

**Friday, February 25, 2022, 8:30 a.m.**  
**WSI Board Room (Virtual Meeting Host)**

**Teleconferencing: 701.328.0950 Participant Code: 141 015 131#**

**1600 E Century Ave, Bismarck, ND**

AGENDA

**I. CALL TO ORDER AND ACCEPTANCE OF AGENDA**

- A. Executive Summary
- B. Welcome Dr. Paul White, Chief Risk Officer

**II. ACCEPTANCE OF MINUTES (January 28, 2022)**

**III. BOARD EDUCATION (25 minutes)**

- A. Board Governance & Client Relations – Ms. Murtha

**IV. INVESTMENTS (90 minutes)**

- A. Quarterly Performance Presentation – Callan
- B. Professional Investment Management Benefits – Mr. Anderson

(Break)

**V. GOVERNANCE (45 minutes)**

- A. Legacy & Budget Stabilization Fund Advisory Board Update – Ms. Murtha
- B. Policy 2<sup>nd</sup> Reading and Final Adoption for Governance & Policy Review Committee – Ms. Murtha
- C. Executive Review Committee – Board Self-Assessment – Ms. Sauter

**VI. REPORTS (15 Minutes)**

- A. Audit Activities Report – Ms. Sauter
  - 1. 2<sup>nd</sup> Quarter Activities Report
  - 2. Executive Limitations Audit CY 2021
  - 3. Succession Planning Audit
- B. Executive Limitations/ Staff Relations – Ms. Murtha

**VII. OTHER (5 minutes)**

**Next Meetings:**

TFFR: Thursday, March 24, 2022, at 1:00 p.m.

SIB: Friday, March 25, 2022, at 8:30 a.m.

**VIII. ADJOURNMENT**

# EXECUTIVE SUMMARY

## SIB Regular Meeting

February 25, 2022 – 8:30am CT

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- I. **Agenda:** The February Board Meeting will be held at the WSI Conference room to accommodate in person attendance; however, a link will also be provided so that Board members and other attendees may join via video conference. There will be a call-in number for the public.
- II. **Minutes (Board Action):** The January 28, 2022, Board meeting minutes are included for review and approval.
- III. **A. Board Education – Board Governance & Client Relations:** Ms. Murtha will provide the Board with a review of the governance structure and respective responsibilities of the SIB and its client funds.
- IV. **A. Quarterly Performance Presentation (Board Action):** Callan will provide an investment performance review which includes a reconciliation of RIO's reported investment returns and asset valuations with those reported by Northern Trust, noting that Northern Trust serves as our primary custodian and record keeper for SIB client investments.  
**B. Professional Investment Management Benefits:** Mr. Anderson will provide the Board with information on professional investment management, and how it has created a large benefit to the SIB funds when compared to less thoughtful allocation and implementation. The benefits of professional investment management scale with assets under management. There is an opportunity to improve investment value added while lowering the cost per AUM as the funds grow. The key to unlocking that value is governance, talent management, operations, data and technology infrastructure, and a research/knowledge management-oriented culture.
- V. **A. Legacy & Budget Stabilization Fund Advisory Board Update:** Ms. Murtha will provide the Board with an update of the discussion and actions taken at the Advisory Board meeting on February 15, 2022.  
**B. Policy 2<sup>nd</sup> Reading and Final Adoption for Governance & Policy Review Committee (Board Action):** Board to discuss and act on any changes to policy amendments and draft charter for a new standing committee of the SIB.  
**C. Executive Review Committee Update (Board Action):** Mr. Olson and Ms. Sauter will present the results the annual Board self-assessment and any recommendations from the Committee from its meeting on February 23, 2022. Materials to be updated after the 2/23/22 meeting.
- VI. **A-B. Reports (Board Action):** Staff will provide monitoring reports for audit activities and executive limitations/staff relations.

**Adjournment.**

**NORTH DAKOTA STATE INVESTMENT BOARD  
MINUTES OF THE  
JANUARY 28, 2022, BOARD MEETING**

**MEMBERS PRESENT:** Brent Sanford, Lt. Governor, Chair  
Rob Lech, TFFR Board, Vice Chair  
Thomas Beadle, State Treasurer  
Jon Godfread, Insurance Commissioner  
Keith Kempenich, Legacy/Budget Stab. Adv. Board  
Bryan Klipfel, Director of WSI  
Cody Mickelson, TFFR Board  
Adam Miller, PERS Board  
Mel Olson, TFFR Board  
Troy Seibel, PERS Board, Parliamentarian  
Yvonne Smith, PERS Board

**MEMBERS ABSENT:** Jodi Smith, Commissioner of Unv & School Lands

**STAFF PRESENT:** Scott Anderson, CIO  
Eric Chin, Deputy CIO  
Connie Flanagan, CFO  
Missy Kopp, Executive Assistant  
Jan Murtha, Exec Dir  
Matt Posch, Investment/Compliance Officer  
Ann Nagel, Investment Accountant  
Emmalee Riegler, Contracts/Records Admin  
Sara Sauter, Internal Audit Supvr  
Susan Walcker, Senior Financial Accountant

**GUESTS:** Dean DePountis, Attorney General's Office  
Paul Erlendson, Callan  
Alex Browning, Callan  
Candace Johnson, Securities Commission  
Rachel Kriege, Insurance Dept.  
Jan Lund, PERS  
Scott Miller, PERS  
Adam Montgomery, Securities Commission  
Jose Morales, Axiom  
Joe Morrissette, Director of OMB  
Bryan Reinhardt, PERS  
Karen Tyler, Securities Commissioner  
Rich Wardner, ND Senate  
Hope Wedul, HRMS  
Matthew Welling, Axiom

**CALL TO ORDER:**

Dr. Rob Lech, Vice Chair, called the State Investment Board (SIB) regular meeting to order at 8:30 a.m. on Friday, January 28, 2022. The meeting was held at Workforce Safety and Insurance, 1600 E Century Ave., Bismarck, ND.

**The following members were present: Treasurer Beadle, Commissioner Godfread, Rep. Kempenich, Mr. Klipfel, Dr. Lech, Mr. Mickelson, Mr. Miller, Mr. Olson, Mr. Seibel, and Ms. Smith**

**ACCEPTANCE OF AGENDA:**

The Board considered the agenda for the January 28, 2022, meeting.

**IT WAS MOVED BY TREASURER BEADLE AND SECONDED BY COMMISSIONER GODFREAD AND CARRIED BY A VOICE VOTE TO APPROVE THE AGENDA AS DISTRIBUTED.**

**AYES: TREASURER BEADLE, MR. MILLER, COMMISSIONER GODFREAD, MR. OLSON, MR. KLIPFEL, MR. MICKELSON, MR. SEIBEL, DR. LECH, AND MS. SMITH**

**NAYS: NONE**

**MOTION CARRIED**

**ABSENT: LT. GOV. SANFORD AND COMMISSIONER SMITH**

**MINUTES:**

The Board considered the minutes of the November 19, 2021, December 15, 2021, and December 28, 2021, SIB meetings.

**IT WAS MOVED BY MS. SMITH AND SECONDED BY MR. KLIPFEL AND CARRIED BY A VOICE VOTE TO APPROVE THE NOVEMBER 19, 2021, DECEMBER 15, 2021, AND DECEMBER 28, 2021, MINUTES AS DISTRIBUTED.**

**AYES: MR. MICKELSON, MS. SMITH, MR. KLIPFEL, TREASURER BEADLE, DR. LECH, COMMISSIONER GODFREAD, MR. OLSON, MR. SEIBEL, AND MR. MILLER**

**NAYS: NONE**

**MOTION CARRIED**

**ABSENT: LT. GOV. SANFORD AND COMMISSIONER SMITH**

**BOARD EDUCATION:**

International Investments – Emerging Markets:

Mr. Jose Morales and Mr. Matthew Welling, Axiom, provided education on international investments in emerging markets.

Open Records and Open Meetings:

Mr. DePountis, Attorney General's Office, provided education on open records and open meeting laws including the definitions of a record, public business, and the types of protected records. Information was also presented on meetings, common violations of open meetings, and the rules for entering executive session.

**INVESTMENTS:**

Investment Performance/Projects Update:

Mr. Anderson and Mr. Chin provided an update on investment performance for the fiscal year to date (FYTD) as of December 31, 2021. Based on preliminary market data, which is unaudited and subject to material change, four of the five largest NDSIB clients are estimated to generate positive returns for the first half of the fiscal year. Equities and real estate generated strong positive returns. Short term fixed income returns were negative resulting in Budget Stabilization's negative FYTD returns.

A Request for Proposals (RFPs) was issued on January 12, 2022, for two projects, an Asset Allocation Study for the Legacy Fund and an In-State Equity Program Consultant. Staff responded to questions from offerors on January 21, 2022, and proposals are due on January 31, 2022. Consultant presentations to the Legacy and Budget Stabilization Fund Advisory Board are scheduled for February 15, 2022.

The new Chief Risk Officer, Dr. Paul White will start on January 31, 2022. The Arrowstreet contract has been signed and onboarding has begun with initial investment scheduled for February 1, 2022.

Lt. Gov. Sanford arrived at 9:28 a.m.

Private Market Opportunity:

**IT WAS MOVED BY DR. LECH AND SECONDED BY TREASURER BEADLE AND CARRIED BY A VOICE VOTE TO ENTER INTO EXECUTIVE SESSION PURSUANT TO NDCC 44-04-18.4(1) TO DISCUSS CONFIDENTIAL COMMERCIAL AND FINANCIAL INFORMATION.**

**AYES: MR. OLSON, MR. SEIBEL, MR. MICKELSON, COMMISSIONER GODFREAD, MS. SMITH, MR. MILLER, TREASURER BEADLE, MR. KLIPFEL, DR. LECH, AND LT. GOV. SANFORD.**

**NAYS: NONE**

**MOTION CARRIED**

**ABSENT: MR. SEIBEL AND COMMISSIONER SMITH**

The executive session began at 10:03 a.m. and ended at 10:15 a.m. In attendance were Board members and RIO staff.

The Board recessed at 10:17 a.m. and reconvened at 10:31 a.m.

**GOVERNANCE:**

Audit Committee Recommendations Follow-Up:

Ms. Murtha reviewed the recommendation of the Audit Committee that the SIB create a Governance and Policy Review (GPR) Committee and expand and enhance new Board member orientation and ongoing Board education. In order to establish a standing committee, there must be an amendment to Policy B-6 which may be adopted over the course of two meetings. The first meeting requires an Introduction and First Reading with the Second Reading and Final adoption at the second meeting.

**IT WAS MOVED BY COMMISSIONER GODFREAD AND SECONDED BY DR. LECH AND APPROVED BY A ROLL CALL VOTE TO APPROVE THE AMMENDMENT TO POLICY B-6 AND THE DRAFT GOVERNANCE AND POLICY REVIEW COMMITTEE CHARTER FOR THE FIRST READING**

**AYES: TREASURER BEADLE, MR. MICKELSON, COMMISSIONER GODFREAD, MS. SMITH, DR. LECH, MR. MILLER, MR. OLSON, AND LT. GOV. SANFORD**

**NAYS: NONE**

**MOTION CARRIED**

**ABSENT: MR. SEIBEL AND COMMISSIONER SMITH**

Executive Review Committee Update:

Mr. Olson provided an update from the Executive Review Committee (ERC). The ERC will be conducting the Board Self-Assessment. The assessment will be sent to Board members on Friday, January 28, 2022, and will be due on Friday, February 11, 2022. The assessment will be sent via Survey Monkey by Ms. Sauter. The results will be presented at the February 25, 2022, Board meeting.

Executive Pay Plan:

Dr. Lech provided information to the Board on executive pay plans of other state agencies as it relates to the accrual of annual leave. When the ED/CIO position was split, the executive pay plan was granted to the CIO but not the ED position. HRMS informed staff that this was not consistent with what has occurred in other state agencies.

**IT WAS MOVED BY DR. LECH AND SECONDED BY COMMISSIONER GODFREAD AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE EXECUTIVE PAY PLAN FOR ANNUAL LEAVE FOR THE EXECUTIVE DIRECTOR POSITION.**

**AYES: MS. SMITH, MR. MILLER, MR. OLSON, MR. MICKELSON, DR. LECH, MR. KLIPFEL, COMMISSIONER GODFREAD, TREASURER BEADLE, AND LT. GOV. SANFORD**

**NAYS: NONE**

**MOTION CARRIED**

**ABSENT: MR. SEIBEL AND COMMISSIONER SMITH**

**QUARTERLY MONITORING:**

Executive Limitations/Staff Relations:

Ms. Murtha shared an update on the completion of RIO's facility move, staff training activities, and staffing. RIO staff are working on the development of a comprehensive strategic plan by partnering with other state agencies. The initial meeting is scheduled for January 31, 2022.

**IT WAS MOVED BY DR. LECH AND SECONDED BY COMMISSIONER GODFREAD AND CARRIED BY A VOICE VOTE TO ACCEPT THE QUARTERLY MONITORING REPORTS.**

**AYES: TREASURER BEADLE, MR. OLSON, DR. LECH, MR. MILLER, COMMISSIONER GODFREAD, MR. MICKELSON, MS. SMITH, MR. KLIPFEL, AND LT. GOV. SANFORD**

**NAYS: NONE**

**MOTION CARRIED**

**ABSENT: MR. SEIBEL AND COMMISSIONER SMITH**

**ADJOURNMENT:**

With no further business to come before the SIB, Lt. Gov. Sanford adjourned the meeting at 11:57 a.m.

Respectfully Submitted:

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Lt. Governor Sanford, Chair  
State Investment Board

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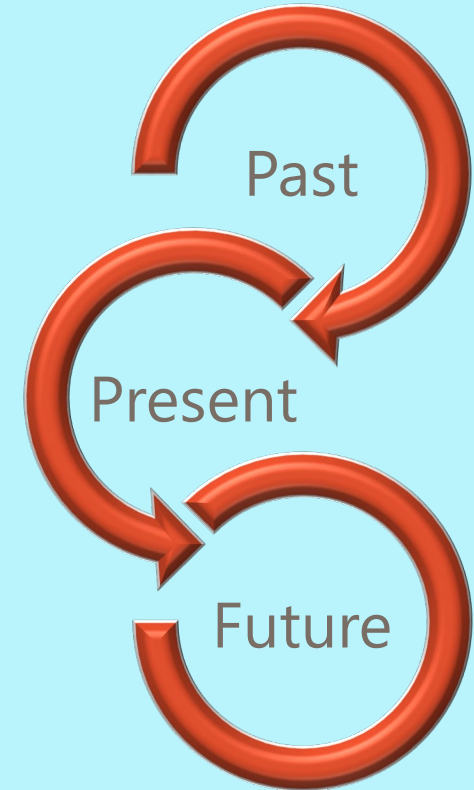
Missy Kopp  
Recorder

STATE INVESTMENT BOARD  
ND RETIREMENT & INVESTMENT OFFICE  
BOARD GOVERNANCE & CLIENT RELATIONS



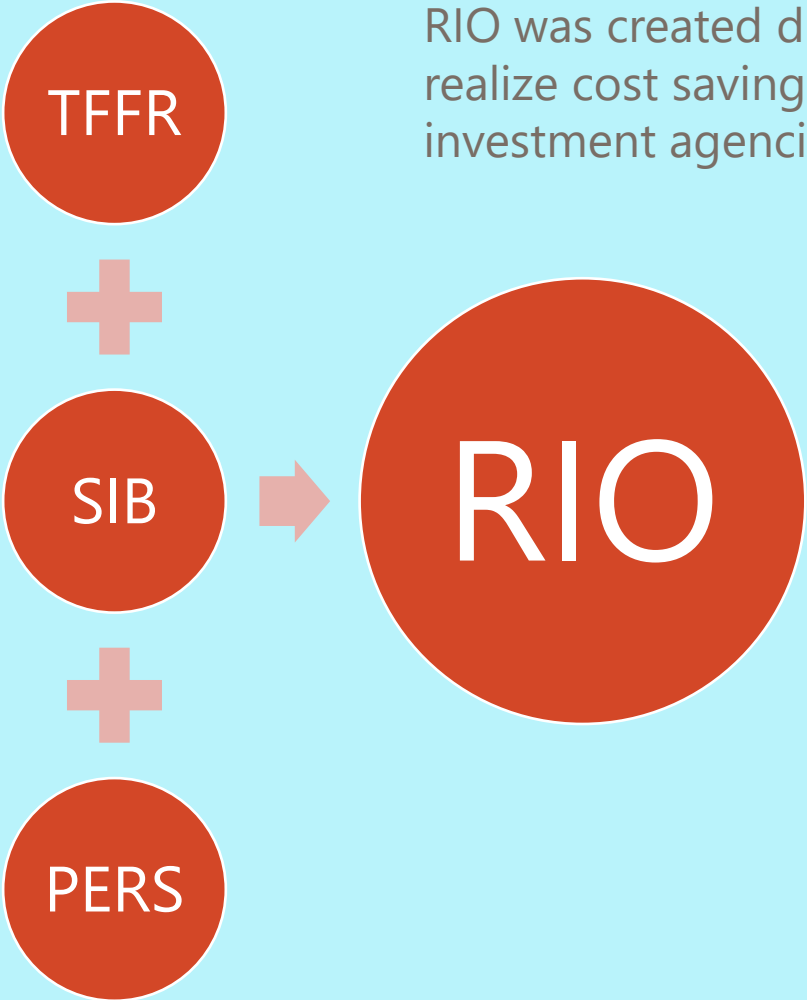
# SIB GOVERNANCE: EVOLVING TO MEET THE NEED

- Past: Agency created 1989; current Manual implemented 1995.
- Present: Robust Growth & Oversight
- Future: Governance for Growth



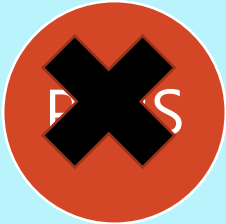


# RIO – WHO ARE WE?



RIO was created during the 1989 Legislative session to realize cost savings between multiple state retirement and investment agencies.

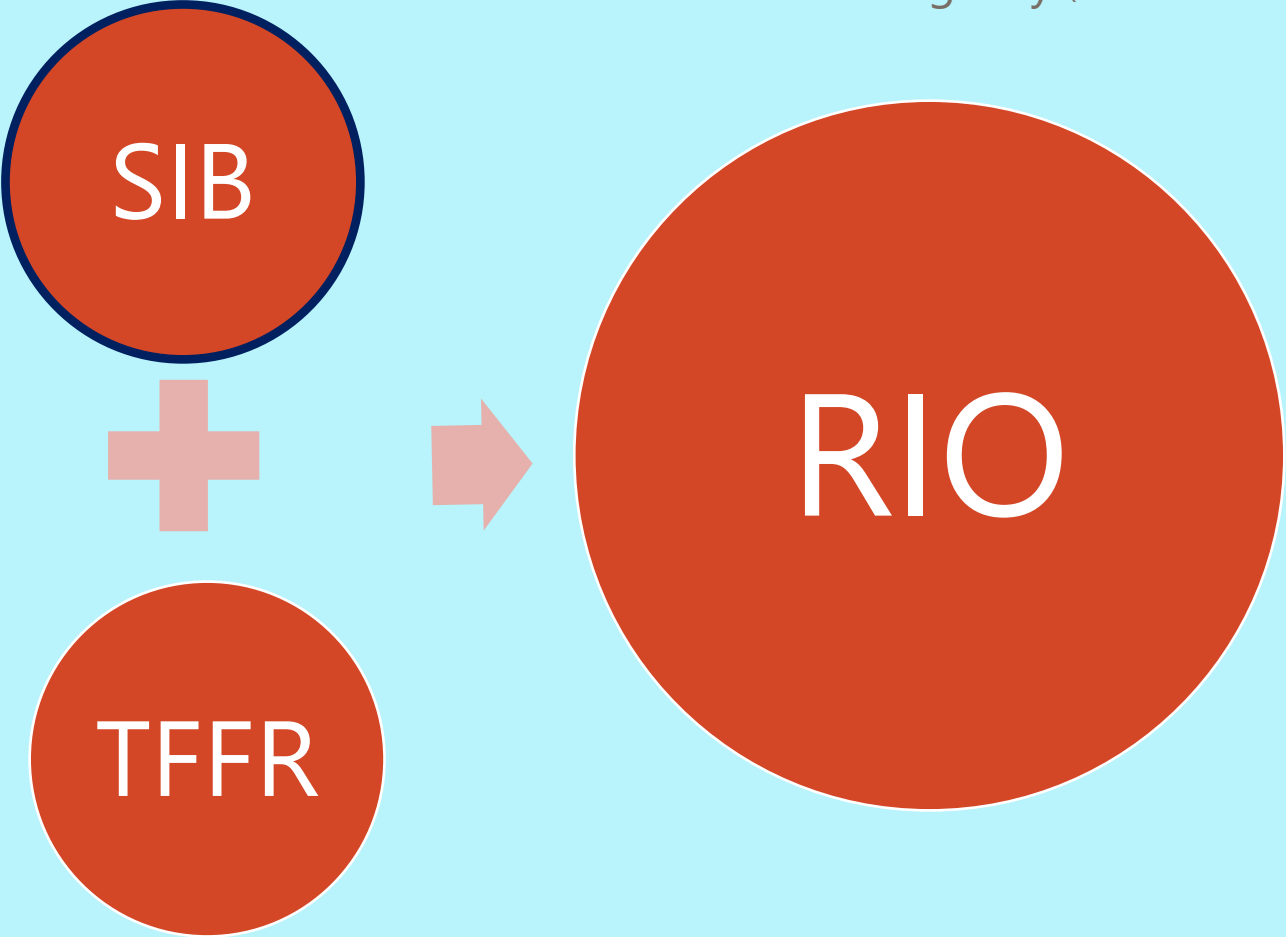
# RIO – WHO ARE WE?



Final version removed PERS from the mix.

# RIO – WHO ARE WE?

The State Investment Board is the governing board for the agency (NDCC 54-52.2-02)



# SIB: POWERS & DUTIES

- 21-10-02.

(1) The board is charged with the investment of the funds enumerated in section 21-10-06. **It shall approve general types of securities for investment by these funds and set policies and procedures regulating securities transactions on behalf of the various funds.** Representatives of the funds enumerated in

# INVESTMENT PROGRAM 1991

RIO Staff and SIB are a  
"manager of managers"  
for investment program

**AUM**  
**\$1.2 billion**  
**as of**  
**6/30/1991**

7 asset classes

13 investment client  
funds (Including Land)

16 investment managers

21 investment strategies

# INVESTMENT PROGRAM 2021

RIO Staff and SIB are a  
"manager of managers"  
for investment program

**AUM**  
**\$19.7 billion**  
**as of**  
**8/31/2021**

10 asset classes

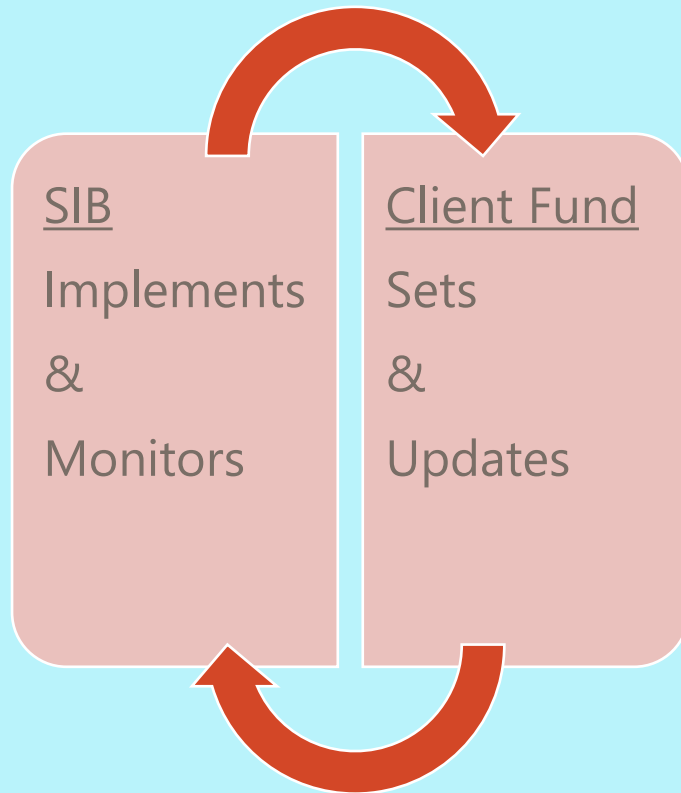
26 investment client funds

42 investment managers

77 investment strategies

# ASSET ALLOCATIONS

- Process

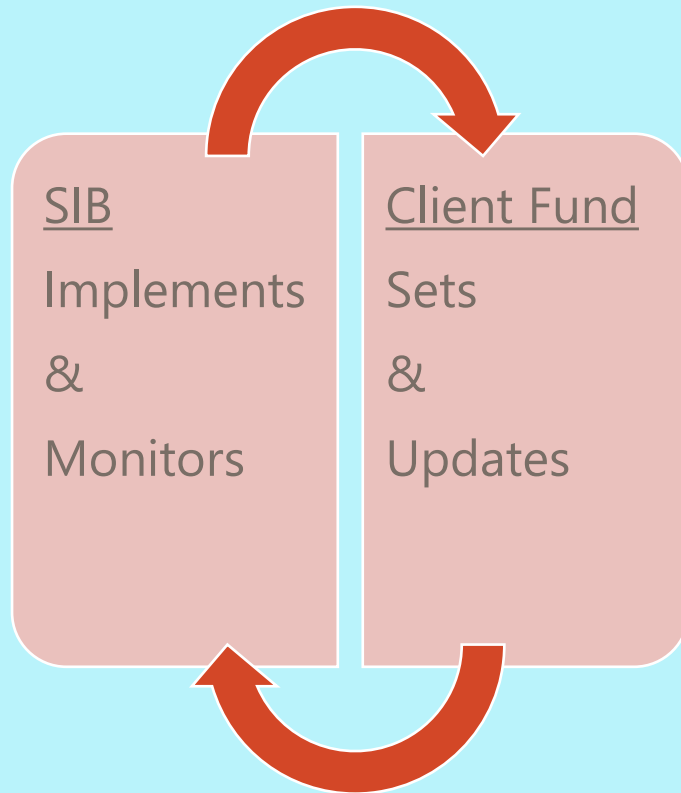


- NDCC 21-10-02.1

- The governing body of each fund... shall establish policies on investment goals and objectives and asset allocation for each respective fund..
- The asset allocation and any subsequent allocation changes for each fund must be approved by the governing body of that fund and the state investment board.

# S.B. 2291 -FACTORS

## ■ Process



## ■ N.D.C.C. 21-10-08.1

- As used in this section, "**social investment**" means the consideration of socially responsible criteria in the investment or commitment of public funds for the **purpose of obtaining an effect other than a maximized return to the state.**
- 2. Except as otherwise provided in a state **investment policy relating to the investment of the legacy fund and** unless the state investment board can demonstrate a social investment would provide **an equivalent or superior rate of return compared to a similar investment** that is not a social investment and has a similar time horizon and risk, **the state investment board may not invest** state funds for the purpose of social investment.

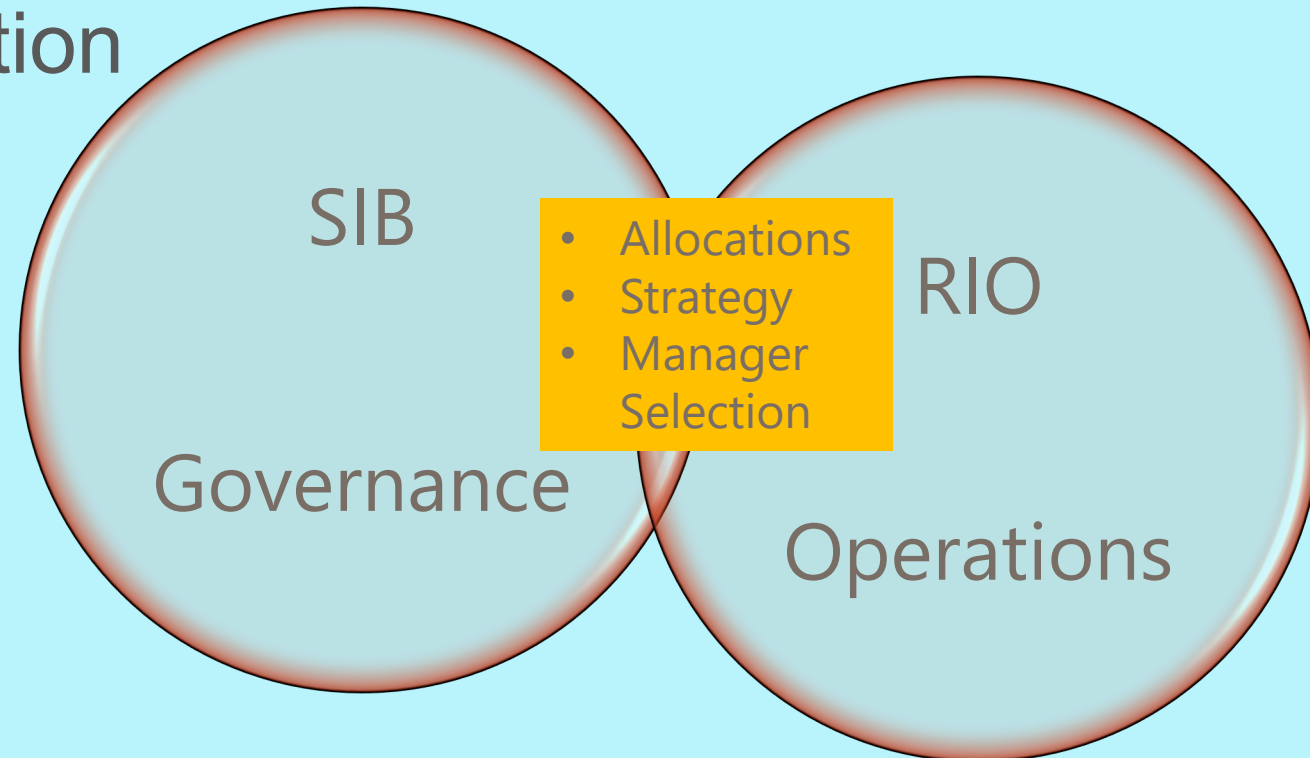


# OVERSIGHT

- Article X, Section 26, of the Constitution of North Dakota : “..The state investment board shall invest the principal of the North Dakota legacy fund. The state treasurer shall transfer earnings of the North Dakota legacy fund accruing after June 30, 2017, to the state general fund at the end of each biennium.”
- **Legacy & Budget Stabilization Fund Advisory Board** (Client Board comprised of legislators and elected and appointed officials). Created in 2011, expanded in 2021.
- **Legacy Fund Earnings Committee** created to advise legislature on earnings use.

# BOARD DELEGATION

- Governance serves as the Foundation of Program Implementation



# THE FUTURE...

Governance for Growth

**Thank you for your time!**

# Callan



February 25, 2022

## **North Dakota State Investment Board**

Performance Evaluation  
as of December 31, 2021

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**Paul Erlendson**  
Senior Vice President

**Alex Browning**  
Senior Vice President

Callan

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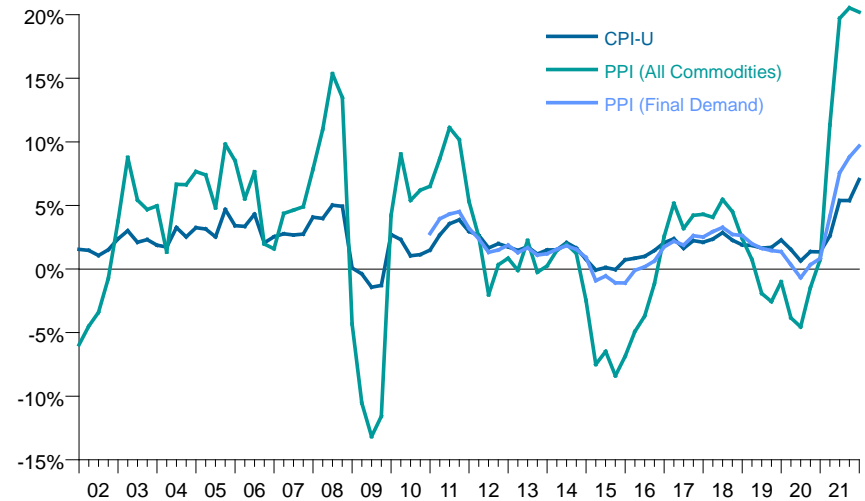
## **Market Update**

Fourth Quarter 2021

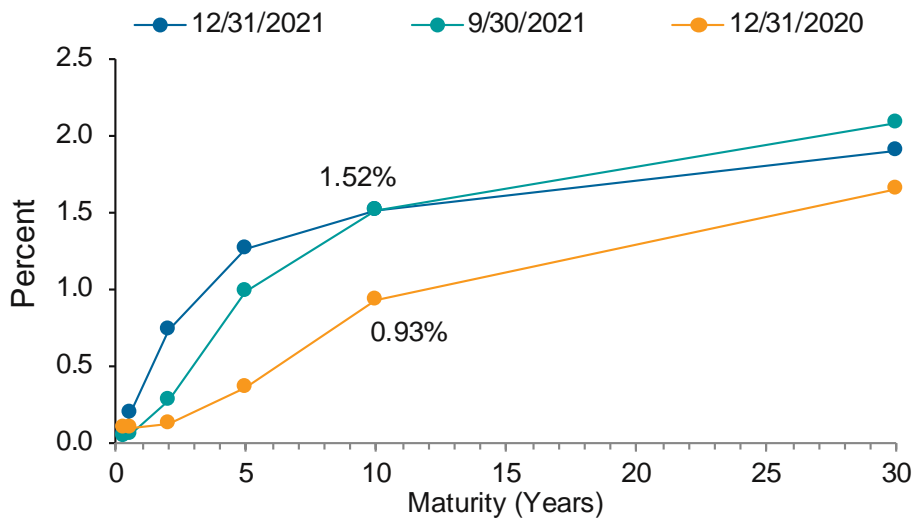
# U.S. Economy—Summary

## Fourth Quarter 2021

- Fourth quarter GDP reached 6.9%, up from 2.3% in the third quarter. GDP rose 5.7% in 2021.
- Inflation remains a concern heading into 2022. The CPI climbed 7.0% year-over-year as of December.
- The Federal Reserve has taken a more aggressive stance, with three rate hikes planned for 2022 and a sharp tapering of their asset-buying program.
- Employment continues to improve, with the unemployment rate down to 3.9% in December

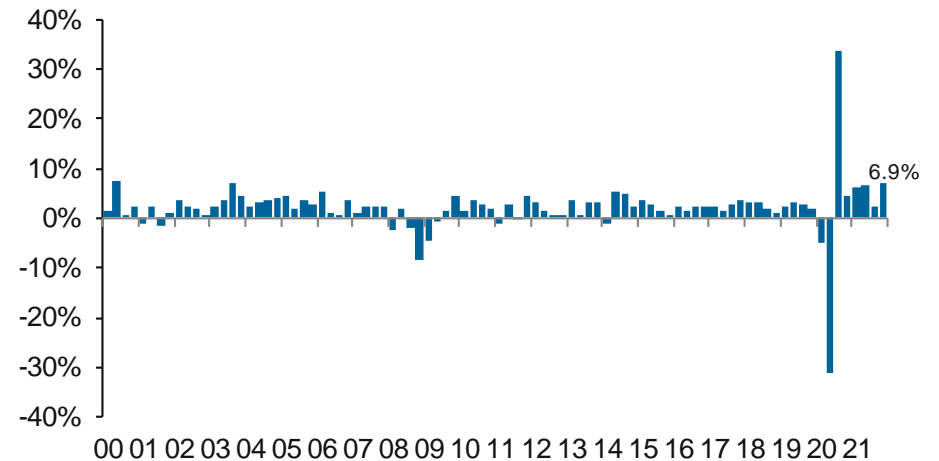


## U.S. Treasury Yield Curves



Sources: Bloomberg, Bureau of Labor Statistics, Callan

## Quarterly Real GDP Growth



# Callan Periodic Table of Investment Returns

Cumulative Returns Ending December 31, 2021						Monthly Returns		
Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Oct 2021	Nov 2021	Dec 2021
Large Cap Equity	Large Cap Equity	Large Cap Equity	Large Cap Equity	Large Cap Equity	Large Cap Equity	Large Cap Equity	Real Estate	Dev ex-U.S. Equity
11.03%	28.71%	26.07%	18.47%	14.93%	16.55%	7.01%	2.50%	5.08%
Real Estate	Real Estate	US Small-Mid	US Small-Mid	US Small-Mid	US Small-Mid	US Small-Mid	U.S. Fixed Income	Large Cap Equity
7.69%	21.06%	21.91%	13.75%	11.74%	14.15%	4.90%	0.30%	4.48%
US Small-Mid	US Small-Mid	Dev ex-U.S. Equity	Emerging Market Equity	Real Estate	Real Estate	Dev ex-U.S. Equity	Large Cap Equity	US Small-Mid
3.82%	18.18%	14.07%	9.88%	8.62%	9.44%	2.98%	-0.69%	3.28%
Dev ex-U.S. Equity	Dev ex-U.S. Equity	Emerging Market Equity	Dev ex-U.S. Equity	Dev ex-U.S. Equity	Dev ex-U.S. Equity	Real Estate	High Yield	Real Estate
3.14%	12.62%	10.94%	9.63%	6.73%	7.84%	2.50%	-0.97%	2.50%
High Yield	High Yield	High Yield	Real Estate	High Yield	High Yield	Emerging Market Equity	Emerging Market Equity	Emerging Market Equity
0.71%	5.28%	8.83%	7.75%	6.15%	6.83%	0.99%	-4.08%	1.88%
U.S. Fixed Income	U.S. Fixed Income	Real Estate	High Yield	Emerging Market Equity	Emerging Market Equity	U.S. Fixed Income	US Small-Mid	High Yield
0.01%	-1.54%	8.24%	6.30%	6.11%	5.49%	-0.03%	-4.17%	1.87%
Emerging Market Equity	Emerging Market Equity	U.S. Fixed Income	U.S. Fixed Income	U.S. Fixed Income	U.S. Fixed Income	High Yield	Dev ex-U.S. Equity	U.S. Fixed Income
-1.31%	-2.54%	4.79%	3.57%	3.00%	2.90%	-0.17%	-4.68%	-0.26%

Sources: ● Bloomberg Barclays Aggregate ● Bloomberg Barclays Corp High Yield ● Bloomberg Barclays Global Aggregate ex US  
 ● NCREIF ODCE Val Wtd ● MSCI World ex USA ● MSCI Emerging Markets ● Russell 2500 ● S&P 500

# Contributors to Recent Inflation: Primary Categories

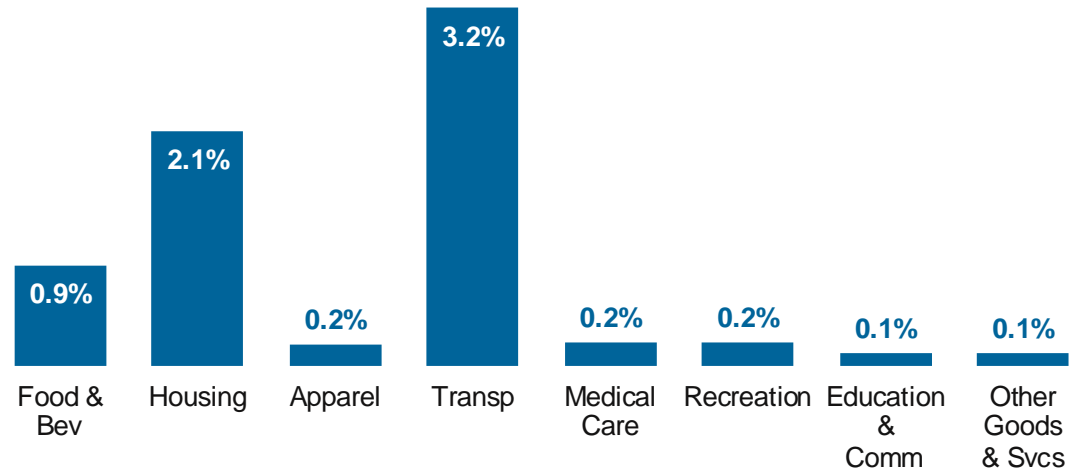
Transportation, including new and used cars, parts, and gasoline, saw a spike in inflation.

- Year-over-year prints are more than three times higher than any other category.
- With a meaningful 15% weight in the index, transportation also has the highest weighted contribution to headline CPI.

Housing and food and beverage have also been significant contributors to headline CPI.

- Inflation within these categories has been far lower than transportation, but their large index weights make them meaningful contributors to overall inflation.

Contribution to December 2021 YOY Inflation



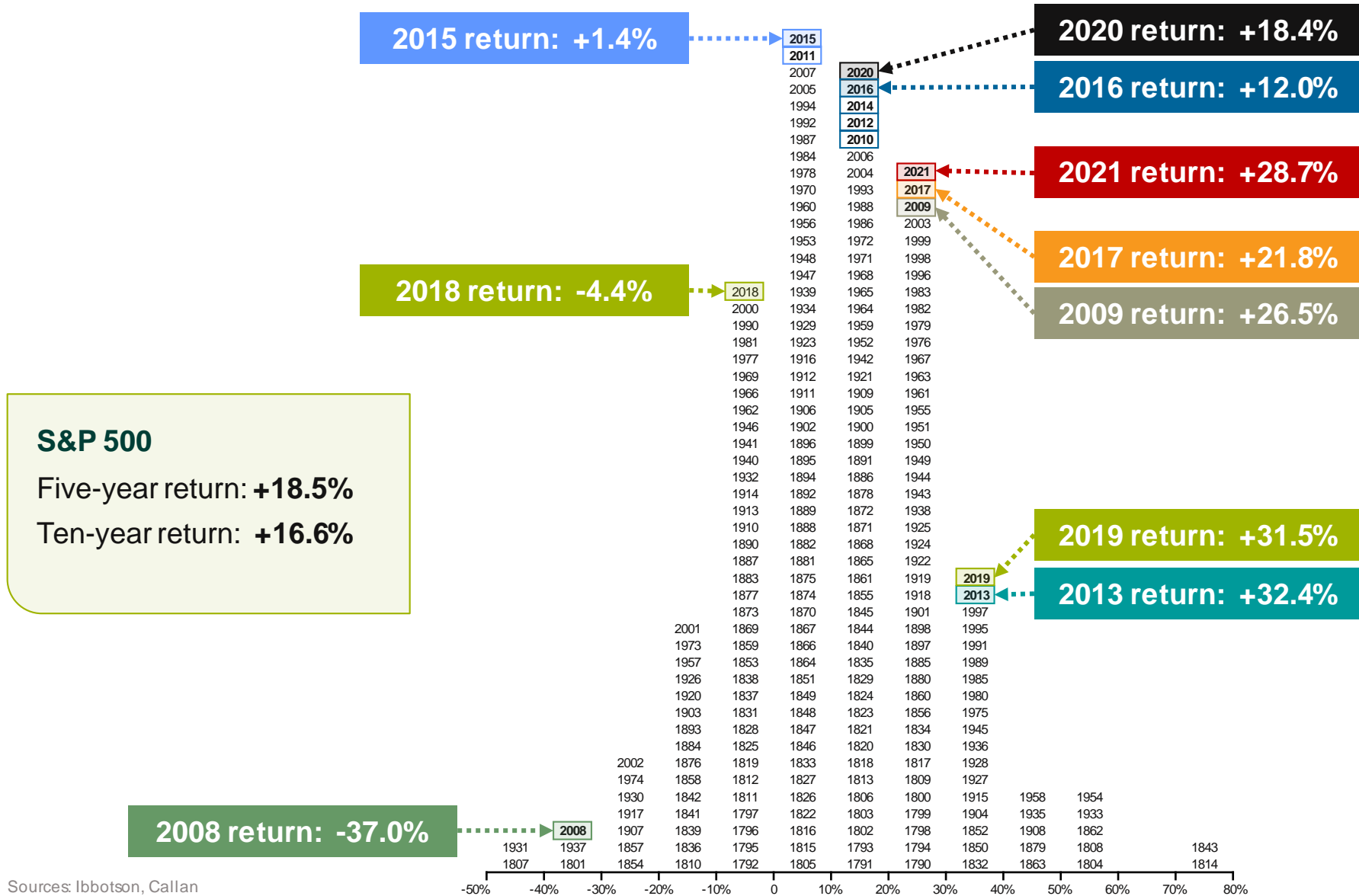
Primary Category	Primary Category Weight	Year-over-Year Change											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
All Items	100.0%	1.4%	1.7%	2.6%	4.2%	5.0%	5.4%	5.4%	5.3%	5.4%	6.2%	6.8%	7.0%
Food & Bev	15.2%	3.7%	3.5%	3.4%	2.3%	2.1%	2.4%	3.4%	3.7%	4.5%	5.1%	5.8%	6.0%
Housing	42.4%	1.8%	1.8%	2.1%	2.6%	2.9%	3.1%	3.4%	3.5%	3.9%	4.5%	4.8%	5.1%
Apparel	2.7%	-2.5%	-3.6%	-2.5%	1.9%	5.6%	4.9%	4.2%	4.2%	3.4%	4.3%	5.0%	5.8%
Transportation	15.2%	-1.3%	0.6%	5.8%	14.9%	20.0%	21.5%	19.4%	17.8%	16.6%	18.7%	21.1%	21.1%
Medical Care	8.9%	1.9%	2.0%	1.8%	1.5%	0.9%	0.4%	0.3%	0.4%	0.4%	1.3%	1.7%	2.2%
Recreation	5.8%	0.1%	0.8%	1.1%	2.1%	1.6%	2.4%	3.5%	3.4%	3.5%	3.9%	3.2%	3.3%
Education & Communication	6.8%	1.7%	1.7%	1.5%	1.7%	1.9%	2.1%	1.1%	1.2%	1.7%	1.8%	1.7%	1.6%
Other Goods & Svcs	3.2%	2.1%	2.1%	2.4%	2.7%	2.7%	2.5%	2.9%	3.5%	3.4%	4.2%	4.4%	4.5%

Source: U.S. Bureau of Labor Statistics

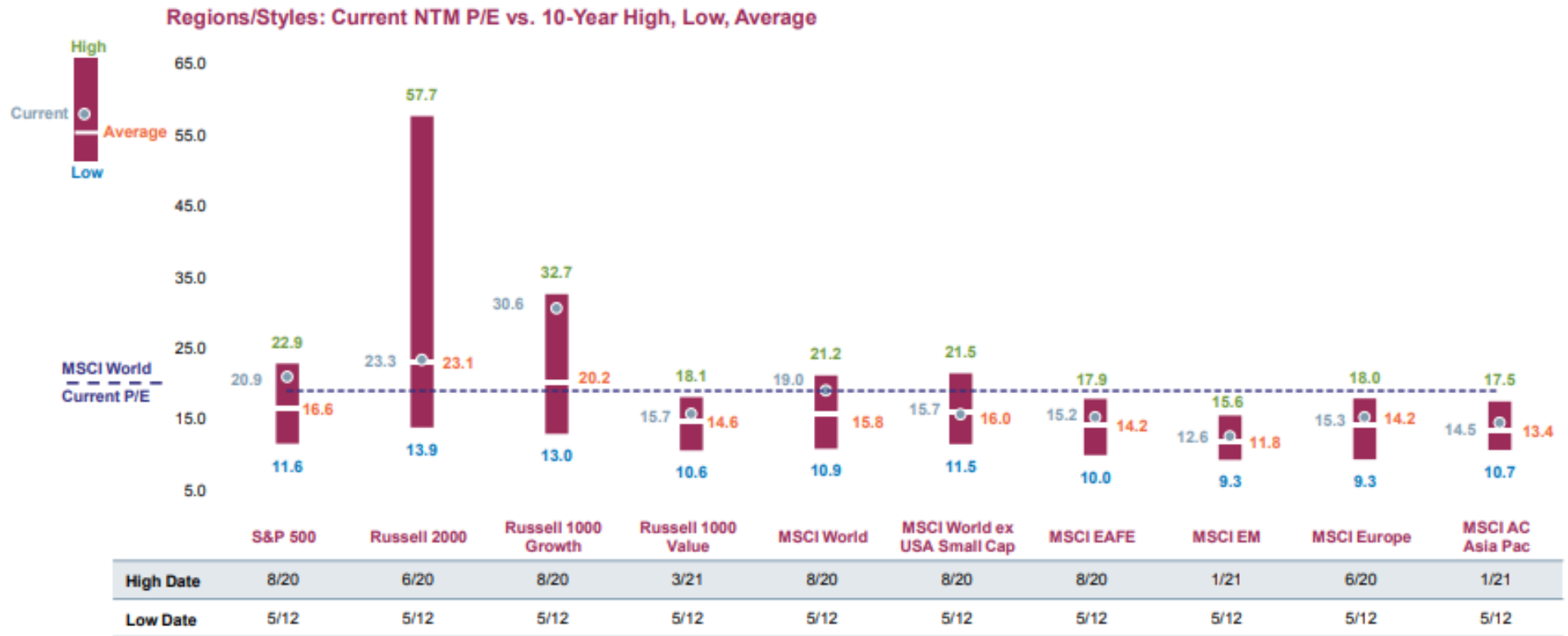


# Stock Market Returns by Calendar Year

2021 performance in perspective: History of the U.S. stock market (232 years of returns)



# Equity Valuations



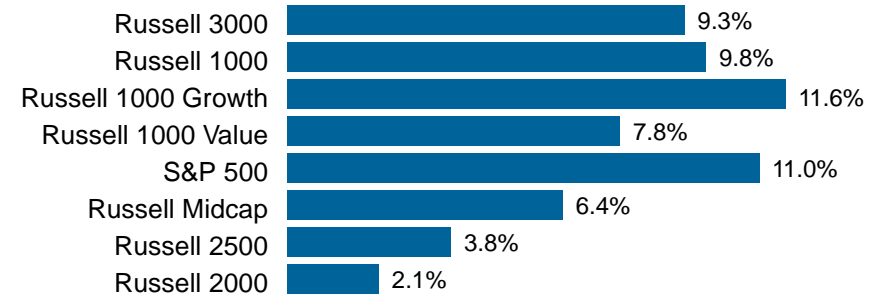
Source: Eaton Vance Monthly Market Monitor, FactSet as of 12/31/21. NTM P/E is market price per share divided by expected earnings per share over the next twelve months.

# U.S. Equity Performance: 4Q21

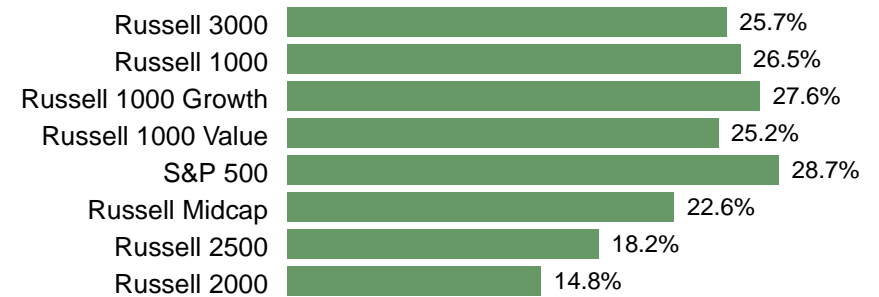
## Returns grind higher despite mounting concerns

- S&P 500 posted a strong 11.0% gain in 4Q21; large cap growth (Russell 1000 Growth) was the top performer, which contrasted with the worst-performing asset class, small cap growth (Russell 2000 Growth).
- The new Omicron variant, continued supply chain disruptions, and renewed fears of persistent inflation pushed investors into the perceived safety of the largest stocks during the quarter.
- S&P 500 sector results were mixed, with Real Estate (+17.5%) posting the top returns alongside Technology (+16.7%) and Materials (+15.2%); Communication Services (0.0%) and Financials (+4.6%) lagged broad returns.
- In 2021, small value outperformed small growth by over 2,500 bps (RUS2V 28.3% vs. RUS2G 2.8%), a stark reversal from 2020 and a pattern consistent with periods of robust GDP growth.

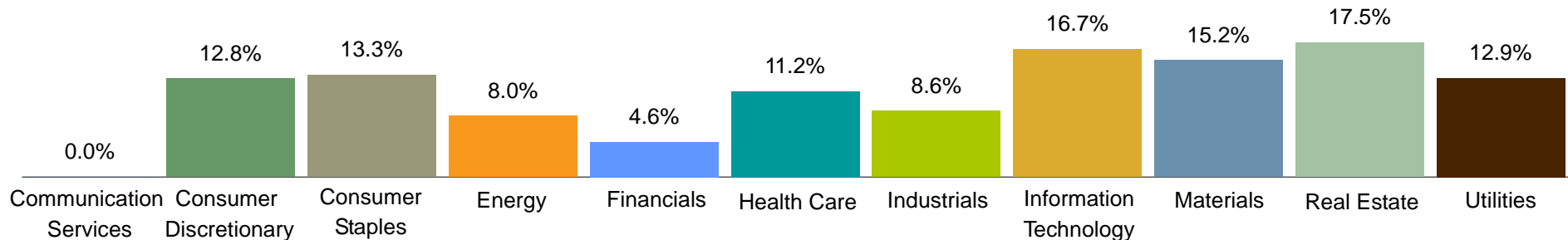
### U.S. Equity: Quarterly Returns



### U.S. Equity: One-Year Returns



### Industry Sector Quarterly Performance (S&P 500)



Sources: FTSE Russell, S&P Dow Jones Indices

# Global ex-U.S. Equity Performance: 4Q21

## Omicron takes center stage

- A recovery-driven market shifted back to COVID favorites, boosting Information Technology stocks.
- Small cap underperformed large amid global growth concerns.
- Emerging markets struggled relative to developed markets as China experienced significant pressure from an economic slowdown and its regulatory crackdown.

## Stalled recovery

- As the new variant took hold, Energy and Communication Services lagged on fear of restrained growth.
- Japan suffered from both supply chain issues and economic constraints from COVID-19.
- Growth and momentum factors outperformed in developed markets but not in emerging markets.

## U.S. dollar vs. other currencies

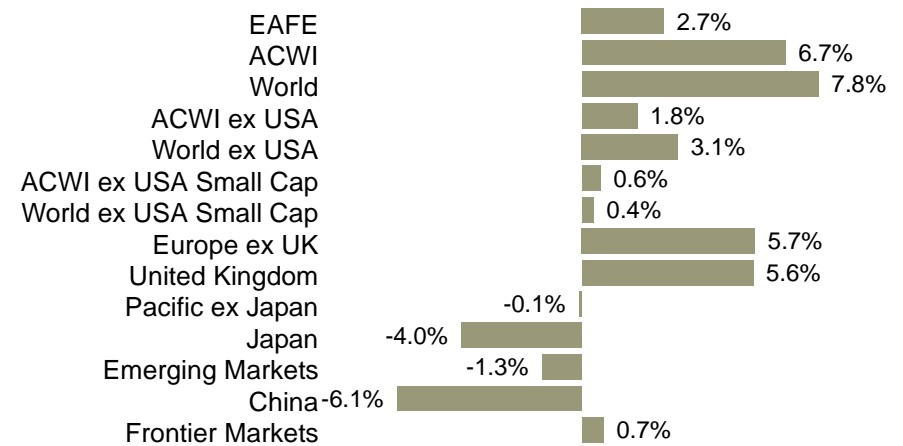
- The U.S. dollar rose against other major currencies as tapering accelerated alongside the expectation for 2022 rate hikes, which notably detracted from global ex-U.S. results.

## Growth vs. value

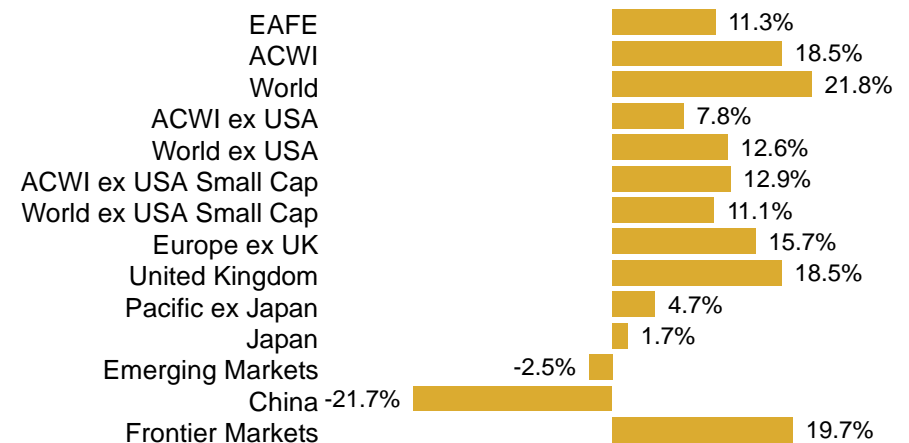
- Inflationary pressures and the ultimate rebound from COVID-19 supported value's leadership for the full year, despite the shift to growth in 4Q21.

Source: MSCI

## Global Equity: Quarterly Returns



## Global Equity: One-Year Returns



# U.S. Fixed Income Performance: 4Q21

## Treasury yields again unchanged

- 10-year at 1.52% at 9/30 and 12/31, up from 1.45% on 6/30
- TIPS outperformed nominal Treasuries and 10-year breakeven spreads widened to 2.56%.
- Real yields remain solidly in negative territory.

## Bloomberg Aggregate was literally flat in 4Q

- Spread sectors (Agencies, ABS, CMBS, MBS, and Credit) all underperformed UST by a modest amount (but positive YTD).
- One of four years with negative returns for the Agg dating back to 1976
- Yield curve flattened; curve positioning had a meaningful impact on returns in 4Q.

## High yield and leveraged performed relatively well

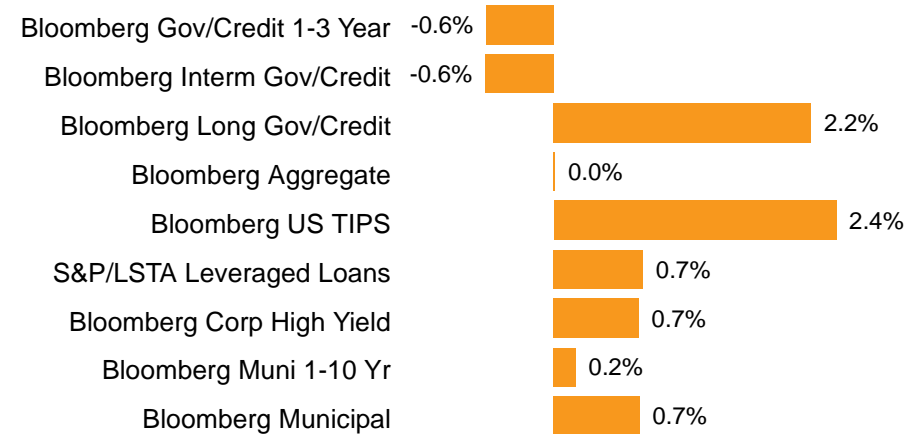
- Spreads remain near historic tight.
- High yield issuers' default rate declined to a record low in December (J.P. Morgan).
- New issuance hit a record for the second year in a row as issuers looked to finance at relatively low rates.

## Munis outperformed Treasuries

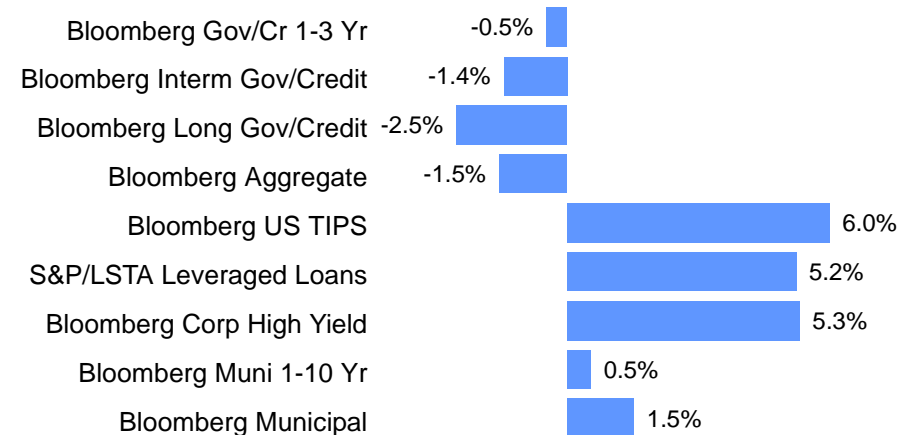
- Lower-quality bonds continued their trend of outperformance as investors sought yield.

Source: Bloomberg

## U.S. Fixed Income: Fourth Quarter Returns

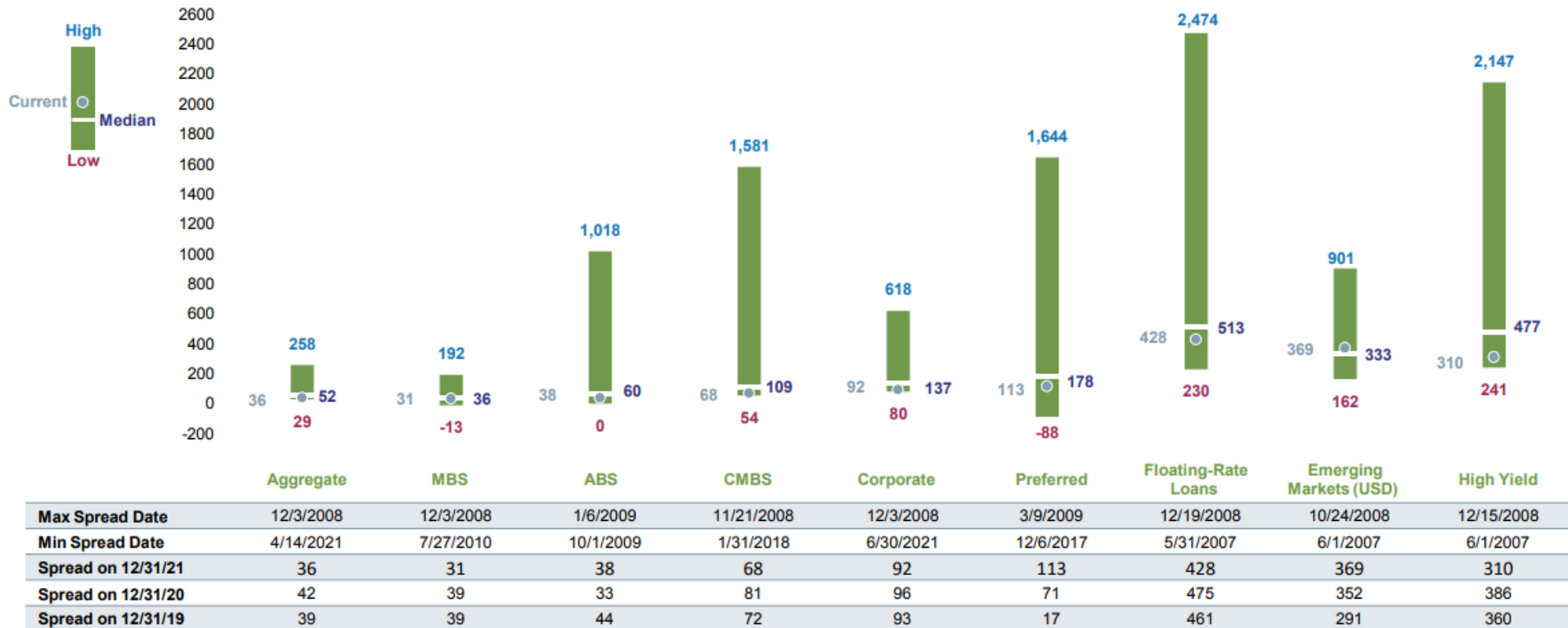


## U.S. Fixed Income: 2021 Returns



# Fixed Income

## Spread Analysis (bps)



Source: Eaton Vance Monthly Market Monitor, FactSet as of 12/31/21. Spread history measures past 15 years.

# U.S. Private Real Estate Market Trends

## Continued strong performance across the asset class

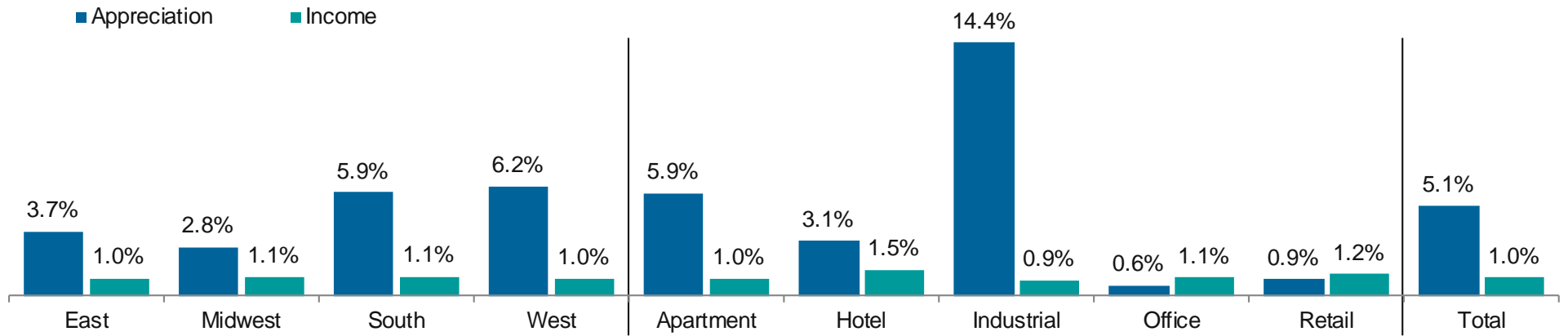
### Strongest gains for ODCE in history

- ODCE posted its best return ever in 4Q21; Industrial was the best performer.
- Income returns were positive across sectors.
- Appraisers are pricing in a recovery due to strong fundamentals in Industrial and Multifamily.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.
- Niche sectors such as self-storage and life sciences continued to be accretive.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
NCREIF ODCE	7.7%	21.0%	8.2%	7.7%	9.4%
Income	0.8%	3.1%	3.1%	3.2%	3.6%
Appreciation	6.9%	17.6%	5.0%	4.4%	5.7%
NCREIF Property Index	6.2%	17.7%	8.4%	7.8%	9.3%
Income	1.0%	4.2%	4.3%	4.5%	4.9%
Appreciation	5.1%	13.1%	3.9%	3.2%	4.3%

Returns are geometrically linked

### NCREIF Property Index Quarterly Returns by Region and Property Type



Source: NCREIF, ODCE return is net

Callan

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**NDSIB Total Performance Summary**



# NDSIB Consolidated Gross Performance Summary

As of June 30, 2021

	Last Quarter	Last Year	Last 5 Years
<b>Consolidated Pension Trust</b>	5.27%	16.72%	11.83%
<i>Consolidated Pension Trust Target</i>	4.77%	16.14%	11.04%
Relative Performance vs. Target	0.50%	0.58%	0.79%
<b>PERS Total Fund</b>	5.39%	17.00%	11.94%
<i>NDSIB PERS Total Fund Target</i>	4.83%	16.06%	11.03%
Relative Performance vs. Target	0.56%	0.94%	0.91%
<b>TFFR Total Fund</b>	5.15%	16.50%	11.78%
<i>NDSIB TFFR Total Fund Target</i>	4.72%	16.42%	11.12%
Relative Performance vs. Target	0.43%	0.08%	0.66%
<b>WSI Total Fund</b>	2.16%	5.78%	7.75%
<i>NDSIB WSI Total Fund Target</i>	2.09%	4.98%	6.67%
Relative Performance vs. Target	0.07%	0.80%	1.08%
<b>Legacy - Total Fund</b>	3.69%	11.54%	10.10%
<i>NDSIB Legacy - Total Fund Target</i>	3.59%	10.45%	9.42%
Relative Performance vs. Target	0.10%	1.09%	0.68%
<b>Budget - Total Fund</b>	-0.36%	1.04%	2.39%
<i>NDSIB Budget - Total Fund Target</i>	-0.56%	-0.47%	1.81%
Relative Performance vs. Target	0.20%	1.51%	0.58%

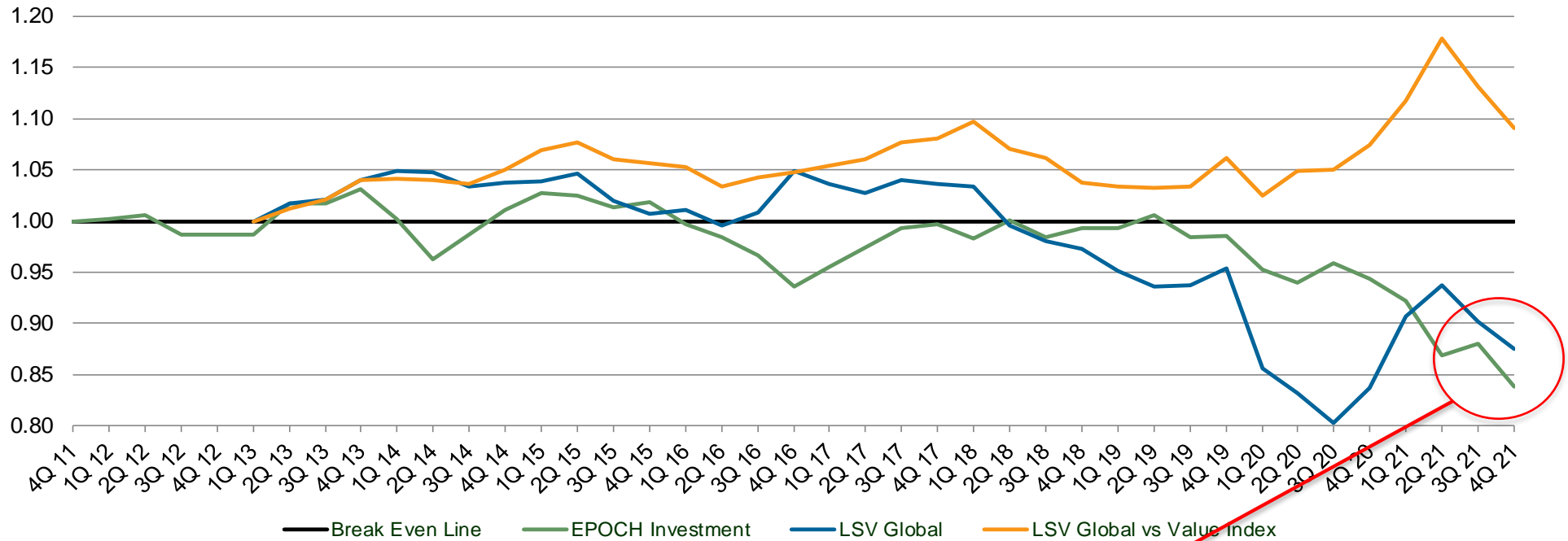
Callan

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**Manager Relative Performance**

# Word Equities

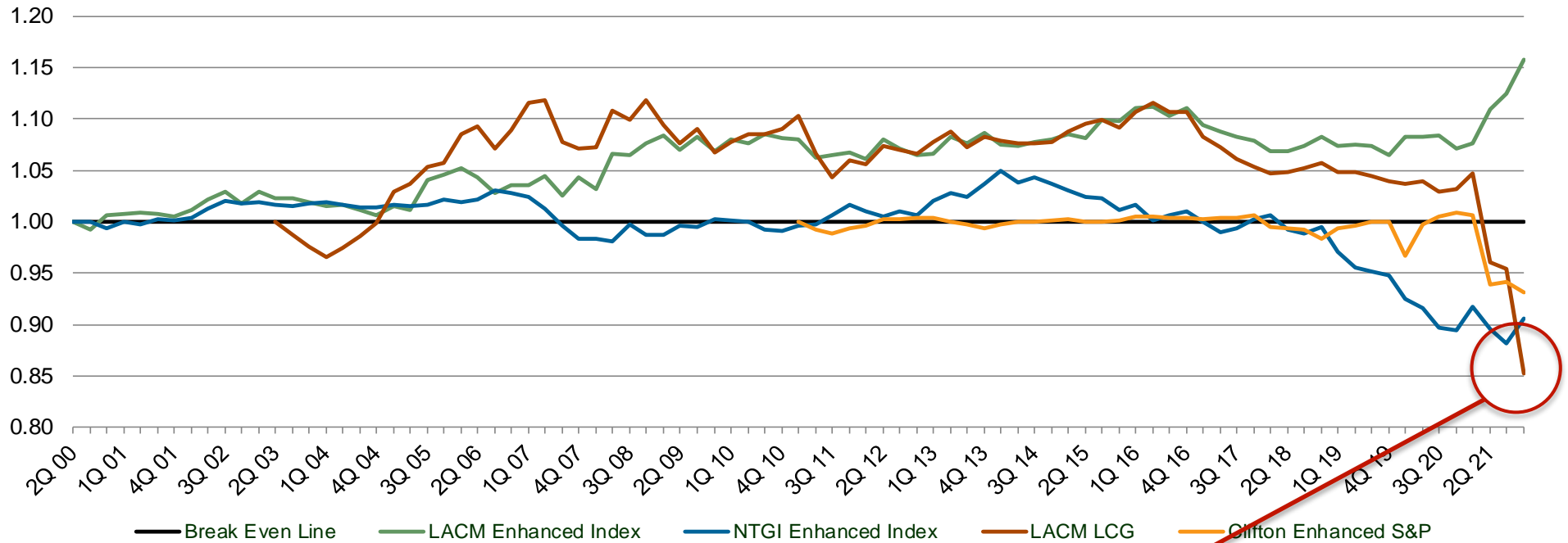
Cumulative Net Relative Return Since Inception, as of December 31, 2021



Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
EPOCH Investment	Q1 2012	0.84	MSCI World
LSV Global	Q2 2013	0.88	Custom LSV Global Index
LSV Global vs Value Index	Q2 2013	1.09	MSCI ACWI IMI Value

# U.S. Large Cap Equities

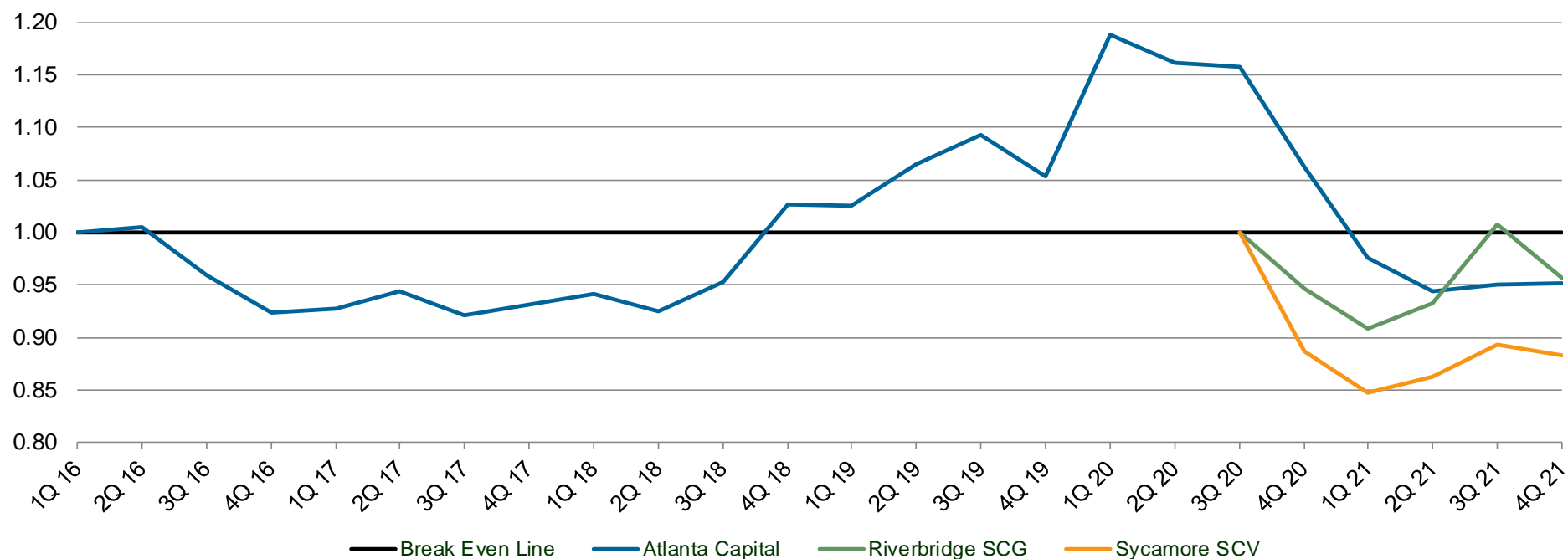
Cumulative Net Relative Return Since Inception, as of December 31, 2021



Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
Clifton Enhanced S&P	Q2 2011	0.93	S&P 500
LACM LCG	Q3 2003	0.85	Russell 1000 Growth
LACM Enhanced Index	Q3 2000	1.16	Russell 1000
NTGI Enhanced Index	Q3 2000	0.91	S&P 500

# U.S. Small Cap Equities

Cumulative Net Relative Return Since Inception, as of December 31, 2021

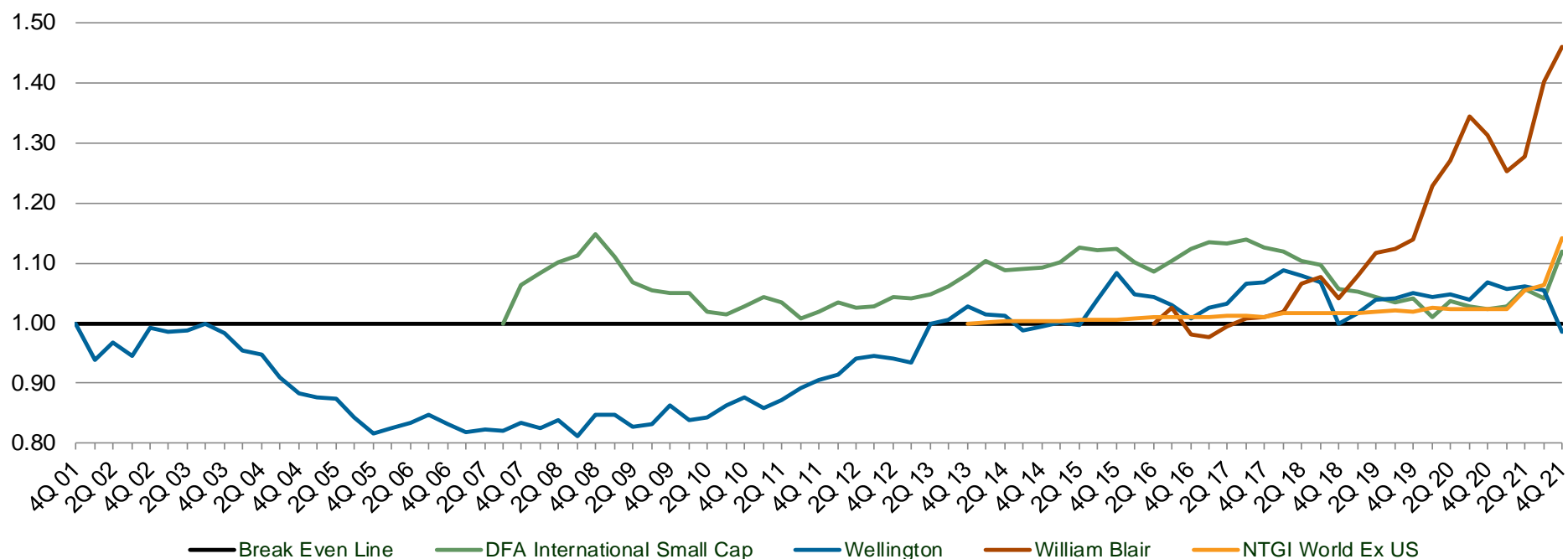


Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
Atlanta Capital	Q2 2016	0.95	S&P 600 Small Cap
Riverbridge SCG	Q4 2020	0.96	Russell 2000 Growth
Sycamore SCV	Q4 2020	0.88	Russell 2000 Value

Note: Next quarter will include Riverbridge and Sycamore

## Developed International Equities

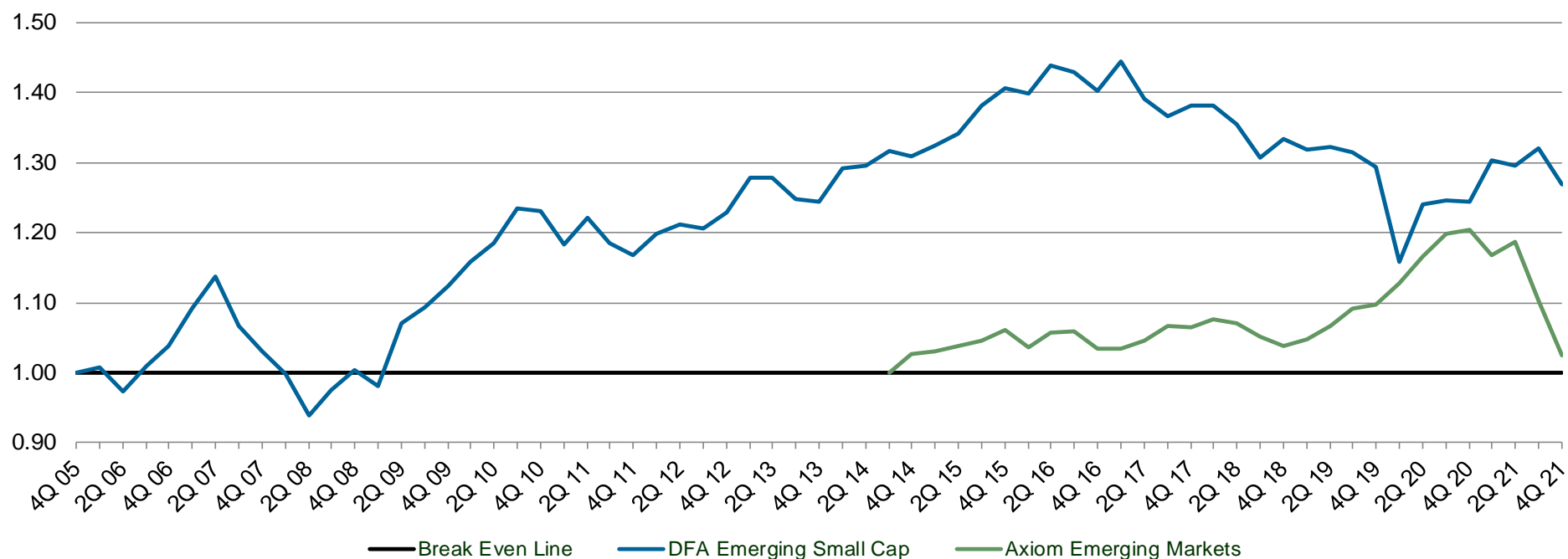
Cumulative Net Relative Return Since Inception, as of December 31, 2021



Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
DFA International Small Cap	Q4 2007	1.12	MSCI World Ex US SC Value
NTGI World Ex US	Q1 2014	1.14	MSCI World Ex US
Wellington	Q1 2002	0.99	BMI, EPAC, <\$2 B
William Blair	Q3 2016	1.46	MSCI ACWI Ex US IMI

# Emerging Market Equities

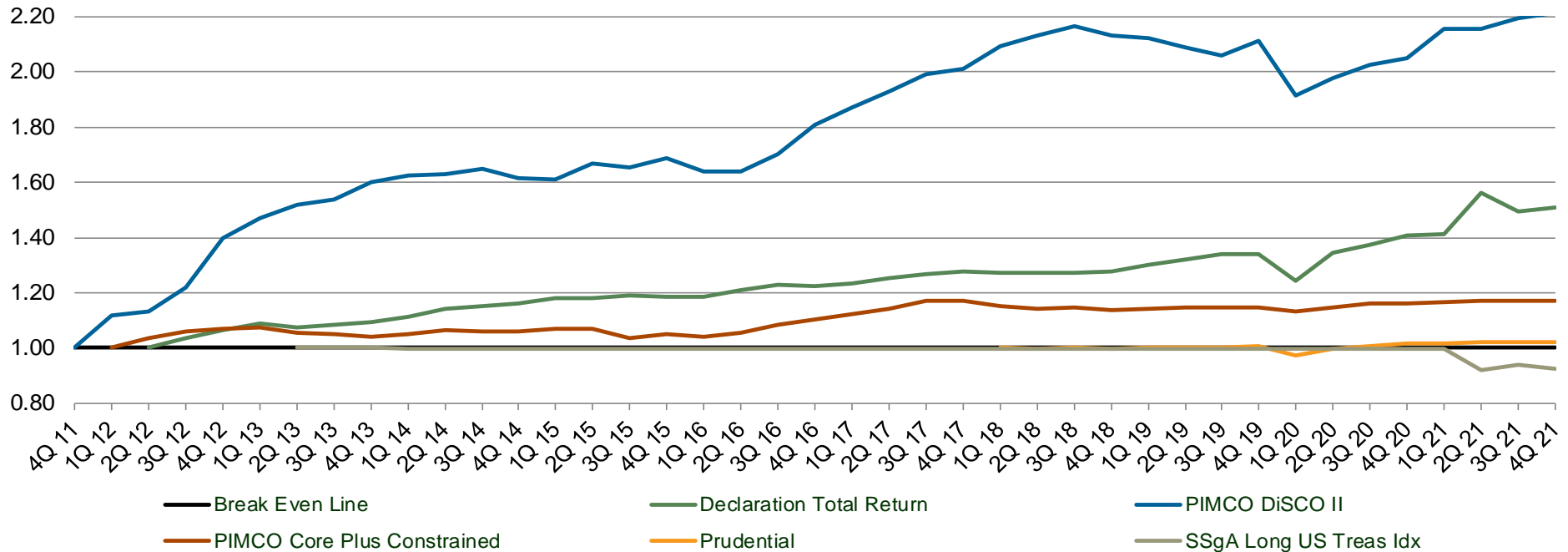
Cumulative Net Relative Return Since Inception, as of December 31, 2021



Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
Axiom Emerging Markets	Q4 2014	1.02	MSCI Emerging Market
DFA Emerging Small Cap	Q1 2006	1.27	MSCI Emerging Market

# Investment Grade Fixed Income

Cumulative Net Relative Return Since Inception, as of December 31, 2021



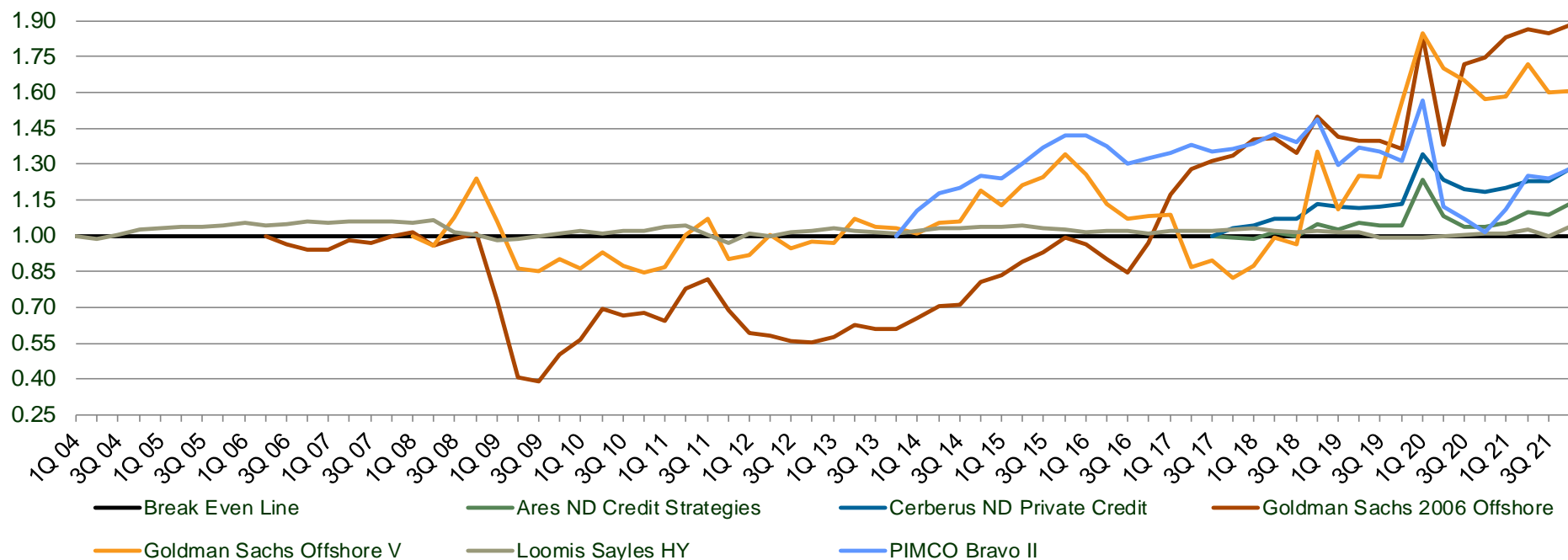
Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
Declaration Total Return	Q3 2012	1.51	3-Month LIBOR
PIMCO DiSCO II	Q1 2012	2.21	Bloomberg Aggregate
PIMCO Core Plus Constrained	Q2 2014	1.17	PIMCO Custom Benchmark
Prudential	Q2 2018	1.02	Bloomberg Aggregate
SSgA Long US Treas Idx	Q3 2013	0.92	Bloomberg Long Treasury

The PIMCO Custom Benchmark reflects the returns of 3-month Libor through Feb. 28, 2014; The fund's performance through March 31, 2014; 3-month Libor through June 30, 2018; and the Blmbg Agg thereafter.



