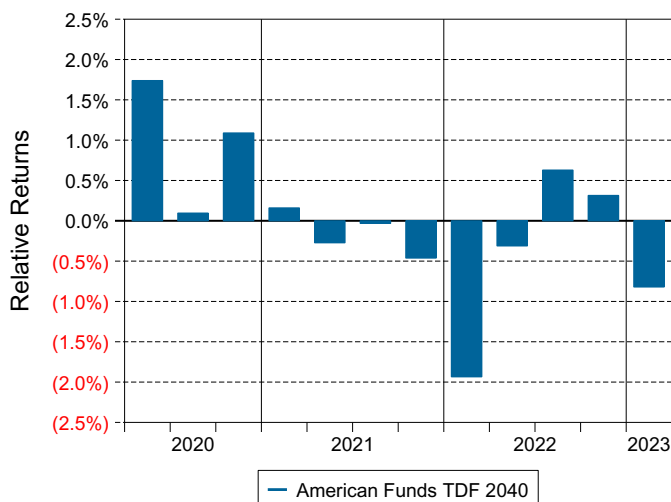
Quarterly Summary and Highlights

- American Funds TDF 2040's portfolio posted a 5.68% return for the quarter placing it in the 65 percentile of the Callan Target Date 2040 group for the quarter and in the 34 percentile for the last year.
- American Funds TDF 2040's portfolio underperformed the AF Target Date 2040 Idx by 0.87% for the quarter and underperformed the AF Target Date 2040 Idx for the year by 0.18%.

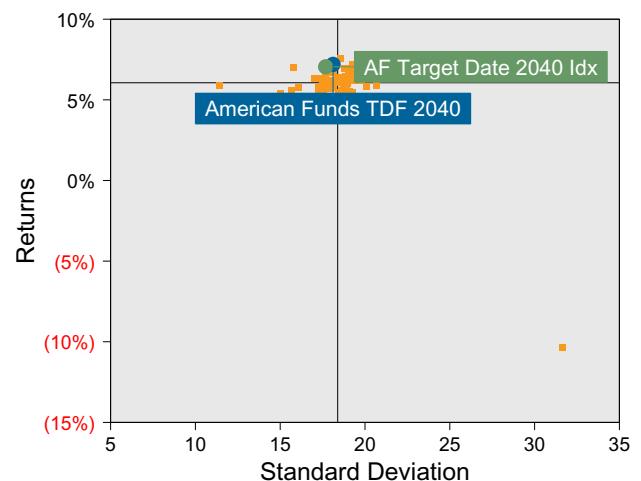
Performance vs Callan Target Date 2040 (Net)



Relative Return vs AF Target Date 2040 Idx



Callan Target Date 2040 (Net) Annualized Five Year Risk vs Return

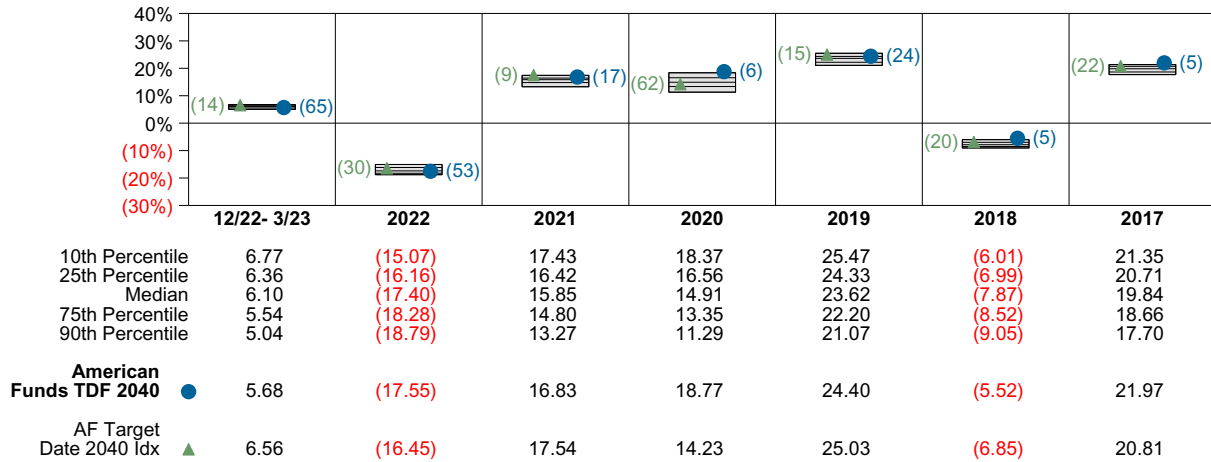


American Funds TDF 2040 Return Analysis Summary

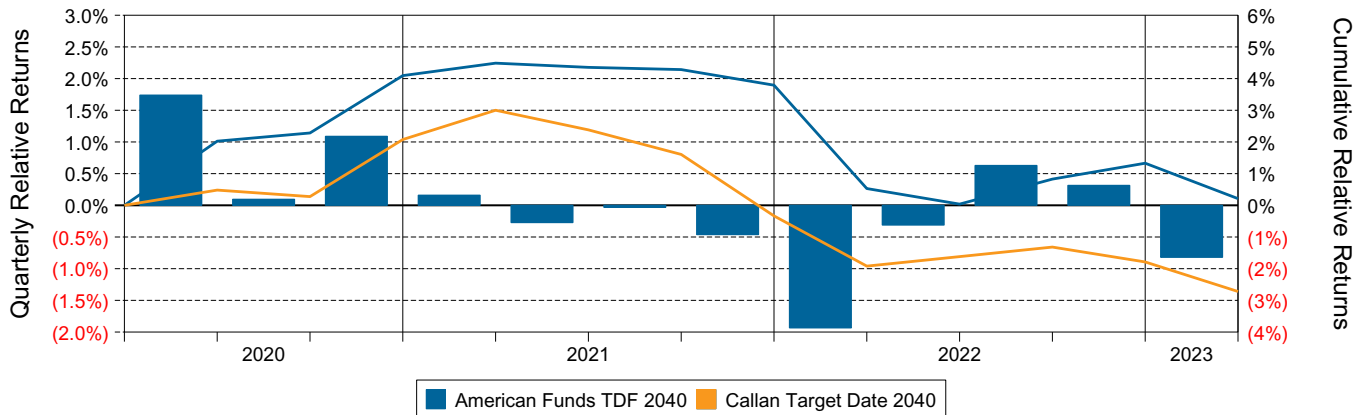
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

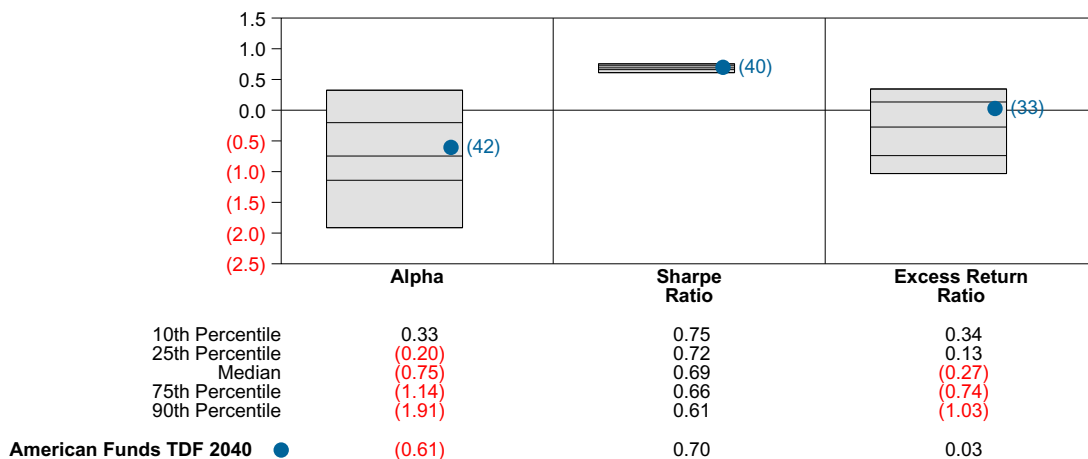
Performance vs Callan Target Date 2040 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2040 Idx



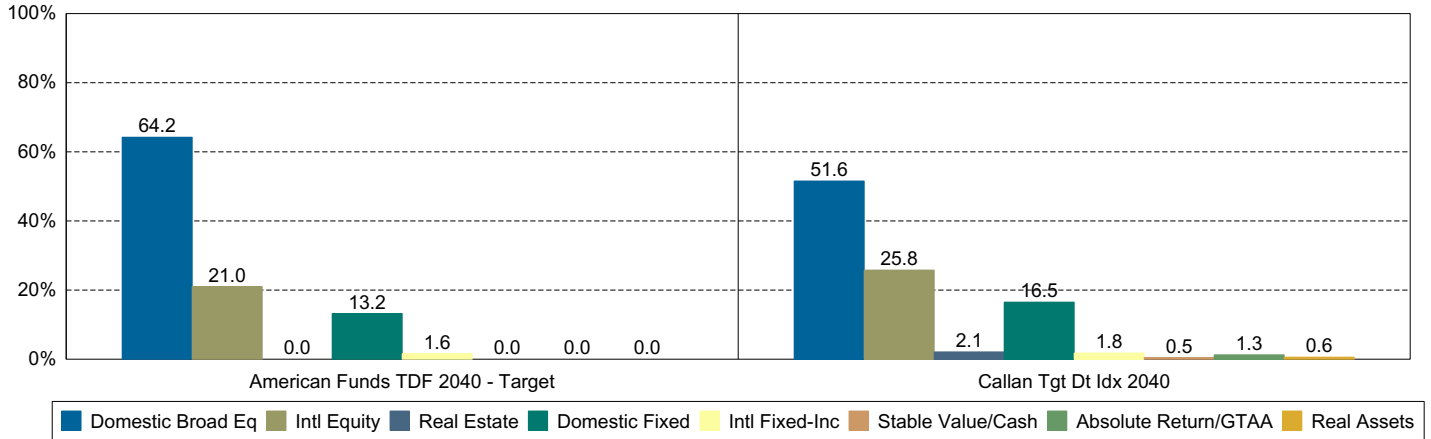
Risk Adjusted Return Measures vs AF Target Date 2040 Idx Rankings Against Callan Target Date 2040 (Net) Three Years Ended March 31, 2023



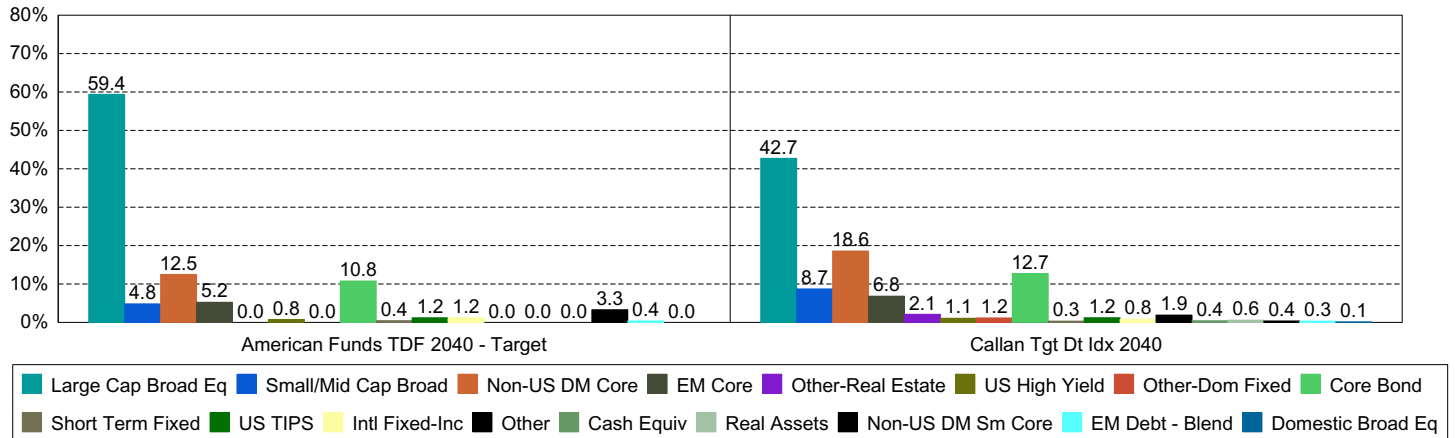
American Funds TDF 2040 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

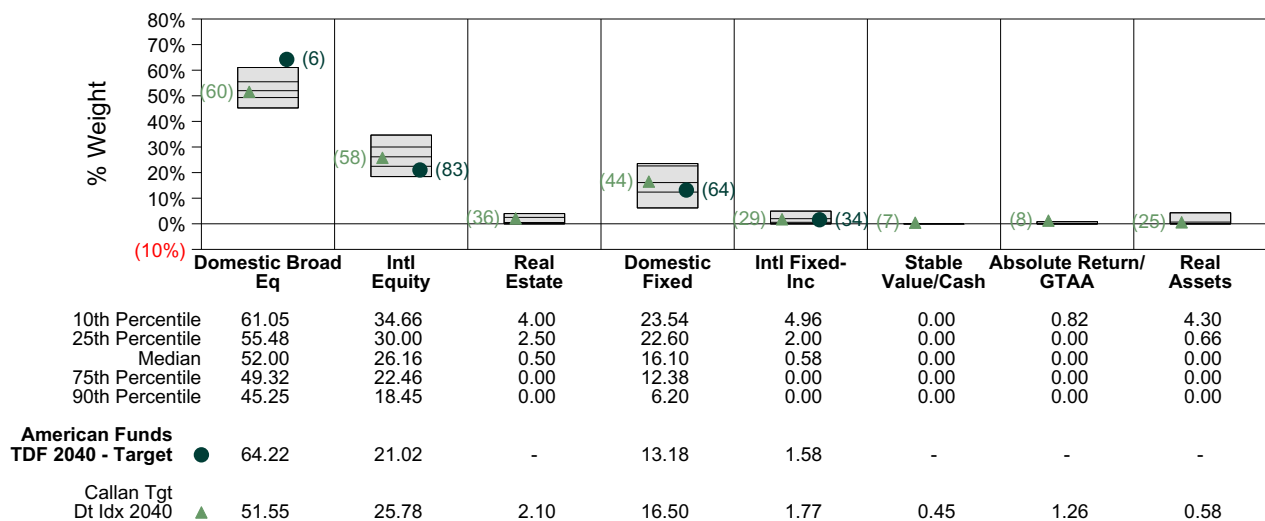
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2040



American Funds TDF 2045 (RFHTX) Period Ended March 31, 2023

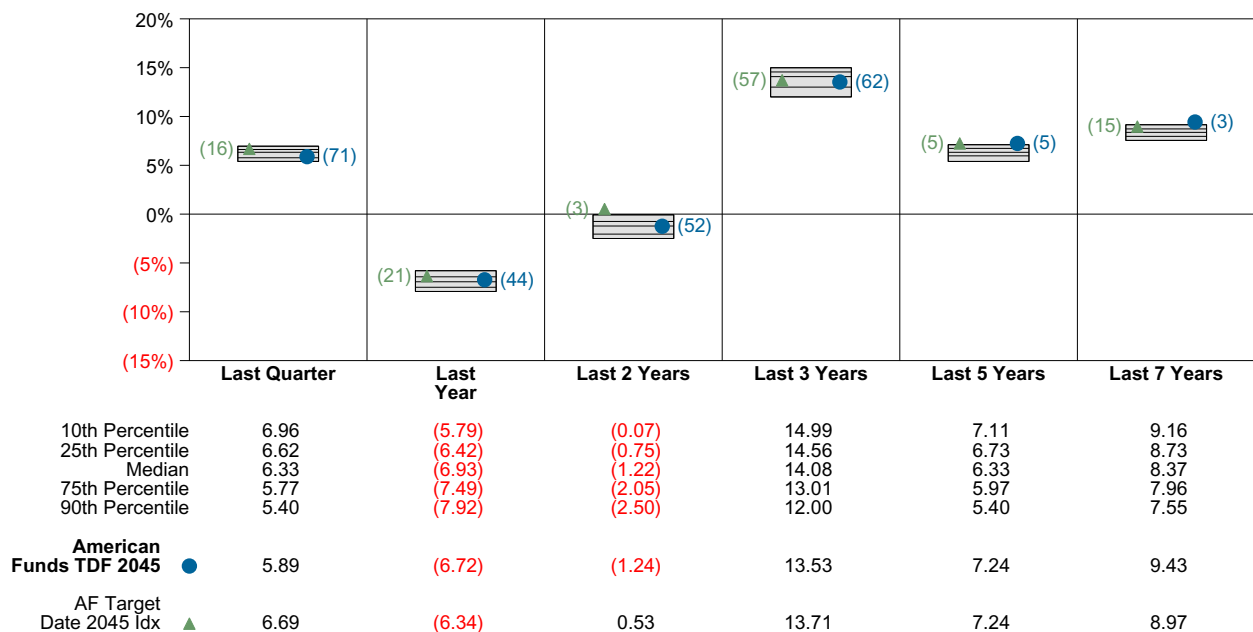
Investment Philosophy

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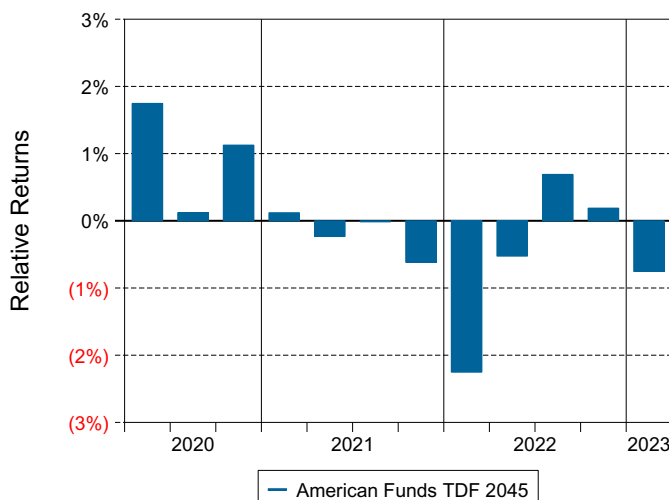
Quarterly Summary and Highlights

- American Funds TDF 2045's portfolio posted a 5.89% return for the quarter placing it in the 71 percentile of the Callan Target Date 2045 group for the quarter and in the 44 percentile for the last year.
- American Funds TDF 2045's portfolio underperformed the AF Target Date 2045 Idx by 0.80% for the quarter and underperformed the AF Target Date 2045 Idx for the year by 0.38%.

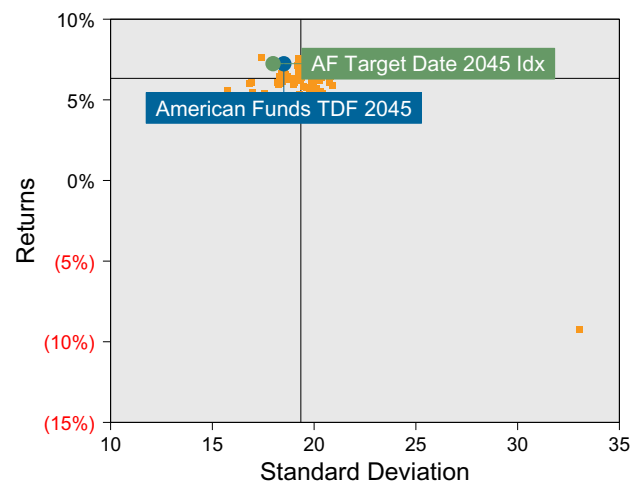
Performance vs Callan Target Date 2045 (Net)



Relative Return vs AF Target Date 2045 Idx



Callan Target Date 2045 (Net) Annualized Five Year Risk vs Return

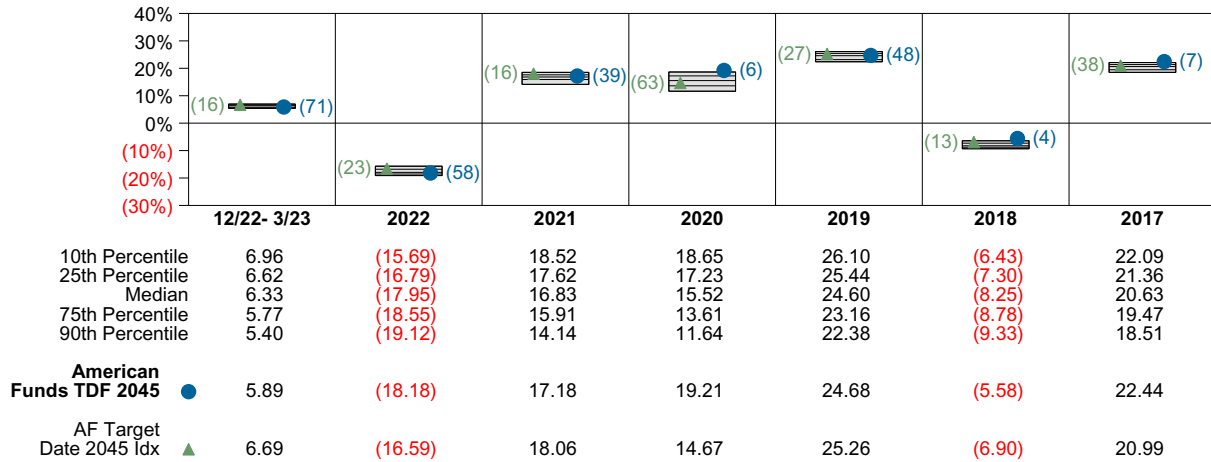


American Funds TDF 2045 Return Analysis Summary

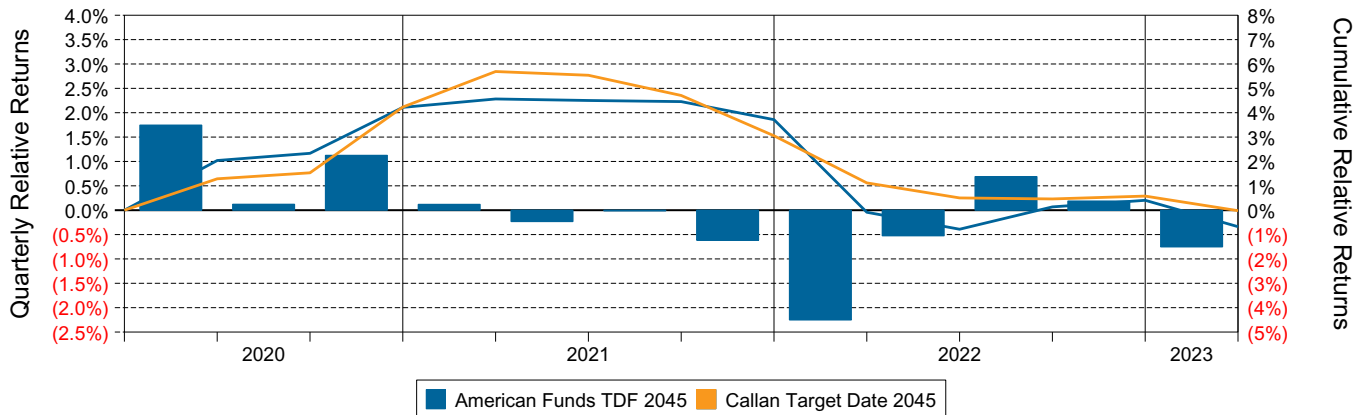
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

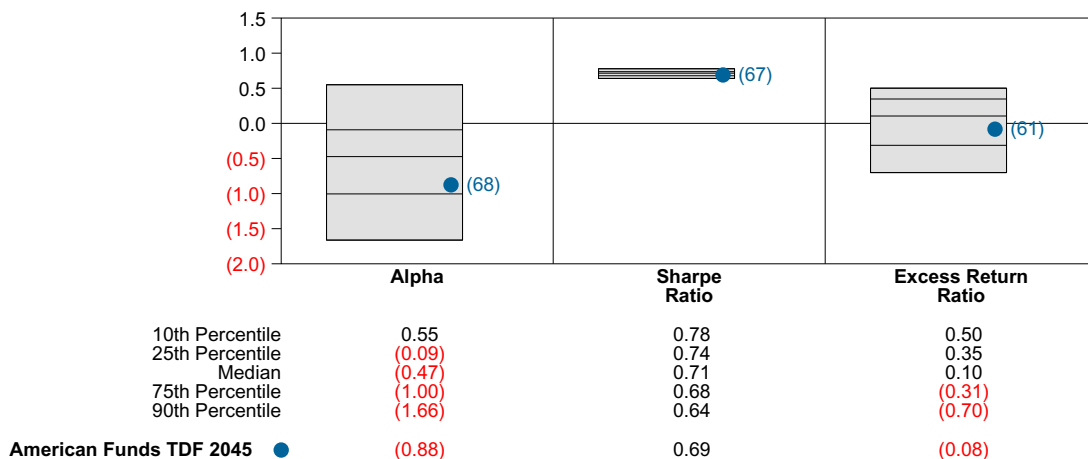
Performance vs Callan Target Date 2045 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2045 Idx



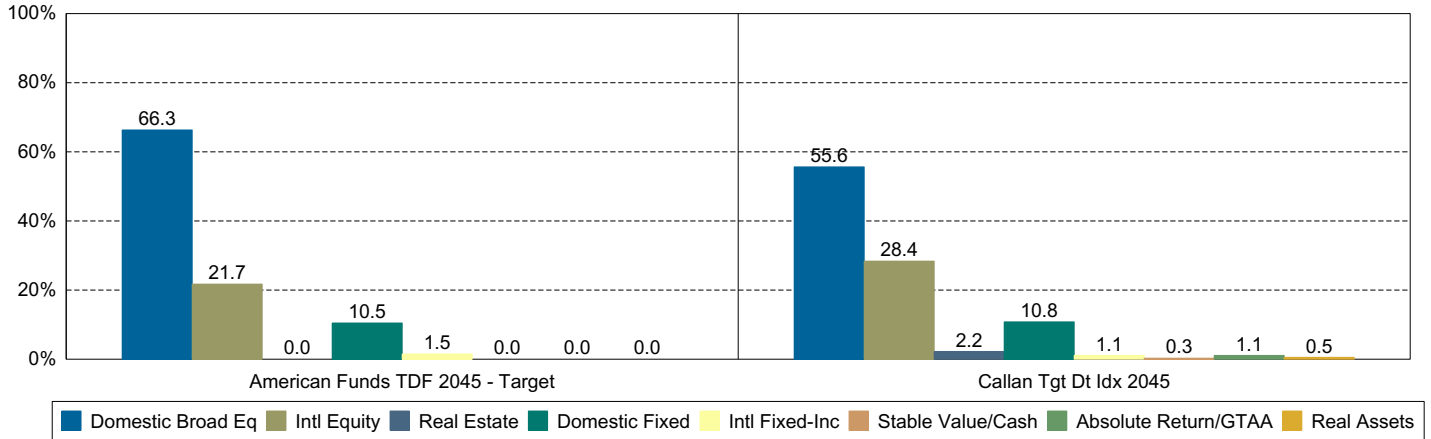
Risk Adjusted Return Measures vs AF Target Date 2045 Idx Rankings Against Callan Target Date 2045 (Net) Three Years Ended March 31, 2023



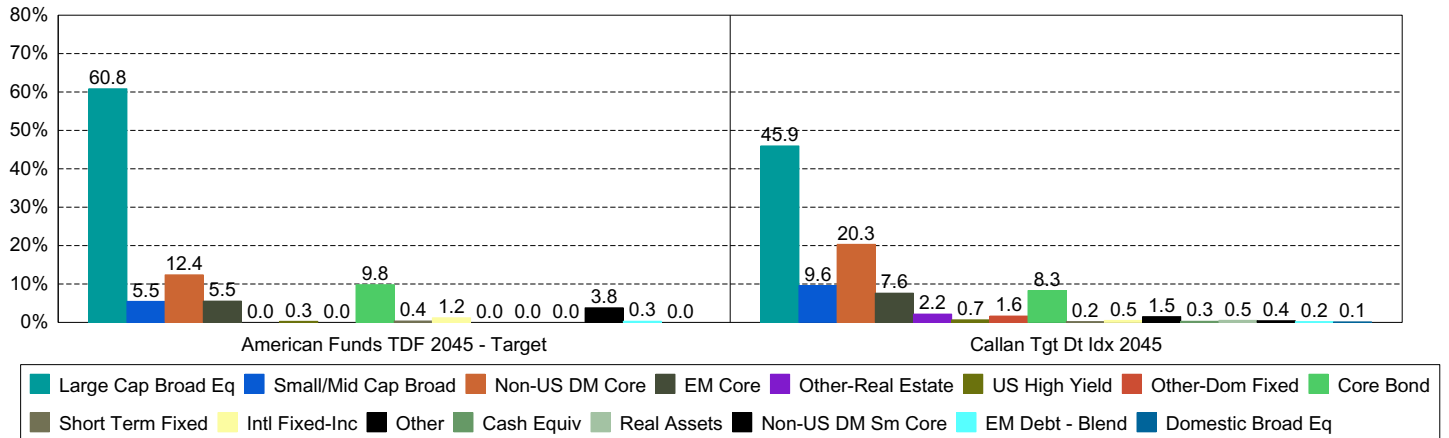
American Funds TDF 2045 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

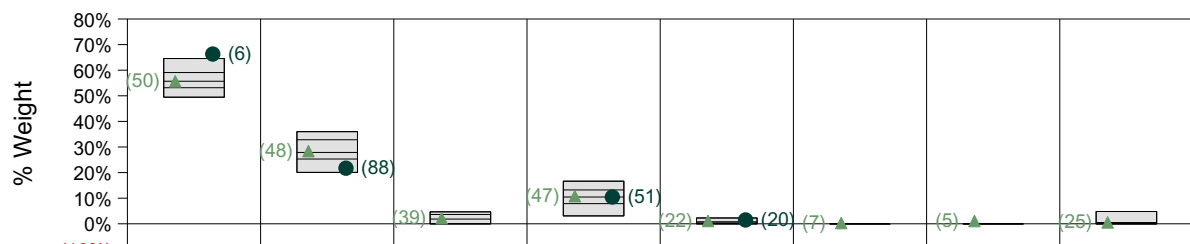
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2045



American Funds TDF 2045 - Target

●	66.32	21.72	-	10.46	1.50	-	-	-
▲	55.64	28.37	2.16	10.79	1.11	0.30	1.09	0.54

American Funds TDF 2050 (RFITX) Period Ended March 31, 2023

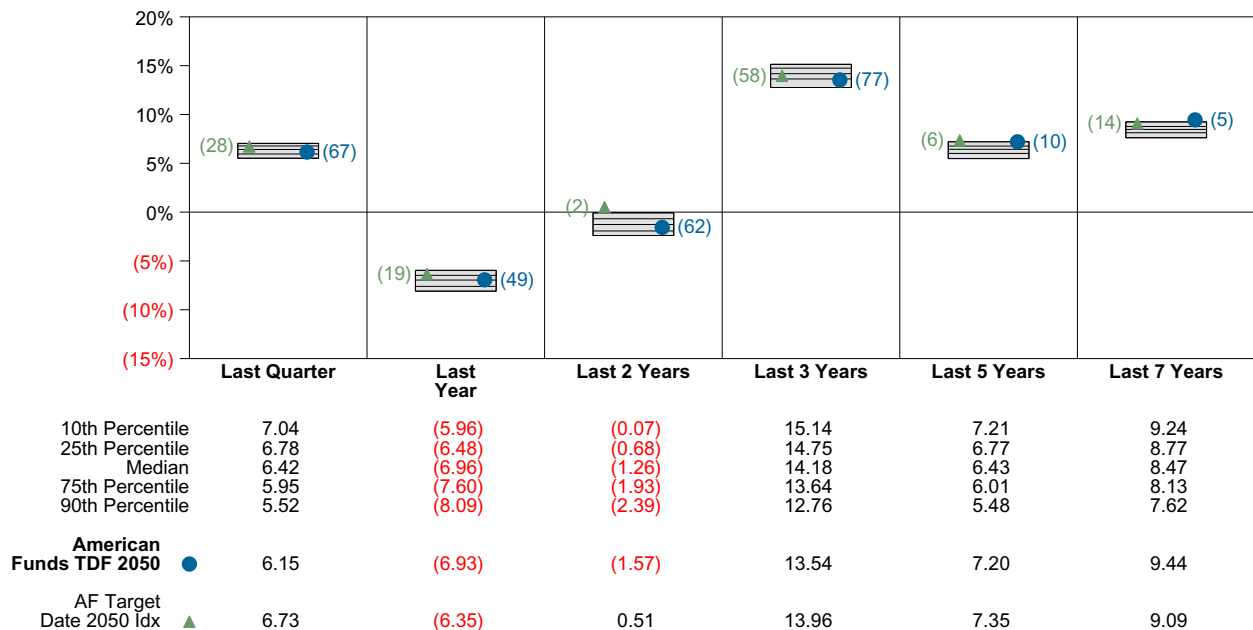
Investment Philosophy

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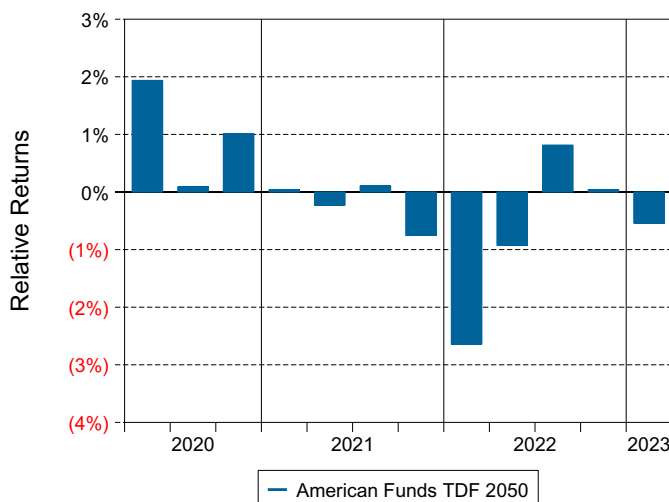
Quarterly Summary and Highlights

- American Funds TDF 2050's portfolio posted a 6.15% return for the quarter placing it in the 67 percentile of the Callan Target Date 2050 group for the quarter and in the 49 percentile for the last year.
- American Funds TDF 2050's portfolio underperformed the AF Target Date 2050 Idx by 0.58% for the quarter and underperformed the AF Target Date 2050 Idx for the year by 0.58%.

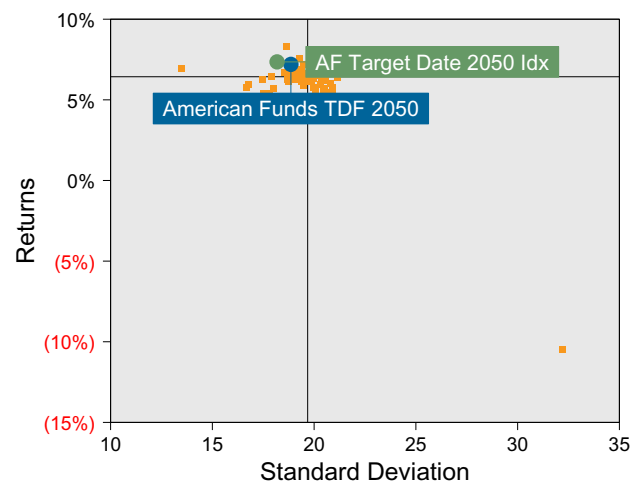
Performance vs Callan Target Date 2050 (Net)



Relative Return vs AF Target Date 2050 Idx



Callan Target Date 2050 (Net) Annualized Five Year Risk vs Return

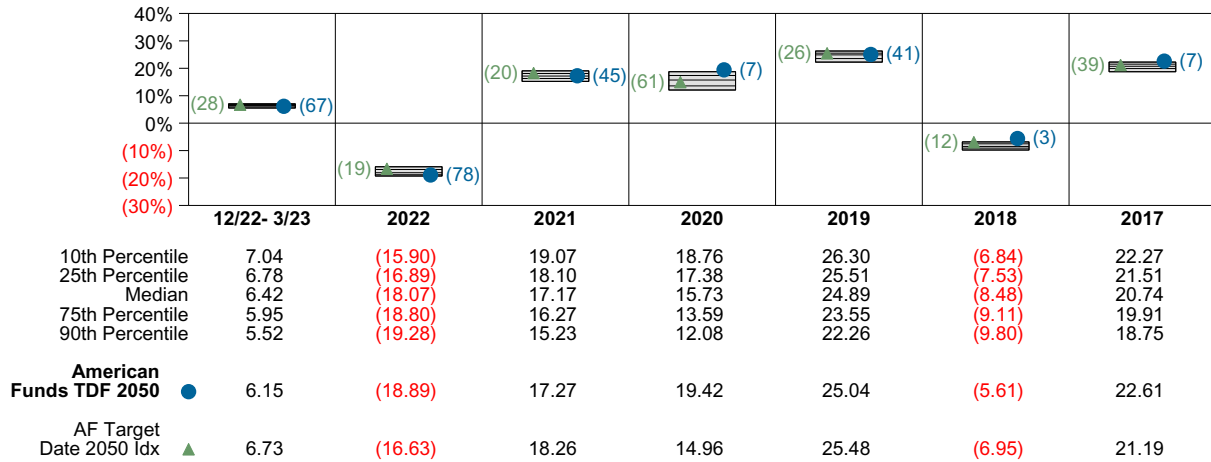


American Funds TDF 2050 Return Analysis Summary

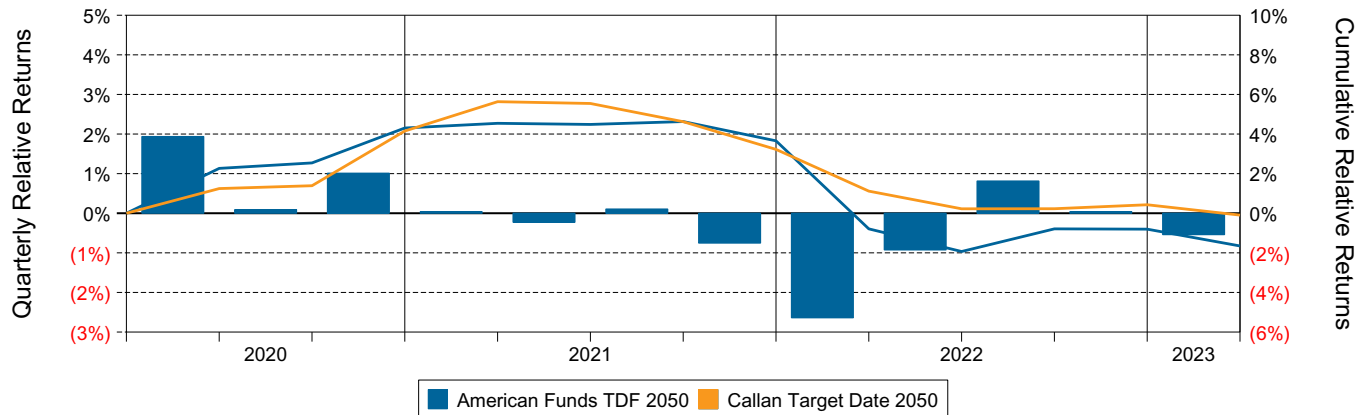
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

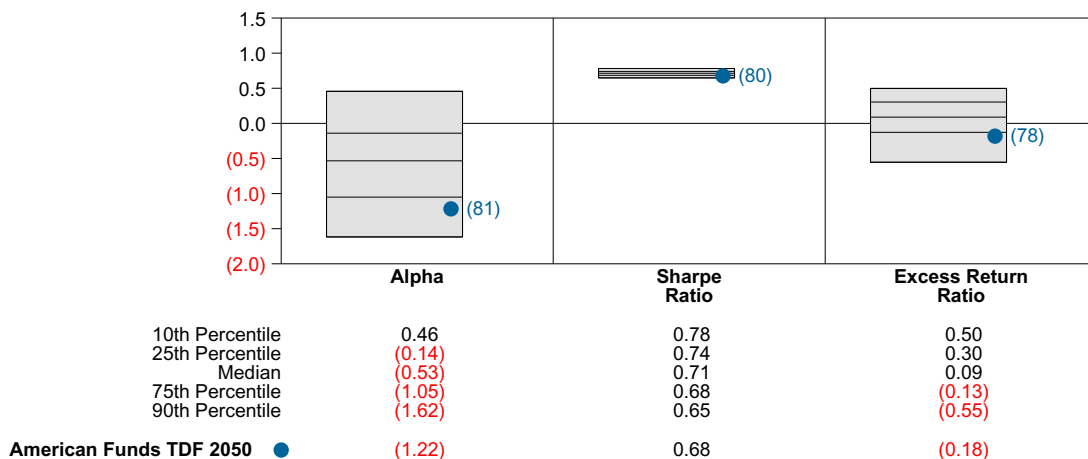
Performance vs Callan Target Date 2050 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2050 Idx



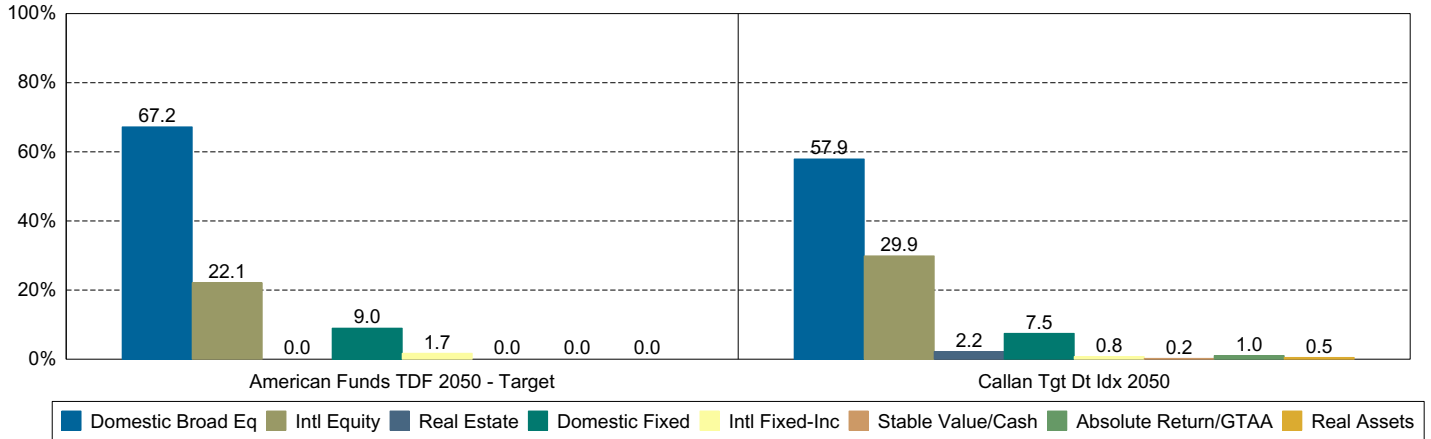
Risk Adjusted Return Measures vs AF Target Date 2050 Idx Rankings Against Callan Target Date 2050 (Net) Three Years Ended March 31, 2023



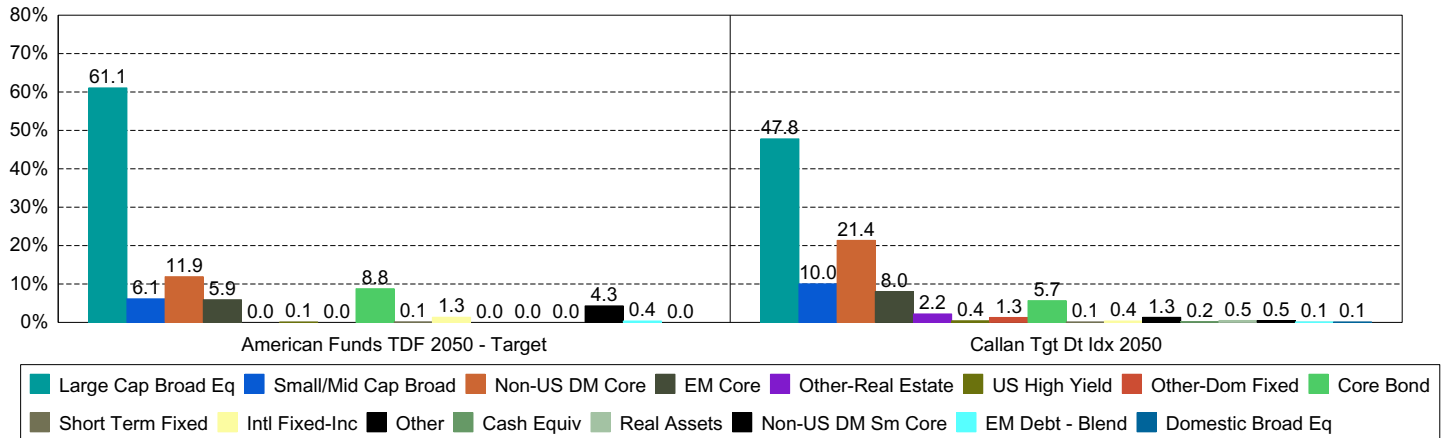
American Funds TDF 2050 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

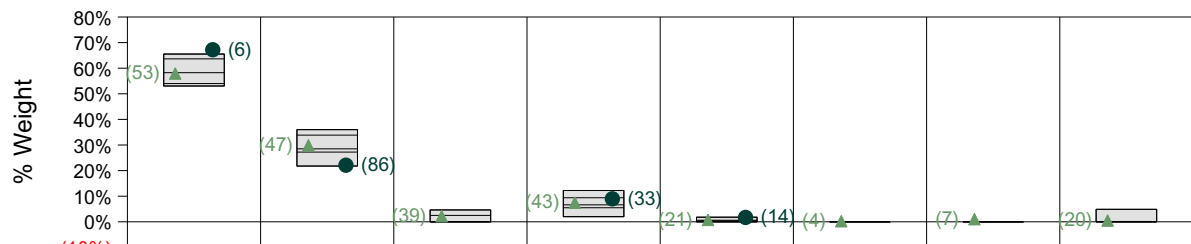
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2050



American Funds TDF 2050 - Target

●	67.21	22.11	-	8.98	1.70	-	-	-
▲	57.93	29.88	2.20	7.47	0.76	0.23	1.03	0.50

American Funds TDF 2055 (RFKTX) Period Ended March 31, 2023

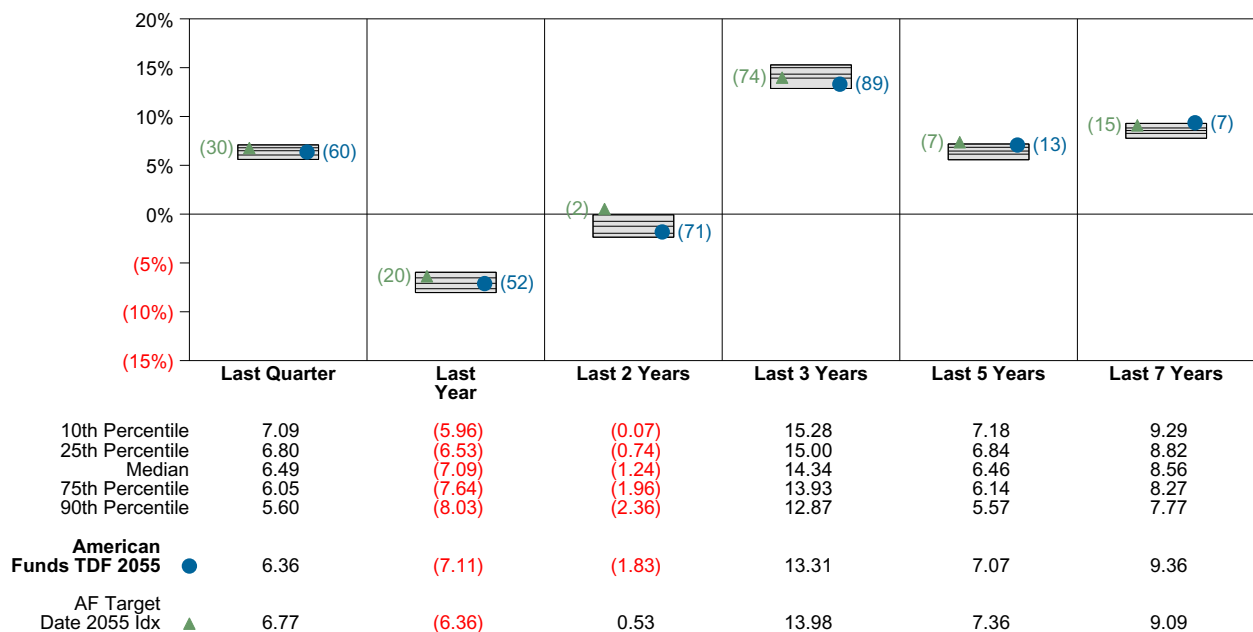
Investment Philosophy

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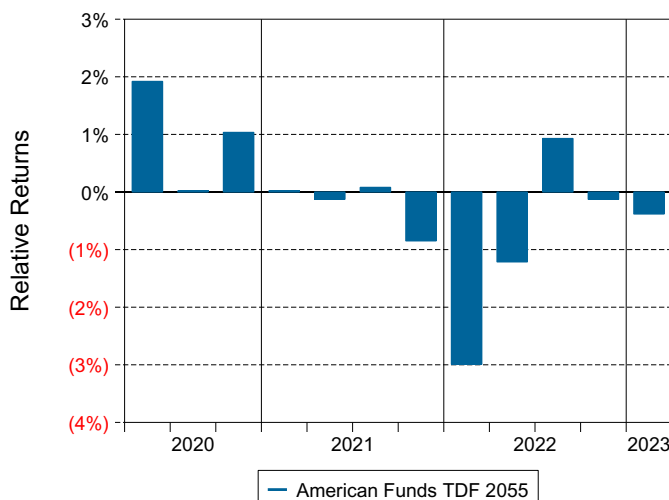
Quarterly Summary and Highlights

- American Funds TDF 2055's portfolio posted a 6.36% return for the quarter placing it in the 60 percentile of the Callan Target Date 2055 group for the quarter and in the 52 percentile for the last year.
- American Funds TDF 2055's portfolio underperformed the AF Target Date 2055 Idx by 0.41% for the quarter and underperformed the AF Target Date 2055 Idx for the year by 0.75%.

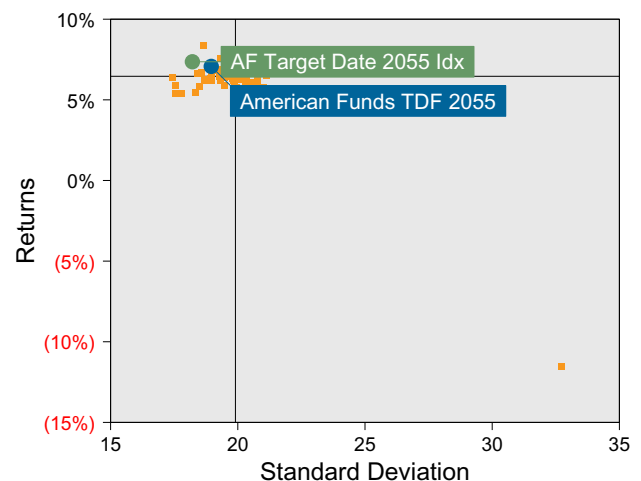
Performance vs Callan Target Date 2055 (Net)



Relative Return vs AF Target Date 2055 Idx



Callan Target Date 2055 (Net) Annualized Five Year Risk vs Return

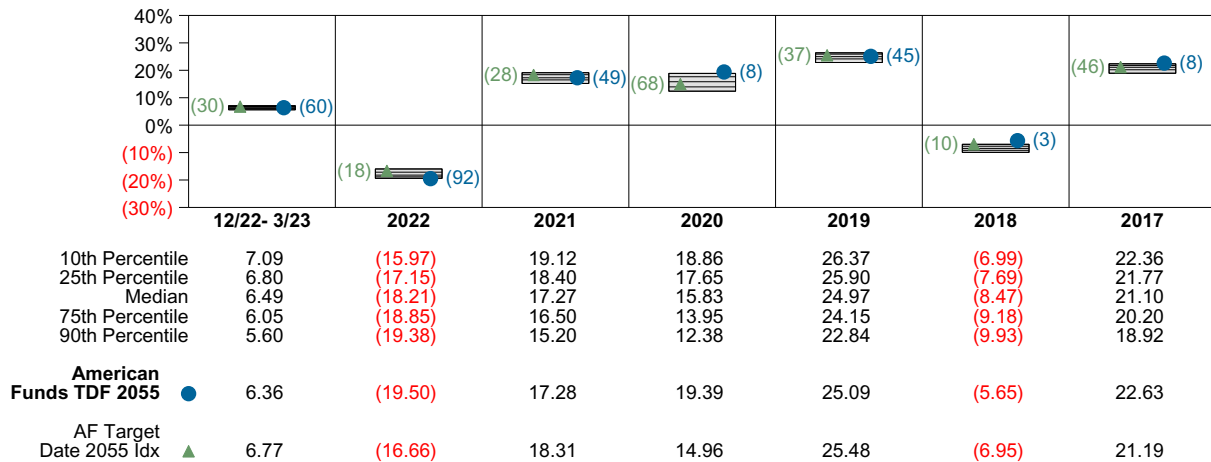


American Funds TDF 2055 Return Analysis Summary

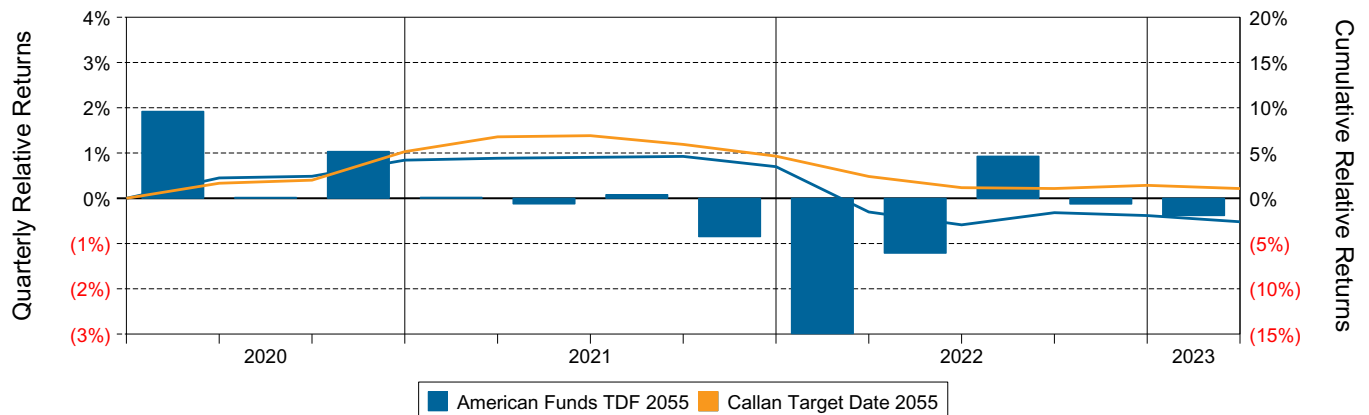
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

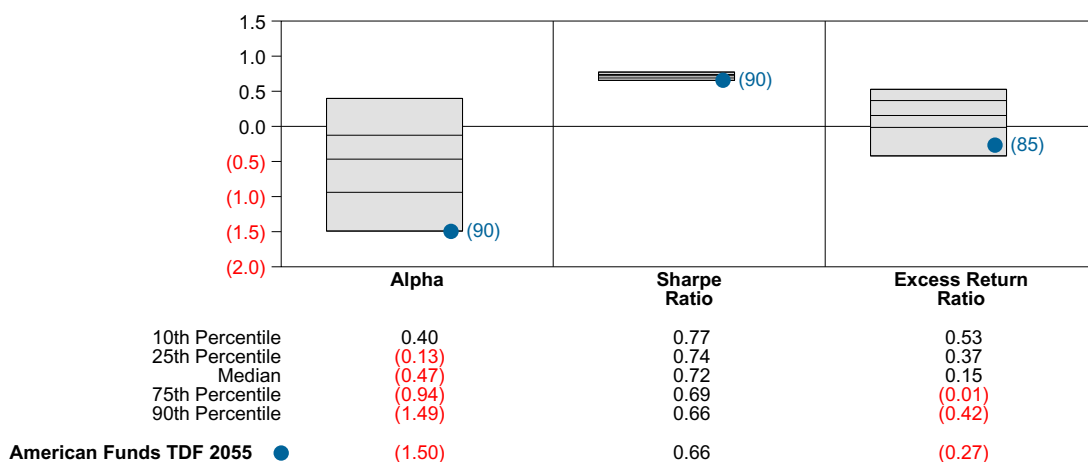
Performance vs Callan Target Date 2055 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2055 Idx



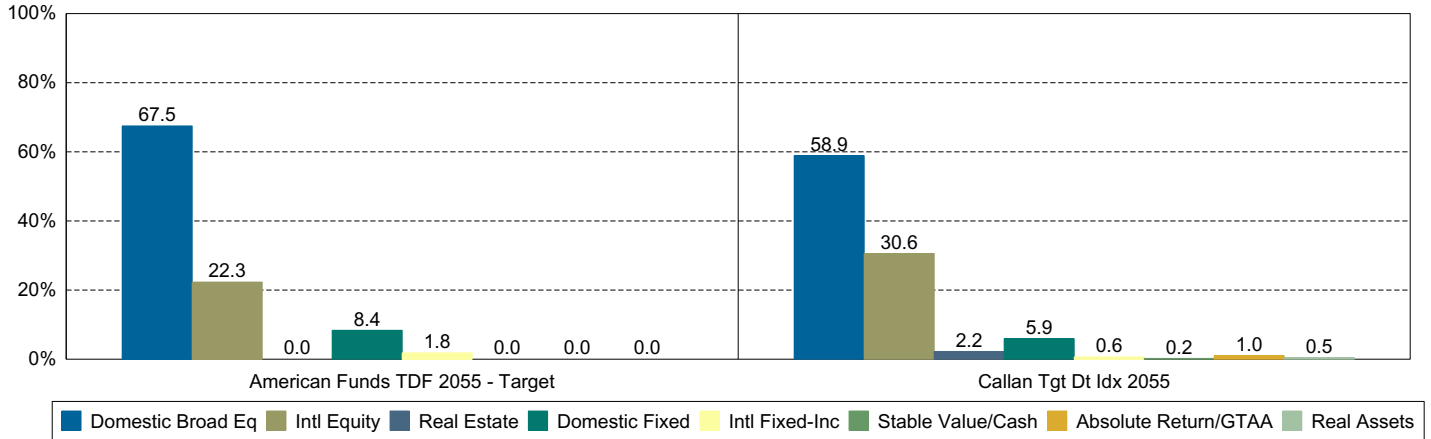
Risk Adjusted Return Measures vs AF Target Date 2055 Idx Rankings Against Callan Target Date 2055 (Net) Three Years Ended March 31, 2023



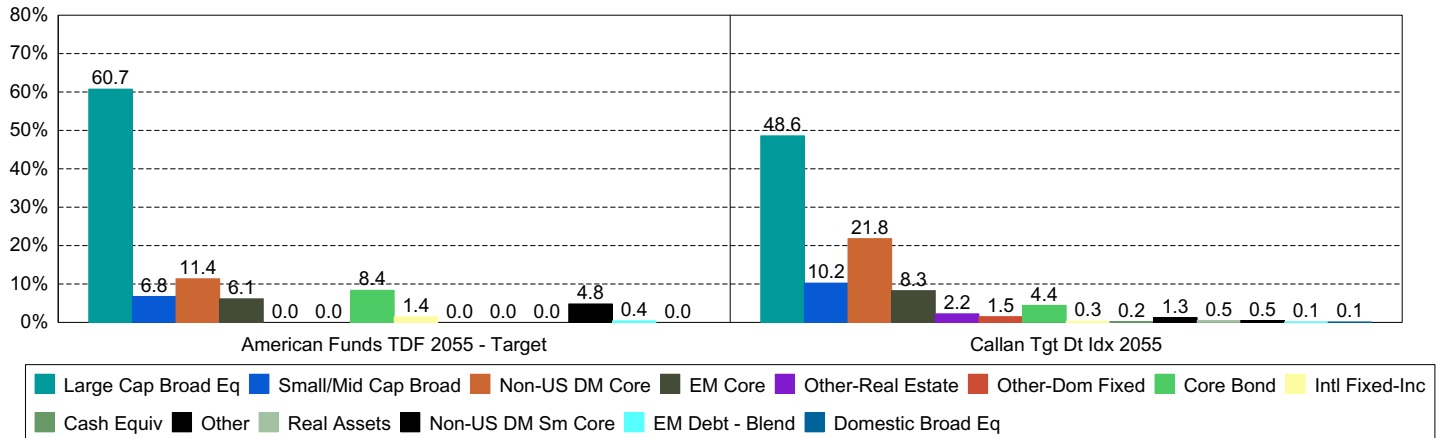
American Funds TDF 2055 Target Date Fund Asset Allocation as of March 31, 2023

The charts below illustrate the current target asset allocation of the relevant target date fund based on its underlying glide path and compares it to an index. The top charts compare target asset allocation at a high "macro" asset class level, while the middle charts show a more detailed "micro" level view. The bottom chart compares the current "macro" level target asset allocation, and index, to a relevant peer group of target date funds by ranking the various target asset class weights versus those peer target date funds.

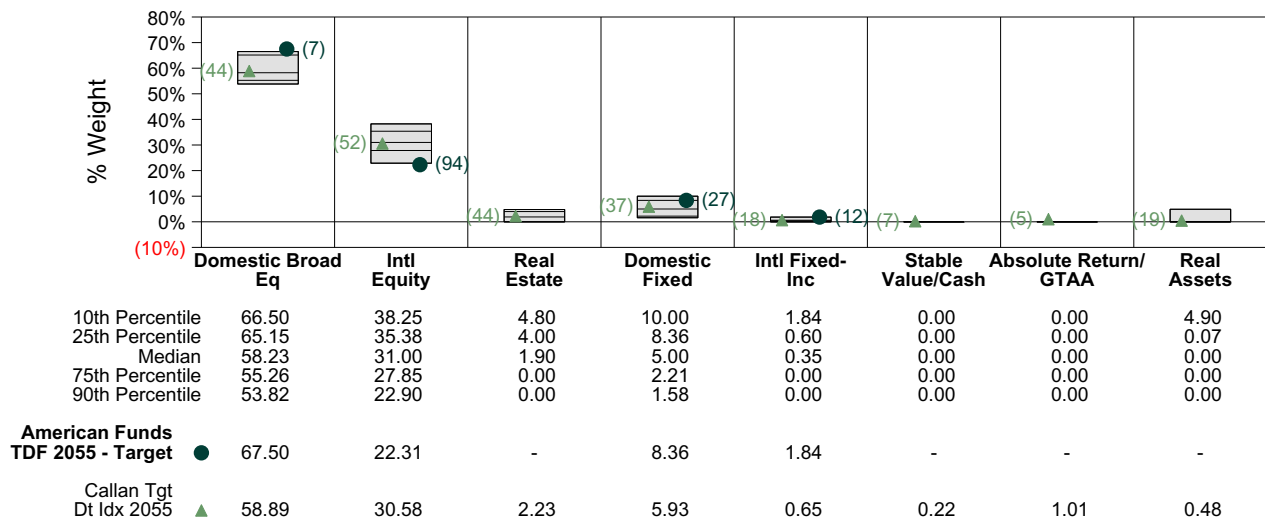
Macro-Level Asset Allocation



Micro-Level Asset Allocation



Macro Asset Allocation Rankings vs. Callan Target Date 2055



American Funds TDF 2060 (RFUTX) Period Ended March 31, 2023

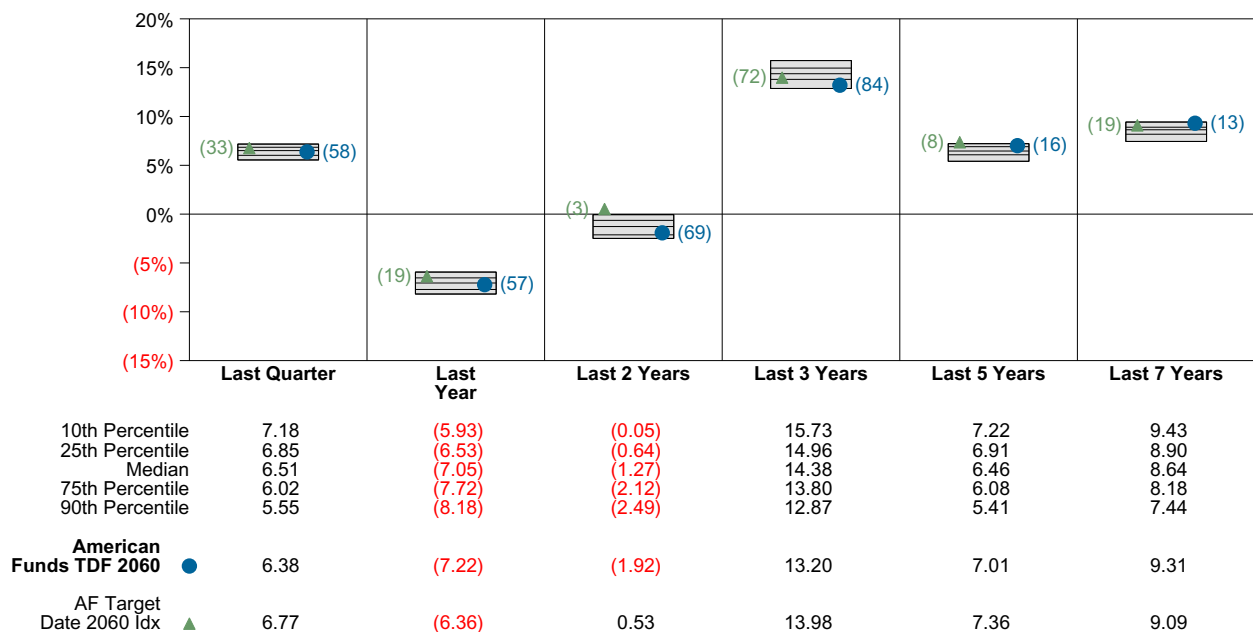
Investment Philosophy

Capital Groups Target Date philosophy is distinguished by four key beliefs: 1) They believe that solid research is fundamental to sound investment decisions - their companies employ teams of analysts who regularly gather in-depth, first-hand information on markets and companies around the globe; 2) they believe that an investment decision should not be made lightly - in addition to providing extensive research, their investment professionals go to great lengths to determine the difference between the fundamental value of a company and its price in the marketplace; 3) they believe in a long-term approach - investment professionals typically target a low turnover of portfolio holdings, and they are compensated according to their investment results over time; and 4) they believe in the value of multiple perspectives - the assets of each fund or portfolio are divided among a number of portfolio managers.

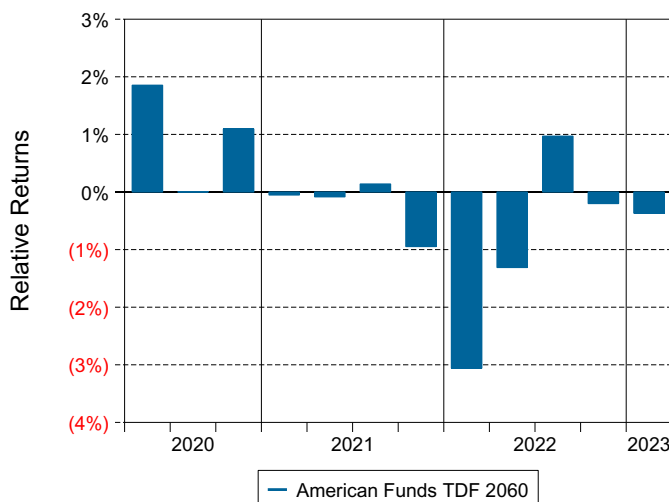
Quarterly Summary and Highlights

- American Funds TDF 2060's portfolio posted a 6.38% return for the quarter placing it in the 58 percentile of the Callan Target Date 2060 group for the quarter and in the 57 percentile for the last year.
- American Funds TDF 2060's portfolio underperformed the AF Target Date 2060 Idx by 0.39% for the quarter and underperformed the AF Target Date 2060 Idx for the year by 0.86%.

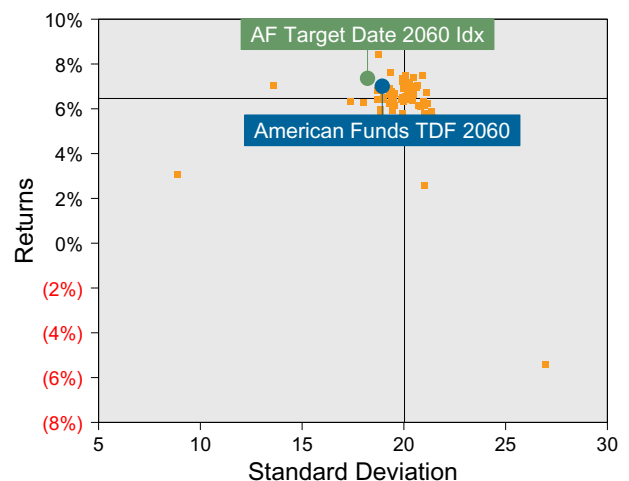
Performance vs Callan Target Date 2060 (Net)



Relative Return vs AF Target Date 2060 Idx



Callan Target Date 2060 (Net) Annualized Five Year Risk vs Return

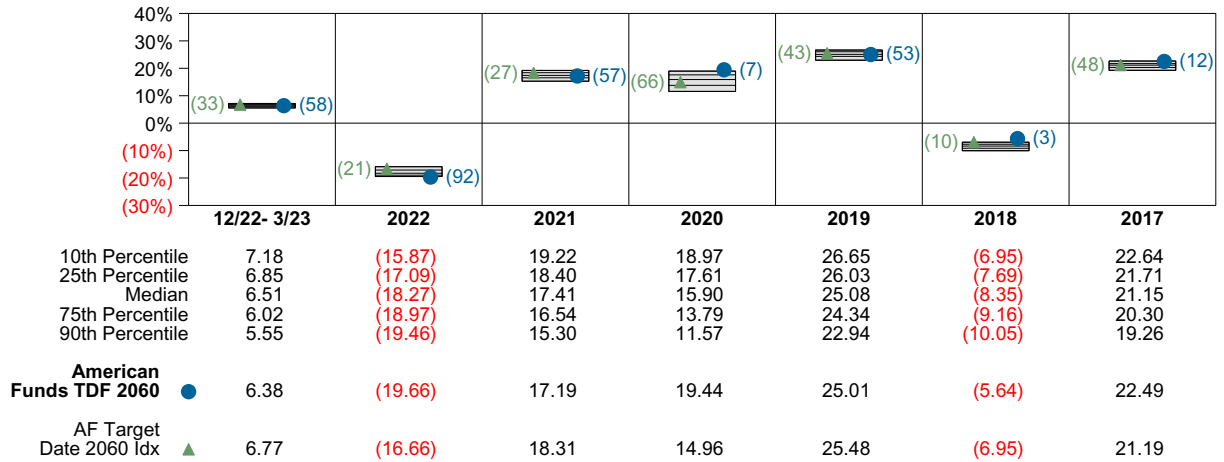


American Funds TDF 2060 Return Analysis Summary

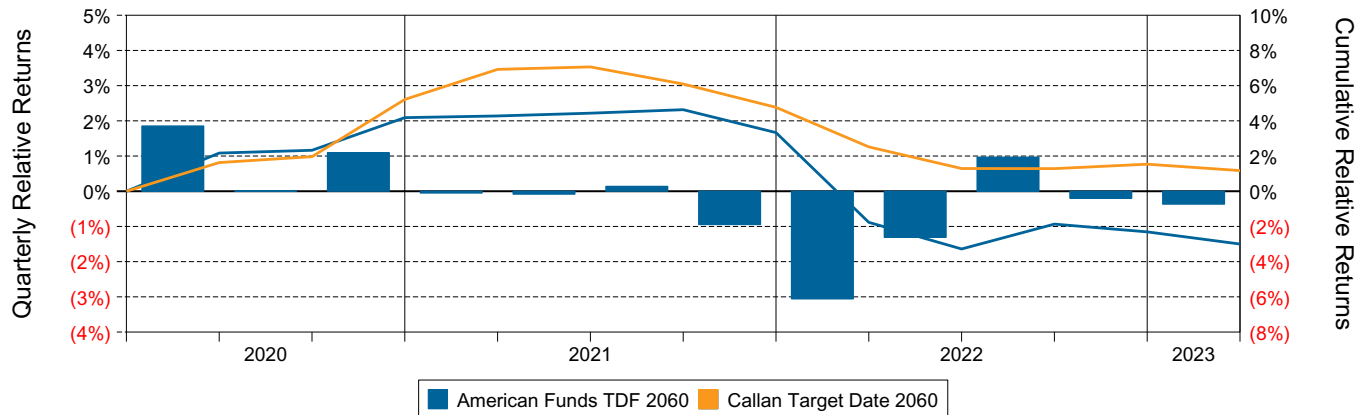
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

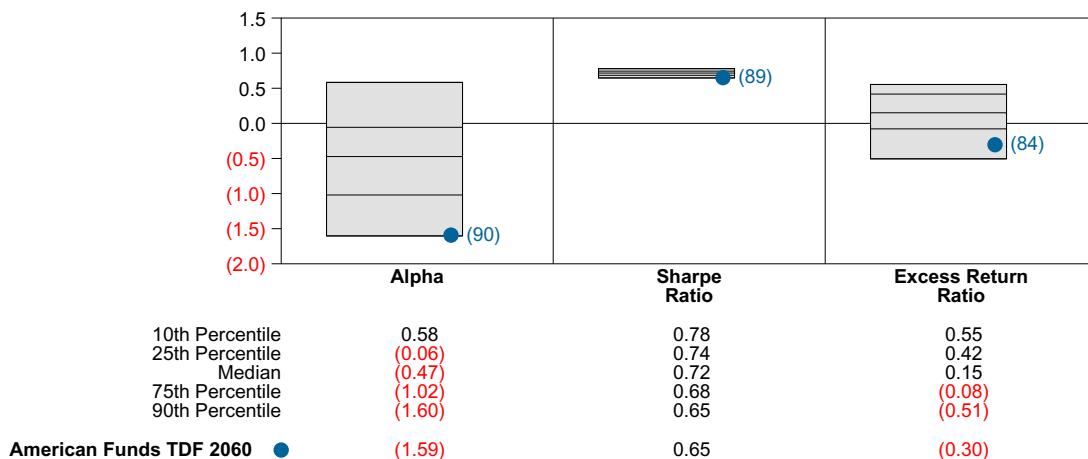
Performance vs Callan Target Date 2060 (Net)



Cumulative and Quarterly Relative Returns vs AF Target Date 2060 Idx



Risk Adjusted Return Measures vs AF Target Date 2060 Idx Rankings Against Callan Target Date 2060 (Net) Three Years Ended March 31, 2023



BlackRock S&P 500 Idx Fund (WFSPX)

Period Ended March 31, 2023

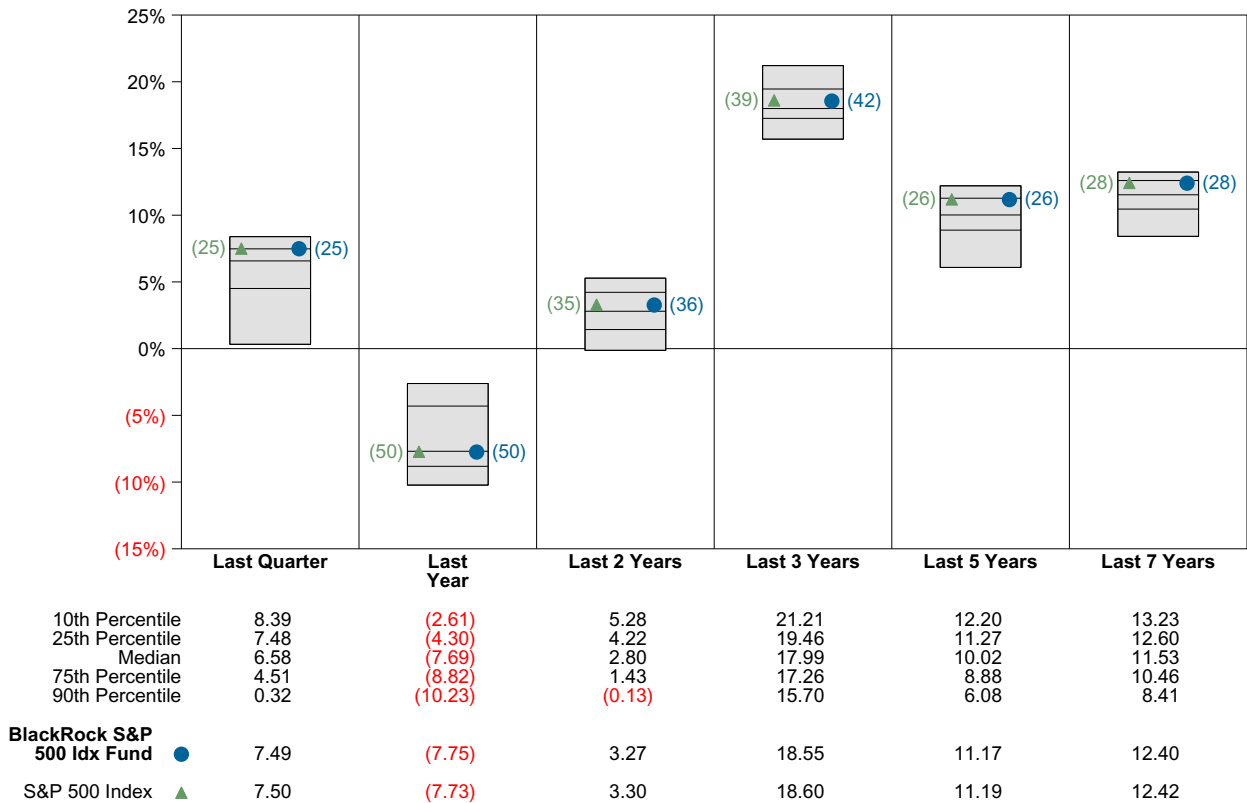
Investment Philosophy

BlackRock index strategies are designed to provide the best possible tracking error versus their respective benchmarks with minimal transaction costs.

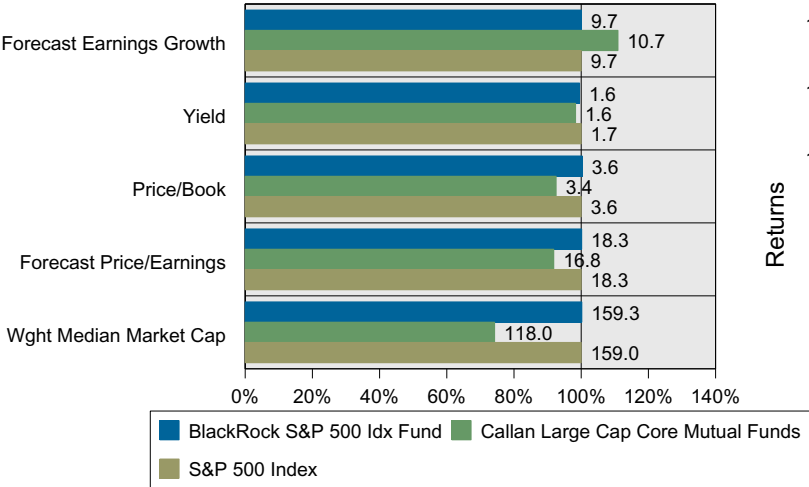
Quarterly Summary and Highlights

- BlackRock S&P 500 Idx Fund's portfolio posted a 7.49% return for the quarter placing it in the 25 percentile of the Callan Large Cap Core Mutual Funds group for the quarter and in the 50 percentile for the last year.
- BlackRock S&P 500 Idx Fund's portfolio underperformed the S&P 500 Index by 0.01% for the quarter and underperformed the S&P 500 Index for the year by 0.02%.

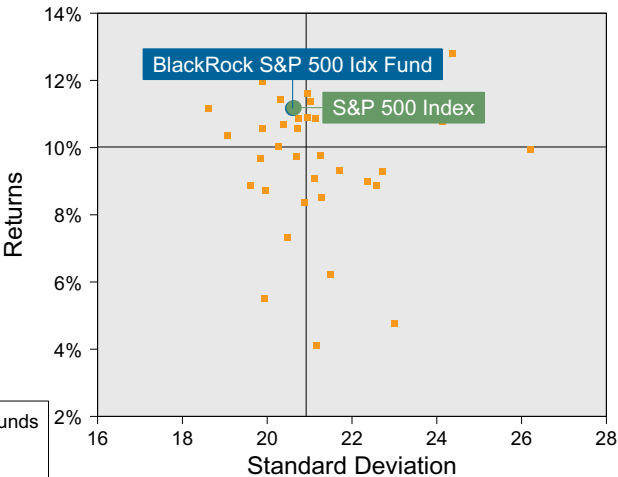
Performance vs Callan Large Cap Core Mutual Funds (Institutional Net)



Portfolio Characteristics as a Percentage of the S&P 500 Index



Callan Large Cap Core Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

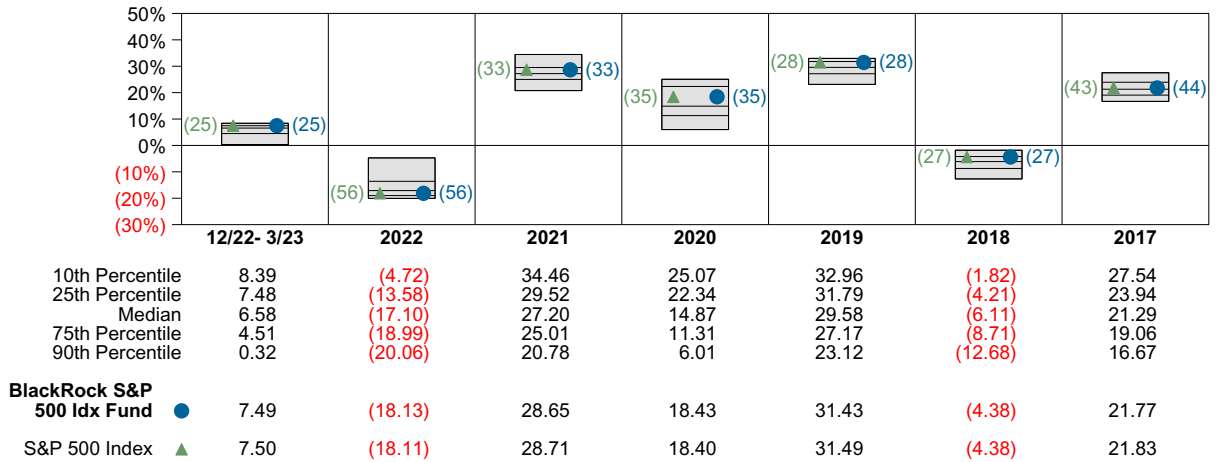


BlackRock S&P 500 Idx Fund Return Analysis Summary

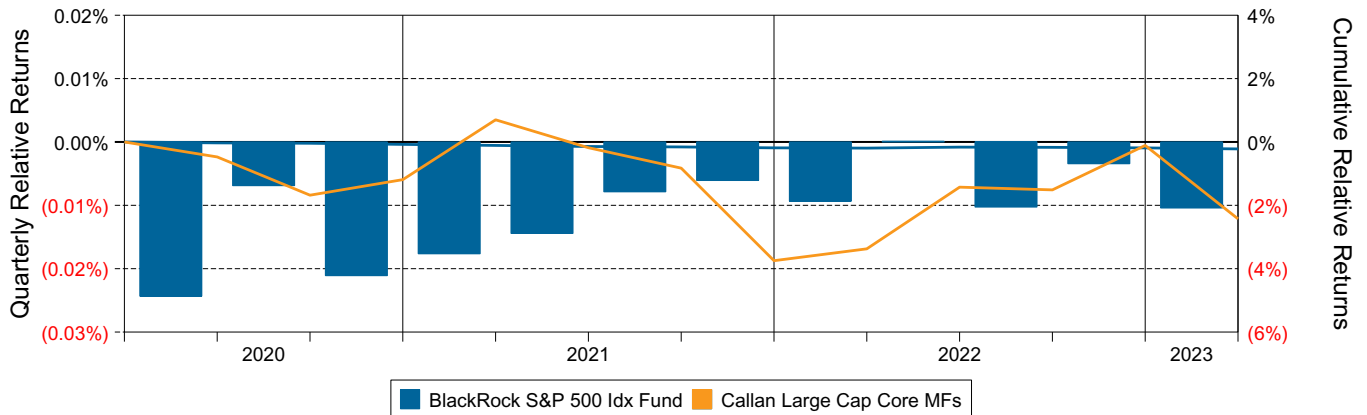
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs Callan Large Cap Core Mutual Funds (Institutional Net)

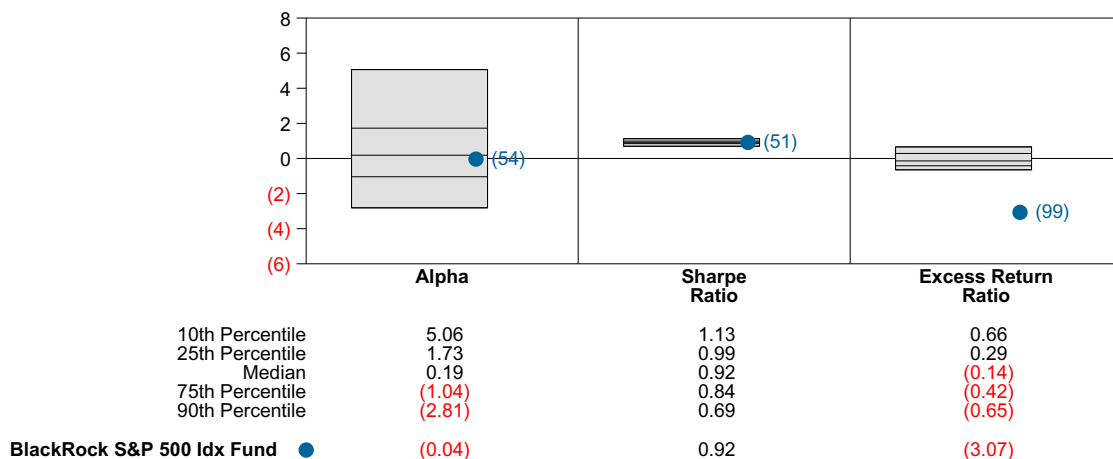


Cumulative and Quarterly Relative Returns vs S&P 500 Index



Risk Adjusted Return Measures vs S&P 500 Index

Rankings Against Callan Large Cap Core Mutual Funds (Institutional Net) Three Years Ended March 31, 2023



BlackRock Russell 2500 Idx Fund (BSMKX) Period Ended March 31, 2023

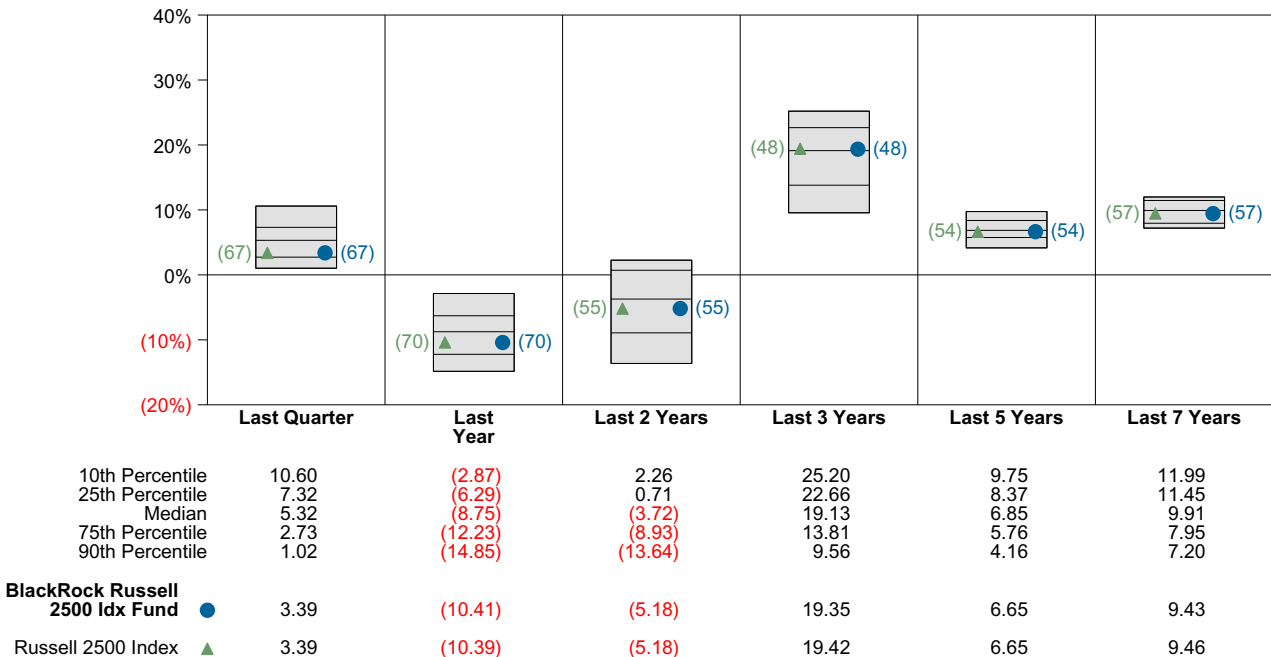
Investment Philosophy

Over three decades ago, through predecessor firm Barclays Global Investors (BGI), BlackRock pioneered an investment philosophy based on Total Performance Management. While seeking to achieve the benchmark return or better, we believe risks must be understood and adequately compensated, and transaction costs must be considered in all investment decisions. This three-pronged philosophy is utilized across all BlackRock's Index Equity and Fixed Income strategies and has served our clients well for over thirty years. We systematically analyze index composition, changes and transaction costs through our Index Research and Trading Research groups and integrate those ideas into our portfolio construction process.

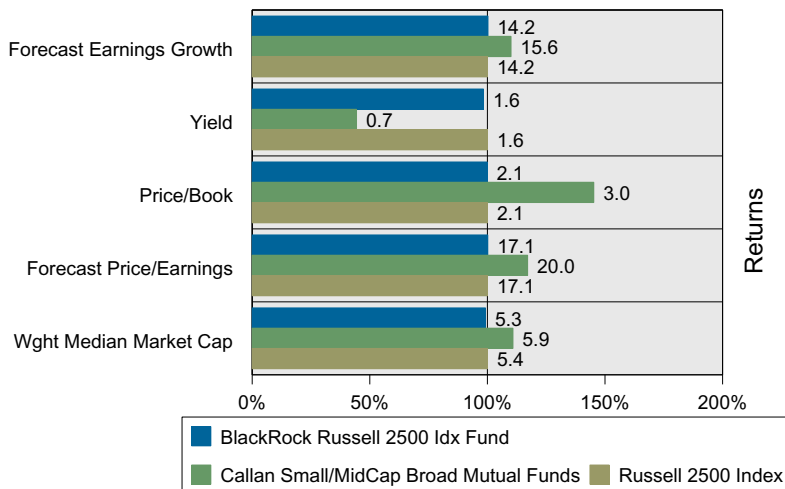
Quarterly Summary and Highlights

- BlackRock Russell 2500 Idx Fund's portfolio posted a 3.39% return for the quarter placing it in the 67 percentile of the Callan Small/MidCap Broad Mutual Funds group for the quarter and in the 70 percentile for the last year.
- BlackRock Russell 2500 Idx Fund's portfolio outperformed the Russell 2500 Index by 0.00% for the quarter and underperformed the Russell 2500 Index for the year by 0.02%.

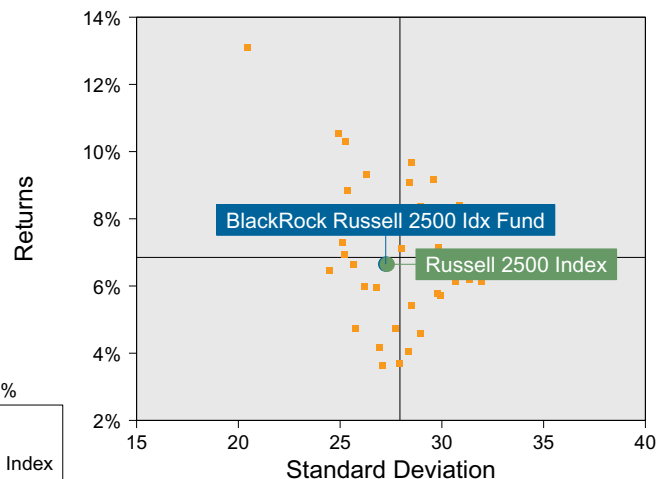
Performance vs Callan Small/MidCap Broad Mutual Funds (Institutional Net)



Portfolio Characteristics as a Percentage of the Russell 2500 Index



Callan Small/MidCap Broad Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

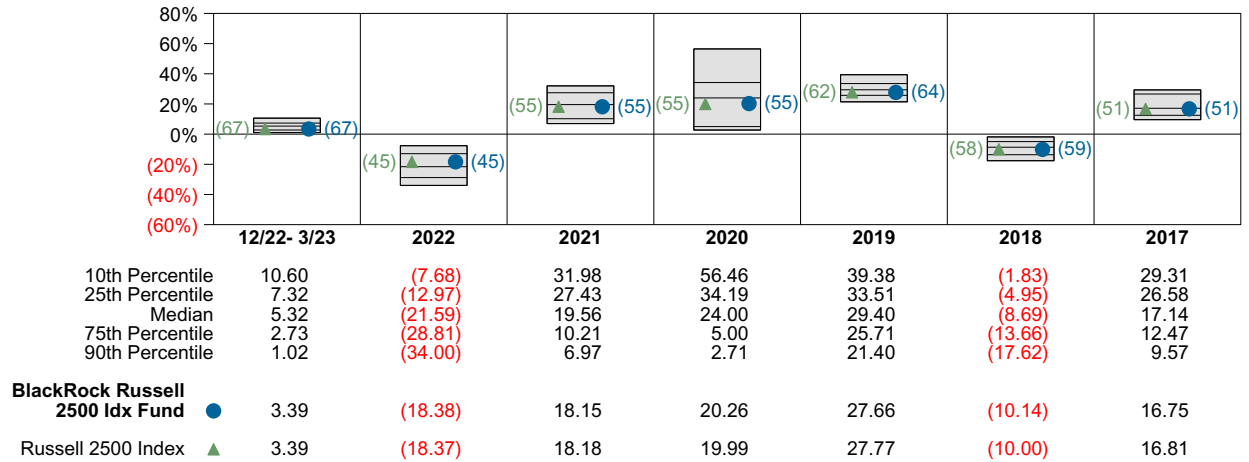


BlackRock Russell 2500 Idx Fund Return Analysis Summary

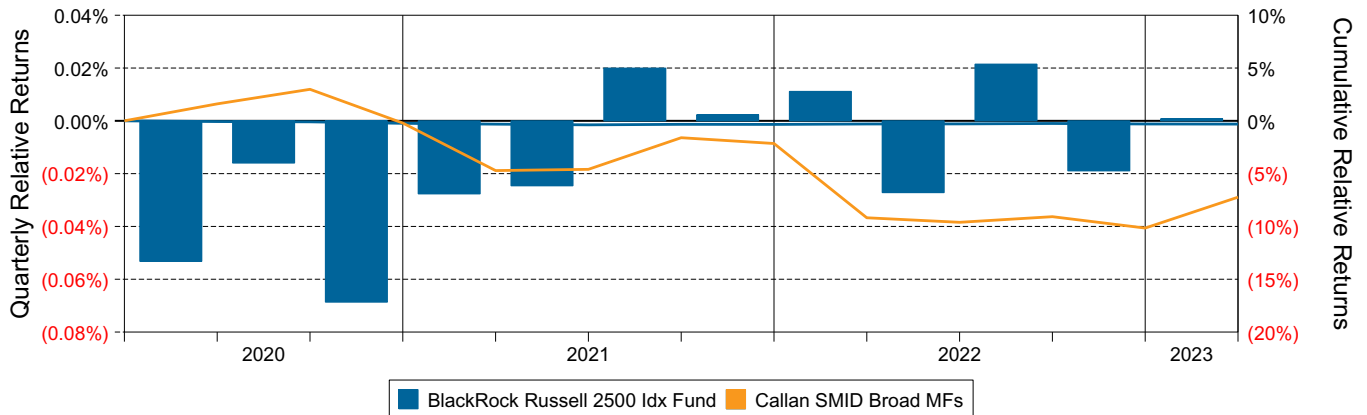
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

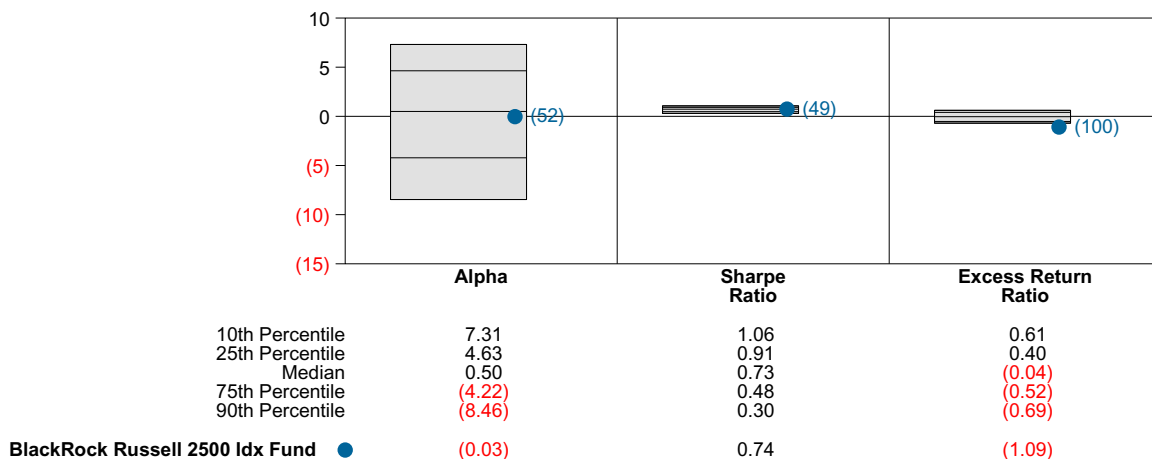
Performance vs Callan Small/MidCap Broad Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Russell 2500 Index



Risk Adjusted Return Measures vs Russell 2500 Index Rankings Against Callan Small/MidCap Broad Mutual Funds (Institutional Net) Three Years Ended March 31, 2023



BlackRock MSCI ACW ex US Idx Fund (BDOKX) Period Ended March 31, 2023

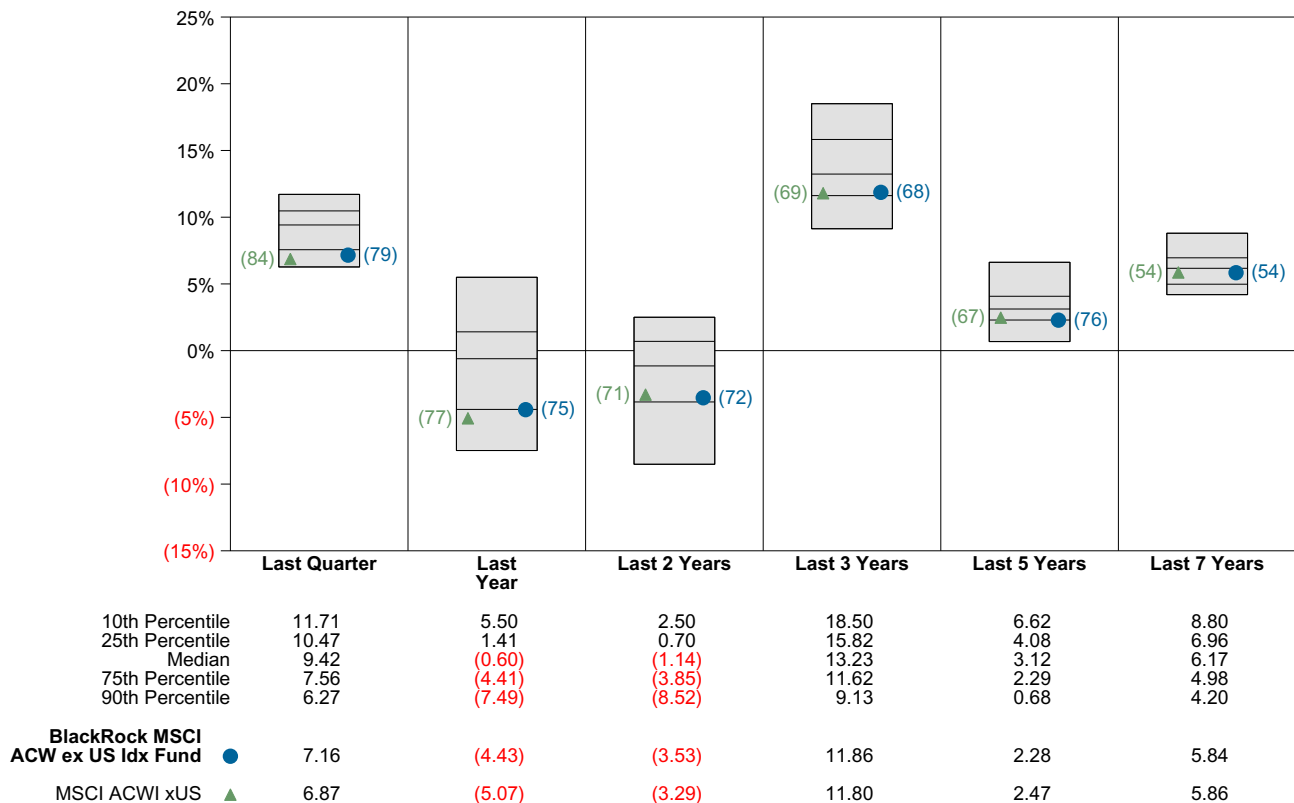
Investment Philosophy

The BlackRock MSCI ACWI ex U.S. strategy seeks to track the performance of the MSCI ACWI ex U.S. Index. The strategy is managed by BlackRock's ETF & Index Investments team, which is comprised of over 160 professionals globally.

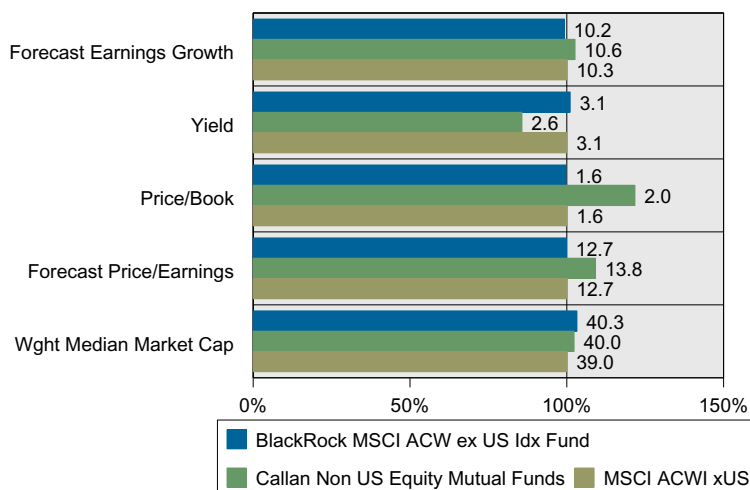
Quarterly Summary and Highlights

- BlackRock MSCI ACW ex US Idx Fund's portfolio posted a 7.16% return for the quarter placing it in the 79 percentile of the Callan Non US Equity Mutual Funds group for the quarter and in the 75 percentile for the last year.
- BlackRock MSCI ACW ex US Idx Fund's portfolio outperformed the MSCI ACWI xUS by 0.29% for the quarter and outperformed the MSCI ACWI xUS for the year by 0.65%.

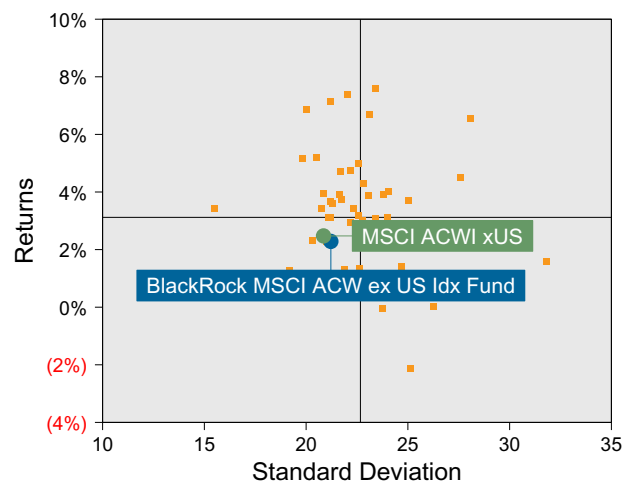
Performance vs Callan Non US Equity Mutual Funds (Institutional Net)



Portfolio Characteristics as a Percentage of the MSCI ACWI xUS



Callan Non US Equity Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

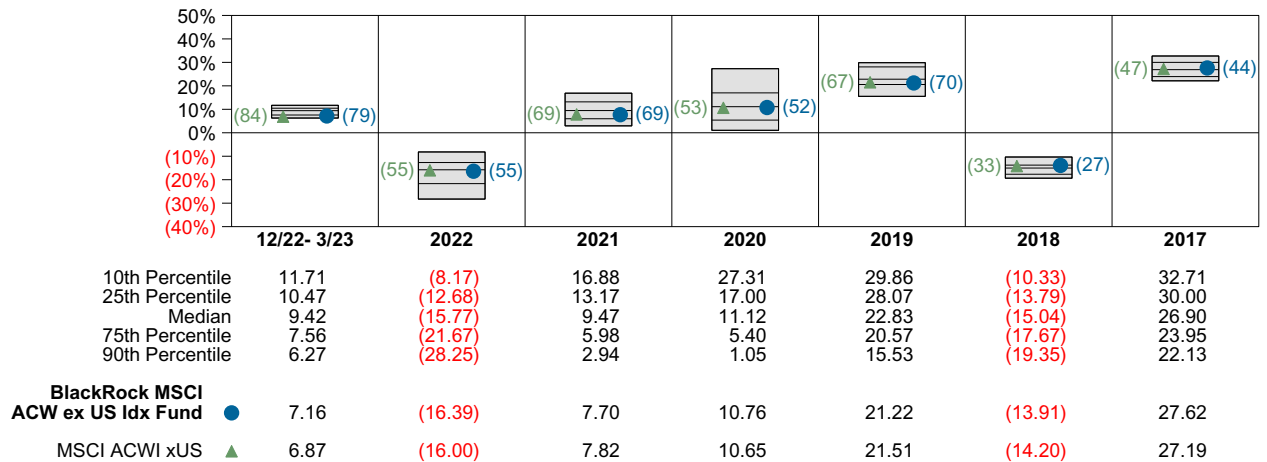


BlackRock MSCI ACW ex US Idx Fund Return Analysis Summary

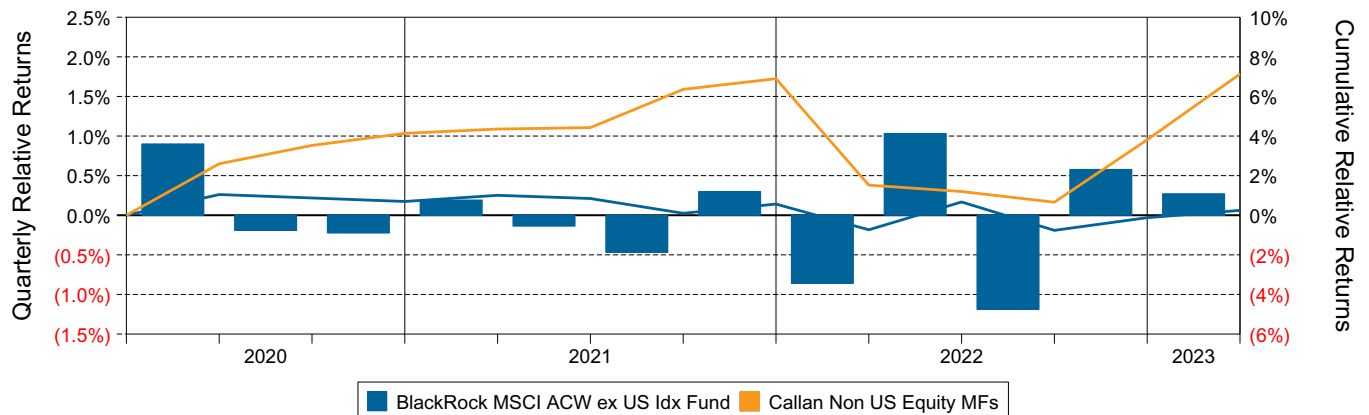
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs Callan Non US Equity Mutual Funds (Institutional Net)

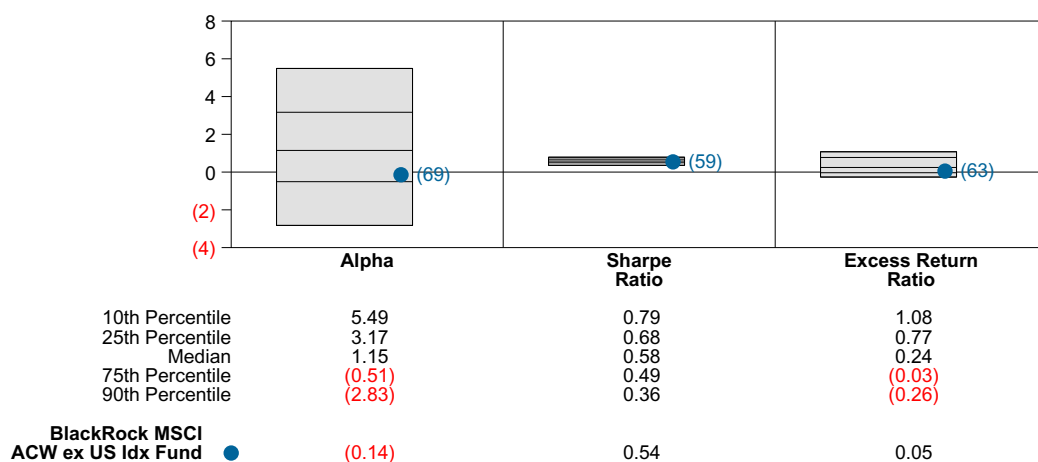


Cumulative and Quarterly Relative Returns vs MSCI ACWI xUS



Risk Adjusted Return Measures vs MSCI ACWI xUS

Rankings Against Callan Non US Equity Mutual Funds (Institutional Net) Three Years Ended March 31, 2023



Fidelity US Bond Idx Fund (FXNAX)

Period Ended March 31, 2023

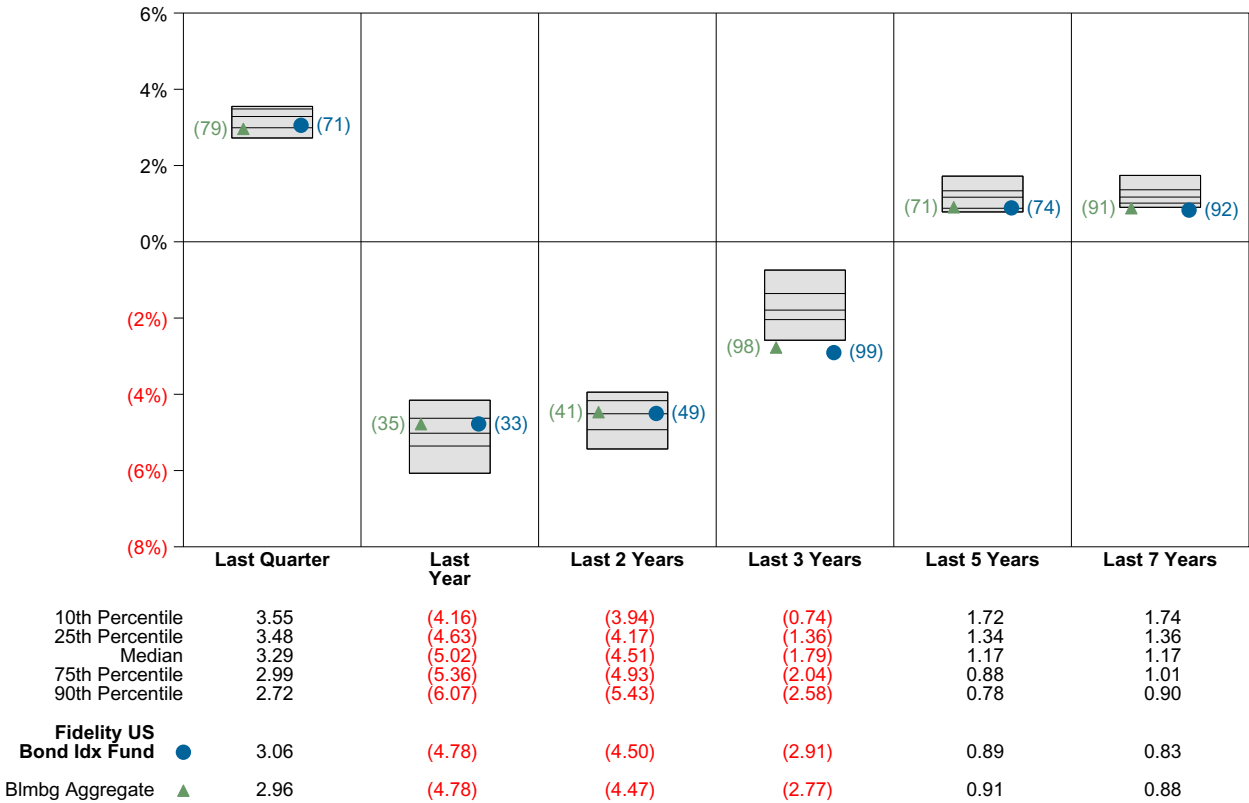
Investment Philosophy

Fidelity utilizes a research-intensive process that applies external market data and benchmark index characteristics as inputs in the construction, evaluation, and monitoring of portfolios.

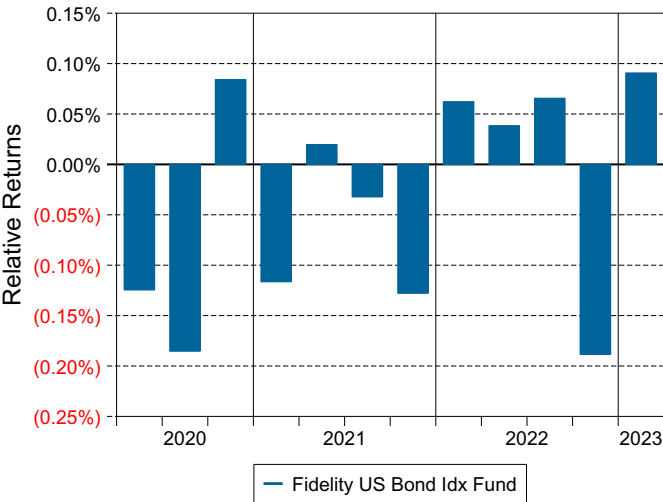
Quarterly Summary and Highlights

- Fidelity US Bond Idx Fund’s portfolio posted a 3.06% return for the quarter placing it in the 71 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 33 percentile for the last year.
- Fidelity US Bond Idx Fund’s portfolio outperformed the Blmbg Aggregate by 0.09% for the quarter and outperformed the Blmbg Aggregate for the year by 0.01%.

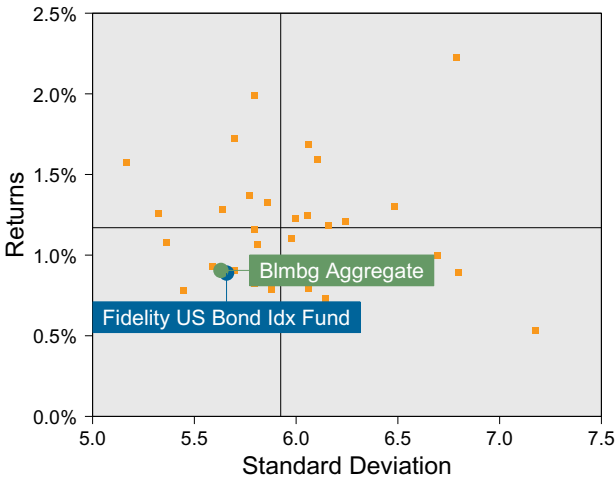
Performance vs Callan Core Bond Mutual Funds (Institutional Net)



Relative Return vs Blmbg Aggregate



Callan Core Bond Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

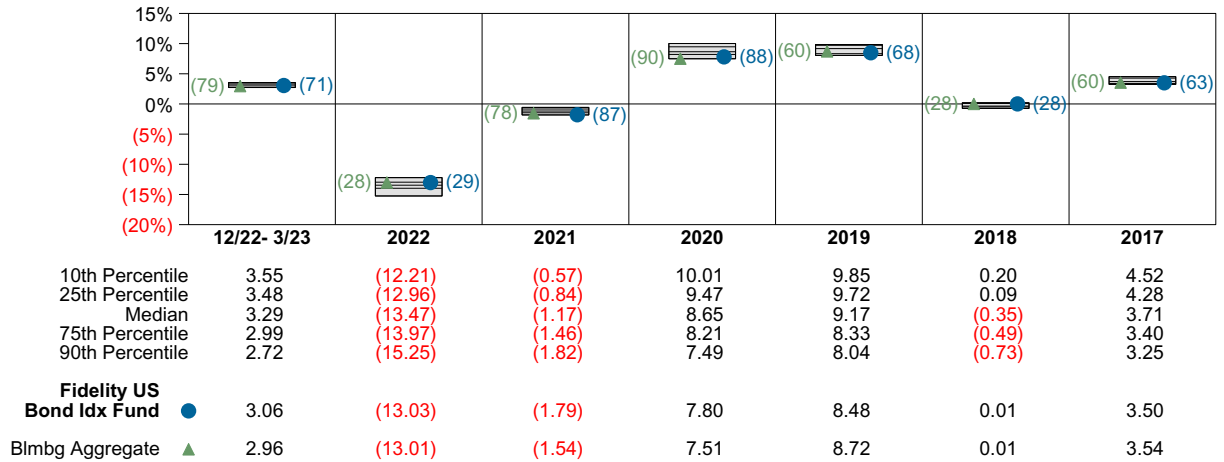


Fidelity US Bond Idx Fund Return Analysis Summary

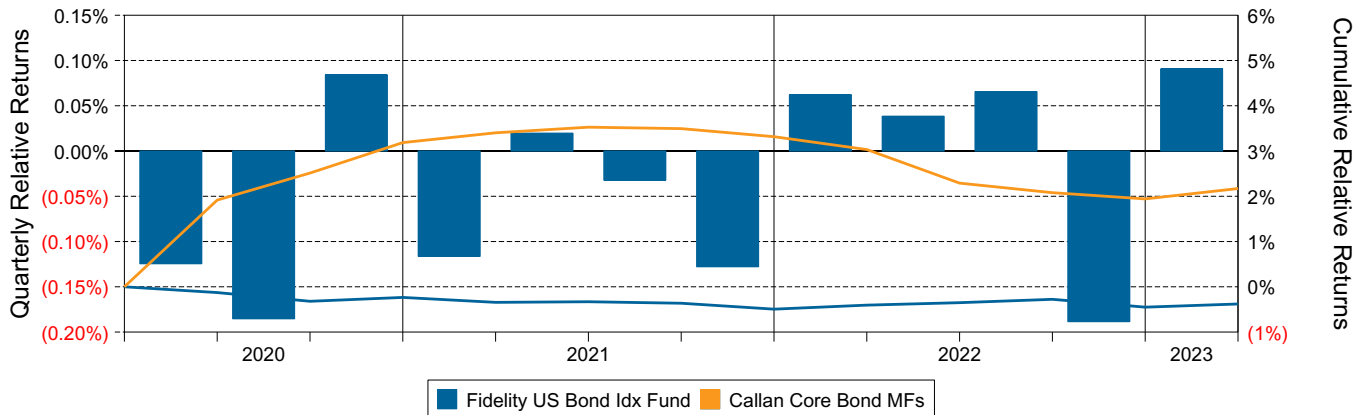
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

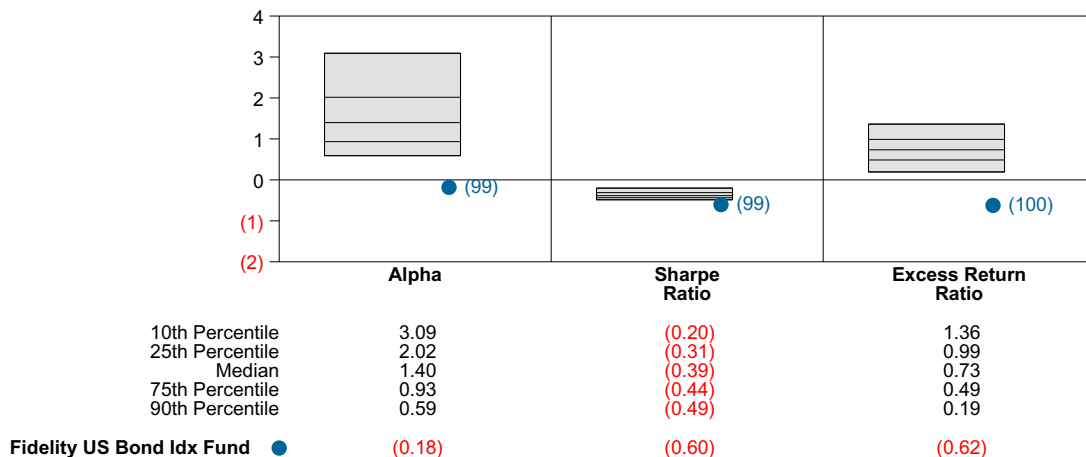
Performance vs Callan Core Bond Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Callan Core Bond Mutual Funds (Institutional Net) Three Years Ended March 31, 2023



J.P. Morgan Equity Income Fund (OIEJX)

Period Ended March 31, 2023

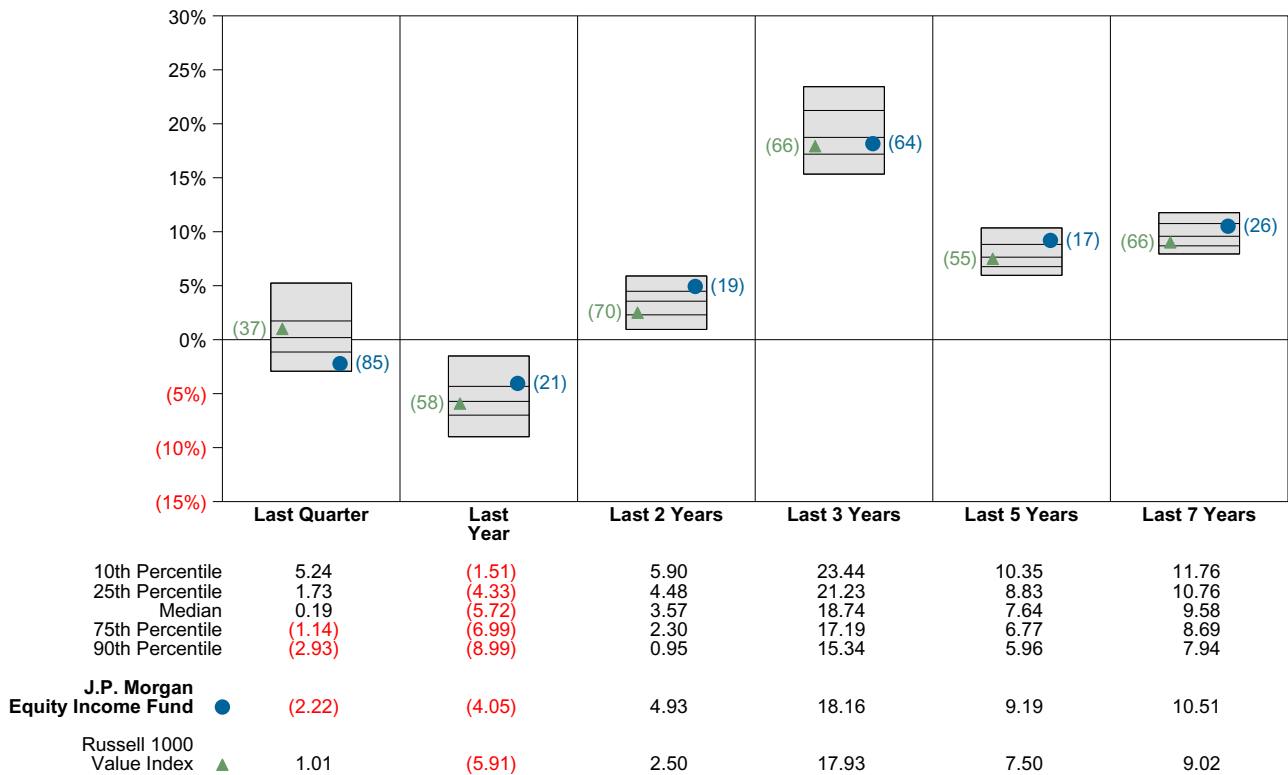
Investment Philosophy

JP Morgan’s investment philosophy centers on the belief that companies and the management teams demonstrating an ability to generate free cash flow on a consistent basis, coupled with superior expertise in capital allocation, will maximize per share earnings growth over the long term.

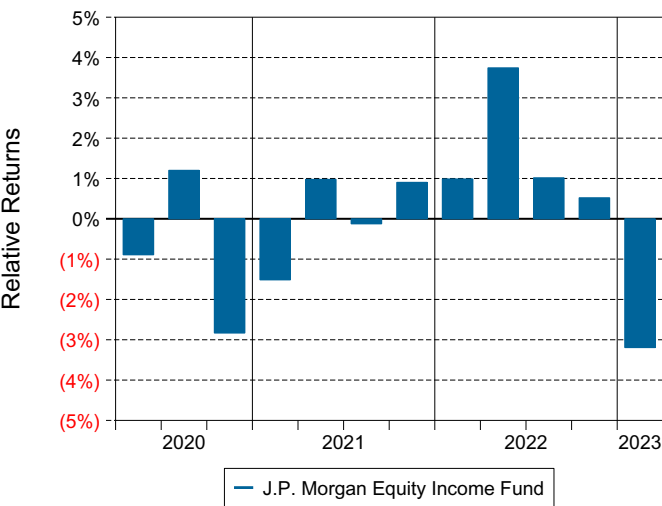
Quarterly Summary and Highlights

- J.P. Morgan Equity Income Fund’s portfolio posted a (2.22)% return for the quarter placing it in the 85 percentile of the Callan Large Cap Value Mutual Funds group for the quarter and in the 21 percentile for the last year.
- J.P. Morgan Equity Income Fund’s portfolio underperformed the Russell 1000 Value Index by 3.22% for the quarter and outperformed the Russell 1000 Value Index for the year by 1.86%.

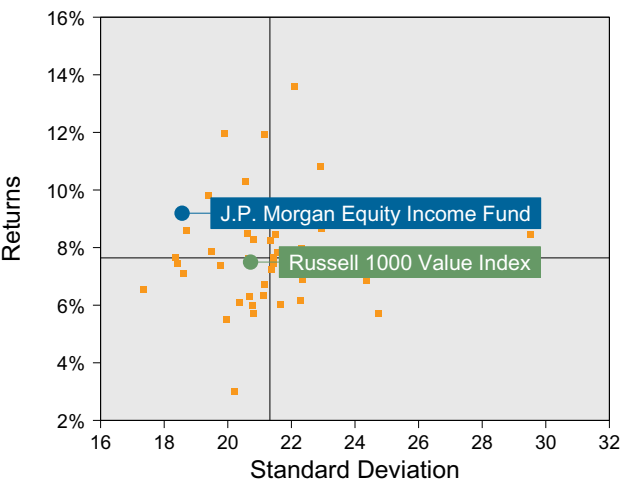
Performance vs Callan Large Cap Value Mutual Funds (Institutional Net)



Relative Return vs Russell 1000 Value Index



Callan Large Cap Value Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return



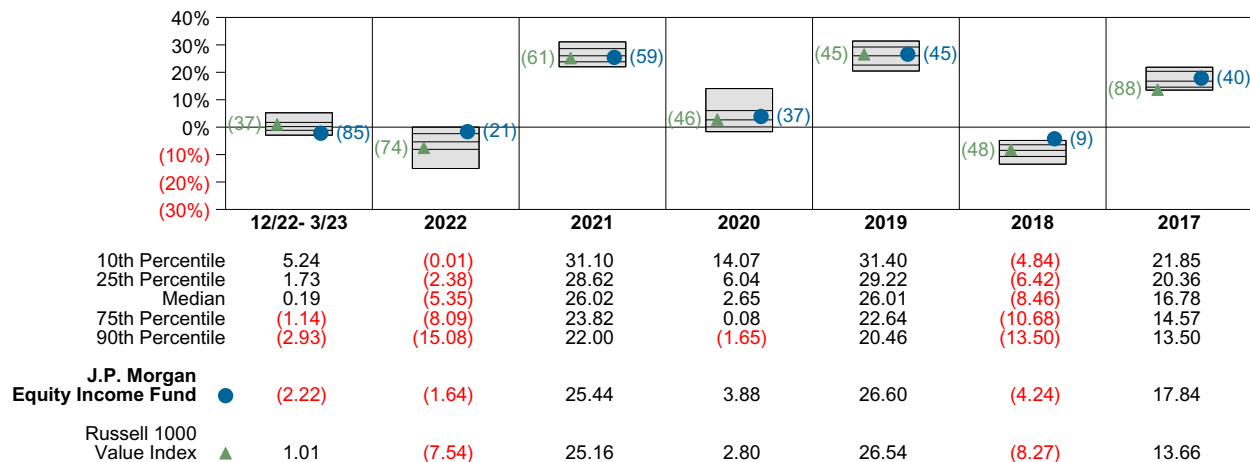
J.P. Morgan Equity Income Fund

Return Analysis Summary

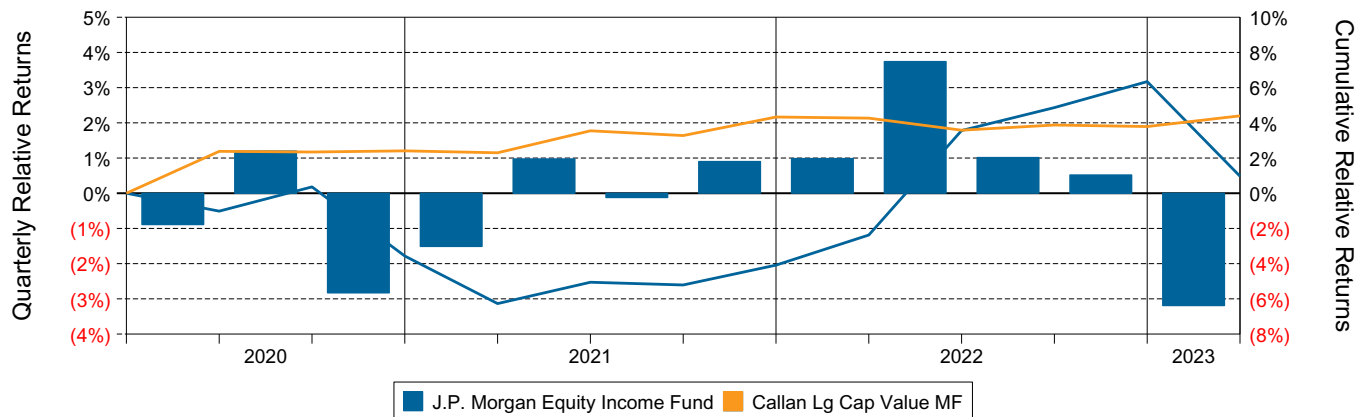
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs Callan Large Cap Value Mutual Funds (Institutional Net)



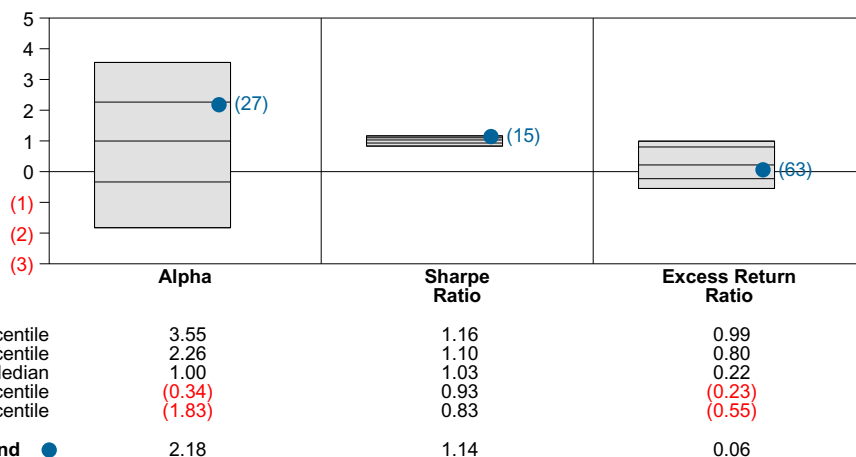
Cumulative and Quarterly Relative Returns vs Russell 1000 Value Index



Risk Adjusted Return Measures vs Russell 1000 Value Index

Rankings Against Callan Large Cap Value Mutual Funds (Institutional Net)

Three Years Ended March 31, 2023



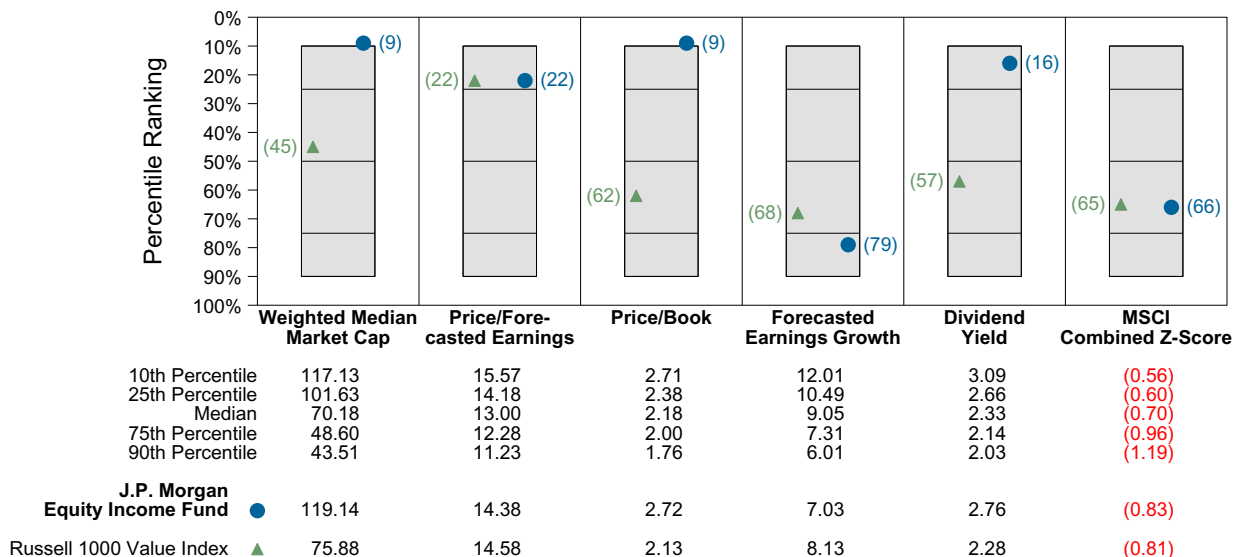
J.P. Morgan Equity Income Fund

Equity Characteristics Analysis Summary

Portfolio Characteristics

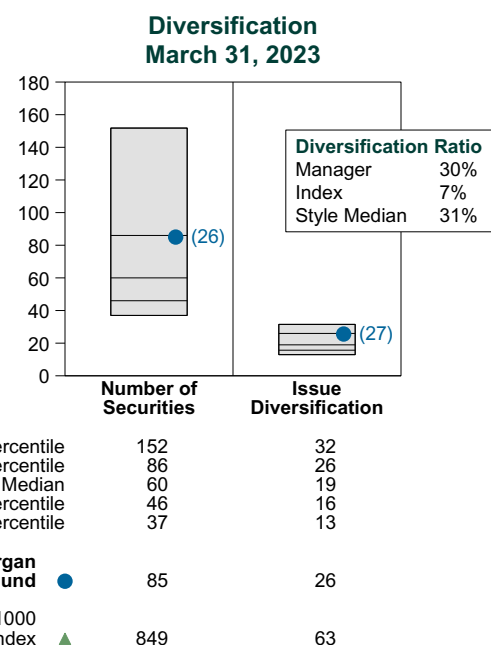
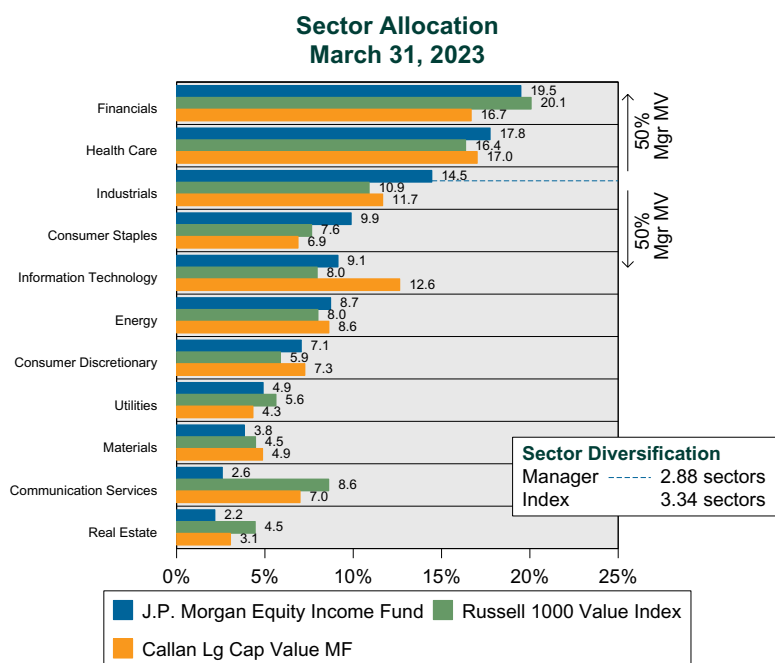
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Value Mutual Funds as of March 31, 2023



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



MFS Large Cap Growth Fund (MIGNX) Period Ended March 31, 2023

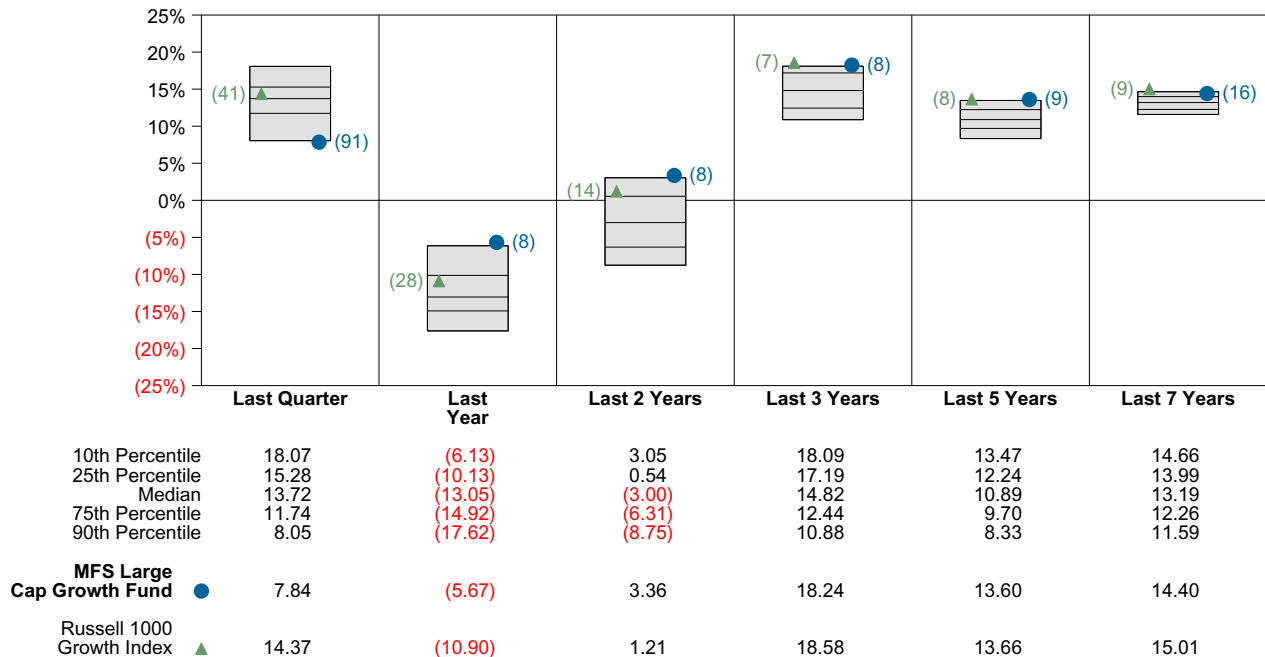
Investment Philosophy

This product recently changed its decision making structure to more of a team approach. Prior to that decision, Stephen Pesek was the lead portfolio manager on the product. He remains a key architect on the fund, but is no longer solely responsible for pulling the trigger on buys and sells for the fund. The fund is well diversified and holds upward of 150 stocks and the top 10 represent only 20-25% of the portfolio. Turnover is fairly high, approaching 200% in some years. Ideas for the portfolio come from MFS's team of research analysts while the portfolio management team led by Mr. Pesek constructs the portfolio from recommended stocks. Risk minimization tools and a maximum 25% rule in any one industry keep the portfolio from swinging too significantly.