## Below Investment Grade Fixed Income

Cumulative Net Relative Return Since Inception, as of December 31, 2021



Fund Name	First Full Quarter of Returns	Cumulative Net Relative Return Since Inception	Benchmark
Ares ND Credit Strategies	Q4 2017	1.13	S&P:LSTA Leveraged Loan B
Cerberus ND Private Credit	Q4 2017	1.28	S&P:LSTA Leveraged Loan B
Goldman Sachs 2006 Offshore	Q3 2006	1.88	Bloomberg: HY Corp 2% Iss Cap
Goldman Sachs Offshore V	Q4 2007	1.61	Bloomberg: HY Corp 2% Iss Cap
Loomis Sayles HY	Q2 2004	1.04	Bloomberg: HY Corp 2% Iss Cap
PIMCO Bravo II	Q1 2014	1.28	Bloomberg: HY Corp 2% Iss Cap

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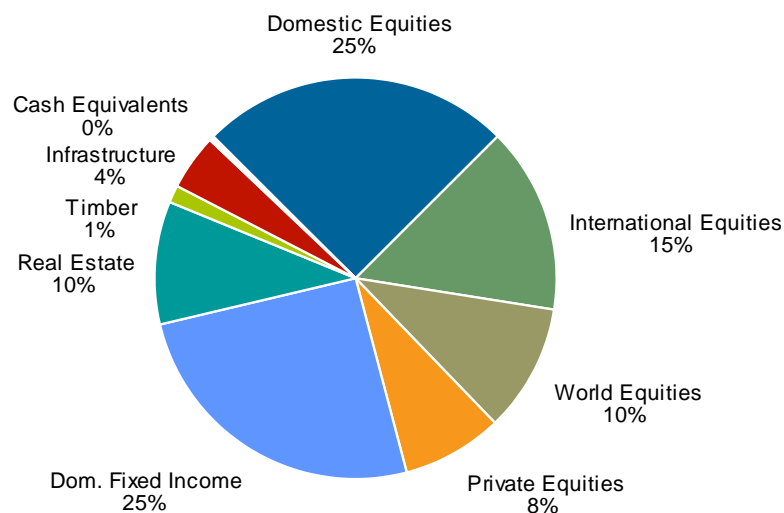
## **Consolidated Pension Trusts Quarterly Review**

- Public Employees Retirement System
- Teachers' Fund for Retirement

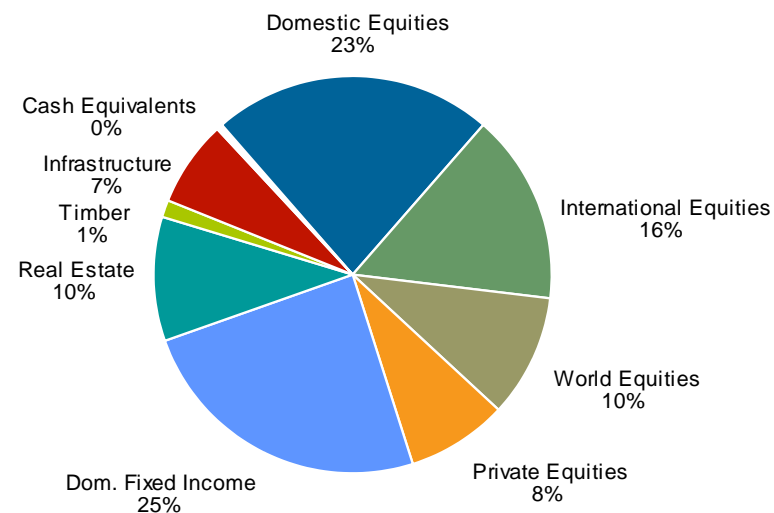
# Consolidated Pension Trust Allocation

As of December 31, 2021

**Actual Asset Allocation**



**Target Asset Allocation**

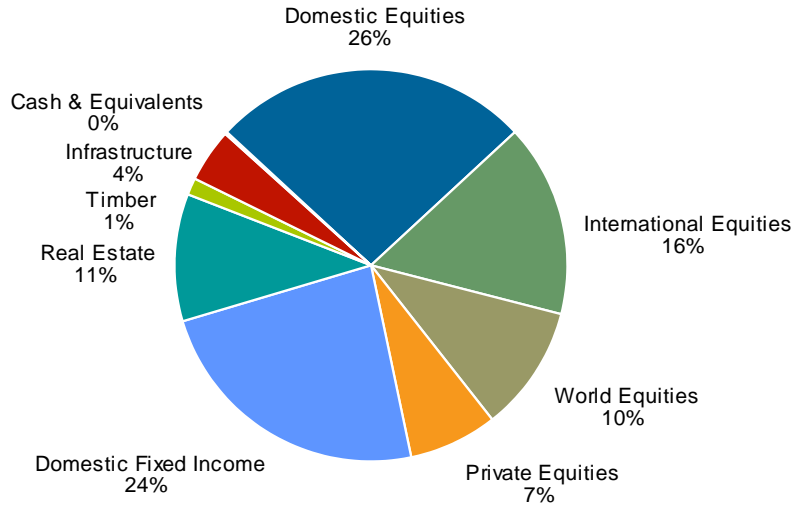


Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equities	1,972,924	25.1%	22.8%	2.3%	180,420
International Equities	1,178,930	15.0%	15.5%	(0.5%)	(42,898)
World Equities	812,111	10.3%	10.0%	0.3%	24,680
Private Equities	635,525	8.1%	8.2%	(0.1%)	(10,259)
Dom. Fixed Income	1,998,573	25.4%	24.5%	0.9%	67,371
Real Estate	778,100	9.9%	10.1%	(0.2%)	(18,978)
Timber	113,973	1.4%	1.4%	0.0%	0
Infrastructure	351,113	4.5%	7.0%	(2.5%)	(198,807)
Cash Equivalents	33,062	0.4%	0.4%	(0.0%)	(1,529)
<b>Total</b>	<b>7,874,310</b>	<b>100.0%</b>	<b>100.0%</b>		

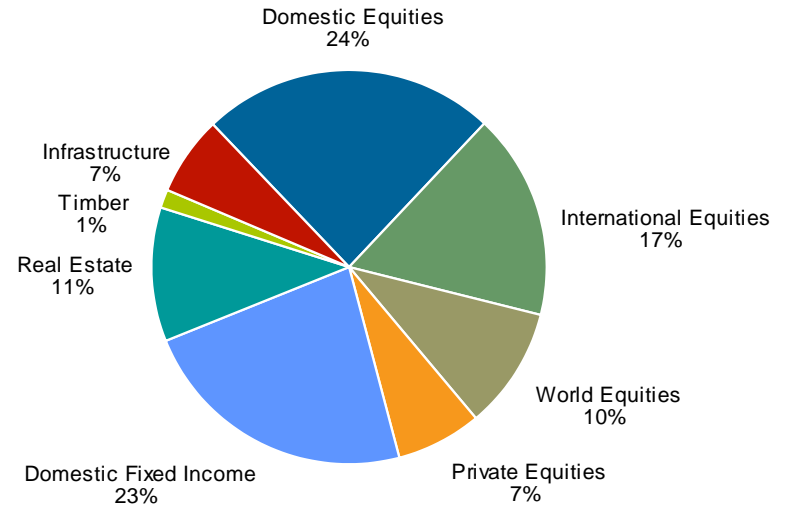
# PERS Allocation

As of December 31, 2021

**Actual Asset Allocation**



**Target Asset Allocation**

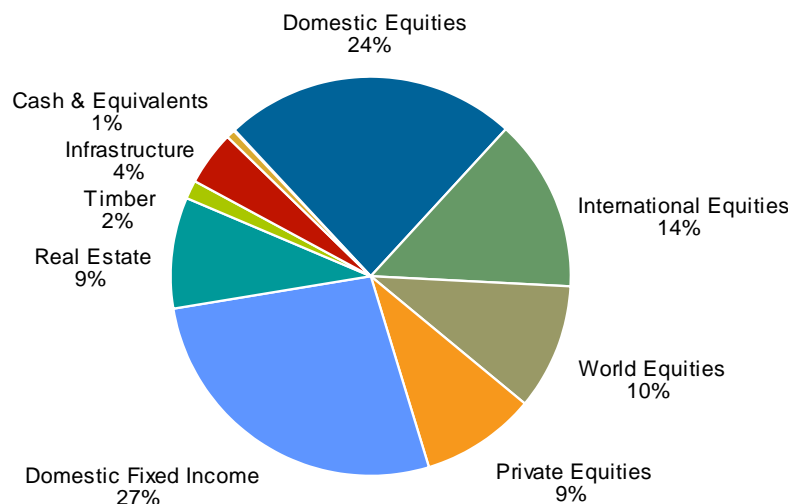


Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equities	1,107,640	26.3%	24.1%	2.1%	90,023
International Equities	669,141	15.9%	16.9%	(1.0%)	(43,186)
World Equities	439,742	10.4%	10.0%	0.4%	17,802
Private Equities	308,846	7.3%	7.0%	0.3%	13,488
Domestic Fixed Income	1,001,353	23.7%	23.0%	0.7%	30,892
Real Estate	444,563	10.5%	11.0%	(0.5%)	(19,571)
Timber	57,635	1.4%	1.4%	0.0%	0
Infrastructure	183,610	4.4%	6.6%	(2.3%)	(96,308)
Cash & Equivalents	6,866	0.2%	0.0%	0.2%	6,866
<b>Total</b>	<b>4,219,396</b>	<b>100.0%</b>	<b>100.0%</b>		

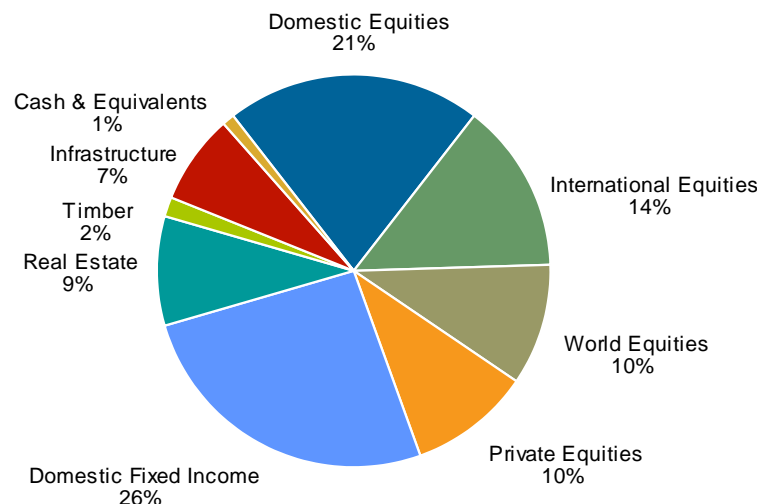
# TFFR Allocation

As of December 31, 2021

**Actual Asset Allocation**



**Target Asset Allocation**

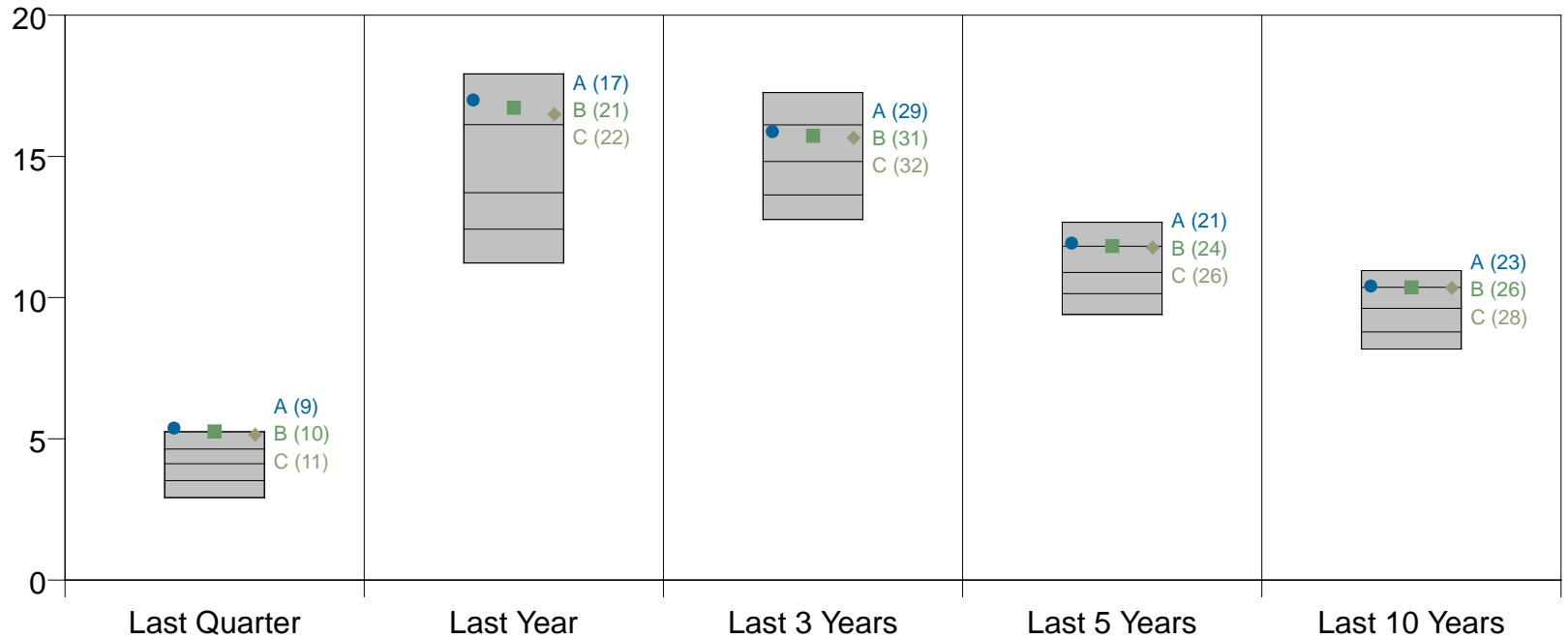


Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equities	799,606	23.7%	21.0%	2.7%	90,827
International Equities	473,174	14.0%	14.0%	0.0%	654
World Equities	344,324	10.2%	10.0%	0.2%	6,810
Private Equities	313,231	9.3%	10.0%	(0.7%)	(24,283)
Domestic Fixed Income	915,204	27.1%	26.0%	1.1%	37,667
Real Estate	304,346	9.0%	9.0%	0.0%	583
Timber	51,447	1.5%	1.5%	0.0%	0
Infrastructure	150,087	4.4%	7.5%	(3.0%)	(102,229)
Cash & Equivalents	23,722	0.7%	1.0%	(0.3%)	(10,029)
<b>Total</b>	<b>3,375,141</b>	<b>100.0%</b>	<b>100.0%</b>		

# Consolidated Pension Trust, PERS, and TFFR Performance Rankings

Returns for Periods Ended December 31, 2021

Group: Callan Public Fund Sponsor Database



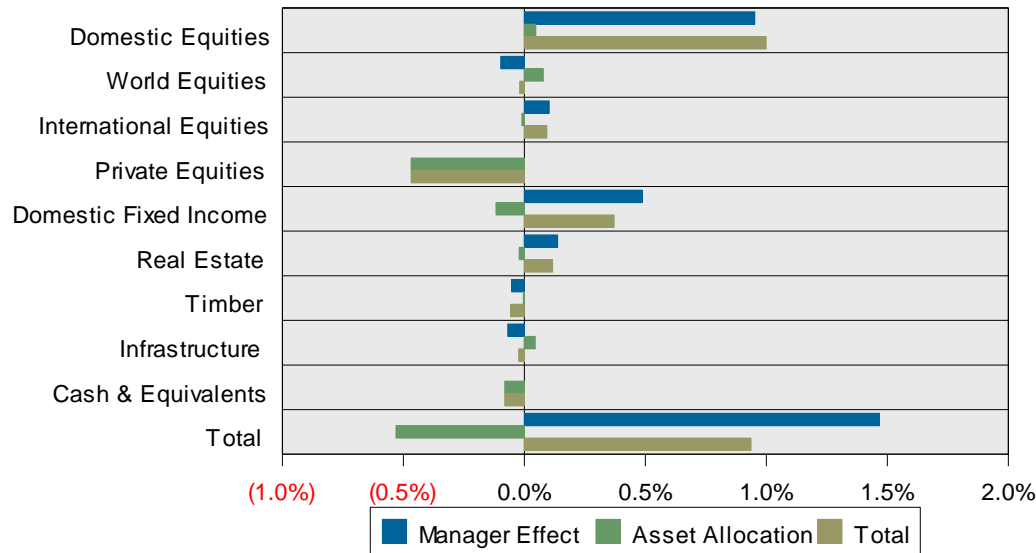
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	5.25	17.92	17.26	12.67	10.96
25th Percentile	4.64	16.13	16.12	11.82	10.37
Median	4.12	13.72	14.82	10.89	9.63
75th Percentile	3.53	12.43	13.64	10.15	8.79
90th Percentile	2.92	11.23	12.77	9.41	8.18

NDPERS-Total Fund	● A	5.39	17.00	15.88	11.94	10.41
NDPEN-Total Fund	■ B	5.27	16.72	15.73	11.83	10.37
NDTFFR-Total Fund	◆ C	5.15	16.50	15.66	11.78	10.35

# PERS Performance and Attribution

As of December 31, 2021

## One Year Relative Attribution Effects



## Returns for 1 Year Ended 12/31/2021

Return Type	Return (%)
Gross	17.00%
Net of fees	16.70%
Target	16.06%
Net added	0.64%

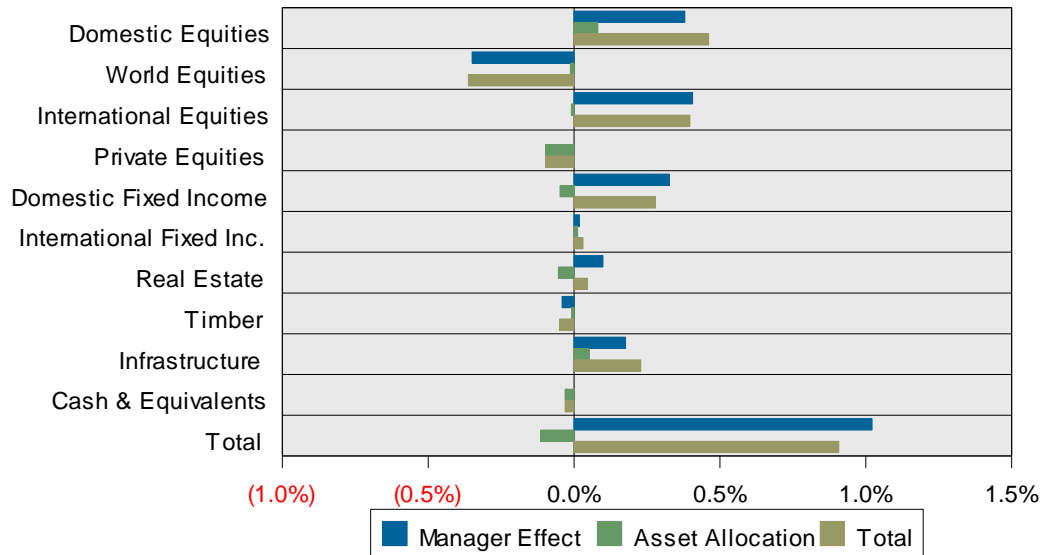
## One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	25%	24%	28.03%	24.15%	0.95%	0.05%	1.00%
World Equities	12%	10%	20.57%	21.82%	(0.10%)	0.08%	(0.02%)
International Equities	17%	17%	9.30%	8.74%	0.10%	(0.01%)	0.09%
Private Equities	6%	7%	57.24%	57.24%	0.00%	(0.47%)	(0.47%)
Domestic Fixed Income	24%	23%	2.33%	0.50%	0.49%	(0.12%)	0.37%
Real Estate	10%	11%	19.15%	17.70%	0.14%	(0.02%)	0.12%
Timber	2%	1%	5.66%	9.17%	(0.05%)	(0.00%)	(0.06%)
Infrastructure	4%	7%	11.51%	13.37%	(0.07%)	0.05%	(0.02%)
Cash & Equivalents	1%	0%	0.06%	0.06%	0.00%	(0.08%)	(0.08%)
<b>Total</b>			<b>17.00%</b>	<b>16.06%</b>	<b>+ 1.47%</b>	<b>+ (0.53%)</b>	<b>0.94%</b>

# PERS Performance and Attribution

As of December 31, 2021

## Five Year Annualized Relative Attribution Effects



## Returns for 5 Years Ended 12/31/2021

Return Type	Return (%)
Gross	11.94%
Net of fees	11.67%
Target	11.03%
Net added	0.64%

## 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 Equities	23%	21%	18.78%	17.04%	0.38%	0.08%	0.46%
World Equities	15%	15%	12.55%	15.03%	(0.35%)	(0.01%)	(0.36%)
International Equities	16%	15%	12.34%	9.74%	0.41%	(0.01%)	0.40%
Private Equities	4%	7%	16.44%	16.44%	0.00%	(0.10%)	(0.10%)
Domestic Fixed Income	22%	22%	5.86%	4.42%	0.33%	(0.05%)	0.28%
International Fixed Inc.	1%	1%	-	-	0.02%	0.01%	0.03%
Real Estate	11%	11%	8.65%	7.75%	0.10%	(0.05%)	0.05%
Timber	2%	2%	1.97%	3.58%	(0.04%)	(0.01%)	(0.05%)
Infrastructure	5%	6%	8.49%	4.85%	0.18%	0.05%	0.23%
Cash & Equivalents	1%	0%	1.17%	1.17%	0.00%	(0.03%)	(0.03%)

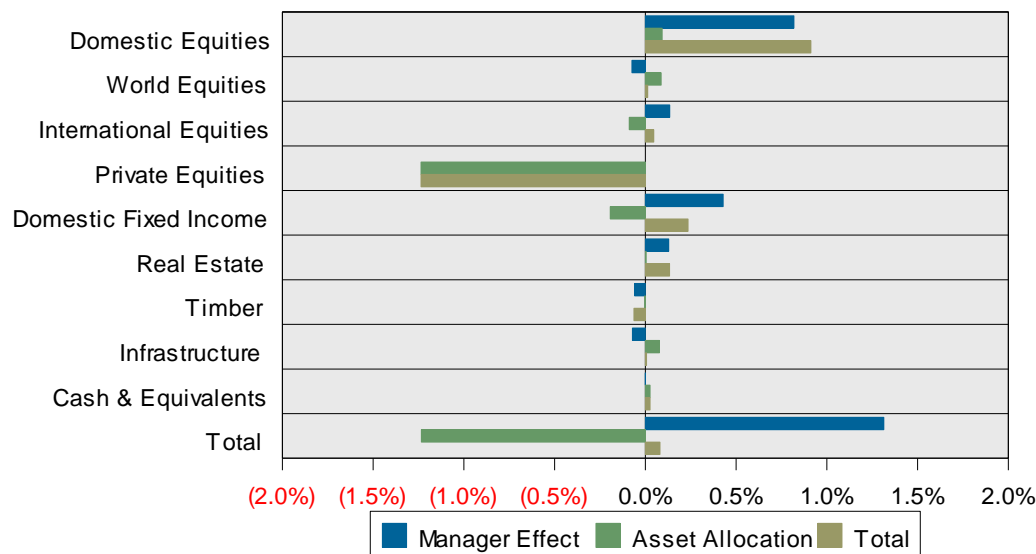
**Total** **11.94% = 11.03% + 1.02% + (0.11%)** **0.91%**



# TFFR Performance and Attribution

As of December 31, 2021

## One Year Relative Attribution Effects



## Returns for 1 Year Ended 12/31/2021

Return Type	Return (%)
Gross	16.50%
Net of fees	16.21%
Target	16.42%
Net added	-0.21%

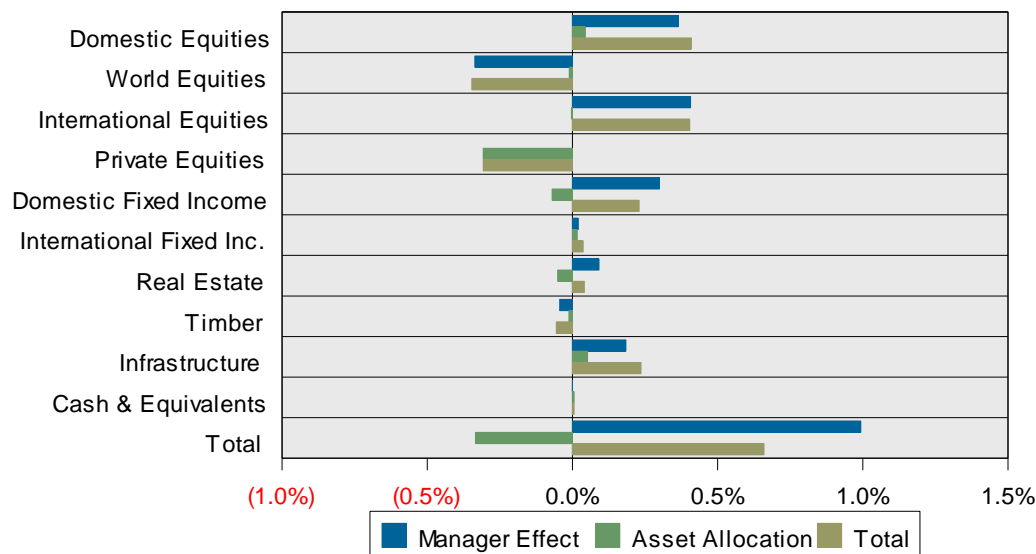
## One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	27.86%	24.15%	0.82%	0.09%	0.91%
World Equities	12%	10%	20.60%	21.82%	(0.07)%	0.09%	0.01%
International Equities	15%	14%	9.58%	8.74%	0.14%	(0.09)%	0.05%
Private Equities	7%	10%	57.26%	57.26%	0.00%	(1.24)%	(1.24)%
Domestic Fixed Income	27%	26%	1.93%	0.52%	0.43%	(0.19)%	0.24%
Real Estate	9%	9%	19.15%	17.70%	0.13%	0.00%	0.13%
Timber	2%	2%	5.66%	9.17%	(0.06)%	(0.00)%	(0.06)%
Infrastructure	4%	7%	11.51%	13.37%	(0.07)%	0.08%	0.01%
Cash & Equivalents	1%	1%	0.06%	0.05%	0.00%	0.03%	0.03%
<b>Total</b>			<b>16.50%</b>	<b>16.42%</b>	<b>+ 1.31%</b>	<b>+ (1.23)%</b>	<b>0.08%</b>

# TFFR Performance and Attribution

As of December 31, 2021

## Five Year Annualized Relative Attribution Effects



## Returns for 5 Years Ended 12/31/2021

Return Type	Return (%)
Gross	11.78%
Net of fees	11.51%
Target	11.12%
Net added	0.39%

## Five Year Annualized Relative Attribution Effects

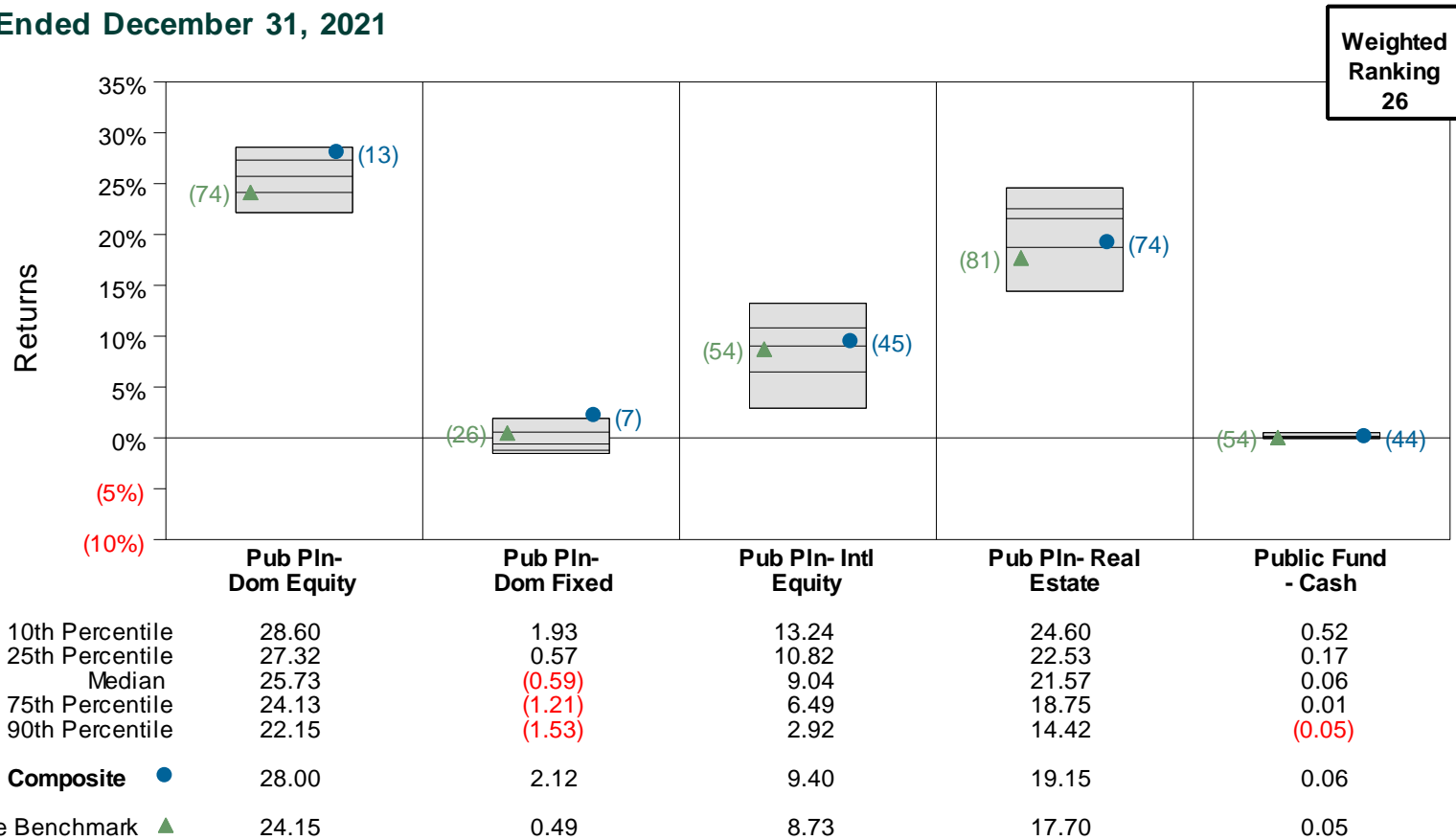
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	18.82%	17.08%	0.37%	0.04%	0.41%
World Equities	15%	15%	12.55%	15.03%	(0.34%)	(0.01%)	(0.35%)
International Equities	15%	14%	12.24%	9.60%	0.41%	(0.00%)	0.40%
Private Equities	5%	7%	16.44%	16.44%	0.00%	(0.31%)	(0.31%)
Domestic Fixed Income	23%	22%	5.69%	4.37%	0.30%	(0.07%)	0.23%
International Fixed Inc.	1%	1%	-	-	0.02%	0.02%	0.04%
Real Estate	10%	10%	8.65%	7.75%	0.09%	(0.05%)	0.04%
Timber	2%	2%	1.97%	3.58%	(0.04%)	(0.01%)	(0.06%)
Infrastructure	5%	6%	8.49%	4.85%	0.18%	0.05%	0.24%
Cash & Equivalents	1%	1%	1.17%	1.14%	0.00%	0.01%	0.01%

**Total** 11.78% = 11.12% + 0.99% + (0.33%) 0.66%

# Asset Class Composite Results

## Consolidated Pension Trust Asset Class Results vs. Other Public Pension Funds

### Total Asset Class Performance One Year Ended December 31, 2021

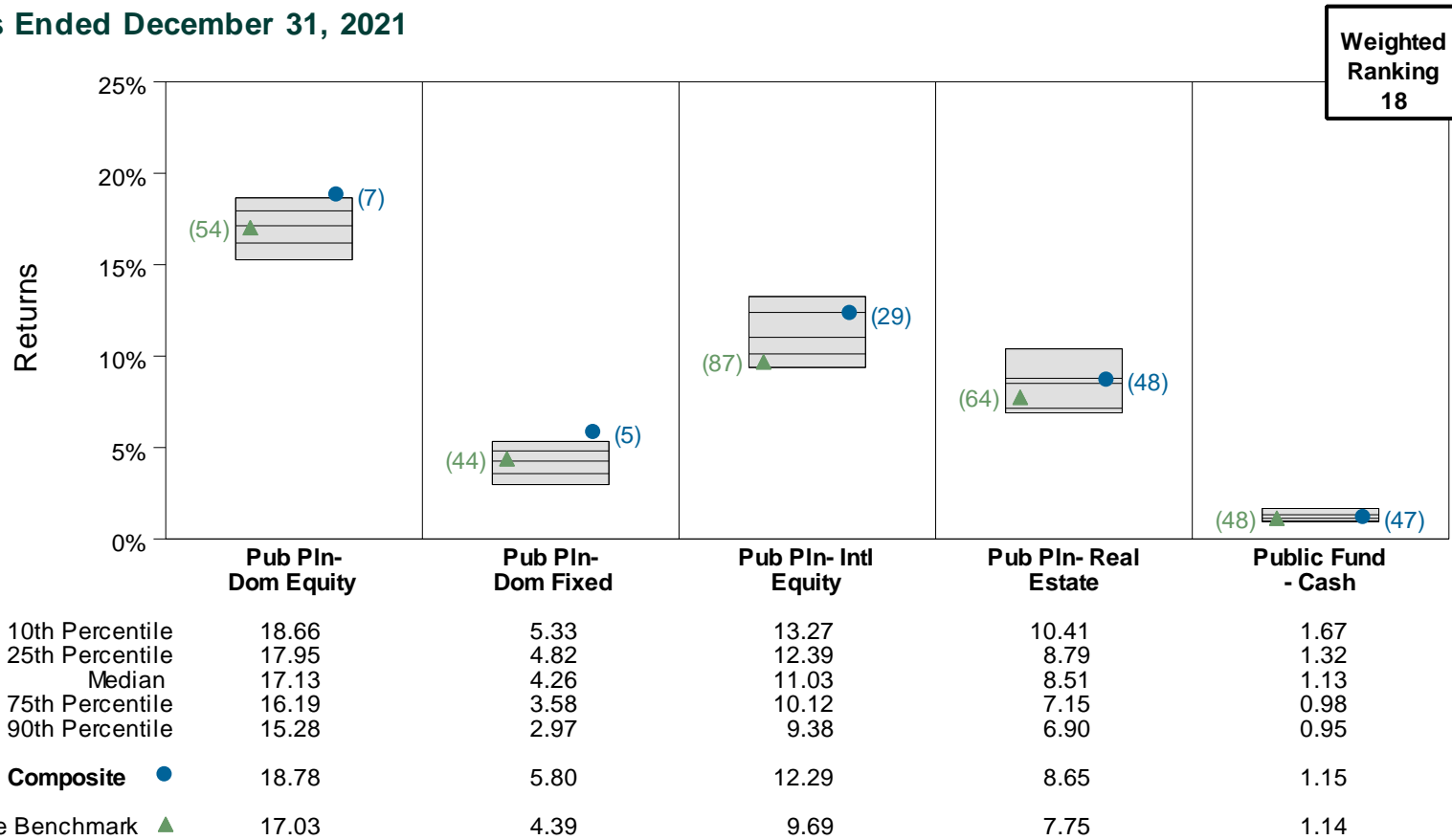


- All asset classes outperformed their respective benchmarks over the trailing year.
- All asset classes with the exception of Real Estate outperformed their respective peer medians over the trailing year.

# Asset Class Composite Results

## Consolidated Pension Trust Asset Class Results vs. Other Public Pension Funds

### Total Asset Class Performance Five Years Ended December 31, 2021



- All asset classes outperformed their respective benchmarks over the trailing five years.
- All asset classes ranked above median over the trailing five years (except for Cash).

Callan

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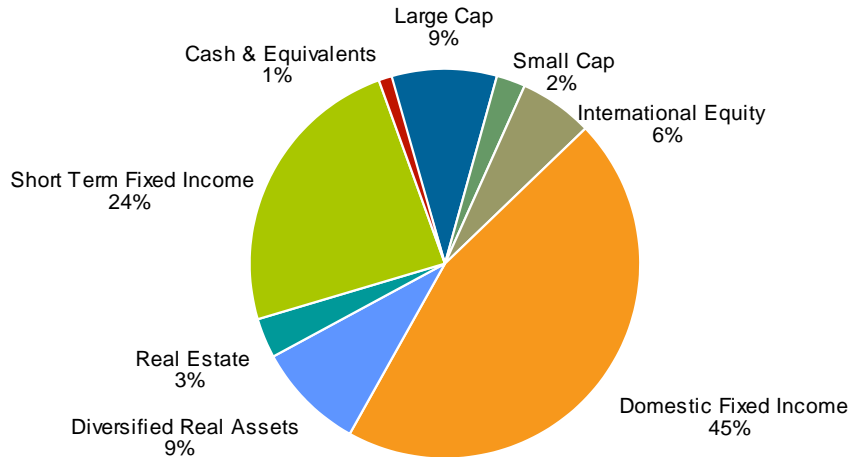
## **Consolidated Insurance Trust Quarterly Review**

- Workforce Safety and Insurance Legacy Fund
- Budget Stabilization Fund

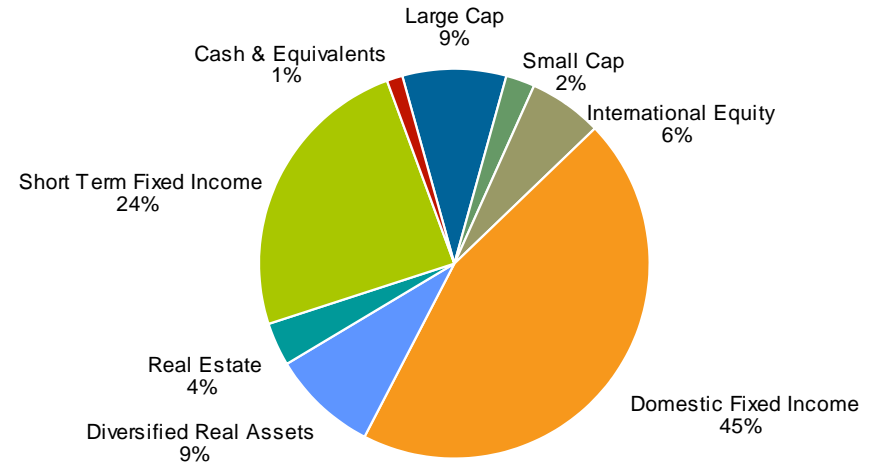
# Consolidated Insurance Trust Allocation

As of December 31, 2021

**Actual Asset Allocation**



**Target Asset Allocation**

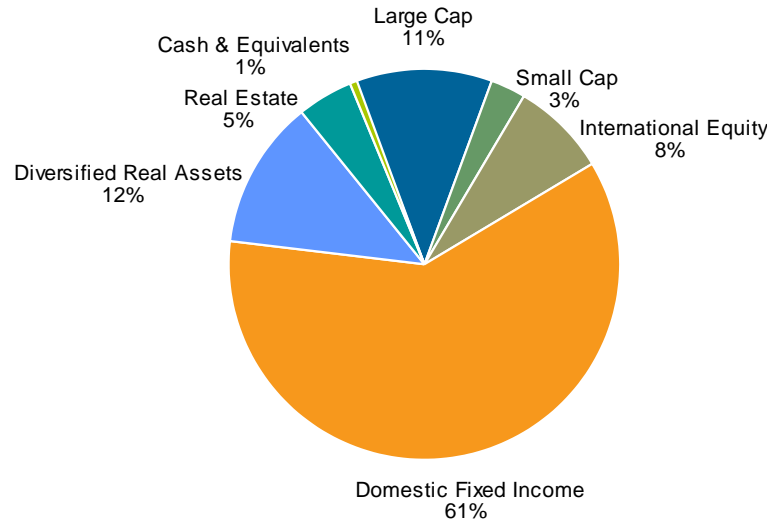


Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	284,976	8.8%	8.6%	0.2%	7,997
Small Cap	76,004	2.4%	2.4%	(0.1%)	(2,789)
International Equity	195,713	6.1%	6.1%	(0.1%)	(2,417)
Domestic Fixed Income	1,462,526	45.3%	44.9%	0.4%	11,664
Diversified Real Assets	291,212	9.0%	8.8%	0.2%	6,227
Real Estate	106,618	3.3%	3.6%	(0.3%)	(10,278)
Short Term Fixed Income	776,639	24.1%	24.1%	(0.0%)	(0)
Cash & Equivalents	34,396	1.1%	1.4%	(0.3%)	(10,405)
<b>Total</b>	<b>3,228,083</b>	<b>100.0%</b>	<b>100.0%</b>		

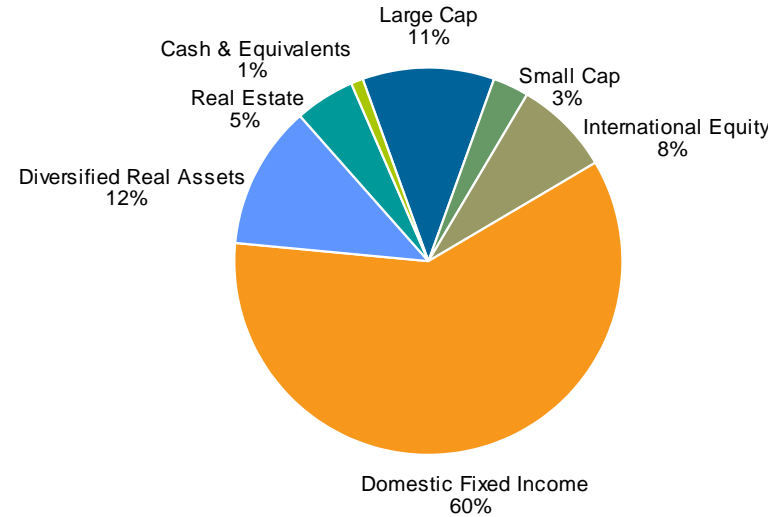
# WSI Allocation

As of December 31, 2021

**Actual Asset Allocation**



**Target Asset Allocation**

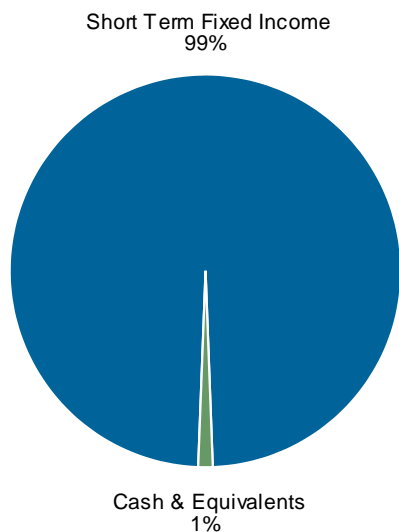


Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	264,694	11.3%	11.0%	0.3%	8,062
Small Cap	66,992	2.9%	3.0%	(0.1%)	(2,998)
International Equity	184,286	7.9%	8.0%	(0.1%)	(2,355)
Domestic Fixed Income	1,411,529	60.5%	60.0%	0.5%	11,722
Diversified Real Assets	286,214	12.3%	12.0%	0.3%	6,253
Real Estate	106,374	4.6%	5.0%	(0.4%)	(10,277)
Cash & Equivalents	12,923	0.6%	1.0%	(0.4%)	(10,407)
<b>Total</b>	<b>2,333,012</b>	<b>100.0%</b>	<b>100.0%</b>		

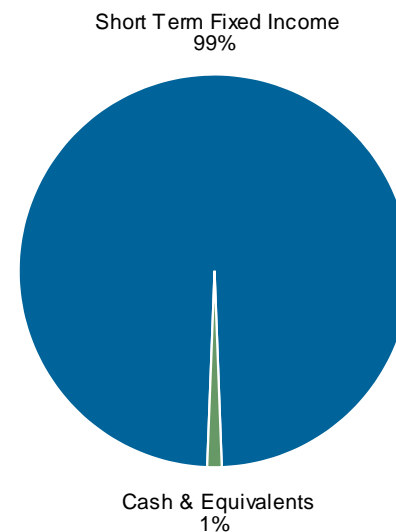
# Budget Stabilization Fund Allocation

As of December 31, 2021

**Actual Asset Allocation**



**Target Asset Allocation**



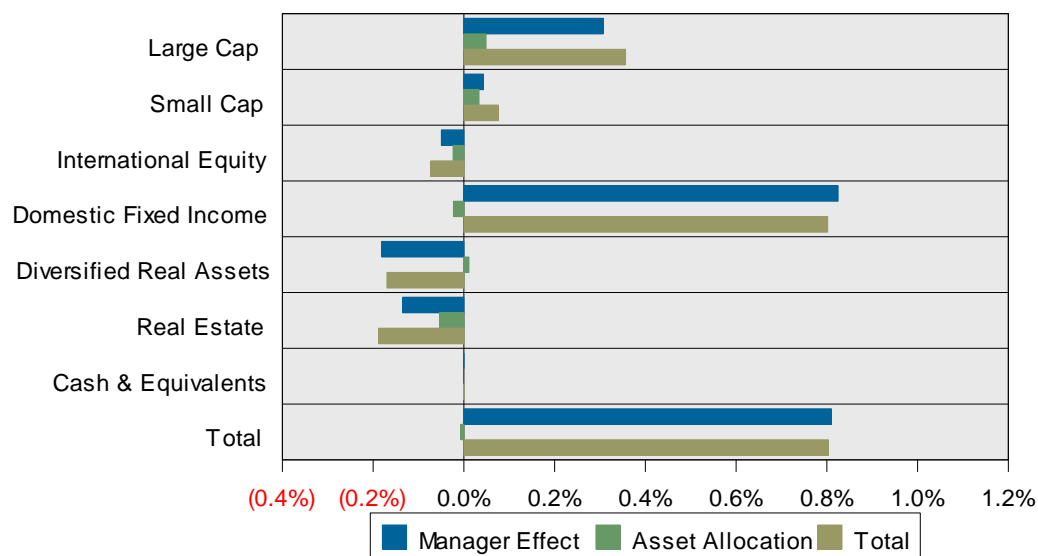
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Short Term Fixed Income	737,599	98.6%	99.0%	(0.5%)	(3,612)
Cash & Equivalents	10,797	1.4%	1.0%	0.5%	3,612
Total	748,396	100.0%	100.0%		



# WSI Performance and Attribution

As of December 31, 2021

## One Year Relative Attribution Effects



## Returns for 1 Year Ended 12/31/2021

Return Type	Return (%)
Gross	5.78%
Net of fees	5.57%
Target	4.98%
Net added	0.59%

## One Year Relative Attribution Effects

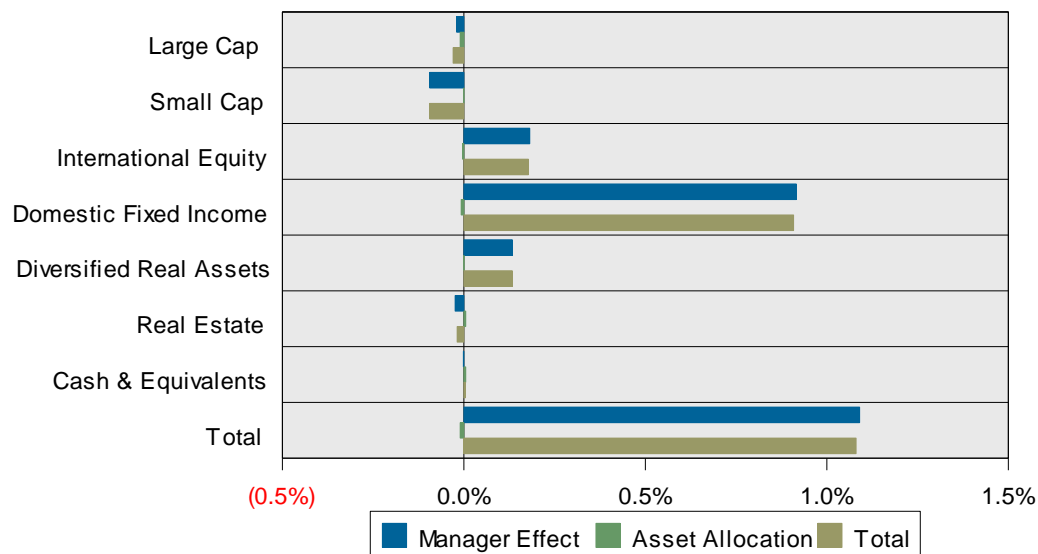
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	29.77%	26.45%	0.31%	0.05%	0.36%
Small Cap	3%	3%	17.08%	14.82%	0.04%	0.03%	0.08%
International Equity	8%	8%	11.95%	12.62%	(0.05%)	(0.02%)	(0.07%)
Domestic Fixed Income	60%	60%	(0.24%)	(1.54%)	0.82%	(0.02%)	0.80%
Diversified Real Assets	12%	12%	6.23%	7.71%	(0.18%)	0.01%	(0.17%)
Real Estate	4%	5%	14.38%	17.70%	(0.13%)	(0.05%)	(0.19%)
Cash & Equivalents	1%	1%	0.04%	0.05%	(0.00%)	0.00%	(0.00%)

**Total** **5.78% = 4.98% + 0.81% + (0.01%)** **0.80%**

# WSI Performance and Attribution

As of December 31, 2021

## Five Year Annualized Relative Attribution Effects



## Returns for 5 Years Ended 12/31/2021

Return Type	Return (%)
Gross	7.75%
Net of fees	7.56%
Target	6.67%
Net added	0.89%

## Five Year Annualized Relative Attribution Effects

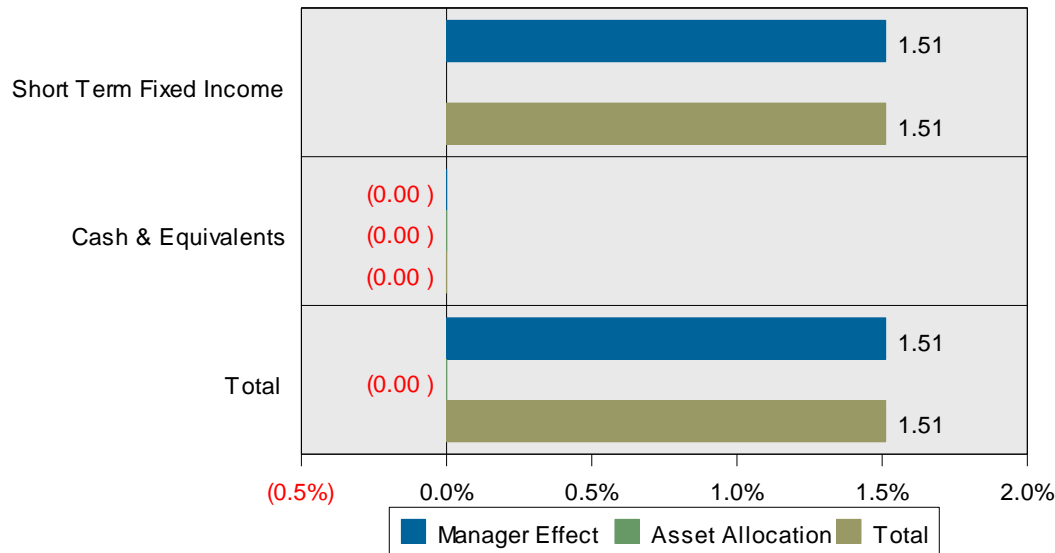
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	18.16%	18.43%	(0.02%)	(0.01%)	(0.03%)
Small Cap	3%	3%	9.32%	12.02%	(0.09%)	(0.00%)	(0.09%)
International Equity	8%	8%	11.64%	9.63%	0.18%	(0.00%)	0.18%
Domestic Fixed Income	58%	58%	5.21%	3.57%	0.92%	(0.01%)	0.91%
Diversified Real Assets	13%	13%	6.34%	5.38%	0.13%	0.00%	0.13%
Real Estate	6%	5%	6.91%	7.75%	(0.02%)	0.01%	(0.02%)
Cash & Equivalents	1%	1%	1.02%	1.14%	(0.00%)	0.01%	0.00%

**Total** **7.75% = 6.67% + 1.09% + (0.01%)** **1.08%**

# Budget Stabilization Fund Performance and Attribution

As of December 31, 2021

## One Year Relative Attribution Effects



## Returns for 1 Year Ended 12/31/2021

Return Type	Return (%)
Gross	1.04%
Net of fees	0.93%
Target	-0.47%
Net added	1.40%

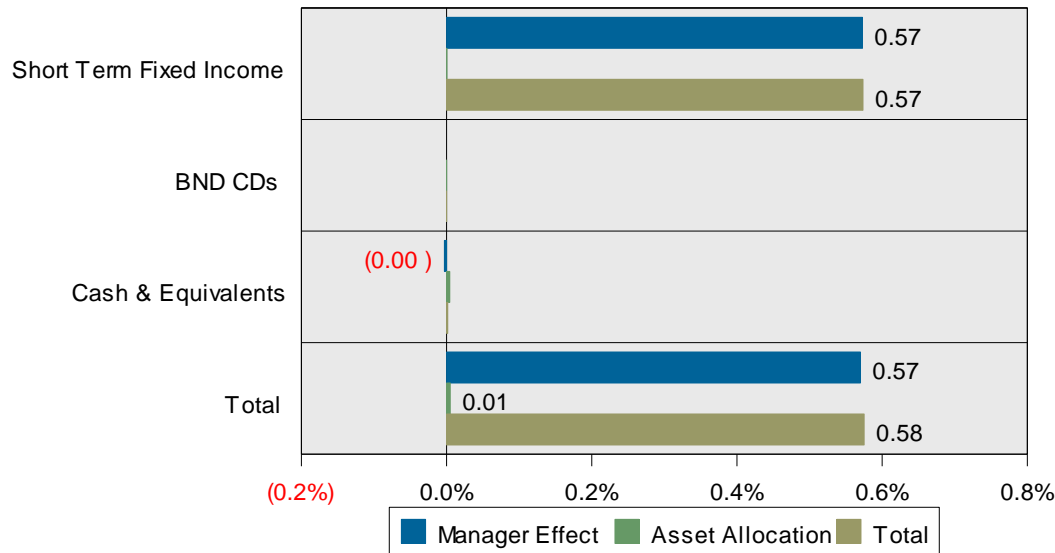
## One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	99%	99%	1.05%	(0.47%)	1.51%	0.00%	1.51%
Cash & Equivalents	1%	1%	0.04%	0.05%	(0.00%)	(0.00%)	(0.00%)
<b>Total</b>			<b>1.04%</b>		<b>(0.47%)</b>		<b>1.51%</b>

# Budget Stabilization Fund Performance and Attribution

As of December 31, 2021

## Five Year Annualized Relative Attribution Effects



## Returns for 5 Years Ended 12/31/2021

Return Type	Return (%)
Gross	2.39%
Net of fees	2.24%
Target	1.81%
Net added	0.43%

## Five Year Annualized Relative Attribution Effects

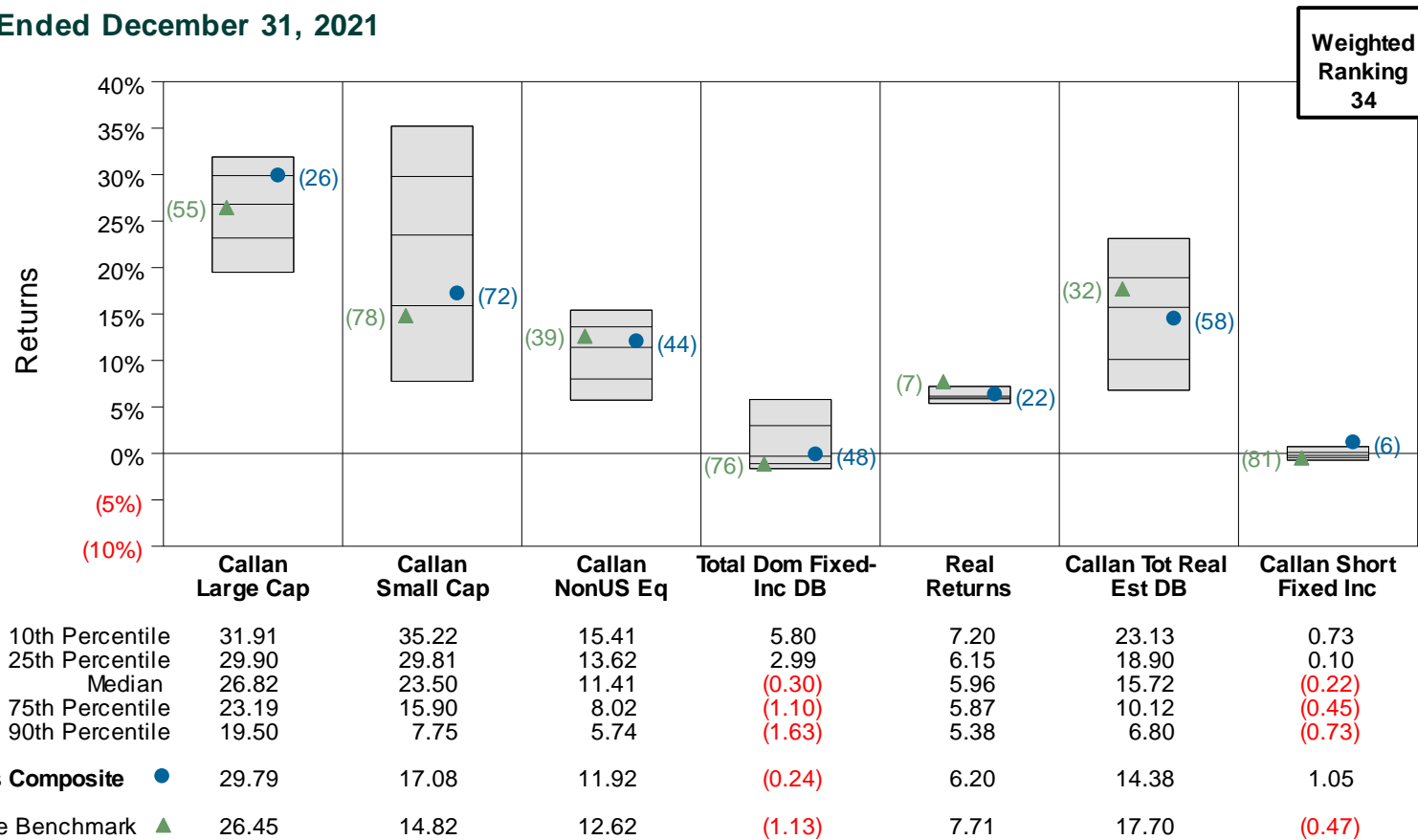
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	97%	97%	2.41%	1.83%	0.57%	0.00%	0.57%
BND CDs	1%	1%	-	-	0.00%	0.00%	0.00%
Cash & Equivalents	3%	3%	1.02%	1.14%	(0.00%)	0.00%	0.00%

**Total** **2.39% = 1.81% + 0.57% + 0.01%** **0.58%**

# Asset Class Composite Results

## Consolidated Insurance Trust Asset Class Results vs. Callan Style Groups

Total Asset Class Performance  
One Year Ended December 31, 2021

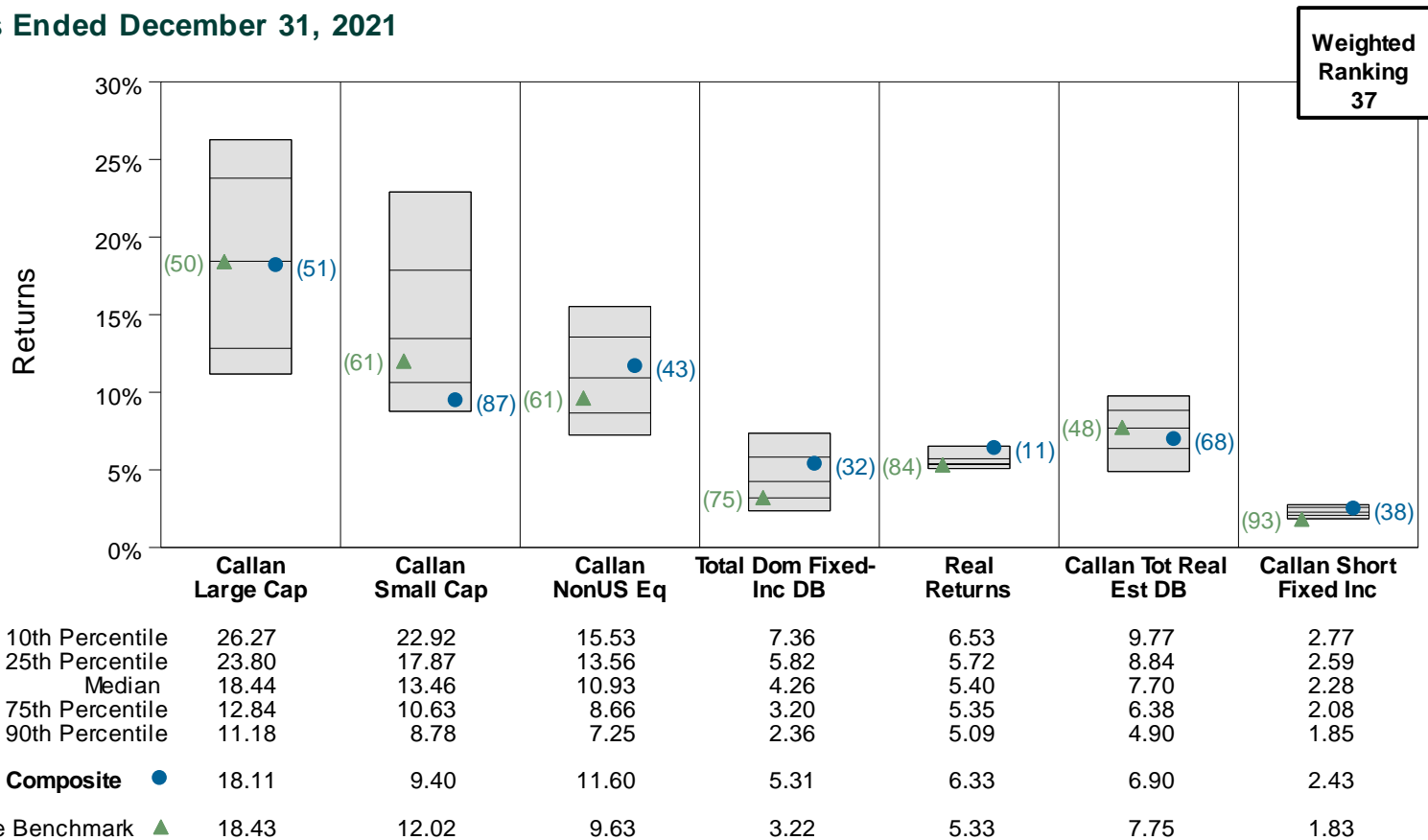


- International Equity, Real Returns, and Real Estate trailed the composite benchmark over the trailing year with all other asset classes outperforming.
- Small Cap Equity and Real Estate performed below median.

# Asset Class Composite Results

## Consolidated Insurance Trust Asset Class Results vs. Callan Style Groups

Total Asset Class Performance  
Five Years Ended December 31, 2021



- U.S. Large Cap and U.S. Small Cap, and Real Estate trailed the benchmark over the trailing 5-year period. Fixed Income, International Equity, Short Fixed Income and Real Returns have outpaced the benchmark.
- Small Cap ranks in the bottom quartile over the period. Large Cap equity and Real Estate are below median, while all other strategies are above median.

Callan

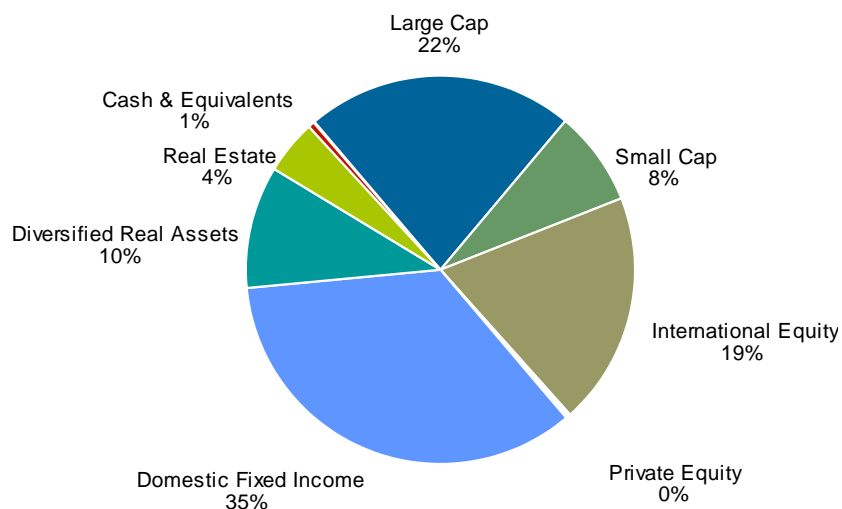
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**Legacy Fund Quarterly Review**

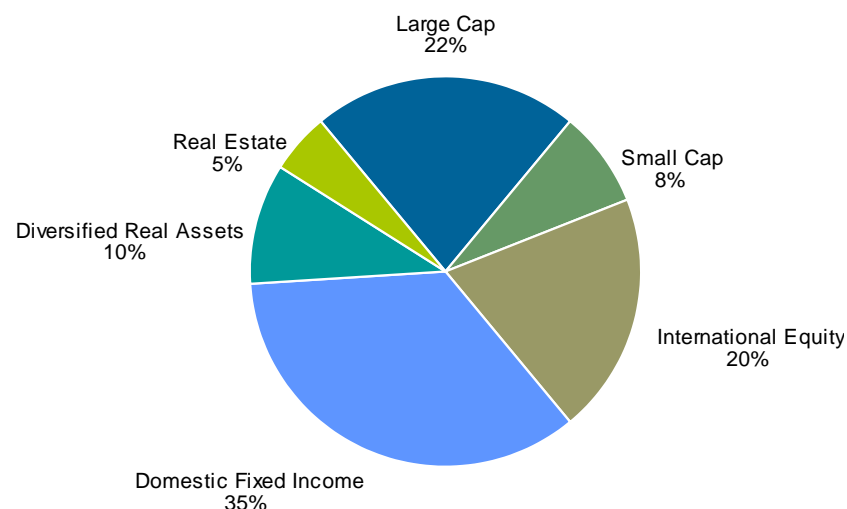
# Legacy Fund Allocation

As of December 31, 2021

**Actual Asset Allocation**



**Target Asset Allocation**



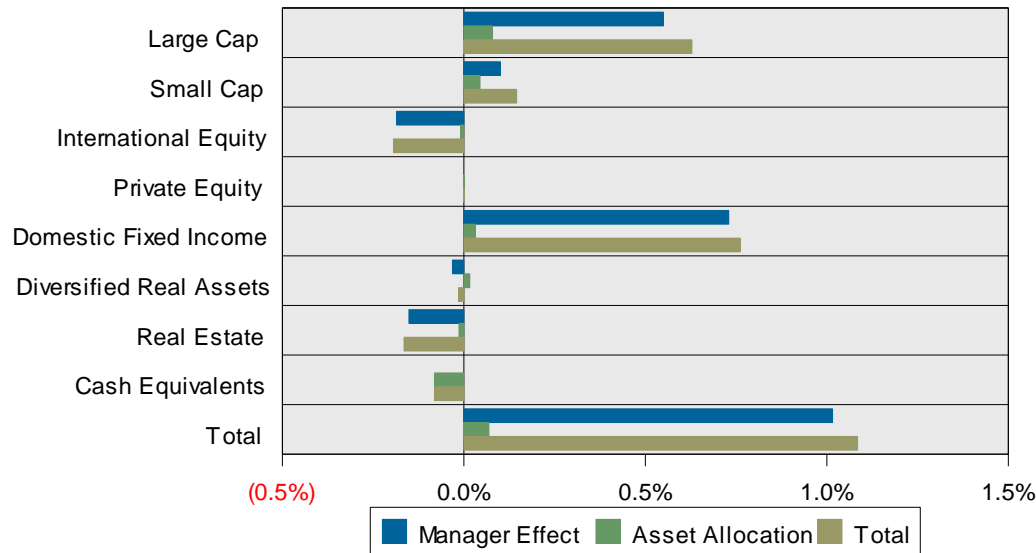
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	1,953,503	22.3%	22.0%	0.3%	30,184
Small Cap	692,765	7.9%	8.0%	(0.1%)	(6,624)
International Equity	1,697,366	19.4%	20.0%	(0.6%)	(51,105)
Private Equity	33,327	0.4%	0.0%	0.4%	33,327
Domestic Fixed Income	3,034,661	34.7%	35.0%	(0.3%)	(25,164)
Diversified Real Assets	891,311	10.2%	10.0%	0.2%	17,075
Real Estate	391,454	4.5%	5.0%	(0.5%)	(45,663)
Cash & Equivalents	47,970	0.5%	0.0%	0.5%	47,970
<b>Total</b>	<b>8,742,356</b>	<b>100.0%</b>	<b>100.0%</b>		



# Legacy Performance and Attribution

As of December 31, 2021

## One Year Relative Attribution Effects



## Returns for 1 Year Ended 12/31/2021

Return Type	Return (%)
Gross	11.54%
Net of fees	11.28%
Target	10.45%
Net added	0.83%

## One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	29.25%	26.46%	0.55%	0.08%	0.63%
Small Cap	8%	8%	16.70%	14.82%	0.10%	0.04%	0.15%
International Equity	20%	20%	11.59%	12.62%	(0.18)%	(0.01)%	(0.19)%
Private Equity	0%	0%	10.46%	10.46%	0.00%	0.00%	0.00%
Domestic Fixed Income	34%	35%	0.41%	(1.54)%	0.73%	0.03%	0.76%
Diversified Real Assets	10%	10%	8.62%	8.72%	(0.03)%	0.02%	(0.01)%
Real Estate	4%	5%	14.29%	17.70%	(0.15)%	(0.01)%	(0.16)%
Cash Equivalents	1%	0%	0.03%	0.03%	0.00%	(0.08)%	(0.08)%

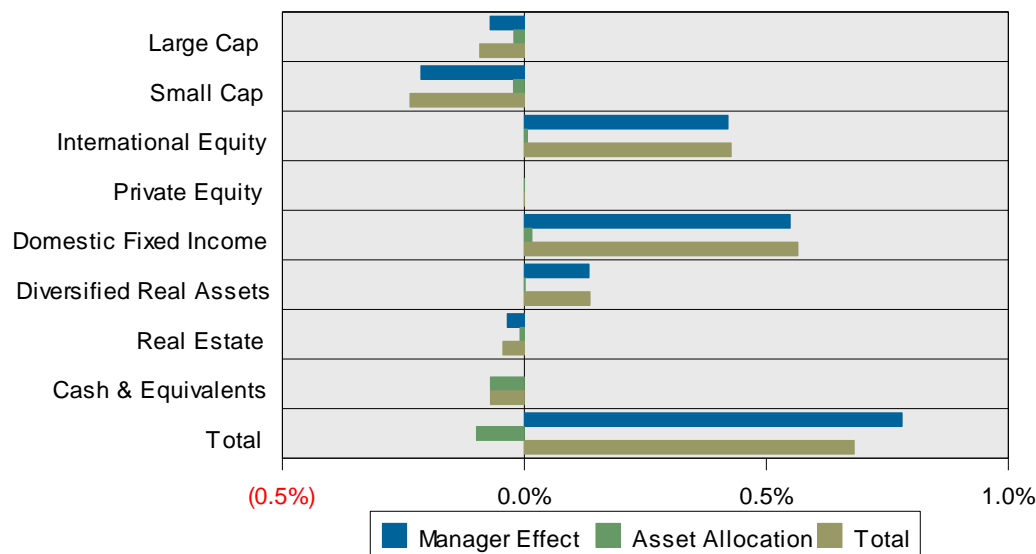
**Total** 11.54% = 10.45% + 1.02% + 0.07%

**1.08%**

# Legacy Performance and Attribution

As of December 31, 2021

## Five Year Annualized Relative Attribution Effects



## Returns for 5 Years Ended 12/31/2021

Return Type	Return (%)
Gross	10.10%
Net of fees	9.87%
Target	9.42%
Net added	0.45%

## Five Year Annualized Relative Attribution Effects

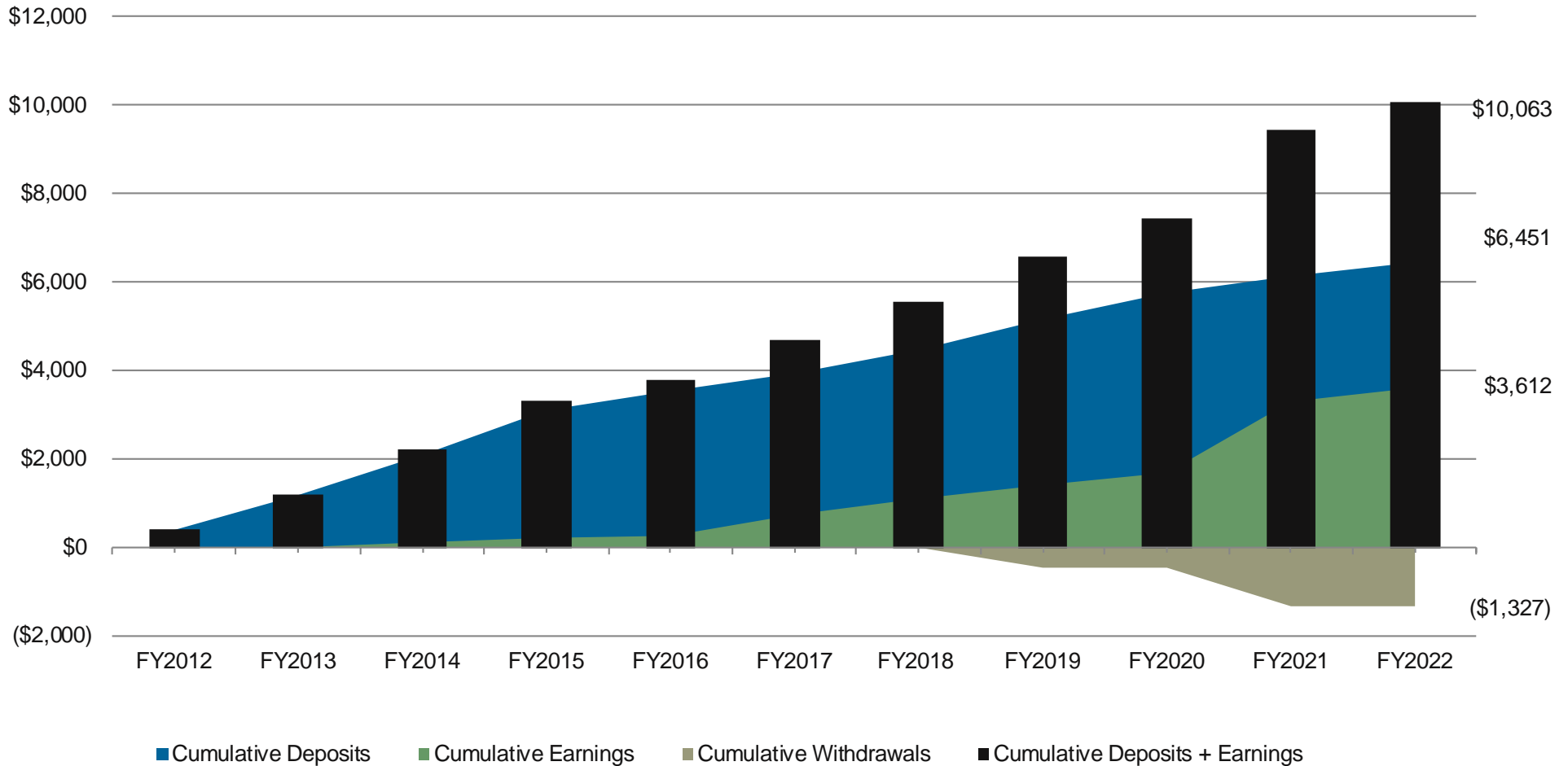
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	18.03%	18.43%	(0.07%)	(0.02%)	(0.09%)
Small Cap	8%	8%	9.60%	12.02%	(0.21%)	(0.02%)	(0.24%)
International Equity	20%	20%	11.66%	9.63%	0.42%	0.01%	0.43%
Private Equity	0%	0%	-	-	0.00%	0.00%	0.00%
Domestic Fixed Income	35%	35%	5.25%	3.57%	0.55%	0.02%	0.57%
Diversified Real Assets	10%	10%	7.13%	5.71%	0.13%	0.00%	0.14%
Real Estate	5%	5%	6.85%	7.75%	(0.04%)	(0.01%)	(0.04%)
Cash & Equivalents	1%	0%	1.01%	1.01%	0.00%	(0.07%)	(0.07%)

**Total** **10.10% = 9.42% + 0.78% + (0.10%)**

**0.68%**

# Legacy Fund Historical Flows

As of December 31, 2021

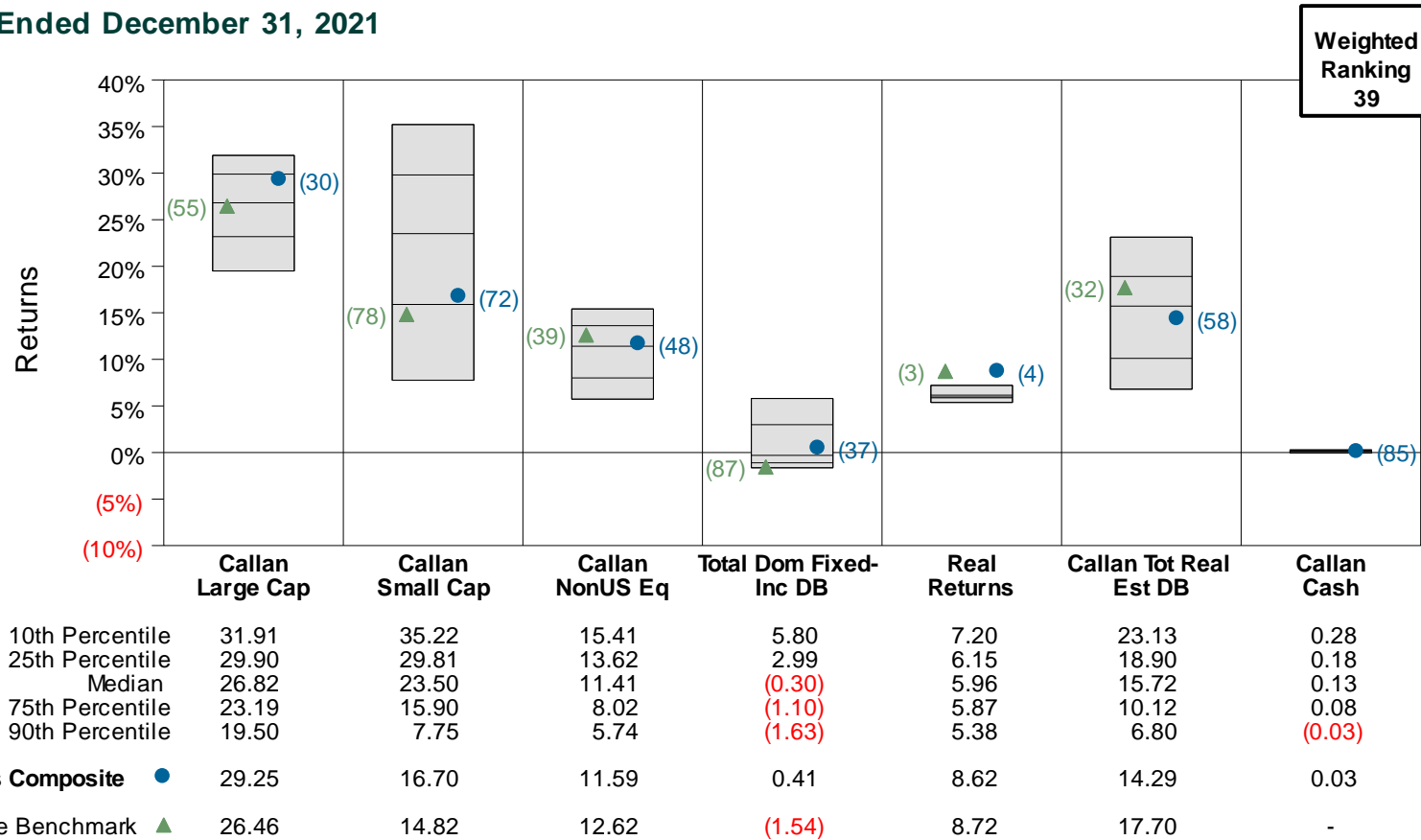


- The chart above illustrates the combined impact of investment earnings and deposits generated by oil and gas receipts have enabled over \$1.3 billion in distributions to North Dakota’s General Fund.
- Deposits were the primary source of the Fund’s market value over the first eight years. Investment earnings have become a progressively greater source of the Fund’s growth over the last two fiscal years.

# Asset Class Composite Results

## Legacy Fund Asset Class Results vs. Callan Style Groups

Total Asset Class Performance  
One Year Ended December 31, 2021

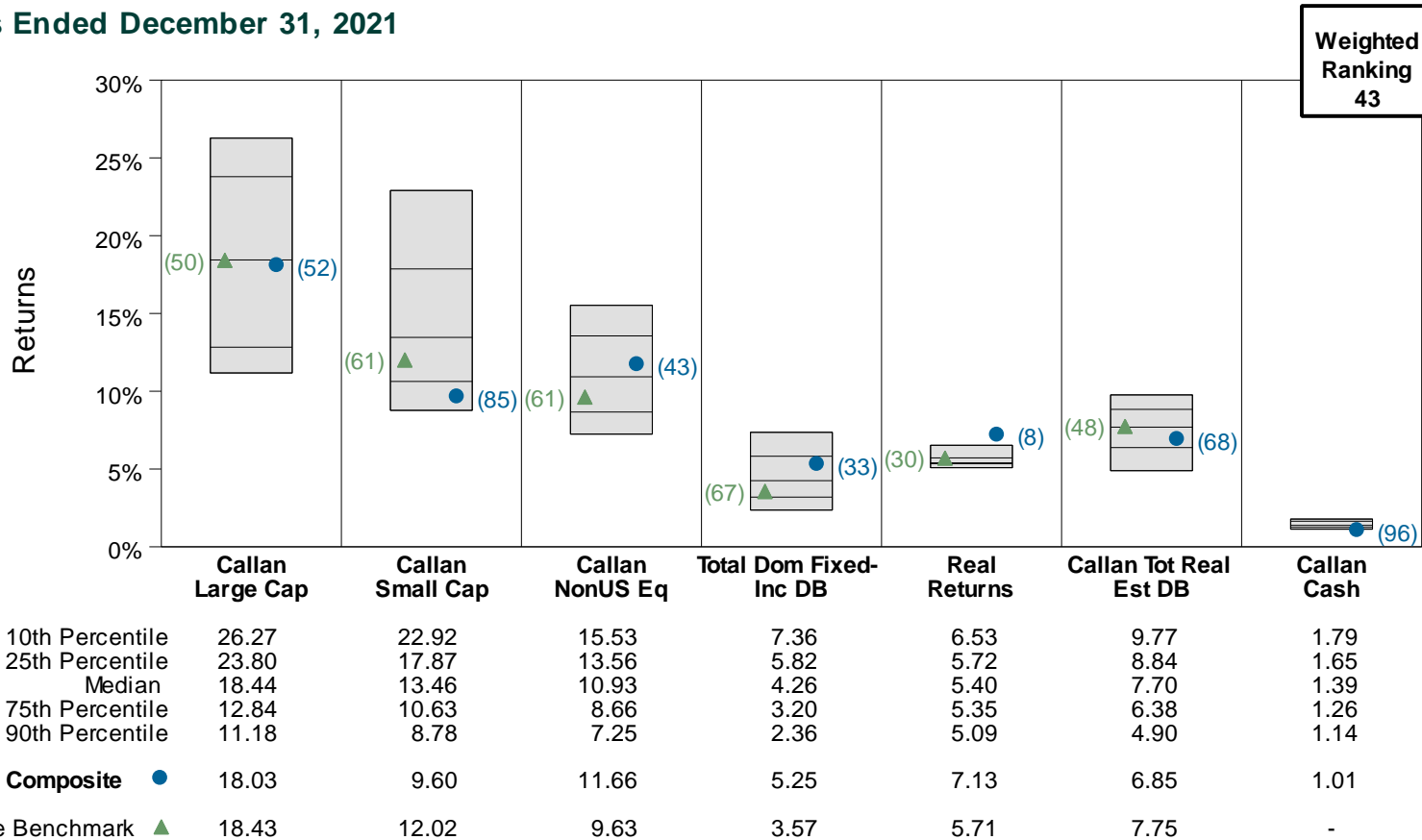


- U.S. Equity and Domestic Fixed Income outperformed their benchmarks. Other asset classes underperformed.
- U.S SC Equity and Real Estate were the only asset classes to underperform their respective median managers.

# Asset Class Composite Results

## Legacy Fund Asset Class Results vs. Callan Style Groups

Total Asset Class Performance  
Five Years Ended December 31, 2021



- Non-U.S. Equities, Domestic Fixed Income, and Real Returns all beat their respective benchmarks over the past five years.
- Real Returns ranked in the top decile, while Non-U.S. Equity and Fixed Income ranked above median.

Callan

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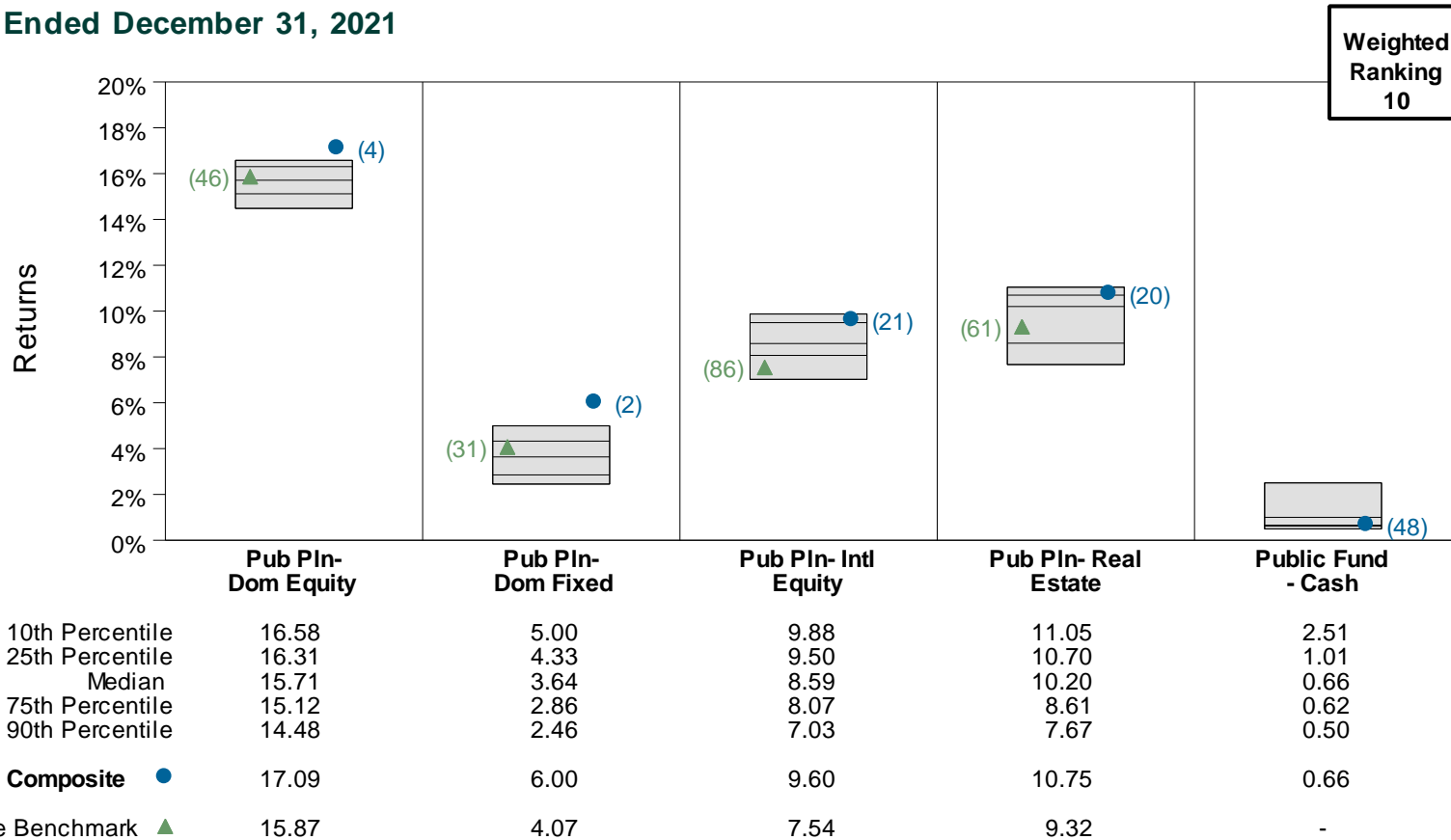
## **Appendix A**

Consolidated Asset Class Rankings

# Asset Class Composite Results

## PERS' Asset Class Results vs. Other Public Pension Funds

### Total Asset Class Performance Ten Years Ended December 31, 2021

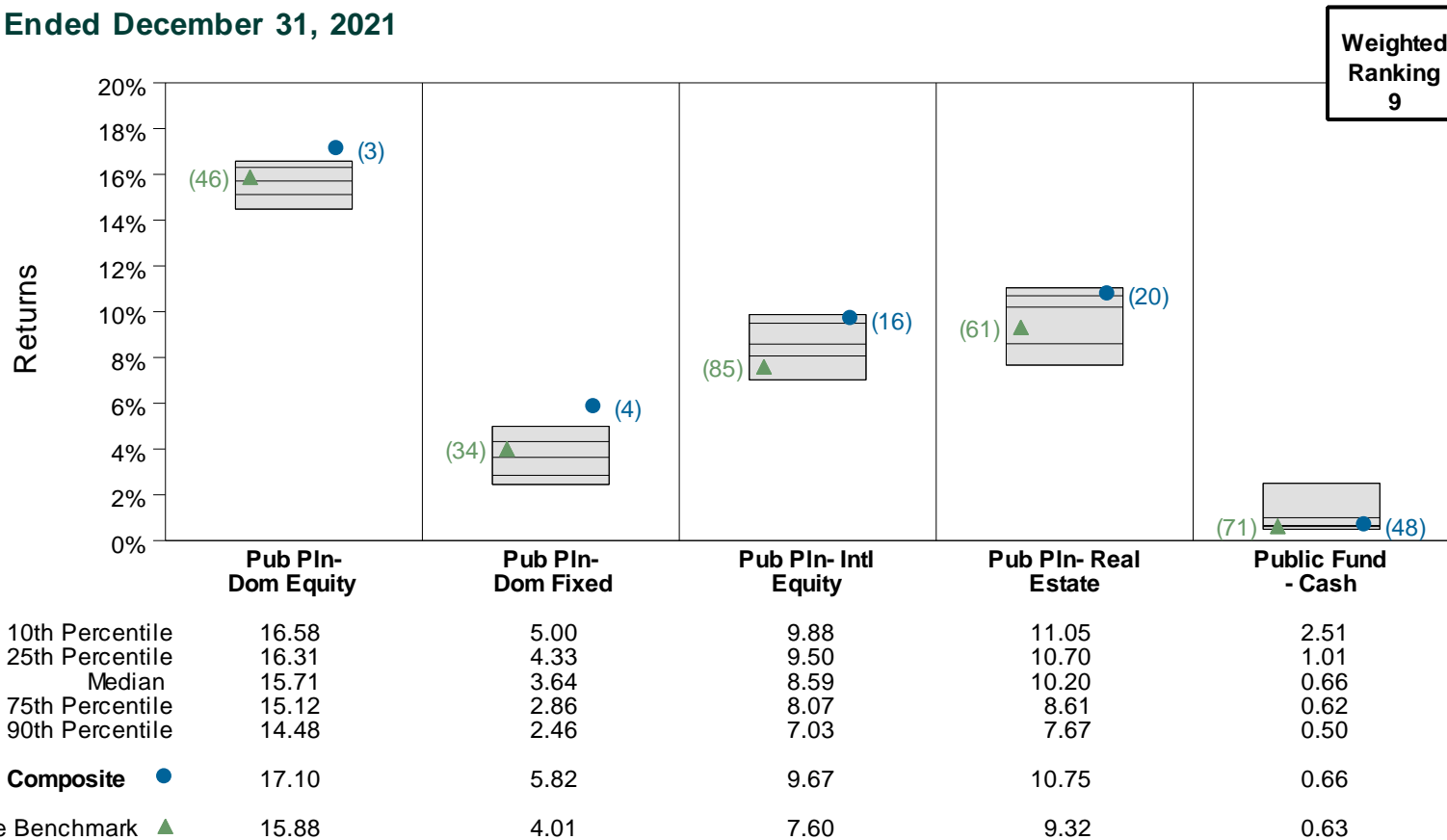


- All asset classes have outperformed their benchmarks and all asset classes performed in the top quartile over the last 10 years (excluding cash).
- Domestic Equity and Fixed Income ranked in the top decile over the period.

# Asset Class Composite Results

## TFFR's Asset Class Results vs. Other Public Pension Funds

### Total Asset Class Performance Ten Years Ended December 31, 2021



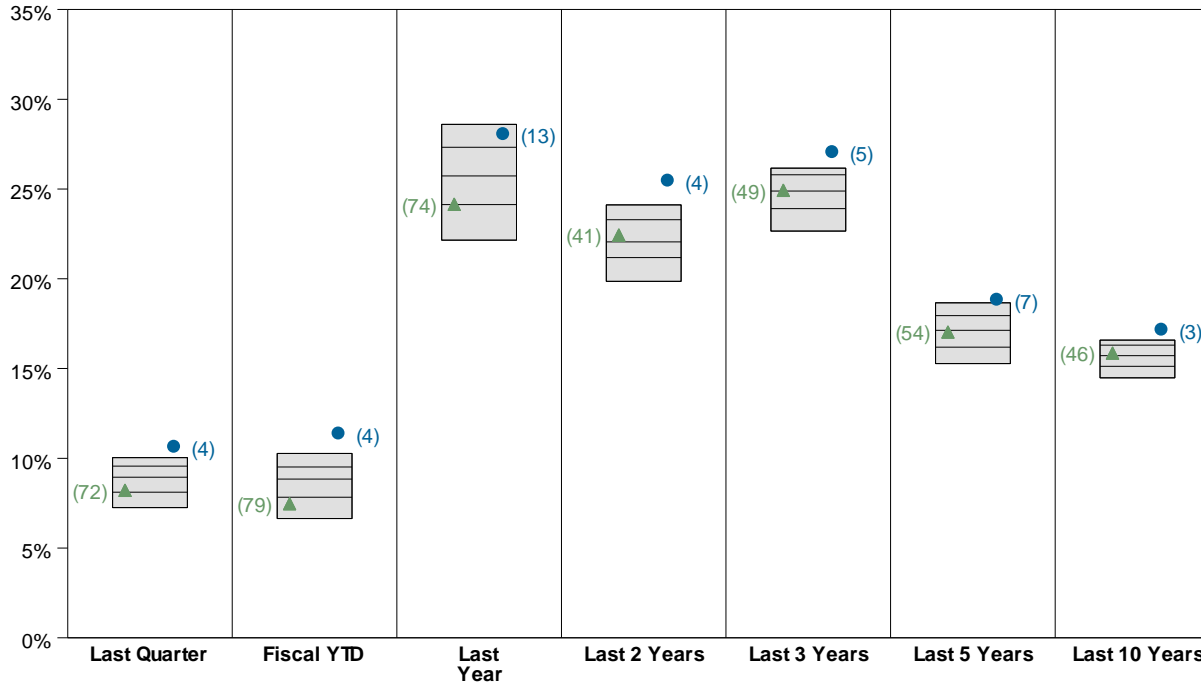
- All asset classes have outperformed their benchmarks and all asset classes performed in the top quartile over the last 10 years (excluding cash).
- Domestic Equity and Fixed Income ranked in the top decile over the period.



# Consolidated Pension Trust: Domestic Equity

As of December 31, 2021

## Performance vs Public Fund - Domestic Equity (Gross)



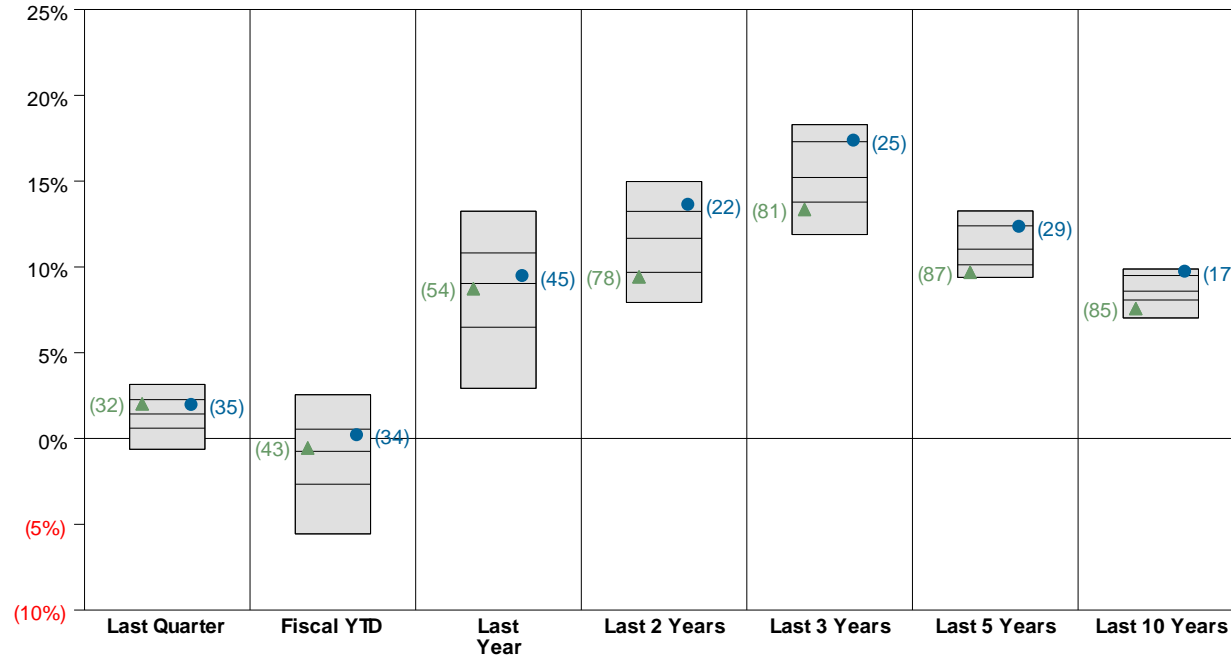
10th Percentile	10.04	10.27	28.60	24.12	26.16	18.66	16.58
25th Percentile	9.57	9.52	27.32	23.29	25.79	17.95	16.31
Median	8.95	8.84	25.73	22.05	24.88	17.13	15.71
75th Percentile	8.11	7.83	24.13	21.18	23.91	16.19	15.12
90th Percentile	7.25	6.65	22.15	19.85	22.65	15.28	14.48
<b>Domestic Equities</b>	● 10.59	11.33	28.00	25.43	27.00	18.78	17.12
Domestic Equity Target	▲ 8.22	7.47	24.15	22.44	24.93	17.03	15.86

- The Domestic Equity composite underperformed the benchmark in all measured periods.
- NDSIB's Domestic Equity portfolio has a meaningful growth tilt versus other Public Pension Funds.