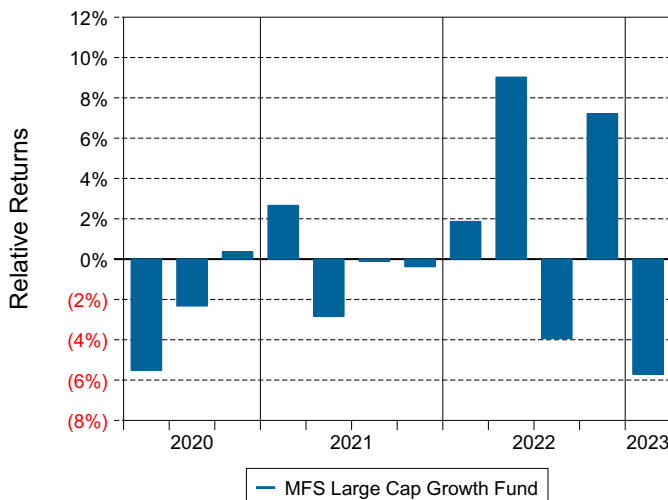
Quarterly Summary and Highlights

- MFS Large Cap Growth Fund's portfolio posted a 7.84% return for the quarter placing it in the 91 percentile of the Callan Large Cap Growth Mutual Funds group for the quarter and in the 8 percentile for the last year.
- MFS Large Cap Growth Fund's portfolio underperformed the Russell 1000 Growth Index by 6.53% for the quarter and outperformed the Russell 1000 Growth Index for the year by 5.23%.

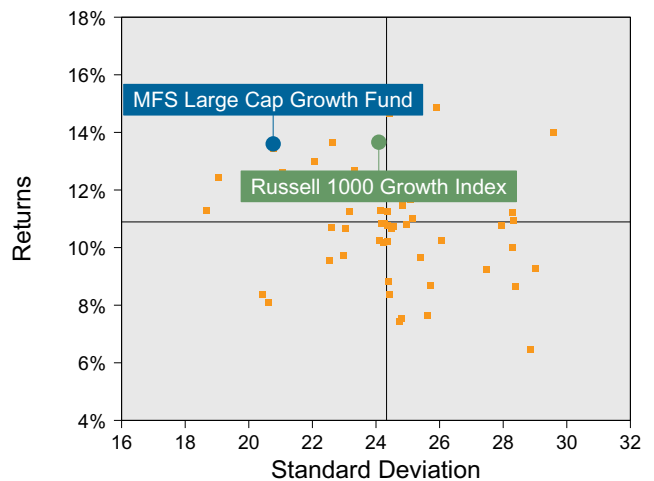
Performance vs Callan Large Cap Growth Mutual Funds (Institutional Net)



Relative Return vs Russell 1000 Growth Index



Callan Large Cap Growth Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

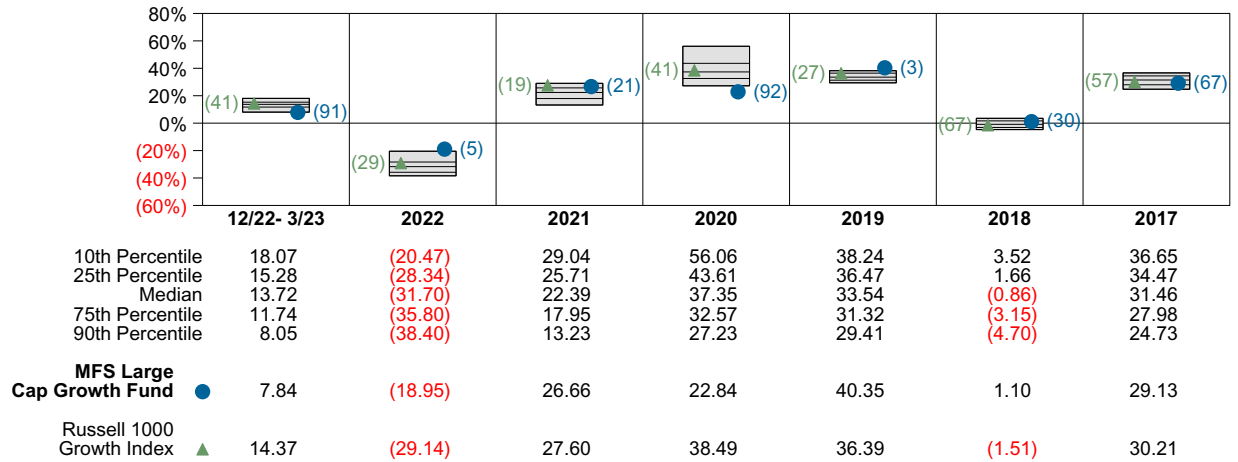


MFS Large Cap Growth Fund Return Analysis Summary

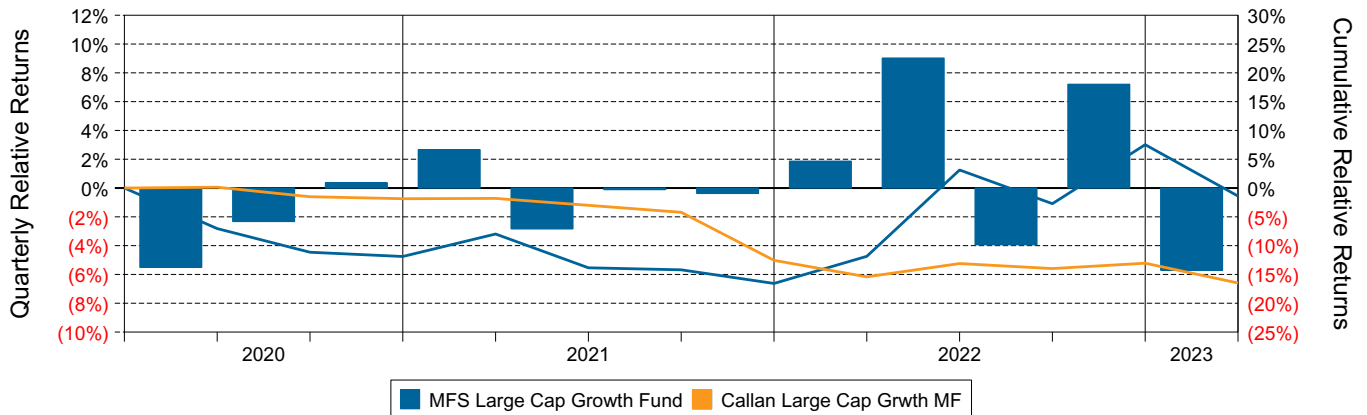
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

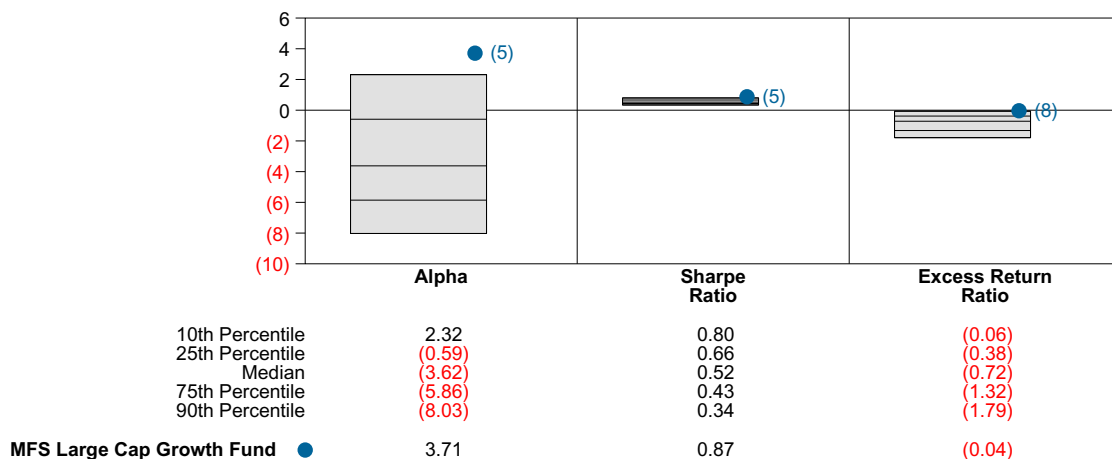
Performance vs Callan Large Cap Growth Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Russell 1000 Growth Index



Risk Adjusted Return Measures vs Russell 1000 Growth Index Rankings Against Callan Large Cap Growth Mutual Funds (Institutional Net) Three Years Ended March 31, 2023

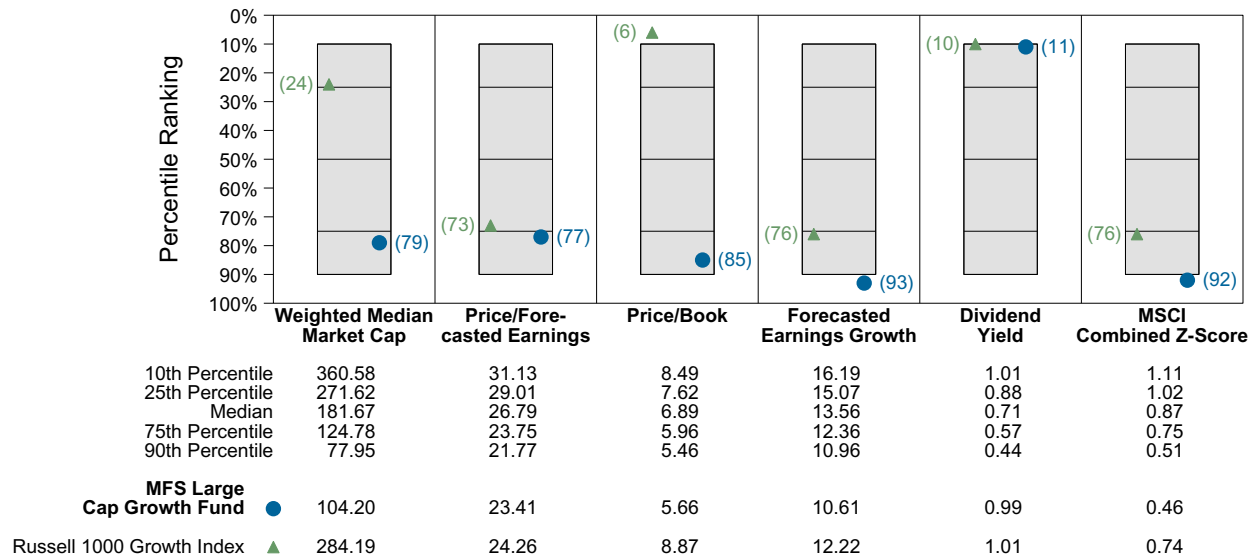


MFS Large Cap Growth Fund Equity Characteristics Analysis Summary

Portfolio Characteristics

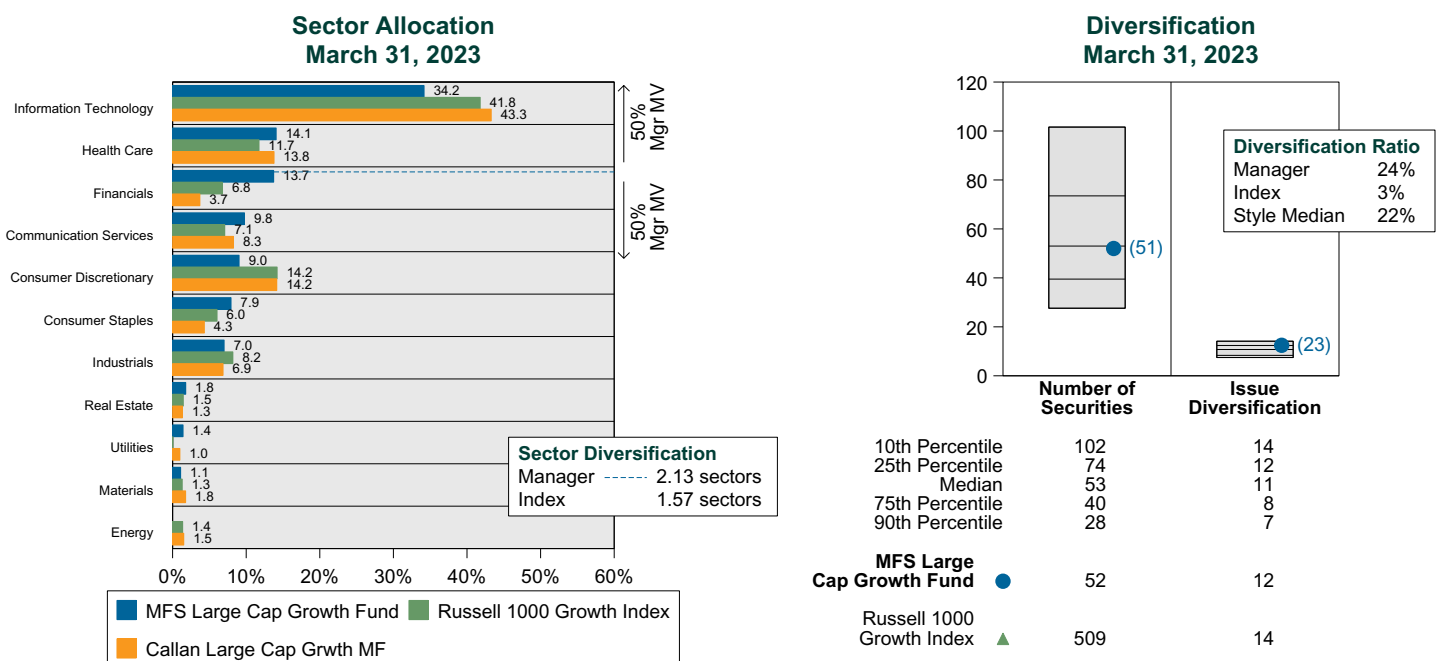
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Growth Mutual Funds as of March 31, 2023



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



GW&K Small/Mid Cap Equity Fund (CIT)

Period Ended March 31, 2023

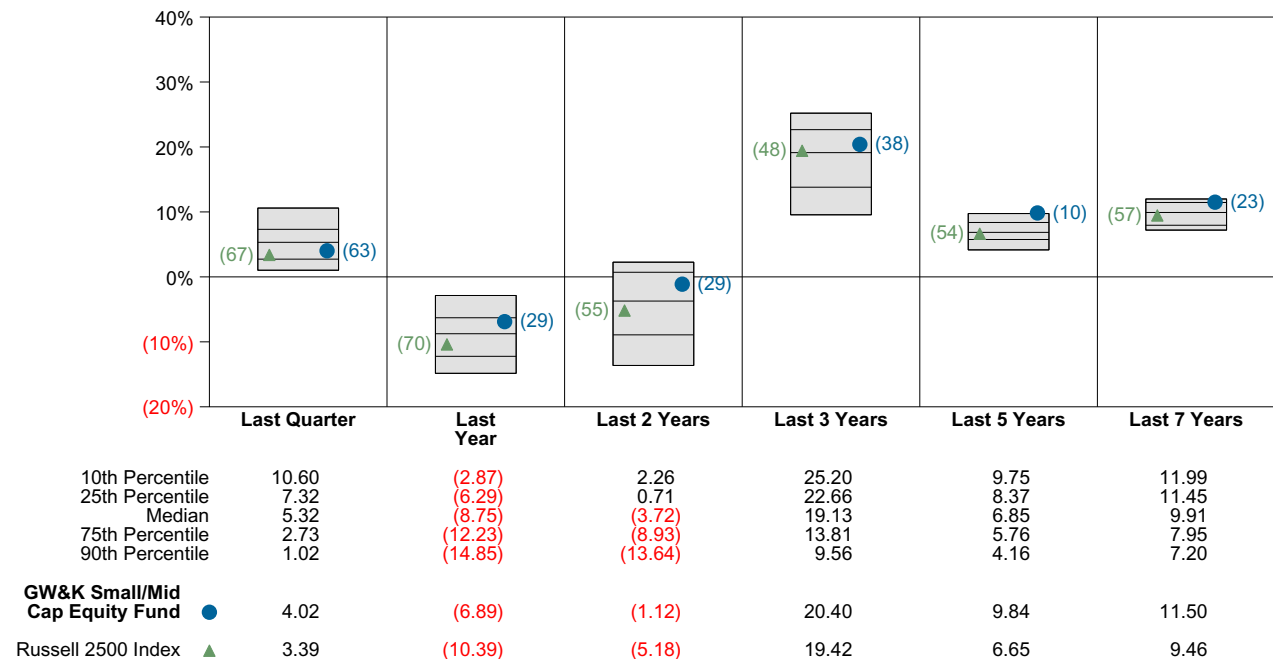
Investment Philosophy

Boston-based GW&K (formerly known as Gannett, Welsh & Kotler) was founded in 1974. The firm was bought by Bank of New York (BNY) in 2002 and sold its BNY stake to AMG in 2008. The firm remains majority-owned by AMG. The Small/Mid Cap Equity strategy is managed by Jeff Thibault who works closely with a team of research analysts. The strategy maintains a core growth orientation with fundamental analysis focused on company management (high-quality management teams), growth profile (consistent long-term growth), market positioning (niche markets), financial strength (strong financial characteristics) and valuation (appropriate valuation). Portfolios typically hold 60-80 stocks with annual portfolio turnover less than 50%.

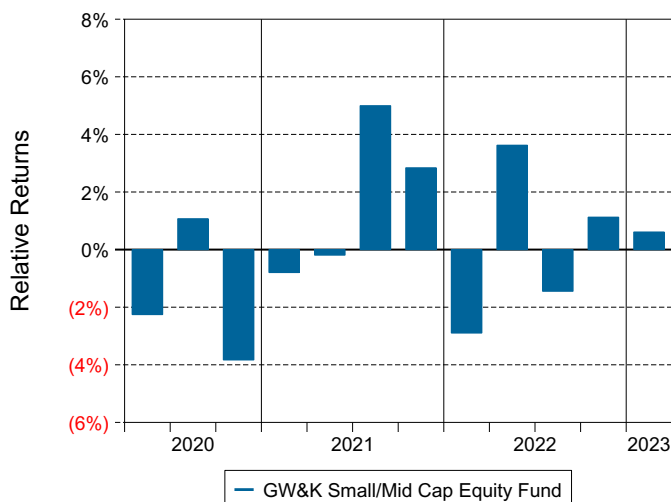
Quarterly Summary and Highlights

- GW&K Small/Mid Cap Equity Fund's portfolio posted a 4.02% return for the quarter placing it in the 63 percentile of the Callan Small/MidCap Broad Mutual Funds group for the quarter and in the 29 percentile for the last year.
- GW&K Small/Mid Cap Equity Fund's portfolio outperformed the Russell 2500 Index by 0.63% for the quarter and outperformed the Russell 2500 Index for the year by 3.50%.

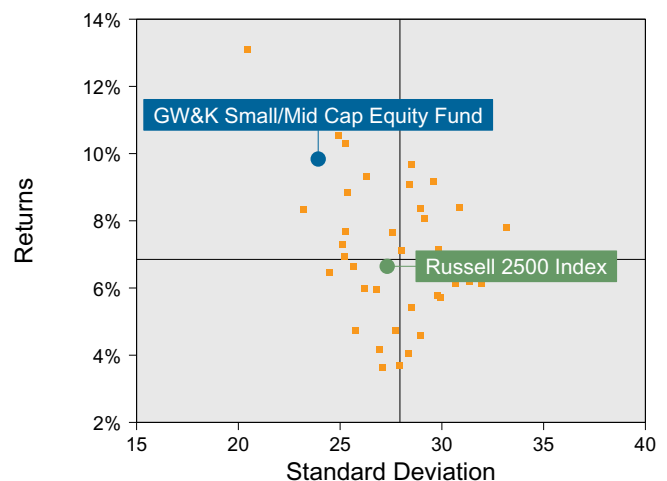
Performance vs Callan Small/MidCap Broad Mutual Funds (Institutional Net)



Relative Return vs Russell 2500 Index



Callan Small/MidCap Broad Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

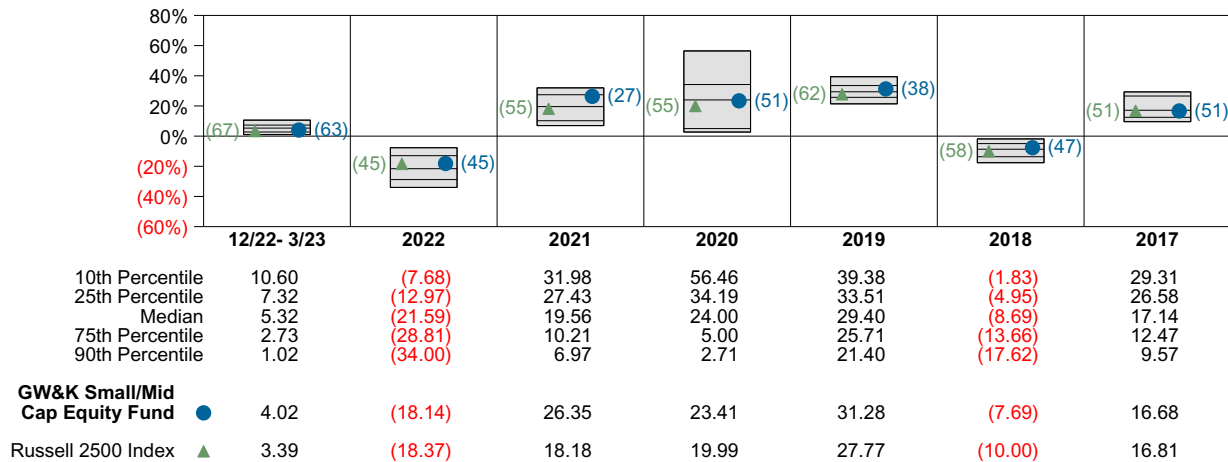


GW&K Small/Mid Cap Equity Fund Return Analysis Summary

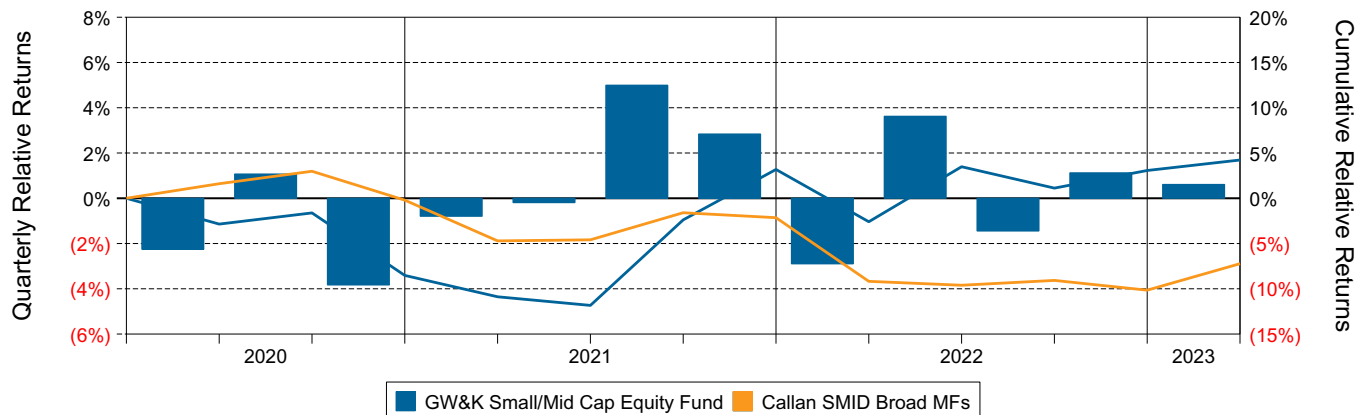
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

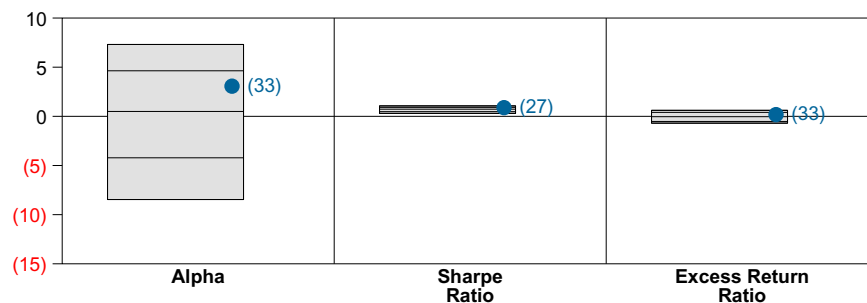
Performance vs Callan Small/MidCap Broad Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Russell 2500 Index



Risk Adjusted Return Measures vs Russell 2500 Index Rankings Against Callan Small/MidCap Broad Mutual Funds (Institutional Net) Three Years Ended March 31, 2023

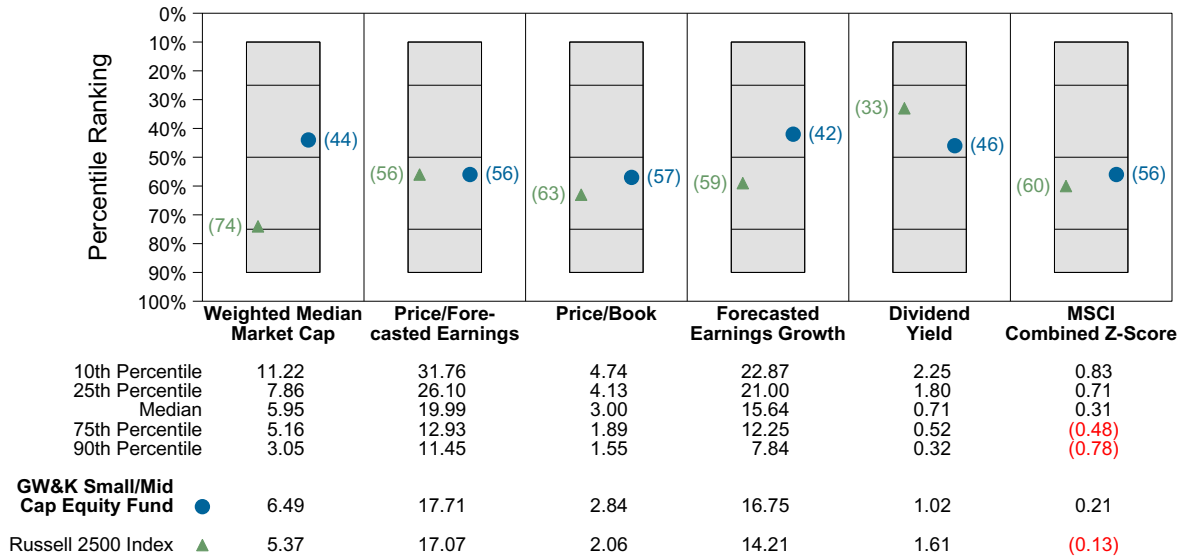


GW&K Small/Mid Cap Equity Fund Equity Characteristics Analysis Summary

Portfolio Characteristics

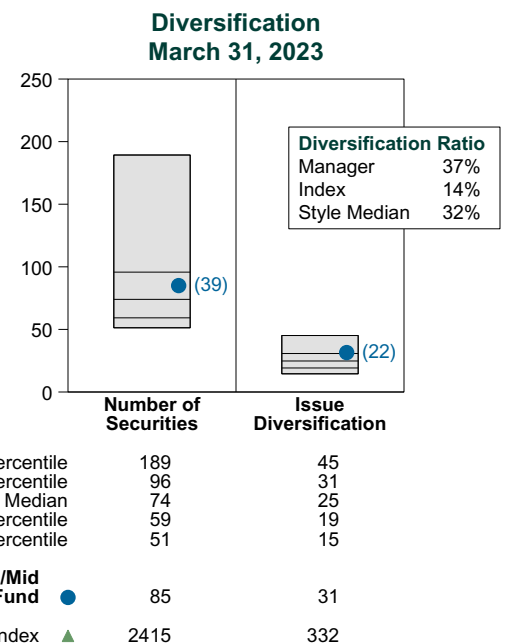
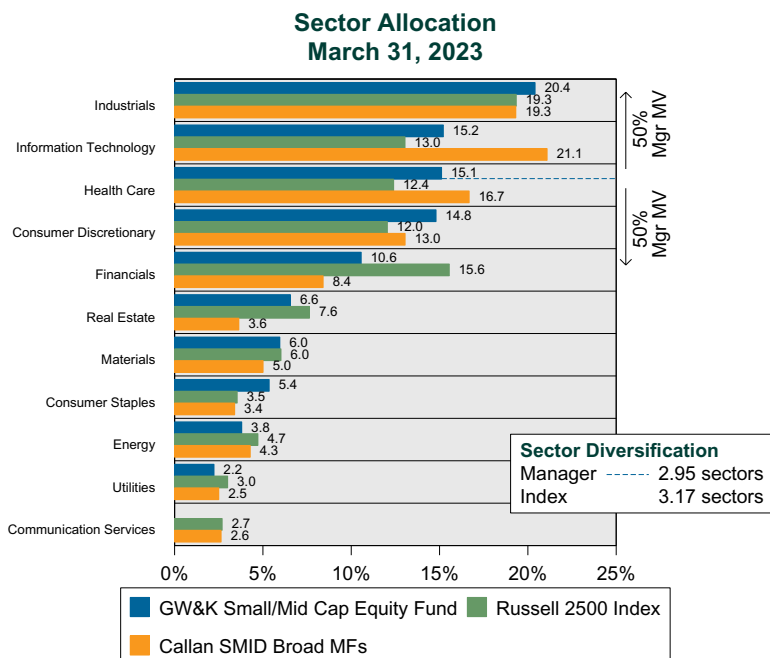
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small/MidCap Broad Mutual Funds as of March 31, 2023



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



MFS Intl Diversification Fund (MDIZX) Period Ended March 31, 2023

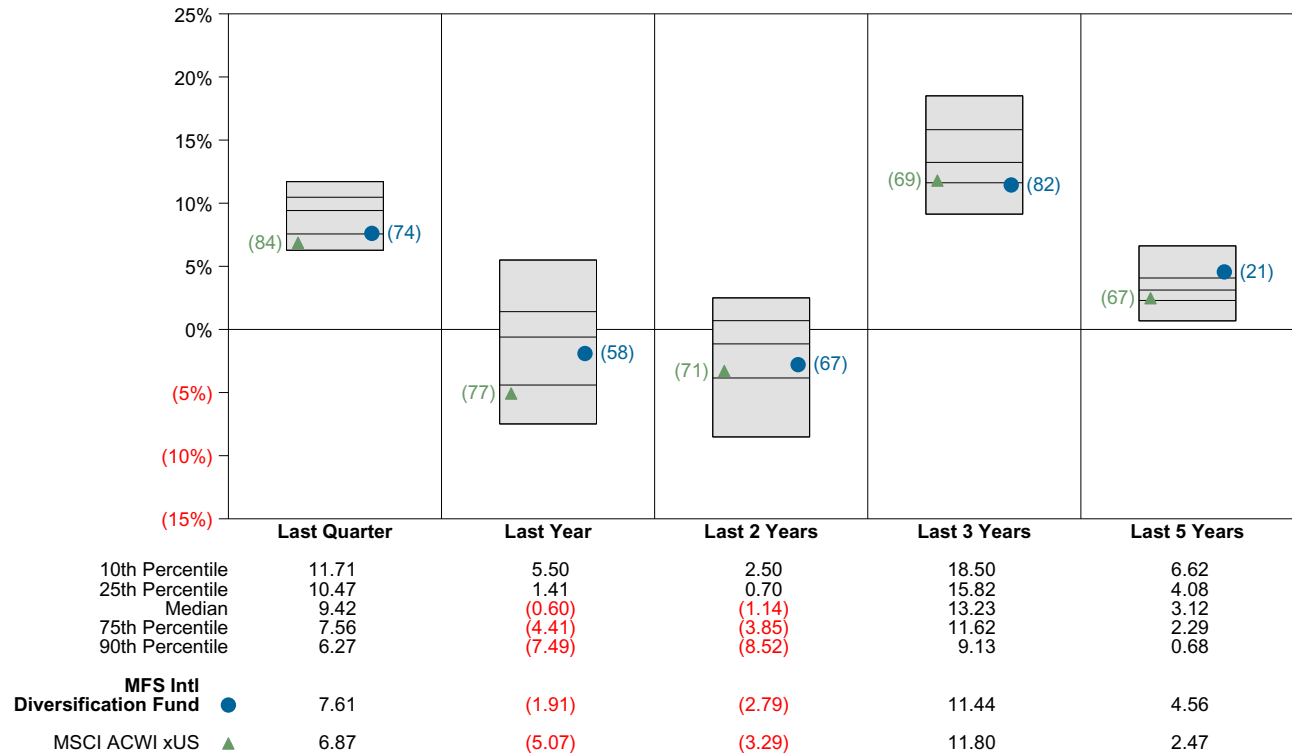
Investment Philosophy

The MFS International Diversification Fund is a diversified portfolio of MFS international stock funds. The fund has a target weighting of 100% international stocks, provides convenient access to five distinct international equity strategies in a single investment, and is systematically rebalanced. The fund's objective is capital appreciation.

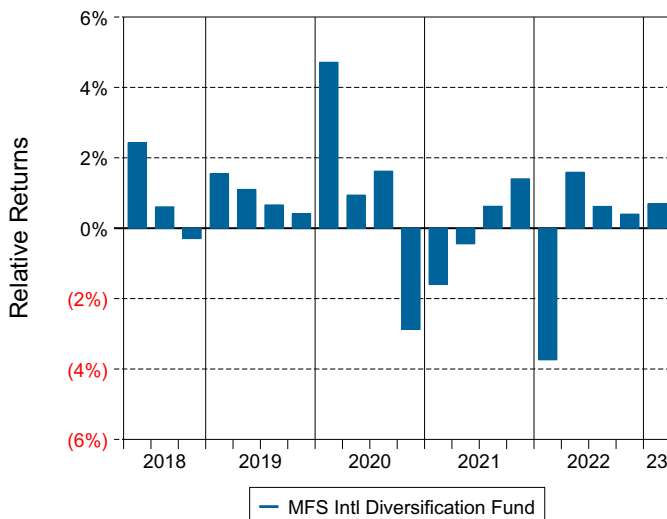
Quarterly Summary and Highlights

- MFS Intl Diversification Fund's portfolio posted a 7.61% return for the quarter placing it in the 74 percentile of the Callan Non US Equity Mutual Funds group for the quarter and in the 58 percentile for the last year.
- MFS Intl Diversification Fund's portfolio outperformed the MSCI ACWI xUS by 0.74% for the quarter and outperformed the MSCI ACWI xUS for the year by 3.16%.

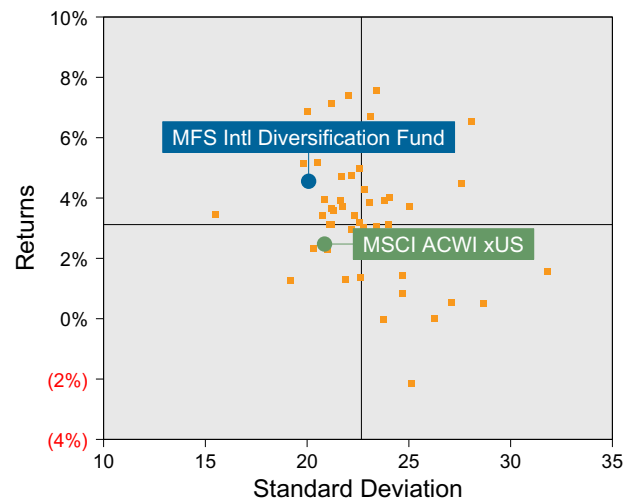
Performance vs Callan Non US Equity Mutual Funds (Institutional Net)



Relative Return vs MSCI ACWI xUS



Callan Non US Equity Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

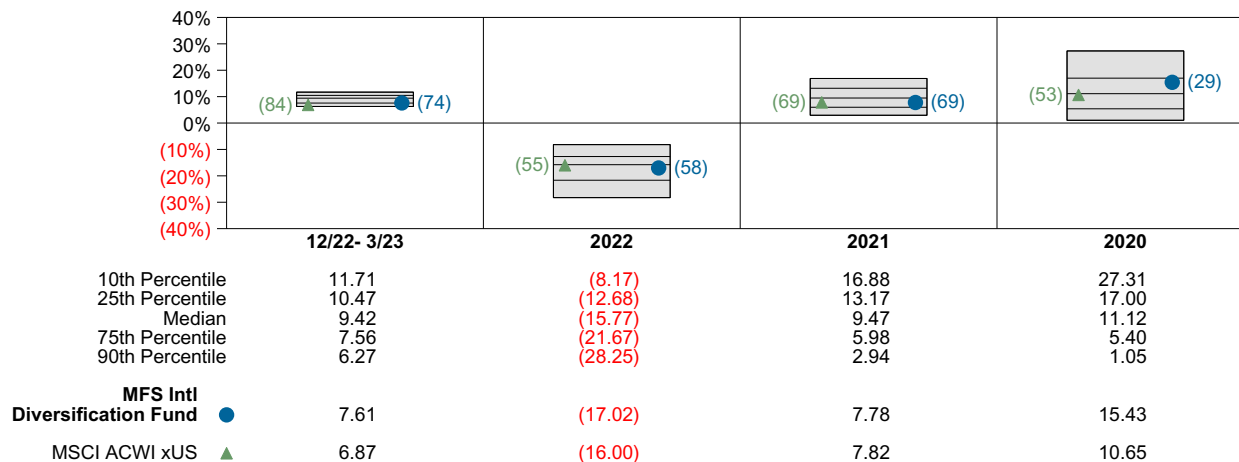


MFS Intl Diversification Fund Return Analysis Summary

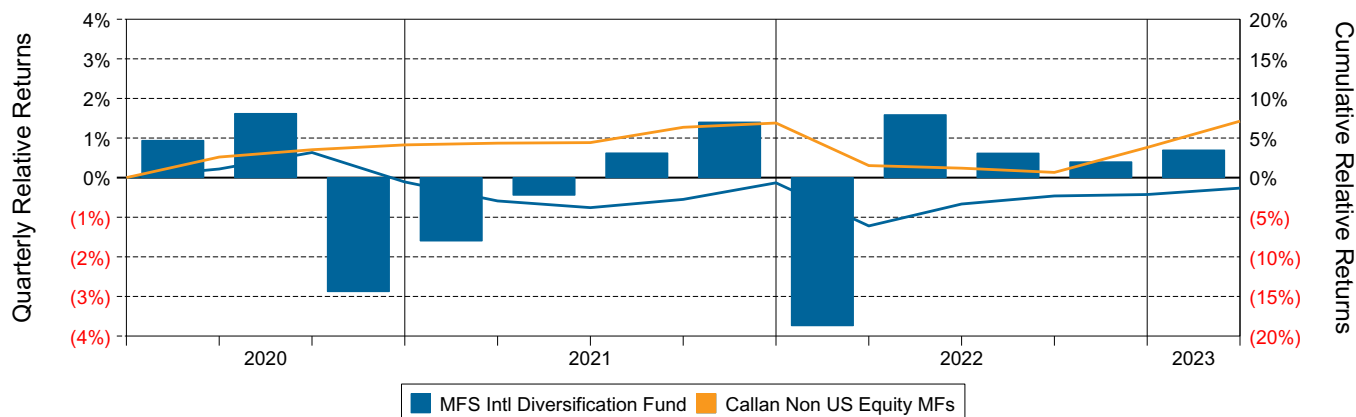
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs Callan Non US Equity Mutual Funds (Institutional Net)

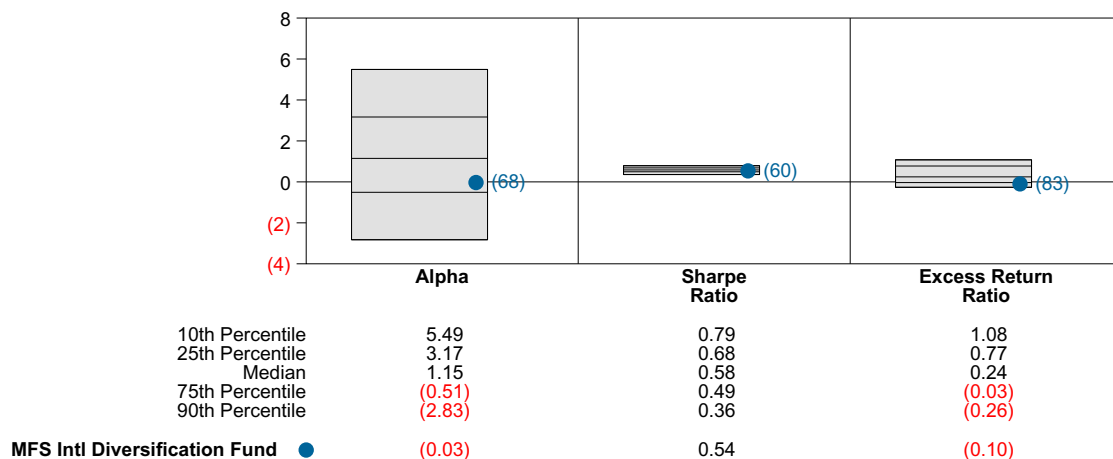


Cumulative and Quarterly Relative Returns vs MSCI ACWI xUS



Risk Adjusted Return Measures vs MSCI ACWI xUS

Rankings Against Callan Non US Equity Mutual Funds (Institutional Net) Three Years Ended March 31, 2023

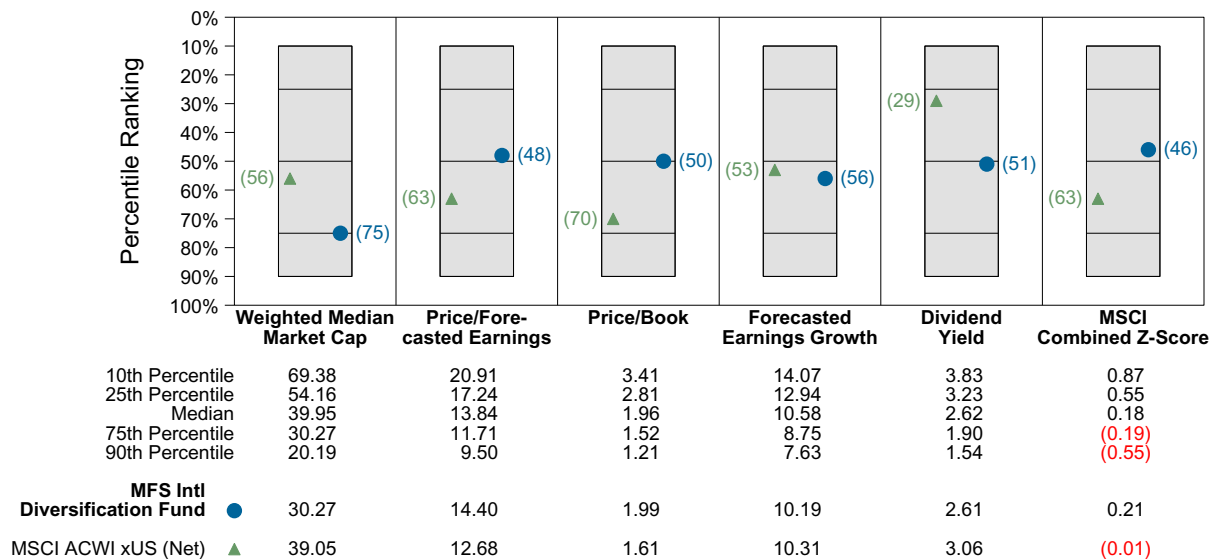


MFS Intl Diversification Fund Equity Characteristics Analysis Summary

Portfolio Characteristics

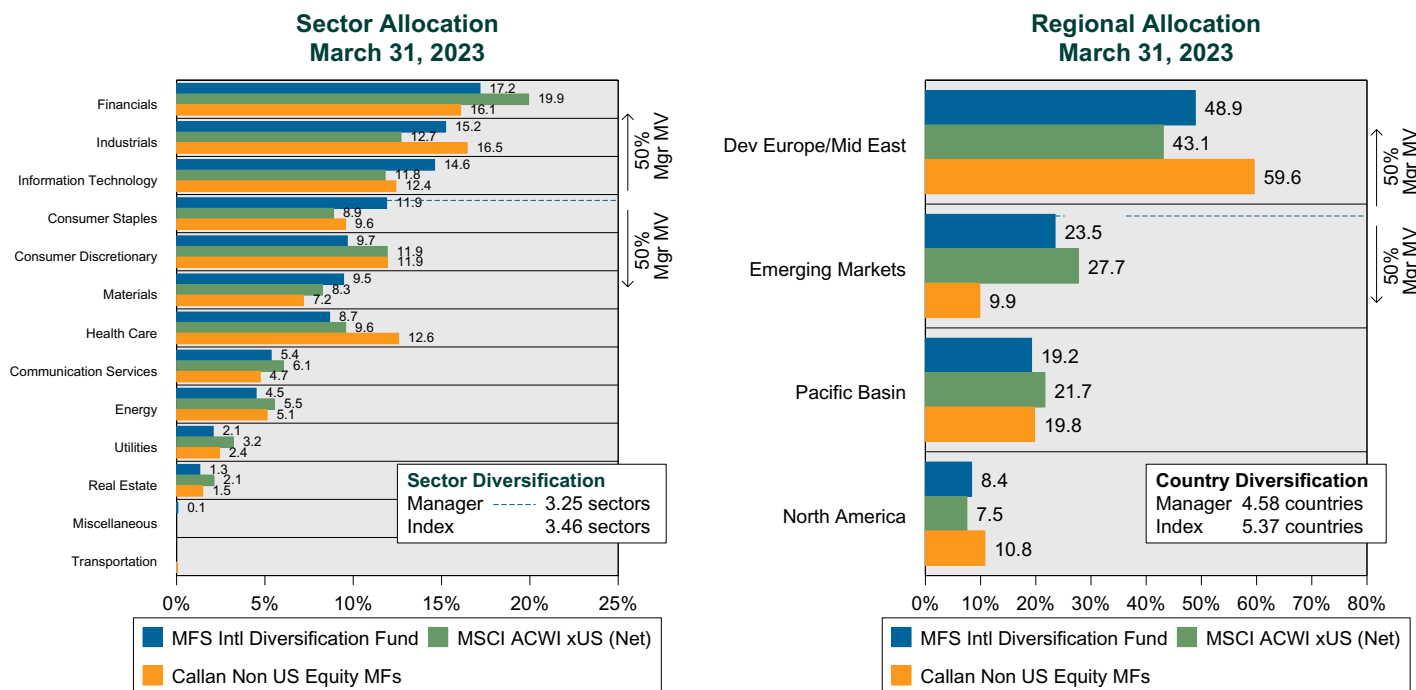
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non US Equity Mutual Funds as of March 31, 2023



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.



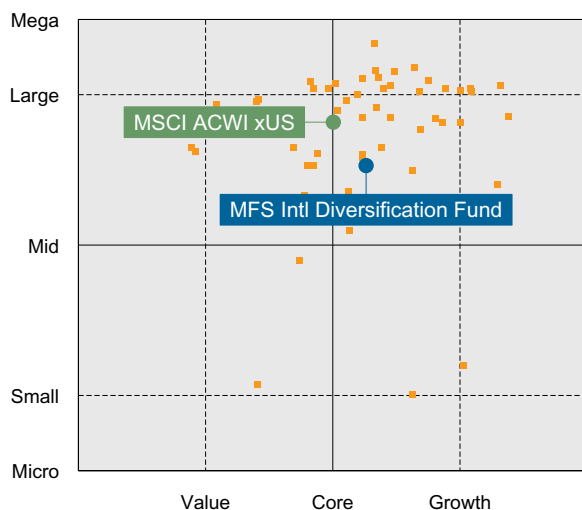
Current Holdings Based Style Analysis

MFS Intl Diversification Fund

As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

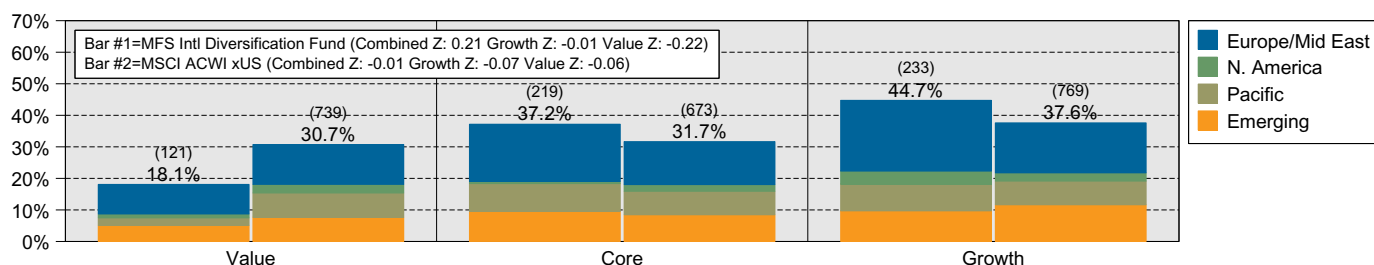
Style Map vs Callan Non US Equity MFs
Holdings as of March 31, 2023



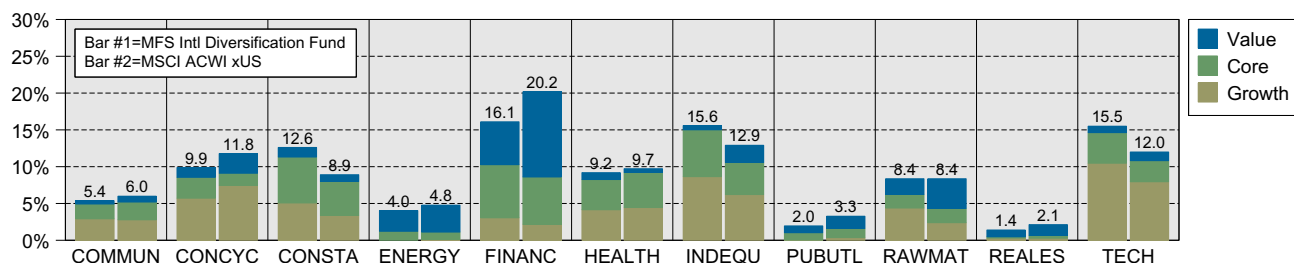
Style Exposure Matrix
Holdings as of March 31, 2023

	Value	Core	Growth	Total
Europe/ Mid East	9.4% (38) 12.6% (158)	18.1% (73) 13.6% (127)	22.4% (79) 15.8% (150)	49.9% (190) 42.1% (435)
N. America	1.2% (7) 2.7% (27)	0.7% (5) 2.1% (26)	4.2% (18) 2.6% (34)	6.1% (30) 7.5% (87)
Pacific	2.4% (38) 7.7% (132)	8.9% (97) 7.4% (109)	8.4% (90) 7.5% (116)	19.7% (225) 22.6% (357)
Emerging	5.1% (38) 7.7% (422)	9.5% (44) 8.5% (411)	9.7% (46) 11.6% (469)	24.3% (128) 27.8% (1302)
Total	18.1% (121) 30.7% (739)	37.2% (219) 31.7% (673)	44.7% (233) 37.6% (769)	100.0% (573) 100.0% (2181)

Combined Z-Score Style Distribution
Holdings as of March 31, 2023



Sector Weights Distribution
Holdings as of March 31, 2023



TCW MetWest Total Return Fund (CIT) Period Ended March 31, 2023

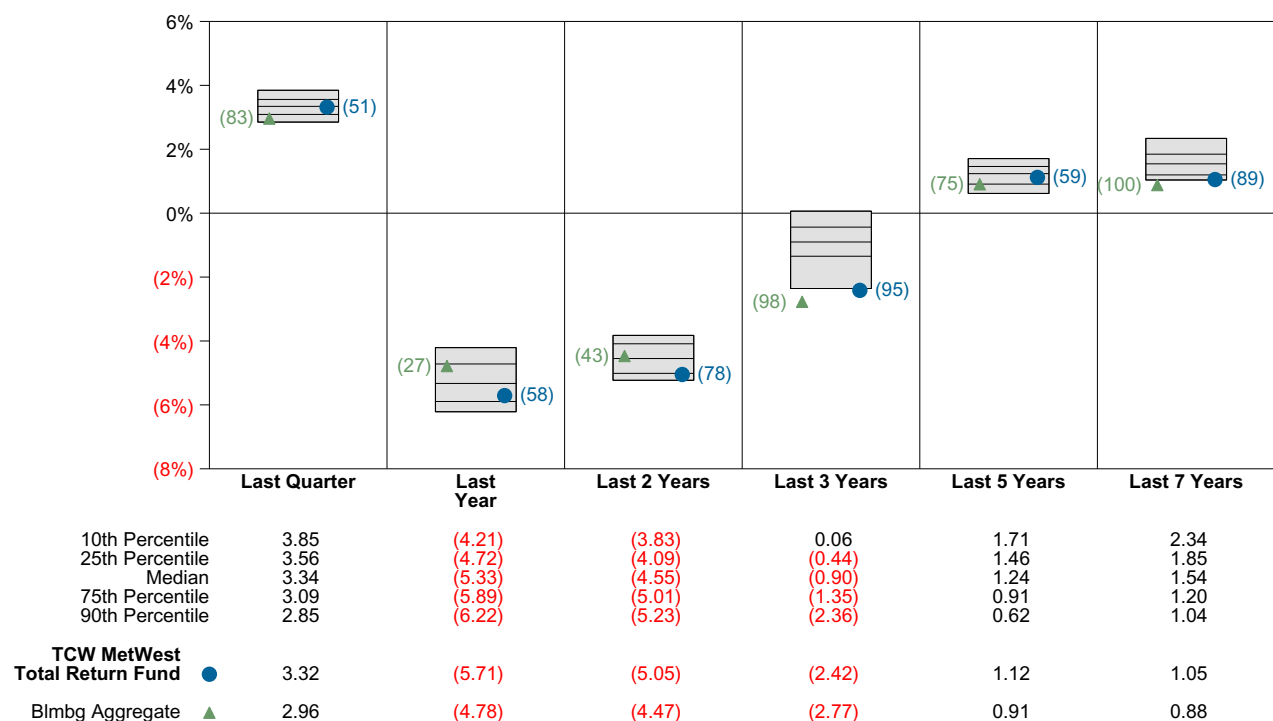
Investment Philosophy

The TCW/MetWest Core Plus strategy is a relative return-oriented strategy that seeks to outperform the broad market primarily through security selection and sector rotation. The team embraces a fundamental, value-oriented research process to build portfolios. Duration is generally +/- one year, relative to the benchmark. The Fund can invest up to 20% in below investment grade securities and non-dollar securities have not historically been a part of the opportunity set, but more recently the Fund has included modest amounts in US dollar-denominated emerging markets debt.

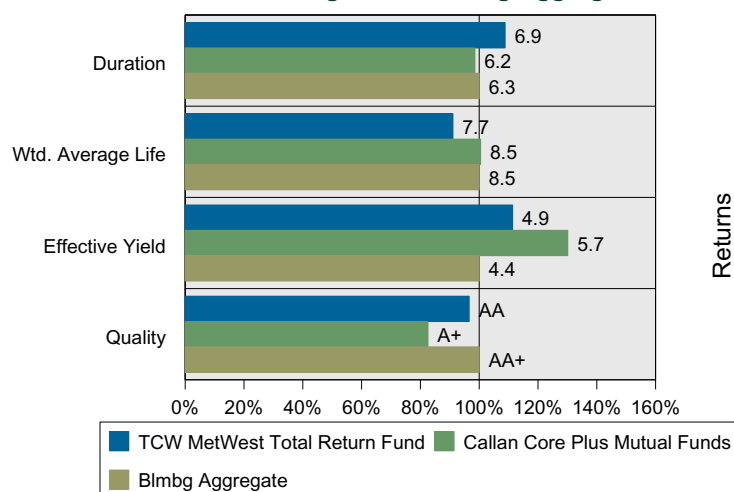
Quarterly Summary and Highlights

- TCW MetWest Total Return Fund's portfolio posted a 3.32% return for the quarter placing it in the 51 percentile of the Callan Core Plus Mutual Funds group for the quarter and in the 58 percentile for the last year.
- TCW MetWest Total Return Fund's portfolio outperformed the Blmbg Aggregate by 0.36% for the quarter and underperformed the Blmbg Aggregate for the year by 0.93%.

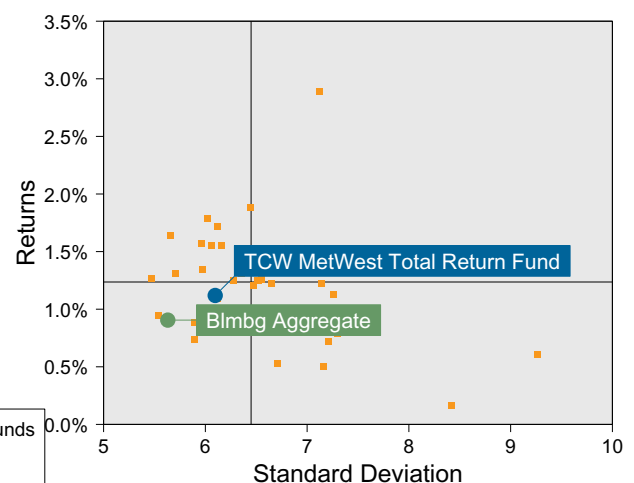
Performance vs Callan Core Plus Mutual Funds (Institutional Net)



Portfolio Characteristics as a Percentage of the Blmbg Aggregate



Callan Core Plus Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

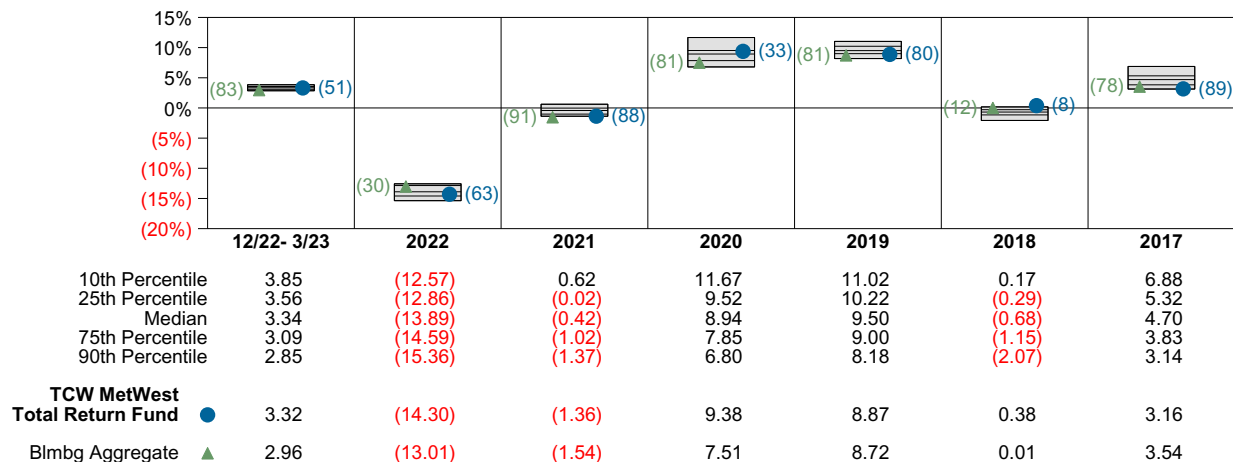


TCW MetWest Total Return Fund Return Analysis Summary

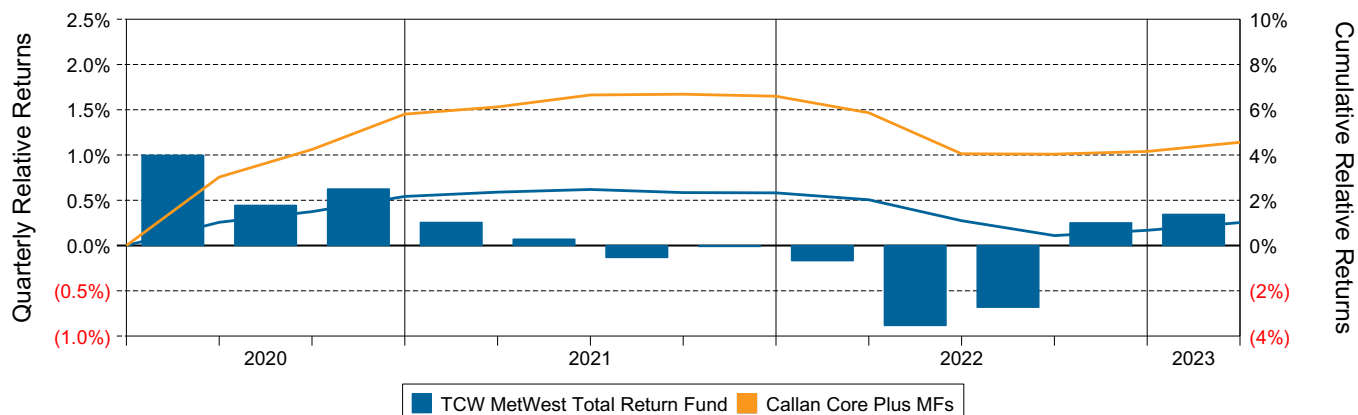
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

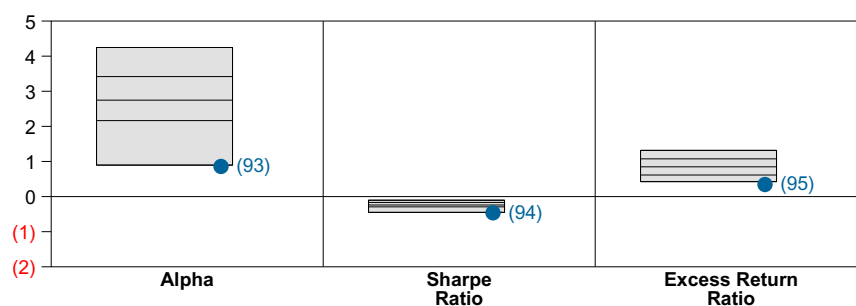
Performance vs Callan Core Plus Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Callan Core Plus Mutual Funds (Institutional Net) Three Years Ended March 31, 2023



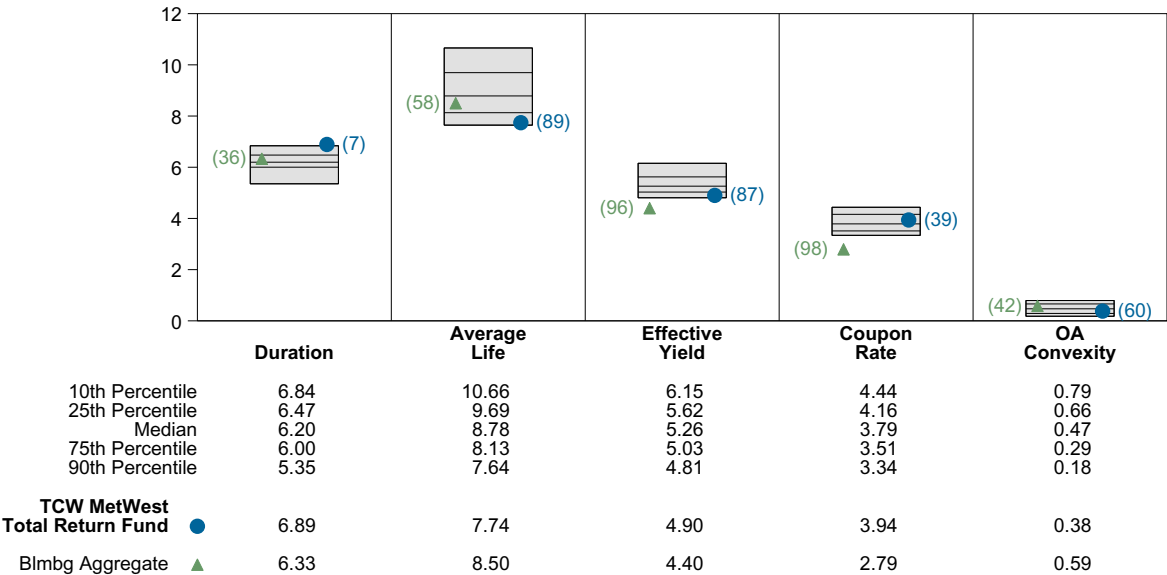
TCW MetWest Total Return Fund

Bond Characteristics Analysis Summary

Portfolio Characteristics

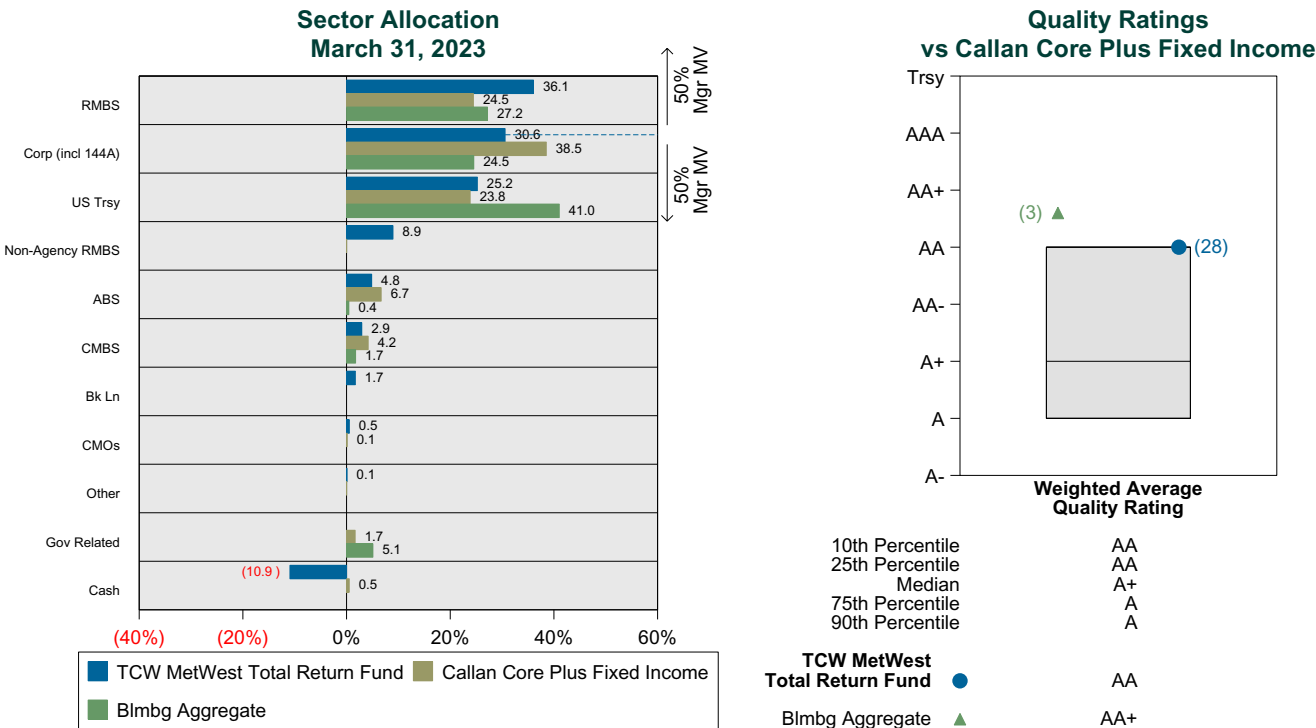
This graph compares the manager’s portfolio characteristics with the range of characteristics for the portfolios which make up the manager’s style group. This analysis illustrates whether the manager’s current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Plus Fixed Income as of March 31, 2023



Sector Allocation and Quality Ratings

The first graph compares the manager’s sector allocation with the average allocation across all the members of the manager’s style. The second graph compares the manager’s weighted average quality rating with the range of quality ratings for the style.

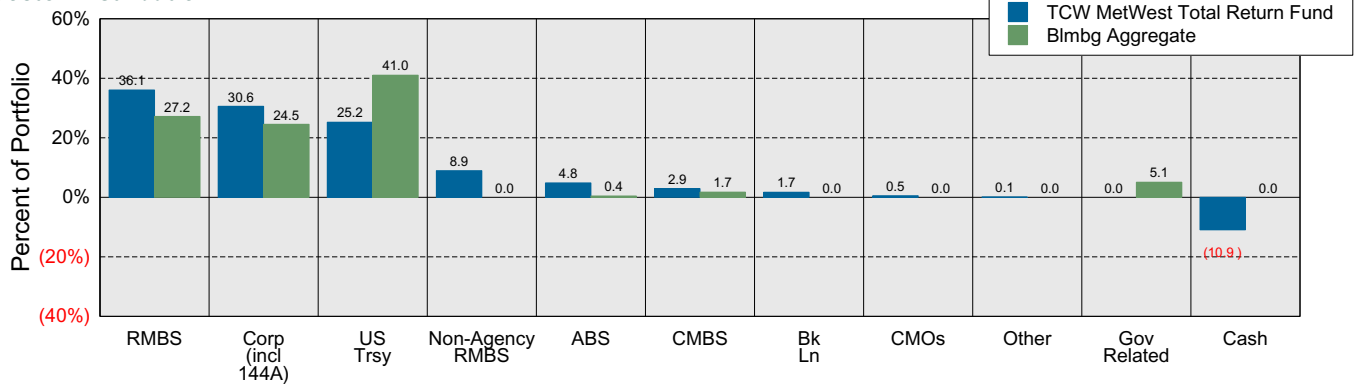


TCW MetWest Total Return Fund Portfolio Characteristics Summary As of March 31, 2023

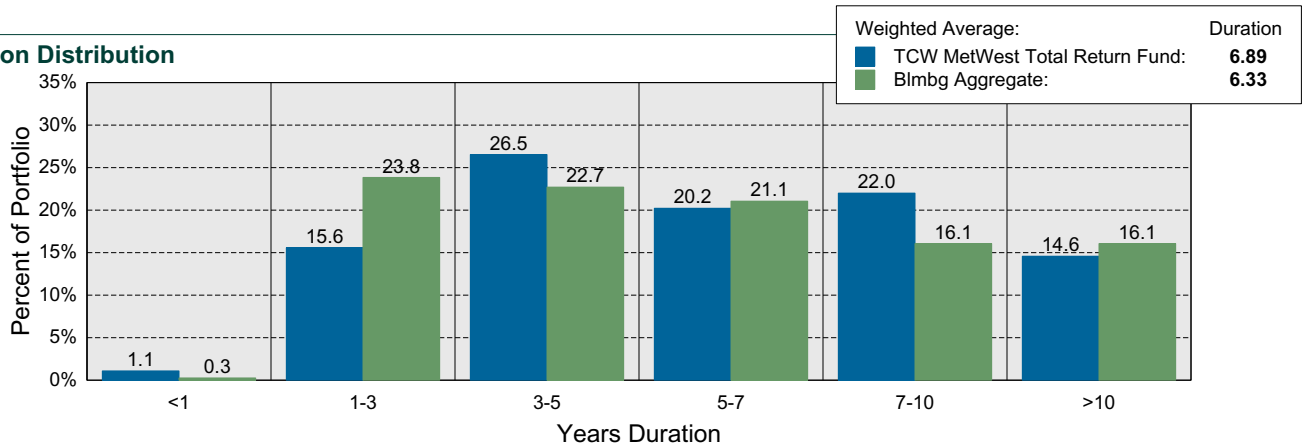
Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

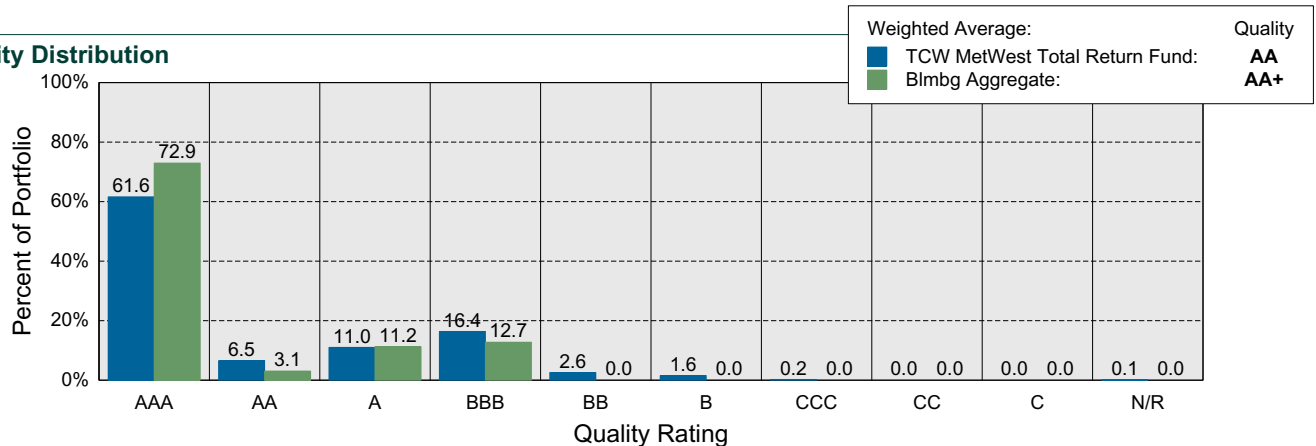
Sector Distribution



Duration Distribution



Quality Distribution



Invesco Stable Value Fund (CIT) Period Ended March 31, 2023

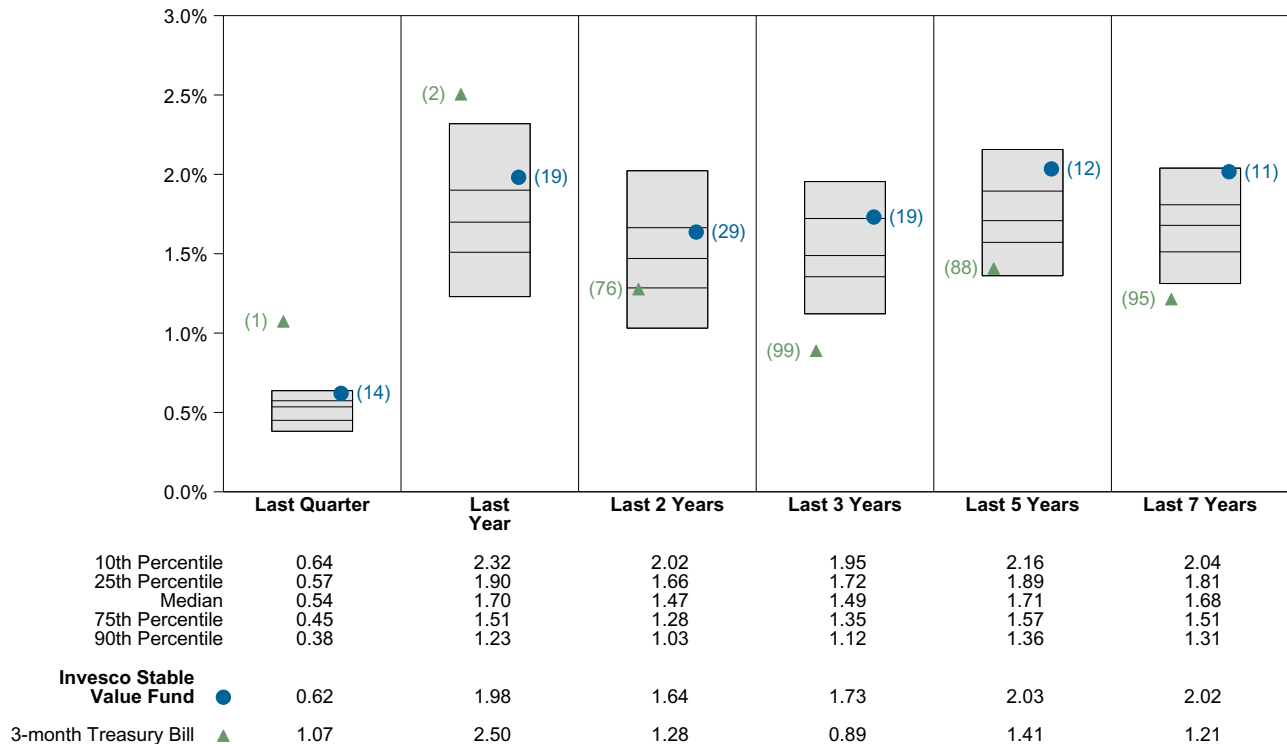
Investment Philosophy

Invesco's "building block" approach for stable value portfolio construction uses a series of commingled fixed income portfolios wherever possible to build each stable value portfolio in order to deliver significant portfolio diversification (sector, subsector and individual security diversification), access to external managers with economies of scale, trading efficiency and minimal cash drag.

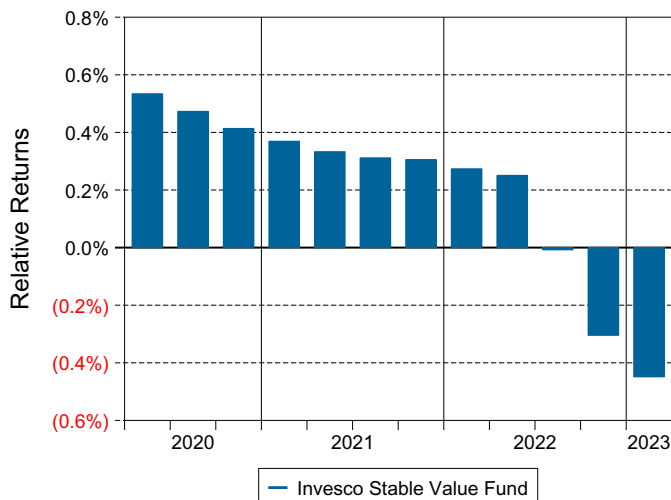
Quarterly Summary and Highlights

- Invesco Stable Value Fund's portfolio posted a 0.62% return for the quarter placing it in the 14 percentile of the Callan Stable Value CT group for the quarter and in the 19 percentile for the last year.
- Invesco Stable Value Fund's portfolio underperformed the 3-month Treasury Bill by 0.45% for the quarter and underperformed the 3-month Treasury Bill for the year by 0.52%.

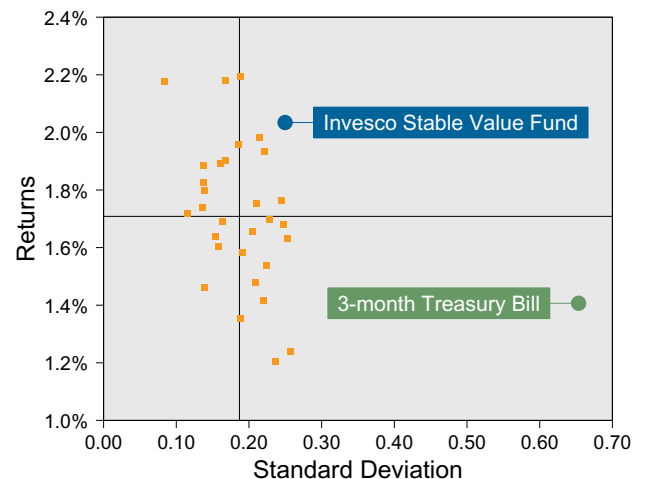
Performance vs Callan Stable Value CT (Institutional Net)



Relative Return vs 3-month Treasury Bill



Callan Stable Value CT (Institutional Net) Annualized Five Year Risk vs Return

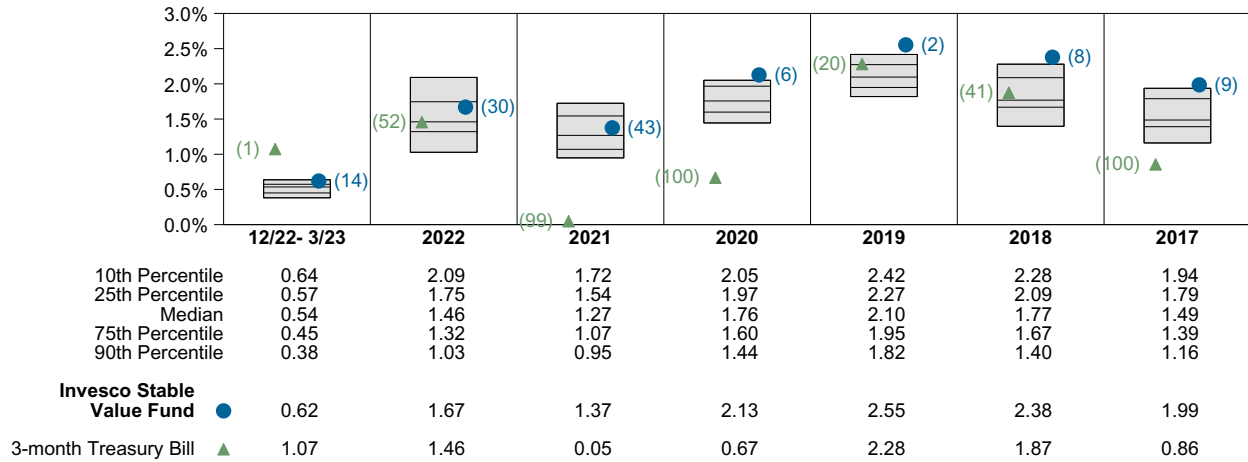


Invesco Stable Value Fund Return Analysis Summary

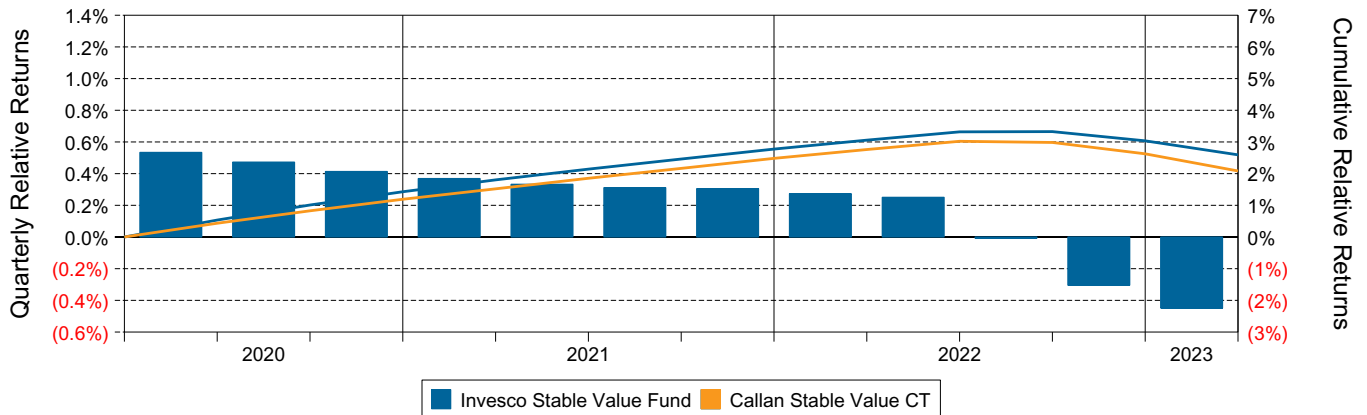
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

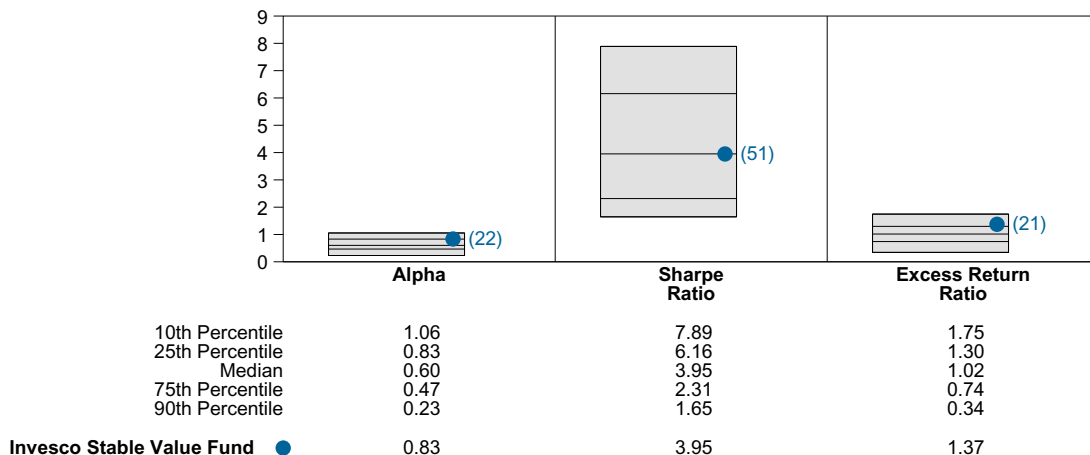
Performance vs Callan Stable Value CT (Institutional Net)



Cumulative and Quarterly Relative Returns vs 3-month Treasury Bill



Risk Adjusted Return Measures vs 3-month Treasury Bill Rankings Against Callan Stable Value CT (Institutional Net) Three Years Ended March 31, 2023



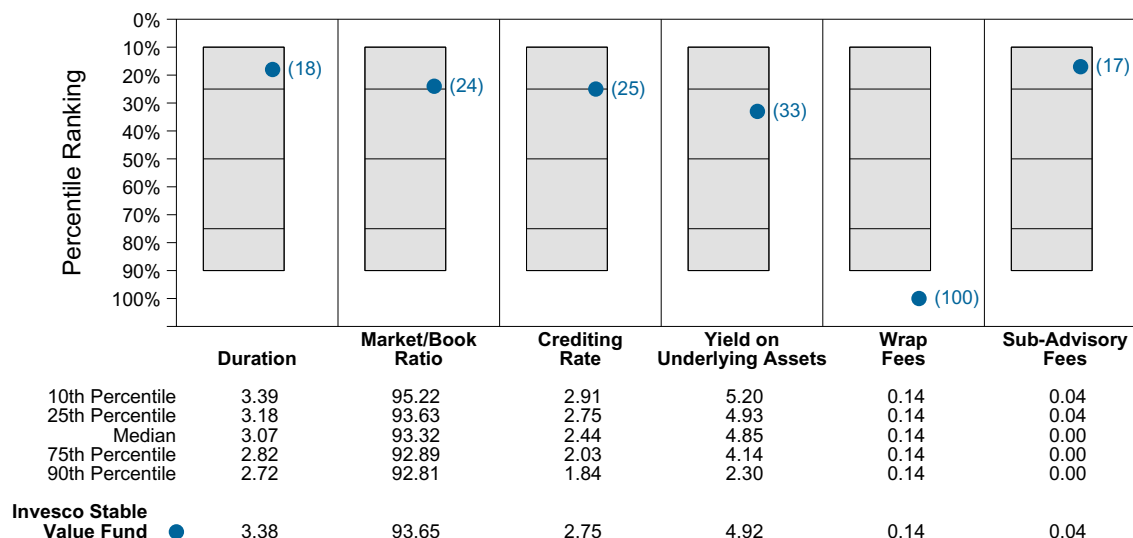
Invesco Stable Value Fund

Stable Value Characteristics Analysis Summary

Portfolio Characteristics

This graph compares the stable value fund's portfolio characteristics with the range of characteristics for the portfolios which make up the fund's style group. This analysis illustrates whether the fund's current structure is consistent with other funds employing the same style.

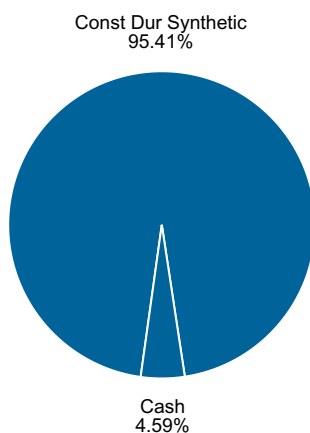
Portfolio Characteristics Percentile Rankings Rankings Against Callan Stable Value CT as of March 31, 2023



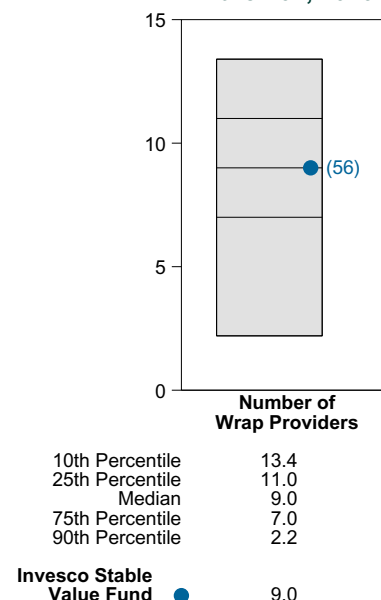
Wrap Structure and Diversification

The graph below represents the stable value fund's wrap contract structure as of the most recent reporting period. The fund's overall wrap structure may include exposure to constant duration or maturing synthetic GIC contracts, traditional GIC contracts, cash, or other exposures. These contracts allow stable value portfolios to maintain book value accounting practices and a stable net asset value.

Portfolio Wrap Exposure March 31, 2023



Wrap Contract Diversification March 31, 2023



Quarterly Highlights

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/research-library to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / institute@callan.com.

New Research from Callan's Experts

2023 DC Trends Survey | Callan's 16th annual DC Trends Survey now covers SECURE 2.0 (pre-passage) and diversity topics, along with the key tenets of DC plan management, governance, and financial wellness.

2023-2032 Capital Markets Assumptions | A white paper detailing the process involved in creating our 2023-2032 capital markets assumptions and the reasoning behind them.

1Q23 Real Assets Reporter: Energy Transition | Jan Mende describes energy-transition investments and the role they can play in institutional portfolios.

The Periodic Table of Investment Returns | A visual representation of annual returns for key asset classes, ranked from best to worst performance for each calendar year.

Blog Highlights

The PRT Decision: What Plan Sponsors Need to Know | Despite the turbulence of 2022, many corporate defined benefit (DB) plan sponsors are considering pension risk transfers (PRTs).

Can Institutional Investors Target 'Food Deserts' for Investment? | While food desert investments have not been prevalent in institutional real estate portfolios, increasing government incentives and additional sources of financing may help support these opportunities in the future.

Putting 2022 Public DB Plan Performance into Perspective | While 2022 was indeed challenging, viewing plan returns over the long-term shows results that are favorable when stacked up against actuarial discount rates.

Webinar Replays

Callan's 2023 DC Survey Results Webinar | This webinar focuses on the results of Callan's 2023 DC Trends Survey, including fiduciary positioning, investments, retirement solutions, fees, and more.

Research Cafe: ESG Interview Series | During this interview, Tom Shingler of Callan discusses with Richard Ashley, partner and co-chair of US Employee Benefits and Executive Compensation practice at DLA Piper, key features of the new ESG and proxy voting rule.

Quarterly Periodicals

Private Equity Update, 4Q22 | A high-level summary of private equity activity in the quarter through all the investment stages

Active vs. Passive Charts, 4Q22 | A comparison of active managers alongside relevant benchmarks over the long term

Market Pulse, 4Q22 | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

Capital Markets Review, 4Q22 | Analysis and a broad overview of the economy and public and private markets activity each quarter across a wide range of asset classes

Hedge Fund Update, 4Q22 | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

Real Assets Update, 4Q22 | A summary of market activity for real assets and private real estate during the quarter

Private Credit Update, 4Q22 | A review of performance and fundraising activity for private credit during the quarter

Events

A complete list of all upcoming events can be found on our website: callan.com/events-education.

Please mark your calendar and look forward to upcoming invitations:

2023 June Workshops

June 27, 2023 – New York

June 29, 2023 – Chicago

For more information about events, please contact Barb Gerraty: 415-274-3093 / gerraty@callan.com

Education: By the Numbers

50+

Unique pieces of research the Institute generates each year

525

Attendees (on average) of the Institute's annual National Conference

3,700

Total attendees of the "Callan College" since 1994

Education

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

Introduction to Investments

May 23-25 – Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. Our virtual session is held over three days with virtual modules of 2.5-3 hours, while the in-person session lasts one-and-a-half days. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: callan.com/events-education



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer

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Lazard Asset Management
LGIM America
Lincoln National Corporation
Longview Partners
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Lord Abbett & Company
LSV Asset Management
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S&P Dow Jones Indices

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Callan



June 14, 2023

City of Norwalk Pension and OPEB Performance Review

Period ended March 31, 2023

Britton M. Murdoch
Vice President

Kevin Schmidt
Senior Vice President

Overview

- Market Environment
- Pension Performance
- OPEB Performance

Callan

Market Environment

Equity and Fixed Income Markets Up Together in 4Q22 and 1Q23

Declines for stocks and bonds in first three quarters of 2022 eased by market rebound

S&P 500 up 7.5% in both 1Q23 and 4Q22.

- Loss through first three quarters of 2022 was 23.8%; rebound in last two quarters reduced the loss to -9.7%. Similar loss reduction across all equity market segments: developed, emerging, small cap

Fixed income recovered as high inflation began to ease, leading to speculation about interest rates

- Bloomberg Aggregate: up 3% in 1Q, after a 1.9% rise in 4Q22, lowering the loss since the start of 2022 to 8.4%
- CPI-U: +5% year-over year for 1Q, down from 6.5% for the year ended Dec. 2022
- ▶ Inflation hit the highest rate (9%) in decades in June.
- ▶ Economic data show growth slowed in 2022; GDP gained only 1.1% in 1Q
 - Job market remains solid, providing support to Fed efforts to fight inflation

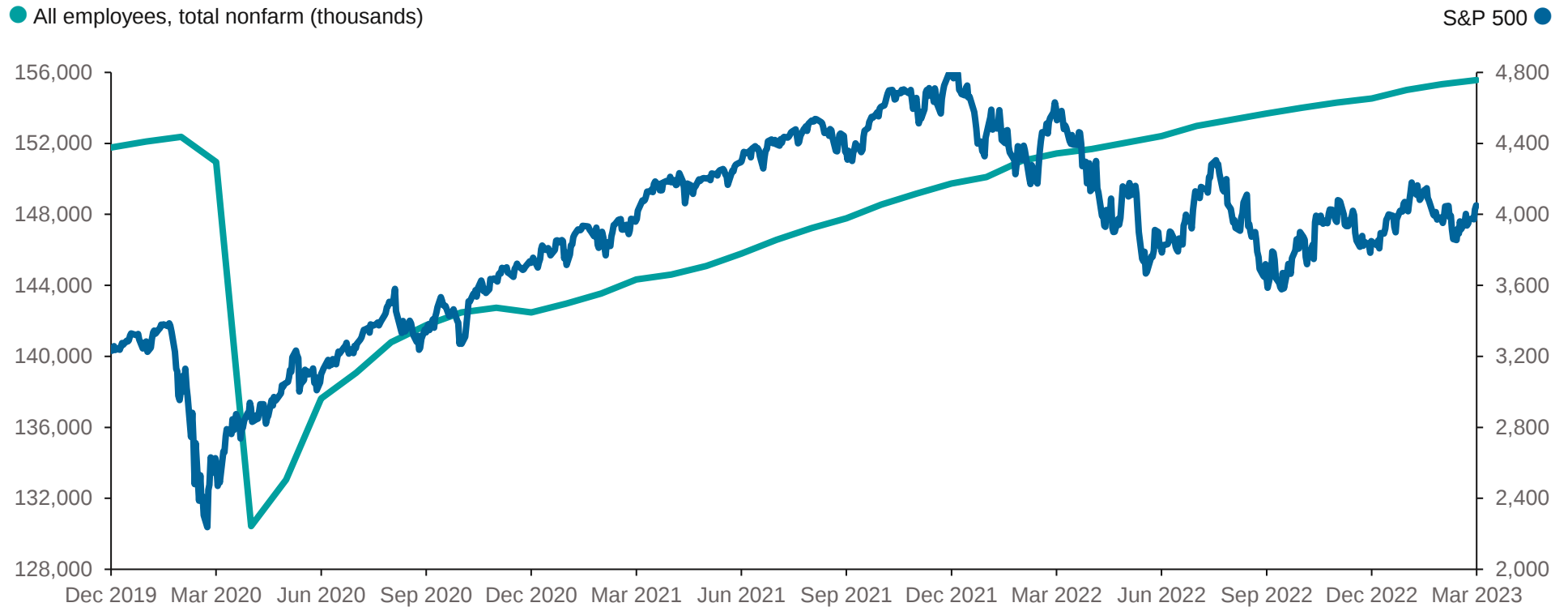
Returns for Periods ended 3/31/23

	Quarter	Year to Date	1 Year	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	7.18	7.18	-8.58	10.45	11.73	7.45
S&P 500	7.50	7.50	-7.73	11.19	12.24	7.39
Russell 2000	2.74	2.74	-11.61	4.71	8.04	6.84
Global ex-U.S. Equity						
MSCI World ex USA	8.02	8.02	-2.74	3.80	4.91	4.39
MSCI Emerging Markets	3.96	3.96	-10.70	-0.91	2.00	--
MSCI ACWI ex USA Small Cap	4.70	4.70	-10.37	1.67	5.06	6.45
Fixed Income						
Bloomberg Aggregate	2.96	2.96	-4.78	0.91	1.36	4.03
90-day T-Bill	1.07	1.07	2.50	1.41	0.87	1.90
Bloomberg Long Gov/Credit	5.76	5.76	-13.40	0.63	2.35	5.56
Bloomberg Global Agg ex-US	3.06	3.06	-10.72	-3.17	-0.99	2.80
Real Estate						
NCREIF Property	-1.81	-1.81	-1.63	6.71	8.34	8.79
FTSE Nareit Equity	2.68	2.68	-19.22	6.02	5.97	8.01
Alternatives						
CS Hedge Fund Index	0.16	0.16	-0.89	4.18	3.89	5.54
Cambridge Private Equity*	0.80	0.80	-8.16	16.14	15.12	14.10
Bloomberg Commodity	-5.36	-5.36	-12.49	5.36	-1.72	1.80
Gold Spot Price	8.76	8.76	1.65	8.40	2.21	7.81
Inflation - CPI-U	1.70	1.70	4.98	3.88	2.63	2.51

*Cambridge PE data as of 4Q22.

Sources: Bloomberg, Callan, Cambridge, Credit Suisse, FTSE Russell, MSCI, NCREIF, S&P Dow Jones Indices

The Stock Market Is Not the Economy

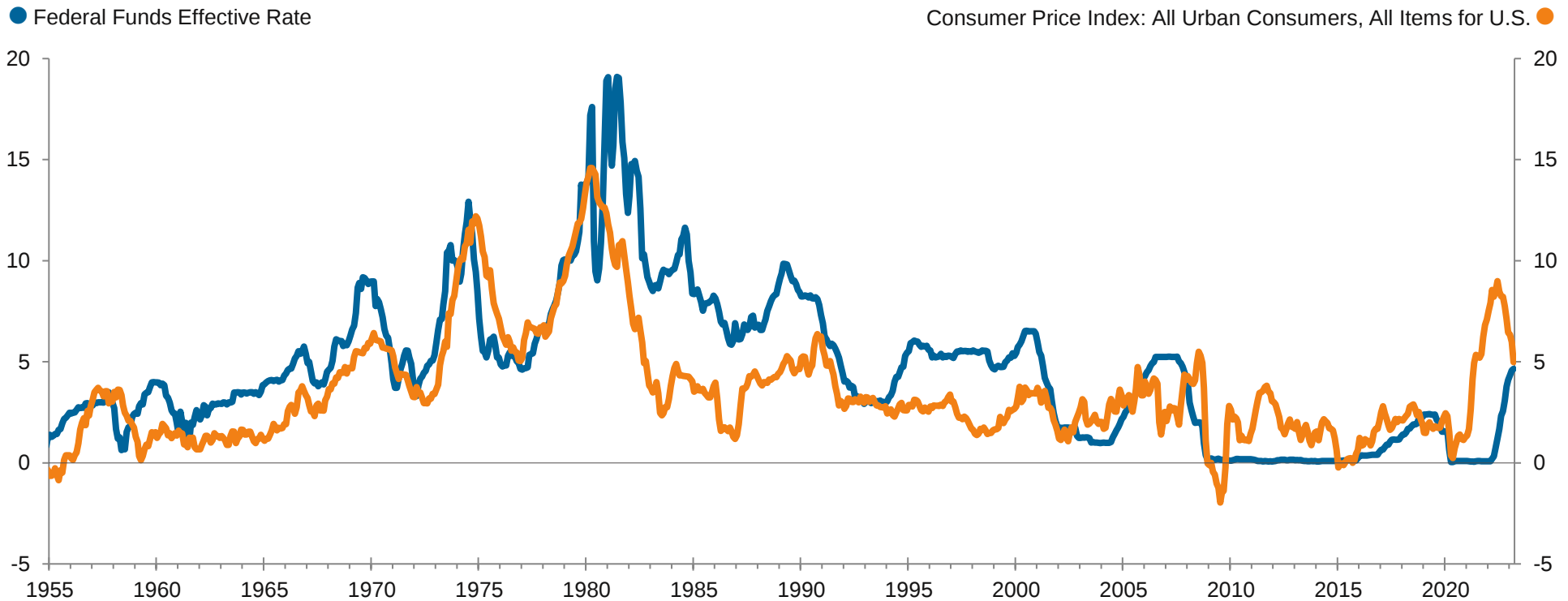


- ▶ The job market lost over 22 million jobs in the pandemic but regained the pre-pandemic high water mark in the spring of 2022.
- ▶ Job growth remained robust through the market upheaval in 2022 and through 1Q23. Headline reports of layoffs in technology have been small relative to the size of the broad job market.

Sources: Federal Reserve Bank of St. Louis, S&P Dow Jones Indices

Inflation vs. Interest Rates Over the Long Term

Federal Funds vs. Consumer Price Index



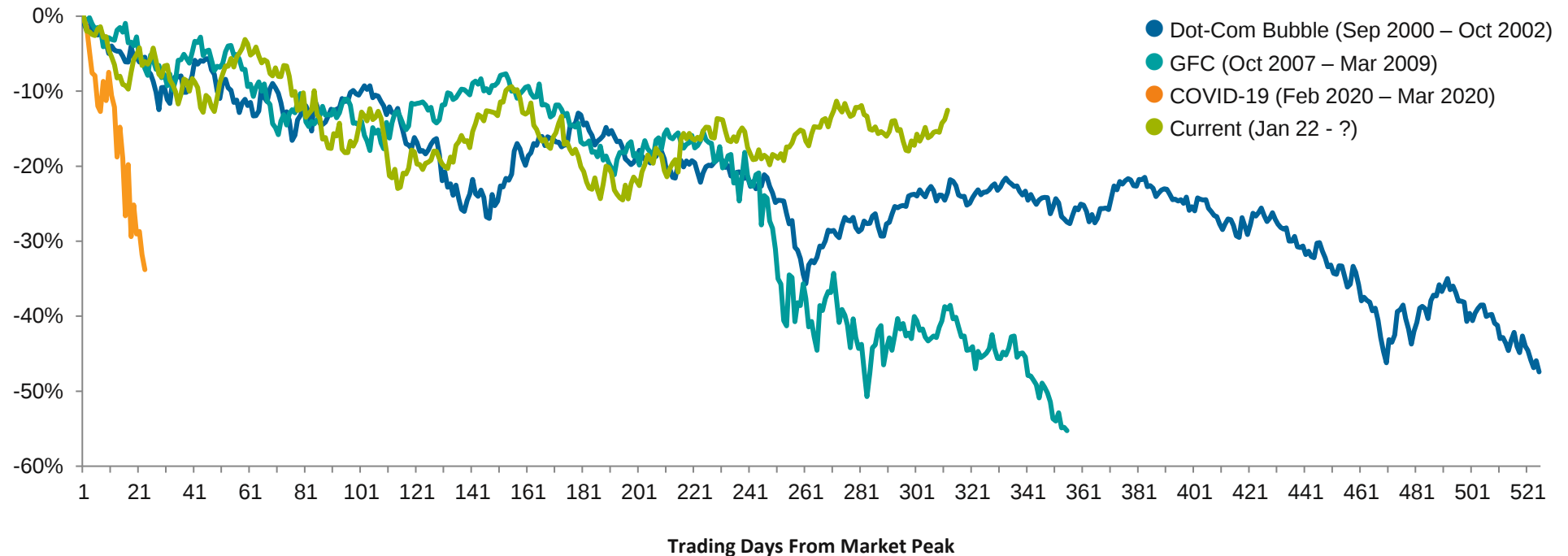
- ▶ The recent inflation spike capped out at 9% in June 2022, well above the last inflation peak from 2005–08.
- ▶ The gap between inflation and the Fed Funds rate reached an unprecedented level going back to 1955 but has closed quickly, as the Fed acted on rates and inflation has come down.
- ▶ Yield history suggests that the Fed Funds rate is typically above inflation, not below it.

Source: Federal Reserve Bank of St. Louis

Current Equity Drawdown: A More 'Typical' Correction?

S&P 500 Cumulative Returns

Market Peak-to-Trough for Recent Corrections vs. 1/4/22 Through 3/31/23



- ▶ While the COVID correction was swift and intense, the 2022 correction resembles the GFC and Dot-Com Bubble.
- ▶ The current drawdown has been 312 trading days through March.
- ▶ It would take another 43 trading days to get to the bottom of the GFC and 213 trading days to get to the bottom of the Dot-Com Bubble.

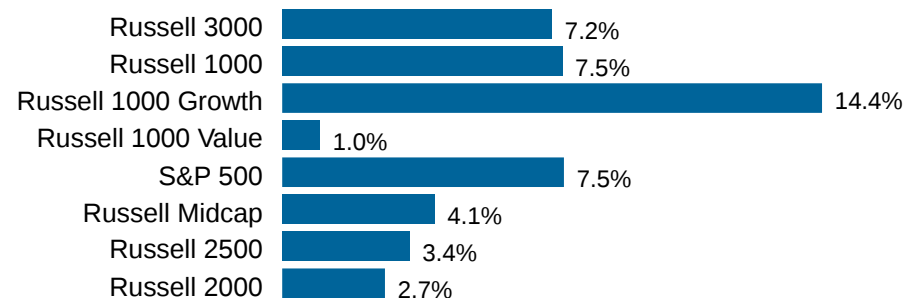
Sources: Callan, S&P Dow Jones Indices

U.S. Equity Performance: 1Q23

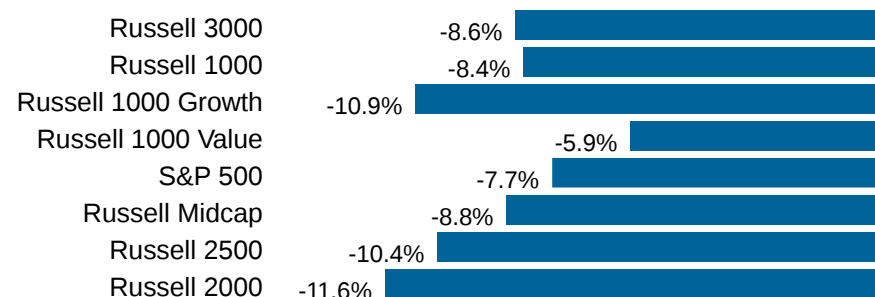
Large cap growth stocks lead broad indices higher; small cap indices hurt by regional bank sell-off

- The S&P 500 posted a second straight quarter of positive performance, gaining 7.5%; large cap growth led all styles, advancing 14.4%; Russell 2000 Value was an exception with a slight decline (0.7%) due to greater exposure to Financials, specifically small banks.
- Three sectors comprising 44% of S&P 500 (63% of Russell 1000 Growth) drove performance: Technology (+21.8%), Communication Services (+20.5%), and Consumer Discretionary (+16.1%). Financials, Energy, and Health Care were negative, but had only a modest impact given smaller weights in these benchmarks.
- Small caps (Russell 2000) underperformed large caps (Russell 1000) and growth outperformed value during the quarter, a reversal of trend from 2022. Greater exposure to small banks in Russell 2000 (8.3%) versus Russell 1000 (3.3%) was one differentiator; strong returns for mega-cap Technology also increased divergence.

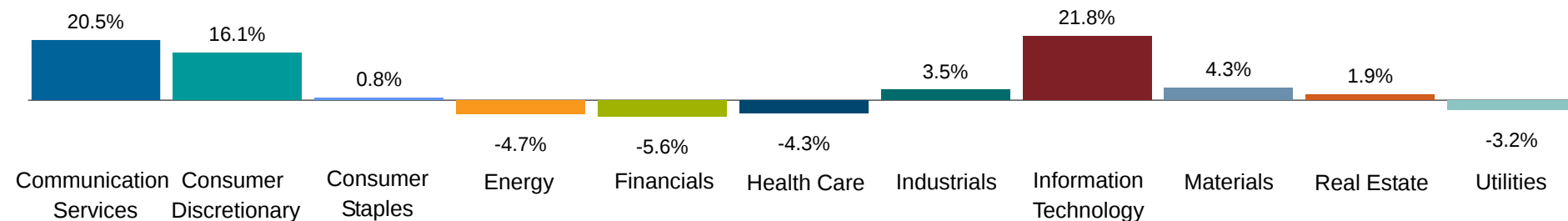
U.S. Equity: Quarter Ended 3/31/23



U.S. Equity: One-Year Returns Ended 3/31/23



Industry Sector Quarterly Performance (S&P 500) as of 3/31/23



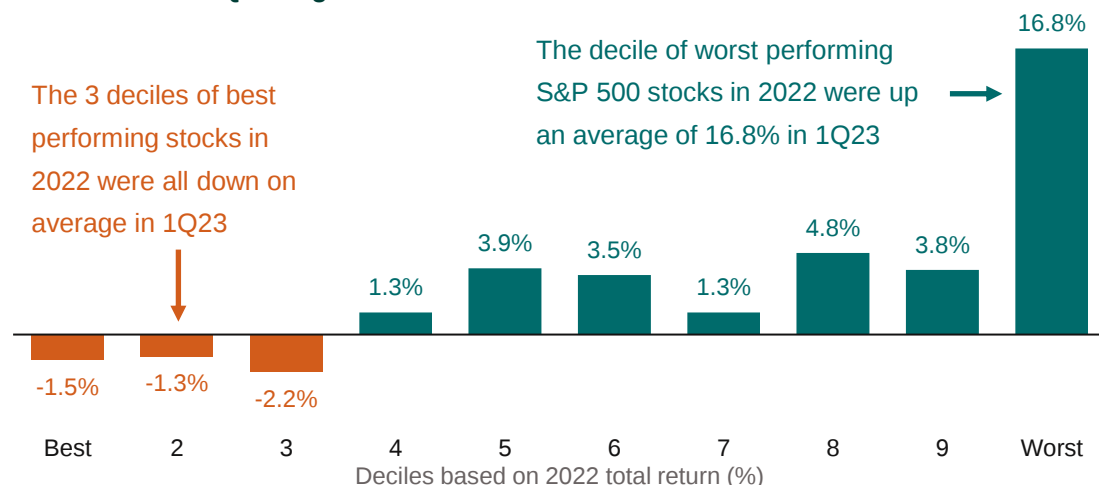
Sources: FTSE Russell, S&P Dow Jones Indices

U.S. Equity Overview

Worst to best: Large caps reverse 2022 trends during 1Q23

- Investors “bought the dip” as stock performance reversed from the prior year—the worst-performing stocks for 2022 became the best-performing stocks during 1Q23 in the S&P 500.
- The top chart illustrates the S&P 500 as deciles (10 groups of 50 stocks each) based on how stocks performed in 2022.
 - Decile 1 contains the 50 stocks that performed the best in 2022, decile 2 contains the 50 next best, etc.*
 - Decile 10 contains the 50 stocks that did the worst in 2022.*
- The three deciles containing the 150 best performing stocks in 2022 all averaged declines during 1Q23.
- On the flip side, the worst performers in 2022 averaged a gain of 16.8% during 1Q23, with strong absolute performance from mega-cap growth names such as NVIDIA, Meta, Tesla, and Salesforce.

S&P 500 Deciles: 1Q23 Avg Performance Based on 2022 Performance



Best-Performing S&P 500 Stocks in 1Q23

Name	Sector	Price	Market Cap (\$bn)	Total Return (%)	
				2022	QTD
NVIDIA	Technology	277.77	686.1	-50.27	90.10
Meta Platforms	Comm Svcs	211.94	549.5	-64.22	76.12
Tesla	Cons Discret	207.46	656.4	-65.03	68.42
Warner Bros Discovery	Comm Svcs	15.10	36.8	--	59.28
Align Technology	Health Care	334.14	25.6	-67.91	58.44
Advanced Micro Devices	Technology	98.01	157.9	-54.99	51.32
Salesforce	Technology	199.78	199.8	-47.83	50.68
West Pharmaceutical	Health Care	346.47	25.7	-49.70	47.32
General Electric	Industrials	95.60	104.2	-10.92	46.35
Catalent	Health Care	65.71	11.8	-64.84	45.99

Source: Bespoke Investment

Global/Global ex-U.S. Equity Performance: 1Q23

A reversal of 2022

1Q23 brought global and global ex-U.S. equity markets back to black.

Positive results despite hiccups

- ▶ The first quarter of the year was marked by the collapse of Silicon Valley Bank and Credit Suisse, which sent fears of a banking crisis across global markets.
- ▶ Despite a Fed hike during the period, investors began to price in lower rate expectations.
- ▶ Europe outperformed other regions, making up ground lost in 2022 as inflation eased and recession fears lessened.

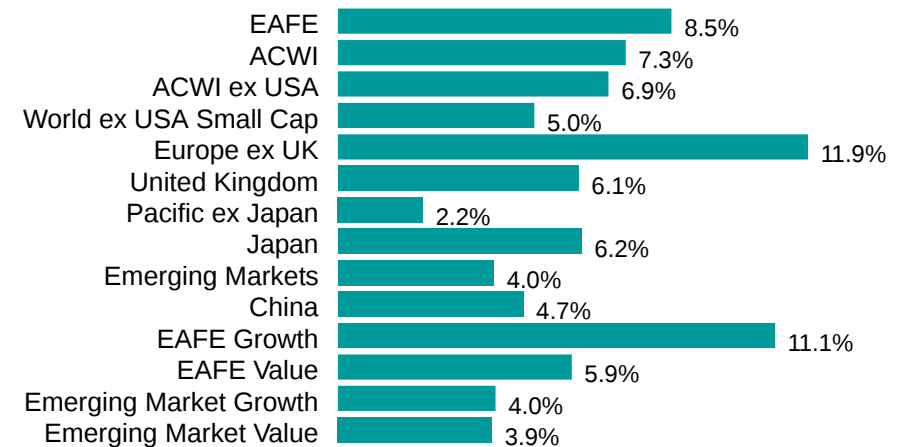
Growth vs. value

- ▶ Growth outpaced value across developed and emerging markets.
 - In a reversal from 2022, investors preferred growth alongside a drawdown in banks; Information Technology was the largest outperformer.

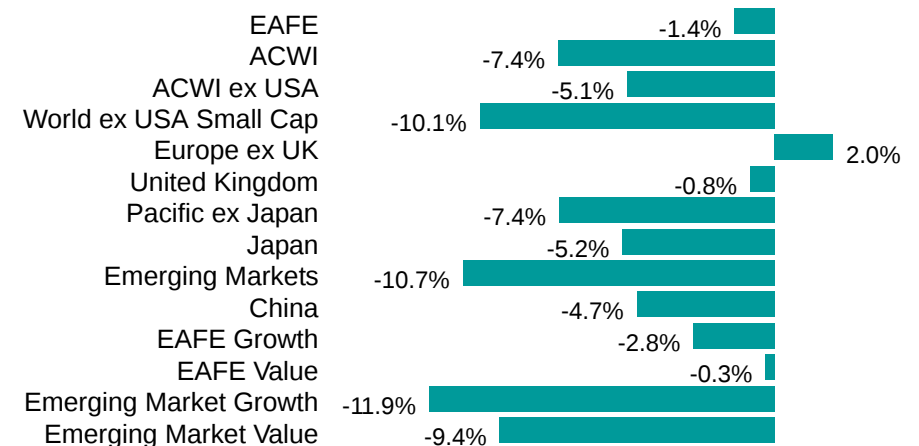
U.S. dollar vs. other currencies

- ▶ After some strength early in the quarter, the U.S. dollar declined 1% as interest rate differentials narrowed globally.

Global Equity Returns: Quarter Ended 3/31/23



Global Equity Returns: One Year Ended 3/31/23



Source: MSCI

Global/Global ex-U.S. Equity Key Themes

De-dollarization rhetoric crescendo

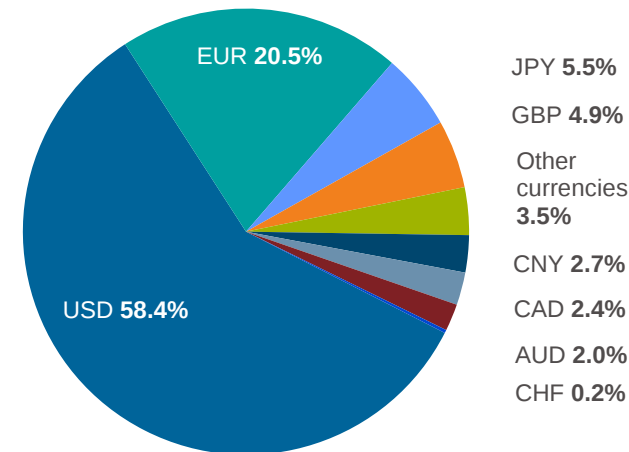
Dollar hegemony intact despite debt ceiling concerns

- ▶ Around \$2 trillion notes in circulation, half of which are outside of the U.S.
- ▶ Approximately 88% of all international transactions are done with the dollar.
- ▶ The U.S. dollar constituted 58% of global foreign exchange reserves as of 4Q22.
 - The euro was a distant second with 21%, followed by the yen with 6%.
 - The Chinese yuan only accounted for 3%.

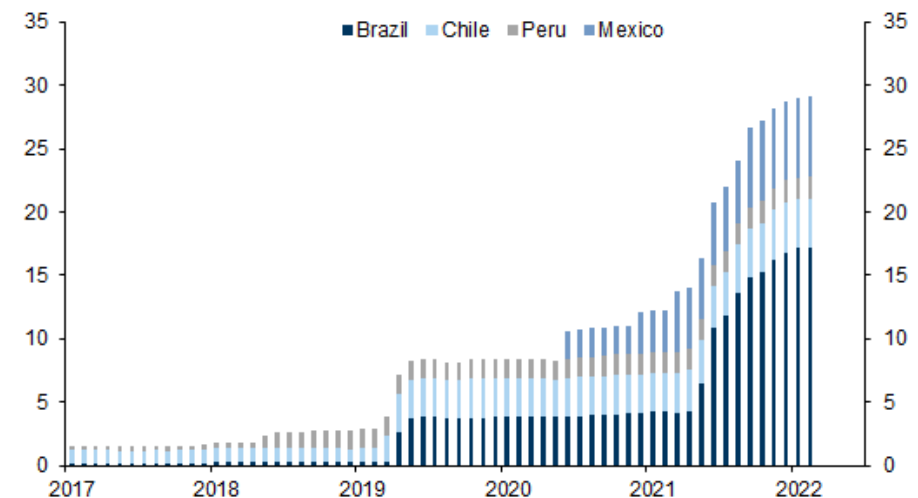
Geopolitics and de-globalization may erode dominance

- ▶ As the U.S. sanctioned more than \$300 billion of Russia's foreign currency reserves in February 2022 after the invasion of Ukraine, appetite to diversify reserve holdings increased.
- ▶ Bilateral trade agreements are starting to settle in local currencies and reducing reliance on the dollar.
 - Brazil, Chile, Peru, and Mexico have added nearly \$30 billion in yuan reserves combined over the past five years given the shifting commodity demand.
- ▶ Due to limited transparency and capital controls, the yuan may not replace the dollar as the reserve currency. However, the rise of bilateral trades may lead to diversified reserve holdings to mitigate dependence on the dollar.

Foreign Exchange Reserves by Currency (4Q22)



LatAm CNY Reserves (\$billion)



Sources: Goldman Sachs Global Investment Research, I/B/E/S, IMF, MSCI

U.S. Fixed Income Performance: 1Q23

Bloomberg Aggregate was positive in 1Q but mixed

- January: +3.1%
- February: -2.6%
- March: +2.5%

U.S. Treasury volatility was pronounced

- 2-year US Treasury yield high was 5.08% on 3/8 and low was 3.77% on 3/24
- MOVE Index highest since 2008

Yield curve remained inverted but was also volatile

- 2yr/10yr => 3/31: -58 bps; max 3/8: -109; min 3/23: -38
- 1yr/10yr => 3/31: -116 bps

Fed raised rates bringing target to 4.75%–5.00%

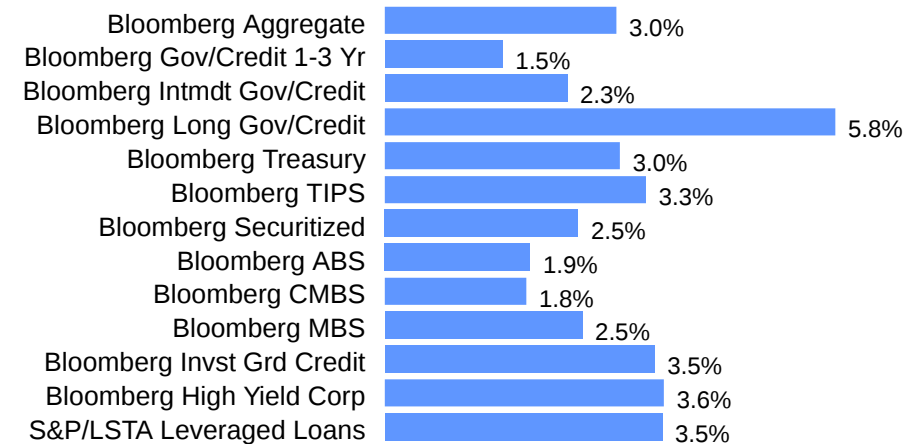
- Median expectation from Fed is 5.1% for year-end 2023; market pricing in Fed cuts by year-end
- Inflation moderated but still high and job market tight

Sector performance mixed

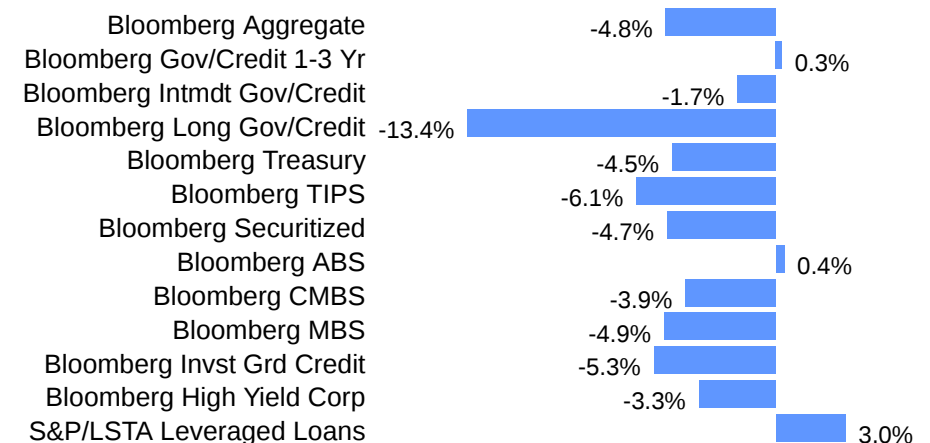
- Corporate Industrials excess return: +58 bps
- Corporate Financials excess return: -39 bps
- RMBS: -50 bps
- CMBS excess return: -74 bps
- High Yield excess return: +123 bps
- Valuations fair
- Credit spreads have not widened materially and are close to historical averages

Sources: Bloomberg, S&P Dow Jones Indices

U.S. Fixed Income Returns: Quarter Ended 3/31/23



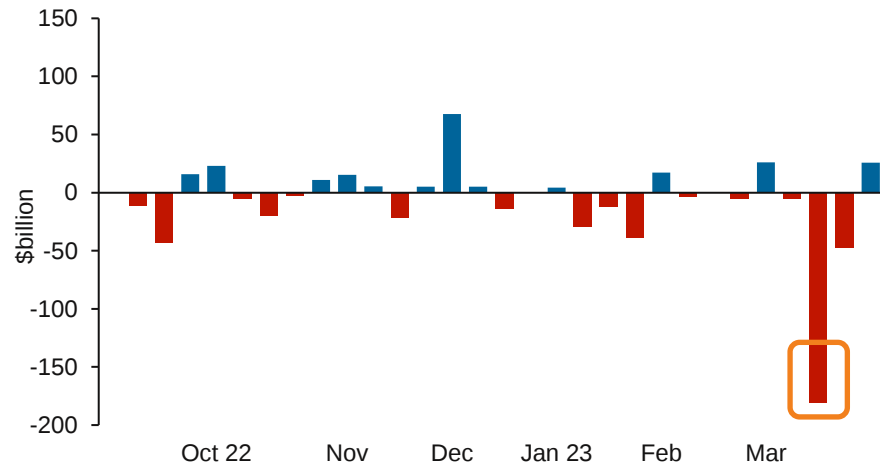
U.S. Fixed Income Returns: One Year Ended 3/31/23



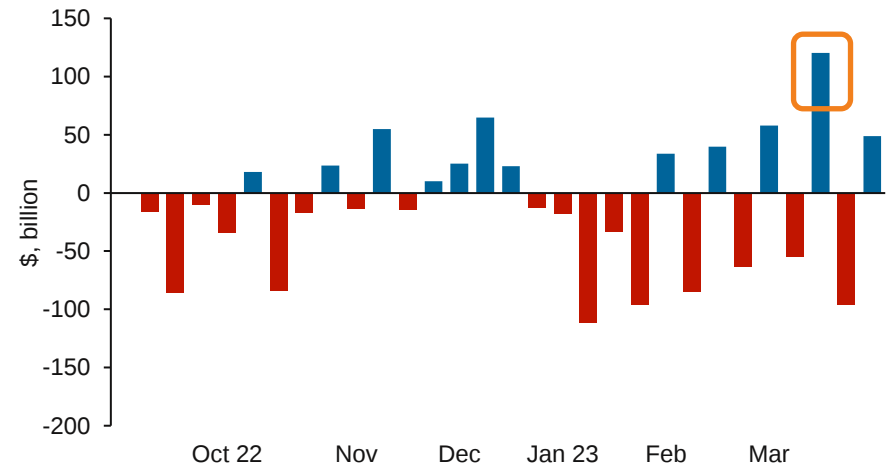
Fixed Income Themes

Regional bank contagion fears ignited as the FDIC took over Silicon Valley and Signature banks

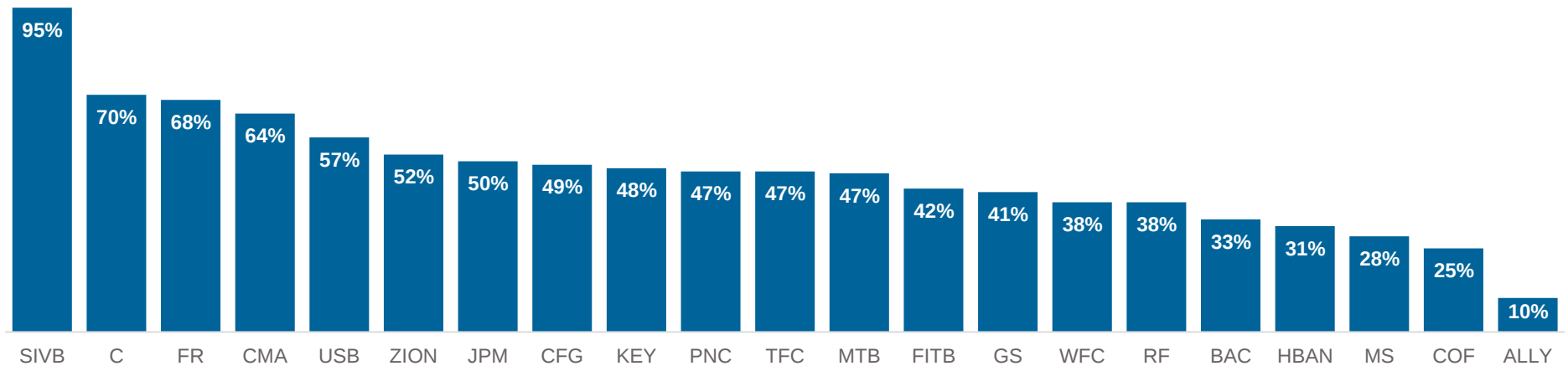
Small Banks – Deposits change from a week ago



Large Banks – Deposits change from a week ago



Uninsured Domestic U.S. Deposits as Percent of Total Deposits (ex-trust banks), 4Q22



Sources: Barclays, Federal Reserve

Hedge Fund Performance: 1Q23

Global equities closed out a strong first quarter

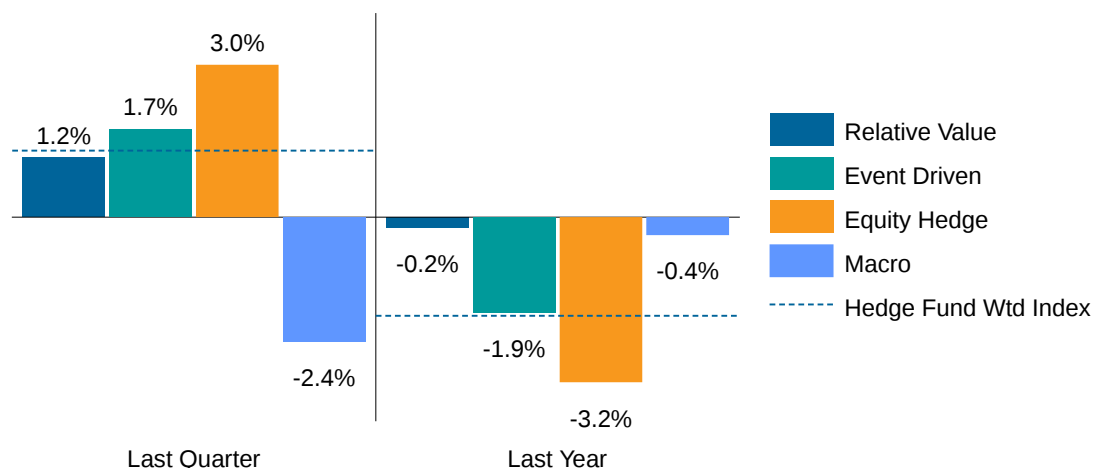
Growth stocks rallied during the quarter, partially recovering losses from last year despite inflation concerns, and banking sector volatility.