# Consolidated Pension Trust: International Equity

As of December 31, 2021

## Performance vs Public Fund - International Equity (Gross)



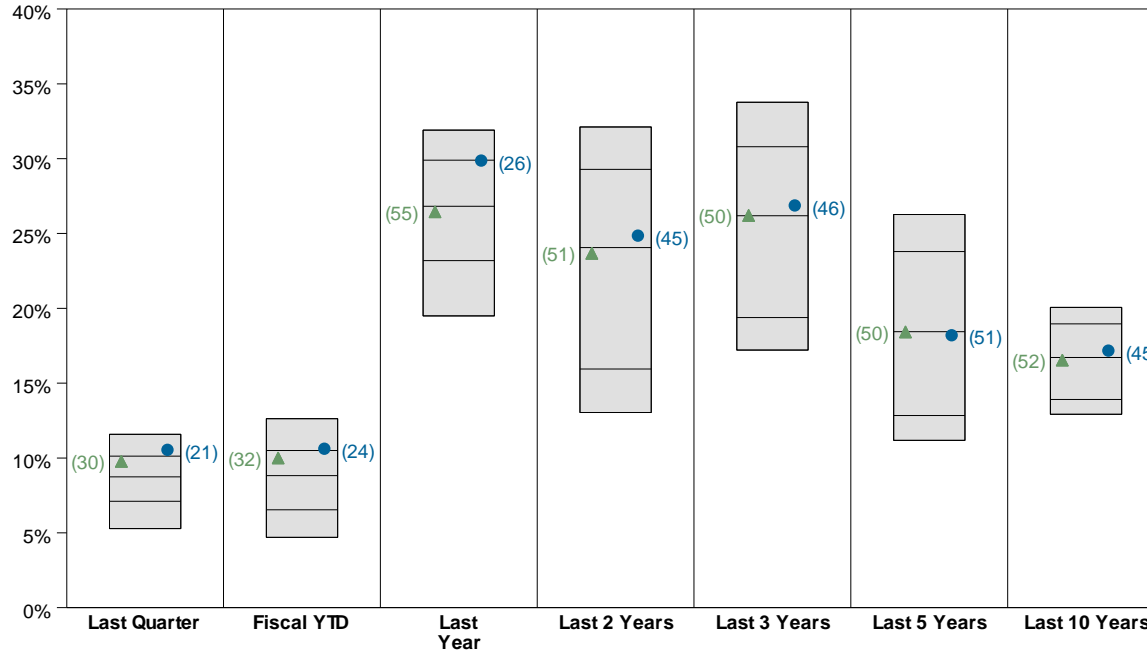
10th Percentile	3.15	2.56	13.24	14.97	18.29	13.27	9.88
25th Percentile	2.27	0.54	10.82	13.24	17.30	12.39	9.50
Median	1.43	(0.75)	9.04	11.67	15.21	11.03	8.59
75th Percentile	0.60	(2.66)	6.49	9.69	13.77	10.12	8.07
90th Percentile	(0.63)	(5.55)	2.92	7.93	11.88	9.38	7.03
<b>International Equities</b>	● 1.89	0.14	9.40	13.57	17.30	12.29	9.66
International Equity Target	▲ 2.02	(0.55)	8.73	9.42	13.35	9.69	7.57

- The portfolio has performed in the top quartile over the two-, three-, and ten-year periods and above median in all measured periods.
- NDSIB's international equity portfolio also benefits from a growth tilt versus other Public Pension Funds.

# Consolidated Insurance Trust: Large Cap Equity

As of December 31, 2021

## Performance vs Callan Large Capitalization (Gross)



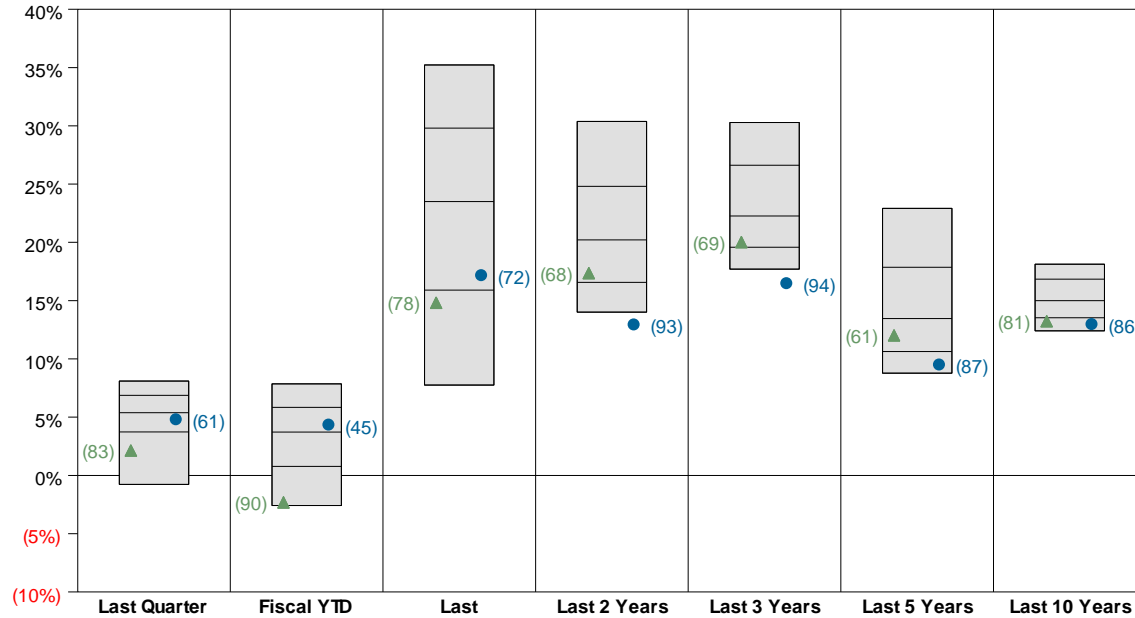
10th Percentile	11.58	12.62	31.91	32.12	33.77	26.27	20.06
25th Percentile	10.12	10.50	29.90	29.28	30.80	23.80	18.96
Median	8.74	8.82	26.82	24.06	26.18	18.44	16.72
75th Percentile	7.11	6.54	23.19	15.94	19.38	12.84	13.92
90th Percentile	5.28	4.70	19.50	13.04	17.21	11.18	12.92
<b>Large Cap</b> ●	10.46	10.53	29.79	24.76	26.79	18.11	17.09
Large Cap Equity Target ▲	9.78	10.00	26.45	23.68	26.21	18.43	16.54

- The portfolio has generally performed above the median among peer composites.

# Consolidated Insurance Trust: Small Cap Equity

As of December 31, 2021

## Performance vs Callan Small Capitalization (Gross)



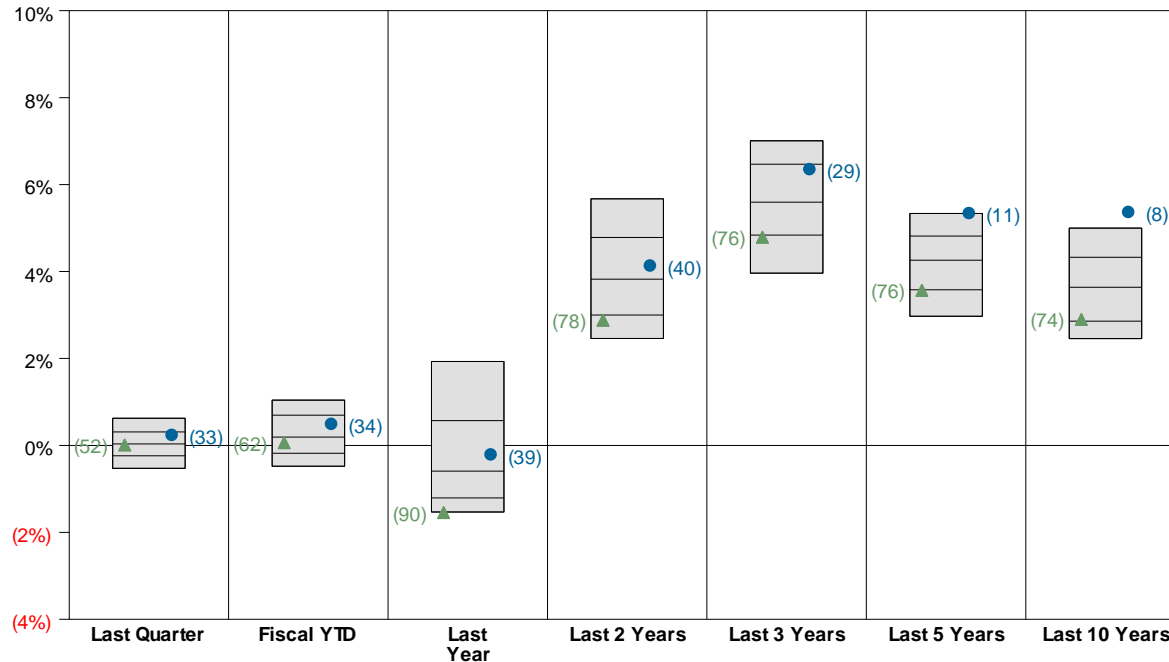
	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	8.10	7.85	35.22	30.37	30.28	22.92	18.13
25th Percentile	6.87	5.84	29.81	24.80	26.62	17.87	16.85
Median	5.38	3.73	23.50	20.21	22.26	13.46	14.99
75th Percentile	3.73	0.78	15.90	16.56	19.59	10.63	13.53
90th Percentile	(0.77)	(2.59)	7.75	14.01	17.70	8.78	12.41
<b>Small Cap</b>	● 4.72	4.25	17.08	12.85	16.39	9.40	12.87
Small Cap Equity Target	▲ 2.14	(2.31)	14.82	17.36	20.02	12.02	13.23

- The asset class underperformed the benchmark over all periods two years and greater.

# Consolidated Insurance Trust: Domestic Fixed Income

As of December 31, 2021

## Performance vs Public Fund - Domestic Fixed (Gross)



10th Percentile	0.63	1.04	1.93	5.67	7.01	5.33	5.00	
25th Percentile	0.31	0.69	0.57	4.78	6.47	4.82	4.33	
Median	0.03	0.19	(0.59)	3.82	5.60	4.26	3.64	
75th Percentile	(0.24)	(0.18)	(1.21)	3.00	4.84	3.58	2.86	
90th Percentile	(0.53)	(0.48)	(1.53)	2.46	3.96	2.97	2.46	
<b>Domestic Fixed Income</b>	●	0.21	0.47	(0.24)	4.11	6.32	5.31	5.34
<b>Blmbg Aggregate</b>	▲	0.01	0.06	(1.54)	2.88	4.79	3.57	2.90

- The asset class outperformed the target over all measured periods.
- The domestic fixed income asset class ranked in the top decile for the five, seven, and ten-year periods. The asset class is above median for all periods.

---

## Conclusions and observations

1. Are the Plans' assets invested as outlined in the Plan's Investment Policy Statement?
  - Each of the Trust's asset allocation were within policy ranges as of December 31, 2021.
2. Are the Plans' cash flows being managed consistent with the Plan's strategic asset allocation policy?
  - Each Trust's cash flows were managed to rebalance towards strategic targets as of December 31, 2021.
3. Are the Plans' investment results meeting strategic objectives?
  - Total Fund returns for PERS, TFFR, WSI, Budget Stabilization and Legacy Funds have each exceeded their respective benchmarks on a net-of-fee basis for the trailing five-year period ended December 31, 2021.
  - Within the Total Fund structures, the small cap equity allocations underperformed benchmark over most cumulative periods ended December 31, 2021. Two small cap managers were terminated due to performance concerns and were replaced by new firms (Riverbridge and Sycamore) one year ago.
  - Since the manager changes were implemented, small cap results have exceeded benchmark.
4. Are the fees paid to managers reasonable given the competitive landscape and given the value delivered?
  - Total Fund net-of-fee results exceed benchmark.
5. Are any corrective steps necessary to bring the Plan back into compliance with long-term objectives?
  - Subject to final approval, WSI's new asset allocation target will require an implementation plan.
  - No other action steps are recommended as the Plans are meeting objectives.

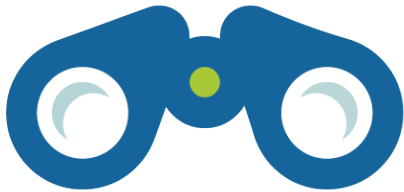
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## Callan Update

# Published Research Highlights from 4Q21

## A Guide to Reinsurance for Institutional Investors



## 2021 ESG Survey



## 2021 Cost of Doing Business Survey



## 2021 Investment Management Fee Study



## Recent Blog Posts

### Understanding Return Forecasts for Public DB Plans

Brady O'Connell and John Pirone

### Rising Rates! Why the Heck Do We Own Bonds?

Alex Browning and Adam Lozinski

### How Investors Should Respond to China's Regulatory Crackdown

Fanglue Zhou

## Additional Reading

*Private Equity Trends* quarterly newsletter

Active vs. Passive quarterly charts

*Capital Markets Review* quarterly newsletter

Monthly Updates to the Periodic Table

*Market Pulse Flipbook* quarterly markets update



# Callan Institute Events

Upcoming conferences, workshops, and webinars

## Callan College

### Intro to Investments - Learn the Fundamentals

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.

**Join our next VIRTUAL session via Zoom** (3 sessions, 2-3 hours each):  
March 1-3, 2022

**Join our next LIVE session in San Francisco** (1½-day session):  
July 26-27, 2022

### Introductory Workshop for DC Plan Fiduciaries

This one-day workshop centers on the fundamentals of administering a defined contribution (DC) plan. Designed primarily for ERISA fiduciaries and supporting staff members, attendees will gain a better understanding of the key responsibilities of an ERISA fiduciary and best practices for executing those responsibilities.

**Join our LIVE session in San Francisco:**  
March 23, 2022

## Mark Your Calendar

### 2022 National Conference

April 25-27, 2022 – San Francisco  
Palace Hotel  
2 New Montgomery St., San Francisco, CA 94105

### 2022 June Regional Workshops

June 7, 2022 – Atlanta  
June 9, 2022 – Portland

*Watch your email for further details and an invitation.*

## Webinars & Research Café Sessions

### Webinar: DC Survey Results

February 23, 2022 – 9:30am (PT)

### Research Café: ESG Interview Series

April 6, 2022 – 9:30am (PT)

### Market Intelligence

April 14, 2022 – 9:30am (PT)

December 31, 2021



## **North Dakota State Investment Board Insurance Trust**

**Investment Measurement Service  
Quarterly Review**

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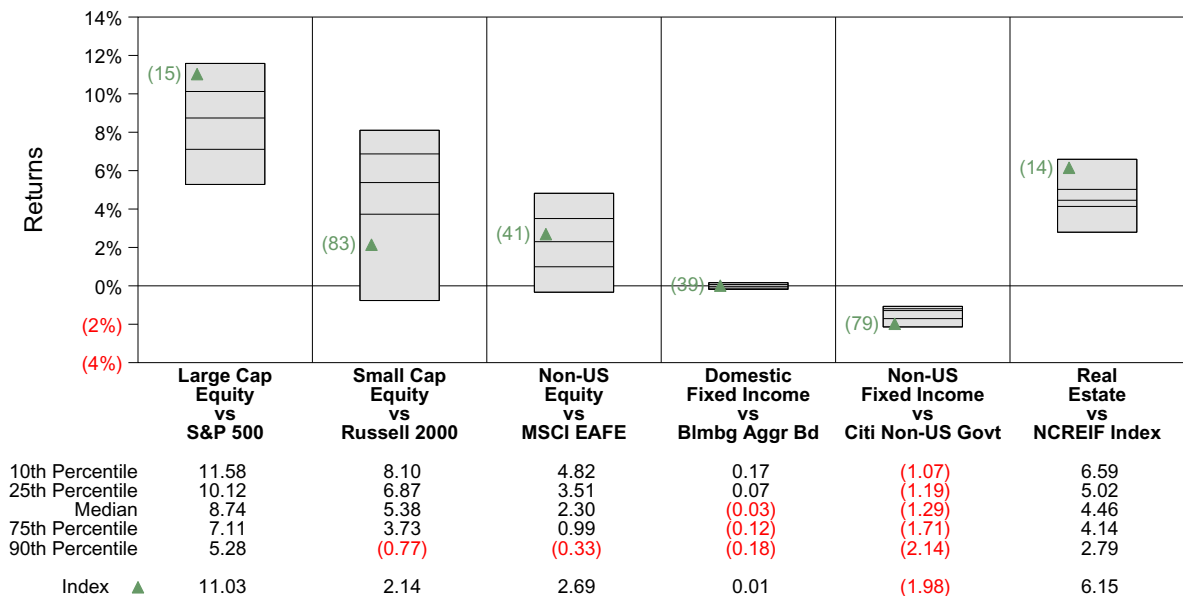
## Market Overview

### Active Management vs Index Returns

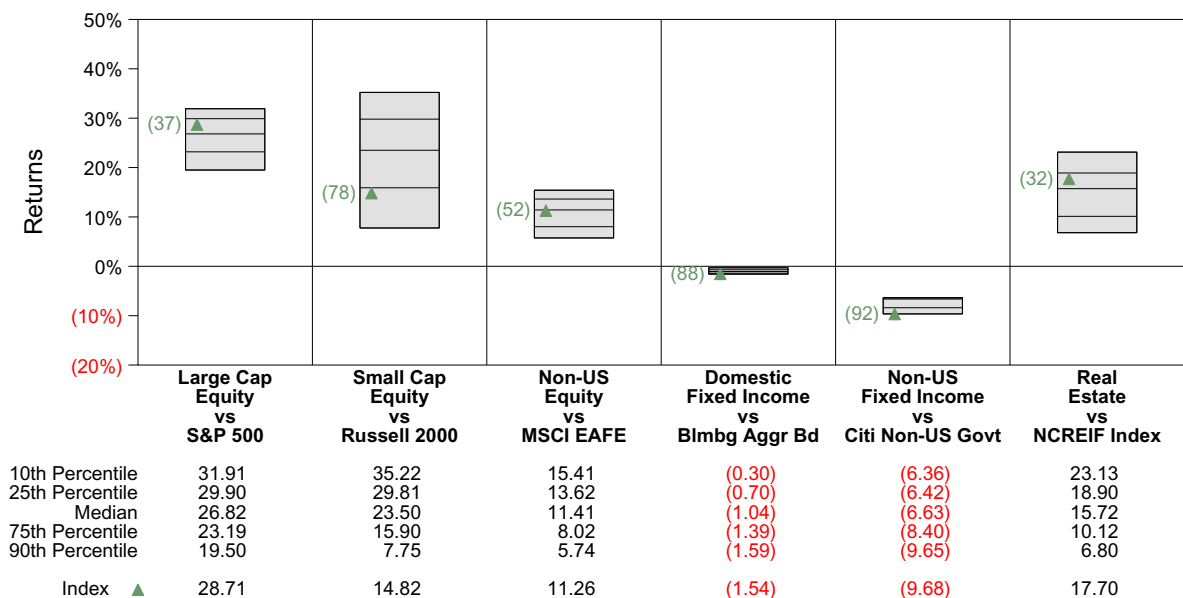
#### Market Overview

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 December 31, 2021



#### Range of Separate Account Manager Returns by Asset Class One Year Ended December 31, 2021



## What's Next for the Recovery in the U.S.?

### ECONOMY

**2** The fourth quarter of 2021 closed out another remarkable year following the wild ride through the pandemic and the recovery. U.S. GDP notched an incredibly strong 6.9% quarterly gain (4Q over 4Q), which translates to annual growth of 5.7% over 2020. So what's next?

## Agg Is Flat as Real Yields Stay Negative

### FIXED INCOME

**8** The Bloomberg Aggregate was flat in 4Q21, and real yields remain solidly in negative territory. Global returns were muted for unhedged U.S. investors in both 4Q and 2021. Emerging market debt indices underperformed most other fixed income sectors in 2021.

## Strong Demand Due to Focus on Yield

### PRIVATE CREDIT

**12** Private credit remains attractive to institutional investors due to its yield and income-generating characteristics. Private credit has, on average, generated net IRRs of 8% to 10% for most trailing periods ended 4Q20. Fundraising significantly rebounded in the first half of 2021.

## Another Year of Gains but New Threats Rise

### INSTITUTIONAL INVESTORS

**4** In 2021 all institutional investor types had strong gains but lagged a benchmark composed of 60% S&P 500/40% Bloomberg US Aggregate Index. For many, the question they face now is what to do in a low-yield environment with growing concerns over inflation.

## ODCE's Best Quarter; U.S. REITs Top Stocks

### REAL ESTATE/REAL ASSETS

**10** The NCREIF ODCE Index had its best performance ever in 4Q21, up 7.7%. Net operating income fell for Office as Omicron delayed office returns. Global REITs rose 10.4% compared to 7.8% for MSCI World; U.S. REITs rose 16.3%, beating the S&P 500 Index, which rose 11.0%.

## Ending the Year on a Positive Note

### HEDGE FUNDS/MACs

**13** Hedge funds ended higher, despite inflation and Omicron concerns growing in 4Q21; the HFRI Fund Weighted Composite Index gained 0.4%. Event-driven strategies finished on a strong note. Equity hedge finished in positive territory; macro strategies ended slightly lower.

## S&P 500 Up Again; Global Stocks Falter

### EQUITY

**6** The S&P 500 posted a strong 11.0% gain in 4Q21; large cap growth was the top performer, small cap growth the worst. Globally, emerging markets struggled relative to developed markets due to the economic slowdown and regulatory crackdown in China.

## Big Bounce Back in 2021 After 2020 Drop

### PRIVATE EQUITY

**11** Private equity fared exceedingly well in 2021, after 2020's big dip. Company investment and exit activity is up across the board, and IPO markets had another gangbuster year. On average, year-over-year transaction activity rose by 30% and dollar volumes by 70%.

## Index Falls in 3Q21, First Time Since 1Q20

### DEFINED CONTRIBUTION

**15** The Callan DC Index™ declined 0.4% in 3Q21. The Age 45 Target Date Fund had a slightly lower return (-0.8%), attributable to its higher allocation to equity, which underperformed fixed income. Balances also fell, by 0.7%. Target date funds received the largest net inflows.

## 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



# What's Next for the Post-Pandemic Economy?

ECONOMY | Jay Kloepfer

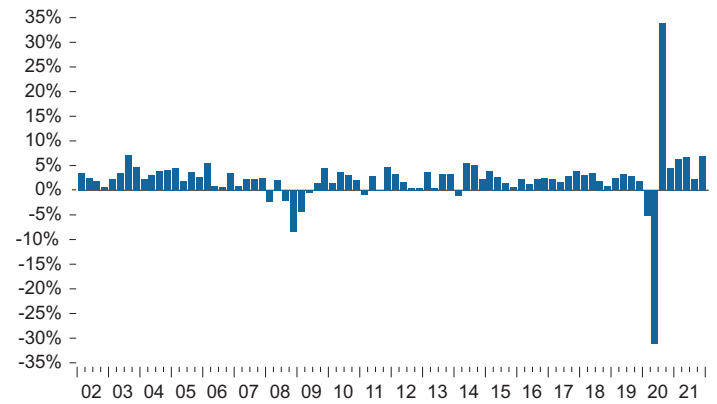
The fourth quarter of 2021 closed out another remarkable year following the wild ride through the pandemic and the recovery, a cycle that began in earnest in February 2020. U.S. GDP notched an incredibly strong 6.9% quarterly gain (4Q over 4Q), which translates to annual growth of 5.7% over 2020. We have not seen such growth since the Ronald Reagan administration, following the consecutive recessions of 1980 and 1982 induced in part to wring double-digit inflation out of the economy.

A short detour into monetary policy history is relevant here. The advent of current monetary policy began during the Reagan administration under Fed Chair Paul Volcker, although he was appointed by Jimmy Carter. Alan Greenspan took on the mantle of “monetarist” from Volcker and enshrined the discipline into Fed policy. That monetarist bent was then modified seriously by Ben Bernanke to address the Global Financial Crisis, where a zero interest rate policy was employed both in the U.S. and by most central banks around the world to rescue the global economy from collapse. Zero rates were combined with massive monetary intervention through the purchase of bonds to keep rates low and infuse liquidity into the system. Emboldened by what we learned in the GFC and the innovation in monetary intervention tools we developed, we applied zero rates with substantial monetary intervention to rescue the global economy again at the onset of the pandemic. After two years and a complete recovery to pre-pandemic GDP levels, the question now is what is next for the post-pandemic economy.

At the risk of *not* sounding an alarm, we believe supply chains will untangle, labor markets will slowly equilibrate, and supply and demand will line up the economy’s production function and the consumer’s normalizing demand for goods, services, food, and shelter. The Fed has begun tapering its asset purchases intended to supply liquidity to capital markets, and it is strongly signaling that interest rates will rise, with three hikes in the Fed Funds rate in 2022 articulated in the last FOMC meeting in January (the market is discounting four hikes). As policy is

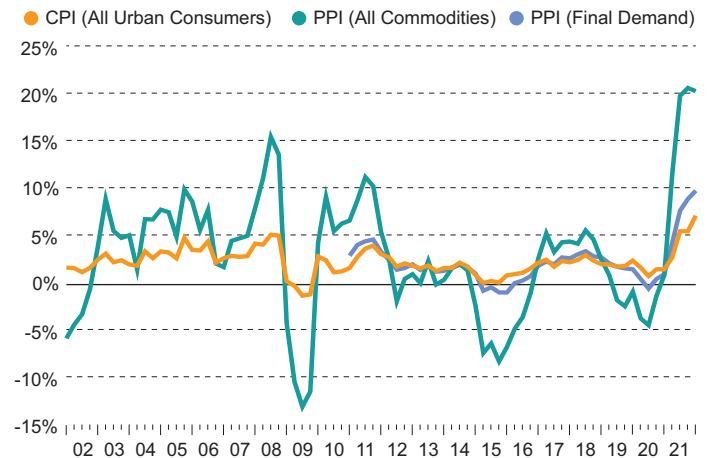
## Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

## Inflation Year-Over-Year



Source: Bureau of Labor Statistics

withdrawn, the global economy will move to stand on its own two feet, complete with the cycles of growth and recession fully expected in a market system. Top of mind for many is inflation, which hit a peak of 7% in 4Q21. There is now an entire generation of market participants who have never experienced sustained inflation, which was last seen in the early 1980s.

After starting 2021 in the shadow of renewed lockdowns in 4Q20 following then-record spikes in pandemic infections and

hospitalizations, the global economy and the U.S. in particular began a spurt of optimistic growth in the spring, and many measures of economic growth took off: consumption, business spending, production, travel, home-buying (which had started surging in 2020), and the opening of retail trade, dining, hospitality, and recreation. U.S. GDP surged in the second and fourth quarters, and the increase of 5.7% for 2021 compares to the 3.6% decline in 2020. Much has been made of the supply chain issues that have restricted output and the supply of goods, the fundamental mismatch between job seekers and available jobs, and the impact of both on potential growth and inflation. We believe the remaining supply chain issues will be ironed out over the course of 2022, increasing the supply of goods and relieving the pressure on prices. We also believe that the labor market will adjust, but that the process may be slower than that for goods and services, and that higher wages may be a feature of the U.S. economy for at least another year and perhaps in to 2023. The job segments most disrupted by the pandemic—retail, wholesale trade, transportation services, hospitality, education, state and local government—are those facing the most obstacles to rehiring at prevailing wages.

A couple of key metrics point toward a slowdown from the manic growth of 2021. First, within GDP, the building of inventory accounted for 4.9% of the 6.9% growth for 4Q21. Inventories built now boost current GDP, but suggest downward pressure on prices of those inventoried goods and slower growth from future production. Second, one of the key forward-looking indicators is the Purchasing Managers' Index (PMI), which surveys planned activity by market participants—new orders, output, input prices, employment—and covers both goods and services. The PMI for new orders around the globe went flat

### The Long-Term View

Index	4Q21	Periods Ended 12/31/21			
		1 Yr	5 Yrs	10 Yrs	25 Yrs
<b>U.S. Equity</b>					
Russell 3000	9.3	25.7	18.0	16.3	9.8
S&P 500	11.0	28.7	18.5	16.6	9.8
Russell 2000	2.1	14.8	12.0	13.2	9.0
<b>Global ex-U.S. Equity</b>					
MSCI EAFE	2.7	11.3	9.5	8.0	5.2
MSCI ACWI ex USA	1.8	7.8	9.6	7.3	--
MSCI Emerging Markets	-1.3	-2.5	9.9	5.5	--
MSCI ACWI ex USA Small Cap	0.6	12.9	11.2	9.5	6.9
<b>Fixed Income</b>					
Bloomberg Agg	0.0	-1.5	3.6	2.9	4.9
90-Day T-Bill	0.0	0.0	1.1	0.6	2.1
Bloomberg Long G/C	2.2	-2.5	7.4	5.7	7.3
Bloomberg GI Agg ex US	-1.2	-7.0	3.1	0.8	3.4
<b>Real Estate</b>					
NCREIF Property	6.1	17.7	7.8	9.3	9.4
FTSE Nareit Equity	16.3	43.2	10.8	11.4	9.9
<b>Alternatives</b>					
CS Hedge Fund	0.9	8.2	5.5	4.9	6.7
Cambridge PE*	4.8	49.5	21.2	17.2	15.7
Bloomberg Commodity	-1.6	27.1	3.7	-2.9	1.1
Gold Spot Price	4.1	-3.5	9.7	1.6	6.6
<b>Inflation – CPI-U</b>	1.6	7.0	2.9	2.1	2.3

\*Data for most recent period lags by a quarter. Data as of 9/30/21.

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

in August 2021 and stayed flat through December, as first the Delta then the Omicron variants spooked consumers and businesses. Third, at the start of 2022, the PMI for new orders has fallen sharply, driven by weakness emerging in the order data in China and the U.S., two of the biggest global economies.

### Recent Quarterly Economic Indicators

	4Q21	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20
Employment Cost–Total Compensation Growth	4.0%	3.7%	2.9%	2.6%	2.5%	2.4%	2.7%	2.8%
Nonfarm Business–Productivity Growth	6.6%	-5.0%	2.4%	4.3%	-3.4%	4.6%	11.2%	-0.8%
GDP Growth	6.9%	2.3%	6.7%	6.3%	4.5%	33.8%	-31.2%	-5.1%
Manufacturing Capacity Utilization	77.0%	76.1%	75.4%	74.5%	74.0%	71.9%	64.3%	74.4%
Consumer Sentiment Index (1966=100)	69.9	74.8	85.6	80.2	79.8	75.6	74.0	96.4

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

# Most Investors Saw Double-Digit Gains in 2021

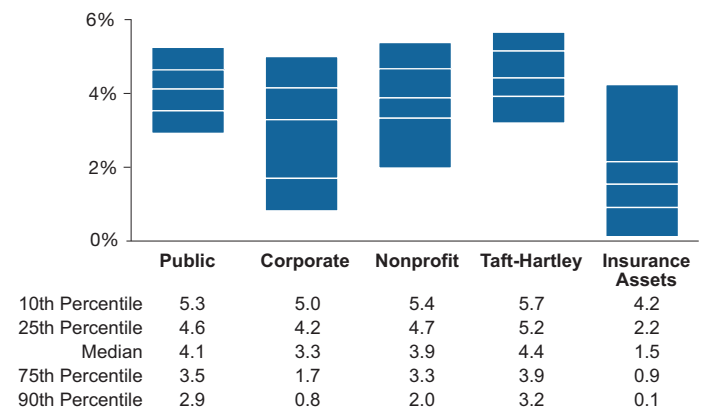
## INSTITUTIONAL INVESTORS

- In 2021 all institutional investor types had strong gains but lagged a benchmark composed of 60% S&P 500/40% Bloomberg US Aggregate.
- Taft Hartley plans (+15.0%) topped the list while corporate defined benefit (DB) plans (+9.5%) had the lowest returns.
- Almost all investor types have seen double-digit returns for four of the last five calendar years, with single-digit losses in 2018 being the exception.
- Their returns more closely track the 60%/40% benchmark over longer time periods, with results over the last 20 years roughly comparable.
- Strategic conversations among investors remain focused on where to go from here. Many just enjoyed the best annual returns, calendar or fiscal year, in a generation, but their elation is tempered by sobering capital markets assumptions.
- Inflation is one major topic of conversation.
- But for all the concern about inflation, few investors have taken action to address it in portfolios.
- Another, related topic is what to do with fixed income:
  - How low can the fixed income allocation go?
  - Should portfolios have bonds at all?
  - Should investors migrate out of an anchor to the Aggregate?
- Fixed income structures focus on the role of the asset

class—to diversify equity, to serve as a flight to quality, to act as a source of liquidity, to provide interest rate exposure—balanced against the desire for return in a very low-yield environment. Investors are evaluating how they can avoid undue risk.

- Some investors have looked at creative reconstruction of “core” fixed income, away from lower-returning segments of the Aggregate anchor position:
  - Private credit
  - Securitized debt
  - High yield

### Quarterly Returns, Callan Database Groups



Source: Callan

### Callan Database Median and Index Returns\* for Periods Ended 12/31/21

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	4.1	13.7	14.8	10.9	9.6	7.5
Corporate Database	3.3	9.5	14.1	10.2	9.0	7.3
Nonprofit Database	3.9	14.0	15.1	11.0	9.5	7.4
Taft-Hartley Database	4.4	15.0	14.8	11.0	10.0	7.2
Insurance Assets Database	1.5	5.1	8.4	6.1	5.3	5.6
All Institutional Investors	4.0	13.4	14.7	10.8	9.5	7.4
Large (>\$1 billion)	3.8	14.4	15.0	11.1	9.9	7.7
Medium (\$100mm - \$1bn)	4.0	12.9	14.7	10.9	9.5	7.3
Small (<\$100 million)	4.2	13.3	14.4	10.3	9.2	7.0
60% S&P 500/40% Bloomberg Agg	6.6	15.9	15.9	17.5	11.1	7.7

\*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.

- Bank loans
  - Private placements
  - Global fixed income
  - TIPS
- Risk-seeking in fixed income is not for all; some investors want to dial down the amount of risk their managers are taking, specifically credit.
  - There is growing concern among investors about a market drawdown, given high valuations relative to historical averages.
  - Hedge funds and other absolute return strategies may gain a new appreciation when compared to low fixed income expectations as a way to diversify growth risk with less of a return penalty.
  - Real assets are under review with the growing concerns over inflation.
    - Will the inflation of the future come from the same sources as the global energy complex evolves?
    - Are investors hedging inflation or outperforming it?
  - Investors are questioning the inclusion of past real assets stalwarts: natural resources, energy, MLPs, and commodities.

**Corporate DB Plans**

- Many are conducting asset/liability (A/L) studies.
- Lower return expectations stress their EROA assumptions, but the American Rescue Plan Act (ARPA) provides a shot

in the arm to them: lower liabilities, higher funded status, and lower required contributions.

**Public DB Plans**

- These investors are also in the midst of numerous A/L studies.
- Low projected returns mean downward pressure on EROA assumptions. Weaker returns may derail the expressed desire to bring in risk, spurring further demand for alternatives exposures and leading to discussions of total fund leverage.

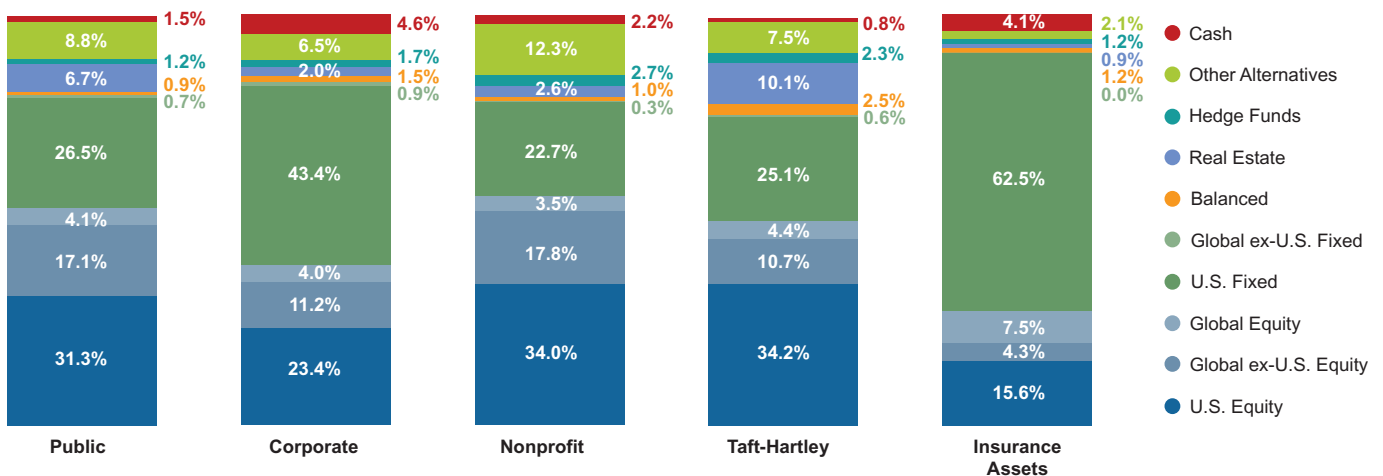
**Defined Contribution Plans**

- DC glidepaths are being reassessed due to lower short-term capital markets assumptions, with some glidepath managers risking up. The long-term equilibrium did not change, but it is coming from a lower starting point.
- Sponsors are starting to discuss retirement income as their plans mature.

**Nonprofits**

- Subdued expectations for capital markets returns are challenging both their risk tolerance and the sustainability of established spending rates.
- They are dissatisfied with private real assets, hedge funds, and fixed income; portfolio reconstruction is on the table.

**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

### Returns grind higher despite mounting concerns

- S&P 500 posted a strong 11.0% gain in 4Q21; large cap growth (Russell 1000 Growth) was the top performer, which contrasted with the worst-performing asset class, small cap growth (Russell 2000 Growth: 0.0%).
- The new Omicron variant, continued supply chain disruptions, and renewed fears of persistent inflation pushed investors into the perceived safety of the largest stocks.
- S&P 500 sector results were mixed, with Real Estate (+17.5%) posting the top returns alongside Technology (+16.7%) and Materials (+15.2%); Communication Services (0.0%) and Financials (+4.6%) lagged broad returns.
- In 2021, small value outperformed small growth by over 2,500 bps (Russell 2000 Value: 28.3% vs. Russell 2000 Growth: 2.8%), a stark reversal from 2020 and a pattern consistent with periods of robust GDP growth.

### Index concentration driving positive returns...

- The 10 largest stocks in the S&P 500 comprised 30.5% of the index but accounted for 65% of the 2021 return.
- During 4Q21, top 10 weights accounted for ~40% of return.

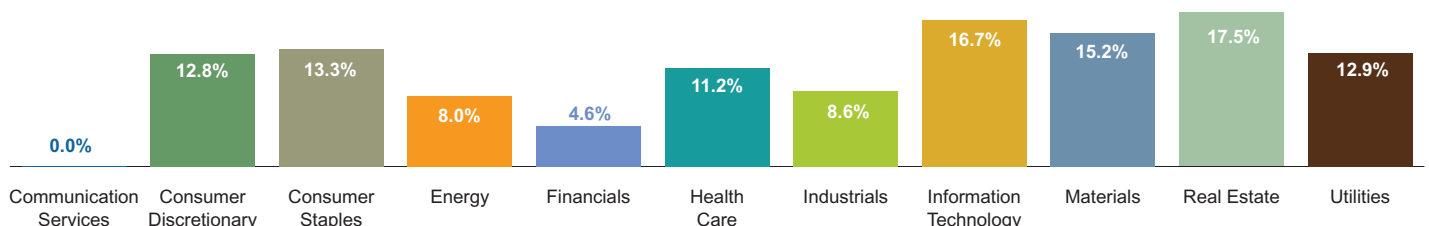
### ...but may be hiding underlying weakness

- Nearly 10% of Russell 3000 stocks fell by 35% or more in 2021, which is unusual for a year when market returns were in excess of 25%.

### Market capitalization, style driving divergence in returns

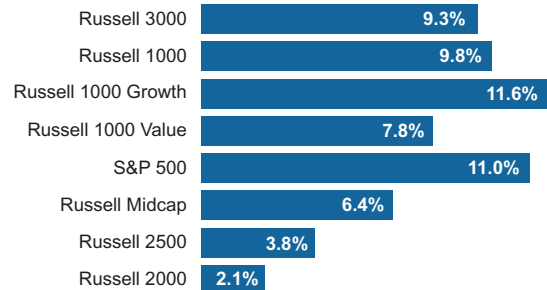
- Mega-cap growth (Russell Top 200 Growth) was the strongest performer in both 4Q21 and 2021.

## Quarterly Performance of Industry Sectors

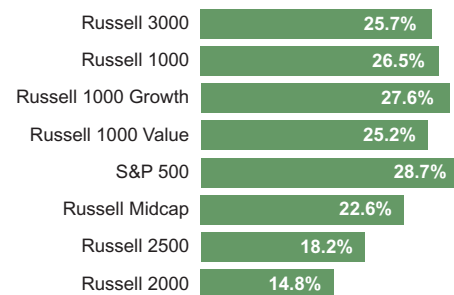


Source: S&P Dow Jones Indices

## U.S. Equity: Quarterly Returns



## U.S. Equity: One-Year Returns



Sources: FTSE Russell and S&P Dow Jones Indices

- Growth style returns highly correlated with market capitalization in both 4Q21 and 2021 (higher market capitalization = high return).
- Within micro-, small-, and smid-cap growth, Health Care (especially biotech/pharma) was biggest detractor to returns.
- Value returns correlated with market capitalization in 4Q21; for 2021, value returns did not experience much divergence.

## Global Equity

### Omicron takes center stage

- A recovery-driven market shifted back to COVID favorites, boosting Information Technology stocks.
- Small cap underperformed large amid global growth concerns.
- Emerging markets struggled relative to developed markets as China experienced significant pressure from an economic slowdown and its regulatory crackdown.

### Stalled recovery

- As the new variant took hold, Energy and Communication Services lagged on fear of restrained growth.
- Japan suffered from both supply chain issues and economic constraints from COVID-19.
- Growth and momentum factors outperformed in developed markets but not in emerging markets.

### U.S. dollar vs. other currencies

- The U.S. dollar rose against other major currencies as tapering accelerated alongside the expectation for 2022 rate hikes, which notably detracted from global ex-U.S. results.

### Growth vs. value

- Inflationary pressures and the ultimate rebound from COVID-19 supported value's leadership for the full year, despite the shift to growth in 4Q21.

### Regulation has spooked Chinese market

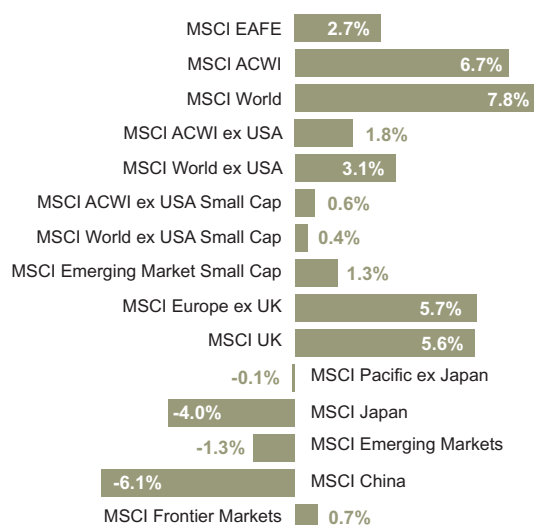
- Although regulation is not new in China, the duration, scope, and intensity of the current regime are unprecedented.
- Regulations have been centered on antitrust, financial markets, data/national security, and social welfare to enhance the sustainability of its economy.
- Regulatory uncertainty should subside as China focuses on implementation.

### Inflation is expected to normalize in a few years

- Forecasted year-over-year core CPI is expected to reach its peak between 1Q22 and 2Q22.
- Inflationary environment by and large has shifted central banks to contractionary policy.

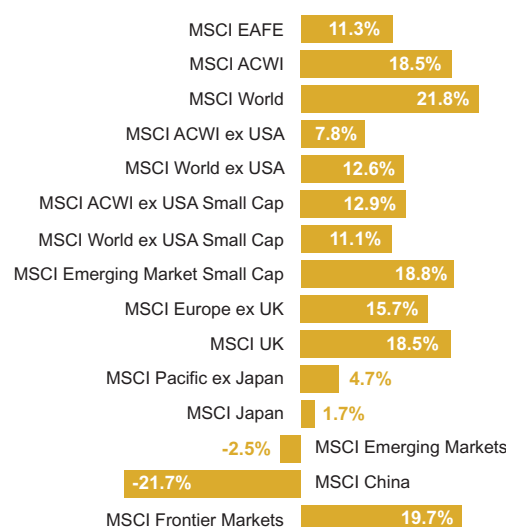
## Global ex-U.S. Equity: Quarterly Returns

(U.S. Dollar)



## Global ex-U.S. Equity: One-Year Returns

(U.S. Dollar)



Source: MSCI

## Rise in inflation expectations tends to stoke value

- Correlation between cyclical sectors and inflation/interest rate expectations generally has been positive.
- Growth relative to value is more vulnerable as interest rates normalize.
- Global recovery from COVID and deficit in Energy should support value.



# Fixed Income

## U.S. Fixed Income

### Treasury yields again unchanged

- 10-year at 1.52% at 9/30 and 12/31, up slightly from 1.45% on 6/30.
- TIPS outperformed nominal Treasuries and 10-year breakeven spreads widened to 2.56%.
- Real yields remain solidly in negative territory.

### Bloomberg Aggregate was flat, literally

- Spread sectors (Agencies, ABS, CMBS, MBS, and Credit) all underperformed UST by a modest amount (but positive YTD).
- Yield curve flattened; curve positioning had a meaningful impact on returns in 4Q.

### High yield and leveraged performed relatively well

- Spreads remain near historic tight.
- High yield issuers' default rate declined to a record low in December (J.P. Morgan).
- New issuance hit a record for the second year in a row as issuers looked to finance at relatively low rates.

### Munis outperformed Treasuries

- Lower-quality bonds continued their trend of outperformance as investors sought yield.

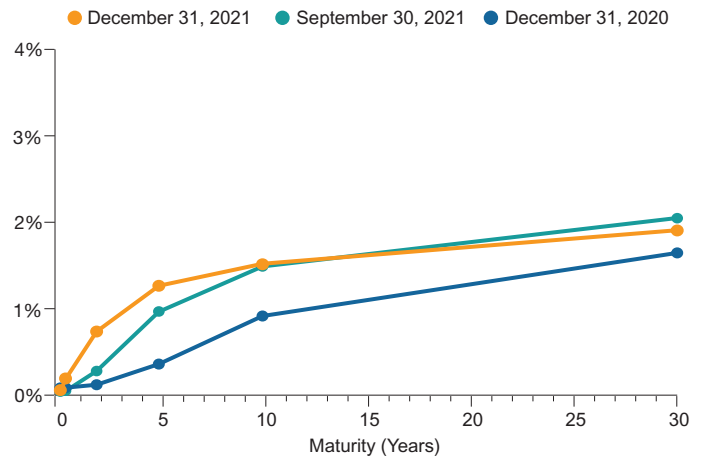
### Inflation is being felt, indicated by several measures

- Annual CPI jumped to 7.0% in December—its eighth consecutive reading above 5% and the largest 12-month increase since the period ending June 1982.
- Increases for shelter and for used cars/trucks were the largest contributors to the seasonally adjusted all-items increase.
- Even service inflation, which had declined initially, has since recovered and is on an upward trend.

### Fed has turned more hawkish than expected

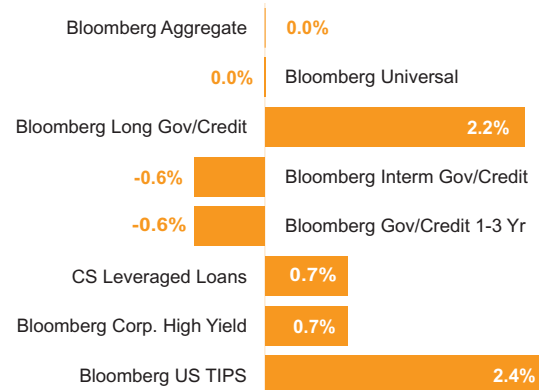
- Fed announced a doubling of the pace of tapering and an upward revision to the anticipated path of rate hikes.
- FOMC participants now expect three rate hikes in 2022 to bring the targeted range to 0.75%-1.0% by year-end.

## U.S. Treasury Yield Curves



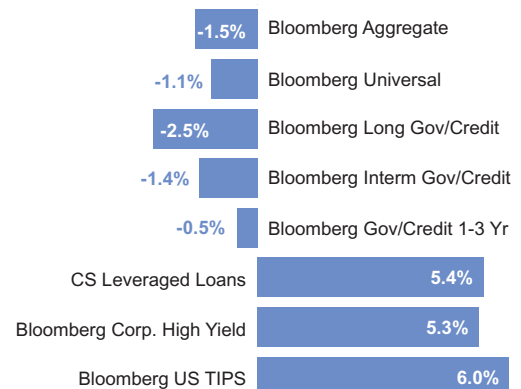
Source: Bloomberg

## U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg and Credit Suisse

## U.S. Fixed Income: One-Year Returns



Sources: Bloomberg and Credit Suisse

## FIXED INCOME (Continued)

### Spreads have returned to tights

- Fundamentals remain strong and default expectations low.
- Revenue, profits, and free cash flow at or near cycle highs.
- Gross and net leverage trending lower while interest coverage trends higher.

### Global Fixed Income

#### Flat on a hedged basis

- Returns were muted and U.S. dollar strength eroded returns for unhedged U.S. investors in both 4Q and 2021.
- Yen was a notable underperformer in developed markets, falling 10% for the year.

#### Emerging market debt posted negative returns

- Emerging market debt indices underperformed most other fixed income sectors in 2021.
- Currencies fared the worst vs. the U.S. dollar; the Turkish lira sank 44% on spiking inflation.

#### Global outlook may shift lower with regional variance

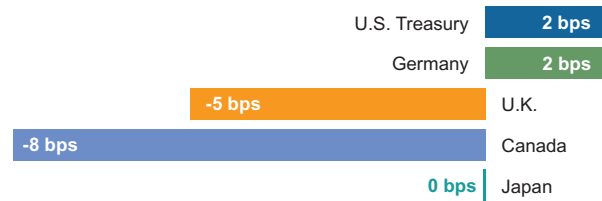
- Moderating and differentiated outlook for various regions reflects certain DM and EM economies shifting to tightening balanced by others managing legacy issues.

#### Central bank policy is mixed

- The U.K. has led the way with interest rate hikes as the BOE expects inflation to peak in April 2022.
- Europe and Japan continue to have below-target inflation and are expected to maintain relatively accommodating monetary policy.
- EM central banks, having moved early to battle inflation, may be moving to a more late-cycle posture.

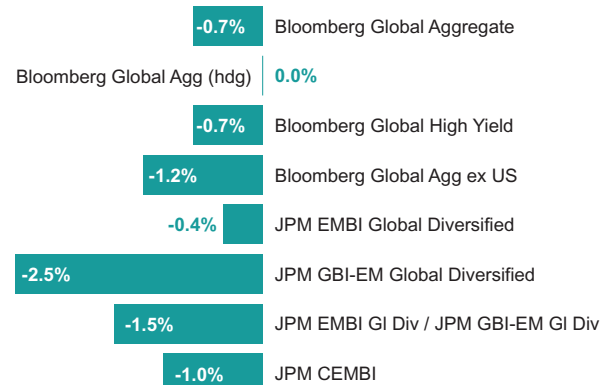
### Change in 10-Year Global Government Bond Yields

3Q21 to 4Q21



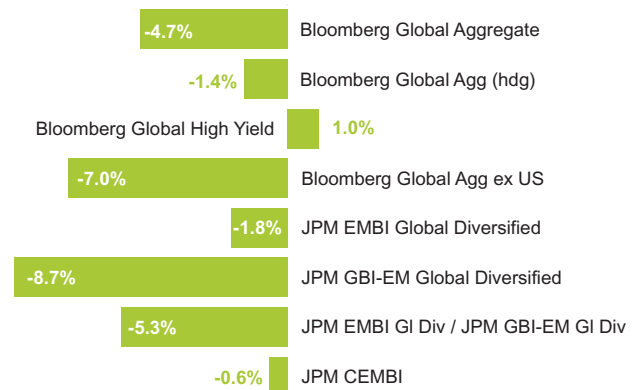
Source: Bloomberg

### Global Fixed Income: Quarterly Returns



Sources: Bloomberg and JPMorgan Chase

### Global Fixed Income: One-Year Returns



Sources: Bloomberg and JPMorgan Chase



# Best Gain Ever for ODCE; U.S. REITs Top Stocks

REAL ESTATE/REAL ASSETS | Munir Iman

## Strongest gains for ODCE ever

- The NCREIF Open End Diversified Core Equity (ODCE) Index posted its best return ever in 4Q21 (7.7%); Industrial was the best performer.
- Income returns were positive across sectors.
- Appraisers are pricing in a recovery due to strong fundamentals in Industrial and Multifamily.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.
- Niche sectors such as self-storage and life sciences continued to be accretive.

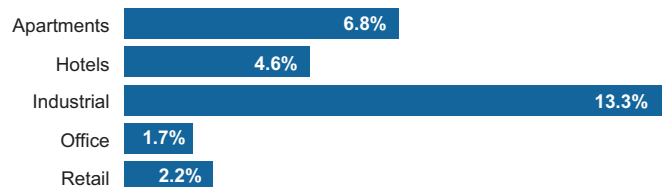
## Compression in vacancy rates

- Vacancy rates kept compressing in Industrial and Multifamily as demand continued.
- Net operating income turned negative for Office as the Omicron variant delayed many return-to-work plans.
- 4Q21 rent collections were stable across all sectors.
- Demand outpaced supply as new construction of preleased Industrial and Multifamily occurred.

## Global REITs and U.S. REITs outperform

- Global REITs outperformed in 4Q21, increasing 10.4% compared to 7.8% for global equities (MSCI World).
- U.S. REITs rose 16.3% in 4Q21, beating the S&P 500 Index, which gained 11.0%.
- Global REITs were trading below NAV, except for those in Australia, Japan, the United States, and Canada.
- Property sectors were mixed as out-of-favor sectors such as Office, Hotels, and Retail traded below NAV.
- Ongoing volatility in REIT share prices offers opportunities to purchase mispriced securities, individual assets from REIT owners, and discounted debt, as well as lend to companies and/or execute take-privates of public companies.

## Sector Quarterly Returns by Property Type



Source: NCREIF

## Callan Database Median and Index Returns\* for Periods Ended 12/31/21

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
<b>Real Estate ODCE Style</b>	<b>4.5</b>	<b>18.5</b>	<b>18.5</b>	<b>7.9</b>	<b>7.8</b>	<b>9.4</b>	<b>5.8</b>
NFI-ODCE (value wt net)	7.7	21.1	21.1	8.2	7.7	9.4	5.8
NCREIF Property	6.1	17.7	17.7	8.4	7.8	9.3	7.2
NCREIF Farmland	3.8	7.8	7.8	5.2	5.7	9.7	10.6
NCREIF Timberland	4.6	9.2	9.2	3.7	3.6	5.3	5.1
<b>Public Real Estate</b>							
<b>Global Real Estate Style</b>	<b>10.5</b>	<b>28.5</b>	<b>28.5</b>	<b>16.1</b>	<b>11.0</b>	<b>11.0</b>	<b>5.5</b>
FTSE EPRA Nareit Developed	10.2	26.1	26.1	11.8	7.8	8.6	3.5
<b>Global ex-U.S. Real Estate Style</b>	<b>3.2</b>	<b>10.8</b>	<b>10.8</b>	<b>10.8</b>	<b>9.7</b>	<b>10.1</b>	<b>3.9</b>
FTSE EPRA Nareit Dev ex US	2.0	8.1	8.1	6.7	6.4	7.2	1.9
<b>U.S. REIT Style</b>	<b>15.9</b>	<b>42.8</b>	<b>42.8</b>	<b>20.9</b>	<b>12.4</b>	<b>12.4</b>	<b>7.9</b>
EPRA Nareit Equity REITs	16.3	43.2	43.2	18.4	10.8	11.4	6.9

\*Returns less than one year are not annualized.

Sources: Callan, FTSE Russell, NCREIF

# A Big Bounce Back in 2021

PRIVATE EQUITY | Gary Robertson

Private equity has adapted well to the COVID environment with tremendous growth last year. On average, year-over-year transaction activity increased by 30% and dollar volumes by 70%.

**Fundraising** ► Based on preliminary data, in 2021 private equity partnerships holding final closes raised \$815 billion across 2,368 partnerships (unless otherwise noted, all data is from PitchBook and 4Q numbers are very preliminary). The dollar amount is only 5% away from 2020's total, while the number of partnerships trails by 22%; both will exceed 2020 when final tallies are concluded. 4Q21 had final closes totaling \$162 billion, up 5% from 3Q. The number of funds totaled 479, down 6%.

**Buyouts** ► New buyout investments for 2021 totaled 12,410, up 32% from 2020. Dollar volume increased 52% to \$797 billion. 4Q saw 3,022 new investments, a 1% decrease from 3Q, and dollar volume fell 20% to \$204 billion.

**VC Investments** ► The year produced 45,665 rounds of new investment in venture capital (VC) companies, up 13% from 2020. Announced volume of \$710 billion was up a stunning 99%. 4Q saw 10,196 new rounds, an 11% decline from 3Q, and dollar volume rose 11% to \$204 billion.

**Exits** ► Last year also saw 3,001 buyout-backed private M&A exits, up 31% from 2020, with proceeds of \$692 billion, up 66%. 4Q had 755 private exits, down 3% from 3Q, with proceeds of \$188 billion, down 11%. The year's 427 buyout-backed IPOs rose 150% from 2020, with proceeds of \$132 billion, up 76%. 4Q IPOs numbered 112, unchanged from 3Q, but proceeds of \$27 billion declined 16%.

Venture-backed M&A exits for the year totaled 3,080, up 40% from 2020. Announced dollar volume of \$218 billion was up 63%. The final quarter had 739 exits, down 10% from 3Q, and value of \$48 billion, down 24%. The year's 636 venture-backed IPOs rose 49% from 2020, with proceeds of \$201 billion, up 179%. There were 162 in 4Q, a 16% jump from 3Q, and the \$39 billion of proceeds rose 18%.

## Funds Closed 1/1/21 to 12/31/21

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	1,536	230,022	28%
Growth Equity	176	103,648	13%
Buyouts	463	354,739	44%
Mezzanine Debt	20	14,163	2%
Distressed	32	48,573	6%
Energy	5	2,129	0%
Secondary and Other	99	52,651	6%
Fund-of-Funds	37	8,691	1%
<b>Totals</b>	<b>2,368</b>	<b>814,616</b>	<b>100%</b>

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

## Private Equity Performance (%) (Pooled Horizon IRRs through 9/30/21\*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	7.2	76.0	36.3	27.5	20.6	15.6	11.5	23.8
Growth Equity	4.4	52.3	29.0	24.3	18.1	15.6	14.7	16.4
All Buyouts	4.4	42.8	21.8	20.2	16.1	12.6	14.2	13.7
Mezzanine	3.0	22.2	11.8	12.4	12.2	11.0	10.5	10.4
Credit Opportunities	2.1	21.7	7.0	8.8	9.9	9.0	9.9	9.9
Control Distressed	7.2	42.6	16.6	14.3	13.5	10.8	11.7	11.9
<b>All Private Equity</b>	<b>5.1</b>	<b>49.8</b>	<b>24.8</b>	<b>21.4</b>	<b>16.7</b>	<b>13.3</b>	<b>13.2</b>	<b>14.8</b>
S&P 500	0.6	30.0	16.0	16.9	16.6	10.4	9.5	9.7
Russell 3000	-0.1	31.9	16.0	16.9	16.6	10.4	9.8	9.7

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

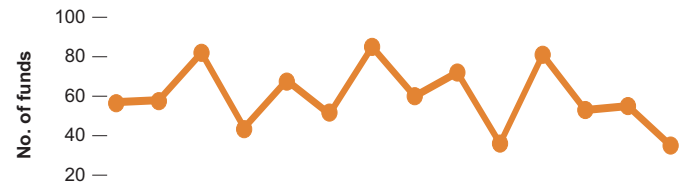
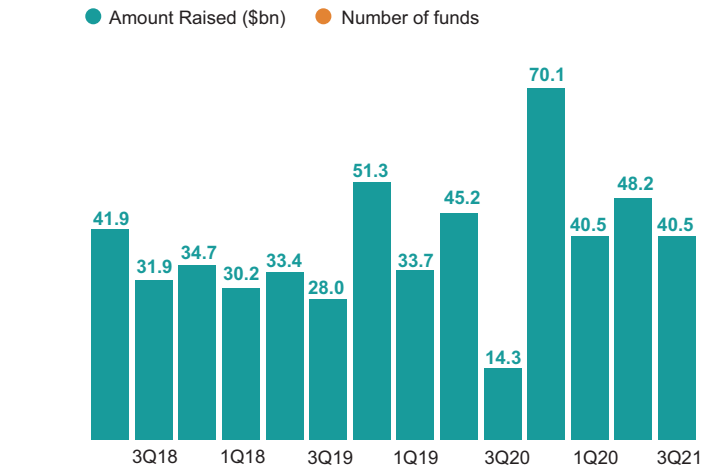
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

# Strong Demand Due to Focus on Yield/Income

PRIVATE CREDIT | Catherine Beard

- The yield and income-generating characteristics of private credit remain attractive in a low-rate environment.
- In addition, many direct lending assets employ a floating rate, which can add protection against rising rates.
- Direct lending pricing is back to pre-COVID levels; portfolios were resilient during the COVID dislocation due to liquidity injected into the U.S. economy.
- That liquidity has also limited U.S. corporate stress and has muted the corporate distressed opportunity set.
- Opportunities within private credit include those that offer diversification through differentiated collateral and/or low correlation to public markets, including specialty finance, asset-backed lending, and niche areas (life science lending and intellectual property).
- Private credit performance varies across sub-asset class and underlying return drivers. On average, the asset class has generated net IRRs of 8% to 10% for trailing periods ended Dec. 31, 2020. Higher-risk strategies performed better than lower-risk strategies.
- Private credit fundraising tapered off in 3Q20 due to COVID-related disruption; it significantly rebounded in 4Q20 and the first half of 2021.
- There was strong fundraising activity in 2021 for senior debt and mezzanine capital, with a ramp-up in specialty finance, asset-backed lending, and venture debt.
- There has also been continued strong PC fundraising activity from large credit shops as well as new offerings from traditional fixed income managers.
- Consolidation is ramping up, with large traditional firms acquiring alternative credit managers, such as T. Rowe Price buying Oak Hill Advisors.

## Private Credit Fundraising (\$bn)



Source: Preqin

# Hedge Funds Ended the Year on a Positive Note

HEDGE FUNDS/MACs | Joe McGuane

The fourth quarter saw a resurgence of COVID as the highly transmissible Omicron variant produced another wave of infections around the world, disrupting the positive momentum markets had experienced up to that point. Supply chain constraints continued, as service sectors were impacted by the new variant, and rising input prices persisted throughout the quarter. Further exacerbating markets were the hawkish comments made by Fed Chair Powell, opening the door to more aggressive tapering and rate increases next year. The confluence of a spike in COVID and the Fed now worried about curbing high inflation called into question the strength of economic growth moving forward. Investors grew concerned as they reassessed the probability of tighter monetary policy.

Despite increased market volatility during the final two months of the year, the S&P 500 (+11%) ended the quarter positive, with investors showing no sign of distress. This

## Hedge Fund Style Group Returns



Sources: Callan, Credit Suisse, Federal Reserve

## Callan Peer Group Median and Index Returns\* for Periods Ended 12/31/21

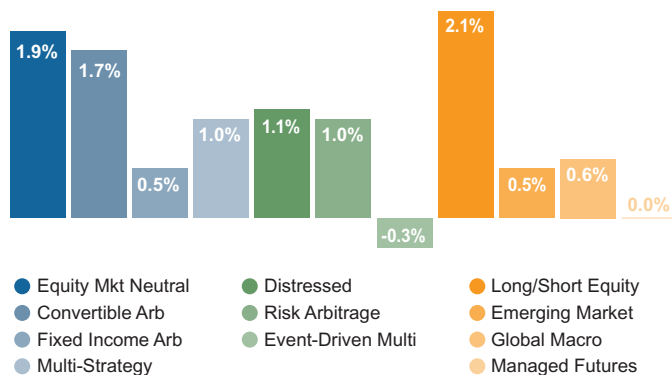
Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	0.6	9.3	6.4	5.4	6.1	7.0
Callan Fund-of-Funds Peer Group	-0.6	5.2	8.9	5.9	5.7	4.8
Callan Absolute Return FOF Style	-0.7	5.6	7.1	4.8	4.7	3.9
Callan Core Diversified FOF Style	0.1	6.2	8.5	5.7	5.5	4.4
Callan Long/Short Equity FOF Style	-2.2	3.3	12.6	8.3	7.1	5.5
BB GS Cross Asset Risk Premia 6% Vol Idx	-2.7	-0.5	1.4	1.9	3.7	5.2
Credit Suisse Hedge Fund	0.9	8.2	8.0	5.5	4.9	4.3
CS Convertible Arbitrage	1.7	6.3	8.2	5.4	4.6	4.3
CS Distressed	1.1	12.5	5.8	4.6	5.3	4.2
CS Emerging Markets	0.5	5.2	10.2	7.1	6.0	4.8
CS Equity Market Neutral	1.9	6.2	3.1	2.5	1.8	-1.2
CS Event-Driven Multi	-0.3	13.9	10.7	6.4	5.2	4.6
CS Fixed Income Arb	0.5	5.2	5.0	4.5	4.6	3.8
CS Global Macro	0.6	9.6	8.8	5.6	4.4	5.8
CS Long/Short Equity	2.1	8.4	9.4	7.2	6.7	5.1
CS Managed Futures	0.0	8.2	6.3	3.0	1.8	2.8
CS Multi-Strategy	1.0	7.0	6.6	5.1	6.2	5.2
CS Risk Arbitrage	1.0	5.3	8.6	6.3	4.4	4.3
HFRI Asset Wtd Composite	1.3	7.5	5.7	4.6	4.6	--
90-Day T-Bill + 5%	1.2	5.1	6.0	6.1	5.6	5.9

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

equity market surge was aided by strength in U.S. mega caps, while riskier equities underperformed in December, particularly within areas of technology such as software, fintech, and electric vehicles, all of which cooled off dramatically. U.S. small cap equities underperformed large cap due to worries around future growth. The Bloomberg High Yield Index ended the quarter higher (+0.7%), as the U.S. yield curve flattened throughout the quarter, driven by concerns for future growth amid expected tightening policies from central banks.

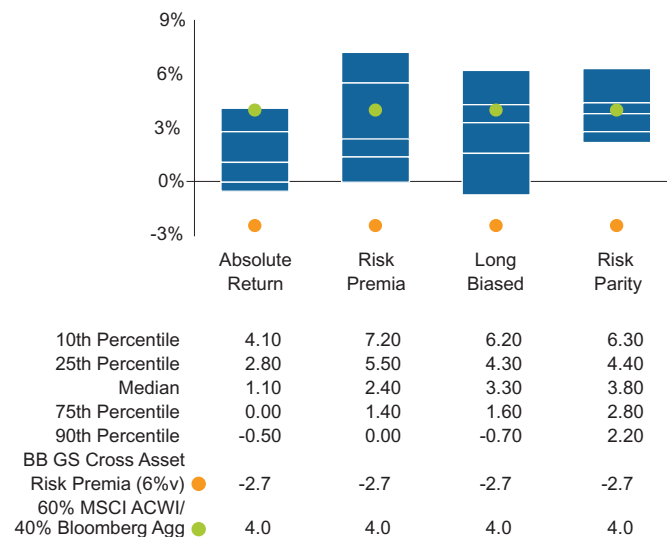
Representing hedge funds reporting performance without implementation costs, the HFRI Fund Weighted Composite

### Credit Suisse Hedge Fund Strategy Returns



Source: Credit Suisse

### MAC Style Group Returns



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

Index gained 0.4% in 4Q. Within the HFRI indices, the best-performing strategy was Event Driven (+1.5%), as an abundance of corporate activity created alpha opportunities. Equity hedge ended higher (+0.8%), when value positioning paid off. Macro strategies had a difficult quarter (-0.5%), after interest rate volatility went against some manager positions.

Across the Callan Hedge FOF Database, the median Absolute Return FOF lost 0.7%. With exposures to non-directional and directional styles, the Core Diversified FOF rose 0.7%. Long/Short Equity FOF was negative at 2.2%, after a difficult December where growth equities sold off aggressively. Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median Callan Institutional Hedge Fund Peer Group added 0.6%.

Since the Global Financial Crisis, liquid alternatives to hedge funds have become popular for their attractive risk-adjusted returns uncorrelated with stock and bond investments but offered at a lower cost. Much of that interest is focused on rules-based, long-short strategies that isolate risk premia such as value, momentum, and carry. These alternative risk premia are often embedded in hedge funds as well as other actively managed investment products.

In 4Q, the Bloomberg GSAM Risk Premia Index decreased 2.7% based upon a 6% volatility target. Within the underlying styles of the index, Equity Low Risk L/S (+5.9%) and Equity Trend (+1.6%) ended the quarter in positive territory as growth sold off relative to value in December. Equity Momentum (-4.8%) and FX Carry (-3.0%) had a difficult quarter as market volatility was elevated throughout the final month of the year.

The median managers of the Callan Multi-Asset Class (MAC) Style Groups generated gains gross of fees. The Callan Risk Premia MAC rose 2.4% based on its exposures to uncorrelated style premia targeting 5% to 15% portfolio volatility. The Callan Risk Parity MAC, which typically targets an equal risk-weighted allocation to the major asset classes with leverage, was up 3.8%. As the most conservative MAC style focused on non-directional strategies of long and short asset class exposures, the Callan Absolute Return MAC gained 1.1%.

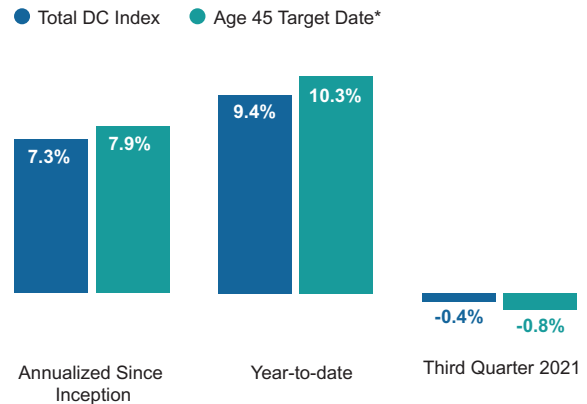
# Index Declines Slightly in 3Q21, First Time Since 1Q20

DEFINED CONTRIBUTION | Patrick Wisdom

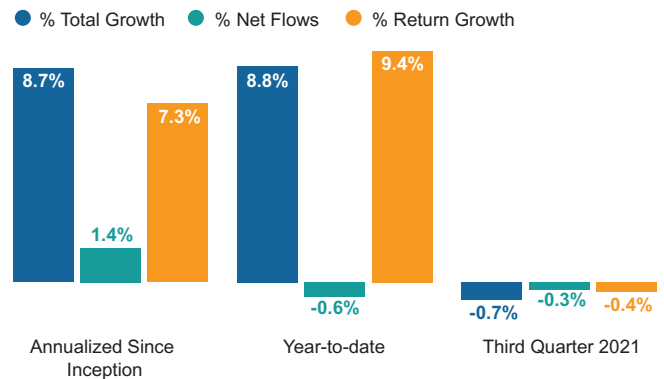
- The Callan DC Index™ fell 0.4% in 3Q21, the first decline since the pandemic-induced 15.0% 1Q20 plunge.
- The Age 45 Target Date Fund (analogous to the 2040 vintage) had a slightly lower return (-0.8%), attributable to its higher allocation to equity, which underperformed fixed income during the quarter.
- Balances within the DC Index declined by 0.7%. Investment returns (-0.4%) and net flows (-0.3%) both contributed to the lower aggregate balances.
- For the third straight quarter, target date funds received the largest net inflows, at 75.6% for the quarter.
- In a reversal from 2Q21, investors transferred assets into money market funds (13.1%). U.S. fixed income (-2.4%) had net outflows, albeit to a much smaller degree than the previous quarter (-17.7%).
- U.S. equity saw material net outflows, as U.S. large cap (-54.2%) and U.S. small/mid cap (-21.8%) drained assets. Global ex-U.S. equity (-1.0%) had smaller net outflows.
- Real return/TIPS also had larger-than-typical net inflows (4.8%), perhaps an indication that more participants are looking to hedge potential inflation.
- Turnover (i.e., net transfer activity levels within DC plans) decreased in 3Q to 0.19% from 2Q's measure of 0.37%.
- The Index's overall allocation to equity (72.23%) increased by 3 basis points.
- In a reversal from the previous quarter, U.S. small/mid cap (8.3%) had the largest percentage decrease in allocation.
- Company stock (2.5%) had the largest percentage increase in allocation.
- For plans with more than \$1 billion in assets, the average asset-weighted investment management fee decreased by 1 basis point. Plans with assets between \$500 million and \$1 billion also saw a fee decrease of 1 basis point, while the fee for plans with assets less than \$500 million had the largest decrease of 3 basis points.

*The Callan DC Index is an equally weighted index tracking the cash flows and performance of over 100 plans, representing nearly \$300 billion in assets. The Index is updated quarterly and is available on Callan's website.*

## Investment Performance



## Growth Sources



## Net Cash Flow Analysis (3Q21)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	75.56%
Money Market	13.14%
U.S. Small/Mid Cap	-21.76%
U.S. Large Cap	-54.20%
<b>Total Turnover**</b>	<b>0.19%</b>

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.

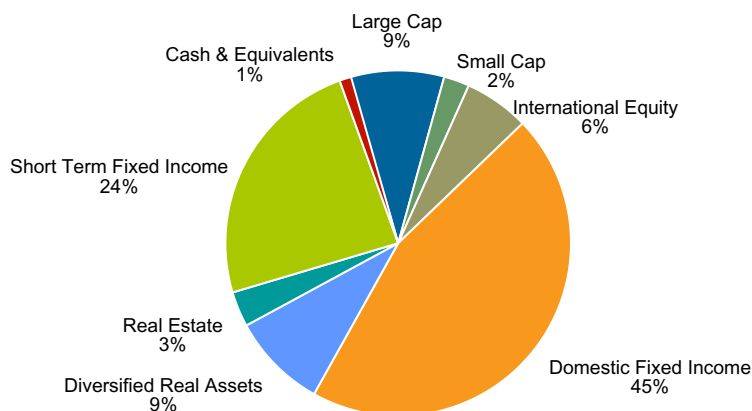
\*\* Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.



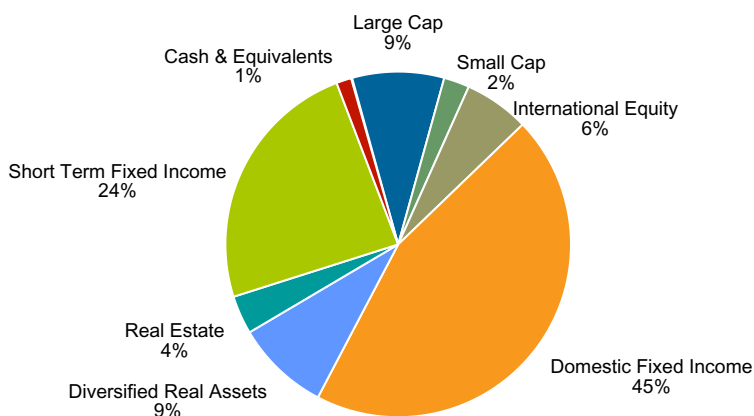
## Actual vs Target Asset Allocation As of December 31, 2021

The first chart below shows the Fund's asset allocation as of December 31, 2021. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

### Actual Asset Allocation



### Target Asset Allocation



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	284,976	8.8%	8.6%	0.2%	7,997
Small Cap	76,004	2.4%	2.4%	(0.1%)	(2,789)
International Equity	195,713	6.1%	6.1%	(0.1%)	(2,417)
Domestic Fixed Income	1,462,526	45.3%	44.9%	0.4%	11,664
Diversified Real Assets	291,212	9.0%	8.8%	0.2%	6,227
Real Estate	106,618	3.3%	3.6%	(0.3%)	(10,278)
Short Term Fixed Income	776,639	24.1%	24.1%	(0.0%)	(0)
Cash & Equivalents	34,396	1.1%	1.4%	(0.3%)	(10,405)
Total	3,228,083	100.0%	100.0%		

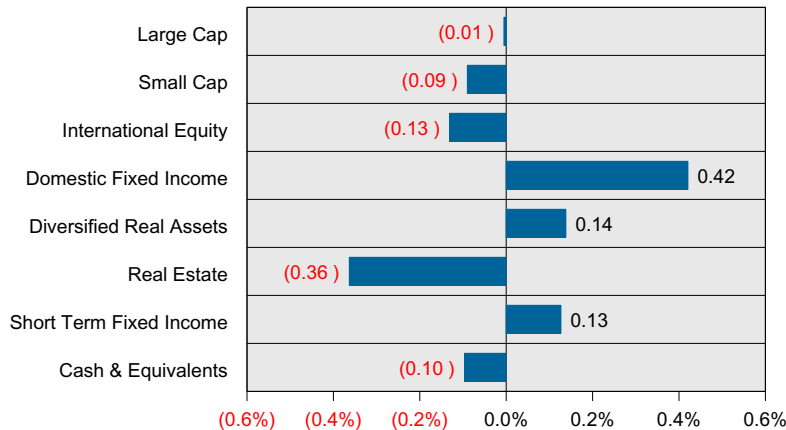
\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.



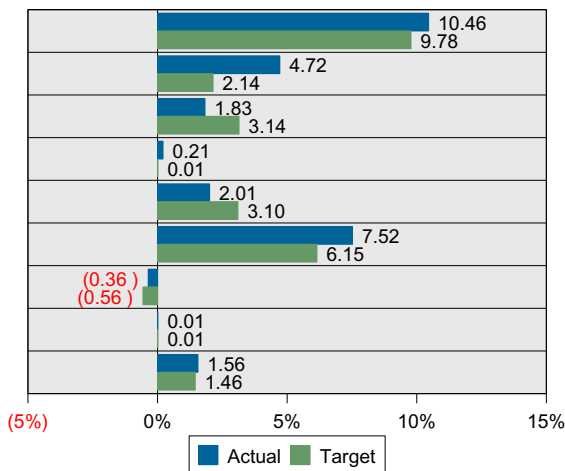
## Quarterly Total Fund Relative Attribution - December 31, 2021

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.

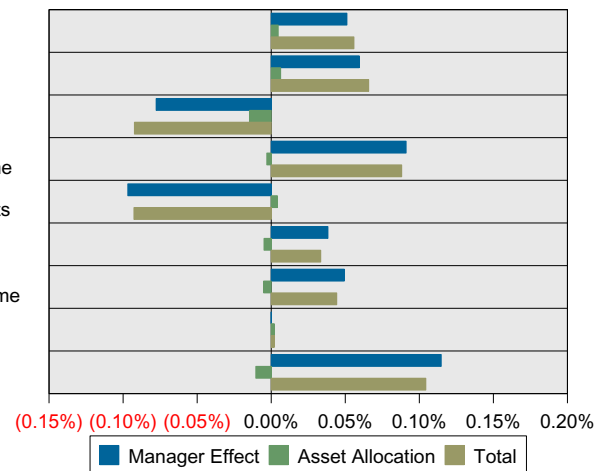
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended December 31, 2021

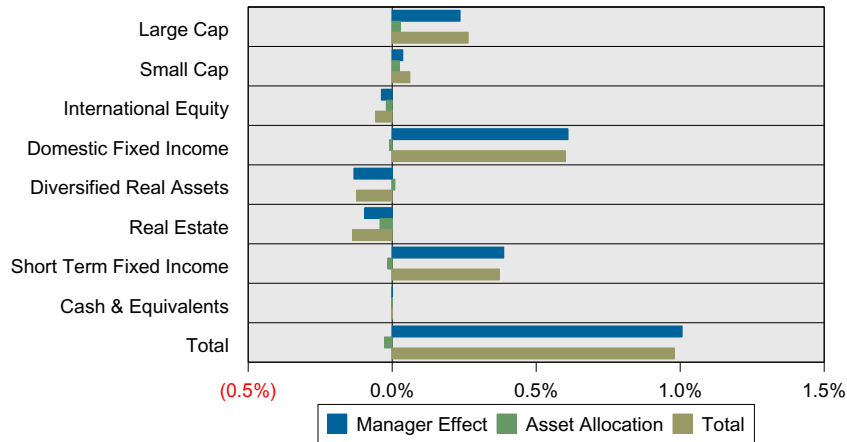
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	9%	9%	10.46%	9.78%	0.05%	0.00%	0.06%
Small Cap	2%	2%	4.72%	2.14%	0.06%	0.01%	0.07%
International Equity	6%	6%	1.83%	3.14%	(0.08%)	(0.01%)	(0.09%)
Domestic Fixed Income	45%	45%	0.21%	0.01%	0.09%	(0.00%)	0.09%
Diversified Real Assets	9%	9%	2.01%	3.10%	(0.10%)	0.00%	(0.09%)
Real Estate	3%	4%	7.52%	6.15%	0.04%	(0.00%)	0.03%
Short Term Fixed Income	24%	24%	(0.36%)	(0.56%)	0.05%	(0.01%)	0.04%
Cash & Equivalents	1%	1%	0.01%	0.01%	(0.00%)	0.00%	0.00%
<b>Total</b>			<b>1.56%</b>	<b>1.46%</b>	<b>+ 0.11%</b>	<b>+ (0.01%)</b>	<b>0.10%</b>

\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

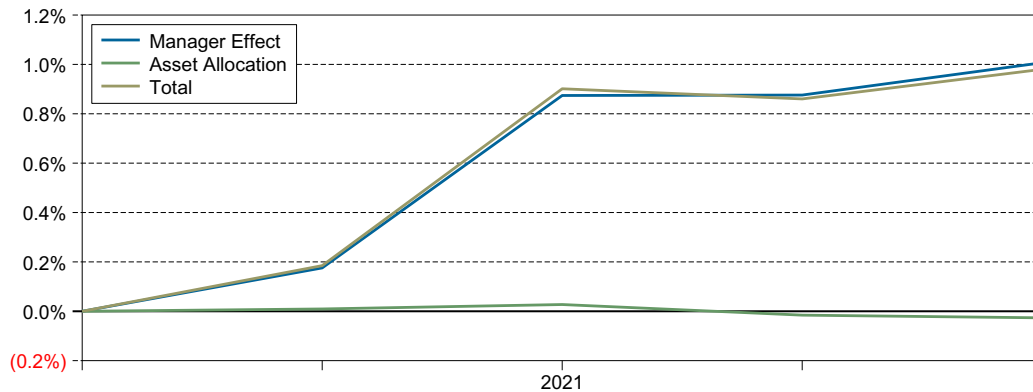
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

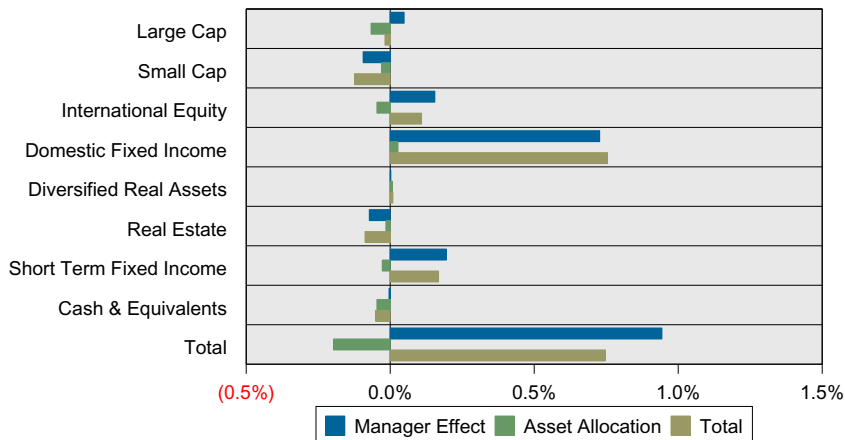
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	9%	9%	29.79%	26.45%	0.24%	0.03%	0.26%
Small Cap	2%	2%	17.08%	14.82%	0.04%	0.02%	0.06%
International Equity	6%	6%	11.92%	12.62%	(0.04%)	(0.02%)	(0.06%)
Domestic Fixed Income	45%	45%	(0.24%)	(1.54%)	0.61%	(0.01%)	0.60%
Diversified Real Assets	9%	9%	6.20%	7.71%	(0.13%)	0.01%	(0.12%)
Real Estate	3%	4%	14.38%	17.70%	(0.10%)	(0.04%)	(0.14%)
Short Term Fixed Income	24%	24%	1.05%	(0.47%)	0.39%	(0.02%)	0.37%
Cash & Equivalents	1%	1%	0.04%	0.05%	(0.00%)	(0.00%)	(0.00%)
<b>Total</b>			<b>4.68%</b>	<b>3.70%</b>	<b>+ 1.01%</b>	<b>+ (0.03%)</b>	<b>0.98%</b>

\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

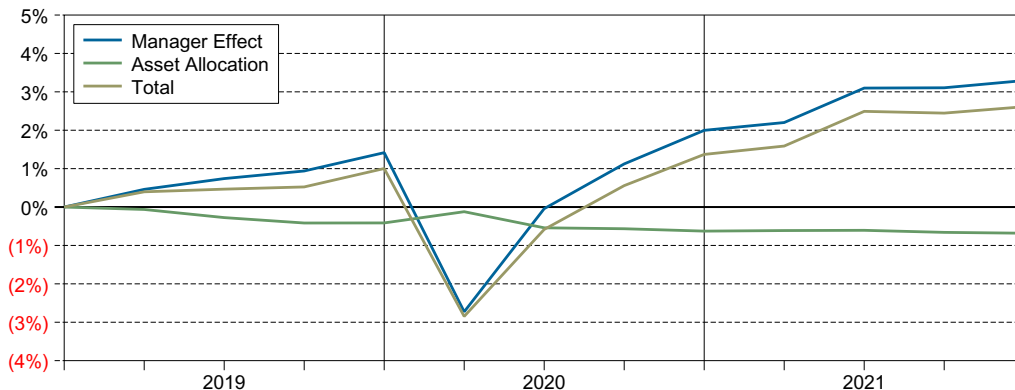
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

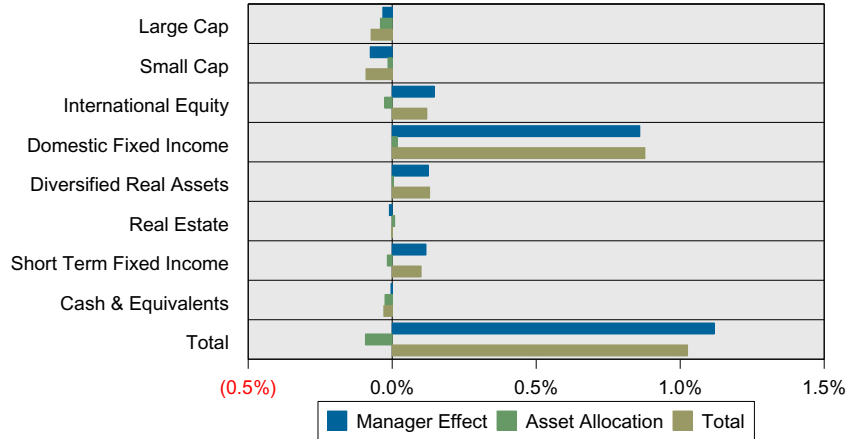
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	9%	9%	26.78%	26.21%	0.05%	(0.07%)	(0.02%)
Small Cap	2%	3%	16.39%	20.02%	(0.09%)	(0.03%)	(0.12%)
International Equity	6%	6%	16.67%	14.07%	0.16%	(0.05%)	0.11%
Domestic Fixed Income	47%	47%	6.32%	4.79%	0.73%	0.03%	0.75%
Diversified Real Assets	9%	9%	6.90%	6.88%	0.00%	0.01%	0.01%
Real Estate	3%	4%	6.16%	8.37%	(0.07%)	(0.01%)	(0.09%)
Short Term Fixed Income	21%	21%	3.18%	2.28%	0.20%	(0.03%)	0.17%
Cash & Equivalents	2%	2%	0.86%	0.99%	(0.00%)	(0.05%)	(0.05%)
<b>Total</b>			<b>8.36%</b>	<b>7.61%</b>	<b>+ 0.94%</b>	<b>+ (0.20%)</b>	<b>0.75%</b>

\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

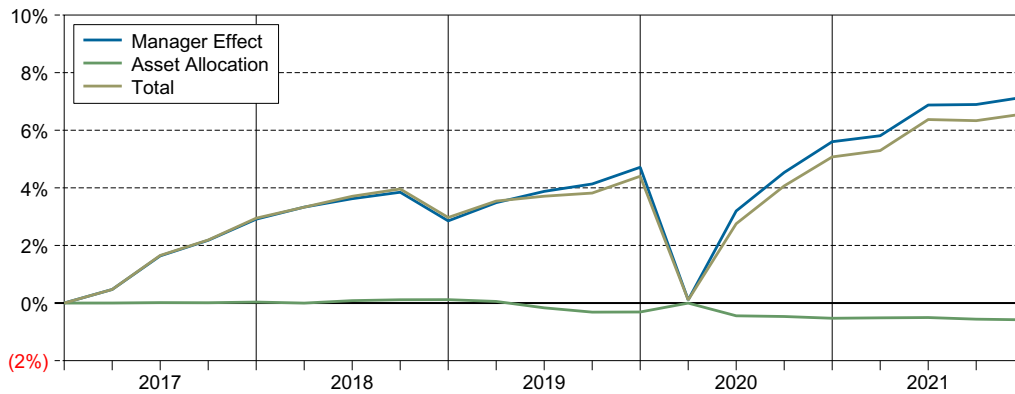
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

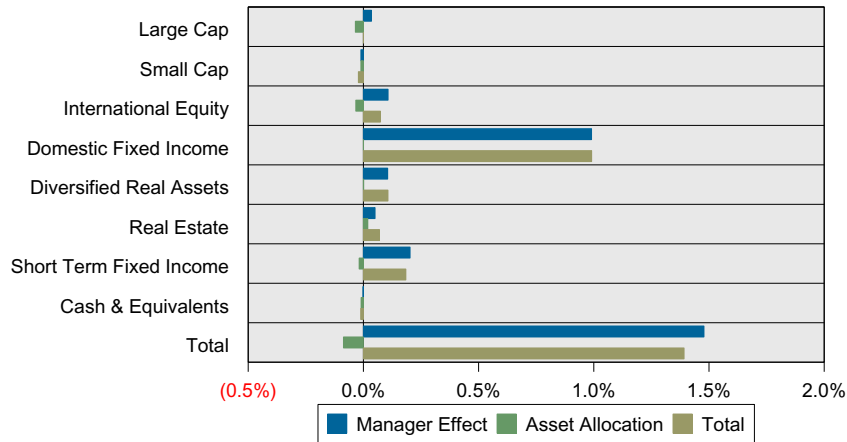
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	10%	10%	18.11%	18.43%	(0.03%)	(0.04%)	(0.07%)
Small Cap	3%	3%	9.40%	12.02%	(0.08%)	(0.01%)	(0.09%)
International Equity	7%	7%	11.60%	9.63%	0.15%	(0.03%)	0.12%
Domestic Fixed Income	49%	49%	5.31%	3.57%	0.86%	0.02%	0.88%
Diversified Real Assets	10%	11%	6.33%	5.33%	0.13%	0.00%	0.13%
Real Estate	5%	4%	6.90%	7.75%	(0.01%)	0.01%	(0.00%)
Short Term Fixed Income	14%	14%	2.43%	1.83%	0.12%	(0.02%)	0.10%
Cash & Equivalents	3%	3%	1.02%	1.14%	(0.00%)	(0.03%)	(0.03%)
<b>Total</b>			<b>6.90%</b>	<b>5.87%</b>	<b>+ 1.12%</b>	<b>+ (0.09%)</b>	<b>1.03%</b>

\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

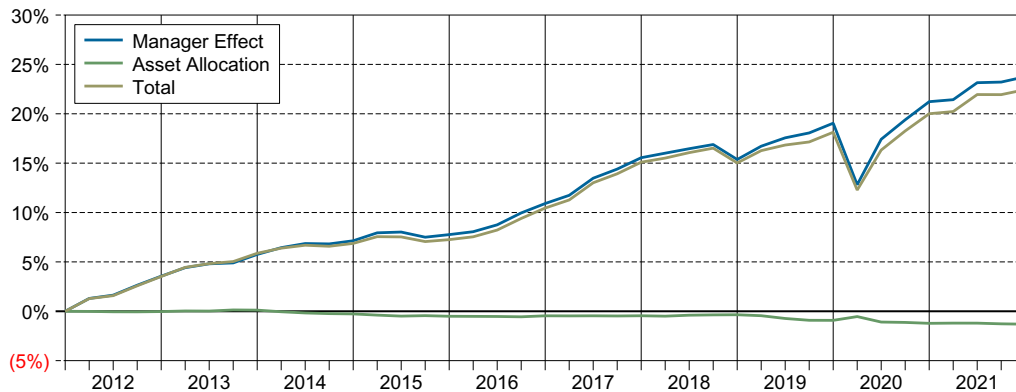
## Cumulative Total Fund Relative Attribution - December 31, 2021

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.