- ▶ Equity hedge strategies started the year off strong, as those focused on tech, media, and telecom bounced back.
- ▶ Event-driven strategies also started strong in January and February as select equities moved higher.
- ▶ Relative value strategies continued to profit off the market volatility by going both long and short across equities and fixed income.
- ▶ Macro strategies started the year off in negative territory as many managers were hurt by front end rates moving lower in March.

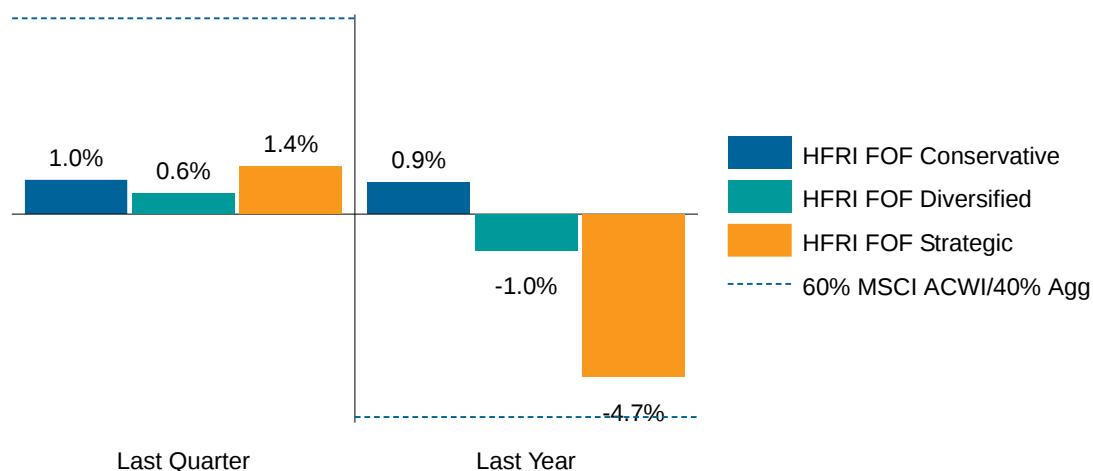
FOFs ended the year on a strong note

- ▶ FOFs with more equity hedge exposure started the year strong.
- ▶ Those FOFs with more macro exposure saw performance more muted as it offset some of the equity hedge contribution.

HFRI Strategy Index Returns vs. Broad Hedge Fund Universe as of 3/31/23



HFRI Fund-of-Funds Returns vs. 60% Stock/40% Bond Mix as of 3/31/23



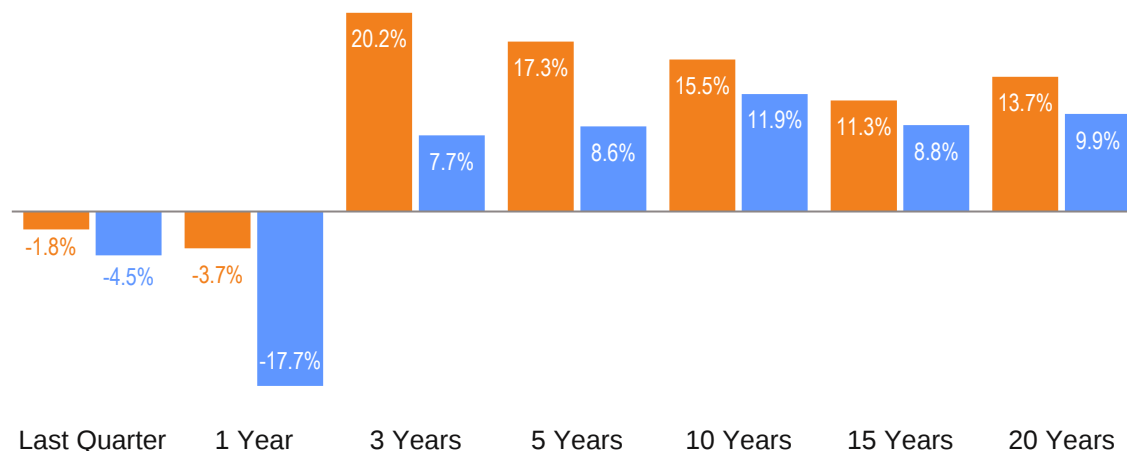
Source: Hedge Fund Research (www.hedgefundresearch.com)

Private Equity Performance

- ▶ As is typical for the asset class, private equity returns have experienced a smoothing effect in 2022 compared to the sharp declines seen in the public markets.
- ▶ Private equity was only down about a third as much as the public markets during 2022, on a PME basis.
- ▶ Portfolio companies are typically valued internally by the manager on a quarterly basis. Valuations are based on the operating metrics of the company, recent comparable transactions, and public market comps.
- ▶ Venture capital and growth equity experienced the sharpest declines, given their technology focus as well as post-IPO public equity holdings.

Net IRRs as of 09/30/22

■ Private Equity ■ Russell 3000 PME



Net IRRs by Strategy as of 09/30/22

Strategy	Last Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Venture Capital	-2.7%	-9.1%	28.4%	23.8%	19.4%	12.4%
Growth Equity	-1.8%	-9.4%	20.8%	18.4%	15.7%	14.3%
Buyouts	-1.9%	-1.4%	18.5%	16.1%	15.2%	14.7%
Mezzanine	0.2%	5.0%	11.8%	11.1%	11.3%	11.1%
Credit Opportunities	0.7%	3.9%	8.4%	7.2%	8.3%	9.9%
Control-Oriented Distressed	-0.2%	11.3%	19.4%	13.8%	12.7%	11.9%
Total Private Equity	-1.8%	-3.7%	20.2%	17.3%	15.5%	13.7%

Source: Refinitiv/Cambridge

Diversification Remains Key Risk Control

Periodic Table of Investment Returns

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1 Qtr. 2023
Emerging Markets	Emerging Markets	Emerging Markets	Emerging Markets	U.S. Fixed	Emerging Markets	Small Cap	Real Estate Funds	Emerging Markets	Small Cap	Large Cap	Real Estate Funds	Small Cap	Emerging Markets	Real Estate Funds	Large Cap	Small Cap	Large Cap	Real Estate Funds	Non-U.S. Equity
25.55%	34.00%	32.17%	39.38%	5.24%	78.51%	26.85%	14.96%	18.23%	38.82%	13.69%	13.95%	21.31%	37.28%	7.36%	31.49%	19.96%	28.71%	6.55%	8.02%
Non-U.S. Equity	Real Estate Funds	Non-U.S. Equity	Real Estate Funds	Non-U.S. Fixed	High Yield	Emerging Markets	U.S. Fixed	Non-U.S. Equity	Large Cap	Real Estate Funds	Large Cap	High Yield	Non-U.S. Equity	Cash Equivalent	Small Cap	Large Cap	Real Estate Funds	Cash Equivalent	Large Cap
20.38%	20.15%	25.71%	14.84%	4.39%	58.21%	18.88%	7.84%	16.41%	32.39%	11.46%	1.38%	17.13%	24.21%	1.87%	25.52%	18.40%	21.02%	1.46%	7.50%
Small Cap	Non-U.S. Equity	Small Cap	Hedge Funds	Cash Equivalent	Non-U.S. Equity	Real Estate Funds	High Yield	Small Cap	Non-U.S. Equity	U.S. Fixed	U.S. Fixed	Large Cap	Large Cap	U.S. Fixed	Non-U.S. Equity	Emerging Markets	Small Cap	Hedge Funds	Emerging Markets
18.33%	14.47%	18.37%	12.56%	2.06%	33.67%	15.26%	4.98%	16.35%	21.02%	5.97%	0.55%	11.96%	21.83%	0.01%	22.49%	18.31%	14.82%	1.06%	3.96%
Non-U.S. Fixed	Hedge Funds	Large Cap	Non-U.S. Equity	Real Estate Funds	Small Cap	High Yield	Non-U.S. Fixed	Large Cap	Real Estate Funds	Small Cap	Cash Equivalent	Emerging Markets	Small Cap	High Yield	Emerging Markets	Non-U.S. Fixed	Non-U.S. Equity	High Yield	High Yield
12.54%	7.61%	15.79%	12.44%	-10.70%	27.17%	15.12%	4.36%	16.00%	12.90%	4.89%	0.05%	11.19%	14.65%	-2.08%	18.44%	10.11%	12.62%	-11.19%	3.57%
Real Estate Funds	Large Cap	Real Estate Funds	Non-U.S. Fixed	Hedge Funds	Large Cap	Large Cap	Large Cap	High Yield	Hedge Funds	Hedge Funds	Hedge Funds	Real Estate Funds	Non-U.S. Fixed	Non-U.S. Fixed	High Yield	Non-U.S. Equity	Hedge Funds	U.S. Fixed	Non-U.S. Fixed
12.00%	4.91%	15.27%	11.03%	-19.07%	26.47%	15.06%	2.11%	15.81%	9.73%	4.13%	-0.71%	7.79%	10.51%	-2.15%	14.32%	7.59%	8.23%	-13.01%	3.06%
High Yield	Small Cap	Hedge Funds	U.S. Fixed	High Yield	Hedge Funds	Hedge Funds	Cash Equivalent	Real Estate Funds	High Yield	High Yield	Non-U.S. Equity	Non-U.S. Equity	High Yield	Hedge Funds	Hedge Funds	U.S. Fixed	High Yield	Non-U.S. Equity	U.S. Fixed
11.13%	4.55%	13.86%	6.97%	-26.16%	18.57%	10.95%	0.10%	9.79%	7.44%	2.45%	-3.04%	2.75%	7.50%	-3.19%	9.31%	7.51%	5.28%	-14.29%	2.96%
Large Cap	Cash Equivalent	High Yield	Large Cap	Small Cap	Non-U.S. Fixed	Non-U.S. Equity	Hedge Funds	Hedge Funds	Cash Equivalent	Cash Equivalent	Small Cap	U.S. Fixed	Hedge Funds	Large Cap	U.S. Fixed	High Yield	Cash Equivalent	Large Cap	Small Cap
10.88%	3.06%	11.85%	5.49%	-33.79%	7.53%	8.95%	-2.52%	7.67%	0.07%	0.04%	-4.41%	2.65%	7.12%	-4.38%	8.72%	7.11%	0.05%	-18.11%	2.74%
Hedge Funds	High Yield	Non-U.S. Fixed	Cash Equivalent	Large Cap	U.S. Fixed	U.S. Fixed	Small Cap	U.S. Fixed	U.S. Fixed	Emerging Markets	High Yield	Non-U.S. Fixed	Real Estate Funds	Small Cap	Non-U.S. Fixed	Hedge Funds	U.S. Fixed	Non-U.S. Fixed	Cash Equivalent
9.64%	2.74%	8.16%	5.00%	-37.00%	5.93%	6.54%	-4.18%	4.21%	-2.02%	-2.19%	-4.47%	1.49%	6.66%	-11.01%	5.09%	6.36%	-1.54%	-18.70%	1.07%
U.S. Fixed	U.S. Fixed	Cash Equivalent	High Yield	Non-U.S. Equity	Cash Equivalent	Non-U.S. Fixed	Non-U.S. Equity	Non-U.S. Fixed	Emerging Markets	Non-U.S. Fixed	Non-U.S. Fixed	Hedge Funds	U.S. Fixed	Non-U.S. Equity	Real Estate Funds	Cash Equivalent	Emerging Markets	Emerging Markets	Hedge Funds
4.34%	2.43%	4.86%	1.87%	-43.56%	0.21%	4.95%	-12.21%	4.09%	-2.60%	-3.09%	-6.02%	1.25%	3.54%	-14.09%	4.39%	0.67%	-2.54%	-20.09%	0.16%
Cash Equivalent	Non-U.S. Fixed	U.S. Fixed	Small Cap	Emerging Markets	Real Estate Funds	Cash Equivalent	Emerging Markets	Cash Equivalent	Non-U.S. Fixed	Non-U.S. Equity	Emerging Markets	Cash Equivalent	Cash Equivalent	Emerging Markets	Cash Equivalent	Real Estate Funds	Non-U.S. Fixed	Small Cap	Real Estate Funds
1.33%	-8.65%	4.33%	-1.57%	-53.33%	-30.40%	0.13%	-18.42%	0.11%	-3.08%	-4.32%	-14.92%	0.33%	0.86%	-14.57%	2.28%	0.34%	-7.05%	-20.44%	-3.38%

- Bloomberg Barclays Corp High Yield ● Bloomberg Barclays Global Aggregate ex US ● Bloomberg Barclays US Aggregate
- Credit Suisse Hedge Fund ● ICE BofAML US 3-Month Treasury Bill ● MSCI Emerging Markets ● MSCI World ex USA
- NFI-ODCE (value-weighted net) ● Russell 2000 ● S&P 500

Published Research Highlights from 1Q23

2023 DC Trends Survey and Webinar



Energy Transition Is Having a Moment, but Does It Have Staying Power?



2023-2032 Capital Markets Assumptions and Webinar



Research Café: ESG Interview Series Session



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Aaron Quach

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Julia Moriarty

Additional Reading

Alternatives Focus quarterly newsletter

Active vs. Passive quarterly charts

Capital Markets Review quarterly newsletter

Monthly Updates to the Periodic Table

Market Pulse Flipbook quarterly markets update

Real Estate Indicators market outlook

Callan Institute Events

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This course is for institutional investors, including trustees and staff members of public plans, corporate plans, and nonprofits. This session familiarizes trustees and staff with alternative investments like private equity, hedge funds, and real estate and how they can play a key role in any portfolio. You will learn about the importance of allocations to alternatives and how to consider integrating, evaluating, and monitoring them.

– August 23-24, 2023 – Virtual Session via Zoom

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This course is for institutional investors, including trustees and staff members of public plans, corporate plans, and nonprofits. This session familiarizes trustees and staff with basic investment theory, terminology, and practices.

– September 26–28, 2023 – Virtual Session via Zoom

Please visit our website at callan.com/events-education as we add dates to our 2023 calendar!

Mark Your Calendar

2023 Regional Workshops

June 27, 2023 – Denver

June 29, 2023 – San Francisco

October 24, 2023 – New York

October 26, 2023 – Chicago

2024 National Conference

April 8 –10, 2024 – San Francisco

Watch your email for further details and an invitation.

Callan

Pension Plan Performance

Actual versus Target Asset Allocation

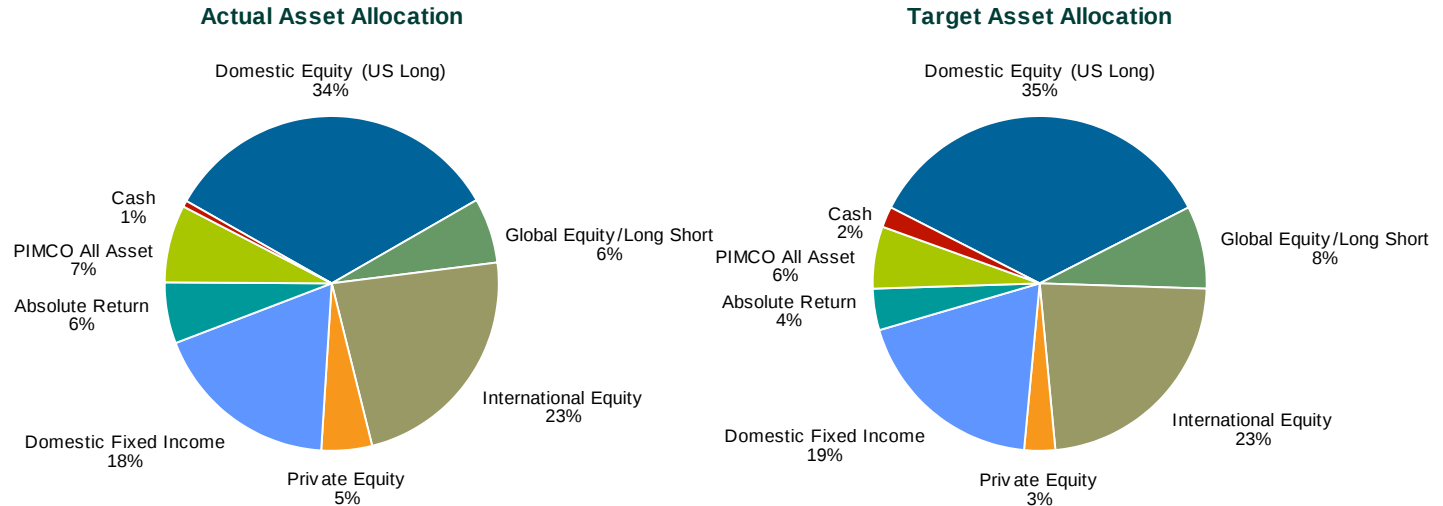
For Periods Ended March 31, 2023

Overweights:

- Private Equity (4.9% vs 3% target)
- Absolute Return (5.9% vs 4% target)
- Real Assets (7.5% vs 6% target)

Underweights:

- Global Equity Long/Short (6.3% vs 8% target)
- Domestic Equity (33.5% vs 35% target)
- Domestic Fixed Income (18.2% vs 19% target)
- The cash was 0.6% in the first quarter.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity (US Long)	157,283	33.5%	35.0%	(1.5%)	(6,940)
Global Equity/Long Short	29,685	6.3%	8.0%	(1.7%)	(7,852)
International Equity	108,251	23.1%	23.0%	0.1%	333
Private Equity	23,054	4.9%	3.0%	1.9%	8,978
Domestic Fixed Income	85,237	18.2%	19.0%	(0.8%)	(3,913)
Absolute Return	27,480	5.9%	4.0%	1.9%	8,712
PIMCO All Asset	35,182	7.5%	6.0%	1.5%	7,030
Cash	3,036	0.6%	2.0%	(1.4%)	(6,348)
Total	469,207	100.0%	100.0%		

Portfolio Holdings

For Periods Ended March 31, 2023

- As of March 31, 2023, total fund assets were \$469.2 million, up from \$459.2 million as of December 31, 2022.
- The total fund had a positive investment return of \$20.7 million for the quarter.

	March 31, 2023				December 31, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Equity	\$318,272,136	67.83%	\$(8,572,654)	\$16,529,546	\$310,315,243	67.57%
U.S. Equity	\$157,282,550	33.52%	\$(3,188,119)	\$9,183,143	\$151,287,525	32.94%
BR Russell 1000 Index Non-Lendable	114,774,618	24.46%	(3,000,000)	7,986,897	109,787,721	23.91%
LSV	21,634,098	4.61%	(165,340)	(95,120)	21,894,558	4.77%
Principal Dynamic Growth	20,873,834	4.45%	(22,778)	1,291,366	19,605,246	4.27%
International Equity	\$108,250,925	23.07%	\$(110,509)	\$6,925,437	\$101,435,997	22.09%
Developed Markets	\$89,376,528	19.05%	\$(110,509)	\$5,967,409	\$83,519,628	18.19%
Artisan Trust	0	0.00%	(30,678,310)	187,134	30,491,176	6.64%
Silchester	56,934,968	12.13%	(110,509)	4,017,024	53,028,453	11.55%
Walter Scott	32,441,560	6.91%	30,678,310	1,763,251	-	-
Emerging Markets	\$18,874,397	4.02%	\$0	\$958,028	\$17,916,368	3.90%
BlackRock EM Alpha Tilts	18,874,397	4.02%	0	958,028	17,916,368	3.90%
Global Equity Long/Short	\$29,684,860	6.33%	\$(4,961,246)	\$420,096	\$34,226,009	7.45%
ABS Global	19,735,036	4.21%	0	394,103	19,340,933	4.21%
Blackstone Park Ave. NT	9,949,824	2.12%	(4,961,246)	25,994	14,885,076	3.24%
Private Equity (1)	\$23,053,801	4.91%	\$(312,780)	\$869	\$23,365,712	5.09%
Pantheon USA IV	178,762	0.04%	0	0	178,762	0.04%
Pantheon USA VI	153,054	0.03%	0	0	153,054	0.03%
Pantheon USA VII	711,563	0.15%	(29,999)	0	741,562	0.16%
Pantheon Europe Fund V A	408,743	0.09%	(28,000)	0	436,743	0.10%
Pantheon Global Secondary Fund III	59,955	0.01%	0	0	59,955	0.01%
Pantheon US Select 2014	21,541,724	4.59%	(254,781)	0	21,796,505	4.75%
Domestic Fixed Income	\$85,236,571	18.17%	\$(10,934)	\$2,642,799	\$82,604,706	17.99%
Prudential Cons Core Bond Fund	37,688,888	8.03%	(10,934)	1,116,038	36,583,784	7.97%
Metropolitan West Fund	47,547,683	10.13%	0	1,526,760	46,020,923	10.02%
Absolute Return	\$27,480,047	5.86%	\$0	\$416,999	\$27,063,048	5.89%
UBS AIS	27,480,047	5.86%	0	416,999	27,063,048	5.89%
Real Assets	\$35,182,114	7.50%	\$(3,000,000)	\$1,095,621	\$37,086,493	8.08%
PIMCO All Asset	35,182,114	7.50%	(3,000,000)	1,095,621	37,086,493	8.08%
Cash	\$3,035,944	0.65%	\$799,385	\$64,719	\$2,171,840	0.47%
Cash Account	3,035,944	0.65%	799,385	64,719	2,171,840	0.47%
Total Fund	\$469,206,812	100.0%	\$(10,784,202)	\$20,749,683	\$459,241,331	100.0%

Portfolio Holdings

For Periods Ended March 31, 2023

	March 31, 2023					December 31, 2022		
	Market Value	Weight	(min)	Target	(max)	Market Value	Weight	Target
Total Equity	\$318,272,136	67.83%	60.00%	69.00%	75.00%	\$310,315,243	67.57%	69.00%
U.S. Equity	\$157,282,550	33.52%	27.00%	35.00%	40.00%	\$151,287,525	32.94%	35.00%
BR Russell 1000 Idx Non-Lendable	114,774,618	24.46%				109,787,721	23.91%	
LSV	21,634,098	4.61%				21,894,558	4.77%	
Principal Dynamic Growth	20,873,834	4.45%				19,605,246	4.27%	
International Equity	\$108,250,925	23.07%	18.00%	23.00%	28.00%	\$101,435,997	22.09%	23.00%
Developed Markets	\$89,376,528	19.05%	-	-	-	\$83,519,628	18.19%	-
Artisan Trust	-	-				30,491,176	6.64%	
Silchester	56,934,968	12.13%				53,028,453	11.55%	
Walter Scott	32,441,560	6.91%				-	-	
Emerging Markets	\$18,874,397	4.02%	-	-	-	\$17,916,368	3.90%	-
BlackRock EM Alpha Tilts	18,874,397	4.02%				17,916,368	3.90%	
Global Equity/Long Short	\$29,684,860	6.33%	4.00%	8.00%	12.00%	\$34,226,009	7.45%	8.00%
ABS Global	19,735,036	4.21%				19,340,933	4.21%	
Blackstone Park Ave. NT	9,949,824	2.12%				14,885,076	3.24%	
Private Equity (1)	\$23,053,801	4.91%	0.00%	3.00%	6.00%	\$23,365,712	5.09%	3.00%
Pantheon USA IV	178,762	0.04%				178,762	0.04%	
Pantheon USA VI	153,054	0.03%				153,054	0.03%	
Pantheon USA VII	711,563	0.15%				741,562	0.16%	
Pantheon Europe Fund V A	408,743	0.09%				436,743	0.10%	
Pantheon Global Fund III	59,955	0.01%				59,955	0.01%	
Pantheon US Select 2014	21,541,724	4.59%				21,796,505	4.75%	
Domestic Fixed Income	\$85,236,571	18.17%	14.00%	19.00%	24.00%	\$82,604,706	17.99%	19.00%
Prudential Cons Core Bond Fund	37,688,888	8.03%				36,583,784	7.97%	
Metropolitan West Fund CIT	47,547,683	10.13%				46,020,923	10.02%	
Absolute Return	\$27,480,047	5.86%	0.00%	4.00%	6.00%	\$27,063,048	5.89%	4.00%
UBS AIS	27,480,047	5.86%				27,063,048	5.89%	
Real Assets	\$35,182,114	7.50%	4.00%	6.00%	12.00%	\$37,086,493	8.08%	6.00%
PIMCO All Asset	35,182,114	7.50%	4.00%	6.00%	10.00%	37,086,493	8.08%	6.00%
Cash	\$3,035,944	0.65%	0.00%	2.00%	4.00%	\$2,171,840	0.47%	2.00%
Cash Account	3,035,944	0.65%				2,171,840	0.47%	
Total Fund	\$469,206,812	100.0%		100.0%		\$459,241,331	100.0%	100.0%

Investment Manager Returns

For Periods Ended March 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Total Equity	5.67%	(5.05%)	15.33%	7.01%	8.84%
U.S. Long Equity	6.19%	(8.76%)	19.94%	10.19%	11.89%
Pure US Equity Composite	6.19%	(8.76%)	20.03%	10.25%	11.99%
Russell 3000 Index	7.18%	(8.58%)	18.48%	10.45%	11.99%
Russell 1000 Index Non-Lendable	7.47%	(8.39%)	18.56%	10.87%	12.22%
Russell 1000 Index	7.46%	(8.39%)	18.55%	10.87%	12.23%
LSV	(0.47%)	(3.70%)	28.74%	5.05%	7.62%
Russell 2000 Value Index	(0.66%)	(12.96%)	21.01%	4.55%	7.86%
Principal Dynamic Growth	6.59%	(14.86%)	21.50%	12.48%	16.31%
Russell 2500 Growth Index	6.54%	(10.35%)	14.75%	6.82%	10.39%
International Equity	7.61%	(1.11%)	11.66%	2.67%	5.94%
MSCI ACWI ex US	6.87%	(5.07%)	11.80%	2.47%	5.86%
Developed Markets	8.30%	1.14%	12.49%	3.55%	6.46%
MSCI EAFE Index	8.47%	(1.38%)	12.99%	3.52%	6.21%
MSCI EAFE Growth Idx	11.09%	(2.79%)	10.95%	4.88%	6.97%
Silchester	7.58%	1.42%	14.72%	3.33%	7.03%
MSCI EAFE Val Idx	5.93%	(0.31%)	14.58%	1.75%	5.13%
Emerging Markets	5.35%	(10.01%)	8.29%	(1.05%)	3.71%
MSCI Emerging Mkts Idx Net	3.96%	(10.70%)	7.83%	(0.91%)	4.92%
BlackRock EM Alpha Tilts	5.35%	(10.01%)	8.29%	-	-
MSCI Emerging Mkts Idx Net	3.96%	(10.70%)	7.83%	(0.91%)	4.92%
Global Equity/Long Short	1.44%	(3.28%)	6.74%	3.25%	4.24%
HFRI FOF: Strategic Index	1.20%	(4.85%)	7.28%	2.25%	3.87%
ABS Global	2.04%	(2.32%)	6.86%	3.35%	4.54%
MSCI ACWI Idx	7.44%	(6.96%)	15.90%	7.46%	9.72%
Blackstone Park Ave. NT	0.26%	(4.84%)	5.86%	2.66%	3.70%
S&P 500 Index	7.50%	(7.73%)	18.60%	11.19%	12.42%
Private Equity (1)	0.00%	(2.23%)	23.46%	17.21%	14.80%
Pantheon USA IV	0.00%	(1.24%)	2.15%	1.80%	2.61%
Pantheon USA VI	0.00%	(0.48%)	(9.53%)	(8.87%)	(4.06%)
Pantheon USA VII	0.00%	(8.30%)	18.71%	10.16%	11.25%
Pantheon Europe Fund V A	0.00%	(9.07%)	14.46%	14.07%	10.13%
Pantheon Global Secondary Fund III	0.00%	(0.28%)	(0.61%)	1.28%	2.27%
Pantheon US Select 2014	0.00%	(1.88%)	25.68%	21.01%	19.20%

Zesiger portfolio is included in US Long Equity Assets and Returns.

(1) Current 0% return due to a one quarter lag in valuation.

Investment Manager Returns

For Periods Ended March 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Domestic Fixed Income	3.20%	(5.25%)	(2.41%)	1.05%	1.04%
Prudential Core Bond	3.05%	(4.66%)	(2.55%)	0.85%	0.88%
Metropolitan West Fund*	3.32%	(5.71%)	(2.27%)	1.16%	1.14%
Blmbg Aggregate Index	2.96%	(4.78%)	(2.77%)	0.91%	0.88%
Absolute Return	1.54%	7.04%	9.12%	5.79%	5.21%
UBS AIS	1.54%	7.04%	9.12%	5.79%	5.21%
HFRI FOF: Conservative In	0.92%	0.85%	7.64%	3.93%	4.06%
Real Assets	3.21%	(6.68%)	10.86%	4.15%	7.02%
PIMCO All Asset	3.21%	(6.68%)	10.87%	4.00%	5.94%
Blmbg US TIPS 1-10	2.94%	(2.92%)	2.89%	3.18%	2.53%
Cash	1.14%	2.98%	1.18%	1.63%	1.43%
Cash Account	1.14%	2.98%	1.18%	1.63%	1.43%
3-month Treasury Bill	1.07%	2.50%	0.89%	1.41%	1.21%
Total Fund	4.70%	(4.46%)	10.91%	5.53%	6.91%
Target Benchmark (1)	4.99%	(5.29%)	9.57%	5.70%	6.77%
Annual Discount Rate:6.625%					

(1) Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI ex US, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

*On August 24,2022 switched from Mutual Fund to CIT

Investment Manager Returns – Fiscal Years

For Periods Ended March 31, 2023

	6/2022- 3/2023	FY 2022	FY 2021	FY 2020	FY 2019
Total Equity	8.92%	(14.13%)	39.04%	1.53%	5.50%
U.S. Long Equity	9.42%	(14.69%)	48.45%	5.18%	7.04%
Russell 3000 Index	9.75%	(13.87%)	44.16%	6.53%	8.98%
Russell 1000 Index Non-Lendable	9.94%	(13.03%)	43.08%	7.47%	10.04%
Russell 1000 Index	9.93%	(13.04%)	43.07%	7.48%	10.02%
LSV	8.06%	(6.00%)	71.06%	(23.09%)	(8.73%)
Russell 2000 Value Index	2.74%	(16.28%)	73.28%	(17.48%)	(6.24%)
Principal Dynamic Growth	8.06%	(28.37%)	63.07%	22.10%	8.96%
Russell 2500 Growth Index	11.43%	(31.81%)	49.63%	9.21%	6.13%
International Equity	12.53%	(18.54%)	32.22%	(4.70%)	2.95%
MSCI ACWI ex US	10.03%	(19.42%)	35.72%	(4.80%)	1.29%
Developed Markets	15.11%	(16.32%)	29.77%	(5.04%)	3.07%
MSCI EAFE Index	15.36%	(17.77%)	32.35%	(5.13%)	1.08%
MSCI EAFE Growth Idx	16.95%	(23.76%)	30.97%	4.15%	4.24%
Silchester	13.89%	(11.34%)	35.22%	(9.35%)	(1.71%)
MSCI EAFE Val Idx	13.81%	(11.95%)	33.50%	(14.48%)	(2.10%)
Emerging Markets	2.33%	(27.08%)	42.61%	(3.22%)	2.06%
MSCI Emerging Mkts Idx Net	0.84%	(25.28%)	40.90%	(3.39%)	1.22%
BlackRock EM Alpha Tilts	2.33%	(27.08%)	42.61%	(3.22%)	-
MSCI Emerging Mkts Idx Net	0.84%	(25.28%)	40.90%	(3.39%)	1.22%
Global Equity/Long Short	2.43%	(13.73%)	22.51%	4.25%	2.71%
HFRI FOF: Strategic Index	2.09%	(11.92%)	23.82%	0.40%	0.01%
ABS Global	3.38%	(9.66%)	19.76%	5.07%	0.01%
MSCI ACWI Idx	10.14%	(15.37%)	39.87%	2.64%	6.33%
Blackstone Park Ave. NT	0.85%	(17.37%)	24.45%	3.92%	4.03%
S&P 500 Index	9.98%	(10.62%)	40.79%	7.51%	10.42%
Private Equity	(0.78%)	12.77%	55.16%	5.82%	14.80%
Pantheon USA IV	(1.24%)	(4.88%)	13.48%	0.00%	(4.04%)
Pantheon USA VI	0.62%	(22.03%)	(7.18%)	(21.95%)	6.24%
Pantheon USA VII	(3.27%)	4.03%	47.49%	(0.99%)	5.11%
Pantheon Europe Fund V A	(3.94%)	(12.57%)	59.73%	11.81%	15.86%
Pantheon Global Secondary Fund III	0.36%	(19.00%)	8.19%	0.15%	6.28%
Pantheon US Select 2014	(0.66%)	15.05%	59.99%	12.67%	21.80%

Zesiger portfolio is included in US Long Equity Assets and Returns.

Investment Manager Returns – Fiscal Years

For Periods Ended March 31, 2023

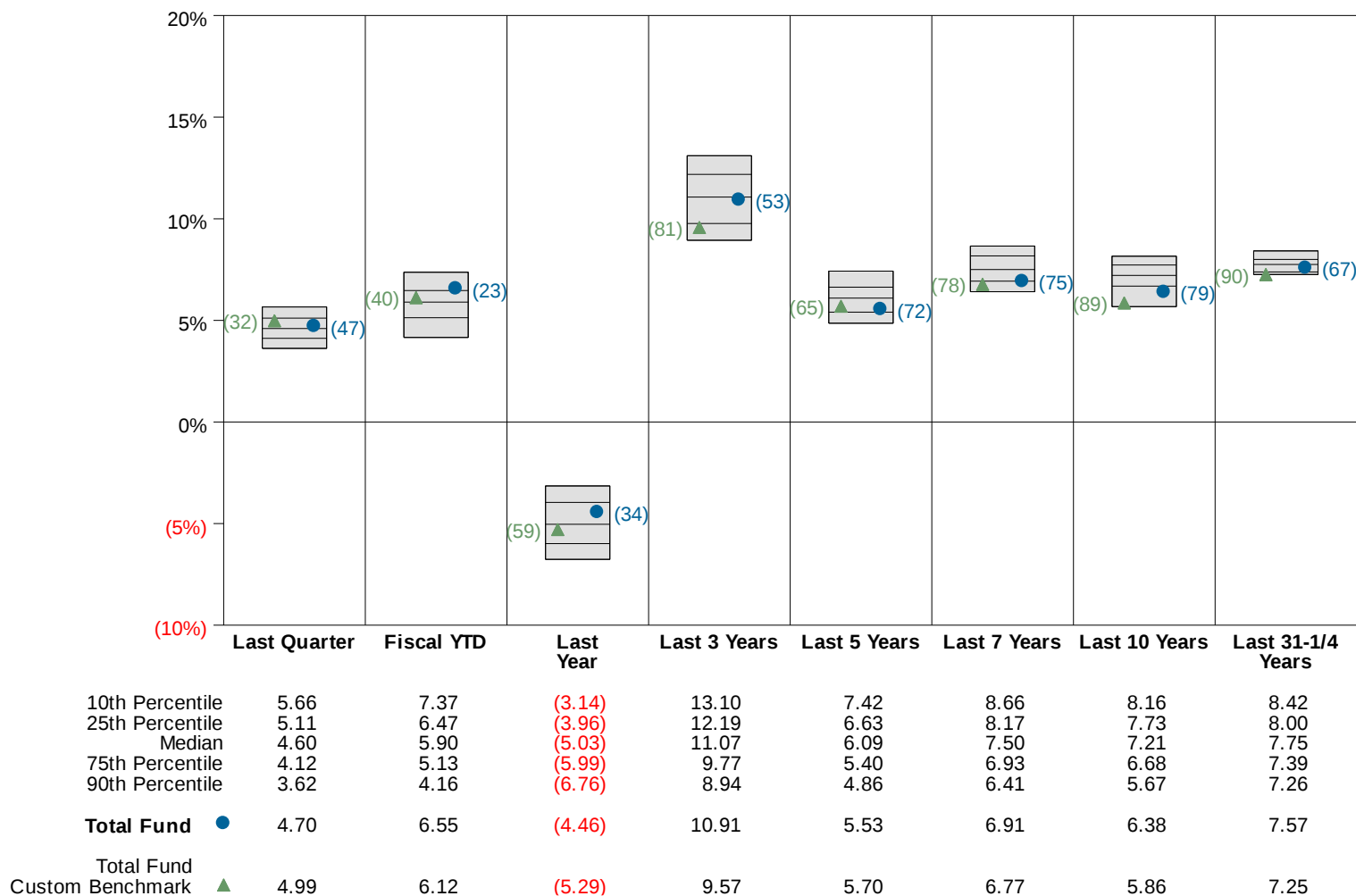
	6/2022- 3/2023	FY 2022	FY 2021	FY 2020	FY 2019
Domestic Fixed Income	0.10%	(11.14%)	0.72%	8.89%	8.07%
Prudential Cons Core Bond Fund	0.24%	(10.60%)	(0.02%)	8.11%	7.90%
Metropolitan West Fund	(0.00%)	(11.56%)	1.36%	9.18%	8.24%
Blmbg Aggregate Index	(0.09%)	(10.29%)	(0.33%)	8.74%	7.87%
Absolute Return	4.29%	7.95%	10.18%	4.05%	1.79%
UBS AIS	4.29%	7.95%	10.18%	4.05%	1.79%
HFRI FOF: Conservative In	2.60%	0.10%	15.01%	(0.48%)	2.06%
Real Assets	3.90%	(9.86%)	29.53%	(2.18%)	5.97%
PIMCO All Asset	3.90%	(9.85%)	29.55%	(2.23%)	5.03%
Blmbg US TIPS 1-10	0.52%	(2.03%)	6.60%	5.75%	4.67%
Cash	2.77%	0.35%	0.26%	1.75%	2.52%
Cash Account	2.77%	0.35%	0.26%	1.75%	2.52%
3-month Treasury Bill	2.40%	0.17%	0.09%	1.63%	2.31%
Total Fund	6.55%	(11.98%)	28.40%	2.76%	5.51%
Total Fund Custom Benchmark*	6.12%	(11.91%)	25.66%	4.63%	6.36%
Annual Discount Rate:6.625%					

*Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI ex US, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

Cumulative Performance versus Target

For Periods Ended March 31, 2023

Performance vs Callan Public Fund Spons- Mid (100M-1B) (Gross)

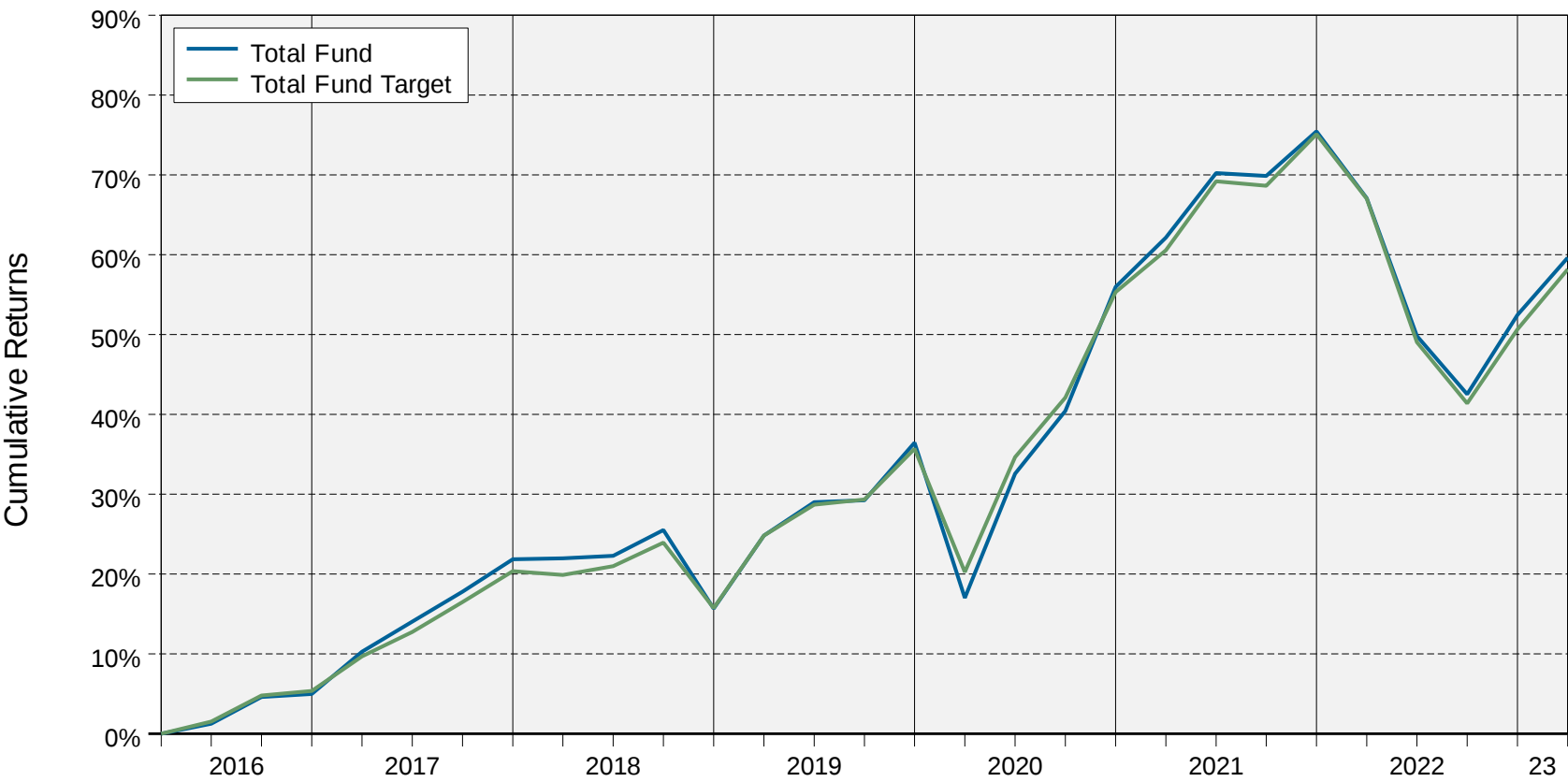


Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI ex US, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

Cumulative Performance versus Target

For Periods Ended March 31, 2023

Cumulative Returns Actual vs Target



Performance Attribution

For Periods Ended March 31, 2023

Relative Attribution Effects for Quarter ended March 31, 2023

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	33%	35%	6.19%	7.18%	(0.33%)	(0.05%)	(0.38%)
Domestic Fixed Income	18%	19%	3.20%	2.96%	0.04%	0.01%	0.06%
International Equity	22%	23%	7.61%	6.87%	0.17%	(0.02%)	0.15%
Global Equity/Long Short	7%	8%	1.44%	1.20%	0.02%	0.03%	0.05%
Absolute Return	6%	4%	1.54%	0.92%	0.04%	(0.09%)	(0.06%)
Private Equity	5%	3%	0.00%	0.00%	0.00%	(0.13%)	(0.13%)
PIMCO All Asset	8%	6%	3.21%	2.94%	0.02%	(0.04%)	(0.02%)
Cash	1%	2%	1.14%	1.07%	0.00%	0.05%	0.05%
Total			4.70%	= 4.99%	+ (0.05%)	+ (0.24%)	(0.29%)

Three Quarters Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	33%	35%	9.42%	9.75%	(0.12%)	(0.09%)	(0.21%)
Domestic Fixed Income	18%	19%	0.10%	(0.09%)	0.04%	0.03%	0.06%
International Equity	21%	23%	12.53%	10.03%	0.53%	(0.11%)	0.42%
Global Equity Long/Short	8%	8%	2.43%	2.09%	0.01%	0.05%	0.06%
Absolute Return	6%	4%	4.29%	2.60%	0.10%	(0.09%)	0.02%
Private Equity	5%	3%	(0.78%)	(0.78%)	0.00%	(0.16%)	(0.16%)
PIMCO All Asset Class	8%	6%	3.90%	0.52%	0.27%	(0.11%)	0.16%
Cash	1%	2%	2.77%	2.40%	0.00%	0.07%	0.07%
Total			6.55%	= 6.12%	+ 0.84%	+ (0.41%)	0.43%

Summary Observations

For Periods Ended March 31, 2023

- The total fund returned +4.70% for the quarter, -4.46% annualized for the trailing 1-year period, +10.91% annualized for the trailing 3-year period and +5.53% annualized for the trailing 5-year period. For the trailing 7-year period, the total fund returned +6.91%, annualized.

Fiscal Year 2023 Attribution - what helped:

- Relative performance of international equity manager (Artisan outperformed)
- Relative performance of PIMCO All Asset Class
- Relative performance of absolute return manager UBS

Fiscal Year 2023 - what hurt:

- An overweight to private equity, PIMCO All Asset and absolute return asset classes versus target
- Relative performance of domestic equity manager Columbus Circle
- An underweight to international equity and domestic equity versus target

OPEB Performance

Actual versus Target Asset Allocation

For Periods Ended March 31, 2023

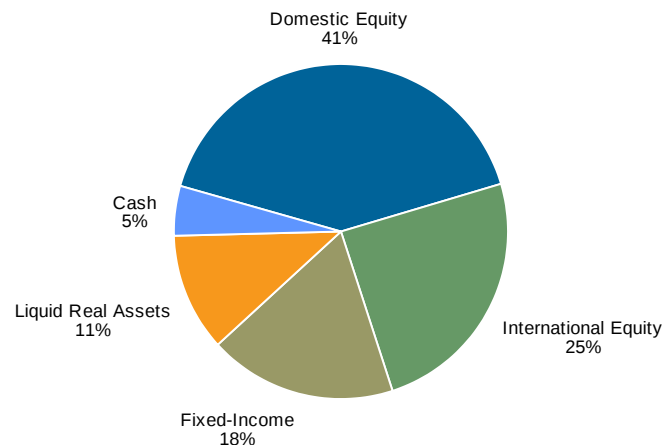
Overweight's:

- Cash (4.8% vs 0.0%)

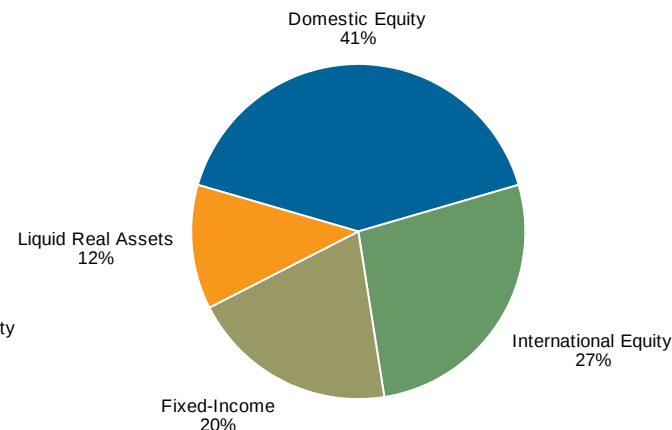
Underweights:

- International equity (24.6% vs 27% target)
- Fixed-Income (18.2% vs 20.0%)
- Liquid Real Assets (11.4% vs 12.0%)

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity	51,522	41.0%	41.0%	0.0%	54
International Equity	30,835	24.6%	27.0%	(2.4%)	(3,059)
Fixed-Income	22,797	18.2%	20.0%	(1.8%)	(2,309)
Liquid Real Assets	14,320	11.4%	12.0%	(0.6%)	(744)
Cash	6,059	4.8%	0.0%	4.8%	6,059
Total	125,532	100.0%	100.0%		

Portfolio Holdings

For Periods Ended March 31, 2023

	March 31, 2023				December 31, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Equity	\$82,356,667	65.61%	\$(4,000,000)	\$5,410,099	\$80,946,568	68.08%
Domestic Equity	\$51,521,983	41.04%	\$(2,000,000)	\$3,447,264	\$50,074,718	42.12%
Vanguard Total Stock Mrkt	51,521,983	41.04%	(2,000,000)	3,447,264	50,074,718	42.12%
International Equity	\$30,834,684	24.56%	\$(2,000,000)	\$1,962,835	\$30,871,849	25.97%
Vanguard Total Intl Stock	30,834,684	24.56%	(2,000,000)	1,962,835	30,871,849	25.97%
Fixed Income	\$22,797,260	18.16%	\$(1,004,405)	\$723,998	\$23,077,668	19.41%
Metropolitan West Fund	8,642,761	6.88%	0	295,654	8,347,106	7.02%
Prudential Cons Core Bond Fnd	14,154,500	11.28%	(1,004,405)	428,343	14,730,562	12.39%
Liquid Real Assets	\$14,319,692	11.41%	\$(1,000,000)	\$453,265	\$14,866,427	12.50%
PIMCO All Assets	14,319,692	11.41%	(1,000,000)	453,265	14,866,427	12.50%
Cash	\$6,058,782	4.83%	\$5,997,455	\$58,568	\$2,758	0.00%
Short Term Fund	6,058,782	4.83%	5,997,455	58,568	2,758	0.00%
Total Fund	\$125,532,401	100.0%	\$(6,950)	\$6,645,931	\$118,893,421	100.0%

- Total fund increased to \$125.5 million at the end of the quarter from \$118.9 million as of December 31, 2022.

Portfolio Holdings

For Periods Ended March 31, 2023

	March 31, 2023					December 31, 2022		
	Market Value	Weight	(min)	Target	(max)	Market Value	Weight	Target
Total Equity	\$82,356,667	65.61%	53.00%	68.00%	83.00%	\$80,946,568	68.08%	68.00%
Domestic Equity	\$51,521,983	41.04%	31.00%	41.00%	51.00%	\$50,074,718	42.12%	41.00%
Vanguard Total Stock Mkt	51,521,983	41.04%				50,074,718	42.12%	
International Equity	\$30,834,684	24.56%	20.00%	27.00%	34.00%	\$30,871,849	25.97%	27.00%
Vanguard Total Int'l. Stock	30,834,684	24.56%				30,871,849	25.97%	
Fixed Income	\$22,797,260	18.16%	15.00%	20.00%	25.00%	\$23,077,668	19.41%	20.00%
Metropolitan West Fund	8,642,761	6.88%				8,347,106	7.02%	
Prudential Cons Core Bond	14,154,500	11.28%				14,730,562	12.39%	
Liquid Real Assets	\$14,319,692	11.41%	0.00%	12.00%	20.00%	\$14,866,427	12.50%	12.00%
PIMCO All Assets	14,319,692	11.41%				14,866,427	12.50%	
Cash	\$6,058,782	4.83%	0.00%	0.00%	0.00%	\$2,758	0.00%	0.00%
Short Term Fund	6,058,782	4.83%				2,758	0.00%	
Total Fund	\$125,532,401	100.0%		100.0%		\$118,893,421	100.0%	100.0%

Investment Manager Returns

For Periods Ended March 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Total Equity	6.97%	(7.22%)	16.14%	7.32%	9.66%
Domestic Equity	7.15%	(8.77%)	18.36%	10.37%	11.93%
Vanguard Total Stock Market (1)	7.15%	(8.77%)	18.36%	10.37%	11.93%
Vanguard Total Stock Benchmark (2)	7.16%	(8.77%)	18.37%	10.37%	11.94%
Russell 3000 Index	7.18%	(8.58%)	18.48%	10.45%	11.99%
International Equity	6.65%	(4.60%)	12.70%	2.53%	6.05%
Vanguard Total Int'l. Stock (3)	6.65%	(4.60%)	12.70%	2.53%	6.05%
Vanguard International Benchmark (4)	6.50%	(5.40%)	12.79%	2.91%	6.32%
MSCI ACWI ex US	6.87%	(5.07%)	11.80%	2.47%	5.86%
Fixed-Income	3.27%	(5.09%)	(2.49%)	1.03%	1.07%
Prudential Conservative Core Bond (5)	3.06%	(4.81%)	(2.71%)	0.85%	0.81%
Metropolitan West Fund	3.54%	(5.79%)	(2.30%)	1.14%	1.13%
Blmbg Aggregate Index	2.96%	(4.78%)	(2.77%)	0.91%	0.88%
Liquid Real Assets	3.21%	(6.68%)	10.87%	4.00%	-
PIMCO All Asset	3.21%	(6.68%)	10.87%	4.00%	5.94%
Blmbg US TIPS 1-10	2.94%	(2.92%)	2.89%	3.18%	2.53%
Cash	0.99%	2.31%	0.82%	1.32%	1.16%
Short Term Fund	0.99%	2.31%	0.82%	1.32%	1.16%
3-month Treasury Bill	1.07%	2.50%	0.89%	1.41%	1.21%
Total Fund	5.56%	(6.95%)	11.47%	5.79%	7.33%
Total Fund Benchmark*	5.76%	(5.88%)	10.32%	5.94%	7.07%

Annual Discount Rate:6.5%

* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI ex US, 20.0% Blmbg Aggregate and 12.0% Blmbg:TIPS 1-10 Yr.

(1) Vanguard Total Stock Market switched to Admiral Shares from Signal Shares in October 2014. In November 2014 switched to institutional shares.

(2) Vanguard Total Stock Market Benchmark was US Broad Market Index switched to CRSP U.S. Total Market Index Jun. 2013

(3) Vanguard Total Int'l. Stock switched to Institutional Shares from Investor Shares on November 30, 2014

(4) Vanguard Total International Benchmark was MSCI ACWI ex US IMI switched to FTSE Global All Cap ex US Index Jun. 2013.

(5) February 8, 2017 fund switched to Institutional Trust.

Investment Manager Returns – Fiscal Years

For Periods Ended March 31, 2023

	6/2022- 3/2023	FY 2022	FY 2021	FY 2020	FY 2019
Total Equity	9.63%	(16.08%)	41.24%	2.43%	5.80%
Domestic Equity	9.70%	(14.24%)	44.33%	6.47%	9.00%
Vanguard Total Stock Market (1)	9.70%	(14.24%)	44.33%	6.47%	9.00%
Vanguard Total Stock Benchmark (2)	9.71%	(14.22%)	44.35%	6.47%	9.00%
Russell 3000 Index	9.75%	(13.87%)	44.16%	6.53%	8.98%
International Equity	9.48%	(18.92%)	36.54%	(4.07%)	0.62%
Vanguard Total Int'l. Stock (3)	9.48%	(18.92%)	36.54%	(4.07%)	0.62%
Vanguard International Benchmark (4)	9.95%	(19.01%)	37.55%	(4.16%)	0.81%
MSCI ACWI ex US	10.03%	(19.42%)	35.72%	(4.80%)	1.29%
Fixed-Income	0.10%	(10.95%)	0.45%	8.94%	8.04%
Prudential Cons Core Bond Fnd (5)	0.09%	(10.70%)	(0.16%)	8.65%	7.80%
Metropolitan West Fund	(0.09%)	(11.56%)	1.36%	9.18%	8.23%
Blmbg Aggregate Index	(0.09%)	(10.29%)	(0.33%)	8.74%	7.87%
Liquid Real Assets	3.90%	(9.85%)	29.55%	(2.23%)	5.03%
PIMCO All Asset	3.90%	(9.85%)	29.55%	(2.23%)	5.03%
Blmbg US TIPS 1-10	0.52%	(2.03%)	6.60%	5.75%	4.67%
Cash	2.17%	0.16%	0.09%	1.78%	2.00%
Short Term Fund	2.17%	0.16%	0.09%	1.78%	2.00%
3-month Treasury Bill	2.40%	0.17%	0.09%	1.63%	2.31%
Total Fund	6.76%	(14.34%)	31.50%	3.26%	6.24%
Total Fund Benchmark*	6.93%	(13.16%)	27.43%	4.85%	6.71%

Annual Discount Rate:6.5%

* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI ex US, 20.0% Blmbg Aggregate and 12.0% Blmbg:TIPS 1-10 Yr.

(1) Vanguard Total Stock Market switched to Admiral Shares from Signal Shares in October 2014. In November 14th, 2014 switched to Institutional shares.

(2) Vanguard Total Stock Market Benchmark was US Broad Market Index switched to CRSP U.S. Total Market Index Jun. 2013

(3) Vanguard Total Int'l. Stock switched to Institutional Shares from Investor Shares in November 30, 2014

(4) Vanguard Total International Benchmark was MSCI ACWI ex US IMI switched to FTSE Global All Cap ex US Index Jun. 2013.

(5) February 8, 2017 fund switched to Institutional Trust.

Performance Attribution

For Periods Ended March 31, 2023

Relative Attribution Effects for Quarter ended March 31, 2023

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return			
Domestic Equity	41%	41%	7.15%	7.18%	(0.01%)	0.00%	(0.01%)			
Fixed-Income	18%	20%	3.27%	2.96%	0.06%	0.01%	0.07%			
International Equity	25%	27%	6.65%	6.87%	(0.05%)	(0.04%)	(0.09%)			
Real Assets	12%	12%	3.21%	2.94%	0.04%	(0.01%)	0.03%			
Cash	4%	0%	0.99%	0.99%	0.00%	(0.19%)	(0.19%)			
Total			5.56%	=	5.76%	+	0.04%	+	(0.24%)	(0.20%)

Three Quarters Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return			
Domestic Equity	42%	41%	9.70%	9.75%	(0.02%)	(0.06%)	(0.08%)			
Fixed-Income	19%	20%	0.10%	(0.09%)	0.03%	(0.05%)	(0.02%)			
International Equity	25%	27%	9.48%	10.03%	(0.14%)	(0.12%)	(0.26%)			
Real Assets	12%	12%	3.90%	0.52%	0.42%	(0.04%)	0.38%			
Cash	1%	0%	2.17%	2.17%	0.00%	(0.19%)	(0.19%)			
Total			6.76%	=	6.93%	+	0.29%	+	(0.47%)	(0.18%)

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Past performance is no guarantee of future results.

March 31, 2023

City of Norwalk

**Investment Measurement Service
Quarterly Review**

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March 31, 2023

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Higher Interest Rates Work! That's Good?

ECONOMY

2 Fed rate hikes seem to be working as designed, but there is always a delicate balancing act in trying to avoid a recession. The U.S. economy has held up pretty well, but GDP is slowing and the bond market is signaling a recession is ahead. The risks of that event have increased.

After Worst Year Ever, A Rebound for Bonds

FIXED INCOME

8 Following the worst year ever for core fixed income, the Bloomberg US Aggregate Bond Index rose 3.0% in 1Q. As with equities, it was a bumpy ride with solid returns in January and March sandwiching a negative February. Global indices also rose in the quarter

Interest Continues as IRRs Stay Steady

PRIVATE CREDIT

12 Private credit generated net IRRs between 7% and 10% for trailing periods ended 9/30/22. Interest in the asset class remains strong and a renewed focus has been placed on relative value, downside protection, and managers' internal workout resources.

4Q22 and 1Q23 Gains Help Ease the Pain

INSTITUTIONAL INVESTORS

4 All investor types saw declines for the trailing year ended 1Q23, but the pain was eased by rebounds for stocks and bonds in 4Q22 and 1Q23. And while 2022 was a tough year, the silver lining is that return expectations going forward are now materially higher.

Private RE Mixed; REITs Lag Equities

REAL ESTATE/REAL ASSETS

10 Income returns for the NCREIF Property Index were positive but appreciation fell for the four major property sectors. REITs lagged equities in the quarter, and real assets were mixed but also lagged equities. Transaction volume continues to decrease on a rolling four-quarter basis.

Steady Gains Amid Volatile Markets

HEDGE FUNDS/MACs

13 Hedge funds ended the quarter in positive territory, although they underperformed broader equity indices, as the group provided steady performance through a volatile market environment. The median manager in the Callan Institutional Hedge Fund Peer Group rose 1.3%.

Increase but the Ride Was Bumpy in 1Q

EQUITY

6 The S&P 500 posted a second straight quarter of positive performance, gaining 7.5% in 1Q23; large cap growth led all style and cap indices higher, advancing 14.4%. Results were mixed across developed markets but most delivered positive returns.

Asset Class Adjusts To Tighter Conditions

PRIVATE EQUITY

11 Except for fundraising dollar volume, virtually all activity measures moderated in 1Q23. Company-level entry and exit transactions retreated to levels seen in 2020, which remain healthy but look meager compared to 2021's stimulus-fueled liquidity peak, and 2022's gradual slowdown.

Index Rises After 3 Quarters of Losses

DEFINED CONTRIBUTION

15 The Callan DC Index rose 6.3% in 4Q22 after three straight quarterly declines. Balances also rose, driven by investment gains. TDFs continued to see the largest inflows. Allocations to equities rose slightly. Fees fell but the amount varied by plan size.

Broad Market Quarterly Returns

U.S. Equity Russell 3000



Global ex-U.S. Equity MSCI ACWI ex USA



U.S. Fixed Income Bloomberg Agg



Global ex-U.S. Fixed Income Bloomberg Global Agg ex US



Sources: Bloomberg, FTSE Russell, MSCI

Higher Interest Rates Work! That's Good, Right?!

ECONOMY | Jay Kloepfer

The Federal Reserve has two very public mandates: to support employment growth and to maintain low, stable inflation. When the economy falls into recession (GDP and jobs are contracting) and unemployment rises, the Fed typically steps in and lowers interest rates. Lower rates stimulate borrowing by consumers and businesses, and thereby spur demand that will ultimately pull the economy back into the black with positive economic growth and a resumption of hiring. When inflation rises, the Fed typically steps in and raises interest rates. Higher rates slow borrowing by consumers and businesses, and thereby lessen demand and slow the upward pressure on prices.

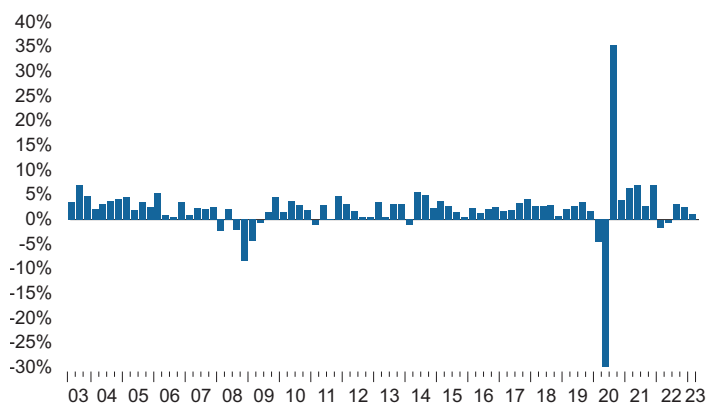
There is a balancing act on both sides of this policy equation: How much stimulus is enough to get the economy growing and spur recovery in the job market to pull down unemployment, before the resumption in demand pushes up prices? How high can interest rates go before the economy slows enough to tip into recession and unemployment shoots up? While this characterization is incredibly simplistic compared to the complex inner workings of the Fed, and ignores for the moment the impact of the Fed balance sheet and monetary tightening or easing, the story works to help explain the conundrum we currently face as we move into 2Q23.

The last three years saw incredible mayhem in the supply chains, capital flows, and job markets of the world, with equally volatile yet weirdly out-of-sync (at times) mayhem in the capital markets. We suffered through a pandemic with an uneven global policy response, and the invasion of Ukraine in winter 2022. Global energy fell to an effective price of zero in 2020 only to skyrocket immediately thereafter. Inflation surged hard after more than a decade of suppression, and central bank responses to withdraw stimulus and put out the inflation fire in 2022 spooked equity markets and drove fixed income returns to their worst year ever.

Underneath all this, the U.S. economy has actually held up pretty darn well. We regained the pre-pandemic levels of GDP and employment in fairly short order, given the depth of the declines. The job market in the U.S. has been particularly robust; even in 2022 as the capital markets plummeted, we added 4.8 million jobs

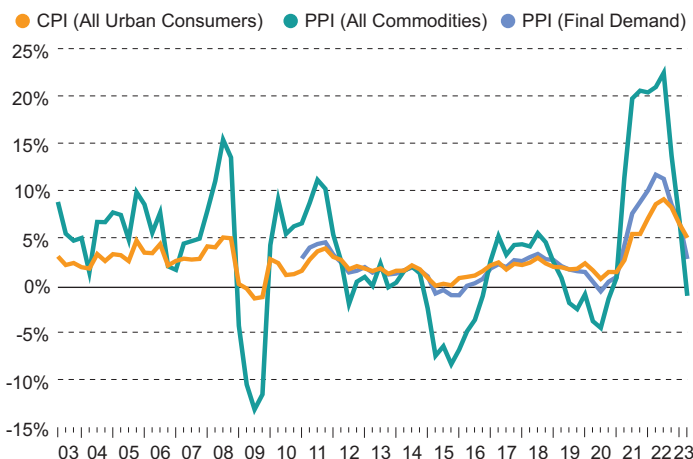
Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

during the year, with two monster months in February and July, and an average of 330,000 new jobs in the other 10 months of 2022. On the downside, overall gains in jobs hide the continued mismatch between the supply of jobs from employers and the type of jobs workers are demanding. Many trade and service industries remain woefully understaffed. Personal income surged, first through pandemic support in 2020 and the inability to spend in lockdown, and then as wages and salaries rose when economic growth burst into the open in 2021 and 2022. However, inflation ate into income gains and drove up prices for businesses, crimping real returns and company margins. Now that the Fed Funds rate has reached 5% and mortgage rates are at 7%, is it time for us to tip into recession? Did the Fed do “too much, too late?”

1Q23 GDP grew 1.1%, a definite slowdown from the second half of 2022, and below consensus expectations of 2%. Two culprits for the slower growth were weaker retail sales and a drop in new home construction. Another culprit was inventory reduction—companies worked down their stockpiles. Reducing inventories in anticipation of slower demand can be a self-fulfilling prophecy, as inventory reduction is a negative to GDP, but it can also set the economy up for a stronger 2Q, with the potential to rebuild inventory in the coming months. The consensus among economic forecasters is for substantial slowdown in 2023, to near zero growth in 2Q and 3Q, reaching the soft landing that is the holy grail of central banks.

Over history, however, we have not enjoyed soft landings in recessions; unemployment has spiked far beyond what would be thought of as a soft landing. The data for tracking recessions are all lagged, but the sequence of events in the economy is typically 1) slowing activity that takes a while to show up in the GDP data, then 2) cutting back in the form of spending and hiring, 3) layoffs starting in high-flying industries, leading to 4) the multiplier effects of the slowdown snowballing into significant job losses across the broad economy. The stock market usually prices in recession first, often far ahead of the economic data, and then the market begins to advance, pricing in the recovery while the recession is still unfolding.

The bond market has been signaling belief in recession with an inverted yield curve. The market fully believed in the Fed's interest rate plans in March 2022 when inflation took off, and the yield curve shifted up sharply. As the year went on, the bond market then began worrying that the Fed would have to reverse course "soon" and start cutting rates to stave off recession, hence the inversion of the yield curve. The Fed has made it clear that inflation remains concern

Recent Quarterly Economic Indicators

	1Q23	4Q22	3Q22	2Q22
Employment Cost: Total Compensation Growth	4.8%	5.1%	5.0%	5.1%
Nonfarm Business: Productivity Growth	-2.7%	1.6%	1.2%	-3.7%
GDP Growth	1.1%	2.6%	3.2%	-0.9%
Manufacturing Capacity Utilization	78.3%	78.5%	79.4%	79.6%
Consumer Sentiment Index (1966=100)	64.6	58.8	56.1	57.8

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan

The Long-Term View

Index	1Q23	Periods Ended 3/31/23			
		1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	7.2	-8.6	10.5	11.7	7.4
S&P 500	7.5	-7.7	11.2	12.2	7.4
Russell 2000	2.7	-11.6	4.7	8.0	6.8
Global ex-U.S. Equity					
MSCI EAFE	8.5	-1.4	3.5	5.0	4.3
MSCI ACWI ex USA	6.9	-5.1	2.5	4.2	--
MSCI Emerging Markets	4.0	-10.7	-0.9	2.0	--
MSCI ACWI ex USA Small Cap	4.7	-10.4	1.7	5.1	6.5
Fixed Income					
Bloomberg Agg	3.0	-4.8	0.9	1.4	4.0
90-Day T-Bill	1.1	2.5	1.4	0.9	1.9
Bloomberg Long G/C	5.8	-13.4	0.6	2.3	5.6
Bloomberg GI Agg ex US	3.1	-10.7	-3.2	-1.0	2.8
Real Estate					
NCREIF Property	-1.8	-1.6	6.7	8.3	8.8
FTSE Nareit Equity	2.7	-19.2	6.0	6.0	8.0
Alternatives					
CS Hedge Fund	0.2	-0.9	4.2	3.9	5.5
Cambridge PE*	0.8	-8.2	16.1	15.1	14.1
Bloomberg Commodity	-5.4	-12.5	5.4	-1.7	1.8
Gold Spot Price	8.8	1.6	8.4	2.2	7.8
Inflation – CPI-U	1.7	5.0	3.9	2.6	2.5

*Data for most recent period lags. Data as of 9/30/22.

Sources: Bloomberg, Bureau of Economic Analysis, Credit Suisse, FTSE Russell, MSCI, NCREIF, Refinitiv/Cambridge, S&P Dow Jones Indices

No. 1, and the potential to cause a recession has not entered its deliberations. The strong job market in 1Q—almost a million new jobs—gives the Fed cover to continue course. The storm clouds on the horizon are the various measures of inflation: CPI-U and PCE both rose 5% in the first quarter, and the employment cost index for private industry rose 4.8%. While these rates are high relative to longer term history, they are down substantially from the peaks of mid-2022.

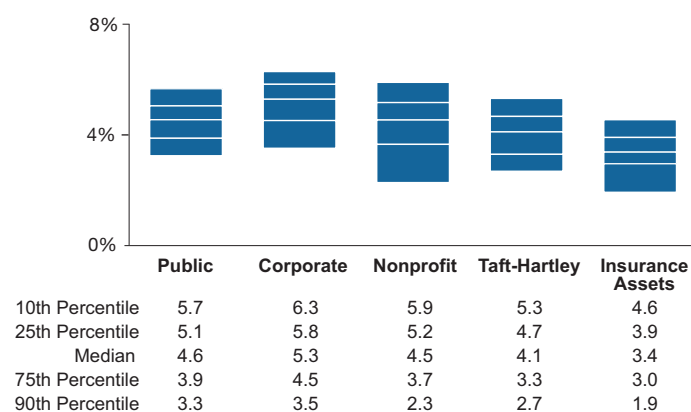
So higher interest rates are working, slowing demand and lessening price pressure, but inflation has a habit of being sticky on the downside. Squeezed margins means pressure to trim costs (and raise prices if possible). Highly visible layoffs in technology may soon expand to the broader economy. The chance of a recession in 2023 remains high.

Returns Fall for Trailing Year, but 4Q22, 1Q23 Gains Help Ease the Pain

INSTITUTIONAL INVESTORS

- Gains for stocks and bonds at the end of 2022 and beginning of 2023 eased the pain of a tough year for all institutional investors in 2022.
- While all investor types saw losses for the trailing one-year ending 1Q23, the declines were less than the double-digit losses they had experienced last year.
- Most investor types topped a 60% S&P 500/40% Bloomberg Aggregate benchmark over the trailing one year, with the exception of corporate plans.
- Results over the last 20 years for all investor types are in line with the stock-bonds benchmark.
- Entering 2023, for all investor types inflation is still an issue, despite recent declines.
 - Even if the rate goes to zero, the level of prices is permanently higher unless we get to deflation. The impact on individual and business real net income is substantial and portends slower growth in 2023 and 2024.
- Rate hikes from the Fed are another key concern.
 - The Fed has increased rates 475 bps since March 2022, from 0.0%-0.25% to 4.75%-5.0% in March 2023.
- While the painful losses across the board for investors in 2022 were a challenge, the silver lining is that higher returns are expected going forward.
 - Return targets are now in sight.
 - Risk reduction is on the table.

Quarterly Returns, Callan Database Groups (3/31/23)



Source: Callan

Callan Database Median and Index Returns* for Periods Ended 3/31/23

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	4.6	-4.8	11.2	6.2	7.2	7.9
Corporate Database	5.3	-7.3	5.5	4.2	5.9	7.3
Nonprofit Database	4.5	-4.7	11.2	5.8	6.7	7.7
Taft-Hartley Database	4.1	-4.0	11.2	6.4	7.3	7.5
Insurance Assets Database	3.4	-3.0	4.4	3.2	3.6	5.1
All Institutional Investors	4.6	-4.9	10.6	5.7	6.8	7.6
Large (>\$1 billion)	4.2	-4.9	11.2	6.5	7.3	8.0
Medium (\$100mm - \$1bn)	4.7	-4.9	10.7	5.8	7.0	7.6
Small (<\$100 million)	4.6	-4.9	10.4	5.5	6.6	7.2
60% S&P 500/40% Bloomberg Agg	5.7	-6.3	9.9	7.5	8.1	7.8

*Returns less than one year are not annualized.

Source: Callan. Callan's database includes the following groups: public defined benefit (DB) plans, corporate DB plans, nonprofits, insurance assets, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

- Private markets are now over target allocations.
 - Downward market valuations are slower in coming, distorting true exposures.
 - Interest remains strong in all private assets.
 - Sharpened interest in real assets continues.
 - But current real assets exposures did not help, given losses in the asset class.
- Strategic themes in client conversations: How much has the world changed, and does it alter how we should view and implement our portfolio?

Corporated Defined Benefit (DB) Plans

- Liabilities fell sharply with rising interest rates. Liability-driven investing (LDI) portfolios were hammered by long duration exposure; typical LDI plan treaded water in funded status.
- Plans are questioning what they are doing with LDI, and why. Funded status no longer translates directly to contributions, or expense. Funding relief changed views.
- Total return-oriented plans saw funded status improve as equities declined less than liabilities.
- We expect higher interest rates will increase discussions about pension risk transfer. Most of our corporate DB clients are inclined to keep the plan on the balance sheet.

Public DB Plans

- Downward pressure on actuarial discount rates may now abate as capital markets expectations are higher following the market decline.
- Higher return expectations and lowered discount rates have led to a number of discussions of de-risking, after years of risking-up to chase returns.
- Inflation impacts future liabilities through pressure on salary and hits plans now with COLAs. Political pressures are high on plans with discretionary COLAs. Most COLAs are NOT funded, which is the reason why many plans suspended or eliminated them to address funding shortfalls over the past decade.

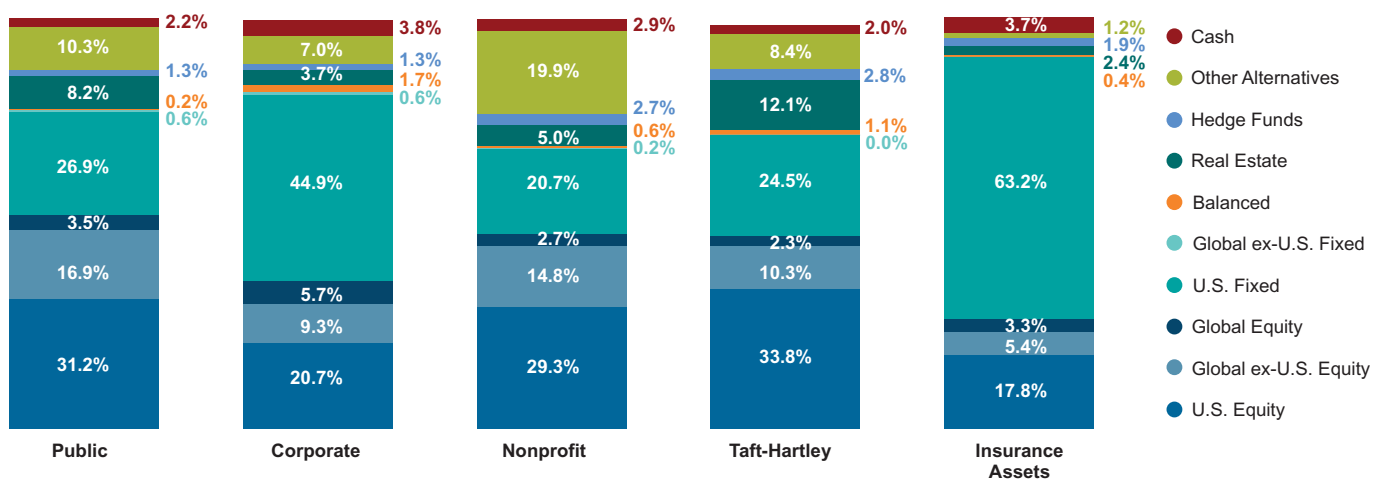
Nonprofits

- They are expanding the depth and breadth of their private markets allocations to diversify a prior focus on growth.
- Inflation concerns will lead to reconsideration of spending policies in 2023.

Defined Contribution (DC) Plans

- Pressure on investment management fees shows no signs of abating.
- Plans are also focused on compliance as they digest the implications of SECURE 2.0.

Average Asset Allocation, Callan Database Groups



Note: Charts may not sum to 100% due to rounding. Other alternatives include but is not limited to: diversified multi-asset, private credit, private equity, and real assets.
Source: Callan

Equity

U.S. Equities

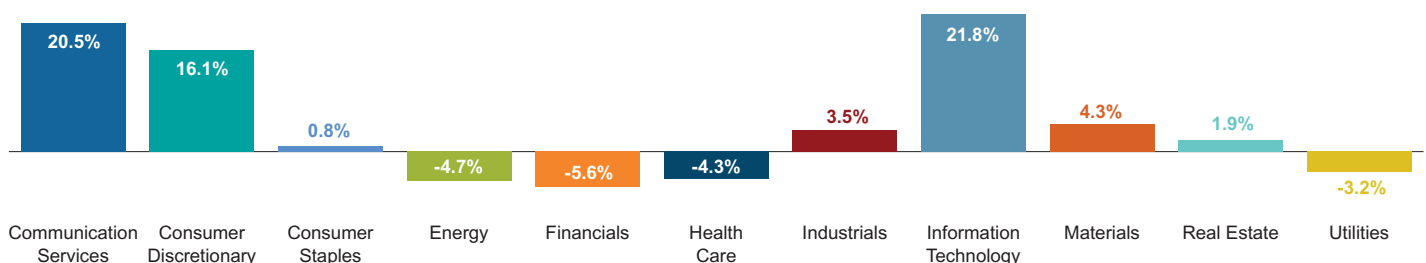
Markets gain, with exception of small cap value

- The S&P 500 posted a second straight quarter of positive performance, gaining 7.5% in 1Q23; large cap growth led all style and cap indices higher, advancing 14.4%.
- Russell 2000 Value was a notable exception and experienced a slight decline of 0.7% due to greater exposure to Financials, specifically banks.
- During the quarter, three sectors comprising 44% of the S&P 500 (and 63% of the Russell 1000 Growth Index) drove performance: Technology (+21.8%), Communication Services (+20.5%), and Consumer Discretionary (+16.1%).
- Financials, Energy, and Health Care posted negative returns for the quarter but had only a modest impact on total returns given smaller weights in respective benchmarks.
- Small caps (Russell 2000) underperformed large caps (Russell 1000) and growth outperformed value during the quarter, a reversal from 2022. Greater exposure to banks in Russell 2000 (8.3%) versus Russell 1000 (3.3%) was one differentiator for returns; strong returns for mega-cap Technology also increased divergence.

Large cap growth outperformance drivers

- The large cap growth outperformance was driven by increased valuations as interest rates declined and expectations of a more dovish Fed emerged.
- Asset managers may take a more cautious approach in equity markets into coming quarters as earnings estimates decline; expect a focus on quality, cash flow, defensive value names, and profitable growth stocks.

Quarterly Performance of Industry Sectors (12/31/22)

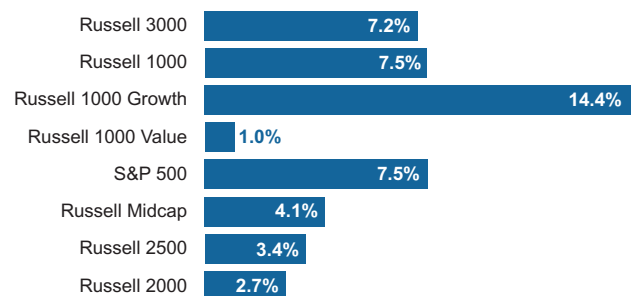


Source: S&P Dow Jones Indices

- Price multiples continue to be important as elevated valuations may compress if markets anticipate that monetary easing is not on the near-term horizon.
- Analyst estimates for future earnings are diverging, typically a sign of elevated economic turbulence.
- Investors “bought the dip” as stock performance reversed from the prior year; the worst-performing stocks for 2022 became best-performing stocks during 1Q23.

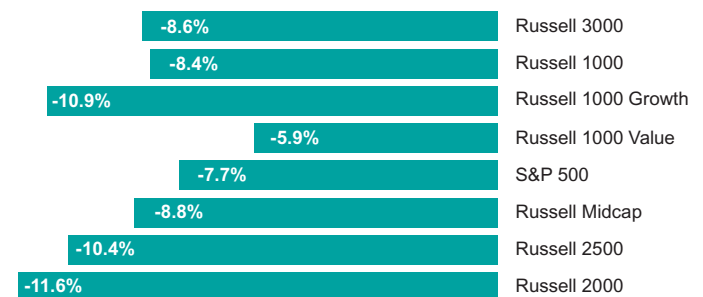
U.S. Equity: Quarterly Returns

(3/31/23)



U.S. Equity: One-Year Returns

(3/31/23)



Sources: FTSE Russell and S&P Dow Jones Indices

Global Equity

1Q23 brought global equity markets back to black

- Positive results despite hiccups
- 1Q23 was marked by the collapse of Silicon Valley Bank and Credit Suisse, which sent fears of a banking crisis across global markets.
- Despite a Fed hike during the period, investors began to price in lower rate expectations.
- Europe outperformed other regions, making up ground lost in 2022 as inflation eased and recession fears lessened.

Growth vs. value

- Growth outpaced value across developed and emerging markets.
- In a reversal from 2022, investors preferred growth alongside a drawdown in banks; Information Technology was the largest outperformer.

U.S. dollar vs. other currencies

- After some strength early in the quarter, the U.S. dollar declined 1% as interest rate differentials narrowed globally.

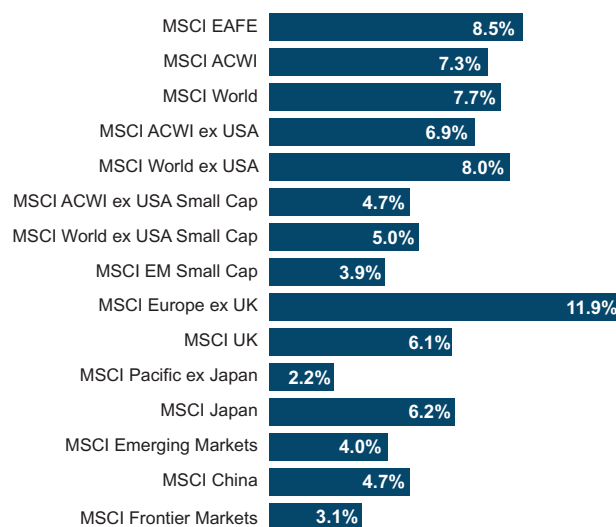
Developed markets outpace U.S.

- Outperformance of developed markets over the past year has been driven by Europe.
- Europe beat U.S. as the worst fears in the wake of the Russia-Ukraine War were not realized.
- Europe benefited from falling gas prices and China reopening.
- Value-growth dispersion was impacted less in developed markets relative to U.S. given the composition of the markets.
- EAFE Value outperformed Growth by 2.5 percentage points.
- S&P 500 Value outperformed Growth by 15.2 percentage points.
- Weak dollar in recent quarters helped global ex-U.S. equities.
- Since DXY Index reached a 20-year high in September 2022, it has fallen by 10%.

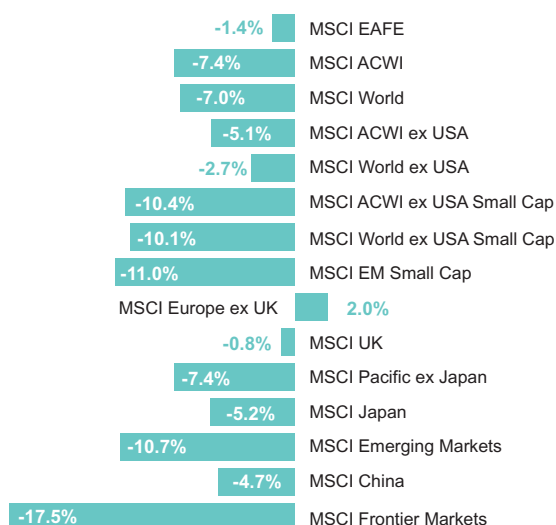
Will Europe continue to be a source of return?

- EPS growth expectations have fallen for both S&P 500 (-7%) and Europe (-9%).
- However, euro zone provides valuation support relative to the U.S.
- Euro zone trades at a 30% discount vs. the U.S.

Global ex-U.S. Equity: Quarterly Returns (U.S. Dollar, 3/31/23)



Global ex-U.S. Equity: One-Year Returns (U.S. Dollar, 3/31/23)



Source: MSCI

Fixed Income

U.S. Fixed Income

Bloomberg Aggregate was positive in 1Q but mixed

- January: +3.1%
- February: -2.6%
- March: +2.5%

U.S. Treasury volatility was pronounced

- 2-year U.S. Treasury yield high was 5.08% on 3/8 and low was 3.77% on 3/24
- MOVE Index highest since 2008

Yield curve remained inverted but also volatile

- 2yr/10yr | 3/31: -58 bps; max 3/8: -109; min 3/23: -38
- 1yr/10yr | 3/31: -116 bps

Fed raised rates, bringing target to 4.75%–5.00%

- Median expectation from Fed is 5.1% for year-end 2023; market pricing in Fed cuts by year-end
- Inflation moderated but still high and job market tight

Sector performance mixed

- Corporate Industrials excess return: +58 bps
- Corporate Financials excess return: -39 bps
- RMBS excess return: -50 bps
- CMBS excess return: -74 bps
- High yield excess return: +123 bps

Valuations fair

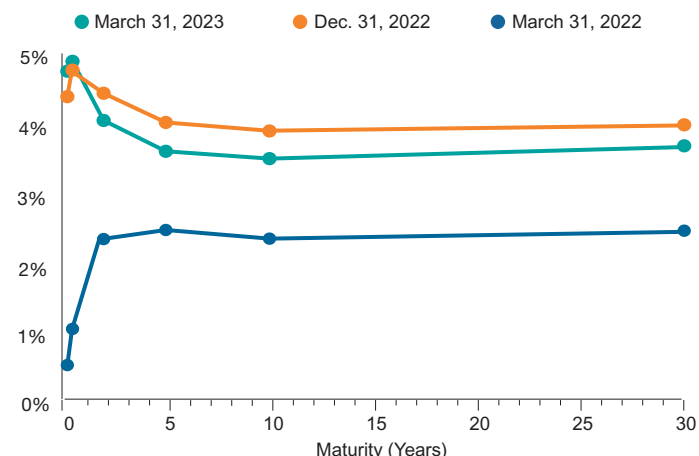
- Credit spreads have not widened materially and are close to historical averages

Municipal Bonds

Indices gained in 1Q23

- Lower quality outperformed (AAA: +2.5%; AA: +2.7%; A: +3.0%; BBB: +3.7%)
- Muni curve inverted but less so than U.S. Treasuries
- 2-year AAA yield: 2.41%; 10-year AAA yield: 2.28%
- Valuations relative to U.S. Treasuries are rich

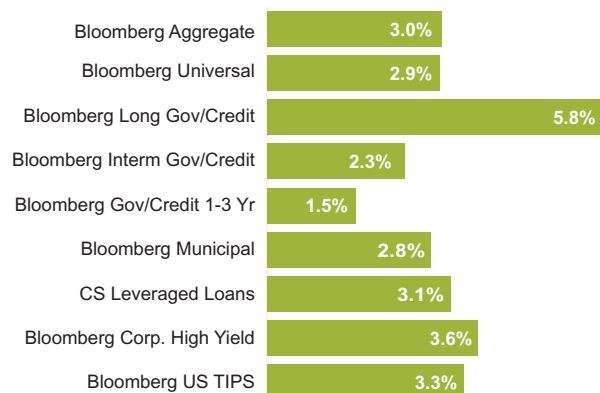
U.S. Treasury Yield Curves



Source: Bloomberg

U.S. Fixed Income: Quarterly Returns

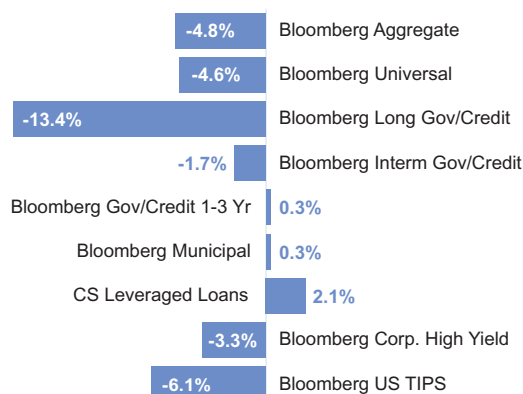
(3/31/23)



Sources: Bloomberg and Credit Suisse

U.S. Fixed Income: One-Year Returns

(3/31/23)



Sources: Bloomberg and Credit Suisse

FIXED INCOME (Continued)

- 10-year AAA Muni/10-year U.S. Treasury yield ratio 65%; below 10-year average of 88%
- Over the last 10 years, 10-year ratio was richer 4% of the time
- After-tax yield of Muni Bond Index = 5.5%; Bloomberg IG Corporate = 5.2% (Source: Eaton Vance)

Supply/demand

- Outflows nearly \$2 billion but lower than the \$22 billion in 1Q22
- Supply about 25% lower year-over-year
- Munis not immune to turmoil in banking, but fundamentals remain sound
- Banks are third largest holder of munis (about 15%) but thus far have not been sellers
- Municipals could be affected by tighter lending standards but likely result would be more public issuance
- “Rainy Day” fund balances and state tax revenues robust

Global Fixed Income

Global Aggregate was positive in 1Q but mixed

- January: +3.3%
- February: -3.3%
- March: +3.2%
- ECB and UK hiked rates; Japan held steady

U.S. dollar was mixed but mostly lower

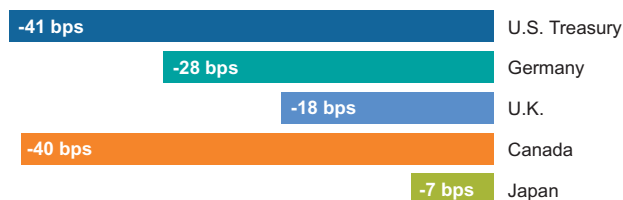
- Euro: +2% vs dollar
- British pound: +3% vs dollar
- Japanese yen: -1% vs dollar
- Australian dollar: -1% vs dollar
- Mexican peso: +8% vs dollar
- Brazilian real: +4% vs dollar

Emerging market debt delivered solid results

- EM currencies did well versus U.S. dollar, especially in Latin America; Latin America local currency return: +4.1%; unhedged in \$US: +9.8%

Change in 10-Year Global Government Bond Yields

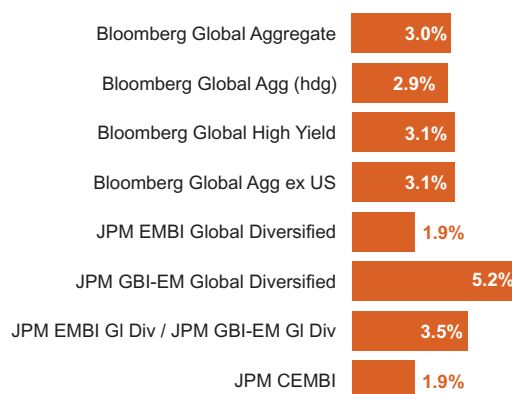
4Q22 to 1Q23



Source: Bloomberg

Global Fixed Income: Quarterly Returns

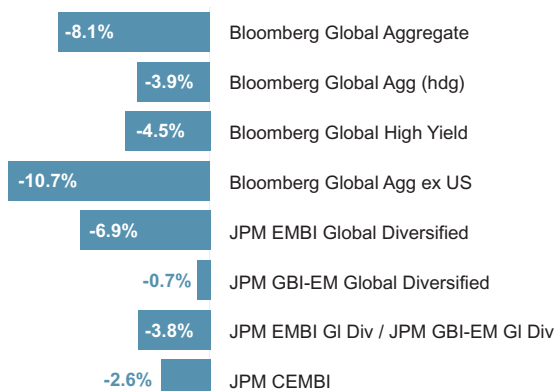
(3/31/23)



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns

(3/31/23)



Sources: Bloomberg and JPMorgan Chase

Private Real Estate Sees Mixed Results, While REITs Lag Equities

REAL ESTATE/REAL ASSETS | Kristin Bradbury, Munir Iman, and Aaron Quach

Income returns positive but appreciation negative

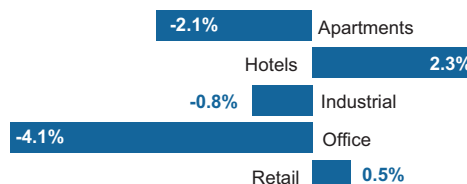
- Income returns were positive across all property sectors and regions in the NCREIF Property Index.
- All sectors and regions, except for Hotel, experienced negative appreciation.
- Valuations are reflective of higher interest rates, which have put upward pressure on capitalization rate and discount rate assumptions.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.
- Outstanding redemption requests for most large ODCE funds are approximately 8% to 16% of net asset value.
- There is more than \$200 billion of capital waiting to be deployed in North America.
- Majority of dry powder capital in opportunistic, value-add, and debt funds
- Transaction volume continues to decrease on a rolling four-quarter basis and is now below five-year averages.
- The rise in interest rates is the driving force behind the slow-down in transactions. A bid-ask spread remains and price discovery continues to occur among market participants.

REITs Underperform Equity Indices

- Global REITs underperformed in 1Q23, rising 0.8% compared to a 7.7% rise for global equities (MSCI World).

Sector Quarterly Returns by Property Type

(3/31/23)



Source: NCREIF

- U.S. REITs gained 2.7% in 1Q23, in contrast with the S&P 500 Index, which rose 7.5%.
- REITs are now trading at a discount to NAV (-12%) and offer relative value given the strength of underlying fundamentals.
- Historically, global REITs have traded at a -5.1% discount to NAV.

Real assets mixed but lagged global equities

- Real assets were mixed in 1Q but generally underperformed global equities.
- Gold (S&P Gold Spot Price Index: +8.8%), REITs (MSCI US REIT: +2.7%), infrastructure (DJB Global Infrastructure: +2.5%), and TIPS (Bloomberg TIPS: +2.0%) all posted positive returns.
- The S&P GSCI Index fell 4.9% with oil down about 7%. WTI Crude closed the quarter at \$74/barrel, just before OPEC announced its intention to cut production in May.

Callan Database Median and Index Returns* for Periods Ended 3/31/23

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
Real Estate ODCE Style	-1.7	-1.7	-2.2	8.4	7.5	9.0	5.1
NFI-ODCE (value-weighted, net)	-3.4	-3.4	-3.9	7.5	6.6	8.5	5.0
NCREIF Property	-1.8	-1.8	-1.6	7.2	6.7	8.3	6.3
NCREIF Farmland	2.1	2.1	8.9	7.5	6.5	8.5	10.2
NCREIF Timberland	1.8	1.7	11.3	8.1	5.5	5.8	4.6
Public Real Estate							
Global Real Estate Style	1.8	1.8	-20.2	7.9	3.3	4.7	4.5
FTSE EPRA Nareit Developed	0.8	0.8	-21.4	6.6	0.9	2.5	2.5
Global ex-U.S. Real Estate Style	0.1	0.0	-21.9	2.8	-0.7	3.4	2.4
FTSE EPRA Nareit Dev ex US	-1.7	-1.6	-23.0	1.1	-3.1	0.3	0.7
U.S. REIT Style	3.1	3.1	-19.0	11.4	7.2	6.9	7.3
FTSE EPRA Nareit Equity REITs	2.7	2.7	-19.2	12.1	6.0	6.0	6.3

*Returns less than one year are not annualized. Sources: Callan, FTSE Russell, NCREIF

Deceleration in 2022, with Trends for 2023 Very Unclear

PRIVATE EQUITY | Gary Robertson

Private equity continued the trend of slower activity in 1Q23, after the frothy 2021 peak period. Fundraising dollar volume ticked up slightly, but overall combined company-level entry and exit volumes averaged drops of about 34% by count and 54% by dollar volume from 4Q22. Exits continue to suffer more than fund commitments and new investments.

Fundraising ► Based on preliminary data, 1Q23 private equity partnerships holding final closes totaled \$188.7 billion, up 20% from 4Q22. New partnerships formed dropped 47% to 339, with the trend continuing of larger funds consolidating most commitments. Secondary funds surged to 17% of commitments, which is an anomaly for the strategy that normally has a low single-digit market share. New buyout funds with 44% of commitments remains low. Venture capital has declined from recent 30%-plus levels but remains significant. (Unless otherwise noted, all data comes from PitchBook.)

Buyouts ► Funds closed 2,429 investments with \$123 billion in disclosed deal value, a 21% decline in count and a 53% drop in dollar value from 4Q.

VC Investments ► New investments in venture capital companies totaled 10,271 rounds of financing, down 10%, with \$78 billion of announced value, down 11%.

Exits ► There were 462 private M&A exits of private equity-backed companies, a 3% increase. Disclosed values declined 36% to \$89 billion. There were 47 private equity-backed IPOs, down 20%, which raised an aggregate \$5 billion, down 44%.

Venture-backed M&A exits totaled 527 with disclosed value of \$22 billion. The number of sales rose only 1% from 4Q, but announced value jumped 175%. There were 58 VC-backed IPOs, down 51%, and the combined float totaled \$6 billion, a 33% decrease.

Returns ► Preliminary numbers (finals will be published in mid-May) for 4Q22 indicate a modestly up quarter for All Private Equity, with Buyout and Credit-related strategies offsetting continued declines in Venture Capital and Growth Equity.

Funds Closed 1/1/23 to 3/31/23

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	200	31,629	17%
Growth Equity	14	15,316	8%
Buyouts	93	83,346	44%
Mezzanine Debt	8	16,012	8%
Distressed/Special Credit	3	10,515	6%
Energy	0	0	0%
Secondary and Other	20	31,608	17%
Fund-of-Funds	1	274	0%
Totals	339	188,700	100%

Source: PitchBook (Figures may not total due to rounding.)

Private Equity Performance (%) (Pooled Horizon IRRs through 12/31/22*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	-5.40	-19.17	24.33	22.38	19.22	13.19	12.60	23.50
Growth Equity	-1.29	-14.64	19.32	18.13	15.85	12.62	14.76	15.15
All Buyouts	4.15	-3.00	17.52	15.75	15.14	10.06	15.01	12.77
Mezzanine	3.82	4.34	11.60	11.04	11.23	10.19	11.19	10.00
Credit Opportunities	2.53	4.37	8.60	7.02	8.24	8.74	9.79	9.54
Control Distressed	1.98	3.91	19.76	13.44	12.29	10.49	11.92	11.71
All Private Equity	0.67	-8.32	18.62	16.60	15.20	10.90	13.83	13.71
S&P 500	7.56	-18.11	7.66	9.42	12.56	8.81	9.80	7.64
Russell 3000	1.87	-13.01	-2.71	0.02	1.06	2.66	3.10	3.97

Note: Private equity returns are net of fees. Sources: Refinitiv/Cambridge and S&P Dow Jones Indices

*Most recent data available at time of publication

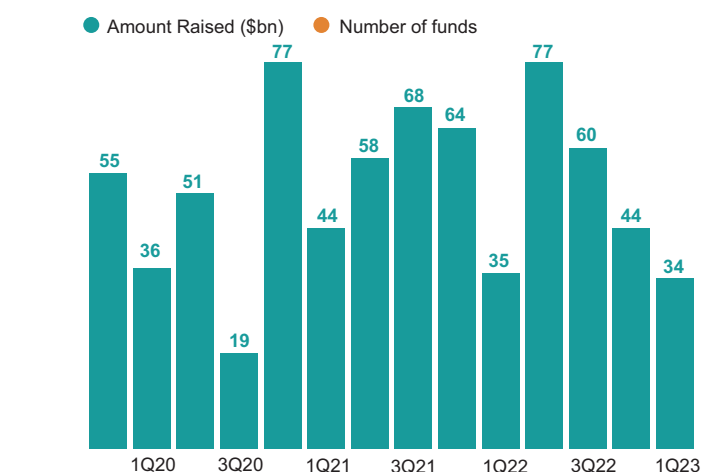
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

Net IRRs Range Between 7%-10%; Interest Remains Strong

PRIVATE CREDIT | Catherine Beard

- Private credit performance varies across sub-asset class and underlying return drivers. On average, the asset class has generated net IRRs of 7% to 10% for trailing periods ended Sept. 30, 2022. Higher-risk strategies performed better than lower-risk strategies.
- As interest rates declined after the Global Financial Crisis (GFC), private credit attracted increased interest from institutional investors.
- Private credit fundraising was robust leading into the COVID dislocation with a particular focus on direct lending, asset-based lending, and distressed strategies.
- In the current rate environment, a renewed focus has been placed on relative value, downside protection, and managers' internal workout resources.
- There is renewed interest in strategies with strong collateral protection such as asset-based lending.
- Larger sponsor-backed lending is seeing a new focus due to the high yield/broadly syndicated loan disintermediation by private debt.
 - U.S. sub-investment grade corporate yields rose dramatically at the beginning of 2022 with yields peaking in September. This was a combination of higher interest rates due to tighter Fed policy and a widening of high yield spreads.
 - Spreads widened during the first half of 2022 due to weaker credit conditions as the U.S. economic outlook worsened. This has since moderated.
 - Default rates for U.S. corporate bonds ticked up in 1Q but remained well below the historical average of 3%-4%. Callan expects defaults to increase somewhat in coming months as economic growth slows and

Private Credit Fundraising (\$bn)



Source: Preqin

potentially turns negative.

- The Corporate Bond Market Distress Index (CMDI) rose rapidly during the first nine months of 2022, especially for investment grade bonds, highlighting market volatility and a drying up of liquidity, but has fallen since then. In 2023, as the IG distress index continues to fall, the HY bond indicator is on the rise. The CMDI incorporates a range of indicators, including new issuance and pricing for primary and secondary market bonds and relative pricing between traded and nontraded bonds.

Private Credit Performance (%) (Pooled Horizon IRRs through 9/30/22*)

Strategy	Quarter	1 Year	3 Years	5 Years	8 Years	10 Years	15 Years	20 Years
Senior Debt	-2.4	-3.5	4.6	5.1	5.7	5.9	6.3	6.1
Mezzanine	0.2	5.0	11.8	11.1	10.8	11.3	10.5	11.3
Credit Opportunities	0.7	3.9	8.4	7.2	6.6	8.3	8.6	9.7
Total Private Credit	-0.1	2.6	8.4	7.7	7.4	8.6	8.8	9.7

Source: Refinitiv/Cambridge

*Most recent data available at time of publication

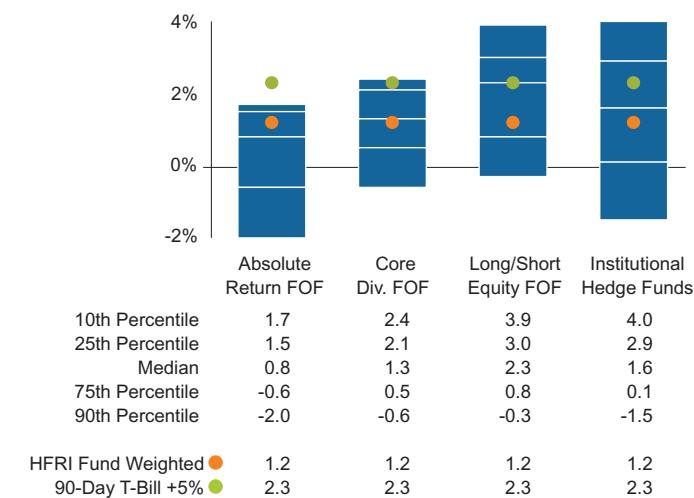
Steady Gains Amid Volatile Markets

HEDGE FUNDS/MACs | Joe McGuane

- Equity and credit markets saw volatility spike during 1Q23, as sentiment on inflation and Federal Reserve policy whipsawed in response to signs of persistent inflation following strong economic data on the labor market.
- Both stocks and bonds gained ground, and hedge funds ended the quarter in positive territory, although they underperformed broader equity indices, as the group provided steady performance through a volatile market environment.
- Equity hedge strategies had a strong start to the year, as tech-focused managers saw performance soar.
- Relative value managers also had a nice quarter, as fixed income relative value strategies were able to profit off the move in short-term rates in March.
- Event-driven strategies posted gains, as some managers profited from merger arbitrage exposures as spreads tightened with the completion of several large strategic deals.

Hedge Fund Style Group Returns

(3/31/23)



Sources: Callan, Credit Suisse, Federal Reserve

Callan Peer Group Median and Index Returns* for Periods Ended 3/31/23

Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	1.6	2.6	9.2	5.7	5.8	6.1
Callan Fund-of-Funds Peer Group	1.2	0.9	8.1	4.2	4.2	3.7
Callan Absolute Return FOF Style	0.8	2.3	8.8	4.1	4.5	3.6
Callan Core Diversified FOF Style	1.3	1.5	8.1	4.0	4.0	3.4
Callan Long/Short Equity FOF Style	2.3	-2.3	6.6	4.5	4.6	4.1
HFRI Fund-Weighted Index	1.2	-2.1	10.5	4.7	4.4	4.0
HFRI Fixed Convertible Arbitrage	1.4	1.0	9.1	5.3	5.0	5.4
HFRI Distressed/Restructuring	0.9	-4.6	12.2	4.7	4.4	4.5
HFRI Emerging Markets	1.9	-4.9	8.0	1.0	2.8	2.0
HFRI Equity Market Neutral	0.8	2.5	4.1	1.9	2.9	2.0
HFRI Event-Driven	1.4	-2.2	11.7	4.5	4.6	4.5
HFRI Relative Value	1.3	0.0	7.7	3.6	3.9	4.7
HFRI Macro	-2.4	-0.4	7.0	4.6	2.7	2.4
HFRI Equity Hedge	2.5	-3.7	12.4	5.0	5.3	4.2
HFRI Multi-Strategy	1.4	-6.3	7.1	2.4	2.8	3.1
HFRI Merger Arbitrage	-1.8	-0.3	9.7	5.3	4.3	4.0
90-Day T-Bill + 5%	2.3	7.5	5.9	6.4	5.9	5.7

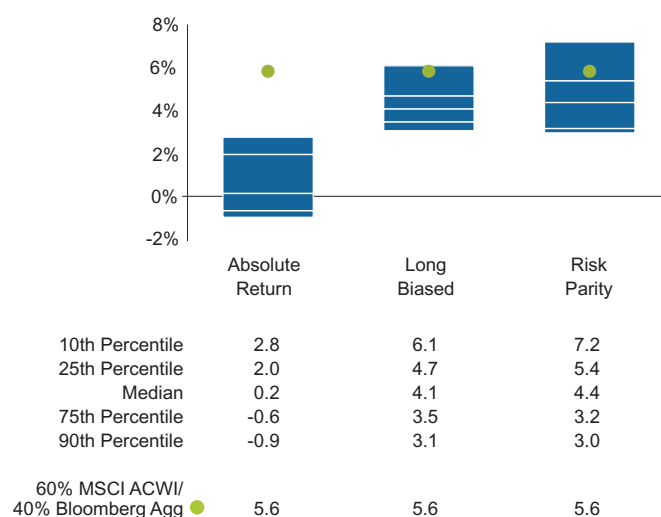
*Net of fees. Sources: Callan, Credit Suisse, Hedge Fund Research

- Macro strategies generated negative performance on the quarter, as losses came from short positions in U.S. rates, and short positions in U.S. equity indices detracted from performance.
- The median manager in the Callan Institutional Hedge Fund Peer Group rose 1.6%.
- Within this style group of 50 peers, the average hedged credit manager gained 2.1%, as high yield markets had a strong start to the year as near-term recession risks receded and capital market access improved.
- Hedged rates managers rose 1.5%, as those strategies were able to profit off short-term rates falling in March, as the banking crisis flared up.
- The average hedged equity manager fell 0.3%, as managers with a focus on tech, media, and telecom (TMT) and consumer stocks led the rally after lagging for all of 2022.
- Within the HFRI Indices, the best-performing strategy in 1Q was the equity hedge index (+2.5%), as managers that were focused on growth stocks saw a strong bounce in performance compared to last year.
- Event-driven strategies finished up 1.4%, as hard catalyst situations contributed to performance along with select merger arbitrage exposures as spreads tightened.

- Macro strategies ended the quarter 2.4% lower, primarily due to losses in short fixed income exposures, as banking turmoil abruptly shifted rate expectations.
- Across the Callan Hedge FOF Database, the median Callan Long-Short Equity FOF gained 2.3%, as managers benefited from a strong S&P 500 during 1Q.
- The median Callan Core Diversified FOF rose 1.3%, as equity hedge exposure offset negative performance from macro managers during the quarter.
- Callan Absolute Return FOF was up 0.8%, as multi-strategy and equity hedge exposure was able to offset the underperformance from macro managers in the quarter.
- The median Callan MAC Risk Parity manager gained 4.4%, as equities and fixed income drove performance during the quarter.
- The Callan MAC Long Biased peer group rose 4.1%, as strong equity performance led the group higher.
- The Callan MAC Absolute Return manager finished up 0.2%, as a bias toward value equities caused underperformance relative to the other peer groups, as growth equities had a strong start to the year.

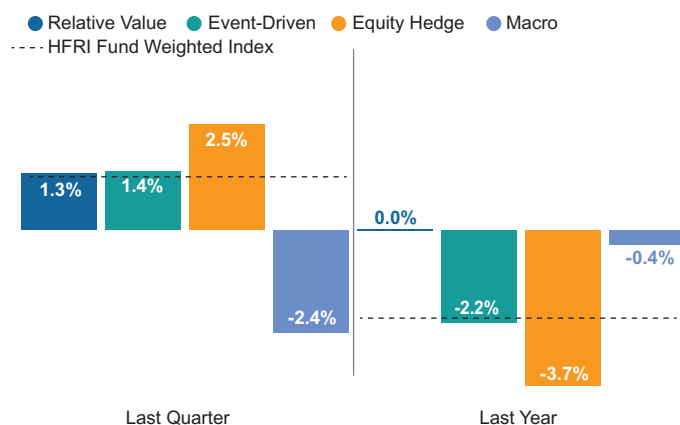
MAC Style Group Returns

(3/31/23)



HFRI Hedge Fund-Weighted Strategy Returns

(3/31/23)



Source: HFRI

Sources: Bloomberg, Callan, Eurekahedge, S&P Dow Jones Indices

Index Rises After Three Straight Quarters of Losses

DEFINED CONTRIBUTION | Scotty Lee

Performance: Index gains 6.3%, breaking streak of losses

- The Callan DC Index™ rose 6.3% in 4Q22 after three previous quarterly declines.
- The Age 45 Target Date Fund gained 8.4%.

Growth Sources: Investment gains lead to rise in balances

- Balances rose by 5.8% after a 4.7% decrease the previous quarter, driven by investment gains.

Turnover: Net transfers increase slightly

- Turnover (net transfer activity levels within DC plans) slightly increased to 0.18% from the previous quarter's 0.14%.
- Despite the small increase, the Index's historical average (0.56%) remained steady.

Net Cash Flow: TDFs remain in top spot

- Target date funds (TDFs) received the largest net inflows in the DC Index, garnering 84.6% of quarterly net flows.
- Investors withdrew assets from U.S. large cap equity (-19.5%) and global ex-U.S. equity (-9.5%).
- Stable value (-34.7%) saw relatively large outflows.

Equity Allocation: Exposure rises

- The Index's overall allocation to equity (70.1%) rose slightly from the previous quarter's level (69.3%).

Asset Allocation: Capital preservation declines

- Global ex-U.S. equity (5.0%) and U.S. large cap (25.2%) were among the asset classes with the largest percentage increases in allocation.
- Stable value (10.0%) had a decrease in allocation from the previous quarter's level (10.5%).

Prevalance: Balanced funds dip—again

- The prevalence of a balanced fund (40.8%) decreased again to its lowest level since the inception of the Index in 2006.

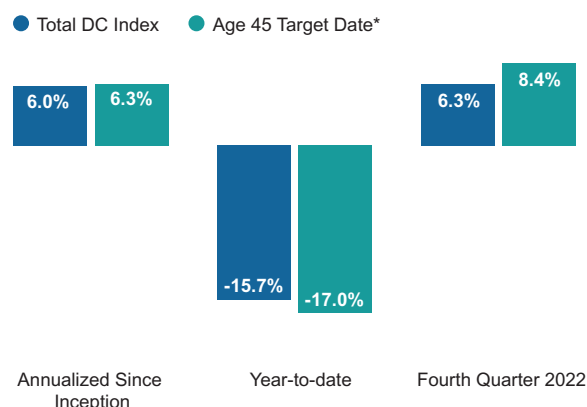
Management Fees: Declines vary by plan size

- Less than \$500 million in assets: fees fell by 1 basis point.
- \$500 million-\$1 billion: -2 bps.
- More than \$1 billion: -4 bps.

Underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately \$400 billion in assets are tracked in the Callan DC Index.

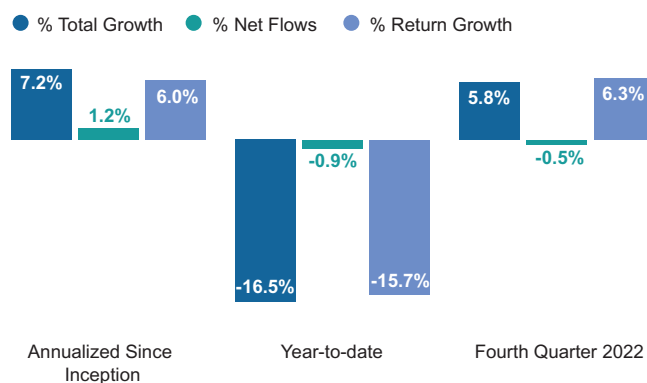
Investment Performance

(12/31/22)



Growth Sources

(12/31/22)



Net Cash Flow Analysis (4Q22)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	84.6%
Money Market	8.0%
U.S. Large Cap	-19.5%
Stable Value	-34.7%
Total Turnover**	0.2%

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

Note: DC Index inception date is January 2006.

* The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.

** Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

ASSET ALLOCATION AND PERFORMANCE

Asset Allocation and Performance

This section begins with an overview of the fund's asset allocation at the broad asset class level. This is followed by a top down performance attribution analysis which analyzes the fund's performance relative to the performance of the fund's policy target asset allocation. The fund's historical performance is then examined relative to funds with similar objectives. Performance of each asset class is then shown relative to the asset class performance of other funds. Finally, a summary is presented of the holdings of the fund's investment managers, and the returns of those managers over various recent periods.

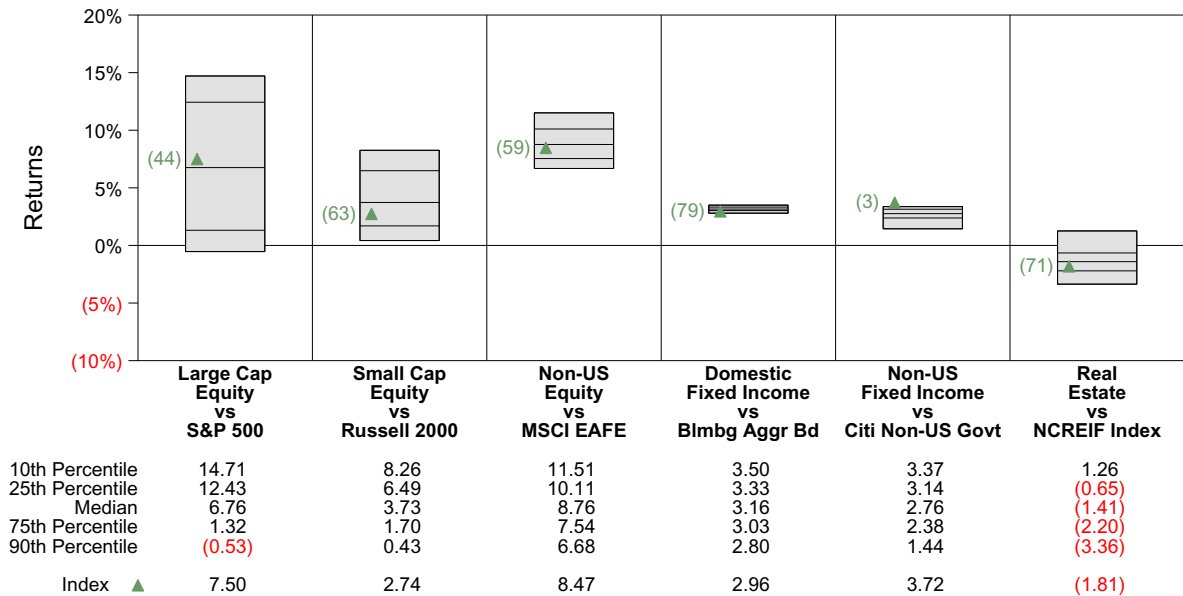
Market Overview

Active Management vs Index Returns

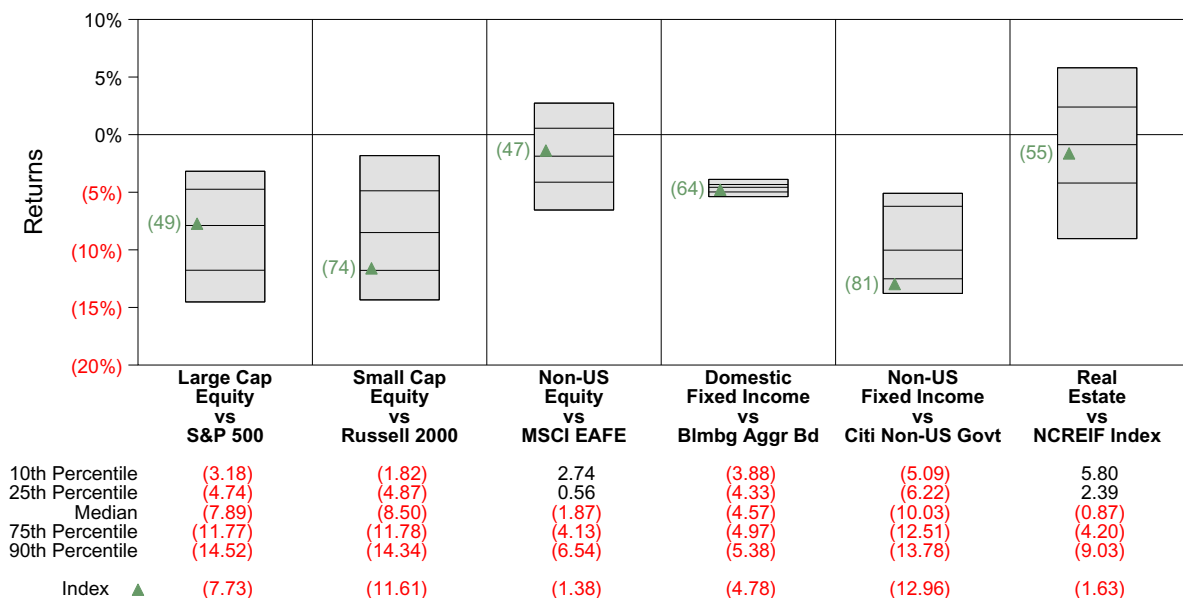
Market Overview

The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also shown for each asset class for comparison purposes. As an example, the first bar in the upper chart illustrates the range of returns for domestic equity managers over the last quarter. The triangle represents the S&P 500 return. The number next to the triangle represents the ranking of the S&P 500 in the Large Cap Equity manager database.

Range of Separate Account Manager Returns by Asset Class One Quarter Ended March 31, 2023

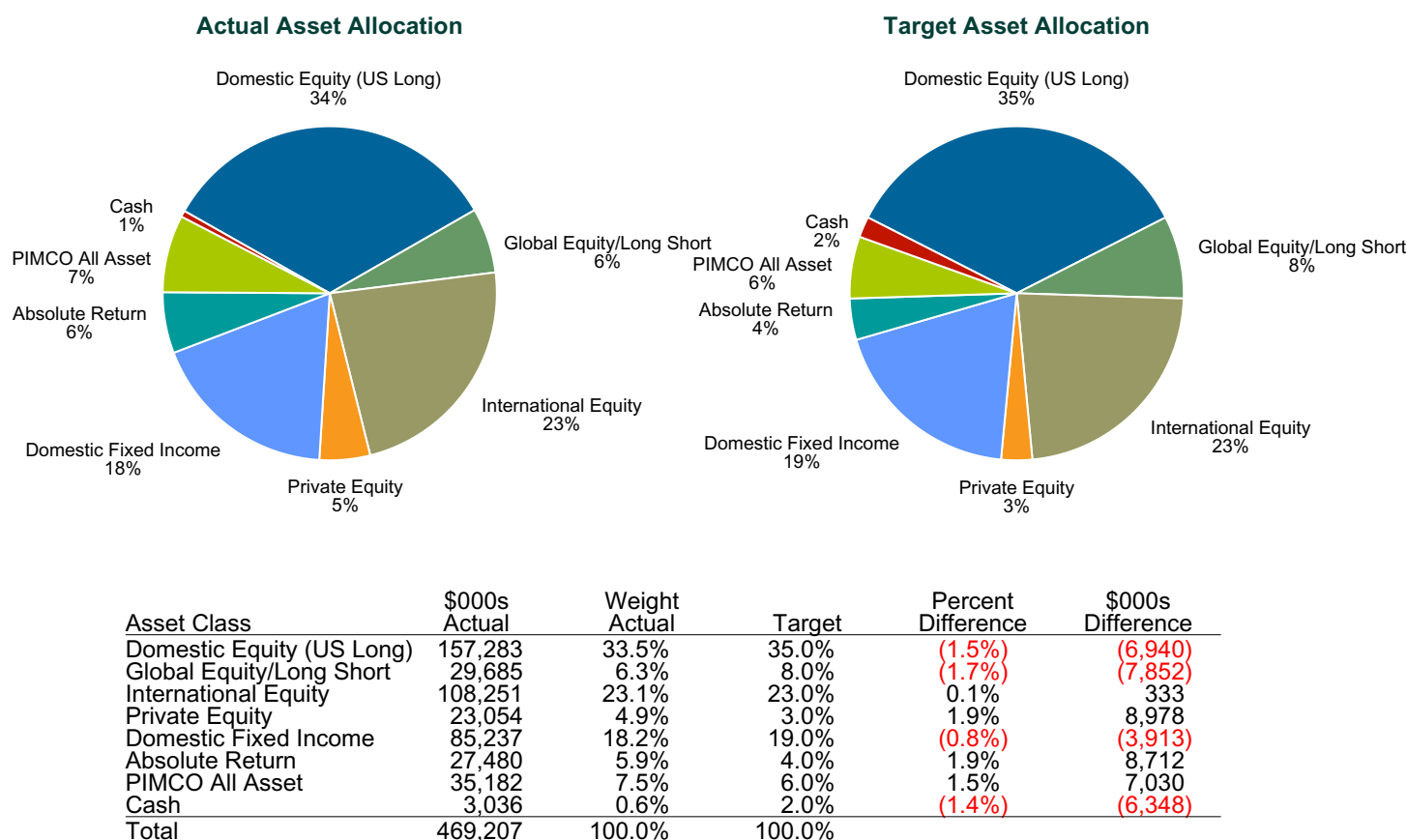


Range of Separate Account Manager Returns by Asset Class One Year Ended March 31, 2023

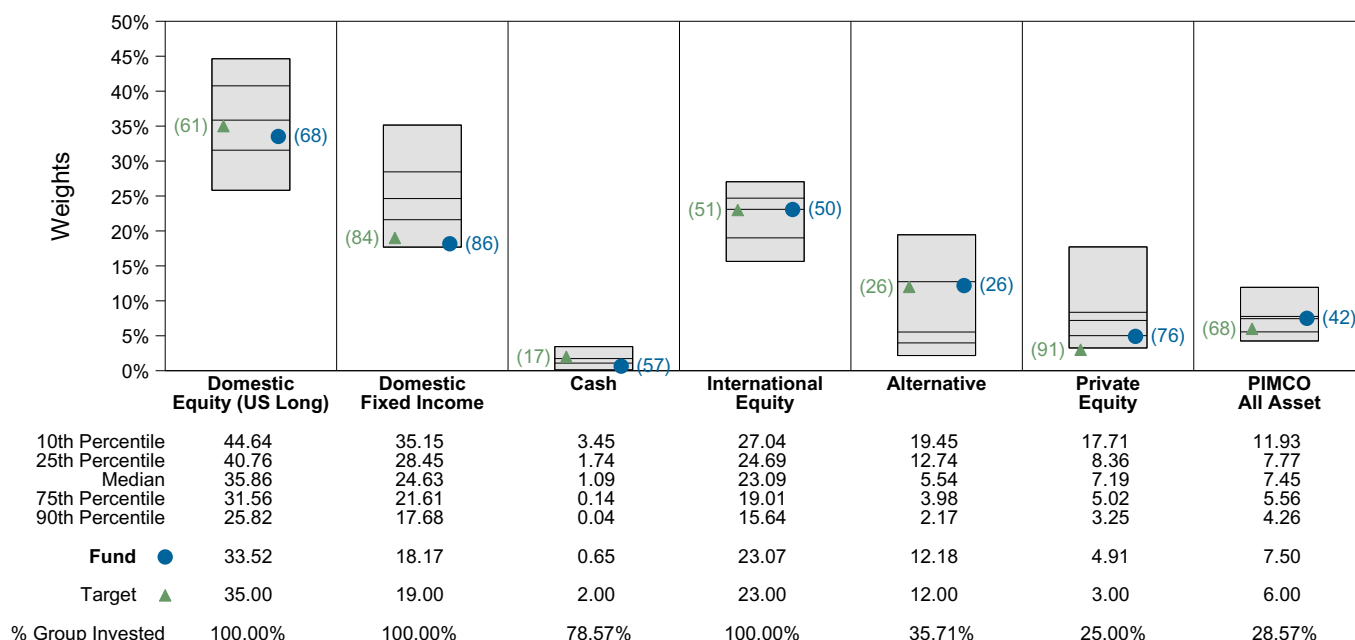


Actual vs Target Asset Allocation As of March 31, 2023

The top left chart shows the Fund's asset allocation as of March 31, 2023. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Spons- Mid (100M-1B).



Asset Class Weights vs Callan Public Fund Spons- Mid (100M-1B)



* Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI xUS, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of March 31, 2023, with the distribution as of December 31, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	March 31, 2023				December 31, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Equity	\$318,272,136	67.83%	\$(8,572,654)	\$16,529,546	\$310,315,243	67.57%
U.S. Equity	\$157,282,550	33.52%	\$(3,188,119)	\$9,183,143	\$151,287,525	32.94%
BR Russell 1000 Index Non-Lendable	114,774,618	24.46%	(3,000,000)	7,986,897	109,787,721	23.91%
LSV	21,634,098	4.61%	(165,340)	(95,120)	21,894,558	4.77%
Principal Dynamic Growth	20,873,834	4.45%	(22,778)	1,291,366	19,605,246	4.27%
International Equity	\$108,250,925	23.07%	\$(110,509)	\$6,925,437	\$101,435,997	22.09%
Developed Markets	\$89,376,528	19.05%	\$(110,509)	\$5,967,409	\$83,519,628	18.19%
Artisan Trust	0	0.00%	(30,678,310)	187,134	30,491,176	6.64%
Silchester	56,934,968	12.13%	(110,509)	4,017,024	53,028,453	11.55%
Walter Scott	32,441,560	6.91%	30,678,310	1,763,251	-	-
Emerging Markets	\$18,874,397	4.02%	\$0	\$958,028	\$17,916,368	3.90%
BlackRock EM Alpha Tilts	18,874,397	4.02%	0	958,028	17,916,368	3.90%
Global Equity Long/Short	\$29,684,860	6.33%	\$(4,961,246)	\$420,096	\$34,226,009	7.45%
ABS Global	19,735,036	4.21%	0	394,103	19,340,933	4.21%
Blackstone Park Ave. NT	9,949,824	2.12%	(4,961,246)	25,994	14,885,076	3.24%
Private Equity (1)	\$23,053,801	4.91%	\$(312,780)	\$869	\$23,365,712	5.09%
Pantheon USA IV	178,762	0.04%	0	0	178,762	0.04%
Pantheon USA VI	153,054	0.03%	0	0	153,054	0.03%
Pantheon USA VII	711,563	0.15%	(29,999)	0	741,562	0.16%
Pantheon Europe Fund V A	408,743	0.09%	(28,000)	0	436,743	0.10%
Pantheon Global Secondary Fund III	59,955	0.01%	0	0	59,955	0.01%
Pantheon US Select 2014	21,541,724	4.59%	(254,781)	0	21,796,505	4.75%
Domestic Fixed Income	\$85,236,571	18.17%	\$(10,934)	\$2,642,799	\$82,604,706	17.99%
Prudential Cons Core Bond Fund	37,688,888	8.03%	(10,934)	1,116,038	36,583,784	7.97%
Metropolitan West Fund	47,547,683	10.13%	0	1,526,760	46,020,923	10.02%
Absolute Return	\$27,480,047	5.86%	\$0	\$416,999	\$27,063,048	5.89%
UBS AIS	27,480,047	5.86%	0	416,999	27,063,048	5.89%
Real Assets	\$35,182,114	7.50%	\$(3,000,000)	\$1,095,621	\$37,086,493	8.08%
PIMCO All Asset	35,182,114	7.50%	(3,000,000)	1,095,621	37,086,493	8.08%
Cash	\$3,035,944	0.65%	\$799,385	\$64,719	\$2,171,840	0.47%
Cash Account	3,035,944	0.65%	799,385	64,719	2,171,840	0.47%
Total Fund	\$469,206,812	100.0%	\$(10,784,202)	\$20,749,683	\$459,241,331	100.0%

(1) Market Values have a one quarter lag and are adjusted for asset flows.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of March 31, 2023, with the distribution as of December 31, 2022.

Asset Distribution Across Investment Managers

	March 31, 2023					December 31, 2022		
	Market Value	Weight	(min)	Target	(max)	Market Value	Weight	Target
Total Equity	\$318,272,136	67.83%	60.00%	69.00%	75.00%	\$310,315,243	67.57%	69.00%
U.S. Equity	\$157,282,550	33.52%	27.00%	35.00%	40.00%	\$151,287,525	32.94%	35.00%
BR Russell 1000 Idx Non-Lendable	114,774,618	24.46%				109,787,721	23.91%	
LSV	21,634,098	4.61%				21,894,558	4.77%	
Principal Dynamic Growth	20,873,834	4.45%				19,605,246	4.27%	
International Equity	\$108,250,925	23.07%	18.00%	23.00%	28.00%	\$101,435,997	22.09%	23.00%
Developed Markets	\$89,376,528	19.05%	-	-	-	\$83,519,628	18.19%	-
Artisan Trust	-	-				30,491,176	6.64%	
Silchester	56,934,968	12.13%				53,028,453	11.55%	
Walter Scott	32,441,560	6.91%				-	-	
Emerging Markets	\$18,874,397	4.02%	-	-	-	\$17,916,368	3.90%	-
BlackRock EM Alpha Tilts	18,874,397	4.02%				17,916,368	3.90%	
Global Equity/Long Short	\$29,684,860	6.33%	4.00%	8.00%	12.00%	\$34,226,009	7.45%	8.00%
ABS Global	19,735,036	4.21%				19,340,933	4.21%	
Blackstone Park Ave. NT	9,949,824	2.12%				14,885,076	3.24%	
Private Equity (1)	\$23,053,801	4.91%	0.00%	3.00%	6.00%	\$23,365,712	5.09%	3.00%
Pantheon USA IV	178,762	0.04%				178,762	0.04%	
Pantheon USA VI	153,054	0.03%				153,054	0.03%	
Pantheon USA VII	711,563	0.15%				741,562	0.16%	
Pantheon Europe Fund V A	408,743	0.09%				436,743	0.10%	
Pantheon Global Fund III	59,955	0.01%				59,955	0.01%	
Pantheon US Select 2014	21,541,724	4.59%				21,796,505	4.75%	
Domestic Fixed Income	\$85,236,571	18.17%	14.00%	19.00%	24.00%	\$82,604,706	17.99%	19.00%
Prudential Cons Core Bond Fund	37,688,888	8.03%				36,583,784	7.97%	
Metropolitan West Fund CIT	47,547,683	10.13%				46,020,923	10.02%	
Absolute Return	\$27,480,047	5.86%	0.00%	4.00%	6.00%	\$27,063,048	5.89%	4.00%
UBS AIS	27,480,047	5.86%				27,063,048	5.89%	
Real Assets	\$35,182,114	7.50%	4.00%	6.00%	12.00%	\$37,086,493	8.08%	6.00%
PIMCO All Asset	35,182,114	7.50%	4.00%	6.00%	10.00%	37,086,493	8.08%	6.00%
Cash	\$3,035,944	0.65%	0.00%	2.00%	4.00%	\$2,171,840	0.47%	2.00%
Cash Account	3,035,944	0.65%				2,171,840	0.47%	
Total Fund	\$469,206,812	100.0%		100.0%		\$459,241,331	100.0%	100.0%

(1) Market Values have a one quarter lag and are adjusted for asset flows.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended March 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Total Equity	5.67%	(5.05%)	15.33%	7.01%	8.84%
U.S. Long Equity	6.19%	(8.76%)	19.94%	10.19%	11.89%
Pure US Equity Composite	6.19%	(8.76%)	20.03%	10.25%	11.99%
Russell 3000 Index	7.18%	(8.58%)	18.48%	10.45%	11.99%
Russell 1000 Index Non-Lendable	7.47%	(8.39%)	18.56%	10.87%	12.22%
Russell 1000 Index	7.46%	(8.39%)	18.55%	10.87%	12.23%
LSV	(0.47%)	(3.70%)	28.74%	5.05%	7.62%
Russell 2000 Value Index	(0.66%)	(12.96%)	21.01%	4.55%	7.86%
Principal Dynamic Growth	6.59%	(14.86%)	21.50%	12.48%	16.31%
Russell 2500 Growth Index	6.54%	(10.35%)	14.75%	6.82%	10.39%
International Equity	7.61%	(1.11%)	11.66%	2.67%	5.94%
MSCI ACWI ex US	6.87%	(5.07%)	11.80%	2.47%	5.86%
Developed Markets	8.30%	1.14%	12.49%	3.55%	6.46%
MSCI EAFE Index	8.47%	(1.38%)	12.99%	3.52%	6.21%
MSCI EAFE Growth Idx	11.09%	(2.79%)	10.95%	4.88%	6.97%
Silchester	7.58%	1.42%	14.72%	3.33%	7.03%
MSCI EAFE Val Idx	5.93%	(0.31%)	14.58%	1.75%	5.13%
Emerging Markets	5.35%	(10.01%)	8.29%	(1.05%)	3.71%
MSCI Emerging Mkts Idx Net	3.96%	(10.70%)	7.83%	(0.91%)	4.92%
BlackRock EM Alpha Tilts	5.35%	(10.01%)	8.29%	-	-
MSCI Emerging Mkts Idx Net	3.96%	(10.70%)	7.83%	(0.91%)	4.92%
Global Equity/Long Short	1.44%	(3.28%)	6.74%	3.25%	4.24%
HFRI FOF: Strategic Index	1.20%	(4.85%)	7.28%	2.25%	3.87%
ABS Global	2.04%	(2.32%)	6.86%	3.35%	4.54%
MSCI ACWI Idx	7.44%	(6.96%)	15.90%	7.46%	9.72%
Blackstone Park Ave. NT	0.26%	(4.84%)	5.86%	2.66%	3.70%
S&P 500 Index	7.50%	(7.73%)	18.60%	11.19%	12.42%
Private Equity (1)	0.00%	(2.23%)	23.46%	17.21%	14.80%
Pantheon USA IV	0.00%	(1.24%)	2.15%	1.80%	2.61%
Pantheon USA VI	0.00%	(0.48%)	(9.53%)	(8.87%)	(4.06%)
Pantheon USA VII	0.00%	(8.30%)	18.71%	10.16%	11.25%
Pantheon Europe Fund V A	0.00%	(9.07%)	14.46%	14.07%	10.13%
Pantheon Global Secondary Fund III	0.00%	(0.28%)	(0.61%)	1.28%	2.27%
Pantheon US Select 2014	0.00%	(1.88%)	25.68%	21.01%	19.20%

(1) Current 0% return due to a one quarter lag in valuation.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended March 31, 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Domestic Fixed Income	3.20%	(5.25%)	(2.41%)	1.05%	1.04%
Prudential Core Bond	3.05%	(4.66%)	(2.55%)	0.85%	0.88%
Metropolitan West Fund*	3.32%	(5.71%)	(2.27%)	1.16%	1.14%
Blmbg Aggregate Index	2.96%	(4.78%)	(2.77%)	0.91%	0.88%
Absolute Return	1.54%	7.04%	9.12%	5.79%	5.21%
UBS AIS	1.54%	7.04%	9.12%	5.79%	5.21%
HFRI FOF: Conservative In	0.92%	0.85%	7.64%	3.93%	4.06%
Real Assets	3.21%	(6.68%)	10.86%	4.15%	7.02%
PIMCO All Asset	3.21%	(6.68%)	10.87%	4.00%	5.94%
Blmbg US TIPS 1-10	2.94%	(2.92%)	2.89%	3.18%	2.53%
Cash	1.14%	2.98%	1.18%	1.63%	1.43%
Cash Account	1.14%	2.98%	1.18%	1.63%	1.43%
3-month Treasury Bill	1.07%	2.50%	0.89%	1.41%	1.21%
Total Fund	4.70%	(4.46%)	10.91%	5.53%	6.91%
Target Benchmark (1)	4.99%	(5.29%)	9.57%	5.70%	6.77%
Annual Discount Rate:6.625%					

(1) The Total Fund Custom Benchmark is 35.0% Russell 3000 Index, 23.0% MSCI ACWI ex-US, 19.0% Bloomberg Aggregate Index 3.0% Private Equity, 8.0% HFRI FOF Strategic, 6.0% Blmbg US TIPS 1-10 Year Index, 2.0% TBIL, 4.0% HFRI FOF Conservative.