### Ten Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Ten Year Annualized Relative Attribution Effects

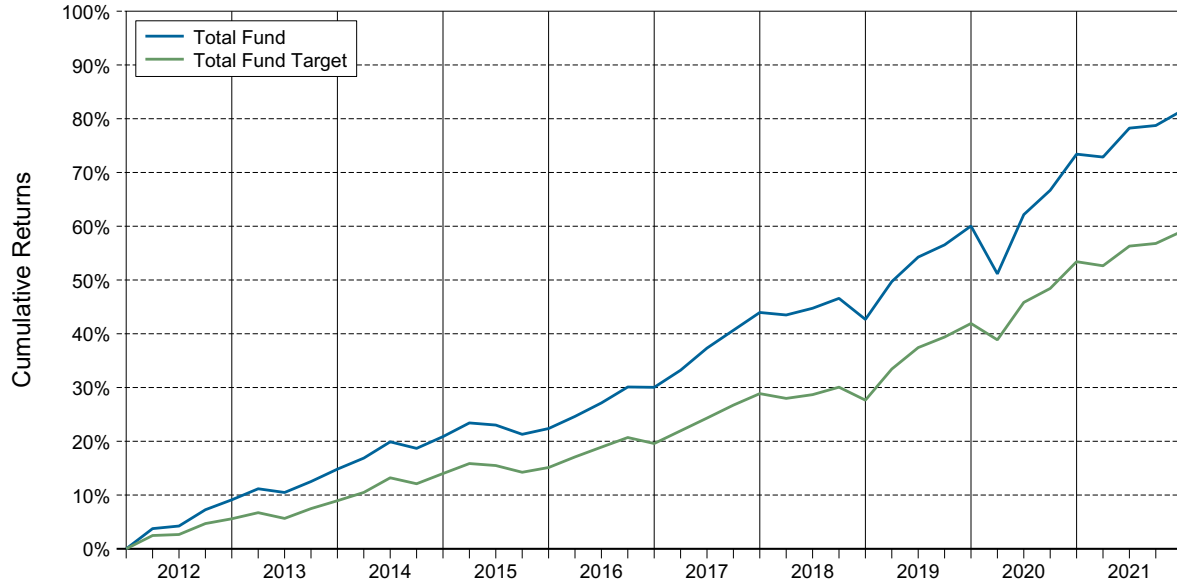
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	10%	10%	17.09%	16.54%	0.04%	(0.03%)	0.00%
Small Cap	3%	3%	12.87%	13.23%	(0.01%)	(0.01%)	(0.02%)
International Equity	7%	7%	9.92%	8.10%	0.11%	(0.03%)	0.07%
Domestic Fixed Income	42%	43%	5.34%	2.90%	0.99%	0.00%	0.99%
Diversified Real Assets	11%	11%	4.70%	3.74%	0.11%	0.00%	0.11%
Real Estate	5%	4%	10.24%	9.32%	0.05%	0.02%	0.07%
Short Term Fixed Income	20%	20%	2.06%	1.21%	0.20%	(0.02%)	0.18%
Cash & Equivalents	3%	3%	0.58%	0.63%	(0.00%)	(0.01%)	(0.01%)
<b>Total</b>			<b>6.14%</b>	<b>4.75%</b>	<b>+ 1.48%</b>	<b>+ (0.09%)</b>	<b>1.39%</b>

\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

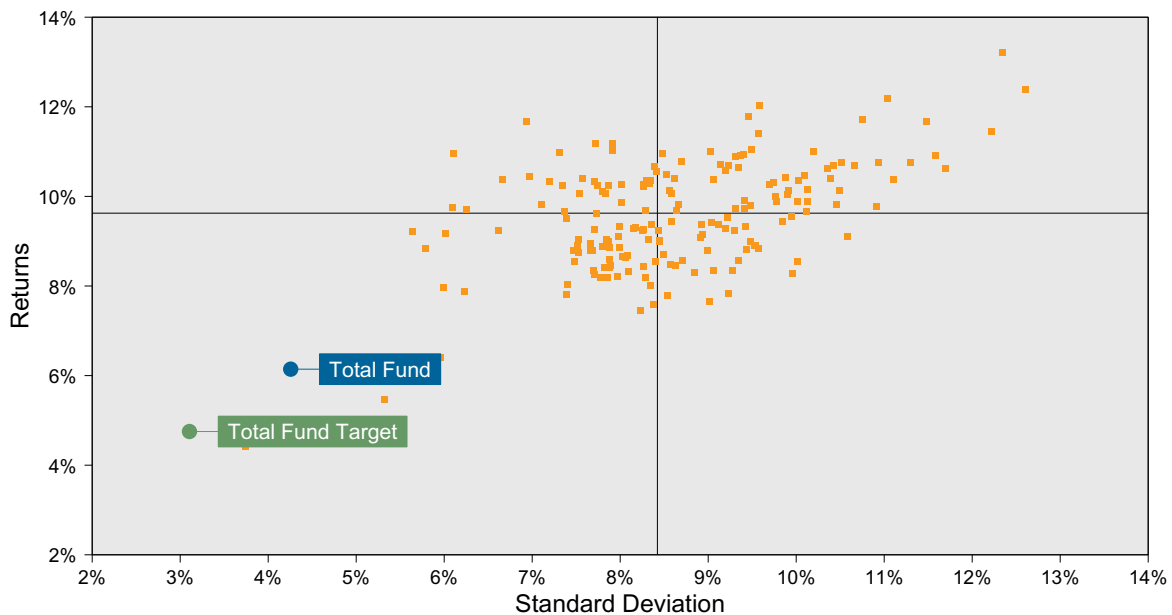
## Cumulative Performance Relative to Target

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 Sponsor Database.

### Cumulative Returns Actual vs Target



### Ten Year Annualized Risk vs Return



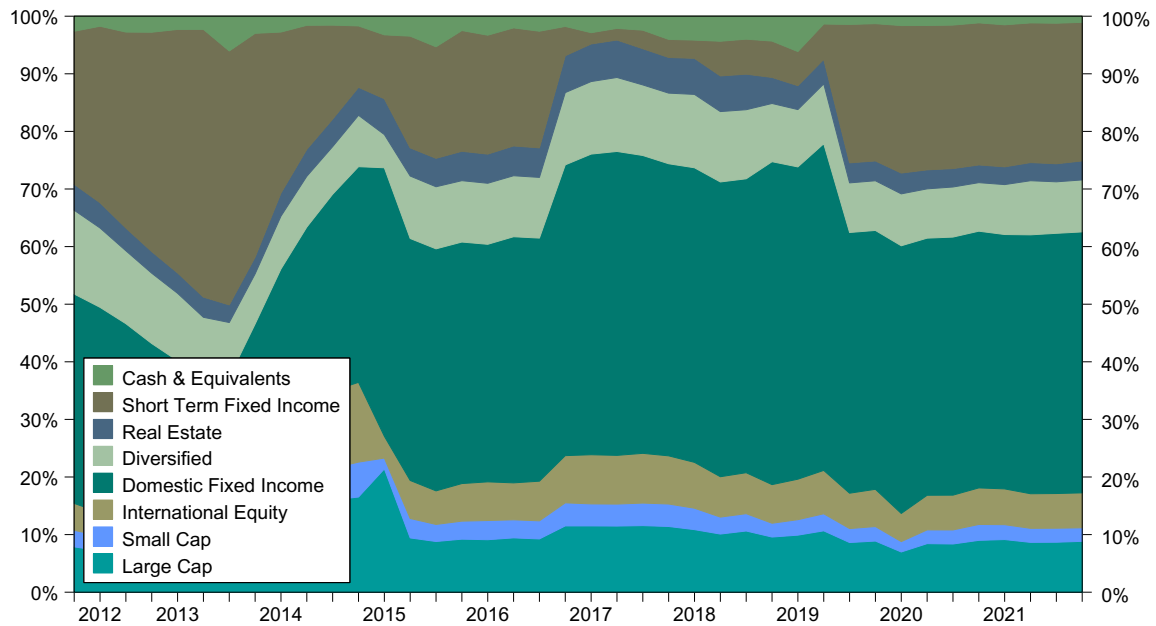
Squares represent membership of the Callan Public Fund Sponsor Database

\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

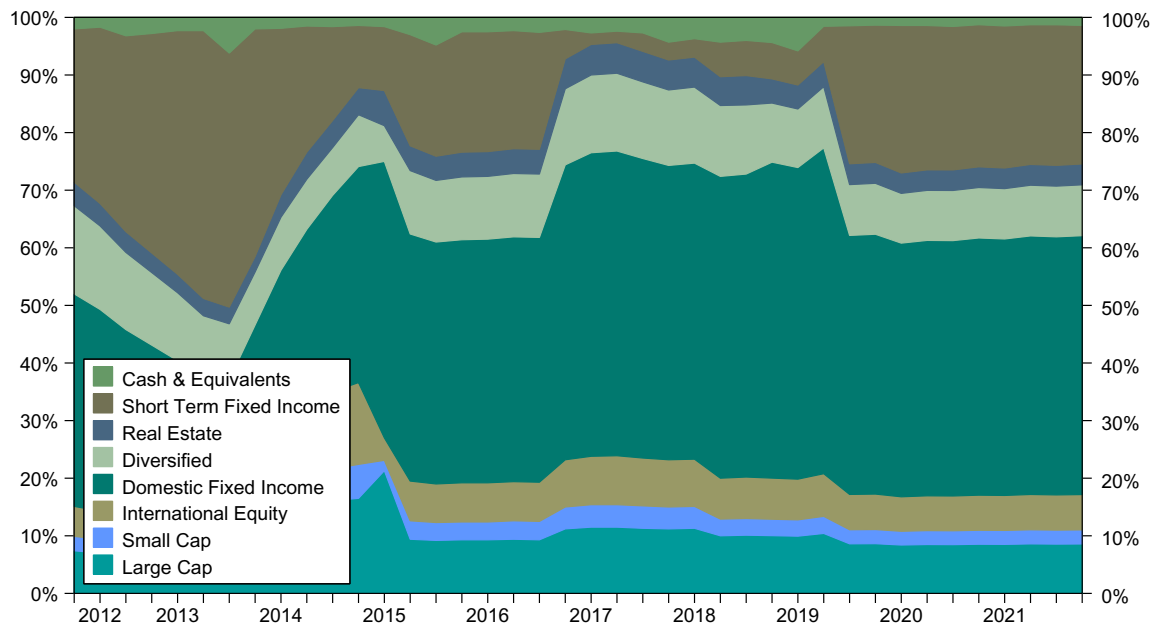
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

### Actual Historical Asset Allocation



### Target Historical Asset Allocation

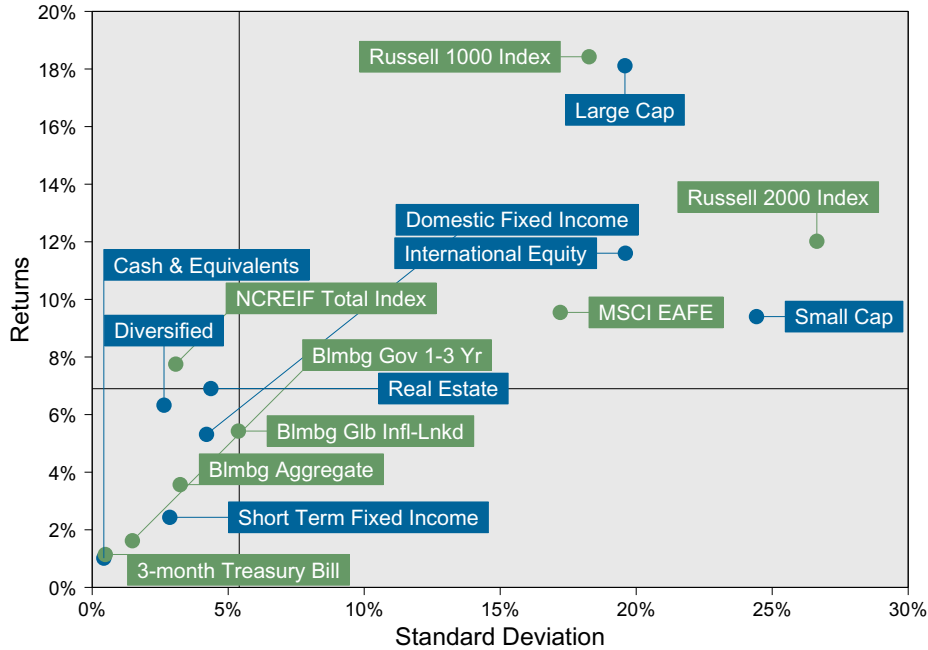


\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

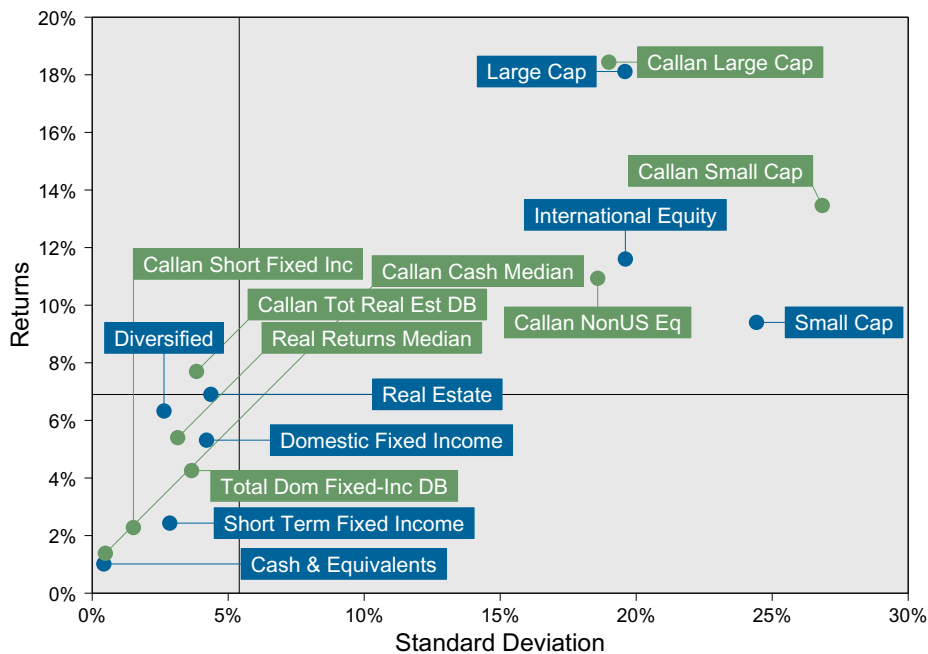
## Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

### Five Year Annualized Risk vs Return Asset Classes vs Benchmark Indices



### Five Year Annualized Risk vs Return Asset Classes vs Asset Class Median

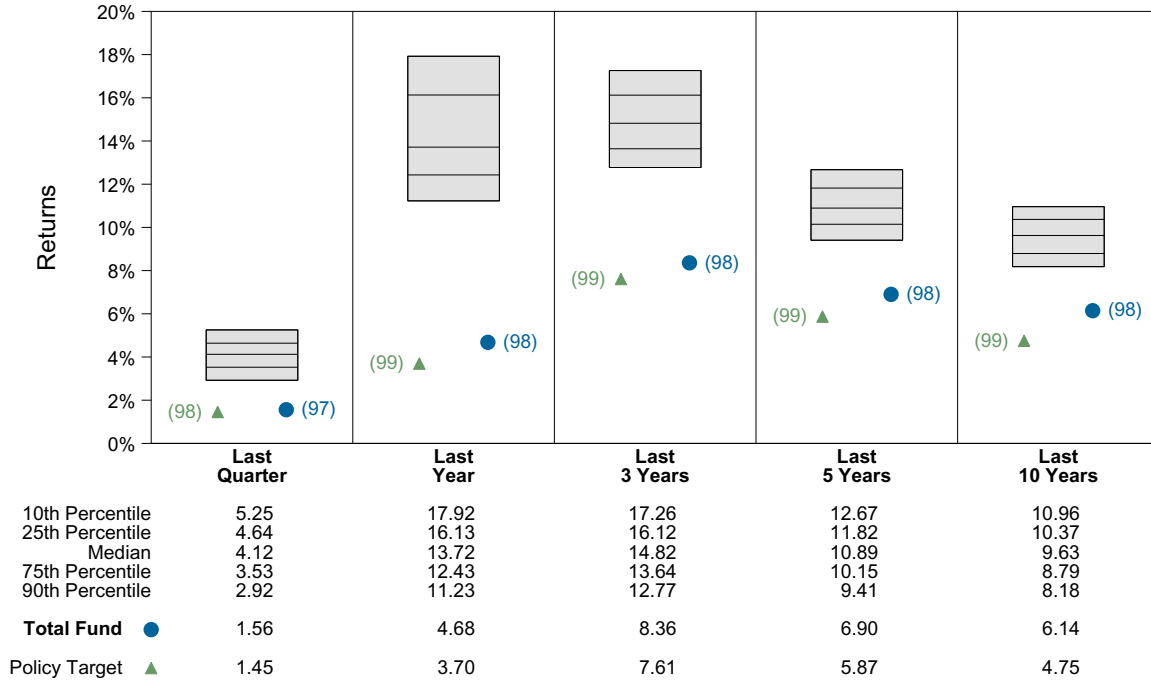




## Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Sponsor Database for periods ended December 31, 2021. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

### Callan Public Fund Sponsor Database



### Asset Allocation Adjusted Ranking

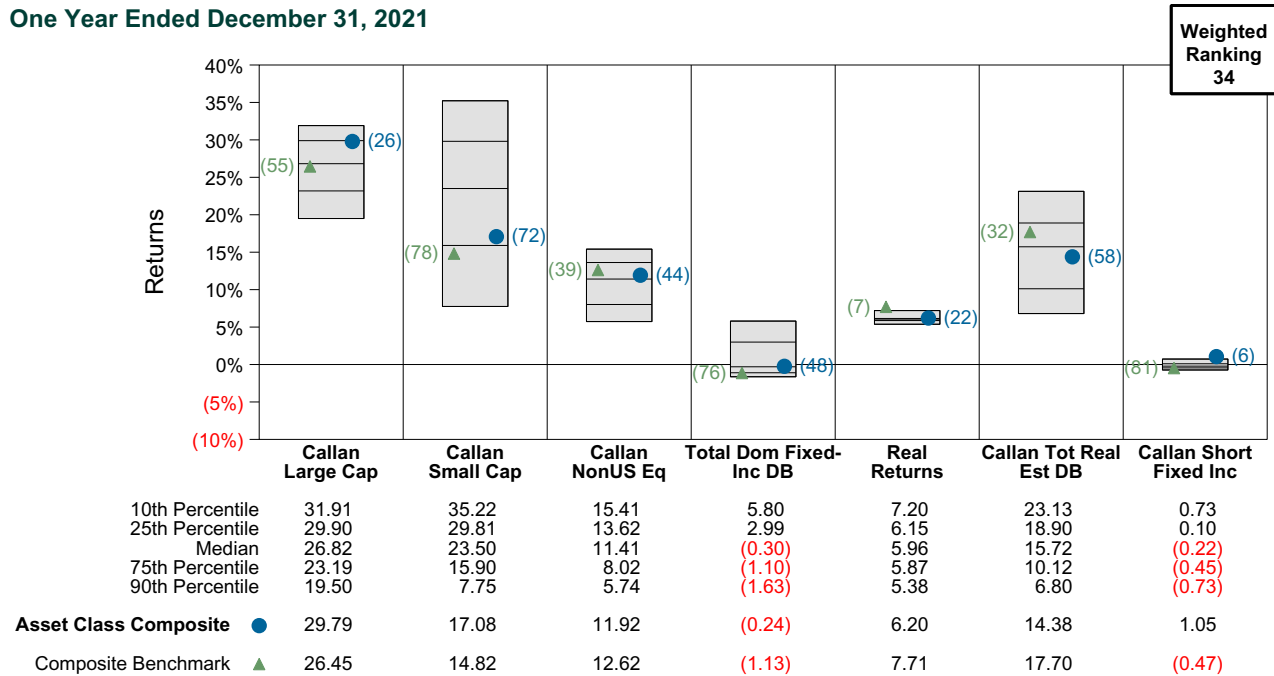


\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

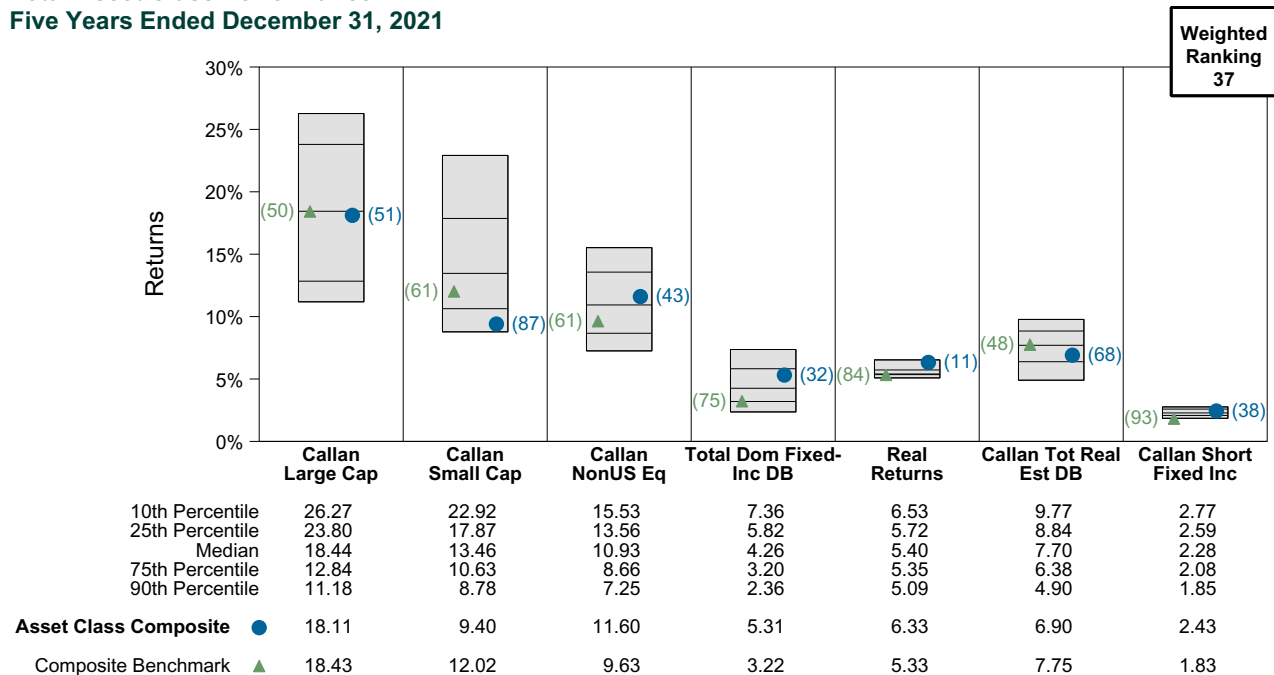
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended December 31, 2021



### Total Asset Class Performance Five Years Ended December 31, 2021



\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2021, with the distribution as of September 30, 2021. 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

	December 31, 2021			Inv. Return	September 30, 2021	
	Market Value	Weight	Net New Inv.		Market Value	Weight
<b>Global Equity</b>	<b>\$556,692,713</b>	<b>17.25%</b>	<b>\$(26,883,166)</b>	<b>\$36,232,512</b>	<b>\$547,343,367</b>	<b>17.13%</b>
<b>Domestic Equity</b>	<b>\$360,979,562</b>	<b>11.18%</b>	<b>\$(26,740,377)</b>	<b>\$32,713,147</b>	<b>\$355,006,792</b>	<b>11.11%</b>
<b>Large Cap</b>	<b>\$284,975,959</b>	<b>8.83%</b>	<b>\$(21,114,006)</b>	<b>\$28,825,897</b>	<b>\$277,264,069</b>	<b>8.68%</b>
Parametric Large Cap	56,811,073	1.76%	(4,000,000)	5,878,762	54,932,311	1.72%
L.A. Capital Large Cap Growth	86,680,664	2.69%	(10,044,831)	11,072,257	85,653,239	2.68%
L.A. Capital Enhanced	57,145,980	1.77%	(7,013,692)	6,385,278	57,774,394	1.81%
LSV Large Cap Value	84,338,243	2.61%	(55,483)	5,489,600	78,904,125	2.47%
<b>Small Cap</b>	<b>\$76,003,603</b>	<b>2.35%</b>	<b>\$(5,626,371)</b>	<b>\$3,887,250</b>	<b>\$77,742,724</b>	<b>2.43%</b>
Atlanta Capital	26,502,419	0.82%	(1,237,213)	2,815,819	24,923,813	0.78%
Riverbridge Small Cap Growth	22,702,923	0.70%	(4,351,139)	(1,006,855)	28,060,917	0.88%
Sycamore Small Cap Value	26,798,260	0.83%	(38,019)	2,078,286	24,757,994	0.77%
<b>International Equity</b>	<b>\$195,713,151</b>	<b>6.06%</b>	<b>\$(142,788)</b>	<b>\$3,519,365</b>	<b>\$192,336,574</b>	<b>6.02%</b>
DFA Int'l Small Cap Value	19,999,480	0.62%	0	384,332	19,615,148	0.61%
LSV Intl Value	74,453,603	2.31%	(71,390)	922,043	73,602,951	2.30%
Vanguard Intl Explorer Fund	19,675,598	0.61%	0	16,100	19,659,498	0.62%
William Blair	81,584,469	2.53%	(71,398)	2,196,890	79,458,977	2.49%
<b>Domestic Fixed Income</b>	<b>\$1,462,526,154</b>	<b>45.31%</b>	<b>\$16,134,641</b>	<b>\$3,088,332</b>	<b>\$1,443,303,182</b>	<b>45.17%</b>
Declaration Total Return	116,536,023	3.61%	(76,468)	(330,758)	116,943,249	3.66%
PIMCO Core Plus Constrained	206,285,041	6.39%	7,940,210	111,281	198,233,551	6.20%
PIMCO DiSCO II	42,135,800	1.31%	0	333,066	41,802,734	1.31%
PIMCO Bravo II Fund	6,367,422	0.20%	(360,986)	271,333	6,457,075	0.20%
Prudential	386,479,468	11.97%	2,798,483	1,623,849	382,057,136	11.96%
SSgA US Govt Credit Bd Idx	204,302,486	6.33%	2,992,480	314,889	200,995,117	6.29%
Wells Capital	116,334,772	3.60%	(55,482)	563,302	115,826,952	3.63%
Western Asset Management	384,085,143	11.90%	2,896,405	201,370	380,987,367	11.92%
<b>Global Real Assets</b>	<b>\$397,829,190</b>	<b>12.32%</b>	<b>\$(1,281,090)</b>	<b>\$13,283,322</b>	<b>\$385,826,958</b>	<b>12.08%</b>
<b>Real Estate</b>	<b>\$106,617,681</b>	<b>3.30%</b>	<b>\$(1,019,199)</b>	<b>\$7,527,998</b>	<b>\$100,108,882</b>	<b>3.13%</b>
Invesco Core Real Estate	56,904,143	1.76%	(431,257)	4,030,134	53,305,266	1.67%
JP Morgan RE Inc & Growth	49,713,538	1.54%	(587,942)	3,497,864	46,803,616	1.46%
<b>Diversified</b>	<b>\$291,211,509</b>	<b>9.02%</b>	<b>\$(261,891)</b>	<b>\$5,755,324</b>	<b>\$285,718,076</b>	<b>8.94%</b>
Western Asset TIPS	203,097,384	6.29%	(4,555,791)	5,037,072	202,616,102	6.34%
JP Morgan Infrastructure	39,335,397	1.22%	(1,134,926)	115,296	40,355,027	1.26%
Eastern Timber Opportunities	32,658,820	1.01%	0	3,524	32,655,296	1.02%
Grosvenor Cust. Infrastructure	5,682,690	0.18%	(368,173)	143,596	5,907,267	0.18%
Grosvenor Cust. Infrastructure III	1,500,000	0.05%	1,500,000	0	-	-
Macquarie Infrastructure Fund V	8,937,218	0.28%	4,296,998	455,836	4,184,384	0.13%
<b>Short Term Fixed Income</b>	<b>\$776,639,232</b>	<b>24.06%</b>	<b>\$(222,466)</b>	<b>\$(2,814,723)</b>	<b>\$779,676,421</b>	<b>24.40%</b>
Barings Active Short Duration	390,409,895	12.09%	(123,773)	(1,333,703)	391,867,371	12.26%
JP Morgan Short Term Bonds	386,229,337	11.96%	(98,693)	(1,481,020)	387,809,050	12.14%
<b>Cash</b>	<b>\$34,395,587</b>	<b>1.07%</b>	<b>\$(4,499,297)</b>	<b>\$3,661</b>	<b>\$38,891,223</b>	<b>1.22%</b>
Northern Trust Cash Account	14,108,198	0.44%	(4,499,297)	82	18,607,413	0.58%
Bank of ND	20,287,389	0.63%	0	3,579	20,283,810	0.63%
<b>Total Fund</b>	<b>\$3,228,082,877</b>	<b>100.0%</b>	<b>\$(16,751,376)</b>	<b>\$49,793,103</b>	<b>\$3,195,041,150</b>	<b>100.0%</b>

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Equity</b>					
Gross	6.61%	21.52%	21.70%	-	-
Net	6.50%	21.05%	21.37%	-	-
Weighted Benchmark	6.30%	19.82%	21.01%	-	-
<b>Domestic Equity</b>					
Gross	9.20%	26.95%	24.47%	16.18%	16.17%
Net	9.13%	26.53%	24.19%	15.94%	15.91%
Weighted Benchmark	8.06%	23.90%	24.94%	-	-
<b>Large Cap</b>					
Gross	10.46%	29.79%	26.79%	18.11%	17.09%
Net	10.42%	29.45%	26.57%	17.91%	16.88%
Benchmark(1)	9.78%	26.45%	26.21%	18.43%	16.54%
Parametric Clifton Large Cap - Gross	10.78%	28.17%	26.71%	18.41%	16.75%
Parametric Clifton Large Cap - Net	10.78%	27.50%	26.59%	18.34%	16.65%
S&P 500 Index	11.03%	28.71%	26.07%	18.47%	16.55%
L.A. Capital - Gross	13.05%	31.62%	34.60%	24.35%	19.96%
L.A. Capital - Net	13.00%	31.36%	34.34%	24.10%	19.72%
Russell 1000 Growth Index	11.64%	27.60%	34.08%	25.32%	19.79%
L.A. Capital Enhanced - Gross	11.26%	29.51%	27.04%	18.26%	17.00%
L.A. Capital Enhanced - Net	11.23%	29.39%	26.92%	18.12%	16.86%
Russell 1000 Index	9.78%	26.45%	26.21%	18.43%	16.54%
LSV Asset Management - Gross	6.96%	29.46%	17.37%	10.60%	13.83%
LSV Asset Management - Net	6.89%	29.11%	17.04%	10.29%	13.51%
Russell 1000 Value Index	7.77%	25.16%	17.64%	11.16%	12.97%
<b>Small Cap</b>					
Gross	4.72%	17.08%	16.39%	9.40%	12.87%
Net	4.56%	16.38%	15.95%	9.08%	12.49%
Russell 2000 Index	2.14%	14.82%	20.02%	12.02%	13.23%
Atlanta Capital - Gross	11.24%	20.18%	-	-	-
Atlanta Capital - Net	11.10%	19.48%	-	-	-
S&P 600 Small Cap Index	5.64%	26.82%	20.11%	12.42%	14.50%
Riverbridge Small Cap Growth - Gross	(5.02%)	4.57%	-	-	-
Riverbridge Small Cap Growth - Net	(5.18%)	3.89%	-	-	-
Russell 2000 Growth Index	0.01%	2.83%	21.17%	14.53%	14.14%
Sycamore Small Cap Value - Gross	8.39%	26.64%	-	-	-
Sycamore Small Cap Value - Net	8.24%	25.95%	-	-	-
Russell 2000 Value Index	4.36%	28.27%	17.99%	9.07%	12.03%
<b>International Equity</b>					
Gross	1.83%	11.92%	16.67%	11.60%	9.92%
Net	1.76%	11.60%	16.33%	11.27%	9.56%
Benchmark(2)	3.14%	12.62%	14.07%	9.63%	8.10%
DFA Intl Small Cap Value - Net	1.96%	15.89%	12.23%	6.77%	9.13%
World ex US SC Va	0.72%	13.27%	12.59%	8.30%	8.85%
LSV Asset Management - Gross	1.25%	12.27%	9.51%	6.66%	7.53%
LSV Asset Management - Net	1.16%	11.84%	9.09%	6.25%	7.09%
Benchmark(3)	2.69%	11.26%	13.54%	9.55%	8.03%
Vanguard Intl Explorer Fund - Net	0.08%	9.55%	15.40%	10.42%	10.08%
BMI, EPAC, <\$2 B	(1.67%)	8.50%	13.66%	9.37%	9.52%
William Blair - Gross	2.76%	10.85%	23.86%	17.21%	-
William Blair - Net	2.67%	10.45%	23.42%	16.77%	-
MSCI ACWI ex US IMI	1.64%	8.53%	13.62%	9.83%	7.57%

(1) S&P 500 Index through 12/31/2011 and Russell 1000 Index thereafter.

(2) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again through 6/30/2016; MSCI World ex-US thereafter.

(3) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again thereafter.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Domestic Fixed Income</b>					
Gross	0.21%	(0.24%)	6.32%	5.31%	5.34%
Net	0.18%	(0.38%)	6.18%	5.18%	5.20%
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
Declaration Total Return - Net	(0.28%)	2.45%	5.10%	4.73%	-
Libor-3 Month	0.04%	0.16%	1.05%	1.35%	0.88%
PIMCO Core Plus Cons. - Gross	0.05%	(0.73%)	-	-	-
PIMCO Core Plus Cons. - Net	0.02%	(0.99%)	-	-	-
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
PIMCO DiSCO II - Net	0.80%	6.33%	6.15%	7.85%	11.34%
PIMCO Bravo II Fund - Net	4.20%	33.16%	3.51%	5.55%	-
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
Prudential - Gross	0.42%	(0.94%)	6.55%	5.26%	4.79%
Prudential - Net	0.37%	(1.14%)	6.31%	5.02%	4.55%
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
Wells Capital - Gross	0.49%	1.55%	10.16%	7.15%	6.20%
Wells Capital - Net	0.44%	1.36%	9.96%	6.95%	6.00%
Blmbg Credit Baa	0.33%	(0.40%)	8.27%	5.77%	5.08%
Western Asset - Gross	0.05%	(1.18%)	5.85%	4.66%	4.48%
Western Asset - Net	0.03%	(1.28%)	5.73%	4.54%	4.34%
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
SSgA US Govt Cr Bd Idx - Gross	0.15%	(1.73%)	5.58%	4.05%	-
SSgA US Govt Cr Bd Idx - Net	0.15%	(1.75%)	5.57%	4.03%	-
Blmbg Govt/Credit Bd	0.18%	(1.75%)	5.50%	3.99%	3.13%
<b>Global Real Assets</b>					
Gross	3.44%	8.30%	6.66%	-	-
Net	3.38%	8.03%	6.38%	-	-
Weighted Benchmark	3.98%	10.54%	7.32%	-	-
<b>Real Estate</b>					
Gross	7.52%	14.38%	6.16%	6.90%	10.24%
Net	7.41%	13.89%	5.68%	6.38%	9.50%
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
Invesco Core Real Estate - Gross	7.56%	16.29%	7.04%	7.32%	-
Invesco Core Real Estate - Net	7.48%	15.90%	6.69%	6.97%	-
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
JP Morgan - Gross	7.47%	12.31%	5.22%	6.40%	10.24%
JP Morgan - Net	7.33%	11.69%	4.59%	5.71%	9.26%
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Diversified</b>					
Gross	2.01%	6.20%	6.90%	6.33%	4.70%
Net	1.96%	6.01%	6.71%	6.10%	4.43%
Weighted Benchmark	3.10%	7.71%	6.88%	5.33%	3.74%
Western Asset TIPS - Gross	2.48%	5.81%	9.01%	5.91%	3.43%
Western Asset TIPS - Net	2.46%	5.70%	8.89%	5.79%	3.29%
Benchmark(1)	2.52%	6.00%	8.74%	6.19%	3.72%
JP Morgan Infrastructure - Gross	0.29%	8.51%	7.78%	8.32%	6.97%
JP Morgan Infrastructure - Net	0.13%	7.71%	7.03%	7.59%	6.09%
Benchmark(2)	4.14%	13.37%	5.82%	4.85%	2.99%
Eastern Timber Opportunities - Net	0.01%	2.98%	0.43%	3.24%	3.84%
NCREIF Timberland Index	4.56%	9.17%	3.69%	3.58%	5.30%
Grosvenor Cust. Infrastructure - Net	2.54%	13.31%	7.97%	7.86%	9.13%
Benchmark(2)	4.14%	13.37%	5.82%	4.85%	2.99%
Macquarie Infrastructure Fund V - Net	11.44%	-	-	-	-
Benchmark(4)	4.14%	-	-	-	-
<b>Short Term Fixed Income</b>					
Gross	(0.36%)	1.05%	3.18%	2.43%	2.06%
Net	(0.39%)	0.94%	3.05%	2.28%	1.91%
Benchmark(3)	(0.56%)	(0.47%)	2.28%	1.83%	1.21%
Barings Active Short Duration - Gross	(0.34%)	2.08%	-	-	-
Barings Active Short Duration - Net	(0.37%)	1.95%	-	-	-
Blmbg Gov/Cred 1-3 Yr	(0.56%)	(0.47%)	2.28%	1.85%	1.39%
JP Morgan Short Term Bds - Gross	(0.38%)	0.04%	3.09%	2.41%	1.75%
JP Morgan Short Term Bds - Net	(0.41%)	(0.06%)	2.98%	2.26%	1.63%
Blmbg Gov/Credit 1-3 Yr	(0.56%)	(0.47%)	2.28%	1.85%	1.39%
<b>Cash &amp; Equivalents - Net</b>					
Cash Account- Net	0.01%	0.04%	0.86%	1.02%	0.58%
Cash Account- Net	0.00%	0.01%	0.79%	0.93%	0.53%
Bank of ND - Net	0.02%	0.08%	0.94%	1.14%	-
90 Day Treasury Bills	0.01%	0.05%	0.99%	1.14%	0.63%
<b>Total Fund</b>					
Gross	1.56%	4.68%	8.36%	6.90%	6.14%
Net	1.52%	4.50%	8.19%	6.72%	5.95%
Target*	1.45%	3.70%	7.61%	5.87%	4.75%

\* Current Quarter Target = 44.9% Blmbg Aggregate, 24.1% Blmbg Gov/Cred 1-3 Yr, 8.8% NDSIB INS DRA Weighted Benchmark, 8.6% Russell 1000 Index, 6.1% MSCI World ex US, 3.6% NCREIF Total Index, 2.4% Russell 2000 Index and 1.4% 3-month Treasury Bill.

(1) Blmbg US TIPS through 12/31/2009; Blmbg Global Inflation-Linked through 10/31/18; Blmbg US Government Inflation Bond Index thereafter.

(2) CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

(3) Blmbg Gov 1-3 Yr through March 31, 2017 and Blmbg Gov/Credit 1-3 Yr thereafter.

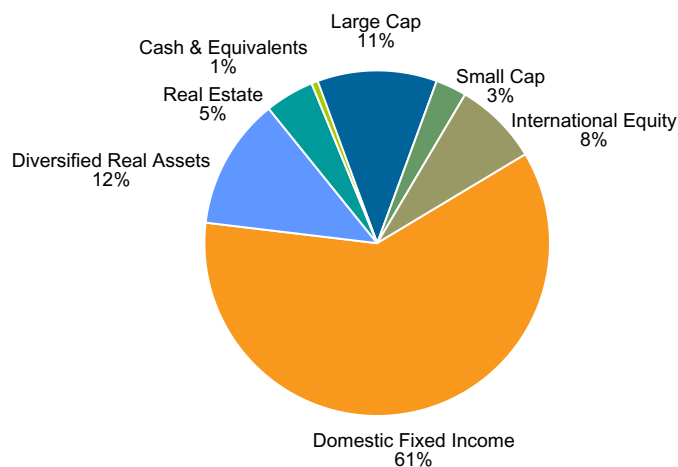
(4) 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.



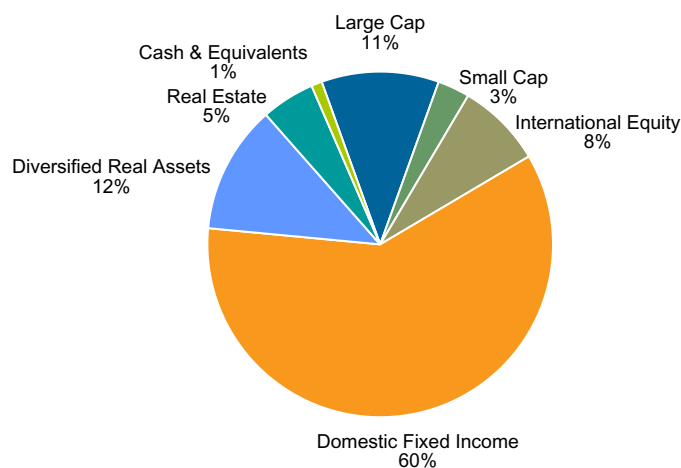
## Actual vs Target Asset Allocation As of December 31, 2021

The first chart below shows the Fund's asset allocation as of December 31, 2021. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

**Actual Asset Allocation**



**Target Asset Allocation**



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	264,694	11.3%	11.0%	0.3%	8,062
Small Cap	66,992	2.9%	3.0%	(0.1%)	(2,998)
International Equity	184,286	7.9%	8.0%	(0.1%)	(2,355)
Domestic Fixed Income	1,411,529	60.5%	60.0%	0.5%	11,722
Diversified Real Assets	286,214	12.3%	12.0%	0.3%	6,253
Real Estate	106,374	4.6%	5.0%	(0.4%)	(10,277)
Cash & Equivalents	12,923	0.6%	1.0%	(0.4%)	(10,407)
<b>Total</b>	<b>2,333,012</b>	<b>100.0%</b>	<b>100.0%</b>		

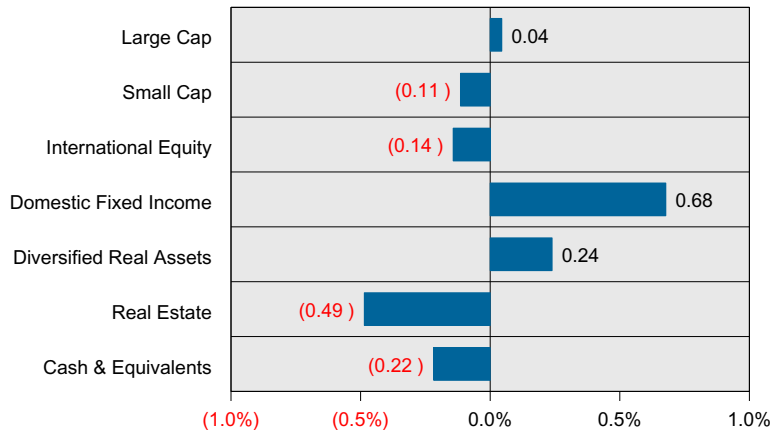
\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% NDSIB WSI DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World ex US, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.



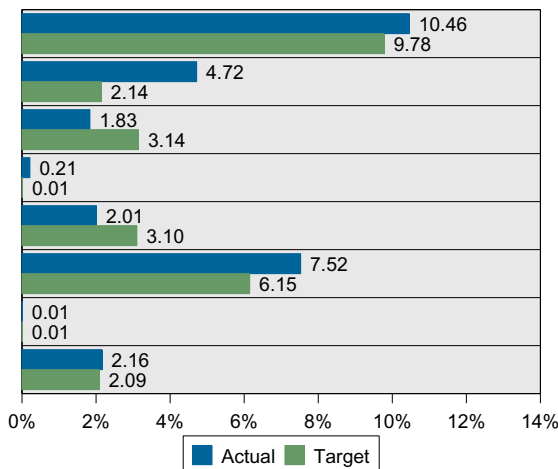
## Quarterly Total Fund Relative Attribution - December 31, 2021

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.

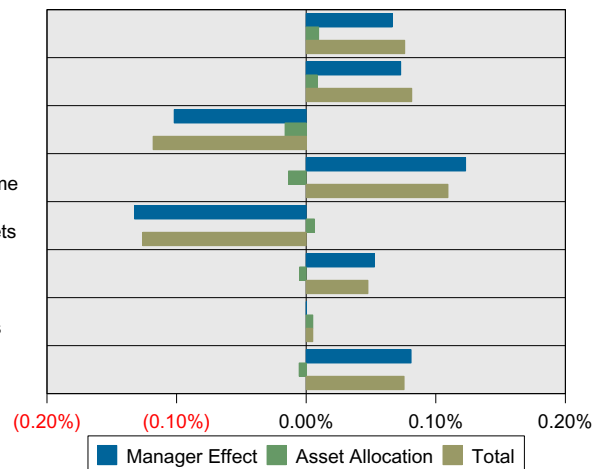
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended December 31, 2021

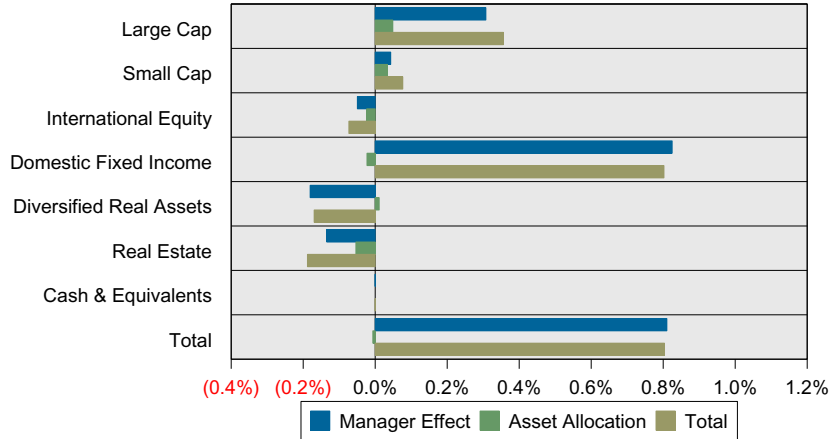
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	10.46%	9.78%	0.07%	0.01%	0.08%
Small Cap	3%	3%	4.72%	2.14%	0.07%	0.01%	0.08%
International Equity	8%	8%	1.83%	3.14%	(0.10%)	(0.02%)	(0.12%)
Domestic Fixed Income	61%	60%	0.21%	0.01%	0.12%	(0.01%)	0.11%
Diversified Real Assets	12%	12%	2.01%	3.10%	(0.13%)	0.01%	(0.13%)
Real Estate	5%	5%	7.52%	6.15%	0.05%	(0.01%)	0.05%
Cash & Equivalents	1%	1%	0.01%	0.01%	(0.00%)	0.01%	0.01%
<b>Total</b>			<b>2.16%</b>	<b>2.09%</b>	<b>0.08%</b>	<b>(0.01%)</b>	<b>0.08%</b>

\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% NDSIB WSI DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World ex US, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

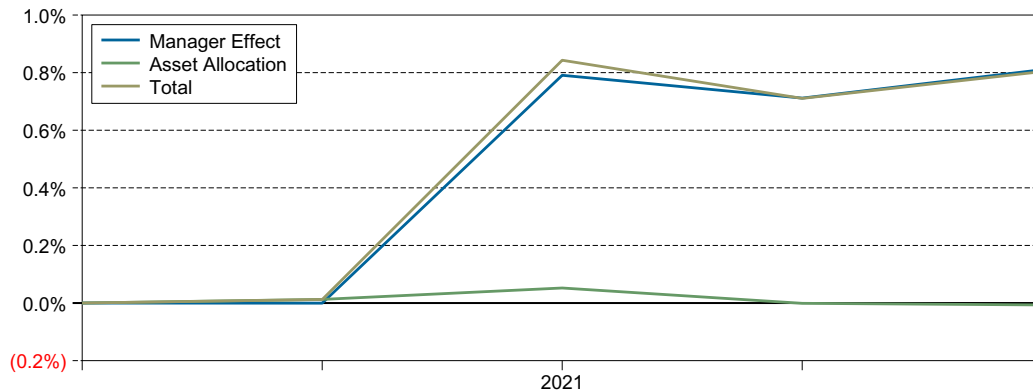
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

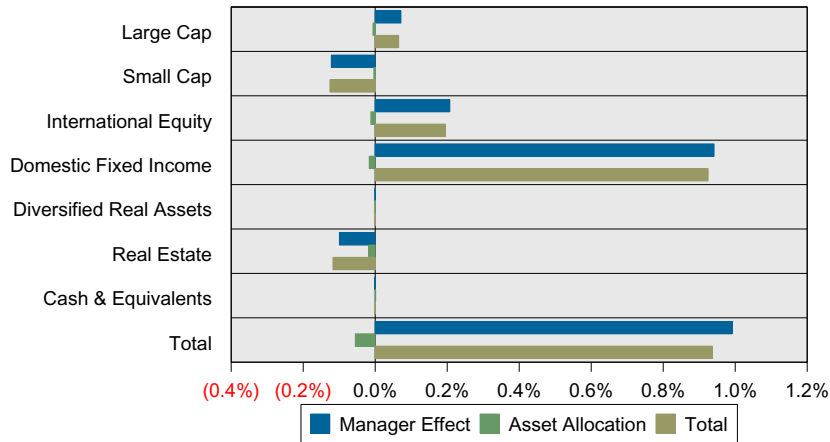
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	29.77%	26.45%	0.31%	0.05%	0.36%
Small Cap	3%	3%	17.08%	14.82%	0.04%	0.03%	0.08%
International Equity	8%	8%	11.95%	12.62%	(0.05%)	(0.02%)	(0.07%)
Domestic Fixed Income	60%	60%	(0.24%)	(1.54%)	0.82%	(0.02%)	0.80%
Diversified Real Assets	12%	12%	6.23%	7.71%	(0.18%)	0.01%	(0.17%)
Real Estate	4%	5%	14.38%	17.70%	(0.13%)	(0.05%)	(0.19%)
Cash & Equivalents	1%	1%	0.04%	0.05%	(0.00%)	0.00%	(0.00%)
<b>Total</b>			<b>5.78%</b>	<b>4.98%</b>	<b>+ 0.81%</b>	<b>+ (0.01%)</b>	<b>0.80%</b>

\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% NDSIB WSI DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World ex US, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

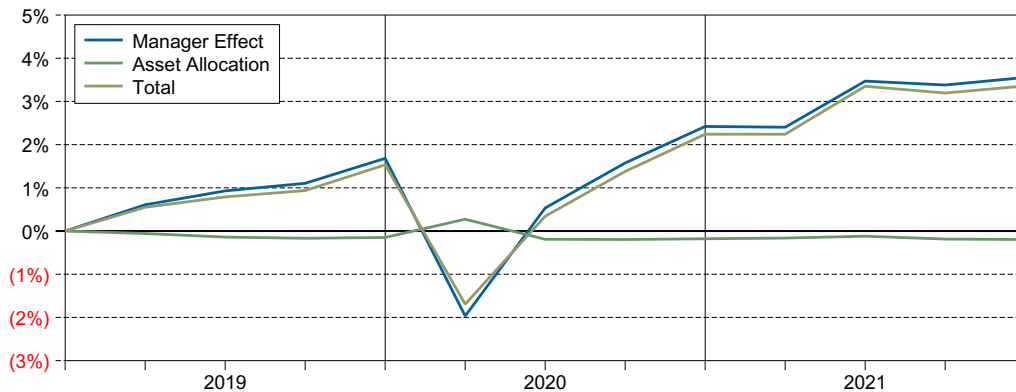
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

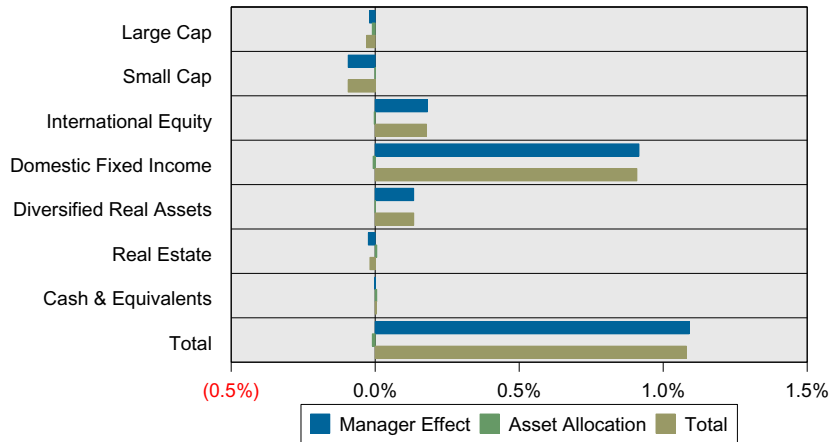
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	26.79%	26.21%	0.07%	(0.01%)	0.07%
Small Cap	3%	3%	16.25%	20.02%	(0.12%)	(0.00%)	(0.13%)
International Equity	8%	8%	16.69%	14.07%	0.21%	(0.01%)	0.20%
Domestic Fixed Income	60%	60%	6.39%	4.79%	0.94%	(0.02%)	0.92%
Diversified Real Assets	12%	12%	6.91%	6.88%	(0.00%)	0.00%	(0.00%)
Real Estate	5%	5%	6.16%	8.37%	(0.10%)	(0.02%)	(0.12%)
Cash & Equivalents	1%	1%	0.86%	0.99%	(0.00%)	0.00%	(0.00%)
<b>Total</b>			<b>9.81%</b>	<b>8.87%</b>	<b>+ 0.99%</b>	<b>+ (0.06%)</b>	<b>0.94%</b>

\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% NDSIB WSI DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World ex US, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

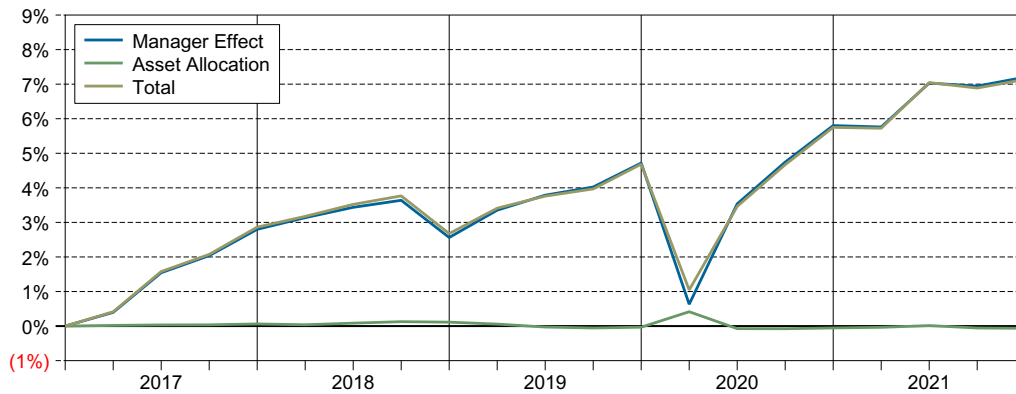
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

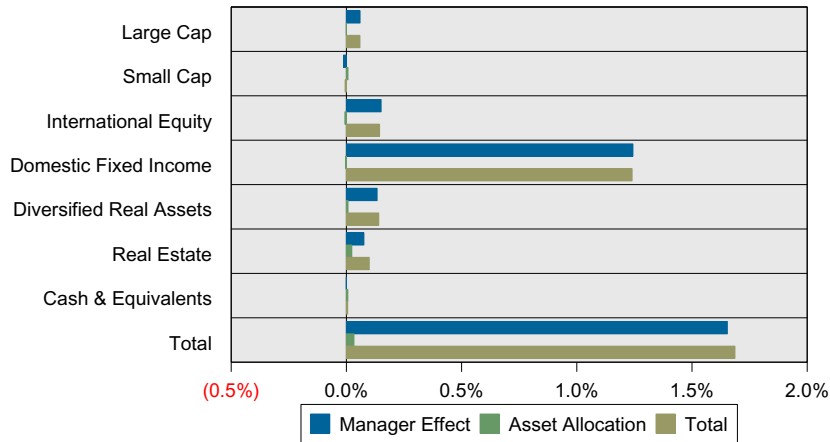
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	18.16%	18.43%	(0.02%)	(0.01%)	(0.03%)
Small Cap	3%	3%	9.32%	12.02%	(0.09%)	(0.00%)	(0.09%)
International Equity	8%	8%	11.64%	9.63%	0.18%	(0.00%)	0.18%
Domestic Fixed Income	58%	58%	5.21%	3.57%	0.92%	(0.01%)	0.91%
Diversified Real Assets	13%	13%	6.34%	5.38%	0.13%	0.00%	0.13%
Real Estate	6%	5%	6.91%	7.75%	(0.02%)	0.01%	(0.02%)
Cash & Equivalents	1%	1%	1.02%	1.14%	(0.00%)	0.01%	0.00%
<b>Total</b>			<b>7.75%</b>	<b>6.67%</b>	<b>+ 1.09%</b>	<b>+ (0.01%)</b>	<b>1.08%</b>

\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% NDSIB WSI DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World ex US, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

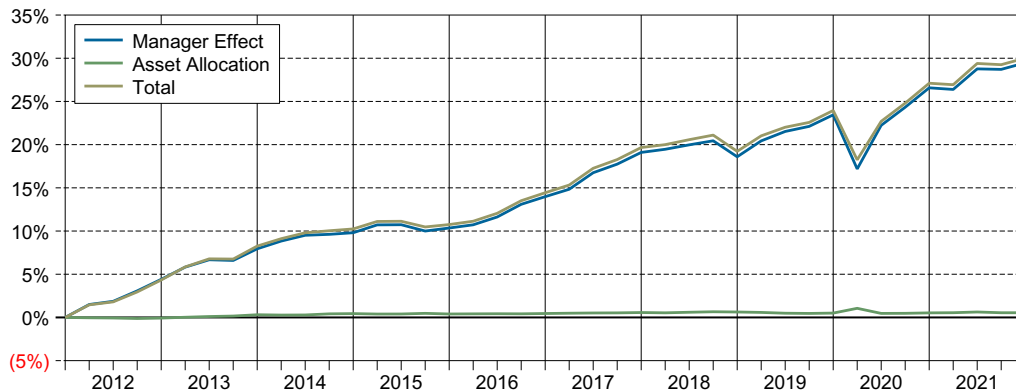
## Cumulative Total Fund Relative Attribution - December 31, 2021

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.

### Ten Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects

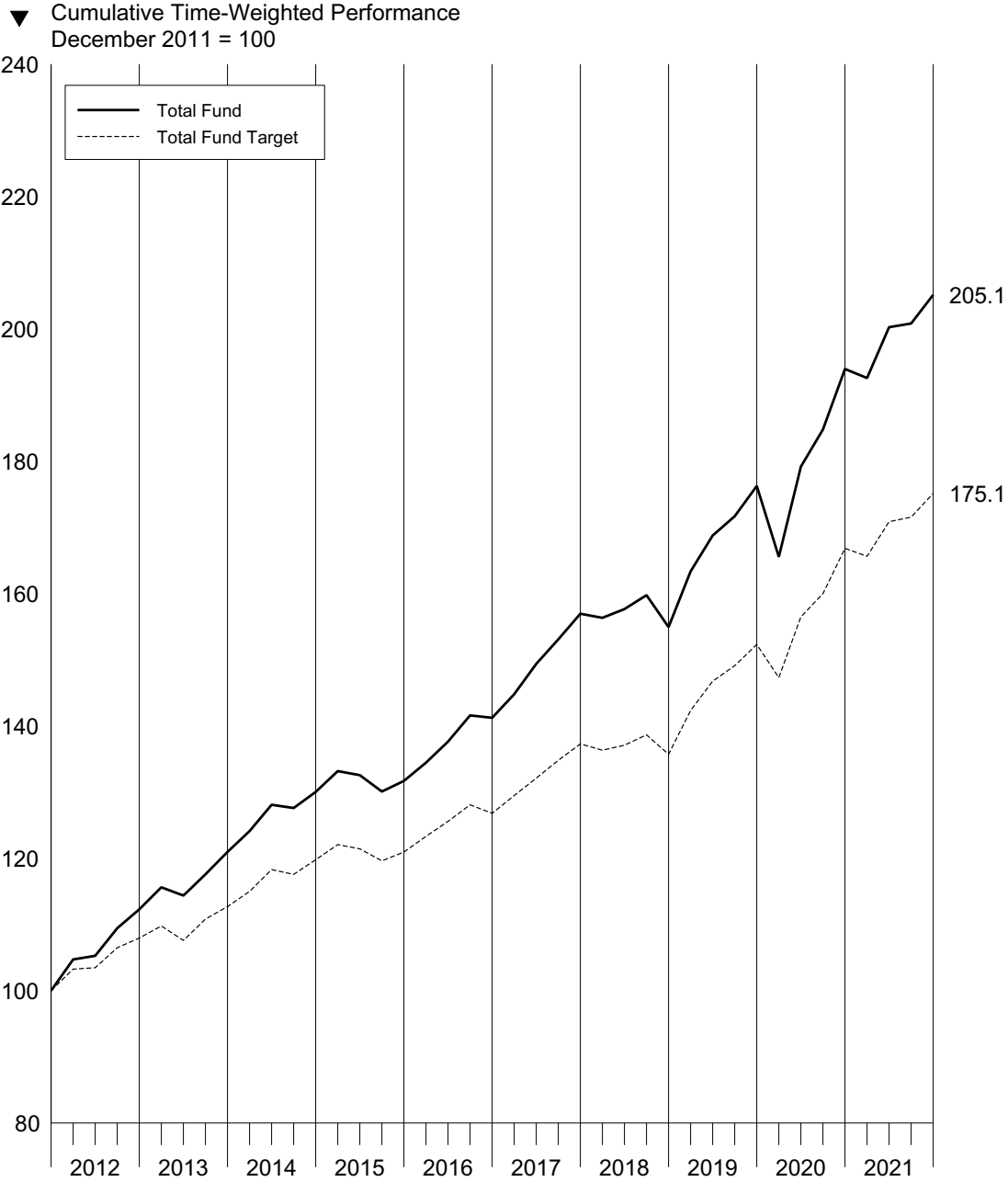


### Ten Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	17.10%	16.54%	0.06%	(0.00%)	0.06%
Small Cap	4%	3%	12.84%	13.23%	(0.01%)	0.01%	(0.01%)
International Equity	8%	8%	9.87%	8.10%	0.15%	(0.01%)	0.14%
Domestic Fixed Income	55%	55%	5.23%	2.90%	1.24%	(0.00%)	1.24%
Diversified Real Assets	15%	16%	4.80%	3.97%	0.13%	0.01%	0.14%
Real Estate	6%	6%	10.24%	9.32%	0.08%	0.02%	0.10%
Cash & Equivalents	1%	1%	0.58%	0.63%	(0.00%)	0.01%	0.01%
<b>Total</b>			<b>7.45%</b>	<b>5.76%</b>	<b>+ 1.65%</b>	<b>+ 0.03%</b>	<b>1.69%</b>

\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% NDSIB WSI DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World ex US, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

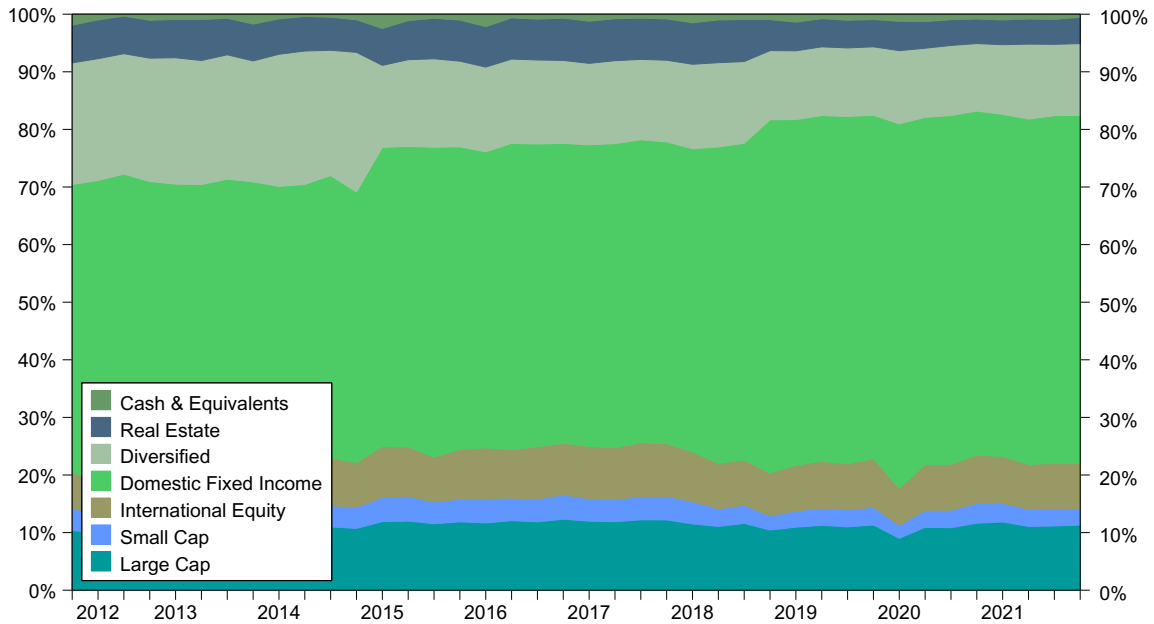
**NDSIB - Workforce Safety & Insurance  
Cumulative Results**



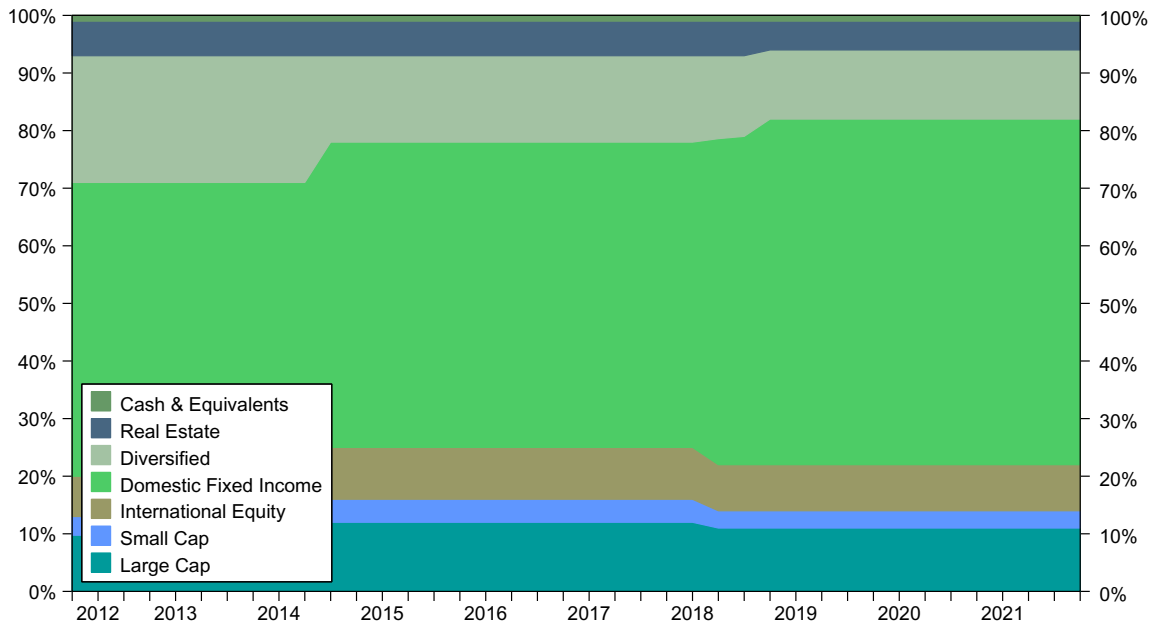
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

### Actual Historical Asset Allocation



### Target Historical Asset Allocation

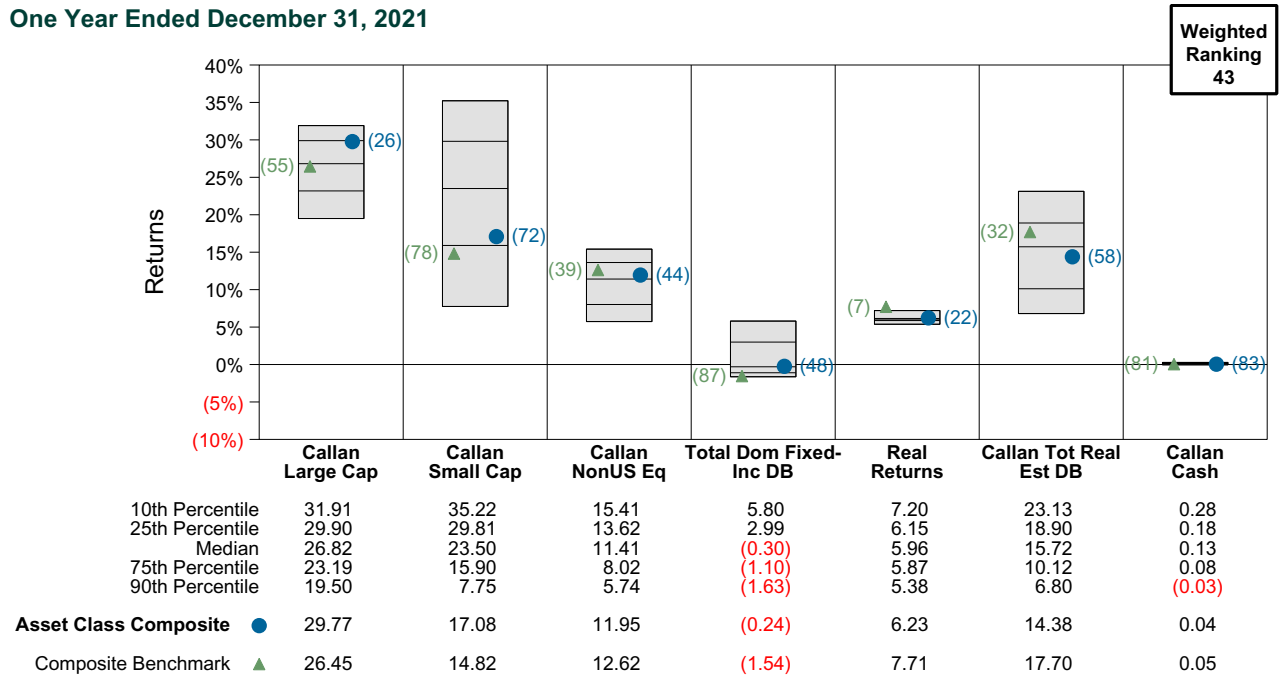


\* Current Quarter Target = 60.0% Blmgb Aggregate, 12.0% NDSIB WSI DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World ex US, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

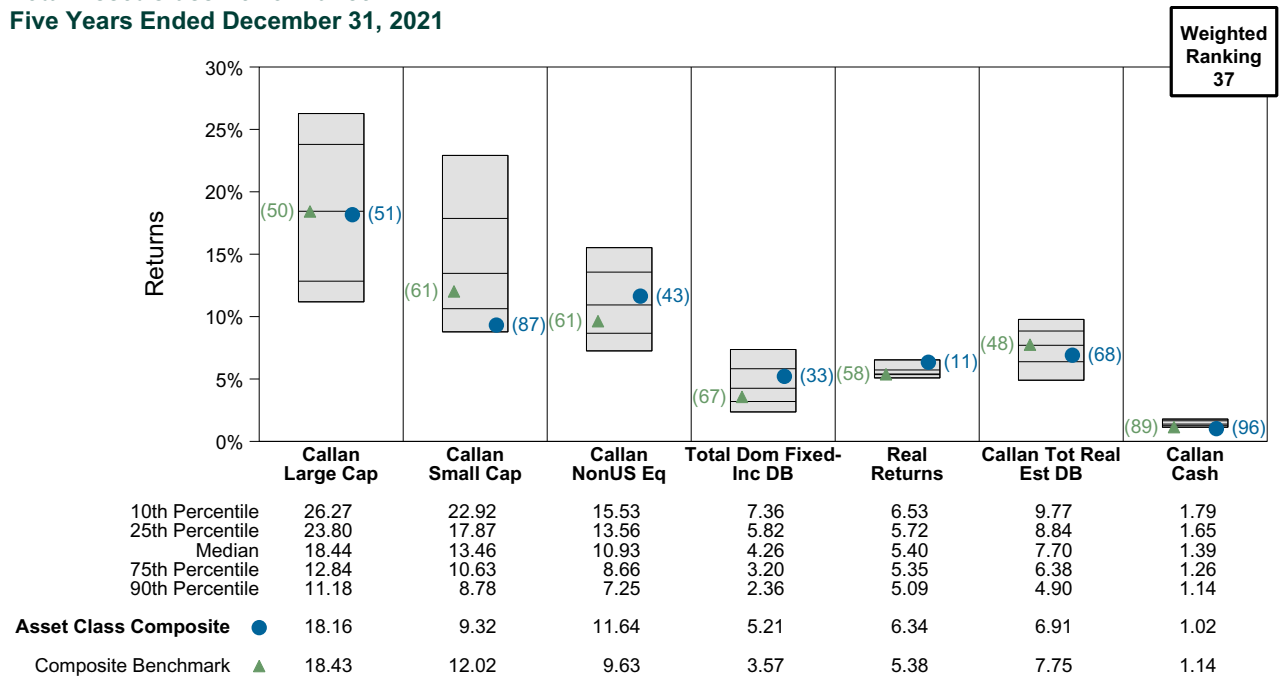
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended December 31, 2021



### Total Asset Class Performance Five Years Ended December 31, 2021



\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% NDSIB WSI DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World ex US, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.



## Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2021, with the distribution as of September 30, 2021. 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 Class Allocation

	December 31, 2021		Net New Inv.	Inv. Return	September 30, 2021	
	Market Value	Weight			Market Value	Weight
<b>Global Equity</b>	<b>\$515,972,119</b>	<b>22.12%</b>	<b>\$(25,099,979)</b>	<b>\$33,468,230</b>	<b>\$507,603,869</b>	<b>22.05%</b>
<b>Domestic Equity</b>	<b>\$331,686,134</b>	<b>14.22%</b>	<b>\$(24,704,157)</b>	<b>\$30,160,934</b>	<b>\$326,229,357</b>	<b>14.17%</b>
Large Cap	264,693,726	11.35%	(19,184,731)	26,727,097	257,151,360	11.17%
Small Cap	66,992,408	2.87%	(5,519,426)	3,433,837	69,077,997	3.00%
<b>International Equity</b>	<b>\$184,285,985</b>	<b>7.90%</b>	<b>\$(395,822)</b>	<b>\$3,307,296</b>	<b>\$181,374,511</b>	<b>7.88%</b>
<b>Domestic Fixed Income</b>	<b>\$1,411,529,176</b>	<b>60.50%</b>	<b>\$15,744,395</b>	<b>\$2,973,457</b>	<b>\$1,392,811,325</b>	<b>60.51%</b>
<b>Global Real Assets</b>	<b>\$392,588,149</b>	<b>16.83%</b>	<b>\$(1,330,802)</b>	<b>\$13,164,832</b>	<b>\$380,754,118</b>	<b>16.54%</b>
Real Estate	106,373,730	4.56%	(1,030,759)	7,511,725	99,892,763	4.34%
Diversified	286,214,419	12.27%	(300,043)	5,653,107	280,861,355	12.20%
<b>Cash</b>	<b>\$12,922,793</b>	<b>0.55%</b>	<b>\$(7,867,993)</b>	<b>\$1,528</b>	<b>\$20,789,257</b>	<b>0.90%</b>
<b>Total Fund</b>	<b>\$2,333,012,238</b>	<b>100.0%</b>	<b>\$(18,554,379)</b>	<b>\$49,608,047</b>	<b>\$2,301,958,569</b>	<b>100.0%</b>

PLEASE REFER TO PAGE 30 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

## Asset Class Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Equity</b>					
Gross	6.57%	21.48%	21.70%	-	-
Net	6.49%	21.08%	21.40%	-	-
Weighted Benchmark	6.30%	19.80%	20.96%	-	-
<b>Domestic Equity</b>					
Gross	9.23%	27.07%	24.53%	16.25%	16.22%
Net	9.16%	26.64%	24.26%	16.01%	15.96%
Weighted Benchmark	8.11%	23.99%	24.98%	-	-
<b>Large Cap</b>					
Gross	10.46%	29.77%	26.79%	18.16%	17.10%
Net	10.41%	29.43%	26.57%	17.96%	16.88%
Benchmark(1)	9.78%	26.45%	26.21%	18.43%	16.54%
<b>Small Cap</b>					
Gross	4.72%	17.08%	16.25%	9.32%	12.84%
Net	4.54%	16.37%	15.80%	8.99%	12.45%
Russell 2000	2.14%	14.82%	20.02%	12.02%	13.23%
<b>International Equity</b>					
Gross	1.83%	11.95%	16.69%	11.64%	9.87%
Net	1.76%	11.62%	16.35%	11.30%	9.52%
Benchmark(2)	3.14%	12.62%	14.07%	9.63%	8.10%
<b>Domestic Fixed Income</b>					
Gross	0.21%	(0.24%)	6.39%	5.21%	5.23%
Net	0.18%	(0.38%)	6.25%	5.08%	5.08%
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
<b>Global Real Assets</b>					
Gross	3.46%	8.34%	6.66%	-	-
Net	3.40%	8.07%	6.38%	-	-
Weighted Benchmark	3.99%	10.57%	7.32%	-	-
<b>Real Estate</b>					
Gross	7.52%	14.38%	6.16%	6.91%	10.24%
Net	7.41%	13.89%	5.68%	6.38%	9.50%
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
<b>Diversified</b>					
Gross	2.01%	6.23%	6.91%	6.34%	4.80%
Net	1.97%	6.03%	6.72%	6.11%	4.53%
Weighted Benchmark	3.10%	7.71%	6.88%	5.38%	3.97%
<b>Cash &amp; Equivalents - Net</b>	<b>0.01%</b>	<b>0.04%</b>	<b>0.86%</b>	<b>1.02%</b>	<b>0.58%</b>
90 Day Treasury Bills	0.01%	0.05%	0.99%	1.14%	0.63%
<b>Total Fund</b>					
Gross	2.16%	5.78%	9.81%	7.75%	7.45%
Net	2.12%	5.57%	9.62%	7.56%	7.22%
Target*	2.09%	4.98%	8.87%	6.67%	5.76%

\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% NDSIB WSI DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World ex US, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

(1) S&P 500 Index through 12/31/2011 and Russell 1000 Index thereafter.

(2) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again through 6/30/2016; MSCI World ex-US thereafter.

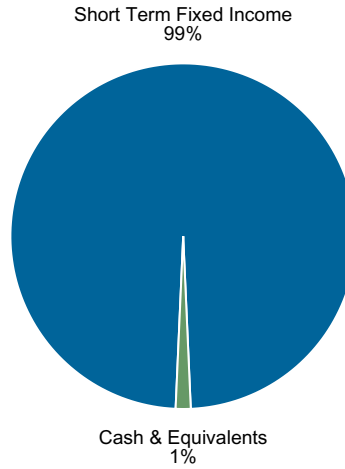
PLEASE REFER TO PAGE 31-33 FOR INVESTMENT MANAGER LEVEL RETURNS.



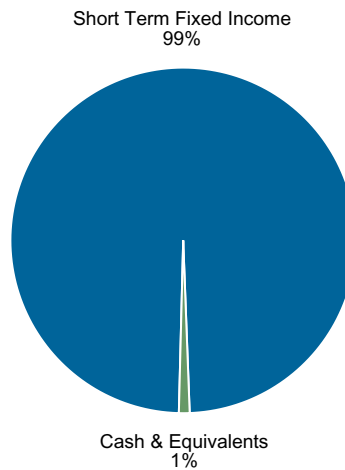
## Actual vs Target Asset Allocation As of December 31, 2021

The first chart below shows the Fund's asset allocation as of December 31, 2021. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

### Actual Asset Allocation



### Target Asset Allocation



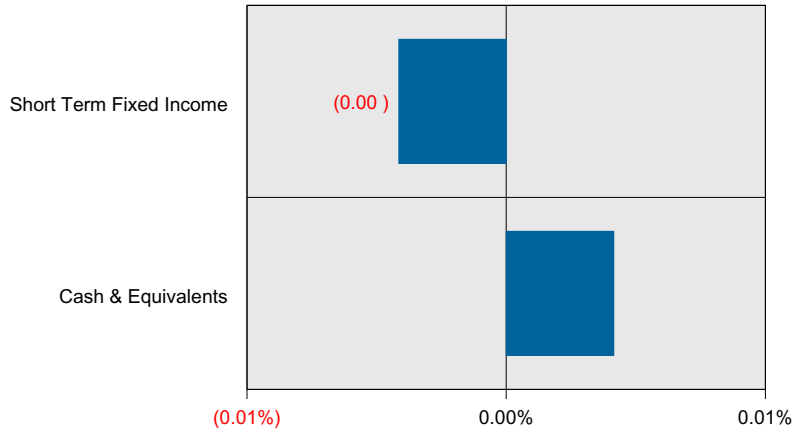
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Short Term Fixed Income	737,599	98.6%	99.0%	(0.5%)	(3,612)
Cash & Equivalents	10,797	1.4%	1.0%	0.5%	3,612
Total	748,396	100.0%	100.0%		

\* Current Quarter Target = 99.0% Blmbg Gov/Cred 1-3 Yr and 1.0% 3-month Treasury Bill.

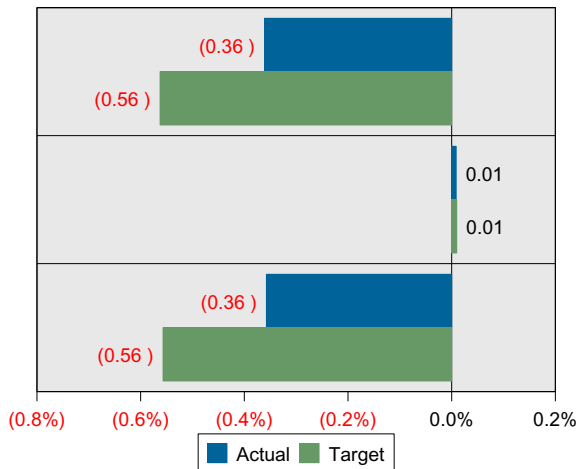
## Quarterly Total Fund Relative Attribution - December 31, 2021

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.

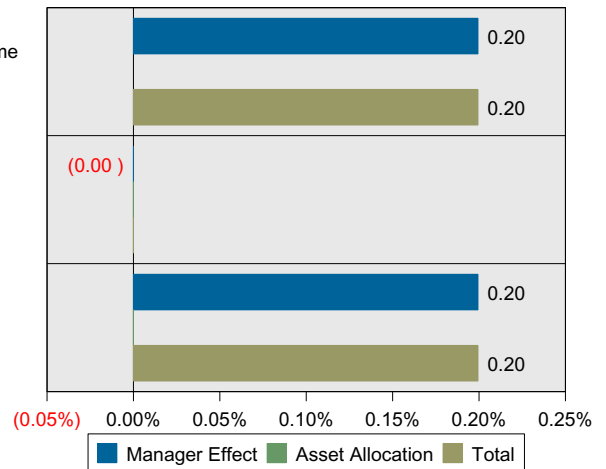
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended December 31, 2021

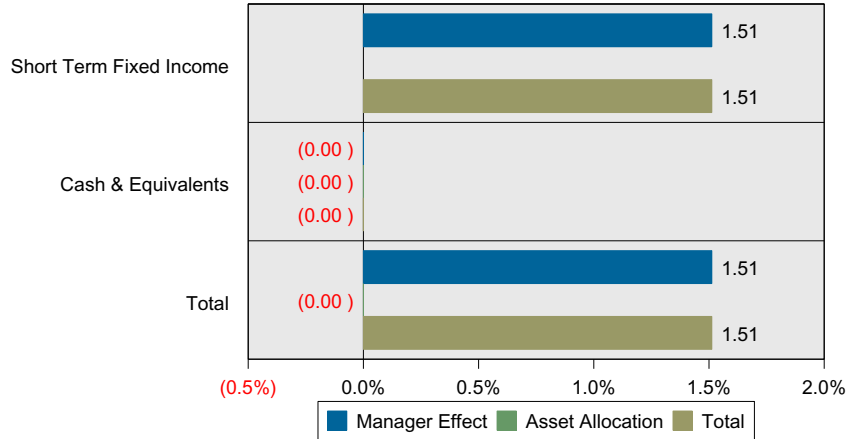
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	99%	99%	(0.36%)	(0.56%)	0.20%	0.00%	0.20%
Cash & Equivalents	1%	1%	0.01%	0.01%	(0.00%)	0.00%	0.00%
<b>Total</b>			<b>(0.36%)</b>	<b>(0.56%)</b>	<b>+ 0.20%</b>	<b>+ 0.00%</b>	<b>0.20%</b>

\* Current Quarter Target = 99.0% Blmbg Gov/Cred 1-3 Yr and 1.0% 3-month Treasury Bill.

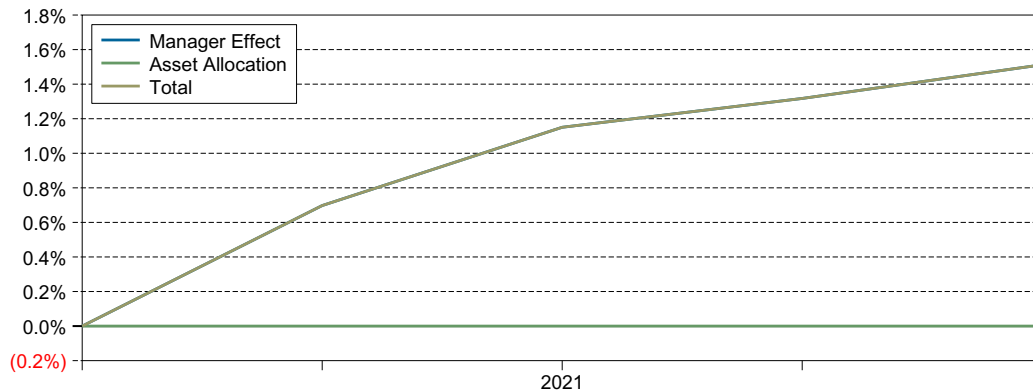
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

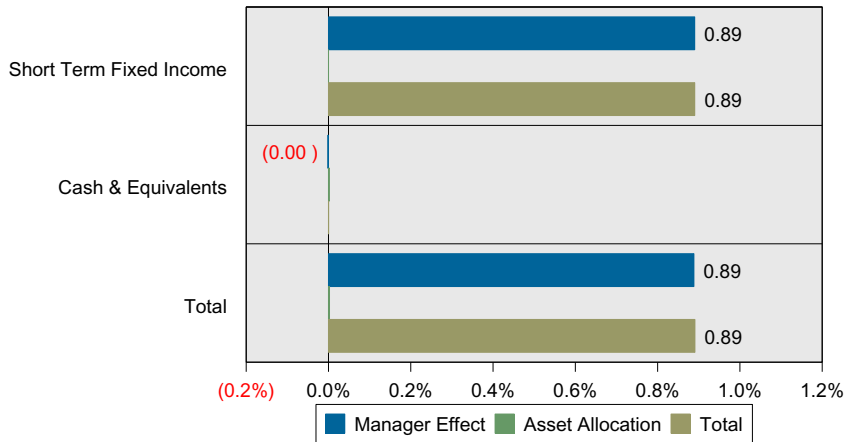
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	99%	99%	1.05%	(0.47%)	1.51%	0.00%	1.51%
Cash & Equivalents	1%	1%	0.04%	0.05%	(0.00%)	(0.00%)	(0.00%)
<b>Total</b>			<b>1.04%</b>	<b>= (0.47%) + 1.51% + (0.00%)</b>			<b>1.51%</b>

\* Current Quarter Target = 99.0% Blmbg Gov/Cred 1-3 Yr and 1.0% 3-month Treasury Bill.

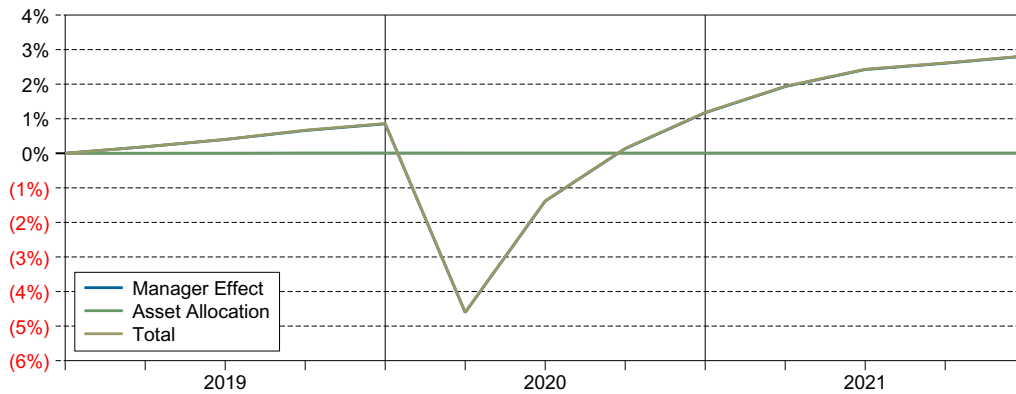
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

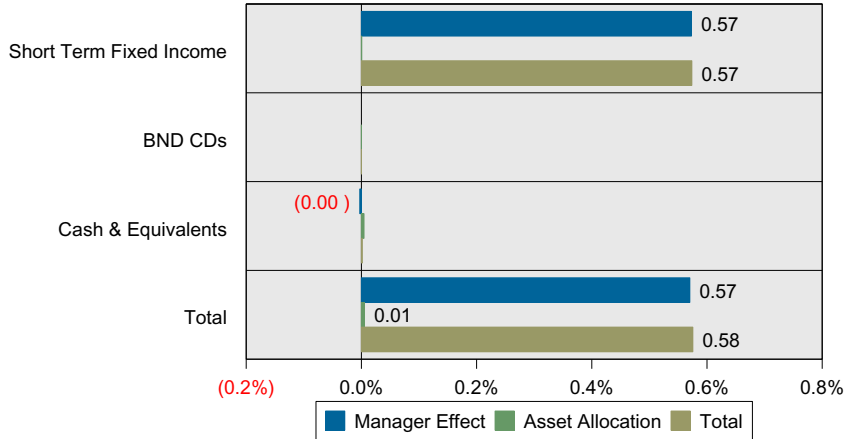
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	99%	99%	3.18%	2.28%	0.89%	0.00%	0.89%
Cash & Equivalents	1%	1%	0.86%	0.99%	(0.00%)	0.00%	0.00%
<b>Total</b>			<b>3.15%</b>	<b>2.26%</b>	<b>+ 0.89%</b>	<b>+ 0.00%</b>	<b>0.89%</b>

\* Current Quarter Target = 99.0% Blmbg Gov/Cred 1-3 Yr and 1.0% 3-month Treasury Bill.

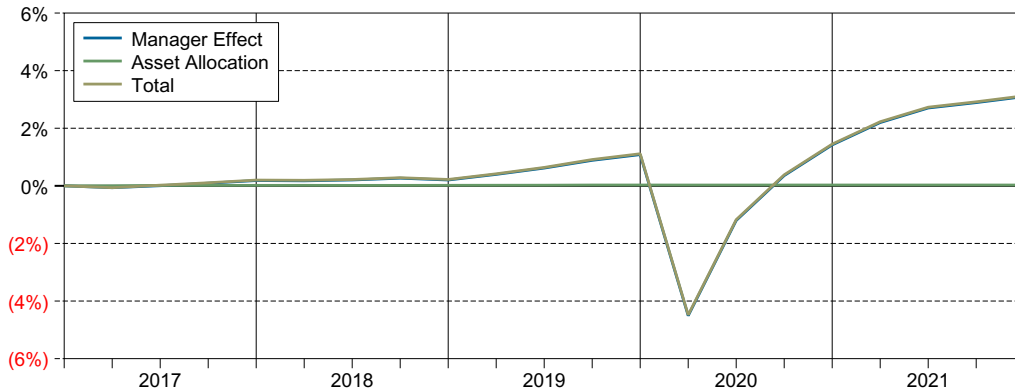
## Cumulative Total Fund Relative Attribution - December 31, 2021

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
Short Term Fixed Income	97%	97%	2.41%	1.83%	0.57%	0.00%	0.57%
BND CDs	1%	1%	-	-	0.00%	0.00%	0.00%
Cash & Equivalents	3%	3%	1.02%	1.14%	(0.00%)	0.00%	0.00%
<b>Total</b>			<b>2.39%</b>	<b>1.81%</b>	<b>+ 0.57%</b>	<b>+ 0.01%</b>	<b>0.58%</b>

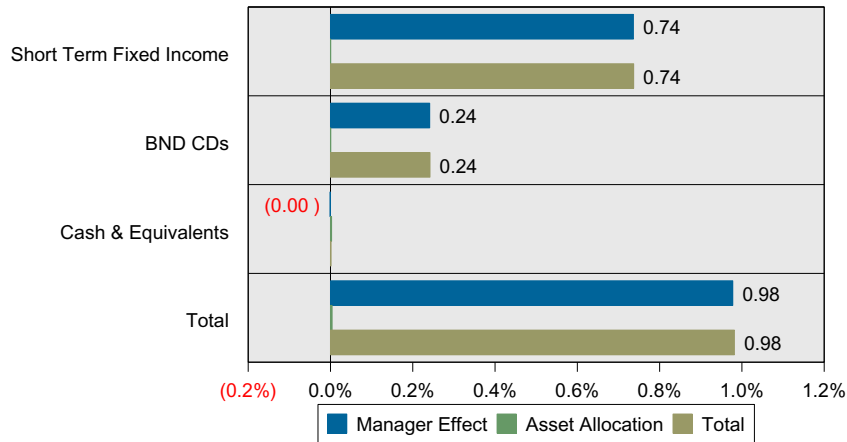
\* Current Quarter Target = 99.0% Blmbg Gov/Cred 1-3 Yr and 1.0% 3-month Treasury Bill.