* On August 24, 2022 switched from Mutual Fund to CIT.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	6/2022- 3/2023	FY 2022	FY 2021	FY 2020	FY 2019
Total Equity	8.92%	(14.13%)	39.04%	1.53%	5.50%
U.S. Long Equity	9.42%	(14.69%)	48.45%	5.18%	7.04%
Russell 3000 Index	9.75%	(13.87%)	44.16%	6.53%	8.98%
Russell 1000 Index Non-Lendable	9.94%	(13.03%)	43.08%	7.47%	10.04%
Russell 1000 Index	9.93%	(13.04%)	43.07%	7.48%	10.02%
LSV	8.06%	(6.00%)	71.06%	(23.09%)	(8.73%)
Russell 2000 Value Index	2.74%	(16.28%)	73.28%	(17.48%)	(6.24%)
Principal Dynamic Growth	8.06%	(28.37%)	63.07%	22.10%	8.96%
Russell 2500 Growth Index	11.43%	(31.81%)	49.63%	9.21%	6.13%
International Equity	12.53%	(18.54%)	32.22%	(4.70%)	2.95%
MSCI ACWI ex US	10.03%	(19.42%)	35.72%	(4.80%)	1.29%
Developed Markets	15.11%	(16.32%)	29.77%	(5.04%)	3.07%
MSCI EAFE Index	15.36%	(17.77%)	32.35%	(5.13%)	1.08%
MSCI EAFE Growth Idx	16.95%	(23.76%)	30.97%	4.15%	4.24%
Silchester	13.89%	(11.34%)	35.22%	(9.35%)	(1.71%)
MSCI EAFE Val Idx	13.81%	(11.95%)	33.50%	(14.48%)	(2.10%)
Emerging Markets	2.33%	(27.08%)	42.61%	(3.22%)	2.06%
MSCI Emerging Mkts Idx Net	0.84%	(25.28%)	40.90%	(3.39%)	1.22%
BlackRock EM Alpha Tilts	2.33%	(27.08%)	42.61%	(3.22%)	-
MSCI Emerging Mkts Idx Net	0.84%	(25.28%)	40.90%	(3.39%)	1.22%
Global Equity/Long Short	2.43%	(13.73%)	22.51%	4.25%	2.71%
HFRI FOF: Strategic Index	2.09%	(11.92%)	23.82%	0.40%	0.01%
ABS Global	3.38%	(9.66%)	19.76%	5.07%	0.01%
MSCI ACWI Idx	10.14%	(15.37%)	39.87%	2.64%	6.33%
Blackstone Park Ave. NT	0.85%	(17.37%)	24.45%	3.92%	4.03%
S&P 500 Index	9.98%	(10.62%)	40.79%	7.51%	10.42%
Private Equity	(0.78%)	12.77%	55.16%	5.82%	14.80%
Pantheon USA IV	(1.24%)	(4.88%)	13.48%	0.00%	(4.04%)
Pantheon USA VI	0.62%	(22.03%)	(7.18%)	(21.95%)	6.24%
Pantheon USA VII	(3.27%)	4.03%	47.49%	(0.99%)	5.11%
Pantheon Europe Fund V A	(3.94%)	(12.57%)	59.73%	11.81%	15.86%
Pantheon Global Secondary Fund III	0.36%	(19.00%)	8.19%	0.15%	6.28%
Pantheon US Select 2014	(0.66%)	15.05%	59.99%	12.67%	21.80%

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

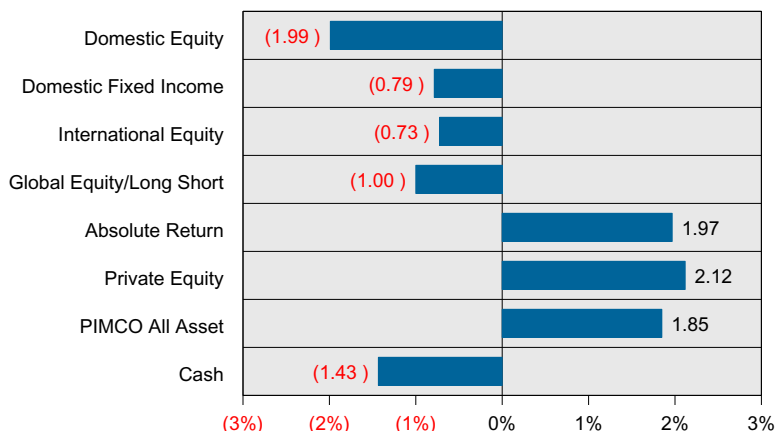
	6/2022- 3/2023	FY 2022	FY 2021	FY 2020	FY 2019
Domestic Fixed Income	0.10%	(11.14%)	0.72%	8.89%	8.07%
Prudential Cons Core Bond Fund	0.24%	(10.60%)	(0.02%)	8.11%	7.90%
Metropolitan West Fund	(0.00%)	(11.56%)	1.36%	9.18%	8.24%
Blmbg Aggregate Index	(0.09%)	(10.29%)	(0.33%)	8.74%	7.87%
Absolute Return	4.29%	7.95%	10.18%	4.05%	1.79%
UBS AIS	4.29%	7.95%	10.18%	4.05%	1.79%
HFRI FOF: Conservative In	2.60%	0.10%	15.01%	(0.48%)	2.06%
Real Assets	3.90%	(9.86%)	29.53%	(2.18%)	5.97%
PIMCO All Asset	3.90%	(9.85%)	29.55%	(2.23%)	5.03%
Blmbg US TIPS 1-10	0.52%	(2.03%)	6.60%	5.75%	4.67%
Cash	2.77%	0.35%	0.26%	1.75%	2.52%
Cash Account	2.77%	0.35%	0.26%	1.75%	2.52%
3-month Treasury Bill	2.40%	0.17%	0.09%	1.63%	2.31%
Total Fund	6.55%	(11.98%)	28.40%	2.76%	5.51%
Total Fund Custom Benchmark*	6.12%	(11.91%)	25.66%	4.63%	6.36%
Annual Discount Rate:6.625%					

* Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI xUS, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

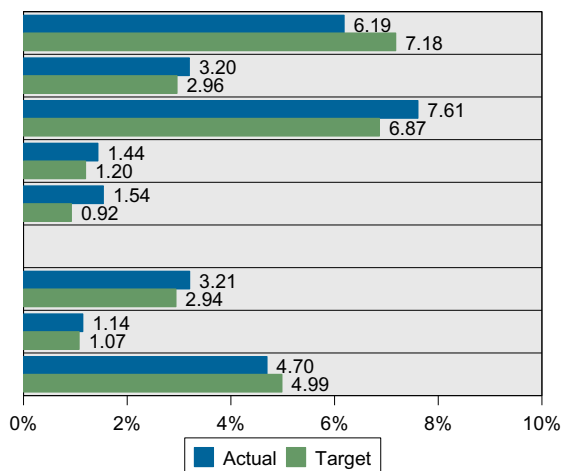
Quarterly Total Fund Relative Attribution - March 31, 2023

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

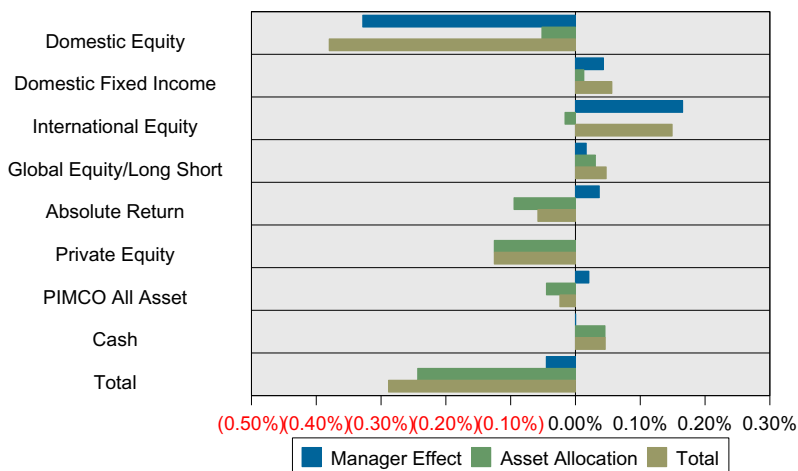
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended March 31, 2023

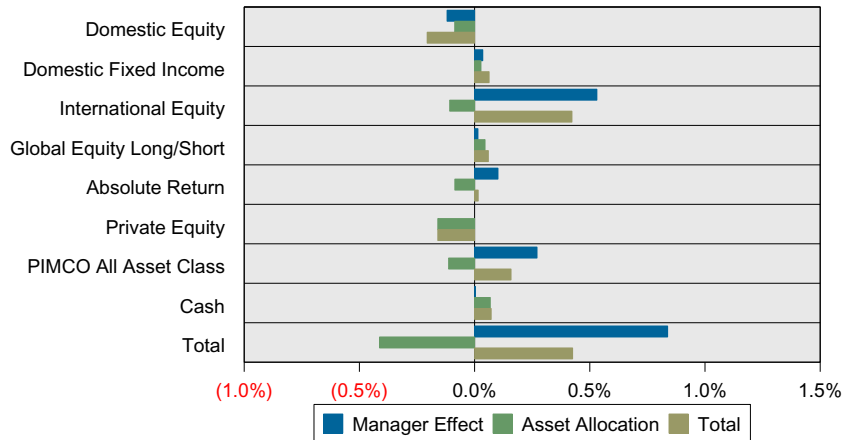
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	33%	35%	6.19%	7.18%	(0.33%)	(0.05%)	(0.38%)
Domestic Fixed Income	18%	19%	3.20%	2.96%	0.04%	0.01%	0.06%
International Equity	22%	23%	7.61%	6.87%	0.17%	(0.02%)	0.15%
Global Equity/Long Short	7%	8%	1.44%	1.20%	0.02%	0.03%	0.05%
Absolute Return	6%	4%	1.54%	0.92%	0.04%	(0.09%)	(0.06%)
Private Equity	5%	3%	0.00%	0.00%	0.00%	(0.13%)	(0.13%)
PIMCO All Asset	8%	6%	3.21%	2.94%	0.02%	(0.04%)	(0.02%)
Cash	1%	2%	1.14%	1.07%	0.00%	0.05%	0.05%
Total			4.70%	4.99%	+	(0.05%)	+
						(0.24%)	(0.29%)

* Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI xUS, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

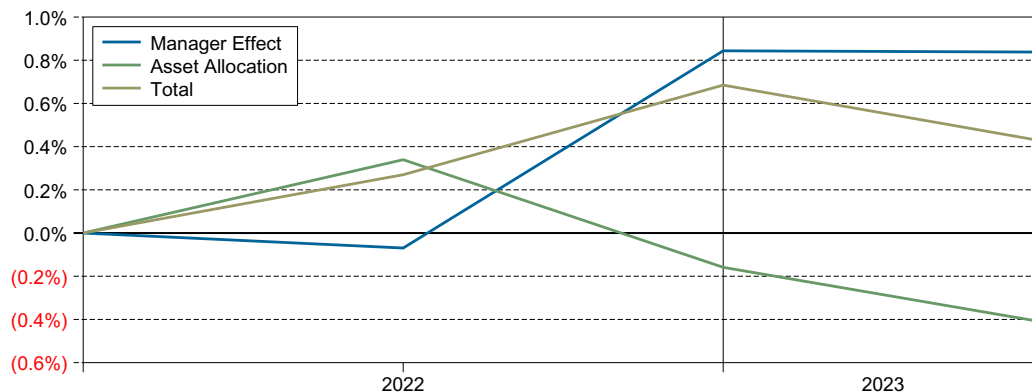
Cumulative Total Fund Relative Attribution - March 31, 2023

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Quarters Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Quarters Relative Attribution Effects

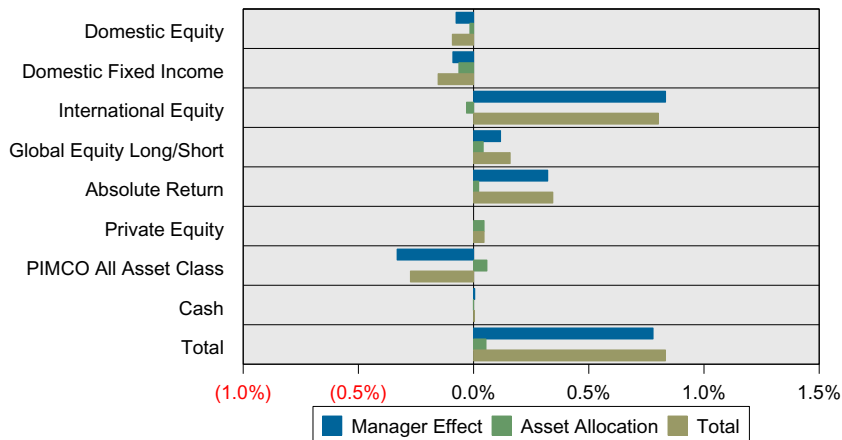
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	33%	35%	9.42%	9.75%	(0.12%)	(0.09%)	(0.21%)
Domestic Fixed Income	18%	19%	0.10%	(0.09%)	0.04%	0.03%	0.06%
International Equity	21%	23%	12.53%	10.03%	0.53%	(0.11%)	0.42%
Global Equity Long/Short	8%	8%	2.43%	2.09%	0.01%	0.05%	0.06%
Absolute Return	6%	4%	4.29%	2.60%	0.10%	(0.09%)	0.02%
Private Equity	5%	3%	(0.78%)	(0.78%)	0.00%	(0.16%)	(0.16%)
PIMCO All Asset Class	8%	6%	3.90%	0.52%	0.27%	(0.11%)	0.16%
Cash	1%	2%	2.77%	2.40%	0.00%	0.07%	0.07%
Total			6.55%	6.12%	+ 0.84%	+ (0.41%)	0.43%

* Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI xUS, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

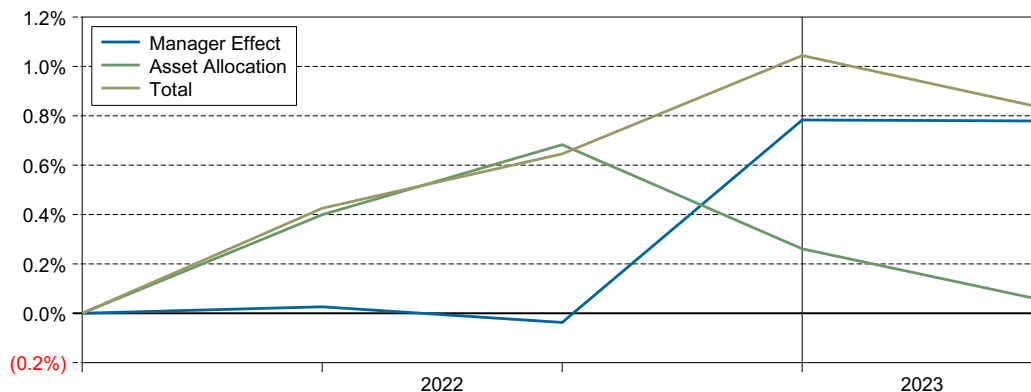
Cumulative Total Fund Relative Attribution - March 31, 2023

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

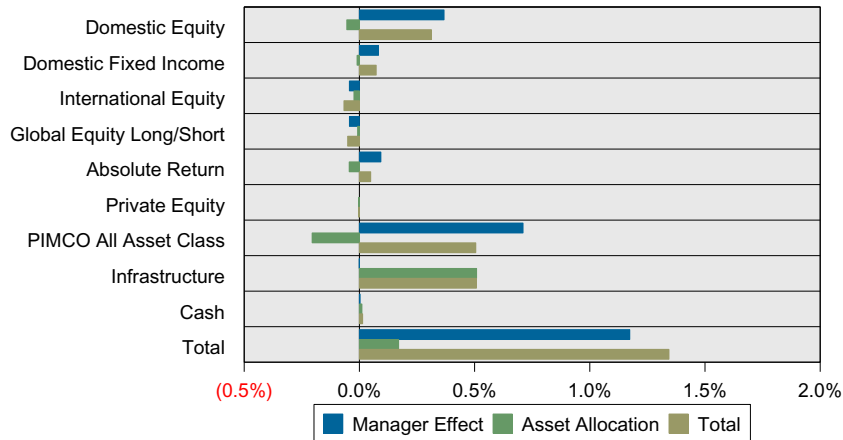
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	33%	35%	(8.76%)	(8.58%)	(0.08%)	(0.02%)	(0.09%)
Domestic Fixed Income	18%	19%	(5.25%)	(4.78%)	(0.09%)	(0.06%)	(0.15%)
International Equity	21%	23%	(1.11%)	(5.07%)	0.83%	(0.03%)	0.80%
Global Equity Long/Short	8%	8%	(3.28%)	(4.85%)	0.12%	0.04%	0.16%
Absolute Return	6%	4%	7.04%	0.85%	0.32%	0.02%	0.34%
Private Equity	5%	3%	(2.23%)	(2.23%)	0.00%	0.05%	0.05%
PIMCO All Asset Class	8%	6%	(6.68%)	(2.92%)	(0.33%)	0.06%	(0.27%)
Cash	1%	2%	2.98%	2.50%	0.00%	(0.00%)	0.00%
Total			(4.46%)	(5.29%)	+ 0.78%	+ 0.05%	0.83%

* Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI xUS, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

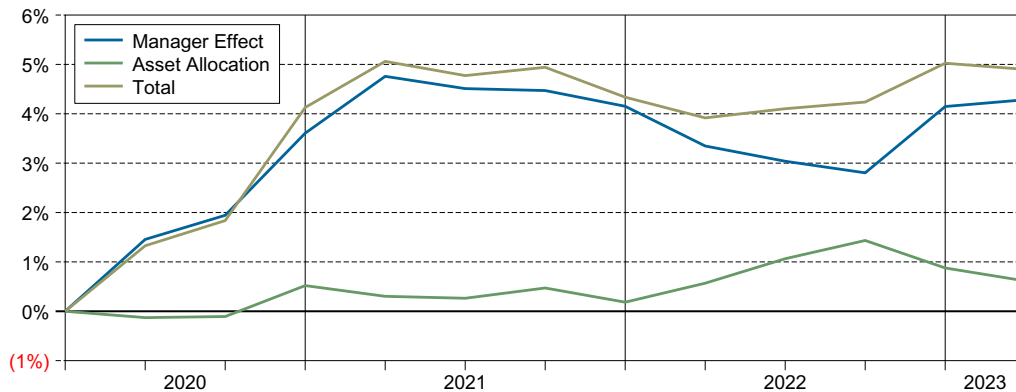
Cumulative Total Fund Relative Attribution - March 31, 2023

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

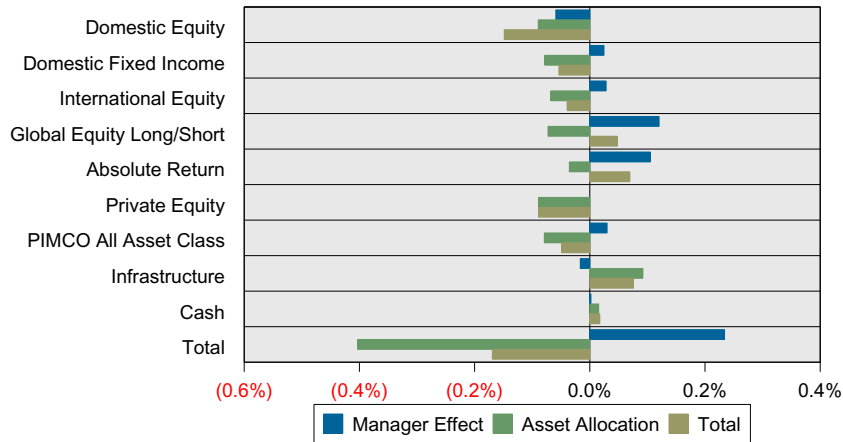
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	31%	32%	19.94%	18.48%	0.37%	(0.05%)	0.31%
Domestic Fixed Income	19%	20%	(2.41%)	(2.77%)	0.08%	(0.01%)	0.07%
International Equity	22%	23%	11.66%	11.80%	(0.04%)	(0.02%)	(0.07%)
Global Equity Long/Short	9%	8%	6.74%	7.28%	(0.04%)	(0.01%)	(0.05%)
Absolute Return	5%	4%	9.12%	7.64%	0.09%	(0.04%)	0.05%
Private Equity	5%	4%	23.46%	23.46%	0.00%	(0.00%)	(0.00%)
PIMCO All Asset Class	8%	6%	10.87%	2.89%	0.71%	(0.21%)	0.51%
Infrastructure	0%	2%	-	-	(0.00%)	0.51%	0.51%
Cash	1%	1%	1.18%	0.89%	0.00%	0.01%	0.01%
Total			10.91%	9.57%	+ 1.17%	+ 0.17%	1.34%

* Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI xUS, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

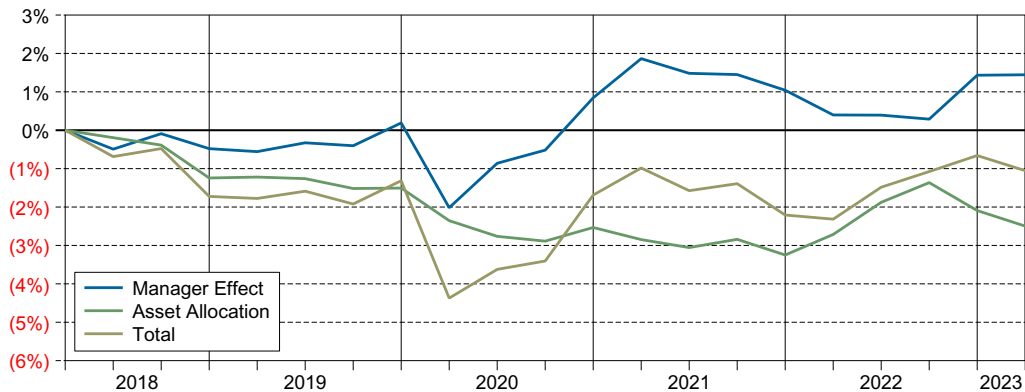
Cumulative Total Fund Relative Attribution - March 31, 2023

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	30%	30%	10.19%	10.45%	(0.06%)	(0.09%)	(0.15%)
Domestic Fixed Income	19%	20%	1.05%	0.91%	0.02%	(0.08%)	(0.05%)
International Equity	22%	22%	2.67%	2.47%	0.03%	(0.07%)	(0.04%)
Global Equity Long/Short	10%	8%	3.25%	2.25%	0.12%	(0.07%)	0.05%
Absolute Return	5%	4%	5.79%	3.93%	0.11%	(0.04%)	0.07%
Private Equity	4%	5%	17.21%	17.21%	0.00%	(0.09%)	(0.09%)
PIMCO All Asset Class	9%	6%	4.00%	3.18%	0.03%	(0.08%)	(0.05%)
Infrastructure	0%	4%	-	-	(0.02%)	0.09%	0.08%
Cash	1%	1%	1.63%	1.41%	0.00%	0.02%	0.02%
Total			5.53%	5.70%	+ 0.23%	+ (0.40%)	(0.17%)

* Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI xUS, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

Total Fund Period Ended March 31, 2023

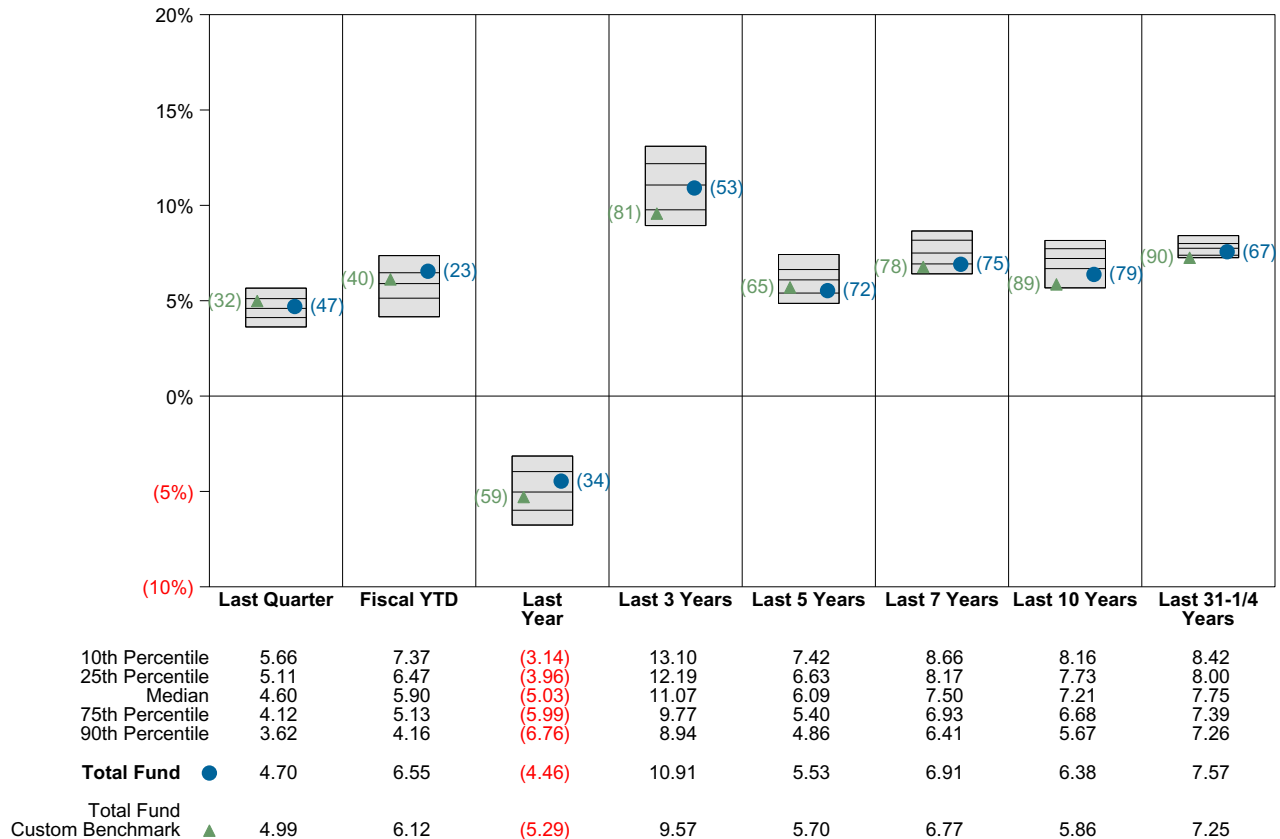
Quarterly Summary and Highlights

- Total Fund's portfolio posted a 4.70% return for the quarter placing it in the 47 percentile of the Callan Public Fund Spons- Mid (100M-1B) group for the quarter and in the 34 percentile for the last year.
- Total Fund's portfolio underperformed the Total Fund Custom Benchmark by 0.29% for the quarter and outperformed the Total Fund Custom Benchmark for the year by 0.83%.

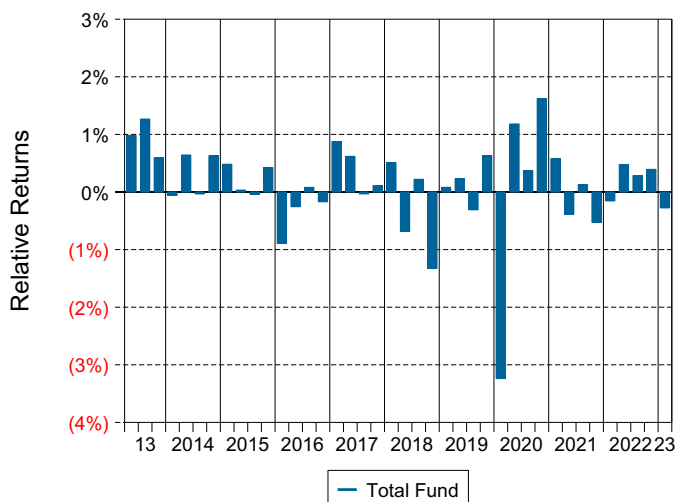
Quarterly Asset Growth

Beginning Market Value	\$459,241,331
Net New Investment	\$-10,784,202
Investment Gains/(Losses)	\$20,749,683
Ending Market Value	\$469,206,812

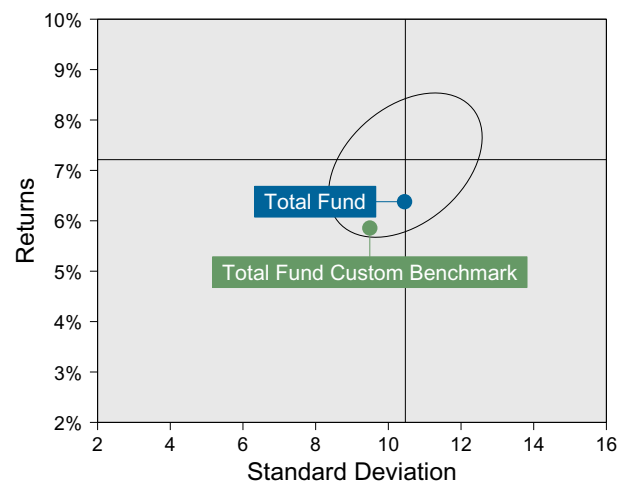
Performance vs Callan Public Fund Spons- Mid (100M-1B) (Gross)



Relative Returns vs Total Fund Custom Benchmark



Callan Public Fund Spons- Mid (100M-1B) (Gross) Annualized Ten Year Risk vs Return

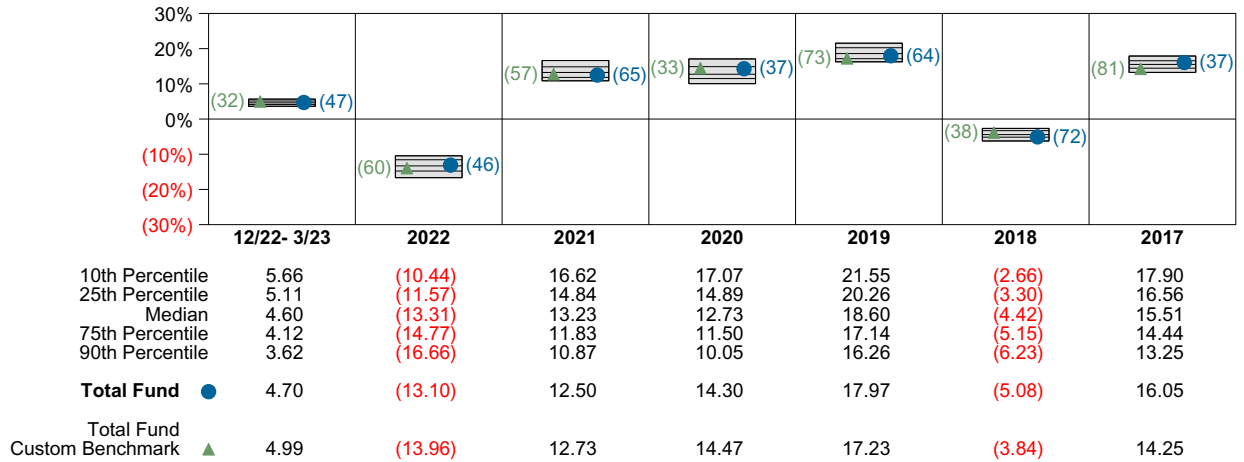


Total Fund Return Analysis Summary

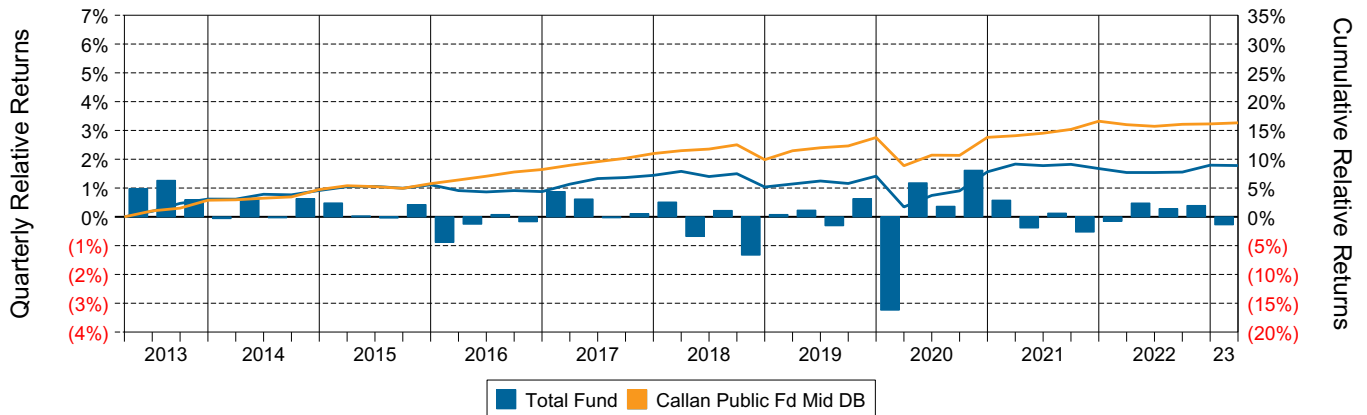
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

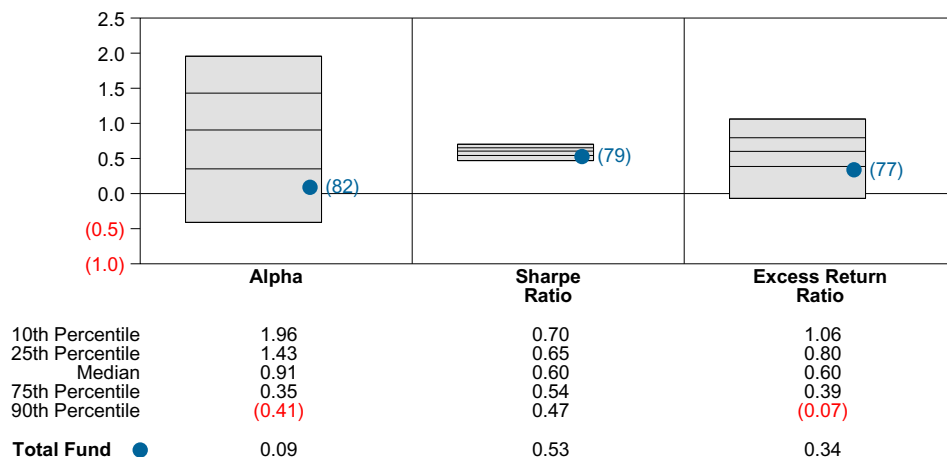
Performance vs Callan Public Fund Spons- Mid (100M-1B) (Gross)



Cumulative and Quarterly Relative Returns vs Total Fund Custom Benchmark



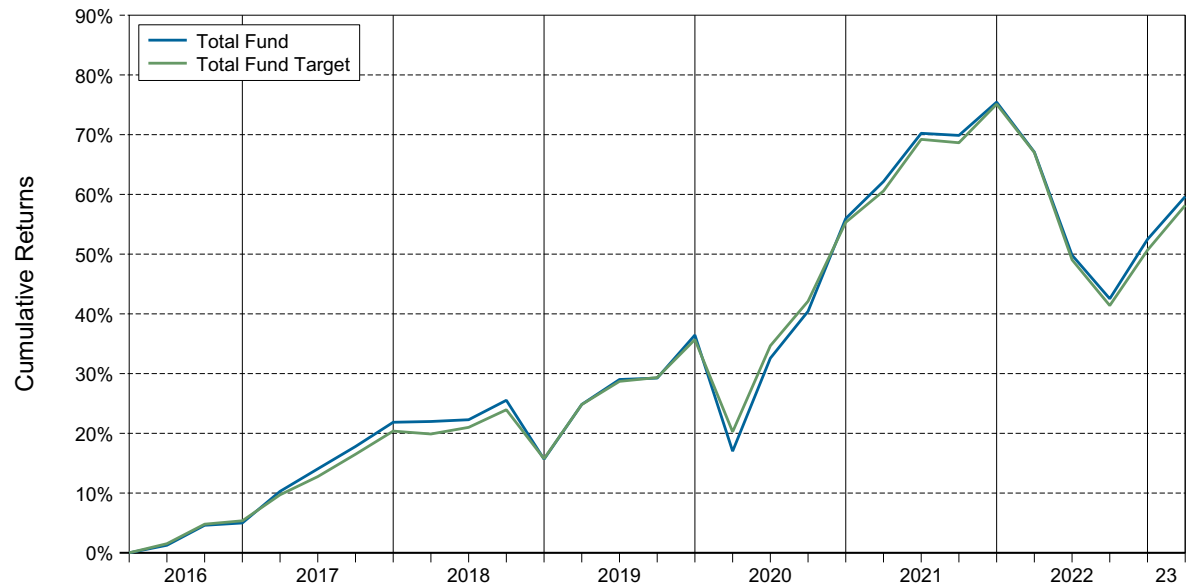
Risk Adjusted Return Measures vs Total Fund Custom Benchmark Rankings Against Callan Public Fund Spons- Mid (100M-1B) (Gross) Ten Years Ended March 31, 2023



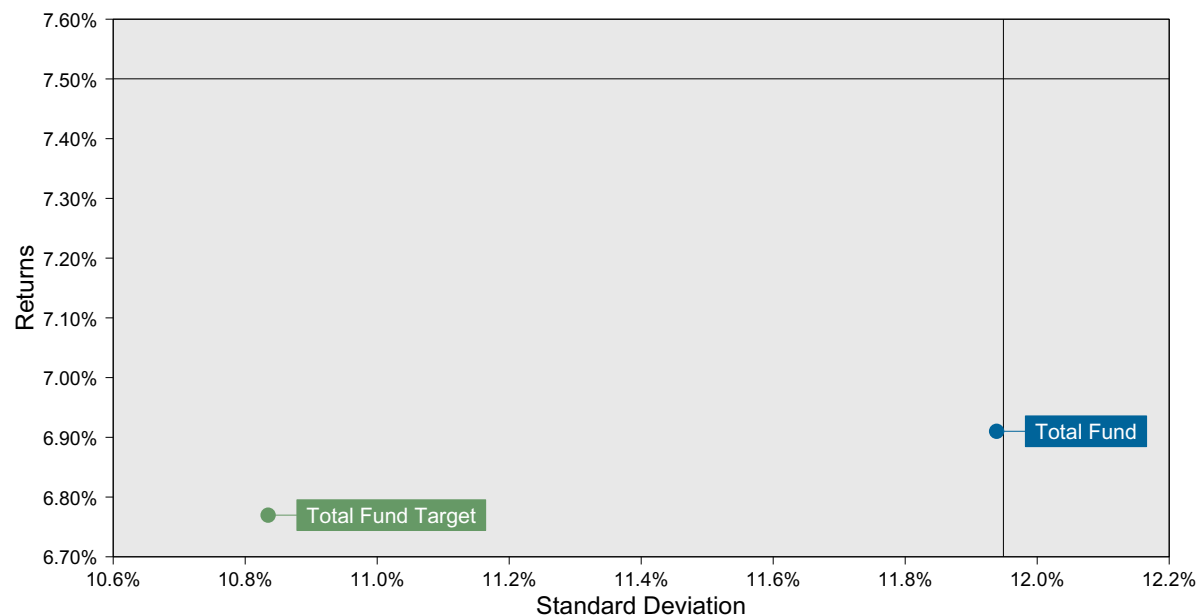
Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the Callan Public Fund Spons- Mid (100M-1B).

Cumulative Returns Actual vs Target



Seven Year Annualized Risk vs Return

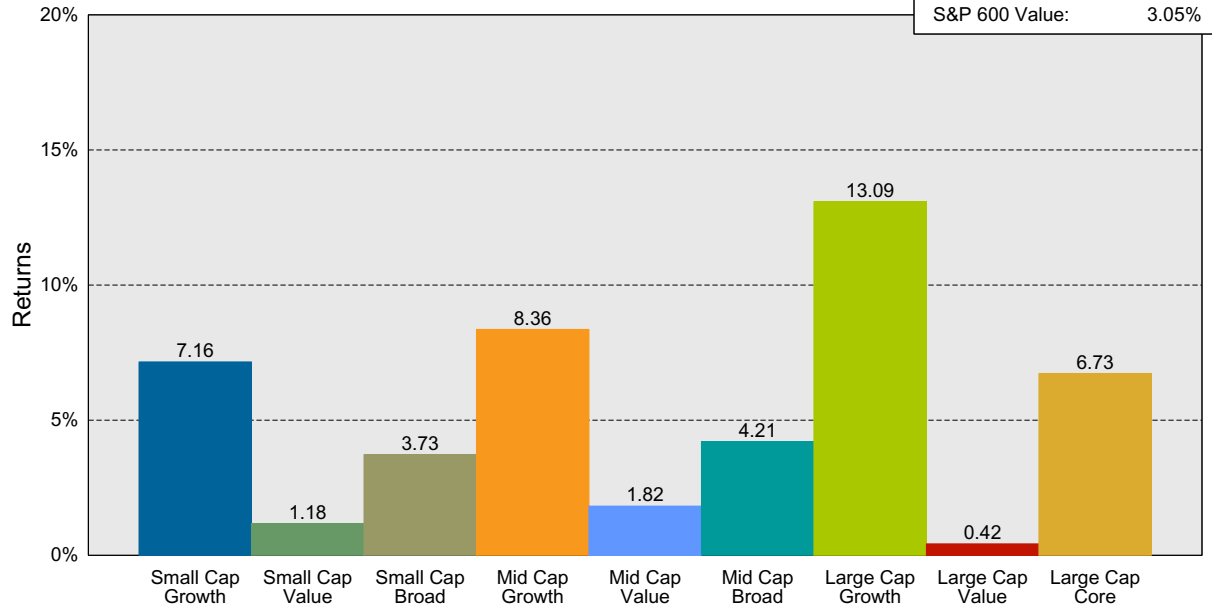


* Current Quarter Target = 35.0% Russell 3000 Index, 23.0% MSCI ACWI xUS, 19.0% Blmbg Aggregate, 8.0% HFRI FOF: Strategic Index, 6.0% Blmbg TIPS 1-10 Yr, 4.0% HFRI FOF: Conservative In, 3.0% Private Equity and 2.0% 3-month Treasury Bill.

Domestic Equity Active Management Overview

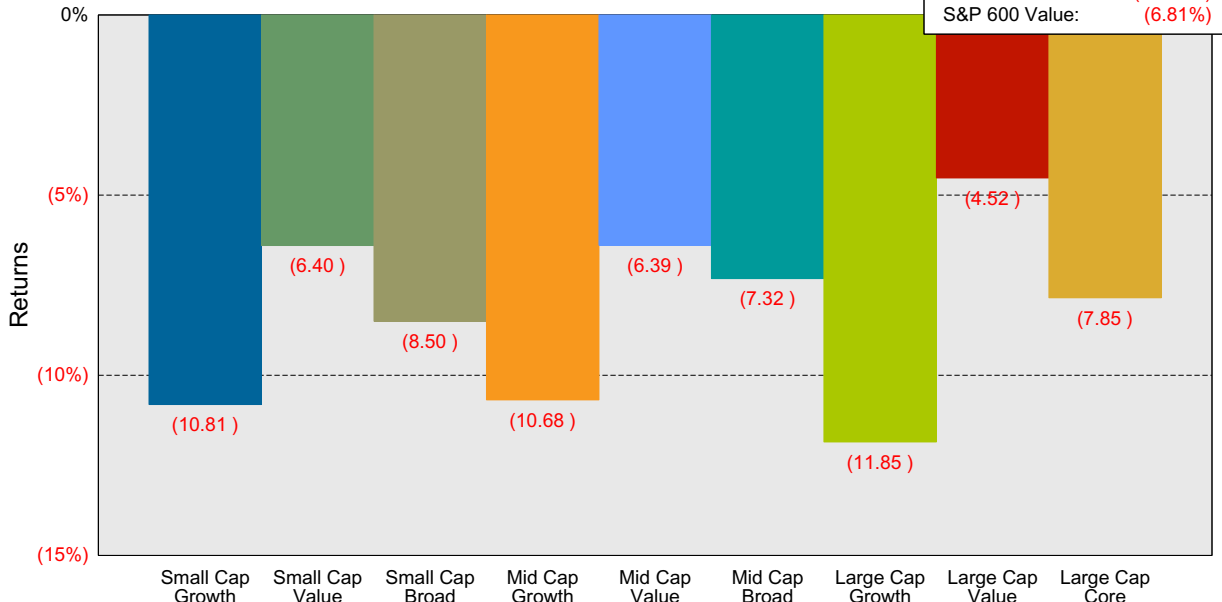
U.S. stock indices posted positive returns in 1Q but it was not smooth sailing; strong returns in January were followed by negative results in February and mixed performance across sectors and styles in March. The S&P 500 Index rose 7.5% for the quarter and the tech-heavy Nasdaq 100 soared 20.8%. Within the S&P 500, Technology (+22%), Communication Services (+21%), and Consumer Discretionary (+16%) rose sharply while Financials (-6%), Energy (-5%), Health Care (-4%), and Utilities (-3%) fell. Growth stocks trounced value for the quarter (Russell 1000 Growth: +14.4%; Russell 1000 Value: +1.0%) due largely to the sharp outperformance of Technology relative to Financials. Small value (Russell 2000 Value: -0.7%) was the one sector to post negative returns, hurt by its exposure to smaller banks. Small cap stocks underperformed mid and large (Russell 2000: +2.7%; Russell MidCap: +4.1%; Russell 1000: +7.5%) across the style spectrum.

Separate Account Style Group Median Returns for Quarter Ended March 31, 2023



S&P 500:	7.50%
S&P 500 Growth:	9.63%
S&P 500 Value:	5.17%
S&P Mid Cap:	3.81%
S&P 600:	2.57%
S&P 600 Growth:	2.14%
S&P 600 Value:	3.05%

Separate Account Style Group Median Returns for One Year Ended March 31, 2023



S&P 500:	(7.73%)
S&P 500 Growth:	(15.33%)
S&P 500 Value:	(0.16%)
S&P Mid Cap:	(5.12%)
S&P 600:	(8.82%)
S&P 600 Growth:	(10.91%)
S&P 600 Value:	(6.81%)

Domestic Equity Period Ended March 31, 2023

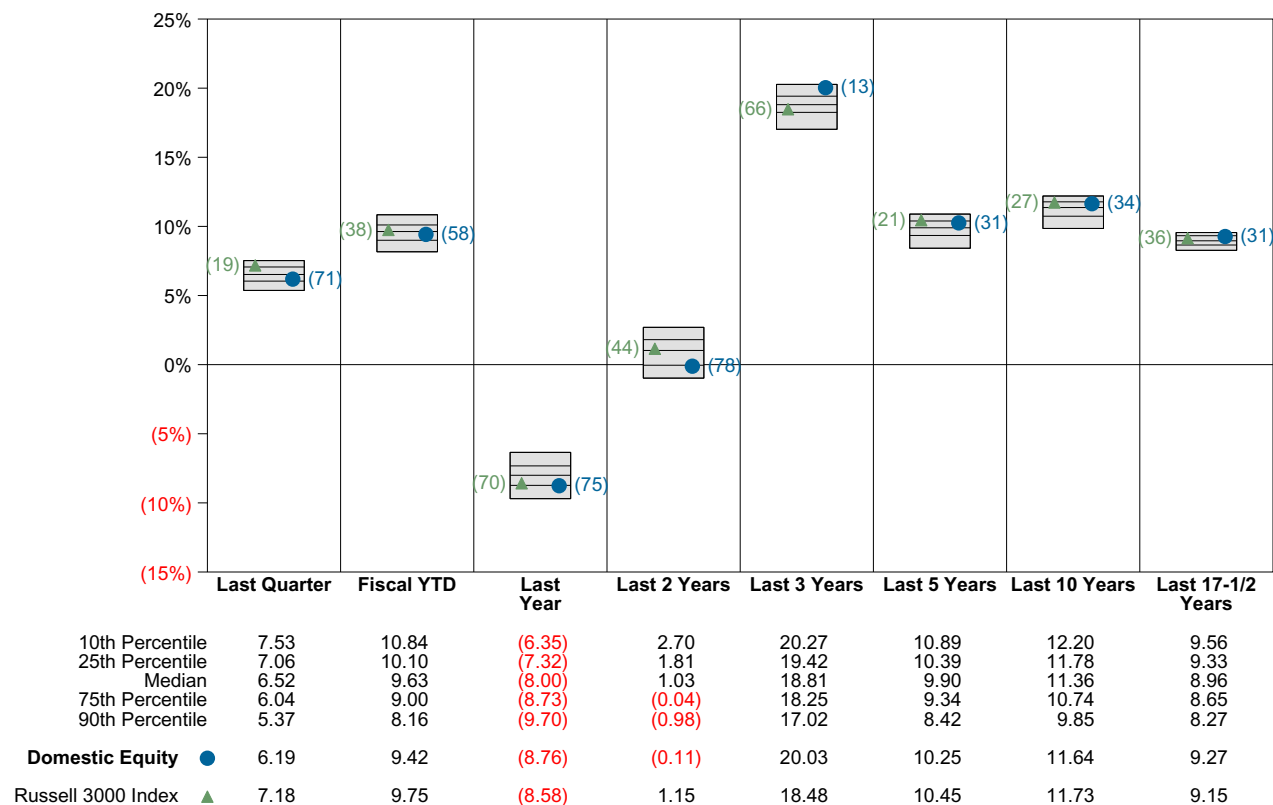
Composite Construction

The Pure US Equity composite is comprised of the BR Russell 1000 Index Non-Lendable, the LSV account and the Principal Dynamic Growth Fund.

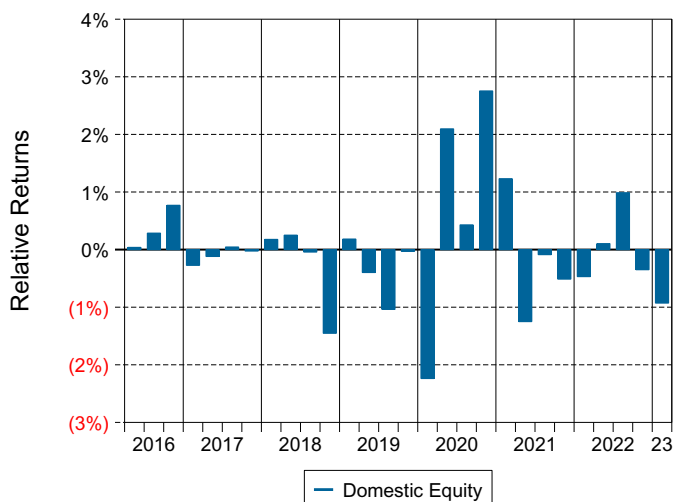
Quarterly Summary and Highlights

- Domestic Equity's portfolio posted a 6.19% return for the quarter placing it in the 71 percentile of the Public Fund - Domestic Equity group for the quarter and in the 75 percentile for the last year.
- Domestic Equity's portfolio underperformed the Russell 3000 Index by 1.00% for the quarter and underperformed the Russell 3000 Index for the year by 0.18%.

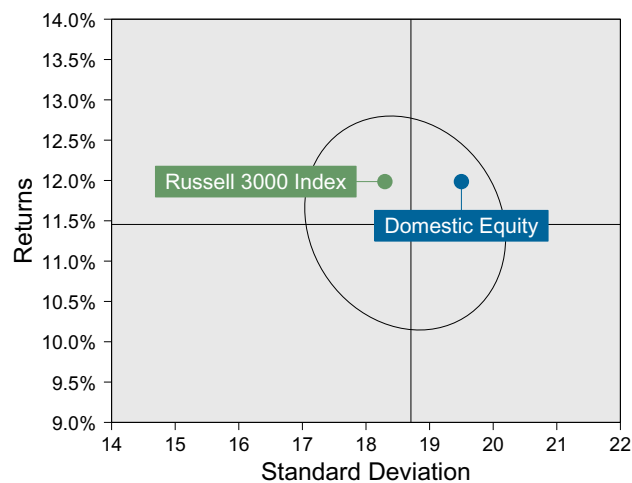
Performance vs Public Fund - Domestic Equity (Gross)



Relative Return vs Russell 3000 Index



Public Fund - Domestic Equity (Gross) Annualized Seven Year Risk vs Return

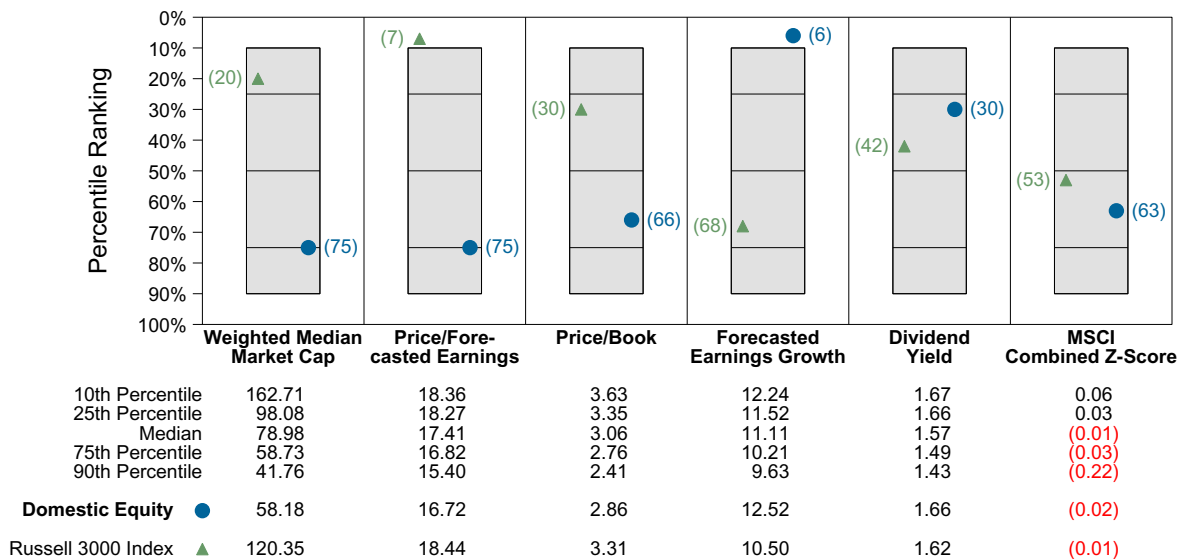


Domestic Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

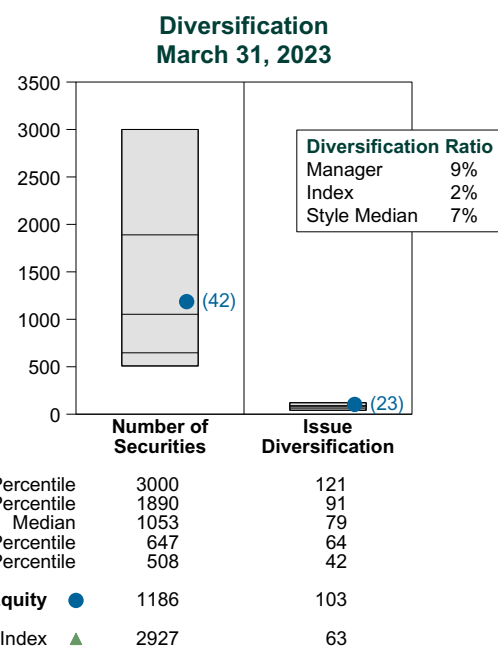
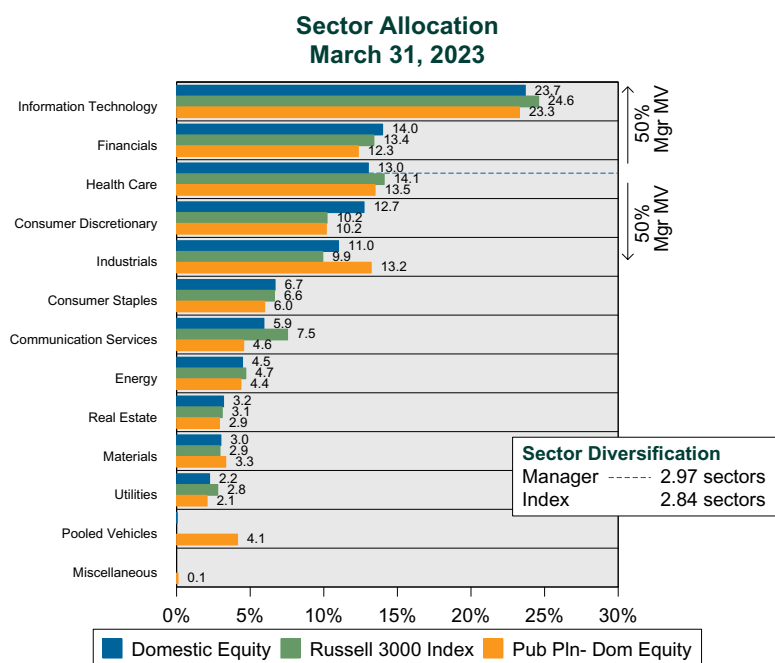
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Public Fund - Domestic Equity as of March 31, 2023



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



Domestic Equity Top 10 Portfolio Holdings Characteristics as of March 31, 2023

10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Apple Inc	Information Technology	\$7,532,869	4.8%	27.11%	2609.04	26.25	0.56%	7.15%
Microsoft Corp	Information Technology	\$6,556,792	4.2%	20.52%	2146.05	27.71	0.94%	11.96%
Amazon.Com	Consumer Discretionary	\$2,790,811	1.8%	22.96%	1058.44	61.01	0.00%	9.44%
Nvidia Corp	Information Technology	\$1,997,950	1.3%	90.10%	686.09	58.42	0.06%	21.20%
Alphabet Inc Cl A	Communication Services	\$1,897,604	1.2%	17.57%	617.82	19.52	0.00%	15.23%
Berkshire Hathaway Inc Del Cl B New	Financials	\$1,694,521	1.1%	(0.04)%	400.84	18.98	0.00%	11.56%
Alphabet Inc Cl C	Communication Services	\$1,654,555	1.1%	17.21%	620.67	19.70	0.00%	15.23%
Tesla Mtrs Inc	Consumer Discretionary	\$1,630,261	1.0%	68.42%	656.42	48.34	0.00%	11.80%
Meta Platforms Inc	Communication Services	\$1,434,665	0.9%	76.12%	471.73	20.44	0.00%	13.20%
Exxon Mobil Corp	Energy	\$1,374,663	0.9%	0.19%	446.42	10.71	3.32%	26.96%

10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Sotera Health Co	Health Care	\$5,578	0.0%	114.97%	5.06	21.20	0.00%	18.00%
Carvana Co Cl A	Consumer Discretionary	\$3,259	0.0%	106.56%	1.04	(1.39)	0.00%	-
Coinbase Global Inc -Class A	Financials	\$32,085	0.0%	90.91%	12.40	(18.68)	0.00%	(166.70)%
Nvidia Corp	Information Technology	\$1,997,950	1.3%	90.10%	686.09	58.42	0.06%	21.20%
Oric Pharmaceuticals Inc	Health Care	\$13,097	0.0%	79.84%	9.45	(27.11)	0.00%	-
Meta Platforms Inc	Communication Services	\$1,434,665	0.9%	76.12%	471.73	20.44	0.00%	13.20%
Universal Ins Hldgs Inc	Financials	\$38,262	0.0%	73.49%	0.55	13.07	3.51%	(6.08)%
Spotify Technology Sa	Communication Services	\$56,554	0.0%	70.07%	25.84	(82.84)	0.00%	-
Draftkings Inc New Com Cl A	Consumer Discretionary	\$21,399	0.0%	69.98%	8.94	(10.69)	0.00%	-
Tesla Mtrs Inc	Consumer Discretionary	\$1,630,261	1.0%	68.42%	656.42	48.34	0.00%	11.80%

10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
First Rep Bk San Francisco C	Financials	\$7,547	0.0%	(88.50)%	2.56	3.76	7.72%	(15.79)%
Pacwest Bancorp	Financials	\$2,893	0.0%	(57.22)%	1.15	3.49	10.28%	2.27%
Centurylink Inc	Communication Services	\$8,142	0.0%	(49.23)%	2.65	11.94	0.00%	(34.60)%
Wework Inc Cl A	Real Estate	\$276	0.0%	(45.65)%	0.55	(0.88)	0.00%	-
Enviva Inc	Energy	\$2,104	0.0%	(44.37)%	1.95	105.40	12.53%	4.81%
Franklin Street Pptys Corp	Real Estate	\$27,789	0.0%	(42.27)%	0.16	(8.58)	2.55%	91.29%
Audacy Inc Cl A	Communication Services	\$2,761	0.0%	(40.38)%	0.02	(0.30)	0.00%	(26.13)%
Western Alliance Bancorp	Financials	\$10,272	0.0%	(40.04)%	3.90	3.67	4.05%	(26.30)%
Qurate Retail Inc	Consumer Discretionary	\$6,816	0.0%	(39.43)%	0.37	9.50	0.00%	(12.37)%
Corenergy Infrastructure Tr	Real Estate	\$2,995	0.0%	(38.73)%	0.02	(1.03)	0.00%	(47.30)%

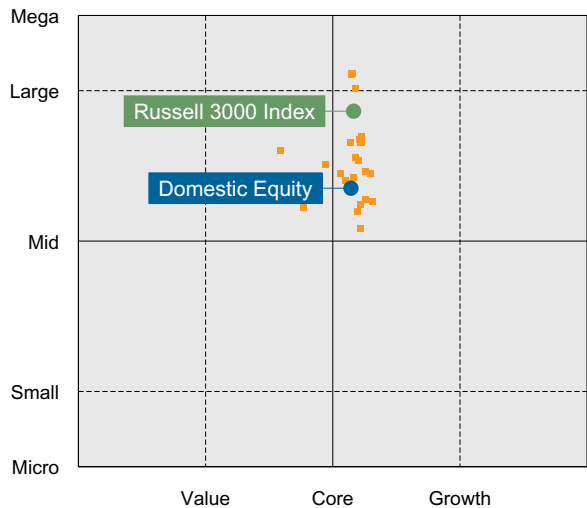
Current Holdings Based Style Analysis

Domestic Equity

As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

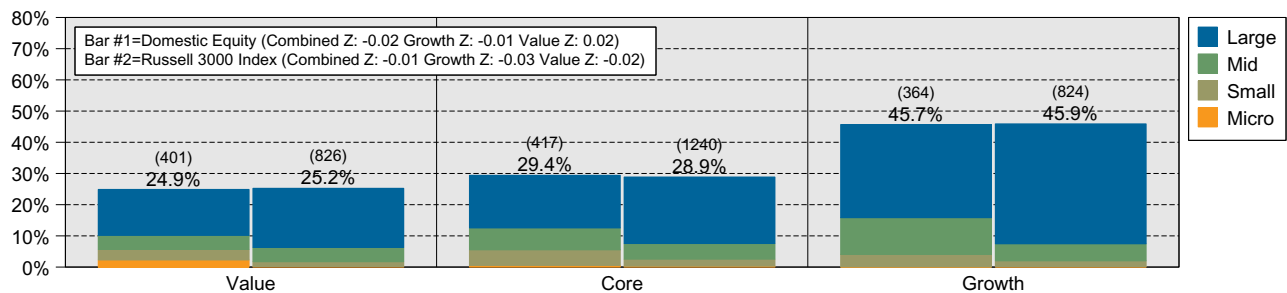
Style Map vs Pub Pln- Dom Equity Holdings as of March 31, 2023



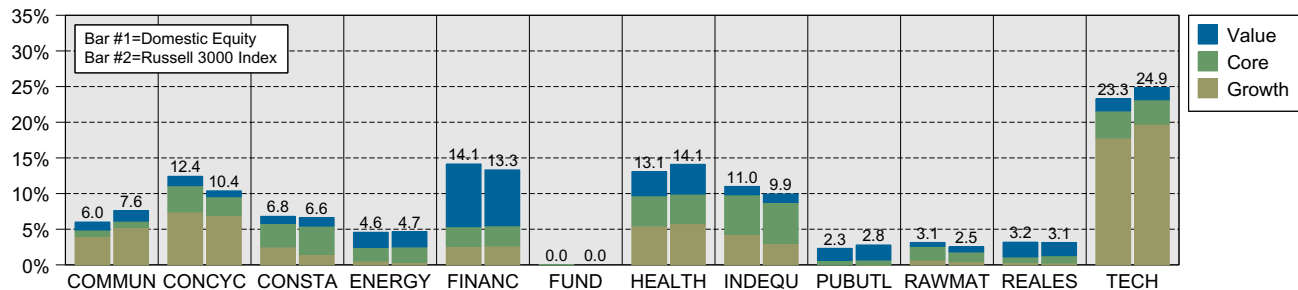
Style Exposure Matrix Holdings as of March 31, 2023

	Value	Core	Growth	Total
Large	14.7% (94) 18.9% (94)	16.9% (95) 21.3% (94)	29.9% (100) 38.4% (101)	61.5% (289) 78.7% (289)
Mid	4.5% (153) 4.6% (157)	7.0% (196) 5.0% (207)	11.8% (191) 5.5% (214)	23.3% (540) 15.1% (578)
Small	3.4% (99) 1.5% (313)	5.0% (109) 2.2% (487)	4.0% (70) 1.9% (356)	12.3% (278) 5.6% (1156)
Micro	2.3% (55) 0.2% (262)	0.6% (17) 0.3% (452)	0.1% (3) 0.1% (153)	2.9% (75) 0.6% (867)
Total	24.9% (401) 25.2% (826)	29.4% (417) 28.9% (1240)	45.7% (364) 45.9% (824)	100.0% (1182) 100.0% (2890)

Combined Z-Score Style Distribution Holdings as of March 31, 2023



Sector Weights Distribution Holdings as of March 31, 2023



Russell 1000 Index Non-Lendable Period Ended March 31, 2023

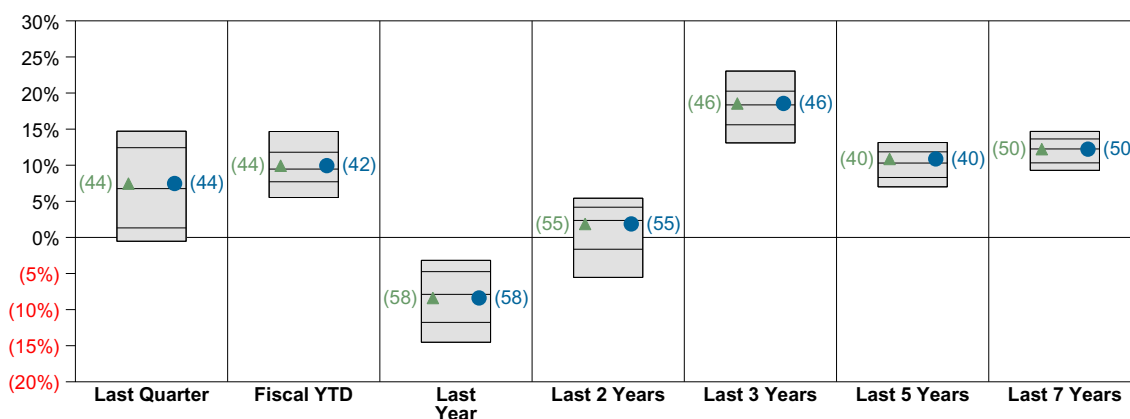
Investment Philosophy

As with all indexing strategies, the objective of the Russell 1000 Index Fund is to track the performance of its benchmark, the Russell 1000 Index. To manage the fund effectively, BlackRock focuses on three objectives: minimizing transaction costs, minimizing tracking error and minimizing risk. The Fund fully replicates the Russell 1000 Index, holding every stock in the index in its market capitalization weight to ensure close tracking and minimize transaction costs. As a fully replicating strategy, the only necessary trading is for dividend reinvestments, index changes, and to implement client contributions and redemptions, so costs can be controlled. BlackRock produces significant economies of scale for further minimizing transaction costs to clients, as the team has the ability to "cross" a majority of trades among funds tracking related US equity security universes.

Quarterly Summary and Highlights

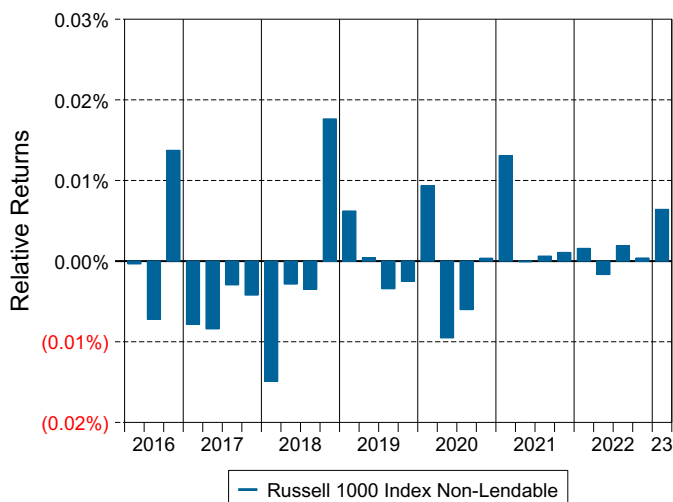
- Russell 1000 Index Non-Lendable's portfolio posted a 7.47% return for the quarter placing it in the 44 percentile of the Callan Large Capitalization group for the quarter and in the 58 percentile for the last year.
- Russell 1000 Index Non-Lendable's portfolio outperformed the Russell 1000 Index by 0.01% for the quarter and outperformed the Russell 1000 Index for the year by 0.01%.

Performance vs Callan Large Capitalization (Gross)

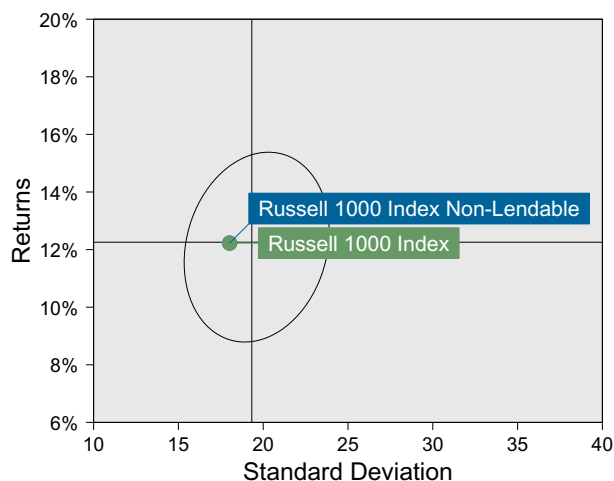


Russell 1000 Index Non-Lendable	●	7.47	9.94	(8.39)	1.87	18.56	10.87	12.22
Russell 1000 Index	▲	7.46	9.93	(8.39)	1.86	18.55	10.87	12.23

Relative Return vs Russell 1000 Index



Callan Large Capitalization (Gross) Annualized Seven Year Risk vs Return

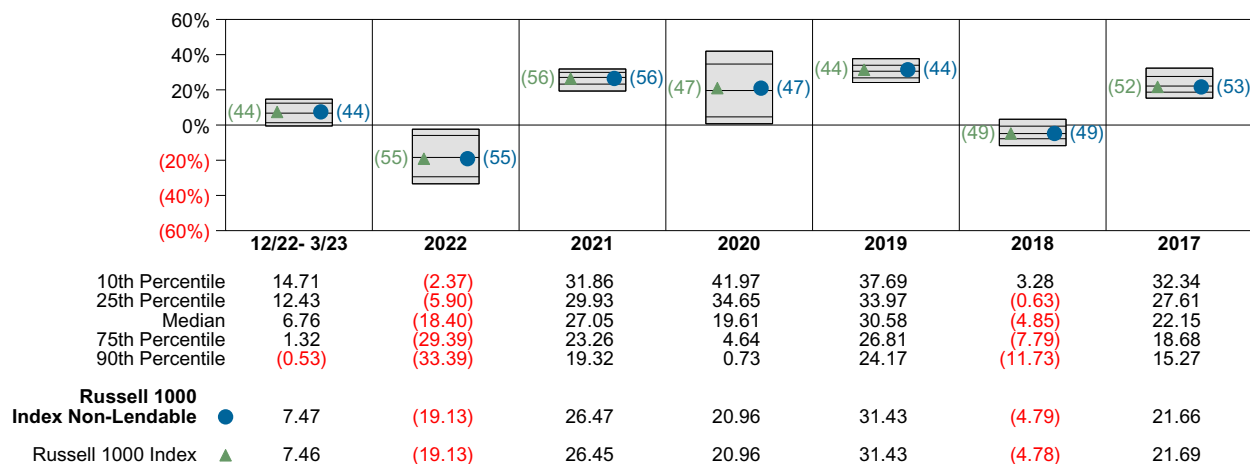


Russell 1000 Index Non-Lendable Return Analysis Summary

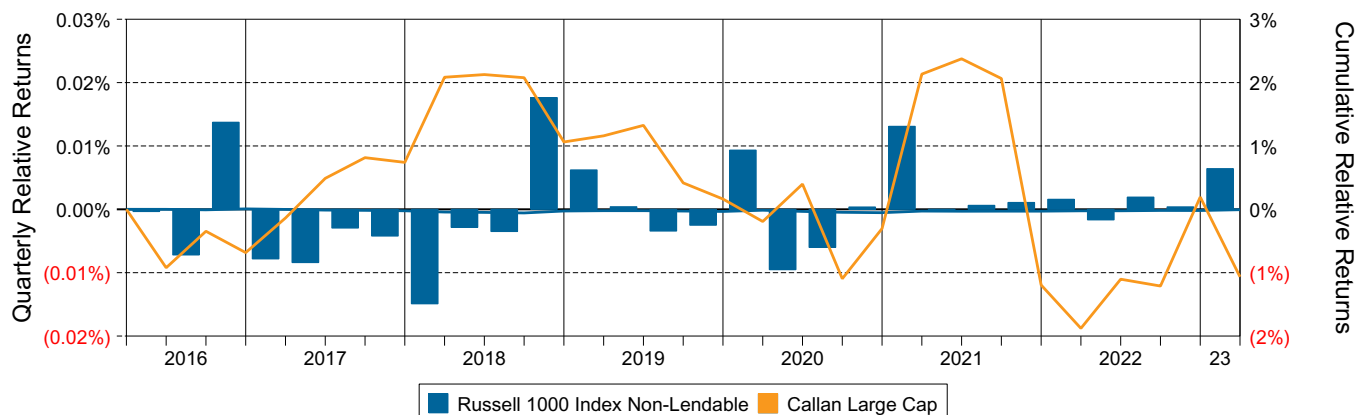
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

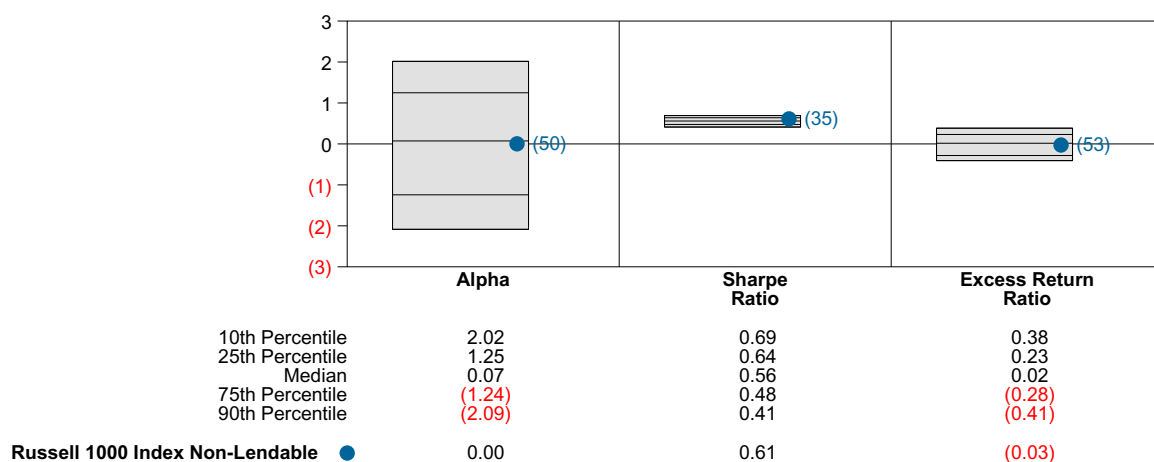
Performance vs Callan Large Capitalization (Gross)



Cumulative and Quarterly Relative Returns vs Russell 1000 Index



Risk Adjusted Return Measures vs Russell 1000 Index Rankings Against Callan Large Capitalization (Gross) Seven Years Ended March 31, 2023

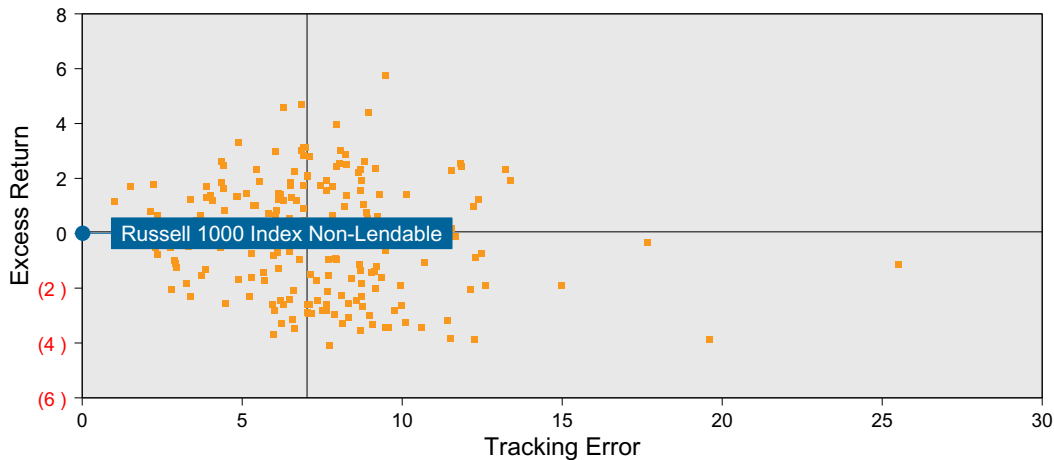


Russell 1000 Index Non-Lendable Risk Analysis Summary

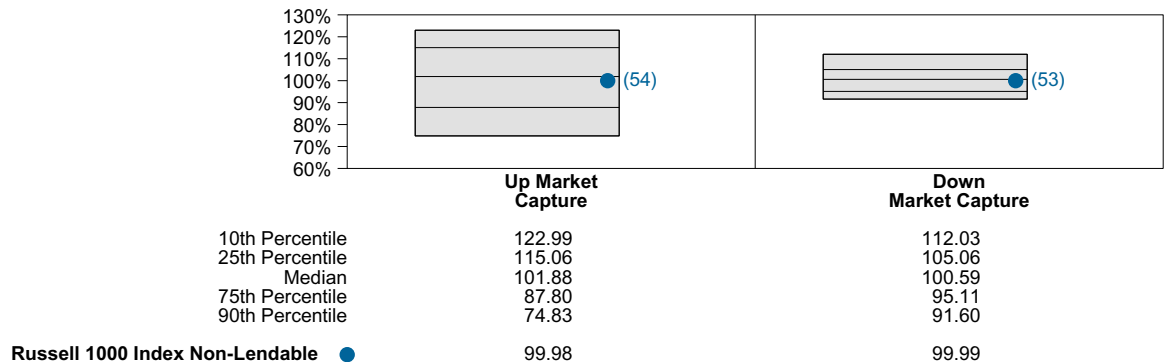
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

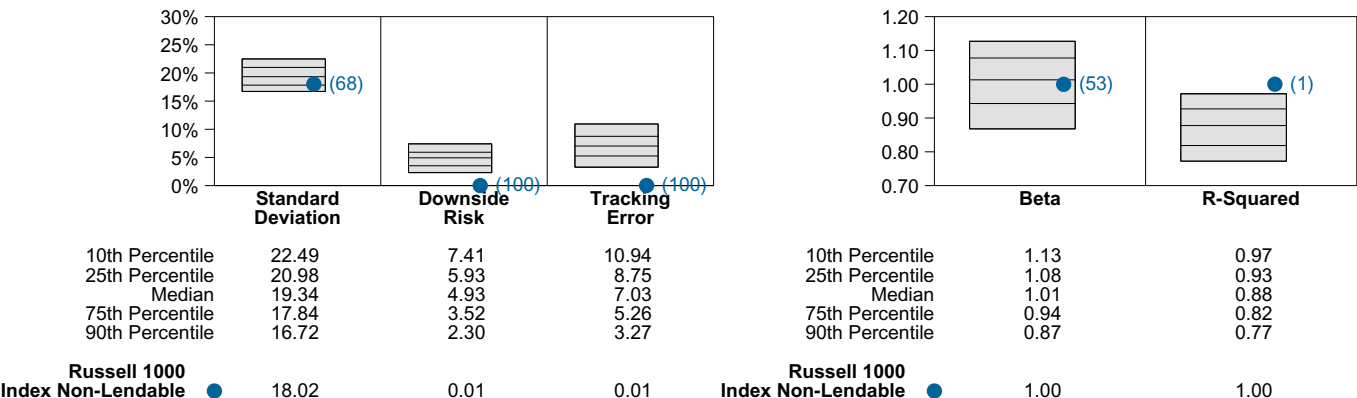
Risk Analysis vs Callan Large Capitalization (Gross) Seven Years Ended March 31, 2023



Market Capture vs Russell 1000 Index Rankings Against Callan Large Capitalization (Gross) Seven Years Ended March 31, 2023



Risk Statistics Rankings vs Russell 1000 Index Rankings Against Callan Large Capitalization (Gross) Seven Years Ended March 31, 2023

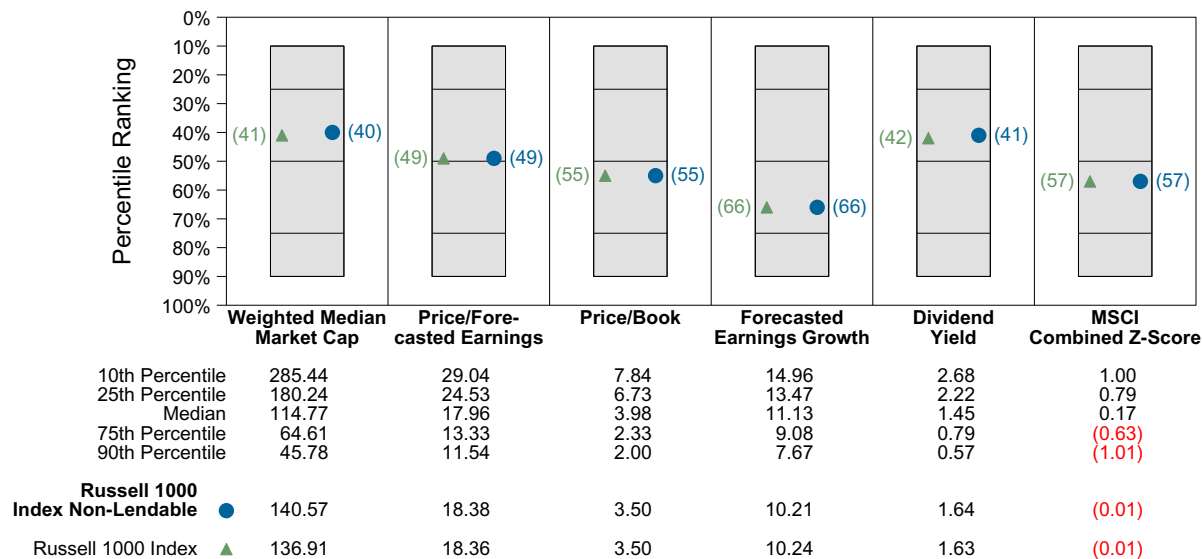


Russell 1000 Index Non-Lendable Equity Characteristics Analysis Summary

Portfolio Characteristics

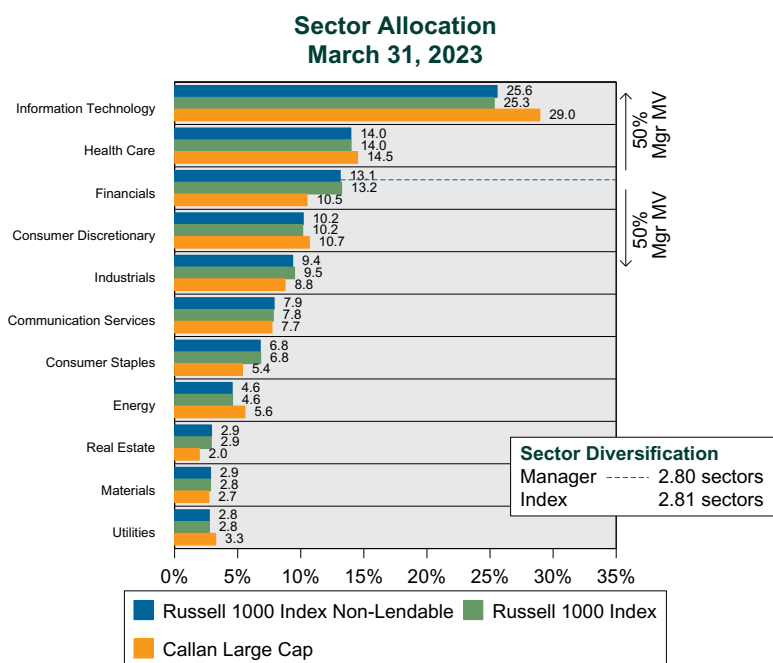
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Capitalization as of March 31, 2023

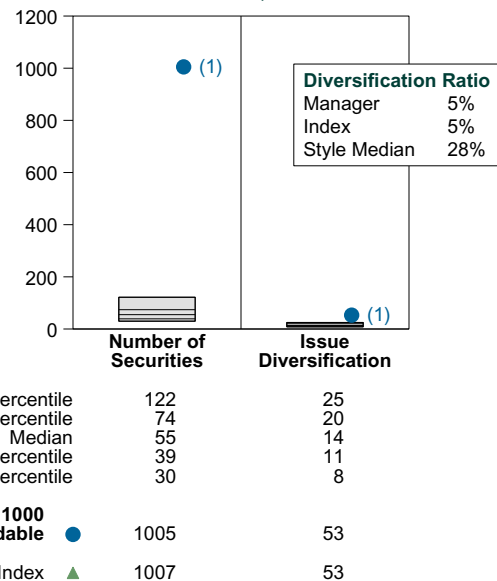


Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



Diversification March 31, 2023



Russell 1000 Index Non-Lendable Top 10 Portfolio Holdings Characteristics as of March 31, 2023

10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Apple Inc	Information Technology	\$7,532,869	6.6%	27.11%	2609.04	26.25	0.56%	7.15%
Microsoft Corp	Information Technology	\$6,556,792	5.7%	20.52%	2146.05	27.71	0.94%	11.96%
Amazon.Com	Consumer Discretionary	\$2,790,811	2.4%	22.96%	1058.44	61.01	0.00%	9.44%
Nvidia Corp	Information Technology	\$1,997,950	1.7%	90.10%	686.09	58.42	0.06%	21.20%
Alphabet Inc Cl A	Communication Services	\$1,897,604	1.7%	17.57%	617.82	19.52	0.00%	15.23%
Berkshire Hathaway Inc Del Cl B New	Financials	\$1,694,521	1.5%	(0.04)%	400.84	18.98	0.00%	11.56%
Alphabet Inc Cl C	Communication Services	\$1,654,555	1.4%	17.21%	620.67	19.70	0.00%	15.23%
Tesla Mtrs Inc	Consumer Discretionary	\$1,630,261	1.4%	68.42%	656.42	48.34	0.00%	11.80%
Meta Platforms Inc	Communication Services	\$1,434,665	1.2%	76.12%	471.73	20.44	0.00%	13.20%
Exxon Mobil Corp	Energy	\$1,374,663	1.2%	0.19%	446.42	10.71	3.32%	26.96%

10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Sotera Health Co	Health Care	\$5,578	0.0%	114.97%	5.06	21.20	0.00%	18.00%
Carvana Co Cl A	Consumer Discretionary	\$3,259	0.0%	106.56%	1.04	(1.39)	0.00%	-
Coinbase Global Inc -Class A	Financials	\$32,085	0.0%	90.91%	12.40	(18.68)	0.00%	(166.70)%
Nvidia Corp	Information Technology	\$1,997,950	1.7%	90.10%	686.09	58.42	0.06%	21.20%
Oric Pharmaceuticals Inc	Health Care	\$13,097	0.0%	79.84%	9.45	(27.11)	0.00%	-
Meta Platforms Inc	Communication Services	\$1,434,665	1.2%	76.12%	471.73	20.44	0.00%	13.20%
Spotify Technology Sa	Communication Services	\$56,554	0.0%	70.07%	25.84	(82.84)	0.00%	-
Draftkings Inc New Com Cl A	Consumer Discretionary	\$21,399	0.0%	69.98%	8.94	(10.69)	0.00%	-
Tesla Mtrs Inc	Consumer Discretionary	\$1,630,261	1.4%	68.42%	656.42	48.34	0.00%	11.80%
Roku Inc Com Cl A	Communication Services	\$25,565	0.0%	61.72%	8.08	(15.57)	0.00%	-

10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
First Rep Bk San Francisco C	Financials	\$7,547	0.0%	(88.50)%	2.56	3.76	7.72%	(15.79)%
Pacwest Bancorp	Financials	\$2,893	0.0%	(57.22)%	1.15	3.49	10.28%	2.27%
Centurylink Inc	Communication Services	\$8,142	0.0%	(49.23)%	2.65	11.94	0.00%	(34.60)%
Wework Inc Cl A	Real Estate	\$276	0.0%	(45.65)%	0.55	(0.88)	0.00%	-
Enviva Inc	Energy	\$2,104	0.0%	(44.37)%	1.95	105.40	12.53%	4.81%
Western Alliance Bancorp	Financials	\$10,272	0.0%	(40.04)%	3.90	3.67	4.05%	(26.30)%
Zion Bancorporation Na	Financials	\$13,137	0.0%	(38.64)%	4.43	4.74	5.48%	14.48%
Schwab Charles Corp New	Financials	\$242,233	0.2%	(36.89)%	92.60	12.53	1.91%	14.67%
Comerica	Financials	\$17,176	0.0%	(33.99)%	5.71	4.57	6.54%	5.81%
Dish Network Corp Cl A	Communication Services	\$6,822	0.0%	(33.55)%	2.73	8.28	0.00%	(29.05)%

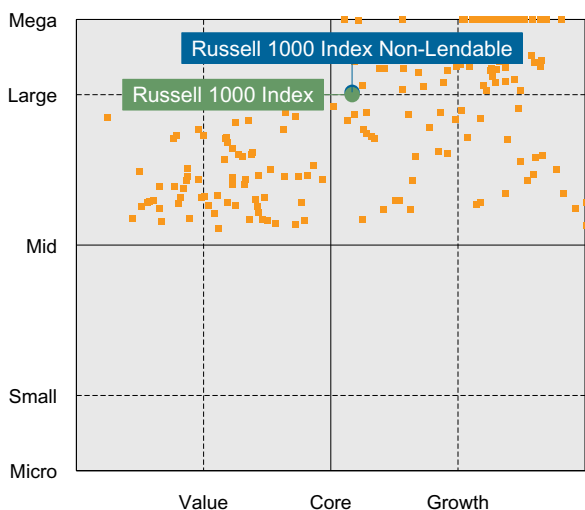
Current Holdings Based Style Analysis

Russell 1000 Index Non-Lendable

As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

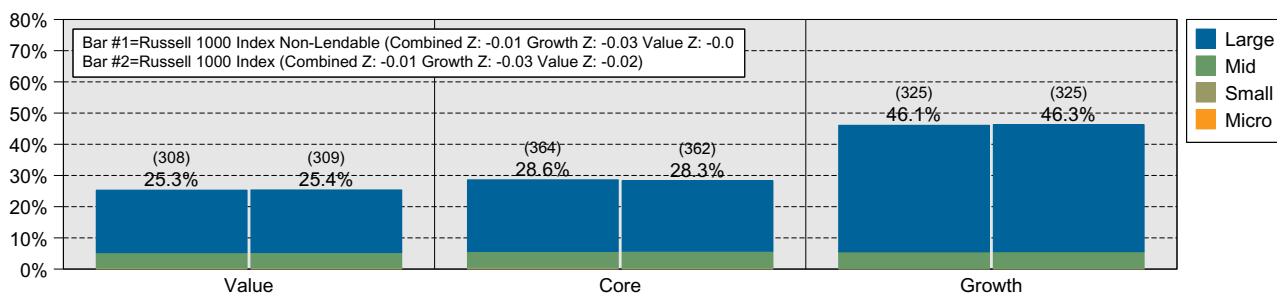
Style Map vs Callan Large Cap Holdings as of March 31, 2023



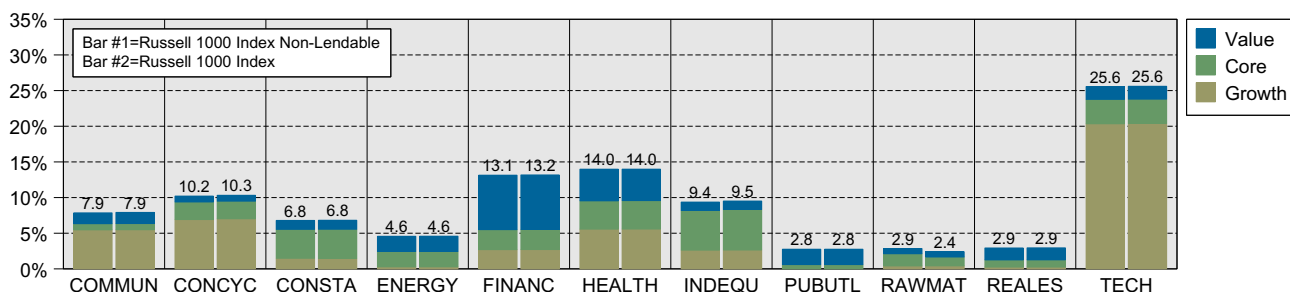
Style Exposure Matrix Holdings as of March 31, 2023

	Value	Core	Growth	Total
Large	20.0% (94) 20.1% (94)	22.9% (95) 22.6% (94)	40.6% (100) 40.7% (101)	83.5% (289) 83.4% (289)
Mid	4.8% (151) 4.8% (152)	5.1% (194) 5.1% (194)	5.2% (180) 5.3% (178)	15.1% (525) 15.2% (524)
Small	0.5% (63) 0.5% (63)	0.6% (75) 0.6% (74)	0.3% (45) 0.3% (46)	1.3% (183) 1.4% (183)
Micro	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)
Total	25.3% (308) 25.4% (309)	28.6% (364) 28.3% (362)	46.1% (325) 46.3% (325)	100.0% (997) 100.0% (996)

Combined Z-Score Style Distribution Holdings as of March 31, 2023



Sector Weights Distribution Holdings as of March 31, 2023



LSV

Period Ended March 31, 2023

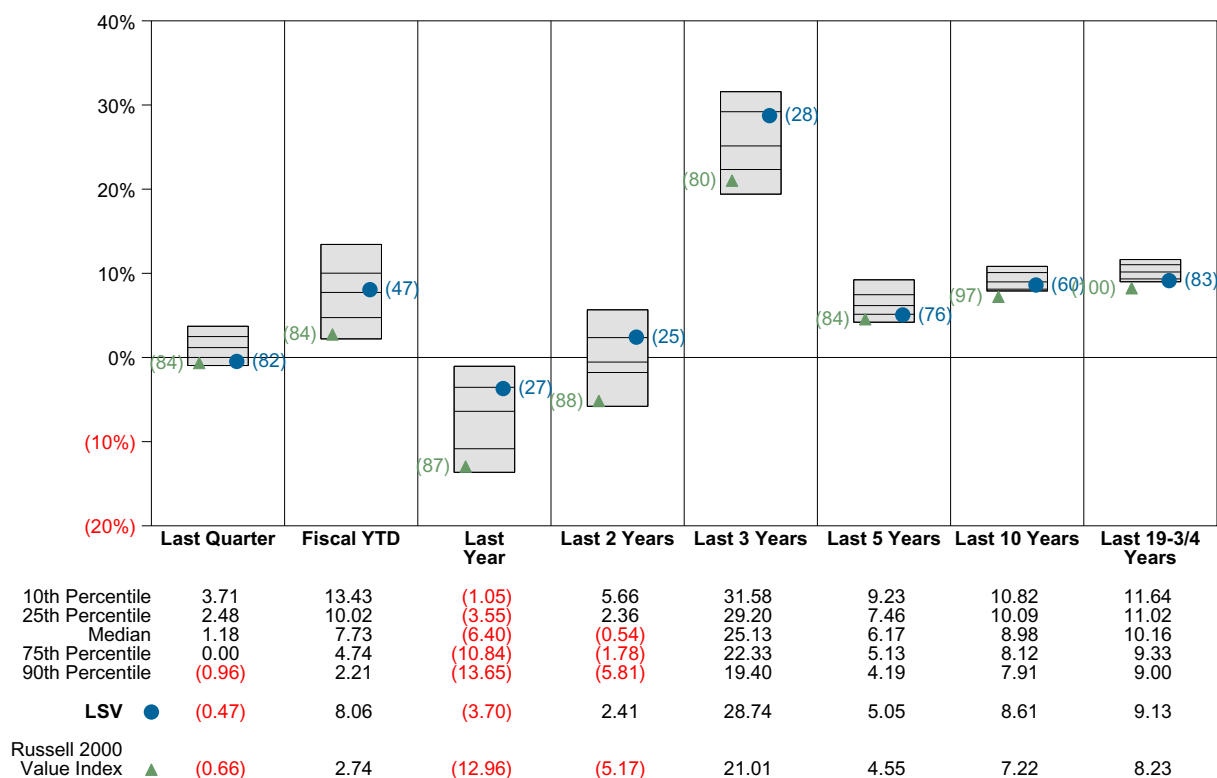
Investment Philosophy

LSV Asset Management seeks to systematically exploit the judgmental biases and behavioral weaknesses that influence the market. The strategy's primary emphasis is the use of quantitative techniques to select individual securities in what would be considered a bottom-up approach.

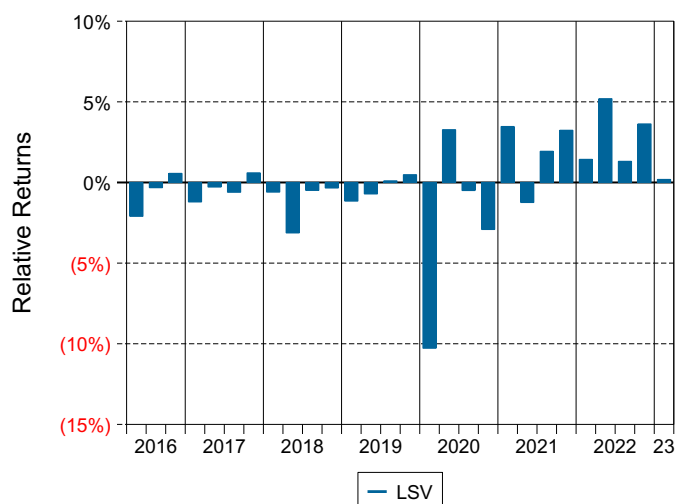
Quarterly Summary and Highlights

- LSV's portfolio posted a (0.47)% return for the quarter placing it in the 82 percentile of the Callan Small Cap Value group for the quarter and in the 27 percentile for the last year.
- LSV's portfolio outperformed the Russell 2000 Value Index by 0.18% for the quarter and outperformed the Russell 2000 Value Index for the year by 9.26%.

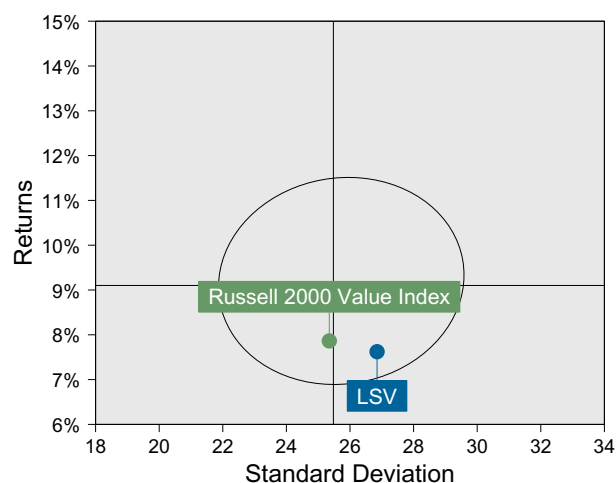
Performance vs Callan Small Cap Value (Gross)



Relative Return vs Russell 2000 Value Index



Callan Small Cap Value (Gross) Annualized Seven Year Risk vs Return

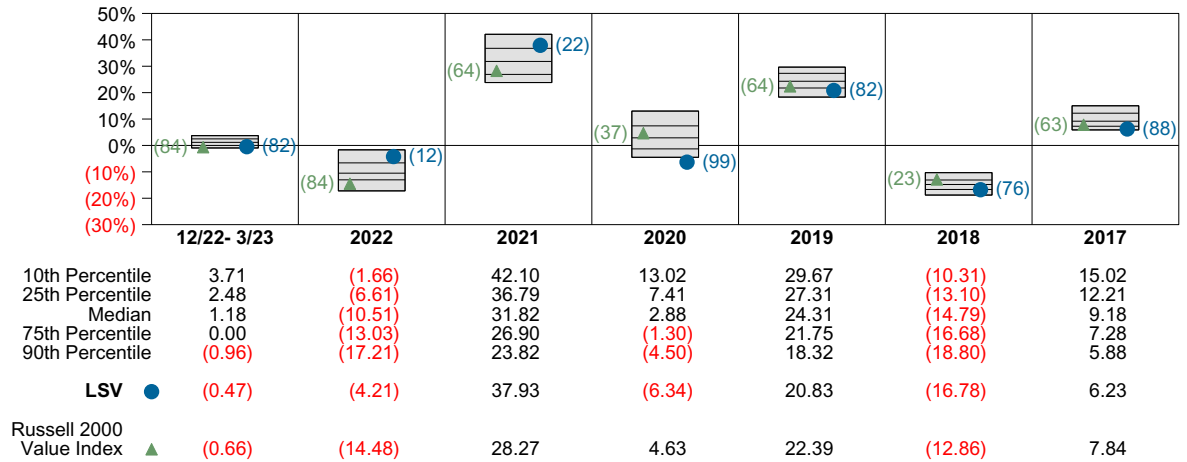


LSV Return Analysis Summary

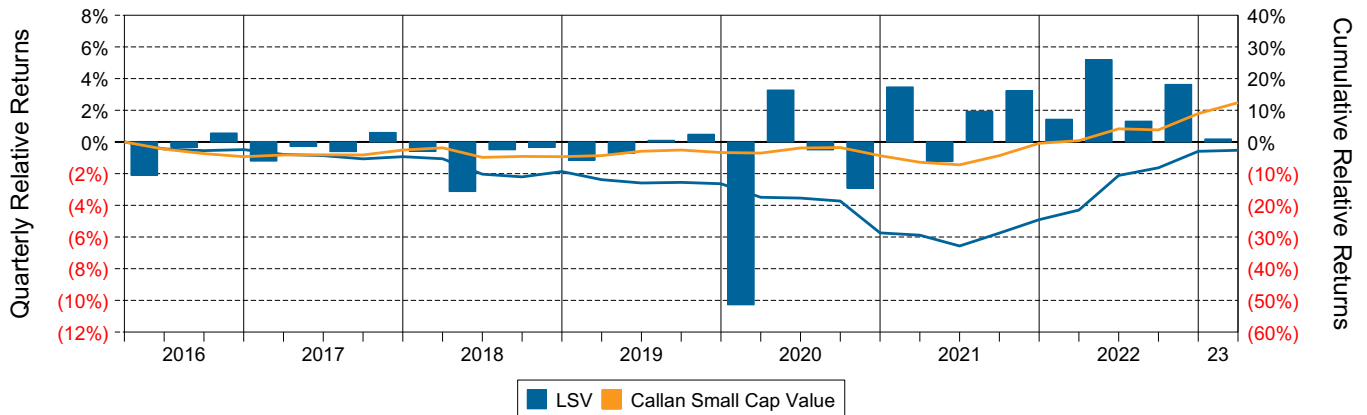
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

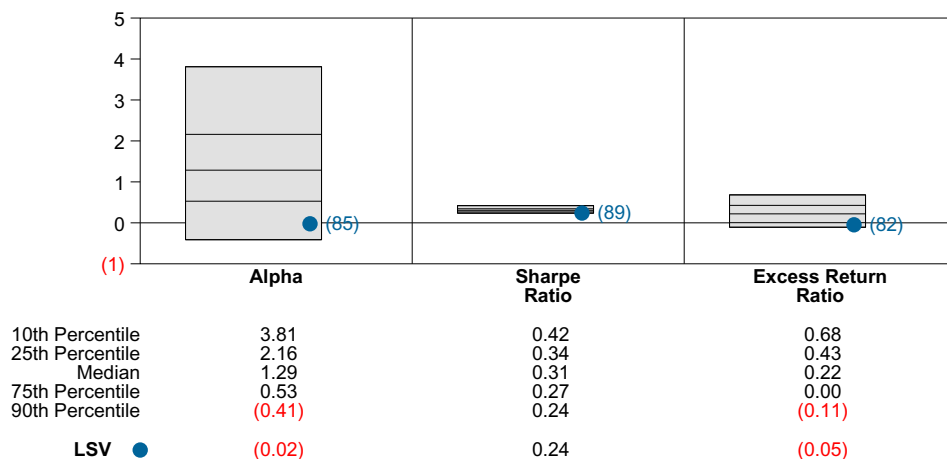
Performance vs Callan Small Cap Value (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2000 Value Index



Risk Adjusted Return Measures vs Russell 2000 Value Index Rankings Against Callan Small Cap Value (Gross) Seven Years Ended March 31, 2023

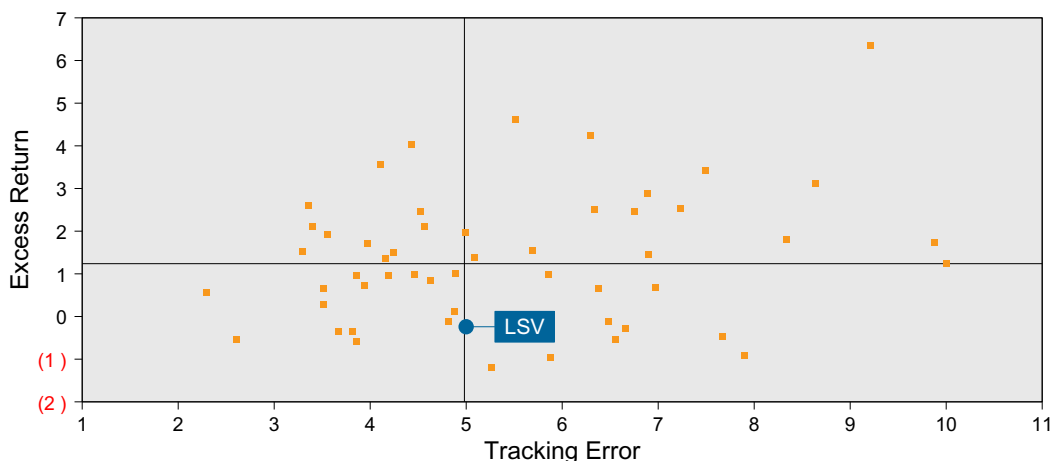


LSV Risk Analysis Summary

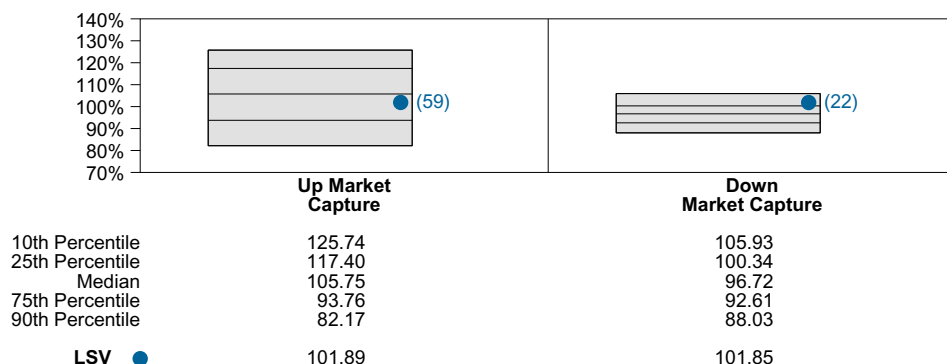
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

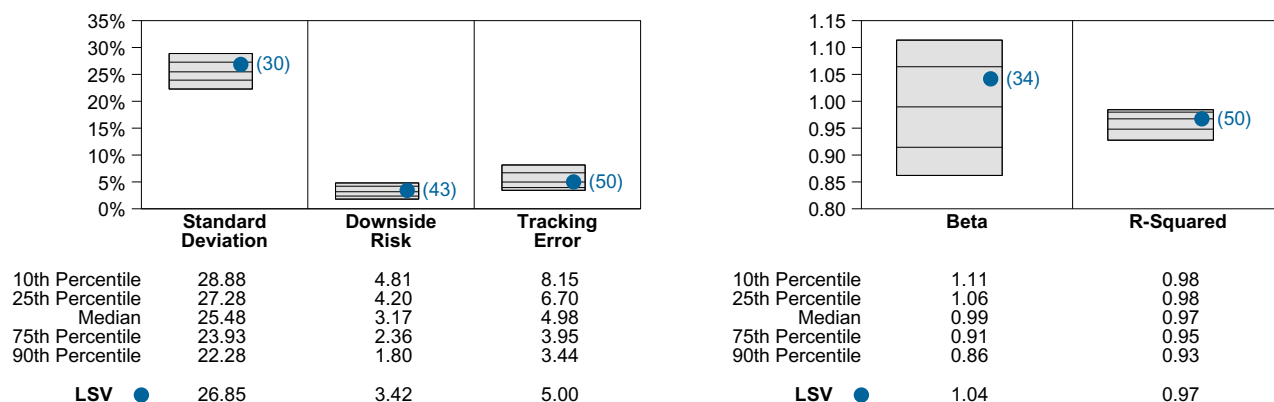
Risk Analysis vs Callan Small Cap Value (Gross) Seven Years Ended March 31, 2023



Market Capture vs Russell 2000 Value Index Rankings Against Callan Small Cap Value (Gross) Seven Years Ended March 31, 2023



Risk Statistics Rankings vs Russell 2000 Value Index Rankings Against Callan Small Cap Value (Gross) Seven Years Ended March 31, 2023



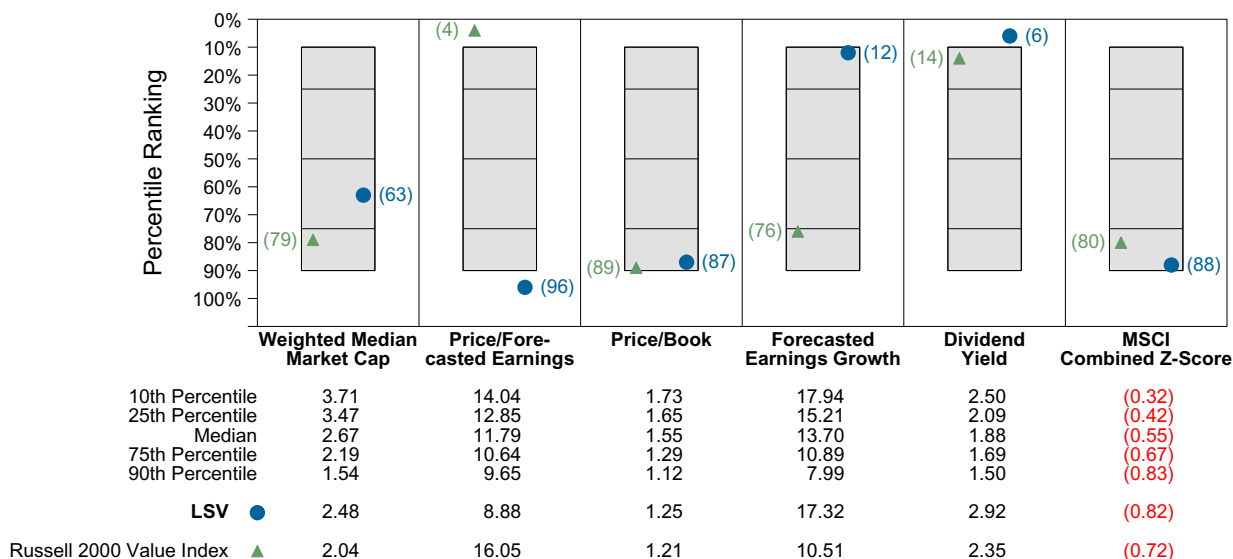
LSV

Equity Characteristics Analysis Summary

Portfolio Characteristics

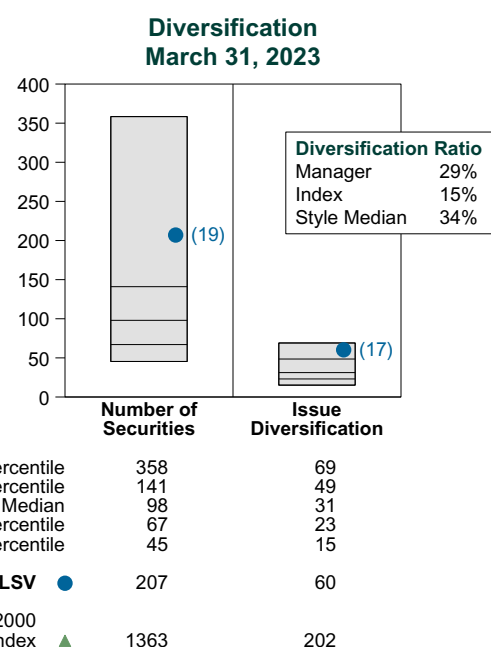
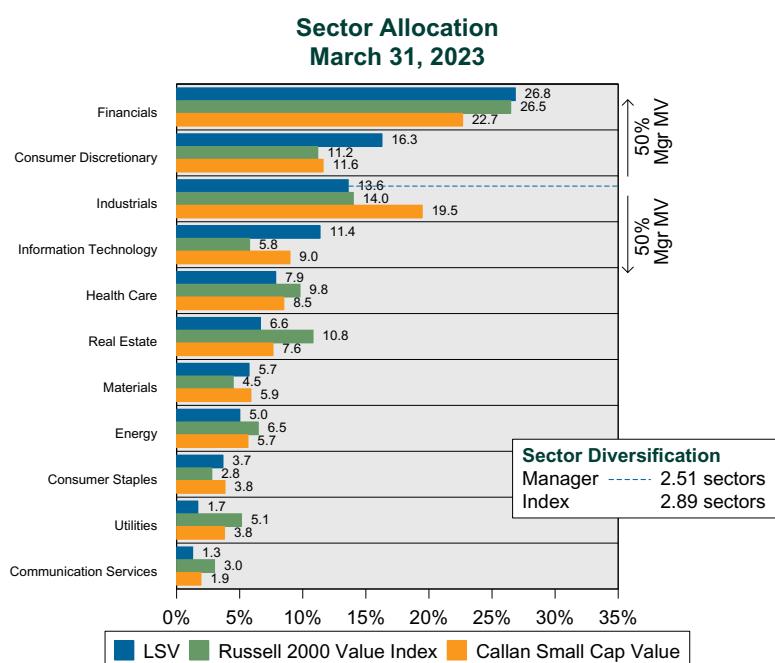
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Value as of March 31, 2023



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



LSV Top 10 Portfolio Holdings Characteristics as of March 31, 2023

10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Atkore Intl Group Inc	Industrials	\$309,056	1.4%	23.86%	5.55	8.33	0.00%	68.89%
National Fuel Gas Co N J	Utilities	\$294,474	1.4%	(8.02)%	5.30	9.58	3.29%	10.00%
Cno Finl Group Inc	Financials	\$257,404	1.2%	(2.31)%	2.55	7.74	2.52%	9.00%
Ironwood Pharmaceuticals Inc Com Cl	Health Care	\$253,532	1.2%	(15.10)%	1.62	10.07	0.00%	18.52%
Greif Inc Cl A	Materials	\$247,143	1.1%	(4.70)%	1.64	11.81	3.16%	18.33%
Pdc Energy Inc	Energy	\$243,884	1.1%	1.70%	5.67	4.54	2.49%	110.43%
Moog Inc Cl A	Industrials	\$241,800	1.1%	15.11%	2.89	16.47	1.07%	2.84%
Ingles Mkts Inc Cl A	Consumer Staples	\$239,490	1.1%	(7.88)%	1.28	8.16	0.74%	57.81%
Modine Mfg Co	Consumer Discretionary	\$235,110	1.1%	16.06%	1.20	10.25	0.00%	0.59%
Avnet Inc	Information Technology	\$235,040	1.1%	9.41%	4.13	7.64	2.57%	17.43%

10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Universal Ins Hldgs Inc	Financials	\$38,262	0.2%	73.49%	0.55	13.07	3.51%	(6.08)%
Cirrus Logic Inc	Information Technology	\$109,380	0.5%	46.86%	6.04	16.78	0.00%	6.80%
Insight Enterprises Inc	Information Technology	\$100,072	0.5%	42.58%	4.83	13.85	0.00%	20.05%
Service Pptys Tr Com Sh Ben Int	Real Estate	\$49,800	0.2%	39.99%	1.65	(131.05)	8.03%	(35.16)%
O-I Glass Inc	Materials	\$172,596	0.8%	37.06%	3.53	8.69	0.00%	7.05%
Builders Firstsource Inc	Industrials	\$71,024	0.3%	36.84%	12.25	13.47	0.00%	74.68%
Arcbest Corp Com	Industrials	\$120,146	0.6%	32.11%	2.24	8.93	0.52%	13.35%
Super Micro Computer Inc	Information Technology	\$106,550	0.5%	29.78%	5.72	10.91	0.00%	62.29%
Bloomin Brands Inc	Consumer Discretionary	\$146,205	0.7%	28.66%	2.25	8.60	3.74%	7.67%
La Z Boy Inc	Consumer Discretionary	\$93,056	0.4%	28.17%	1.25	9.49	2.50%	15.67%

10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Franklin Street Pptys Corp	Real Estate	\$27,789	0.1%	(42.27)%	0.16	(8.58)	2.55%	91.29%
Audacy Inc Cl A	Communication Services	\$2,761	0.0%	(40.38)%	0.02	(0.30)	0.00%	(26.13)%
Qurate Retail Inc	Consumer Discretionary	\$6,816	0.0%	(39.43)%	0.37	9.50	0.00%	(12.37)%
Corenergy Infrastructure Tr	Real Estate	\$2,995	0.0%	(38.73)%	0.02	(1.03)	0.00%	(47.30)%
Zion Bancorporation Na	Financials	\$104,755	0.5%	(38.64)%	4.43	4.74	5.48%	14.48%
Homestreet Inc	Financials	\$43,176	0.2%	(33.97)%	0.34	7.63	7.78%	33.02%
Uniti Group Inc	Real Estate	\$29,039	0.1%	(32.97)%	0.84	13.20	16.90%	17.40%
Gladstone Coml Corp	Real Estate	\$40,416	0.2%	(30.32)%	0.51	(72.17)	9.50%	93.65%
Bgsf Inc	Industrials	\$56,445	0.3%	(29.80)%	0.11	8.18	5.63%	20.00%
American Assets Tr Inc	Real Estate	\$78,078	0.4%	(28.82)%	1.13	23.93	7.10%	1.35%

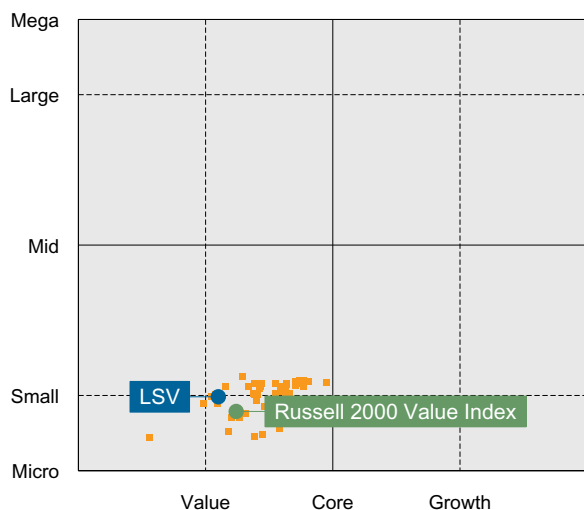
Current Holdings Based Style Analysis

LSV

As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

Style Map vs Callan Small Cap Value Holdings as of March 31, 2023

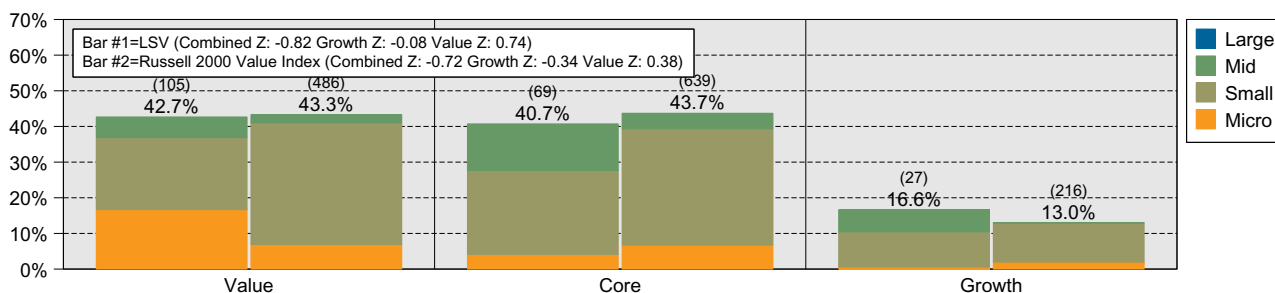


Style Exposure Matrix Holdings as of March 31, 2023

	Value	Core	Growth	Total
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Mid	5.8% (9)	13.1% (19)	6.2% (9)	25.1% (37)
Small	20.2% (43)	23.5% (35)	9.9% (16)	53.6% (94)
Micro	16.7% (53)	4.1% (15)	0.6% (2)	21.3% (70)
Total	42.7% (105)	40.7% (69)	16.6% (27)	100.0% (201)
	43.3% (486)	43.7% (639)	13.0% (216)	100.0% (1341)

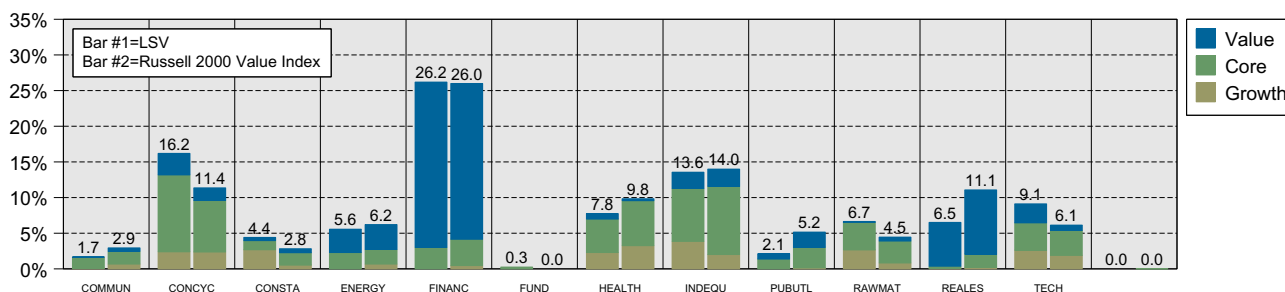
Combined Z-Score Style Distribution

Holdings as of March 31, 2023



Sector Weights Distribution

Holdings as of March 31, 2023



Principal Dynamic Growth Period Ended March 31, 2023

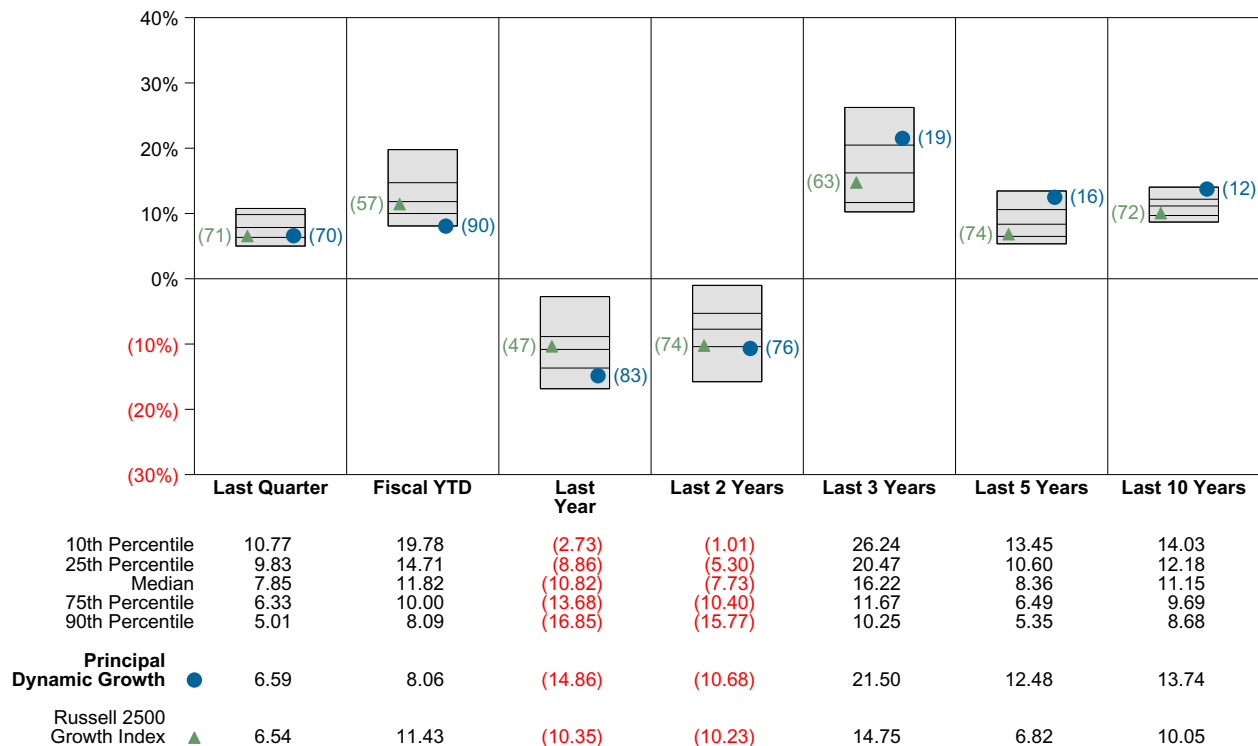
Investment Philosophy

The investment philosophy of Columbus Circle Investors (CCI) is based on the premise that companies doing better than expected will have rising securities prices, while companies producing less than expected results will not. They refer to their discipline as Positive Momentum & Positive Surprise. Analysis of company's fundamentals in the context of the prevailing economic environment allows CCI to measure and select companies based on the criteria of this discipline.

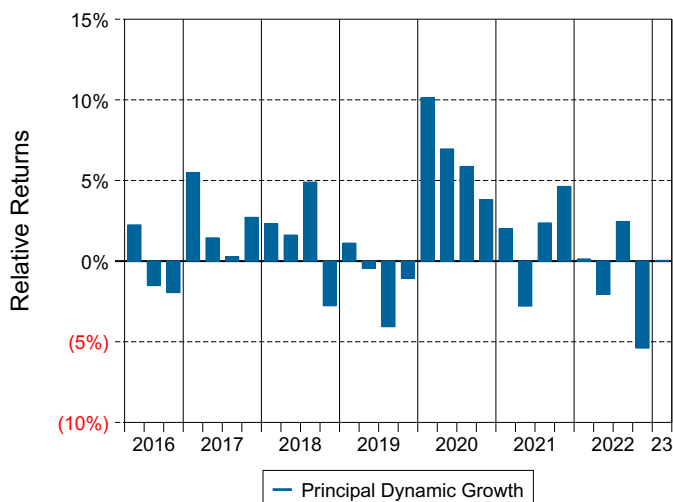
Quarterly Summary and Highlights

- Principal Dynamic Growth's portfolio posted a 6.59% return for the quarter placing it in the 70 percentile of the Callan Small/MidCap Growth group for the quarter and in the 83 percentile for the last year.
- Principal Dynamic Growth's portfolio outperformed the Russell 2500 Growth Index by 0.05% for the quarter and underperformed the Russell 2500 Growth Index for the year by 4.50%.