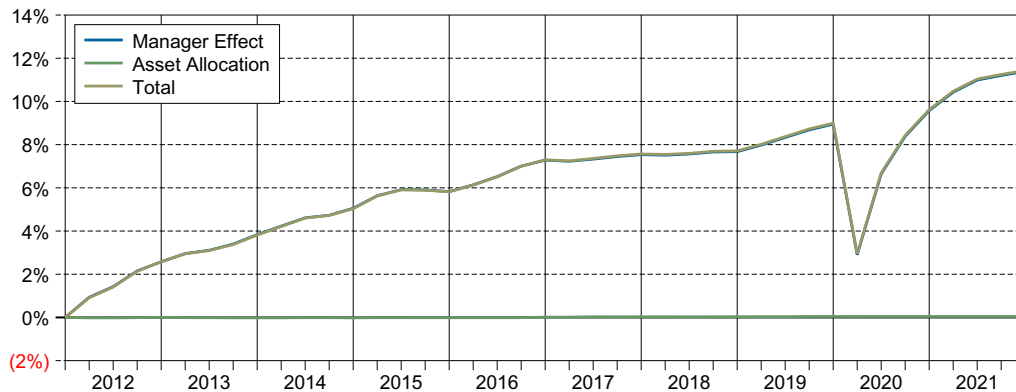
## Cumulative Total Fund Relative Attribution - December 31, 2021

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.

### Ten Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects

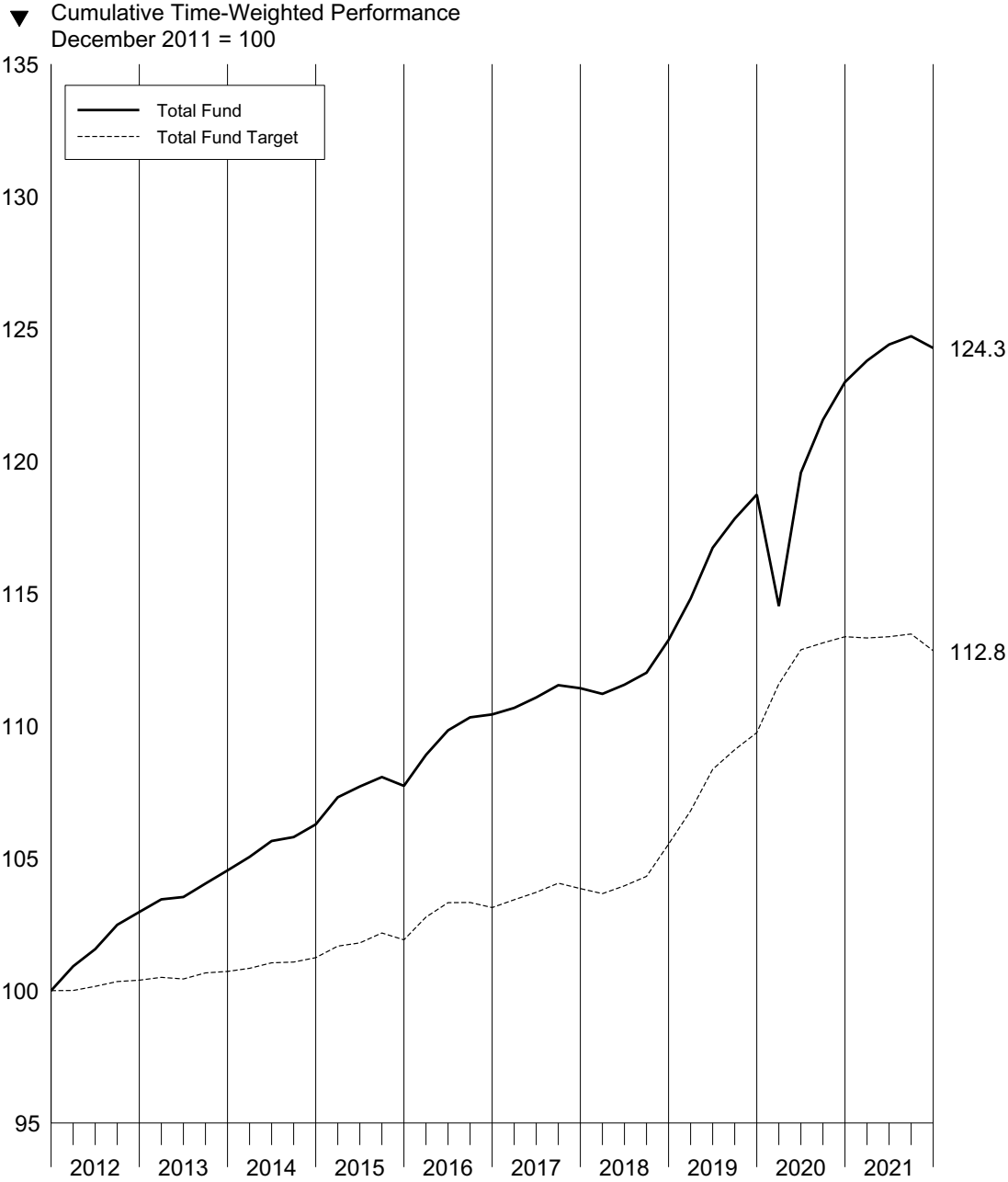


### Ten Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	88%	88%	2.08%	1.21%	0.74%	0.00%	0.74%
BND CDs	10%	10%	-	-	0.24%	0.00%	0.24%
Cash & Equivalents	2%	2%	0.58%	0.63%	(0.00%)	0.00%	0.00%
<b>Total</b>			<b>2.20%</b>	<b>1.22%</b>	<b>+ 0.98%</b>	<b>+ 0.00%</b>	<b>0.98%</b>

\* Current Quarter Target = 99.0% Blmbg Gov/Cred 1-3 Yr and 1.0% 3-month Treasury Bill.

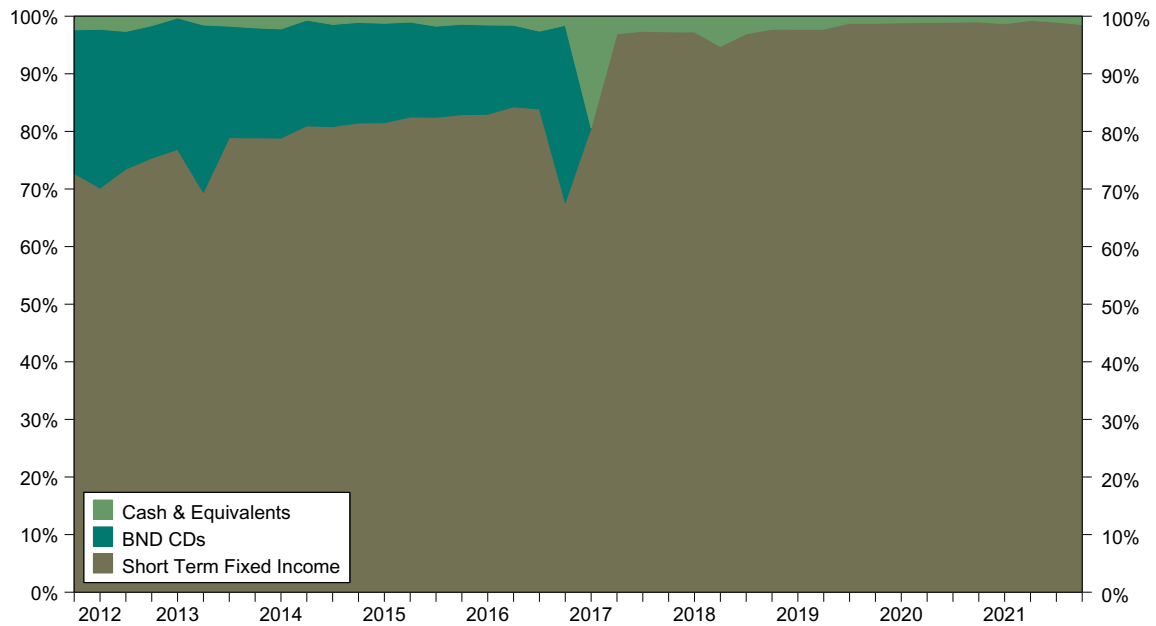
**NDSIB - Budget Stabilization Fund  
Cumulative Results**



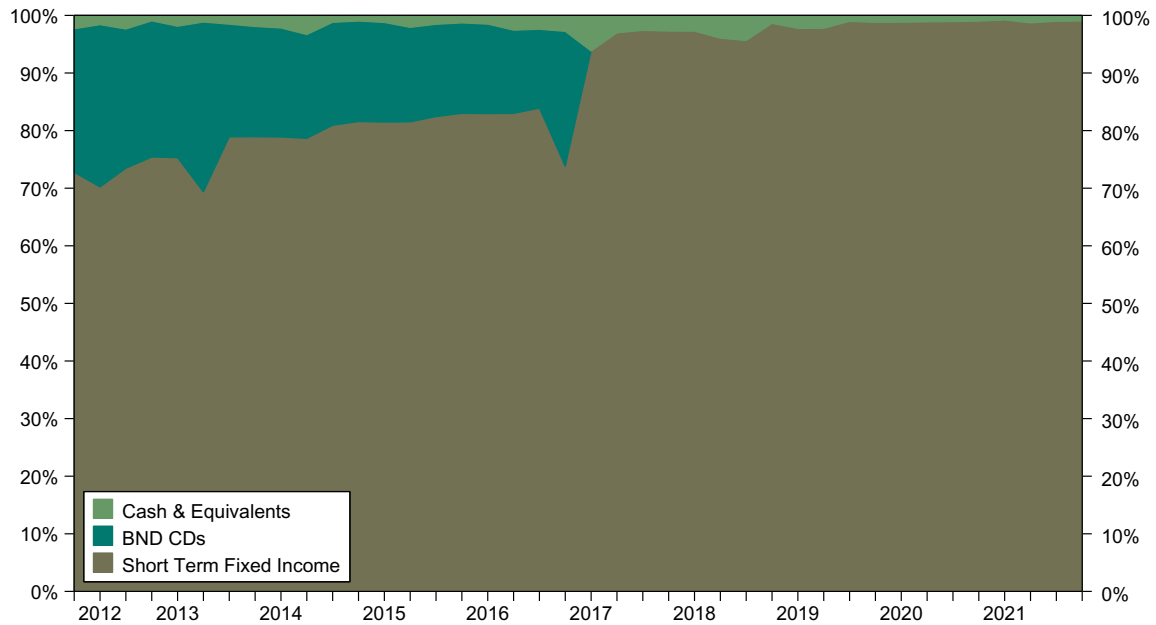
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

### Actual Historical Asset Allocation



### Target Historical Asset Allocation



\* Current Quarter Target = 99.0% Blmbg Gov/Cred 1-3 Yr and 1.0% 3-month Treasury Bill.

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## Asset Class Allocation

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The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2021, with the distribution as of September 30, 2021. 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 Class Allocation

	December 31, 2021		Net New Inv.	Inv. Return	September 30, 2021	
	Market Value	Weight			Market Value	Weight
Short Term Fixed Income	\$737,599,258	98.56%	\$(3,240,300)	\$(2,685,351)	\$743,524,909	98.97%
Cash & Equivalents	\$10,796,921	1.44%	\$3,023,646	\$645	\$7,772,631	1.03%
Total Fund	\$748,396,179	100.0%	\$(216,654)	\$(2,684,706)	\$751,297,540	100.0%

PLEASE REFER TO PAGE 30 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Short Term Fixed Income</b>					
Gross	(0.36%)	1.05%	3.18%	2.41%	2.08%
Net	(0.39%)	0.94%	3.06%	2.25%	1.93%
Blended Benchmark(1)	(0.56%)	(0.47%)	2.28%	1.83%	1.21%
<b>Cash &amp; Equivalents - Net</b>	<b>0.01%</b>	<b>0.04%</b>	<b>0.86%</b>	<b>1.02%</b>	<b>0.58%</b>
3-month Treasury Bill	0.01%	0.05%	0.99%	1.14%	0.63%
<b>Total Fund</b>					
Gross	(0.36%)	1.04%	3.15%	2.39%	2.20%
Net	(0.39%)	0.93%	3.02%	2.24%	2.07%
Target*	(0.56%)	(0.47%)	2.26%	1.81%	1.22%

\* Current Quarter Target = 99.0% Blmbg Gov/Cred 1-3 Yr and 1.0% 3-month Treasury Bill.

(1) Blmbg Gov 1-3 Yr through March 31, 2017 and Blmbg Gov/Credit 1-3 Yr thereafter.

PLEASE REFER TO PAGES 31-33 FOR INVESTMENT MANAGER LEVEL RETURNS.



# Large Cap Period Ended December 31, 2021

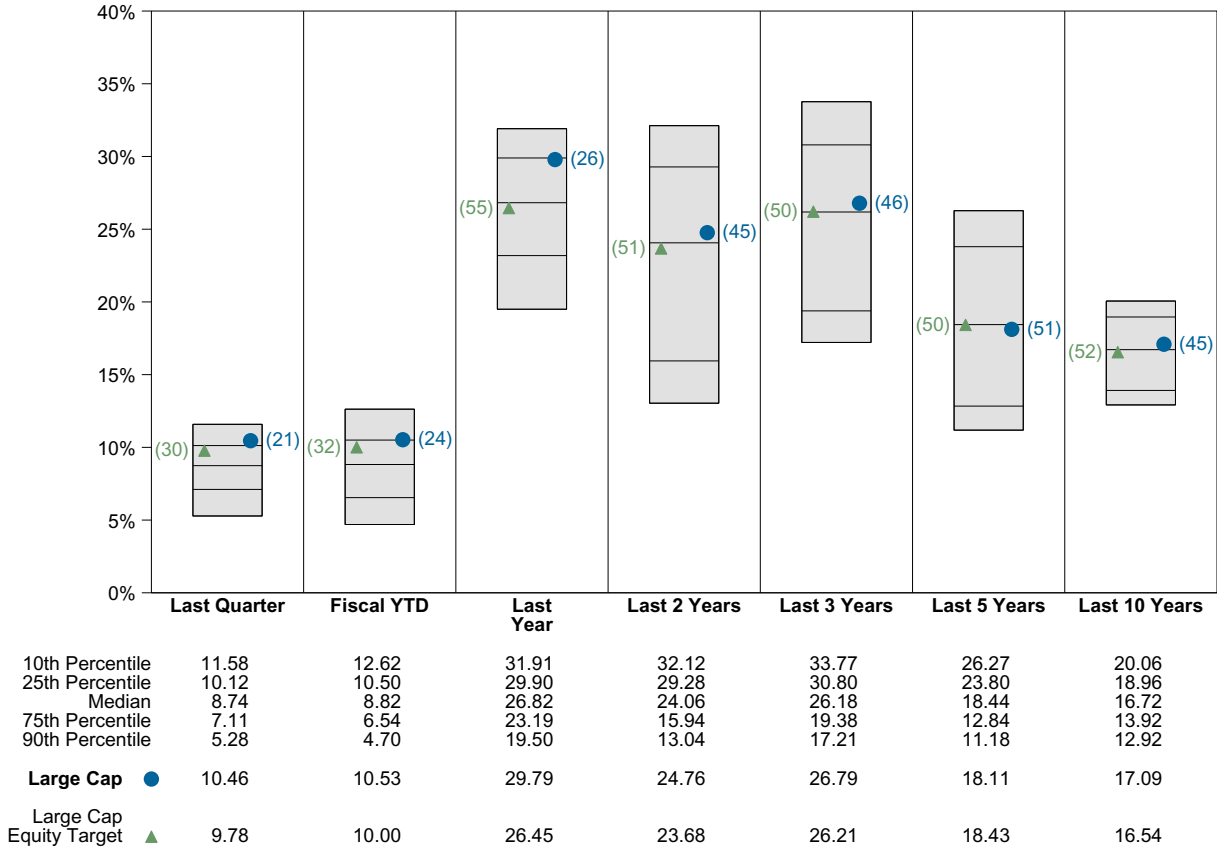
## Quarterly Summary and Highlights

- Large Cap's portfolio posted a 10.46% return for the quarter placing it in the 21 percentile of the Callan Large Capitalization group for the quarter and in the 26 percentile for the last year.
- Large Cap's portfolio outperformed the Large Cap Equity Target by 0.68% for the quarter and outperformed the Large Cap Equity Target for the year by 3.33%.

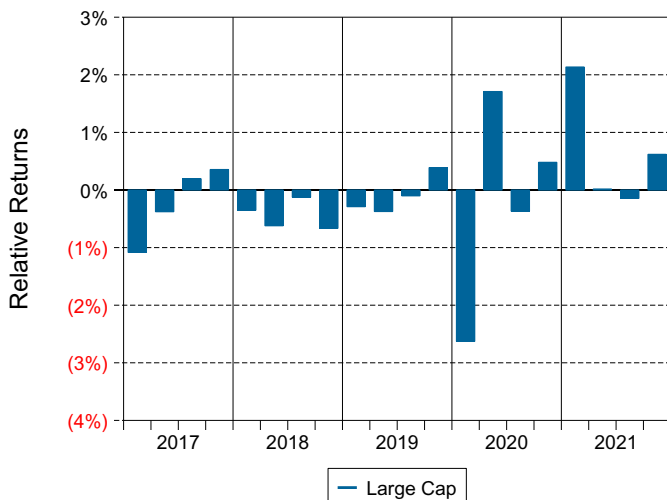
## Quarterly Asset Growth

Beginning Market Value	\$277,264,069
Net New Investment	\$-21,114,006
Investment Gains/(Losses)	\$28,825,897
Ending Market Value	\$284,975,959

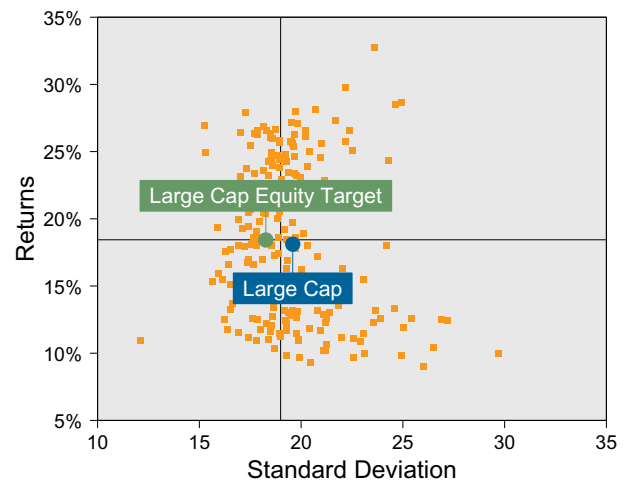
## Performance vs Callan Large Capitalization (Gross)



## Relative Return vs Large Cap Equity Target



## Callan Large Capitalization (Gross) Annualized Five Year Risk vs Return



# Parametric Large Cap Period Ended December 31, 2021

## Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

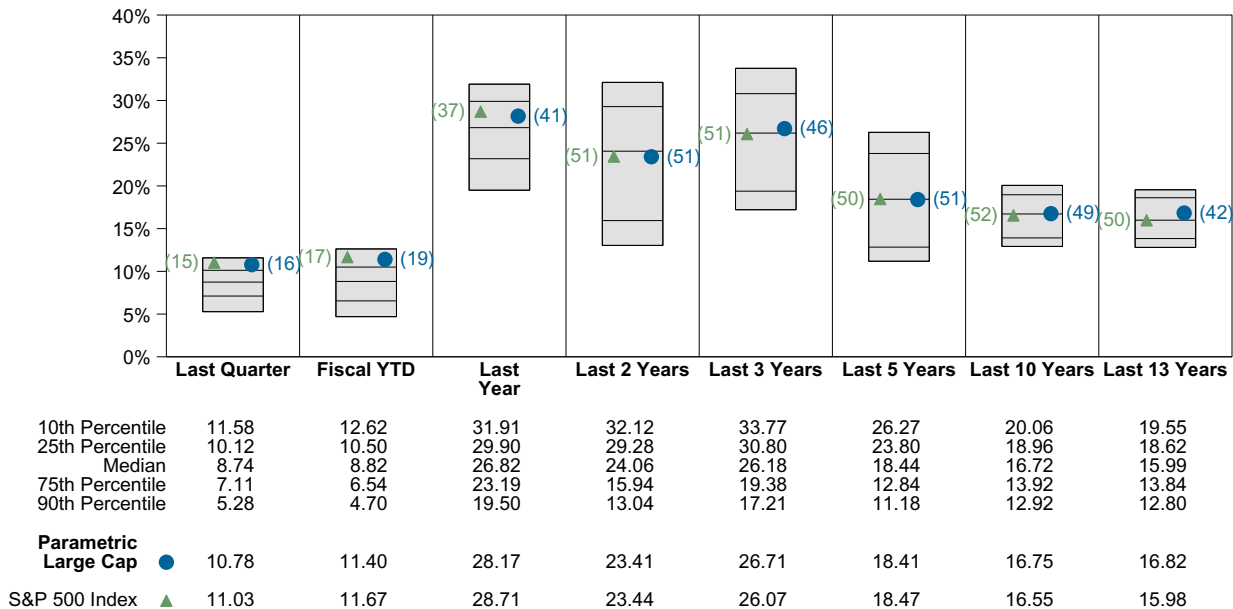
## Quarterly Summary and Highlights

- Parametric Large Cap's portfolio posted a 10.78% return for the quarter placing it in the 16 percentile of the Callan Large Capitalization group for the quarter and in the 41 percentile for the last year.
- Parametric Large Cap's portfolio underperformed the S&P 500 Index by 0.24% for the quarter and underperformed the S&P 500 Index for the year by 0.54%.

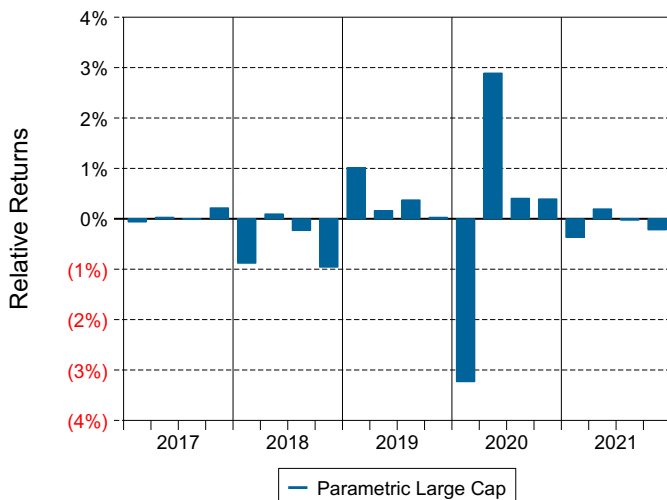
## Quarterly Asset Growth

Beginning Market Value	\$54,932,311
Net New Investment	\$-4,000,000
Investment Gains/(Losses)	\$5,878,762
Ending Market Value	\$56,811,073

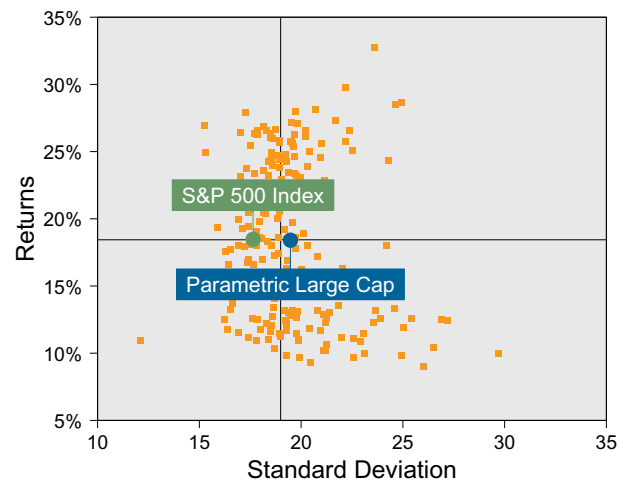
## Performance vs Callan Large Capitalization (Gross)



## Relative Return vs S&P 500 Index



## Callan Large Capitalization (Gross) Annualized Five Year Risk vs Return





# L.A. Capital Period Ended December 31, 2021

## Investment Philosophy

The LA Capital Structured portfolio is a large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that it targets a 2% alpha and constrains its risk budget (tracking error) to 4% relative to the benchmark. LA Capital believes that investment results are driven by Investor Preferences and thus recognize that when preferences shift a different posture related to that factor is warranted.

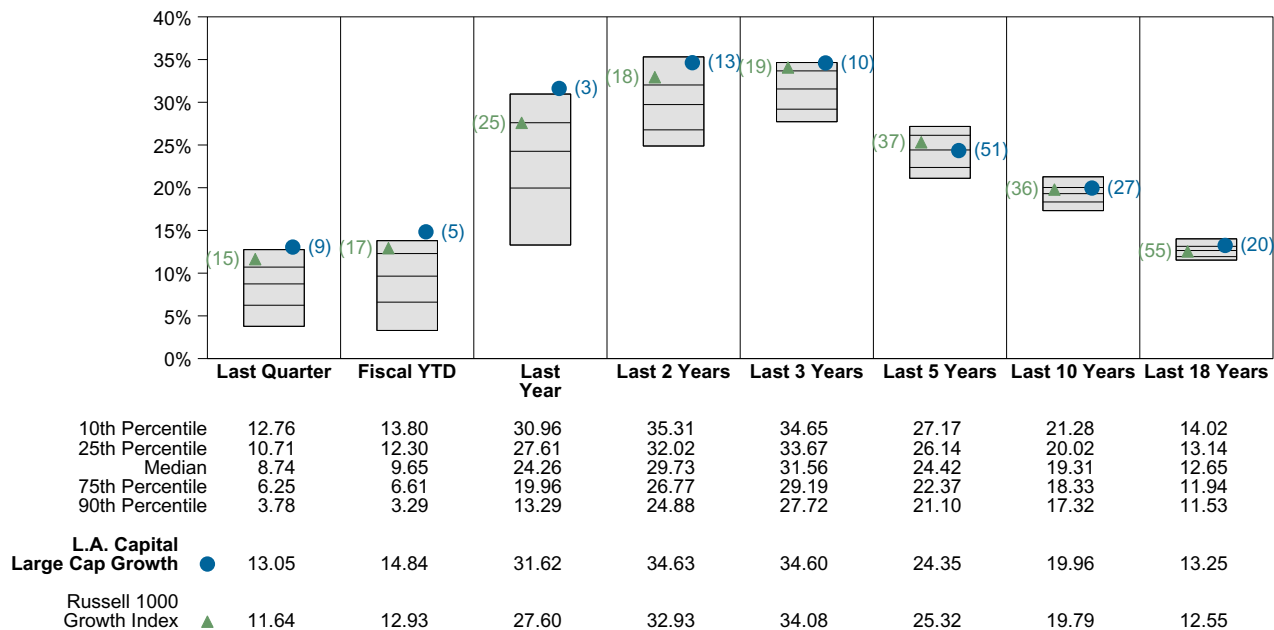
## Quarterly Summary and Highlights

- L.A. Capital Large Cap Growth's portfolio posted a 13.05% return for the quarter placing it in the 9 percentile of the Callan Large Cap Growth group for the quarter and in the 3 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio outperformed the Russell 1000 Growth Index by 1.42% for the quarter and outperformed the Russell 1000 Growth Index for the year by 4.02%.

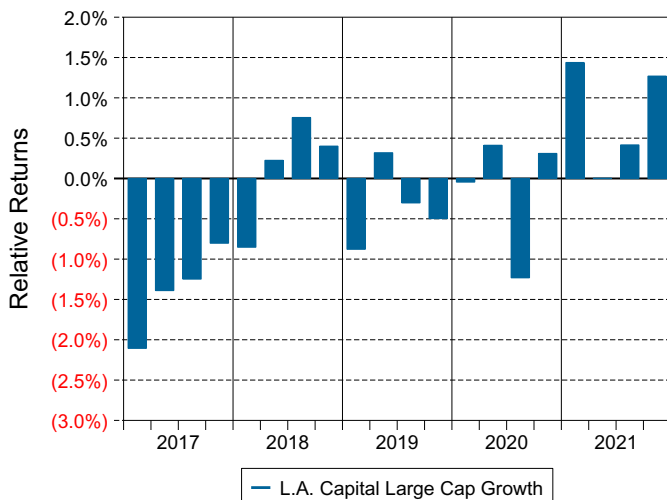
## Quarterly Asset Growth

Beginning Market Value	\$85,653,239
Net New Investment	\$-10,044,831
Investment Gains/(Losses)	\$11,072,257
Ending Market Value	\$86,680,664

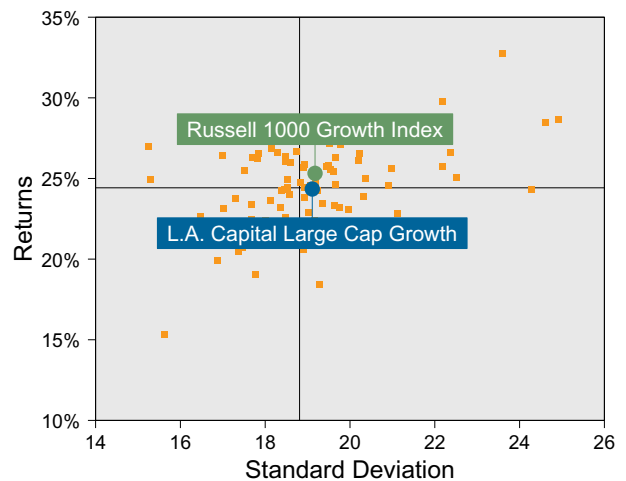
## Performance vs Callan Large Cap Growth (Gross)



## Relative Return vs Russell 1000 Growth Index



## Callan Large Cap Growth (Gross) Annualized Five Year Risk vs Return



# L.A. Capital Enhanced Period Ended December 31, 2021

## Investment Philosophy

The LA Capital Enhanced portfolio is a large core portfolio benchmarked to the Russell 1000 Index. Characterized as an enhanced index assignment, its objective is to track the benchmark with lower variability. The pension portfolio began in August of 2000 and the insurance portfolio was initiated in April of 2004. Since October of 2006 a small portion of each of the two core accounts was allocated into the Large Cap Alpha Fund with intent to add incremental alpha to the assignment given that the information ratio was expected to be higher.

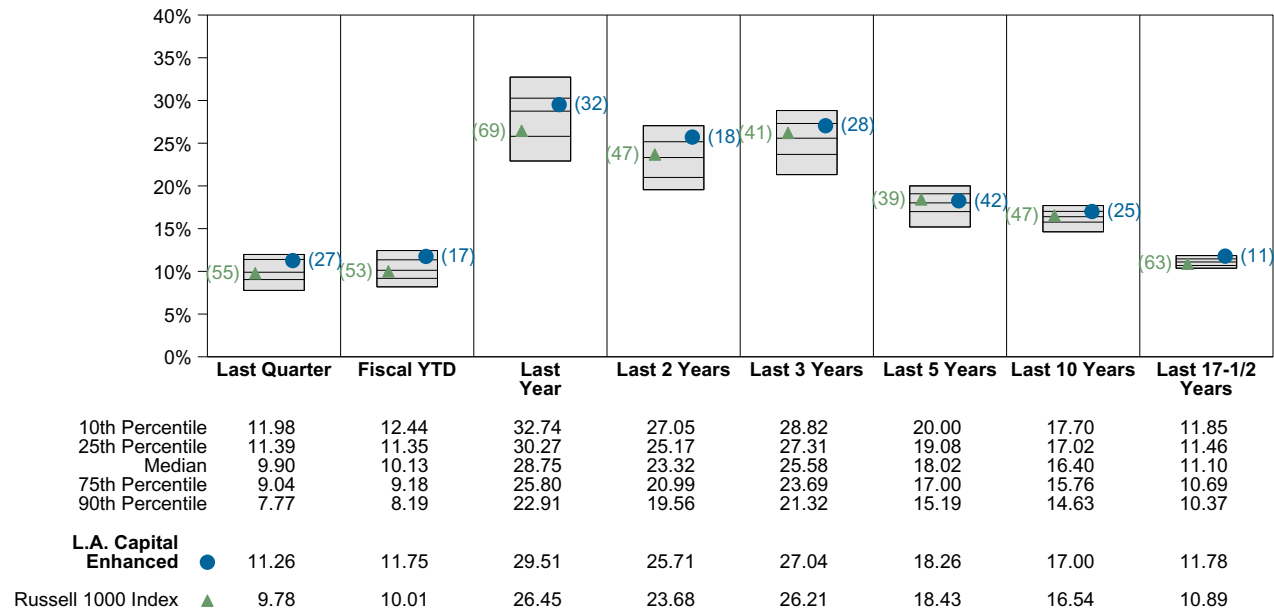
## Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a 11.26% return for the quarter placing it in the 27 percentile of the Callan Large Cap Core group for the quarter and in the 32 percentile for the last year.
- L.A. Capital Enhanced's portfolio outperformed the Russell 1000 Index by 1.48% for the quarter and outperformed the Russell 1000 Index for the year by 3.06%.

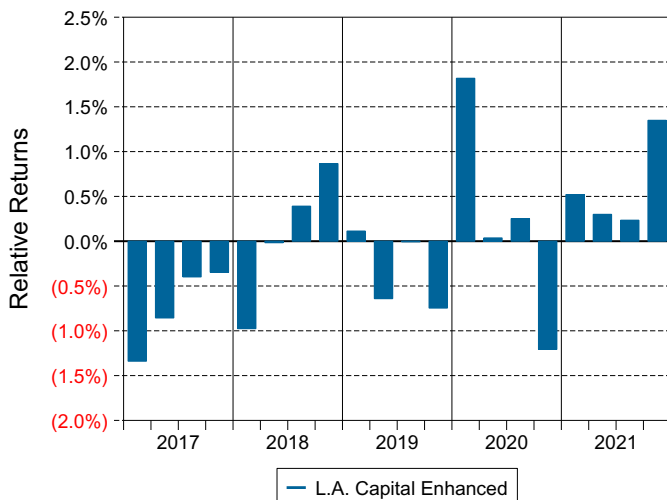
## Quarterly Asset Growth

Beginning Market Value	\$57,774,394
Net New Investment	\$-7,013,692
Investment Gains/(Losses)	\$6,385,278
Ending Market Value	\$57,145,980

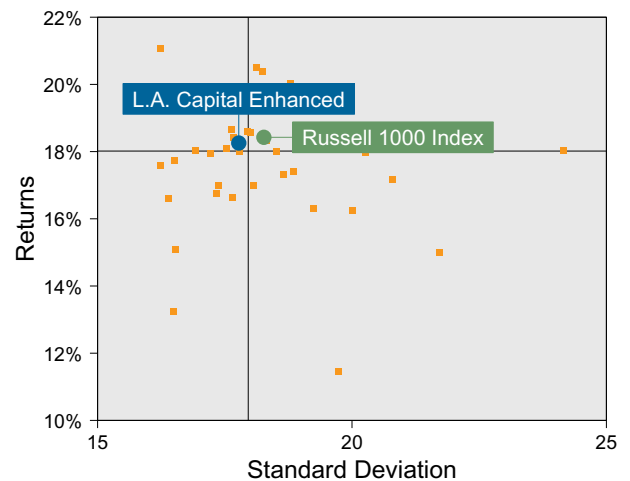
## Performance vs Callan Large Cap Core (Gross)



## Relative Return vs Russell 1000 Index



## Callan Large Cap Core (Gross) Annualized Five Year Risk vs Return



# LSV Asset Management Period Ended December 31, 2021

## Investment Philosophy

The objective of LSV Asset Management's Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested.

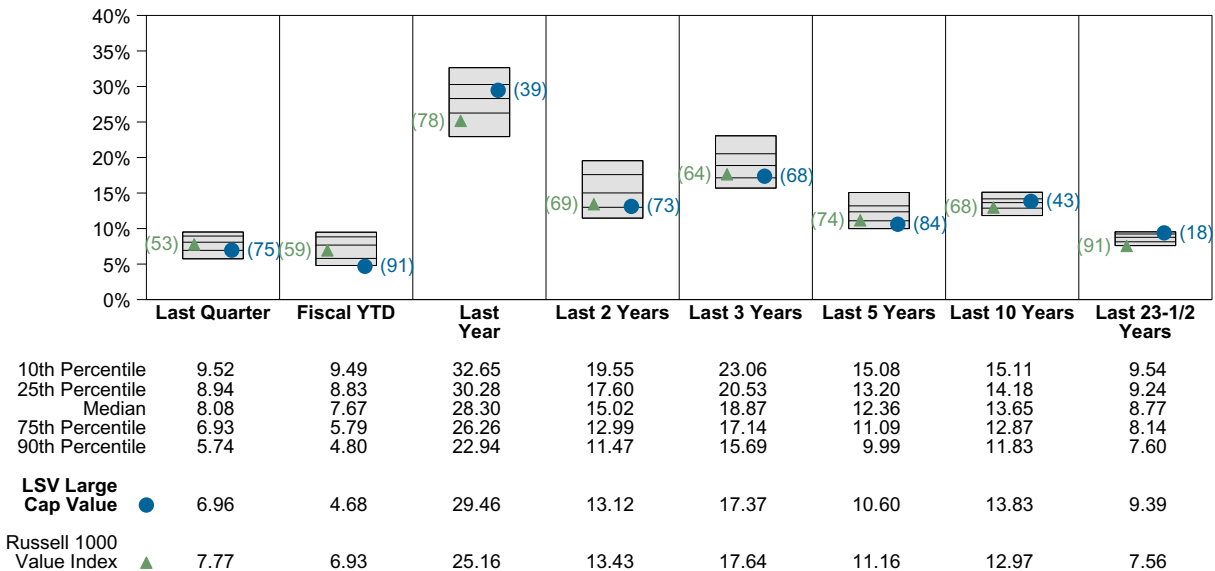
## Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a 6.96% return for the quarter placing it in the 75 percentile of the Callan Large Cap Value group for the quarter and in the 39 percentile for the last year.
- LSV Large Cap Value's portfolio underperformed the Russell 1000 Value Index by 0.81% for the quarter and outperformed the Russell 1000 Value Index for the year by 4.30%.

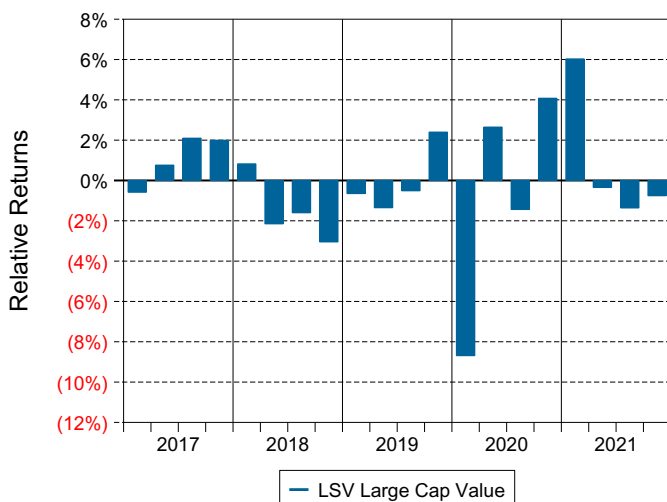
## Quarterly Asset Growth

Beginning Market Value	\$78,904,125
Net New Investment	\$-55,483
Investment Gains/(Losses)	\$5,489,600
Ending Market Value	\$84,338,243

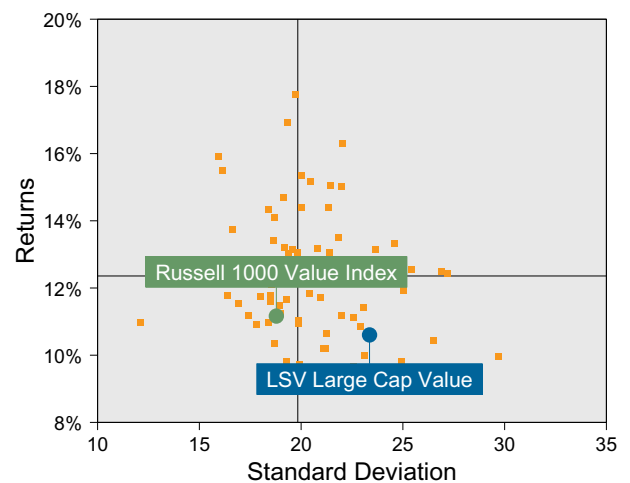
## Performance vs Callan Large Cap Value (Gross)



## Relative Return vs Russell 1000 Value Index



## Callan Large Cap Value (Gross) Annualized Five Year Risk vs Return



# Small Cap Period Ended December 31, 2021

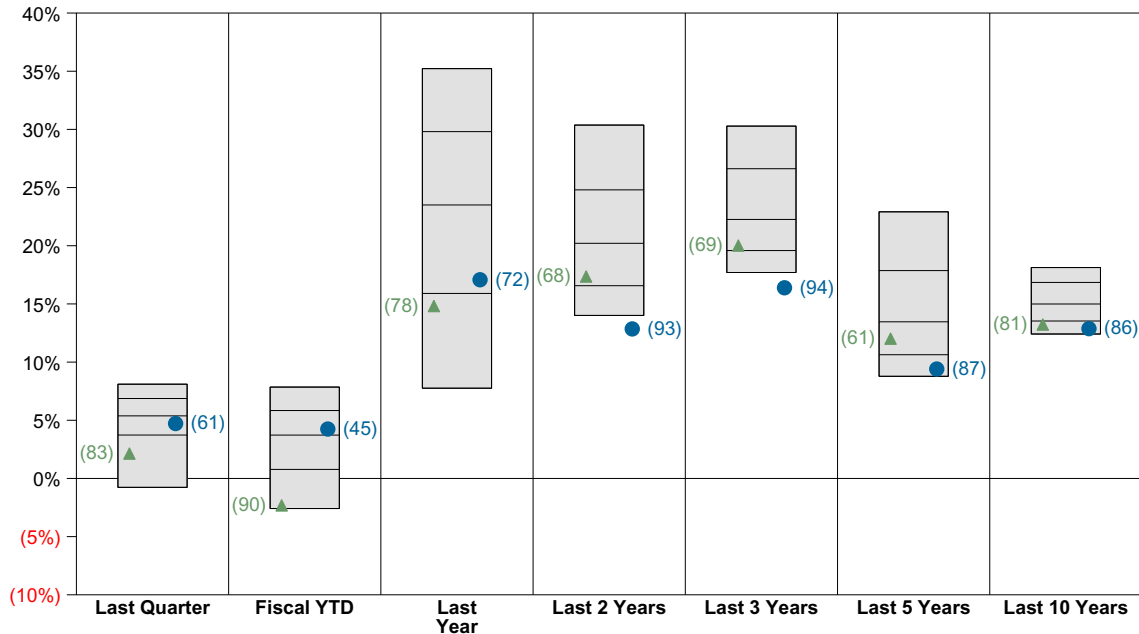
## Quarterly Summary and Highlights

- Small Cap's portfolio posted a 4.72% return for the quarter placing it in the 61 percentile of the Callan Small Capitalization group for the quarter and in the 72 percentile for the last year.
- Small Cap's portfolio outperformed the Small Cap Equity Target by 2.58% for the quarter and outperformed the Small Cap Equity Target for the year by 2.26%.

## Quarterly Asset Growth

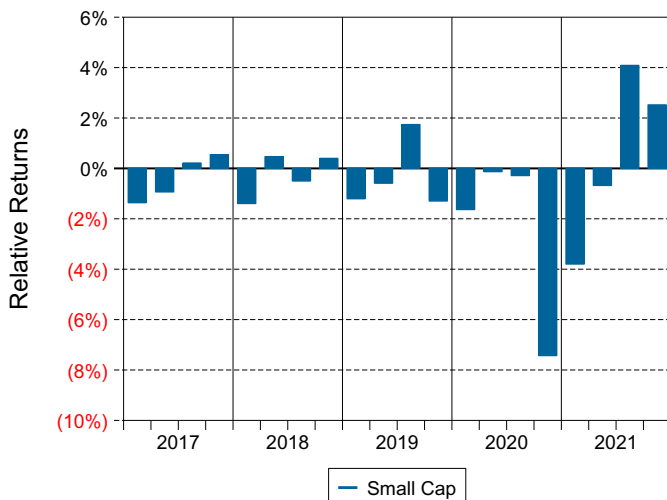
Beginning Market Value	\$77,742,724
Net New Investment	\$-5,626,371
Investment Gains/(Losses)	\$3,887,250
Ending Market Value	\$76,003,603

## Performance vs Callan Small Capitalization (Gross)

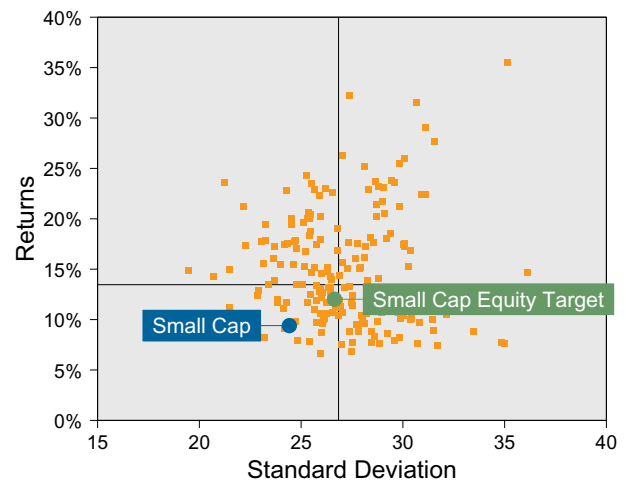


10th Percentile	8.10	7.85	35.22	30.37	30.28	22.92	18.13
25th Percentile	6.87	5.84	29.81	24.80	26.62	17.87	16.85
Median	5.38	3.73	23.50	20.21	22.26	13.46	14.99
75th Percentile	3.73	0.78	15.90	16.56	19.59	10.63	13.53
90th Percentile	(0.77)	(2.59)	7.75	14.01	17.70	8.78	12.41
<b>Small Cap</b> ●	4.72	4.25	17.08	12.85	16.39	9.40	12.87
Small Cap Equity Target ▲	2.14	(2.31)	14.82	17.36	20.02	12.02	13.23

## Relative Return vs Small Cap Equity Target



## Callan Small Capitalization (Gross) Annualized Five Year Risk vs Return



# Atlanta Capital Period Ended December 31, 2021

## Investment Philosophy

Atlanta Capital Managements approach with its small cap product is to focus on high quality companies with an overall portfolio risk exposure tied to the Russell 2000 Index. Key characteristics of this portfolio include: (1) stocks rated B+ or better by S&P, (2) equally weighting 75 stocks, (3) sector concentrations similar to that of the benchmark. A group of ten analysts is in charge of screening the Russell 2000 to identify companies they believe have strong price appreciation potential and good business fundamentals. These analysts present the ideas to the portfolio management team, led by Chip Reed, who makes the final decisions on the inclusion of stocks. In general, stocks are sold from the portfolio if the B+ or better financial rating is no longer met, there is an adverse change in the fundamental business, or because of regular portfolio maintenance to ensure broad diversification.

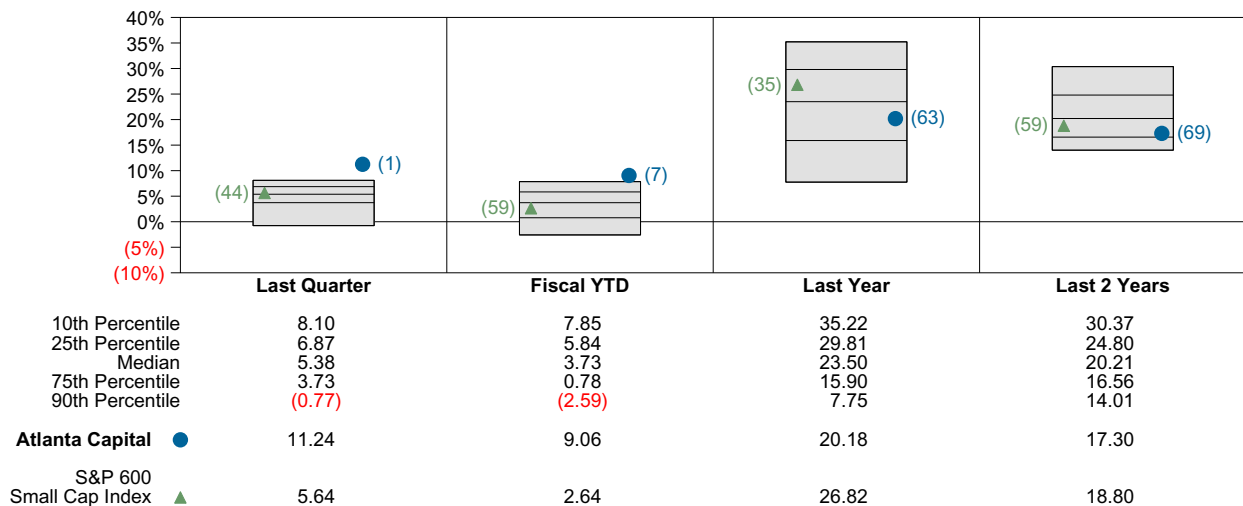
## Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a 11.24% return for the quarter placing it in the 1 percentile of the Callan Small Capitalization group for the quarter and in the 63 percentile for the last year.
- Atlanta Capital's portfolio outperformed the S&P 600 Small Cap Index by 5.61% for the quarter and underperformed the S&P 600 Small Cap Index for the year by 6.64%.

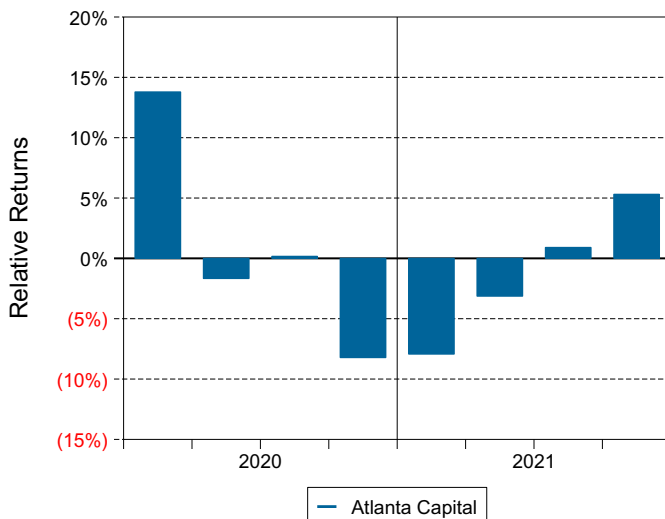
## Quarterly Asset Growth

Beginning Market Value	\$24,923,813
Net New Investment	\$-1,237,213
Investment Gains/(Losses)	\$2,815,819
Ending Market Value	\$26,502,419

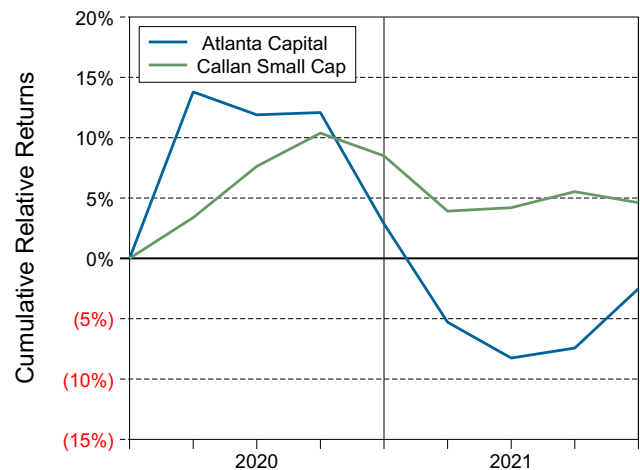
## Performance vs Callan Small Capitalization (Gross)



## Relative Return vs S&P 600 Small Cap Index



## Cumulative Returns vs S&P 600 Small Cap Index



# Riverbridge Small Cap Growth Period Ended December 31, 2021

## Investment Philosophy

Riverbridge believes earnings power determines the value of a franchise. They focus on companies that are building earnings power and intrinsic value of the company over long periods of time. They also look for high-quality growth companies that demonstrate the ability to sustain strong secular earnings growth, regardless of overall economic conditions.

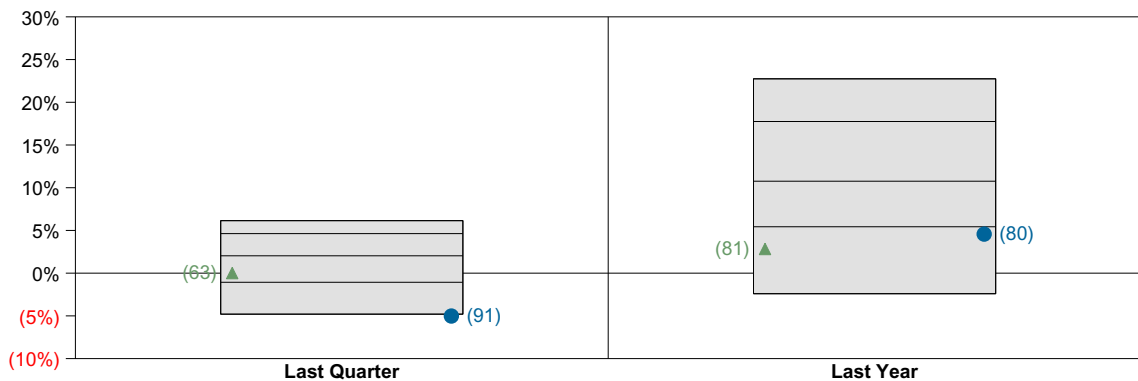
## Quarterly Summary and Highlights

- Riverbridge Small Cap Growth's portfolio posted a (5.02)% return for the quarter placing it in the 91 percentile of the Callan Small Cap Growth group for the quarter and in the 80 percentile for the last year.
- Riverbridge Small Cap Growth's portfolio underperformed the Russell 2000 Growth Index by 5.03% for the quarter and outperformed the Russell 2000 Growth Index for the year by 1.74%.

## Quarterly Asset Growth

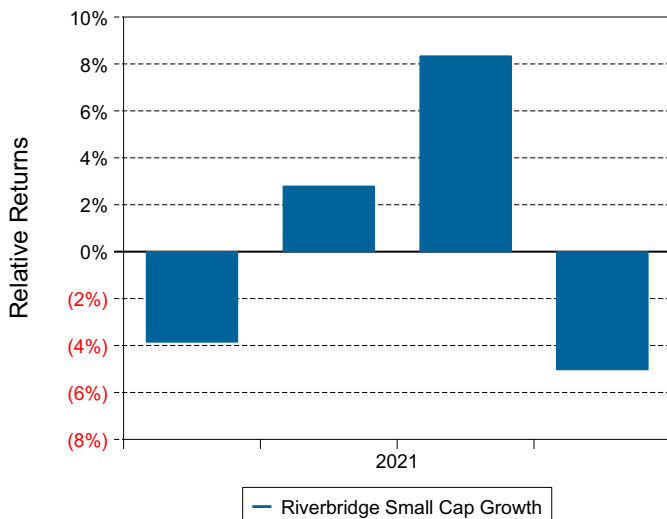
Beginning Market Value	\$28,060,917
Net New Investment	\$-4,351,139
Investment Gains/(Losses)	\$-1,006,855
Ending Market Value	\$22,702,923

## Performance vs Callan Small Cap Growth (Gross)

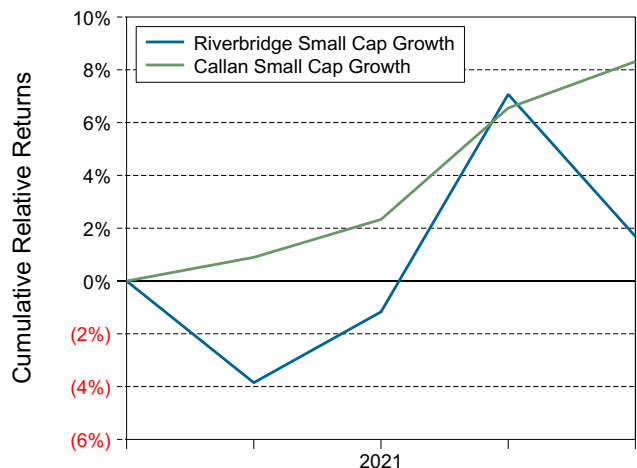


	Last Quarter	Last Year
10th Percentile	6.15	22.75
25th Percentile	4.63	17.75
Median	2.03	10.76
75th Percentile	(1.07)	5.43
90th Percentile	(4.80)	(2.41)
<b>Riverbridge Small Cap Growth</b>	<b>(5.02)</b>	4.57
Russell 2000 Growth Index	0.01	2.83

## Relative Return vs Russell 2000 Growth Index



## Cumulative Returns vs Russell 2000 Growth Index



# Sycamore Small Cap Value Period Ended December 31, 2021

## Investment Philosophy

The Victory Small Cap Value Equity investment approach focuses on companies with market capitalizations between \$100 million and \$2 billion that are believed offer above-average total return potential with limited risk. The Small Cap Value Equity investment process seeks to identify high quality, low expectation small cap companies that appear poised for continued or improved earnings. Portfolios typically hold 100-125 stocks with average annual portfolio turnover of 40%. The team will begin to sell when a company's market capitalization exceeds \$4 billion, however they focus on the weighted average market capitalization of the total portfolio and thus may retain exposure to some mid cap companies.

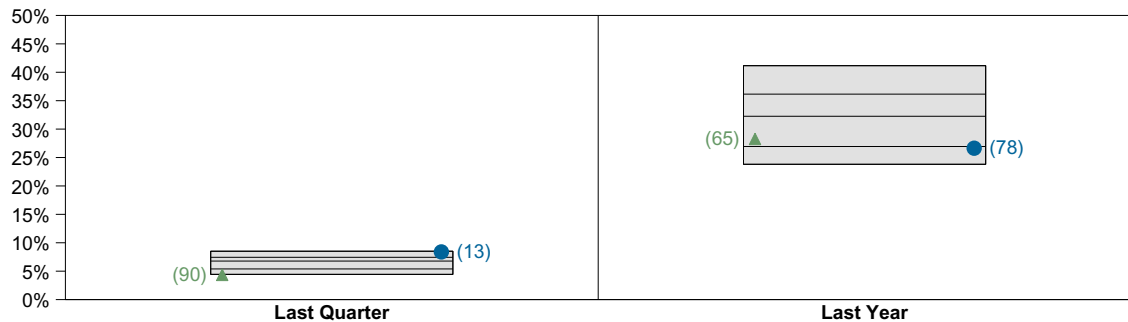
## Quarterly Summary and Highlights

- Sycamore Small Cap Value's portfolio posted a 8.39% return for the quarter placing it in the 13 percentile of the Callan Small Cap Value group for the quarter and in the 78 percentile for the last year.
- Sycamore Small Cap Value's portfolio outperformed the Russell 2000 Value Index by 4.04% for the quarter and underperformed the Russell 2000 Value Index for the year by 1.63%.

## Quarterly Asset Growth

Beginning Market Value	\$24,757,994
Net New Investment	\$-38,019
Investment Gains/(Losses)	\$2,078,286
Ending Market Value	\$26,798,260

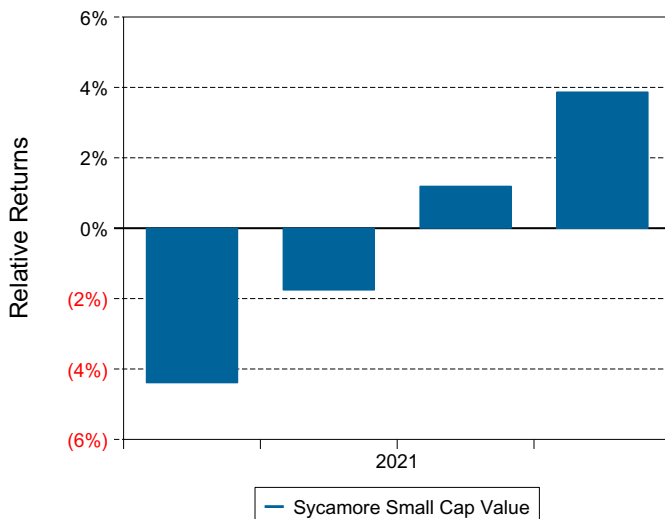
## Performance vs Callan Small Cap Value (Gross)



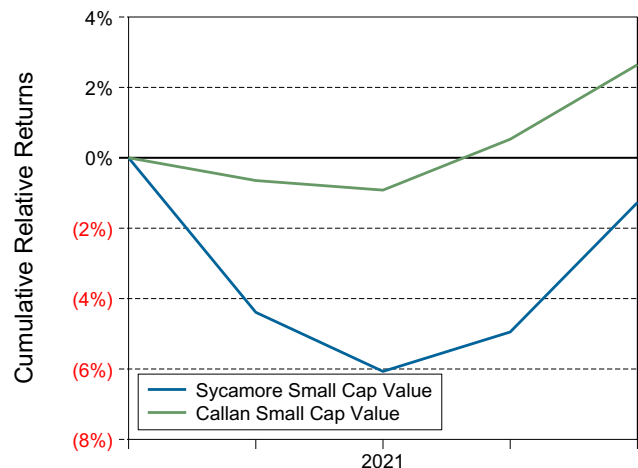
10th Percentile	8.51	41.16
25th Percentile	7.44	36.15
Median	6.78	32.26
75th Percentile	5.40	26.94
90th Percentile	4.44	23.81

<b>Sycamore Small Cap Value</b>	8.39	26.64
Russell 2000 Value Index	4.36	28.27

## Relative Return vs Russell 2000 Value Index



## Cumulative Returns vs Russell 2000 Value Index







# International Equity

## Period Ended December 31, 2021

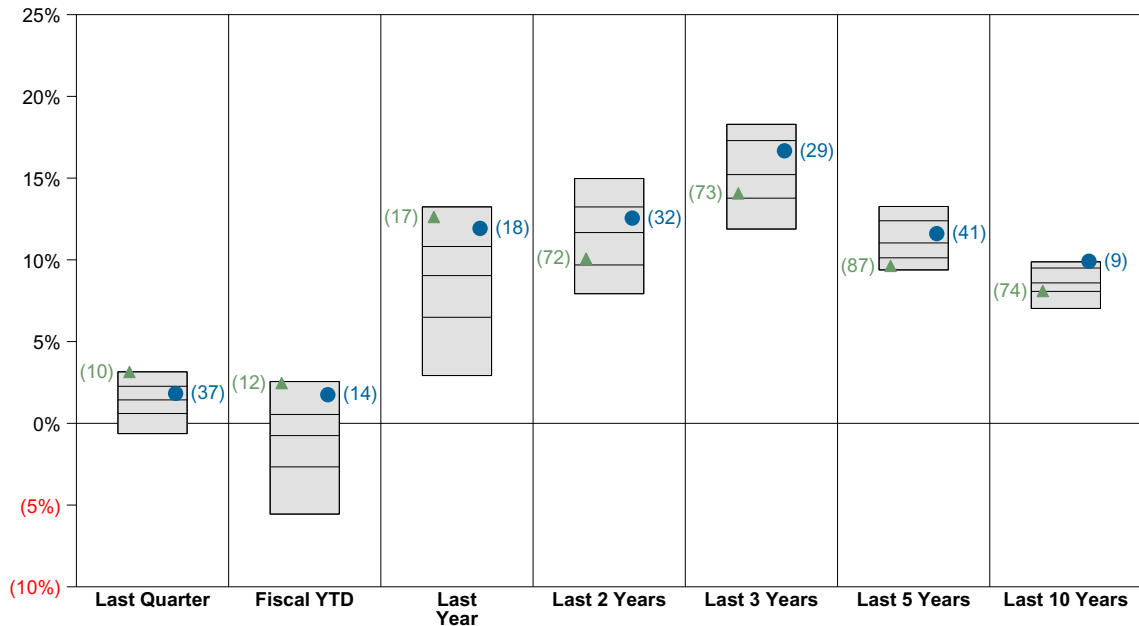
### Quarterly Summary and Highlights

- International Equity's portfolio posted a 1.83% return for the quarter placing it in the 37 percentile of the Public Fund - International Equity group for the quarter and in the 18 percentile for the last year.
- International Equity's portfolio underperformed the International Equity Target by 1.31% for the quarter and underperformed the International Equity Target for the year by 0.70%.

### Quarterly Asset Growth

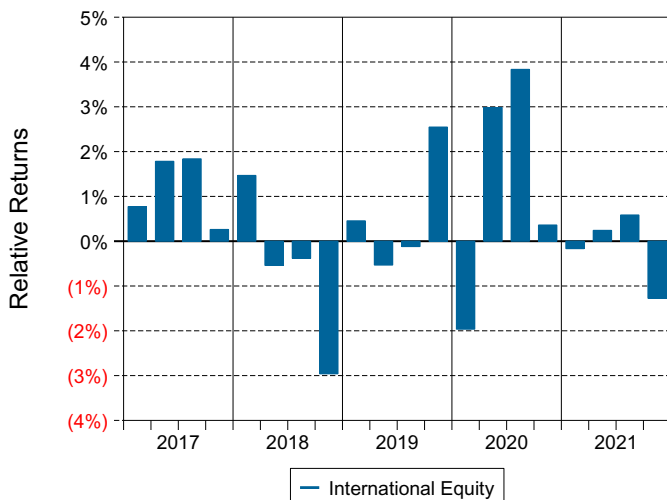
Beginning Market Value	\$192,336,574
Net New Investment	\$-142,788
Investment Gains/(Losses)	\$3,519,365
Ending Market Value	\$195,713,151

### Performance vs Public Fund - International Equity (Gross)

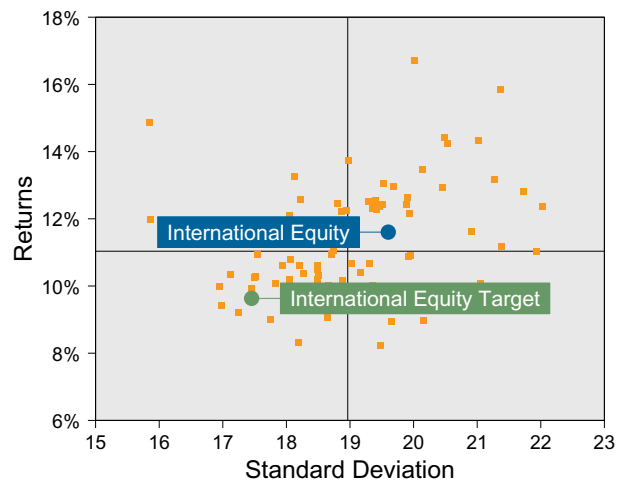


10th Percentile	3.15	2.56	13.24	14.97	18.29	13.27	9.88
25th Percentile	2.27	0.54	10.82	13.24	17.30	12.39	9.50
Median	1.43	(0.75)	9.04	11.67	15.21	11.03	8.59
75th Percentile	0.60	(2.66)	6.49	9.69	13.77	10.12	8.07
90th Percentile	(0.63)	(5.55)	2.92	7.93	11.88	9.38	7.03
<b>International Equity</b>	<b>1.83</b>	<b>1.75</b>	<b>11.92</b>	<b>12.55</b>	<b>16.67</b>	<b>11.60</b>	<b>9.92</b>
International Equity Target	3.14	2.46	12.62	10.08	14.07	9.63	8.10

### Relative Return vs International Equity Target



### Public Fund - International Equity (Gross) Annualized Five Year Risk vs Return



# DFA Intl Small Cap Value Period Ended December 31, 2021

## Investment Philosophy

The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Specifically, it looks at companies that fall within the smallest 8-10% of each country's market capitalization, and who's shares have a high book value in relation to their market value (BtM). It does not invest in emerging markets.

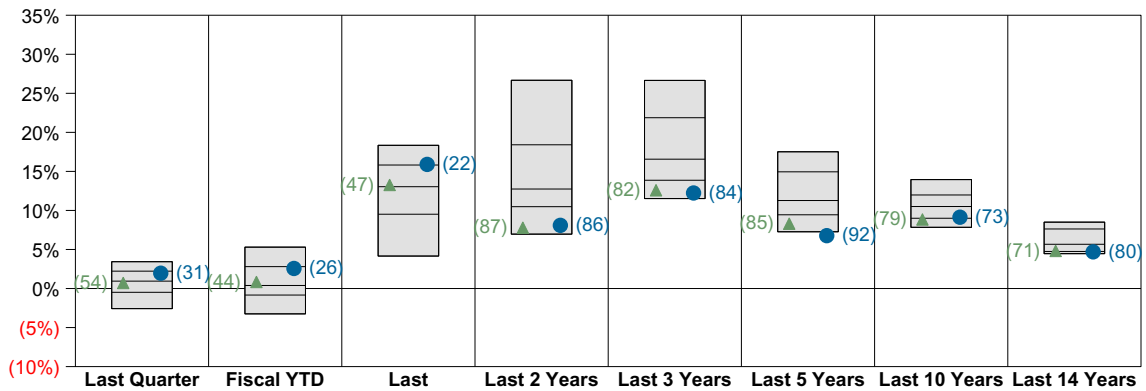
## Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a 1.96% return for the quarter placing it in the 31 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 22 percentile for the last year.
- DFA Intl Small Cap Value's portfolio outperformed the World ex US SC Value by 1.24% for the quarter and outperformed the World ex US SC Value for the year by 2.63%.

## Quarterly Asset Growth

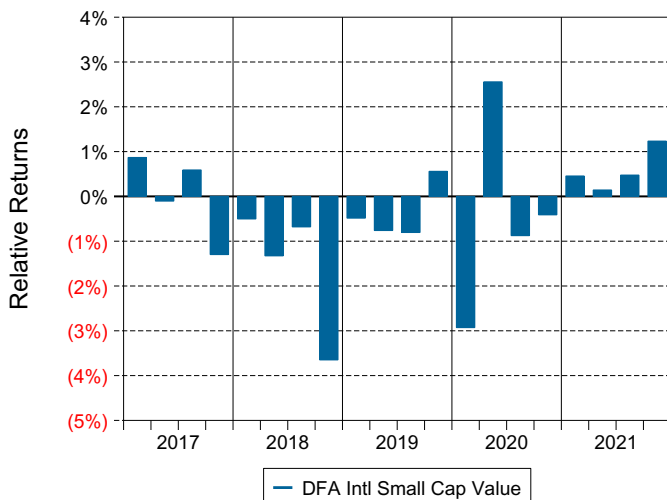
Beginning Market Value	\$19,615,148
Net New Investment	\$0
Investment Gains/(Losses)	\$384,332
Ending Market Value	\$19,999,480

## Performance vs Callan International Small Cap Mut Funds (Net)

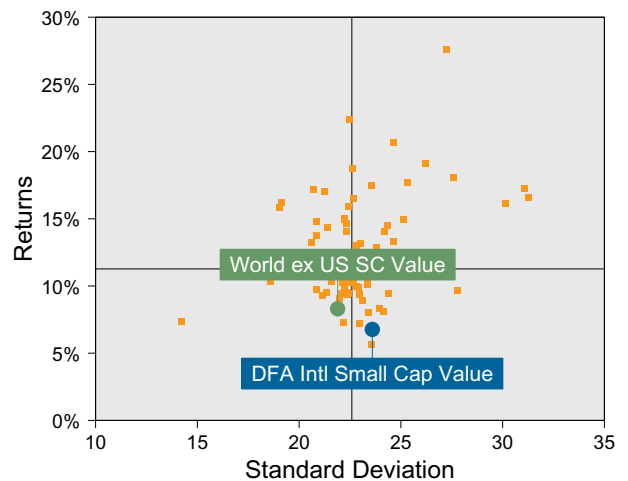


10th Percentile	3.44	5.30	18.34	26.67	26.65	17.52	13.95	8.50
25th Percentile	2.22	2.80	15.82	18.41	21.88	14.95	11.98	7.63
Median	0.95	0.39	13.04	12.74	16.56	11.27	10.50	5.67
75th Percentile	(0.49)	(0.84)	9.52	10.48	13.87	9.44	9.00	4.75
90th Percentile	(2.58)	(3.25)	4.16	6.96	11.52	7.27	7.84	4.46
<b>DFA Intl Small Cap Value</b>	● 1.96	2.57	15.89	8.09	12.23	6.77	9.13	4.69
World ex US SC Value	▲ 0.72	0.84	13.27	7.79	12.59	8.30	8.85	4.82

## Relative Return vs World ex US SC Value



## Callan International Small Cap Mut Funds (Net) Annualized Five Year Risk vs Return



# LSV Intl Value

## Period Ended December 31, 2021

### Investment Philosophy

The objective of LSV Asset Management's International Large Cap Value strategy is to outperform the MSCI EAFE Index by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested. LSV weights countries at a neutral weight relative to the benchmark country weights. 50% of the portfolio is US dollar hedged. **\*MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011 and MSCI EAFE again thereafter.**

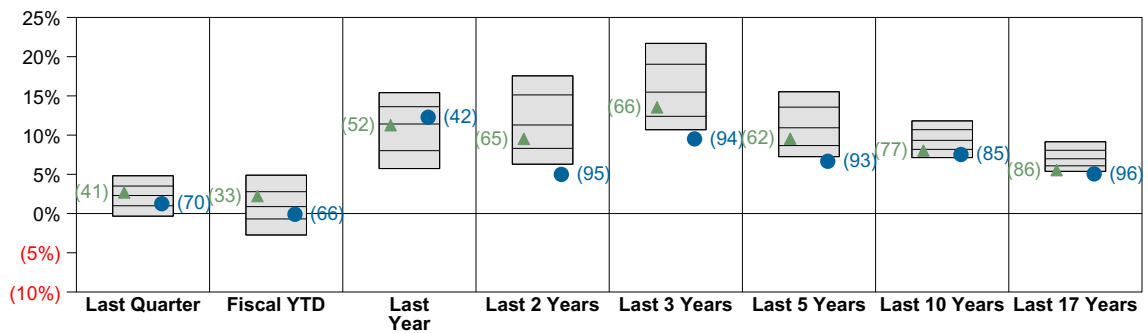
### Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a 1.25% return for the quarter placing it in the 70 percentile of the Callan Non-US Equity group for the quarter and in the 42 percentile for the last year.
- LSV Intl Value's portfolio underperformed the Benchmark by 1.44% for the quarter and outperformed the Benchmark for the year by 1.01%.

### Quarterly Asset Growth

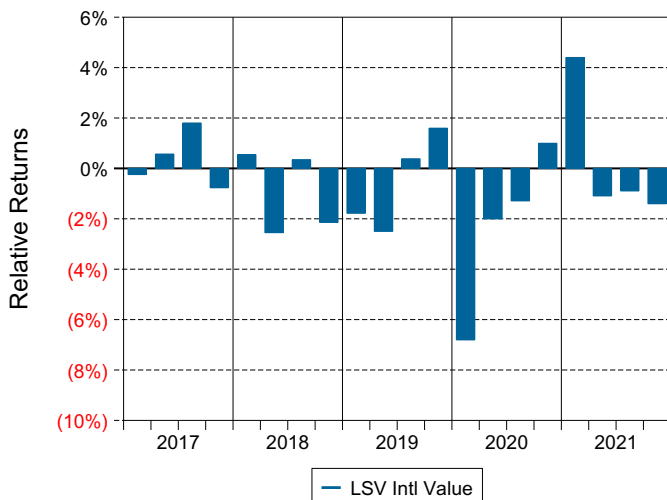
Beginning Market Value	\$73,602,951
Net New Investment	-\$71,390
Investment Gains/(Losses)	\$922,043
Ending Market Value	\$74,453,603

### Performance vs Callan Non-US Equity (Gross)

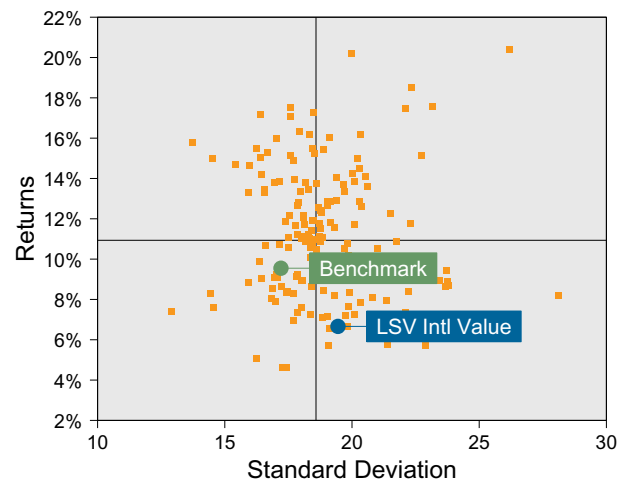


10th Percentile	4.82	4.89	15.41	17.56	21.69	15.53	11.82	9.15
25th Percentile	3.51	2.79	13.62	15.13	19.04	13.56	10.69	8.06
Median	2.30	0.88	11.41	11.29	15.48	10.93	9.33	6.98
75th Percentile	0.99	(0.68)	8.02	8.31	12.40	8.66	8.18	6.08
90th Percentile	(0.33)	(2.74)	5.74	6.29	10.68	7.25	7.13	5.38
<b>LSV Intl Value</b>	● 1.25	(0.09)	12.27	4.99	9.51	6.66	7.53	5.05
<b>Benchmark</b>	▲ 2.69	2.24	11.26	9.53	13.54	9.55	8.03	5.53

### Relative Return vs Benchmark



### Callan Non-US Equity (Gross) Annualized Five Year Risk vs Return



# Vanguard Intl Explorer Fund

## Period Ended December 31, 2021

### Investment Philosophy

Vanguard International Explorer Fund invests primarily in the equity securities of small-capitalization companies located outside the United States that the advisor believes offer the potential for long-term capital appreciation. The advisor considers, among other things, whether a company is likely to have above-average earnings growth, whether the company's securities are attractively valued, and whether the company has any proprietary advantages.

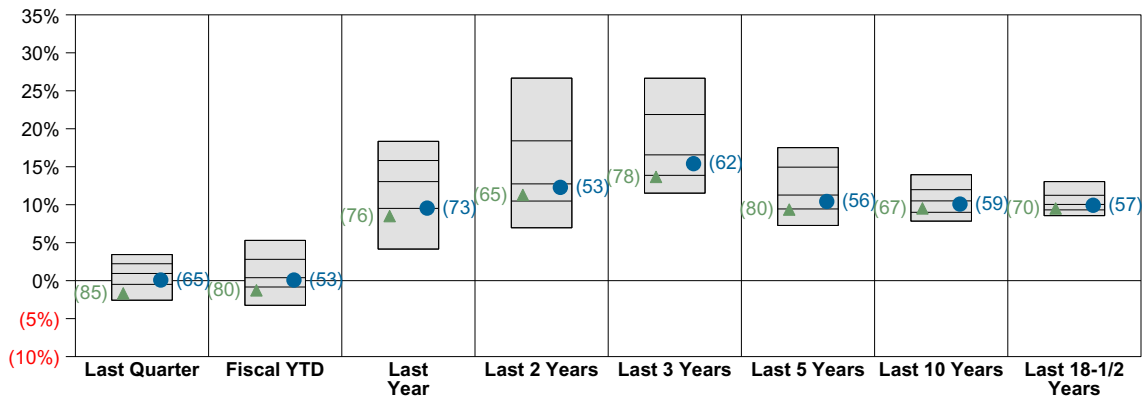
### Quarterly Summary and Highlights

- Vanguard Intl Explorer Fund's portfolio posted a 0.08% return for the quarter placing it in the 65 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 73 percentile for the last year.
- Vanguard Intl Explorer Fund's portfolio outperformed the S&P BMI EPAC <\$2 B by 1.76% for the quarter and outperformed the S&P BMI EPAC <\$2 B for the year by 1.05%.

### Quarterly Asset Growth

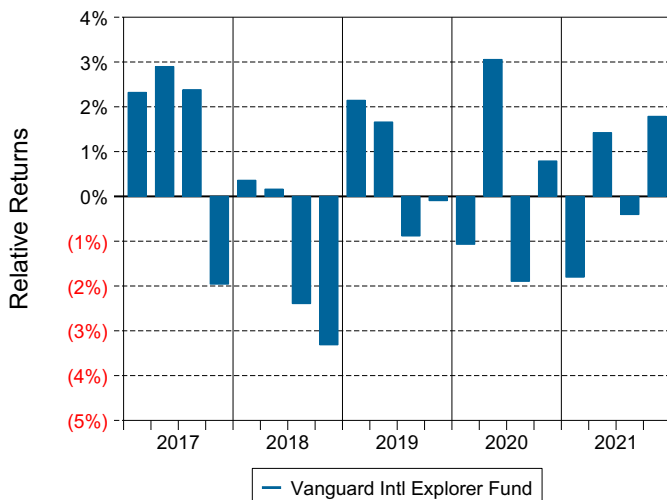
Beginning Market Value	\$19,659,498
Net New Investment	\$0
Investment Gains/(Losses)	\$16,100
Ending Market Value	\$19,675,598

### Performance vs Callan International Small Cap Mut Funds (Net)

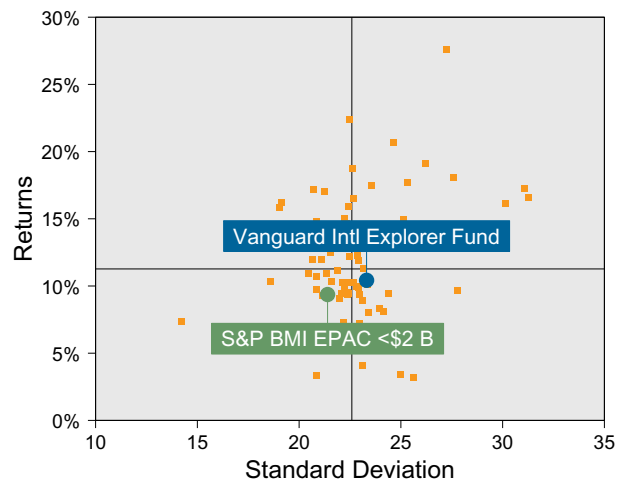


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 18-1/2 Years
10th Percentile	3.44	5.30	18.34	26.67	26.65	17.52	13.95	13.04
25th Percentile	2.22	2.80	15.82	18.41	21.88	14.95	11.98	11.24
Median	0.95	0.39	13.04	12.74	16.56	11.27	10.50	10.03
75th Percentile	(0.49)	(0.84)	9.52	10.48	13.87	9.44	9.00	9.32
90th Percentile	(2.58)	(3.25)	4.16	6.96	11.52	7.27	7.84	8.56
<b>Vanguard Intl Explorer Fund</b>	● 0.08	0.08	9.55	12.28	15.40	10.42	10.08	9.93
S&P BMI EPAC <\$2 B	▲ (1.67)	(1.28)	8.50	11.29	13.66	9.37	9.52	9.50

### Relative Return vs S&P BMI EPAC <\$2 B



### Callan International Small Cap Mut Funds (Net) Annualized Five Year Risk vs Return



# William Blair

## Period Ended December 31, 2021

### Investment Philosophy

One of the basic investment tenets of William Blair & Company has been its focus on quality growth companies. They believe that investing in quality growth companies will generate above average results with generally less risk than the market. This opportunity exists because they believe the market underestimates the durability and rate of growth in companies that have the following characteristics: strong management with a unique vision, competitive advantages that prolong the duration and size of earnings growth, and conservative financing. Internationally, they believe that this philosophy can be combined with strategic flexibility in managing geographic exposure, capitalization, sector emphasis, and relative growth and valuation at the portfolio level in order to provide an appropriate degree of adaptability to cyclical conditions.

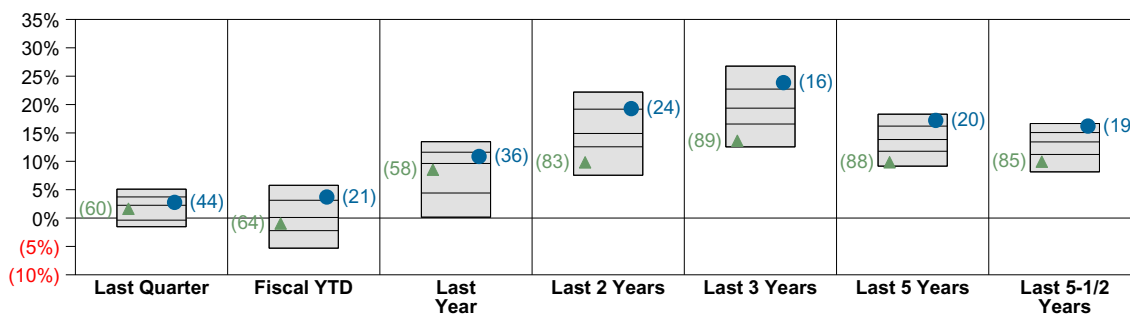
### Quarterly Summary and Highlights

- William Blair's portfolio posted a 2.76% return for the quarter placing it in the 44 percentile of the Callan Non-US All Country Growth Equity group for the quarter and in the 36 percentile for the last year.
- William Blair's portfolio outperformed the MSCI ACWI ex US IMI by 1.12% for the quarter and outperformed the MSCI ACWI ex US IMI for the year by 2.32%.

### Quarterly Asset Growth

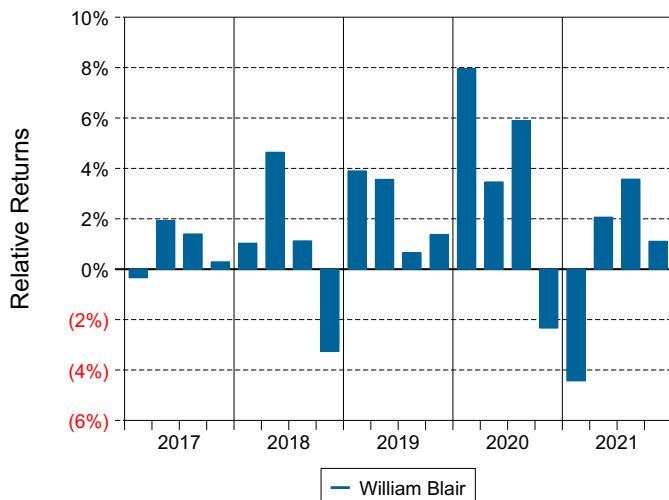
Beginning Market Value	\$79,458,977
Net New Investment	-\$71,398
Investment Gains/(Losses)	\$2,196,890
Ending Market Value	\$81,584,469

### Performance vs Callan Non-US All Country Growth Equity (Gross)

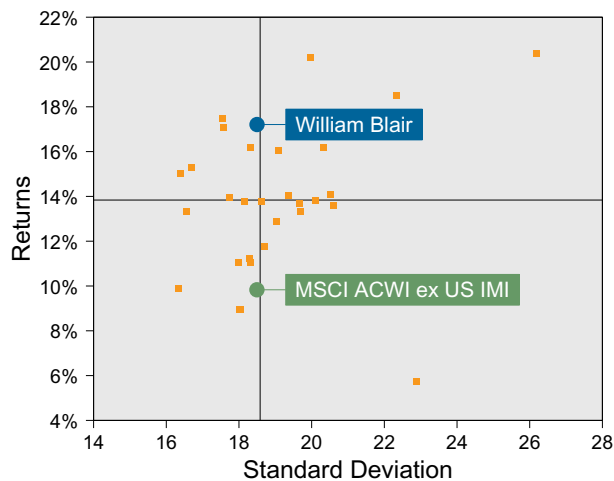


10th Percentile	5.09	5.77	13.46	22.20	26.77	18.30	16.66
25th Percentile	3.72	3.13	11.60	19.19	22.73	16.21	15.07
Median	2.25	0.10	9.62	14.91	19.37	13.84	13.41
75th Percentile	(0.37)	(2.22)	4.41	12.56	16.57	11.77	11.21
90th Percentile	(1.52)	(5.31)	0.15	7.54	12.54	9.15	8.14
William Blair	2.76	3.71	10.85	19.29	23.86	17.21	16.21
MSCI ACWI ex US IMI	1.64	(0.96)	8.53	9.81	13.62	9.83	9.94

### Relative Return vs MSCI ACWI ex US IMI



### Callan Non-US All Country Growth Equity (Gross) Annualized Five Year Risk vs Return





# Domestic Fixed Income Period Ended December 31, 2021

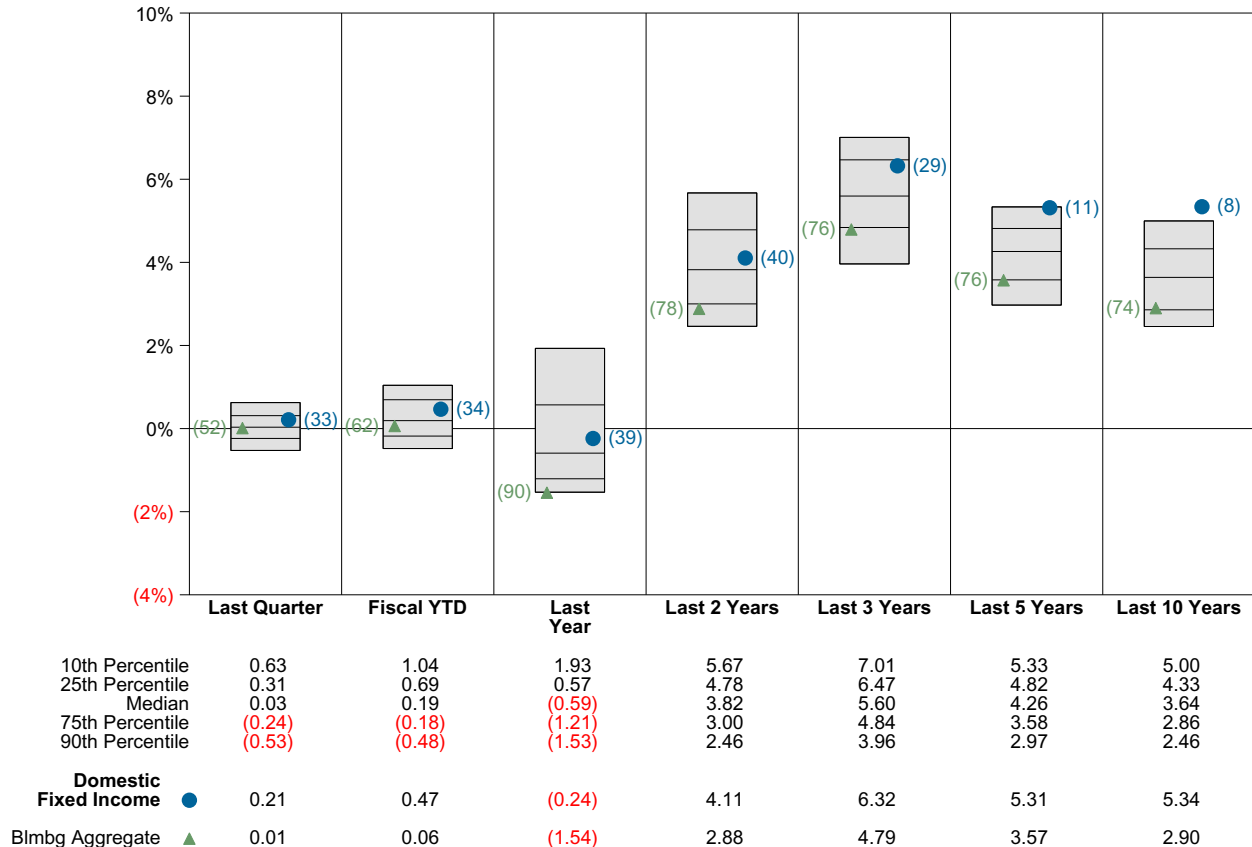
## Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a 0.21% return for the quarter placing it in the 33 percentile of the Public Fund - Domestic Fixed group for the quarter and in the 39 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Blmbg Aggregate by 0.20% for the quarter and outperformed the Blmbg Aggregate for the year by 1.30%.

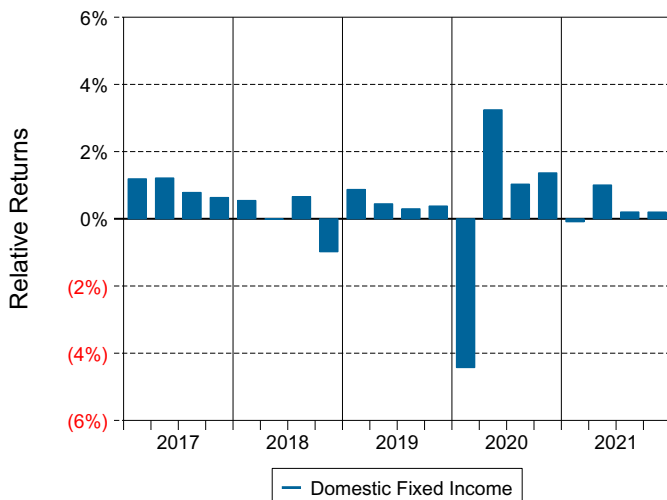
## Quarterly Asset Growth

Beginning Market Value	\$1,443,303,182
Net New Investment	\$16,134,641
Investment Gains/(Losses)	\$3,088,332
Ending Market Value	\$1,462,526,154

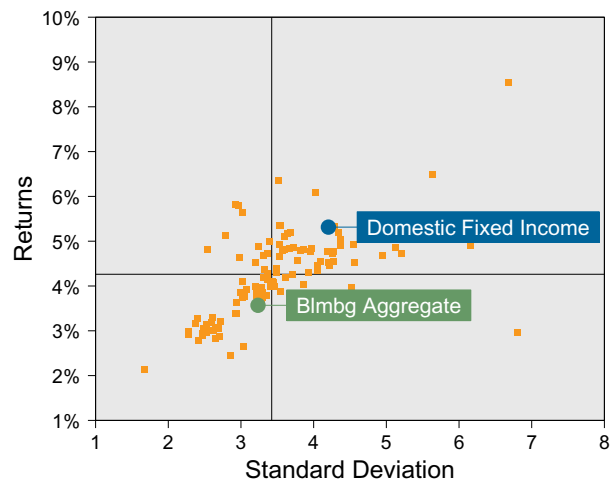
## Performance vs Public Fund - Domestic Fixed (Gross)



## Relative Return vs Blmbg Aggregate



## Public Fund - Domestic Fixed (Gross) Annualized Five Year Risk vs Return



# Declaration Total Return Period Ended December 31, 2021

## Investment Philosophy

The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies (Non-Agency RMBS) and government agencies (Agency MBS) and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Government National Mortgage Association (Ginnie Mae). Portfolio holdings may range from short tenure senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. Smaller portfolio allocations may include consumer asset-backed securities (ABS), or other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only (IO) MBS.