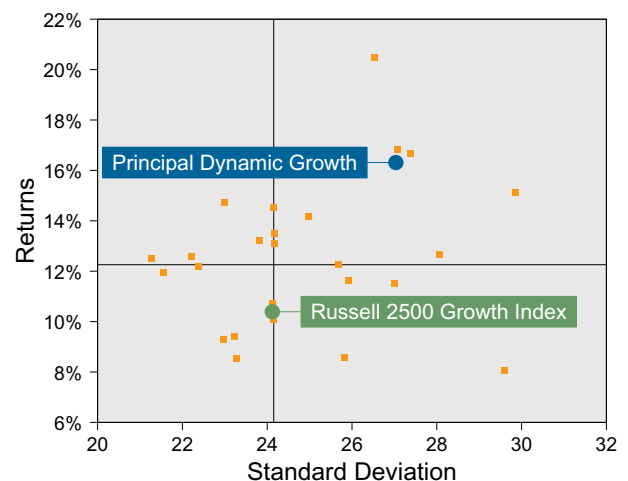
Performance vs Callan Small/MidCap Growth (Gross)



Relative Return vs Russell 2500 Growth Index



Callan Small/MidCap Growth (Gross) Annualized Seven Year Risk vs Return

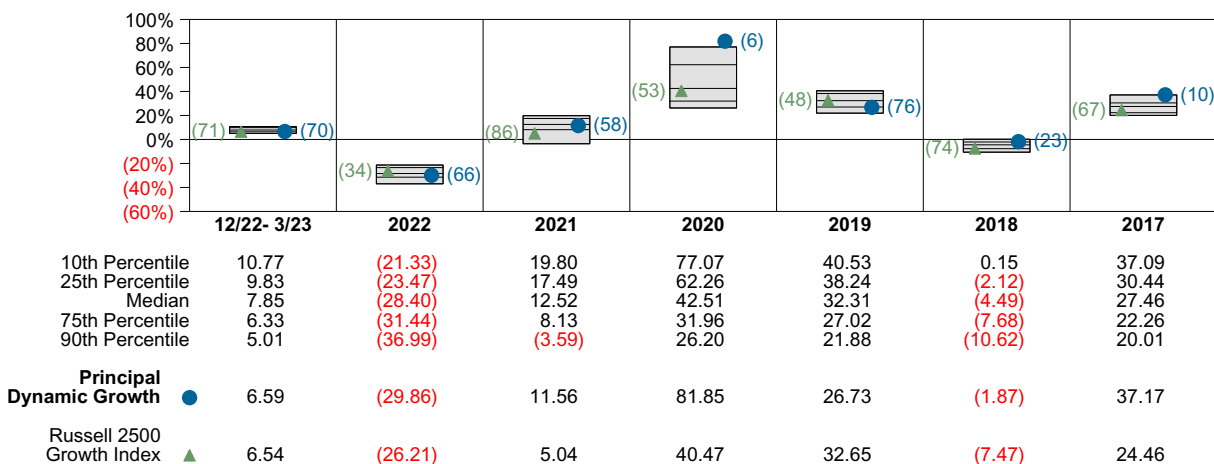


Principal Dynamic Growth Return Analysis Summary

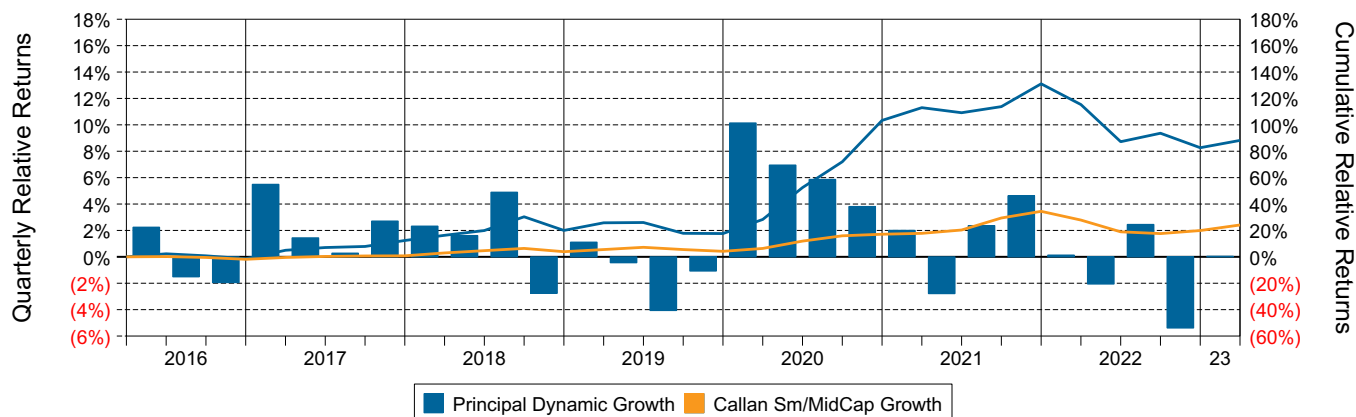
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

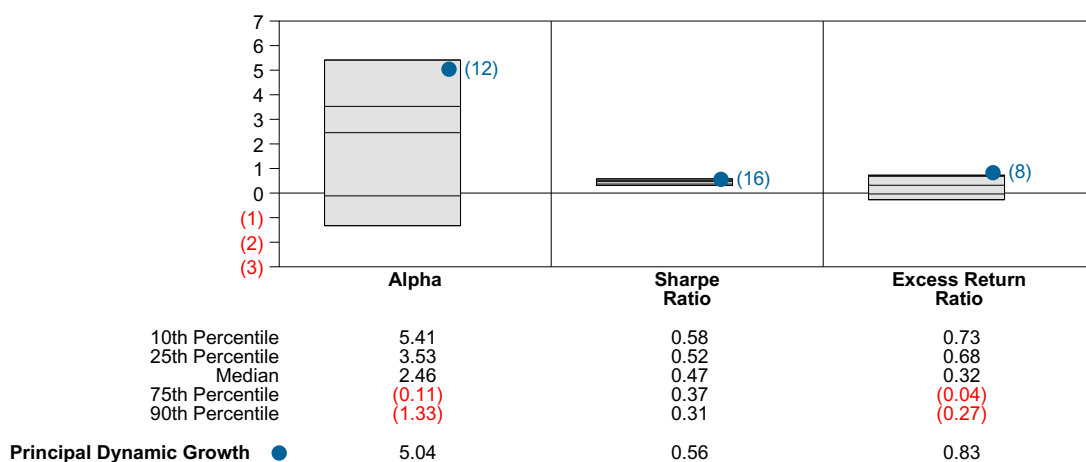
Performance vs Callan Small/MidCap Growth (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2500 Growth Index



Risk Adjusted Return Measures vs Russell 2500 Growth Index Rankings Against Callan Small/MidCap Growth (Gross) Seven Years Ended March 31, 2023



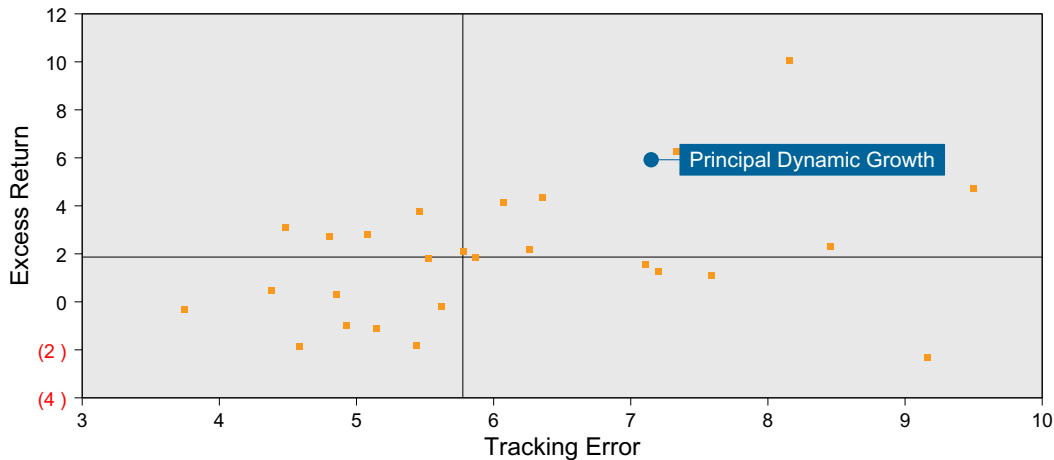
Principal Dynamic Growth

Risk Analysis Summary

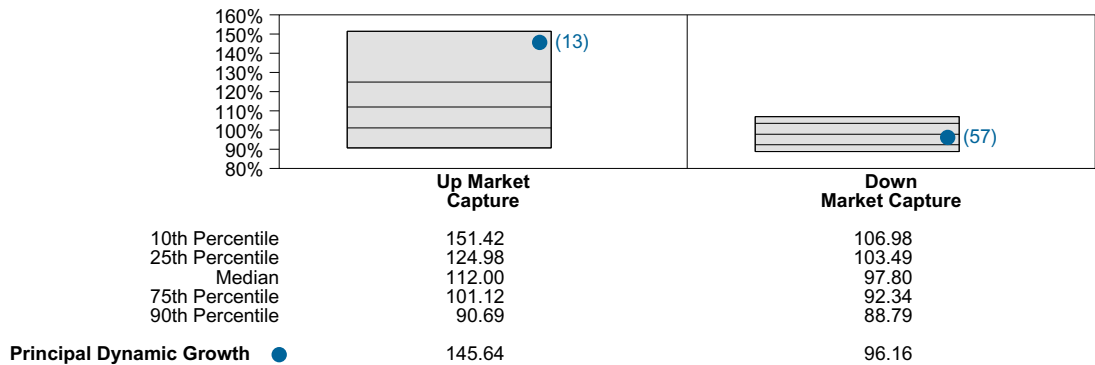
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

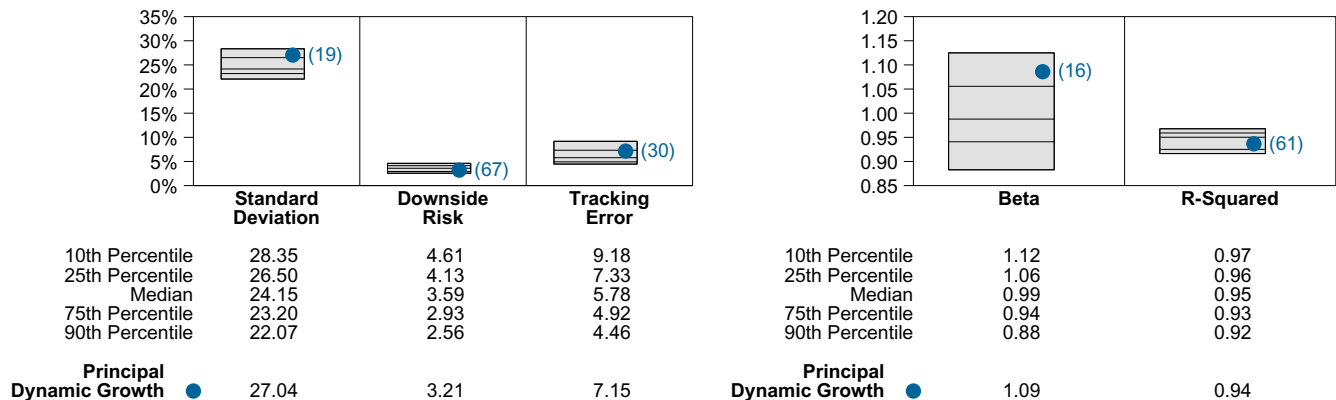
Risk Analysis vs Callan Small/MidCap Growth (Gross) Seven Years Ended March 31, 2023



Market Capture vs Russell 2500 Growth Index Rankings Against Callan Small/MidCap Growth (Gross) Seven Years Ended March 31, 2023



Risk Statistics Rankings vs Russell 2500 Growth Index Rankings Against Callan Small/MidCap Growth (Gross) Seven Years Ended March 31, 2023

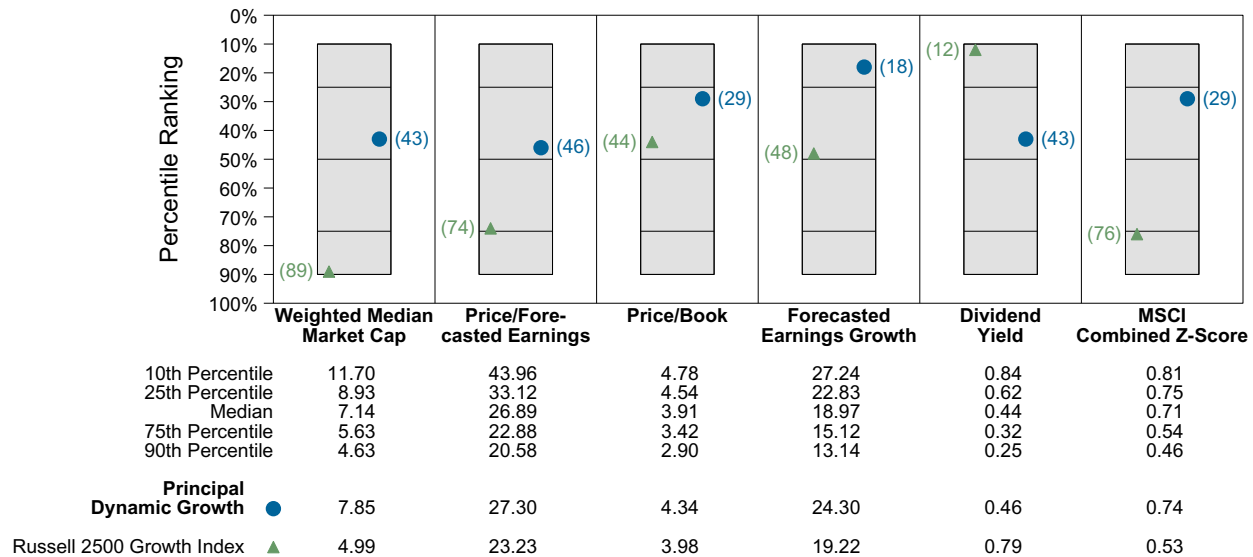


Principal Dynamic Growth Equity Characteristics Analysis Summary

Portfolio Characteristics

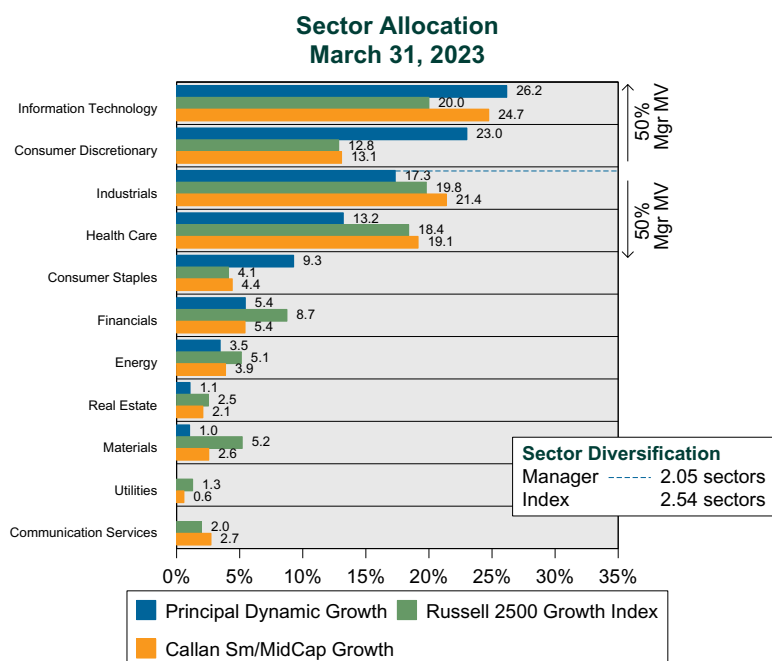
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small/MidCap Growth as of March 31, 2023

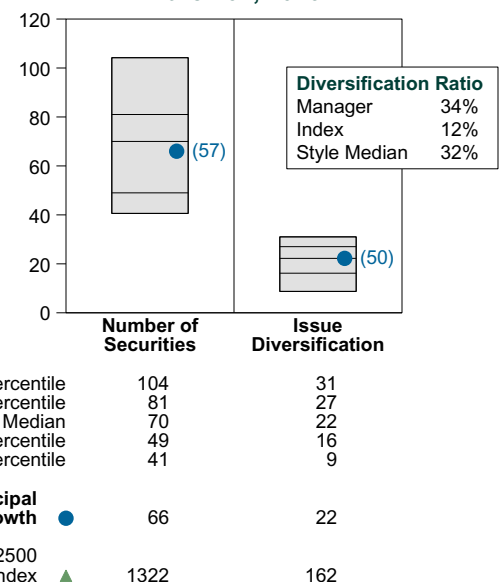


Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



Diversification March 31, 2023



Principal Dynamic Growth Top 10 Portfolio Holdings Characteristics as of March 31, 2023

10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Quanta Services Common	Industrials	\$653,634	3.1%	16.94%	24.00	22.75	0.19%	12.05%
Exact Sciences Corp	Health Care	\$583,257	2.8%	36.96%	12.08	(27.57)	0.00%	-
Lamb Weston Hldgs Inc Com	Consumer Staples	\$520,390	2.5%	17.81%	15.04	24.04	1.07%	40.50%
Matador Res Co	Energy	\$511,507	2.5%	(16.53)%	5.67	5.53	1.26%	59.60%
Inspire Med Sys Inc	Health Care	\$508,007	2.4%	(7.07)%	6.82	(224.20)	0.00%	-
Bjs Whsl Club Hldgs Inc	Consumer Staples	\$500,666	2.4%	14.98%	10.19	18.97	0.00%	32.70%
Hubspot Inc	Information Technology	\$499,679	2.4%	48.29%	21.18	92.86	0.00%	33.49%
Procore Technologies Inc	Information Technology	\$490,414	2.3%	32.76%	8.78	(170.19)	0.00%	-
Academy Sports & Outdoors In	Consumer Discretionary	\$477,735	2.3%	24.37%	5.02	8.41	0.55%	-
Lattice Semiconductor	Information Technology	\$473,209	2.3%	47.19%	13.14	44.63	0.00%	64.63%

10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Allegro Microsystems Inc	Information Technology	\$347,528	1.7%	59.86%	9.19	35.63	0.00%	18.00%
E L F Beauty Inc	Consumer Staples	\$278,236	1.3%	48.91%	4.39	51.18	0.00%	17.93%
Hubspot Inc	Information Technology	\$499,679	2.4%	48.29%	21.18	92.86	0.00%	33.49%
Lattice Semiconductor	Information Technology	\$473,209	2.3%	47.19%	13.14	44.63	0.00%	64.63%
Agilon Health Inc Com	Health Care	\$92,844	0.4%	47.16%	9.81	(989.58)	0.00%	-
First Solar Inc	Information Technology	\$326,767	1.6%	45.20%	23.23	25.33	0.00%	(2.68)%
Universal Display Corp	Information Technology	\$152,506	0.7%	43.94%	7.33	38.87	0.90%	12.17%
Floor & Decor Hldgs Inc Cl A	Consumer Discretionary	\$199,023	1.0%	41.06%	10.46	34.08	0.00%	14.60%
Marketaxess Hldgs Inc	Financials	\$316,165	1.5%	40.59%	14.72	48.66	0.74%	14.51%
Zillow Group Inc Cl A	Real Estate	\$215,873	1.0%	40.02%	2.51	39.33	0.00%	36.46%

10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Prothena Corp Plc Shs	Health Care	\$110,095	0.5%	(19.55)%	2.55	(10.46)	0.00%	-
Chesapeake Energy Corp Common Stock	Energy	\$186,885	0.9%	(18.12)%	10.24	10.74	11.98%	(23.64)%
Matador Res Co	Energy	\$511,507	2.5%	(16.53)%	5.67	5.53	1.26%	59.60%
Herc Holdings	Industrials	\$165,552	0.8%	(13.05)%	3.33	7.72	2.22%	9.00%
Celsius Holdings Inc	Consumer Staples	\$155,841	0.7%	(10.67)%	7.13	74.11	0.00%	103.68%
Shoals Technologies Group In Cl A	Industrials	\$159,873	0.8%	(7.62)%	3.87	35.06	0.00%	64.44%
Charles Riv Labs Intl Inc	Health Care	\$325,477	1.6%	(7.38)%	10.33	18.83	0.00%	9.56%
Inspire Med Sys Inc	Health Care	\$508,007	2.4%	(7.07)%	6.82	(224.20)	0.00%	-
F M C Corp	Materials	\$208,418	1.0%	(1.67)%	15.28	15.07	1.90%	9.60%
Aecom	Industrials	\$352,800	1.7%	(0.50)%	11.72	20.77	0.85%	14.04%

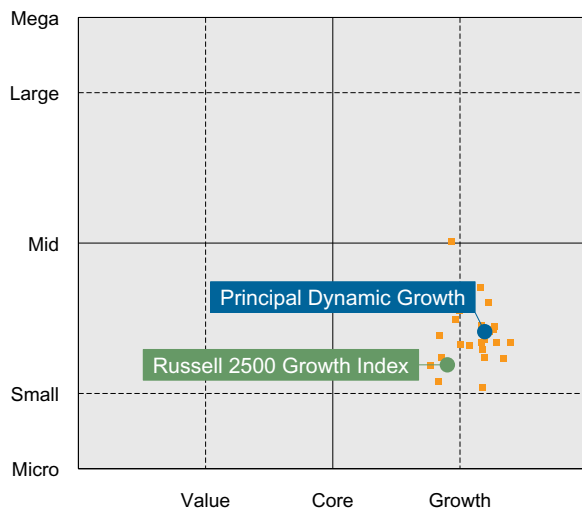
Current Holdings Based Style Analysis

Principal Dynamic Growth

As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

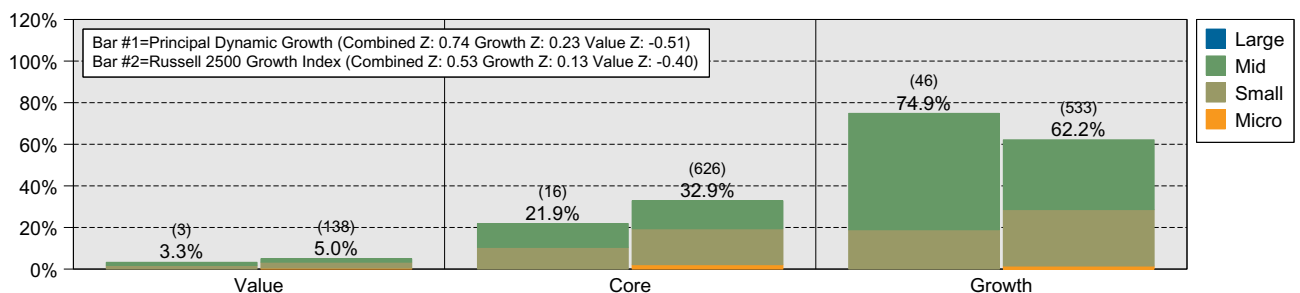
Style Map vs Callan Sm/MidCap Growth
Holdings as of March 31, 2023



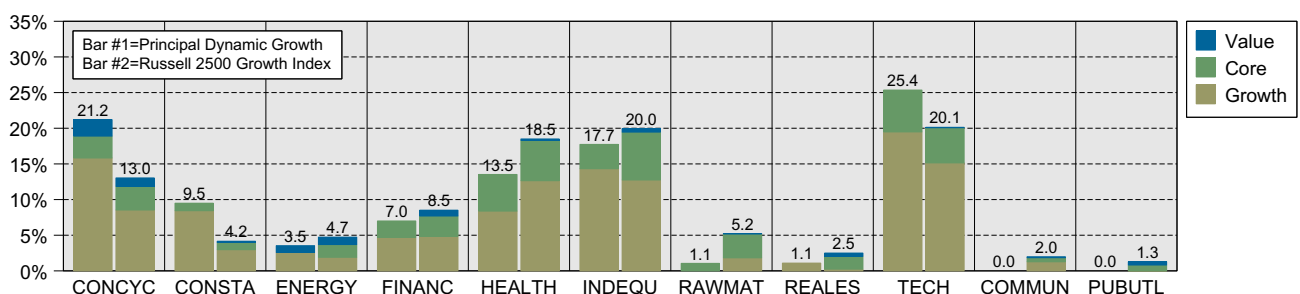
Style Exposure Matrix
Holdings as of March 31, 2023

	Value	Core	Growth	Total
Large	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)
Mid	1.5% (2) 1.7% (10)	11.5% (8) 13.5% (68)	56.0% (31) 33.6% (119)	68.9% (41) 48.7% (197)
Small	1.8% (1) 2.9% (71)	10.4% (8) 17.2% (314)	18.9% (15) 27.1% (306)	31.1% (24) 47.3% (691)
Micro	0.0% (0) 0.4% (57)	0.0% (0) 2.1% (244)	0.0% (0) 1.5% (108)	0.0% (0) 4.0% (409)
Total	3.3% (3) 5.0% (138)	21.9% (16) 32.9% (626)	74.9% (46) 62.2% (533)	100.0% (65) 100.0% (1297)

Combined Z-Score Style Distribution
Holdings as of March 31, 2023



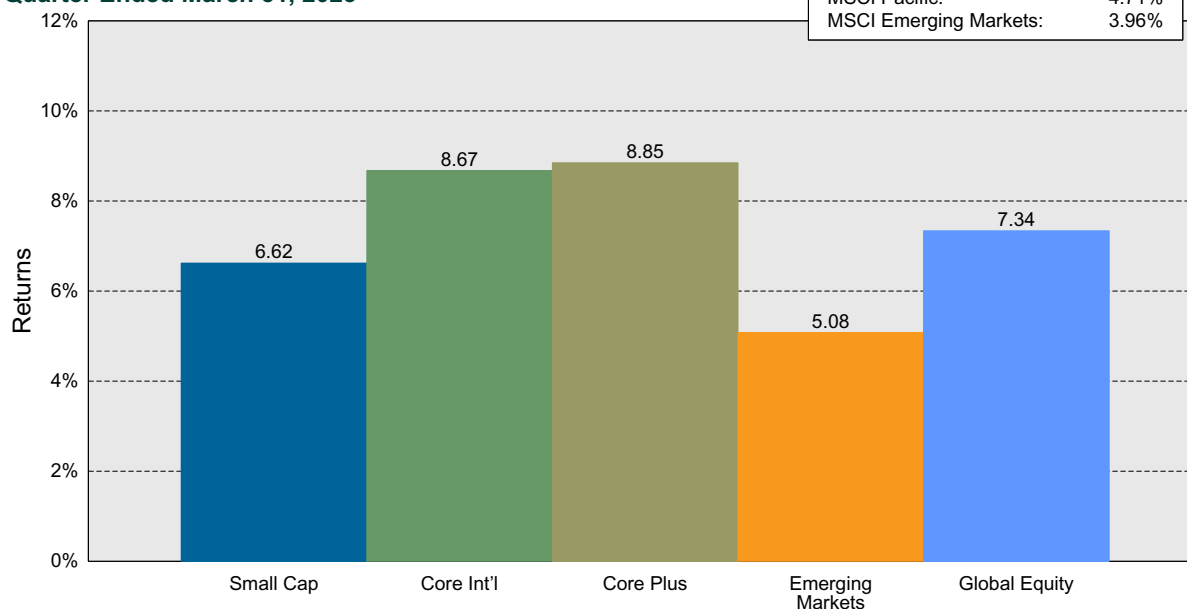
Sector Weights Distribution
Holdings as of March 31, 2023



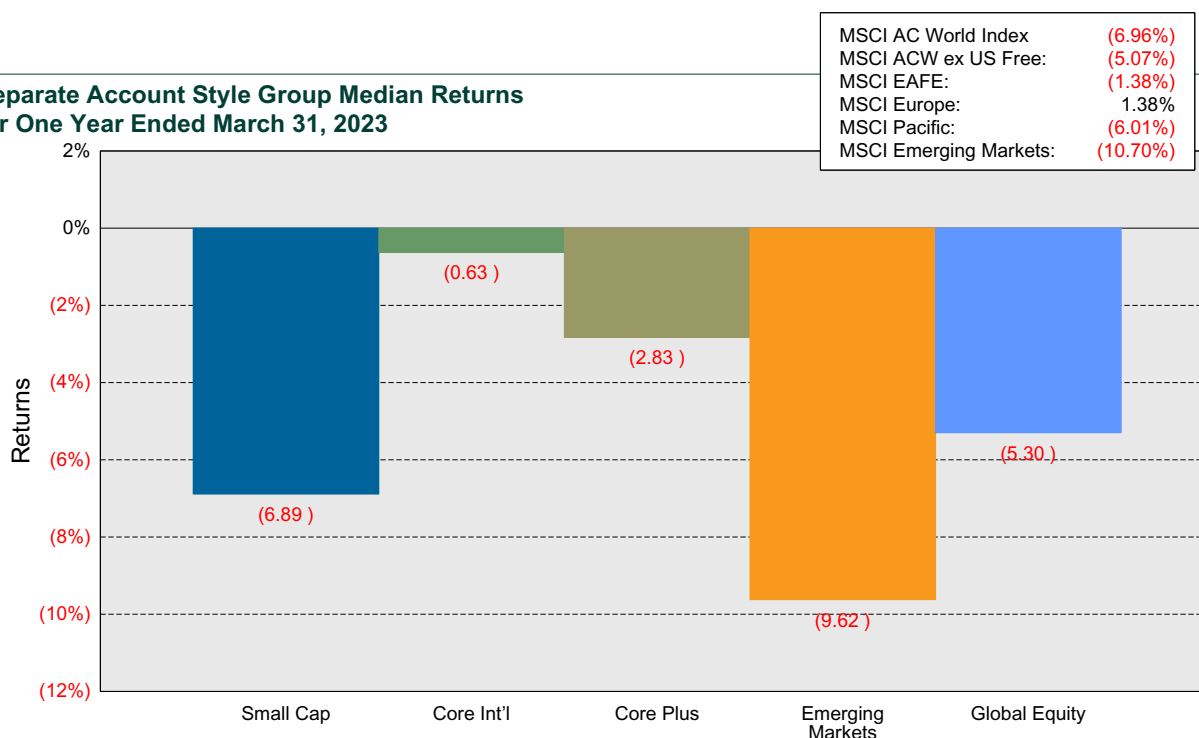
International Equity Active Management Overview

Global ex-U.S. markets posted solid results for the quarter. The MSCI ACWI ex USA Index gained 6.9% (Local: +6.2%). Performance varied across developed market countries but most delivered positive returns. Europe ex-U.K. (+12%) outperformed Japan (+6%), the U.K. (+6%), and Canada (+4%). As in the U.S., growth outperformed value but by smaller margin (MSCI ACWI ex USA Value: +5.2%; MSCI ACWI ex USA Growth: +8.6%). Technology (+17%) was the best performing sector while Energy (-0.3%) was the only sector to post a negative return. Financials (+1%) also lagged. Emerging markets returns (MSCI Emerging Markets: +4.0) were mixed across countries. India (-6%) and Brazil (-3%) weighed on broad market returns while China (+5%) and Korea (+10%) outperformed. Quarterly returns were positive across regions: Latin America (+3.9%), Emerging Europe (+1.5%), and Emerging Asia (+4.8%).

Separate Account Style Group Median Returns for Quarter Ended March 31, 2023



Separate Account Style Group Median Returns for One Year Ended March 31, 2023



International Equity Period Ended March 31, 2023

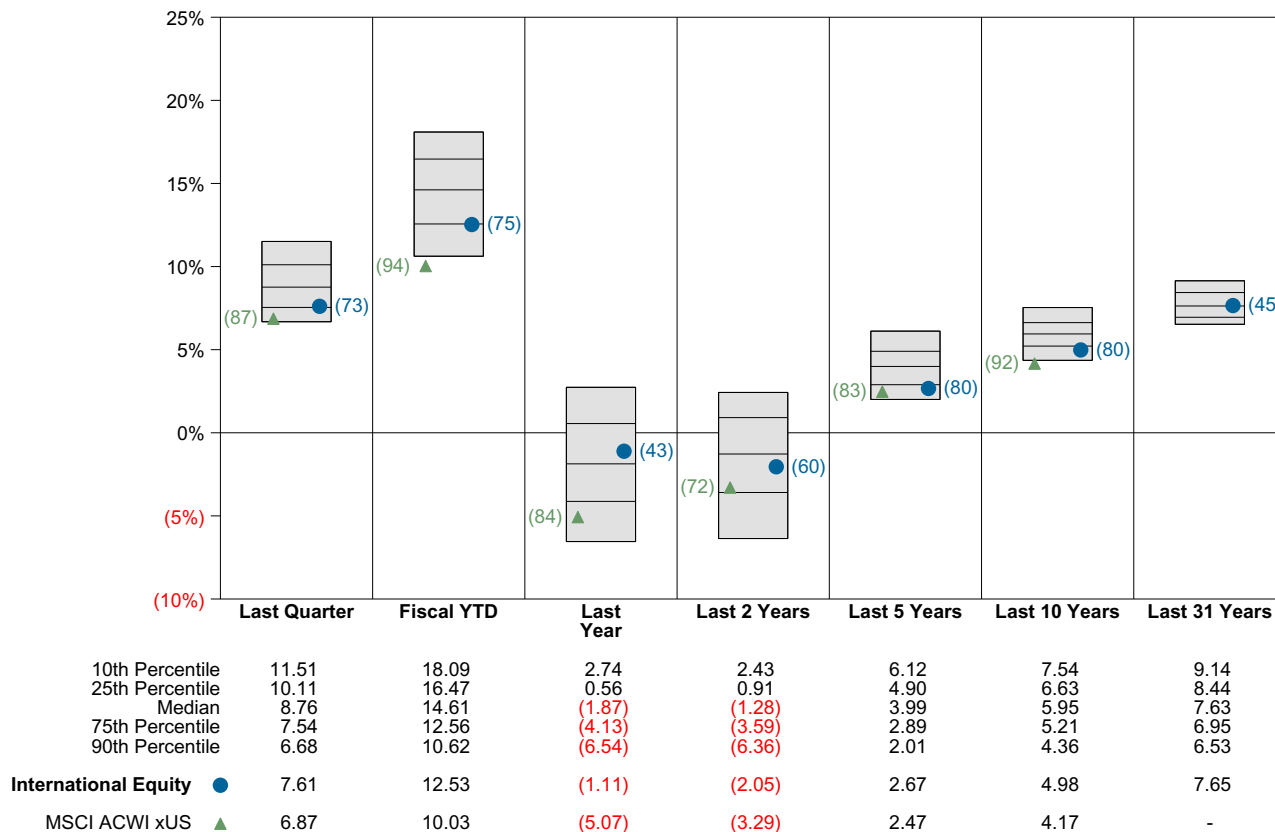
Composite Construction

The International Equity composite is comprised of the Artisan Fund, the Silchester Fund, and the BlackRock EM Tilts fund.

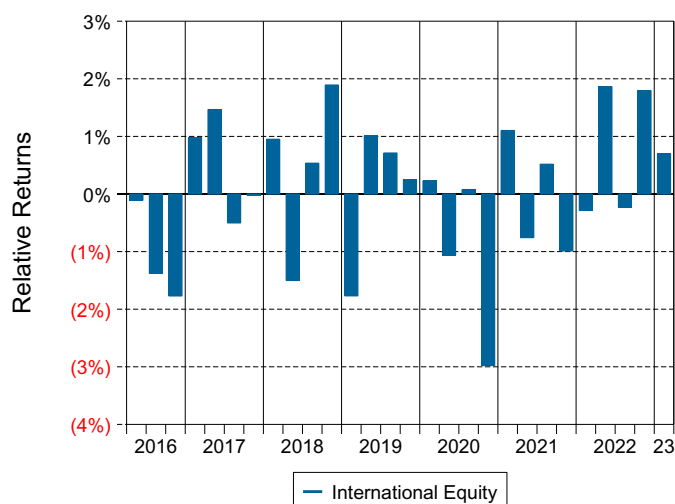
Quarterly Summary and Highlights

- International Equity's portfolio posted a 7.61% return for the quarter placing it in the 73 percentile of the Callan Non-US Equity group for the quarter and in the 43 percentile for the last year.
- International Equity's portfolio outperformed the MSCI ACWI xUS by 0.74% for the quarter and outperformed the MSCI ACWI xUS for the year by 3.96%.

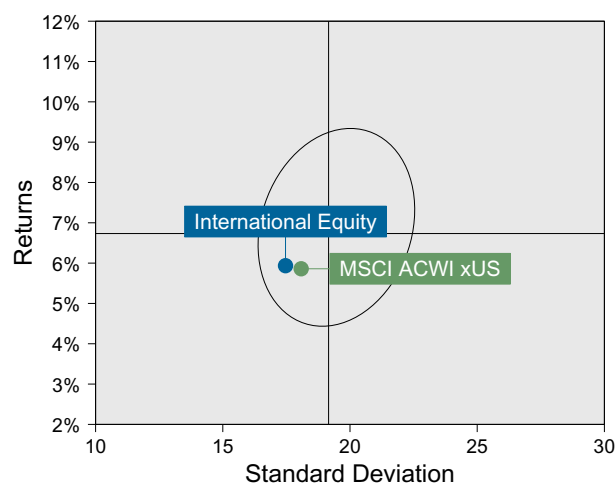
Performance vs Callan Non-US Equity (Gross)



Relative Return vs MSCI ACWI xUS



Callan Non-US Equity (Gross) Annualized Seven Year Risk vs Return

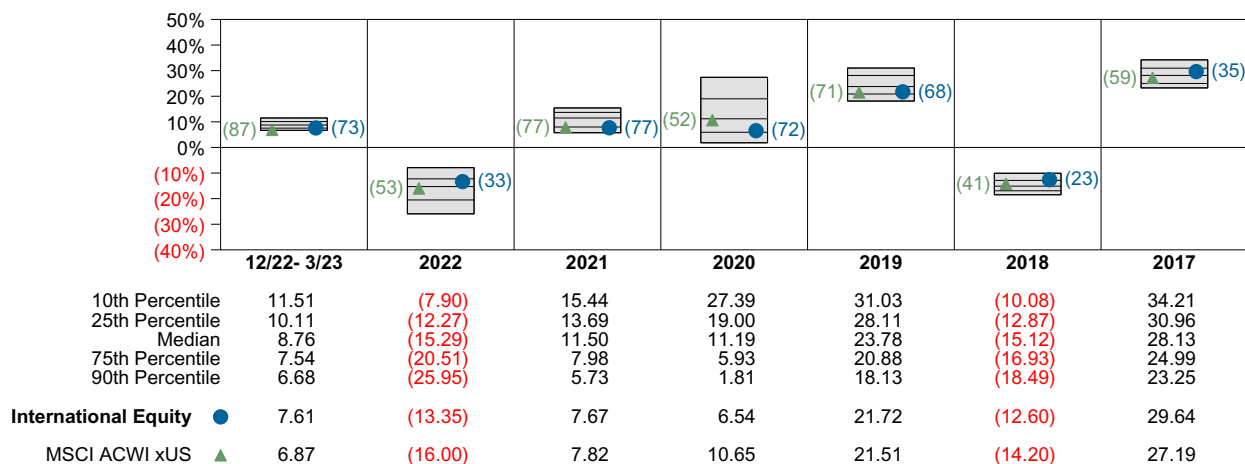


International Equity Return Analysis Summary

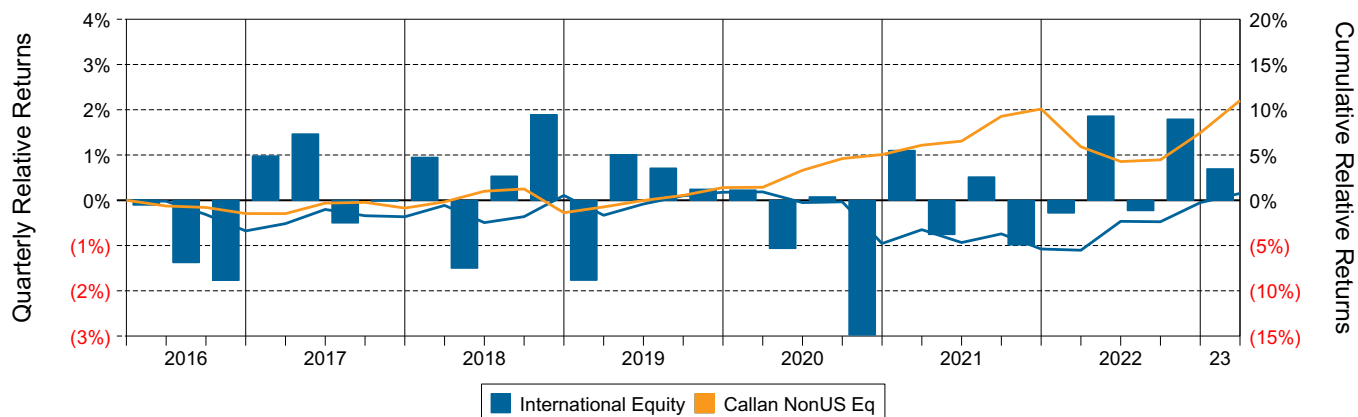
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

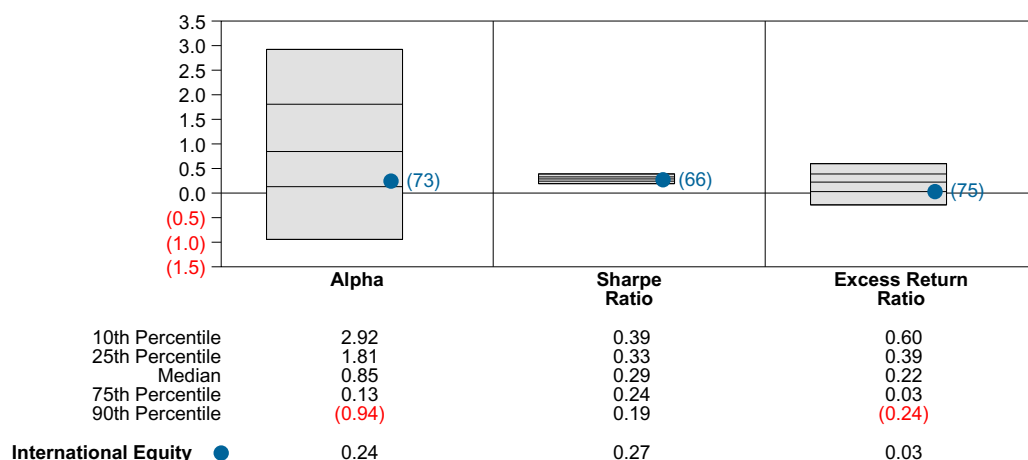
Performance vs Callan Non-US Equity (Gross)



Cumulative and Quarterly Relative Returns vs MSCI ACWI xUS



Risk Adjusted Return Measures vs MSCI ACWI xUS Rankings Against Callan Non-US Equity (Gross) Seven Years Ended March 31, 2023

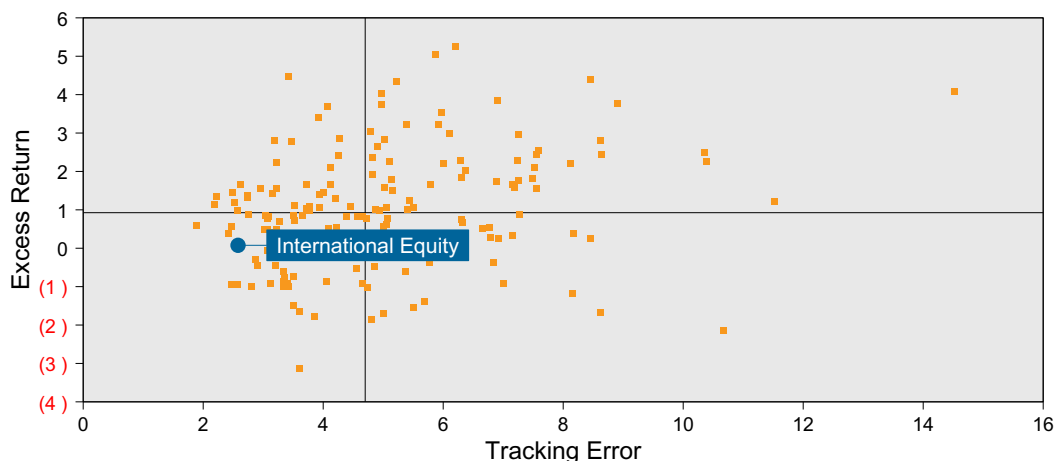


International Equity Risk Analysis Summary

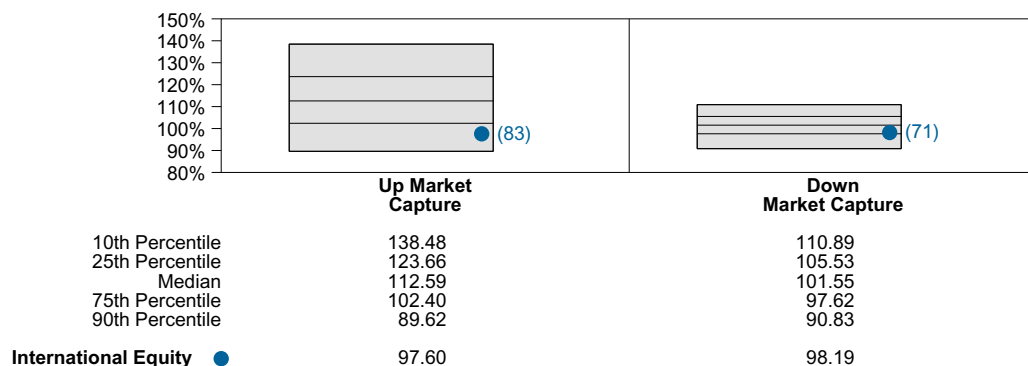
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

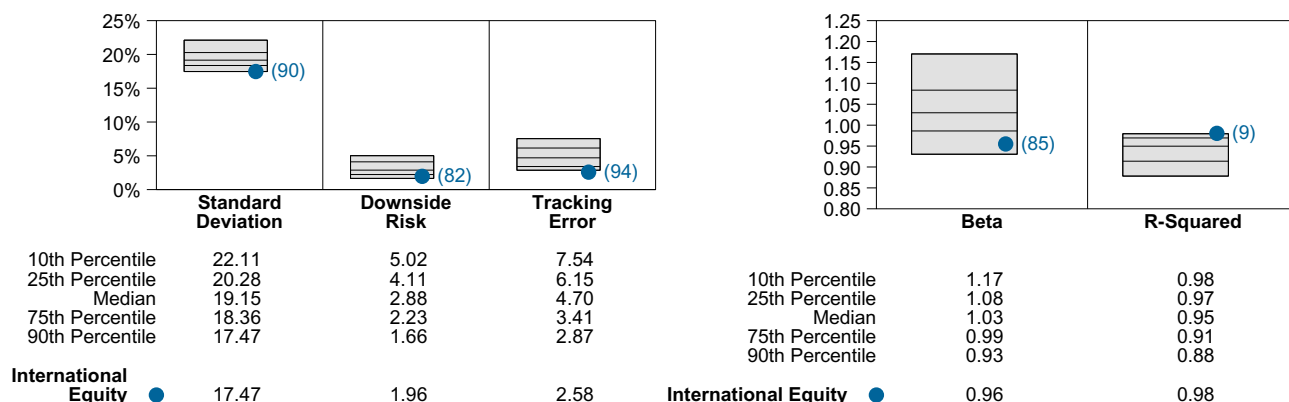
Risk Analysis vs Callan Non-US Equity (Gross) Seven Years Ended March 31, 2023



Market Capture vs MSCI ACWI xUS (Net) Rankings Against Callan Non-US Equity (Gross) Seven Years Ended March 31, 2023



Risk Statistics Rankings vs MSCI ACWI xUS (Net) Rankings Against Callan Non-US Equity (Gross) Seven Years Ended March 31, 2023

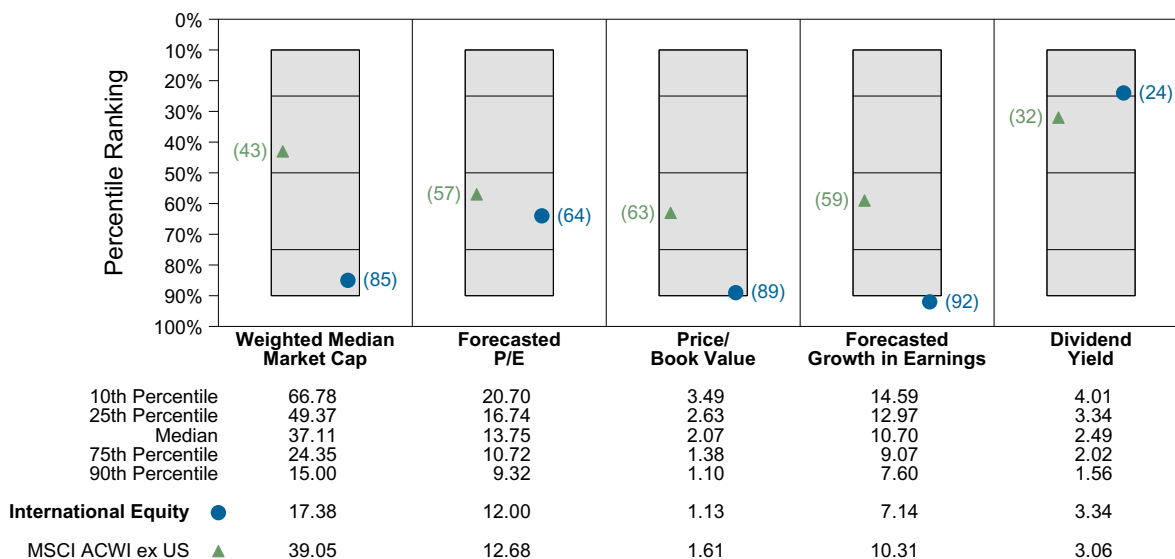


International Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

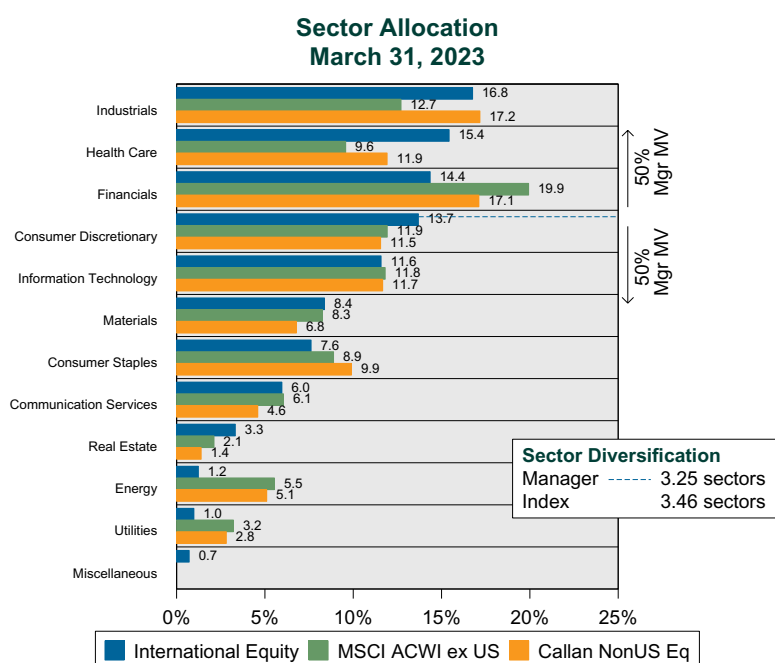
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Equity as of March 31, 2023

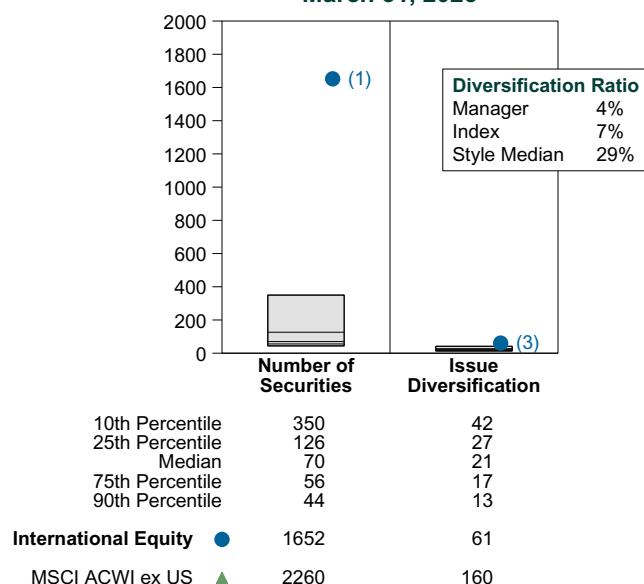


Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



Diversification March 31, 2023



International Equity Top 10 Portfolio Holdings Characteristics as of March 31, 2023

10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Novartis	Health Care	\$2,225,612	2.1%	5.78%	208.82	13.62	3.82%	6.35%
Honda Motor Co Ltd Shs	Consumer Discretionary	\$2,052,102	1.9%	16.76%	47.77	7.19	3.56%	6.30%
Sanofi Shs	Health Care	\$1,927,749	1.8%	13.58%	137.31	11.90	3.55%	11.00%
Tesco Plc Ord	Consumer Staples	\$1,627,149	1.5%	21.82%	24.04	12.46	4.35%	5.86%
Bmw Stamm	Consumer Discretionary	\$1,458,894	1.4%	23.47%	66.14	6.97	8.41%	(19.41)%
Novo Nordisk B	Health Care	\$1,280,520	1.2%	18.55%	275.95	32.63	1.14%	21.10%
Adecco Sa Cheserex Ord	Industrials	\$1,122,268	1.1%	10.22%	6.11	10.88	7.54%	(10.10)%
Roche Hldgs Ag Basel Div Rts Ctf	Health Care	\$1,122,008	1.1%	(5.72)%	200.68	13.04	3.64%	5.20%
Taiwan Semicond Manufac Co L Shs	Information Technology	\$1,107,790	1.0%	20.62%	453.96	15.21	2.06%	3.12%
Keyence Corp Ord	Information Technology	\$1,060,904	1.0%	24.57%	117.78	41.10	0.39%	14.88%

10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Sjec 'a'	Information Technology	\$61	0.0%	168.82%	18.14	115.45	0.57%	(6.24)%
Television Broadcasts Ltd Ordinary S	Communication Services	\$98,561	0.1%	166.75%	0.55	(5.34)	0.00%	-
Ecopro Bm	Industrials	\$476	0.0%	136.76%	16.87	49.78	0.20%	92.27%
Hexin Flush Info.Net.'a'	Financials	\$54	0.0%	111.72%	15.98	48.18	1.22%	5.93%
Zhejiang Dahua Tech.'a'	Information Technology	\$34	0.0%	101.41%	9.98	20.06	1.19%	16.06%
Anhui Ustc Iflytek	Information Technology	\$73	0.0%	95.43%	21.53	69.70	0.16%	21.16%
Foxconn Industrial Internet A	Information Technology	\$84	0.0%	88.97%	49.77	14.51	2.90%	2.60%
Wus Printed Circuit (Kunshan) 'a'	Information Technology	\$20	0.0%	81.95%	5.93	22.52	0.70%	18.62%
L & F	Information Technology	\$317	0.0%	76.02%	8.67	30.31	0.16%	(0.57)%
Beijing Shiji Info.Tech. 'a'	Information Technology	\$22	0.0%	72.47%	7.84	219.41	0.08%	0.79%

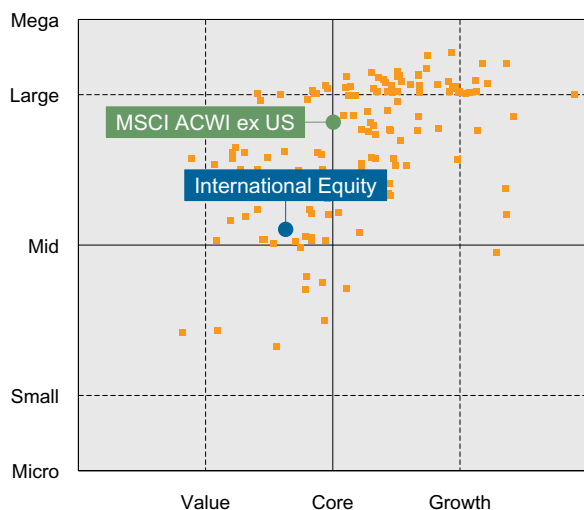
10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Ford Otomotiv Sanayi As Shs	Consumer Discretionary	\$121	0.0%	-	10.69	8.10	2.44%	41.96%
Adani Enterprises	Utilities	\$8,371	0.0%	(76.35)%	11.61	257.56	0.03%	-
Adani Transmissions Ltd	Utilities	\$9,717	0.0%	(61.39)%	13.48	73.21	0.00%	74.89%
Adani Exports Ltd.	Industrials	\$10,506	0.0%	(54.33)%	24.28	65.74	0.06%	(18.45)%
Adani Green Energy Ltd	Utilities	\$9,795	0.0%	(54.08)%	16.98	178.67	0.00%	-
Hapvida Partp.E Invms.On	Health Care	\$135	0.0%	(46.29)%	3.69	173.33	1.66%	21.33%
Gam Holding	Financials	\$26,899	0.0%	(40.09)%	0.10	(4.29)	0.00%	(16.03)%
Pharmaron Beijing H	Health Care	\$48	0.0%	(38.69)%	0.84	13.81	1.07%	16.11%
Al Qudra Holding	Industrials	\$80	0.0%	(36.50)%	4.74	-	0.00%	(2.12)%
Adani Power	Utilities	\$5,186	0.0%	(35.61)%	8.99	16.07	0.00%	-

Current Holdings Based Style Analysis International Equity As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

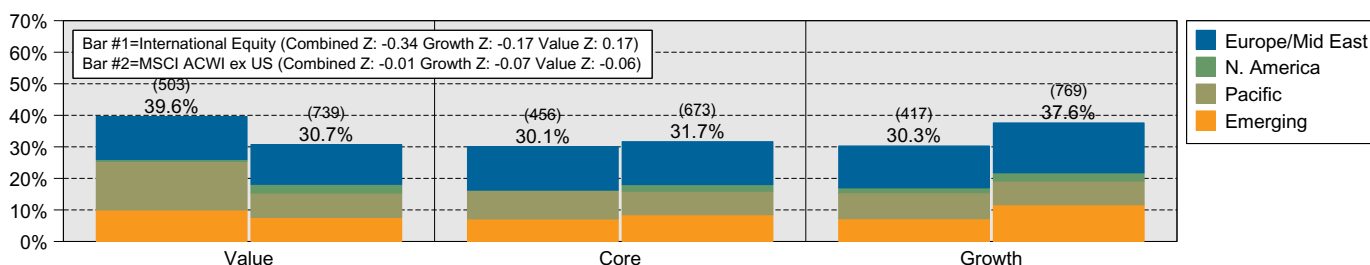
Style Map vs Callan NonUS Eq Holdings as of March 31, 2023



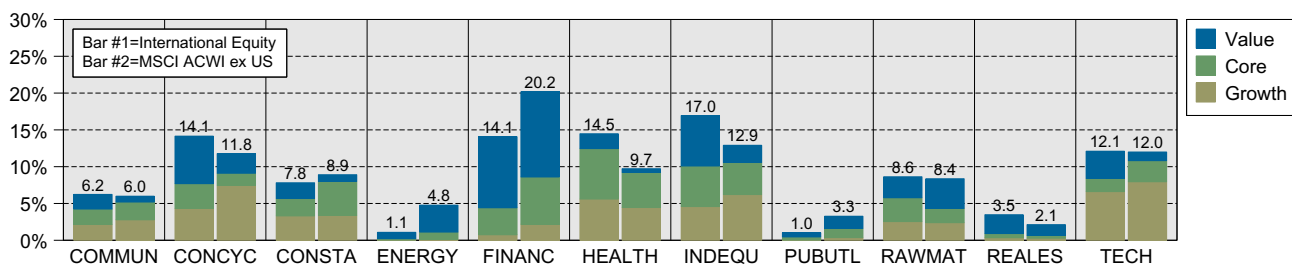
Style Exposure Matrix Holdings as of March 31, 2023

Europe/ Mid East	13.7% (25)	13.8% (27)	13.3% (22)	40.8% (74)
	12.6% (158)	13.6% (127)	15.8% (150)	42.1% (435)
N. America	0.6% (1)	0.1% (3)	1.6% (2)	2.3% (6)
	2.7% (27)	2.1% (26)	2.6% (34)	7.5% (87)
Pacific	15.4% (38)	9.1% (25)	8.2% (17)	32.7% (80)
	7.7% (132)	7.4% (109)	7.5% (116)	22.6% (357)
Emerging	10.0% (439)	7.1% (401)	7.2% (376)	24.3% (1216)
	7.7% (422)	8.5% (411)	11.6% (469)	27.8% (1302)
Total	39.6% (503)	30.1% (456)	30.3% (417)	100.0% (1376)
	30.7% (739)	31.7% (673)	37.6% (769)	100.0% (2181)
	Value	Core	Growth	Total

Combined Z-Score Style Distribution Holdings as of March 31, 2023



Sector Weights Distribution Holdings as of March 31, 2023



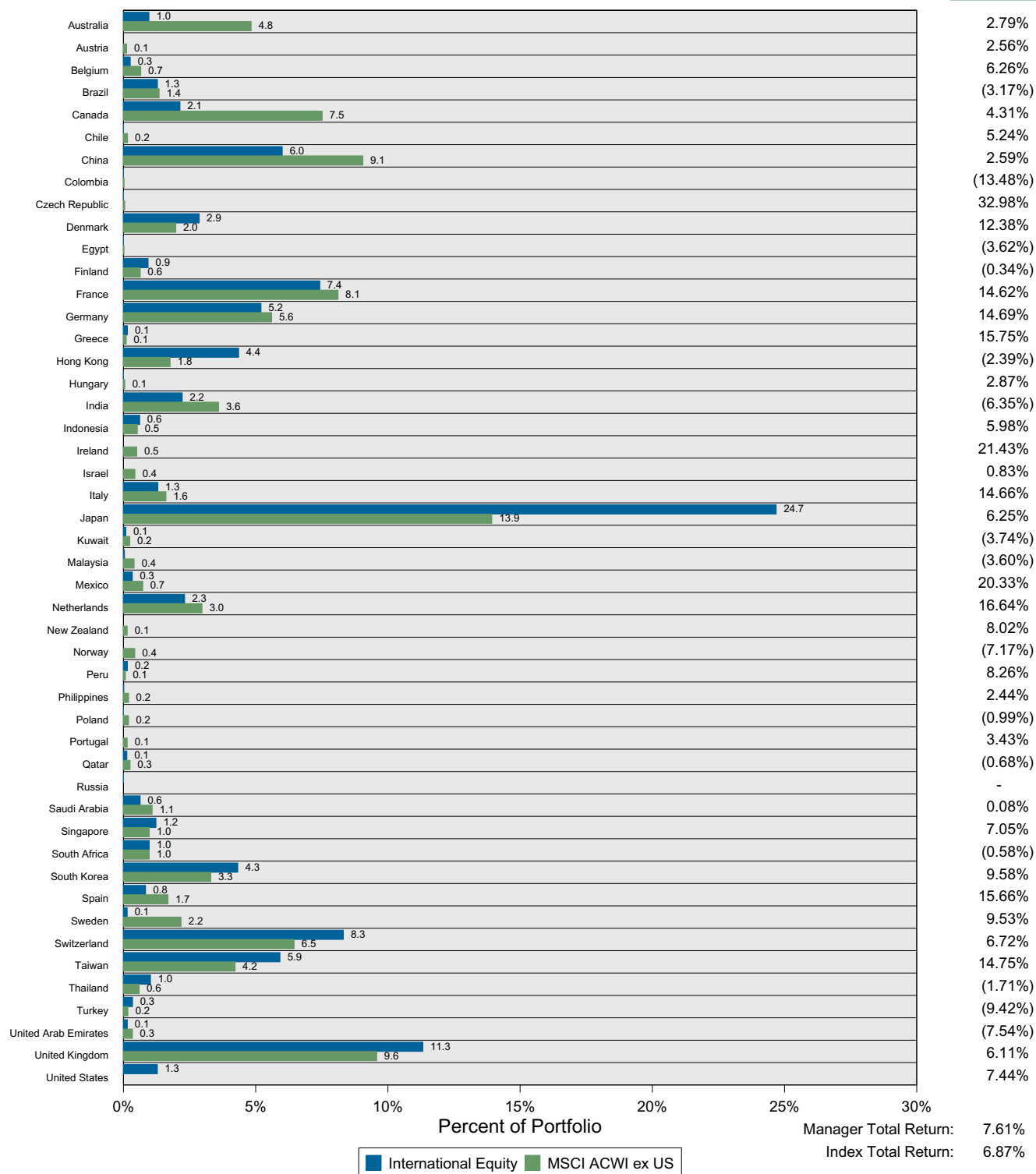
Country Allocation International Equity VS MSCI ACWI ex US

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of March 31, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

Country Weights as of March 31, 2023

Index Rtns



Silchester Period Ended March 31, 2023

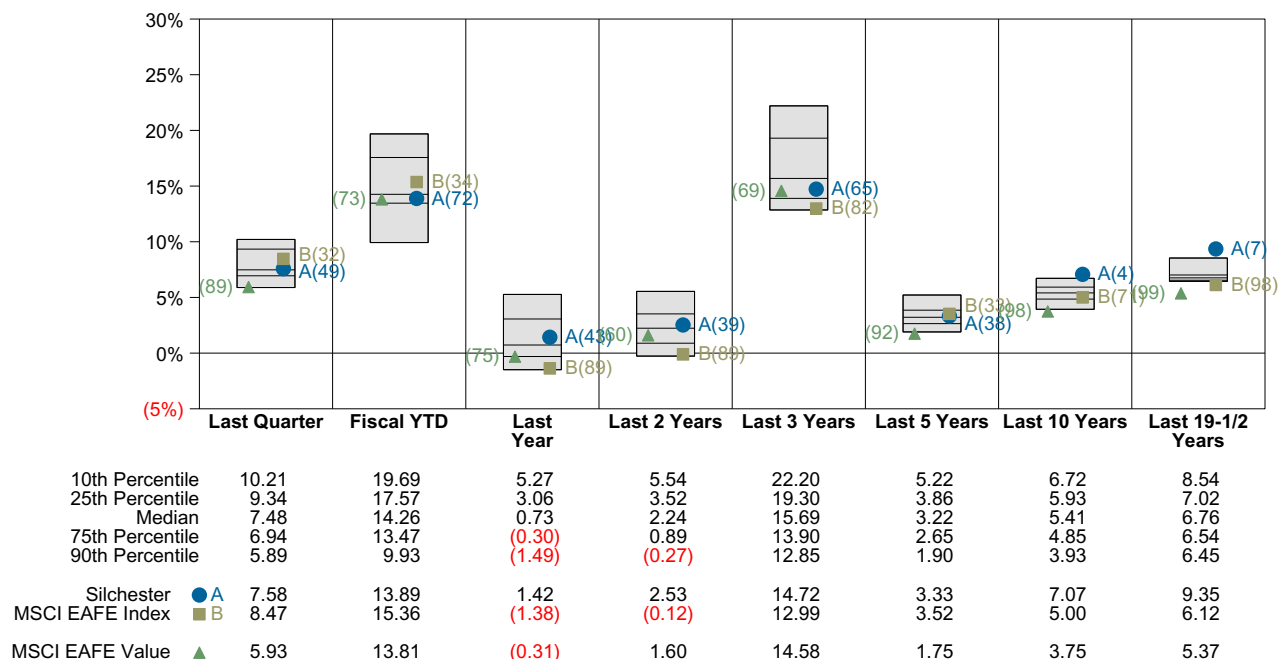
Investment Philosophy

Silchester is a London based, employee-owned, investment management firm focused on the International Value portfolio. The team is tenured and well resourced with 10 investment professionals responsible for decision making. The process is fundamentally based and seeks to maximize intrinsic value of the assets, earnings and dividends a company delivers to the investor, by focusing on price and quality. The International Equity strategy has historically exhibited value-tilted characteristics and smaller market capitalization than its international equity peers. Given the philosophy and construction process, the strategy can be expected to slightly trail or remain in-line with the index in strong up markets but provide the majority of outperformance through downside protection; it should be evaluated over a full market cycle.

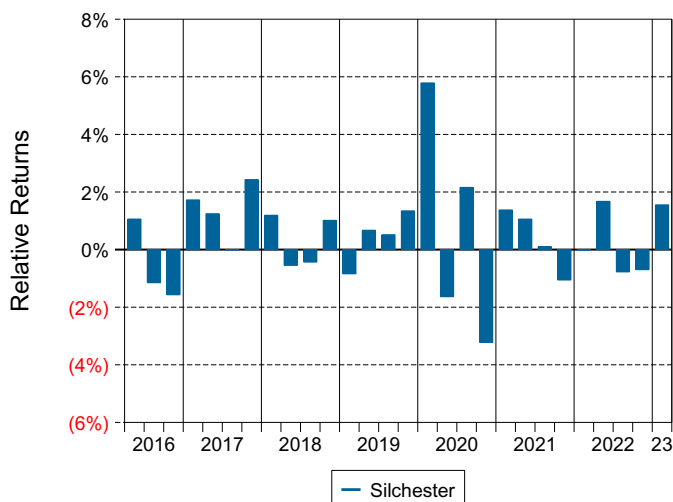
Quarterly Summary and Highlights

- Silchester's portfolio posted a 7.58% return for the quarter placing it in the 49 percentile of the Callan Non-US Developed Value Equity group for the quarter and in the 43 percentile for the last year.
- Silchester's portfolio outperformed the MSCI EAFE Value by 1.64% for the quarter and outperformed the MSCI EAFE Value for the year by 1.74%.

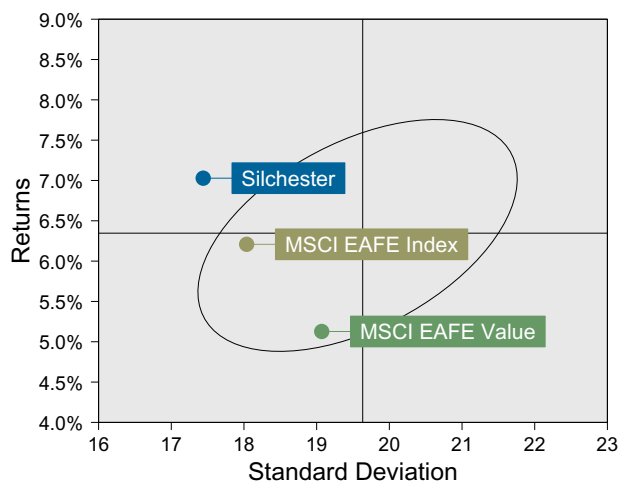
Performance vs Callan Non-US Developed Value Equity (Gross)



Relative Return vs MSCI EAFE Value



Callan Non-US Developed Value Equity (Gross) Annualized Seven Year Risk vs Return

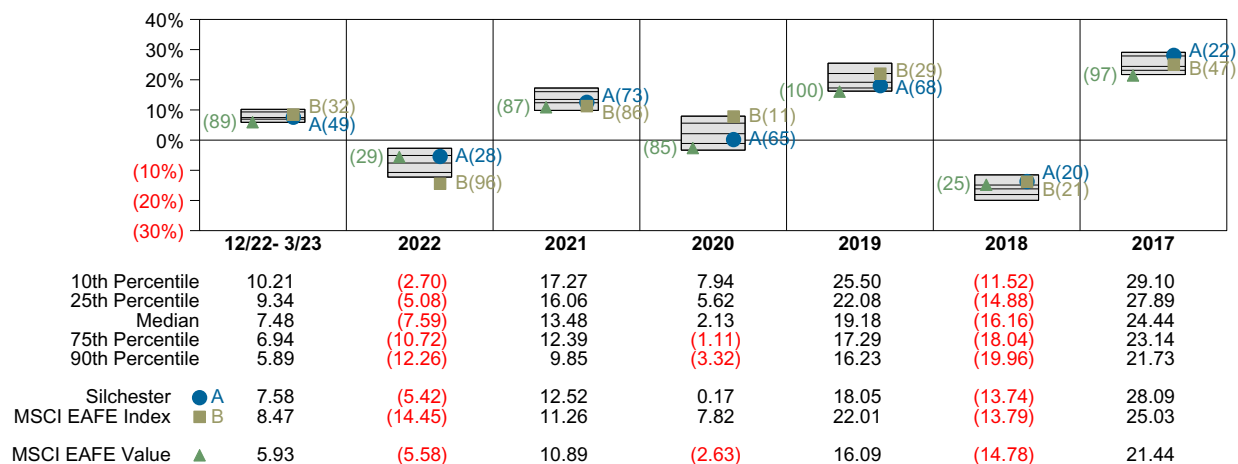


Silchester Return Analysis Summary

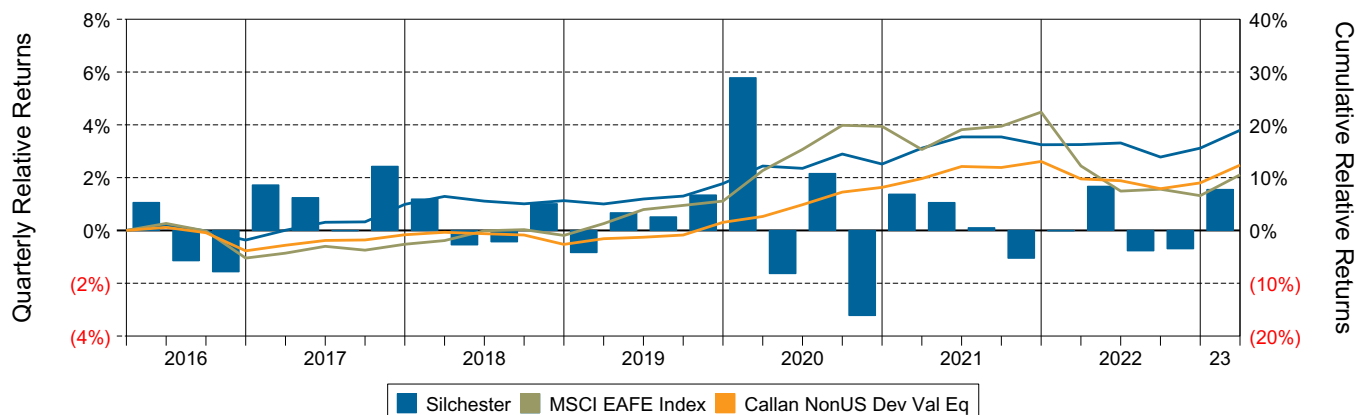
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

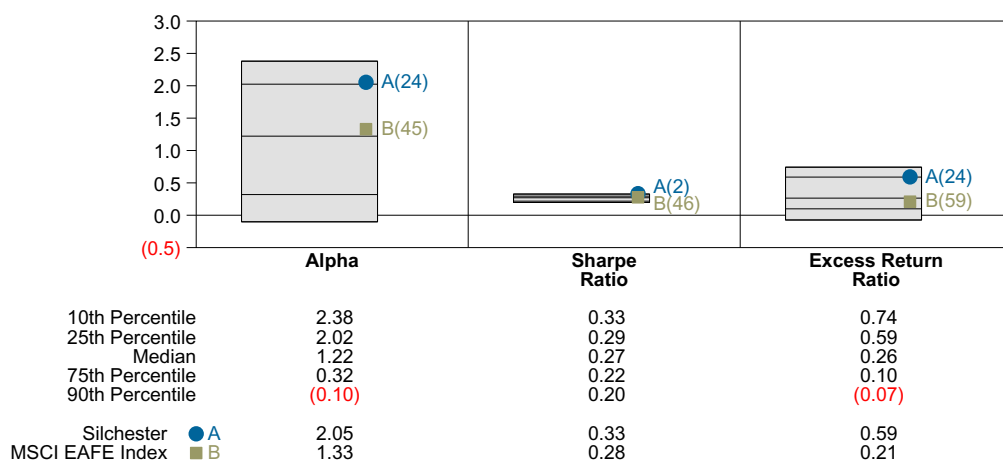
Performance vs Callan Non-US Developed Value Equity (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EAFE Value



Risk Adjusted Return Measures vs MSCI EAFE Value Rankings Against Callan Non-US Developed Value Equity (Gross) Seven Years Ended March 31, 2023

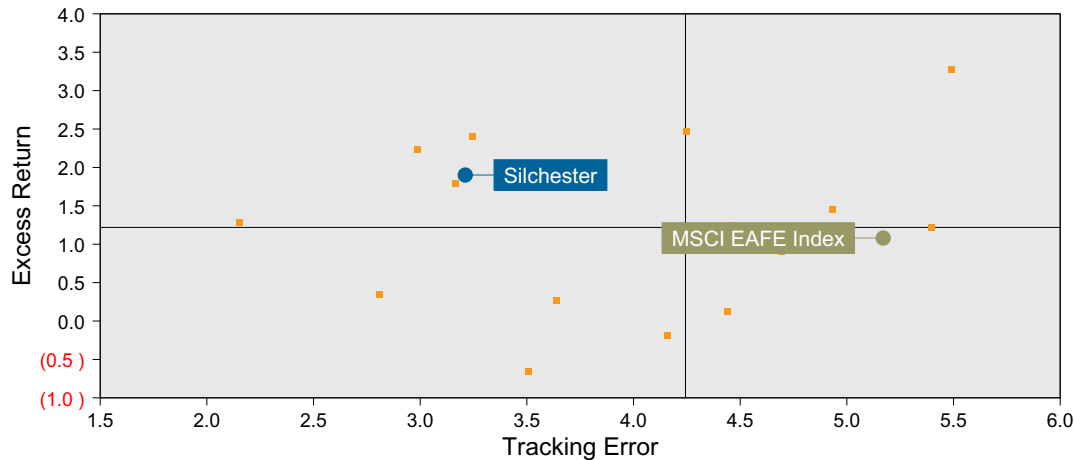


Silchester Risk Analysis Summary

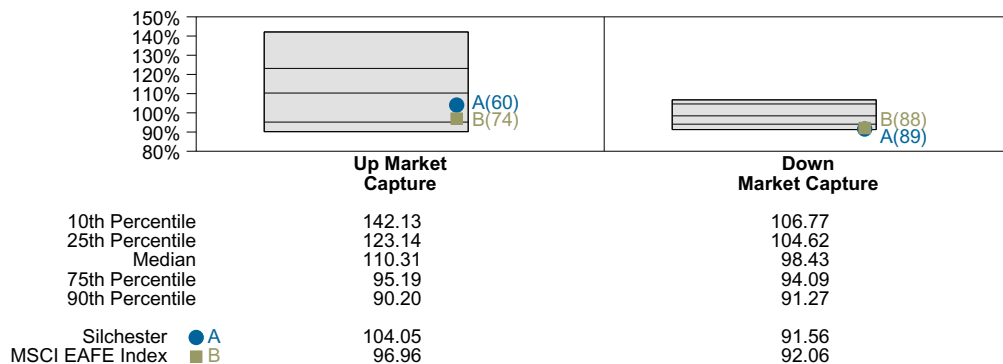
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

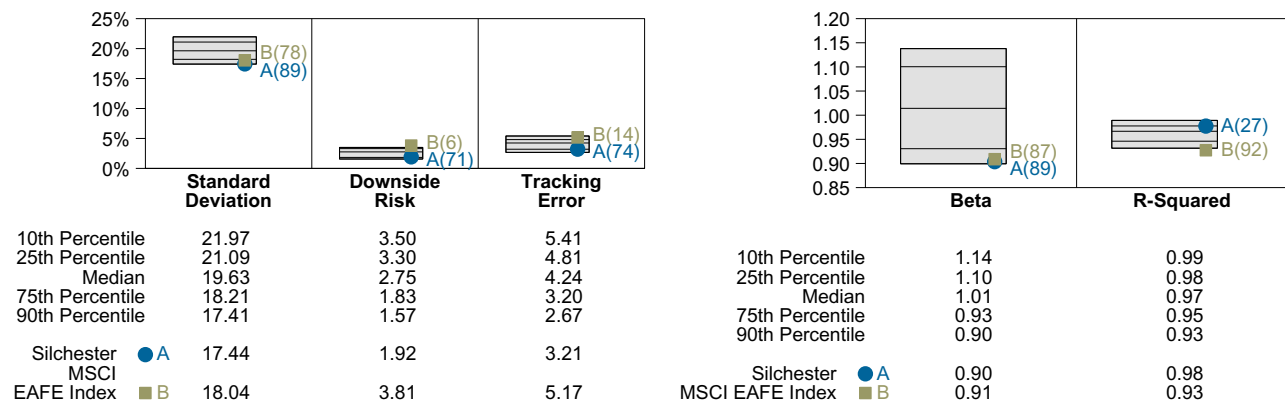
Risk Analysis vs Callan Non-US Developed Value Equity (Gross) Seven Years Ended March 31, 2023



Market Capture vs MSCI EAFE Value (Net) Rankings Against Callan Non-US Developed Value Equity (Gross) Seven Years Ended March 31, 2023



Risk Statistics Rankings vs MSCI EAFE Value (Net) Rankings Against Callan Non-US Developed Value Equity (Gross) Seven Years Ended March 31, 2023

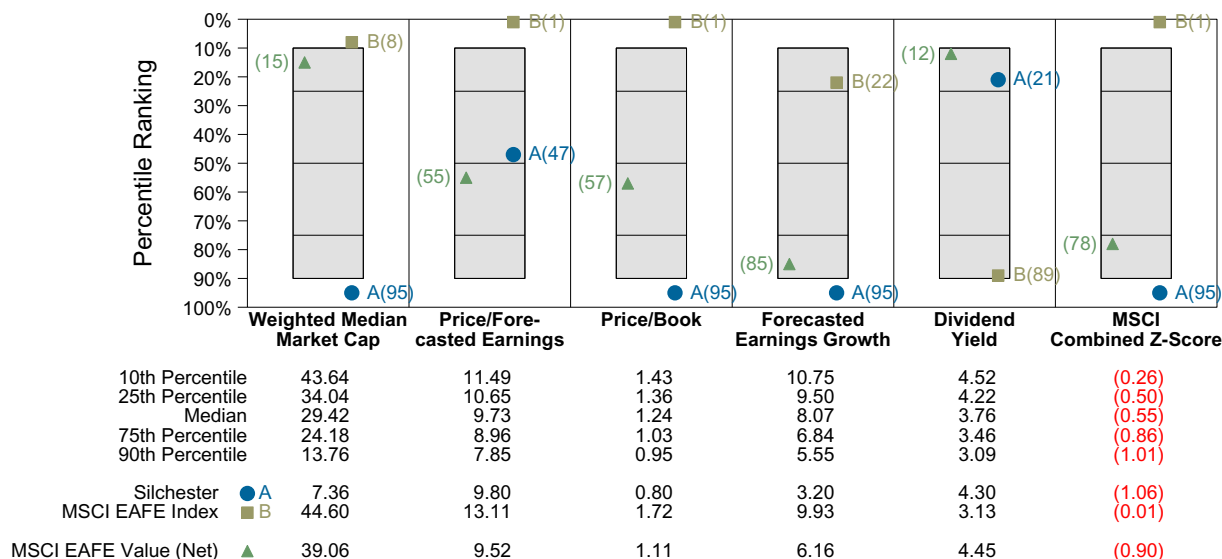


Silchester Equity Characteristics Analysis Summary

Portfolio Characteristics

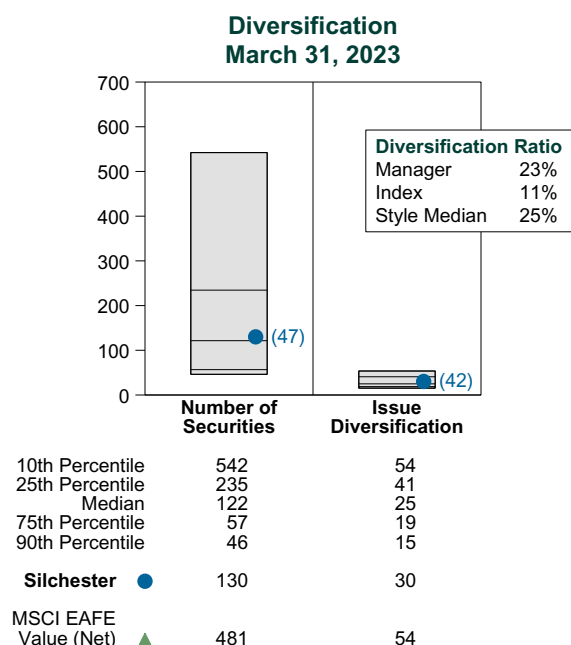
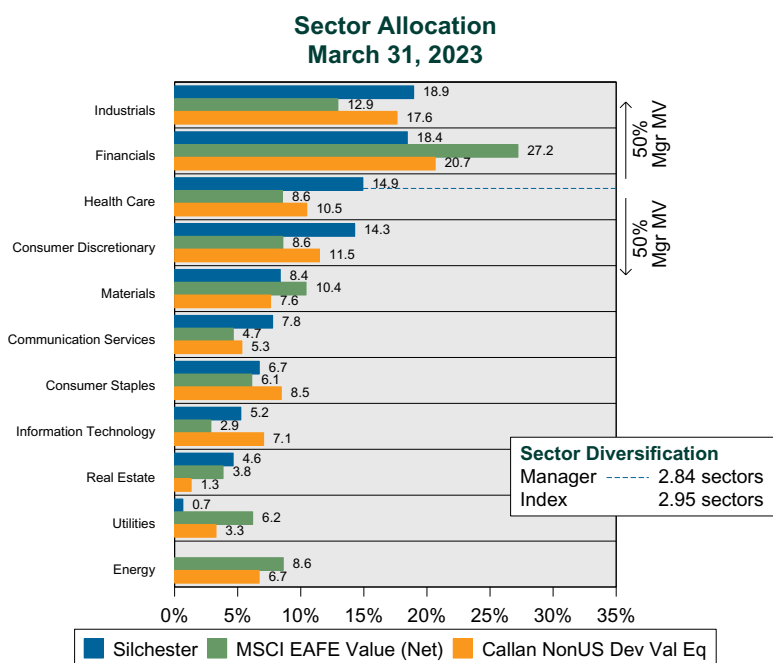
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Developed Value Equity as of March 31, 2023



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



Silchester Top 10 Portfolio Holdings Characteristics as of March 31, 2023

10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Honda Motor Co Ltd Shs	Consumer Discretionary	\$2,052,102	3.6%	16.76%	47.77	7.19	3.56%	6.30%
Sanofi Shs	Health Care	\$1,927,749	3.4%	13.58%	137.31	11.90	3.55%	11.00%
Tesco Plc Ord	Consumer Staples	\$1,627,149	2.9%	21.82%	24.04	12.46	4.35%	5.86%
Novartis	Health Care	\$1,581,087	2.8%	5.78%	208.82	13.62	3.82%	6.35%
Bmw Stamm	Consumer Discretionary	\$1,458,894	2.6%	23.47%	66.14	6.97	8.41%	(19.41)%
Adecco Sa Cheserex Ord	Industrials	\$1,122,268	2.0%	10.22%	6.11	10.88	7.54%	(10.10)%
Wpp Plc New Shs	Communication Services	\$1,053,197	1.8%	20.13%	12.74	9.14	4.11%	8.90%
Randstad Holding NV Ord	Industrials	\$1,045,867	1.8%	2.70%	10.91	12.45	5.22%	(3.34)%
Kingfisher Plc Shs	Consumer Discretionary	\$1,027,715	1.8%	13.72%	6.26	10.42	4.75%	(0.94)%
Ubs Ag Shs New	Financials	\$1,009,594	1.8%	13.55%	74.42	9.38	2.62%	10.11%

10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Television Broadcasts Ltd Ordinary S	Communication Services	\$98,561	0.2%	166.75%	0.55	(5.34)	0.00%	-
SEB Sa Act Ord	Consumer Discretionary	\$58,849	0.1%	36.34%	6.30	13.90	2.34%	2.00%
Posco Shs	Materials	\$493,681	0.9%	30.16%	23.91	7.98	3.26%	(8.33)%
Colruyt Sa Halle Strip Vvpr	Consumer Staples	\$279,357	0.5%	28.66%	3.92	16.28	2.86%	(8.25)%
Heidelbergcement Ag Shs	Materials	\$98,424	0.2%	27.51%	14.09	8.38	3.87%	5.70%
Buzzi Unicem	Materials	\$342,875	0.6%	26.46%	4.68	8.12	2.01%	4.00%
Holcim Ltd New Namen Akt	Materials	\$538,327	0.9%	24.58%	39.71	12.56	4.24%	7.20%
Bmw Stamm	Consumer Discretionary	\$1,458,894	2.6%	23.47%	66.14	6.97	8.41%	(19.41)%
Husqvarna Ab Shs B	Industrials	\$151,797	0.3%	23.46%	4.04	17.67	3.34%	16.66%
Hyundai Motor Co	Consumer Discretionary	\$439,274	0.8%	23.30%	29.98	5.71	3.79%	(14.51)%

10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Gam Holding	Financials	\$26,899	0.0%	(40.09)%	0.10	(4.29)	0.00%	(16.03)%
Zeda	Industrials	\$28,775	0.1%	(21.21)%	0.12	3.54	0.00%	-
Korea Electric Power Corp Ke Shs	Utilities	\$340,717	0.6%	(19.75)%	8.88	(1.60)	0.00%	(1.13)%
Turkcell Iletisim Hizmet Ord	Communication Services	\$254,399	0.4%	(17.67)%	3.67	5.11	1.79%	44.26%
Kt Corp Sponsored Adr	Communication Services	\$427,625	0.8%	(17.19)%	5.91	5.63	6.66%	2.50%
Cosco Pacific Ltd Ord	Industrials	\$269,565	0.5%	(14.85)%	2.30	6.36	5.40%	2.67%
Sawai Pharmaceutical Co Ltd Ord	Health Care	\$198,947	0.3%	(10.71)%	1.20	9.66	3.56%	(5.12)%
Concordia Financial Group Ltd	Financials	\$398,017	0.7%	(10.32)%	4.44	9.18	4.00%	(6.60)%
Aktiebolaget Electrolux Ord	Consumer Discretionary	\$2,315	0.0%	(10.12)%	3.34	14.75	6.83%	(0.08)%
Bank of Okinawa Ltd Shs	Financials	\$26,328	0.0%	(9.98)%	0.37	9.07	3.36%	4.34%

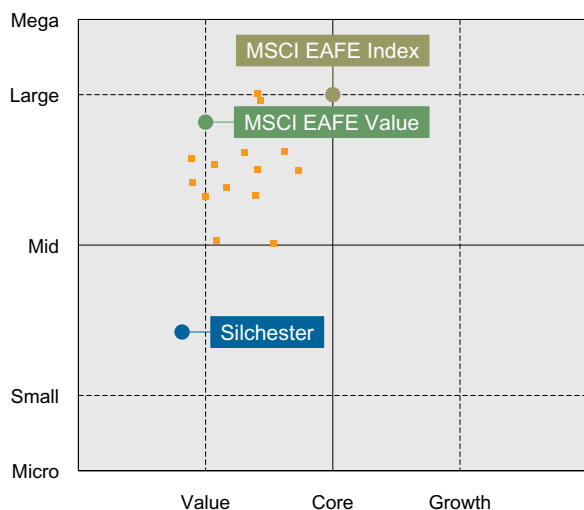
Current Holdings Based Style Analysis

Silchester

As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

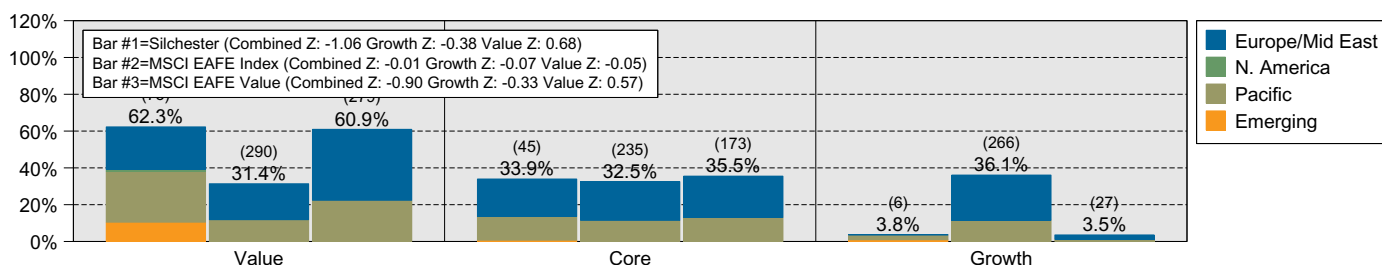
Style Map vs Callan NonUS Dev Val Eq Holdings as of March 31, 2023



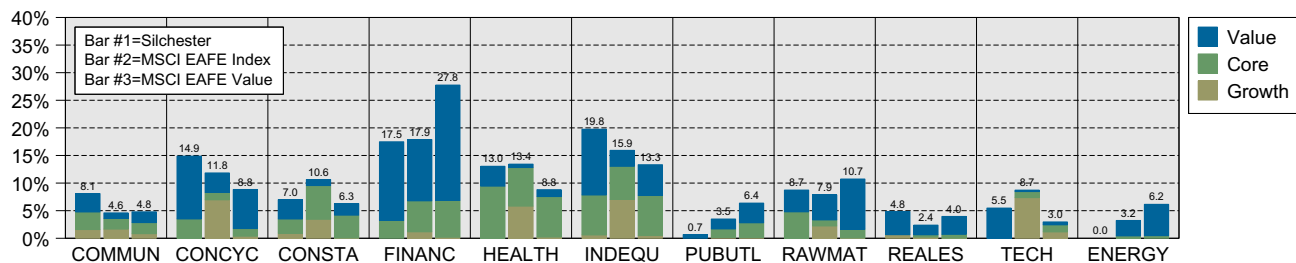
Style Exposure Matrix Holdings as of March 31, 2023

	Value	Core	Growth	Total
Europe/ Mid East	23.1% (22) 19.5% (158) 38.6% (155)	20.2% (23) 21.1% (127) 22.3% (96)	0.3% (1) 24.5% (150) 2.3% (14)	43.5% (46) 65.1% (435) 63.2% (265)
N. America	1.2% (1) 0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0) 0.0% (0)	1.2% (1) 0.0% (0) 0.0% (0)
Pacific	27.5% (37) 11.9% (132) 22.4% (124)	13.1% (19) 11.5% (108) 13.2% (77)	2.5% (4) 11.6% (116) 1.3% (13)	43.1% (60) 34.9% (356) 36.8% (214)
Emerging	10.5% (15) 0.0% (0) 0.0% (0)	0.7% (3) 0.0% (0) 0.0% (0)	1.0% (1) 0.0% (0) 0.0% (0)	12.2% (19) 0.0% (0) 0.0% (0)
Total	62.3% (75) 31.4% (290) 60.9% (279)	33.9% (45) 32.5% (235) 35.5% (173)	3.8% (6) 36.1% (266) 3.5% (27)	100.0% (126) 100.0% (791) 100.0% (479)

Combined Z-Score Style Distribution Holdings as of March 31, 2023



Sector Weights Distribution Holdings as of March 31, 2023



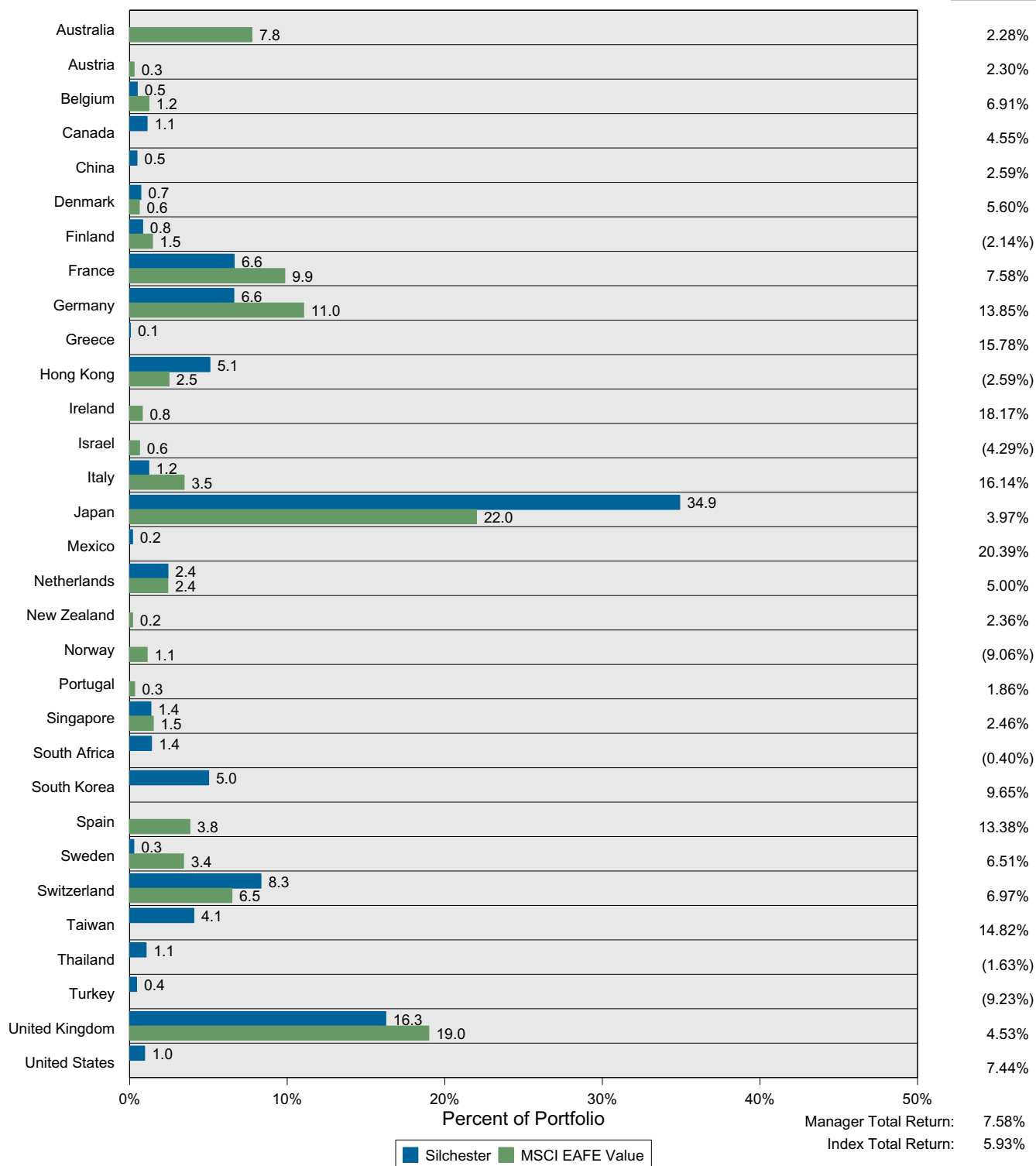
Country Allocation Silchester VS MSCI EAFE Value (Net)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of March 31, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

Country Weights as of March 31, 2023

Index Rtns



BlackRock EM Alpha Tilts

Period Ended March 31, 2023

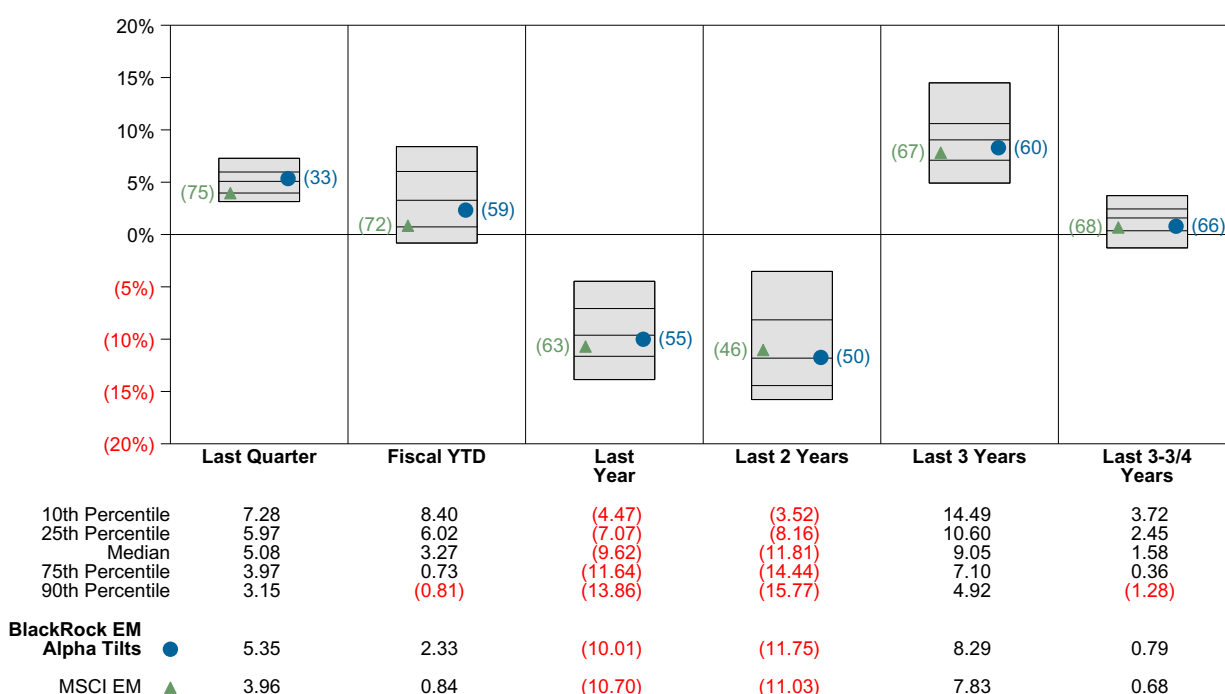
Investment Philosophy

BlackRock's Emerging Markets Opportunities Fund (EMOF), managed by BlackRock's Systematic Active Equity Team, offers investors active exposure to emerging markets equities as represented by the MSCI Emerging Markets Index. The EMOF strategy utilizes return forecasting techniques to identify opportunities across emerging markets. These opportunities are captured by over and underweighting securities and countries while managing the overall risk to the fund. The Fund's predicted alpha is 3-6% annualized over a market cycle, with 3-6% active risk. Overall, the strategy seeks to deliver absolute risk levels similar to that of the index

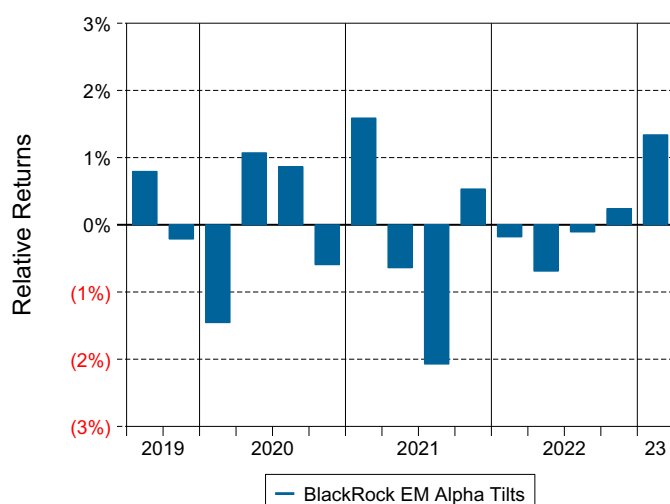
Quarterly Summary and Highlights

- BlackRock EM Alpha Tilts's portfolio posted a 5.35% return for the quarter placing it in the 33 percentile of the Callan Emerging Broad group for the quarter and in the 55 percentile for the last year.
- BlackRock EM Alpha Tilts's portfolio outperformed the MSCI EM by 1.39% for the quarter and outperformed the MSCI EM for the year by 0.69%.

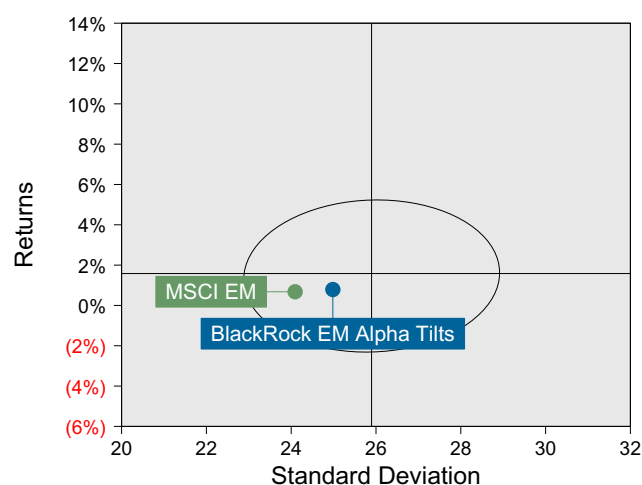
Performance vs Callan Emerging Broad (Gross)



Relative Return vs MSCI EM



Callan Emerging Broad (Gross) Annualized Three and Three-Quarter Year Risk vs Return

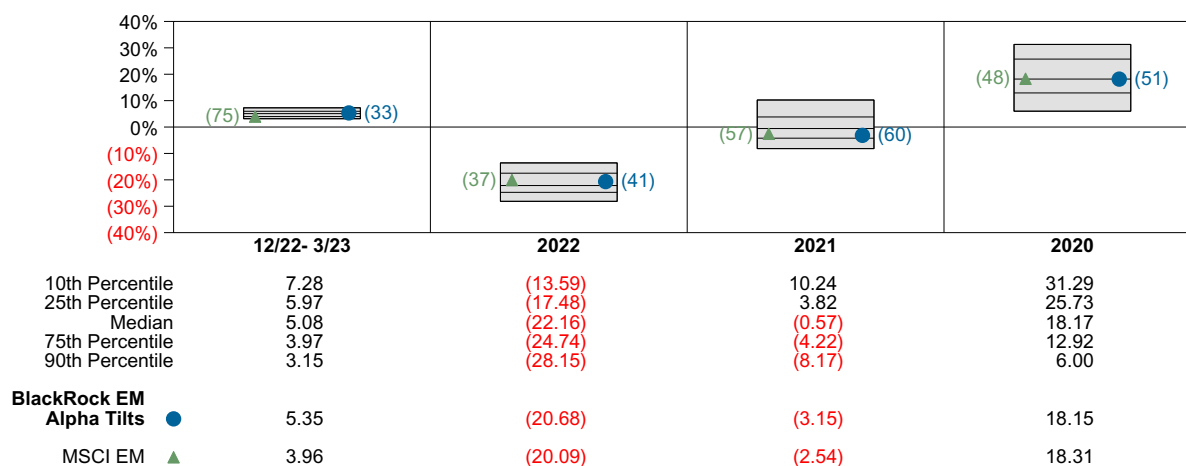


BlackRock EM Alpha Tilts Return Analysis Summary

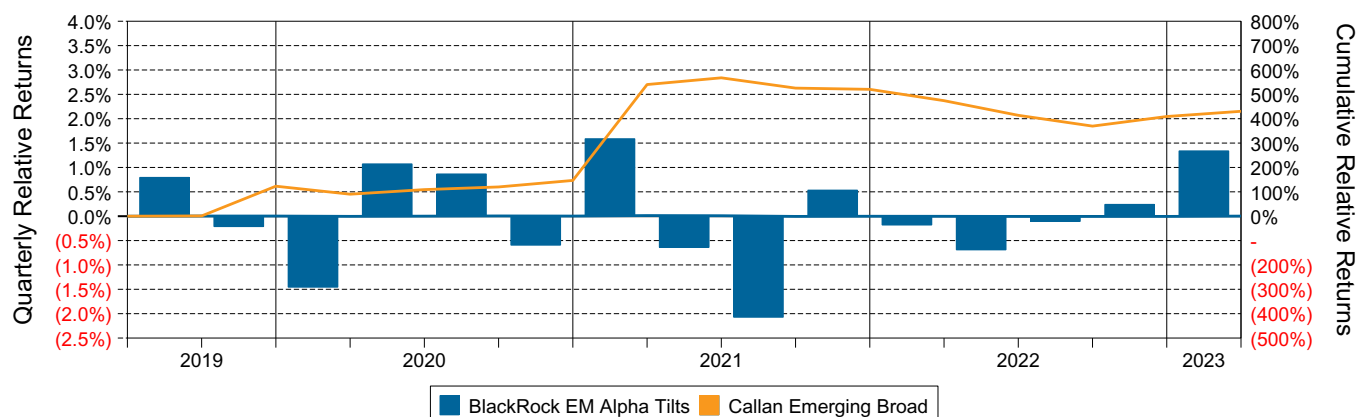
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

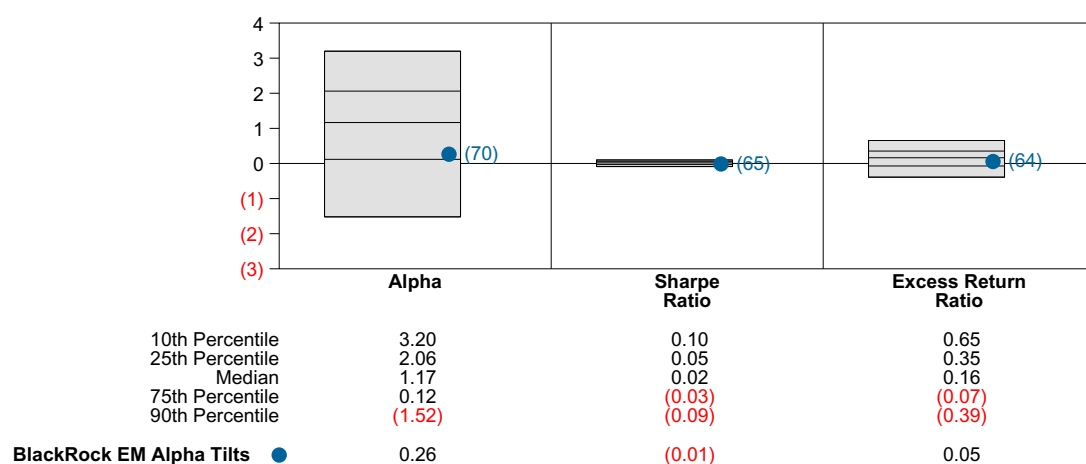
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Three and Three-Quarter Years Ended March 31, 2023

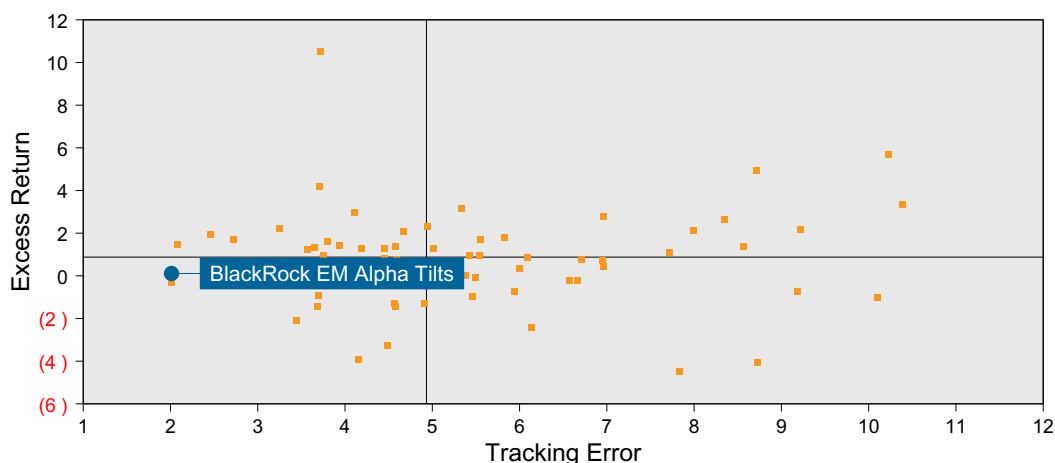


BlackRock EM Alpha Tilts Risk Analysis Summary

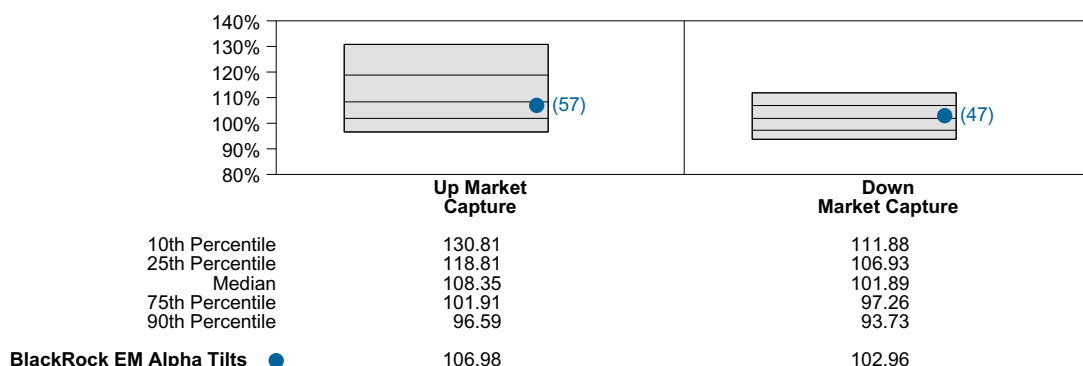
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

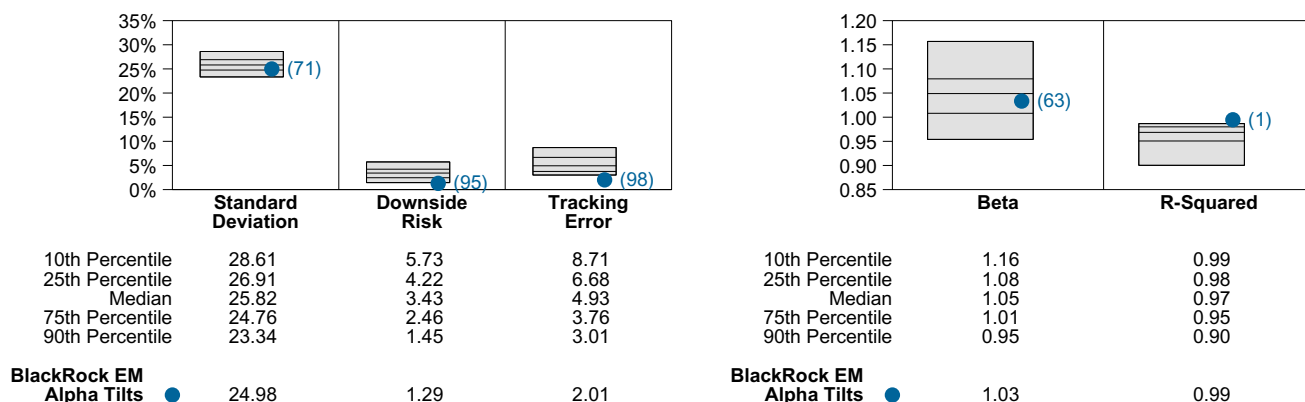
Risk Analysis vs Callan Emerging Broad (Gross) Three and Three-Quarter Years Ended March 31, 2023



Market Capture vs MSCI Emerging Markets (Net) Rankings Against Callan Emerging Broad (Gross) Three and Three-Quarter Years Ended March 31, 2023



Risk Statistics Rankings vs MSCI Emerging Markets (Net) Rankings Against Callan Emerging Broad (Gross) Three and Three-Quarter Years Ended March 31, 2023

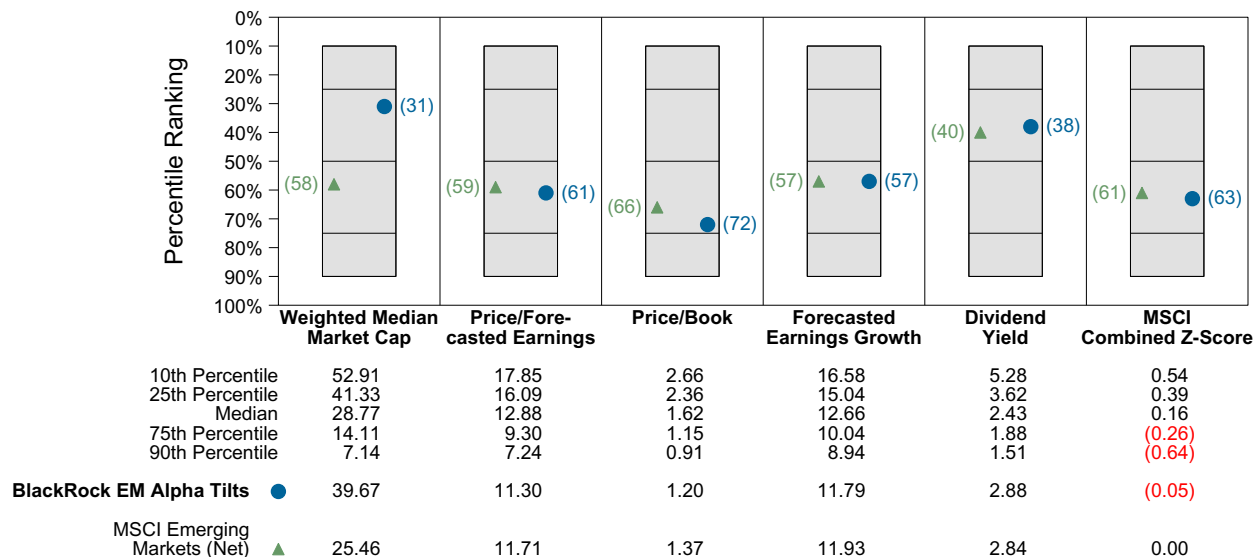


BlackRock EM Alpha Tilts Equity Characteristics Analysis Summary

Portfolio Characteristics

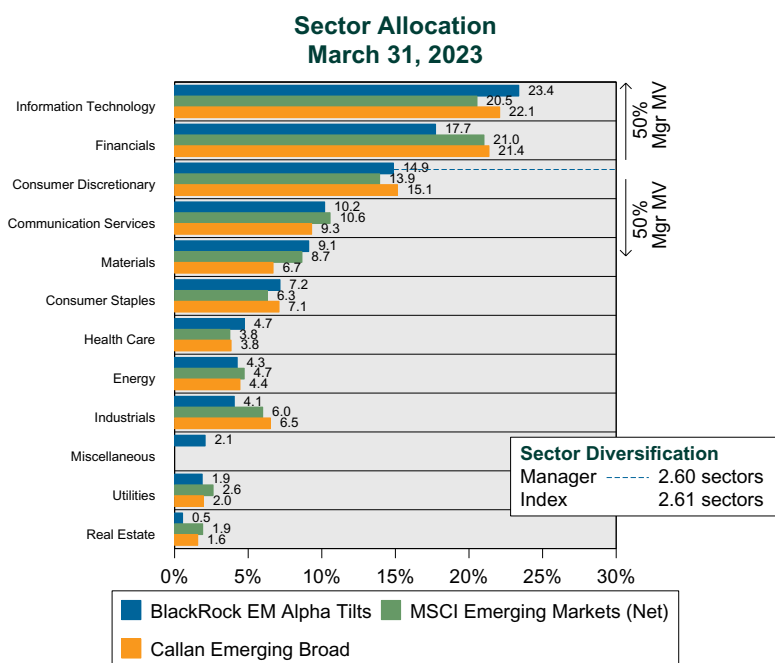
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Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of March 31, 2023

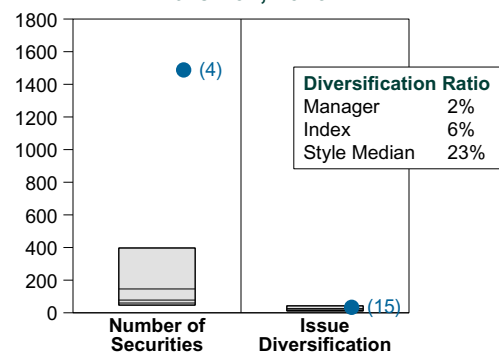


Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



Diversification March 31, 2023



BlackRock EM Alpha Tilts Top 10 Portfolio Holdings Characteristics as of March 31, 2023

10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Taiwan Semicond Manufac Co L Shs	Information Technology	\$1,107,790	5.9%	20.62%	453.96	15.21	2.06%	3.12%
Tencent Holdings Limited Shs Par Hkd	Communication Services	\$1,021,436	5.4%	22.53%	470.26	22.08	0.62%	9.36%
Alibaba Group Holding Ltd	Consumer Discretionary	\$707,583	3.7%	17.27%	270.96	11.59	0.00%	11.63%
Samsung Electronics Co Ltd Ord	Information Technology	\$633,140	3.4%	13.13%	293.48	25.81	2.26%	(5.00)%
Vale Sa Shs	Materials	\$317,722	1.7%	(3.88)%	71.88	5.60	7.09%	6.39%
Meituan Dianping Hk/03690	Consumer Discretionary	\$316,052	1.7%	(17.24)%	102.72	43.32	0.00%	-
Jd.Com Inc Cl A Common Stock Usd.0	Consumer Discretionary	\$283,164	1.5%	(21.31)%	69.22	12.30	1.41%	25.19%
Baidu Com Inc Shs A	Communication Services	\$255,061	1.4%	34.11%	53.59	15.44	0.00%	13.05%
Media Tek Incorporation Shs	Information Technology	\$250,891	1.3%	27.11%	41.35	14.10	9.28%	5.87%
Tata Consultancy	Information Technology	\$236,519	1.3%	1.33%	142.74	24.34	1.43%	9.60%

10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Sjec 'a'	Information Technology	\$61	0.0%	168.82%	18.14	115.45	0.57%	(6.24)%
Ecopro Bm	Industrials	\$476	0.0%	136.76%	16.87	49.78	0.20%	92.27%
Hexin Flush Info.Net.'a'	Financials	\$54	0.0%	111.72%	15.98	48.18	1.22%	5.93%
Zhejiang Dahua Tech.'a'	Information Technology	\$34	0.0%	101.41%	9.98	20.06	1.19%	16.06%
Anhui Ustc Iflytek	Information Technology	\$73	0.0%	95.43%	21.53	69.70	0.16%	21.16%
Foxconn Industrial Internet A	Information Technology	\$84	0.0%	88.97%	49.77	14.51	2.90%	2.60%
Wus Printed Circuit (Kunshan) 'a'	Information Technology	\$20	0.0%	81.95%	5.93	22.52	0.70%	18.62%
L & F	Information Technology	\$317	0.0%	76.02%	8.67	30.31	0.16%	(0.57)%
Beijing Shiji Info.Tech. 'a'	Information Technology	\$22	0.0%	72.47%	7.84	219.41	0.08%	0.79%
Miniso Group Hldg Ltd Issue_code 10	Consumer Discretionary	\$95	0.0%	66.57%	5.60	21.50	10.55%	42.61%

10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Ford Otomotiv Sanayi As Shs	Consumer Discretionary	\$121	0.0%	-	10.69	8.10	2.44%	41.96%
Adani Enterprises	Utilities	\$8,371	0.0%	(76.35)%	11.61	257.56	0.03%	-
Adani Transmissions Ltd	Utilities	\$9,717	0.1%	(61.39)%	13.48	73.21	0.00%	74.89%
Adani Exports Ltd.	Industrials	\$10,506	0.1%	(54.33)%	24.28	65.74	0.06%	(18.45)%
Adani Green Energy Ltd	Utilities	\$9,795	0.1%	(54.08)%	16.98	178.67	0.00%	-
Hapvida Partp.E Invms.On	Health Care	\$135	0.0%	(46.29)%	3.69	173.33	1.66%	21.33%
Pharmaron Beijing H	Health Care	\$48	0.0%	(38.69)%	0.84	13.81	1.07%	16.11%
Al Qudra Holding	Industrials	\$80	0.0%	(36.50)%	4.74	-	0.00%	(2.12)%
Adani Power	Utilities	\$5,186	0.0%	(35.61)%	8.99	16.07	0.00%	-
Koolearn Technology Holding	Consumer Discretionary	\$98	0.0%	(35.04)%	4.37	21.56	0.00%	-

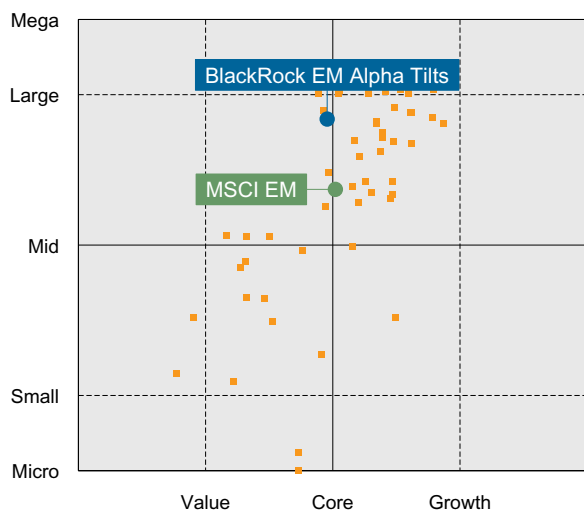
Current Holdings Based Style Analysis

BlackRock EM Alpha Tilts

As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

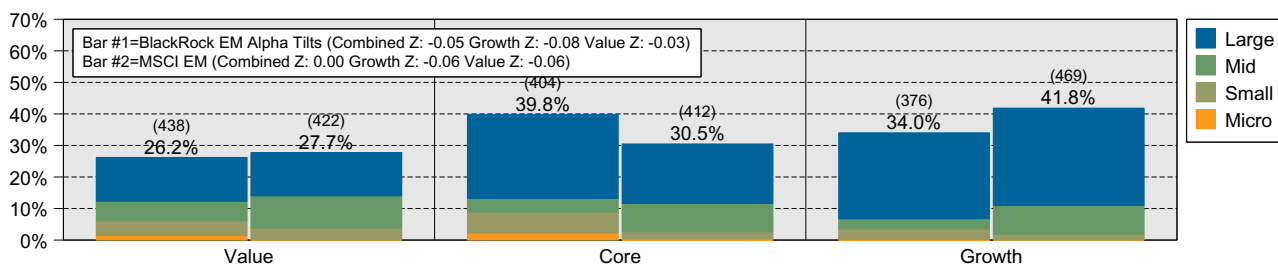
Style Map vs Callan Emerging Broad Holdings as of March 31, 2023



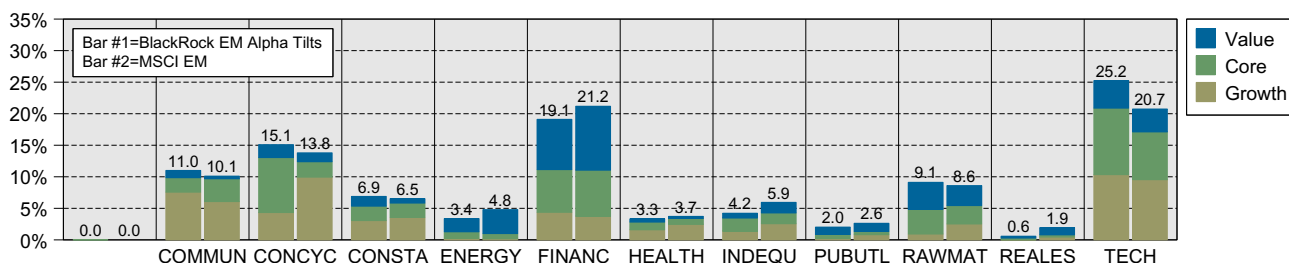
Style Exposure Matrix Holdings as of March 31, 2023

	Value	Core	Growth	Total
Large	13.9% (77) 13.7% (84)	26.6% (80) 18.8% (78)	27.2% (89) 30.9% (102)	67.7% (246) 63.3% (264)
Mid	6.2% (186) 10.2% (191)	4.4% (204) 9.0% (227)	3.2% (194) 9.1% (267)	13.8% (584) 28.3% (685)
Small	4.6% (164) 3.7% (144)	6.6% (115) 2.3% (106)	3.2% (88) 1.8% (98)	14.4% (367) 7.9% (348)
Micro	1.5% (11) 0.1% (3)	2.2% (5) 0.3% (1)	0.3% (5) 0.0% (2)	4.0% (21) 0.5% (6)
Total	26.2% (438) 27.7% (422)	39.8% (404) 30.5% (412)	34.0% (376) 41.8% (469)	100.0% (1218) 100.0% (1303)

Combined Z-Score Style Distribution Holdings as of March 31, 2023



Sector Weights Distribution Holdings as of March 31, 2023



Country Allocation

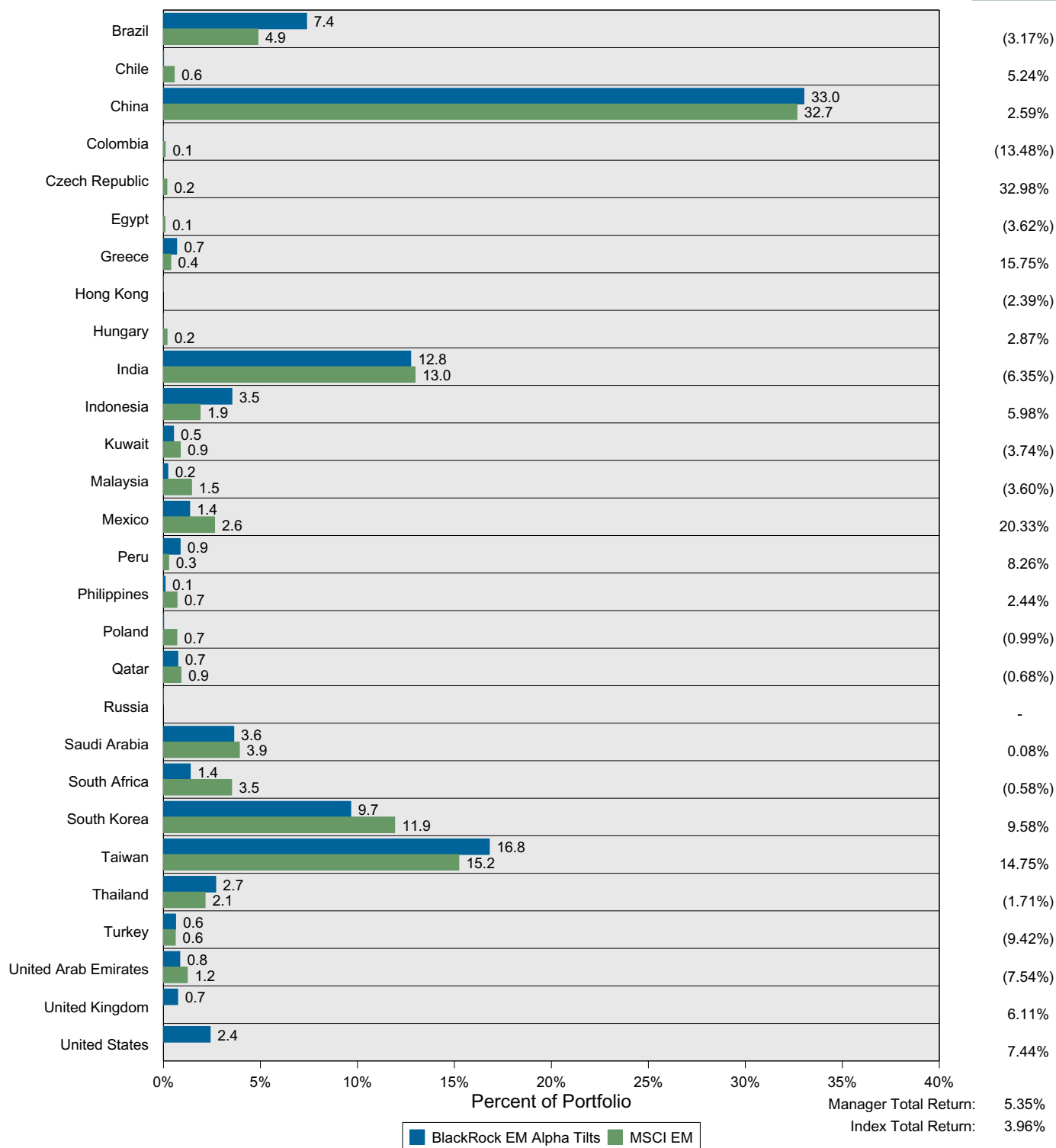
BlackRock EM Alpha Tilts VS MSCI Emerging Markets (Net)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of March 31, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

Country Weights as of March 31, 2023

Index Rtns



ABS Global Period Ended March 31, 2023

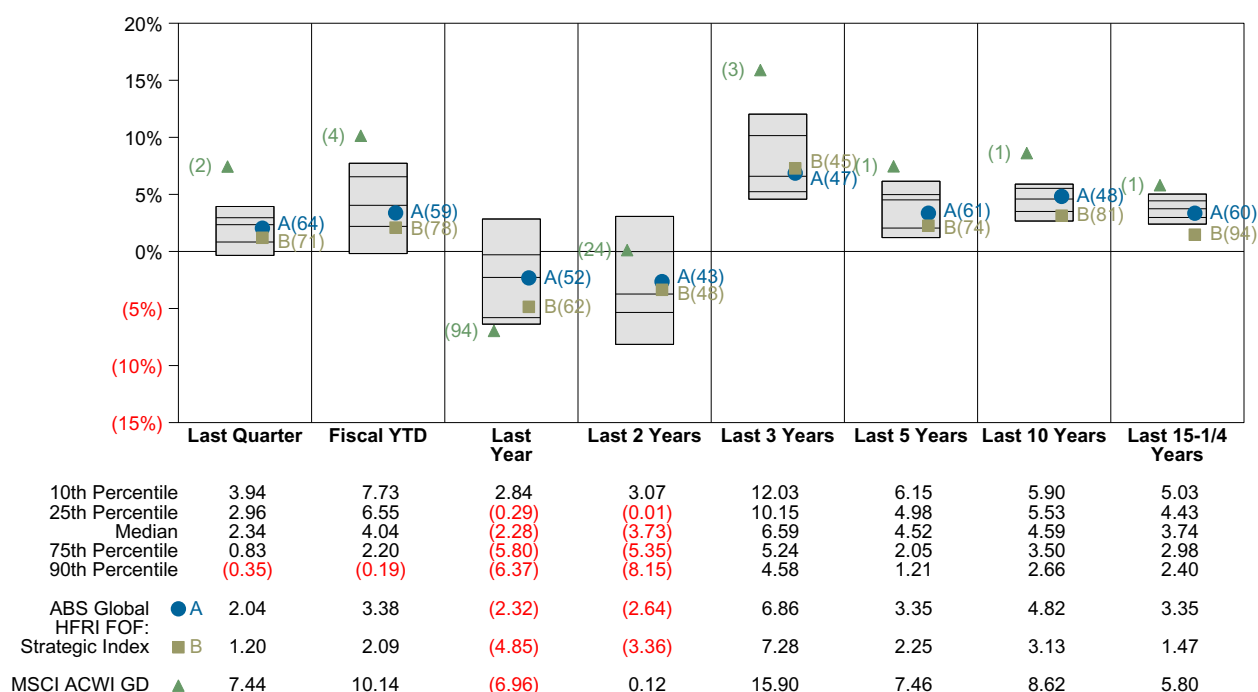
Investment Philosophy

ABS believes that equity long/short strategies provide an attractive long term risk reward profile in all market environments, making it not only an appealing alternative to long-only investing, but also an attractive approach to alternative asset investing. Coupled with their focus on equity long/short strategies, ABS believes that the FoHF portfolio framework enables investors the opportunity to invest in diversified portfolios with less volatility than the general equity markets. ABS manages portfolios employing a fundamental, global investment focus that target global equity market returns with significantly less volatility over a full market cycle.

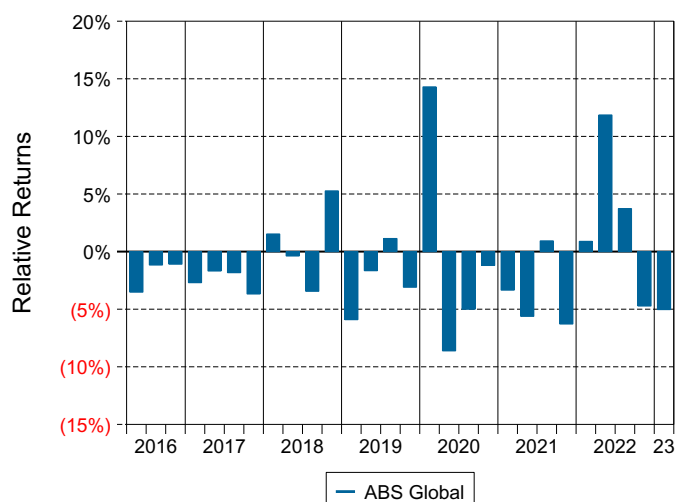
Quarterly Summary and Highlights

- ABS Global's portfolio posted a 2.04% return for the quarter placing it in the 64 percentile of the Callan Long/Short Equity Fund of Funds group for the quarter and in the 52 percentile for the last year.
- ABS Global's portfolio underperformed the MSCI ACWI GD by 5.40% for the quarter and outperformed the MSCI ACWI GD for the year by 4.65%.