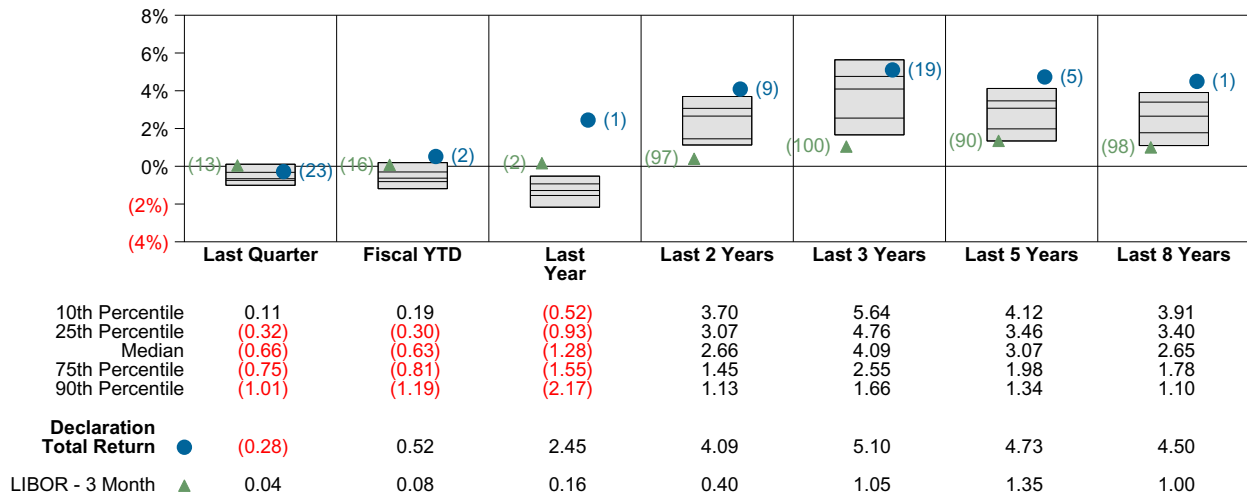
## Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a (0.28)% return for the quarter placing it in the 23 percentile of the Callan Intermediate Fixed Inc Mut Funds group for the quarter and in the 1 percentile for the last year.
- Declaration Total Return's portfolio underperformed the LIBOR - 3 Month by 0.33% for the quarter and outperformed the LIBOR - 3 Month for the year by 2.28%.

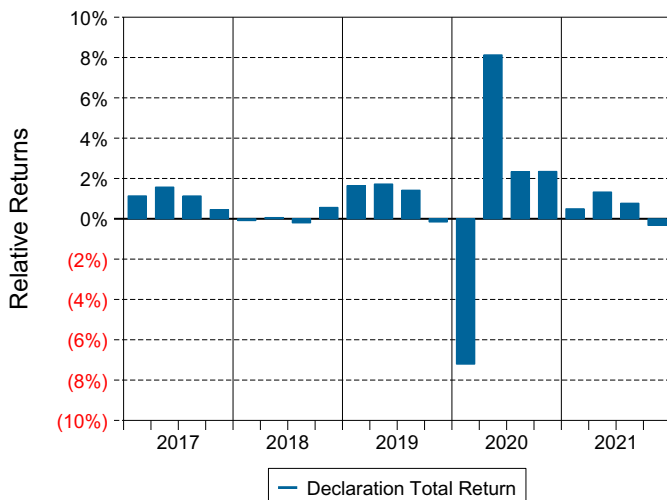
## Quarterly Asset Growth

Beginning Market Value	\$116,943,249
Net New Investment	\$-76,468
Investment Gains/(Losses)	\$-330,758
Ending Market Value	\$116,536,023

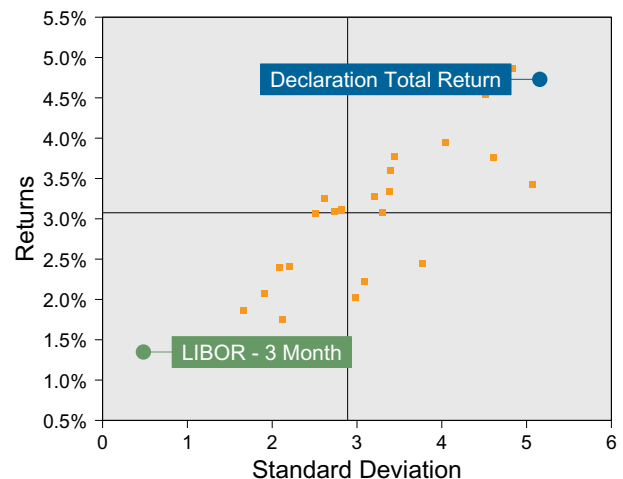
## Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



## Relative Return vs LIBOR - 3 Month



## Callan Intermediate Fixed Inc Mut Funds (Net) Annualized Five Year Risk vs Return





# PIMCO Core Plus Constrained Period Ended December 31, 2021

## Investment Philosophy

PIMCO's investment process utilizes both "top-down" and "bottom-up" strategies. Top-down strategies focus on duration, yield curve positioning, volatility, and sector rotation. These strategies are deployed from a macro view of the portfolio driven by their secular outlook of the forces likely to influence the economy and financial markets over the next three to five years and their cyclical views of two- to four-quarter trends. Implementation in portfolios is effected by selecting securities that achieve the designated objectives. Bottom-up strategies drive their security selection process and facilitate the identification and analysis of undervalued securities.

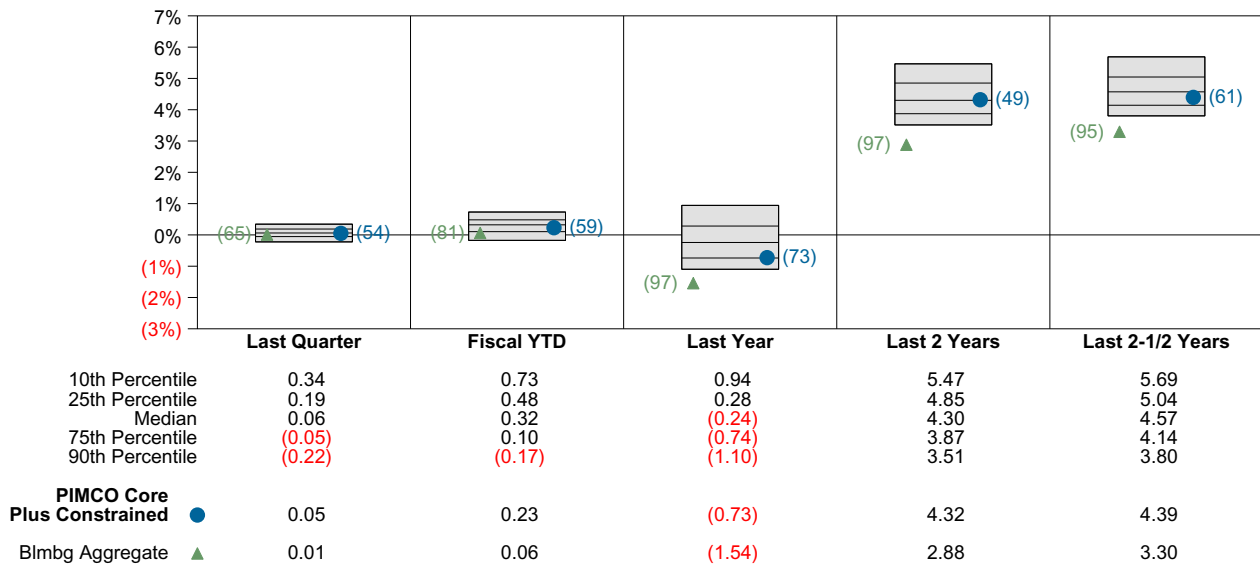
## Quarterly Summary and Highlights

- PIMCO Core Plus Constrained's portfolio posted a 0.05% return for the quarter placing it in the 54 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 73 percentile for the last year.
- PIMCO Core Plus Constrained's portfolio outperformed the Blmbg Aggregate by 0.04% for the quarter and outperformed the Blmbg Aggregate for the year by 0.82%.

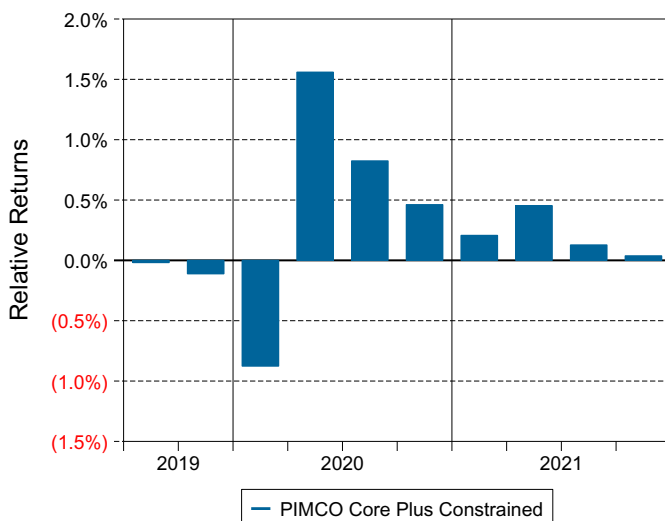
## Quarterly Asset Growth

Beginning Market Value	\$198,233,551
Net New Investment	\$7,940,210
Investment Gains/(Losses)	\$111,281
Ending Market Value	\$206,285,041

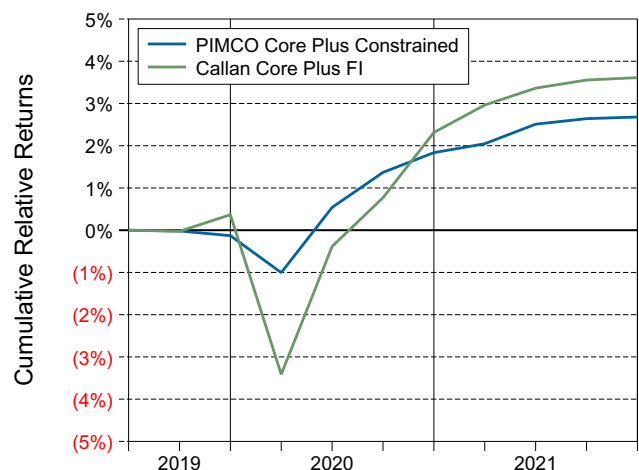
## Performance vs Callan Core Plus Fixed Income (Gross)



## Relative Return vs Blmbg Aggregate



## Cumulative Returns vs Blmbg Aggregate



# PIMCO DiSCO II

## Period Ended December 31, 2021

### Investment Philosophy

The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors.

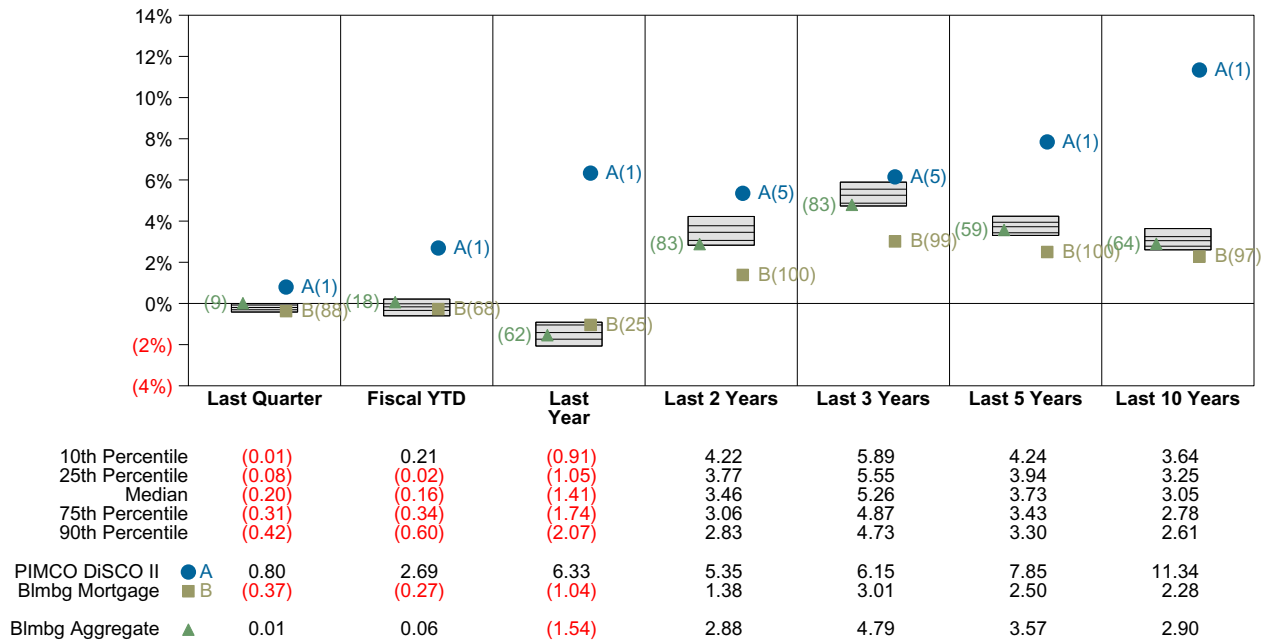
### Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a 0.80% return for the quarter placing it in the 1 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Blmbg Aggregate by 0.79% for the quarter and outperformed the Blmbg Aggregate for the year by 7.87%.

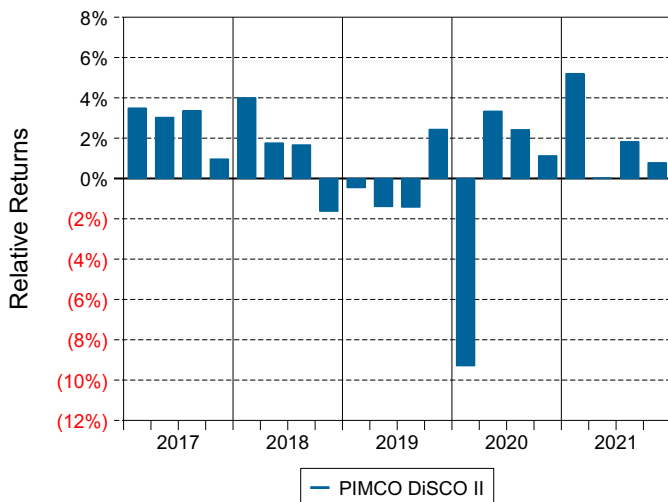
### Quarterly Asset Growth

Beginning Market Value	\$41,802,734
Net New Investment	\$0
Investment Gains/(Losses)	\$333,066
Ending Market Value	\$42,135,800

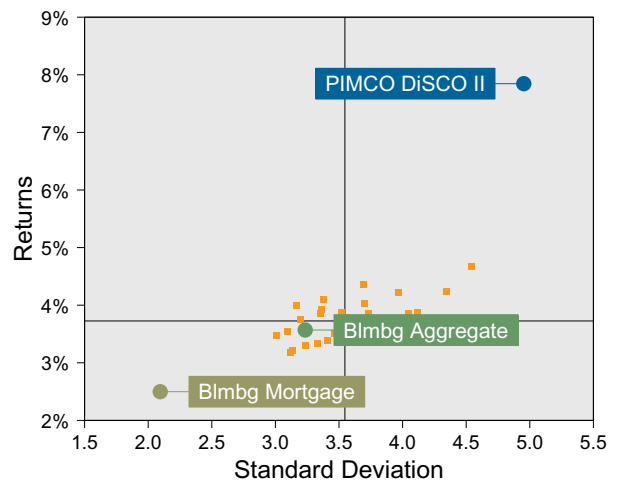
### Performance vs Callan Core Bond Mutual Funds (Net)



### Relative Return vs Blmbg Aggregate



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



# PIMCO Bravo II Fund

## Period Ended December 31, 2021

### Investment Philosophy

The BRAVO II Fund is a private equity style fund targeting an annualized IRR of 15-20% and multiple of 1.8-2x, net of fees and carried interest with an initial 5-year term. The fund will seek to capitalize on non-economic asset sale decisions by global financial institutions. The fund will have the flexibility to acquire attractively discounted, less liquid loans, structured credit and other assets tied to residential or commercial real estate markets in the U.S. and Europe.

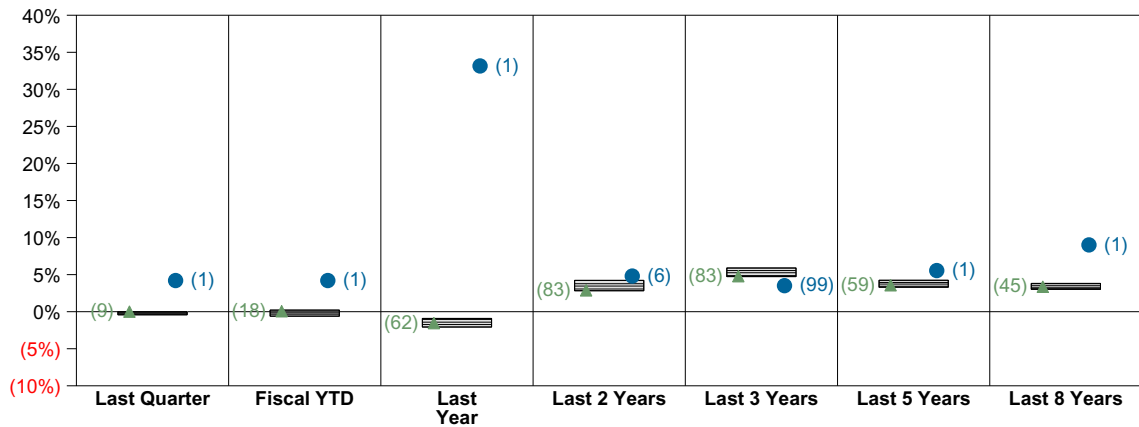
### Quarterly Summary and Highlights

- PIMCO Bravo II Fund's portfolio posted a 4.20% return for the quarter placing it in the 1 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II Fund's portfolio outperformed the Blmbg Aggregate by 4.19% for the quarter and outperformed the Blmbg Aggregate for the year by 34.70%.

### Quarterly Asset Growth

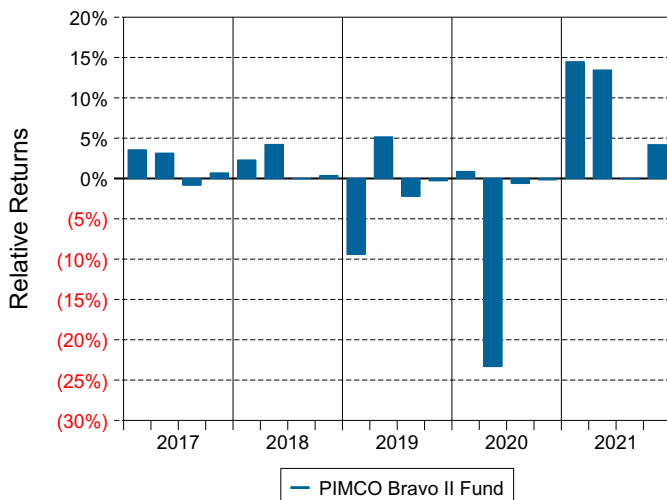
Beginning Market Value	\$6,457,075
Net New Investment	\$-360,986
Investment Gains/(Losses)	\$271,333
Ending Market Value	\$6,367,422

### Performance vs Callan Core Bond Mutual Funds (Net)

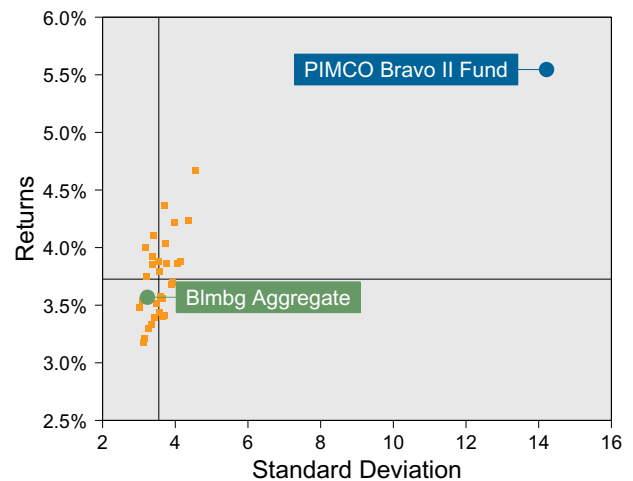


10th Percentile	(0.01)	0.21	(0.91)	4.22	5.89	4.24	3.81
25th Percentile	(0.08)	(0.02)	(1.05)	3.77	5.55	3.94	3.56
Median	(0.20)	(0.16)	(1.41)	3.46	5.26	3.73	3.30
75th Percentile	(0.31)	(0.34)	(1.74)	3.06	4.87	3.43	3.11
90th Percentile	(0.42)	(0.60)	(2.07)	2.83	4.73	3.30	3.02
<b>PIMCO Bravo II Fund</b>	<b>4.20</b>	<b>4.20</b>	<b>33.16</b>	<b>4.81</b>	<b>3.51</b>	<b>5.55</b>	<b>9.01</b>
Blmbg Aggregate	0.01	0.06	(1.54)	2.88	4.79	3.57	3.37

### Relative Return vs Blmbg Aggregate



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



# Prudential Core Plus Period Ended December 31, 2021

## Investment Philosophy

PGIM Fixed Income is the primary public fixed income asset management business of Prudential Investment Management, Inc. (PIM). PIM is the largest investment advisor within Prudential Financial, Inc. (Prudential Financial). PIM was registered as an investment advisor with the US Securities and Exchange Commission (SEC) in December of 1984. The Core Plus strategy is an actively managed strategy that seeks +150 bps over the Bloomberg Barclays U.S. Aggregate Bond Index. Portfolio duration is kept within +/- 0.5 years of benchmark. The lead portfolio managers are Mike Collins, Rich Piccirillo and Greg Peters. As of Q2 2017, the strategy had \$24.6 billion in mutual fund assets.

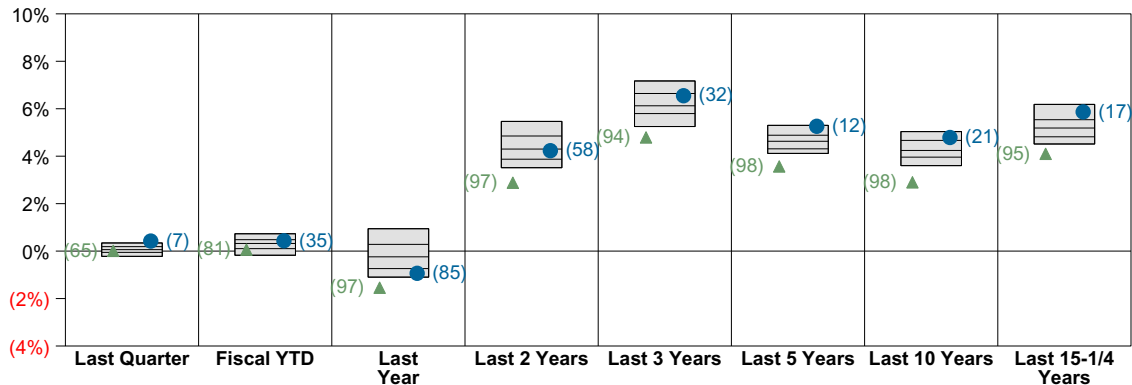
## Quarterly Summary and Highlights

- Prudential Core Plus's portfolio posted a 0.42% return for the quarter placing it in the 7 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 85 percentile for the last year.
- Prudential Core Plus's portfolio outperformed the Blmbg Aggregate by 0.41% for the quarter and outperformed the Blmbg Aggregate for the year by 0.61%.

## Quarterly Asset Growth

Beginning Market Value	\$382,057,136
Net New Investment	\$2,798,483
Investment Gains/(Losses)	\$1,623,849
Ending Market Value	\$386,479,468

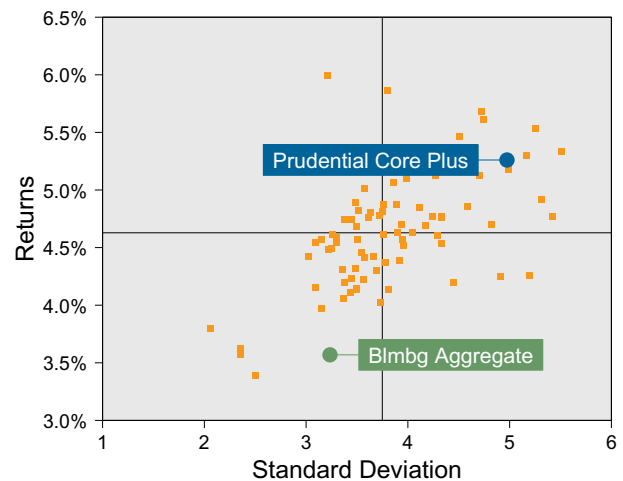
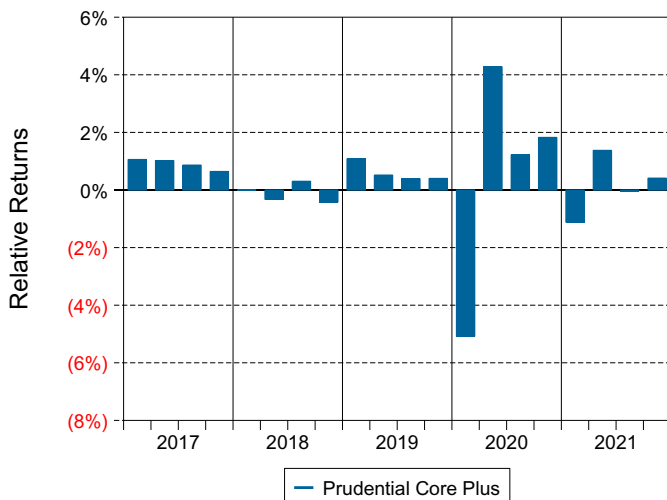
## Performance vs Callan Core Plus Fixed Income (Gross)



10th Percentile	0.34	0.73	0.94	5.47	7.17	5.30	5.04	6.18
25th Percentile	0.19	0.48	0.28	4.85	6.64	4.88	4.67	5.54
Median	0.06	0.32	(0.24)	4.30	6.12	4.63	4.24	5.19
75th Percentile	(0.05)	0.10	(0.74)	3.87	5.80	4.31	3.96	4.82
90th Percentile	(0.22)	(0.17)	(1.10)	3.51	5.25	4.12	3.60	4.51
<b>Prudential Core Plus</b>	● 0.42	0.44	(0.94)	4.23	6.55	5.26	4.79	5.87
Blmbg Aggregate	▲ 0.01	0.06	(1.54)	2.88	4.79	3.57	2.90	4.10

## Callan Core Plus Fixed Income (Gross) Annualized Five Year Risk vs Return

## Relative Return vs Blmbg Aggregate



# SSgA US Govt Cr Bd Index Period Ended December 31, 2021

## Investment Philosophy

The Fund seeks an investment return that approximates as closely as practicable, before expenses, the performance of the Bloomberg Capital U.S. Government/Credit Bond Index over the long term.

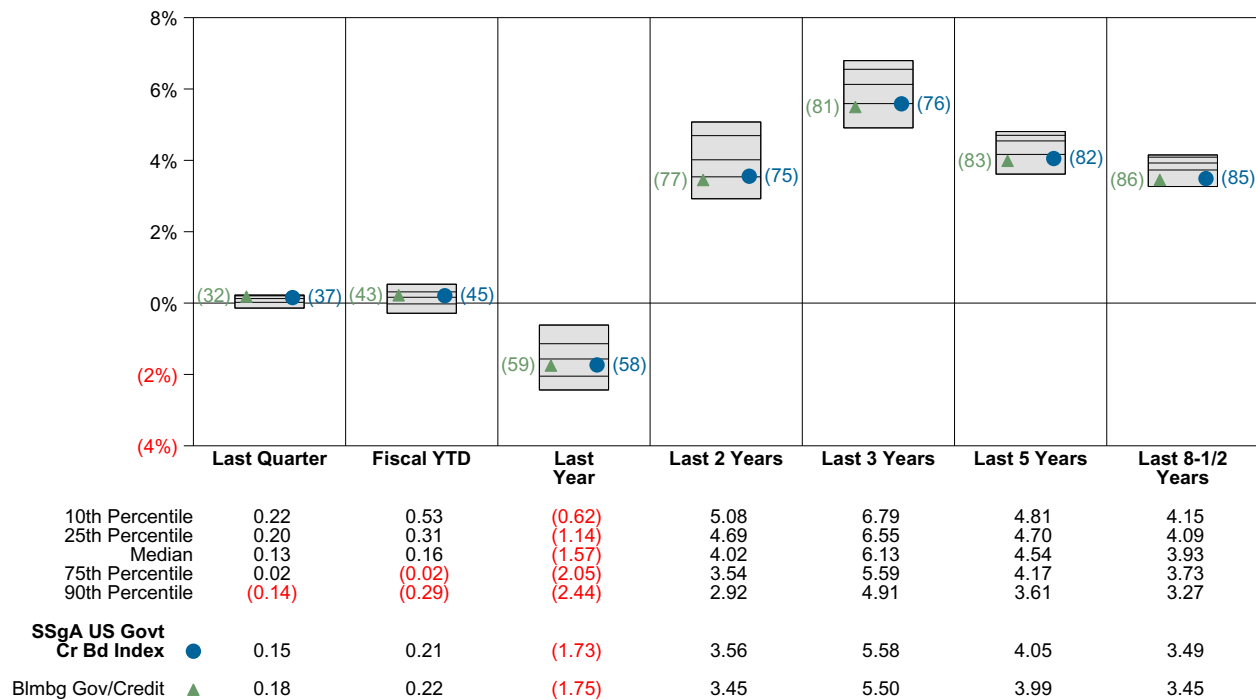
## Quarterly Summary and Highlights

- SSgA US Govt Cr Bd Index's portfolio posted a 0.15% return for the quarter placing it in the 37 percentile of the Callan Government/Credit group for the quarter and in the 58 percentile for the last year.
- SSgA US Govt Cr Bd Index's portfolio underperformed the Blmbg Gov/Credit by 0.03% for the quarter and outperformed the Blmbg Gov/Credit for the year by 0.02%.

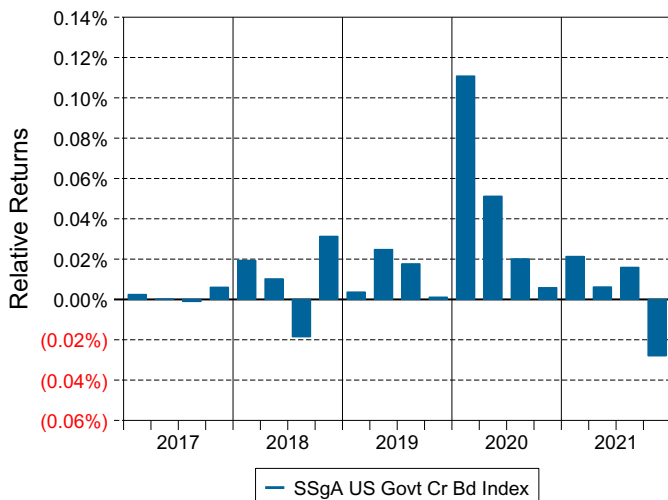
## Quarterly Asset Growth

Beginning Market Value	\$200,995,117
Net New Investment	\$2,992,480
Investment Gains/(Losses)	\$314,889
Ending Market Value	\$204,302,486

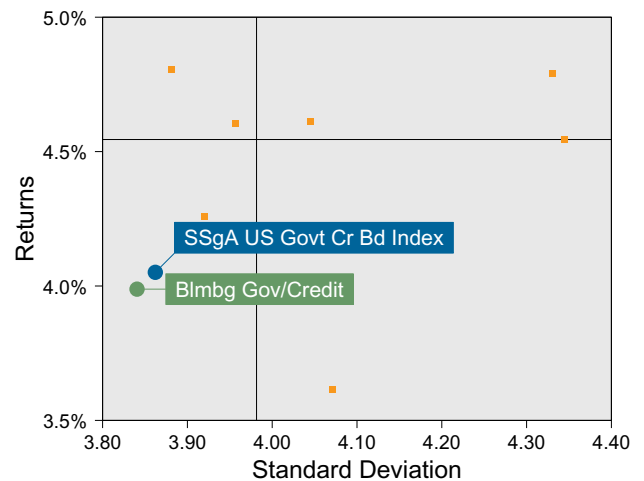
## Performance vs Callan Government/Credit (Gross)



## Relative Return vs Blmbg Gov/Credit



## Callan Government/Credit (Gross) Annualized Five Year Risk vs Return



# Wells Capital Period Ended December 31, 2021

## Investment Philosophy

The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. The investment process for this fund starts with a "top-down" strategy. Security selection is determined by in-depth credit research, holding that in-depth knowledge of industries, companies, and their management teams can help identify credit trends that can lead to investment opportunities. Furthermore, a disciplined relative value framework is applied to help determine the optimal position to invest within an industry and within an individual issuer's capital structure.

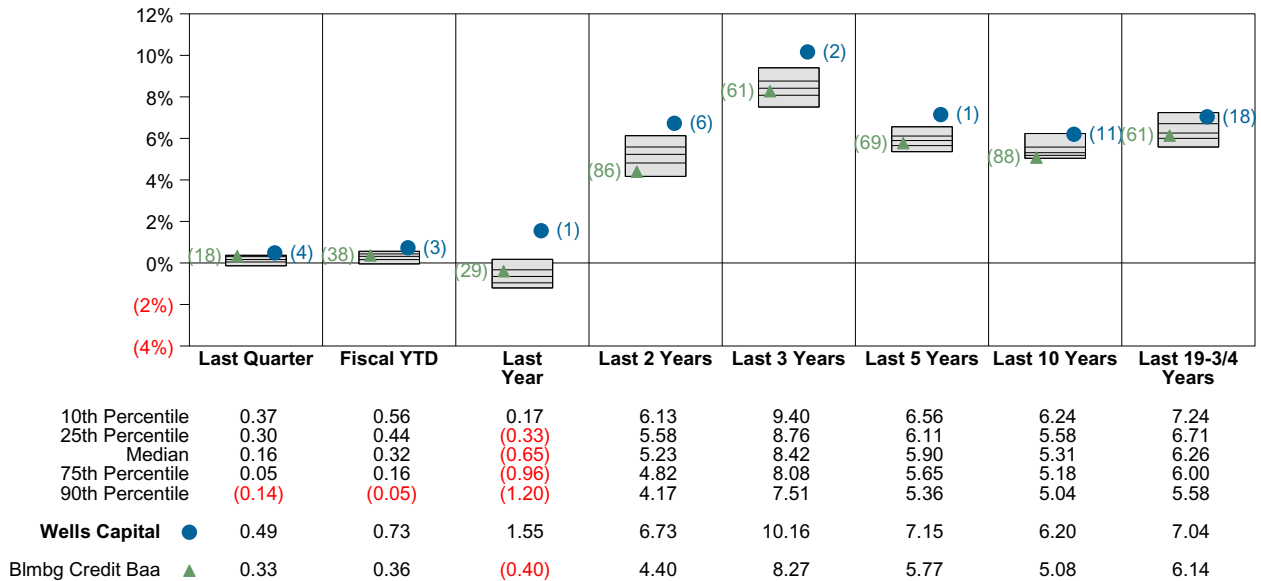
## Quarterly Summary and Highlights

- Wells Capital's portfolio posted a 0.49% return for the quarter placing it in the 4 percentile of the Callan Investment Grade Credit Fixed Inc group for the quarter and in the 1 percentile for the last year.
- Wells Capital's portfolio outperformed the Blmbg Credit Baa by 0.16% for the quarter and outperformed the Blmbg Credit Baa for the year by 1.95%.

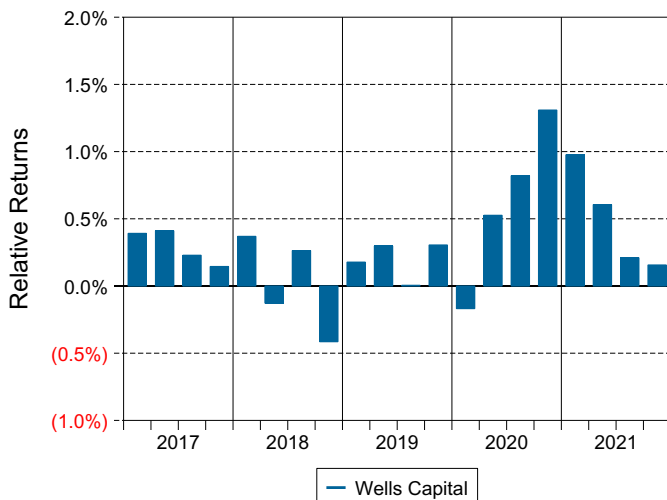
## Quarterly Asset Growth

Beginning Market Value	\$115,826,952
Net New Investment	\$-55,482
Investment Gains/(Losses)	\$563,302
Ending Market Value	\$116,334,772

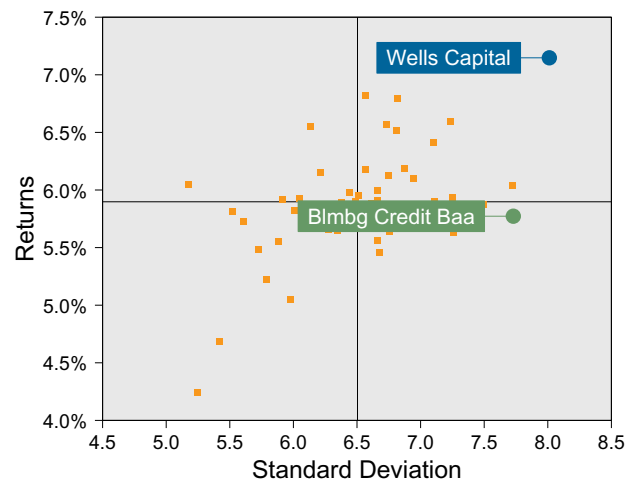
## Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



## Relative Return vs Blmbg Credit Baa



## Callan Investment Grade Credit Fixed Inc (Gross) Annualized Five Year Risk vs Return



# Western Asset Management Company

## Period Ended December 31, 2021

### Investment Philosophy

Western Asset designs this portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.

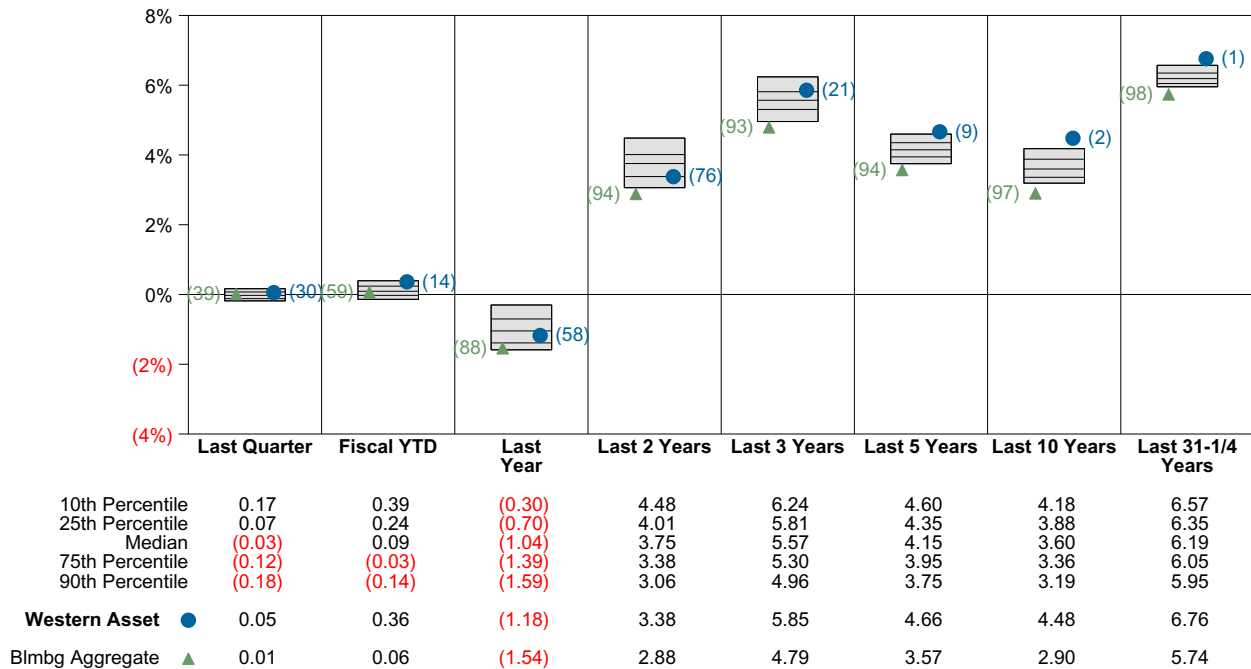
### Quarterly Summary and Highlights

- Western Asset's portfolio posted a 0.05% return for the quarter placing it in the 30 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 58 percentile for the last year.
- Western Asset's portfolio outperformed the Blmbg Aggregate by 0.04% for the quarter and outperformed the Blmbg Aggregate for the year by 0.37%.

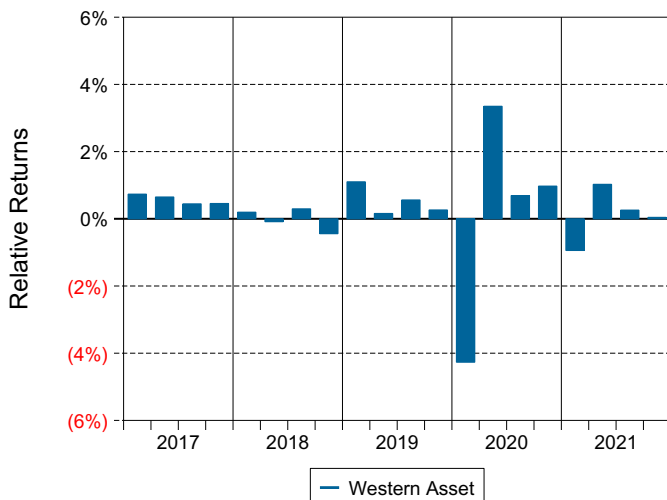
### Quarterly Asset Growth

Beginning Market Value	\$380,987,367
Net New Investment	\$2,896,405
Investment Gains/(Losses)	\$201,370
Ending Market Value	\$384,085,143

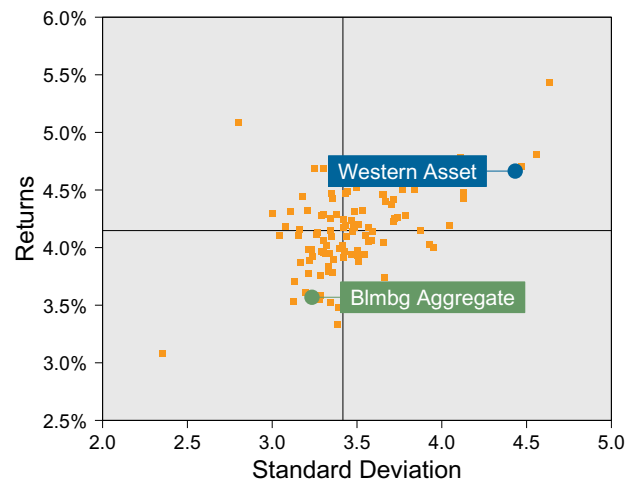
### Performance vs Callan Core Bond Fixed Income (Gross)



### Relative Return vs Blmbg Aggregate



### Callan Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return







# Real Estate Period Ended December 31, 2021

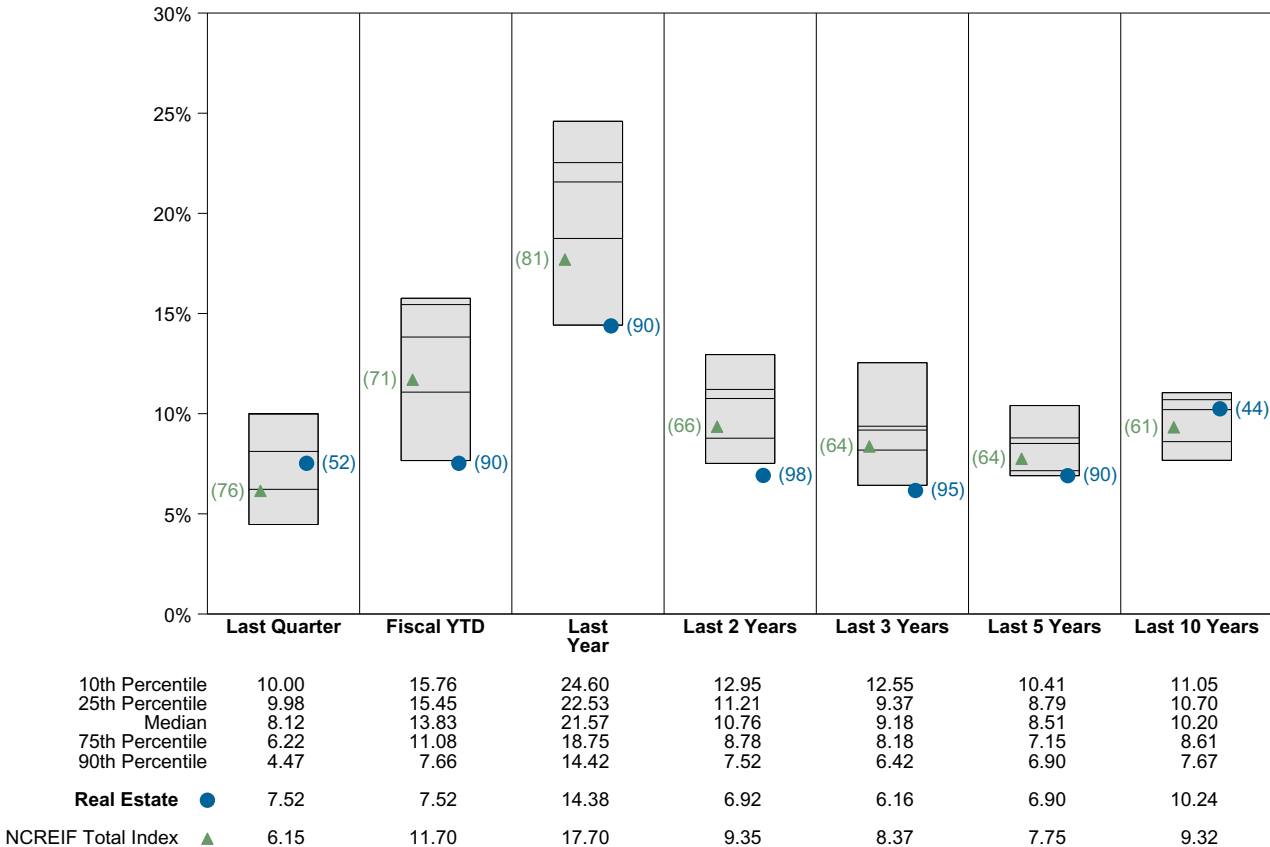
## Quarterly Summary and Highlights

- Real Estate's portfolio posted a 7.52% return for the quarter placing it in the 52 percentile of the Public Fund - Real Estate group for the quarter and in the 90 percentile for the last year.
- Real Estate's portfolio outperformed the NCREIF Total Index by 1.37% for the quarter and underperformed the NCREIF Total Index for the year by 3.31%.

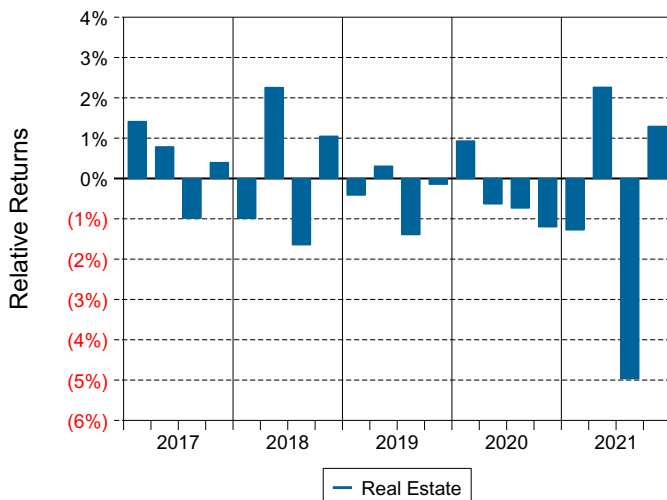
## Quarterly Asset Growth

Beginning Market Value	\$100,108,882
Net New Investment	\$-1,019,199
Investment Gains/(Losses)	\$7,527,998
Ending Market Value	\$106,617,681

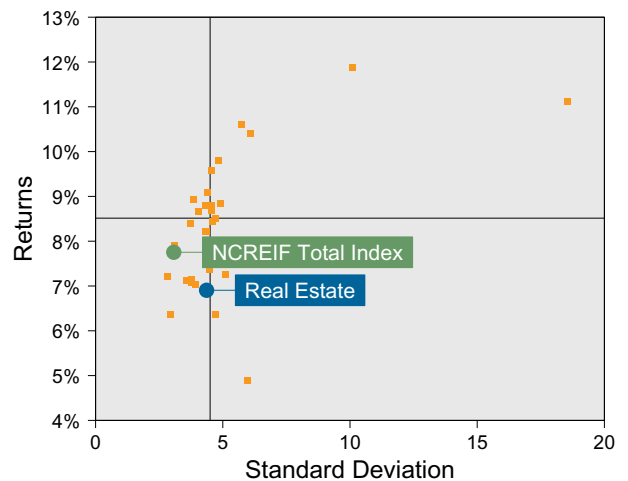
## Performance vs Public Fund - Real Estate (Gross)



## Relative Return vs NCREIF Total Index



## Public Fund - Real Estate (Gross) Annualized Five Year Risk vs Return



# Invesco Core Real Estate

## Period Ended December 31, 2021

### Investment Philosophy

IRE's investment philosophy is comprised of two fundamental principles: (1) maximize the predictability and consistency of investment returns and (2) minimize the risk of capital loss. This philosophy forms the cornerstone of the company's real estate investment philosophy.

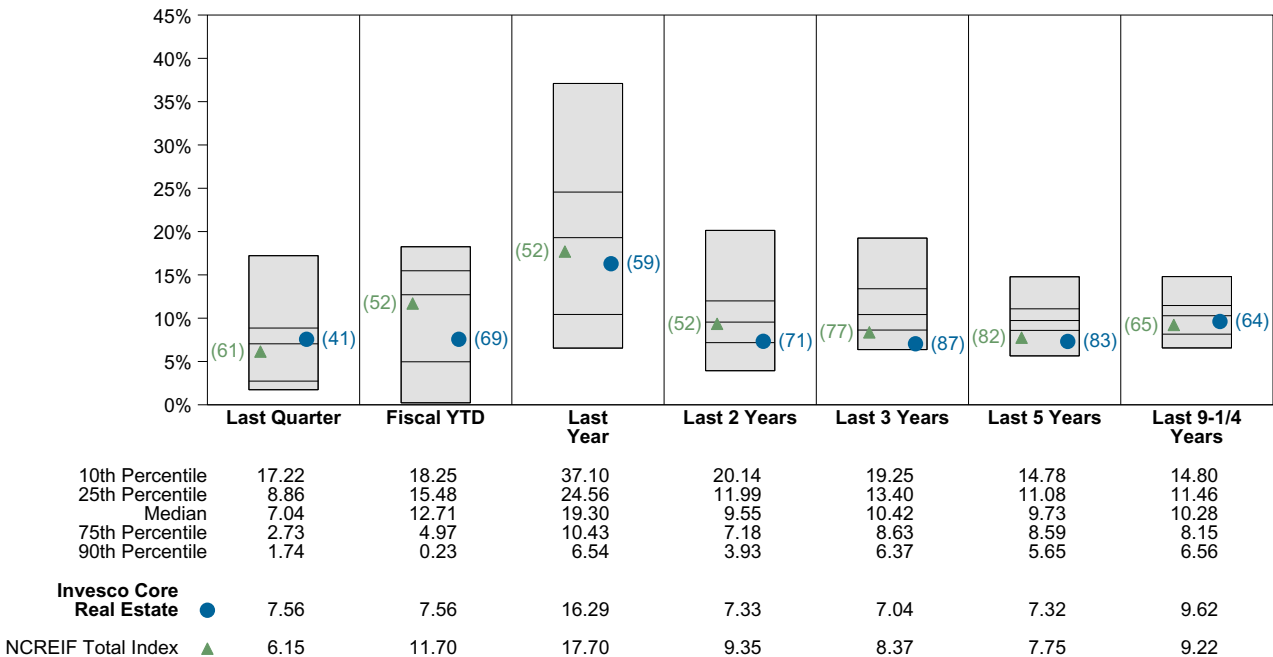
### Quarterly Summary and Highlights

- Invesco Core Real Estate's portfolio posted a 7.56% return for the quarter placing it in the 41 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 59 percentile for the last year.
- Invesco Core Real Estate's portfolio outperformed the NCREIF Total Index by 1.42% for the quarter and underperformed the NCREIF Total Index for the year by 1.41%.

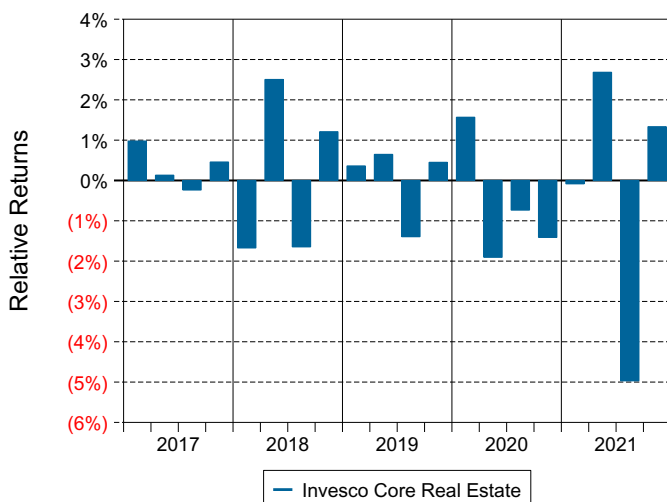
### Quarterly Asset Growth

Beginning Market Value	\$53,305,266
Net New Investment	\$-431,257
Investment Gains/(Losses)	\$4,030,134
Ending Market Value	\$56,904,143

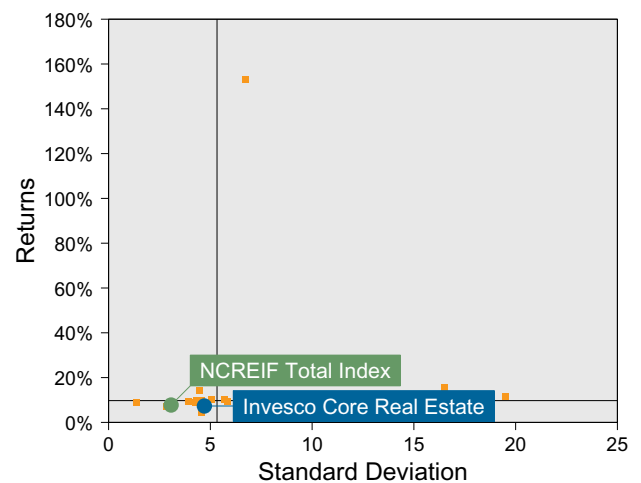
### Performance vs Callan Total Domestic Real Estate DB (Gross)



### Relative Return vs NCREIF Total Index



### Callan Total Domestic Real Estate DB (Gross) Annualized Five Year Risk vs Return



# JP Morgan Real Estate Period Ended December 31, 2021

## Investment Philosophy

The J.P. Morgan U.S. Real Estate Income and Growth Fund seeks to construct and opportunistically manage a portfolio of core direct real estate investments, complemented by other real estate and real estate-related assets. The Fund pursues a broadly diversified absolute-return strategy and pursues all property investments on an opportunistic basis. The majority of the Fund's investments will be in direct core properties in the office, industrial, retail and residential sectors.

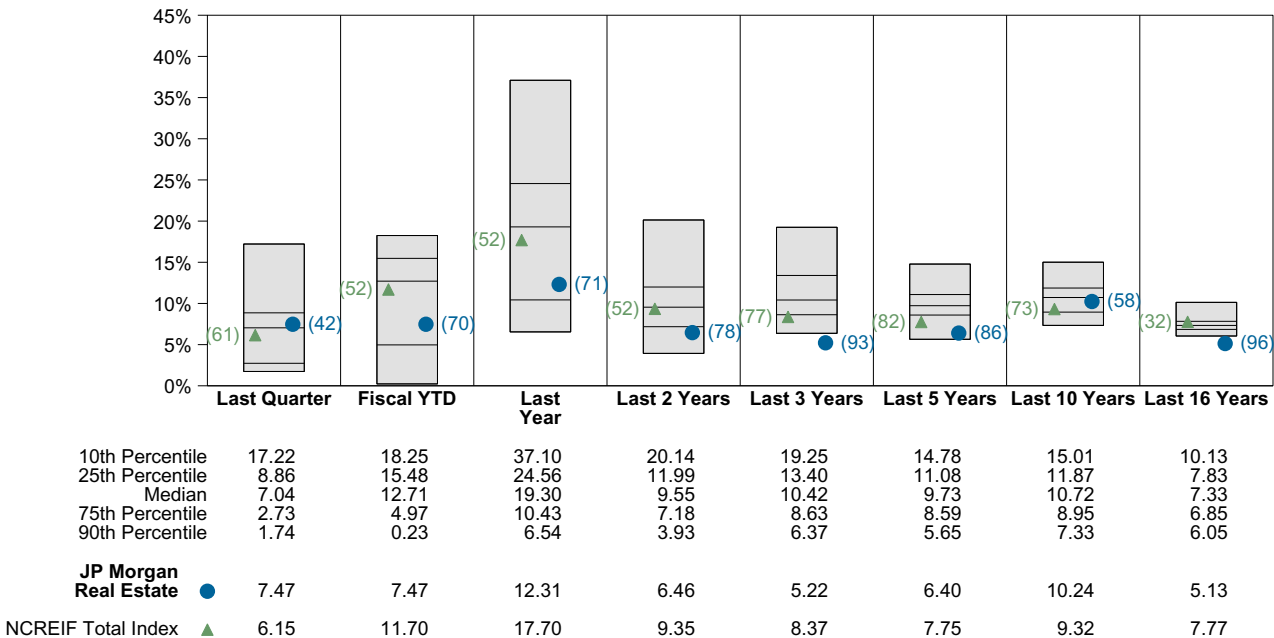
## Quarterly Summary and Highlights

- JP Morgan Real Estate's portfolio posted a 7.47% return for the quarter placing it in the 42 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 71 percentile for the last year.
- JP Morgan Real Estate's portfolio outperformed the NCREIF Total Index by 1.33% for the quarter and underperformed the NCREIF Total Index for the year by 5.39%.

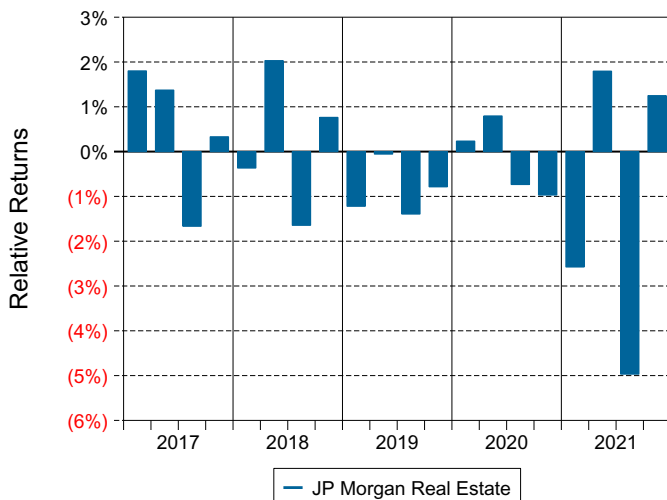
## Quarterly Asset Growth

Beginning Market Value	\$46,803,616
Net New Investment	\$-587,942
Investment Gains/(Losses)	\$3,497,864
Ending Market Value	\$49,713,538

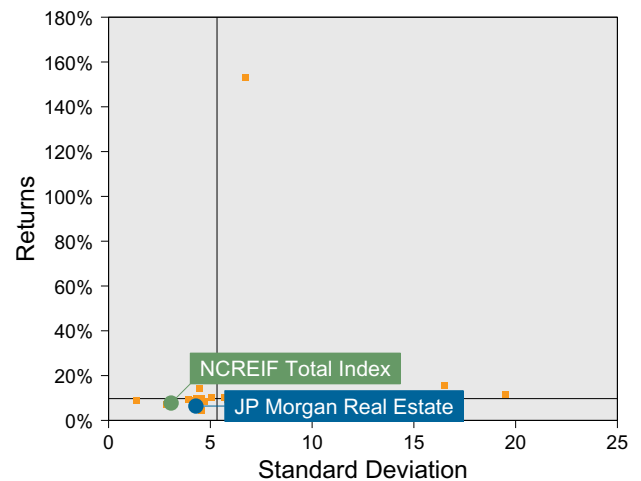
## Performance vs Callan Total Domestic Real Estate DB (Gross)



## Relative Return vs NCREIF Total Index



## Callan Total Domestic Real Estate DB (Gross) Annualized Five Year Risk vs Return





# Western Asset TIPS Period Ended December 31, 2021

## Investment Philosophy

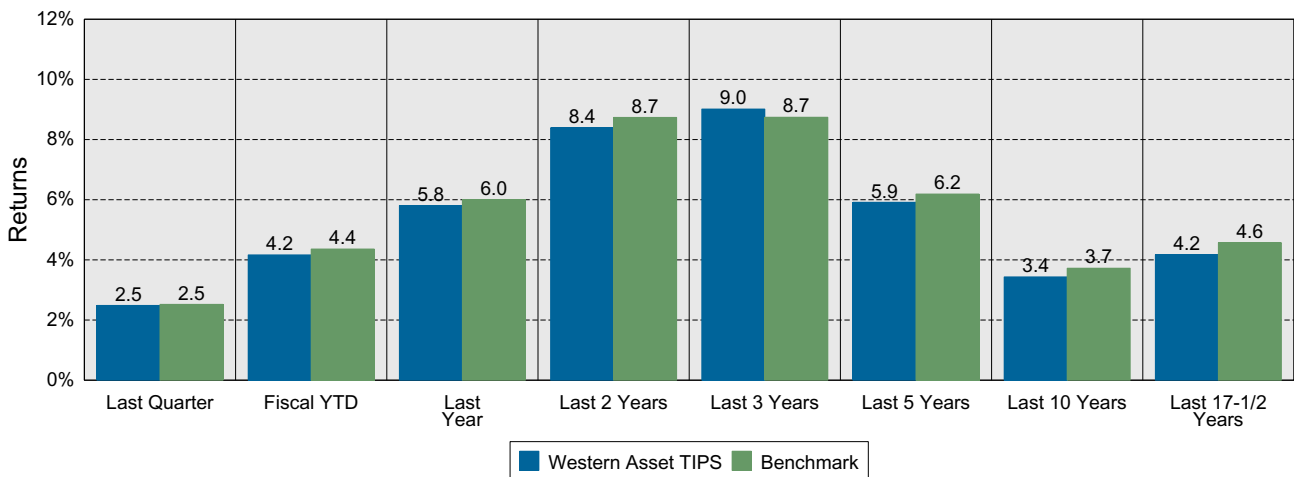
The Western Asset US TIPS Full Discretion strategy is an inflation-protected strategy that aims to maximize total return and add value through duration and curve positioning, sector allocation, and security selection, while approximating benchmark risk. The strategy invests in a diversified portfolio using higher-yielding inflation-protected instruments with a bias toward Treasury Inflation-Protected Securities (TIPS). Opportunistic investments include high-yield, emerging markets, non-dollar securities, commodities and bank loans that may also be employed using derivatives. **Benchmark: Bloomberg US TIPS through 12/31/2009; Bloomberg Global Inflation-Linked through 10/31/2018; Bloomberg US Govt Inflation Linked Bond Index thereafter.**

## Quarterly Summary and Highlights

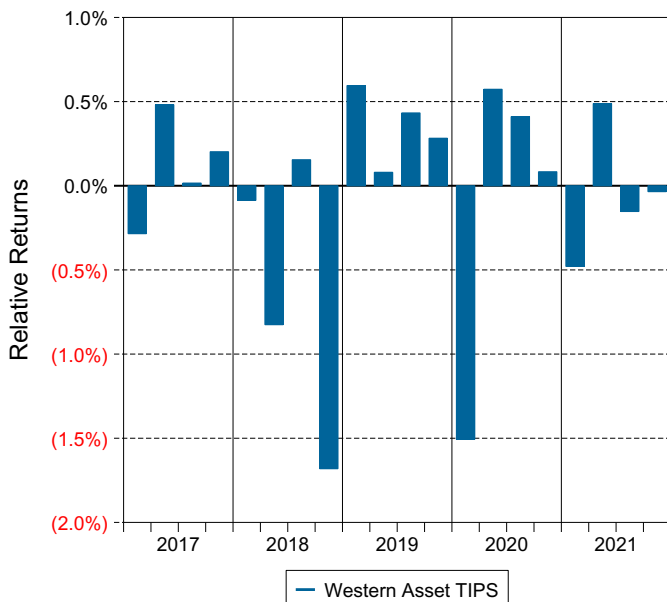
- Western Asset TIPS's portfolio underperformed the Benchmark by 0.04% for the quarter and underperformed the Benchmark for the year by 0.19%.

## Quarterly Asset Growth

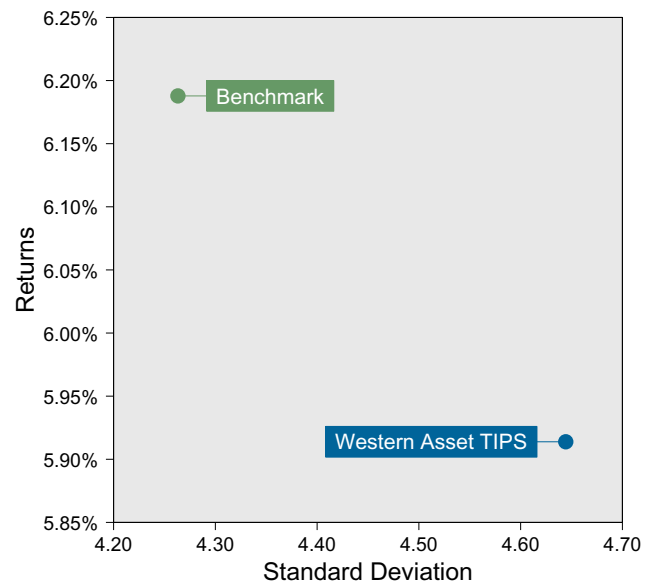
Beginning Market Value	\$202,616,102
Net New Investment	\$-4,555,791
Investment Gains/(Losses)	\$5,037,072
Ending Market Value	\$203,097,384



## Relative Return vs Benchmark



## Annualized Five Year Risk vs Return



# Eastern Timber Opportunities

## Period Ended December 31, 2021

### Investment Philosophy

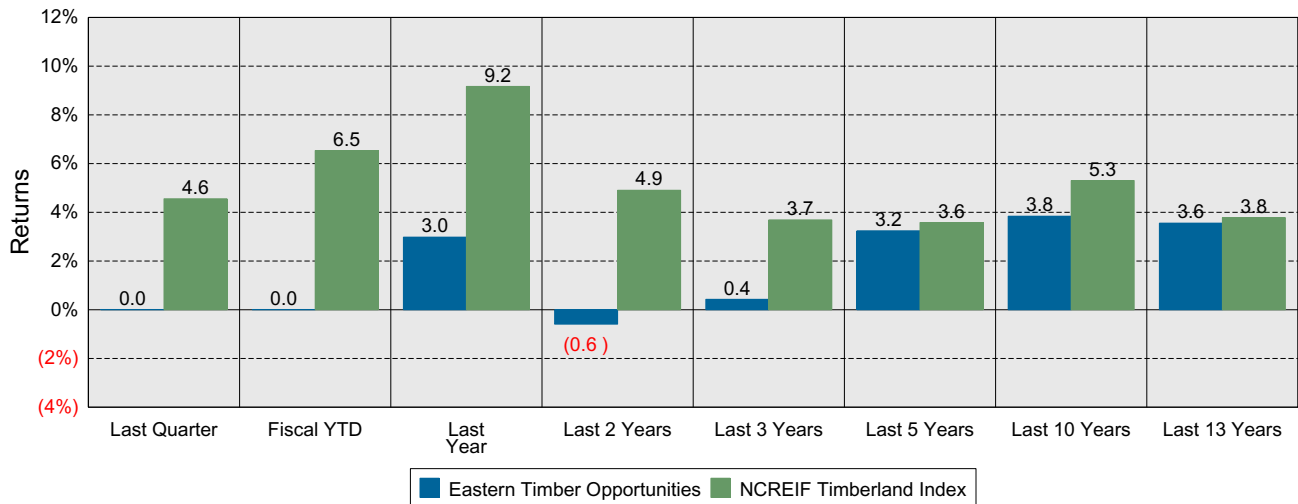
The investment objective of the Eastern Timberland Opportunities fund is to provide competitive timberland investment returns from Eastern US timberland investments by pursuing management strategies to increase timber production and land values through the investment term. TIR will maximize timber values within the portfolio with the application of intensive forest management techniques to accelerate the growth in timber volume and movement into higher value product categories. Additional value will be captured by realizing higher and better use opportunities for select timberland properties throughout the portfolio.

### Quarterly Summary and Highlights

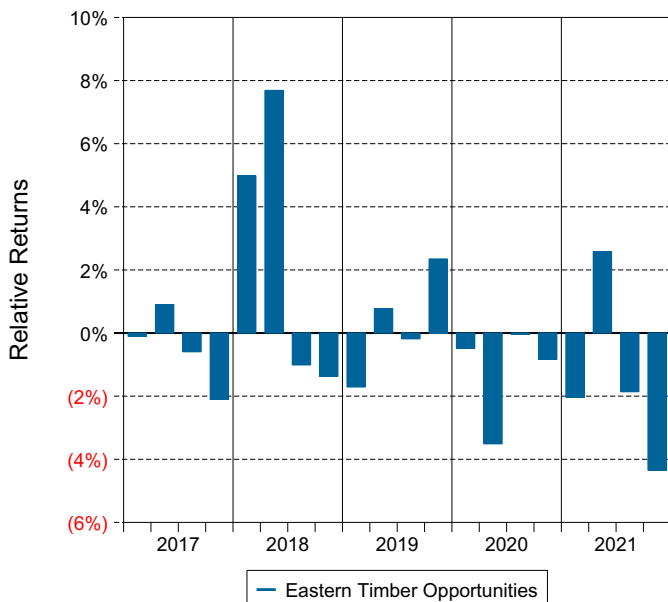
- Eastern Timber Opportunities's portfolio underperformed the NCREIF Timberland Index by 4.55% for the quarter and underperformed the NCREIF Timberland Index for the year by 6.19%.

### Quarterly Asset Growth

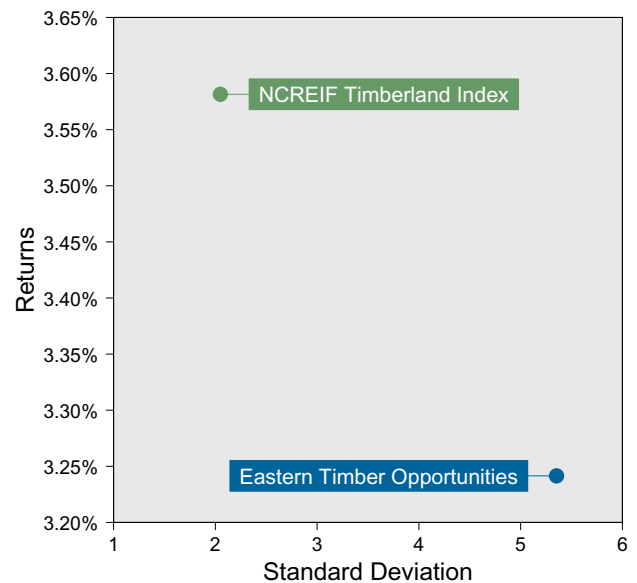
Beginning Market Value	\$32,655,296
Net New Investment	\$0
Investment Gains/(Losses)	\$3,524
Ending Market Value	\$32,658,820



### Relative Return vs NCREIF Timberland Index



### Annualized Five Year Risk vs Return



# JP Morgan Infrastructure Period Ended December 31, 2021

## Investment Philosophy

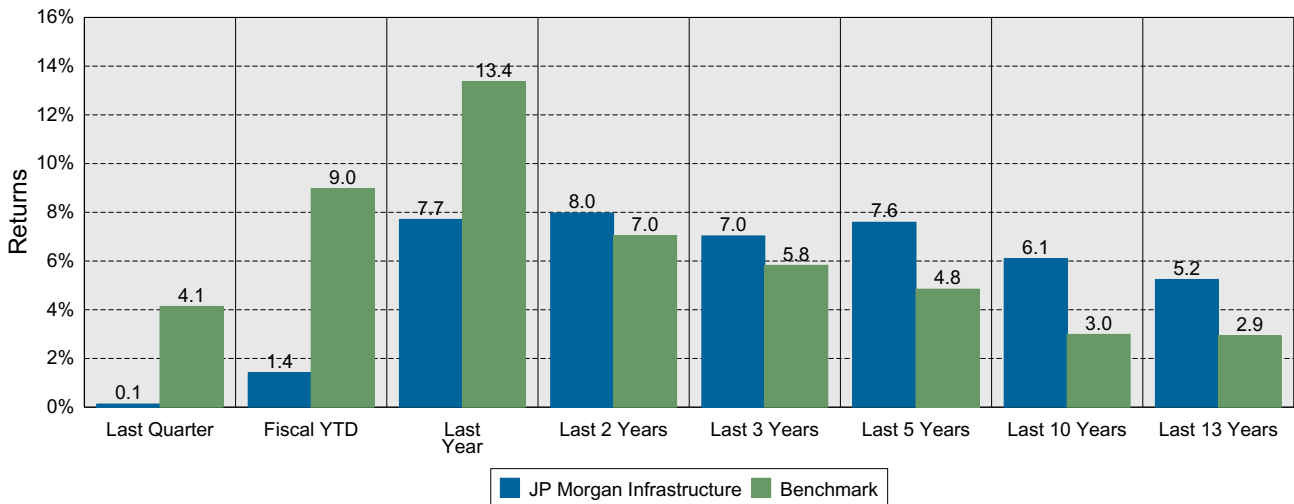
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and seaports and airports. **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

## Quarterly Summary and Highlights

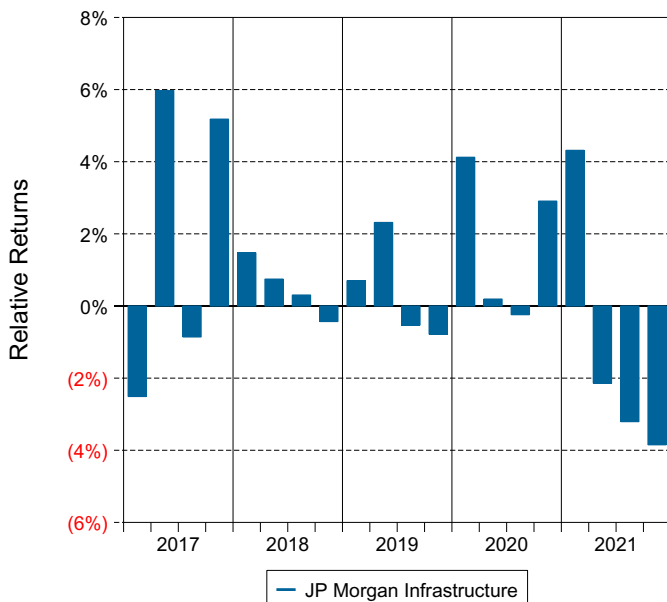
- JP Morgan Infrastructure's portfolio underperformed the Benchmark by 4.01% for the quarter and underperformed the Benchmark for the year by 5.66%.

## Quarterly Asset Growth

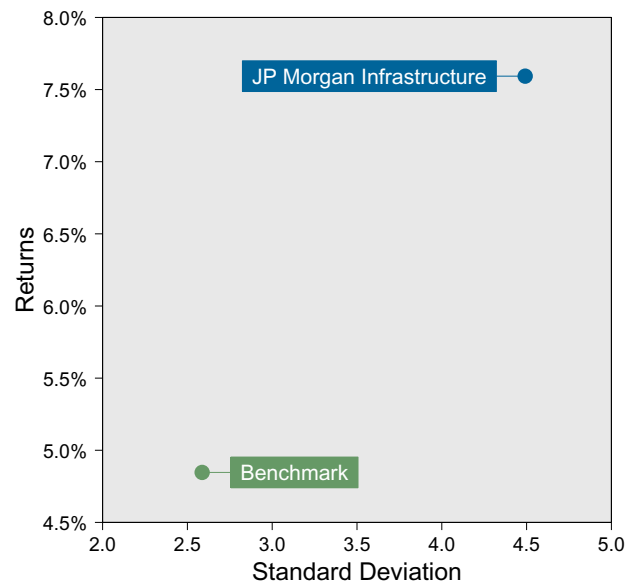
Beginning Market Value	\$40,355,027
Net New Investment	\$-1,072,077
Investment Gains/(Losses)	\$52,448
Ending Market Value	\$39,335,397



## Relative Return vs Benchmark



## Annualized Five Year Risk vs Return



# Grosvenor Cust. Infrastructure Period Ended December 31, 2021

## Investment Philosophy

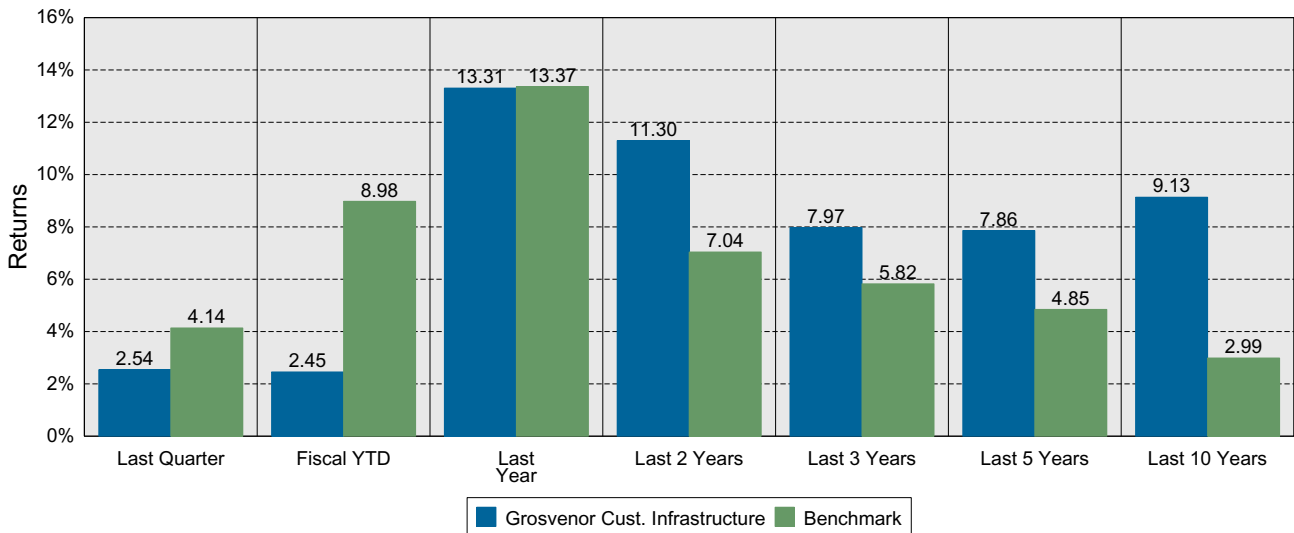
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%). **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

## Quarterly Summary and Highlights

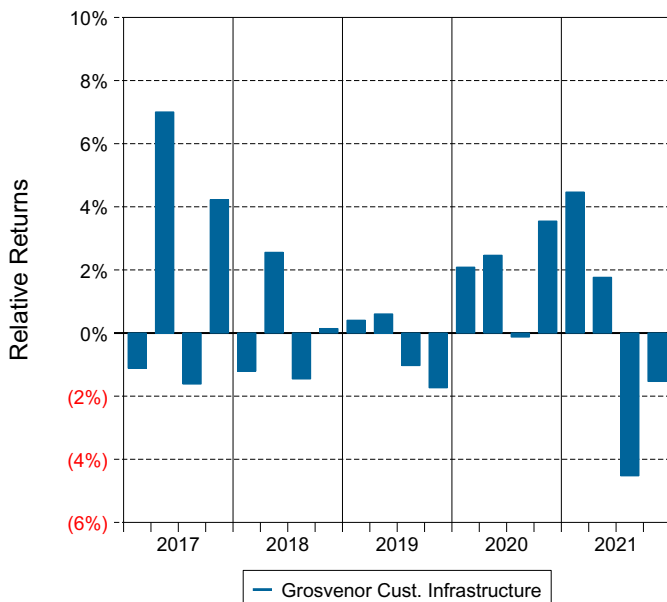
- Grosvenor Cust. Infrastructure's portfolio underperformed the Benchmark by 1.60% for the quarter and underperformed the Benchmark for the year by 0.06%.

## Quarterly Asset Growth

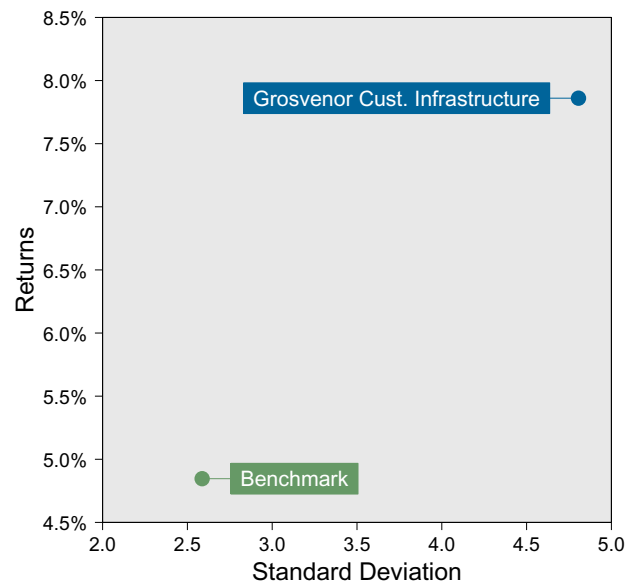
Beginning Market Value	\$5,907,267
Net New Investment	\$-368,173
Investment Gains/(Losses)	\$143,596
Ending Market Value	\$5,682,690



## Relative Return vs Benchmark



## Annualized Five Year Risk vs Return





# Macquarie Infrastructure Fund V

## Period Ended December 31, 2021

### Investment Philosophy

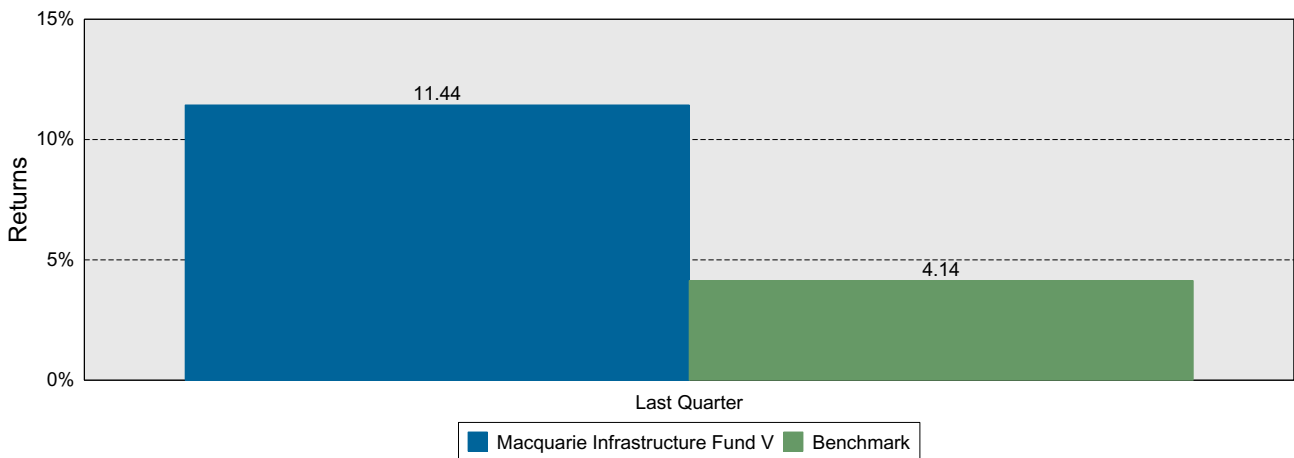
Macquarie’s principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team’s sector expertise and operating experience will provide a competitive advantage in sourcing and due diligence. Furthermore, the manager will also continue to focus on opportunities where its active management capabilities can add value for investors in terms of enhancing returns and the substantial mitigation and/or elimination of material operational risks. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

### Quarterly Summary and Highlights

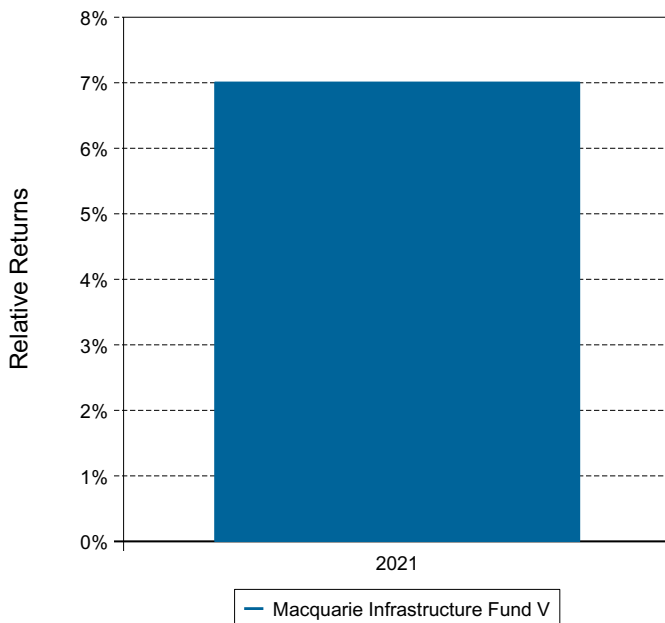
- Macquarie Infrastructure Fund V’s portfolio outperformed the Benchmark by 7.30% for the quarter.

### Quarterly Asset Growth

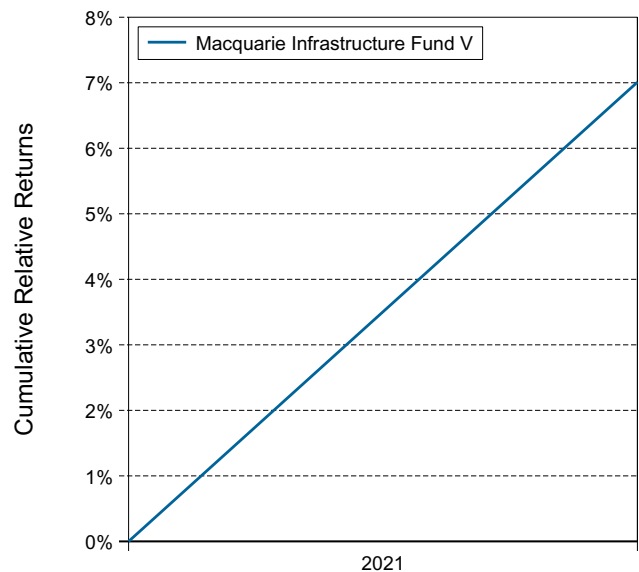
Beginning Market Value	\$4,184,384
Net New Investment	\$4,296,998
Investment Gains/(Losses)	\$455,836
Ending Market Value	\$8,937,218



### Relative Return vs Benchmark



### Cumulative Returns vs Benchmark





# Short Term Fixed Income Period Ended December 31, 2021

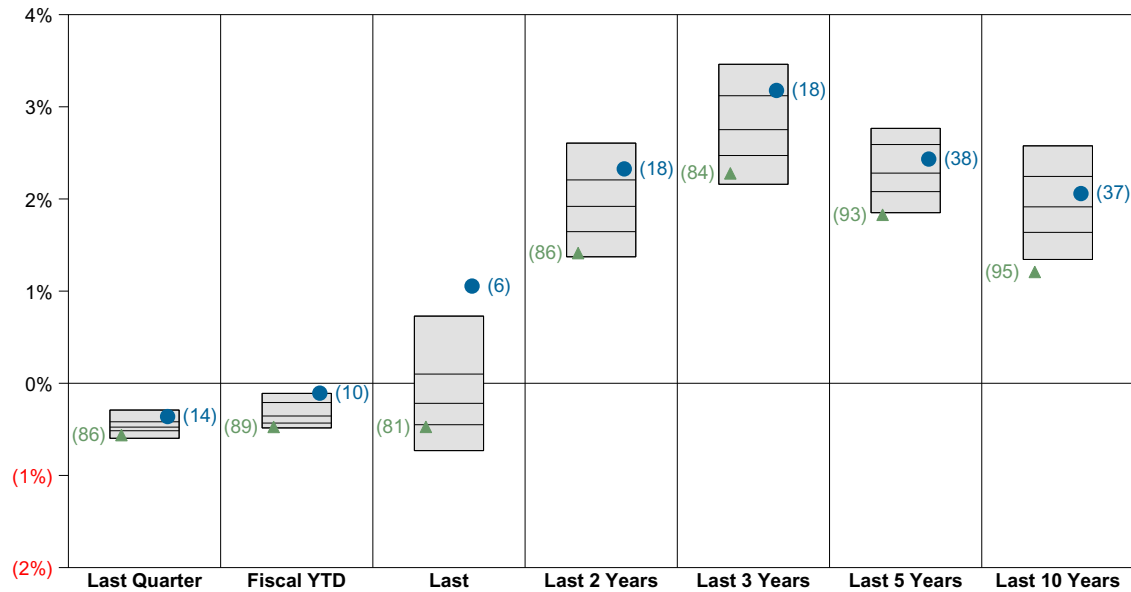
## Quarterly Summary and Highlights

- Short Term Fixed Income's portfolio posted a (0.36)% return for the quarter placing it in the 14 percentile of the Callan Short Term Fixed Income group for the quarter and in the 6 percentile for the last year.
- Short Term Fixed Income's portfolio outperformed the Short Term Fixed Target by 0.20% for the quarter and outperformed the Short Term Fixed Target for the year by 1.53%.

## Quarterly Asset Growth

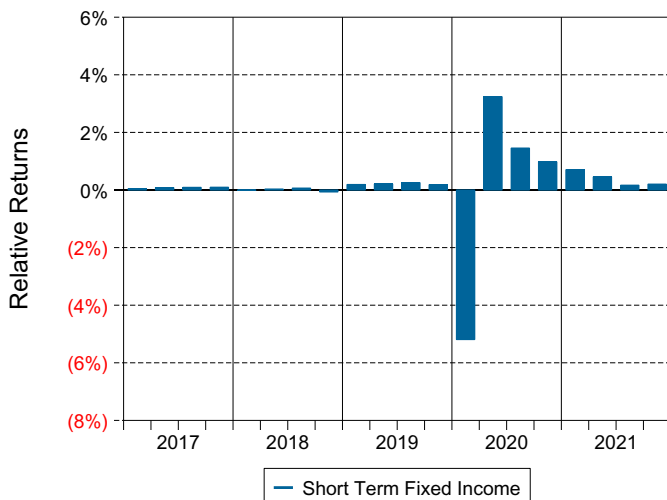
Beginning Market Value	\$779,676,421
Net New Investment	\$-222,466
Investment Gains/(Losses)	\$-2,814,723
Ending Market Value	\$776,639,232

## Performance vs Callan Short Term Fixed Income (Gross)

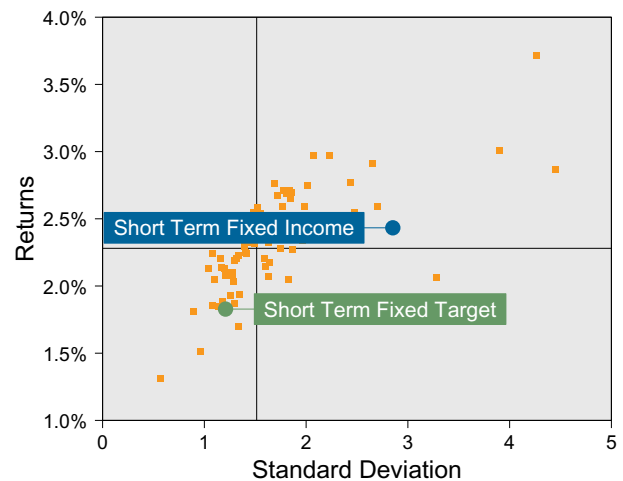


10th Percentile	(0.29)	(0.11)	0.73	2.61	3.46	2.77	2.58
25th Percentile	(0.42)	(0.21)	0.10	2.21	3.12	2.59	2.24
Median	(0.48)	(0.35)	(0.22)	1.92	2.75	2.28	1.91
75th Percentile	(0.52)	(0.43)	(0.45)	1.65	2.47	2.08	1.64
90th Percentile	(0.60)	(0.48)	(0.73)	1.37	2.16	1.85	1.34
<b>Short Term Fixed Income</b>	● (0.36)	(0.11)	1.05	2.33	3.18	2.43	2.06
Short Term Fixed Target	▲ (0.56)	(0.47)	(0.47)	1.41	2.28	1.83	1.21

## Relative Return vs Short Term Fixed Target



## Callan Short Term Fixed Income (Gross) Annualized Five Year Risk vs Return



# Barings Active Short Duration Period Ended December 31, 2021

## Investment Philosophy

Babson's Active Short Duration team employs a total return management style, which dynamically adjusts duration in response to actual yield curve conditions. The approach seeks to take advantage of a variety of relative value opportunities, predominantly in the investment grade universe, which should provide steady income and potential capital appreciation. Value is also added through security selection. The end result is a high quality/short duration portfolio that has historically captured most of the returns of moderate duration bonds.