Performance vs Callan Long/Short Equity Fund of Funds (Net)



Relative Return vs MSCI ACWI GD



Callan Long/Short Equity Fund of Funds (Net) Annualized Seven Year Risk vs Return

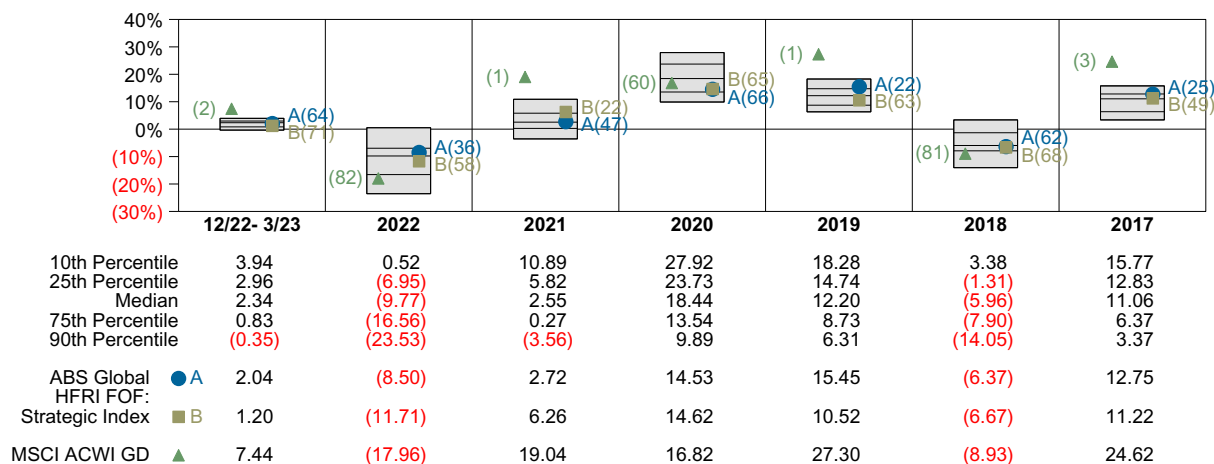


ABS Global Return Analysis Summary

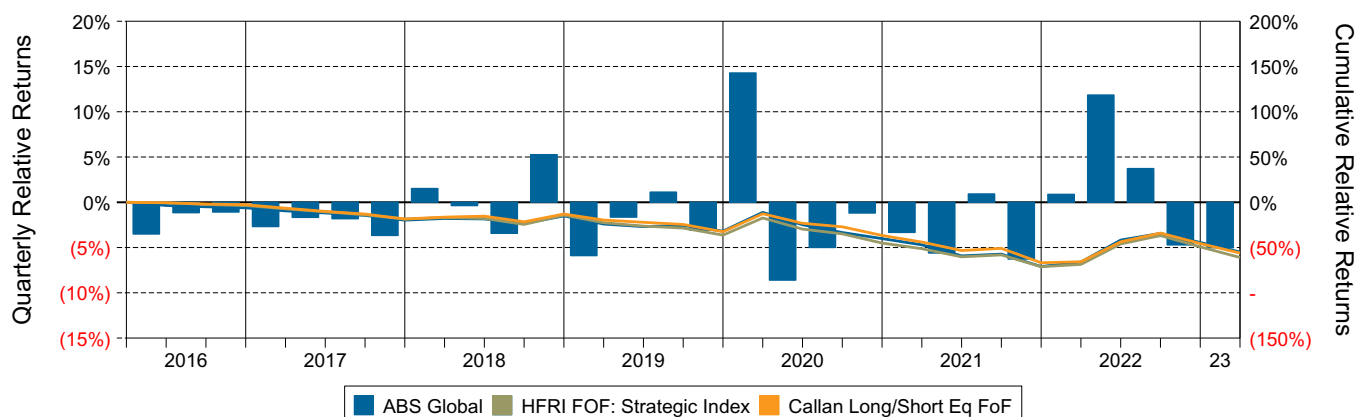
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

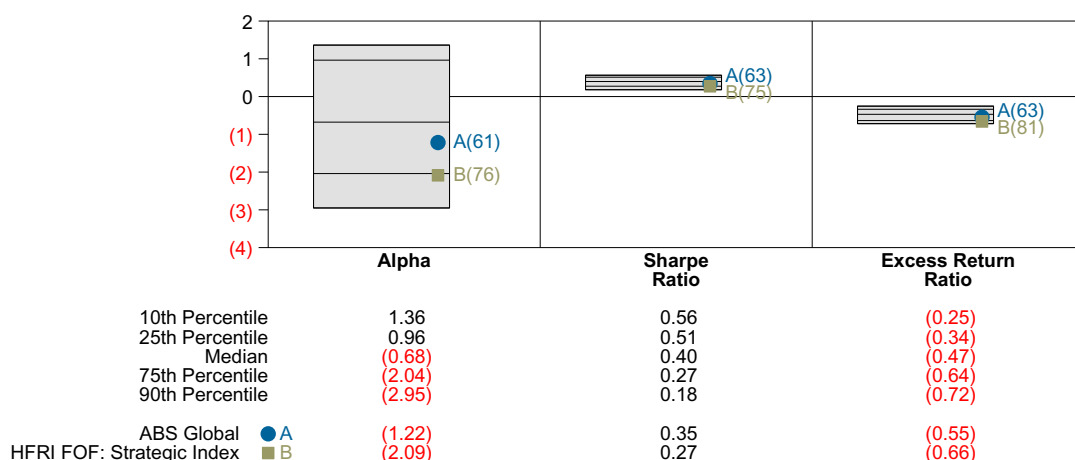
Performance vs Callan Long/Short Equity Fund of Funds (Net)



Cumulative and Quarterly Relative Returns vs MSCI ACWI GD



Risk Adjusted Return Measures vs MSCI ACWI GD Rankings Against Callan Long/Short Equity Fund of Funds (Net) Seven Years Ended March 31, 2023

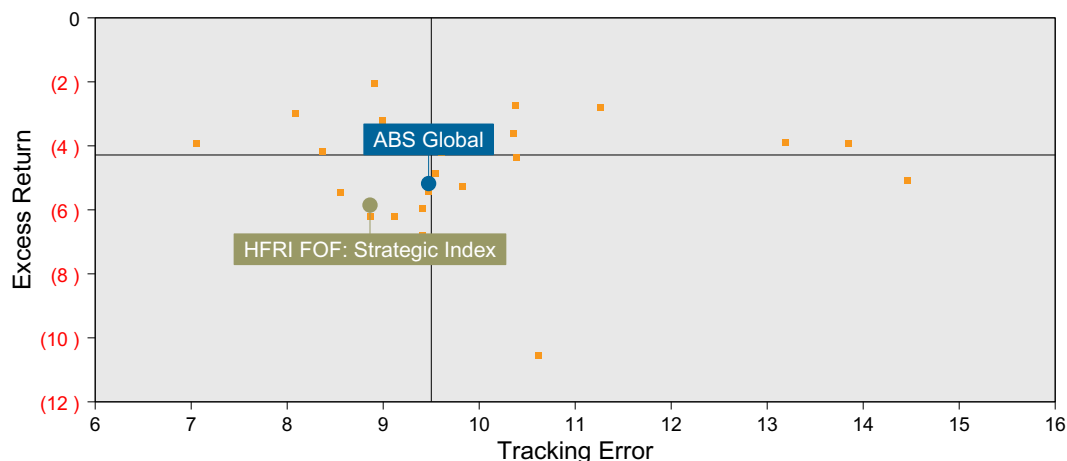


ABS Global Risk Analysis Summary

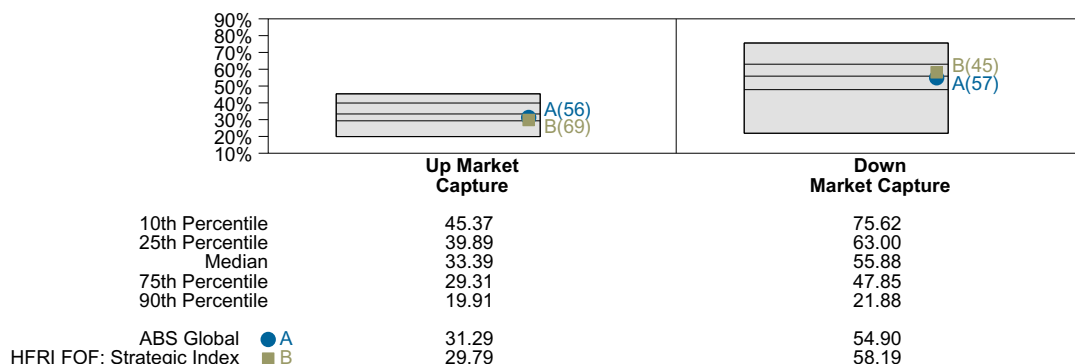
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

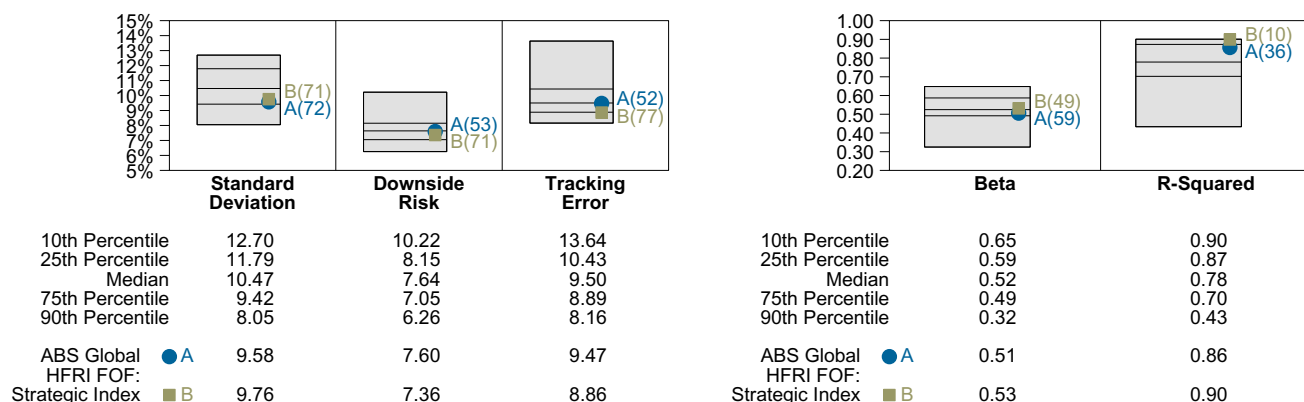
Risk Analysis vs Callan Long/Short Equity Fund of Funds (Net) Seven Years Ended March 31, 2023



Market Capture vs MSCI ACWI (Gross) Rankings Against Callan Long/Short Equity Fund of Funds (Net) Seven Years Ended March 31, 2023



Risk Statistics Rankings vs MSCI ACWI (Gross) Rankings Against Callan Long/Short Equity Fund of Funds (Net) Seven Years Ended March 31, 2023



Blackstone Park Ave. NT Period Ended March 31, 2023

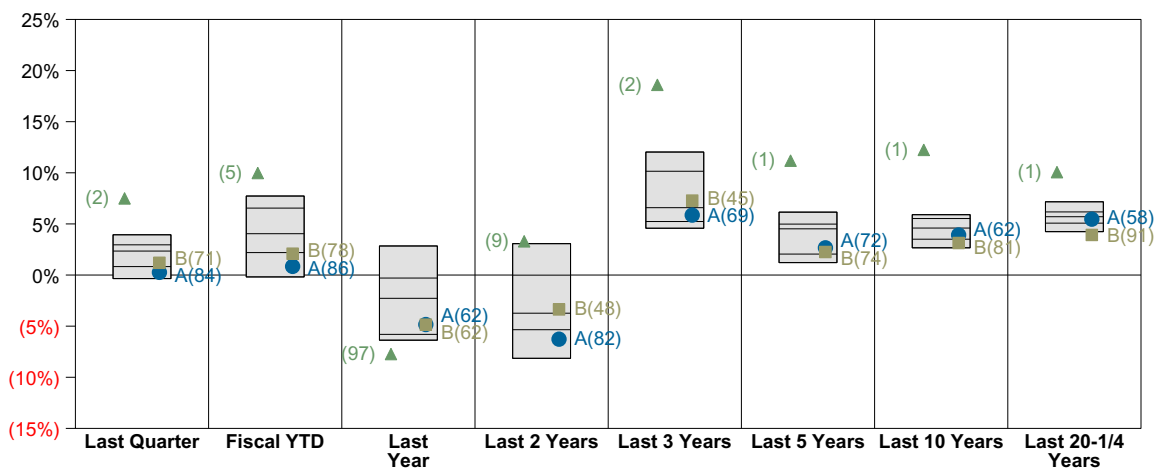
Investment Philosophy

BAAM's investment philosophy is to utilize leading non-traditional money managers to achieve attractive risk-adjusted returns with low volatility and low correlation to traditional asset classes. Their fund-of-hedge-funds offerings are designed to deliver a high degree of consistency in performance by being well diversified among a variety of outstanding managers whose strategies balance and complement each other. A focus on downside protection is a prominent theme across all strategies.

Quarterly Summary and Highlights

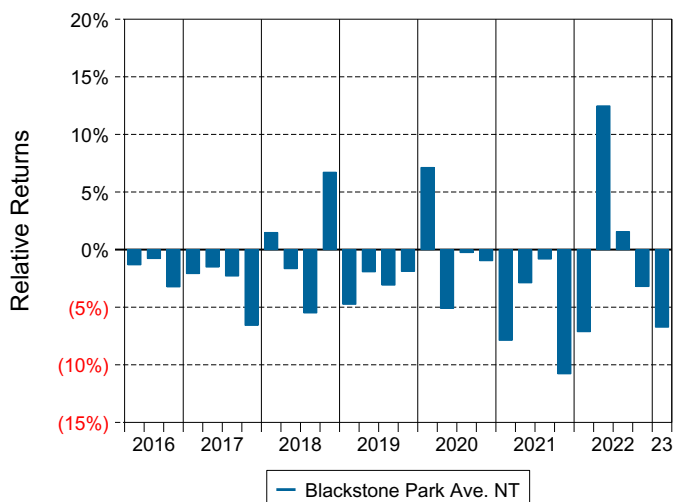
- Blackstone Park Ave. NT's portfolio posted a 0.26% return for the quarter placing it in the 84 percentile of the Callan Long/Short Equity Fund of Funds group for the quarter and in the 62 percentile for the last year.
- Blackstone Park Ave. NT's portfolio underperformed the S&P 500 Index by 7.24% for the quarter and outperformed the S&P 500 Index for the year by 2.89%.

Performance vs Callan Long/Short Equity Fund of Funds (Net)

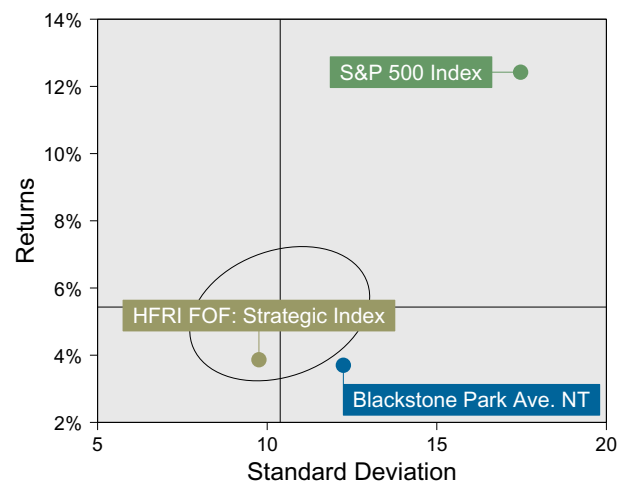


10th Percentile	3.94	7.73	2.84	3.07	12.03	6.15	5.90	7.17
25th Percentile	2.96	6.55	(0.29)	(0.01)	10.15	4.98	5.53	6.17
Median	2.34	4.04	(2.28)	(3.73)	6.59	4.52	4.59	5.71
75th Percentile	0.83	2.20	(5.80)	(5.35)	5.24	2.05	3.50	5.08
90th Percentile	(0.35)	(0.19)	(6.37)	(8.15)	4.58	1.21	2.66	4.24
Blackstone Park Ave. NT	● A 0.26	0.85	(4.84)	(6.27)	5.86	2.66	3.92	5.47
HFRI FOF: Strategic Index	■ B 1.20	2.09	(4.85)	(3.36)	7.28	2.25	3.13	3.92
S&P 500 Index	▲ 7.50	9.98	(7.73)	3.30	18.60	11.19	12.24	10.06

Relative Return vs S&P 500 Index



Callan Long/Short Equity Fund of Funds (Net) Annualized Seven Year Risk vs Return

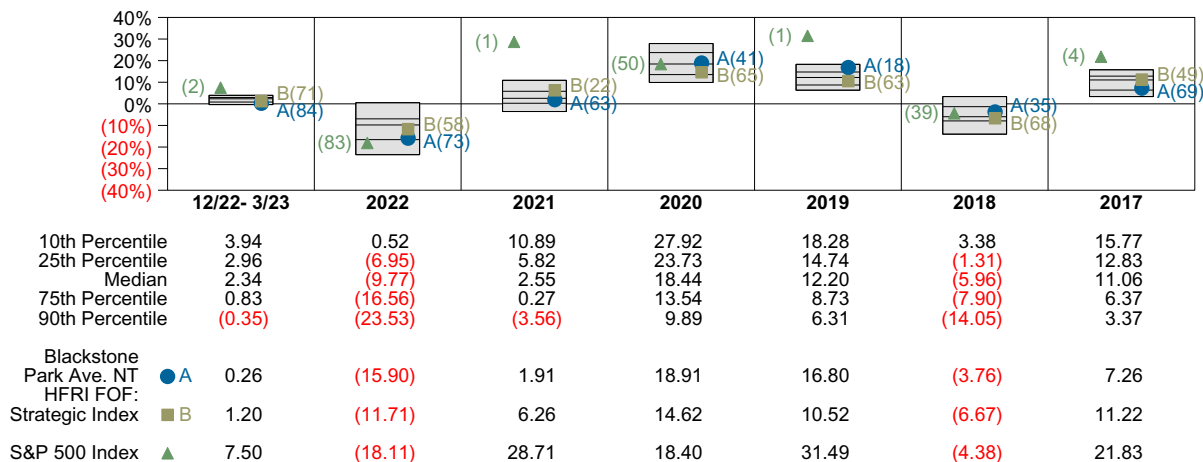


Blackstone Park Ave. NT Return Analysis Summary

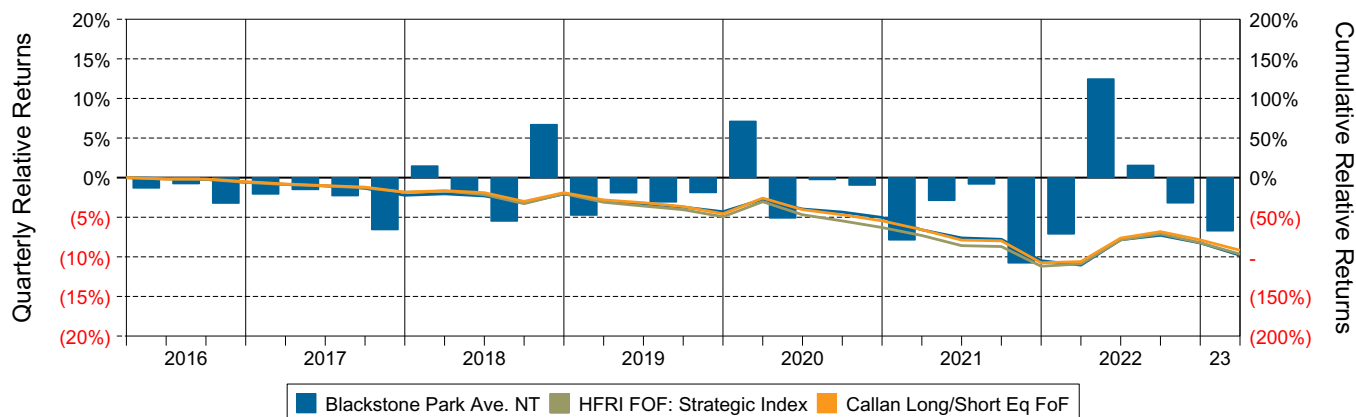
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

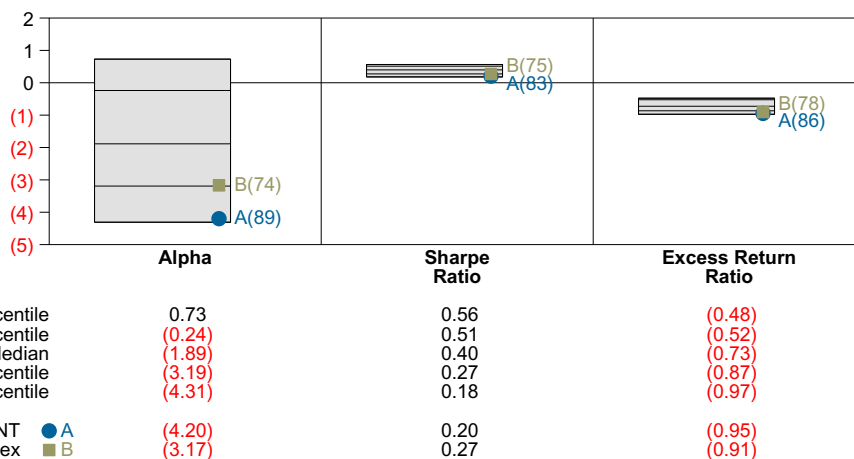
Performance vs Callan Long/Short Equity Fund of Funds (Net)



Cumulative and Quarterly Relative Returns vs S&P 500 Index



Risk Adjusted Return Measures vs S&P 500 Index Rankings Against Callan Long/Short Equity Fund of Funds (Net) Seven Years Ended March 31, 2023

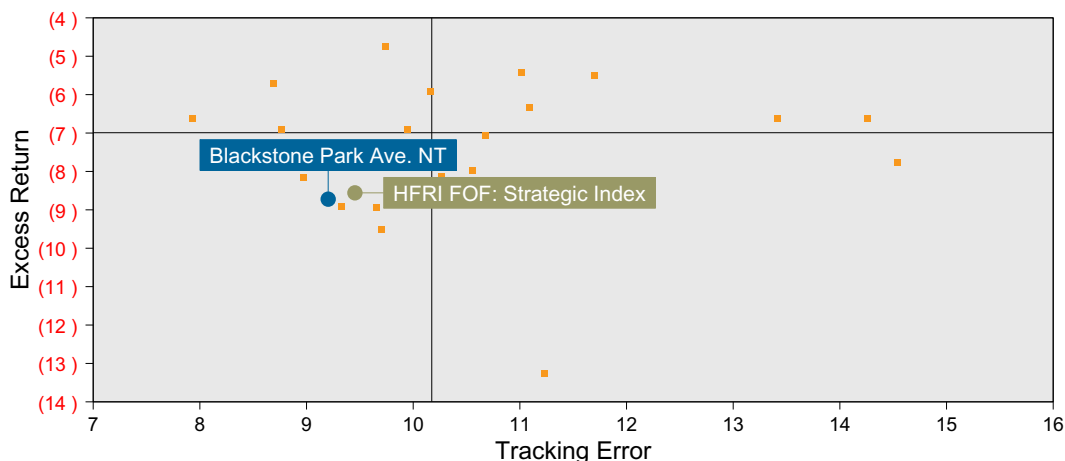


Blackstone Park Ave. NT Risk Analysis Summary

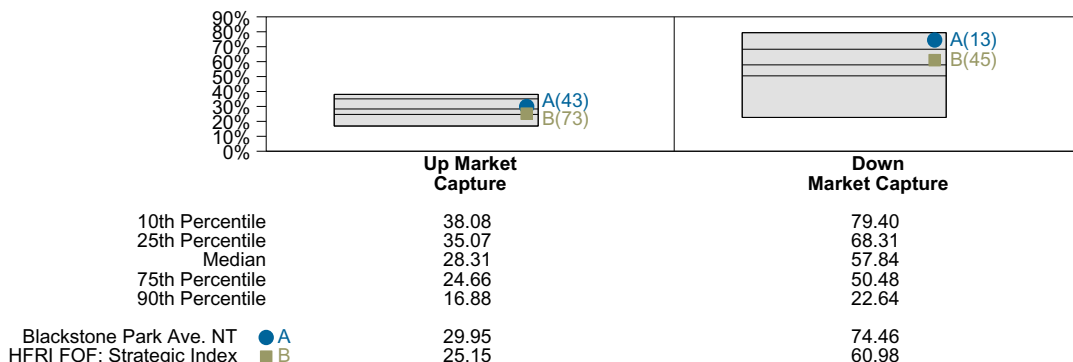
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

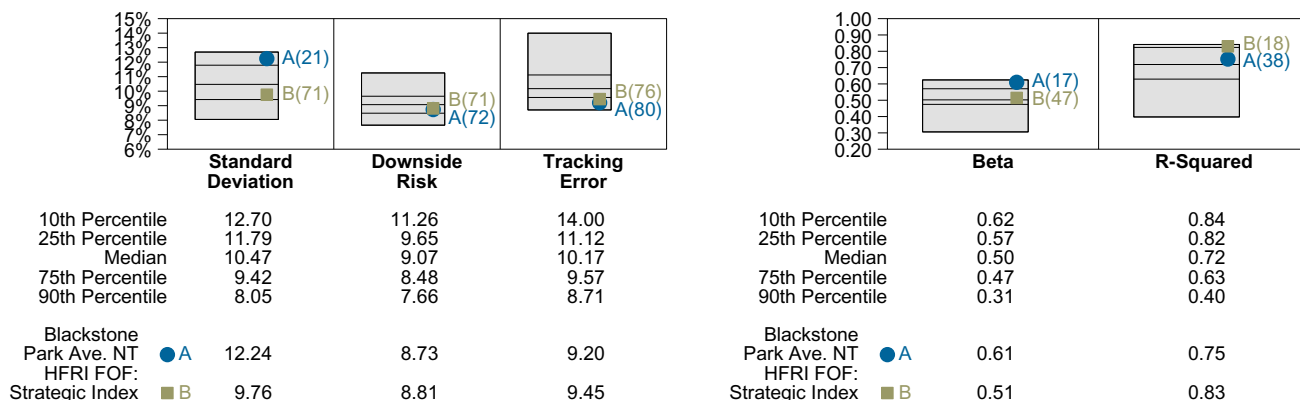
Risk Analysis vs Callan Long/Short Equity Fund of Funds (Net) Seven Years Ended March 31, 2023



Market Capture vs S&P 500 Index Rankings Against Callan Long/Short Equity Fund of Funds (Net) Seven Years Ended March 31, 2023



Risk Statistics Rankings vs S&P 500 Index Rankings Against Callan Long/Short Equity Fund of Funds (Net) Seven Years Ended March 31, 2023

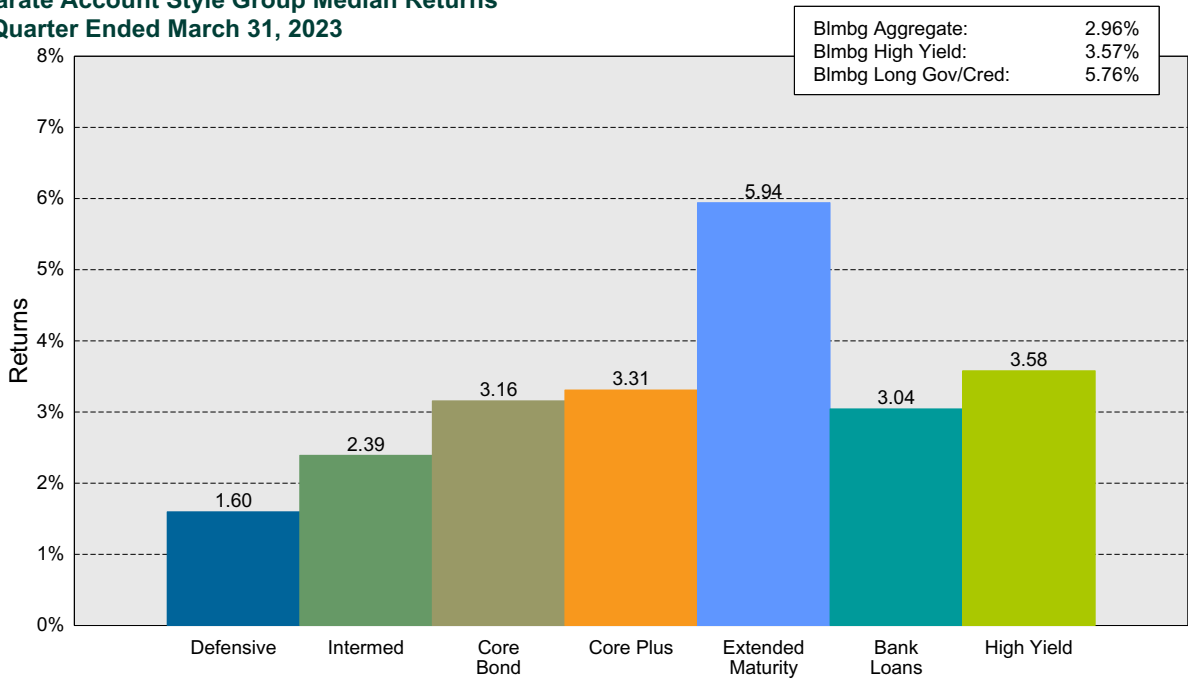


Domestic Fixed Income

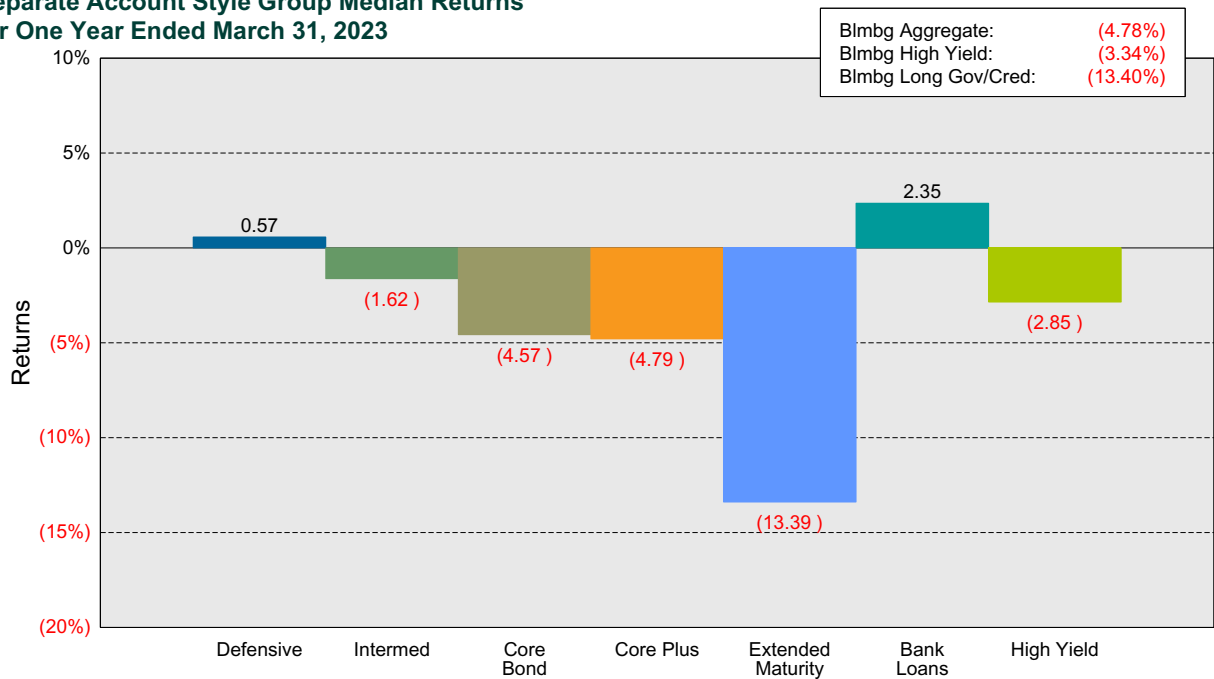
Active Management Overview

The Bloomberg US Aggregate Bond Index rose 3.0% in 1Q. It was a bumpy ride with solid returns in January and March sandwiching a negative February. The yield curve remained inverted as of quarter-end by 58 bps for the 2-year/10-year and 116 bps for the 1-year/10-year. Sector performance was mixed over the quarter with residential and commercial mortgages underperforming U.S Treasuries and corporates outperforming (except Financials). TIPS (Bloomberg TIPS: +3.3%) also did well; 10-year breakeven spreads were 2.3% as of quarter-end. High yield (Bloomberg High Yield Index: +3.6%) outperformed but dispersion within the Index is meaningfully higher than it was two years ago.

Separate Account Style Group Median Returns
for Quarter Ended March 31, 2023



Separate Account Style Group Median Returns
for One Year Ended March 31, 2023

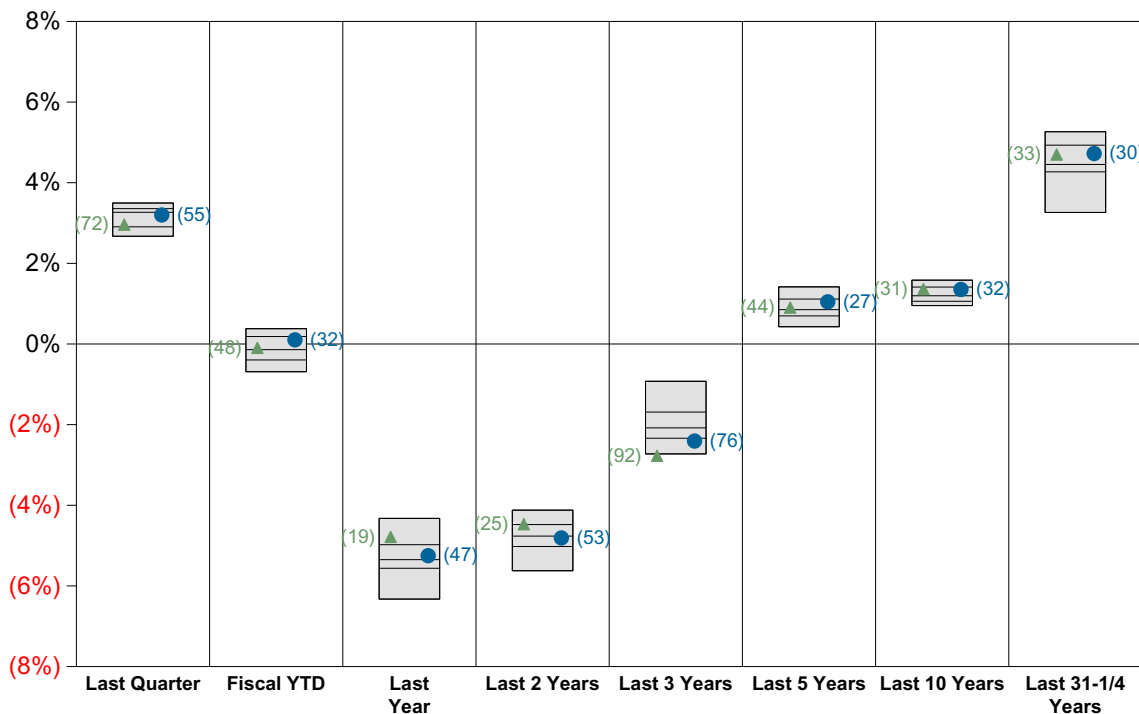


Domestic Fixed Income Period Ended March 31, 2023

Quarterly Summary and Highlights

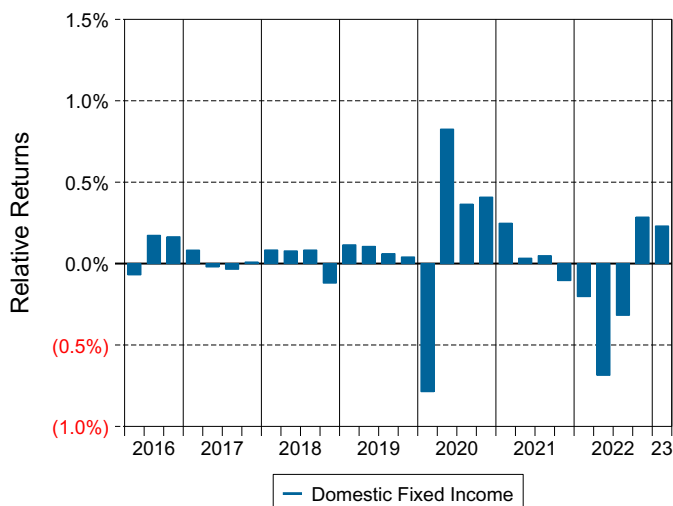
- Domestic Fixed Income's portfolio posted a 3.20% return for the quarter placing it in the 55 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 47 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Blmbg Aggregate by 0.24% for the quarter and underperformed the Blmbg Aggregate for the year by 0.47%.

Performance vs Callan Core Bond Mutual Funds (Net)

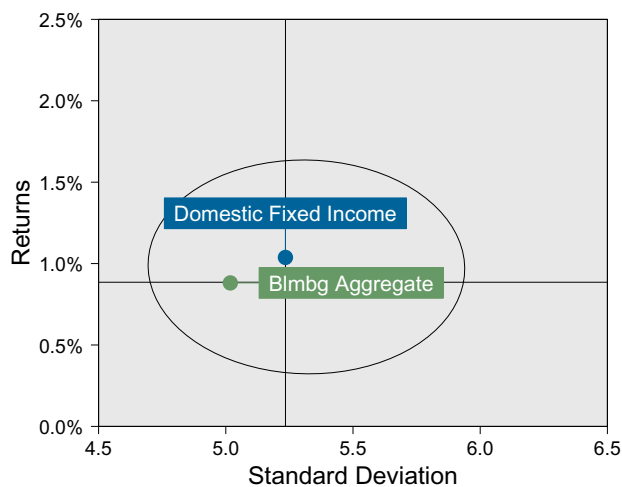


10th Percentile	3.50	0.38	(4.32)	(4.12)	(0.92)	1.42	1.58	5.26
25th Percentile	3.36	0.19	(4.98)	(4.48)	(1.69)	1.11	1.41	4.93
Median	3.27	(0.14)	(5.35)	(4.76)	(2.08)	0.85	1.20	4.45
75th Percentile	2.91	(0.40)	(5.56)	(5.02)	(2.34)	0.70	1.06	4.27
90th Percentile	2.67	(0.69)	(6.33)	(5.62)	(2.73)	0.43	0.95	3.26
Domestic Fixed Income	3.20	0.10	(5.25)	(4.81)	(2.41)	1.05	1.35	4.72
Blmbg Aggregate	2.96	(0.09)	(4.78)	(4.47)	(2.77)	0.91	1.36	4.70

Relative Return vs Blmbg Aggregate



Callan Core Bond Mutual Funds (Net) Annualized Seven Year Risk vs Return

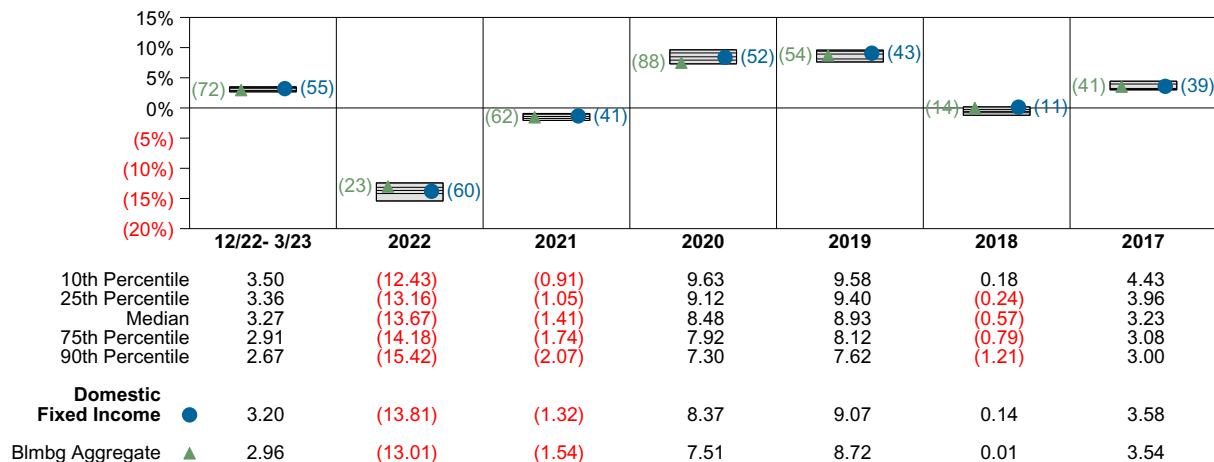


Domestic Fixed Income Return Analysis Summary

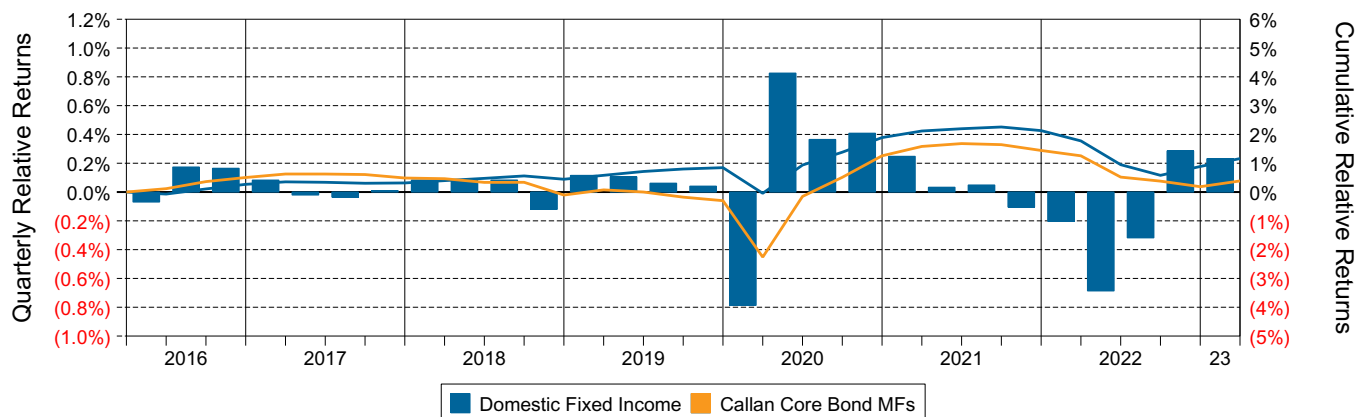
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

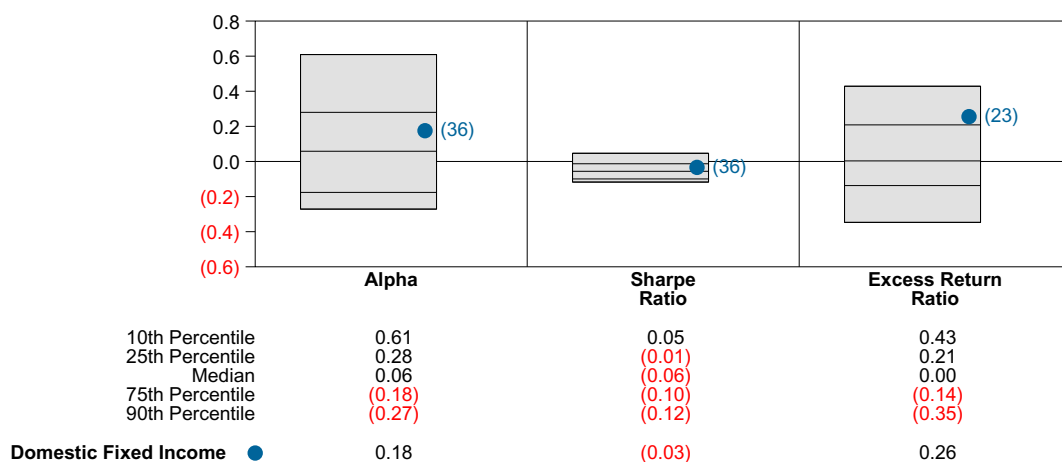
Performance vs Callan Core Bond Mutual Funds (Net)



Cumulative and Quarterly Relative Returns vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Callan Core Bond Mutual Funds (Net) Seven Years Ended March 31, 2023

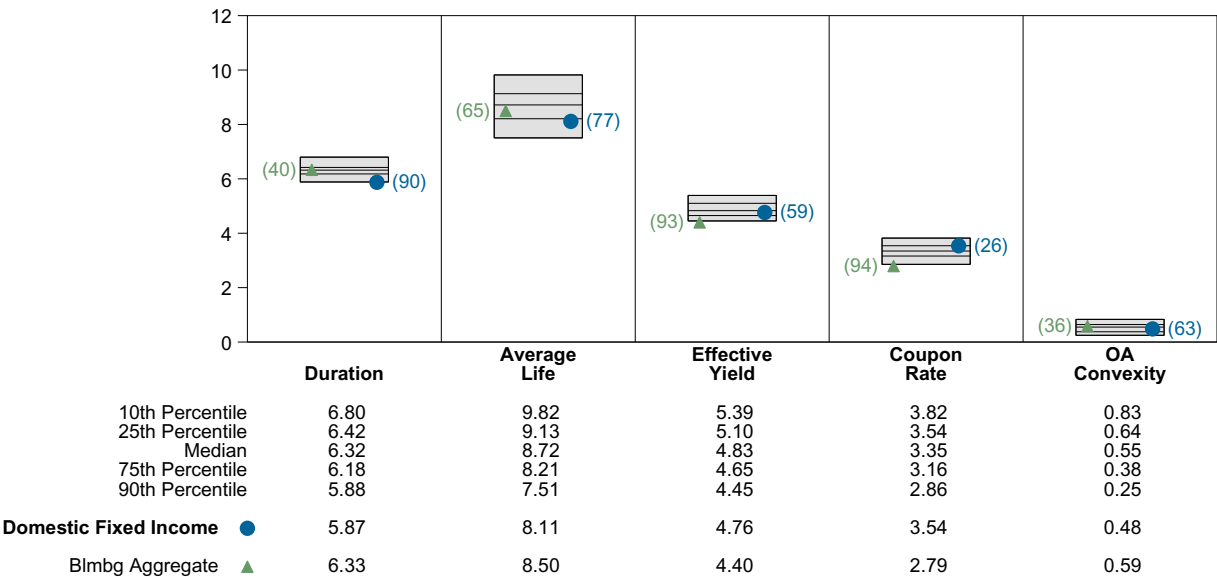


Domestic Fixed Income Bond Characteristics Analysis Summary

Portfolio Characteristics

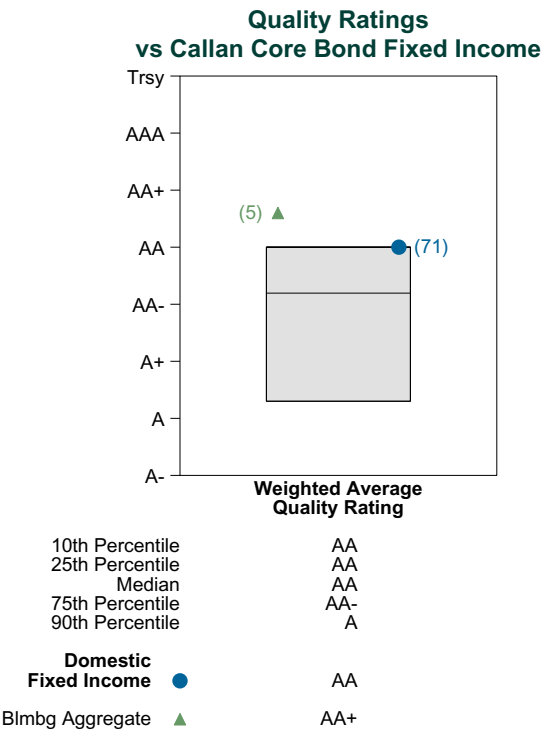
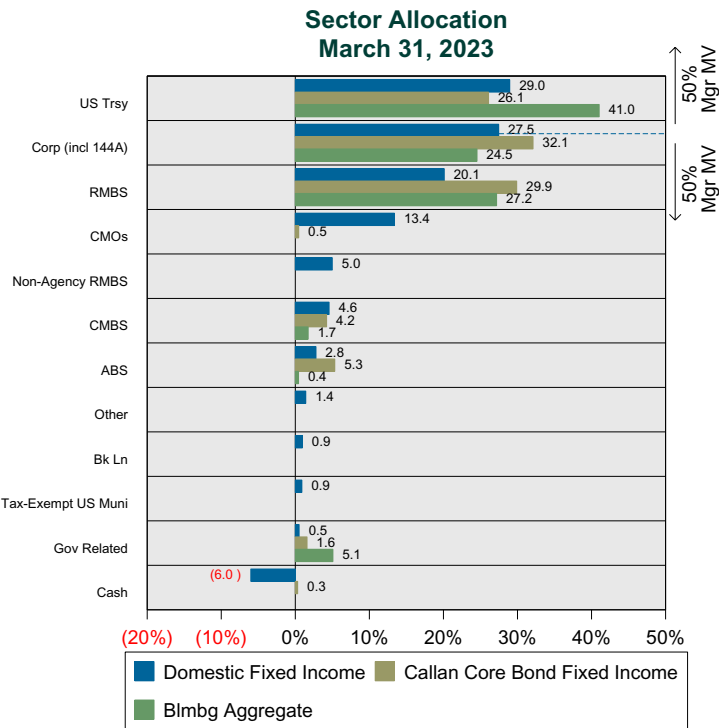
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of March 31, 2023



Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

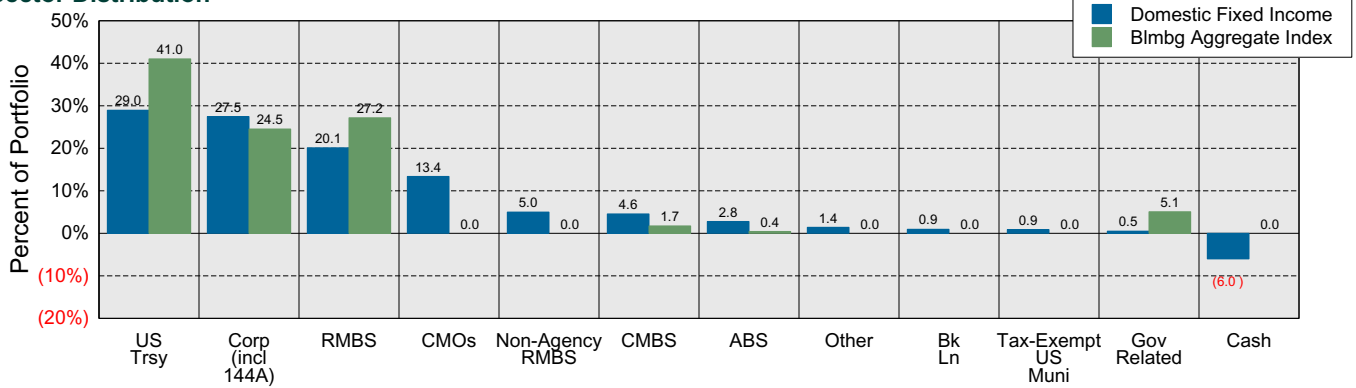


Domestic Fixed Income Portfolio Characteristics Summary As of March 31, 2023

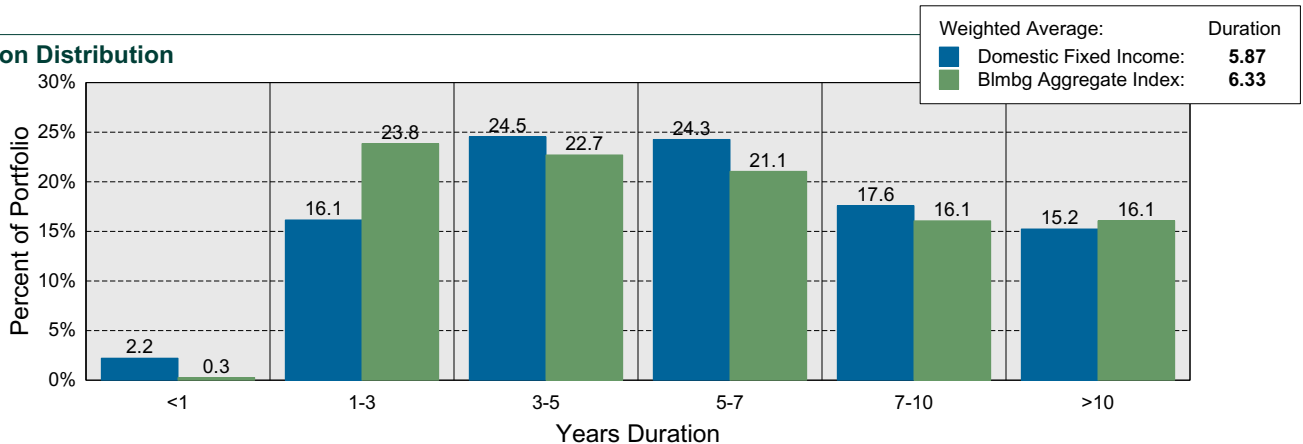
Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

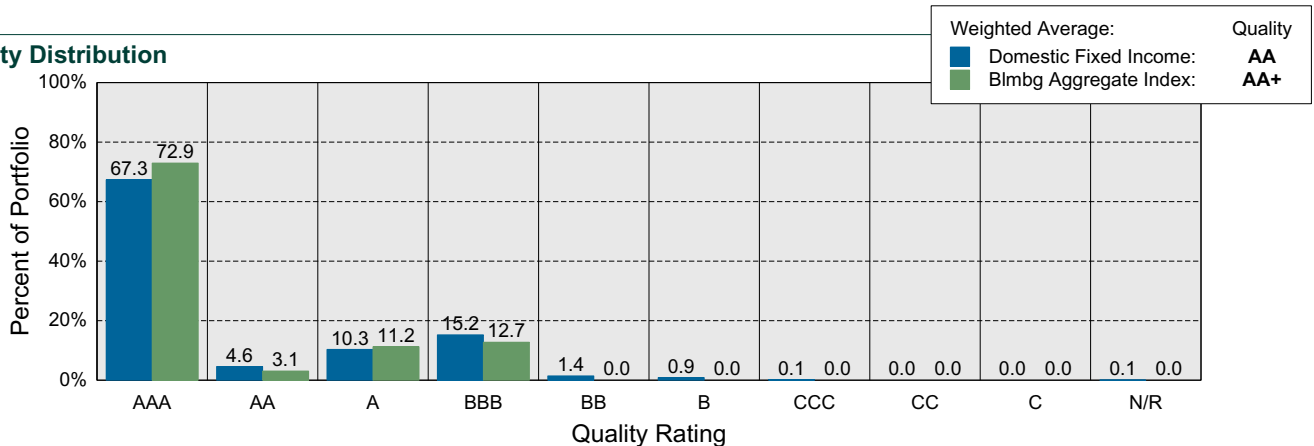
Sector Distribution



Duration Distribution



Quality Distribution



Prudential Cons Core Bond Period Ended March 31, 2023

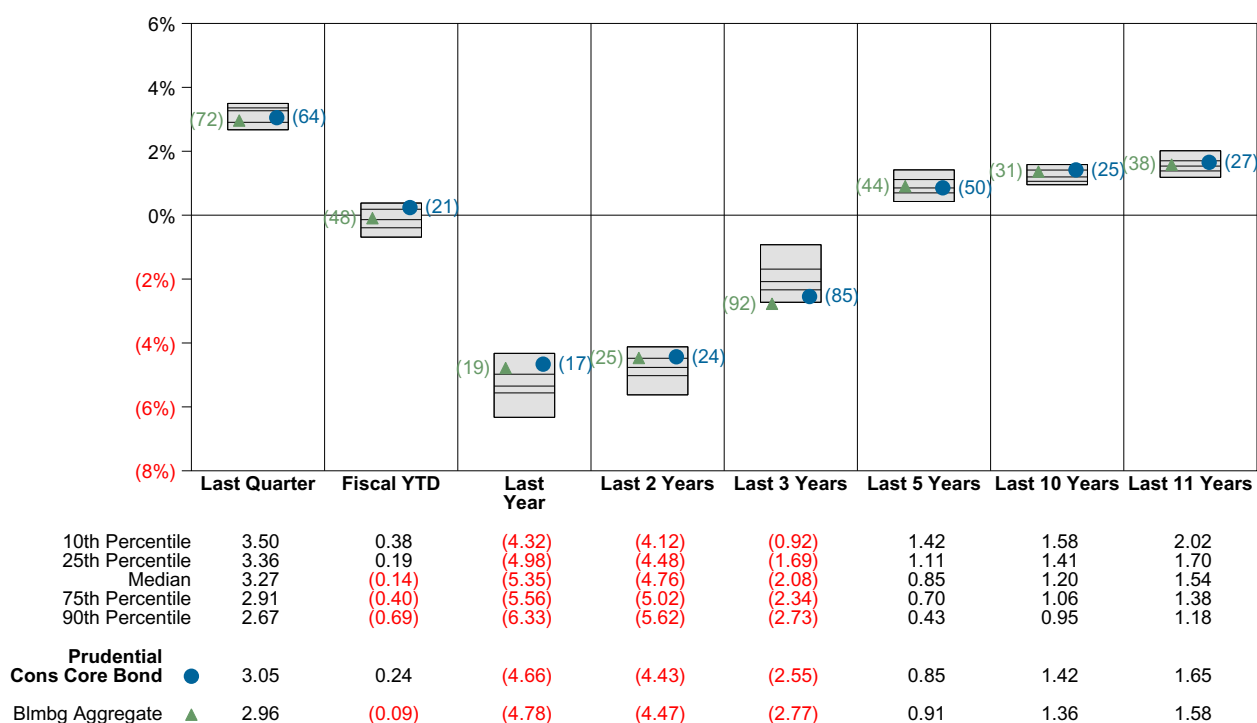
Investment Philosophy

PGIM Fixed Income's Core Conservative strategy is a benchmark-focused, investment grade-only, risk-controlled core strategy that seeks +25 bps over the Bloomberg Barclays Aggregate Index with index-like risk. The strategy seeks to generate virtually all of its excess return from just two activities: bottom-up subsector rotation within the corporate and mortgage/structured product sectors, and research-based security selection in all sectors. Top-down decisions such as duration, yield curve, and sector allocation are tightly constrained to benchmark weightings at all times.

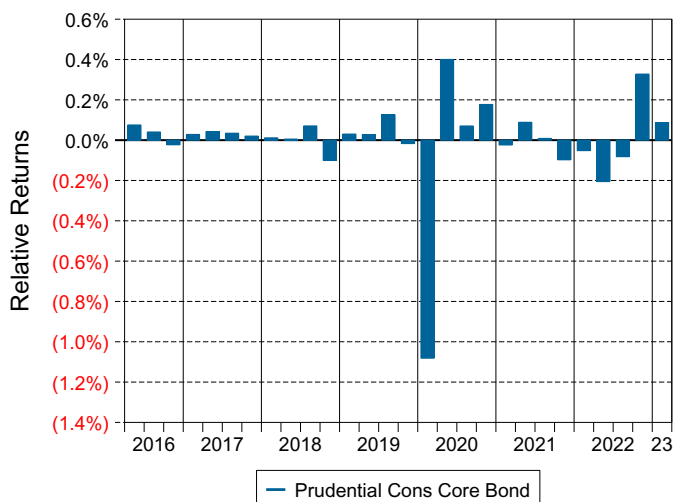
Quarterly Summary and Highlights

- Prudential Cons Core Bond's portfolio posted a 3.05% return for the quarter placing it in the 64 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 17 percentile for the last year.
- Prudential Cons Core Bond's portfolio outperformed the Blmbg Aggregate by 0.09% for the quarter and outperformed the Blmbg Aggregate for the year by 0.12%.

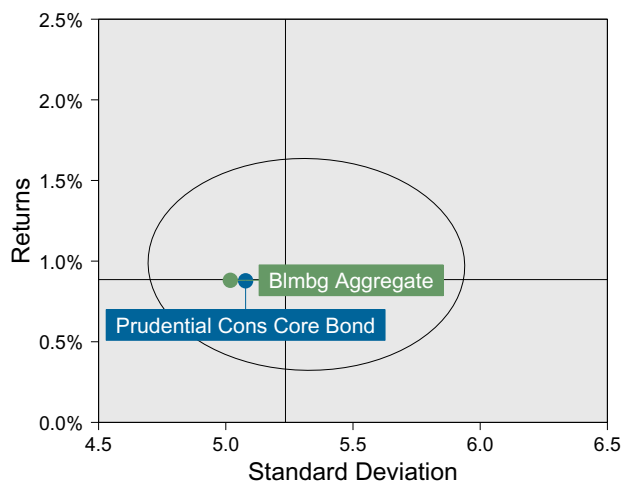
Performance vs Callan Core Bond Mutual Funds (Net)



Relative Return vs Blmbg Aggregate



Callan Core Bond Mutual Funds (Net) Annualized Seven Year Risk vs Return

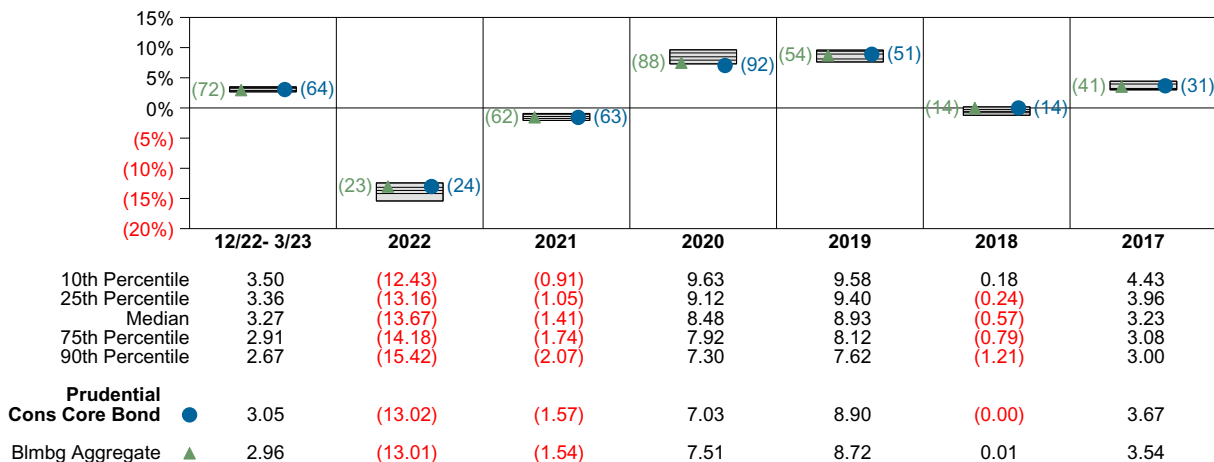


Prudential Cons Core Bond Return Analysis Summary

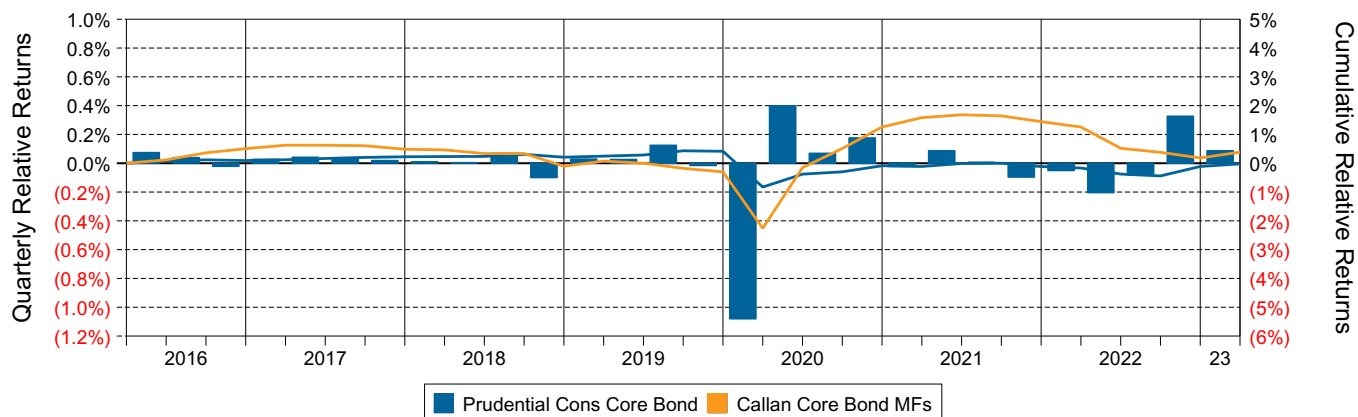
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

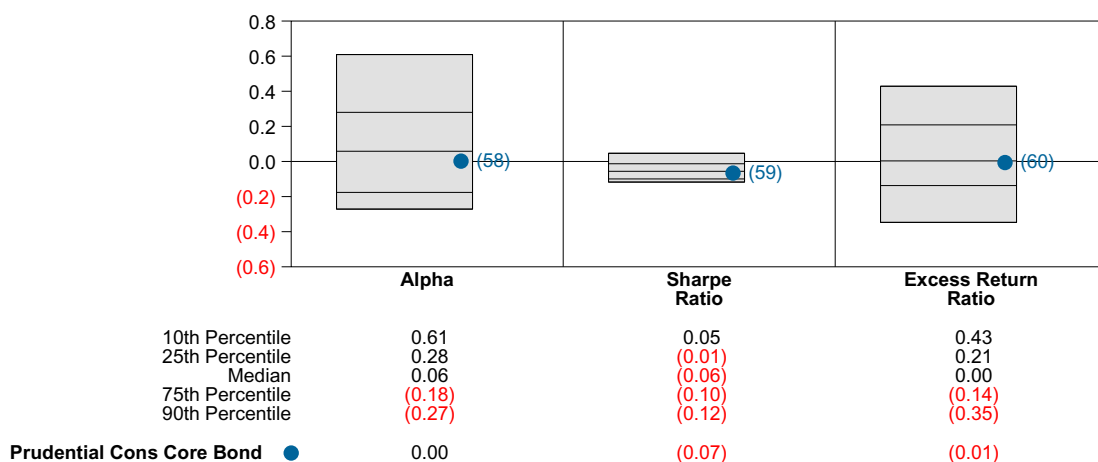
Performance vs Callan Core Bond Mutual Funds (Net)



Cumulative and Quarterly Relative Returns vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Callan Core Bond Mutual Funds (Net) Seven Years Ended March 31, 2023

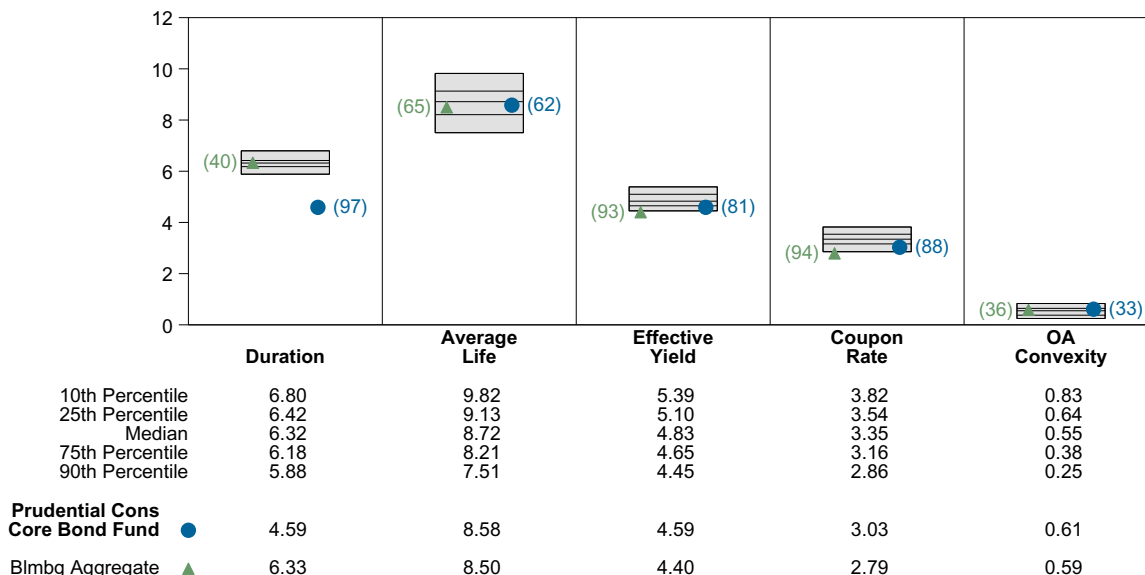


Prudential Cons Core Bond Fund Bond Characteristics Analysis Summary

Portfolio Characteristics

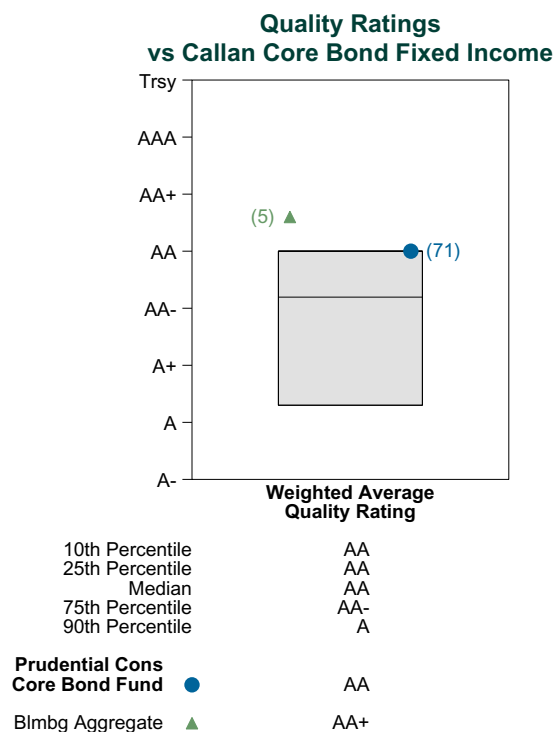
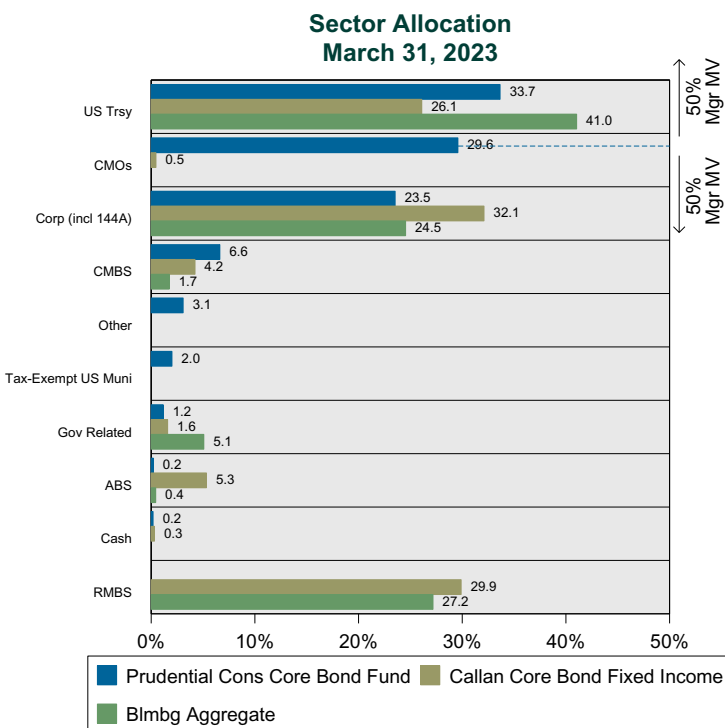
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of March 31, 2023



Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



Prudential Cons Core Bond Fund

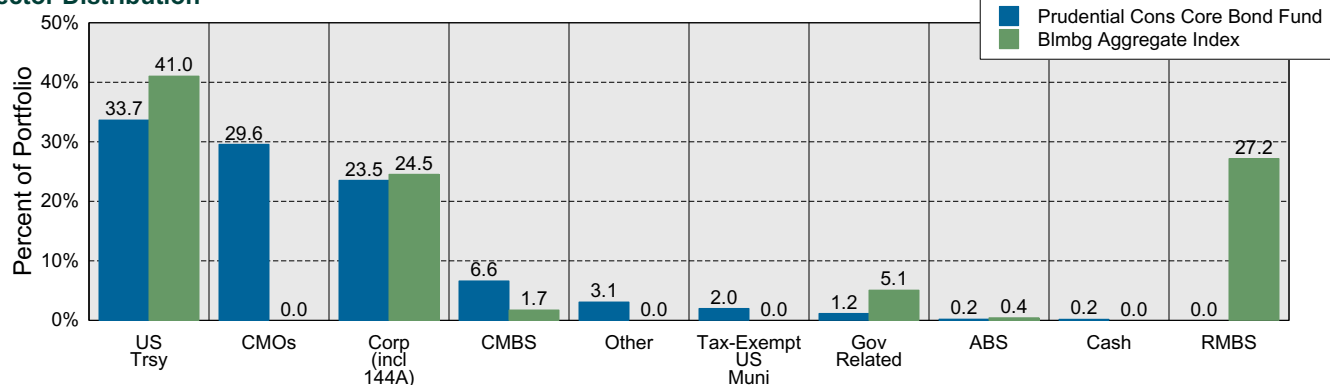
Portfolio Characteristics Summary

As of March 31, 2023

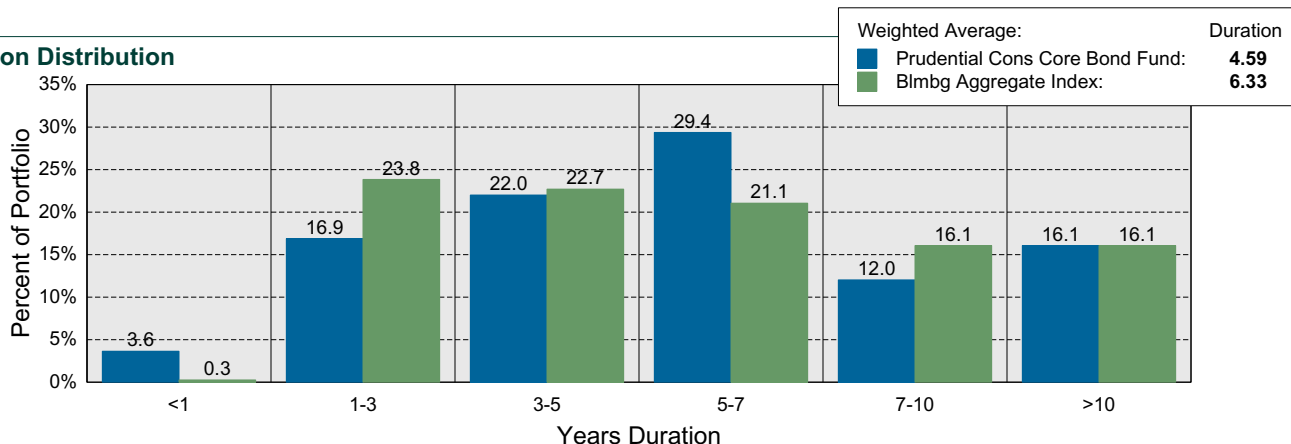
Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

Sector Distribution



Duration Distribution



Quality Distribution



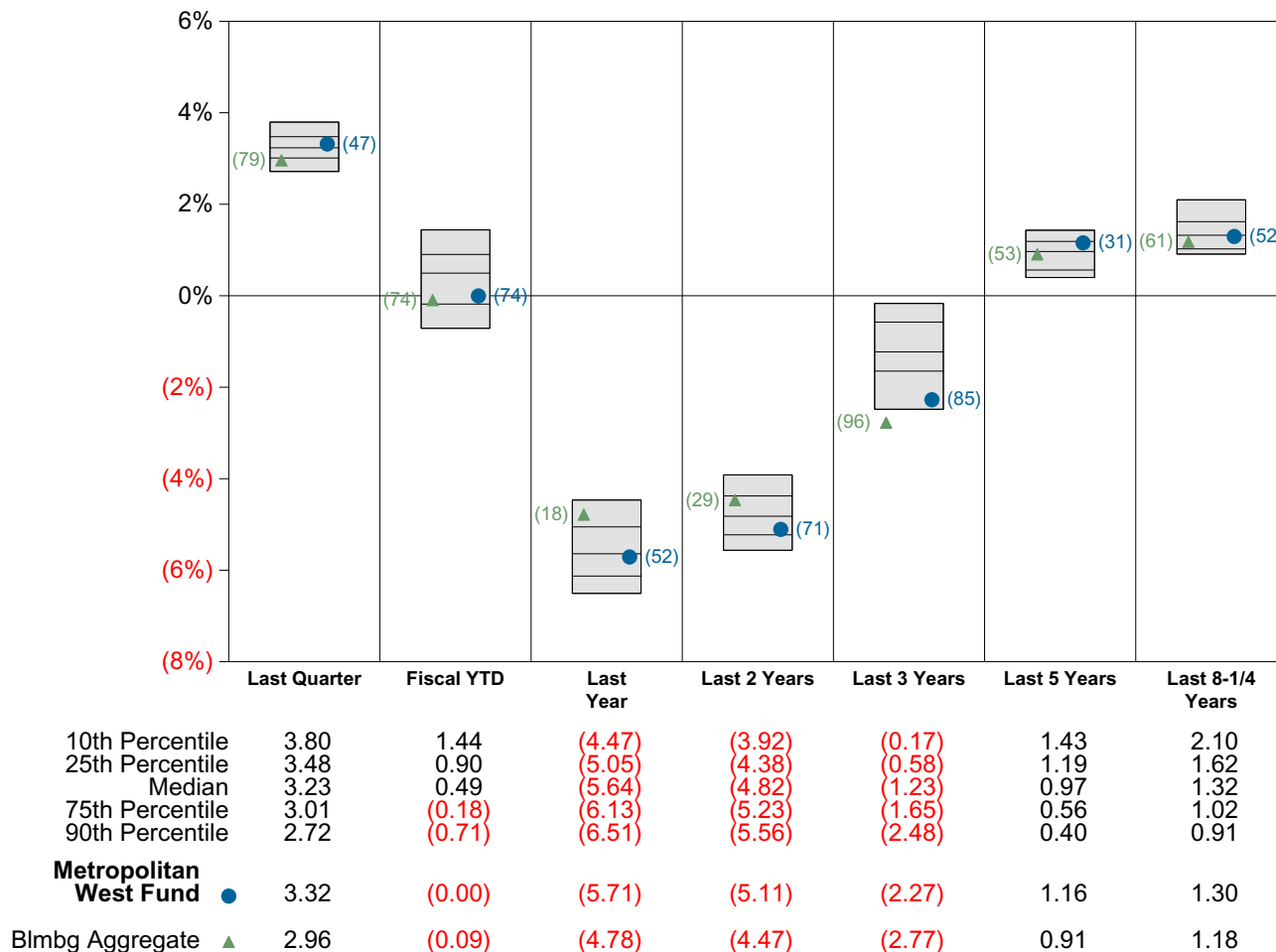
Metropolitan West Fund

Period Ended March 31, 2023

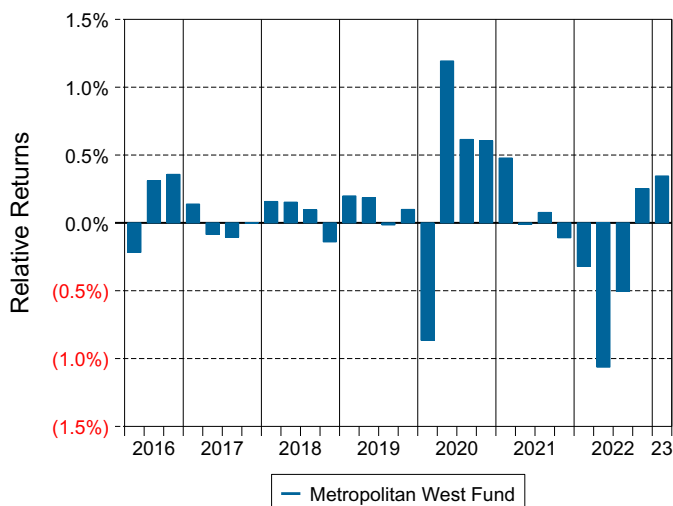
Quarterly Summary and Highlights

- Metropolitan West Fund's portfolio posted a 3.32% return for the quarter placing it in the 47 percentile of the Callan Core Plus Mutual Funds group for the quarter and in the 52 percentile for the last year.
- Metropolitan West Fund's portfolio outperformed the Blmbg Aggregate by 0.36% for the quarter and underperformed the Blmbg Aggregate for the year by 0.93%.

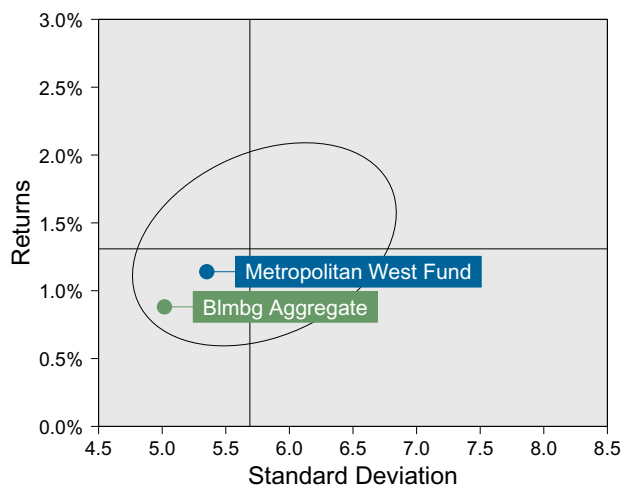
Performance vs Callan Core Plus Mutual Funds (Net)



Relative Return vs Blmbg Aggregate



Callan Core Plus Mutual Funds (Net) Annualized Seven Year Risk vs Return

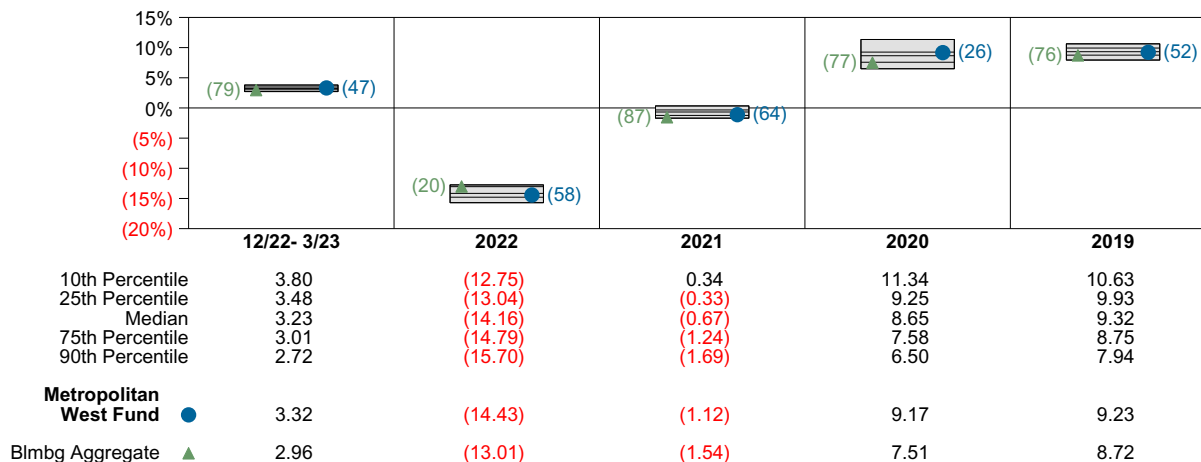


Metropolitan West Fund Return Analysis Summary

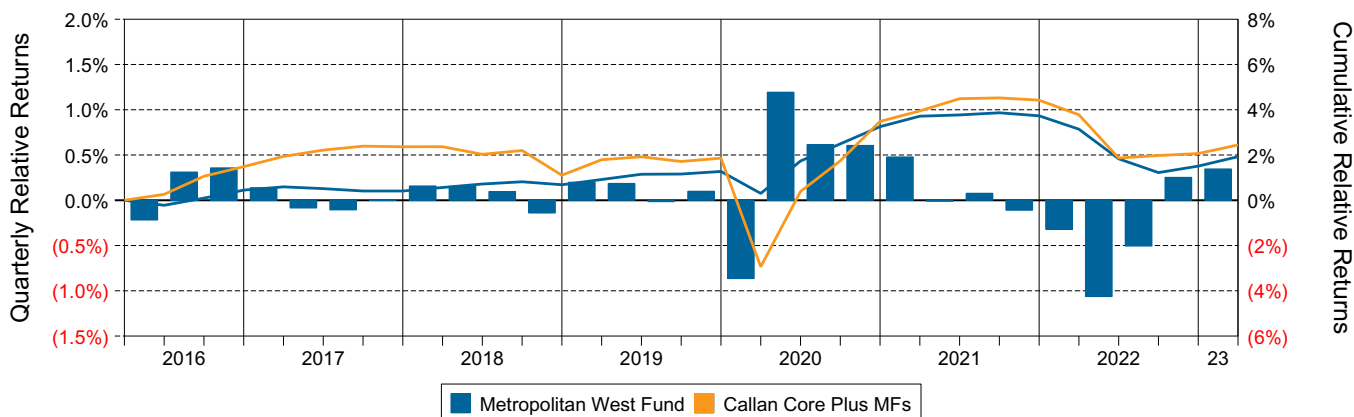
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

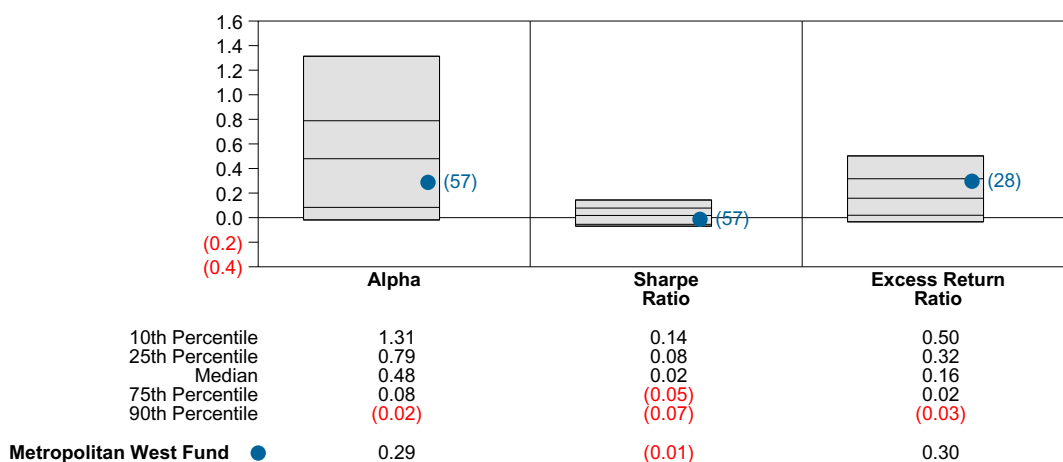
Performance vs Callan Core Plus Mutual Funds (Net)



Cumulative and Quarterly Relative Returns vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Callan Core Plus Mutual Funds (Net) Seven Years Ended March 31, 2023



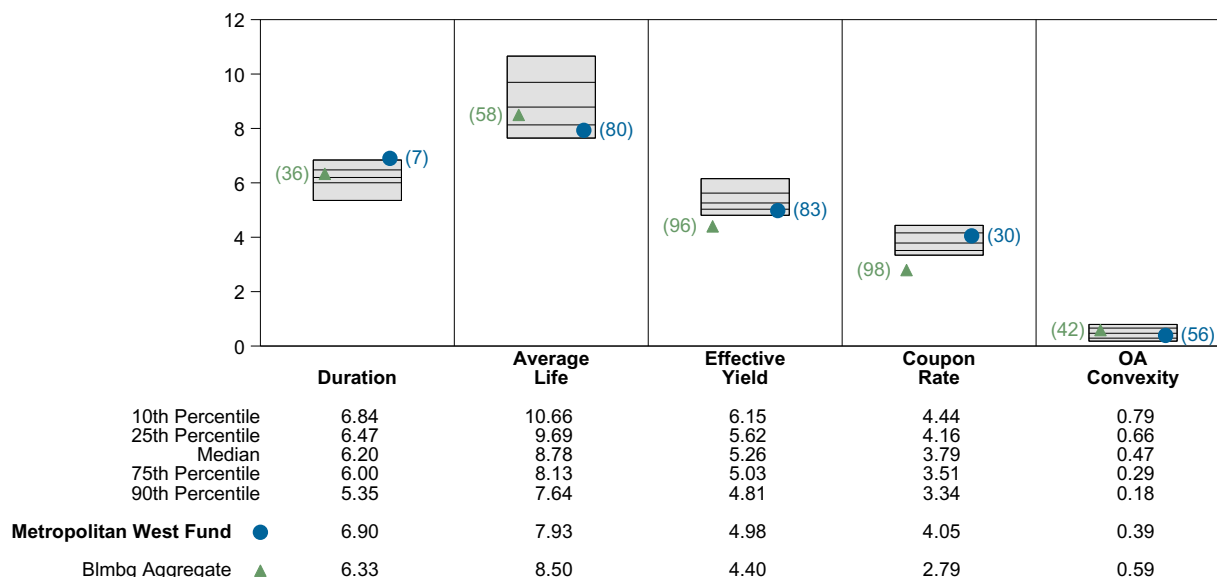
Metropolitan West Fund

Bond Characteristics Analysis Summary

Portfolio Characteristics

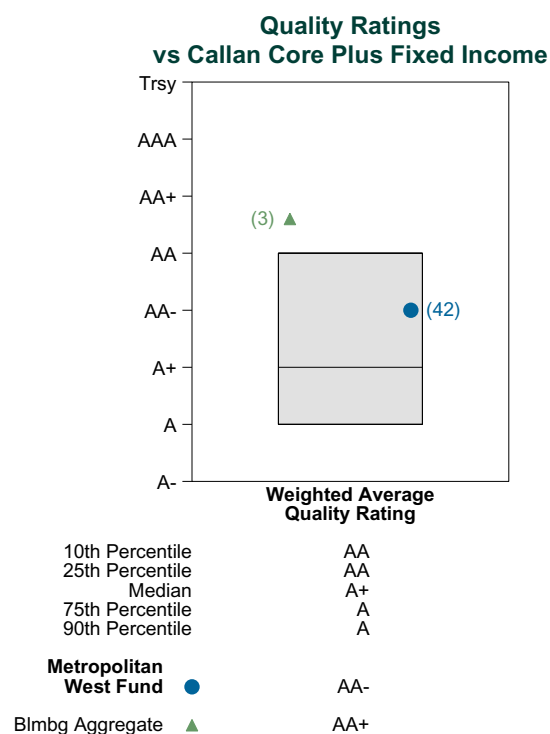
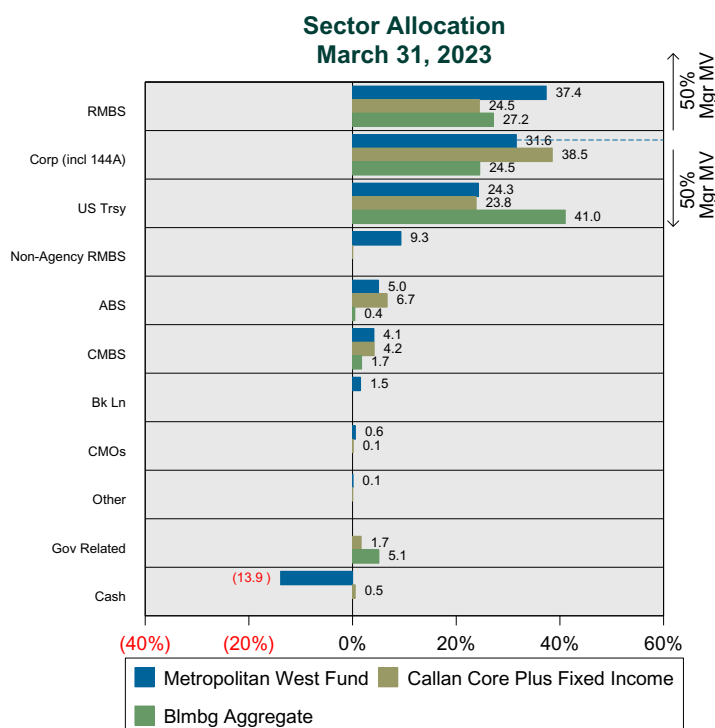
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Plus Fixed Income as of March 31, 2023



Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

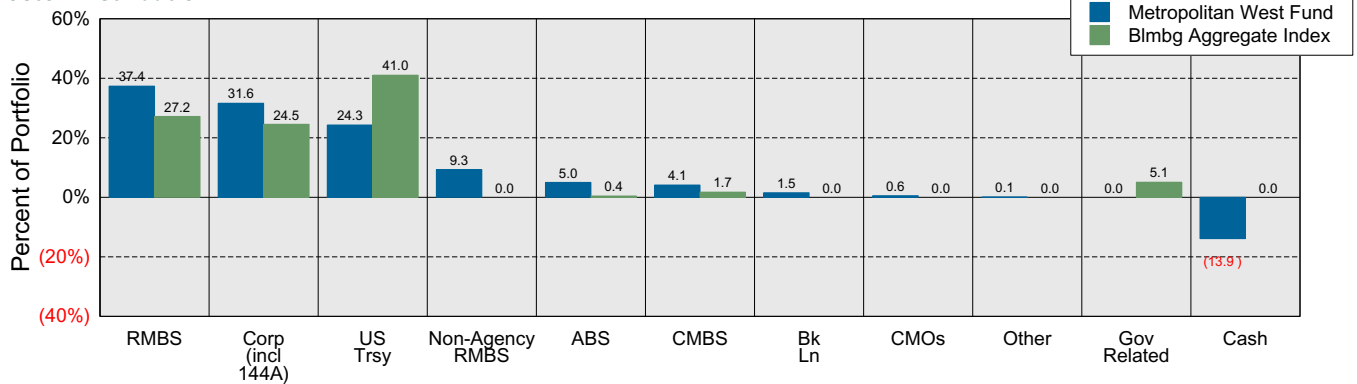


Metropolitan West Fund Portfolio Characteristics Summary As of March 31, 2023

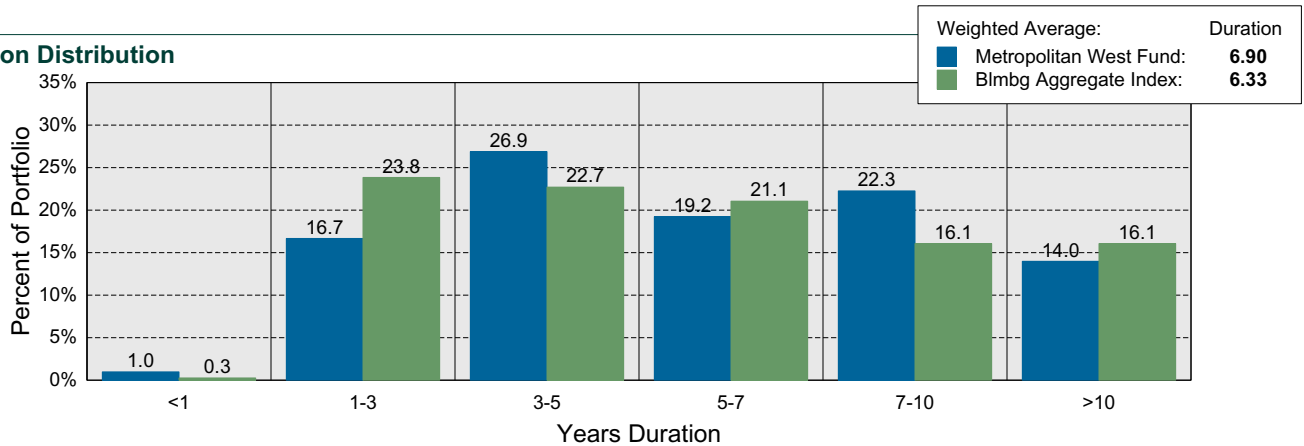
Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

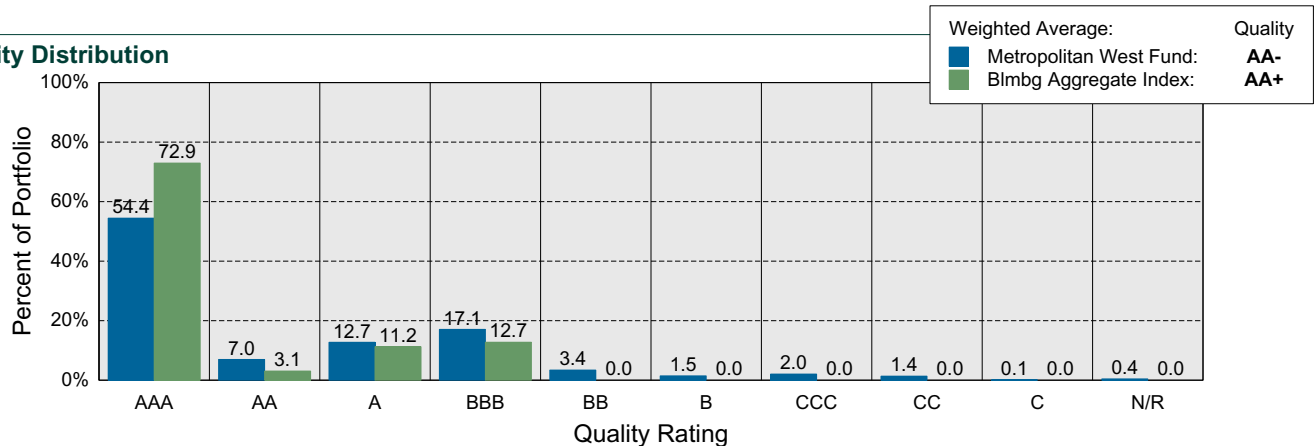
Sector Distribution



Duration Distribution



Quality Distribution



UBS AIS Period Ended March 31, 2023

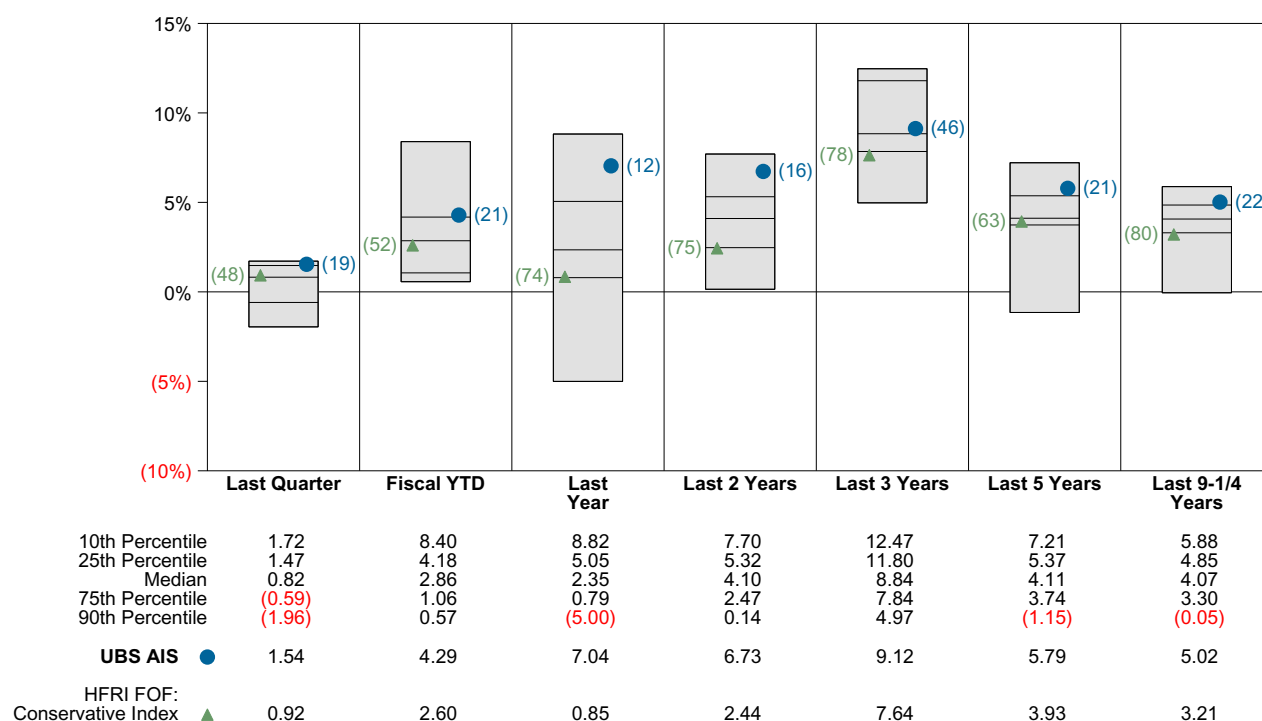
Investment Philosophy

UBS Neutral Alpha Strategies Limited is a broad based neutral fund of funds that seeks to achieve risk-adjusted capital appreciation over the long term while maintaining zero to low correlation to traditional asset classes and low volatility over an economic market cycle (3-5 years). The fund primarily invests in a diverse set of alternative investment funds employing a range of hedged strategies, including Credit/Income, conservative Equity Hedged, Multi-Strategy, Relative Value, and Trading.

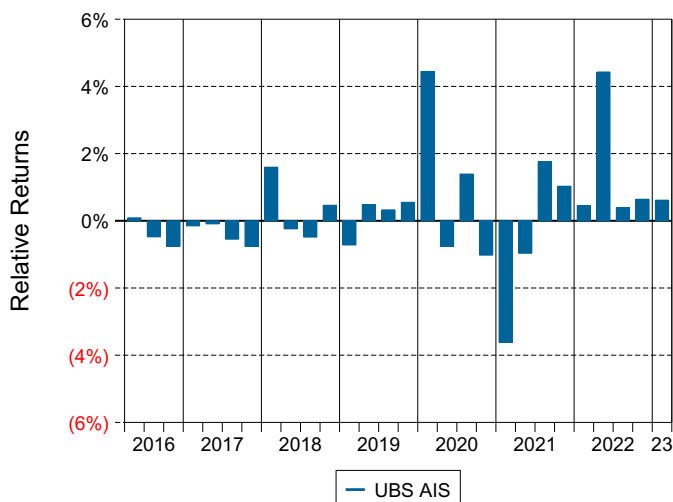
Quarterly Summary and Highlights

- UBS AIS's portfolio posted a 1.54% return for the quarter placing it in the 19 percentile of the Callan Absolute Rtn Hedge Fund of Funds group for the quarter and in the 12 percentile for the last year.
- UBS AIS's portfolio outperformed the HFRI FOF: Conservative Index by 0.62% for the quarter and outperformed the HFRI FOF: Conservative Index for the year by 6.20%.

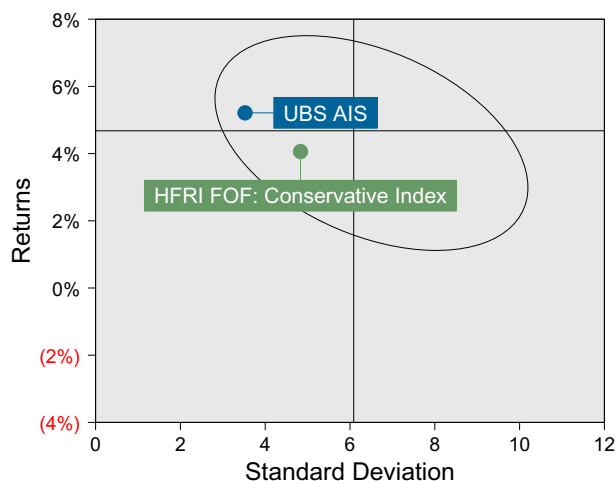
Performance vs Callan Absolute Rtn Hedge Fund of Funds (Net)



Relative Returns vs HFRI FOF: Conservative Index



Callan Absolute Rtn Hedge Fund of Funds (Net) Annualized Seven Year Risk vs Return

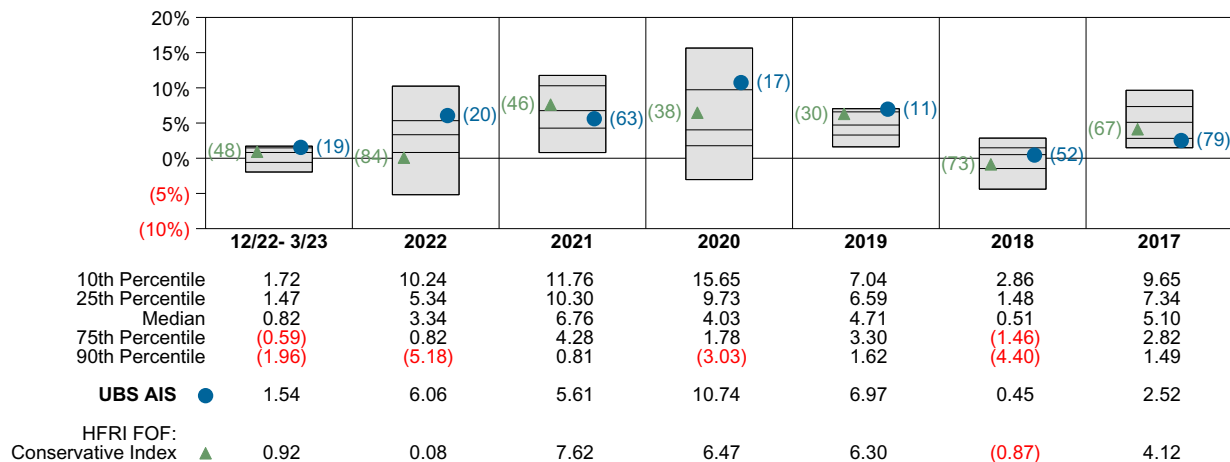


UBS AIS Return Analysis Summary

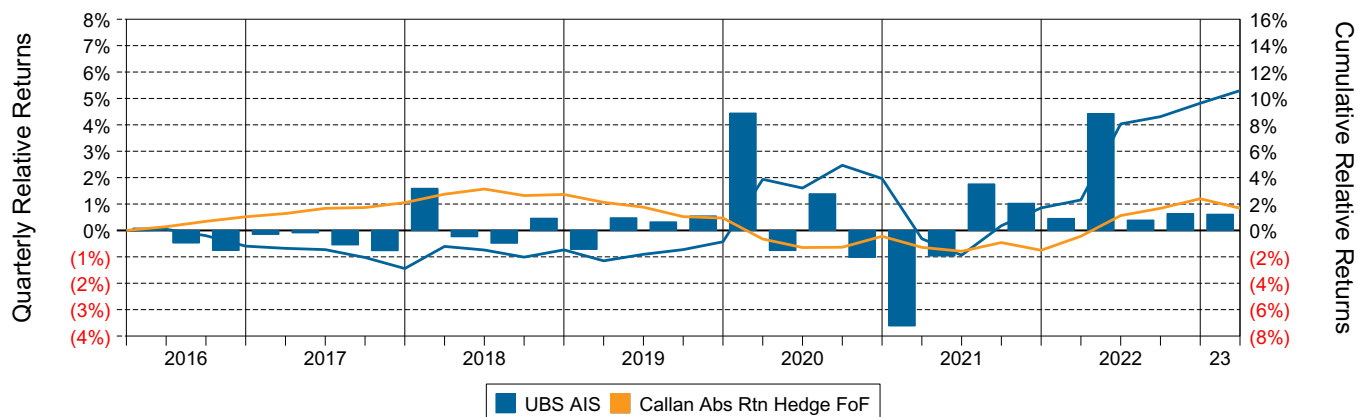
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

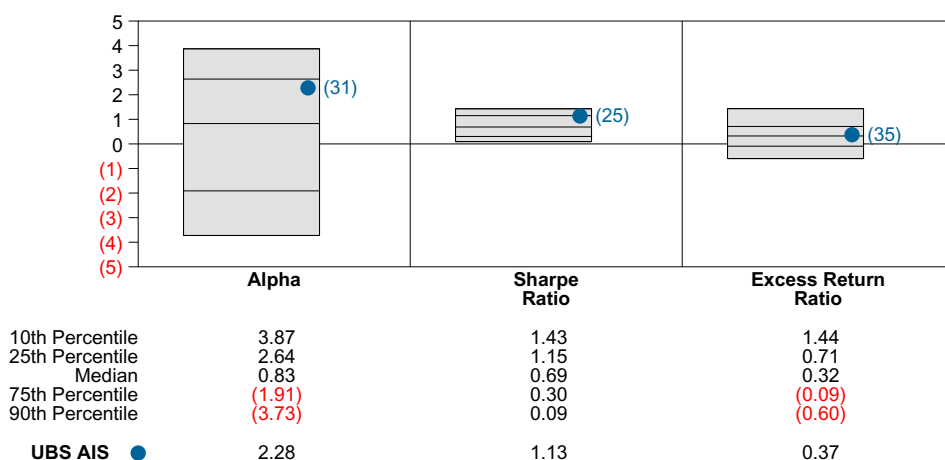
Performance vs Callan Absolute Rtn Hedge Fund of Funds (Net)



Cumulative and Quarterly Relative Returns vs HFRI FOF: Conservative Index



Risk Adjusted Return Measures vs HFRI FOF: Conservative Index Rankings Against Callan Absolute Rtn Hedge Fund of Funds (Net) Seven Years Ended March 31, 2023

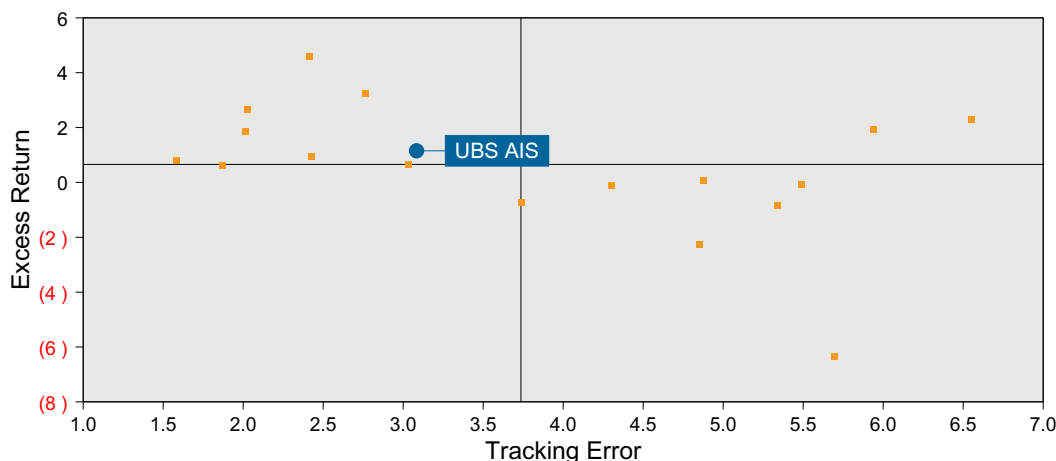


UBS AIS Risk Analysis Summary

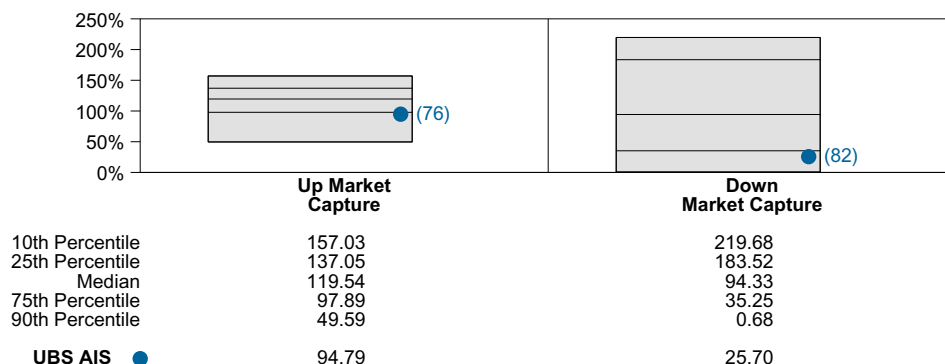
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

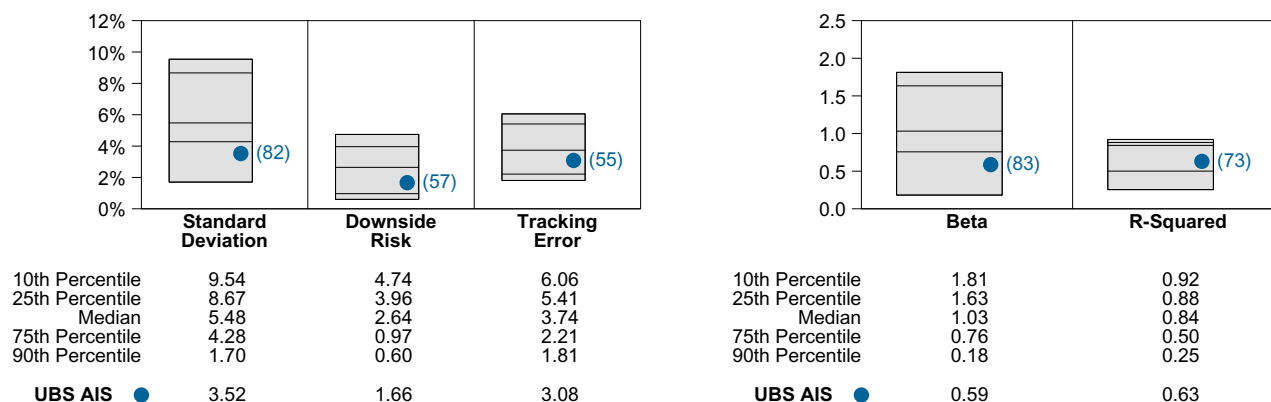
Risk Analysis vs Callan Absolute Rtn Hedge Fund of Funds (Net) Seven Years Ended March 31, 2023



Market Capture vs HFRI FOF: Conservative Index Rankings Against Callan Absolute Rtn Hedge Fund of Funds (Net) Seven Years Ended March 31, 2023



Risk Statistics Rankings vs HFRI FOF: Conservative Index Rankings Against Callan Absolute Rtn Hedge Fund of Funds (Net) Seven Years Ended March 31, 2023



PIMCO All Asset Fund Period Ended March 31, 2023

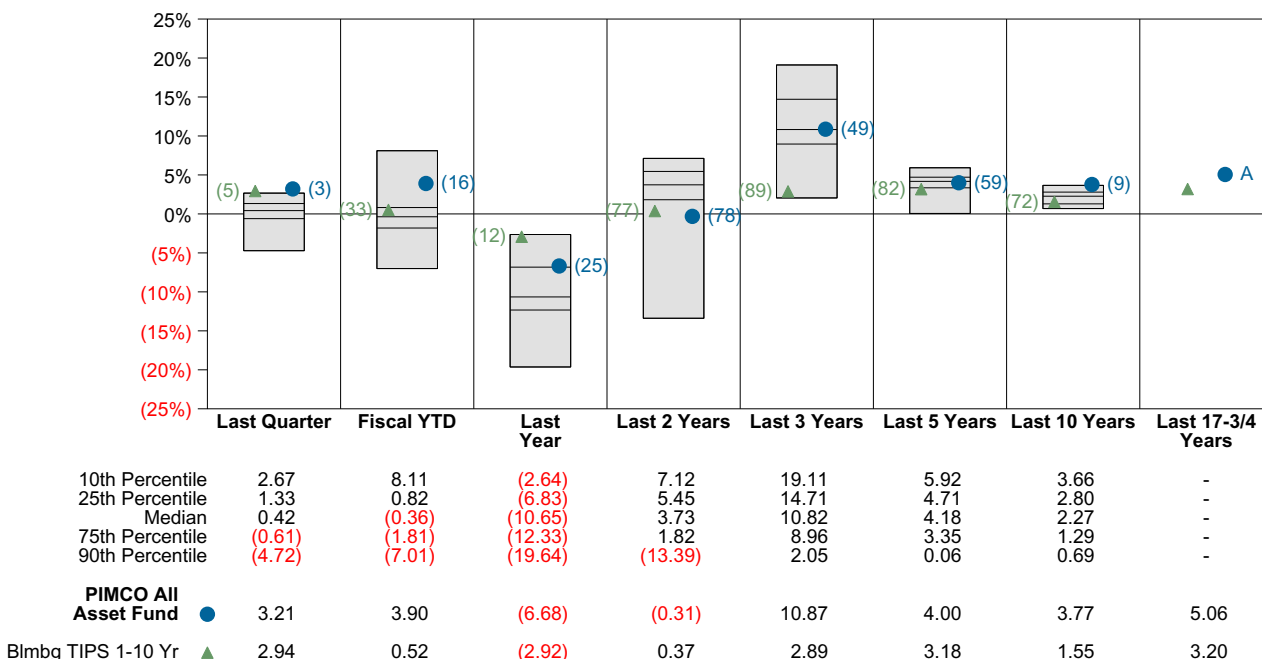
Investment Philosophy

The PIMCO All Asset Strategy is a real return-oriented, global tactical asset allocation strategy that seeks to provide three concurrent investor benefits: inflation protection, diversification and compelling long-term returns. Specifically, the All Asset Strategy has a primary benchmark of the Bloomberg Barclays Capital U.S. TIPS 1-10 Year Index and a secondary benchmark of the Consumer Price Index (CPI)+5%. PIMCO believes that this secondary benchmark reflects the Funds long-term investment strategy more accurately than the Bloomberg Barclays Capital U.S. TIPS 1-10 Year Index. As a result, the Strategy may be an attractive solution for investors seeking returns that track and meaningfully exceed inflation in a manner that also helps diversify equity risk.

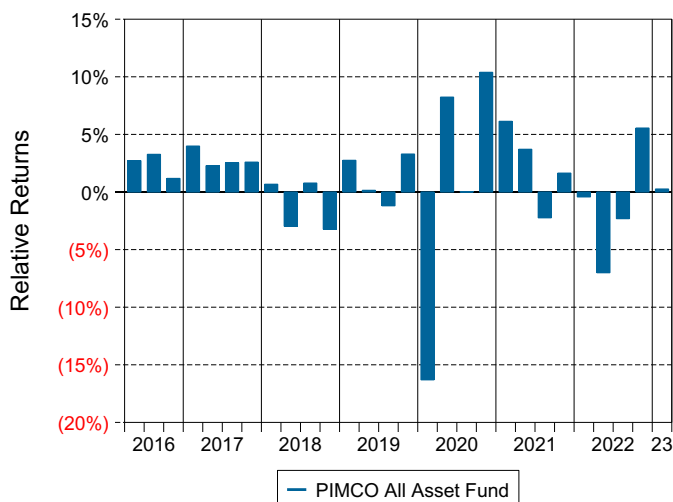
Quarterly Summary and Highlights

- PIMCO All Asset Fund's portfolio posted a 3.21% return for the quarter placing it in the 3 percentile of the Callan Real Assets Mutual Funds group for the quarter and in the 25 percentile for the last year.
- PIMCO All Asset Fund's portfolio outperformed the Blmbg TIPS 1-10 Yr by 0.26% for the quarter and underperformed the Blmbg TIPS 1-10 Yr for the year by 3.76%.