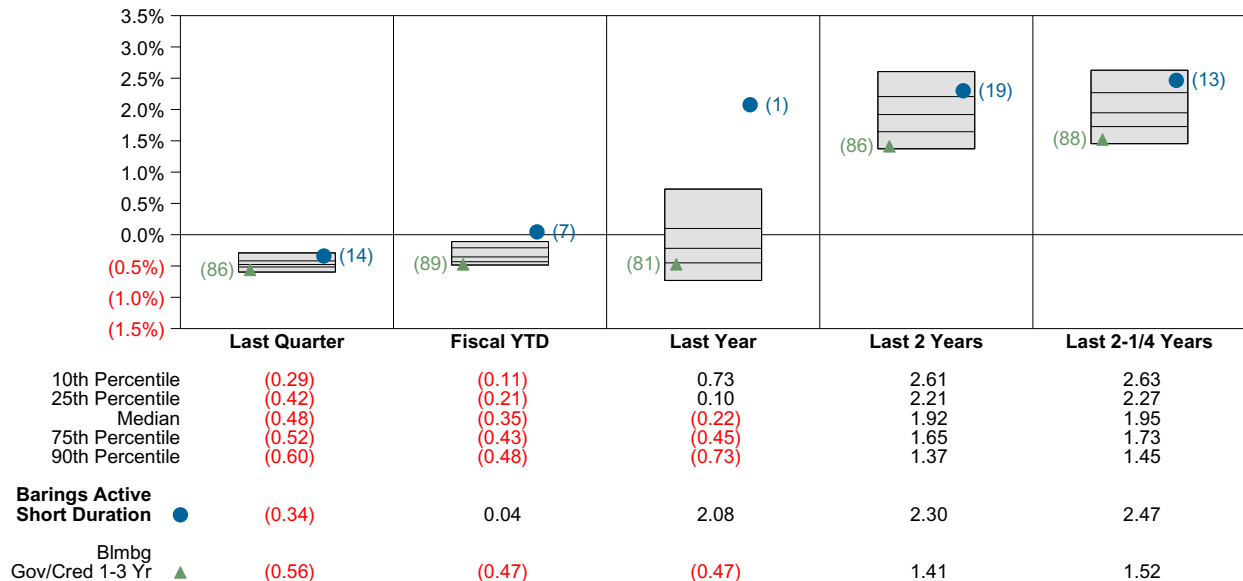
## Quarterly Summary and Highlights

- Barings Active Short Duration's portfolio posted a (0.34)% return for the quarter placing it in the 14 percentile of the Callan Short Term Fixed Income group for the quarter and in the 1 percentile for the last year.
- Barings Active Short Duration's portfolio outperformed the Blmbg Gov/Cred 1-3 Yr by 0.22% for the quarter and outperformed the Blmbg Gov/Cred 1-3 Yr for the year by 2.55%.

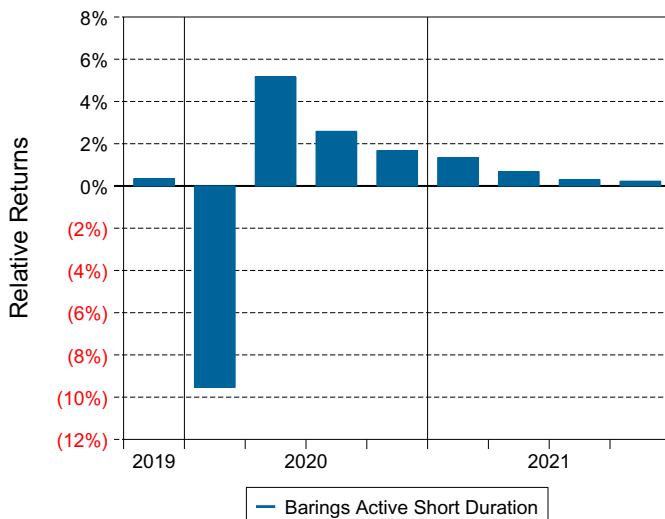
## Quarterly Asset Growth

Beginning Market Value	\$391,867,371
Net New Investment	\$-123,773
Investment Gains/(Losses)	\$-1,333,703
Ending Market Value	\$390,409,895

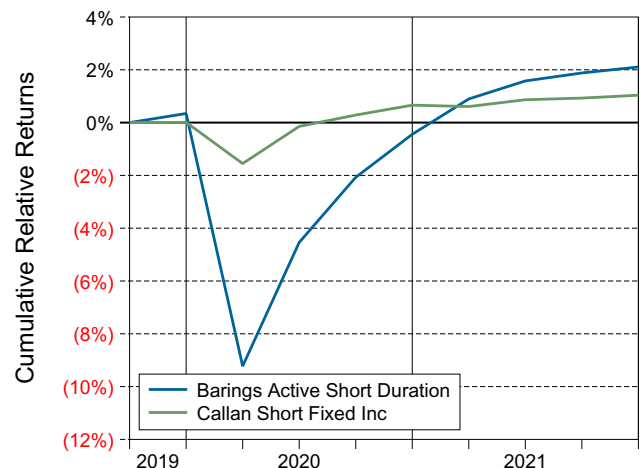
## Performance vs Callan Short Term Fixed Income (Gross)



## Relative Return vs Blmbg Gov/Cred 1-3 Yr



## Cumulative Returns vs Blmbg Gov/Cred 1-3 Yr



# JP Morgan Short Term Bonds Period Ended December 31, 2021

## Investment Philosophy

The investment objective of this account is to outperform the Bloomberg Capital 1-3 year Government/Credit Index while maintaining total return risk similar to that of the benchmark as measured over a market cycle. The weighted average effective duration of the portfolio will typically remain within +/- 30% of the benchmark.

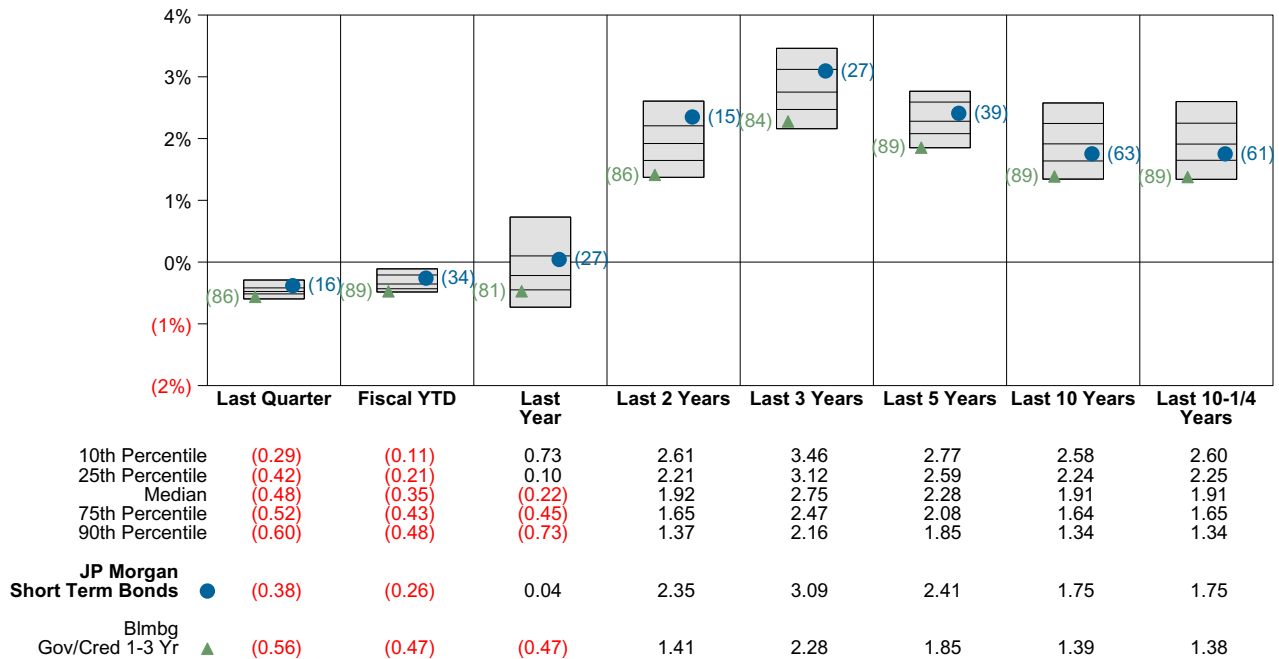
## Quarterly Summary and Highlights

- JP Morgan Short Term Bonds's portfolio posted a (0.38)% return for the quarter placing it in the 16 percentile of the Callan Short Term Fixed Income group for the quarter and in the 27 percentile for the last year.
- JP Morgan Short Term Bonds's portfolio outperformed the Blmbg Gov/Cred 1-3 Yr by 0.18% for the quarter and outperformed the Blmbg Gov/Cred 1-3 Yr for the year by 0.52%.

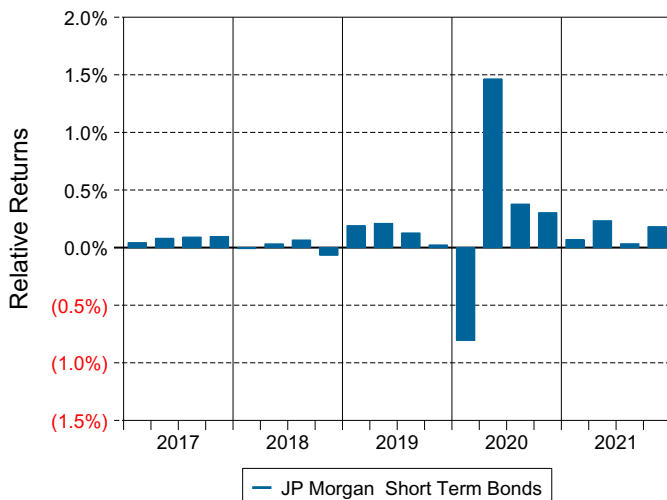
## Quarterly Asset Growth

Beginning Market Value	\$387,809,050
Net New Investment	\$-98,693
Investment Gains/(Losses)	\$-1,481,020
Ending Market Value	\$386,229,337

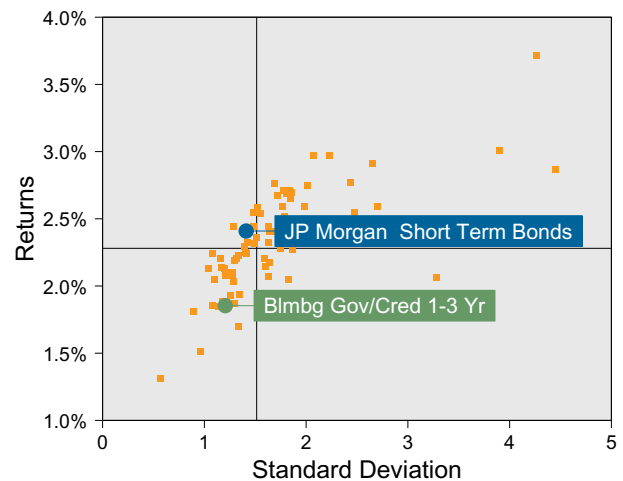
## Performance vs Callan Short Term Fixed Income (Gross)



## Relative Return vs Blmbg Gov/Cred 1-3 Yr



## Callan Short Term Fixed Income (Gross) Annualized Five Year Risk vs Return





## 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](http://www.callan.com/research-library) to see all of our publications, and [www.callan.com/blog](http://www.callan.com/blog) to view our blog. For more information contact Barb Gerraty at 415-274-3093 / [institute@callan.com](mailto:institute@callan.com).

## New Research from Callan's Experts

**[2021 Investment Management Fee Study](#)** | The purpose of this study, the ninth we have done, is to provide a detailed analysis on institutional investment management fee levels and trends across multiple asset classes and mandate sizes, for both active and passive management.

**[2021 Nuclear Decommissioning Funding Study](#)** | This study offers key insights into the status of nuclear decommissioning funding to make peer comparisons more accurate and relevant.

**[2021 Private Equity Fees and Terms Study](#)** | This study is intended to help institutional investors better evaluate private equity funds, serving as an industry benchmark when comparing a partnership's terms to its peers.

**[2021 Cost of Doing Business Survey](#)** | In this survey, Callan compares the costs of administering and operating funds across all types of tax-exempt and tax-qualified organizations in the U.S. We identify practices to help institutional investors manage expenses.

**[A Guide to Reinsurance for Institutional Investors](#)** | Reinsurance investments are a potential option for institutional investors looking to diversify both equity and rate risks while also offering attractive risk-adjusted returns. Sean Lee examines how insurance-linked securities can be incorporated into institutional investors' portfolios.

**[2021 ESG Survey](#)** | Callan's ninth annual survey assessing the status of environmental, social, and governance (ESG) investing in the U.S. institutional investment market.

## Blog Highlights

**[Rising Rates! Why the Heck Do We Own Bonds?](#)** | Investment grade bonds spin off yield and participate in rising rate markets through principal reinvestment, and their return distribution

provides downside protection that counter-balances growth-oriented portfolio investments. Despite frustratingly low expected returns, IG bonds can still contribute meaningfully to the long-term investment goals of most institutional investors.

**[Understanding Return Forecasts for Public DB Plans](#)** | It is important for decision makers to understand that actuaries and investment consultants offer assumptions on expected return that are inherently different: Actuarial discount rates assume a static return over time with no variability, whereas investment consultants estimate a median and a range of expected returns based on expected risk.

## Quarterly Periodicals

**[Private Equity Trends, 3Q21](#)** | A high-level summary of private equity activity in the quarter through all the investment stages

**[Active vs. Passive Charts, 3Q21](#)** | A comparison of active managers alongside relevant benchmarks over the long term

**[Market Pulse Flipbook, 3Q21](#)** | 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, 3Q21](#)** | Analysis and a broad overview of the economy and public and private market activity each quarter across a wide range of asset classes

**[Hedge Fund Quarterly, 3Q21](#)** | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

**[Real Assets Reporter, 3Q21](#)** | A summary of market activity for real assets and private real estate during the quarter

## Events

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

Please mark your calendar and look forward to upcoming invitations:

**2022 DC Survey Results Webinar**  
February 23, 2022 – 9:30 am (PT)

**National Conference**  
April 25-27, 2022, in San Francisco

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

**March 1-3, 2022 – 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/ccintro-march/](http://callan.com/events/ccintro-march/)

### Introductory Workshop for DC Plan Fiduciaries

**March 23, 2022 – San Francisco**

This one-day workshop centers on the fundamentals of administering a defined contribution (DC) plan. Designed primarily for ERISA fiduciaries and supporting staff members, attendees will gain a better understanding of the key responsibilities of an ERISA fiduciary and best practices for executing those responsibilities. Additionally, we will cover the basics of capital markets theory and DC investment menu design principles; investment manager evaluation, selection, and monitoring; best practices for evaluating fees; the regulatory and legal landscape; and industry trends. This workshop is complimentary and open to institutional investor clients.

Additional information including dates and registration can be found at: [callan.com/events/mar-dc-college/](http://callan.com/events/mar-dc-college/)



"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

Confidential – For Callan Client Use Only

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

abrdrn (Aberdeen Standard Investments)

Acadian Asset Management LLC

Adams Street Partners, LLC

AEGON USA Investment Management Inc.

AllianceBernstein

Allianz

Allspring Global Investments (formerly Wells Fargo Asset Mgmt)

American Century Investments

AQR Capital Management

Ares Management LLC

Ariel Investments, LLC

Aristotle Capital Management, LLC

Atlanta Capital Management Co., LLC

Aviva Investors

AXA Investment Managers

Baillie Gifford International, LLC

Baird Advisors

Barings LLC

### Manager Name

Baron Capital Management, Inc.

Barrow, Hanley, Mewhinney & Strauss, LLC

BlackRock

BMO Global Asset Management

BNP Paribas Asset Management

BNY Mellon Asset Management

Boston Partners

Brandes Investment Partners, L.P.

Brandywine Global Investment Management, LLC

Brookfield Asset Management

Brown Brothers Harriman & Company

Cambiar Investors, LLC

Capital Group

Carillon Tower Advisers

CastleArk Management, LLC

Causeway Capital Management LLC

Chartwell Investment Partners

ClearBridge Investments, LLC

**Manager Name**

Cohen & Steers Capital Management, Inc.
Columbia Threadneedle Investments North America
Credit Suisse Asset Management, LLC
Crescent Capital Group LP
D.E. Shaw Investment Management, LLC
DePrince, Race & Zollo, Inc.
Dimensional Fund Advisors L.P.
Doubleline
Duff & Phelps Investment Management Co.
DWS
EARNEST Partners, LLC
Eaton Vance Management
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Hermes, Inc.
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Hawaiian Bank Wealth Management Division
First Sentier Investors (formerly First State Investments)
Fisher Investments
Franklin Templeton
GAM (USA) Inc.
GCM Grosvenor
GlobeFlex Capital, L.P.
GoldenTree Asset Management, LP
Goldman Sachs
Guggenheim Investments
GW&K Investment Management
Harbor Capital Group Trust
Heitman LLC
Hotchkis & Wiley Capital Management, LLC
Income Research + Management Inc.
Insight Investment
Intech Investment Management LLC
Intercontinental Real Estate Corporation
Invesco
J.P. Morgan
Janus
Jennison Associates LLC
Jobs Peak Advisors

**Manager Name**

J O Hambro Capital Management Limited
KeyCorp
Lazard Asset Management
LGIM America (formerly Legal & General Inv. Mgmt. America)
Lincoln National Corporation
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
LSV Asset Management
MacKay Shields LLC
Macquarie Investment Management (MIM)
Manning & Napier Advisors, LLC
Manulife Investment Management
McKinley Capital Management, LLC
Mellon
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
Ninety One North America, Inc. (formerly Investec Asset Mgmt.)
Northern Trust Asset Management
Nuveen
P/E Investments
Pacific Investment Management Company
Parametric Portfolio Associates LLC
Partners Group (USA) Inc.
Pathway Capital Management
Peregrine Capital Management, LLC
PFM Asset Management LLC
PGIM Fixed Income
PGIM Quantitative Solutions LLC
PineBridge Investments
Polen Capital Management, LLC
Principal Global Investors

**Manager Name**

Putnam Investments, LLC

RBC Global Asset Management

Regions Financial Corporation

Richard Bernstein Advisors LLC

Riverbridge Partners LLC

Robeco Institutional Asset Management, US Inc.

Rothschild &amp; Co. Asset Management US

S&amp;P Dow Jones Indices

Schroder Investment Management North America Inc.

Securian Asset Management, Inc.

SLC Management

Smith Graham &amp; Co. Investment Advisors, L.P.

State Street Global Advisors

Stone Harbor Investment Partners L.P.

Strategic Global Advisors, LLC

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

**Manager Name**

Thompson, Siegel &amp; Walmsley LLC

Thornburg Investment Management, Inc.

Tri-Star Trust Bank

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Waterton Associates LLC

WCM Investment Management

WEDGE Capital Management

Wellington Management Company, LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair &amp; Company LLC

December 31, 2021



## **North Dakota State Investment Board Legacy Fund**

**Investment Measurement Service  
Quarterly Review**

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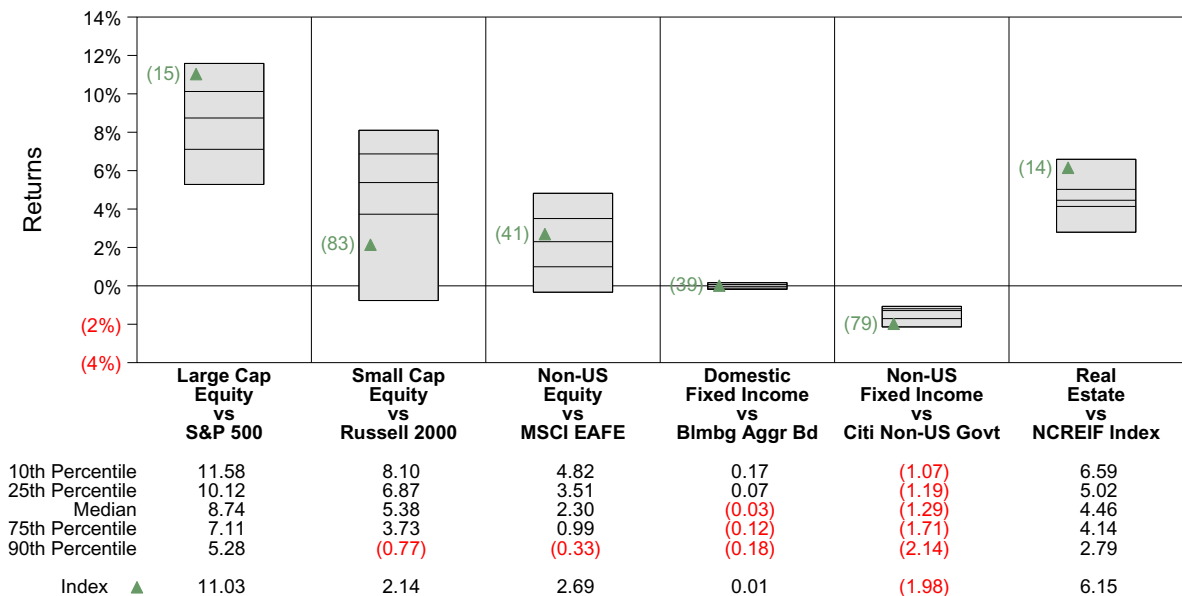
## Market Overview

### Active Management vs Index Returns

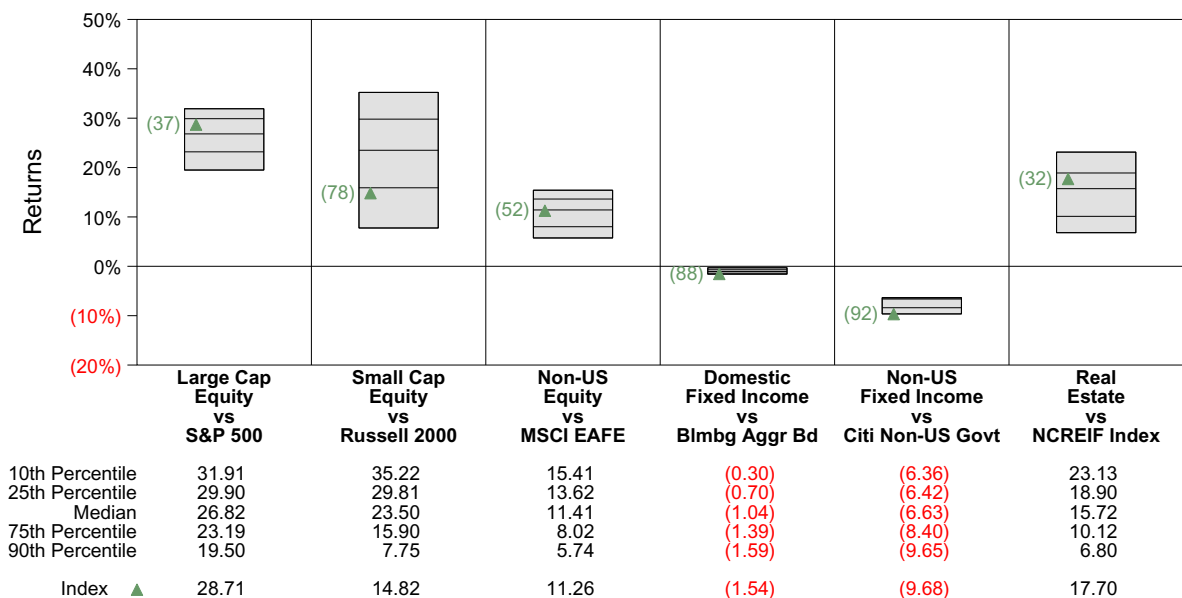
#### Market Overview

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 December 31, 2021



#### Range of Separate Account Manager Returns by Asset Class One Year Ended December 31, 2021



## What's Next for the Recovery in the U.S.?

### ECONOMY

**2** The fourth quarter of 2021 closed out another remarkable year following the wild ride through the pandemic and the recovery. U.S. GDP notched an incredibly strong 6.9% quarterly gain (4Q over 4Q), which translates to annual growth of 5.7% over 2020. So what's next?

## Agg Is Flat as Real Yields Stay Negative

### FIXED INCOME

**8** The Bloomberg Aggregate was flat in 4Q21, and real yields remain solidly in negative territory. Global returns were muted for unhedged U.S. investors in both 4Q and 2021. Emerging market debt indices underperformed most other fixed income sectors in 2021.

## Strong Demand Due to Focus on Yield

### PRIVATE CREDIT

**12** Private credit remains attractive to institutional investors due to its yield and income-generating characteristics. Private credit has, on average, generated net IRRs of 8% to 10% for most trailing periods ended 4Q20. Fundraising significantly rebounded in the first half of 2021.

## Another Year of Gains but New Threats Rise

### INSTITUTIONAL INVESTORS

**4** In 2021 all institutional investor types had strong gains but lagged a benchmark composed of 60% S&P 500/40% Bloomberg US Aggregate Index. For many, the question they face now is what to do in a low-yield environment with growing concerns over inflation.

## ODCE's Best Quarter; U.S. REITs Top Stocks

### REAL ESTATE/REAL ASSETS

**10** The NCREIF ODCE Index had its best performance ever in 4Q21, up 7.7%. Net operating income fell for Office as Omicron delayed office returns. Global REITs rose 10.4% compared to 7.8% for MSCI World; U.S. REITs rose 16.3%, beating the S&P 500 Index, which rose 11.0%.

## Ending the Year on a Positive Note

### HEDGE FUNDS/MACs

**13** Hedge funds ended higher, despite inflation and Omicron concerns growing in 4Q21; the HFRI Fund Weighted Composite Index gained 0.4%. Event-driven strategies finished on a strong note. Equity hedge finished in positive territory; macro strategies ended slightly lower.

## S&P 500 Up Again; Global Stocks Falter

### EQUITY

**6** The S&P 500 posted a strong 11.0% gain in 4Q21; large cap growth was the top performer, small cap growth the worst. Globally, emerging markets struggled relative to developed markets due to the economic slowdown and regulatory crackdown in China.

## Big Bounce Back in 2021 After 2020 Drop

### PRIVATE EQUITY

**11** Private equity fared exceedingly well in 2021, after 2020's big dip. Company investment and exit activity is up across the board, and IPO markets had another gangbuster year. On average, year-over-year transaction activity rose by 30% and dollar volumes by 70%.

## Index Falls in 3Q21, First Time Since 1Q20

### DEFINED CONTRIBUTION

**15** The Callan DC Index™ declined 0.4% in 3Q21. The Age 45 Target Date Fund had a slightly lower return (-0.8%), attributable to its higher allocation to equity, which underperformed fixed income. Balances also fell, by 0.7%. Target date funds received the largest net inflows.

## 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

# What's Next for the Post-Pandemic Economy?

ECONOMY | Jay Kloepfer

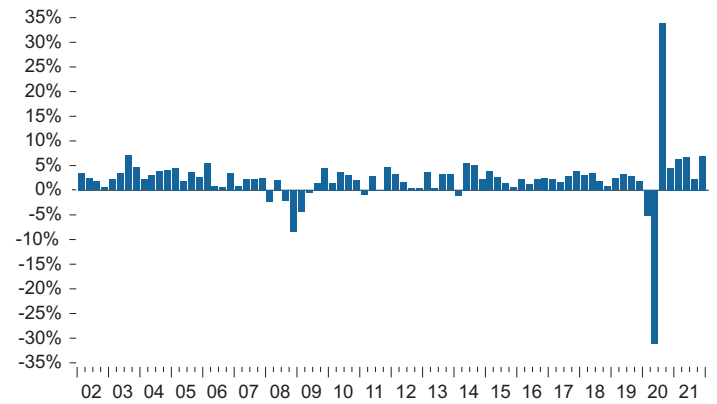
The fourth quarter of 2021 closed out another remarkable year following the wild ride through the pandemic and the recovery, a cycle that began in earnest in February 2020. U.S. GDP notched an incredibly strong 6.9% quarterly gain (4Q over 4Q), which translates to annual growth of 5.7% over 2020. We have not seen such growth since the Ronald Reagan administration, following the consecutive recessions of 1980 and 1982 induced in part to wring double-digit inflation out of the economy.

A short detour into monetary policy history is relevant here. The advent of current monetary policy began during the Reagan administration under Fed Chair Paul Volcker, although he was appointed by Jimmy Carter. Alan Greenspan took on the mantle of “monetarist” from Volcker and enshrined the discipline into Fed policy. That monetarist bent was then modified seriously by Ben Bernanke to address the Global Financial Crisis, where a zero interest rate policy was employed both in the U.S. and by most central banks around the world to rescue the global economy from collapse. Zero rates were combined with massive monetary intervention through the purchase of bonds to keep rates low and infuse liquidity into the system. Emboldened by what we learned in the GFC and the innovation in monetary intervention tools we developed, we applied zero rates with substantial monetary intervention to rescue the global economy again at the onset of the pandemic. After two years and a complete recovery to pre-pandemic GDP levels, the question now is what is next for the post-pandemic economy.

At the risk of *not* sounding an alarm, we believe supply chains will untangle, labor markets will slowly equilibrate, and supply and demand will line up the economy’s production function and the consumer’s normalizing demand for goods, services, food, and shelter. The Fed has begun tapering its asset purchases intended to supply liquidity to capital markets, and it is strongly signaling that interest rates will rise, with three hikes in the Fed Funds rate in 2022 articulated in the last FOMC meeting in January (the market is discounting four hikes). As policy is

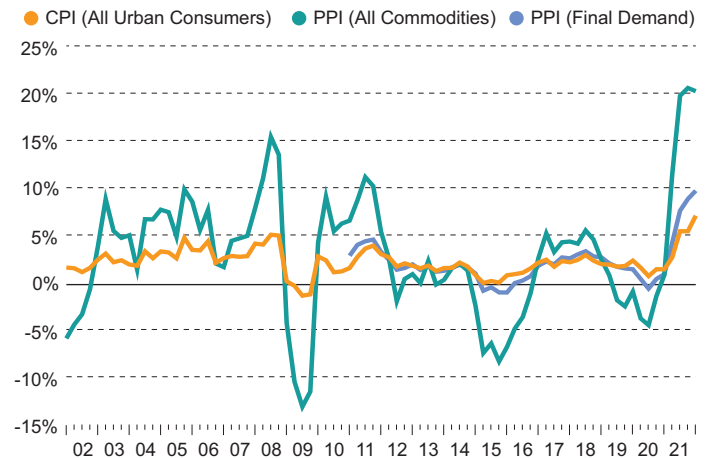
## Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

## Inflation Year-Over-Year



Source: Bureau of Labor Statistics

withdrawn, the global economy will move to stand on its own two feet, complete with the cycles of growth and recession fully expected in a market system. Top of mind for many is inflation, which hit a peak of 7% in 4Q21. There is now an entire generation of market participants who have never experienced sustained inflation, which was last seen in the early 1980s.

After starting 2021 in the shadow of renewed lockdowns in 4Q20 following then-record spikes in pandemic infections and

hospitalizations, the global economy and the U.S. in particular began a spurt of optimistic growth in the spring, and many measures of economic growth took off: consumption, business spending, production, travel, home-buying (which had started surging in 2020), and the opening of retail trade, dining, hospitality, and recreation. U.S. GDP surged in the second and fourth quarters, and the increase of 5.7% for 2021 compares to the 3.6% decline in 2020. Much has been made of the supply chain issues that have restricted output and the supply of goods, the fundamental mismatch between job seekers and available jobs, and the impact of both on potential growth and inflation. We believe the remaining supply chain issues will be ironed out over the course of 2022, increasing the supply of goods and relieving the pressure on prices. We also believe that the labor market will adjust, but that the process may be slower than that for goods and services, and that higher wages may be a feature of the U.S. economy for at least another year and perhaps in to 2023. The job segments most disrupted by the pandemic—retail, wholesale trade, transportation services, hospitality, education, state and local government—are those facing the most obstacles to rehiring at prevailing wages.

A couple of key metrics point toward a slowdown from the manic growth of 2021. First, within GDP, the building of inventory accounted for 4.9% of the 6.9% growth for 4Q21. Inventories built now boost current GDP, but suggest downward pressure on prices of those inventoried goods and slower growth from future production. Second, one of the key forward-looking indicators is the Purchasing Managers' Index (PMI), which surveys planned activity by market participants—new orders, output, input prices, employment—and covers both goods and services. The PMI for new orders around the globe went flat

### The Long-Term View

Index	4Q21	Periods Ended 12/31/21			
		1 Yr	5 Yrs	10 Yrs	25 Yrs
<b>U.S. Equity</b>					
Russell 3000	9.3	25.7	18.0	16.3	9.8
S&P 500	11.0	28.7	18.5	16.6	9.8
Russell 2000	2.1	14.8	12.0	13.2	9.0
<b>Global ex-U.S. Equity</b>					
MSCI EAFE	2.7	11.3	9.5	8.0	5.2
MSCI ACWI ex USA	1.8	7.8	9.6	7.3	--
MSCI Emerging Markets	-1.3	-2.5	9.9	5.5	--
MSCI ACWI ex USA Small Cap	0.6	12.9	11.2	9.5	6.9
<b>Fixed Income</b>					
Bloomberg Agg	0.0	-1.5	3.6	2.9	4.9
90-Day T-Bill	0.0	0.0	1.1	0.6	2.1
Bloomberg Long G/C	2.2	-2.5	7.4	5.7	7.3
Bloomberg GI Agg ex US	-1.2	-7.0	3.1	0.8	3.4
<b>Real Estate</b>					
NCREIF Property	6.1	17.7	7.8	9.3	9.4
FTSE Nareit Equity	16.3	43.2	10.8	11.4	9.9
<b>Alternatives</b>					
CS Hedge Fund	0.9	8.2	5.5	4.9	6.7
Cambridge PE*	4.8	49.5	21.2	17.2	15.7
Bloomberg Commodity	-1.6	27.1	3.7	-2.9	1.1
Gold Spot Price	4.1	-3.5	9.7	1.6	6.6
<b>Inflation – CPI-U</b>	1.6	7.0	2.9	2.1	2.3

\*Data for most recent period lags by a quarter. Data as of 9/30/21.

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

in August 2021 and stayed flat through December, as first the Delta then the Omicron variants spooked consumers and businesses. Third, at the start of 2022, the PMI for new orders has fallen sharply, driven by weakness emerging in the order data in China and the U.S., two of the biggest global economies.

### Recent Quarterly Economic Indicators

	4Q21	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20
Employment Cost–Total Compensation Growth	4.0%	3.7%	2.9%	2.6%	2.5%	2.4%	2.7%	2.8%
Nonfarm Business–Productivity Growth	6.6%	-5.0%	2.4%	4.3%	-3.4%	4.6%	11.2%	-0.8%
GDP Growth	6.9%	2.3%	6.7%	6.3%	4.5%	33.8%	-31.2%	-5.1%
Manufacturing Capacity Utilization	77.0%	76.1%	75.4%	74.5%	74.0%	71.9%	64.3%	74.4%
Consumer Sentiment Index (1966=100)	69.9	74.8	85.6	80.2	79.8	75.6	74.0	96.4

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

# Most Investors Saw Double-Digit Gains in 2021

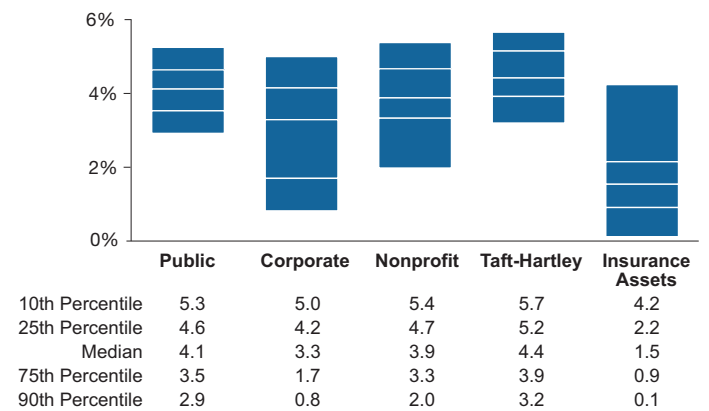
## INSTITUTIONAL INVESTORS

- In 2021 all institutional investor types had strong gains but lagged a benchmark composed of 60% S&P 500/40% Bloomberg US Aggregate.
- Taft Hartley plans (+15.0%) topped the list while corporate defined benefit (DB) plans (+9.5%) had the lowest returns.
- Almost all investor types have seen double-digit returns for four of the last five calendar years, with single-digit losses in 2018 being the exception.
- Their returns more closely track the 60%/40% benchmark over longer time periods, with results over the last 20 years roughly comparable.
- Strategic conversations among investors remain focused on where to go from here. Many just enjoyed the best annual returns, calendar or fiscal year, in a generation, but their elation is tempered by sobering capital markets assumptions.
- Inflation is one major topic of conversation.
- But for all the concern about inflation, few investors have taken action to address it in portfolios.
- Another, related topic is what to do with fixed income:
  - How low can the fixed income allocation go?
  - Should portfolios have bonds at all?
  - Should investors migrate out of an anchor to the Aggregate?
- Fixed income structures focus on the role of the asset

class—to diversify equity, to serve as a flight to quality, to act as a source of liquidity, to provide interest rate exposure—balanced against the desire for return in a very low-yield environment. Investors are evaluating how they can avoid undue risk.

- Some investors have looked at creative reconstruction of “core” fixed income, away from lower-returning segments of the Aggregate anchor position:
  - Private credit
  - Securitized debt
  - High yield

### Quarterly Returns, Callan Database Groups



Source: Callan

### Callan Database Median and Index Returns\* for Periods Ended 12/31/21

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	4.1	13.7	14.8	10.9	9.6	7.5
Corporate Database	3.3	9.5	14.1	10.2	9.0	7.3
Nonprofit Database	3.9	14.0	15.1	11.0	9.5	7.4
Taft-Hartley Database	4.4	15.0	14.8	11.0	10.0	7.2
Insurance Assets Database	1.5	5.1	8.4	6.1	5.3	5.6
All Institutional Investors	4.0	13.4	14.7	10.8	9.5	7.4
Large (>\$1 billion)	3.8	14.4	15.0	11.1	9.9	7.7
Medium (\$100mm - \$1bn)	4.0	12.9	14.7	10.9	9.5	7.3
Small (<\$100 million)	4.2	13.3	14.4	10.3	9.2	7.0
60% S&P 500/40% Bloomberg Agg	6.6	15.9	15.9	17.5	11.1	7.7

\*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.

- Bank loans
  - Private placements
  - Global fixed income
  - TIPS
- Risk-seeking in fixed income is not for all; some investors want to dial down the amount of risk their managers are taking, specifically credit.
  - There is growing concern among investors about a market drawdown, given high valuations relative to historical averages.
  - Hedge funds and other absolute return strategies may gain a new appreciation when compared to low fixed income expectations as a way to diversify growth risk with less of a return penalty.
  - Real assets are under review with the growing concerns over inflation.
    - Will the inflation of the future come from the same sources as the global energy complex evolves?
    - Are investors hedging inflation or outperforming it?
  - Investors are questioning the inclusion of past real assets stalwarts: natural resources, energy, MLPs, and commodities.

**Corporate DB Plans**

- Many are conducting asset/liability (A/L) studies.
- Lower return expectations stress their EROA assumptions, but the American Rescue Plan Act (ARPA) provides a shot

in the arm to them: lower liabilities, higher funded status, and lower required contributions.

**Public DB Plans**

- These investors are also in the midst of numerous A/L studies.
- Low projected returns mean downward pressure on EROA assumptions. Weaker returns may derail the expressed desire to bring in risk, spurring further demand for alternatives exposures and leading to discussions of total fund leverage.

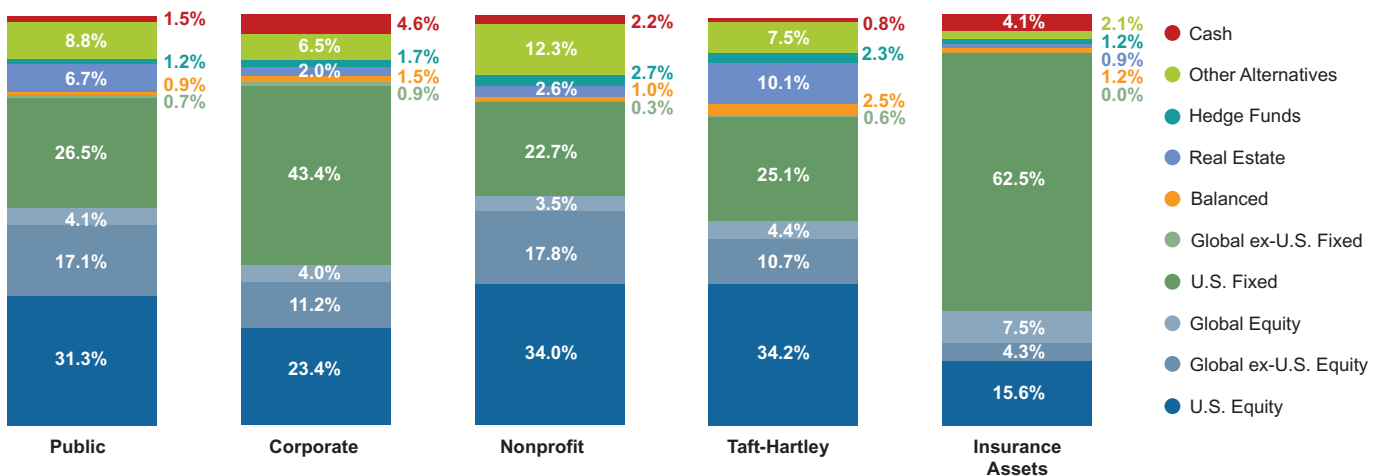
**Defined Contribution Plans**

- DC glidepaths are being reassessed due to lower short-term capital markets assumptions, with some glidepath managers risking up. The long-term equilibrium did not change, but it is coming from a lower starting point.
- Sponsors are starting to discuss retirement income as their plans mature.

**Nonprofits**

- Subdued expectations for capital markets returns are challenging both their risk tolerance and the sustainability of established spending rates.
- They are dissatisfied with private real assets, hedge funds, and fixed income; portfolio reconstruction is on the table.

**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

### Returns grind higher despite mounting concerns

- S&P 500 posted a strong 11.0% gain in 4Q21; large cap growth (Russell 1000 Growth) was the top performer, which contrasted with the worst-performing asset class, small cap growth (Russell 2000 Growth: 0.0%).
- The new Omicron variant, continued supply chain disruptions, and renewed fears of persistent inflation pushed investors into the perceived safety of the largest stocks.
- S&P 500 sector results were mixed, with Real Estate (+17.5%) posting the top returns alongside Technology (+16.7%) and Materials (+15.2%); Communication Services (0.0%) and Financials (+4.6%) lagged broad returns.
- In 2021, small value outperformed small growth by over 2,500 bps (Russell 2000 Value: 28.3% vs. Russell 2000 Growth: 2.8%), a stark reversal from 2020 and a pattern consistent with periods of robust GDP growth.

### Index concentration driving positive returns...

- The 10 largest stocks in the S&P 500 comprised 30.5% of the index but accounted for 65% of the 2021 return.
- During 4Q21, top 10 weights accounted for ~40% of return.

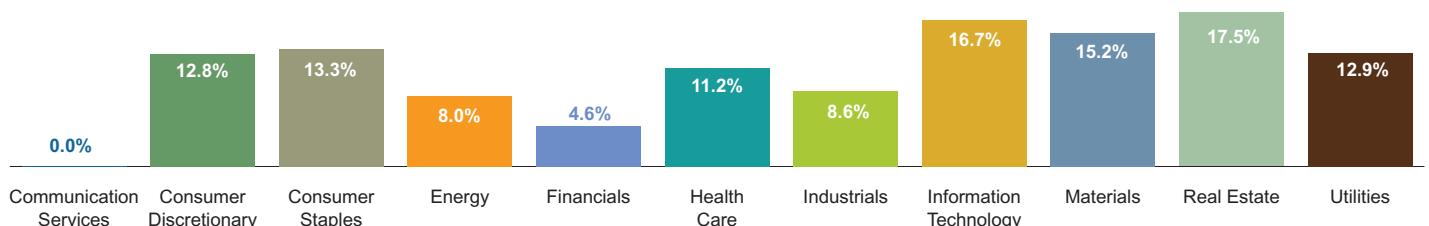
### ...but may be hiding underlying weakness

- Nearly 10% of Russell 3000 stocks fell by 35% or more in 2021, which is unusual for a year when market returns were in excess of 25%.

### Market capitalization, style driving divergence in returns

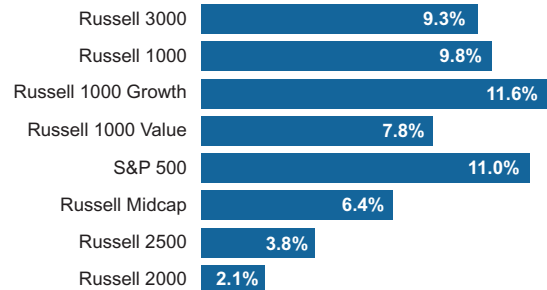
- Mega-cap growth (Russell Top 200 Growth) was the strongest performer in both 4Q21 and 2021.

## Quarterly Performance of Industry Sectors

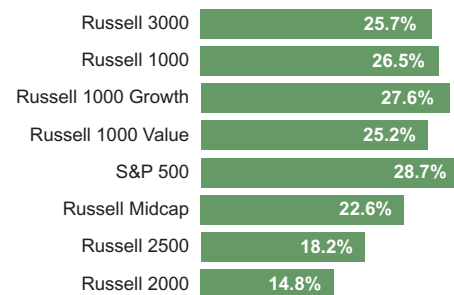


Source: S&P Dow Jones Indices

## U.S. Equity: Quarterly Returns



## U.S. Equity: One-Year Returns



Sources: FTSE Russell and S&P Dow Jones Indices

- Growth style returns highly correlated with market capitalization in both 4Q21 and 2021 (higher market capitalization = high return).
- Within micro-, small-, and smid-cap growth, Health Care (especially biotech/pharma) was biggest detractor to returns.
- Value returns correlated with market capitalization in 4Q21; for 2021, value returns did not experience much divergence.

## Global Equity

### Omicron takes center stage

- A recovery-driven market shifted back to COVID favorites, boosting Information Technology stocks.
- Small cap underperformed large amid global growth concerns.
- Emerging markets struggled relative to developed markets as China experienced significant pressure from an economic slowdown and its regulatory crackdown.

### Stalled recovery

- As the new variant took hold, Energy and Communication Services lagged on fear of restrained growth.
- Japan suffered from both supply chain issues and economic constraints from COVID-19.
- Growth and momentum factors outperformed in developed markets but not in emerging markets.

### U.S. dollar vs. other currencies

- The U.S. dollar rose against other major currencies as tapering accelerated alongside the expectation for 2022 rate hikes, which notably detracted from global ex-U.S. results.

### Growth vs. value

- Inflationary pressures and the ultimate rebound from COVID-19 supported value's leadership for the full year, despite the shift to growth in 4Q21.

### Regulation has spooked Chinese market

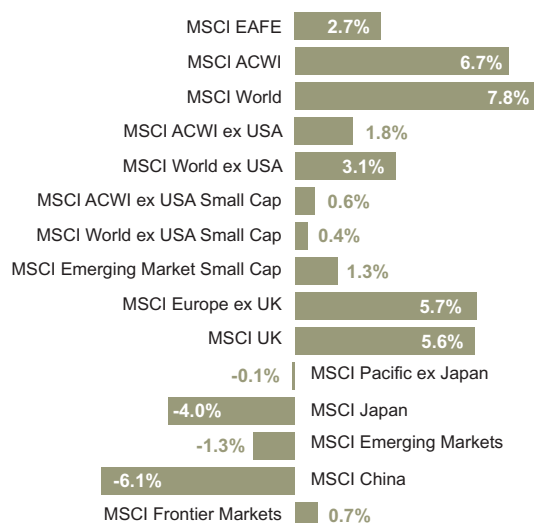
- Although regulation is not new in China, the duration, scope, and intensity of the current regime are unprecedented.
- Regulations have been centered on antitrust, financial markets, data/national security, and social welfare to enhance the sustainability of its economy.
- Regulatory uncertainty should subside as China focuses on implementation.

### Inflation is expected to normalize in a few years

- Forecasted year-over-year core CPI is expected to reach its peak between 1Q22 and 2Q22.
- Inflationary environment by and large has shifted central banks to contractionary policy.

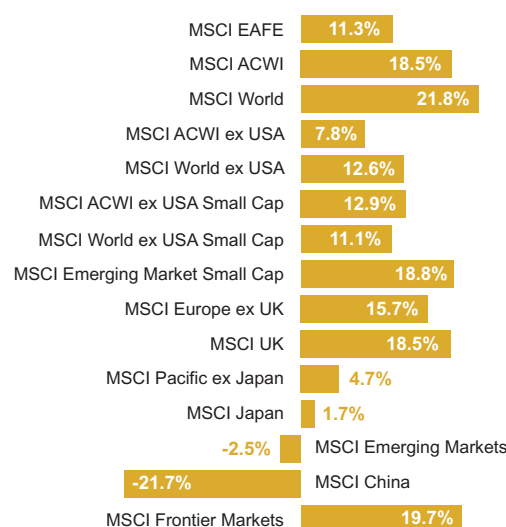
## Global ex-U.S. Equity: Quarterly Returns

(U.S. Dollar)



## Global ex-U.S. Equity: One-Year Returns

(U.S. Dollar)



Source: MSCI

## Rise in inflation expectations tends to stoke value

- Correlation between cyclical sectors and inflation/interest rate expectations generally has been positive.
- Growth relative to value is more vulnerable as interest rates normalize.
- Global recovery from COVID and deficit in Energy should support value.



# Fixed Income

## U.S. Fixed Income

### Treasury yields again unchanged

- 10-year at 1.52% at 9/30 and 12/31, up slightly from 1.45% on 6/30.
- TIPS outperformed nominal Treasuries and 10-year breakeven spreads widened to 2.56%.
- Real yields remain solidly in negative territory.

### Bloomberg Aggregate was flat, literally

- Spread sectors (Agencies, ABS, CMBS, MBS, and Credit) all underperformed UST by a modest amount (but positive YTD).
- Yield curve flattened; curve positioning had a meaningful impact on returns in 4Q.

### High yield and leveraged performed relatively well

- Spreads remain near historic tight.
- High yield issuers' default rate declined to a record low in December (J.P. Morgan).
- New issuance hit a record for the second year in a row as issuers looked to finance at relatively low rates.

### Munis outperformed Treasuries

- Lower-quality bonds continued their trend of outperformance as investors sought yield.

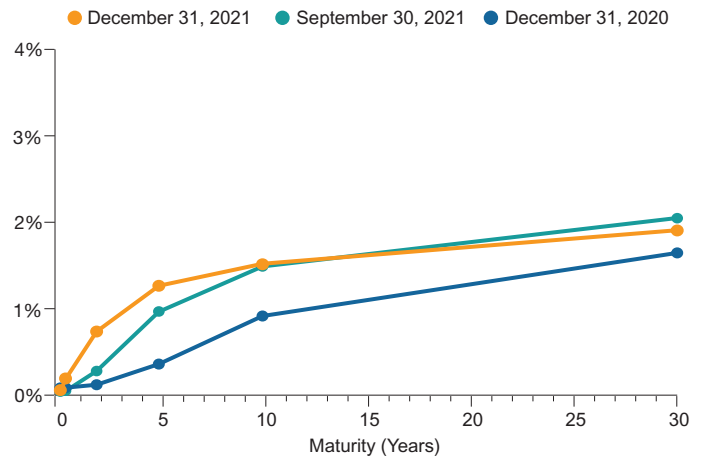
### Inflation is being felt, indicated by several measures

- Annual CPI jumped to 7.0% in December—its eighth consecutive reading above 5% and the largest 12-month increase since the period ending June 1982.
- Increases for shelter and for used cars/trucks were the largest contributors to the seasonally adjusted all-items increase.
- Even service inflation, which had declined initially, has since recovered and is on an upward trend.

### Fed has turned more hawkish than expected

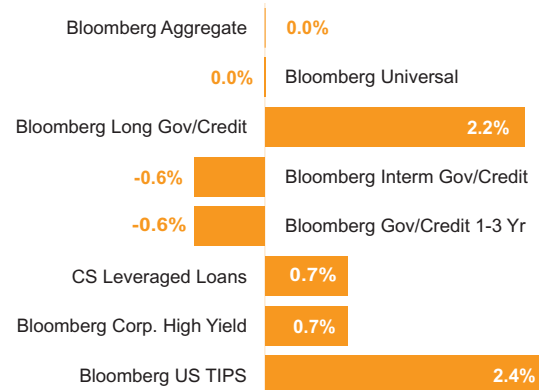
- Fed announced a doubling of the pace of tapering and an upward revision to the anticipated path of rate hikes.
- FOMC participants now expect three rate hikes in 2022 to bring the targeted range to 0.75%-1.0% by year-end.

## U.S. Treasury Yield Curves



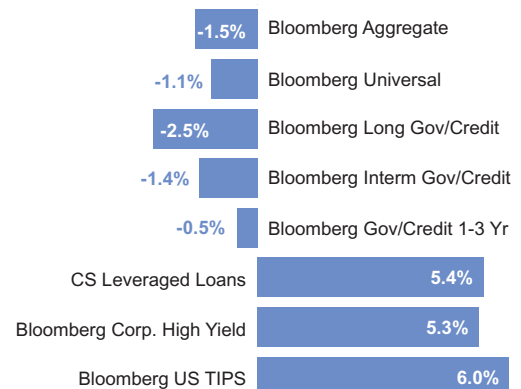
Source: Bloomberg

## U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg and Credit Suisse

## U.S. Fixed Income: One-Year Returns



Sources: Bloomberg and Credit Suisse

## FIXED INCOME (Continued)

### Spreads have returned to tights

- Fundamentals remain strong and default expectations low.
- Revenue, profits, and free cash flow at or near cycle highs.
- Gross and net leverage trending lower while interest coverage trends higher.

### Global Fixed Income

#### Flat on a hedged basis

- Returns were muted and U.S. dollar strength eroded returns for unhedged U.S. investors in both 4Q and 2021.
- Yen was a notable underperformer in developed markets, falling 10% for the year.

#### Emerging market debt posted negative returns

- Emerging market debt indices underperformed most other fixed income sectors in 2021.
- Currencies fared the worst vs. the U.S. dollar; the Turkish lira sank 44% on spiking inflation.

#### Global outlook may shift lower with regional variance

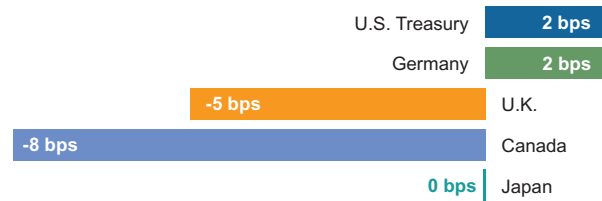
- Moderating and differentiated outlook for various regions reflects certain DM and EM economies shifting to tightening balanced by others managing legacy issues.

#### Central bank policy is mixed

- The U.K. has led the way with interest rate hikes as the BOE expects inflation to peak in April 2022.
- Europe and Japan continue to have below-target inflation and are expected to maintain relatively accommodating monetary policy.
- EM central banks, having moved early to battle inflation, may be moving to a more late-cycle posture.

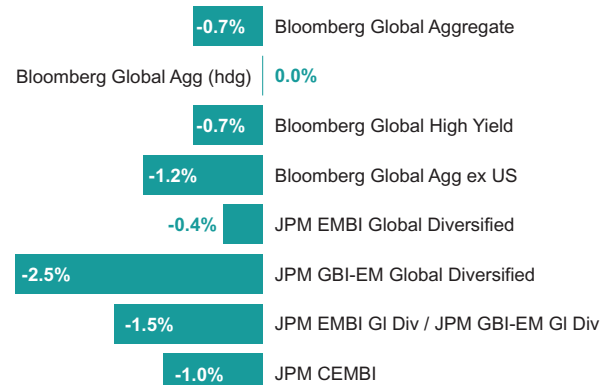
### Change in 10-Year Global Government Bond Yields

3Q21 to 4Q21



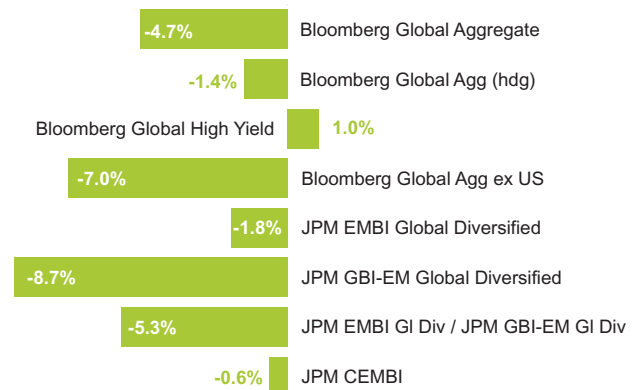
Source: Bloomberg

### Global Fixed Income: Quarterly Returns



Sources: Bloomberg and JPMorgan Chase

### Global Fixed Income: One-Year Returns



Sources: Bloomberg and JPMorgan Chase

# Best Gain Ever for ODCE; U.S. REITs Top Stocks

REAL ESTATE/REAL ASSETS | Munir Iman

## Strongest gains for ODCE ever

- The NCREIF Open End Diversified Core Equity (ODCE) Index posted its best return ever in 4Q21 (7.7%); Industrial was the best performer.
- Income returns were positive across sectors.
- Appraisers are pricing in a recovery due to strong fundamentals in Industrial and Multifamily.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.
- Niche sectors such as self-storage and life sciences continued to be accretive.

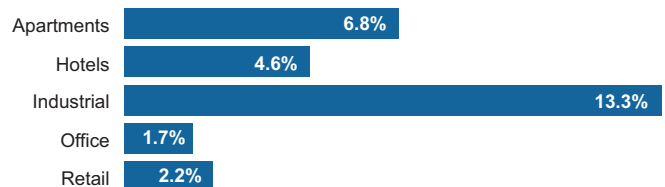
## Compression in vacancy rates

- Vacancy rates kept compressing in Industrial and Multifamily as demand continued.
- Net operating income turned negative for Office as the Omicron variant delayed many return-to-work plans.
- 4Q21 rent collections were stable across all sectors.
- Demand outpaced supply as new construction of preleased Industrial and Multifamily occurred.

## Global REITs and U.S. REITs outperform

- Global REITs outperformed in 4Q21, increasing 10.4% compared to 7.8% for global equities (MSCI World).
- U.S. REITs rose 16.3% in 4Q21, beating the S&P 500 Index, which gained 11.0%.
- Global REITs were trading below NAV, except for those in Australia, Japan, the United States, and Canada.
- Property sectors were mixed as out-of-favor sectors such as Office, Hotels, and Retail traded below NAV.
- Ongoing volatility in REIT share prices offers opportunities to purchase mispriced securities, individual assets from REIT owners, and discounted debt, as well as lend to companies and/or execute take-privates of public companies.

## Sector Quarterly Returns by Property Type



Source: NCREIF

## Callan Database Median and Index Returns\* for Periods Ended 12/31/21

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
<b>Real Estate ODCE Style</b>	<b>4.5</b>	<b>18.5</b>	<b>18.5</b>	<b>7.9</b>	<b>7.8</b>	<b>9.4</b>	<b>5.8</b>
NFI-ODCE (value wt net)	7.7	21.1	21.1	8.2	7.7	9.4	5.8
NCREIF Property	6.1	17.7	17.7	8.4	7.8	9.3	7.2
NCREIF Farmland	3.8	7.8	7.8	5.2	5.7	9.7	10.6
NCREIF Timberland	4.6	9.2	9.2	3.7	3.6	5.3	5.1
<b>Public Real Estate</b>							
<b>Global Real Estate Style</b>	<b>10.5</b>	<b>28.5</b>	<b>28.5</b>	<b>16.1</b>	<b>11.0</b>	<b>11.0</b>	<b>5.5</b>
FTSE EPRA Nareit Developed	10.2	26.1	26.1	11.8	7.8	8.6	3.5
<b>Global ex-U.S. Real Estate Style</b>	<b>3.2</b>	<b>10.8</b>	<b>10.8</b>	<b>10.8</b>	<b>9.7</b>	<b>10.1</b>	<b>3.9</b>
FTSE EPRA Nareit Dev ex US	2.0	8.1	8.1	6.7	6.4	7.2	1.9
<b>U.S. REIT Style</b>	<b>15.9</b>	<b>42.8</b>	<b>42.8</b>	<b>20.9</b>	<b>12.4</b>	<b>12.4</b>	<b>7.9</b>
EPRA Nareit Equity REITs	16.3	43.2	43.2	18.4	10.8	11.4	6.9

\*Returns less than one year are not annualized.

Sources: Callan, FTSE Russell, NCREIF

# A Big Bounce Back in 2021

PRIVATE EQUITY | Gary Robertson

Private equity has adapted well to the COVID environment with tremendous growth last year. On average, year-over-year transaction activity increased by 30% and dollar volumes by 70%.

**Fundraising** ► Based on preliminary data, in 2021 private equity partnerships holding final closes raised \$815 billion across 2,368 partnerships (unless otherwise noted, all data is from PitchBook and 4Q numbers are very preliminary). The dollar amount is only 5% away from 2020's total, while the number of partnerships trails by 22%; both will exceed 2020 when final tallies are concluded. 4Q21 had final closes totaling \$162 billion, up 5% from 3Q. The number of funds totaled 479, down 6%.

**Buyouts** ► New buyout investments for 2021 totaled 12,410, up 32% from 2020. Dollar volume increased 52% to \$797 billion. 4Q saw 3,022 new investments, a 1% decrease from 3Q, and dollar volume fell 20% to \$204 billion.

**VC Investments** ► The year produced 45,665 rounds of new investment in venture capital (VC) companies, up 13% from 2020. Announced volume of \$710 billion was up a stunning 99%. 4Q saw 10,196 new rounds, an 11% decline from 3Q, and dollar volume rose 11% to \$204 billion.

**Exits** ► Last year also saw 3,001 buyout-backed private M&A exits, up 31% from 2020, with proceeds of \$692 billion, up 66%. 4Q had 755 private exits, down 3% from 3Q, with proceeds of \$188 billion, down 11%. The year's 427 buyout-backed IPOs rose 150% from 2020, with proceeds of \$132 billion, up 76%. 4Q IPOs numbered 112, unchanged from 3Q, but proceeds of \$27 billion declined 16%.

Venture-backed M&A exits for the year totaled 3,080, up 40% from 2020. Announced dollar volume of \$218 billion was up 63%. The final quarter had 739 exits, down 10% from 3Q, and value of \$48 billion, down 24%. The year's 636 venture-backed IPOs rose 49% from 2020, with proceeds of \$201 billion, up 179%. There were 162 in 4Q, a 16% jump from 3Q, and the \$39 billion of proceeds rose 18%.

## Funds Closed 1/1/21 to 12/31/21

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	1,536	230,022	28%
Growth Equity	176	103,648	13%
Buyouts	463	354,739	44%
Mezzanine Debt	20	14,163	2%
Distressed	32	48,573	6%
Energy	5	2,129	0%
Secondary and Other	99	52,651	6%
Fund-of-Funds	37	8,691	1%
<b>Totals</b>	<b>2,368</b>	<b>814,616</b>	<b>100%</b>

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

## Private Equity Performance (%) (Pooled Horizon IRRs through 9/30/21\*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	7.2	76.0	36.3	27.5	20.6	15.6	11.5	23.8
Growth Equity	4.4	52.3	29.0	24.3	18.1	15.6	14.7	16.4
All Buyouts	4.4	42.8	21.8	20.2	16.1	12.6	14.2	13.7
Mezzanine	3.0	22.2	11.8	12.4	12.2	11.0	10.5	10.4
Credit Opportunities	2.1	21.7	7.0	8.8	9.9	9.0	9.9	9.9
Control Distressed	7.2	42.6	16.6	14.3	13.5	10.8	11.7	11.9
<b>All Private Equity</b>	<b>5.1</b>	<b>49.8</b>	<b>24.8</b>	<b>21.4</b>	<b>16.7</b>	<b>13.3</b>	<b>13.2</b>	<b>14.8</b>
S&P 500	0.6	30.0	16.0	16.9	16.6	10.4	9.5	9.7
Russell 3000	-0.1	31.9	16.0	16.9	16.6	10.4	9.8	9.7

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

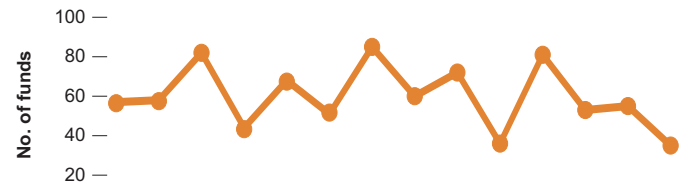
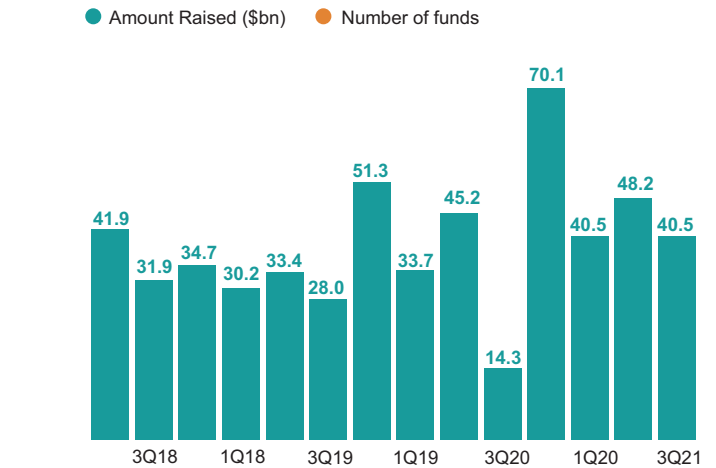
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

# Strong Demand Due to Focus on Yield/Income

PRIVATE CREDIT | Catherine Beard

- The yield and income-generating characteristics of private credit remain attractive in a low-rate environment.
- In addition, many direct lending assets employ a floating rate, which can add protection against rising rates.
- Direct lending pricing is back to pre-COVID levels; portfolios were resilient during the COVID dislocation due to liquidity injected into the U.S. economy.
- That liquidity has also limited U.S. corporate stress and has muted the corporate distressed opportunity set.
- Opportunities within private credit include those that offer diversification through differentiated collateral and/or low correlation to public markets, including specialty finance, asset-backed lending, and niche areas (life science lending and intellectual property).
- Private credit performance varies across sub-asset class and underlying return drivers. On average, the asset class has generated net IRRs of 8% to 10% for trailing periods ended Dec. 31, 2020. Higher-risk strategies performed better than lower-risk strategies.
- Private credit fundraising tapered off in 3Q20 due to COVID-related disruption; it significantly rebounded in 4Q20 and the first half of 2021.
- There was strong fundraising activity in 2021 for senior debt and mezzanine capital, with a ramp-up in specialty finance, asset-backed lending, and venture debt.
- There has also been continued strong PC fundraising activity from large credit shops as well as new offerings from traditional fixed income managers.
- Consolidation is ramping up, with large traditional firms acquiring alternative credit managers, such as T. Rowe Price buying Oak Hill Advisors.

## Private Credit Fundraising (\$bn)



Source: Preqin

# Hedge Funds Ended the Year on a Positive Note

HEDGE FUNDS/MACs | Joe McGuane

The fourth quarter saw a resurgence of COVID as the highly transmissible Omicron variant produced another wave of infections around the world, disrupting the positive momentum markets had experienced up to that point. Supply chain constraints continued, as service sectors were impacted by the new variant, and rising input prices persisted throughout the quarter. Further exacerbating markets were the hawkish comments made by Fed Chair Powell, opening the door to more aggressive tapering and rate increases next year. The confluence of a spike in COVID and the Fed now worried about curbing high inflation called into question the strength of economic growth moving forward. Investors grew concerned as they reassessed the probability of tighter monetary policy.

Despite increased market volatility during the final two months of the year, the S&P 500 (+11%) ended the quarter positive, with investors showing no sign of distress. This

## Hedge Fund Style Group Returns



Sources: Callan, Credit Suisse, Federal Reserve

## Callan Peer Group Median and Index Returns\* for Periods Ended 12/31/21

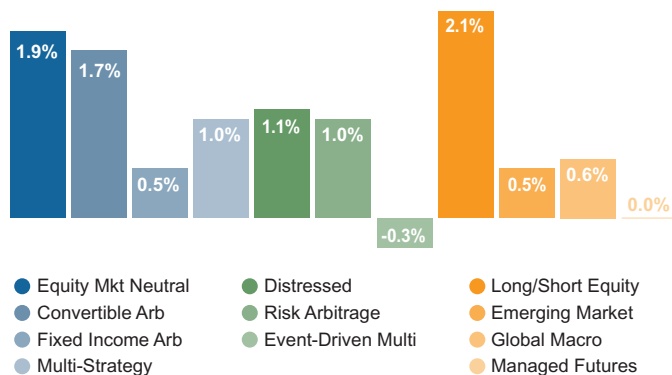
Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	0.6	9.3	6.4	5.4	6.1	7.0
Callan Fund-of-Funds Peer Group	-0.6	5.2	8.9	5.9	5.7	4.8
Callan Absolute Return FOF Style	-0.7	5.6	7.1	4.8	4.7	3.9
Callan Core Diversified FOF Style	0.1	6.2	8.5	5.7	5.5	4.4
Callan Long/Short Equity FOF Style	-2.2	3.3	12.6	8.3	7.1	5.5
BB GS Cross Asset Risk Premia 6% Vol Idx	-2.7	-0.5	1.4	1.9	3.7	5.2
Credit Suisse Hedge Fund	0.9	8.2	8.0	5.5	4.9	4.3
CS Convertible Arbitrage	1.7	6.3	8.2	5.4	4.6	4.3
CS Distressed	1.1	12.5	5.8	4.6	5.3	4.2
CS Emerging Markets	0.5	5.2	10.2	7.1	6.0	4.8
CS Equity Market Neutral	1.9	6.2	3.1	2.5	1.8	-1.2
CS Event-Driven Multi	-0.3	13.9	10.7	6.4	5.2	4.6
CS Fixed Income Arb	0.5	5.2	5.0	4.5	4.6	3.8
CS Global Macro	0.6	9.6	8.8	5.6	4.4	5.8
CS Long/Short Equity	2.1	8.4	9.4	7.2	6.7	5.1
CS Managed Futures	0.0	8.2	6.3	3.0	1.8	2.8
CS Multi-Strategy	1.0	7.0	6.6	5.1	6.2	5.2
CS Risk Arbitrage	1.0	5.3	8.6	6.3	4.4	4.3
HFRI Asset Wtd Composite	1.3	7.5	5.7	4.6	4.6	--
90-Day T-Bill + 5%	1.2	5.1	6.0	6.1	5.6	5.9

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

equity market surge was aided by strength in U.S. mega caps, while riskier equities underperformed in December, particularly within areas of technology such as software, fintech, and electric vehicles, all of which cooled off dramatically. U.S. small cap equities underperformed large cap due to worries around future growth. The Bloomberg High Yield Index ended the quarter higher (+0.7%), as the U.S. yield curve flattened throughout the quarter, driven by concerns for future growth amid expected tightening policies from central banks.

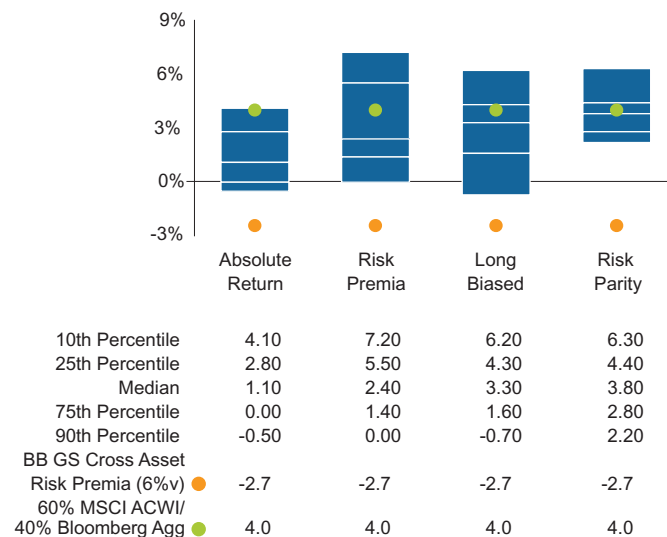
Representing hedge funds reporting performance without implementation costs, the HFRI Fund Weighted Composite

### Credit Suisse Hedge Fund Strategy Returns



Source: Credit Suisse

### MAC Style Group Returns



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

Index gained 0.4% in 4Q. Within the HFRI indices, the best-performing strategy was Event Driven (+1.5%), as an abundance of corporate activity created alpha opportunities. Equity hedge ended higher (+0.8%), when value positioning paid off. Macro strategies had a difficult quarter (-0.5%), after interest rate volatility went against some manager positions.

Across the Callan Hedge FOF Database, the median Absolute Return FOF lost 0.7%. With exposures to non-directional and directional styles, the Core Diversified FOF rose 0.7%. Long/Short Equity FOF was negative at 2.2%, after a difficult December where growth equities sold off aggressively. Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median Callan Institutional Hedge Fund Peer Group added 0.6%.

Since the Global Financial Crisis, liquid alternatives to hedge funds have become popular for their attractive risk-adjusted returns uncorrelated with stock and bond investments but offered at a lower cost. Much of that interest is focused on rules-based, long-short strategies that isolate risk premia such as value, momentum, and carry. These alternative risk premia are often embedded in hedge funds as well as other actively managed investment products.

In 4Q, the Bloomberg GSAM Risk Premia Index decreased 2.7% based upon a 6% volatility target. Within the underlying styles of the index, Equity Low Risk L/S (+5.9%) and Equity Trend (+1.6%) ended the quarter in positive territory as growth sold off relative to value in December. Equity Momentum (-4.8%) and FX Carry (-3.0%) had a difficult quarter as market volatility was elevated throughout the final month of the year.

The median managers of the Callan Multi-Asset Class (MAC) Style Groups generated gains gross of fees. The Callan Risk Premia MAC rose 2.4% based on its exposures to uncorrelated style premia targeting 5% to 15% portfolio volatility. The Callan Risk Parity MAC, which typically targets an equal risk-weighted allocation to the major asset classes with leverage, was up 3.8%. As the most conservative MAC style focused on non-directional strategies of long and short asset class exposures, the Callan Absolute Return MAC gained 1.1%.



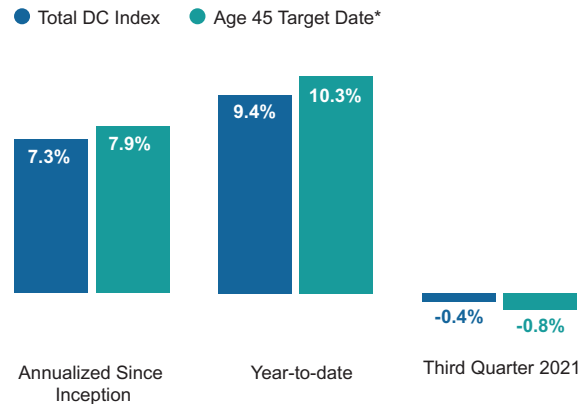
# Index Declines Slightly in 3Q21, First Time Since 1Q20

DEFINED CONTRIBUTION | Patrick Wisdom

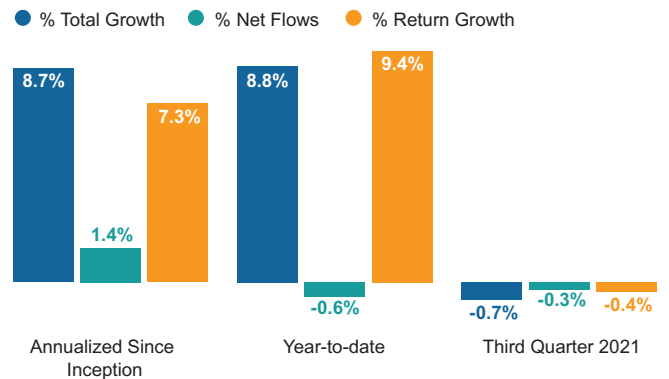
- The Callan DC Index™ fell 0.4% in 3Q21, the first decline since the pandemic-induced 15.0% 1Q20 plunge.
- The Age 45 Target Date Fund (analogous to the 2040 vintage) had a slightly lower return (-0.8%), attributable to its higher allocation to equity, which underperformed fixed income during the quarter.
- Balances within the DC Index declined by 0.7%. Investment returns (-0.4%) and net flows (-0.3%) both contributed to the lower aggregate balances.
- For the third straight quarter, target date funds received the largest net inflows, at 75.6% for the quarter.
- In a reversal from 2Q21, investors transferred assets into money market funds (13.1%). U.S. fixed income (-2.4%) had net outflows, albeit to a much smaller degree than the previous quarter (-17.7%).
- U.S. equity saw material net outflows, as U.S. large cap (-54.2%) and U.S. small/mid cap (-21.8%) drained assets. Global ex-U.S. equity (-1.0%) had smaller net outflows.
- Real return/TIPS also had larger-than-typical net inflows (4.8%), perhaps an indication that more participants are looking to hedge potential inflation.
- Turnover (i.e., net transfer activity levels within DC plans) decreased in 3Q to 0.19% from 2Q's measure of 0.37%.
- The Index's overall allocation to equity (72.23%) increased by 3 basis points.
- In a reversal from the previous quarter, U.S. small/mid cap (8.3%) had the largest percentage decrease in allocation.
- Company stock (2.5%) had the largest percentage increase in allocation.
- For plans with more than \$1 billion in assets, the average asset-weighted investment management fee decreased by 1 basis point. Plans with assets between \$500 million and \$1 billion also saw a fee decrease of 1 basis point, while the fee for plans with assets less than \$500 million had the largest decrease of 3 basis points.

*The Callan DC Index is an equally weighted index tracking the cash flows and performance of over 100 plans, representing nearly \$300 billion in assets. The Index is updated quarterly and is available on Callan's website.*

## Investment Performance



## Growth Sources



## Net Cash Flow Analysis (3Q21)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	75.56%
Money Market	13.14%
U.S. Small/Mid Cap	-21.76%
U.S. Large Cap	-54.20%
<b>Total Turnover**</b>	<b>0.19%</b>

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.

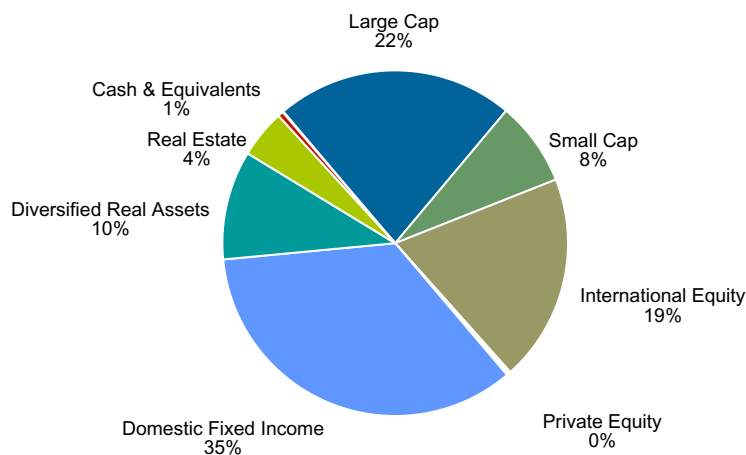




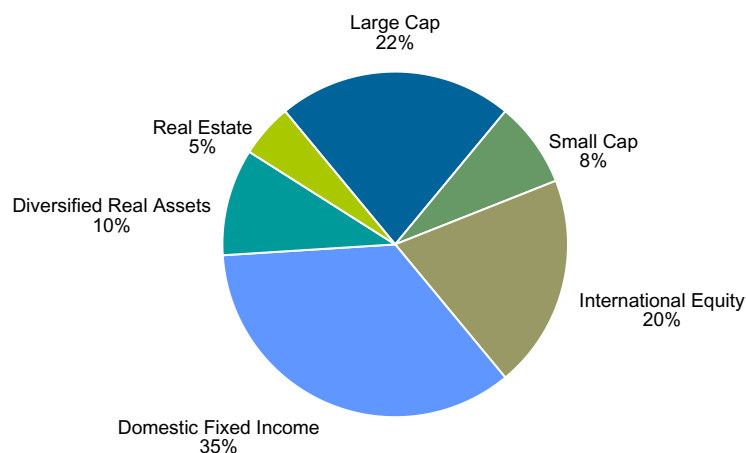
## Actual vs Target Asset Allocation As of December 31, 2021

The first chart below shows the Fund's asset allocation as of December 31, 2021. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

**Actual Asset Allocation**



**Target Asset Allocation**



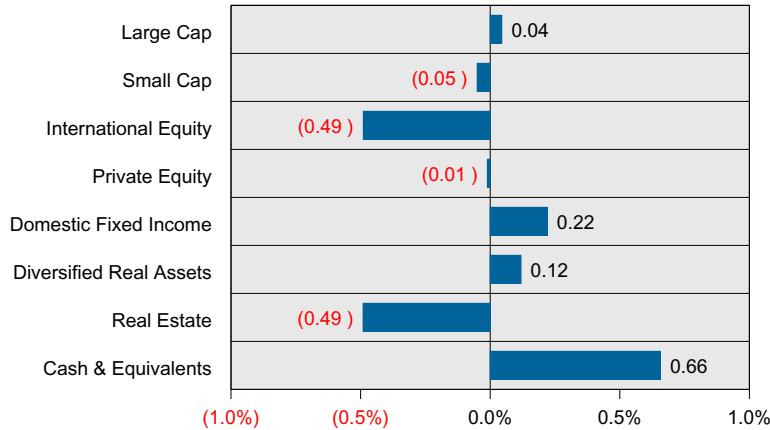
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	1,953,503	22.3%	22.0%	0.3%	30,184
Small Cap	692,765	7.9%	8.0%	(0.1%)	(6,624)
International Equity	1,697,366	19.4%	20.0%	(0.6%)	(51,105)
Private Equity	33,327	0.4%	0.0%	0.4%	33,327
Domestic Fixed Income	3,034,661	34.7%	35.0%	(0.3%)	(25,164)
Diversified Real Assets	891,311	10.2%	10.0%	0.2%	17,075
Real Estate	391,454	4.5%	5.0%	(0.5%)	(45,663)
Cash & Equivalents	47,970	0.5%	0.0%	0.5%	47,970
<b>Total</b>	<b>8,742,356</b>	<b>100.0%</b>	<b>100.0%</b>		

\* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI EAFE, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

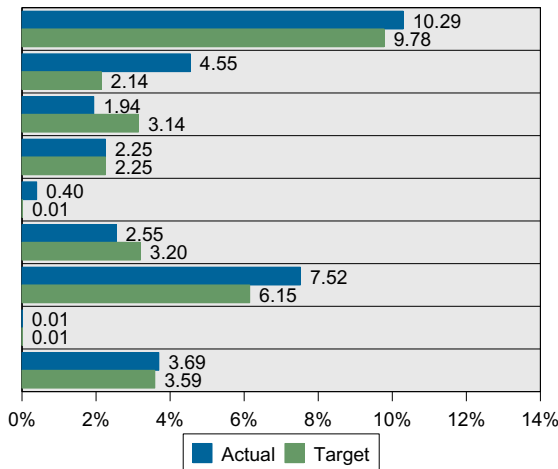
## Quarterly Total Fund Relative Attribution - December 31, 2021

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.

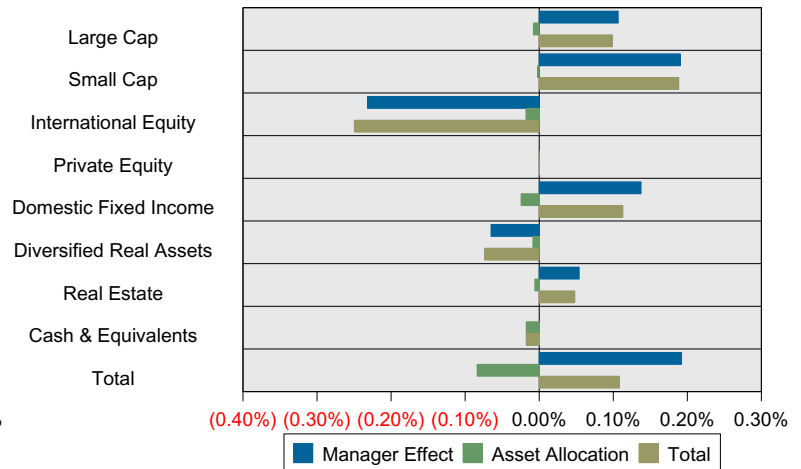
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended December 31, 2021

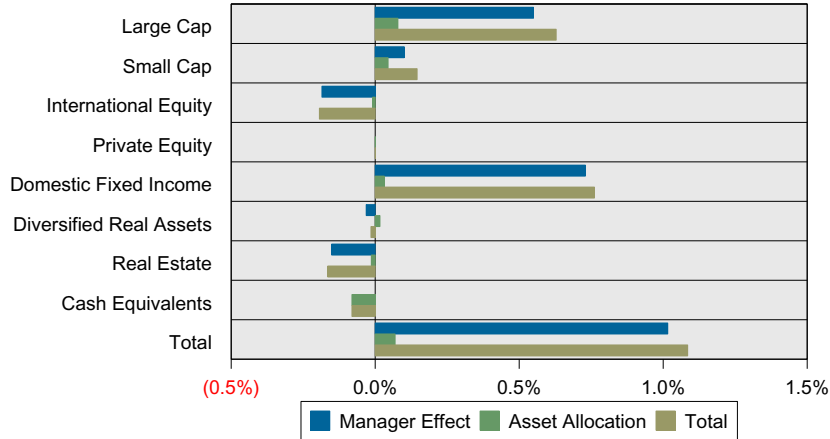
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	10.29%	9.78%	0.11%	(0.01%)	0.10%
Small Cap	8%	8%	4.55%	2.14%	0.19%	(0.00%)	0.19%
International Equity	19%	20%	1.94%	3.14%	(0.23%)	(0.02%)	(0.25%)
Private Equity	0%	0%	2.25%	2.25%	0.00%	0.00%	0.00%
Domestic Fixed Income	35%	35%	0.40%	0.01%	0.14%	(0.02%)	0.11%
Diversified Real Assets	10%	10%	2.55%	3.20%	(0.07%)	(0.01%)	(0.07%)
Real Estate	5%	5%	7.52%	6.15%	0.05%	(0.01%)	0.05%
Cash & Equivalents	1%	0%	0.01%	0.01%	0.00%	(0.02%)	(0.02%)
<b>Total</b>			<b>3.69%</b>	<b>3.59%</b>	<b>+ 0.19%</b>	<b>+ (0.08%)</b>	<b>0.11%</b>

\* Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.4% NDLEG-Private Equity.

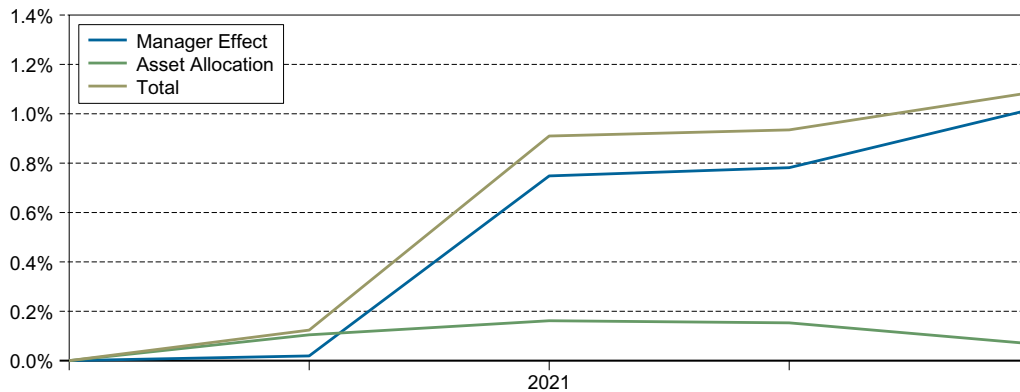
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

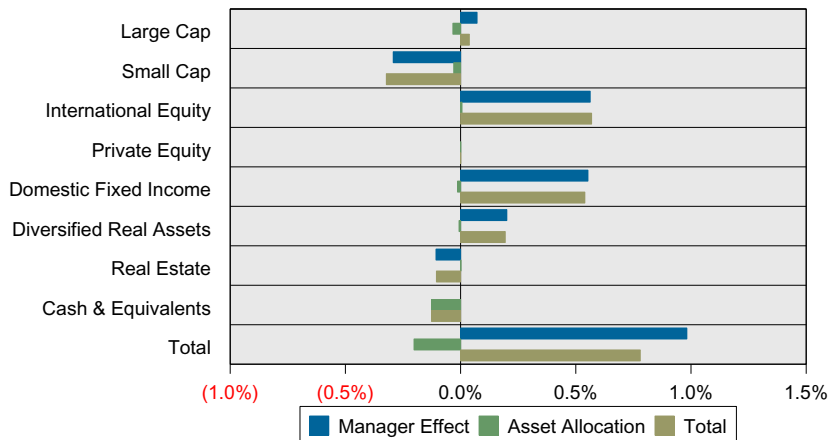
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	29.25%	26.46%	0.55%	0.08%	0.63%
Small Cap	8%	8%	16.70%	14.82%	0.10%	0.04%	0.15%
International Equity	20%	20%	11.59%	12.62%	(0.18%)	(0.01%)	(0.19%)
Private Equity	0%	0%	10.46%	10.46%	0.00%	0.00%	0.00%
Domestic Fixed Income	34%	35%	0.41%	(1.54%)	0.73%	0.03%	0.76%
Diversified Real Assets	10%	10%	8.62%	8.72%	(0.03%)	0.02%	(0.01%)
Real Estate	4%	5%	14.29%	17.70%	(0.15%)	(0.01%)	(0.16%)
Cash Equivalents	1%	0%	0.03%	0.03%	0.00%	(0.08%)	(0.08%)
<b>Total</b>			<b>11.54%</b>	<b>10.45%</b>	<b>+ 1.02%</b>	<b>+ 0.07%</b>	<b>1.08%</b>

\* Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.4% NDLEG-Private Equity.

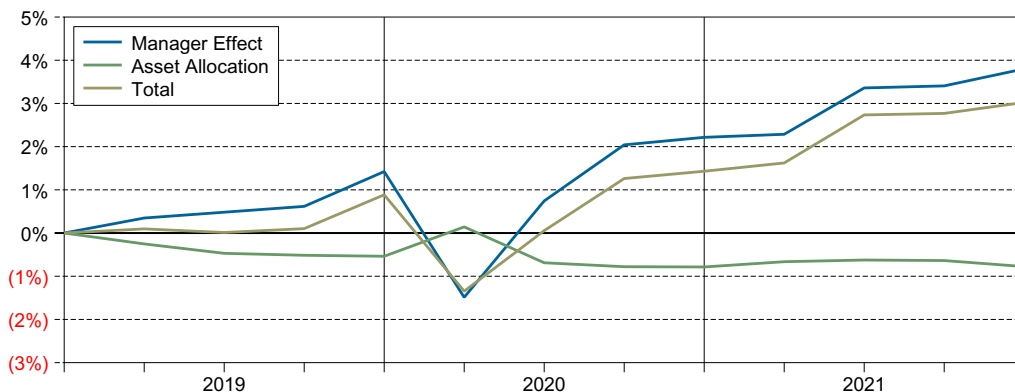
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The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of 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

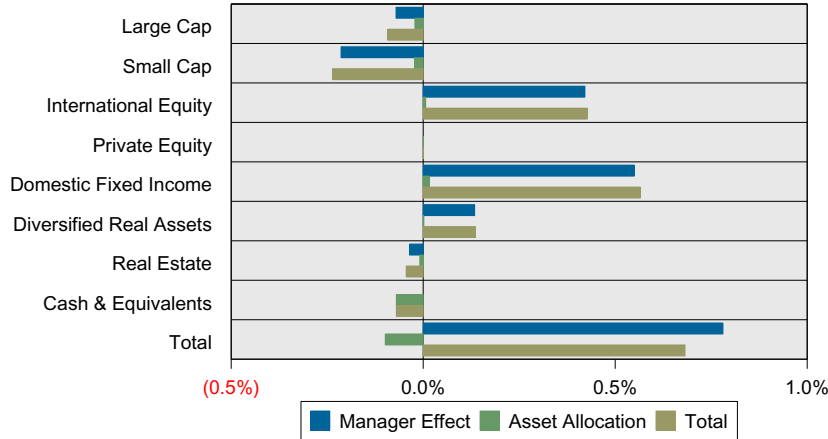
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	26.47%	26.21%	0.07%	(0.03%)	0.04%
Small Cap	8%	8%	16.68%	20.02%	(0.29%)	(0.03%)	(0.32%)
International Equity	20%	20%	16.85%	14.07%	0.56%	0.01%	0.57%
Private Equity	0%	0%	-	-	0.00%	0.00%	0.00%
Domestic Fixed Income	35%	35%	6.51%	4.79%	0.55%	(0.01%)	0.54%
Diversified Real Assets	10%	10%	9.79%	7.71%	0.20%	(0.01%)	0.19%
Real Estate	5%	5%	6.12%	8.37%	(0.11%)	0.00%	(0.10%)
Cash & Equivalents	1%	0%	0.85%	0.85%	0.00%	(0.13%)	(0.13%)
<b>Total</b>			<b>14.07%</b>	<b>13.29%</b>	<b>+ 0.98%</b>	<b>+ (0.20%)</b>	<b>0.78%</b>

\* Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.4% NDLEG-Private Equity.