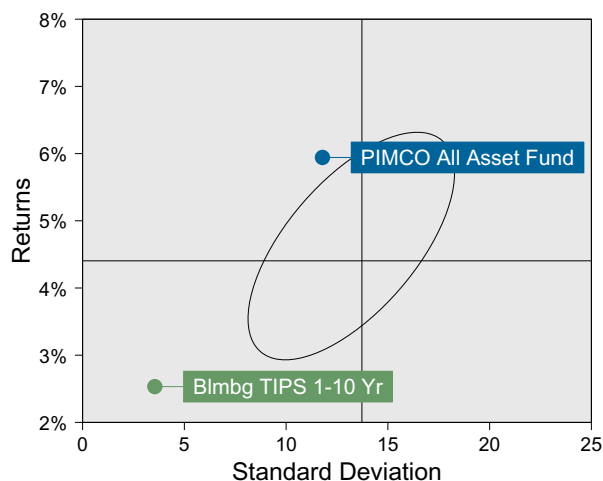
Performance vs Callan Real Assets Mutual Funds (Net)



Relative Return vs Blmbg TIPS 1-10 Yr



Callan Real Assets Mutual Funds (Net) Annualized Seven Year Risk vs Return

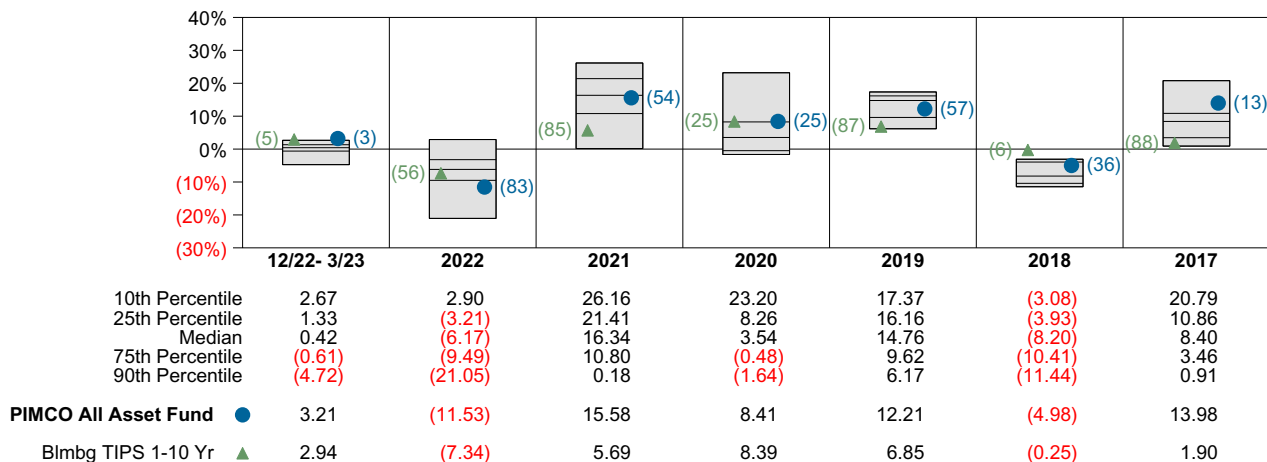


PIMCO All Asset Fund Return Analysis Summary

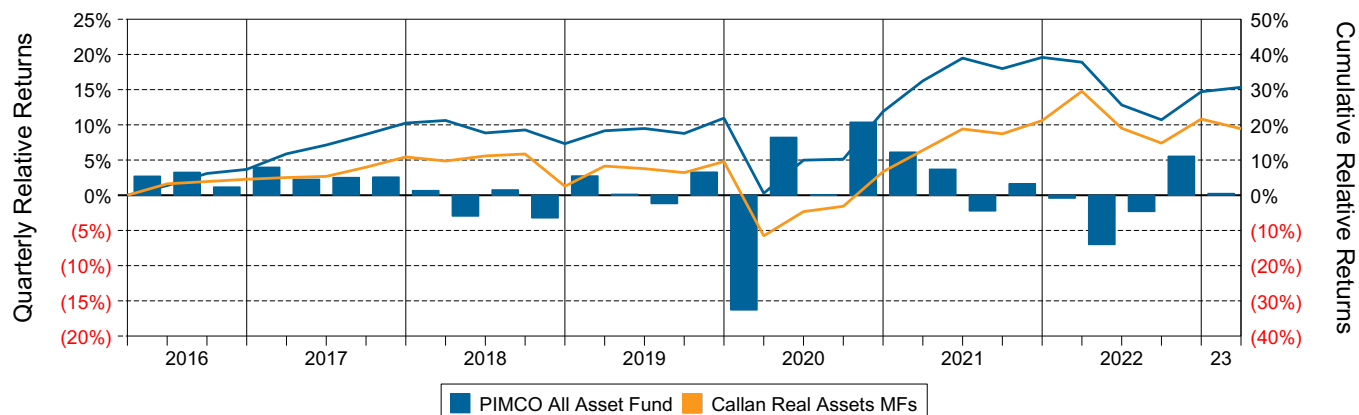
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

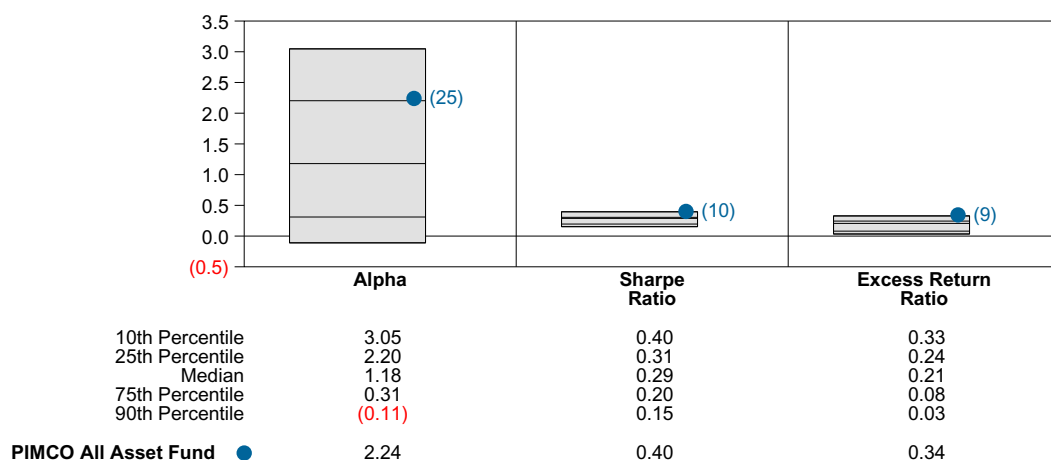
Performance vs Callan Real Assets Mutual Funds (Net)



Cumulative and Quarterly Relative Returns vs Bloomberg TIPS 1-10 Yr



Risk Adjusted Return Measures vs Bloomberg TIPS 1-10 Yr Rankings Against Callan Real Assets Mutual Funds (Net) Seven Years Ended March 31, 2023

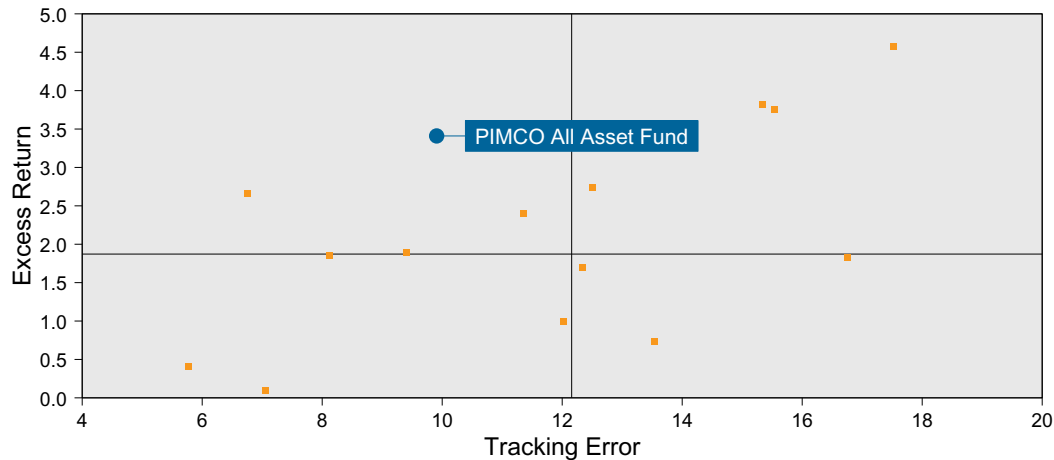


PIMCO All Asset Fund Risk Analysis Summary

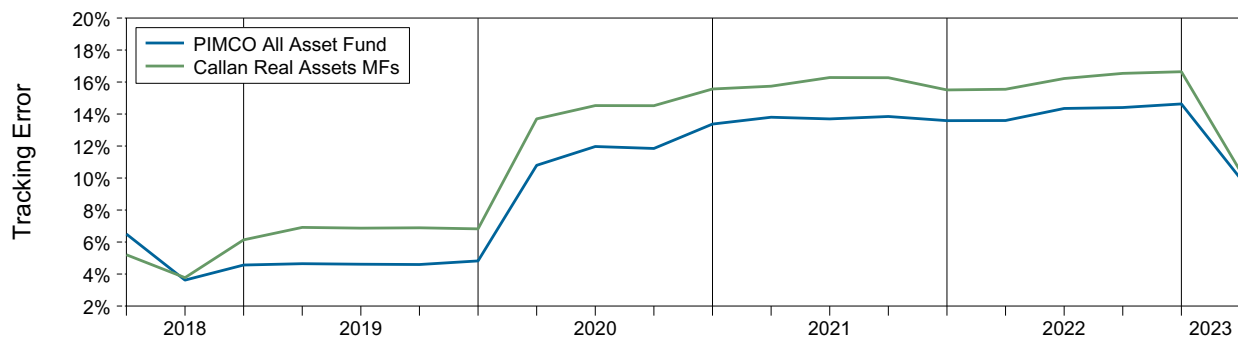
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

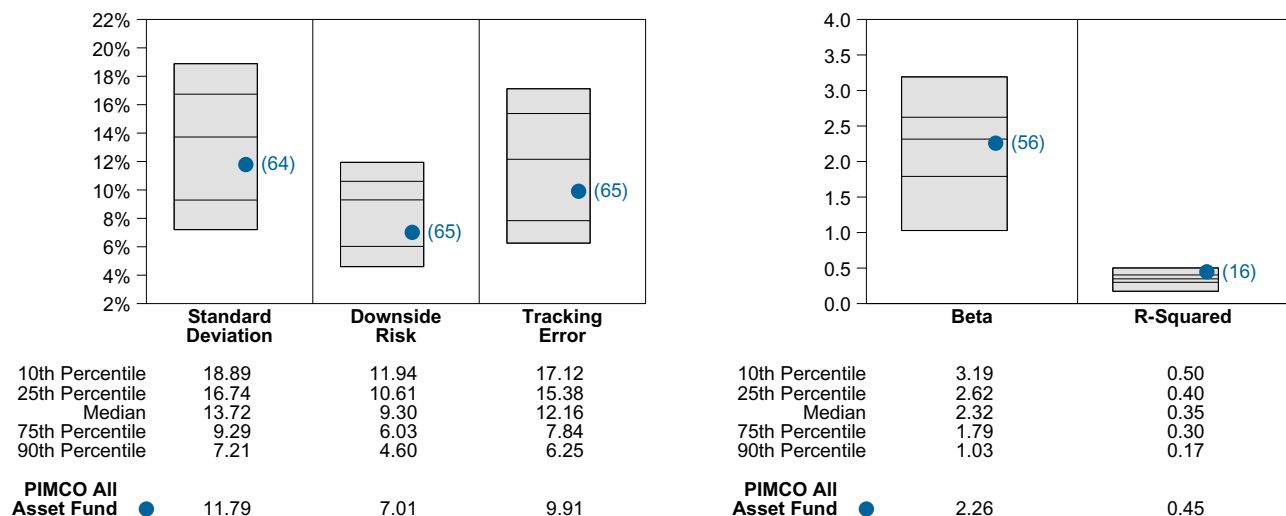
Risk Analysis vs Callan Real Assets Mutual Funds (Net) Seven Years Ended March 31, 2023



Rolling 12 Quarter Tracking Error vs Bloomberg TIPS 1-10 Yr



Risk Statistics Rankings vs Bloomberg TIPS 1-10 Yr Rankings Against Callan Real Assets Mutual Funds (Net) Seven Years Ended March 31, 2023



Pantheon USA IV
Private Equity Investment Portfolio
Quarterly Changes in Market Value

	Beg. of	Capital					Dist. of	Return	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- of	=	Period
	Market	butions	Income	Fees	ciation	Real. Gains	Capital		Market
03/2001	0	750,000	8,223	12,836	(57,546)	0	0		687,841
06/2001	687,841	375,000	7,264	7,928	(1,589)	0	0		1,060,588
09/2001	1,060,588	0	14,367	5,285	(23,881)	0	0		1,045,789
12/2001	1,045,789	375,000	5,664	8,042	(33,262)	0	0		1,385,149
03/2002	1,385,149	1,200,000	927	11,558	4,096	0	0		2,578,614
06/2002	2,578,614	0	2,048	12,973	(20,185)	0	0		2,547,504
09/2002	2,547,504	600,000	1,070	13,889	22,215	0	0		3,156,900
12/2002	3,156,900	450,000	871	16,582	(5,101)	0	0		3,586,088
03/2003	3,586,088	600,000	3,153	17,442	135,495	0	0		4,307,294
06/2003	4,307,294	300,000	653	17,815	208,249	0	0		4,798,381
09/2003	4,798,381	300,000	419	18,961	52,584	0	0		5,132,423
12/2003	5,132,423	300,000	921	19,575	357,043	0	0		5,770,812
03/2004	5,770,812	450,000	846	22,549	52,740	0	0		6,251,849
06/2004	6,251,849	300,000	895	23,425	93,587	0	150,000		6,472,906
09/2004	6,472,906	450,000	993	24,526	(13,696)	0	375,000		6,510,677
12/2004	6,510,677	450,000	811	24,878	1,170,082	0	150,000		7,956,692
03/2005	7,956,692	0	835	24,282	(63,728)	30,885	119,115		7,719,517
06/2005	7,719,517	450,000	2,488	24,282	516,548	7,763	367,237		8,289,271
09/2005	8,289,271	0	976	24,282	574,952	0	0		8,840,917
12/2005	8,840,917	2,100,000	1,260	24,384	498,530	0	2,100,000		9,316,323
03/2006	9,316,323	150,000	2,979	24,384	201,583	0	0		9,646,501
06/2006	9,646,501	0	3,157	24,384	187,131	0	150,000		9,662,405
09/2006	9,662,405	0	3,266	24,384	709,466	0	150,000		10,200,753
12/2006	10,200,753	1,500,000	5,773	24,384	1,172,764	0	1,650,000		11,204,906
03/2007	11,204,906	1,200,000	5,197	24,384	479,152	964,950	385,050		11,514,871
06/2007	11,514,871	0	6,934	24,551	942,418	383,290	216,710		11,839,672
09/2007	11,839,672	0	8,818	24,467	919,210	800,726	399,274		11,543,233
12/2007	11,543,233	0	4,160	24,467	583,602	207,000	243,000		11,656,528
03/2008	11,656,528	450,000	1,635	24,467	(50,605)	551,547	123,453		11,358,091
06/2008	11,358,091	225,000	1,302	24,467	60,753	206,609	18,391		11,395,679
09/2008	11,395,679	0	804	24,467	(482,065)	0	0		10,889,951
12/2008	10,889,951	0	599	24,467	(2,149,996)	0	0		8,716,087
03/2009	8,716,087	0	47	24,467	(165,736)	0	0		8,525,931
06/2009	8,525,931	0	58	24,467	(20,009)	0	0		8,481,513
09/2009	8,481,513	0	72	24,312	477,125	32,763	267,237		8,634,398
12/2009	8,634,398	0	80	24,330	619,011	100,558	349,442		8,779,159
03/2010	8,779,159	0	74	24,330	234,076	90,713	134,287		8,763,979
06/2010	8,763,979	0	63	24,201	129,283	143,880	81,120		8,644,124
09/2010	8,644,124	0	62	24,201	557,239	133,289	316,711		8,727,224
12/2010	8,727,224	0	103	24,201	365,171	20,178	804,822		8,243,297
03/2011	8,243,297	0	99	24,201	325,215	315,833	434,167		7,794,410
06/2011	7,794,410	0	62	24,201	132,134	431,439	243,561		7,227,405
09/2011	7,227,405	0	47	24,201	(95,355)	122,728	102,272		6,882,896
12/2011	6,882,896	750,000	39	22,975	247,209	849,891	125,109		6,882,169
03/2012	6,882,169	0	29	24,232	265,220	165,104	59,896		6,898,186
06/2012	6,898,186	150,000	4,184	24,232	150,864	369,767	155,233		6,654,002
09/2012	6,654,002	0	26	24,232	201,349	191,505	138,495		6,501,145

Pantheon USA IV
Private Equity Investment Portfolio
Quarterly Changes in Market Value

	Beg. of	Capital					Dist. of	Return	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- of	=	Period
	Market	butions	Income	Fees	ciation	Real. Gains	Capital		Market
12/2012	6,501,145	0	89	24,232	60,319	588,870	236,130		5,712,321
03/2013	5,712,321	0	0	24,232	140,571	185,387	114,613		5,528,660
06/2013	5,528,660	0	80	24,232	83,516	195,385	104,615		5,288,024
09/2013	5,288,024	0	242	24,232	170,149	43,998	106,002		5,284,183
12/2013	5,284,183	0	0	24,232	132,583	285,673	239,327		4,867,534
03/2014	4,867,534	0	13	24,232	169,254	24,407	125,593		4,862,569
06/2014	4,862,569	0	0	24,232	36,266	392,392	252,609		4,229,602
09/2014	4,229,602	0	0	24,044	(20,499)	269,803	195,198		3,720,058
12/2014	3,720,058	0	0	24,044	2,886	94,776	115,224		3,488,900
03/2015	3,488,900	0	0	24,044	22,598	0	0		3,487,454
06/2015	3,487,454	450,000	750	20,651	(64,559)	599,628	135,372		3,117,994
09/2015	3,117,994	0	(3,481)	20,651	49,747	76,324	73,676		2,993,609
12/2015	2,993,609	0	6,633	20,096	(27,481)	178,240	121,760		2,652,665
03/2016	2,652,665	0	(552)	19,628	(277,835)	121,741	28,259		2,204,650
06/2016	2,204,650	0	25,584	19,628	20,035	169,385	265,615		1,795,641
09/2016	1,795,641	330,000	(7,065)	(6,686)	13,288	27,065	1,427,935		683,550
12/2016	683,550	75,000	(1,928)	0	14,438	43	389,957		381,060
03/2017	381,060	0	(2,405)	0	16,159	0	0		394,814
06/2017	394,814	0	57	0	6,836	0	0		401,707
09/2017	401,707	0	(994)	0	12,477	0	0		413,190
12/2017	413,190	0	(1,574)	0	(11,422)	150,000	0		250,194
03/2018	250,194	0	(458)	0	(67)	0	0		249,669
06/2018	249,669	0	452	0	16,690	0	0		266,811
09/2018	266,811	0	0	0	81	0	0		266,892
12/2018	266,892	0	(2,137)	0	(7,976)	372	89,628		166,779
03/2019	166,779	0	0	0	914	0	0		167,693
06/2019	167,693	0	0	0	0	0	0		167,693
09/2019	167,693	0	0	0	0	0	0		167,693
12/2019	167,693	0	0	0	0	0	0		167,693
03/2020	167,693	0	0	0	0	0	0		167,693
06/2020	167,693	0	0	0	0	0	0		167,693
09/2020	167,693	0	0	0	0	0	0		167,693
12/2020	167,693	0	0	0	22,606	0	0		190,299
03/2021	190,299	0	0	0	0	0	0		190,299
06/2021	190,299	0	0	0	0	0	0		190,299
09/2021	190,299	0	0	0	0	0	0		190,299
12/2021	190,299	0	0	0	(9,289)	0	0		181,010
03/2022	181,010	0	0	0	0	0	0		181,010
06/2022	181,010	0	0	0	0	0	0		181,010
09/2022	181,010	0	0	0	0	0	0		181,010
12/2022	181,010	0	0	0	(2,248)	0	0		178,762
03/2023	178,762	0	0	0	0	0	0		178,762
	0	14,730,000	117,659	1,347,274	10,033,379	9,523,907	13,831,095		178,762

Pantheon USA IV
Private Equity Investment Portfolio
Quarterly Changes in Market Value

Returns

Net Since Inception IRR = 10.17%

Ratios

Capital Account = \$178,762

Total Value = \$23,533,764

Paid In Capital = \$14,730,000

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.60x

DPI Realization Multiple (Distributions/Paid In Capital) = 1.59x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.01x

Pantheon USA VI
Private Equity Investment Portfolio
Quarterly Changes in Market Value

	Beg. of	Capital					Dist. of	Return		End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- Real. Gains	of	=	Period
	Market	butions	Income	Fees	ciation			Capital		Market
09/2004	0	300,000	21	10,598	(17,856)	0	0	0		271,567
12/2004	271,567	1,050,000	252	12,187	192,341	0	0	0		1,501,973
03/2005	1,501,973	0	1,031	12,187	(38,385)	0	0	0		1,452,432
06/2005	1,452,432	0	1,549	12,187	18,460	0	0	0		1,460,254
09/2005	1,460,254	0	2,314	17,487	(18,222)	0	0	0		1,426,859
12/2005	1,426,859	0	2,779	18,281	62,024	0	105,000	0		1,368,381
03/2006	1,368,381	0	2,879	18,281	(15,882)	0	0	0		1,337,097
06/2006	1,337,097	375,000	1,171	18,281	(19,654)	0	0	0		1,675,333
09/2006	1,675,333	675,000	2,408	23,580	82,649	0	0	0		2,411,810
12/2006	2,411,810	975,000	3,365	24,375	97,132	0	0	0		3,462,932
03/2007	3,462,932	750,000	3,577	24,375	10,601	0	0	0		4,202,735
06/2007	4,202,735	1,275,000	4,528	24,375	161,670	0	0	0		5,619,558
09/2007	5,619,558	975,000	4,320	24,375	132,610	0	0	0		6,707,113
12/2007	6,707,113	600,000	4,540	24,375	270,348	0	0	0		7,557,626
03/2008	7,557,626	1,575,000	3,508	24,375	(120,491)	73,041	226,959	0		8,691,268
06/2008	8,691,268	600,000	1,522	24,375	59,937	0	0	0		9,328,352
09/2008	9,328,352	600,000	2,056	24,375	(130,465)	0	0	0		9,775,568
12/2008	9,775,568	600,000	934	24,375	(1,545,047)	0	0	0		8,807,080
03/2009	8,807,080	0	97	24,375	(154,722)	0	0	0		8,628,080
06/2009	8,628,080	150,000	61	24,375	265,667	0	0	0		9,019,433
09/2009	9,019,433	150,000	43	24,375	523,871	0	0	0		9,668,972
12/2009	9,668,972	225,000	72	24,375	668,374	0	0	0		10,538,043
03/2010	10,538,043	150,000	78	24,375	358,692	0	0	0		11,022,438
06/2010	11,022,438	0	69	24,375	225,714	0	0	0		11,223,846
09/2010	11,223,846	450,000	74	24,375	454,607	99,882	470,118	0		11,534,152
12/2010	11,534,152	150,000	79	24,375	939,654	60,577	89,423	0		12,449,510
03/2011	12,449,510	0	97	24,375	618,092	57,566	392,434	0		12,593,324
06/2011	12,593,324	0	70	24,375	472,411	30,651	269,349	0		12,741,430
09/2011	12,741,430	75,000	72	24,375	(515,652)	2,782	297,218	0		11,976,475
12/2011	11,976,475	750,000	58	24,375	671,471	474,098	500,902	0		12,398,629
03/2012	12,398,629	225,000	60	24,375	798,160	292,030	82,970	0		13,022,474
06/2012	13,022,474	225,000	88	24,375	(72,923)	343,274	256,726	0		12,550,264
09/2012	12,550,264	0	28	24,375	214,474	71,839	228,161	0		12,440,391
12/2012	12,440,391	450,000	1,895	24,375	422,186	703,739	421,261	0		12,165,097
03/2013	12,165,097	0	12	24,375	539,068	261,847	413,153	0		12,004,802
06/2013	12,004,802	0	0	24,375	406,946	317,372	357,628	0		11,712,373
09/2013	11,712,373	0	0	24,375	580,758	167,452	207,548	0		11,893,756
12/2013	11,893,756	375,000	(2,322)	24,375	571,322	828,990	296,010	0		11,688,381
03/2014	11,688,381	0	(11,649)	24,375	371,626	313,728	286,273	0		11,423,982
06/2014	11,423,982	0	132	24,376	429,271	204,661	350,339	0		11,274,009
09/2014	11,274,009	0	3,016	24,375	(56,699)	220,317	244,682	0		10,730,952
12/2014	10,730,952	225,000	(1,063)	24,375	413,628	41,503	678,497	0		10,624,142
03/2015	10,624,142	150,000	3,089	21,937	22,870	462,168	227,832	0		10,088,164
06/2015	10,088,164	75,000	41,789	21,937	130,065	406,954	328,045	0		9,578,082
09/2015	9,578,082	0	23,994	21,937	(236,911)	423,601	446,399	0		8,473,228
12/2015	8,473,228	0	13,947	21,937	(65,411)	277,773	172,227	0		7,949,827
03/2016	7,949,827	0	7,243	19,744	(96,071)	138,014	296,986	0		7,406,255

Pantheon USA VI
Private Equity Investment Portfolio
Quarterly Changes in Market Value

	Beg. of	Capital					Dist. of	Return	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- of	=	Period
	Market	butions	Income	Fees	ciation	Real. Gains	Capital		Market
06/2016	7,406,255	0	29,185	19,744	149,485	11,048	183,952		7,370,181
09/2016	7,370,181	0	254	19,744	133,111	290,751	294,249		6,898,802
12/2016	6,898,802	0	39,023	19,744	137,500	331,857	238,143		6,485,581
03/2017	6,485,581	0	70,303	17,526	72,286	163,693	151,307		6,295,644
06/2017	6,295,644	0	7,032	17,721	118,273	0	630,000		5,773,228
09/2017	5,773,228	0	10,125	17,915	161,228	178,561	181,440		5,566,665
12/2017	5,566,665	0	16,410	17,915	75,585	376,963	253,037		5,010,745
03/2018	5,010,745	0	29,951	15,773	41,058	257,342	447,658		4,360,981
06/2018	4,360,981	0	3,392	15,949	169,127	241,540	118,459		4,157,552
09/2018	4,157,552	0	2,153	16,124	54,877	248,746	154,681		3,795,031
12/2018	3,795,031	0	2,631	16,124	(142,588)	42,188	197,812		3,398,950
03/2019	3,398,950	0	0	14,196	185,560	89,999	0		3,480,315
06/2019	3,480,315	0	0	14,354	107,542	157,500	0		3,416,003
09/2019	3,416,003	0	0	14,511	6,000	464,999	0		2,942,493
12/2019	2,942,493	0	0	14,511	(552,511)	225,000	0		2,150,471
03/2020	2,150,471	0	0	12,883	(79,403)	315,000	0		1,743,185
06/2020	1,743,185	0	0	12,883	23,672	630,000	0		1,123,974
09/2020	1,123,974	0	0	1,699	(5,442)	0	0		1,116,833
12/2020	1,116,833	0	0	0	54,478	60,000	0		1,111,311
03/2021	1,111,311	0	0	0	(7,689)	660,000	0		443,622
06/2021	443,622	0	0	0	(22,663)	0	0		420,959
09/2021	420,959	0	0	0	(52,006)	0	0		368,953
12/2021	368,953	0	0	0	(17,770)	0	0		351,183
03/2022	351,183	0	0	0	(16,239)	75,000	0		259,944
06/2022	259,944	0	0	0	(2,840)	105,000	0		152,104
09/2022	152,104	0	0	0	(3,763)	0	0		148,341
12/2022	148,341	0	0	0	4,713	0	0		153,054
03/2023	153,054	0	0	0	0	0	0		153,054
	0	14,175,000	334,342	1,334,253	8,673,889	11,199,046	10,496,878		153,054

Returns

Net Since Inception IRR = 6.69%

Ratios

Capital Account = \$153,054

Total Value = \$21,848,978

Paid In Capital = \$14,175,000

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.54x

DPI Realization Multiple (Distributions/Paid In Capital) = 1.53x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.01x

Pantheon USA VII
Private Equity Investment Portfolio
Quarterly Changes in Market Value

	Beg. of	Capital					Dist. of	Return		End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- of	=		Period
	Market	butions	Income	Fees	ciation	Real. Gains	Capital			Market
12/2006	0	100,000	738	12,672	(7,470)	0	0			80,596
03/2007	80,596	250,000	528	4,687	767	0	0			327,204
06/2007	327,204	100,000	534	6,336	20,148	0	0			441,550
09/2007	441,550	100,000	1,687	7,031	15,286	0	0			551,492
12/2007	551,492	100,000	1,005	7,031	(23,884)	0	0			621,582
03/2008	621,582	175,000	1,033	7,031	(5,589)	0	0			784,995
06/2008	784,995	200,000	447	8,680	(8,058)	0	0			968,704
09/2008	968,704	200,000	585	9,375	(26,070)	0	0			1,133,844
12/2008	1,133,844	200,000	495	9,375	(165,573)	0	0			1,159,391
03/2009	1,159,391	0	55	9,375	(31,122)	0	0			1,118,949
06/2009	1,118,949	50,000	86	9,375	16,176	0	0			1,175,836
09/2009	1,175,836	100,000	34	9,375	83,643	0	0			1,350,138
12/2009	1,350,138	100,000	53	9,375	67,252	0	0			1,508,068
03/2010	1,508,068	100,000	25	9,375	27,655	0	0			1,626,373
06/2010	1,626,373	150,000	19	9,375	17,193	0	0			1,784,210
09/2010	1,784,210	300,000	44	9,375	51,750	0	0			2,126,629
12/2010	2,126,629	150,000	78	9,375	170,613	0	0			2,437,945
03/2011	2,437,945	200,000	162	9,375	109,285	0	0			2,738,017
06/2011	2,738,017	50,000	36	9,375	169,157	0	0			2,947,835
09/2011	2,947,835	300,000	17	9,375	(46,460)	150,000	0			3,042,017
12/2011	3,042,017	275,000	16	9,375	95,371	75,000	0			3,328,029
03/2012	3,328,029	100,000	20	9,375	196,043	0	0			3,614,717
06/2012	3,614,717	50,000	19	9,375	18,351	0	0			3,673,712
09/2012	3,673,712	0	10	9,375	101,545	0	0			3,765,892
12/2012	3,765,892	225,000	0	9,375	107,364	200,000	0			3,888,881
03/2013	3,888,881	100,000	0	9,375	181,736	150,000	0			4,011,242
06/2013	4,011,242	0	0	9,375	152,474	75,000	0			4,079,341
09/2013	4,079,341	0	0	9,375	211,778	75,000	0			4,206,744
12/2013	4,206,744	400,000	(694)	9,375	241,094	475,000	0			4,362,769
03/2014	4,362,769	0	(117)	9,375	238,983	93,744	81,256			4,417,260
06/2014	4,417,260	0	431	9,375	282,770	57,266	62,734			4,571,086
09/2014	4,571,086	100,000	(205)	9,375	101,395	190,803	124,197			4,447,901
12/2014	4,447,901	175,000	(389)	9,375	197,539	226,324	188,676			4,395,676
03/2015	4,395,676	75,000	15,663	9,375	86,397	156,847	78,153			4,328,361
06/2015	4,328,361	75,000	18,453	9,375	144,103	184,166	140,833			4,231,543
09/2015	4,231,543	35,000	22,690	9,375	(65,730)	116,172	156,327			3,941,629
12/2015	3,941,629	0	14,498	9,375	67,684	118,590	81,409			3,814,437
03/2016	3,814,437	0	6,329	9,375	(8,262)	18,729	71,272			3,713,128
06/2016	3,713,128	35,000	23,508	9,375	61,190	125,298	79,703			3,618,450
09/2016	3,618,450	20,000	4,066	9,375	122,444	86,430	78,570			3,590,585
12/2016	3,590,585	30,000	37,440	9,375	50,091	141,216	108,784			3,448,741
03/2017	3,448,741	0	16,189	8,322	157,510	55,097	84,903			3,474,118
06/2017	3,474,118	0	19,356	8,414	109,999	300,000	0			3,295,059
09/2017	3,295,059	0	8,827	8,507	94,355	170,000	0			3,219,734
12/2017	3,219,734	0	8,964	8,507	72,800	171,614	148,859			2,972,518
03/2018	2,972,518	0	9,527	7,490	80,949	245,073	99,927			2,710,504
06/2018	2,710,504	0	11,047	7,573	121,502	85,609	74,391			2,675,480

Pantheon USA VII
Private Equity Investment Portfolio
Quarterly Changes in Market Value

	Beg. of	Capital					Dist. of	Return	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- of	=	Period
	Market	butions	Income	Fees	ciation	Real. Gains	Capital		Market
09/2018	2,675,480	0	6,205	7,656	70,977	50,697	54,303		2,640,006
12/2018	2,640,006	0	9,057	7,656	(132,463)	108,215	141,786		2,258,943
03/2019	2,258,943	0	0	6,741	107,773	165,000	0		2,194,975
06/2019	2,194,975	0	0	6,816	48,175	200,000	0		2,036,334
09/2019	2,036,334	0	0	6,891	(32,180)	170,001	0		1,827,262
12/2019	1,827,262	0	0	6,891	16,758	154,999	0		1,682,130
03/2020	1,682,130	40,000	0	6,117	(188,589)	120,000	0		1,407,424
06/2020	1,407,424	0	0	6,117	170,744	125,000	0		1,447,051
09/2020	1,447,051	0	0	6,185	164,141	40,000	0		1,565,007
12/2020	1,565,007	0	0	6,185	121,576	160,000	0		1,520,398
03/2021	1,520,398	0	0	5,460	180,657	165,000	0		1,530,595
06/2021	1,530,595	0	0	5,521	118,990	230,001	0		1,414,063
09/2021	1,414,063	0	0	0	46,650	205,000	0		1,255,713
12/2021	1,255,713	0	0	5,581	12,635	195,001	0		1,067,766
03/2022	1,067,766	0	0	4,914	52,014	85,000	0		1,029,866
06/2022	1,029,866	0	0	1,529	(53,206)	65,000	0		910,131
09/2022	910,131	0	0	0	(20,692)	100,000	0		789,439
12/2022	789,439	0	0	0	(7,877)	40,000	0		741,562
03/2023	741,562	0	0	0	0	29,999	0		711,563
	0	4,660,000	238,571	511,291	4,332,257	6,151,891	1,856,083		711,563

Returns

Net Since Inception IRR = 10.08%

Ratios

Capital Account = \$711,563

Total Value = \$8,719,537

Paid In Capital = \$4,660,000

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.87x

DPI Realization Multiple (Distributions/Paid In Capital) = 1.72x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.15x

Pantheon Europe Fund V A
Private Equity Investment Portfolio
Quarterly Changes in Market Value

	Beg. of	Capital	Accounting	Mgmt.	Appre-	Dist. of	Return	End of
	Period	+ Contri-	+ Income	- Fees	+ ciation	- Income &	- of	= Period
	Market	butions				Real. Gains	Capital	Market
12/2006	0	0	0	0	(36,905)	0	0	(36,905)
03/2007	(36,905)	0	(4,936)	0	(13,013)	0	0	(54,854)
06/2007	(54,854)	540,220	(4,497)	16,281	26,939	0	0	491,527
09/2007	491,527	113,772	(3,763)	7,426	7,154	0	0	601,264
12/2007	601,264	350,892	(2,961)	8,816	(5,527)	0	0	934,852
03/2008	934,852	190,146	8	8,897	55,056	0	0	1,171,165
06/2008	1,171,165	189,066	3,051	11,784	(68,387)	0	0	1,283,111
09/2008	1,283,111	421,395	(2,230)	10,621	(201,351)	0	0	1,490,304
12/2008	1,490,304	222,408	21,410	10,512	(319,183)	0	0	1,404,427
03/2009	1,404,427	0	2,886	9,737	(84,744)	0	0	1,312,832
06/2009	1,312,832	168,318	(612)	10,491	60,902	0	0	1,530,949
09/2009	1,530,949	292,340	102	10,985	112,039	0	0	1,924,445
12/2009	1,924,445	114,780	1,971	10,850	69,175	0	0	2,099,521
03/2010	2,099,521	162,372	4,387	10,009	(32,827)	0	0	2,223,444
06/2010	2,223,444	0	872	9,161	(55,632)	0	0	2,159,523
09/2010	2,159,523	436,864	1,482	10,324	199,240	0	0	2,786,785
12/2010	2,786,785	214,648	7,916	10,145	95,340	0	0	3,094,544
03/2011	3,094,544	0	26,259	10,497	224,192	0	0	3,334,498
06/2011	3,334,498	173,982	55,141	10,843	148,844	0	0	3,701,622
09/2011	3,701,622	134,170	61,038	10,146	(369,219)	0	0	3,517,465
12/2011	3,517,465	0	52,536	9,801	(78,617)	0	214,624	3,266,959
03/2012	3,266,959	106,536	46,832	9,933	183,790	0	0	3,594,184
06/2012	3,594,184	253,820	28,026	9,466	(59,794)	0	101,528	3,705,242
09/2012	3,705,242	0	95,623	9,701	51,508	0	102,920	3,739,752
12/2012	3,739,752	0	168,856	9,942	(4,547)	0	0	3,894,119
03/2013	3,894,119	205,456	36,117	9,499	(110,083)	0	154,092	3,862,018
06/2013	3,862,018	77,994	68,649	9,723	86,577	0	181,986	3,903,529
09/2013	3,903,529	108,296	98,404	10,236	71,353	0	297,814	3,873,532
12/2013	3,873,532	110,240	184,523	10,420	18,875	0	248,040	3,928,710
03/2014	3,928,710	110,264	9,778	10,196	140,285	0	165,396	4,013,445
06/2014	4,013,445	0	9,706	10,286	266,592	0	213,595	4,065,862
09/2014	4,065,862	50,532	15,103	10,795	65,337	0	389,096	3,796,943
12/2014	3,796,943	0	12,399	9,627	146,053	199,339	0	3,746,429
03/2015	3,746,429	0	29,256	8,798	207,557	0	351,573	3,622,871
06/2015	3,622,871	44,378	12,578	8,510	194,837	0	230,764	3,635,390
09/2015	3,635,390	193,043	12,578	8,510	56,596	0	501,467	3,387,630
12/2015	3,387,630	0	16,716	8,261	143,628	0	314,652	3,225,061
03/2016	3,225,061	18,100	11,270	8,438	(37,468)	248,871	0	2,959,654
06/2016	2,959,654	0	10,576	8,266	(455,285)	168,454	0	2,338,225
09/2016	2,338,225	0	5,431	8,462	(85,328)	170,571	0	2,079,294
12/2016	2,079,294	0	14,217	7,945	19,599	126,427	0	1,978,738
03/2017	1,978,738	0	(10,962)	6,658	54,293	256,000	0	1,759,411
06/2017	1,759,411	0	16,224	6,732	27,503	192,000	0	1,604,406
09/2017	1,604,406	0	10,694	6,805	10,668	48,000	0	1,570,963
12/2017	1,570,963	96,000	34,998	6,805	13,749	276,000	0	1,432,905
03/2018	1,432,905	0	3,235	5,992	10,842	140,000	0	1,300,990
06/2018	1,300,990	0	3,510	6,058	128,860	220,000	0	1,207,302

Pantheon Europe Fund V A
Private Equity Investment Portfolio
Quarterly Changes in Market Value

	Beg. of	Capital					Dist. of	Return	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- Real. Gains	of	= Period
	Market	butions	Income	Fees	ciation			Capital	Market
09/2018	1,207,302	0	7,071	6,125	72,338	180,000		0	1,100,586
12/2018	1,100,586	0	2,368	6,125	(18,189)	52,000		0	1,026,640
03/2019	1,026,640	0	0	5,393	67,525	48,000		0	1,040,772
06/2019	1,040,772	40,000	0	5,453	26,623	228,000		0	873,942
09/2019	873,942	0	0	5,512	16,950	84,000		0	801,380
12/2019	801,380	0	0	5,512	44,708	56,000		0	784,576
03/2020	784,576	0	0	4,894	(56,195)	76,000		0	647,487
06/2020	647,487	0	0	4,894	73,578	40,000		0	676,171
09/2020	676,171	0	0	4,947	204,283	64,000		0	811,507
12/2020	811,507	0	0	4,948	56,847	40,000		0	823,406
03/2021	823,406	0	0	4,368	44,229	132,000		0	731,267
06/2021	731,267	0	0	4,417	48,827	84,000		0	691,677
09/2021	691,677	0	0	4,465	23,185	12,000		0	698,397
12/2021	698,397	0	0	4,404	(10,332)	100,000		0	583,661
03/2022	583,661	0	0	3,931	(37,785)	32,000		0	509,945
06/2022	509,945	0	0	0	(27,101)	28,000		0	454,844
09/2022	454,844	0	0	0	(10,476)	0		0	444,368
12/2022	444,368	0	0	179	(7,446)	0		0	436,743
03/2023	436,743	0	0	0	0	28,000		0	408,743
	0	5,140,032	1,173,836	498,958	1,391,042	3,329,662		3,467,547	408,743

Returns

Net Since Inception IRR = 5.66%

Ratios

Capital Account = \$408,743

Total Value = \$7,205,952

Paid In Capital = \$5,140,032

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.40x

DPI Realization Multiple (Distributions/Paid In Capital) = 1.32x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.08x

**Pantheon Global Secondary Fund III
Private Equity Investment Portfolio
Quarterly Changes in Market Value**

	Beg. of Period Market	+ Capital Contri- butions	+ Accounting Income	- Mgmt. Fees	+ Appre- ciation	- Dist. of Income & Real. Gains	- Return of Capital	= End of Period Market
12/2006	0	500,000	110	23,699	3,896	0	0	480,307
03/2007	480,307	275,000	1,104	12,329	102,564	0	0	846,646
06/2007	846,646	175,000	434	12,466	107,117	0	0	1,116,731
09/2007	1,116,731	225,000	1,822	12,603	102,490	0	0	1,433,440
12/2007	1,433,440	300,000	1,068	12,603	12,221	0	0	1,734,126
03/2008	1,734,126	650,000	1,024	12,329	93,162	0	0	2,465,983
06/2008	2,465,983	499,999	1,107	12,466	3,134	0	0	2,957,757
09/2008	2,957,757	275,000	461	12,603	(103,497)	0	0	3,117,118
12/2008	3,117,118	300,000	656	12,603	(452,340)	0	0	2,952,831
03/2009	2,952,831	225,000	164	12,329	(281,889)	0	0	2,883,777
06/2009	2,883,777	0	394	12,466	118,124	0	0	2,989,829
09/2009	2,989,829	25,000	1,369	12,603	97,319	0	0	3,100,914
12/2009	3,100,914	0	5,221	12,603	92,261	0	0	3,185,793
03/2010	3,185,793	0	1,325	12,329	22,086	0	75,000	3,121,875
06/2010	3,121,875	0	3,110	12,466	(24,073)	0	0	3,088,446
09/2010	3,088,446	175,000	3,213	12,603	115,854	0	0	3,369,910
12/2010	3,369,910	525,000	4,765	12,603	209,627	0	450,000	3,646,699
03/2011	3,646,699	0	12,106	12,329	189,903	0	0	3,836,379
06/2011	3,836,379	0	2,346	12,466	194,920	0	250,000	3,771,179
09/2011	3,771,179	100,000	33,335	12,603	(206,828)	0	225,000	3,460,083
12/2011	3,460,083	0	4,855	12,603	(85,269)	0	50,000	3,317,066
03/2012	3,317,066	50,000	5,583	12,432	117,995	0	225,000	3,253,212
06/2012	3,253,212	75,000	9,659	12,432	17,991	0	225,000	3,118,430
09/2012	3,118,430	0	7,370	12,568	34,523	0	0	3,147,755
12/2012	3,147,755	50,000	6,769	10,921	15,973	0	300,000	2,909,576
03/2013	2,909,576	0	473	12,229	16,421	75,000	0	2,839,241
06/2013	2,839,241	75,000	8,943	12,417	67,416	225,000	0	2,753,183
09/2013	2,753,183	0	2,788	12,554	17,968	175,000	0	2,586,385
12/2013	2,586,385	0	3,222	12,543	97,445	0	100,000	2,574,509
03/2014	2,574,509	100,000	2,009	11,036	73,662	0	225,000	2,514,144
06/2014	2,514,144	0	3,542	11,159	88,000	0	50,000	2,544,527
09/2014	2,544,527	0	13,697	11,282	(119,579)	0	165,000	2,262,363
12/2014	2,262,363	90,000	363	11,282	10,232	0	245,000	2,106,676
03/2015	2,106,676	0	11,952	9,928	21,332	0	140,000	1,990,032
06/2015	1,990,032	0	9,289	10,039	53,366	0	150,000	1,892,648
09/2015	1,892,648	55,000	4,597	10,150	(44,306)	0	175,000	1,722,789
12/2015	1,722,789	0	16,812	283,849	276,455	190,000	0	1,542,207
03/2016	1,542,207	0	9,036	9,006	(22,573)	170,000	0	1,349,664
06/2016	1,349,664	0	5,448	9,006	(14,055)	45,000	0	1,287,051
09/2016	1,287,051	0	(1,715)	9,106	36,381	100,000	0	1,212,611
12/2016	1,212,611	0	7,917	9,106	(19,624)	90,000	0	1,101,798
03/2017	1,101,798	0	4,216	8,046	22,430	50,000	0	1,070,398
06/2017	1,070,398	0	3,349	8,179	46,637	95,000	0	1,017,205
09/2017	1,017,205	0	(7,445)	8,182	24,438	50,000	0	976,016
12/2017	976,016	0	4,437	8,014	(18,926)	210,000	0	743,513
03/2018	743,513	0	2,131	7,280	5,078	80,000	0	663,442
06/2018	663,442	0	284	7,361	88,505	35,000	0	709,870

**Pantheon Global Secondary Fund III
Private Equity Investment Portfolio
Quarterly Changes in Market Value**

	Beg. of Period Market	+ Capital Contri- butions	+ Accounting Income	- Mgmt. Fees	+ Appre- ciation	- Dist. of Income & Real. Gains	- Return of Capital	= End of Period Market
09/2018	709,870	0	4,396	7,442	29,299	10,000	0	726,123
12/2018	726,123	0	4,974	7,251	(47,122)	0	75,000	601,724
03/2019	601,724	0	0	6,552	51,506	35,000	0	611,678
06/2019	611,678	0	0	6,625	(4,058)	85,000	0	515,995
09/2019	515,995	0	0	5,242	6,394	50,000	0	467,147
12/2019	467,147	0	0	4,850	(49,110)	35,000	0	378,187
03/2020	378,187	0	0	9,352	(647)	40,000	0	328,188
06/2020	328,188	0	0	6,303	29,085	150,000	0	200,970
09/2020	200,970	0	0	3,739	3,736	40,000	0	160,967
12/2020	160,967	0	0	4,656	4,656	0	0	160,967
03/2021	160,967	0	0	0	(1,884)	0	0	159,083
06/2021	159,083	0	0	4,177	6,558	0	0	161,464
09/2021	161,464	0	0	0	(21,271)	0	0	140,193
12/2021	140,193	0	0	5,069	(702)	0	0	134,422
03/2022	134,422	0	0	7,604	(6,412)	25,000	0	95,406
06/2022	95,406	0	0	0	(586)	35,000	0	59,820
09/2022	59,820	0	0	79	(655)	0	0	59,086
12/2022	59,086	0	0	0	869	0	0	59,955
03/2023	59,955	0	0	0	0	0	0	59,955
	0	4,744,999	224,085	892,752	1,203,623	2,095,000	3,125,000	59,955

Returns

Net Since Inception IRR = 1.90%

Ratios

Capital Account = \$59,955

Total Value = \$5,279,955

Paid In Capital = \$4,744,999

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.11x

DPI Realization Multiple (Distributions/Paid In Capital) = 1.10x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.01x

Pantheon US Select 2014
Real Estate Portfolio
Quarterly Changes in Market Value

	Beg. of	Capital				Dist. of	Return	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- of	= Period
	Market	butions	Income	Fees	ciation	Real. Gains	Capital	Market
03/2015	(5,712)	188,000	(26,666)	647	0	0	0	154,975
06/2015	154,975	555,000	(9,672)	13,291	0	0	0	687,012
09/2015	687,012	463,937	8,765	15,008	0	0	0	1,144,706
12/2015	1,144,706	0	5,605	(10,332)	(4,032)	0	0	1,156,611
03/2016	1,156,611	0	126	6,517	(3,021)	0	0	1,147,199
06/2016	1,147,199	480,000	(7,766)	6,955	(7,136)	0	0	1,605,341
09/2016	1,605,341	225,000	91,201	11,340	(3,551)	0	0	1,906,651
12/2016	1,906,651	269,668	(22,646)	12,538	131,076	0	0	2,272,211
03/2017	2,272,211	585,000	(5,710)	13,969	66,210	0	0	2,903,742
06/2017	2,903,742	1,230,138	(25,941)	15,016	147,215	0	0	4,240,138
09/2017	4,240,138	645,159	22,338	15,084	50,560	0	0	4,943,111
12/2017	4,943,111	870,000	(3)	19,246	341,589	0	0	6,135,451
03/2018	6,135,451	510,221	(4,603)	19,351	333,322	0	0	6,955,040
06/2018	6,955,040	555,179	(100,389)	20,725	349,082	0	0	7,738,187
09/2018	7,738,187	975,000	14,485	22,154	528,429	90,192	74,808	9,068,947
12/2018	9,068,947	1,095,407	122,516	26,079	132,047	0	0	10,392,838
03/2019	10,392,838	0	0	22,095	444,609	0	0	10,815,352
06/2019	10,815,352	225,245	0	18,500	727,786	0	0	11,749,883
09/2019	11,749,883	240,000	0	23,150	346,200	0	0	12,312,933
12/2019	12,312,933	330,240	0	23,909	123,689	0	0	12,742,953
03/2020	12,742,953	0	0	22,108	(16,784)	330,457	0	12,373,604
06/2020	12,373,604	0	0	22,107	1,033,527	600,219	0	12,784,805
09/2020	12,784,805	330,233	0	22,303	1,696,452	0	0	14,789,187
12/2020	14,789,187	525,222	0	22,647	375,495	0	0	15,667,257
03/2021	15,667,257	0	0	21,951	3,591,662	150,000	0	19,086,968
06/2021	19,086,968	0	0	23,007	2,322,461	540,000	0	20,846,422
09/2021	20,846,422	0	0	23,396	1,807,892	945,000	0	21,685,918
12/2021	21,685,918	0	0	23,088	695,656	390,001	0	21,968,485
03/2022	21,968,485	0	0	22,964	1,538,367	254,547	0	23,229,341
06/2022	23,229,341	0	0	23,206	(284,830)	330,000	0	22,591,305
09/2022	22,591,305	0	0	23,458	(154,642)	210,000	0	22,203,205
12/2022	22,203,205	60,000	0	21,362	4,662	450,000	0	21,796,505
03/2023	21,796,505	0	0	0	0	254,781	0	21,541,724
	(5,712)	10,358,649	61,640	566,840	16,313,993	4,545,197	74,808	21,541,724

Returns

Net Since Inception IRR = 275.65%

Ratios

Capital Account = \$21,541,724

Total Value = \$26,161,729

Paid In Capital = \$10,358,649

TVPI Investment Multiple (Total Value/Paid In Capital) = 2.53x

DPI Realization Multiple (Distributions/Paid In Capital) = 0.45x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 2.08x

Quarterly Highlights

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/research-library to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / institute@callan.com.

New Research from Callan's Experts

[2023 DC Trends Survey](#) | Callan's 16th annual DC Trends Survey now covers SECURE 2.0 (pre-passage) and diversity topics, along with the key tenets of DC plan management, governance, and financial wellness.

[2023-2032 Capital Markets Assumptions](#) | A white paper detailing the process involved in creating our 2023-2032 capital markets assumptions and the reasoning behind them.

[1Q23 Real Assets Reporter: Energy Transition](#) | Jan Mende describes energy-transition investments and the role they can play in institutional portfolios.

[The Periodic Table of Investment Returns](#) | A visual representation of annual returns for key asset classes, ranked from best to worst performance for each calendar year.

Blog Highlights

[The PRT Decision: What Plan Sponsors Need to Know](#) | Despite the turbulence of 2022, many corporate defined benefit (DB) plan sponsors are considering pension risk transfers (PRTs).

[Can Institutional Investors Target 'Food Deserts' for Investment?](#) | While food desert investments have not been prevalent in institutional real estate portfolios, increasing government incentives and additional sources of financing may help support these opportunities in the future.

[Putting 2022 Public DB Plan Performance into Perspective](#) | While 2022 was indeed challenging, viewing plan returns over the long-term shows results that are favorable when stacked up against actuarial discount rates.

Webinar Replays

[Callan's 2023 DC Survey Results Webinar](#) | This webinar focuses on the results of Callan's 2023 DC Trends Survey, including fiduciary positioning, investments, retirement solutions, fees, and more.

[Research Cafe: ESG Interview Series](#) | During this interview, Tom Shingler of Callan discusses with Richard Ashley, partner and co-chair of US Employee Benefits and Executive Compensation practice at DLA Piper, key features of the new ESG and proxy voting rule.

Quarterly Periodicals

[Private Equity Update, 4Q22](#) | A high-level summary of private equity activity in the quarter through all the investment stages

[Active vs. Passive Charts, 4Q22](#) | A comparison of active managers alongside relevant benchmarks over the long term

[Market Pulse, 4Q22](#) | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

[Capital Markets Review, 4Q22](#) | Analysis and a broad overview of the economy and public and private markets activity each quarter across a wide range of asset classes

[Hedge Fund Update, 4Q22](#) | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

[Real Assets Update, 4Q22](#) | A summary of market activity for real assets and private real estate during the quarter

[Private Credit Update, 4Q22](#) | A review of performance and fundraising activity for private credit during the quarter

Events

A complete list of all upcoming events can be found on our website: callan.com/events-education.

Please mark your calendar and look forward to upcoming invitations:

2023 June Workshops

June 27, 2023 – New York

June 29, 2023 – Chicago

For more information about events, please contact Barb Gerraty: 415-274-3093 / gerraty@callan.com

Education: By the Numbers

50+

Unique pieces of research the Institute generates each year

525

Attendees (on average) of the Institute's annual National Conference

3,700

Total attendees of the "Callan College" since 1994

Education

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

Introduction to Investments

May 23-25 – Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. Our virtual session is held over three days with virtual modules of 2.5-3 hours, while the in-person session lasts one-and-a-half days. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: callan.com/events-education



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer

List of Callan's Investment Manager Clients

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Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry, and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor, and disclose potential conflicts on an ongoing basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database, or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please note that if an investment manager receives a product or service on a complimentary basis (e.g., attending an educational event), they are not included in the list below. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group, and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance department.

Manager Name

abrdn (Aberdeen Standard Investments)

ABS Global Investments

Acadian Asset Management LLC

Adams Street Partners, LLC

AEGON USA Investment Management Inc.

AllianceBernstein

Allspring Global Investments, LLC

Altrinsic Global Advisors, LC

American Century Investments

Amundi US, Inc.

Antares Capital LP

Apollo Global Management, Inc.

AQR Capital Management

Ares Management LLC

Ariel Investments, LLC

Aristotle Capital Management, LLC

Atlanta Capital Management Co., LLC

AXA Investment Managers

Manager Name

Axiom Investors LLC

Baillie Gifford International, LLC

Baird Advisors

Barings LLC

Baron Capital Management, Inc.

Barrow, Hanley, Mewhinney & Strauss, LLC

Belle Haven Investments

BentallGreenOak

Beutel, Goodman & Company Ltd.

BlackRock

Blackstone Group (The)

Blue Owl Capital, Inc.

BNY Mellon Asset Management

Boston Partners

Brandes Investment Partners, L.P.

Brandywine Global Investment Management, LLC

Brookfield Asset Management Inc.

Brookfield Public Securities Group

Manager Name
Brown Brothers Harriman & Company
Burgundy Asset Management Ltd.
Capital Group
CastleArk Management, LLC
CIBC Asset Management Inc.
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.
Columbia Threadneedle Investments North America
Comvest Partners
CQS
Credit Suisse Asset Management, LLC
D.E. Shaw Investment Management, LLC
DePrince, Race & Zollo, Inc.
Dimensional Fund Advisors L.P.
Doubleline
DWS
EARNEST Partners, LLC
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Hermes, Inc.
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Hawaiian Bank Wealth Management Division
First Eagle Investment Management, LLC
First Sentier Investors
Fisher Investments
Franklin Templeton
Fred Alger Management, LLC
GAM (USA) Inc.
GlobeFlex Capital, L.P.
GoldenTree Asset Management, LP
Goldman Sachs
Golub Capital
Guggenheim Investments
GW&K Investment Management
Harbor Capital Advisors
Harding Loevner LP
Hardman Johnston Global Advisors LLC
Heitman LLC
Hotchkis & Wiley Capital Management, LLC

Manager Name
Impax Asset Management LLC
Income Research + Management
Insight Investment
Intech Investment Management LLC
Intercontinental Real Estate Corporation
Invesco
J.P. Morgan
Janus
Jennison Associates LLC
Jobs Peak Advisors
Kayne Anderson Rudnick Investment Management, LLC
KeyCorp
Kohlberg Kravis Roberts & Co. (KKR)
Lazard Asset Management
LGIM America
Lincoln National Corporation
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
LSV Asset Management
MacKay Shields LLC
Macquarie Asset Management (MAM)
Manulife Investment Management
Marathon Asset Management, L.P.
MetLife Investment Management
MFS Investment Management
MidFirst Bank
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
MUFG Union Bank, N.A.
Natixis Investment Managers
Neuberger Berman
Newton Investment Management
Northern Trust Asset Management
Nuveen
Oaktree Capital Management, L.P.
P/E Investments
Pacific Investment Management Company
Pantheon Ventures

Manager Name

Parametric Portfolio Associates LLC

Partners Group (USA) Inc.

Pathway Capital Management, LP

PFM Asset Management LLC

PGIM DC Solutions

PGIM Fixed Income

PGIM Quantitative Solutions LLC

Pictet Asset Management

PineBridge Investments

Polen Capital Management, LLC

Pretium Partners, LLC

Principal Asset Management

Putnam Investments, LLC

Raymond James Investment Management

RBC Global Asset Management

Regions Financial Corporation

Riverbridge Partners LLC

Robeco Institutional Asset Management, US Inc.

S&P Dow Jones Indices

Sands Capital Management

Schroder Investment Management North America Inc.

Segall Bryant & Hamill

Manager Name

SLC Management

Smith Graham & Co. Investment Advisors, L.P.

State Street Global Advisors

Strategic Global Advisors, LLC

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

Tri-Star Trust Bank

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Walter Scott & Partners Limited

WCM Investment Management

Wellington Management Company, LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair & Company LLC

Xponance, Inc.

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March 31, 2023

**City of Norwalk
OPEB**

**Investment Measurement Service
Quarterly Review**

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March 31, 2023

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Higher Interest Rates Work! That's Good?

ECONOMY

2 Fed rate hikes seem to be working as designed, but there is always a delicate balancing act in trying to avoid a recession. The U.S. economy has held up pretty well, but GDP is slowing and the bond market is signaling a recession is ahead. The risks of that event have increased.

After Worst Year Ever, A Rebound for Bonds

FIXED INCOME

8 Following the worst year ever for core fixed income, the Bloomberg US Aggregate Bond Index rose 3.0% in 1Q. As with equities, it was a bumpy ride with solid returns in January and March sandwiching a negative February. Global indices also rose in the quarter

Interest Continues as IRRs Stay Steady

PRIVATE CREDIT

12 Private credit generated net IRRs between 7% and 10% for trailing periods ended 9/30/22. Interest in the asset class remains strong and a renewed focus has been placed on relative value, downside protection, and managers' internal workout resources.

4Q22 and 1Q23 Gains Help Ease the Pain

INSTITUTIONAL INVESTORS

4 All investor types saw declines for the trailing year ended 1Q23, but the pain was eased by rebounds for stocks and bonds in 4Q22 and 1Q23. And while 2022 was a tough year, the silver lining is that return expectations going forward are now materially higher.

Private RE Mixed; REITs Lag Equities

REAL ESTATE/REAL ASSETS

10 Income returns for the NCREIF Property Index were positive but appreciation fell for the four major property sectors. REITs lagged equities in the quarter, and real assets were mixed but also lagged equities. Transaction volume continues to decrease on a rolling four-quarter basis.

Steady Gains Amid Volatile Markets

HEDGE FUNDS/MACs

13 Hedge funds ended the quarter in positive territory, although they underperformed broader equity indices, as the group provided steady performance through a volatile market environment. The median manager in the Callan Institutional Hedge Fund Peer Group rose 1.3%.

Increase but the Ride Was Bumpy in 1Q

EQUITY

6 The S&P 500 posted a second straight quarter of positive performance, gaining 7.5% in 1Q23; large cap growth led all style and cap indices higher, advancing 14.4%. Results were mixed across developed markets but most delivered positive returns.

Asset Class Adjusts To Tighter Conditions

PRIVATE EQUITY

11 Except for fundraising dollar volume, virtually all activity measures moderated in 1Q23. Company-level entry and exit transactions retreated to levels seen in 2020, which remain healthy but look meager compared to 2021's stimulus-fueled liquidity peak, and 2022's gradual slowdown.

Index Rises After 3 Quarters of Losses

DEFINED CONTRIBUTION

15 The Callan DC Index rose 6.3% in 4Q22 after three straight quarterly declines. Balances also rose, driven by investment gains. TDFs continued to see the largest inflows. Allocations to equities rose slightly. Fees fell but the amount varied by plan size.

Broad Market Quarterly Returns

U.S. Equity Russell 3000



Global ex-U.S. Equity MSCI ACWI ex USA



U.S. Fixed Income Bloomberg Agg



Global ex-U.S. Fixed Income Bloomberg Global Agg ex US



Sources: Bloomberg, FTSE Russell, MSCI

Higher Interest Rates Work! That's Good, Right?!

ECONOMY | Jay Kloepfer

The Federal Reserve has two very public mandates: to support employment growth and to maintain low, stable inflation. When the economy falls into recession (GDP and jobs are contracting) and unemployment rises, the Fed typically steps in and lowers interest rates. Lower rates stimulate borrowing by consumers and businesses, and thereby spur demand that will ultimately pull the economy back into the black with positive economic growth and a resumption of hiring. When inflation rises, the Fed typically steps in and raises interest rates. Higher rates slow borrowing by consumers and businesses, and thereby lessen demand and slow the upward pressure on prices.

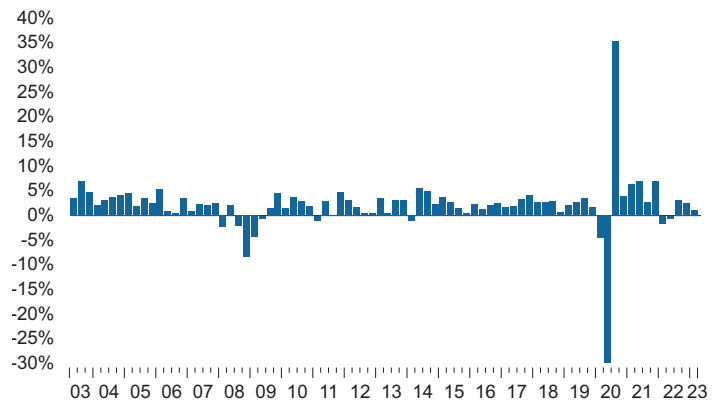
There is a balancing act on both sides of this policy equation: How much stimulus is enough to get the economy growing and spur recovery in the job market to pull down unemployment, before the resumption in demand pushes up prices? How high can interest rates go before the economy slows enough to tip into recession and unemployment shoots up? While this characterization is incredibly simplistic compared to the complex inner workings of the Fed, and ignores for the moment the impact of the Fed balance sheet and monetary tightening or easing, the story works to help explain the conundrum we currently face as we move into 2Q23.

The last three years saw incredible mayhem in the supply chains, capital flows, and job markets of the world, with equally volatile yet weirdly out-of-sync (at times) mayhem in the capital markets. We suffered through a pandemic with an uneven global policy response, and the invasion of Ukraine in winter 2022. Global energy fell to an effective price of zero in 2020 only to skyrocket immediately thereafter. Inflation surged hard after more than a decade of suppression, and central bank responses to withdraw stimulus and put out the inflation fire in 2022 spooked equity markets and drove fixed income returns to their worst year ever.

Underneath all this, the U.S. economy has actually held up pretty darn well. We regained the pre-pandemic levels of GDP and employment in fairly short order, given the depth of the declines. The job market in the U.S. has been particularly robust; even in 2022 as the capital markets plummeted, we added 4.8 million jobs

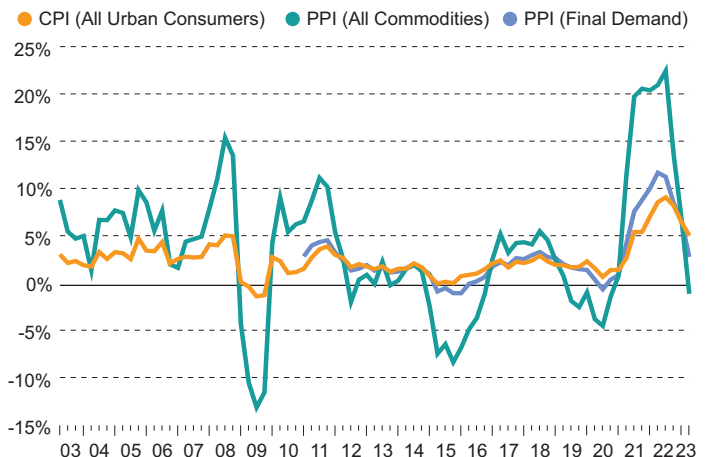
Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

during the year, with two monster months in February and July, and an average of 330,000 new jobs in the other 10 months of 2022. On the downside, overall gains in jobs hide the continued mismatch between the supply of jobs from employers and the type of jobs workers are demanding. Many trade and service industries remain woefully understaffed. Personal income surged, first through pandemic support in 2020 and the inability to spend in lockdown, and then as wages and salaries rose when economic growth burst into the open in 2021 and 2022. However, inflation ate into income gains and drove up prices for businesses, crimping real returns and company margins. Now that the Fed Funds rate has reached 5% and mortgage rates are at 7%, is it time for us to tip into recession? Did the Fed do “too much, too late?”

1Q23 GDP grew 1.1%, a definite slowdown from the second half of 2022, and below consensus expectations of 2%. Two culprits for the slower growth were weaker retail sales and a drop in new home construction. Another culprit was inventory reduction—companies worked down their stockpiles. Reducing inventories in anticipation of slower demand can be a self-fulfilling prophecy, as inventory reduction is a negative to GDP, but it can also set the economy up for a stronger 2Q, with the potential to rebuild inventory in the coming months. The consensus among economic forecasters is for substantial slowdown in 2023, to near zero growth in 2Q and 3Q, reaching the soft landing that is the holy grail of central banks.

Over history, however, we have not enjoyed soft landings in recessions; unemployment has spiked far beyond what would be thought of as a soft landing. The data for tracking recessions are all lagged, but the sequence of events in the economy is typically 1) slowing activity that takes a while to show up in the GDP data, then 2) cutting back in the form of spending and hiring, 3) layoffs starting in high-flying industries, leading to 4) the multiplier effects of the slowdown snowballing into significant job losses across the broad economy. The stock market usually prices in recession first, often far ahead of the economic data, and then the market begins to advance, pricing in the recovery while the recession is still unfolding.

The bond market has been signaling belief in recession with an inverted yield curve. The market fully believed in the Fed's interest rate plans in March 2022 when inflation took off, and the yield curve shifted up sharply. As the year went on, the bond market then began worrying that the Fed would have to reverse course "soon" and start cutting rates to stave off recession, hence the inversion of the yield curve. The Fed has made it clear that inflation remains concern

Recent Quarterly Economic Indicators

	1Q23	4Q22	3Q22	2Q22
Employment Cost: Total Compensation Growth	4.8%	5.1%	5.0%	5.1%
Nonfarm Business: Productivity Growth	-2.7%	1.6%	1.2%	-3.7%
GDP Growth	1.1%	2.6%	3.2%	-0.9%
Manufacturing Capacity Utilization	78.3%	78.5%	79.4%	79.6%
Consumer Sentiment Index (1966=100)	64.6	58.8	56.1	57.8

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan

The Long-Term View

Index	1Q23	Periods Ended 3/31/23			
		1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	7.2	-8.6	10.5	11.7	7.4
S&P 500	7.5	-7.7	11.2	12.2	7.4
Russell 2000	2.7	-11.6	4.7	8.0	6.8
Global ex-U.S. Equity					
MSCI EAFE	8.5	-1.4	3.5	5.0	4.3
MSCI ACWI ex USA	6.9	-5.1	2.5	4.2	--
MSCI Emerging Markets	4.0	-10.7	-0.9	2.0	--
MSCI ACWI ex USA Small Cap	4.7	-10.4	1.7	5.1	6.5
Fixed Income					
Bloomberg Agg	3.0	-4.8	0.9	1.4	4.0
90-Day T-Bill	1.1	2.5	1.4	0.9	1.9
Bloomberg Long G/C	5.8	-13.4	0.6	2.3	5.6
Bloomberg GI Agg ex US	3.1	-10.7	-3.2	-1.0	2.8
Real Estate					
NCREIF Property	-1.8	-1.6	6.7	8.3	8.8
FTSE Nareit Equity	2.7	-19.2	6.0	6.0	8.0
Alternatives					
CS Hedge Fund	0.2	-0.9	4.2	3.9	5.5
Cambridge PE*	0.8	-8.2	16.1	15.1	14.1
Bloomberg Commodity	-5.4	-12.5	5.4	-1.7	1.8
Gold Spot Price	8.8	1.6	8.4	2.2	7.8
Inflation – CPI-U	1.7	5.0	3.9	2.6	2.5

*Data for most recent period lags. Data as of 9/30/22.

Sources: Bloomberg, Bureau of Economic Analysis, Credit Suisse, FTSE Russell, MSCI, NCREIF, Refinitiv/Cambridge, S&P Dow Jones Indices

No. 1, and the potential to cause a recession has not entered its deliberations. The strong job market in 1Q—almost a million new jobs—gives the Fed cover to continue course. The storm clouds on the horizon are the various measures of inflation: CPI-U and PCE both rose 5% in the first quarter, and the employment cost index for private industry rose 4.8%. While these rates are high relative to longer term history, they are down substantially from the peaks of mid-2022.

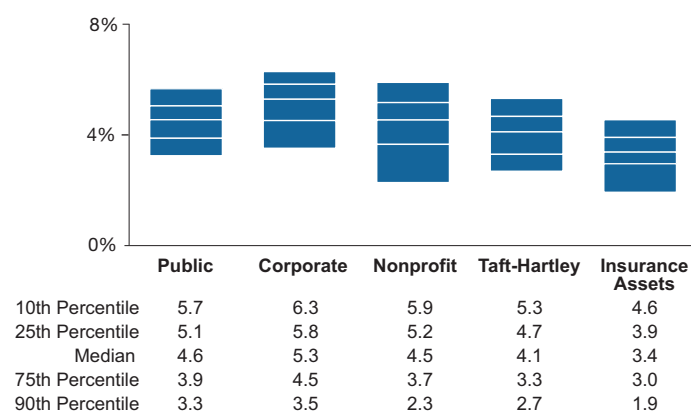
So higher interest rates are working, slowing demand and lessening price pressure, but inflation has a habit of being sticky on the downside. Squeezed margins means pressure to trim costs (and raise prices if possible). Highly visible layoffs in technology may soon expand to the broader economy. The chance of a recession in 2023 remains high.

Returns Fall for Trailing Year, but 4Q22, 1Q23 Gains Help Ease the Pain

INSTITUTIONAL INVESTORS

- Gains for stocks and bonds at the end of 2022 and beginning of 2023 eased the pain of a tough year for all institutional investors in 2022.
- While all investor types saw losses for the trailing one-year ending 1Q23, the declines were less than the double-digit losses they had experienced last year.
- Most investor types topped a 60% S&P 500/40% Bloomberg Aggregate benchmark over the trailing one year, with the exception of corporate plans.
- Results over the last 20 years for all investor types are in line with the stock-bonds benchmark.
- Entering 2023, for all investor types inflation is still an issue, despite recent declines.
 - Even if the rate goes to zero, the level of prices is permanently higher unless we get to deflation. The impact on individual and business real net income is substantial and portends slower growth in 2023 and 2024.
- Rate hikes from the Fed are another key concern.
 - The Fed has increased rates 475 bps since March 2022, from 0.0%-0.25% to 4.75%-5.0% in March 2023.
- While the painful losses across the board for investors in 2022 were a challenge, the silver lining is that higher returns are expected going forward.
 - Return targets are now in sight.
 - Risk reduction is on the table.

Quarterly Returns, Callan Database Groups (3/31/23)



Source: Callan

Callan Database Median and Index Returns* for Periods Ended 3/31/23

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	4.6	-4.8	11.2	6.2	7.2	7.9
Corporate Database	5.3	-7.3	5.5	4.2	5.9	7.3
Nonprofit Database	4.5	-4.7	11.2	5.8	6.7	7.7
Taft-Hartley Database	4.1	-4.0	11.2	6.4	7.3	7.5
Insurance Assets Database	3.4	-3.0	4.4	3.2	3.6	5.1
All Institutional Investors	4.6	-4.9	10.6	5.7	6.8	7.6
Large (>\$1 billion)	4.2	-4.9	11.2	6.5	7.3	8.0
Medium (\$100mm - \$1bn)	4.7	-4.9	10.7	5.8	7.0	7.6
Small (<\$100 million)	4.6	-4.9	10.4	5.5	6.6	7.2
60% S&P 500/40% Bloomberg Agg	5.7	-6.3	9.9	7.5	8.1	7.8

*Returns less than one year are not annualized.

Source: Callan. Callan's database includes the following groups: public defined benefit (DB) plans, corporate DB plans, nonprofits, insurance assets, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

- Private markets are now over target allocations.
 - Downward market valuations are slower in coming, distorting true exposures.
 - Interest remains strong in all private assets.
 - Sharpened interest in real assets continues.
 - But current real assets exposures did not help, given losses in the asset class.
- Strategic themes in client conversations: How much has the world changed, and does it alter how we should view and implement our portfolio?

Corporated Defined Benefit (DB) Plans

- Liabilities fell sharply with rising interest rates. Liability-driven investing (LDI) portfolios were hammered by long duration exposure; typical LDI plan treaded water in funded status.
- Plans are questioning what they are doing with LDI, and why. Funded status no longer translates directly to contributions, or expense. Funding relief changed views.
- Total return-oriented plans saw funded status improve as equities declined less than liabilities.
- We expect higher interest rates will increase discussions about pension risk transfer. Most of our corporate DB clients are inclined to keep the plan on the balance sheet.

Public DB Plans

- Downward pressure on actuarial discount rates may now abate as capital markets expectations are higher following the market decline.
- Higher return expectations and lowered discount rates have led to a number of discussions of de-risking, after years of risking-up to chase returns.
- Inflation impacts future liabilities through pressure on salary and hits plans now with COLAs. Political pressures are high on plans with discretionary COLAs. Most COLAs are NOT funded, which is the reason why many plans suspended or eliminated them to address funding shortfalls over the past decade.

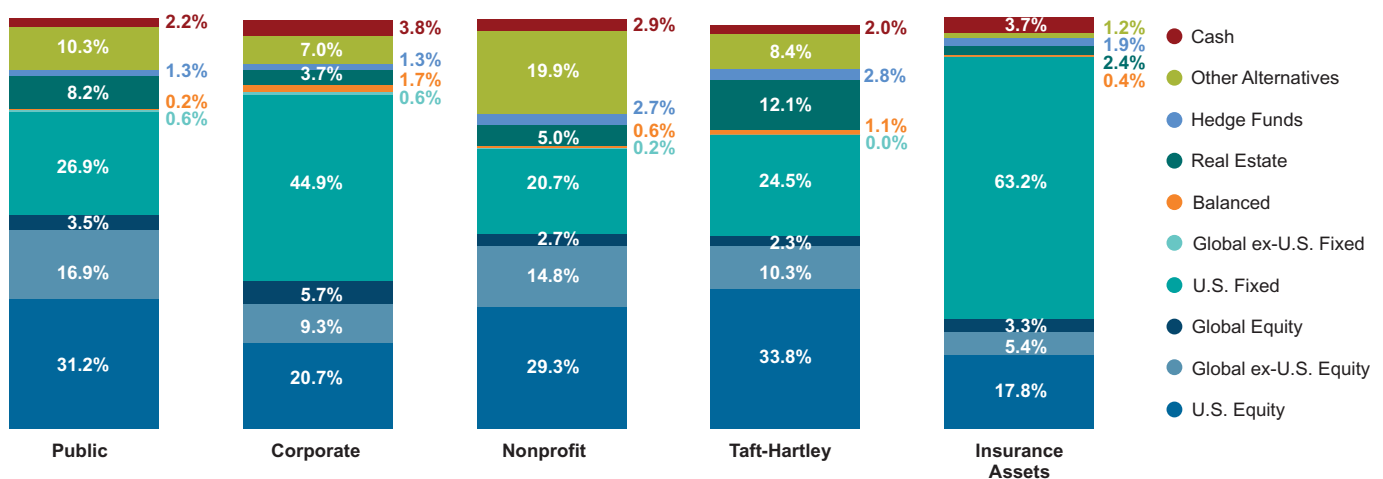
Nonprofits

- They are expanding the depth and breadth of their private markets allocations to diversify a prior focus on growth.
- Inflation concerns will lead to reconsideration of spending policies in 2023.

Defined Contribution (DC) Plans

- Pressure on investment management fees shows no signs of abating.
- Plans are also focused on compliance as they digest the implications of SECURE 2.0.

Average Asset Allocation, Callan Database Groups



Note: Charts may not sum to 100% due to rounding. Other alternatives include but is not limited to: diversified multi-asset, private credit, private equity, and real assets.
Source: Callan

Equity

U.S. Equities

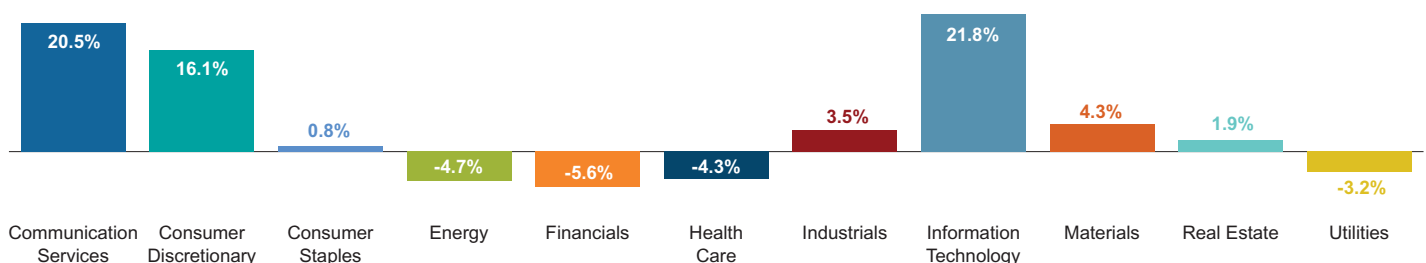
Markets gain, with exception of small cap value

- The S&P 500 posted a second straight quarter of positive performance, gaining 7.5% in 1Q23; large cap growth led all style and cap indices higher, advancing 14.4%.
- Russell 2000 Value was a notable exception and experienced a slight decline of 0.7% due to greater exposure to Financials, specifically banks.
- During the quarter, three sectors comprising 44% of the S&P 500 (and 63% of the Russell 1000 Growth Index) drove performance: Technology (+21.8%), Communication Services (+20.5%), and Consumer Discretionary (+16.1%).
- Financials, Energy, and Health Care posted negative returns for the quarter but had only a modest impact on total returns given smaller weights in respective benchmarks.
- Small caps (Russell 2000) underperformed large caps (Russell 1000) and growth outperformed value during the quarter, a reversal from 2022. Greater exposure to banks in Russell 2000 (8.3%) versus Russell 1000 (3.3%) was one differentiator for returns; strong returns for mega-cap Technology also increased divergence.

Large cap growth outperformance drivers

- The large cap growth outperformance was driven by increased valuations as interest rates declined and expectations of a more dovish Fed emerged.
- Asset managers may take a more cautious approach in equity markets into coming quarters as earnings estimates decline; expect a focus on quality, cash flow, defensive value names, and profitable growth stocks.

Quarterly Performance of Industry Sectors (12/31/22)

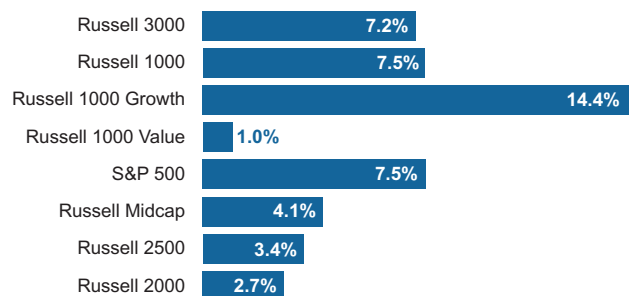


Source: S&P Dow Jones Indices

- Price multiples continue to be important as elevated valuations may compress if markets anticipate that monetary easing is not on the near-term horizon.
- Analyst estimates for future earnings are diverging, typically a sign of elevated economic turbulence.
- Investors “bought the dip” as stock performance reversed from the prior year; the worst-performing stocks for 2022 became best-performing stocks during 1Q23.

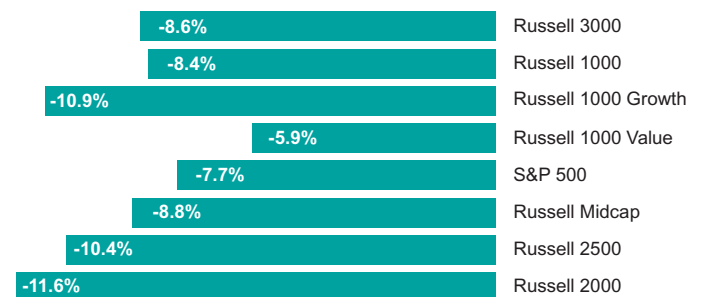
U.S. Equity: Quarterly Returns

(3/31/23)



U.S. Equity: One-Year Returns

(3/31/23)



Sources: FTSE Russell and S&P Dow Jones Indices

Global Equity

1Q23 brought global equity markets back to black

- Positive results despite hiccups
- 1Q23 was marked by the collapse of Silicon Valley Bank and Credit Suisse, which sent fears of a banking crisis across global markets.
- Despite a Fed hike during the period, investors began to price in lower rate expectations.
- Europe outperformed other regions, making up ground lost in 2022 as inflation eased and recession fears lessened.

Growth vs. value

- Growth outpaced value across developed and emerging markets.
- In a reversal from 2022, investors preferred growth alongside a drawdown in banks; Information Technology was the largest outperformer.

U.S. dollar vs. other currencies

- After some strength early in the quarter, the U.S. dollar declined 1% as interest rate differentials narrowed globally.

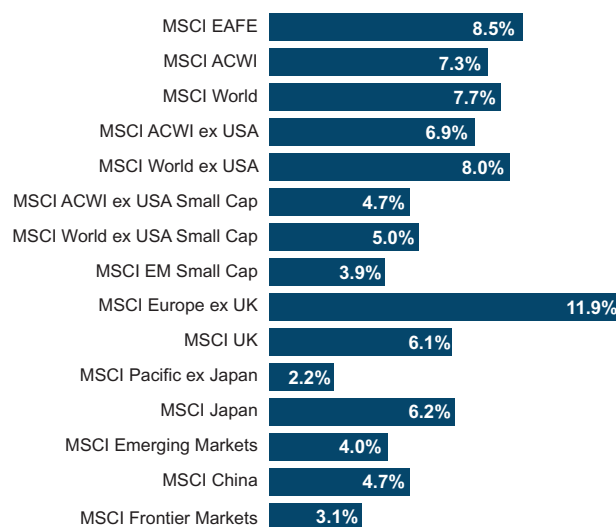
Developed markets outpace U.S.

- Outperformance of developed markets over the past year has been driven by Europe.
- Europe beat U.S. as the worst fears in the wake of the Russia-Ukraine War were not realized.
- Europe benefited from falling gas prices and China reopening.
- Value-growth dispersion was impacted less in developed markets relative to U.S. given the composition of the markets.
- EAFE Value outperformed Growth by 2.5 percentage points.
- S&P 500 Value outperformed Growth by 15.2 percentage points.
- Weak dollar in recent quarters helped global ex-U.S. equities.
- Since DXY Index reached a 20-year high in September 2022, it has fallen by 10%.

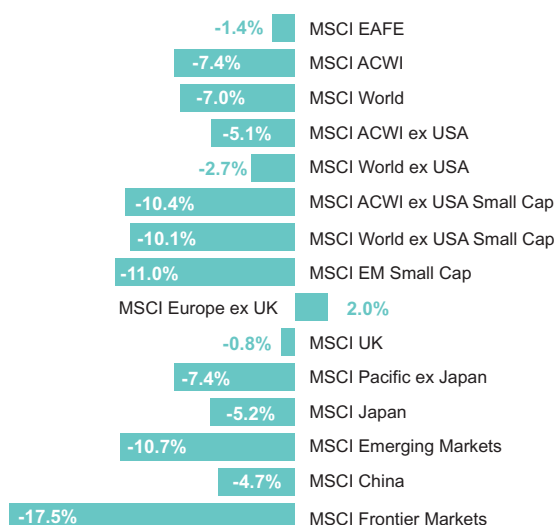
Will Europe continue to be a source of return?

- EPS growth expectations have fallen for both S&P 500 (-7%) and Europe (-9%).
- However, euro zone provides valuation support relative to the U.S.
- Euro zone trades at a 30% discount vs. the U.S.

Global ex-U.S. Equity: Quarterly Returns (U.S. Dollar, 3/31/23)



Global ex-U.S. Equity: One-Year Returns (U.S. Dollar, 3/31/23)



Source: MSCI

Fixed Income

U.S. Fixed Income

Bloomberg Aggregate was positive in 1Q but mixed

- January: +3.1%
- February: -2.6%
- March: +2.5%

U.S. Treasury volatility was pronounced

- 2-year U.S. Treasury yield high was 5.08% on 3/8 and low was 3.77% on 3/24
- MOVE Index highest since 2008

Yield curve remained inverted but also volatile

- 2yr/10yr | 3/31: -58 bps; max 3/8: -109; min 3/23: -38
- 1yr/10yr | 3/31: -116 bps

Fed raised rates, bringing target to 4.75%–5.00%

- Median expectation from Fed is 5.1% for year-end 2023; market pricing in Fed cuts by year-end
- Inflation moderated but still high and job market tight

Sector performance mixed

- Corporate Industrials excess return: +58 bps
- Corporate Financials excess return: -39 bps
- RMBS excess return: -50 bps
- CMBS excess return: -74 bps
- High yield excess return: +123 bps

Valuations fair

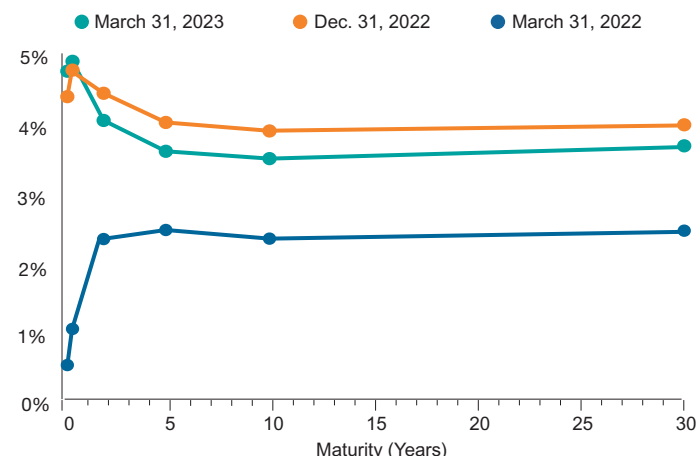
- Credit spreads have not widened materially and are close to historical averages

Municipal Bonds

Indices gained in 1Q23

- Lower quality outperformed (AAA: +2.5%; AA: +2.7%; A: +3.0%; BBB: +3.7%)
- Muni curve inverted but less so than U.S. Treasuries
- 2-year AAA yield: 2.41%; 10-year AAA yield: 2.28%
- Valuations relative to U.S. Treasuries are rich

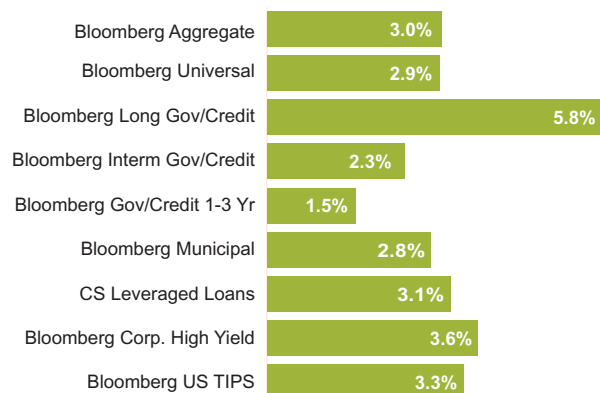
U.S. Treasury Yield Curves



Source: Bloomberg

U.S. Fixed Income: Quarterly Returns

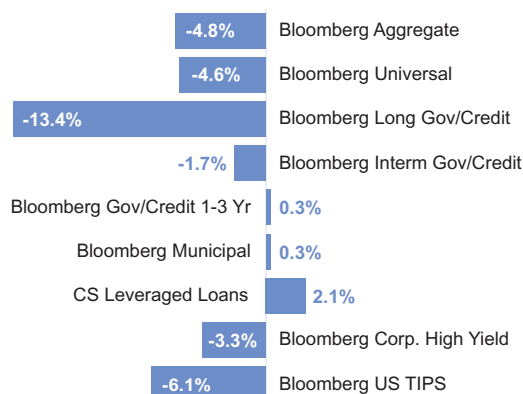
(3/31/23)



Sources: Bloomberg and Credit Suisse

U.S. Fixed Income: One-Year Returns

(3/31/23)



Sources: Bloomberg and Credit Suisse

FIXED INCOME (Continued)

- 10-year AAA Muni/10-year U.S. Treasury yield ratio 65%; below 10-year average of 88%
- Over the last 10 years, 10-year ratio was richer 4% of the time
- After-tax yield of Muni Bond Index = 5.5%; Bloomberg IG Corporate = 5.2% (Source: Eaton Vance)

Supply/demand

- Outflows nearly \$2 billion but lower than the \$22 billion in 1Q22
- Supply about 25% lower year-over-year
- Munis not immune to turmoil in banking, but fundamentals remain sound
- Banks are third largest holder of munis (about 15%) but thus far have not been sellers
- Municipals could be affected by tighter lending standards but likely result would be more public issuance
- “Rainy Day” fund balances and state tax revenues robust

Global Fixed Income

Global Aggregate was positive in 1Q but mixed

- January: +3.3%
- February: -3.3%
- March: +3.2%
- ECB and UK hiked rates; Japan held steady

U.S. dollar was mixed but mostly lower

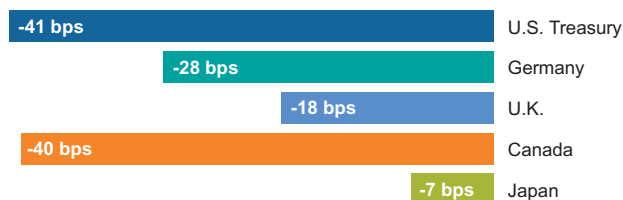
- Euro: +2% vs dollar
- British pound: +3% vs dollar
- Japanese yen: -1% vs dollar
- Australian dollar: -1% vs dollar
- Mexican peso: +8% vs dollar
- Brazilian real: +4% vs dollar

Emerging market debt delivered solid results

- EM currencies did well versus U.S. dollar, especially in Latin America; Latin America local currency return: +4.1%; unhedged in \$US: +9.8%

Change in 10-Year Global Government Bond Yields

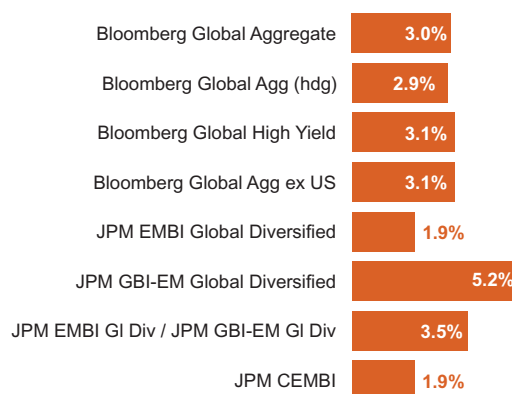
4Q22 to 1Q23



Source: Bloomberg

Global Fixed Income: Quarterly Returns

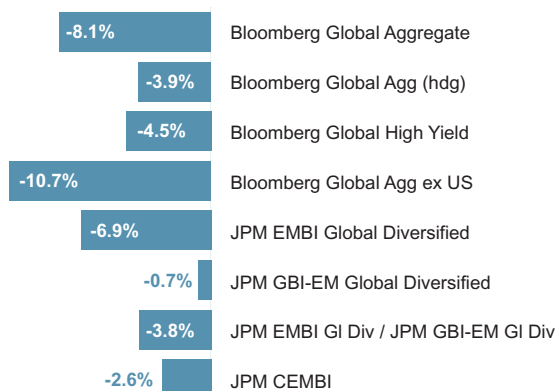
(3/31/23)



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns

(3/31/23)



Sources: Bloomberg and JPMorgan Chase

Private Real Estate Sees Mixed Results, While REITs Lag Equities

REAL ESTATE/REAL ASSETS | Kristin Bradbury, Munir Iman, and Aaron Quach

Income returns positive but appreciation negative

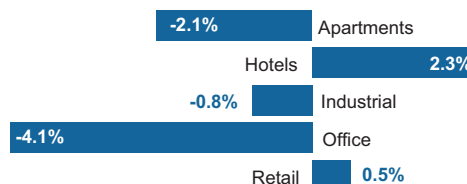
- Income returns were positive across all property sectors and regions in the NCREIF Property Index.
- All sectors and regions, except for Hotel, experienced negative appreciation.
- Valuations are reflective of higher interest rates, which have put upward pressure on capitalization rate and discount rate assumptions.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.
- Outstanding redemption requests for most large ODCE funds are approximately 8% to 16% of net asset value.
- There is more than \$200 billion of capital waiting to be deployed in North America.
- Majority of dry powder capital in opportunistic, value-add, and debt funds
- Transaction volume continues to decrease on a rolling four-quarter basis and is now below five-year averages.
- The rise in interest rates is the driving force behind the slow-down in transactions. A bid-ask spread remains and price discovery continues to occur among market participants.

REITs Underperform Equity Indices

- Global REITs underperformed in 1Q23, rising 0.8% compared to a 7.7% rise for global equities (MSCI World).

Sector Quarterly Returns by Property Type

(3/31/23)



Source: NCREIF

- U.S. REITs gained 2.7% in 1Q23, in contrast with the S&P 500 Index, which rose 7.5%.
- REITs are now trading at a discount to NAV (-12%) and offer relative value given the strength of underlying fundamentals.
- Historically, global REITs have traded at a -5.1% discount to NAV.

Real assets mixed but lagged global equities

- Real assets were mixed in 1Q but generally underperformed global equities.
- Gold (S&P Gold Spot Price Index: +8.8%), REITs (MSCI US REIT: +2.7%), infrastructure (DJB Global Infrastructure: +2.5%), and TIPS (Bloomberg TIPS: +2.0%) all posted positive returns.
- The S&P GSCI Index fell 4.9% with oil down about 7%. WTI Crude closed the quarter at \$74/barrel, just before OPEC announced its intention to cut production in May.

Callan Database Median and Index Returns* for Periods Ended 3/31/23

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
Real Estate ODCE Style	-1.7	-1.7	-2.2	8.4	7.5	9.0	5.1
NFI-ODCE (value-weighted, net)	-3.4	-3.4	-3.9	7.5	6.6	8.5	5.0
NCREIF Property	-1.8	-1.8	-1.6	7.2	6.7	8.3	6.3
NCREIF Farmland	2.1	2.1	8.9	7.5	6.5	8.5	10.2
NCREIF Timberland	1.8	1.7	11.3	8.1	5.5	5.8	4.6
Public Real Estate							
Global Real Estate Style	1.8	1.8	-20.2	7.9	3.3	4.7	4.5
FTSE EPRA Nareit Developed	0.8	0.8	-21.4	6.6	0.9	2.5	2.5
Global ex-U.S. Real Estate Style	0.1	0.0	-21.9	2.8	-0.7	3.4	2.4
FTSE EPRA Nareit Dev ex US	-1.7	-1.6	-23.0	1.1	-3.1	0.3	0.7
U.S. REIT Style	3.1	3.1	-19.0	11.4	7.2	6.9	7.3
FTSE EPRA Nareit Equity REITs	2.7	2.7	-19.2	12.1	6.0	6.0	6.3

*Returns less than one year are not annualized. Sources: Callan, FTSE Russell, NCREIF

Deceleration in 2022, with Trends for 2023 Very Unclear

PRIVATE EQUITY | Gary Robertson

Private equity continued the trend of slower activity in 1Q23, after the frothy 2021 peak period. Fundraising dollar volume ticked up slightly, but overall combined company-level entry and exit volumes averaged drops of about 34% by count and 54% by dollar volume from 4Q22. Exits continue to suffer more than fund commitments and new investments.

Fundraising ► Based on preliminary data, 1Q23 private equity partnerships holding final closes totaled \$188.7 billion, up 20% from 4Q22. New partnerships formed dropped 47% to 339, with the trend continuing of larger funds consolidating most commitments. Secondary funds surged to 17% of commitments, which is an anomaly for the strategy that normally has a low single-digit market share. New buyout funds with 44% of commitments remains low. Venture capital has declined from recent 30%-plus levels but remains significant. (Unless otherwise noted, all data comes from PitchBook.)

Buyouts ► Funds closed 2,429 investments with \$123 billion in disclosed deal value, a 21% decline in count and a 53% drop in dollar value from 4Q.

VC Investments ► New investments in venture capital companies totaled 10,271 rounds of financing, down 10%, with \$78 billion of announced value, down 11%.

Exits ► There were 462 private M&A exits of private equity-backed companies, a 3% increase. Disclosed values declined 36% to \$89 billion. There were 47 private equity-backed IPOs, down 20%, which raised an aggregate \$5 billion, down 44%.

Venture-backed M&A exits totaled 527 with disclosed value of \$22 billion. The number of sales rose only 1% from 4Q, but announced value jumped 175%. There were 58 VC-backed IPOs, down 51%, and the combined float totaled \$6 billion, a 33% decrease.

Returns ► Preliminary numbers (finals will be published in mid-May) for 4Q22 indicate a modestly up quarter for All Private Equity, with Buyout and Credit-related strategies offsetting continued declines in Venture Capital and Growth Equity.

Funds Closed 1/1/23 to 3/31/23

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	200	31,629	17%
Growth Equity	14	15,316	8%
Buyouts	93	83,346	44%
Mezzanine Debt	8	16,012	8%
Distressed/Special Credit	3	10,515	6%
Energy	0	0	0%
Secondary and Other	20	31,608	17%
Fund-of-Funds	1	274	0%
Totals	339	188,700	100%

Source: PitchBook (Figures may not total due to rounding.)

Private Equity Performance (%) (Pooled Horizon IRRs through 12/31/22*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	-5.40	-19.17	24.33	22.38	19.22	13.19	12.60	23.50
Growth Equity	-1.29	-14.64	19.32	18.13	15.85	12.62	14.76	15.15
All Buyouts	4.15	-3.00	17.52	15.75	15.14	10.06	15.01	12.77
Mezzanine	3.82	4.34	11.60	11.04	11.23	10.19	11.19	10.00
Credit Opportunities	2.53	4.37	8.60	7.02	8.24	8.74	9.79	9.54
Control Distressed	1.98	3.91	19.76	13.44	12.29	10.49	11.92	11.71
All Private Equity	0.67	-8.32	18.62	16.60	15.20	10.90	13.83	13.71
S&P 500	7.56	-18.11	7.66	9.42	12.56	8.81	9.80	7.64
Russell 3000	1.87	-13.01	-2.71	0.02	1.06	2.66	3.10	3.97

Note: Private equity returns are net of fees. Sources: Refinitiv/Cambridge and S&P Dow Jones Indices

*Most recent data available at time of publication

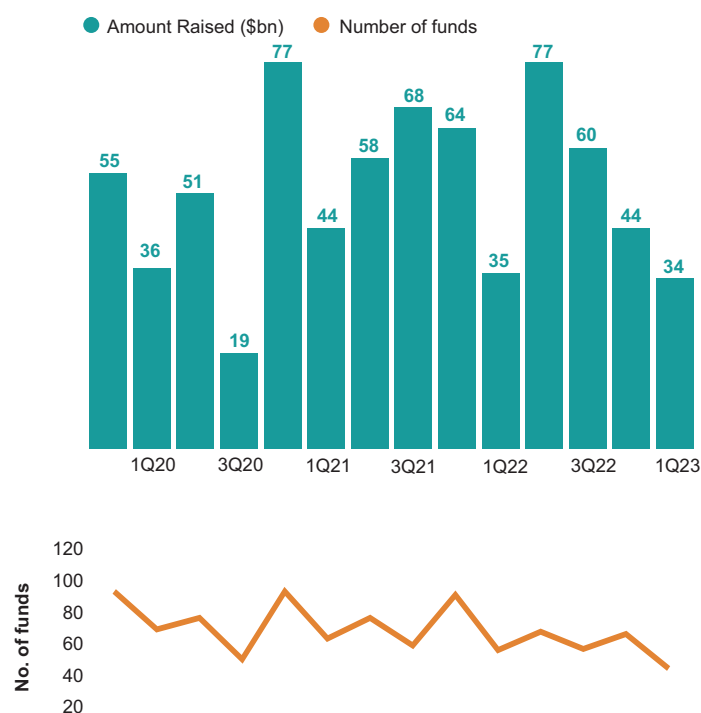
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

Net IRRs Range Between 7%-10%; Interest Remains Strong

PRIVATE CREDIT | Catherine Beard

- Private credit performance varies across sub-asset class and underlying return drivers. On average, the asset class has generated net IRRs of 7% to 10% for trailing periods ended Sept. 30, 2022. Higher-risk strategies performed better than lower-risk strategies.
- As interest rates declined after the Global Financial Crisis (GFC), private credit attracted increased interest from institutional investors.
- Private credit fundraising was robust leading into the COVID dislocation with a particular focus on direct lending, asset-based lending, and distressed strategies.
- In the current rate environment, a renewed focus has been placed on relative value, downside protection, and managers' internal workout resources.
- There is renewed interest in strategies with strong collateral protection such as asset-based lending.
- Larger sponsor-backed lending is seeing a new focus due to the high yield/broadly syndicated loan disintermediation by private debt.
 - U.S. sub-investment grade corporate yields rose dramatically at the beginning of 2022 with yields peaking in September. This was a combination of higher interest rates due to tighter Fed policy and a widening of high yield spreads.
 - Spreads widened during the first half of 2022 due to weaker credit conditions as the U.S. economic outlook worsened. This has since moderated.
 - Default rates for U.S. corporate bonds ticked up in 1Q but remained well below the historical average of 3%-4%. Callan expects defaults to increase somewhat in coming months as economic growth slows and

Private Credit Fundraising (\$bn)



Source: Preqin

potentially turns negative.

- The Corporate Bond Market Distress Index (CMDI) rose rapidly during the first nine months of 2022, especially for investment grade bonds, highlighting market volatility and a drying up of liquidity, but has fallen since then. In 2023, as the IG distress index continues to fall, the HY bond indicator is on the rise. The CMDI incorporates a range of indicators, including new issuance and pricing for primary and secondary market bonds and relative pricing between traded and nontraded bonds.

Private Credit Performance (%) (Pooled Horizon IRRs through 9/30/22*)

Strategy	Quarter	1 Year	3 Years	5 Years	8 Years	10 Years	15 Years	20 Years
Senior Debt	-2.4	-3.5	4.6	5.1	5.7	5.9	6.3	6.1
Mezzanine	0.2	5.0	11.8	11.1	10.8	11.3	10.5	11.3
Credit Opportunities	0.7	3.9	8.4	7.2	6.6	8.3	8.6	9.7
Total Private Credit	-0.1	2.6	8.4	7.7	7.4	8.6	8.8	9.7

Source: Refinitiv/Cambridge

*Most recent data available at time of publication

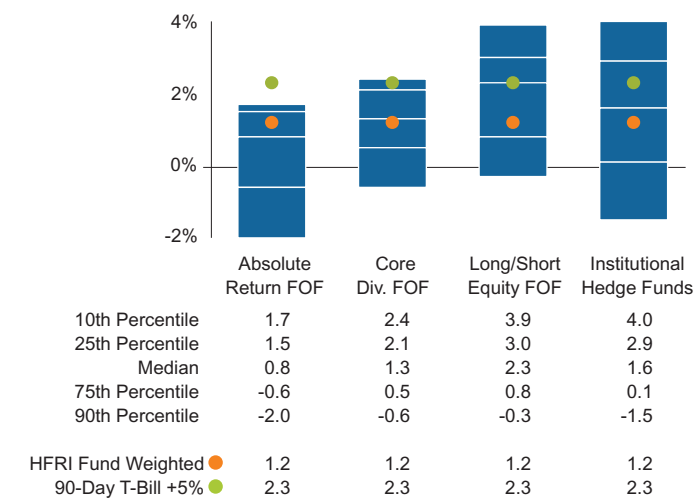
Steady Gains Amid Volatile Markets

HEDGE FUNDS/MACs | Joe McGuane

- Equity and credit markets saw volatility spike during 1Q23, as sentiment on inflation and Federal Reserve policy whipsawed in response to signs of persistent inflation following strong economic data on the labor market.
- Both stocks and bonds gained ground, and hedge funds ended the quarter in positive territory, although they underperformed broader equity indices, as the group provided steady performance through a volatile market environment.
- Equity hedge strategies had a strong start to the year, as tech-focused managers saw performance soar.
- Relative value managers also had a nice quarter, as fixed income relative value strategies were able to profit off the move in short-term rates in March.
- Event-driven strategies posted gains, as some managers profited from merger arbitrage exposures as spreads tightened with the completion of several large strategic deals.

Hedge Fund Style Group Returns

(3/31/23)



Sources: Callan, Credit Suisse, Federal Reserve

Callan Peer Group Median and Index Returns* for Periods Ended 3/31/23

Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	1.6	2.6	9.2	5.7	5.8	6.1
Callan Fund-of-Funds Peer Group	1.2	0.9	8.1	4.2	4.2	3.7
Callan Absolute Return FOF Style	0.8	2.3	8.8	4.1	4.5	3.6
Callan Core Diversified FOF Style	1.3	1.5	8.1	4.0	4.0	3.4
Callan Long/Short Equity FOF Style	2.3	-2.3	6.6	4.5	4.6	4.1
HFRI Fund-Weighted Index	1.2	-2.1	10.5	4.7	4.4	4.0
HFRI Fixed Convertible Arbitrage	1.4	1.0	9.1	5.3	5.0	5.4
HFRI Distressed/Restructuring	0.9	-4.6	12.2	4.7	4.4	4.5
HFRI Emerging Markets	1.9	-4.9	8.0	1.0	2.8	2.0
HFRI Equity Market Neutral	0.8	2.5	4.1	1.9	2.9	2.0
HFRI Event-Driven	1.4	-2.2	11.7	4.5	4.6	4.5
HFRI Relative Value	1.3	0.0	7.7	3.6	3.9	4.7
HFRI Macro	-2.4	-0.4	7.0	4.6	2.7	2.4
HFRI Equity Hedge	2.5	-3.7	12.4	5.0	5.3	4.2
HFRI Multi-Strategy	1.4	-6.3	7.1	2.4	2.8	3.1
HFRI Merger Arbitrage	-1.8	-0.3	9.7	5.3	4.3	4.0
90-Day T-Bill + 5%	2.3	7.5	5.9	6.4	5.9	5.7

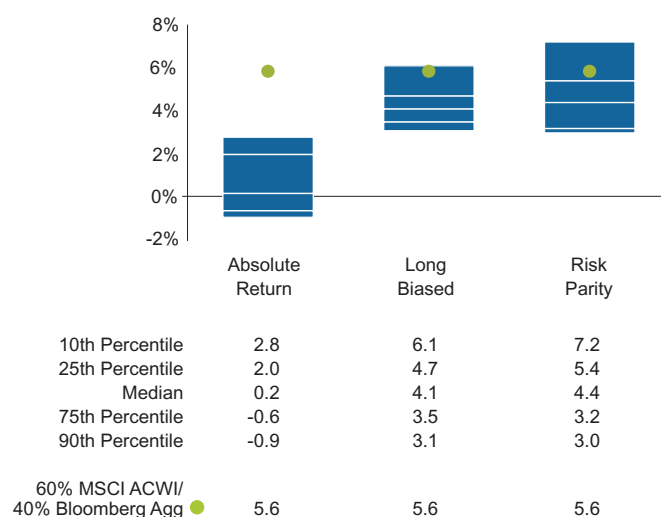
*Net of fees. Sources: Callan, Credit Suisse, Hedge Fund Research

- Macro strategies generated negative performance on the quarter, as losses came from short positions in U.S. rates, and short positions in U.S. equity indices detracted from performance.
- The median manager in the Callan Institutional Hedge Fund Peer Group rose 1.6%.
- Within this style group of 50 peers, the average hedged credit manager gained 2.1%, as high yield markets had a strong start to the year as near-term recession risks receded and capital market access improved.
- Hedged rates managers rose 1.5%, as those strategies were able to profit off short-term rates falling in March, as the banking crisis flared up.
- The average hedged equity manager fell 0.3%, as managers with a focus on tech, media, and telecom (TMT) and consumer stocks led the rally after lagging for all of 2022.
- Within the HFRI Indices, the best-performing strategy in 1Q was the equity hedge index (+2.5%), as managers that were focused on growth stocks saw a strong bounce in performance compared to last year.
- Event-driven strategies finished up 1.4%, as hard catalyst situations contributed to performance along with select merger arbitrage exposures as spreads tightened.

- Macro strategies ended the quarter 2.4% lower, primarily due to losses in short fixed income exposures, as banking turmoil abruptly shifted rate expectations.
- Across the Callan Hedge FOF Database, the median Callan Long-Short Equity FOF gained 2.3%, as managers benefited from a strong S&P 500 during 1Q.
- The median Callan Core Diversified FOF rose 1.3%, as equity hedge exposure offset negative performance from macro managers during the quarter.
- Callan Absolute Return FOF was up 0.8%, as multi-strategy and equity hedge exposure was able to offset the underperformance from macro managers in the quarter.
- The median Callan MAC Risk Parity manager gained 4.4%, as equities and fixed income drove performance during the quarter.
- The Callan MAC Long Biased peer group rose 4.1%, as strong equity performance led the group higher.
- The Callan MAC Absolute Return manager finished up 0.2%, as a bias toward value equities caused underperformance relative to the other peer groups, as growth equities had a strong start to the year.

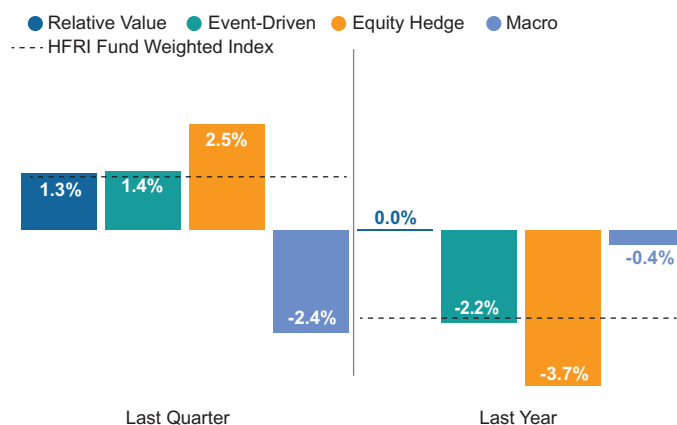
MAC Style Group Returns

(3/31/23)



HFRI Hedge Fund-Weighted Strategy Returns

(3/31/23)



Source: HFRI

Sources: Bloomberg, Callan, Eurekahedge, S&P Dow Jones Indices

Index Rises After Three Straight Quarters of Losses

DEFINED CONTRIBUTION | Scotty Lee

Performance: Index gains 6.3%, breaking streak of losses

- The Callan DC Index™ rose 6.3% in 4Q22 after three previous quarterly declines.
- The Age 45 Target Date Fund gained 8.4%.

Growth Sources: Investment gains lead to rise in balances

- Balances rose by 5.8% after a 4.7% decrease the previous quarter, driven by investment gains.

Turnover: Net transfers increase slightly

- Turnover (net transfer activity levels within DC plans) slightly increased to 0.18% from the previous quarter's 0.14%.
- Despite the small increase, the Index's historical average (0.56%) remained steady.

Net Cash Flow: TDFs remain in top spot

- Target date funds (TDFs) received the largest net inflows in the DC Index, garnering 84.6% of quarterly net flows.
- Investors withdrew assets from U.S. large cap equity (-19.5%) and global ex-U.S. equity (-9.5%).
- Stable value (-34.7%) saw relatively large outflows.

Equity Allocation: Exposure rises

- The Index's overall allocation to equity (70.1%) rose slightly from the previous quarter's level (69.3%).

Asset Allocation: Capital preservation declines

- Global ex-U.S. equity (5.0%) and U.S. large cap (25.2%) were among the asset classes with the largest percentage increases in allocation.
- Stable value (10.0%) had a decrease in allocation from the previous quarter's level (10.5%).

Prevalance: Balanced funds dip—again

- The prevalence of a balanced fund (40.8%) decreased again to its lowest level since the inception of the Index in 2006.

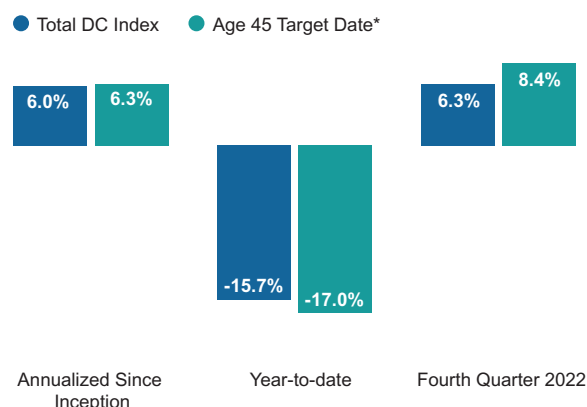
Management Fees: Declines vary by plan size

- Less than \$500 million in assets: fees fell by 1 basis point.
- \$500 million-\$1 billion: -2 bps.
- More than \$1 billion: -4 bps.

Underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately \$400 billion in assets are tracked in the Callan DC Index.

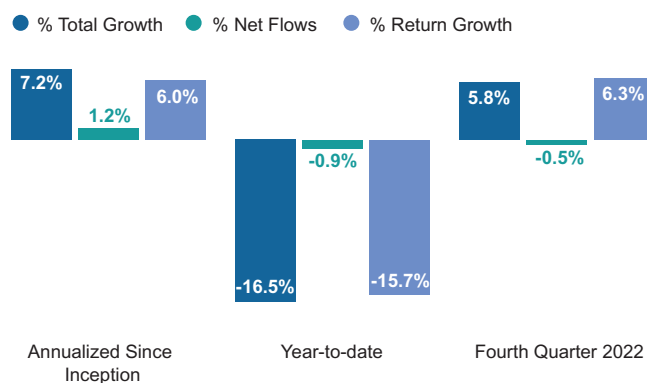
Investment Performance

(12/31/22)



Growth Sources

(12/31/22)



Net Cash Flow Analysis (4Q22)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	84.6%
Money Market	8.0%
U.S. Large Cap	-19.5%
Stable Value	-34.7%
Total Turnover**	0.2%

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

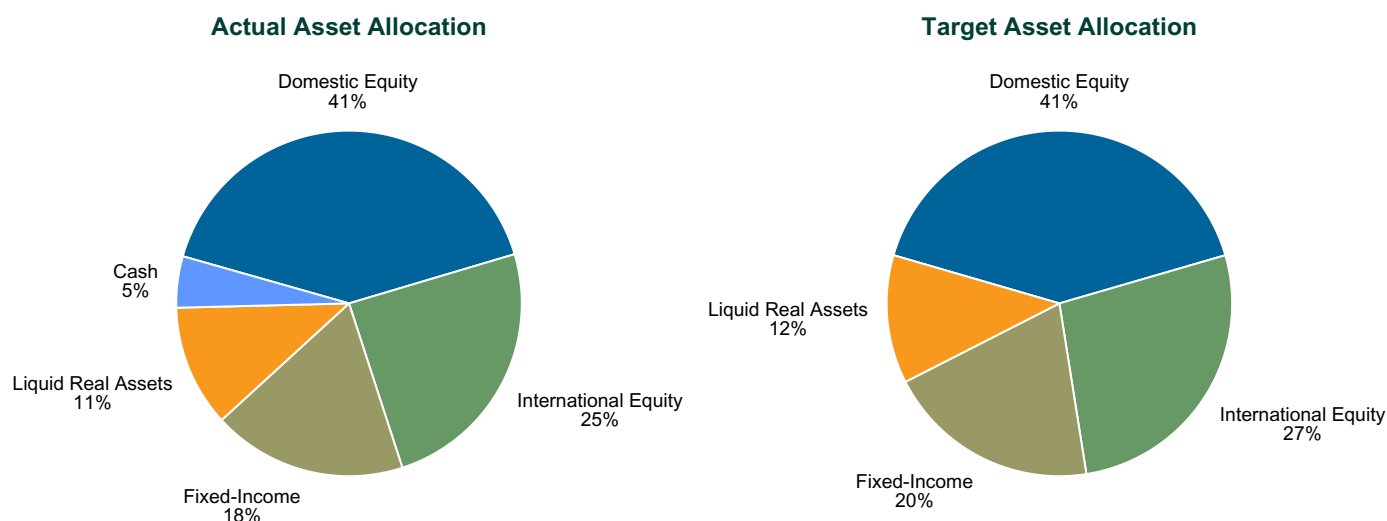
Note: DC Index inception date is January 2006.

* The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.

** Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

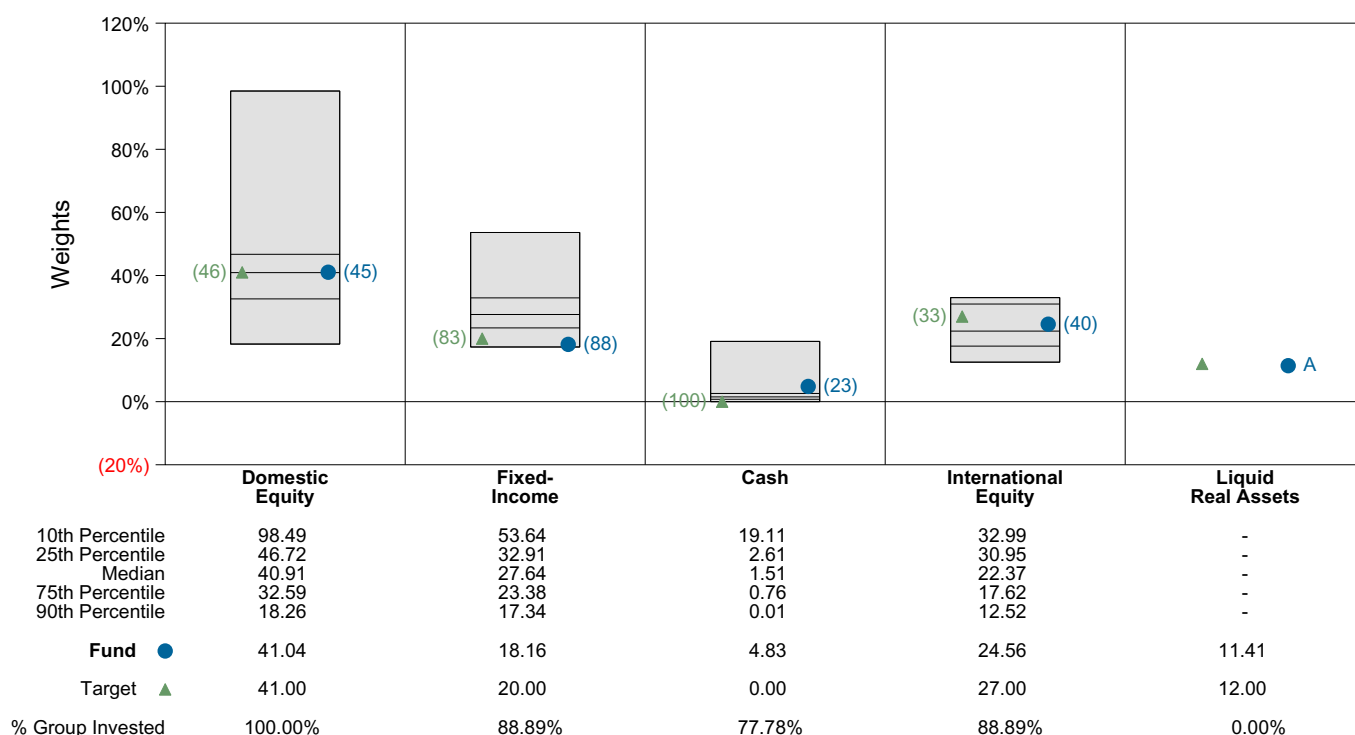
Actual vs Target Asset Allocation As of March 31, 2023

The top left chart shows the Fund's asset allocation as of March 31, 2023. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Spons - Sm DB (<100M).



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity	51,522	41.0%	41.0%	0.0%	54
International Equity	30,835	24.6%	27.0%	(2.4%)	(3,059)
Fixed-Income	22,797	18.2%	20.0%	(1.8%)	(2,309)
Liquid Real Assets	14,320	11.4%	12.0%	(0.6%)	(744)
Cash	6,059	4.8%	0.0%	4.8%	6,059
Total	125,532	100.0%	100.0%		

Asset Class Weights vs Callan Public Fund Spons - Sm DB (<100M)



* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI xUS, 20.0% Blmbg Aggregate and 12.0% Blmbg TIPS 1-10 Yr.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of March 31, 2023, with the distribution as of December 31, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	March 31, 2023		Net New Inv.	Inv. Return	December 31, 2022	
	Market Value	Weight			Market Value	Weight
Total Equity	\$82,356,667	65.61%	\$(4,000,000)	\$5,410,099	\$80,946,568	68.08%
Domestic Equity	\$51,521,983	41.04%	\$(2,000,000)	\$3,447,264	\$50,074,718	42.12%
Vanguard Total Stock Mkt	51,521,983	41.04%	(2,000,000)	3,447,264	50,074,718	42.12%
International Equity	\$30,834,684	24.56%	\$(2,000,000)	\$1,962,835	\$30,871,849	25.97%
Vanguard Total Intl Stock	30,834,684	24.56%	(2,000,000)	1,962,835	30,871,849	25.97%
Fixed Income	\$22,797,260	18.16%	\$(1,004,405)	\$723,998	\$23,077,668	19.41%
Metropolitan West Fund	8,642,761	6.88%	0	295,654	8,347,106	7.02%
Prudential Cons Core Bond Fnd	14,154,500	11.28%	(1,004,405)	428,343	14,730,562	12.39%
Liquid Real Assets	\$14,319,692	11.41%	\$(1,000,000)	\$453,265	\$14,866,427	12.50%
PIMCO All Assets	14,319,692	11.41%	(1,000,000)	453,265	14,866,427	12.50%
Cash	\$6,058,782	4.83%	\$5,997,455	\$58,568	\$2,758	0.00%
Short Term Fund	6,058,782	4.83%	5,997,455	58,568	2,758	0.00%
Total Fund	\$125,532,401	100.0%	\$(6,950)	\$6,645,931	\$118,893,421	100.0%

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of March 31, 2023, with the distribution as of December 31, 2022.

Asset Distribution Across Investment Managers

	March 31, 2023					December 31, 2022		
	Market Value	Weight	(min)	Target	(max)	Market Value	Weight	Target
Total Equity	\$82,356,667	65.61%	53.00%	68.00%	83.00%	\$80,946,568	68.08%	68.00%
Domestic Equity	\$51,521,983	41.04%	31.00%	41.00%	51.00%	\$50,074,718	42.12%	41.00%
Vanguard Total Stock Mkt	51,521,983	41.04%				50,074,718	42.12%	
International Equity	\$30,834,684	24.56%	20.00%	27.00%	34.00%	\$30,871,849	25.97%	27.00%
Vanguard Total Int'l. Stock	30,834,684	24.56%				30,871,849	25.97%	
Fixed Income	\$22,797,260	18.16%	15.00%	20.00%	25.00%	\$23,077,668	19.41%	20.00%
Metropolitan West Fund	8,642,761	6.88%				8,347,106	7.02%	
Prudential Cons Core Bond	14,154,500	11.28%				14,730,562	12.39%	
Liquid Real Assets	\$14,319,692	11.41%	0.00%	12.00%	20.00%	\$14,866,427	12.50%	12.00%
PIMCO All Assets	14,319,692	11.41%				14,866,427	12.50%	
Cash	\$6,058,782	4.83%	0.00%	0.00%	0.00%	\$2,758	0.00%	0.00%
Short Term Fund	6,058,782	4.83%				2,758	0.00%	
Total Fund	\$125,532,401	100.0%		100.0%		\$118,893,421	100.0%	100.0%

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended March 31, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended March 31, 2023					
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Total Equity	6.97%	(7.22%)	16.14%	7.32%	9.66%
Domestic Equity	7.15%	(8.77%)	18.36%	10.37%	11.93%
Vanguard Total Stock Market (1)	7.15%	(8.77%)	18.36%	10.37%	11.93%
Vanguard Total Stock Benchmark (2)	7.16%	(8.77%)	18.37%	10.37%	11.94%
Russell 3000 Index	7.18%	(8.58%)	18.48%	10.45%	11.99%
International Equity	6.65%	(4.60%)	12.70%	2.53%	6.05%
Vanguard Total Int'l. Stock (3)	6.65%	(4.60%)	12.70%	2.53%	6.05%
Vanguard International Benchmark (4)	6.50%	(5.40%)	12.79%	2.91%	6.32%
MSCI ACWI ex US	6.87%	(5.07%)	11.80%	2.47%	5.86%
Fixed-Income	3.27%	(5.09%)	(2.49%)	1.03%	1.07%
Prudential Conservative Core Bond (5)	3.06%	(4.81%)	(2.71%)	0.85%	0.81%
Metropolitan West Fund	3.54%	(5.79%)	(2.30%)	1.14%	1.13%
Blmbg Aggregate Index	2.96%	(4.78%)	(2.77%)	0.91%	0.88%
Liquid Real Assets	3.21%	(6.68%)	10.87%	4.00%	-
PIMCO All Asset	3.21%	(6.68%)	10.87%	4.00%	5.94%
Blmbg US TIPS 1-10	2.94%	(2.92%)	2.89%	3.18%	2.53%
Cash	0.99%	2.31%	0.82%	1.32%	1.16%
Short Term Fund	0.99%	2.31%	0.82%	1.32%	1.16%
3-month Treasury Bill	1.07%	2.50%	0.89%	1.41%	1.21%
Total Fund	5.56%	(6.95%)	11.47%	5.79%	7.33%
Total Fund Benchmark*	5.76%	(5.88%)	10.32%	5.94%	7.07%

Annual Discount Rate:6.5%

* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI xUS, 20.0% Blmbg Aggregate and 12.0% Blmbg TIPS 1-10 Yr.

(1) Vanguard Total Stock Market switched to Admiral Shares from Signal Shares in October 2014. In November 2014 switched to institutional shares.

(2) Vanguard Total Stock Market Benchmark was US Broad Market Index switched to CRSP U.S. Total Market Index Jun. 2013

(3) Vanguard Total Int'l. Stock switched to Institutional Shares from Investor Shares on November 30, 2014

(4) Vanguard Total International Benchmark was MSCI ACWI exUS IMI switched to FTSE Global All Cap exUS Index Jun. 2013.

(5) February 8, 2017 fund switched to Institutional Trust.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	6/2022- 3/2023	FY 2022	FY 2021	FY 2020	FY 2019
Total Equity	9.63%	(16.08%)	41.24%	2.43%	5.80%
Domestic Equity	9.70%	(14.24%)	44.33%	6.47%	9.00%
Vanguard Total Stock Market (1)	9.70%	(14.24%)	44.33%	6.47%	9.00%
Vanguard Total Stock Benchmark (2)	9.71%	(14.22%)	44.35%	6.47%	9.00%
Russell 3000 Index	9.75%	(13.87%)	44.16%	6.53%	8.98%
International Equity	9.48%	(18.92%)	36.54%	(4.07%)	0.62%
Vanguard Total Int'l. Stock (3)	9.48%	(18.92%)	36.54%	(4.07%)	0.62%
Vanguard International Benchmark (4)	9.95%	(19.01%)	37.55%	(4.16%)	0.81%
MSCI ACWI ex US	10.03%	(19.42%)	35.72%	(4.80%)	1.29%
Fixed-Income	0.10%	(10.95%)	0.45%	8.94%	8.04%
Prudential Cons Core Bond Fnd (5)	0.09%	(10.70%)	(0.16%)	8.65%	7.80%
Metropolitan West Fund	(0.09%)	(11.56%)	1.36%	9.18%	8.23%
Blmbg Aggregate Index	(0.09%)	(10.29%)	(0.33%)	8.74%	7.87%
Liquid Real Assets	3.90%	(9.85%)	29.55%	(2.23%)	5.03%
PIMCO All Asset	3.90%	(9.85%)	29.55%	(2.23%)	5.03%
Blmbg US TIPS 1-10	0.52%	(2.03%)	6.60%	5.75%	4.67%
Cash	2.17%	0.16%	0.09%	1.78%	2.00%
Short Term Fund	2.17%	0.16%	0.09%	1.78%	2.00%
3-month Treasury Bill	2.40%	0.17%	0.09%	1.63%	2.31%
Total Fund	6.76%	(14.34%)	31.50%	3.26%	6.24%
Total Fund Benchmark*	6.93%	(13.16%)	27.43%	4.85%	6.71%

Annual Discount Rate:6.5%

* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI xUS, 20.0% Blmbg Aggregate and 12.0% Blmbg TIPS 1-10 Yr.

(1) Vanguard Total Stock Market switched to Admiral Shares from Signal Shares in October 2014. In November 14th, 2014 switched to Institutional shares.

(2) Vanguard Total Stock Market Benchmark was US Broad Market Index switched to CRSP U.S. Total Market Index Jun. 2013

(3) Vanguard Total Int'l. Stock switched to Institutional Shares from Investor Shares in November 30, 2014

(4) Vanguard Total International Benchmark was MSCI ACWI exUS IMI switched to FTSE Global All Cap exUS Index Jun. 2013.

(5) February 8, 2017 fund switched to Institutional Trust.

Total Fund Period Ended March 31, 2023

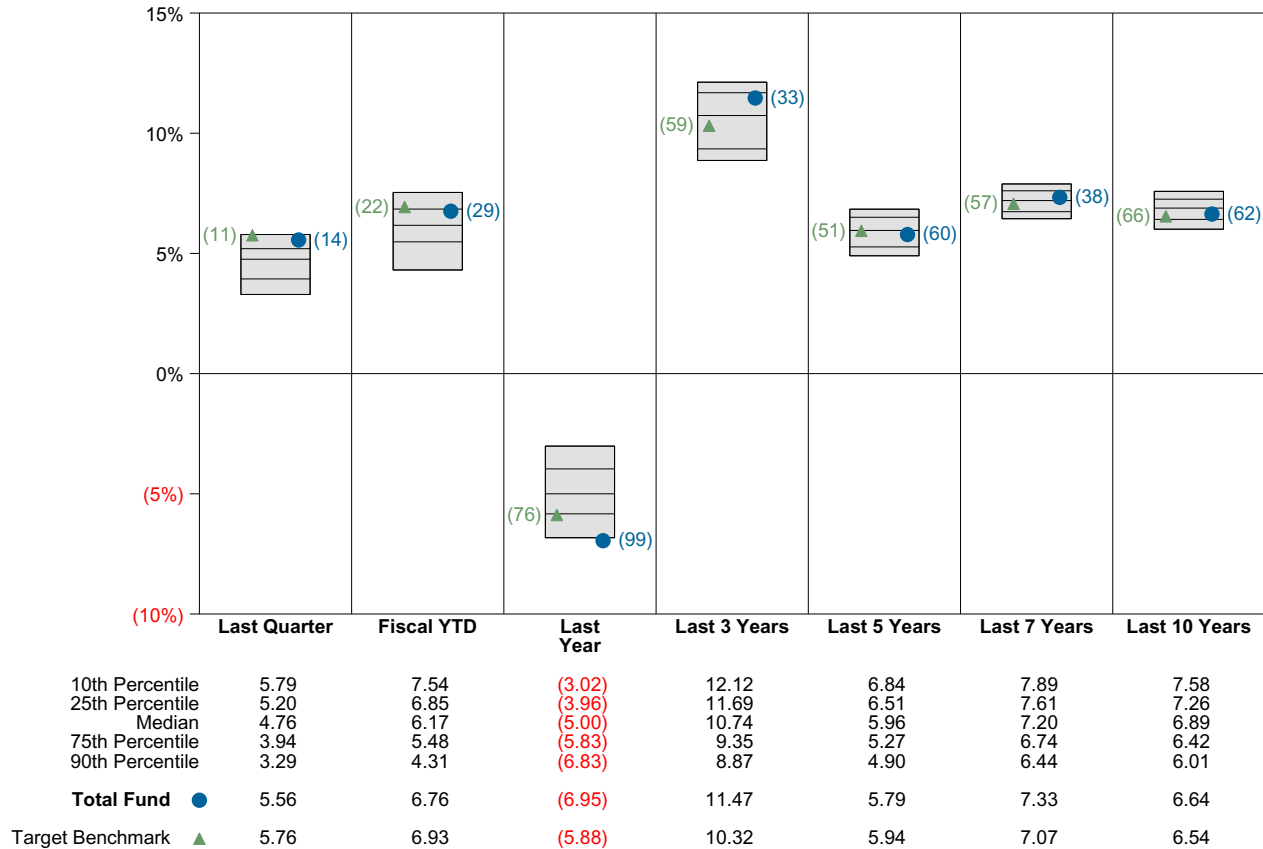
Quarterly Summary and Highlights

- Total Fund's portfolio posted a 5.56% return for the quarter placing it in the 14 percentile of the Callan Public Fund Spons - Sm DB (<100M) group for the quarter and in the 99 percentile for the last year.
- Total Fund's portfolio underperformed the Target Benchmark by 0.20% for the quarter and underperformed the Target Benchmark for the year by 1.07%.

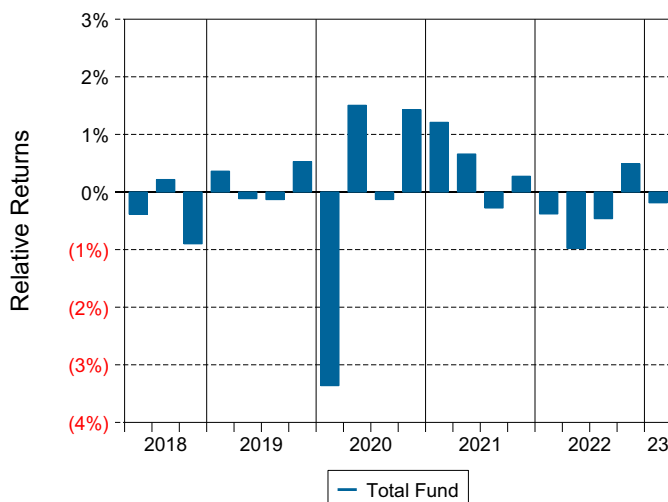
Quarterly Asset Growth

Beginning Market Value	\$118,893,421
Net New Investment	\$-6,950
Investment Gains/(Losses)	\$6,645,931
Ending Market Value	\$125,532,401

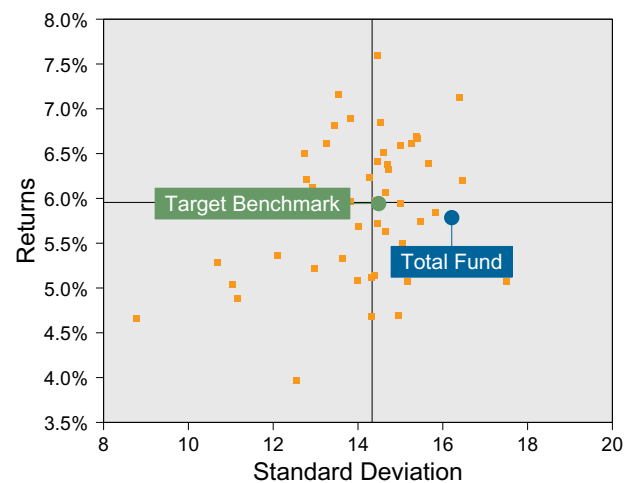
Performance vs Callan Public Fund Spons - Sm DB (<100M) (Gross)



Relative Return vs Target Benchmark



Callan Public Fund Spons - Sm DB (<100M) (Gross) Annualized Five Year Risk vs Return

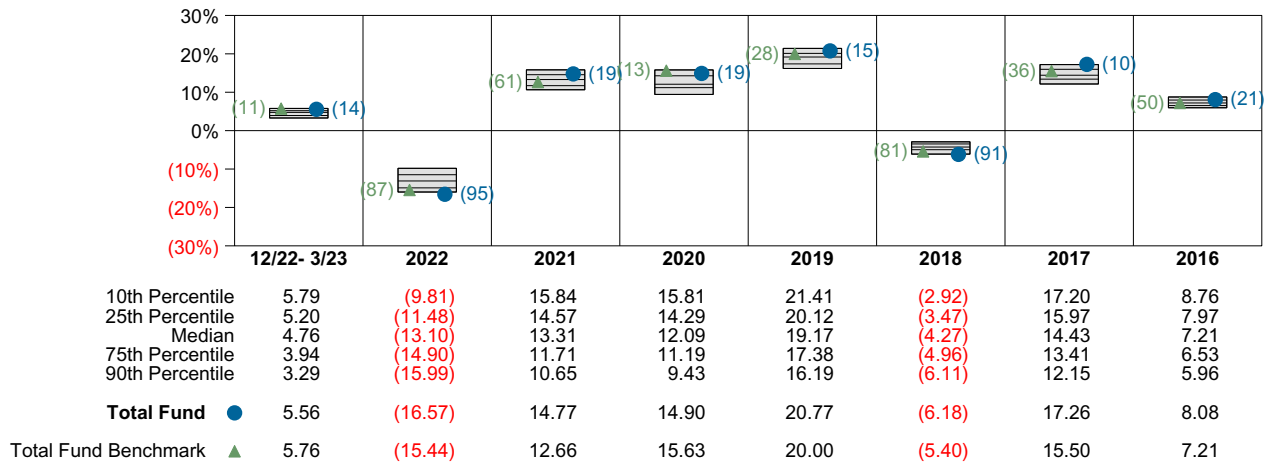


Total Fund Return Analysis Summary

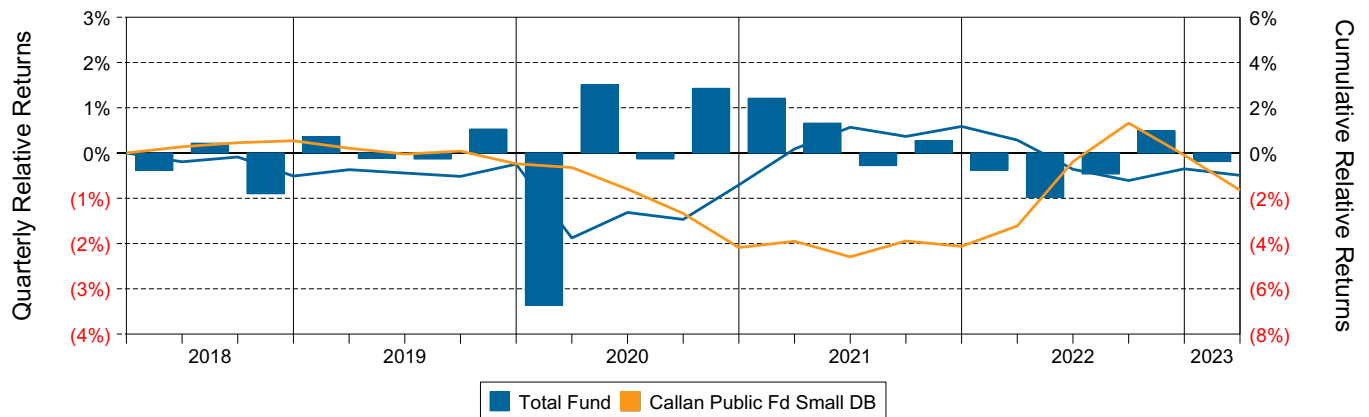
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

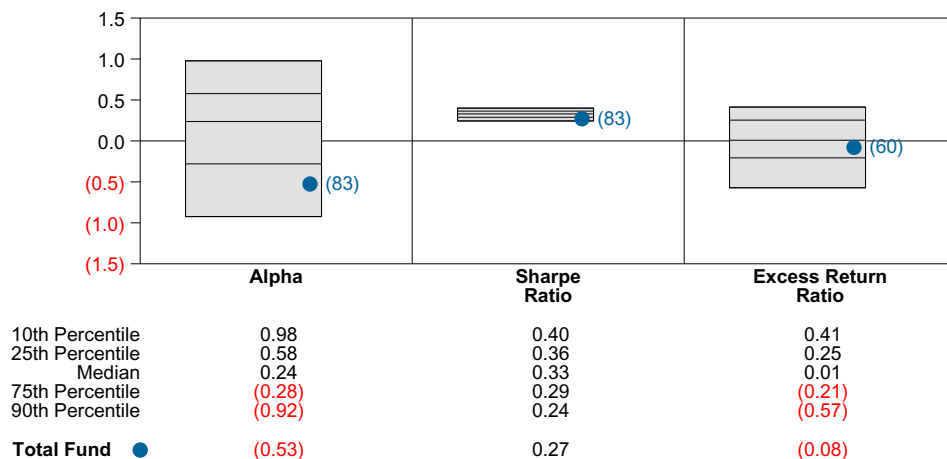
Performance vs Callan Public Fund Spons - Sm DB (<100M) (Gross)



Cumulative and Quarterly Relative Returns vs Total Fund Benchmark



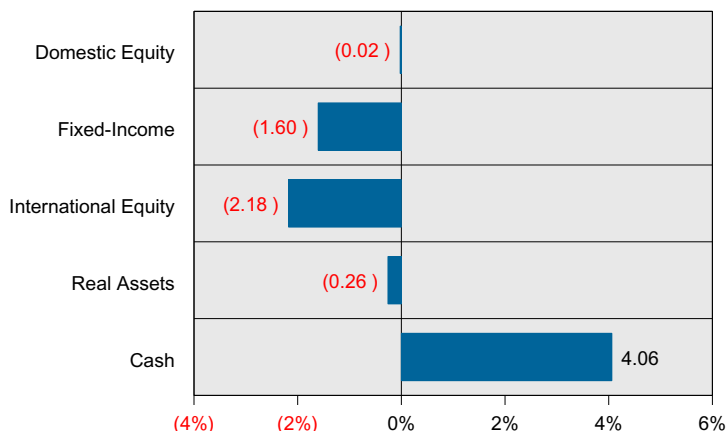
Risk Adjusted Return Measures vs Total Fund Benchmark Rankings Against Callan Public Fund Spons - Sm DB (<100M) (Gross) Five Years Ended March 31, 2023



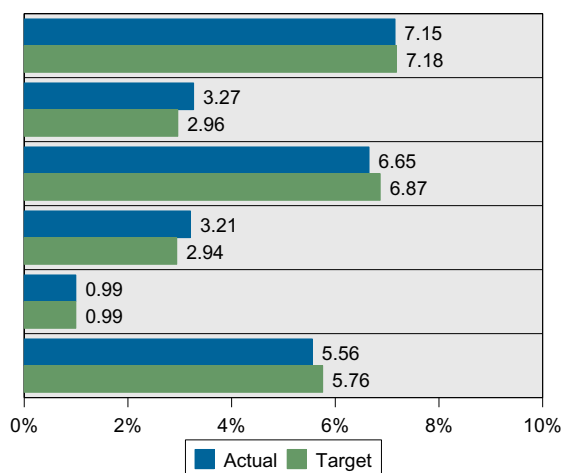
Quarterly Total Fund Relative Attribution - March 31, 2023

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

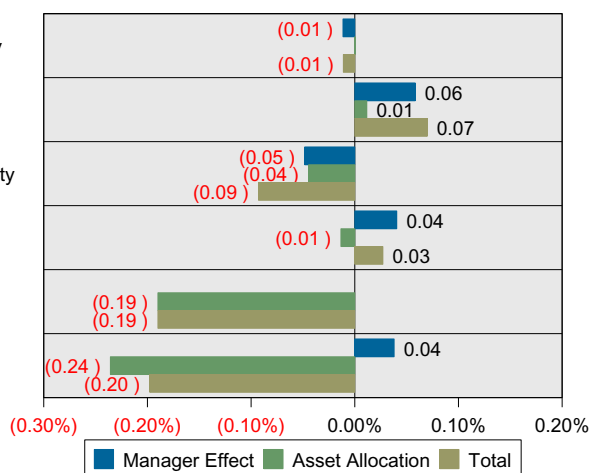
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended March 31, 2023

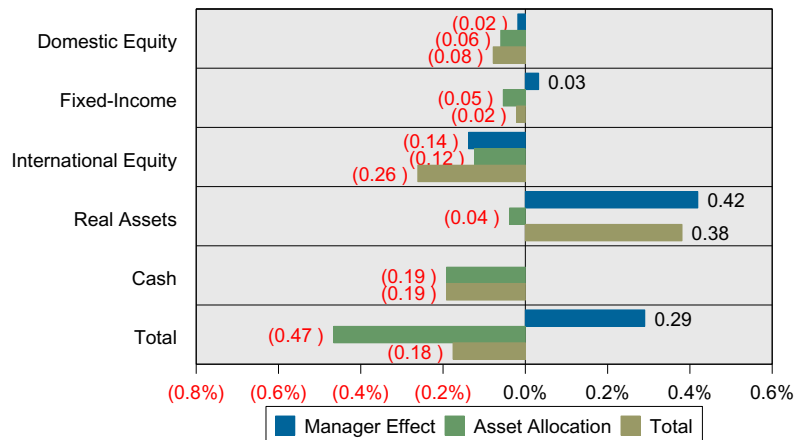
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	41%	41%	7.15%	7.18%	(0.01%)	0.00%	(0.01%)
Fixed-Income	18%	20%	3.27%	2.96%	0.06%	0.01%	0.07%
International Equity	25%	27%	6.65%	6.87%	(0.05%)	(0.04%)	(0.09%)
Real Assets	12%	12%	3.21%	2.94%	0.04%	(0.01%)	0.03%
Cash	4%	0%	0.99%	0.99%	0.00%	(0.19%)	(0.19%)
Total			5.56%	5.76%	+ 0.04%	+ (0.24%)	(0.20%)

* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI xUS, 20.0% Blmbg Aggregate and 12.0% Blmbg TIPS 1-10 Yr.

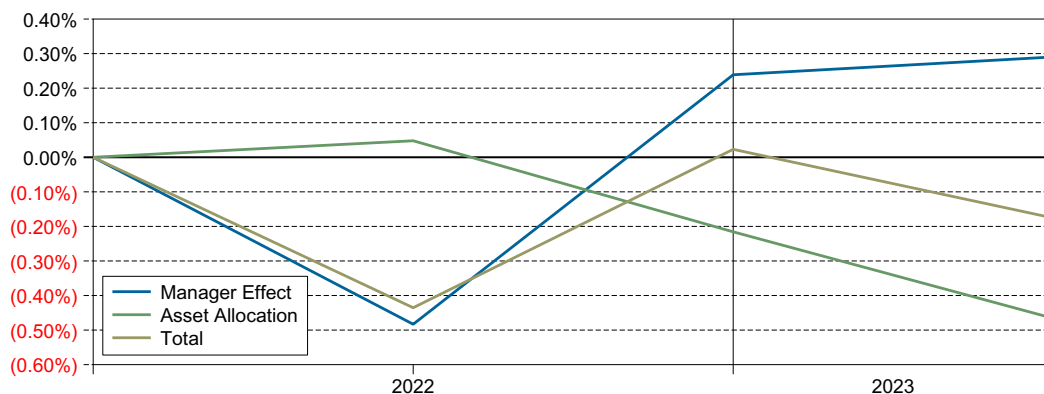
Cumulative Total Fund Relative Attribution - March 31, 2023

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Quarters Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Quarters Relative Attribution Effects

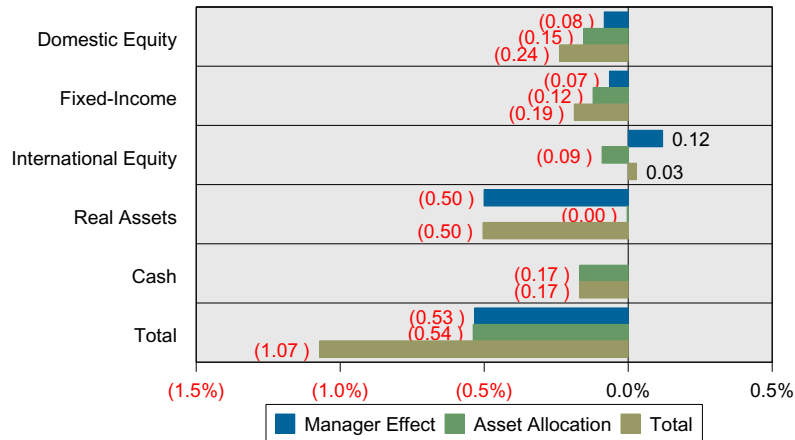
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	42%	41%	9.70%	9.75%	(0.02%)	(0.06%)	(0.08%)
Fixed-Income	19%	20%	0.10%	(0.09%)	0.03%	(0.05%)	(0.02%)
International Equity	25%	27%	9.48%	10.03%	(0.14%)	(0.12%)	(0.26%)
Real Assets	12%	12%	3.90%	0.52%	0.42%	(0.04%)	0.38%
Cash	1%	0%	2.17%	2.17%	0.00%	(0.19%)	(0.19%)
Total			6.76%	6.93%	+ 0.29%	(0.47%)	(0.18%)

* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI xUS, 20.0% Blmbg Aggregate and 12.0% Blmbg TIPS 1-10 Yr.

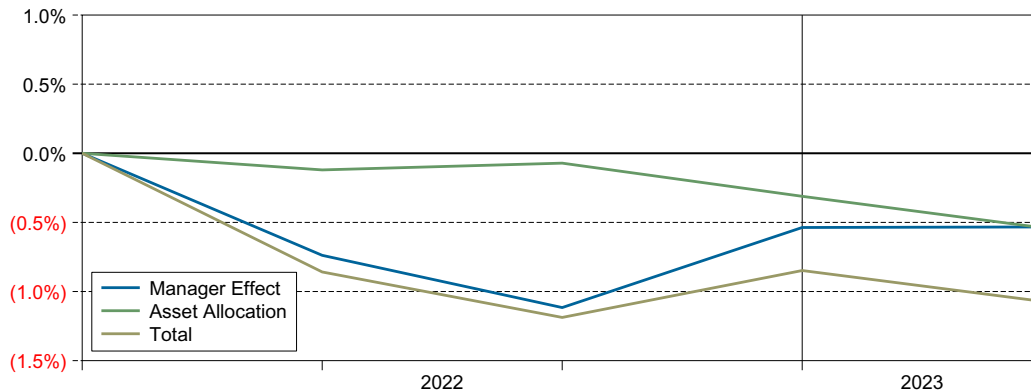
Cumulative Total Fund Relative Attribution - March 31, 2023

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

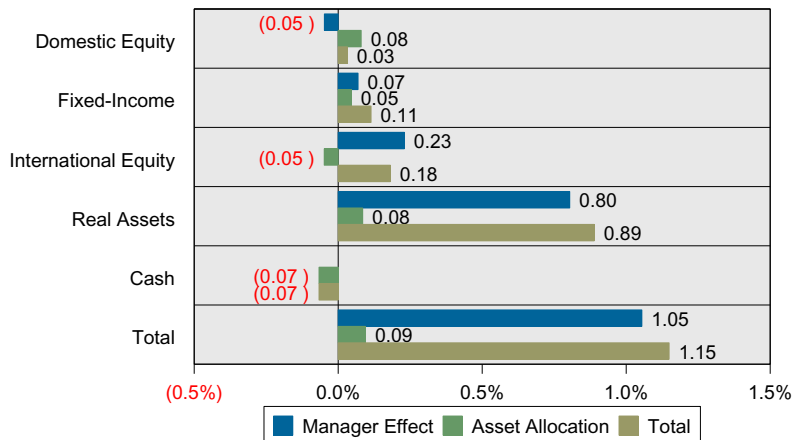
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	42%	41%	(8.77%)	(8.58%)	(0.08%)	(0.15%)	(0.24%)
Fixed-Income	19%	20%	(5.09%)	(4.78%)	(0.07%)	(0.12%)	(0.19%)
International Equity	25%	27%	(4.60%)	(5.07%)	0.12%	(0.09%)	0.03%
Real Assets	12%	12%	(6.68%)	(2.92%)	(0.50%)	(0.00%)	(0.50%)
Cash	1%	0%	2.31%	2.31%	0.00%	(0.17%)	(0.17%)
Total			(6.95%)	(5.88%)	(0.53%)	(0.54%)	(1.07%)

* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI xUS, 20.0% Blmbg Aggregate and 12.0% Blmbg TIPS 1-10 Yr.

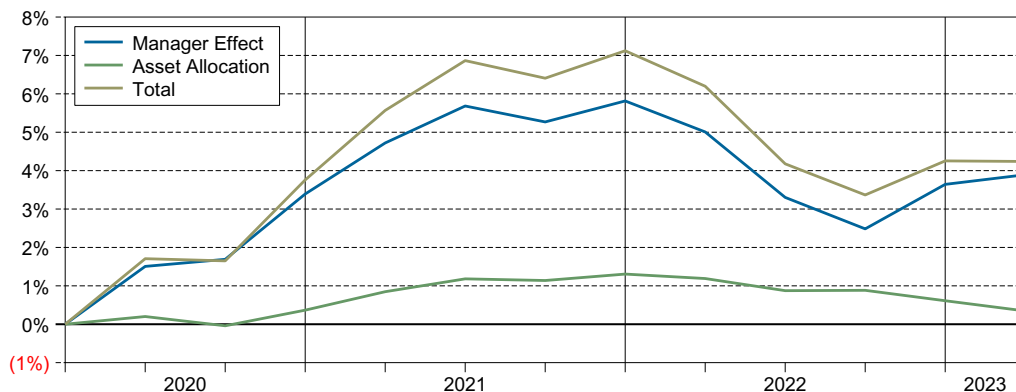
Cumulative Total Fund Relative Attribution - March 31, 2023

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

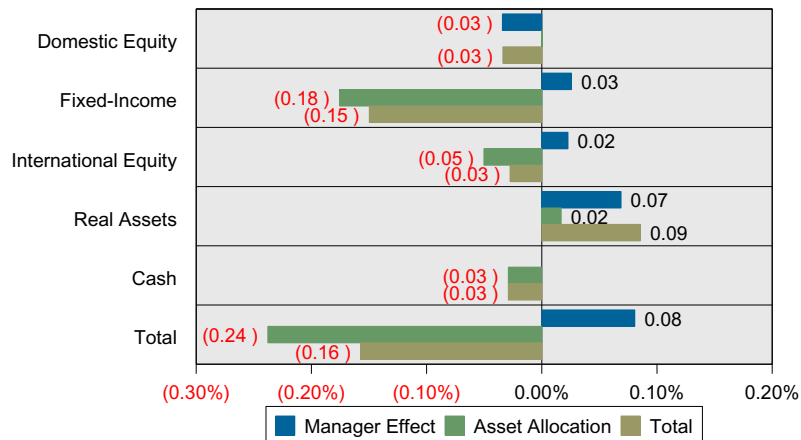
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	43%	41%	18.36%	18.48%	(0.05%)	0.08%	0.03%
Fixed-Income	19%	20%	(2.49%)	(2.77%)	0.07%	0.05%	0.11%
International Equity	26%	27%	12.70%	11.80%	0.23%	(0.05%)	0.18%
Real Assets	12%	12%	10.87%	2.89%	0.80%	0.08%	0.89%
Cash	0%	0%	0.82%	0.82%	0.00%	(0.07%)	(0.07%)
Total			11.47%	10.32%	+ 1.05%	+ 0.09%	1.15%

* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI xUS, 20.0% Blmbg Aggregate and 12.0% Blmbg TIPS 1-10 Yr.

Cumulative Total Fund Relative Attribution - March 31, 2023

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	42%	39%	10.37%	10.45%	(0.03%)	0.00%	(0.03%)
Fixed-Income	21%	23%	1.03%	0.91%	0.03%	(0.18%)	(0.15%)
International Equity	25%	26%	2.53%	2.47%	0.02%	(0.05%)	(0.03%)
Real Assets	11%	11%	4.00%	3.18%	0.07%	0.02%	0.09%
Cash	0%	0%	1.32%	1.32%	0.00%	(0.03%)	(0.03%)
Total			5.79%	5.94%	+ 0.08%	(0.24%)	(0.16%)

* Current Quarter Target = 41.0% Russell 3000 Index, 27.0% MSCI ACWI xUS, 20.0% Blmbg Aggregate and 12.0% Blmbg TIPS 1-10 Yr.

Vanguard Total Stock Market Period Ended March 31, 2023

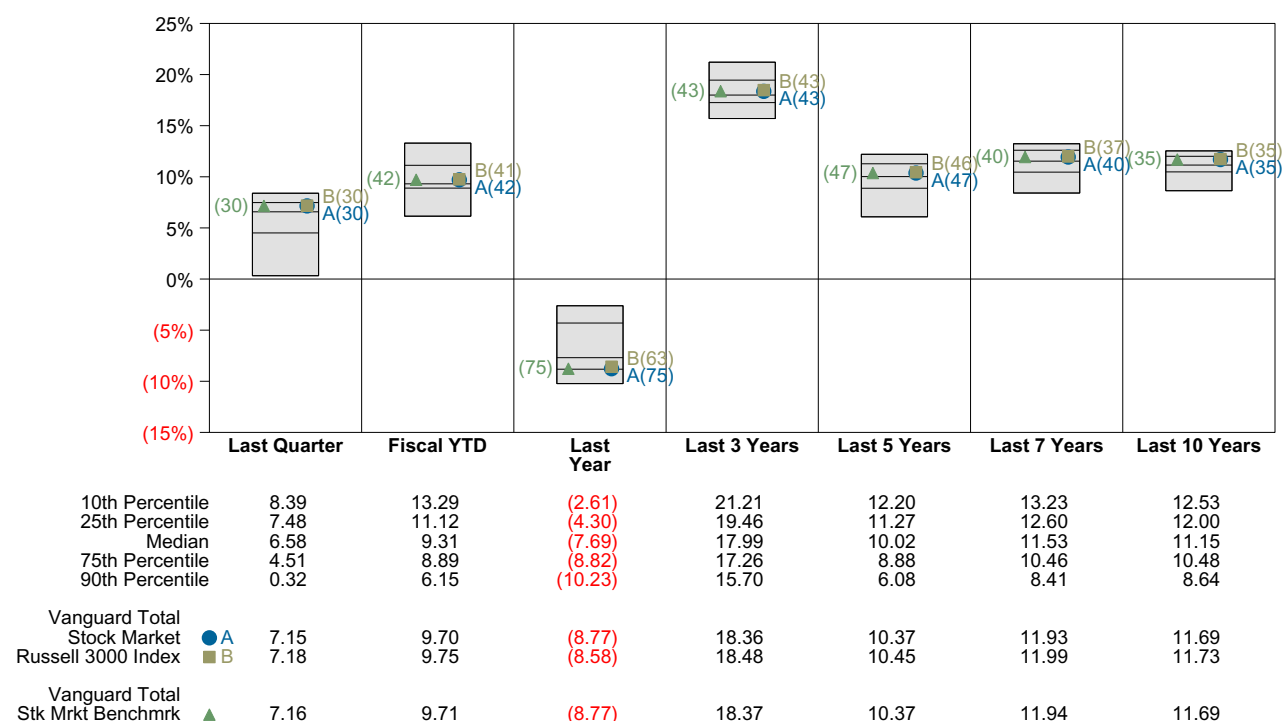
Investment Philosophy

The Vanguard Total Stock Market Index Fund is passively managed using index sampling. It seeks to replicate the performance of the CRSP US Total Market Index. The first full quarter of actual performance is the fourth quarter of 2009, prior returns reflect manager reported composite performance. June, 2013 Benchmark switched from MSCI Broad to CRSP. *Vanguard Total Stock Market switched to Admiral Shares from Signal Shares on October 27, 2014. On November 14, 2014 switched to Institutional Shares.

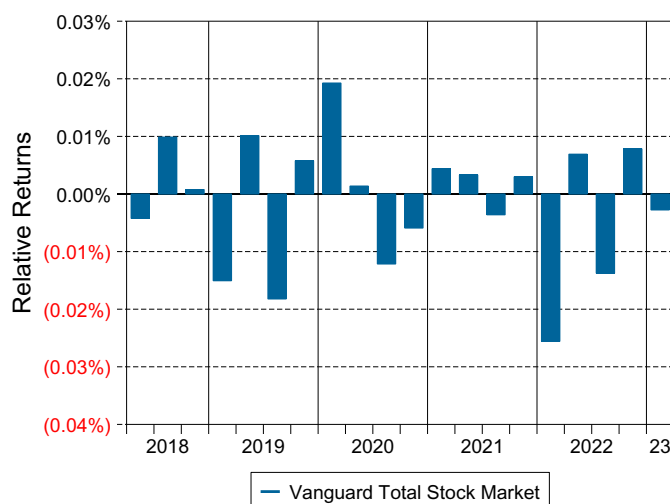
Quarterly Summary and Highlights

- Vanguard Total Stock Market's portfolio posted a 7.15% return for the quarter placing it in the 30 percentile of the Callan Large Cap Core Mutual Funds group for the quarter and in the 75 percentile for the last year.
- Vanguard Total Stock Market's portfolio underperformed the Vanguard Total Stk Mrkt Benchmrk by 0.00% for the quarter and underperformed the Vanguard Total Stk Mrkt Benchmrk for the year by 0.00%.

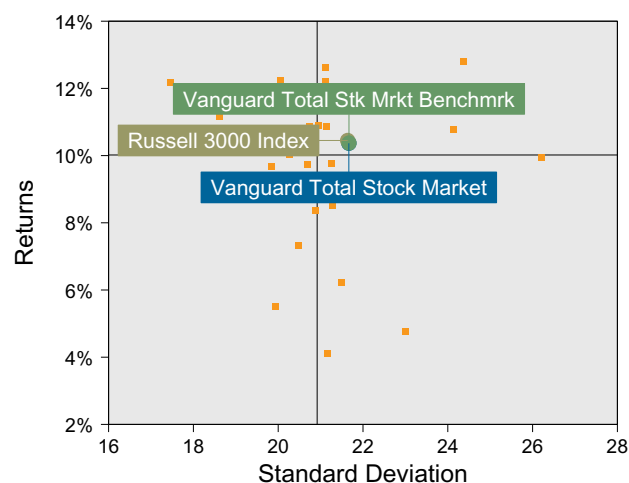
Performance vs Callan Large Cap Core Mutual Funds (Institutional Net)



Relative Returns vs Vanguard Total Stk Mrkt Benchmrk



Callan Large Cap Core Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

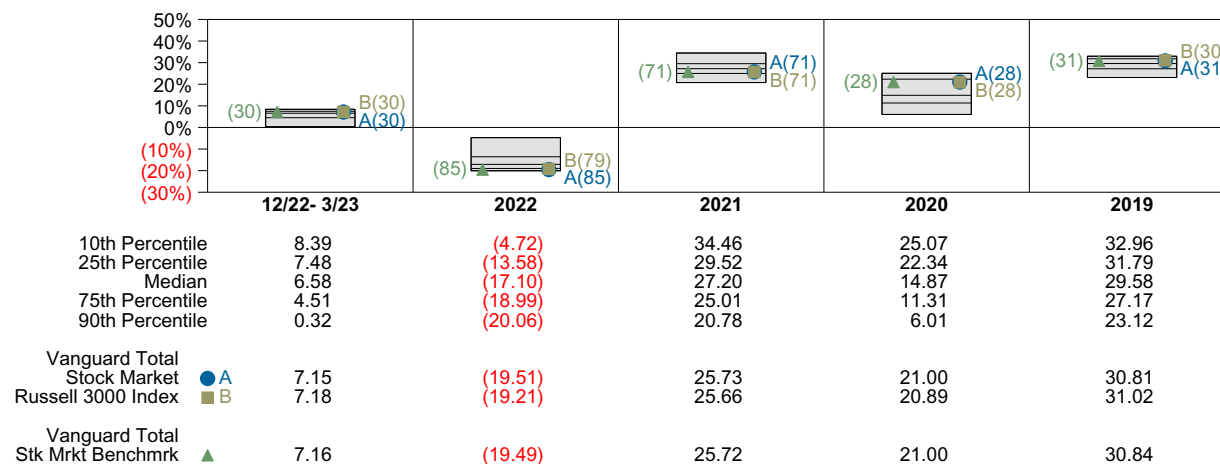


Vanguard Total Stock Market Return Analysis Summary

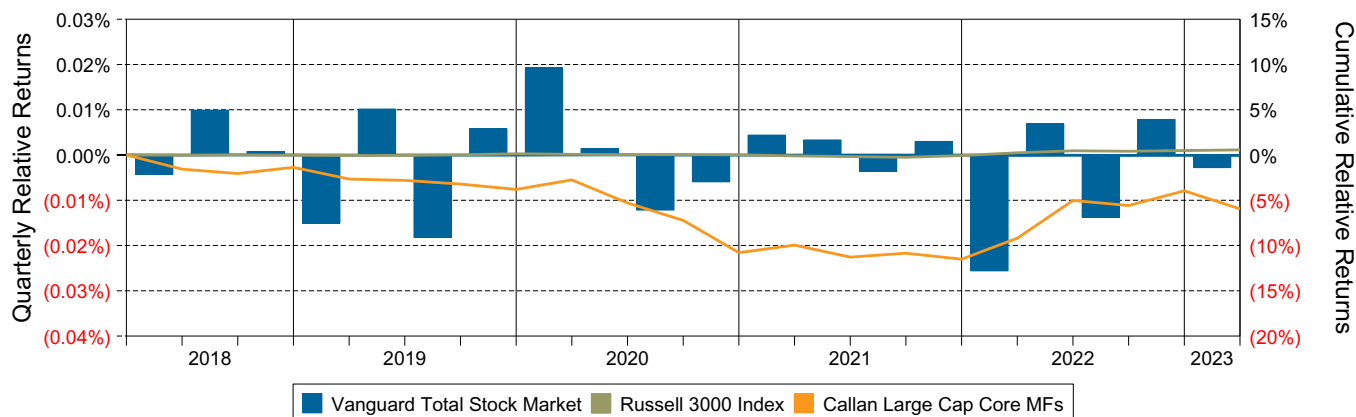
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

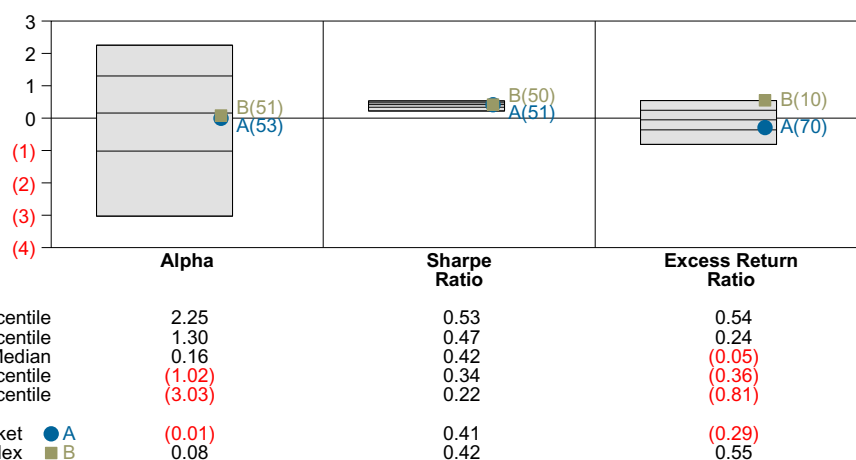
Performance vs Callan Large Cap Core Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Vanguard Total Stk Mkt Benchmrk



Risk Adjusted Return Measures vs Vanguard Total Stk Mkt Benchmrk Rankings Against Callan Large Cap Core Mutual Funds (Institutional Net) Five Years Ended March 31, 2023

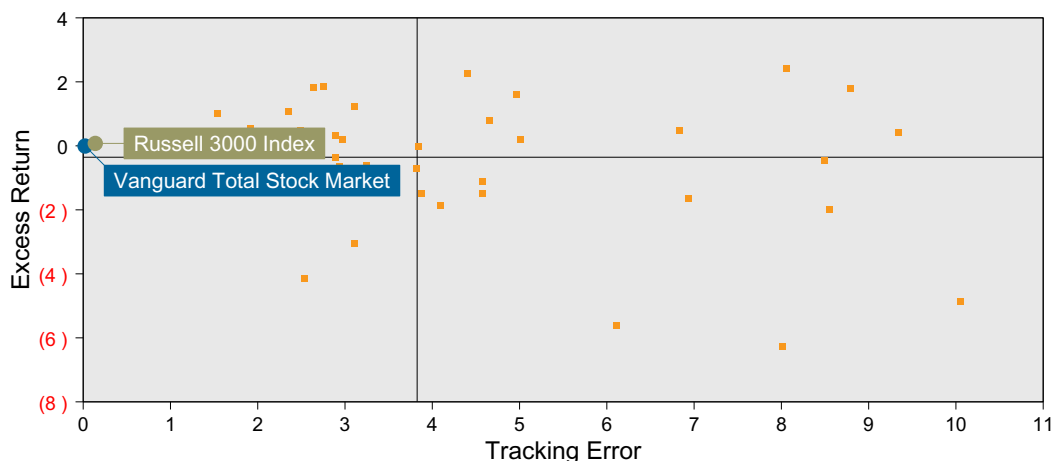


Vanguard Total Stock Market Risk Analysis Summary

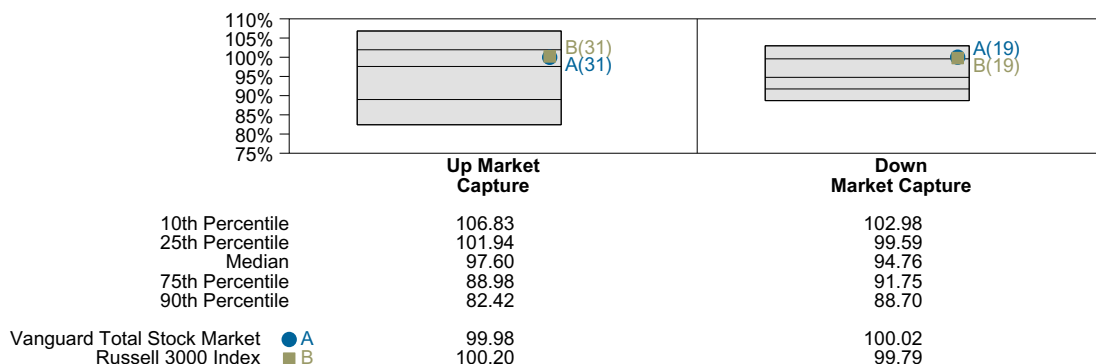
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

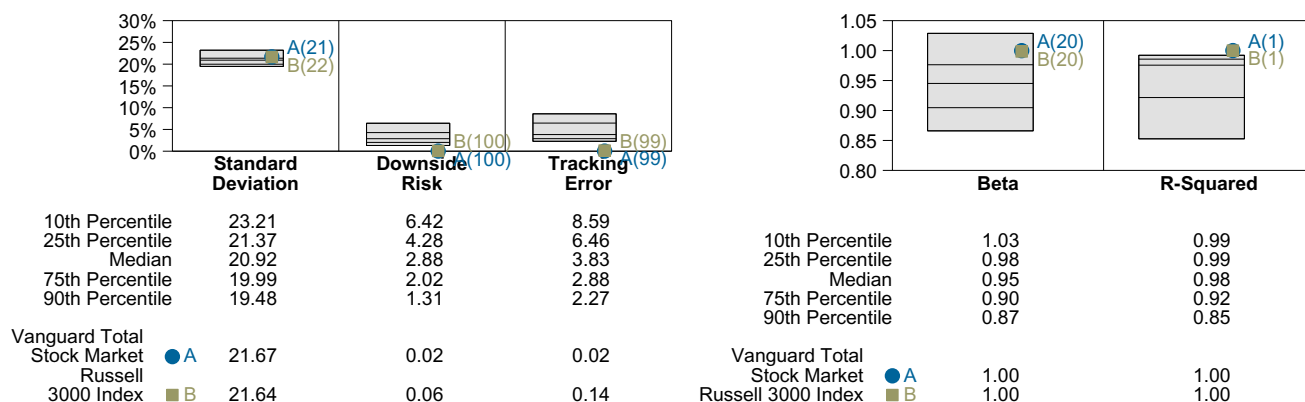
Risk Analysis vs Callan Large Cap Core Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Market Capture vs Vanguard Total Stk Mrkt Benchmrk Rankings Against Callan Large Cap Core Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Risk Statistics Rankings vs Vanguard Total Stk Mrkt Benchmrk Rankings Against Callan Large Cap Core Mutual Funds (Institutional Net) Five Years Ended March 31, 2023

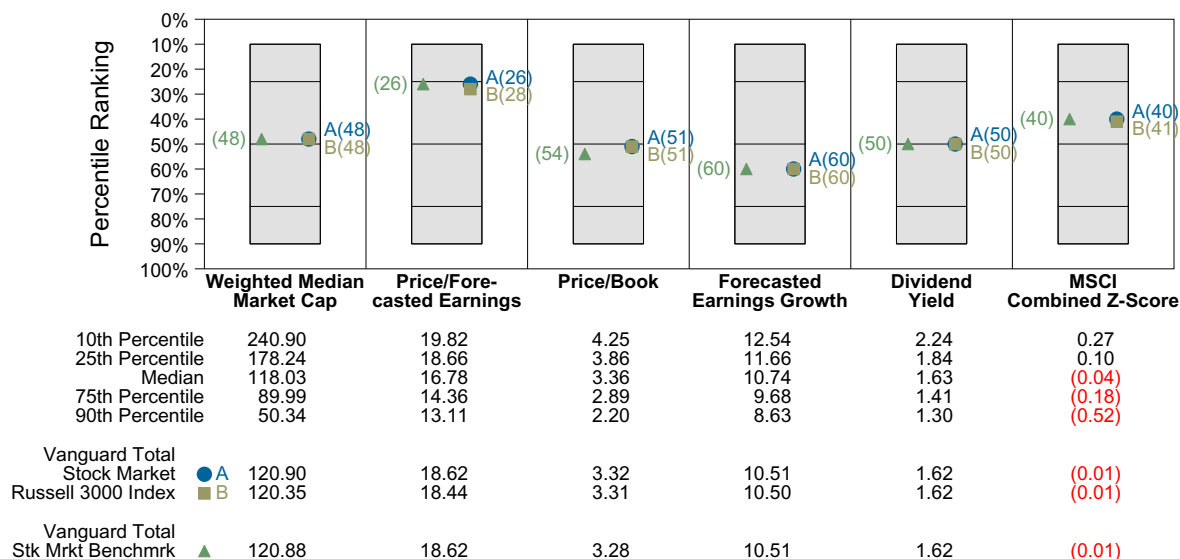


Vanguard Total Stock Market Equity Characteristics Analysis Summary

Portfolio Characteristics

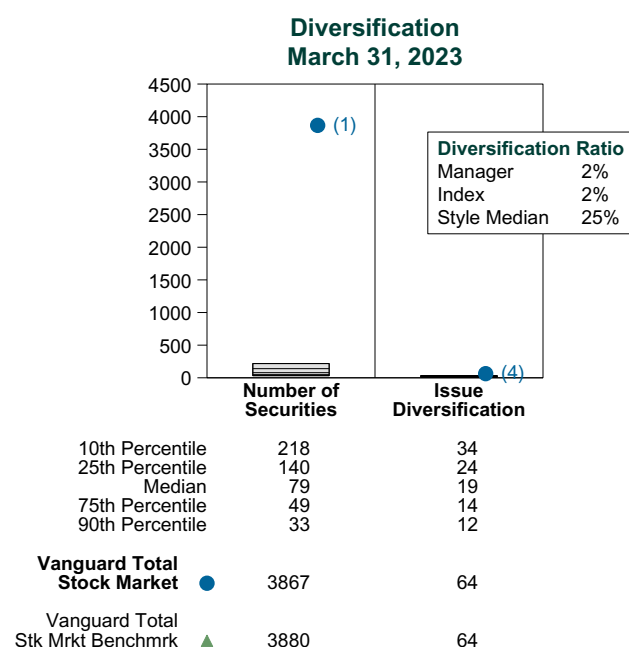
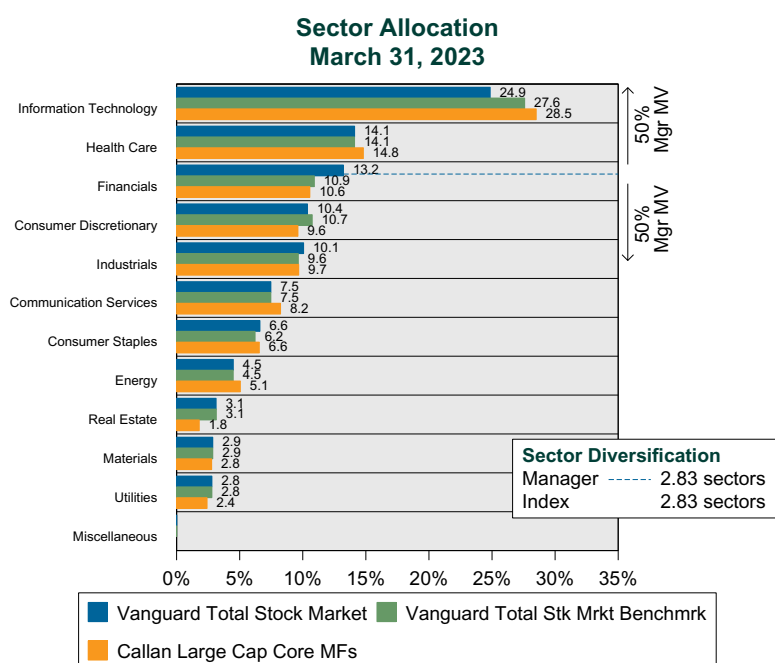
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Core Mutual Funds as of March 31, 2023



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



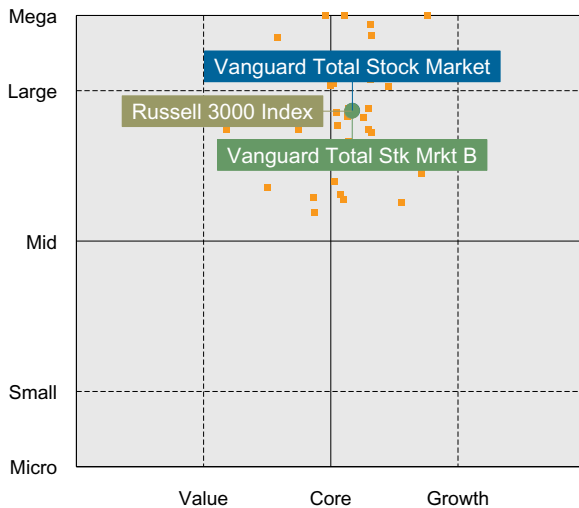
Current Holdings Based Style Analysis

Vanguard Total Stock Market

As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

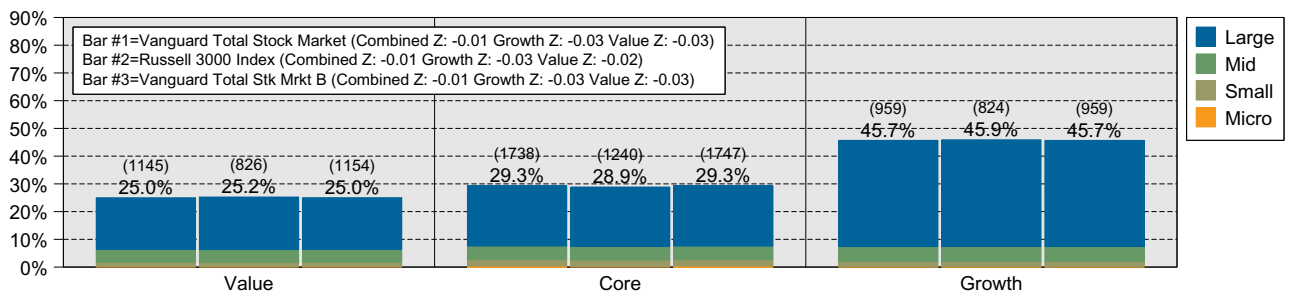
Style Map vs Callan Large Cap Core MFs
Holdings as of March 31, 2023



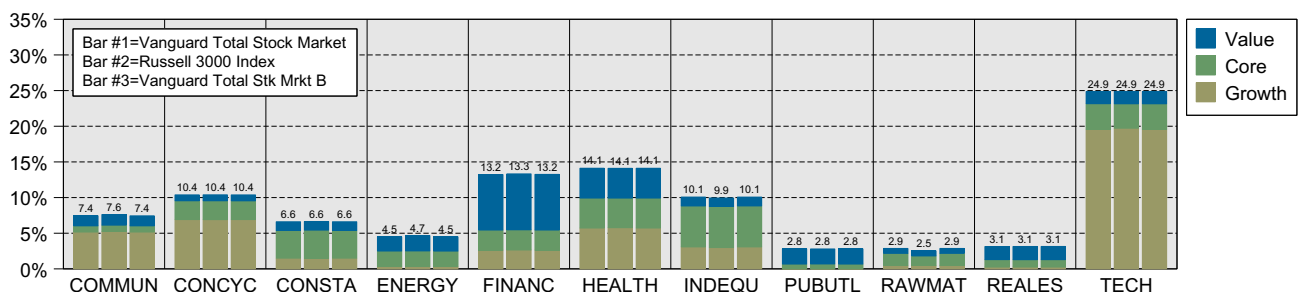
Style Exposure Matrix
Holdings as of March 31, 2023

	Value	Core	Growth	Total
Large	18.6% (96) 18.9% (94) 18.7% (96)	21.7% (95) 21.3% (94) 21.7% (95)	38.3% (102) 38.4% (101) 38.3% (102)	78.6% (293) 78.7% (289) 78.7% (293)
Mid	4.6% (155) 4.6% (157) 4.6% (155)	5.0% (204) 5.0% (207) 5.0% (204)	5.4% (213) 5.5% (214) 5.4% (212)	14.9% (572) 15.1% (578) 14.9% (571)
Small	1.5% (303) 1.5% (313) 1.5% (304)	2.3% (498) 2.2% (487) 2.3% (494)	1.9% (355) 1.9% (356) 1.9% (355)	5.6% (1156) 5.6% (1156) 5.6% (1153)
Micro	0.3% (591) 0.2% (262) 0.3% (599)	0.4% (941) 0.3% (452) 0.4% (954)	0.2% (289) 0.1% (153) 0.2% (290)	0.8% (1821) 0.6% (867) 0.8% (1843)
Total	25.0% (1145) 25.2% (826) 25.0% (1154)	29.3% (1738) 28.9% (1240) 29.3% (1747)	45.7% (959) 45.9% (824) 45.7% (959)	100.0% (3842) 100.0% (2890) 100.0% (3860)

Combined Z-Score Style Distribution
Holdings as of March 31, 2023



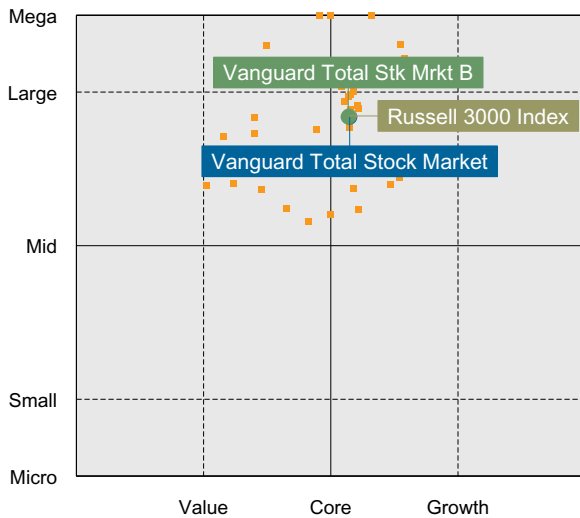
Sector Weights Distribution
Holdings as of March 31, 2023



Historical Holdings Based Style Analysis Vanguard Total Stock Market For Three Years Ended March 31, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

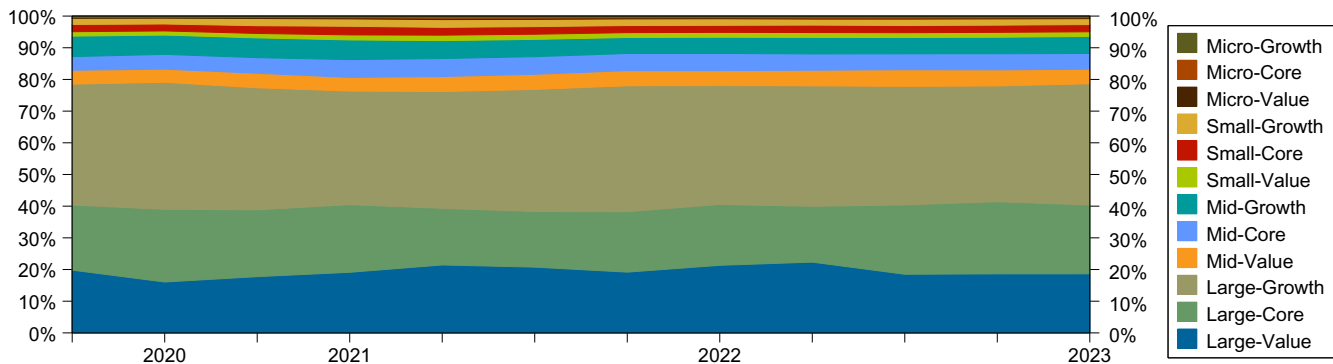
**Average Style Map vs Callan Large Cap Core MFs
Holdings for Three Years Ended March 31, 2023**



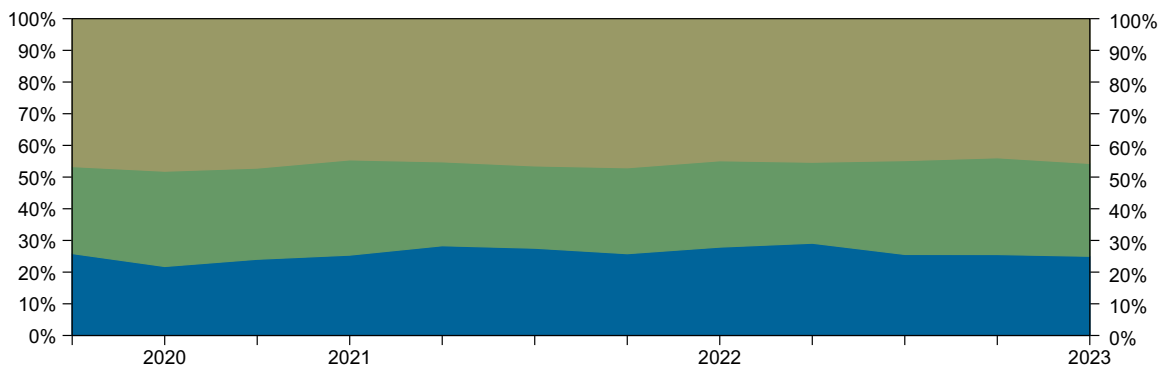
**Average Style Exposure Matrix
Holdings for Three Years Ended March 31, 2023**

	Value	Core	Growth	Total
Large	19.5% (99) 19.6% (98) 19.9% (99)	20.3% (99) 20.2% (96) 20.0% (98)	38.0% (105) 38.1% (104) 37.9% (104)	77.7% (303) 77.9% (298) 77.8% (301)
Mid	4.7% (163) 4.7% (165) 4.7% (163)	5.1% (212) 5.1% (209) 5.1% (209)	5.6% (221) 5.6% (222) 5.6% (221)	15.4% (596) 15.5% (596) 15.4% (593)
Small	1.5% (292) 1.5% (299) 1.5% (292)	2.3% (528) 2.3% (505) 2.3% (517)	2.1% (393) 2.1% (390) 2.1% (392)	6.0% (1213) 5.9% (1194) 5.9% (1201)
Micro	0.3% (640) 0.3% (314) 0.3% (657)	0.4% (825) 0.3% (425) 0.4% (834)	0.2% (251) 0.1% (157) 0.2% (254)	0.9% (1716) 0.7% (896) 0.9% (1745)
Total	26.0% (1194) 26.1% (876) 26.4% (1211)	28.2% (1664) 28.0% (1235) 27.9% (1658)	45.8% (970) 46.0% (873) 45.7% (971)	100.0% (3828) 100.0% (2984) 100.0% (3840)

Vanguard Total Stock Market Historical Cap/Style Exposures



Vanguard Total Stock Market Historical Style Only Exposures



Vanguard Total Int'l. Stock Period Ended March 31, 2023

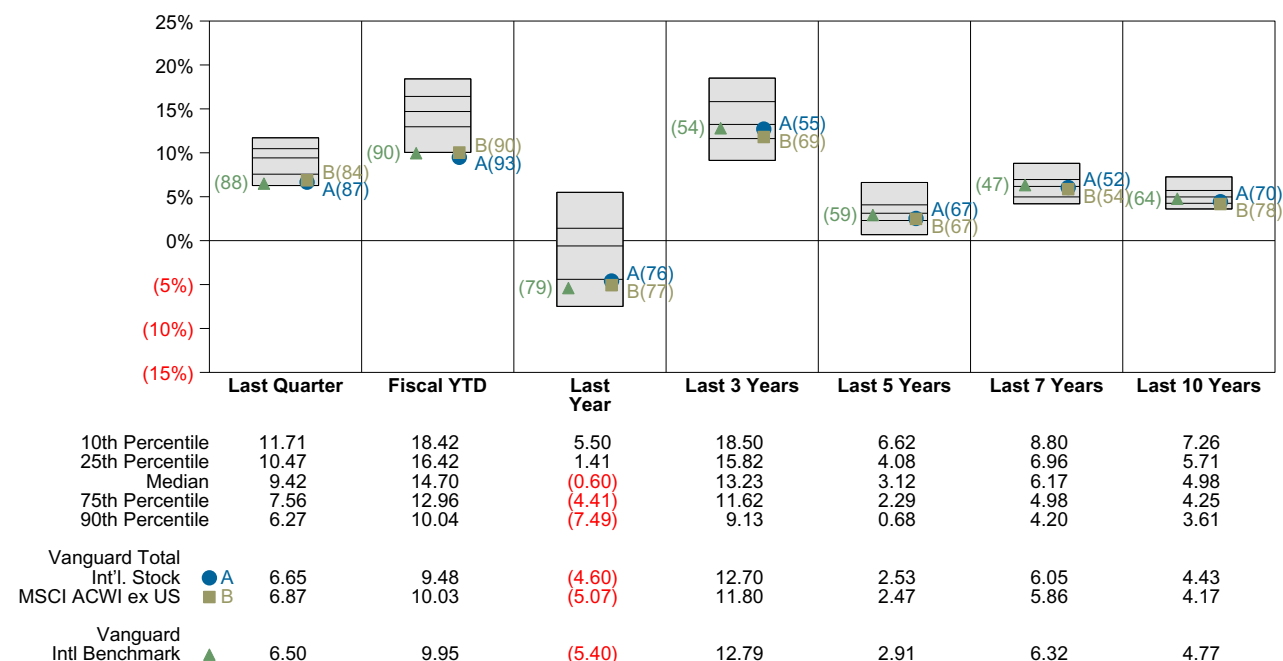
Investment Philosophy

The Vanguard Total International Stock open ended mutual fund is based on the FTSE Global All Cap ex U.S. Index. It contains more than 5,000 securities of both developed and emerging markets weighted by market capitalization and represents 98% of the universe. The fund's custom benchmark was the Total International Composite Index MSCI EAFE and MSCI Emerging Markets indices through December 15, 2010; MSCI ACWI ex US IMI Index until June 2013 and Global All Cap ex US Index thereafter. The first full quarter of actual performance is the fourth quarter of 2009, prior returns reflect manager reported composite performance. Vanguard Total Int'l. Stock switched to Institutional Shares from Investor Shares on November 30, 2014

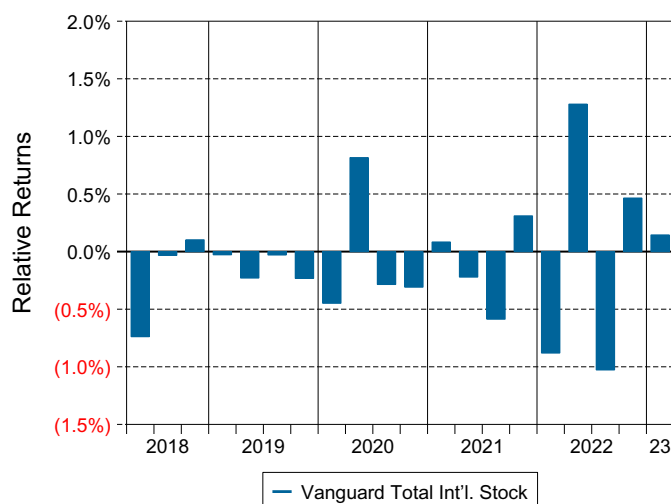
Quarterly Summary and Highlights

- Vanguard Total Int'l. Stock's portfolio posted a 6.65% return for the quarter placing it in the 87 percentile of the Callan Non US Equity Mutual Funds group for the quarter and in the 76 percentile for the last year.
- Vanguard Total Int'l. Stock's portfolio outperformed the Vanguard Intl Benchmark by 0.15% for the quarter and outperformed the Vanguard Intl Benchmark for the year by 0.80%.

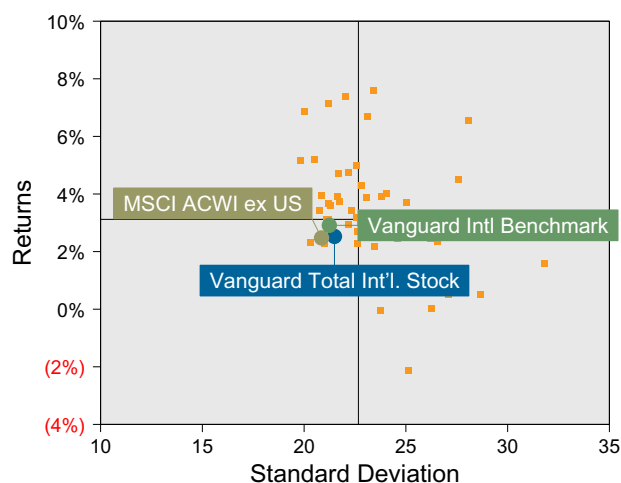
Performance vs Callan Non US Equity Mutual Funds (Institutional Net)



Relative Return vs Vanguard Intl Benchmark



Callan Non US Equity Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

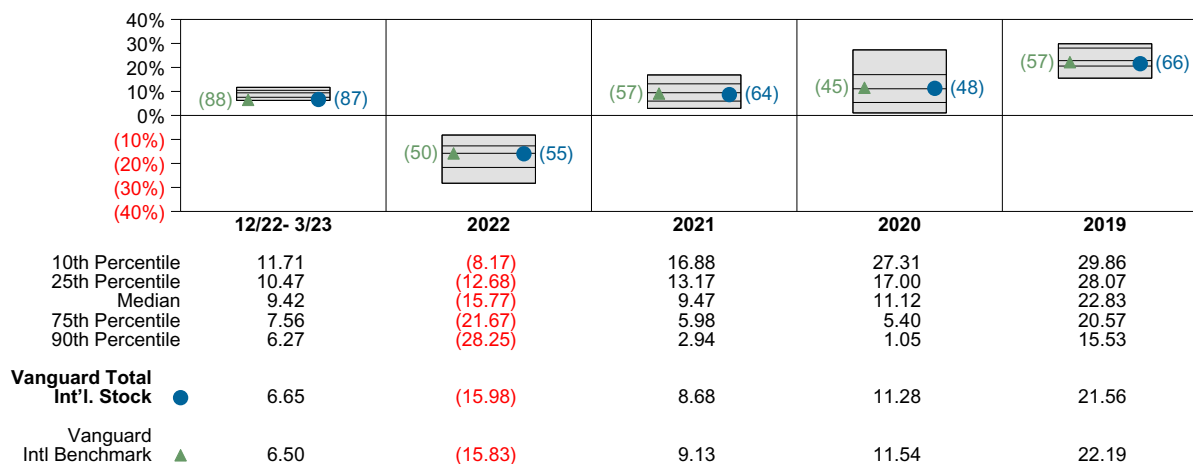


Vanguard Total Int'l. Stock Return Analysis Summary

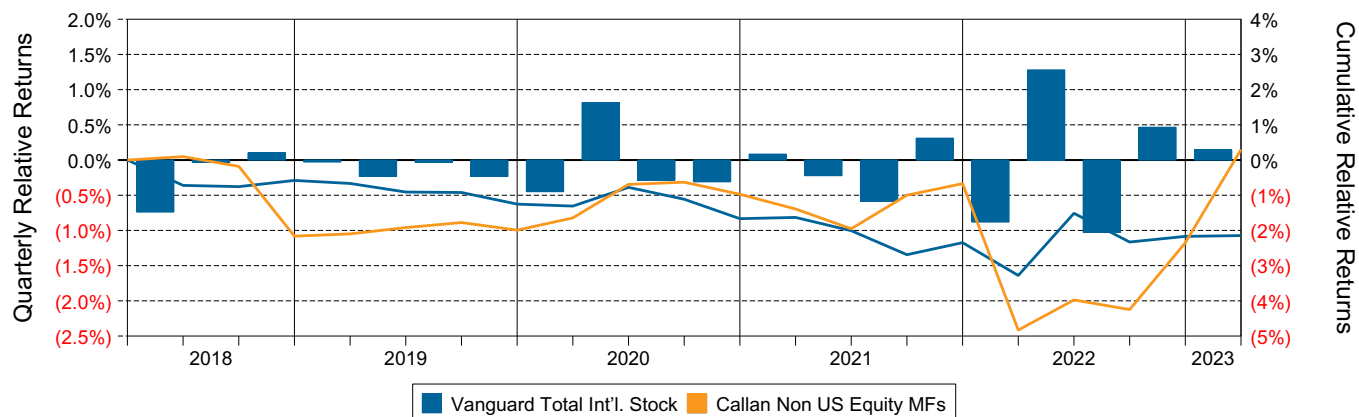
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

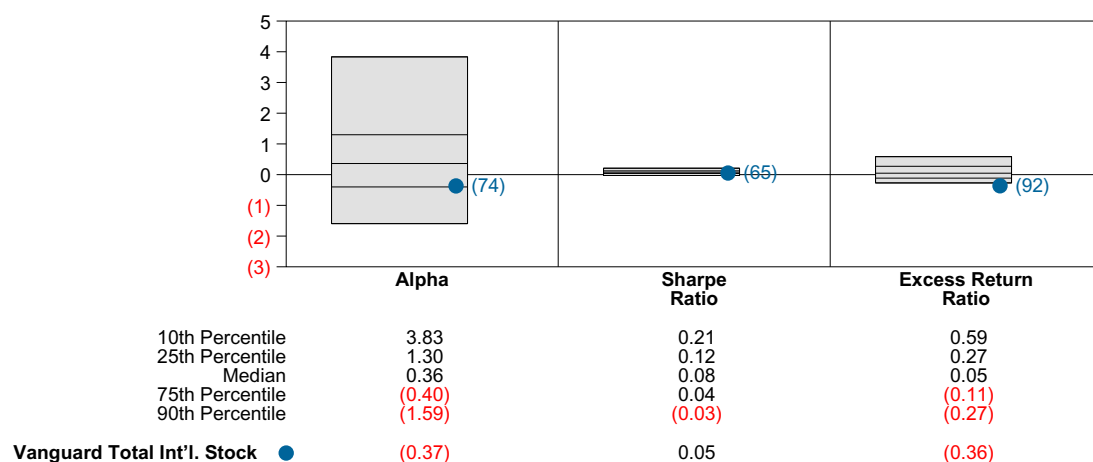
Performance vs Callan Non US Equity Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Vanguard Intl Benchmark



Risk Adjusted Return Measures vs Vanguard Intl Benchmark Rankings Against Callan Non US Equity Mutual Funds (Institutional Net) Five Years Ended March 31, 2023

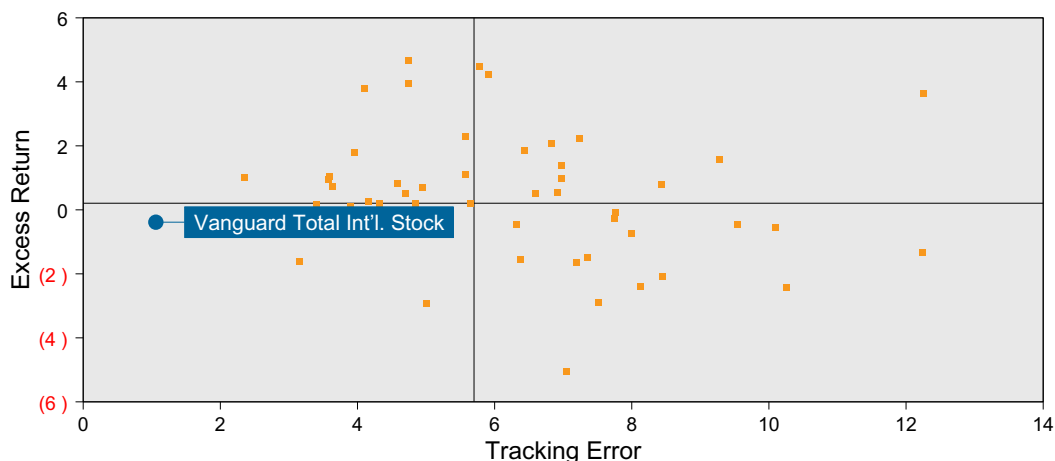


Vanguard Total Int'l. Stock Risk Analysis Summary

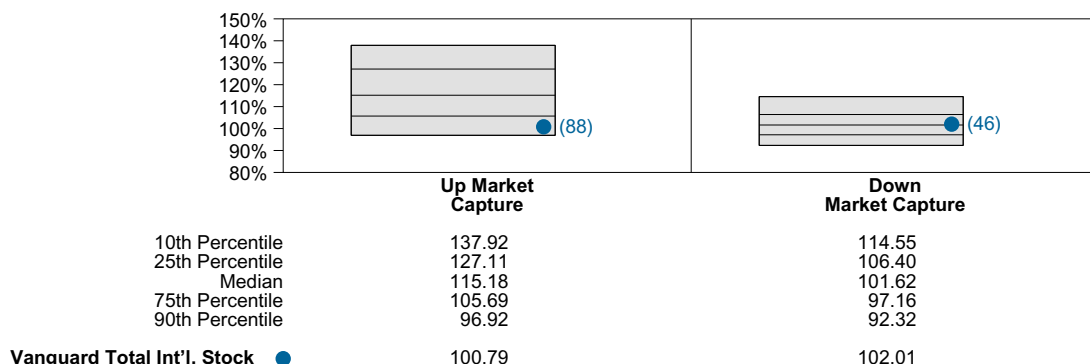
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

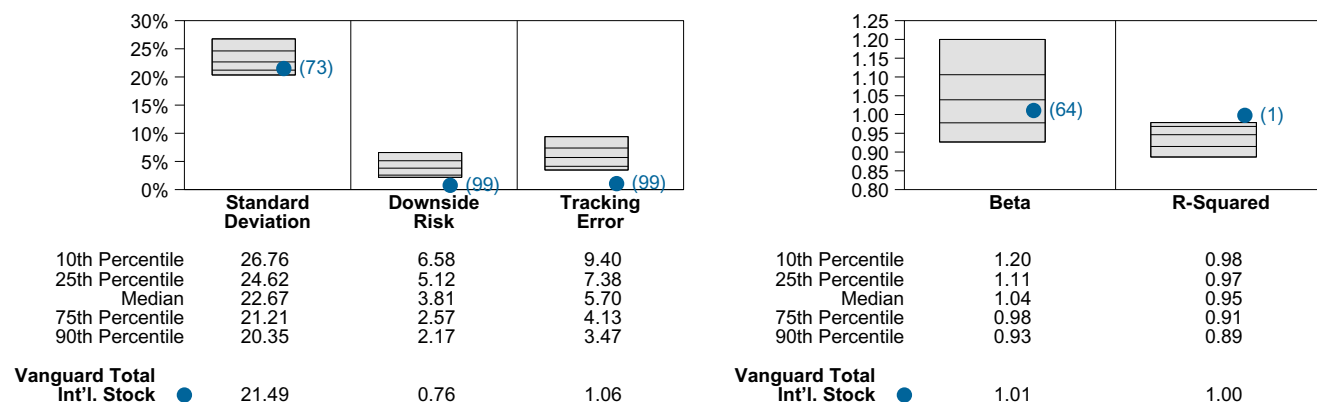
Risk Analysis vs Callan Non US Equity Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Market Capture vs Vanguard Intl Benchmark Rankings Against Callan Non US Equity Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Risk Statistics Rankings vs Vanguard Intl Benchmark Rankings Against Callan Non US Equity Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



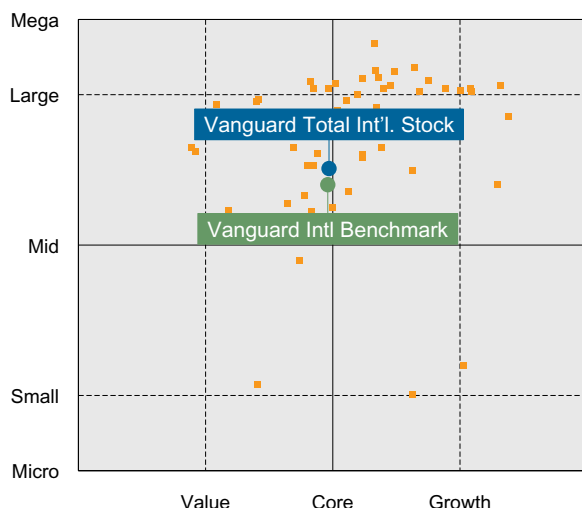
Current Holdings Based Style Analysis

Vanguard Total Int'l. Stock

As of March 31, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

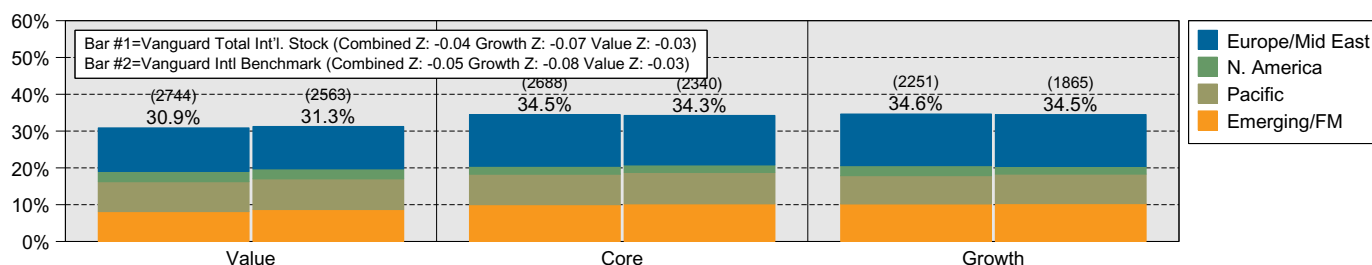
Style Map vs Callan Non US Equity MFs
Holdings as of March 31, 2023



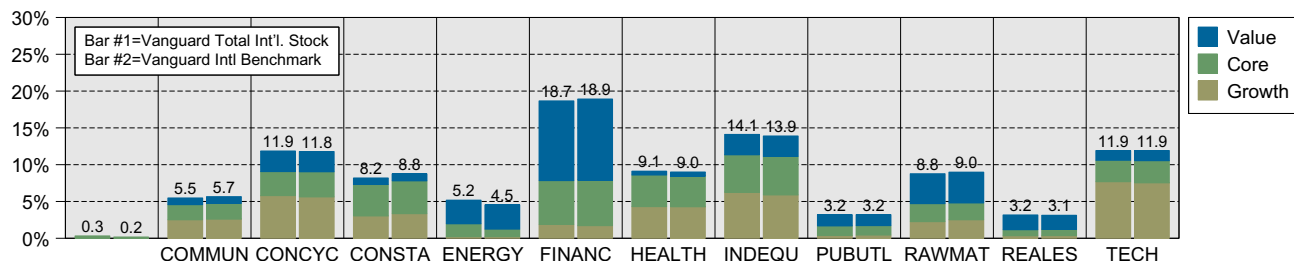
Style Exposure Matrix
Holdings as of March 31, 2023

Europe/ Mid East	11.8% (466)	14.1% (475)	14.0% (387)	39.9% (1328)
	11.5% (424)	13.5% (439)	14.1% (341)	39.1% (1204)
N. America	2.8% (60)	2.2% (81)	2.7% (58)	7.7% (199)
	2.7% (54)	2.0% (67)	2.1% (42)	6.8% (163)
Pacific	8.1% (753)	8.3% (653)	7.7% (565)	24.1% (1971)
	8.3% (744)	8.6% (638)	8.0% (559)	24.9% (1941)
Emerging/ FM	8.1% (1465)	10.0% (1479)	10.2% (1241)	28.3% (4185)
	8.7% (1341)	10.2% (1196)	10.3% (923)	29.2% (3460)
Total	30.9% (2744)	34.5% (2688)	34.6% (2251)	100.0% (7683)
	31.3% (2563)	34.3% (2340)	34.5% (1865)	100.0% (6768)
	Value	Core	Growth	Total

Combined Z-Score Style Distribution
Holdings as of March 31, 2023



Sector Weights Distribution
Holdings as of March 31, 2023



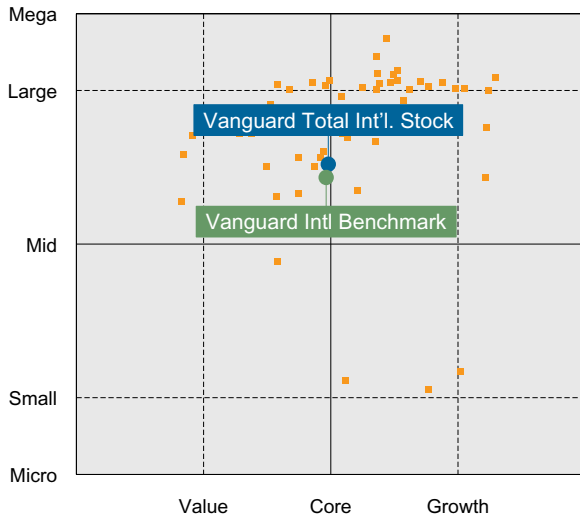
Historical Holdings Based Style Analysis

Vanguard Total Int'l. Stock

For Three Years Ended March 31, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

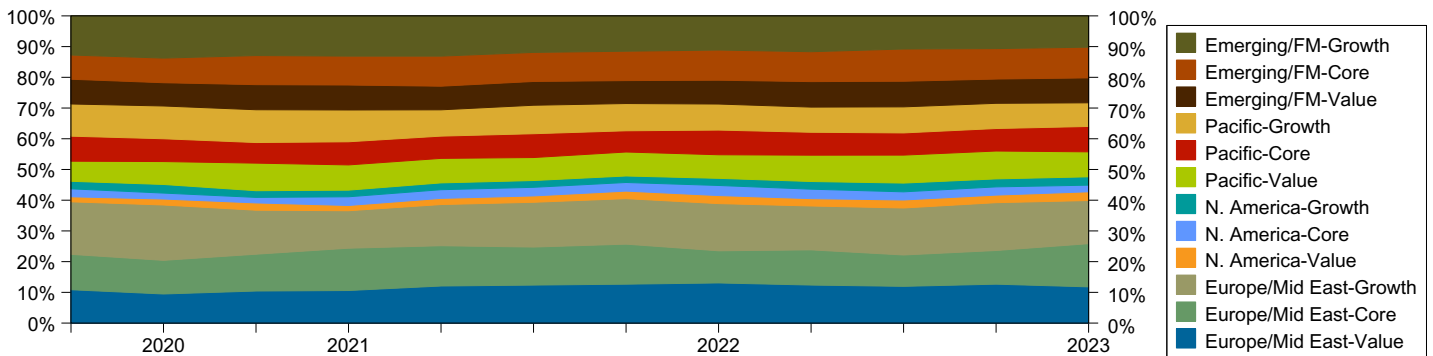
Average Style Map vs Callan Non US Equity MFs Holdings for Three Years Ended March 31, 2023



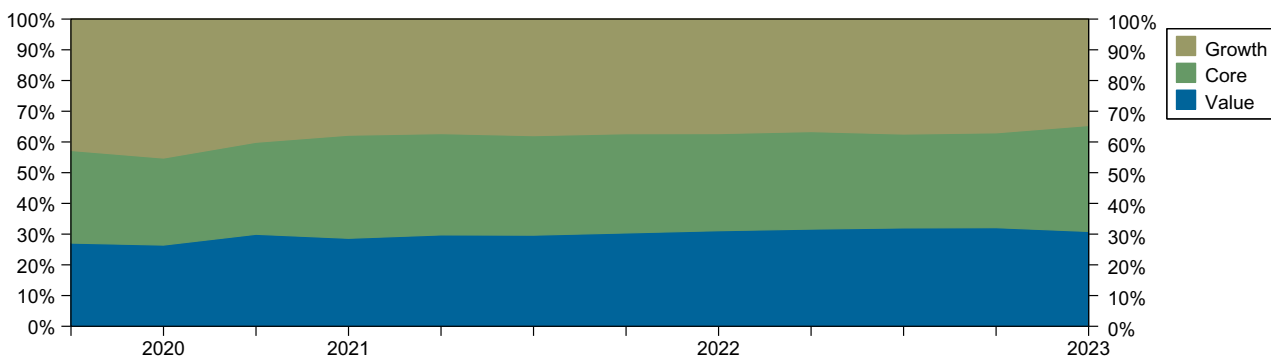
Average Style Exposure Matrix Holdings for Three Years Ended March 31, 2023

Europe/ Mid East	11.7% (450)	12.0% (459)	14.9% (408)	38.6% (1317)
	11.2% (415)	11.9% (432)	14.5% (368)	37.6% (1215)
N. America	2.3% (64)	2.6% (74)	2.4% (54)	7.3% (192)
	2.3% (60)	2.6% (68)	2.0% (46)	6.8% (174)
Pacific	8.1% (747)	7.5% (638)	9.2% (541)	24.7% (1926)
	8.3% (739)	7.7% (631)	9.5% (538)	25.5% (1908)
Emerging/ FM	7.9% (1439)	9.5% (1335)	11.9% (1078)	29.3% (3852)
	8.3% (1314)	9.7% (1108)	12.1% (858)	30.1% (3280)
Total	30.0% (2700)	31.6% (2506)	38.5% (2081)	100.0% (7287)
	30.1% (2528)	31.9% (2239)	38.0% (1810)	100.0% (6577)
	Value	Core	Growth	Total

Vanguard Total Int'l. Stock Historical Region/Style Exposures



Vanguard Total Int'l. Stock Historical Style Only Exposures



Country Allocation

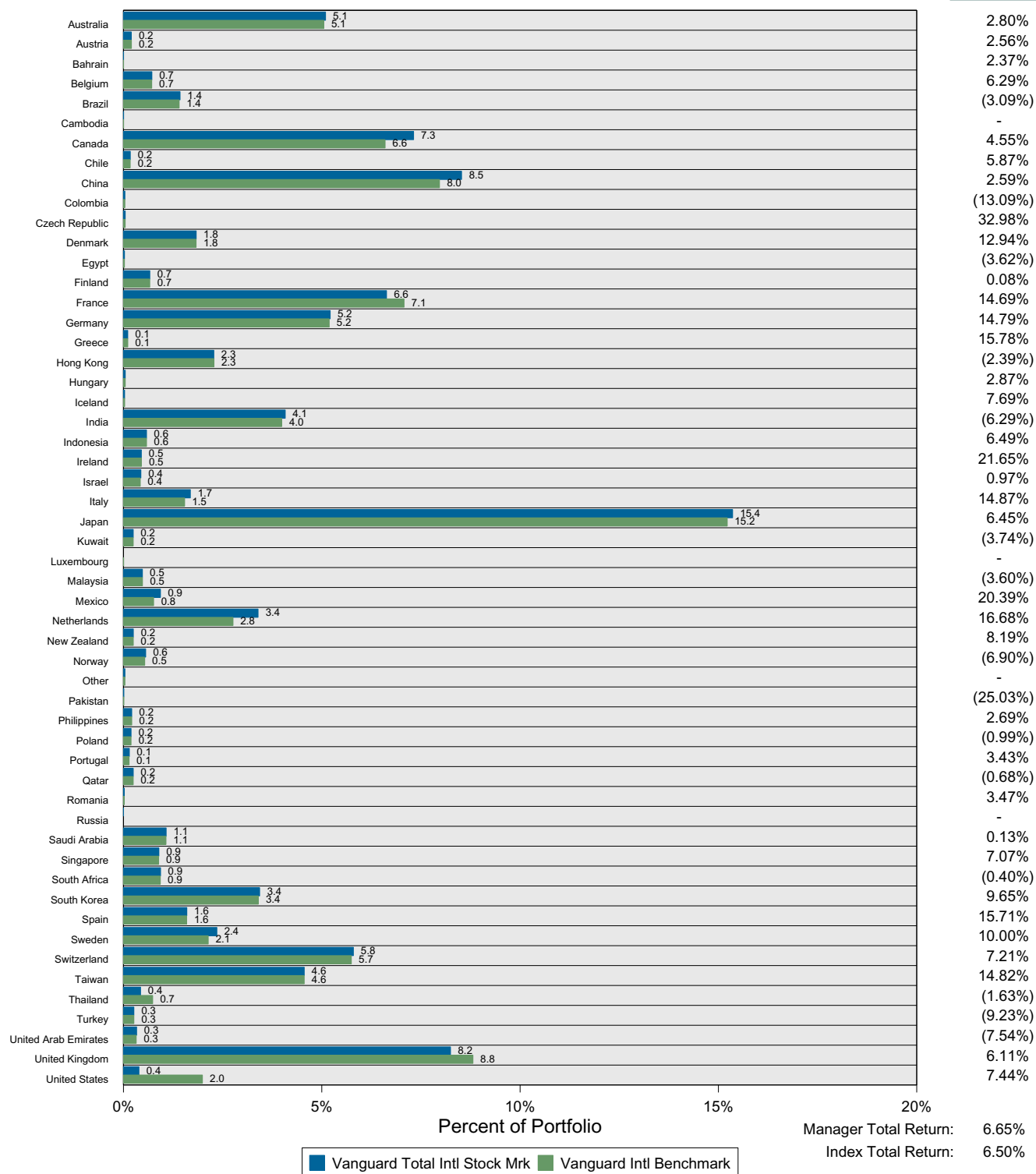
Vanguard Total Intl Stock Mrk VS Vanguard Intl Benchmark

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of March 31, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

Country Weights as of March 31, 2023

Index Rtns



Prudential Conservative Core Bond Period Ended March 31, 2023

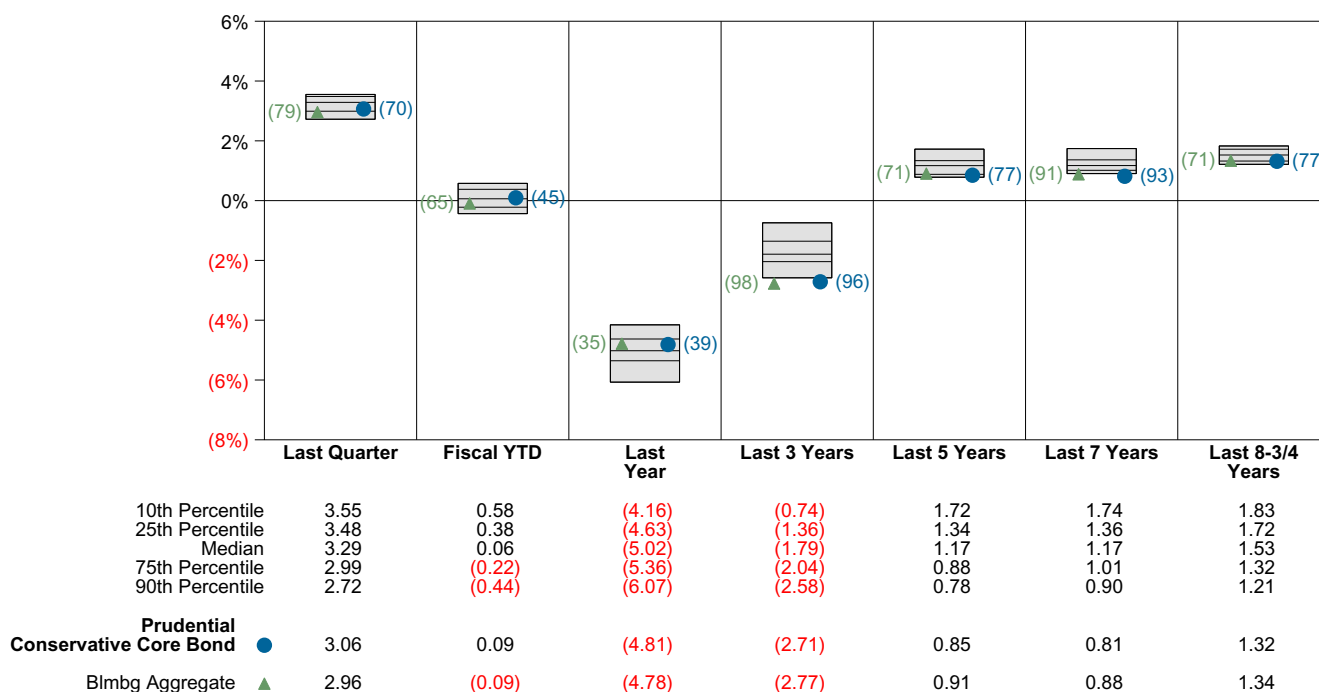
Investment Philosophy

PGIM Fixed Income's Core Conservative strategy is a benchmark-focused, investment grade-only, risk-controlled core strategy that seeks +25 bps over the Bloomberg Barclays Aggregate Index with index-like risk. The strategy seeks to generate virtually all of its excess return from just two activities: bottom-up subsector rotation within the corporate and mortgage/structured product sectors, and research-based security selection in all sectors. Top-down decisions such as duration, yield curve, and sector allocation are tightly constrained to benchmark weightings at all times. Initial investment in fund occurred in June 2014. On February 8, 2017 fund switched to Institutional Trust.

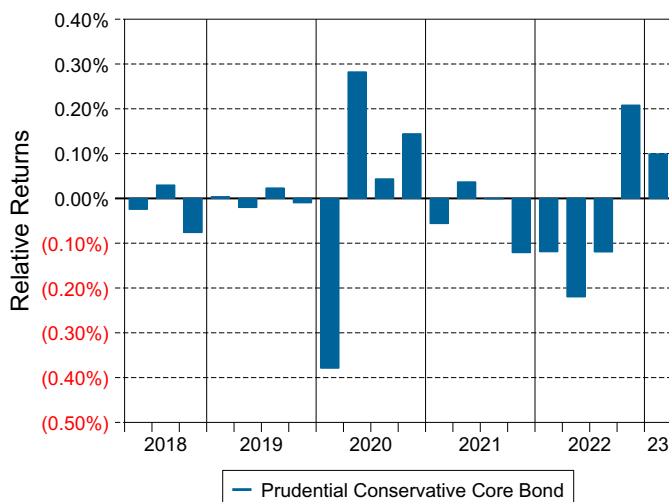
Quarterly Summary and Highlights

- Prudential Conservative Core Bond's portfolio posted a 3.06% return for the quarter placing it in the 70 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 39 percentile for the last year.
- Prudential Conservative Core Bond's portfolio outperformed the Blmbg Aggregate by 0.10% for the quarter and underperformed the Blmbg Aggregate for the year by 0.03%.

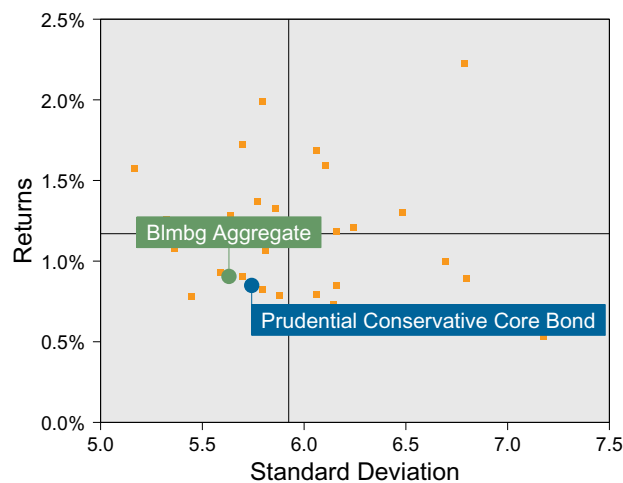
Performance vs Callan Core Bond Mutual Funds (Institutional Net)



Relative Return vs Blmbg Aggregate



Callan Core Bond Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

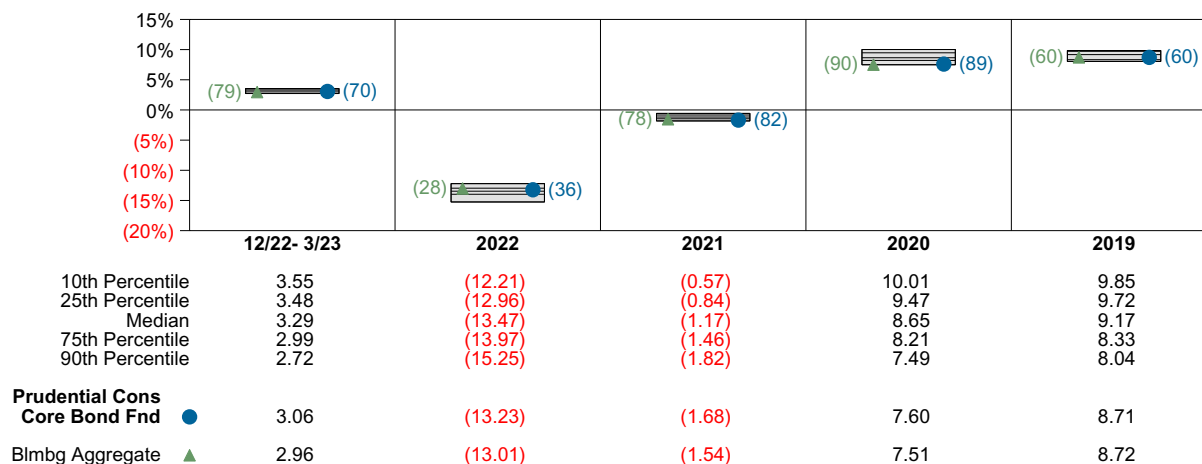


Prudential Cons Core Bond Fnd Return Analysis Summary

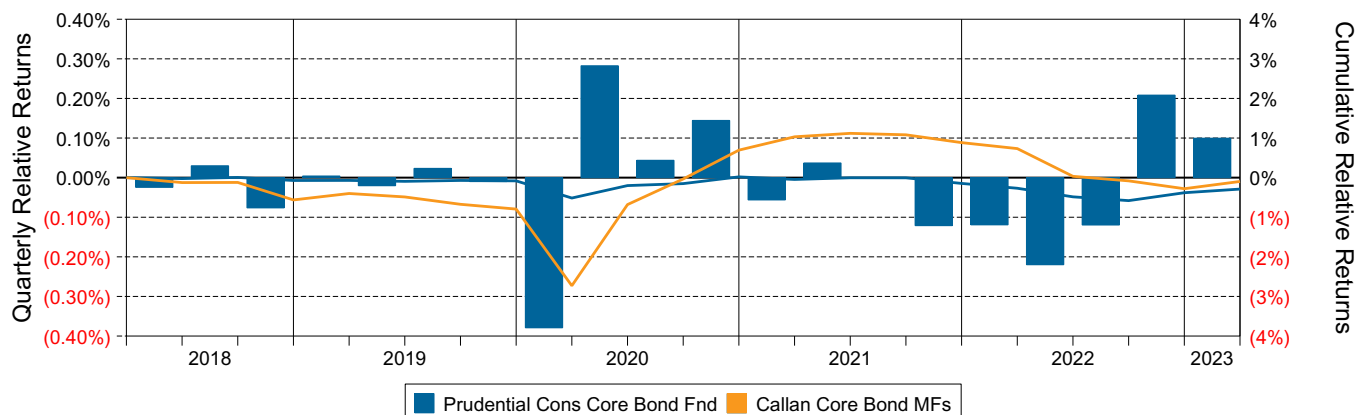
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

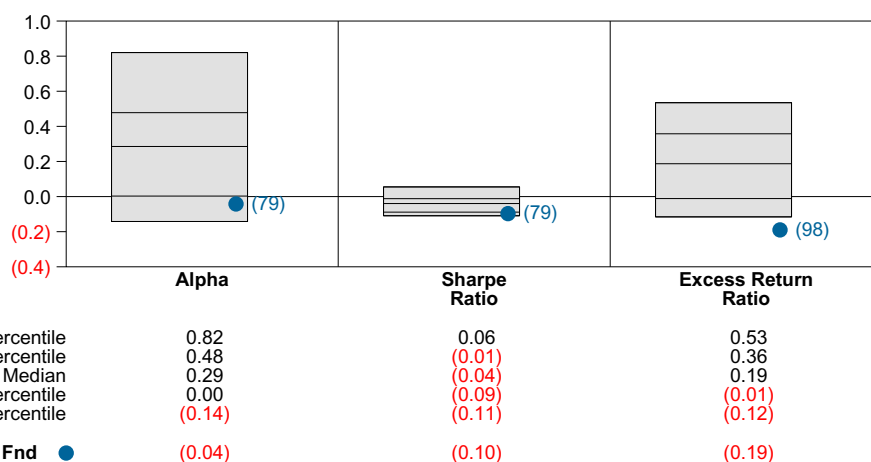
Performance vs Callan Core Bond Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Callan Core Bond Mutual Funds (Institutional Net) Five Years Ended March 31, 2023

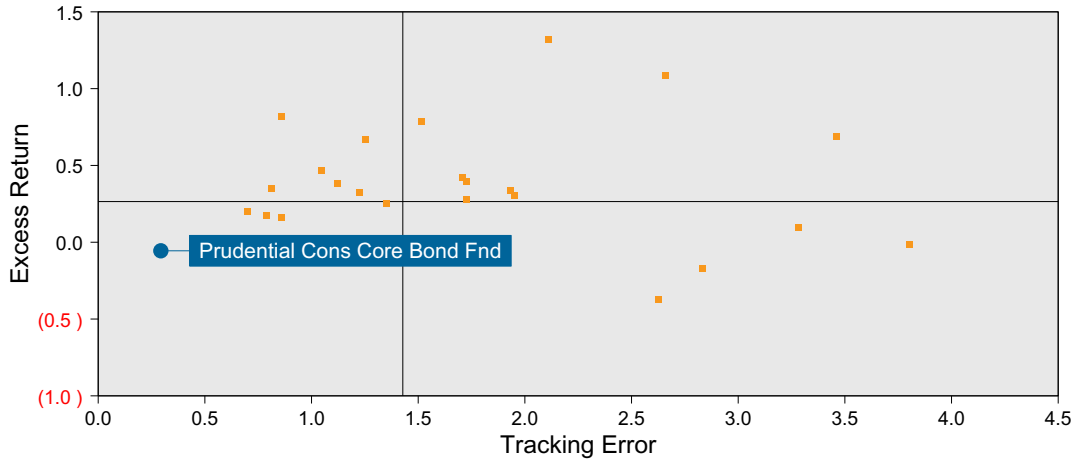


Prudential Cons Core Bond Fnd Risk Analysis Summary

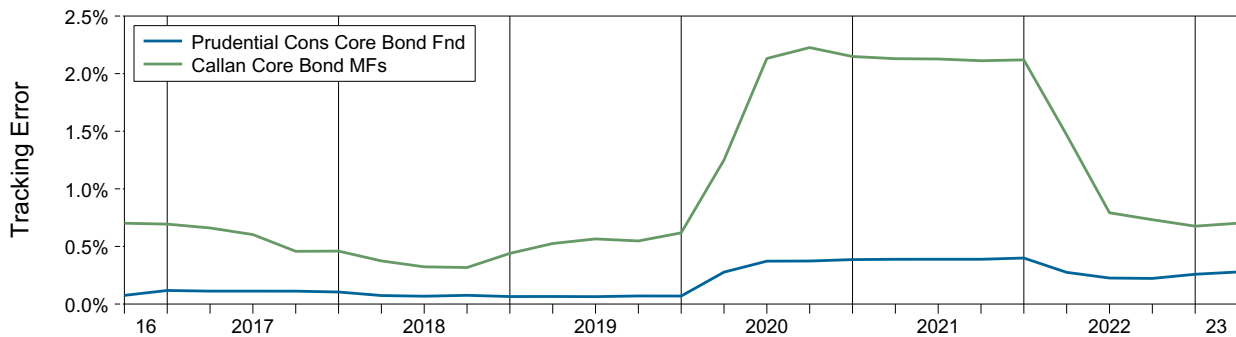
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

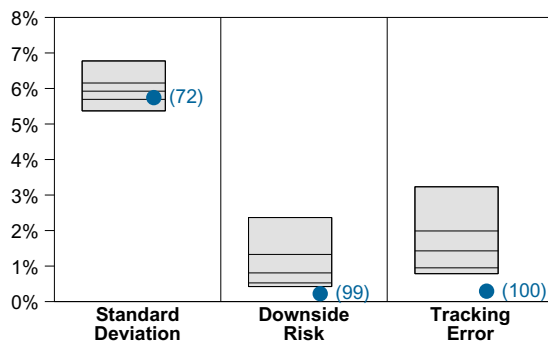
Risk Analysis vs Callan Core Bond Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Rolling 8 Quarter Tracking Error vs Bloomberg Aggregate

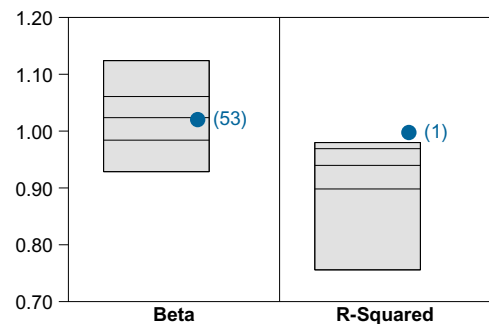


Risk Statistics Rankings vs Bloomberg Aggregate Rankings Against Callan Core Bond Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



10th Percentile	6.78	2.37	3.23
25th Percentile	6.15	1.33	1.99
Median	5.92	0.81	1.43
75th Percentile	5.69	0.53	0.95
90th Percentile	5.37	0.42	0.79

Prudential Cons Core Bond Fnd ● 5.74 0.22 0.29



10th Percentile	1.12	0.98
25th Percentile	1.06	0.97
Median	1.02	0.94
75th Percentile	0.98	0.90
90th Percentile	0.93	0.76

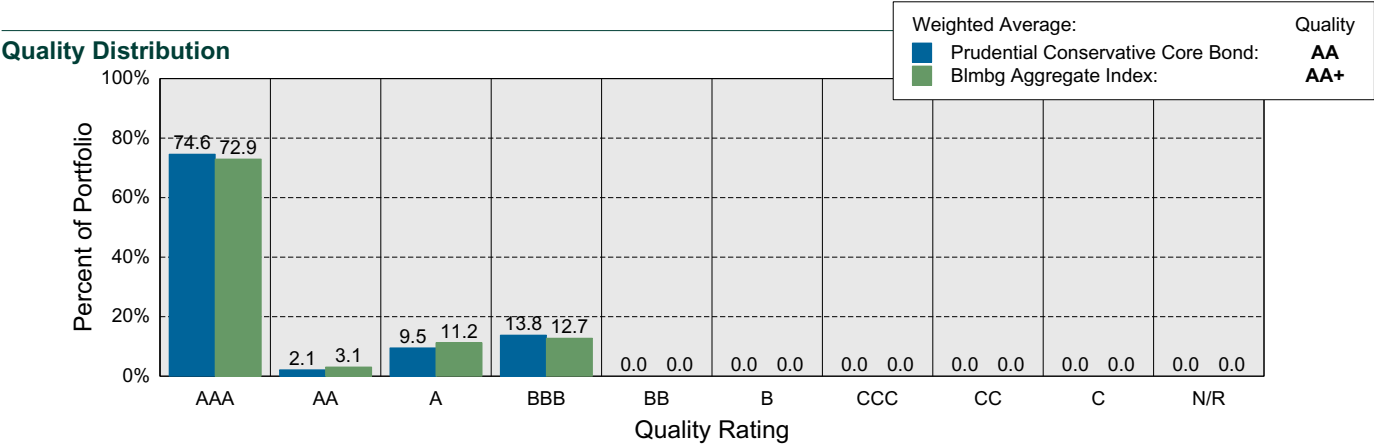
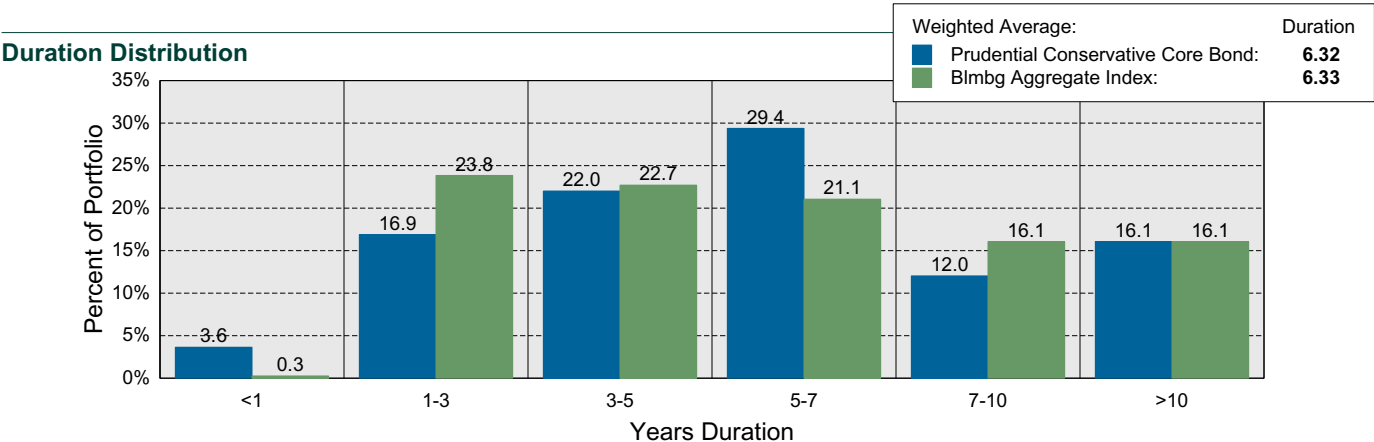
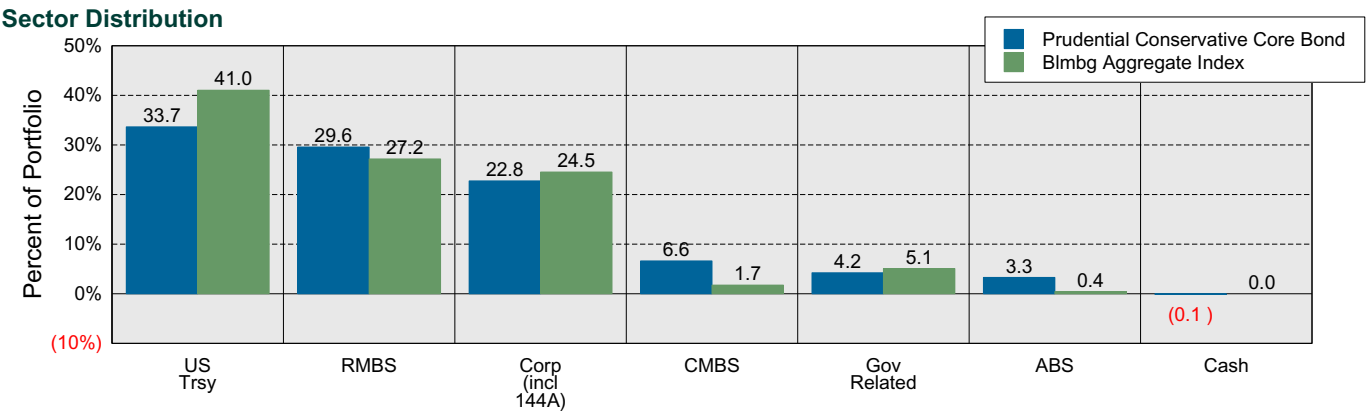
Prudential Cons Core Bond Fnd ● 1.02 1.00

Prudential Conservative Core Bond Portfolio Characteristics Summary

As of March 31, 2023

Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

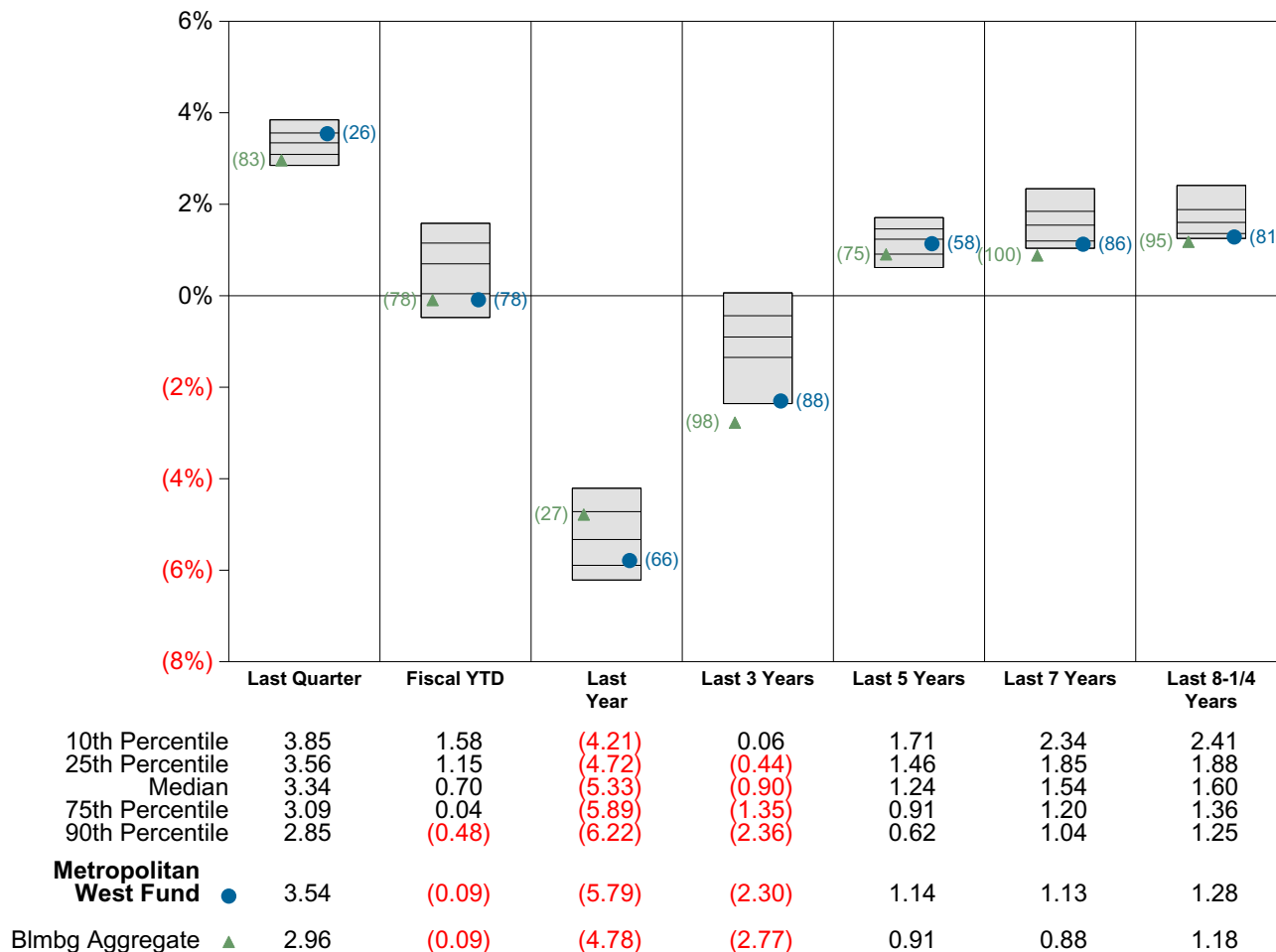


Metropolitan West Fund Period Ended March 31, 2023

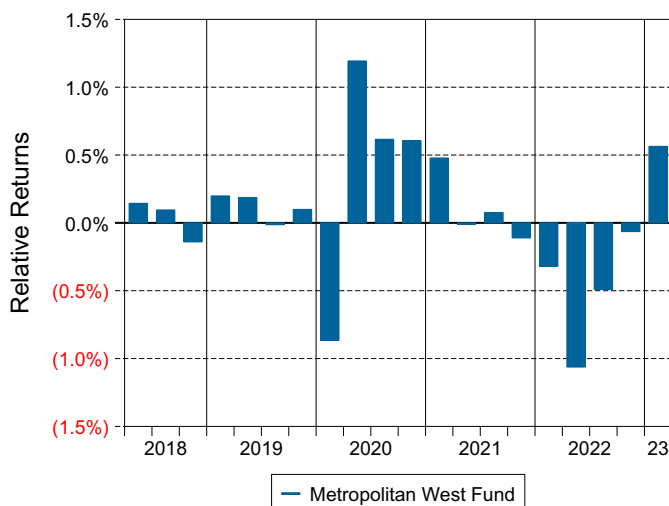
Quarterly Summary and Highlights

- Metropolitan West Fund's portfolio posted a 3.54% return for the quarter placing it in the 26 percentile of the Callan Core Plus Mutual Funds group for the quarter and in the 66 percentile for the last year.
- Metropolitan West Fund's portfolio outperformed the Blmbg Aggregate by 0.58% for the quarter and underperformed the Blmbg Aggregate for the year by 1.01%.

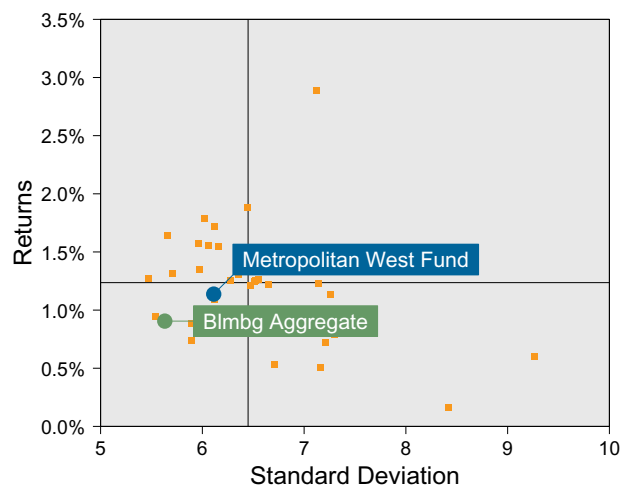
Performance vs Callan Core Plus Mutual Funds (Institutional Net)



Relative Return vs Blmbg Aggregate



Callan Core Plus Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

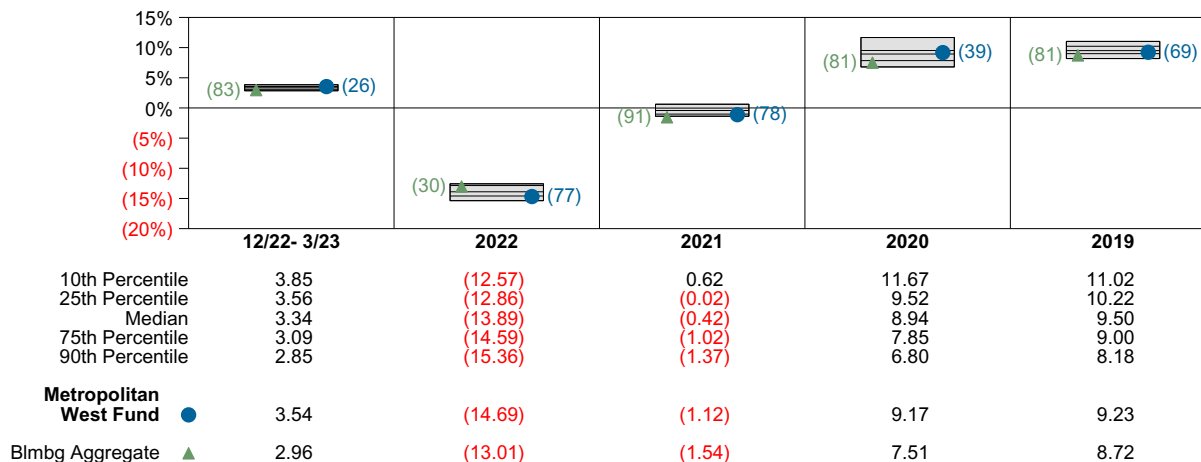


Metropolitan West Fund Return Analysis Summary

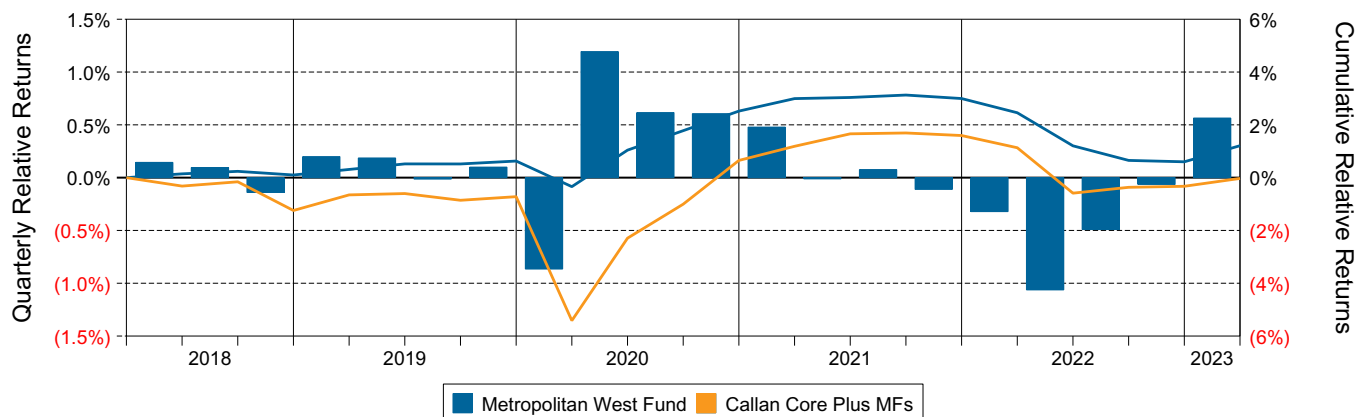
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

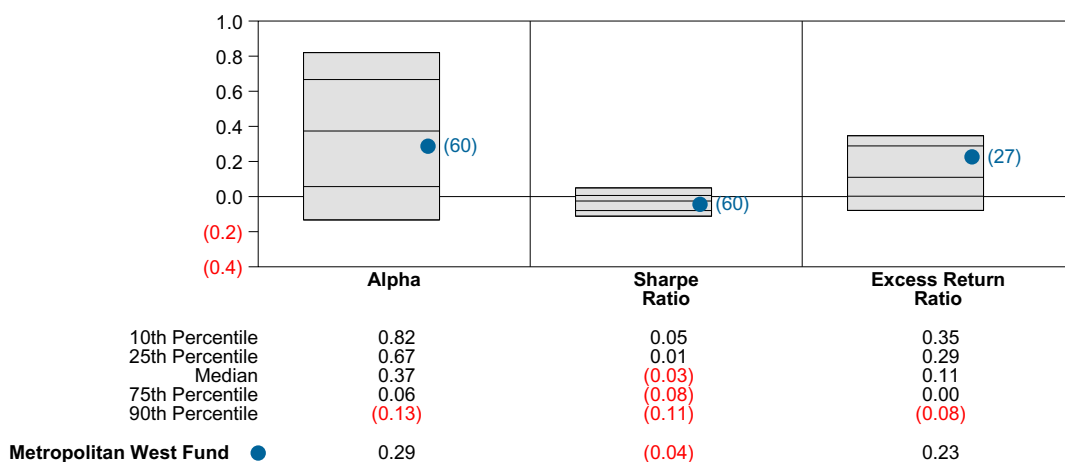
Performance vs Callan Core Plus Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Blmbg Aggregate



Risk Adjusted Return Measures vs Blmbg Aggregate Rankings Against Callan Core Plus Mutual Funds (Institutional Net) Five Years Ended March 31, 2023

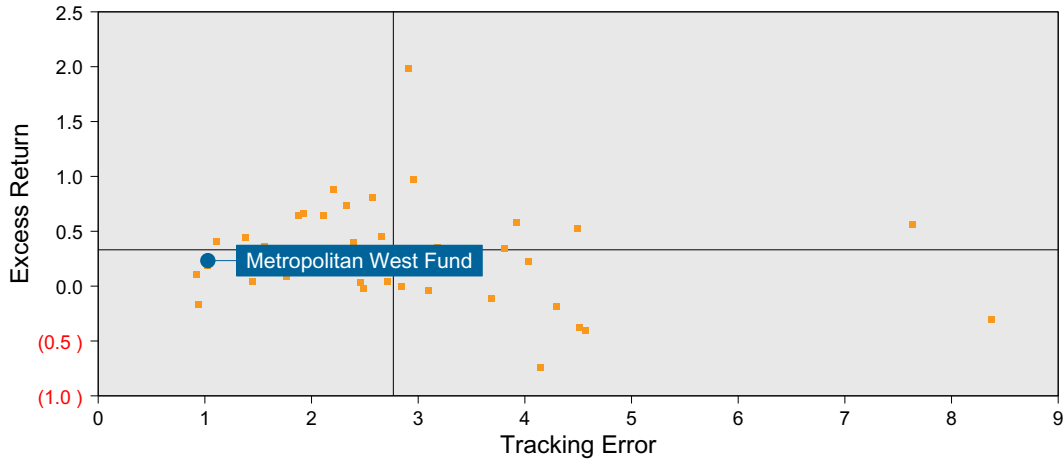


Metropolitan West Fund Risk Analysis Summary

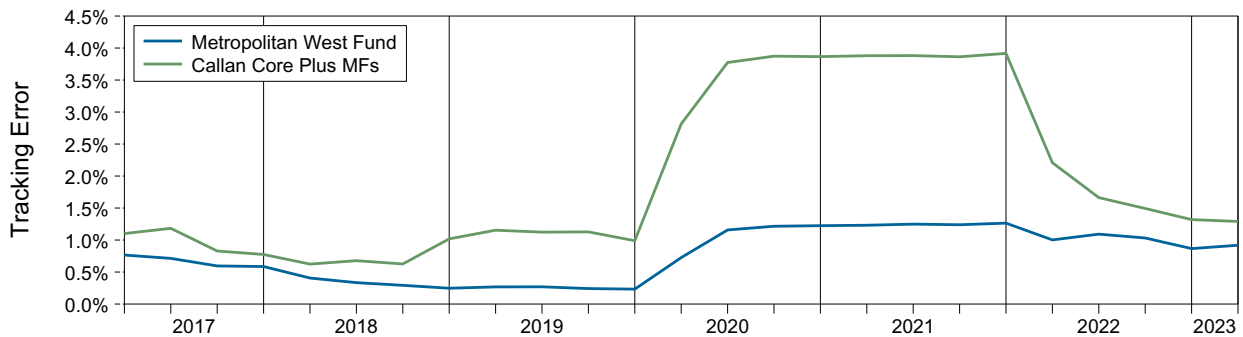
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

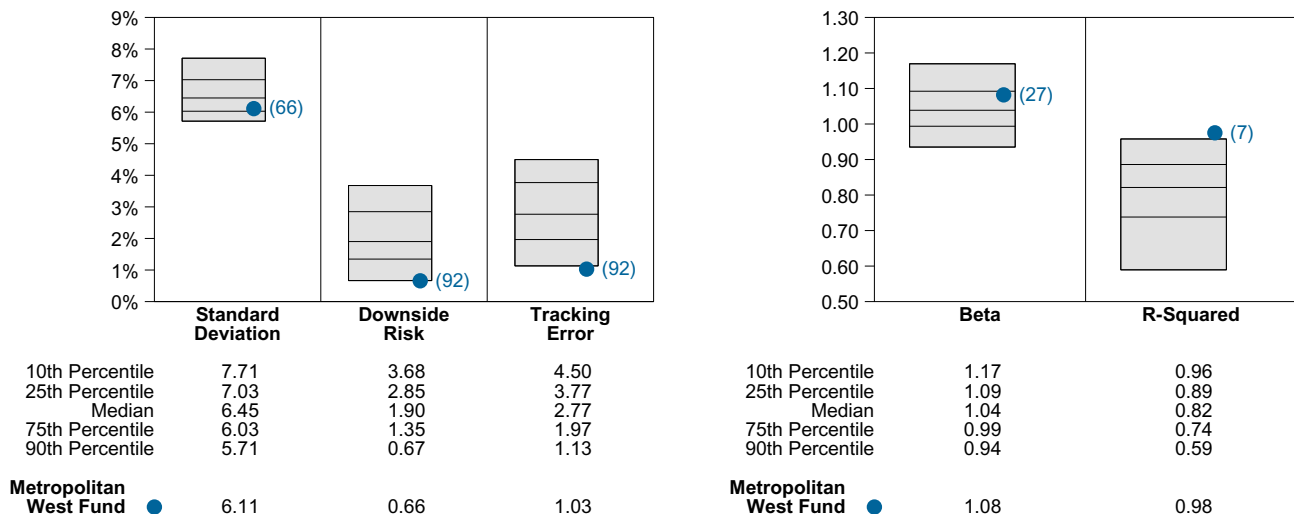
Risk Analysis vs Callan Core Plus Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Rolling 8 Quarter Tracking Error vs Bloomberg Aggregate



Risk Statistics Rankings vs Bloomberg Aggregate Rankings Against Callan Core Plus Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Metropolitan West Fund

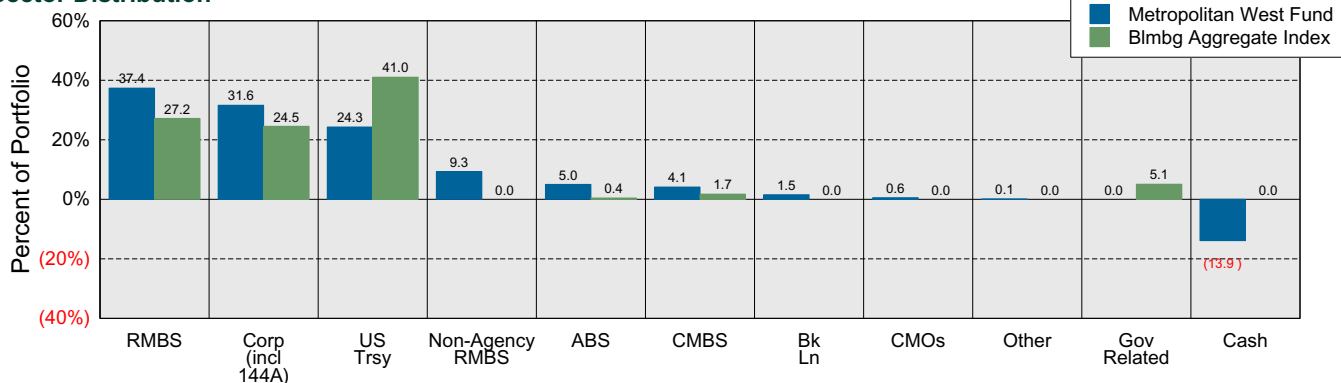
Portfolio Characteristics Summary

As of March 31, 2023

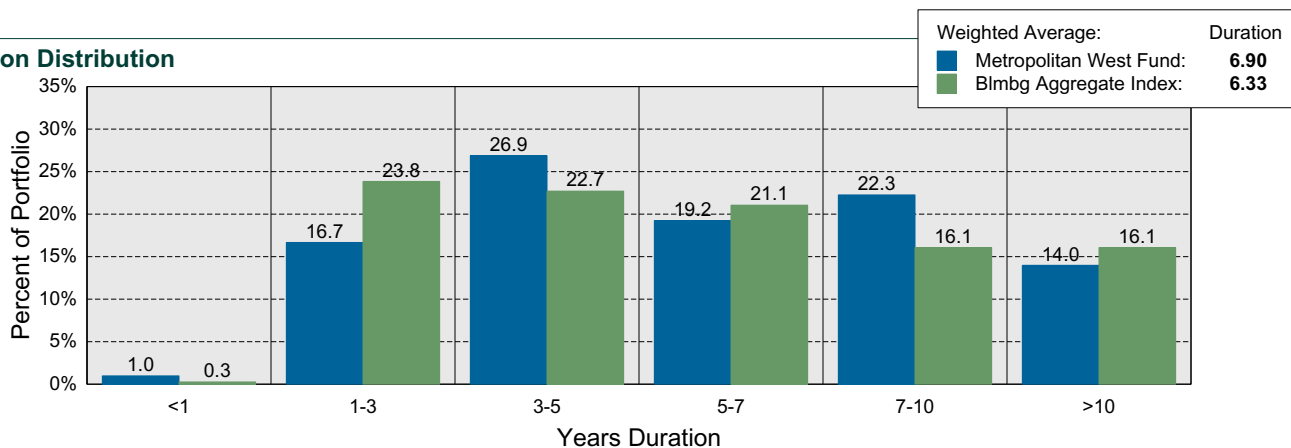
Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

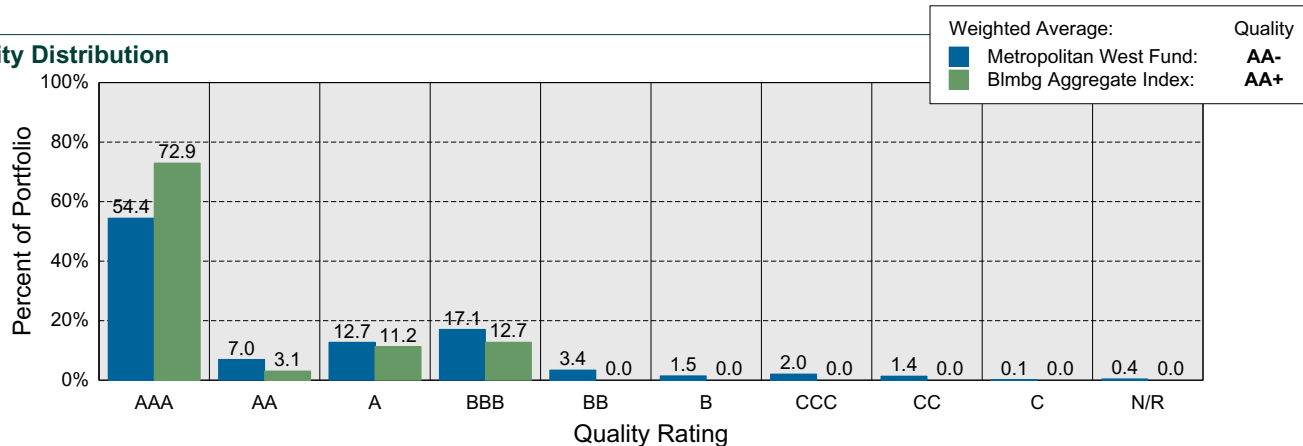
Sector Distribution



Duration Distribution



Quality Distribution



PIMCO All Asset Fund Period Ended March 31, 2023

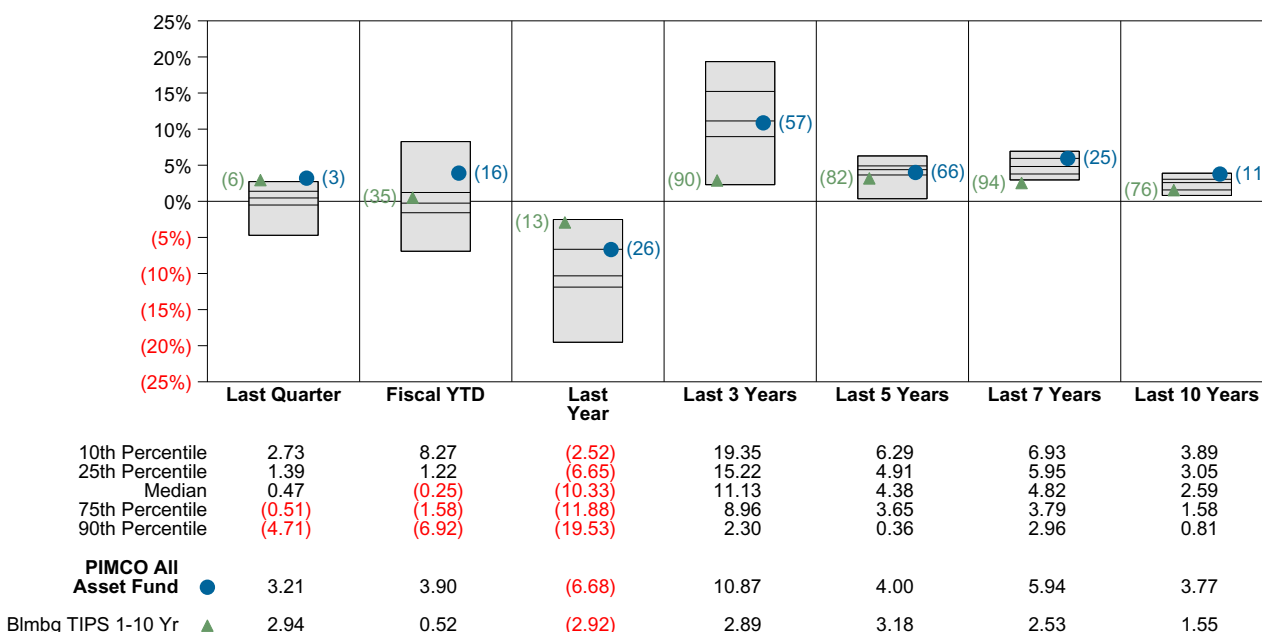
Investment Philosophy

The PIMCO All Asset Strategy is a real return-oriented, global tactical asset allocation strategy that seeks to provide three concurrent investor benefits: inflation protection, diversification and compelling long-term returns. Specifically, the All Asset Strategy has a primary benchmark of the Bloomberg Barclays Capital U.S. TIPS 1-10 Year Index and a secondary benchmark of the Consumer Price Index (CPI)+5%. PIMCO believes that this secondary benchmark reflects the Funds long-term investment strategy more accurately than the Bloomberg Barclays Capital U.S. TIPS 1-10 Year Index. As a result, the Strategy may be an attractive solution for investors seeking returns that track and meaningfully exceed inflation in a manner that also helps diversify equity risk. The first full quarter of actual performance is the first quarter of 2011, prior returns reflect manager reported composite performance.

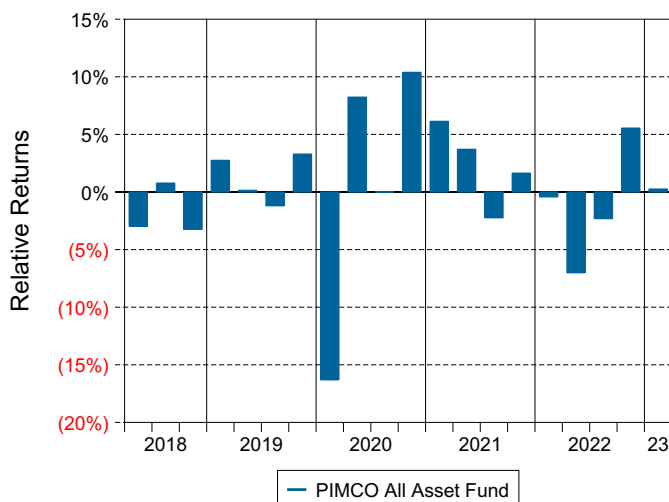
Quarterly Summary and Highlights

- PIMCO All Asset Fund's portfolio posted a 3.21% return for the quarter placing it in the 3 percentile of the Callan Real Assets Mutual Funds group for the quarter and in the 26 percentile for the last year.
- PIMCO All Asset Fund's portfolio outperformed the Blmbg TIPS 1-10 Yr by 0.26% for the quarter and underperformed the Blmbg TIPS 1-10 Yr for the year by 3.76%.

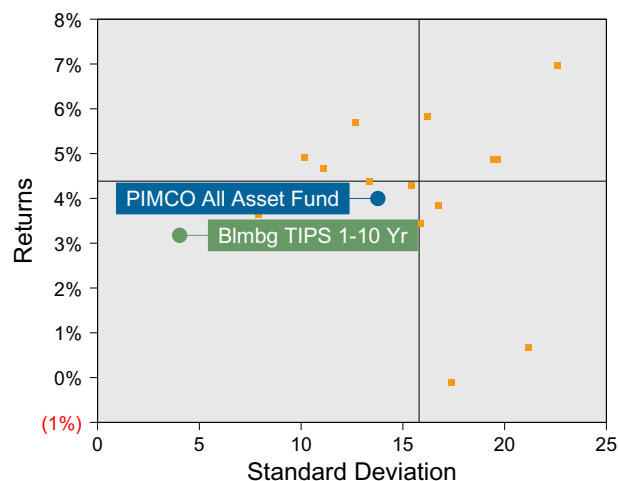
Performance vs Callan Real Assets Mutual Funds (Institutional Net)



Relative Return vs Blmbg TIPS 1-10 Yr



Callan Real Assets Mutual Funds (Institutional Net) Annualized Five Year Risk vs Return

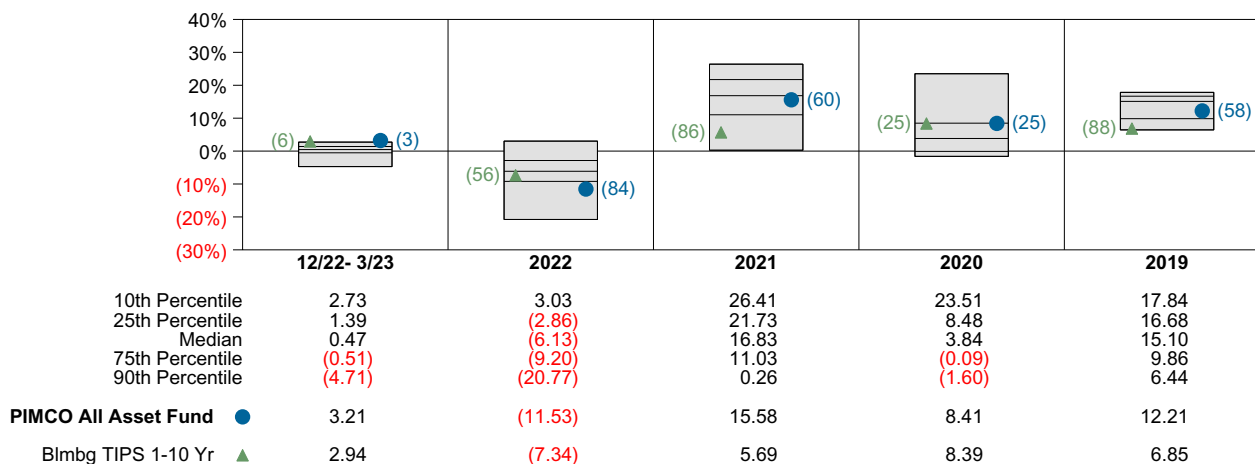


PIMCO All Asset Fund Return Analysis Summary

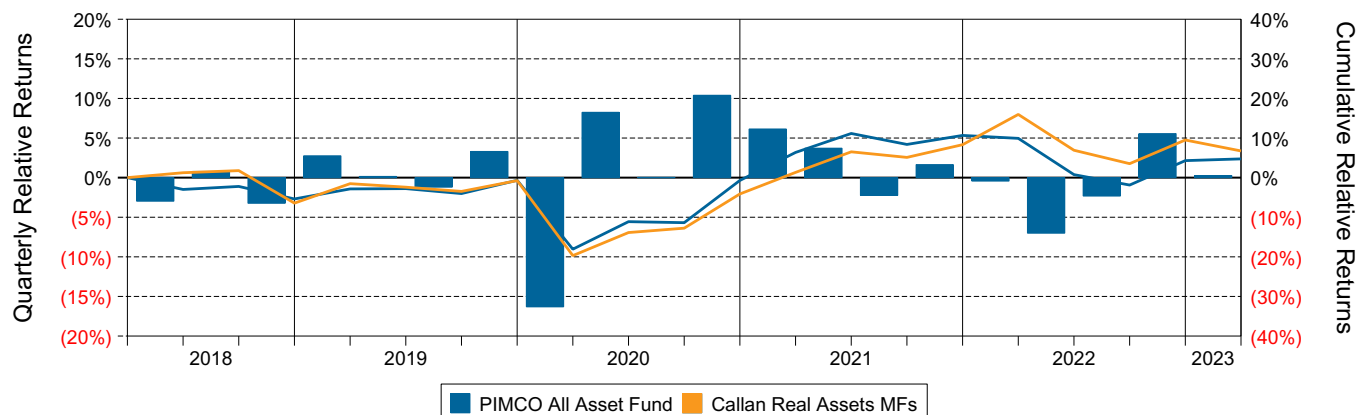
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

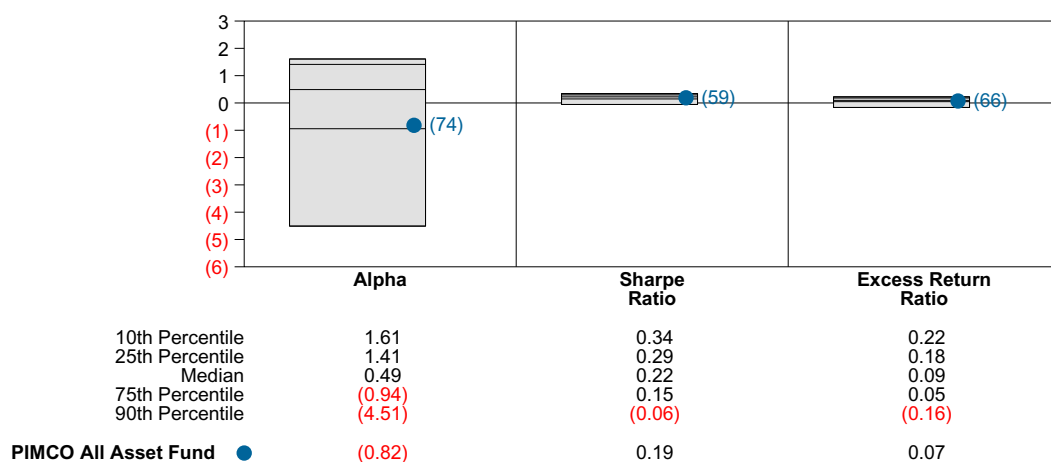
Performance vs Callan Real Assets Mutual Funds (Institutional Net)



Cumulative and Quarterly Relative Returns vs Bloomberg TIPS 1-10 Yr



Risk Adjusted Return Measures vs Bloomberg TIPS 1-10 Yr Rankings Against Callan Real Assets Mutual Funds (Institutional Net) Five Years Ended March 31, 2023

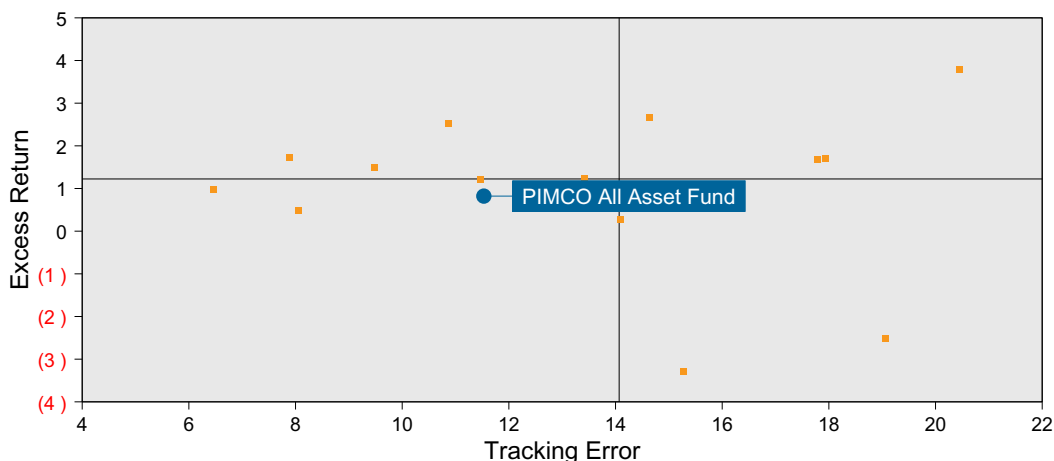


PIMCO All Asset Fund Risk Analysis Summary

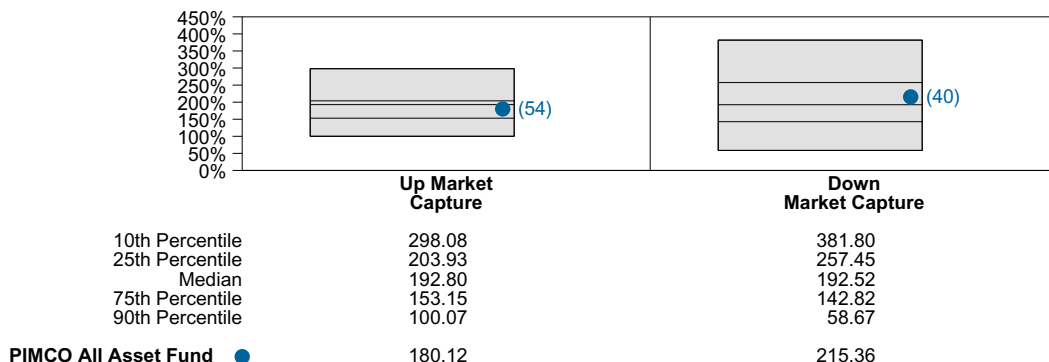
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

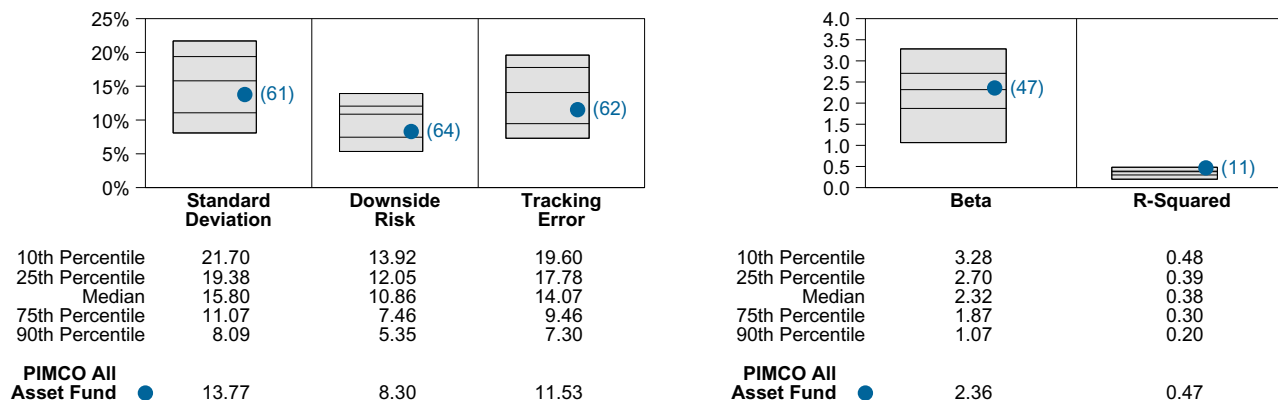
Risk Analysis vs Callan Real Assets Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Market Capture vs Bloomberg TIPS 1-10 Yr Rankings Against Callan Real Assets Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Risk Statistics Rankings vs Bloomberg TIPS 1-10 Yr Rankings Against Callan Real Assets Mutual Funds (Institutional Net) Five Years Ended March 31, 2023



Quarterly Highlights

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/research-library to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / institute@callan.com.

New Research from Callan's Experts

2023 DC Trends Survey | Callan's 16th annual DC Trends Survey now covers SECURE 2.0 (pre-passage) and diversity topics, along with the key tenets of DC plan management, governance, and financial wellness.

2023-2032 Capital Markets Assumptions | A white paper detailing the process involved in creating our 2023-2032 capital markets assumptions and the reasoning behind them.

1Q23 Real Assets Reporter: Energy Transition | Jan Mende describes energy-transition investments and the role they can play in institutional portfolios.

The Periodic Table of Investment Returns | A visual representation of annual returns for key asset classes, ranked from best to worst performance for each calendar year.

Blog Highlights

The PRT Decision: What Plan Sponsors Need to Know | Despite the turbulence of 2022, many corporate defined benefit (DB) plan sponsors are considering pension risk transfers (PRTs).

Can Institutional Investors Target 'Food Deserts' for Investment? | While food desert investments have not been prevalent in institutional real estate portfolios, increasing government incentives and additional sources of financing may help support these opportunities in the future.

Putting 2022 Public DB Plan Performance into Perspective | While 2022 was indeed challenging, viewing plan returns over the long-term shows results that are favorable when stacked up against actuarial discount rates.

Webinar Replays

Callan's 2023 DC Survey Results Webinar | This webinar focuses on the results of Callan's 2023 DC Trends Survey, including fiduciary positioning, investments, retirement solutions, fees, and more.

Research Cafe: ESG Interview Series | During this interview, Tom Shingler of Callan discusses with Richard Ashley, partner and co-chair of US Employee Benefits and Executive Compensation practice at DLA Piper, key features of the new ESG and proxy voting rule.

Quarterly Periodicals

Private Equity Update, 4Q22 | A high-level summary of private equity activity in the quarter through all the investment stages

Active vs. Passive Charts, 4Q22 | A comparison of active managers alongside relevant benchmarks over the long term

Market Pulse, 4Q22 | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

Capital Markets Review, 4Q22 | Analysis and a broad overview of the economy and public and private markets activity each quarter across a wide range of asset classes

Hedge Fund Update, 4Q22 | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

Real Assets Update, 4Q22 | A summary of market activity for real assets and private real estate during the quarter

Private Credit Update, 4Q22 | A review of performance and fundraising activity for private credit during the quarter

Events

A complete list of all upcoming events can be found on our website: callan.com/events-education.

Please mark your calendar and look forward to upcoming invitations:

2023 June Workshops

June 27, 2023 – New York

June 29, 2023 – Chicago

For more information about events, please contact Barb Gerraty: 415-274-3093 / gerraty@callan.com

Education: By the Numbers

50+

Unique pieces of research the Institute generates each year

525

Attendees (on average) of the Institute's annual National Conference

3,700

Total attendees of the "Callan College" since 1994

Education

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

Introduction to Investments

May 23-25 – Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. Our virtual session is held over three days with virtual modules of 2.5-3 hours, while the in-person session lasts one-and-a-half days. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: callan.com/events-education



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer

List of Callan's Investment Manager Clients

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Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry, and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor, and disclose potential conflicts on an ongoing basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database, or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please note that if an investment manager receives a product or service on a complimentary basis (e.g., attending an educational event), they are not included in the list below. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group, and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance department.

Manager Name

abrdn (Aberdeen Standard Investments)

ABS Global Investments

Acadian Asset Management LLC

Adams Street Partners, LLC

AEGON USA Investment Management Inc.

AllianceBernstein

Allspring Global Investments, LLC

Altrinsic Global Advisors, LC

American Century Investments

Amundi US, Inc.

Antares Capital LP

Apollo Global Management, Inc.

AQR Capital Management

Ares Management LLC

Ariel Investments, LLC

Aristotle Capital Management, LLC

Atlanta Capital Management Co., LLC

AXA Investment Managers

Manager Name

Axiom Investors LLC

Baillie Gifford International, LLC

Baird Advisors

Barings LLC

Baron Capital Management, Inc.

Barrow, Hanley, Mewhinney & Strauss, LLC

Belle Haven Investments

BentallGreenOak

Beutel, Goodman & Company Ltd.

BlackRock

Blackstone Group (The)

Blue Owl Capital, Inc.

BNY Mellon Asset Management

Boston Partners

Brandes Investment Partners, L.P.

Brandywine Global Investment Management, LLC

Brookfield Asset Management Inc.

Brookfield Public Securities Group

Manager Name
Brown Brothers Harriman & Company
Burgundy Asset Management Ltd.
Capital Group
CastleArk Management, LLC
CIBC Asset Management Inc.
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.
Columbia Threadneedle Investments North America
Comvest Partners
CQS
Credit Suisse Asset Management, LLC
D.E. Shaw Investment Management, LLC
DePrince, Race & Zollo, Inc.
Dimensional Fund Advisors L.P.
Doubleline
DWS
EARNEST Partners, LLC
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Hermes, Inc.
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Hawaiian Bank Wealth Management Division
First Eagle Investment Management, LLC
First Sentier Investors
Fisher Investments
Franklin Templeton
Fred Alger Management, LLC
GAM (USA) Inc.
GlobeFlex Capital, L.P.
GoldenTree Asset Management, LP
Goldman Sachs
Golub Capital
Guggenheim Investments
GW&K Investment Management
Harbor Capital Advisors
Harding Loevner LP
Hardman Johnston Global Advisors LLC
Heitman LLC
Hotchkis & Wiley Capital Management, LLC

Manager Name
Impax Asset Management LLC
Income Research + Management
Insight Investment
Intech Investment Management LLC
Intercontinental Real Estate Corporation
Invesco
J.P. Morgan
Janus
Jennison Associates LLC
Jobs Peak Advisors
Kayne Anderson Rudnick Investment Management, LLC
KeyCorp
Kohlberg Kravis Roberts & Co. (KKR)
Lazard Asset Management
LGIM America
Lincoln National Corporation
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
LSV Asset Management
MacKay Shields LLC
Macquarie Asset Management (MAM)
Manulife Investment Management
Marathon Asset Management, L.P.
MetLife Investment Management
MFS Investment Management
MidFirst Bank
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
MUFG Union Bank, N.A.
Natixis Investment Managers
Neuberger Berman
Newton Investment Management
Northern Trust Asset Management
Nuveen
Oaktree Capital Management, L.P.
P/E Investments
Pacific Investment Management Company
Pantheon Ventures

Manager Name

Parametric Portfolio Associates LLC

Partners Group (USA) Inc.

Pathway Capital Management, LP

PFM Asset Management LLC

PGIM DC Solutions

PGIM Fixed Income

PGIM Quantitative Solutions LLC

Pictet Asset Management

PineBridge Investments

Polen Capital Management, LLC

Pretium Partners, LLC

Principal Asset Management

Putnam Investments, LLC

Raymond James Investment Management

RBC Global Asset Management

Regions Financial Corporation

Riverbridge Partners LLC

Robeco Institutional Asset Management, US Inc.

S&P Dow Jones Indices

Sands Capital Management

Schroder Investment Management North America Inc.

Segall Bryant & Hamill

Manager Name

SLC Management

Smith Graham & Co. Investment Advisors, L.P.

State Street Global Advisors

Strategic Global Advisors, LLC

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

Tri-Star Trust Bank

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Walter Scott & Partners Limited

WCM Investment Management

Wellington Management Company, LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair & Company LLC

Xponance, Inc.

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