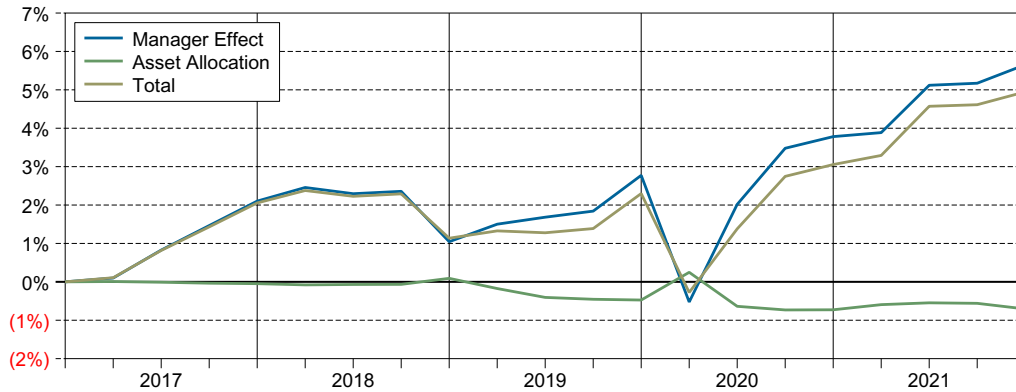
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

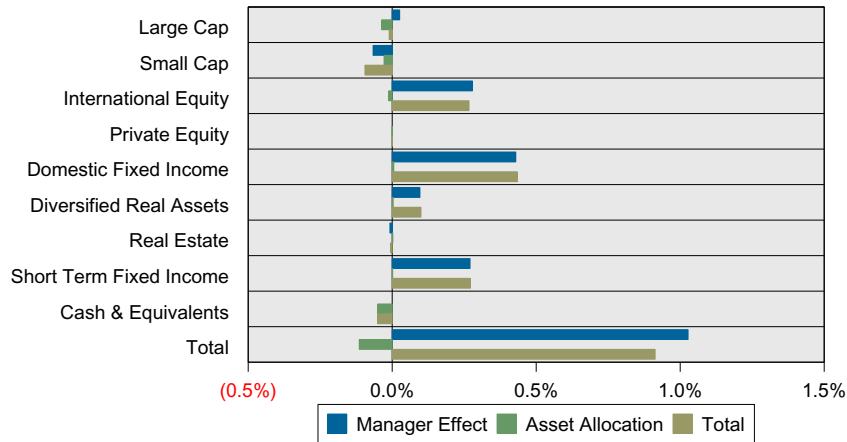
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	18.03%	18.43%	(0.07%)	(0.02%)	(0.09%)
Small Cap	8%	8%	9.60%	12.02%	(0.21%)	(0.02%)	(0.24%)
International Equity	20%	20%	11.66%	9.63%	0.42%	0.01%	0.43%
Private Equity	0%	0%	-	-	0.00%	0.00%	0.00%
Domestic Fixed Income	35%	35%	5.25%	3.57%	0.55%	0.02%	0.57%
Diversified Real Assets	10%	10%	7.13%	5.71%	0.13%	0.00%	0.14%
Real Estate	5%	5%	6.85%	7.75%	(0.04%)	(0.01%)	(0.04%)
Cash & Equivalents	1%	0%	1.01%	1.01%	0.00%	(0.07%)	(0.07%)
<b>Total</b>			<b>10.10%</b>	<b>9.42%</b>	<b>+ 0.78%</b>	<b>+ (0.10%)</b>	<b>0.68%</b>

\* Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.4% NDLEG-Private Equity.

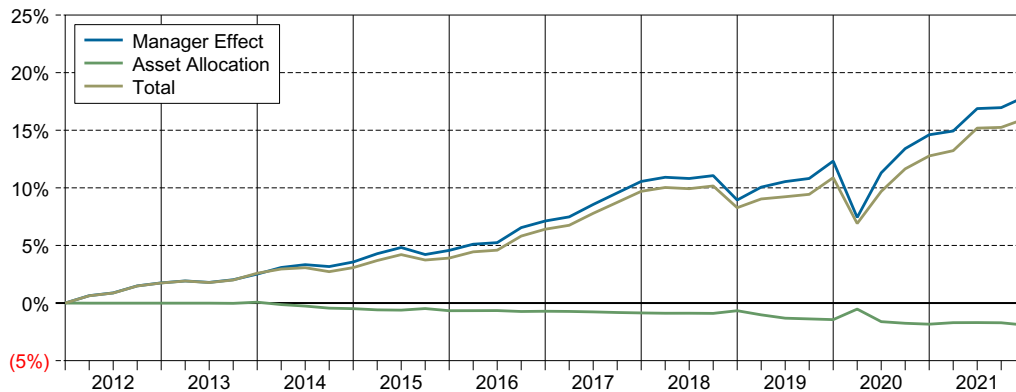
## Cumulative Total Fund Relative Attribution - December 31, 2021

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.

### Ten Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Ten Year Annualized Relative Attribution Effects

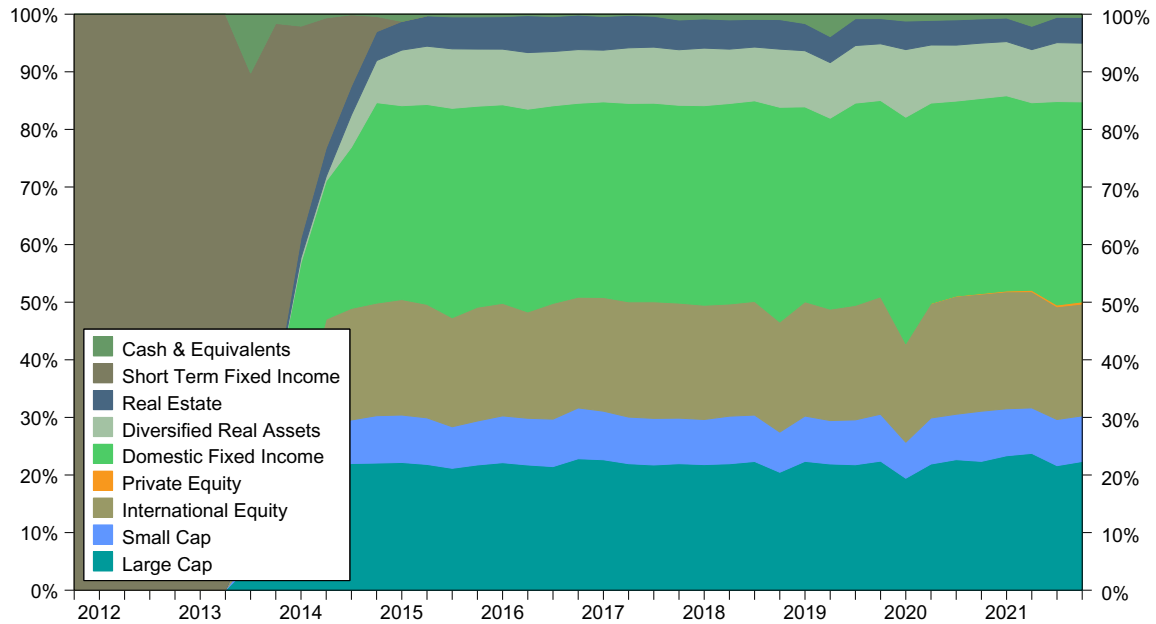
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	17%	17%	-	-	0.03%	(0.04%)	(0.01%)
Small Cap	6%	6%	-	-	(0.07%)	(0.03%)	(0.09%)
International Equity	16%	16%	-	-	0.28%	(0.01%)	0.27%
Private Equity	0%	0%	-	-	0.00%	0.00%	0.00%
Domestic Fixed Income	27%	27%	-	-	0.43%	0.01%	0.43%
Diversified Real Assets	7%	7%	-	-	0.10%	0.00%	0.10%
Real Estate	4%	4%	-	-	(0.01%)	0.00%	(0.01%)
Short Term Fixed Income	22%	22%	-	-	0.27%	0.00%	0.27%
Cash & Equivalents	1%	0%	0.57%	0.57%	0.00%	(0.05%)	(0.05%)
<b>Total</b>			<b>6.88%</b>	<b>5.97%</b>	<b>+ 1.03%</b>	<b>+ (0.11%)</b>	<b>0.91%</b>

\* Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.4% NDLEG-Private Equity.

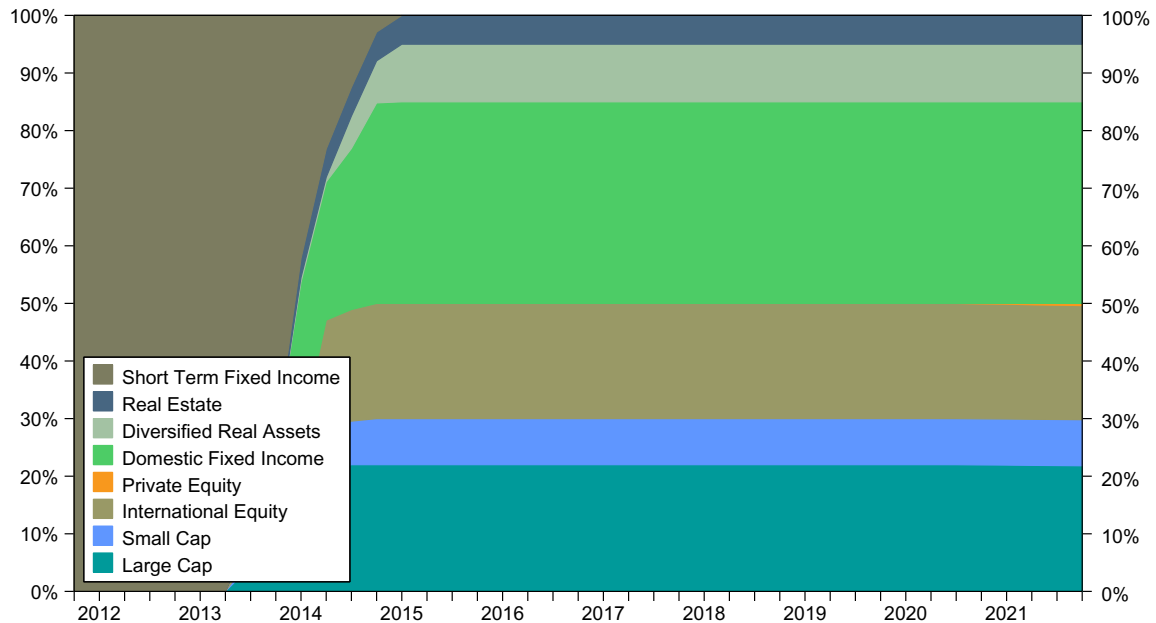
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

### Actual Historical Asset Allocation



### Target Historical Asset Allocation



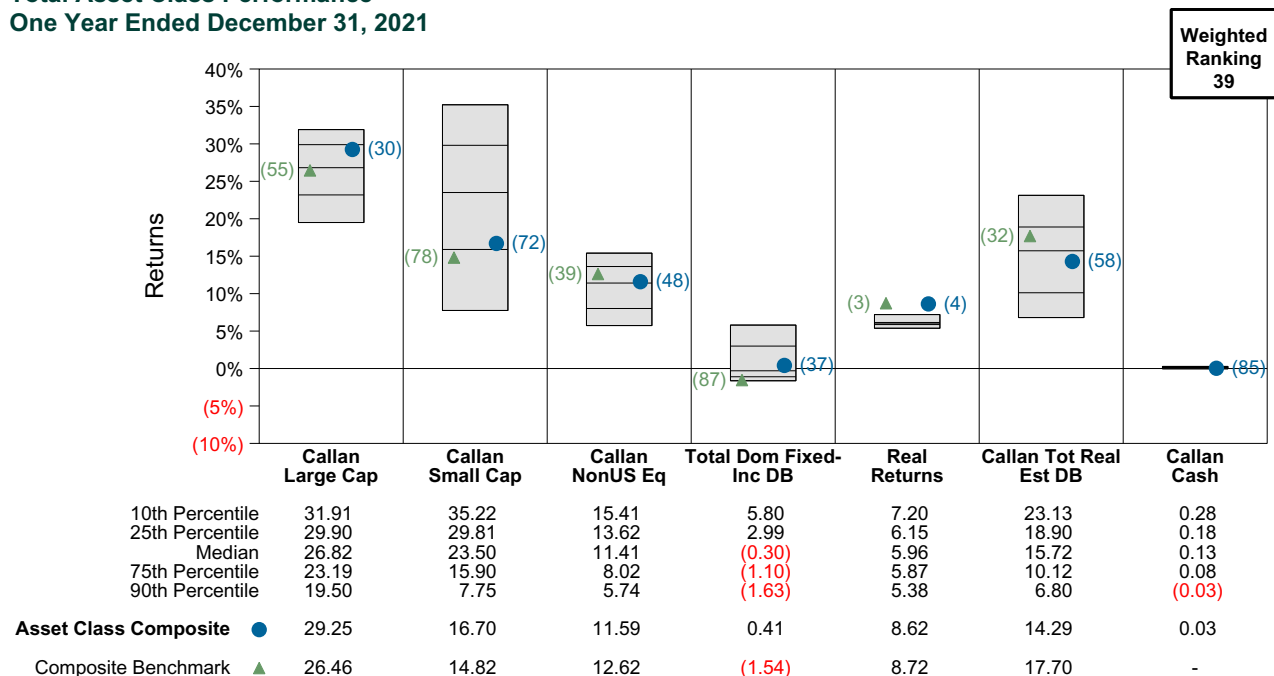
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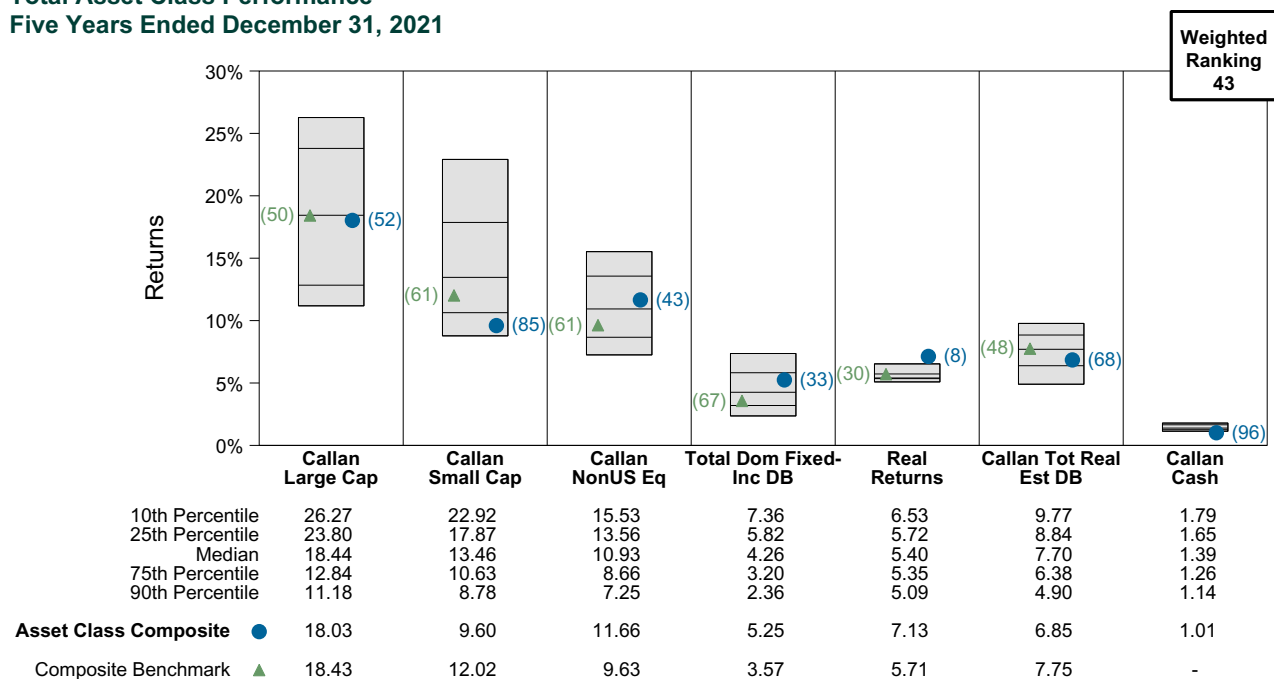
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended December 31, 2021



### Total Asset Class Performance Five Years Ended December 31, 2021



\* Current Quarter Target = 35.0% Bimbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.4% NDLEG-Private Equity.

## Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2021, with the distribution as of September 30, 2021. 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 Class Allocation

	December 31, 2021			Inv. Return	September 30, 2021	
	Market Value	Weight	Net New Inv.		Market Value	Weight
<b>Global Equity</b>	<b>\$4,376,960,246</b>	<b>50.07%</b>	<b>\$29,070,718</b>	<b>\$247,199,094</b>	<b>\$4,100,690,434</b>	<b>49.52%</b>
<b>Domestic Equity</b>	<b>\$2,646,267,549</b>	<b>30.27%</b>	<b>\$(21,836,729)</b>	<b>\$213,902,231</b>	<b>\$2,454,202,048</b>	<b>29.63%</b>
<b>Large Cap</b>	<b>\$1,953,502,684</b>	<b>22.35%</b>	<b>\$(20,766,178)</b>	<b>\$183,682,386</b>	<b>\$1,790,586,476</b>	<b>21.62%</b>
L.A. Capital Enhanced	402,650,191	4.61%	(113,452)	39,309,773	363,453,870	4.39%
L.A. Capital Large Cap Growth	606,659,312	6.94%	(20,289,639)	71,781,222	555,167,729	6.70%
Parametric Large Cap	395,136,762	4.52%	0	38,155,663	356,981,099	4.31%
LSV Large Cap Value	549,056,419	6.28%	(363,087)	34,435,728	514,983,778	6.22%
<b>Small Cap</b>	<b>\$692,764,865</b>	<b>7.92%</b>	<b>\$(1,070,551)</b>	<b>\$30,219,844</b>	<b>\$663,615,572</b>	<b>8.01%</b>
Atlanta Capital	242,485,687	2.77%	(324,821)	24,670,875	218,139,632	2.63%
Riverbridge Small Cap Growth	224,845,184	2.57%	(432,069)	(11,856,473)	237,133,726	2.86%
Sycamore Small Cap Value	225,433,994	2.58%	(313,661)	17,405,442	208,342,213	2.52%
<b>International Equity</b>	<b>\$1,697,365,914</b>	<b>19.42%</b>	<b>\$43,789,836</b>	<b>\$32,718,730</b>	<b>\$1,620,857,348</b>	<b>19.57%</b>
DFA Intl SmallCap Value	170,119,771	1.95%	10,000,000	3,007,829	157,111,942	1.90%
LSV Intl Value	578,438,488	6.62%	(554,098)	8,099,652	570,892,935	6.89%
Vanguard Intl Explorer Fund	173,230,176	1.98%	10,000,000	590,198	162,639,978	1.96%
William Blair	775,577,478	8.87%	24,343,934	21,021,051	730,212,493	8.82%
<b>Private Equity</b>	<b>\$33,326,783</b>	<b>0.38%</b>	<b>\$7,117,611</b>	<b>\$578,134</b>	<b>\$25,631,038</b>	<b>0.31%</b>
50 South Capital	2,863,424	0.03%	1,080,000	(170,696)	1,954,120	0.02%
Sixth Street TAO	30,463,359	0.35%	6,037,611	748,830	23,676,918	0.29%
<b>Domestic Fixed Income</b>	<b>\$3,034,660,719</b>	<b>34.71%</b>	<b>\$97,674,163</b>	<b>\$11,801,155</b>	<b>\$2,925,185,401</b>	<b>35.32%</b>
Ares ND Credit Strategies Fd	102,980,463	1.18%	4,024,590	2,274,657	96,681,216	1.17%
BND CDs	44,535,111	0.51%	(1,646,340)	290,768	45,890,683	0.55%
Cerberus ND Private Credit Fd	130,180,915	1.49%	12,600,000	2,598,411	114,982,504	1.39%
Declaration Total Return	230,159,281	2.63%	(151,025)	(653,250)	230,963,556	2.79%
PIMCO Bravo II	6,095,834	0.07%	(345,587)	259,759	6,181,662	0.07%
PIMCO DiSCO II	55,030,898	0.63%	0	434,996	54,595,902	0.66%
Prudential	902,805,054	10.33%	28,549,346	3,814,929	870,440,779	10.51%
SSgA US Govt Credit Bd Idx	425,142,218	4.86%	19,985,015	701,504	404,455,698	4.88%
Wells Capital	237,991,600	2.72%	7,890,353	1,196,841	228,904,407	2.76%
Western Asset Management	899,739,345	10.29%	26,767,810	882,541	872,088,994	10.53%
<b>Global Real Assets</b>	<b>\$1,282,765,371</b>	<b>14.67%</b>	<b>\$22,056,084</b>	<b>\$48,981,175</b>	<b>\$1,211,728,112</b>	<b>14.63%</b>
<b>Real Estate</b>	<b>\$391,454,460</b>	<b>4.48%</b>	<b>\$(474,759)</b>	<b>\$27,404,708</b>	<b>\$364,524,511</b>	<b>4.40%</b>
Invesco Core Real Estate	199,412,904	2.28%	(162,348)	14,028,570	185,546,682	2.24%
JP Morgan RE Inc & Growth	192,041,556	2.20%	(312,411)	13,376,139	178,977,829	2.16%
<b>Diversified</b>	<b>\$891,310,911</b>	<b>10.20%</b>	<b>\$22,530,843</b>	<b>\$21,576,467</b>	<b>\$847,203,602</b>	<b>10.23%</b>
Western Asset TIPS	514,050,057	5.88%	(14,140,051)	12,853,009	515,337,098	6.22%
ISQ Global Infrastructure II	67,800,964	0.78%	0	2,407,779	65,393,185	0.79%
ISQ Global Infrastructure III	7,069,336	0.08%	7,069,336	0	-	-
JP Morgan Infrastructure	105,323,010	1.20%	(3,038,835)	308,712	108,053,133	1.30%
Grosvenor Cust. Infrastructure	57,668,583	0.66%	(3,636,311)	869,792	60,435,102	0.73%
Grosvenor Cust. Infrastructure III	10,500,000	0.12%	10,500,000	0	-	-
Macquarie Infrastructure Fund IV	75,323,879	0.86%	(41,704)	2,169,213	73,196,370	0.88%
Macquarie Infrastructure Fund V	53,575,082	0.61%	25,818,407	2,967,962	24,788,713	0.30%
<b>Cash</b>	<b>\$47,969,866</b>	<b>0.55%</b>	<b>\$3,967,538</b>	<b>\$3,519</b>	<b>\$43,998,810</b>	<b>0.53%</b>
Northern Trust Cash Account	28,589,186	0.33%	2,321,198	217	26,267,772	0.32%
Bank of ND	19,380,680	0.22%	1,646,340	3,302	17,731,038	0.21%
<b>Total Fund</b>	<b>\$8,742,356,202</b>	<b>100.0%</b>	<b>\$152,768,502</b>	<b>\$307,984,943</b>	<b>\$8,281,602,757</b>	<b>100.0%</b>

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Equity</b>					
Gross	5.99%	20.07%	21.05%	-	-
Net	5.92%	19.68%	20.73%	-	-
Weighted Benchmark	5.85%	18.99%	20.36%	-	-
<b>Domestic Equity</b>					
Gross	8.74%	25.91%	23.86%	15.76%	-
Net	8.66%	25.48%	23.56%	15.52%	-
Weighted Benchmark	7.69%	23.36%	24.67%	-	-
<b>Large Cap</b>					
Gross	10.29%	29.25%	26.47%	18.03%	-
Net	10.25%	28.93%	26.24%	17.82%	-
Russell 1000 Index	9.78%	26.45%	26.21%	18.43%	16.54%
L.A. Capital Enhanced - Gross	10.82%	29.09%	26.84%	18.09%	-
L.A. Capital Enhanced - Net	10.78%	28.93%	26.69%	17.94%	-
Russell 1000 Index	9.78%	26.45%	26.21%	18.43%	16.54%
L.A. Capital LargeCap Growth - Gross	13.02%	31.52%	34.33%	24.22%	-
L.A. Capital LargeCap Growth - Net	12.97%	31.26%	34.07%	23.97%	-
Russell 1000 Growth Index	11.64%	27.60%	34.08%	25.32%	19.79%
Parametric Clifton Large Cap - Gross	10.69%	28.43%	26.46%	18.48%	-
Parametric Clifton Large Cap - Net	10.69%	27.84%	26.34%	18.43%	-
S&P 500 Index	11.03%	28.71%	26.07%	18.47%	16.55%
LSV Large Cap Value - Gross	6.69%	28.56%	17.30%	10.88%	-
LSV Large Cap Value - Net	6.62%	28.21%	16.98%	10.57%	-
Russell 1000 Value Index	7.77%	25.16%	17.64%	11.16%	12.97%
<b>Small Cap</b>					
Gross	4.55%	16.70%	16.68%	9.60%	-
Net	4.39%	16.01%	16.20%	9.27%	-
Russell 2000 Index	2.14%	14.82%	20.02%	12.02%	13.23%
Atlanta Capital - Gross	11.31%	20.30%	-	-	-
Atlanta Capital - Net	11.16%	19.61%	-	-	-
S&P 600 Small Cap Index	5.64%	26.82%	20.11%	12.42%	14.50%
Riverbridge Small Cap Growth - Gross	(5.02%)	4.59%	-	-	-
Riverbridge Small Cap Growth - Net	(5.18%)	3.91%	-	-	-
Russell 2000 Growth Index	0.01%	2.83%	21.17%	14.53%	14.14%
Sycamore Small Cap Value - Gross	8.35%	26.40%	-	-	-
Sycamore Small Cap Value - Net	8.20%	25.69%	-	-	-
Russell 2000 Value Index	4.36%	28.27%	17.99%	9.07%	12.03%
<b>International Equity</b>					
Gross	1.94%	11.59%	16.85%	11.66%	-
Net	1.86%	11.29%	16.51%	11.33%	-
Benchmark(1)	3.14%	12.62%	14.07%	9.63%	8.10%
DFA Intl Small Cap Value	1.96%	15.89%	12.23%	6.77%	-
World ex US SC Va	0.72%	13.27%	12.59%	8.30%	8.85%
LSV Intl Value - Gross	1.42%	12.36%	9.69%	6.62%	-
LSV Intl Value - Net	1.32%	11.93%	9.27%	6.22%	-
MSCI EAFE Index	2.69%	11.26%	13.54%	9.55%	8.03%
Vanguard Intl Explorer Fund	0.08%	9.55%	15.40%	10.42%	-
BMI, EPAC, <\$2 B	(1.67%)	8.50%	13.66%	9.37%	9.52%
William Blair - Gross	2.75%	10.77%	23.91%	17.24%	-
William Blair - Net	2.66%	10.38%	23.47%	16.81%	-
MSCI ACWI ex US IMI	1.64%	8.53%	13.62%	9.83%	7.57%
<b>Private Equity</b>					
Net	2.25%	10.46%	-	-	-
50 South Capital - Net	(8.74%)	-	-	-	-
Sixth Street TAO - Net	3.08%	13.50%	-	-	-
Benchmark(2)	0.77%	5.24%	-	-	-

(1) MSCI EAFE through 6/30/2016 and MSCI World ex-US thereafter.

(2) 50% S&P/LSTA Leveraged Loan B and 50% Blmbg HY Corp 2% Issue.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Domestic Fixed Income</b>					
Gross	0.40%	0.41%	6.51%	5.25%	-
Net	0.37%	0.31%	6.39%	5.13%	-
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
Ares ND Credit Strategies Fd - Net	2.35%	12.08%	7.85%	-	-
Cerberus ND Private Credit Fd - Net	2.18%	11.08%	9.48%	-	-
S&P/LSTA Leveraged Loan B	0.85%	5.22%	5.98%	4.59%	5.02%
BND CDs - Net	0.65%	2.72%	2.90%	2.91%	-
Declaration Total Return - Net	(0.28%)	2.45%	5.10%	4.73%	-
Libor-3 Month	0.04%	0.16%	1.05%	1.35%	0.88%
PIMCO Bravo II - Net(1)	4.20%	33.16%	3.51%	5.55%	-
PIMCO DiSCO II - Net (1)	0.80%	6.33%	6.08%	7.81%	-
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
Prudential - Gross	0.43%	(1.08%)	6.61%	5.35%	-
Prudential - Net	0.38%	(1.27%)	6.38%	5.13%	-
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
Wells Capital - Gross	0.51%	1.51%	10.17%	7.09%	-
Wells Capital - Net	0.47%	1.32%	9.97%	6.90%	-
Blmbg Credit Baa	0.33%	(0.40%)	8.27%	5.77%	5.08%
Western Asset - Gross	0.10%	(1.19%)	5.88%	4.66%	-
Western Asset - Net	0.08%	(1.29%)	5.76%	4.54%	-
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
SSgA US Govt Credit Bd Idx - Gross	0.16%	(1.71%)	5.60%	4.06%	-
SSgA US Govt Credit Bd Idx - Net	0.16%	(1.72%)	5.58%	4.04%	-
Blmbg Govt/Credit Bd	0.18%	(1.75%)	5.50%	3.99%	3.13%

(1) Prior to 7/1/2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning 7/1/2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Real Assets</b>					
Gross	4.04%	10.32%	8.59%	-	-
Net	3.98%	10.04%	8.29%	-	-
Weighted Benchmark	4.17%	11.65%	7.94%	-	-
<b>Real Estate</b>					
Gross	7.52%	14.29%	6.12%	6.85%	-
Net	7.40%	13.79%	5.62%	6.33%	-
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
Invesco Core Real Estate - Gross	7.56%	16.28%	7.03%	7.30%	-
Invesco Core Real Estate - Net	7.47%	15.90%	6.68%	6.96%	-
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
JP Morgan RE Inc & Growth - Gross	7.47%	12.31%	5.21%	6.39%	-
JP Morgan RE Inc & Growth - Net	7.33%	11.69%	4.58%	5.70%	-
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
<b>Diversified</b>					
Gross	2.55%	8.62%	9.79%	7.13%	-
Net	2.50%	8.43%	9.57%	6.91%	-
Weighted Benchmark	3.20%	8.72%	7.70%	5.71%	-
Western Asset TIPS - Gross	2.50%	5.90%	9.10%	5.96%	-
Western Asset TIPS - Net	2.47%	5.79%	8.98%	5.84%	-
Benchmark(3)	2.52%	6.00%	8.74%	6.19%	3.72%
JP Morgan Infrastructure - Gross	0.29%	8.51%	7.77%	8.31%	-
JP Morgan Infrastructure - Net	0.13%	7.68%	6.99%	7.56%	-
Grosvenor Cust. Infrastructure - Net	1.51%	17.74%	14.92%	11.73%	-
Benchmark(1)	4.14%	13.37%	5.82%	4.85%	2.99%
Macquarie Infrastructure Fd IV - Net	2.96%	13.12%	8.03%	-	-
Macquarie Infrastructure Fd V - Net	12.51%	(2.23%)	-	-	-
ISQ Global Infrastructure II - Net	3.68%	18.83%	18.09%	-	-
Benchmark(2)	4.14%	13.37%	5.82%	-	-
<b>Cash &amp; Equivalents - Net</b>					
NT Cash Account - Net	0.01%	0.03%	0.85%	1.01%	0.57%
Bank of ND - Net	0.00%	0.01%	-	-	-
90 Day Treasury Bills	0.02%	0.08%	-	-	-
	0.01%	0.05%	0.99%	1.14%	0.63%
<b>Total Fund</b>					
Gross	3.69%	11.54%	14.07%	10.10%	6.88%
Net	3.64%	11.28%	13.84%	9.87%	6.68%
Target*	3.59%	10.45%	13.29%	9.42%	5.97%

\* Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% NDSIB Legacy DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.4% NDLEG-Private Equity.

(1) CPI-W through 6/30/2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

(2) 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.

(3) Blmbg Global Inflation-Linked through 10/31/2018 and Blmbg US Govt Inflation Linked Bond Index thereafter.



# Domestic Equity

## Period Ended December 31, 2021

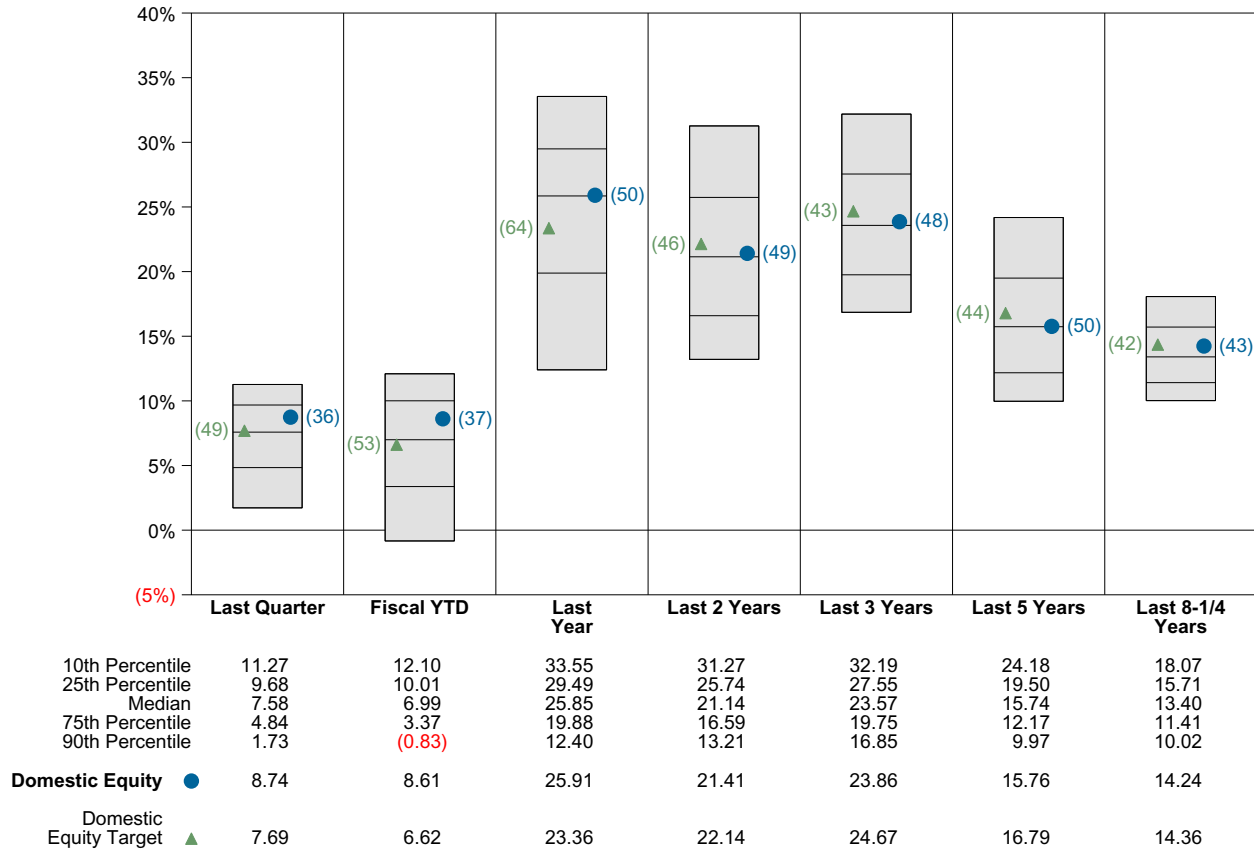
### Quarterly Summary and Highlights

- Domestic Equity's portfolio posted a 8.74% return for the quarter placing it in the 36 percentile of the Total Domestic Equity Database group for the quarter and in the 50 percentile for the last year.
- Domestic Equity's portfolio outperformed the Domestic Equity Target by 1.04% for the quarter and outperformed the Domestic Equity Target for the year by 2.55%.

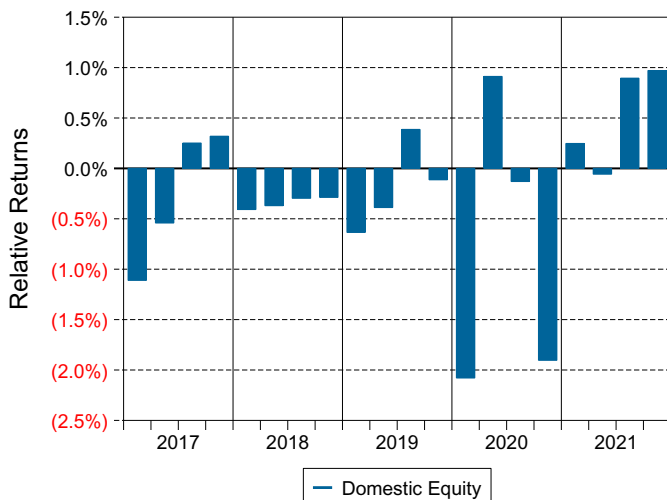
### Quarterly Asset Growth

Beginning Market Value	\$2,454,202,048
Net New Investment	\$-21,836,729
Investment Gains/(Losses)	\$213,902,231
Ending Market Value	\$2,646,267,549

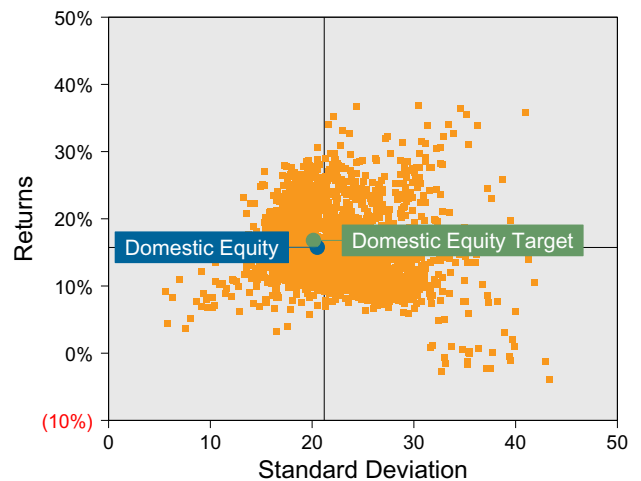
### Performance vs Total Domestic Equity Database (Gross)



### Relative Return vs Domestic Equity Target



### Total Domestic Equity Database (Gross) Annualized Five Year Risk vs Return



# Parametric Large Cap Period Ended December 31, 2021

## Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

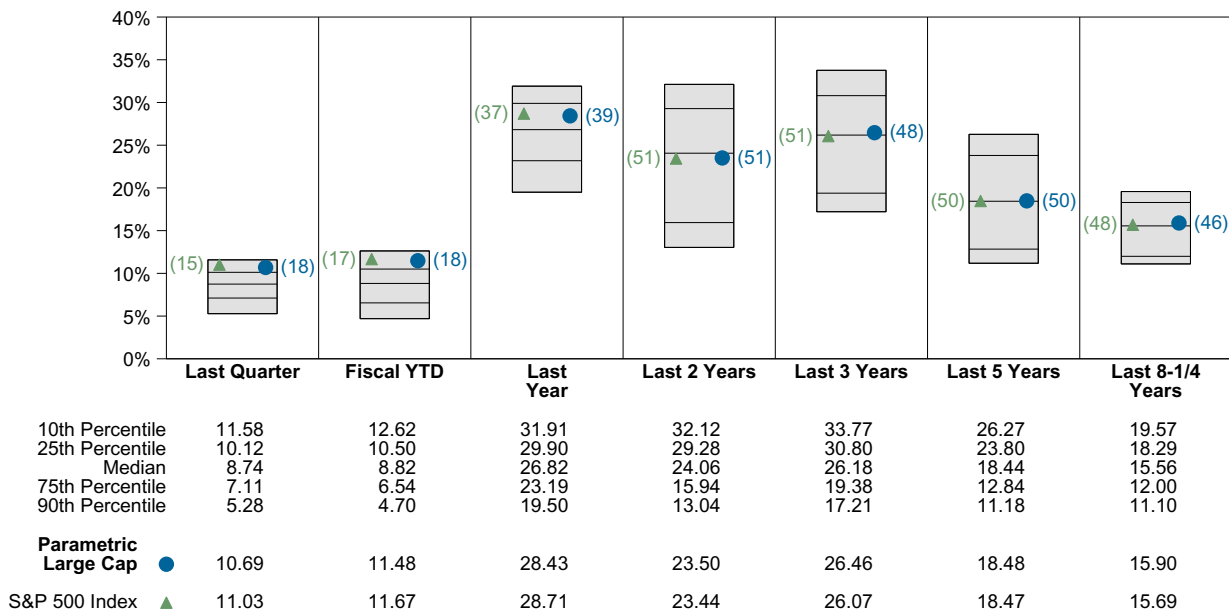
## Quarterly Summary and Highlights

- Parametric Large Cap's portfolio posted a 10.69% return for the quarter placing it in the 18 percentile of the Callan Large Capitalization group for the quarter and in the 39 percentile for the last year.
- Parametric Large Cap's portfolio underperformed the S&P 500 Index by 0.34% for the quarter and underperformed the S&P 500 Index for the year by 0.27%.

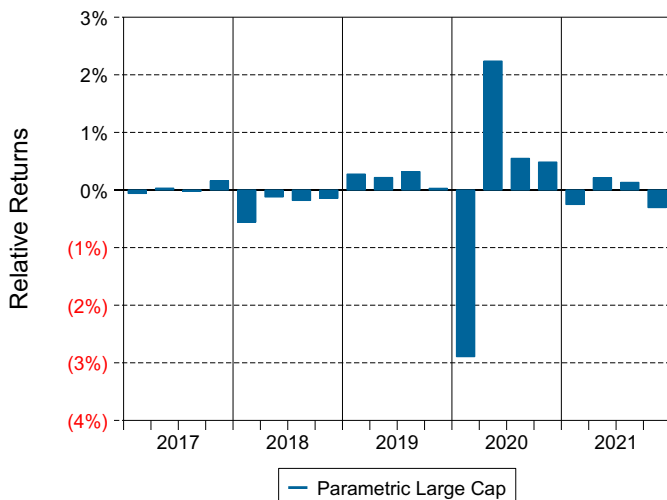
## Quarterly Asset Growth

Beginning Market Value	\$356,981,099
Net New Investment	\$0
Investment Gains/(Losses)	\$38,155,663
Ending Market Value	\$395,136,762

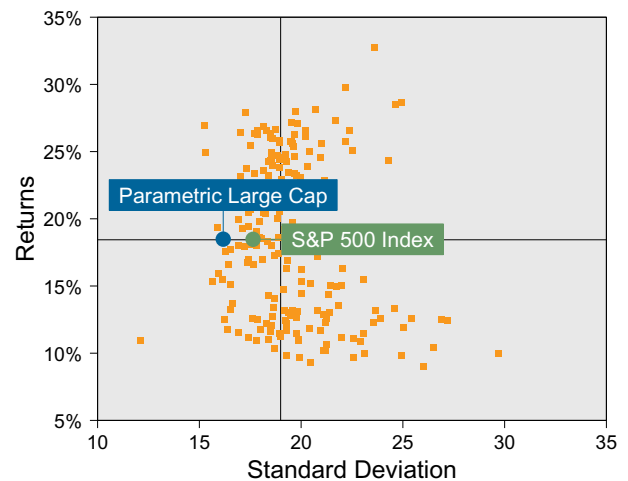
## Performance vs Callan Large Capitalization (Gross)



## Relative Return vs S&P 500 Index



## Callan Large Capitalization (Gross) Annualized Five Year Risk vs Return





# L.A. Capital Period Ended December 31, 2021

## Investment Philosophy

The LA Capital Structured portfolio is a large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that it targets a 2% alpha and constrains its risk budget (tracking error) to 4% relative to the benchmark. LA Capital believes that investment results are driven by Investor Preferences and thus recognize that when preferences shift a different posture related to that factor is warranted.

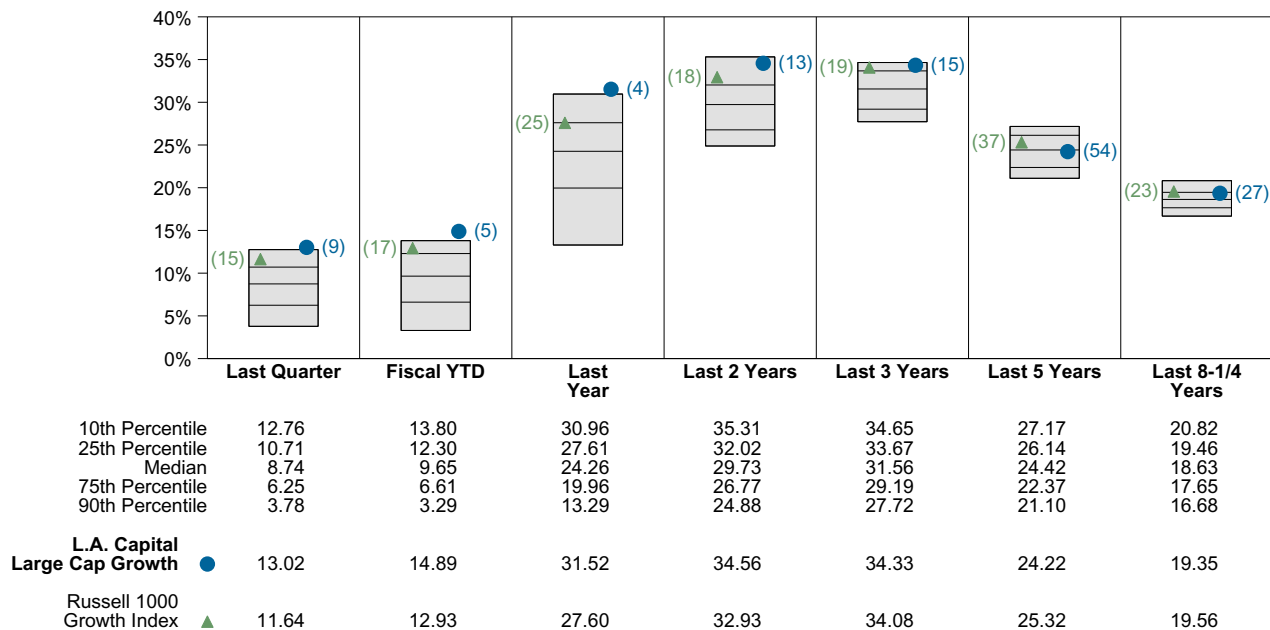
## Quarterly Summary and Highlights

- L.A. Capital Large Cap Growth's portfolio posted a 13.02% return for the quarter placing it in the 9 percentile of the Callan Large Cap Growth group for the quarter and in the 4 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio outperformed the Russell 1000 Growth Index by 1.38% for the quarter and outperformed the Russell 1000 Growth Index for the year by 3.93%.

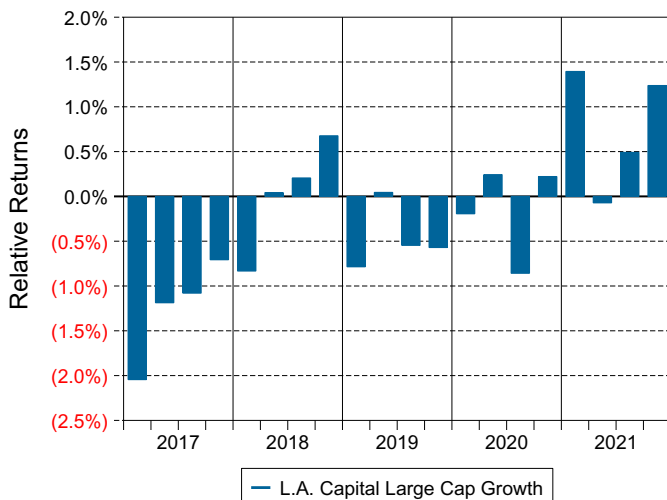
## Quarterly Asset Growth

Beginning Market Value	\$555,167,729
Net New Investment	\$-20,289,639
Investment Gains/(Losses)	\$71,781,222
Ending Market Value	\$606,659,312

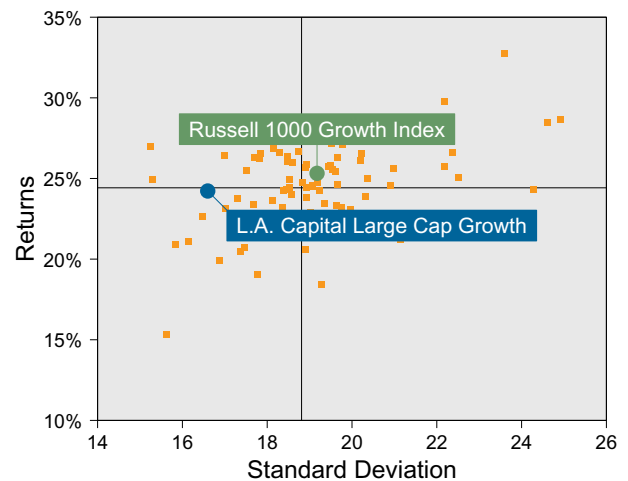
## Performance vs Callan Large Cap Growth (Gross)



## Relative Return vs Russell 1000 Growth Index



## Callan Large Cap Growth (Gross) Annualized Five Year Risk vs Return



# L.A. Capital Enhanced Period Ended December 31, 2021

## Investment Philosophy

The LA Capital Enhanced portfolio is a large core portfolio benchmarked to the Russell 1000 Index. Characterized as an enhanced index assignment, its objective is to track the benchmark with lower variability. The pension portfolio began in August of 2000 and the insurance portfolio was initiated in April of 2004. Since October of 2006 a small portion of each of the two core accounts was allocated into the Large Cap Alpha Fund with intent to add incremental alpha to the assignment given that the information ratio was expected to be higher.

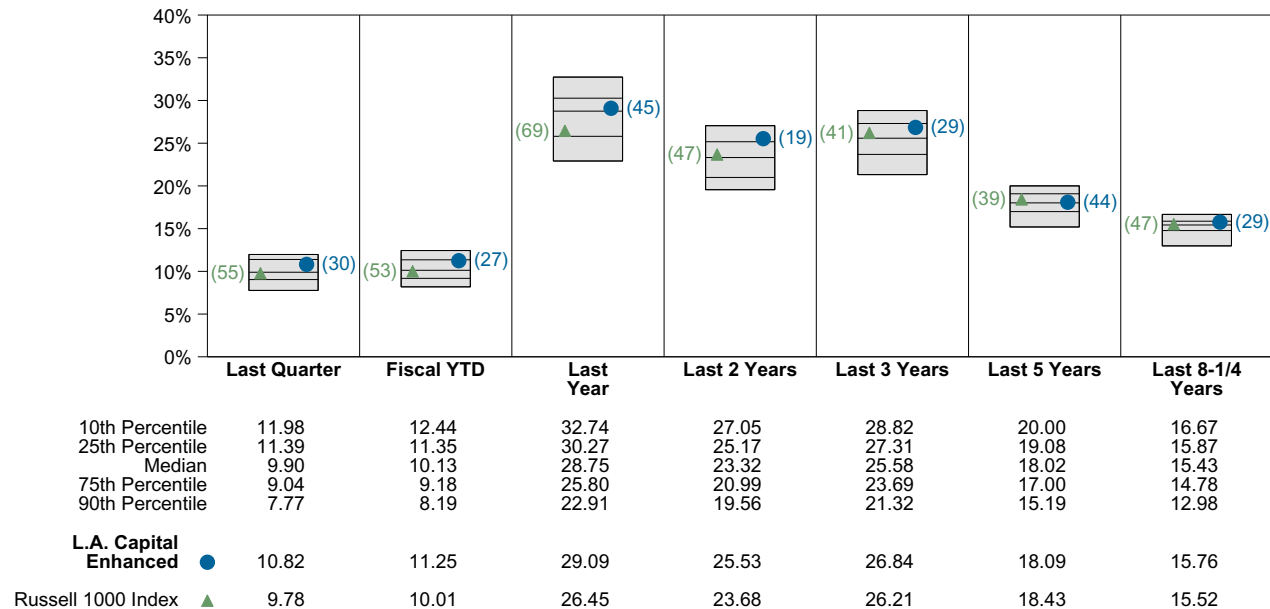
## Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a 10.82% return for the quarter placing it in the 30 percentile of the Callan Large Cap Core group for the quarter and in the 45 percentile for the last year.
- L.A. Capital Enhanced's portfolio outperformed the Russell 1000 Index by 1.04% for the quarter and outperformed the Russell 1000 Index for the year by 2.63%.

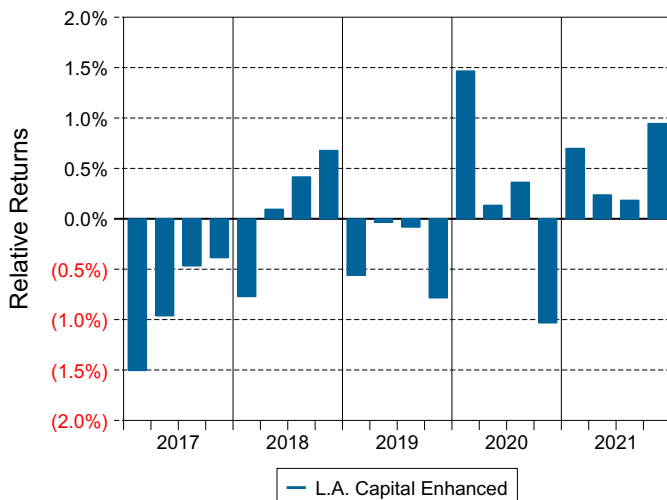
## Quarterly Asset Growth

Beginning Market Value	\$363,453,870
Net New Investment	\$-113,452
Investment Gains/(Losses)	\$39,309,773
Ending Market Value	\$402,650,191

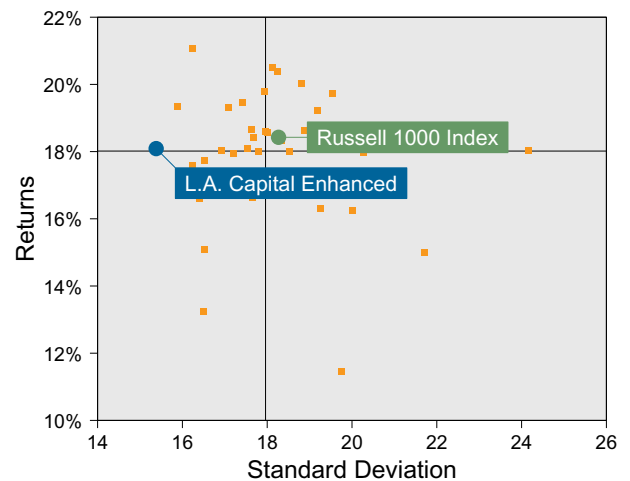
## Performance vs Callan Large Cap Core (Gross)



## Relative Return vs Russell 1000 Index



## Callan Large Cap Core (Gross) Annualized Five Year Risk vs Return



# LSV Asset Management

## Period Ended December 31, 2021

### Investment Philosophy

The objective of LSV Asset Management's Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested.

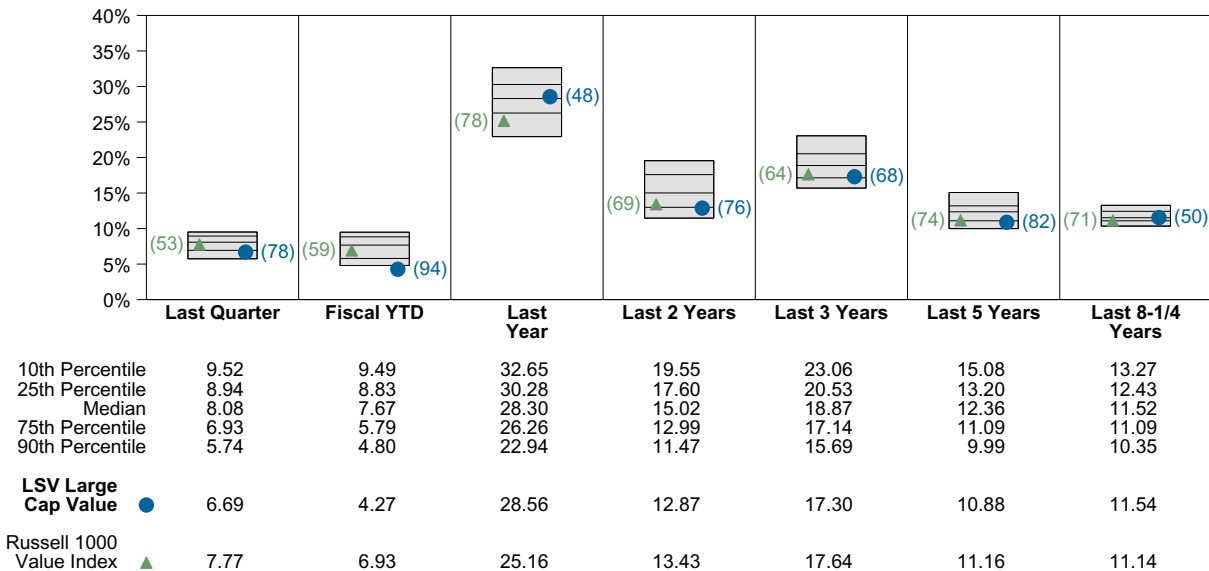
### Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a 6.69% return for the quarter placing it in the 78 percentile of the Callan Large Cap Value group for the quarter and in the 48 percentile for the last year.
- LSV Large Cap Value's portfolio underperformed the Russell 1000 Value Index by 1.08% for the quarter and outperformed the Russell 1000 Value Index for the year by 3.40%.

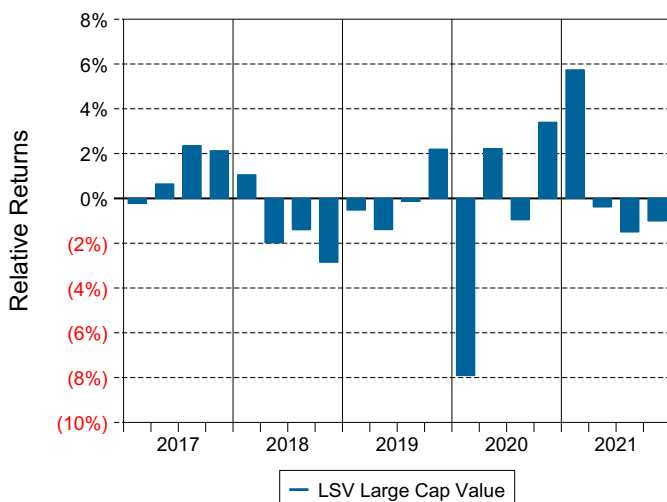
### Quarterly Asset Growth

Beginning Market Value	\$514,983,778
Net New Investment	\$-363,087
Investment Gains/(Losses)	\$34,435,728
Ending Market Value	\$549,056,419

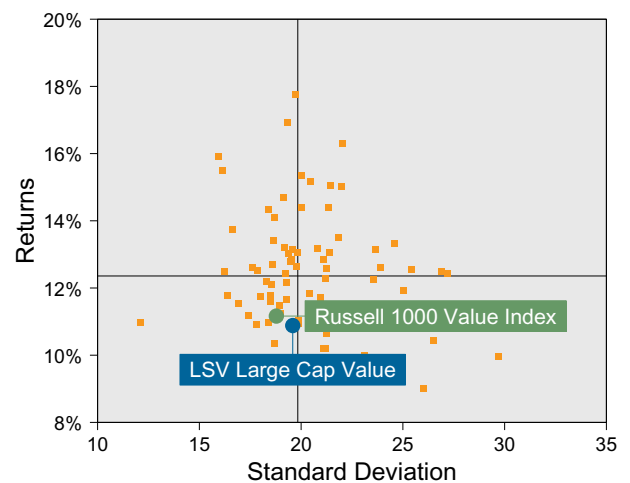
### Performance vs Callan Large Cap Value (Gross)



### Relative Return vs Russell 1000 Value Index



### Callan Large Cap Value (Gross) Annualized Five Year Risk vs Return



# Atlanta Capital Period Ended December 31, 2021

## Investment Philosophy

Atlanta Capital Managements approach with its small cap product is to focus on high quality companies with an overall portfolio risk exposure tied to the Russell 2000 Index. Key characteristics of this portfolio include: (1) stocks rated B+ or better by S&P, (2) equally weighting 75 stocks, (3) sector concentrations similar to that of the benchmark. A group of ten analysts is in charge of screening the Russell 2000 to identify companies they believe have strong price appreciation potential and good business fundamentals. These analysts present the ideas to the portfolio management team, led by Chip Reed, who makes the final decisions on the inclusion of stocks. In general, stocks are sold from the portfolio if the B+ or better financial rating is no longer met, there is an adverse change in the fundamental business, or because of regular portfolio maintenance to ensure broad diversification.

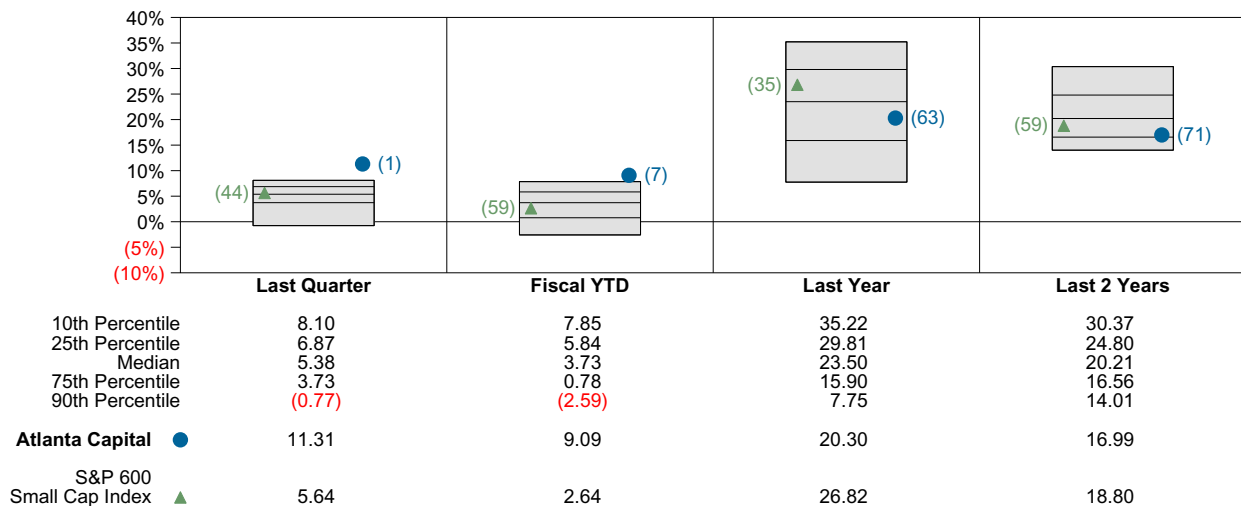
## Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a 11.31% return for the quarter placing it in the 1 percentile of the Callan Small Capitalization group for the quarter and in the 63 percentile for the last year.
- Atlanta Capital's portfolio outperformed the S&P 600 Small Cap Index by 5.67% for the quarter and underperformed the S&P 600 Small Cap Index for the year by 6.52%.

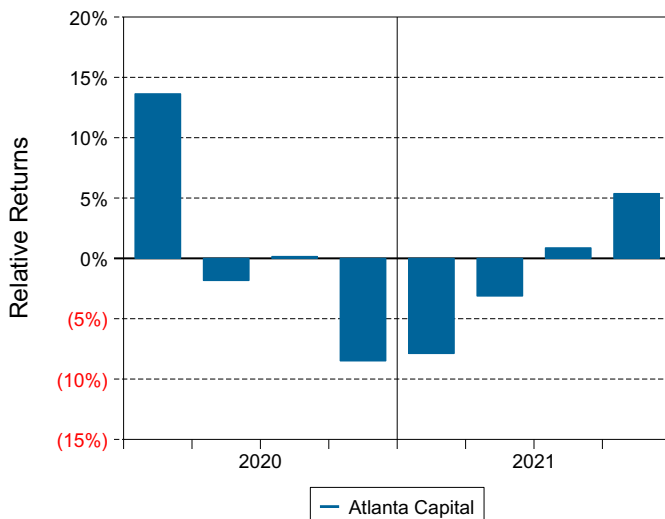
## Quarterly Asset Growth

Beginning Market Value	\$218,139,632
Net New Investment	\$-324,821
Investment Gains/(Losses)	\$24,670,875
Ending Market Value	\$242,485,687

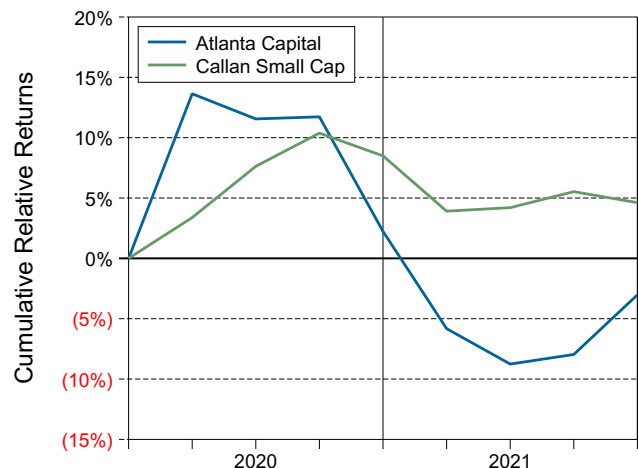
## Performance vs Callan Small Capitalization (Gross)



## Relative Return vs S&P 600 Small Cap Index



## Cumulative Returns vs S&P 600 Small Cap Index



# Riverbridge Small Cap Growth Period Ended December 31, 2021

## Investment Philosophy

Riverbridge believes earnings power determines the value of a franchise. They focus on companies that are building earnings power and intrinsic value of the company over long periods of time. They also look for high-quality growth companies that demonstrate the ability to sustain strong secular earnings growth, regardless of overall economic conditions.

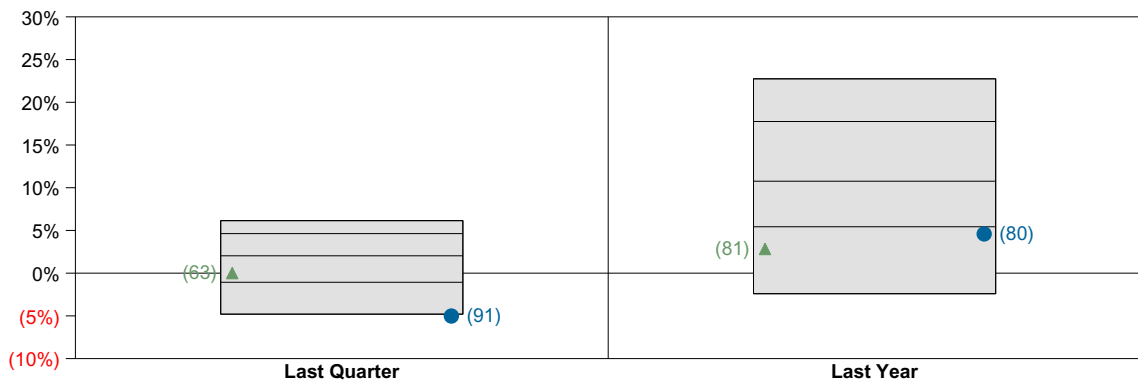
## Quarterly Summary and Highlights

- Riverbridge Small Cap Growth's portfolio posted a (5.02)% return for the quarter placing it in the 91 percentile of the Callan Small Cap Growth group for the quarter and in the 80 percentile for the last year.
- Riverbridge Small Cap Growth's portfolio underperformed the Russell 2000 Growth Index by 5.03% for the quarter and outperformed the Russell 2000 Growth Index for the year by 1.76%.

## Quarterly Asset Growth

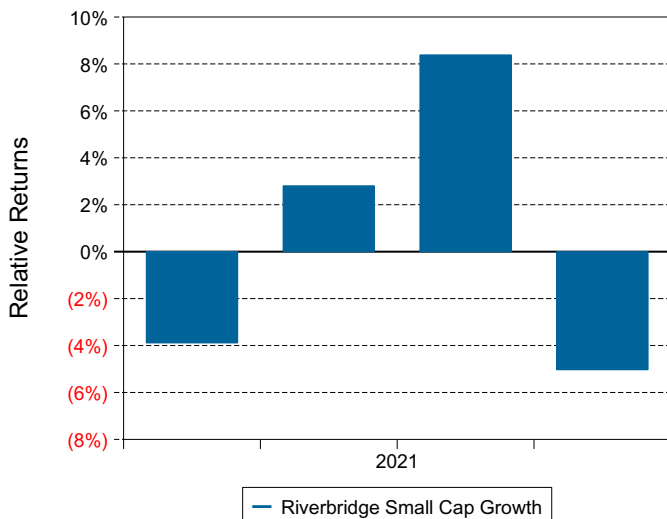
Beginning Market Value	\$237,133,726
Net New Investment	\$-432,069
Investment Gains/(Losses)	\$-11,856,473
Ending Market Value	\$224,845,184

## Performance vs Callan Small Cap Growth (Gross)

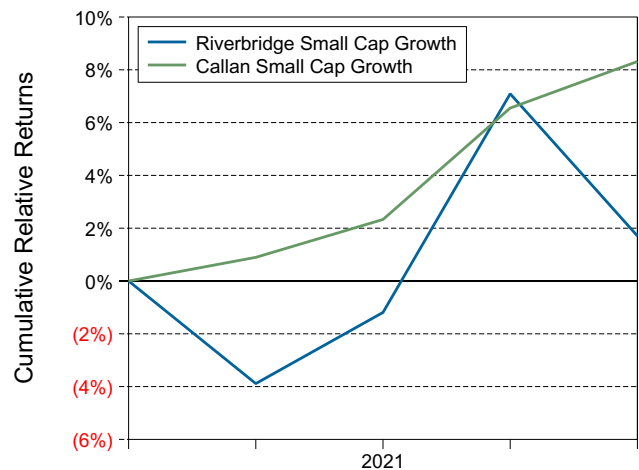


	Last Quarter	Last Year
10th Percentile	6.15	22.75
25th Percentile	4.63	17.75
Median	2.03	10.76
75th Percentile	(1.07)	5.43
90th Percentile	(4.80)	(2.41)
<b>Riverbridge Small Cap Growth</b>	<b>(5.02)</b>	<b>4.59</b>
Russell 2000 Growth Index	0.01	2.83

## Relative Return vs Russell 2000 Growth Index



## Cumulative Returns vs Russell 2000 Growth Index



# Sycamore Small Cap Value Period Ended December 31, 2021

## Investment Philosophy

The Victory Small Cap Value Equity investment approach focuses on companies with market capitalizations between \$100 million and \$2 billion that are believed offer above-average total return potential with limited risk. The Small Cap Value Equity investment process seeks to identify high quality, low expectation small cap companies that appear poised for continued or improved earnings. Portfolios typically hold 100-125 stocks with average annual portfolio turnover of 40%. The team will begin to sell when a company's market capitalization exceeds \$4 billion, however they focus on the weighted average market capitalization of the total portfolio and thus may retain exposure to some mid cap companies.

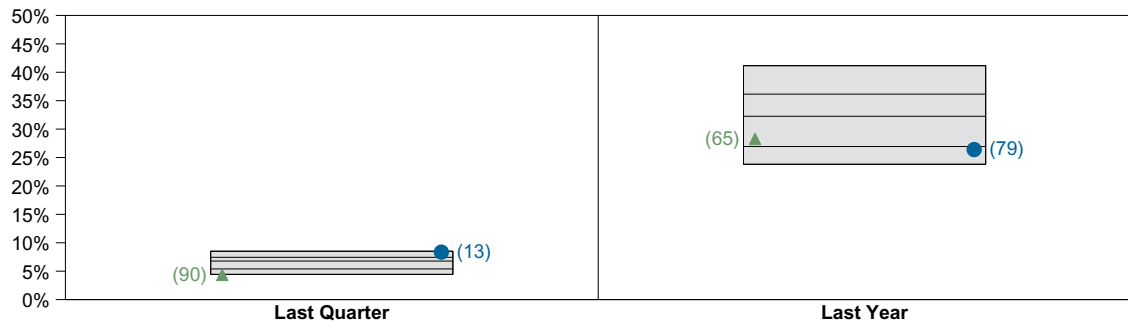
## Quarterly Summary and Highlights

- Sycamore Small Cap Value's portfolio posted a 8.35% return for the quarter placing it in the 13 percentile of the Callan Small Cap Value group for the quarter and in the 79 percentile for the last year.
- Sycamore Small Cap Value's portfolio outperformed the Russell 2000 Value Index by 4.00% for the quarter and underperformed the Russell 2000 Value Index for the year by 1.87%.

## Quarterly Asset Growth

Beginning Market Value	\$208,342,213
Net New Investment	\$-313,661
Investment Gains/(Losses)	\$17,405,442
Ending Market Value	\$225,433,994

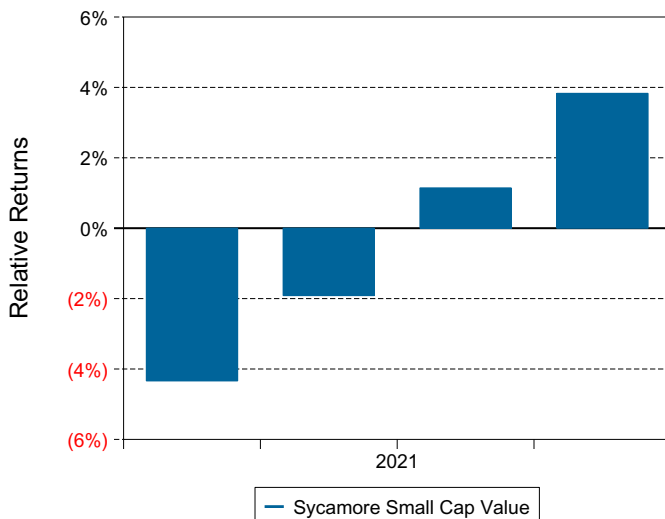
## Performance vs Callan Small Cap Value (Gross)



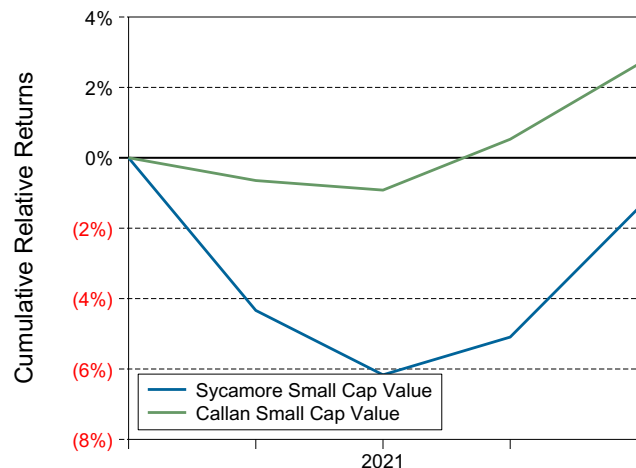
10th Percentile	8.51	41.16
25th Percentile	7.44	36.15
Median	6.78	32.26
75th Percentile	5.40	26.94
90th Percentile	4.44	23.81

<b>Sycamore Small Cap Value</b>	●	8.35	26.40
Russell 2000 Value Index	▲	4.36	28.27

## Relative Return vs Russell 2000 Value Index



## Cumulative Returns vs Russell 2000 Value Index





# International Equity

## Period Ended December 31, 2021

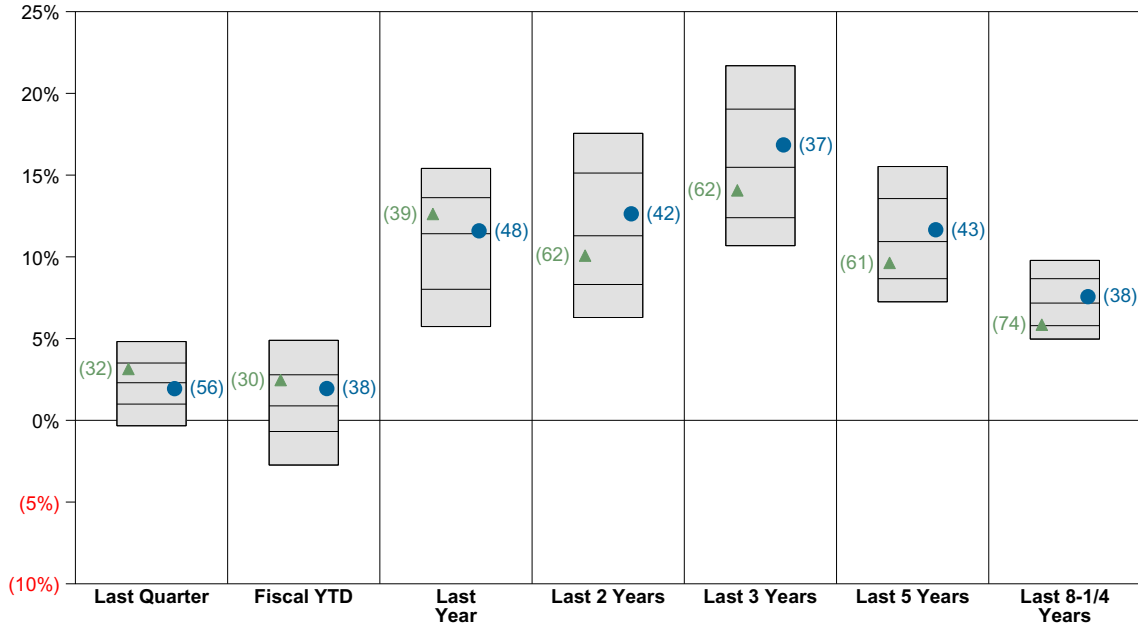
### Quarterly Summary and Highlights

- International Equity's portfolio posted a 1.94% return for the quarter placing it in the 56 percentile of the Callan Non-US Equity group for the quarter and in the 48 percentile for the last year.
- International Equity's portfolio underperformed the International Equity Target by 1.21% for the quarter and underperformed the International Equity Target for the year by 1.03%.

### Quarterly Asset Growth

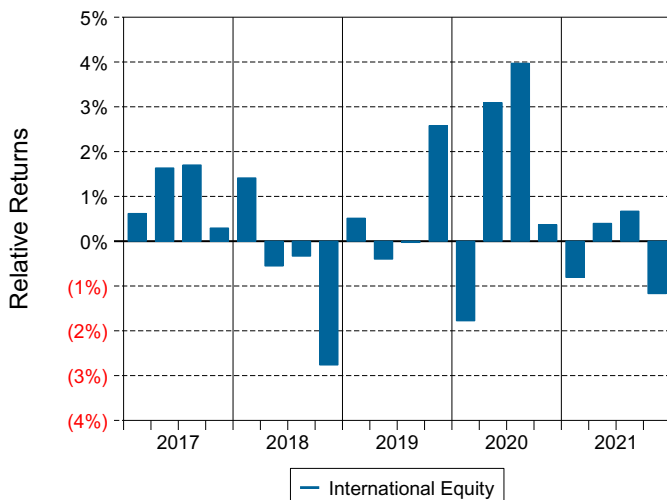
Beginning Market Value	\$1,620,857,348
Net New Investment	\$43,789,836
Investment Gains/(Losses)	\$32,718,730
Ending Market Value	\$1,697,365,914

### Performance vs Callan Non-US Equity (Gross)

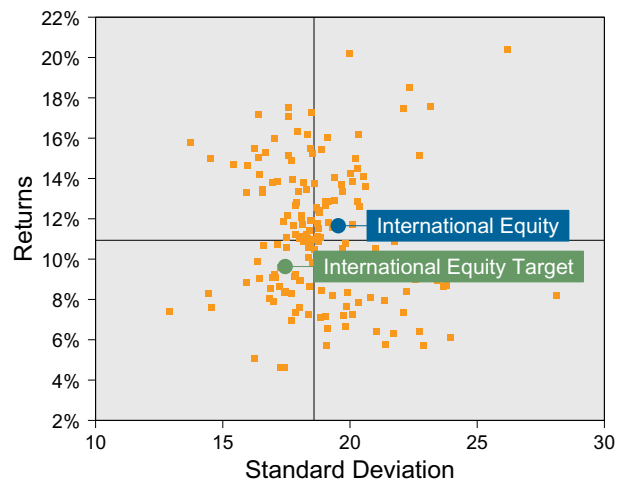


10th Percentile	4.82	4.89	15.41	17.56	21.69	15.53	9.78
25th Percentile	3.51	2.79	13.62	15.13	19.04	13.56	8.66
Median	2.30	0.88	11.41	11.29	15.48	10.93	7.17
75th Percentile	0.99	(0.68)	8.02	8.31	12.40	8.66	5.79
90th Percentile	(0.33)	(2.74)	5.74	6.29	10.68	7.25	4.97
<b>International Equity</b> ●	1.94	1.94	11.59	12.63	16.85	11.66	7.56
International Equity Target ▲	3.14	2.46	12.62	10.08	14.07	9.63	5.85

### Relative Return vs International Equity Target



### Callan Non-US Equity (Gross) Annualized Five Year Risk vs Return





# DFA Intl Small Cap Value Period Ended December 31, 2021

## Investment Philosophy

The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Specifically, it looks at companies that fall within the smallest 8-10% of each country's market capitalization, and who's shares have a high book value in relation to their market value (BtM). It does not invest in emerging markets.

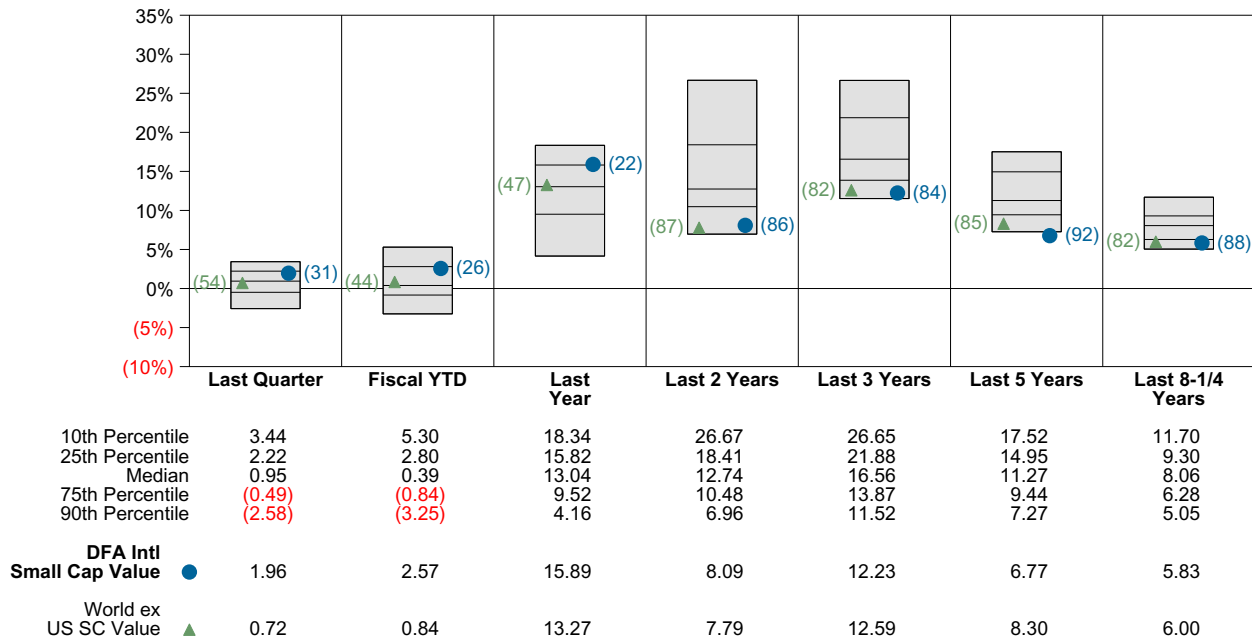
## Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a 1.96% return for the quarter placing it in the 31 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 22 percentile for the last year.
- DFA Intl Small Cap Value's portfolio outperformed the World ex US SC Value by 1.24% for the quarter and outperformed the World ex US SC Value for the year by 2.63%.

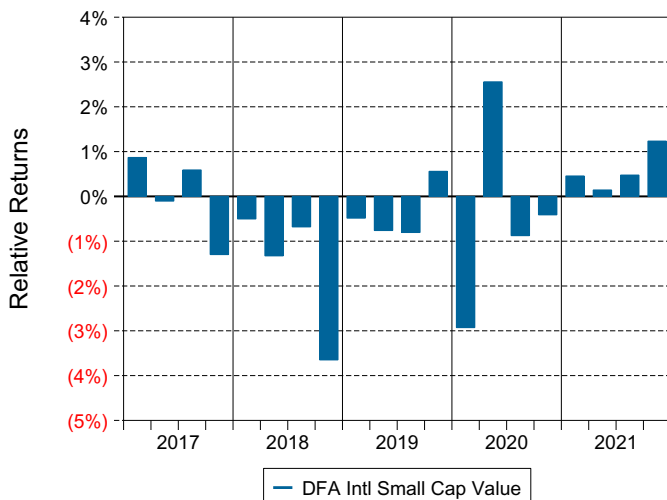
## Quarterly Asset Growth

Beginning Market Value	\$157,111,942
Net New Investment	\$10,000,000
Investment Gains/(Losses)	\$3,007,829
Ending Market Value	\$170,119,771

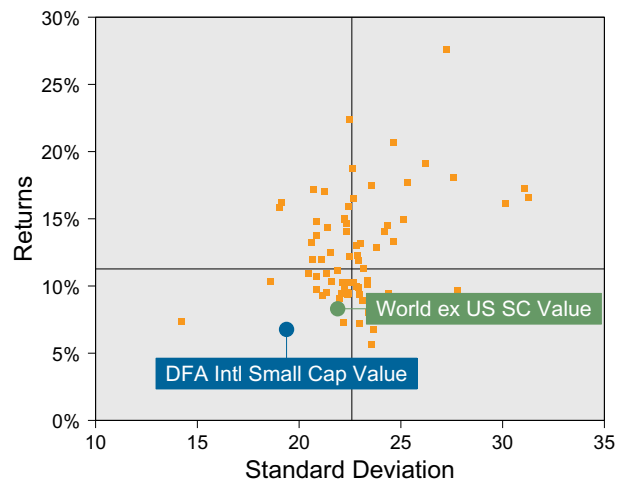
## Performance vs Callan International Small Cap Mut Funds (Net)



## Relative Return vs World ex US SC Value



## Callan International Small Cap Mut Funds (Net) Annualized Five Year Risk vs Return



# LSV Intl Value

## Period Ended December 31, 2021

### Investment Philosophy

The objective of LSV Asset Management's International Large Cap Value strategy is to outperform the MSCI EAFE Index by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested. LSV weights countries at a neutral weight relative to the benchmark country weights. 50% of the portfolio is US dollar hedged.

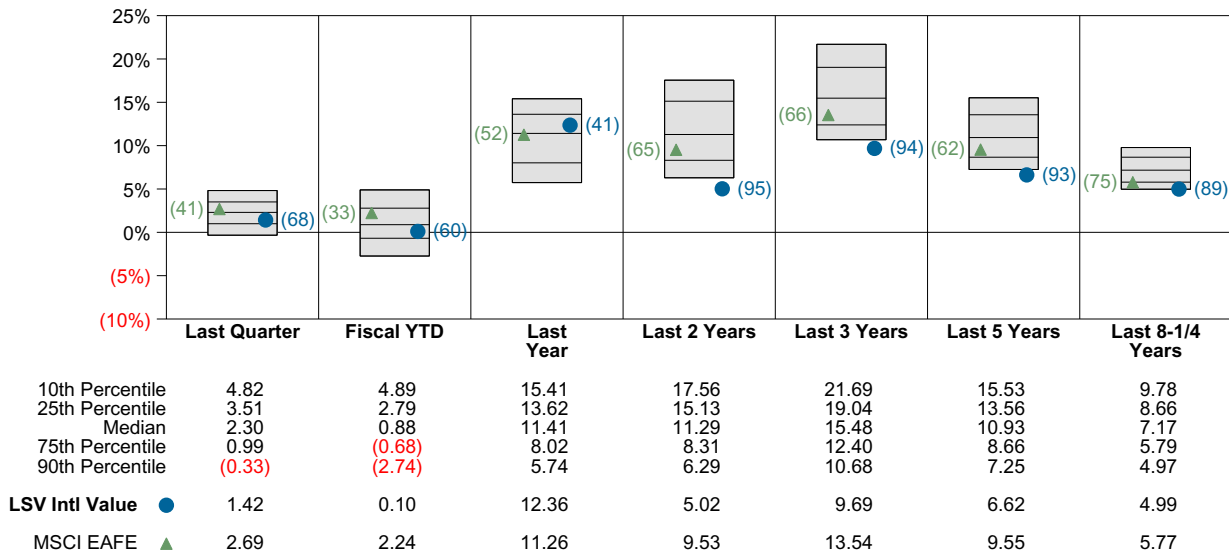
### Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a 1.42% return for the quarter placing it in the 68 percentile of the Callan Non-US Equity group for the quarter and in the 41 percentile for the last year.
- LSV Intl Value's portfolio underperformed the MSCI EAFE by 1.27% for the quarter and outperformed the MSCI EAFE for the year by 1.10%.

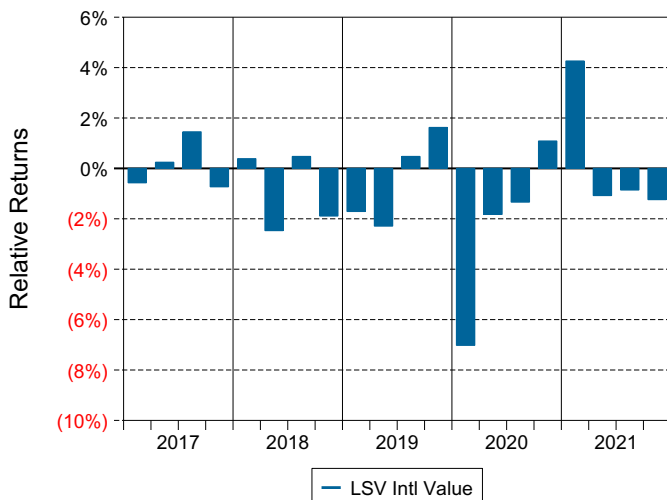
### Quarterly Asset Growth

Beginning Market Value	\$570,892,935
Net New Investment	\$-554,098
Investment Gains/(Losses)	\$8,099,652
Ending Market Value	\$578,438,488

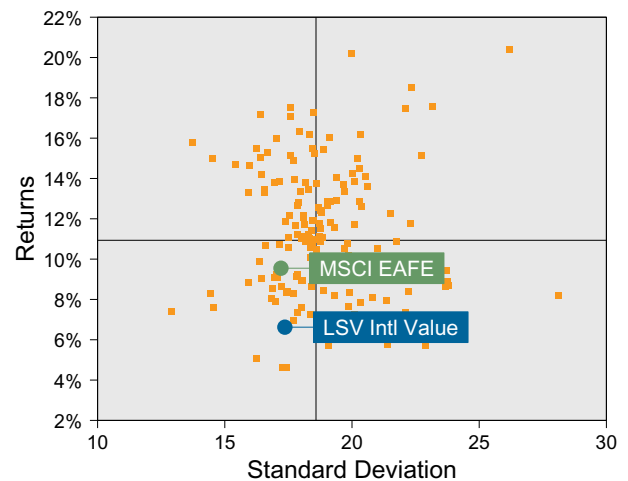
### Performance vs Callan Non-US Equity (Gross)



### Relative Return vs MSCI EAFE



### Callan Non-US Equity (Gross) Annualized Five Year Risk vs Return



# Vanguard Intl Explorer Fund

## Period Ended December 31, 2021

### Investment Philosophy

Vanguard International Explorer Fund invests primarily in the equity securities of small-capitalization companies located outside the United States that the advisor believes offer the potential for long-term capital appreciation. The advisor considers, among other things, whether a company is likely to have above-average earnings growth, whether the company's securities are attractively valued, and whether the company has any proprietary advantages.

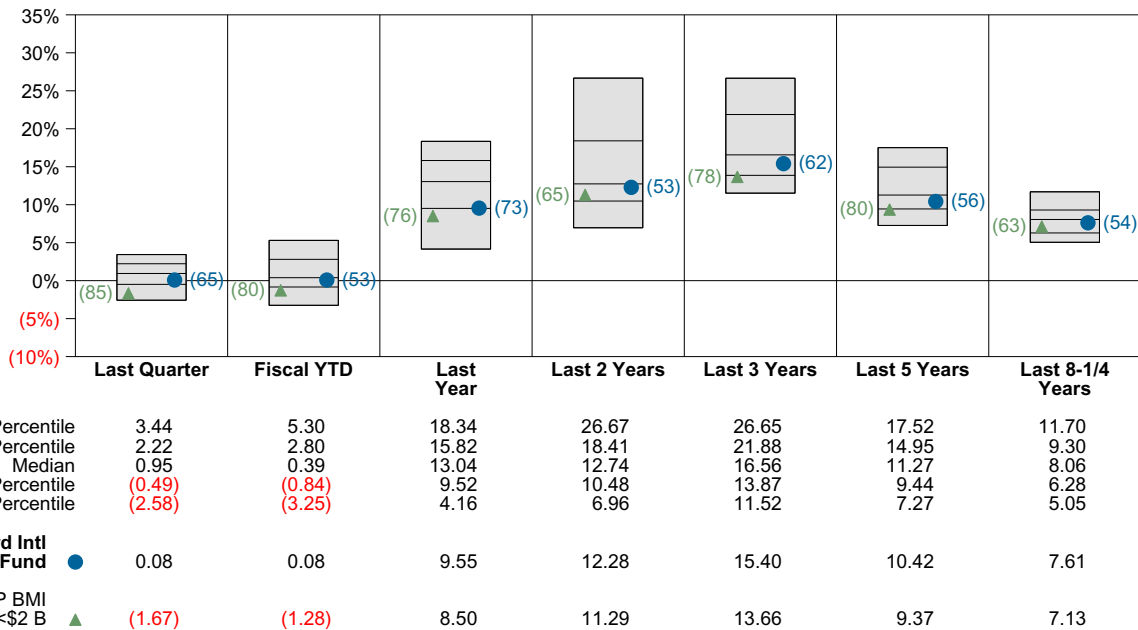
### Quarterly Summary and Highlights

- Vanguard Intl Explorer Fund's portfolio posted a 0.08% return for the quarter placing it in the 65 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 73 percentile for the last year.
- Vanguard Intl Explorer Fund's portfolio outperformed the S&P BMI EPAC <\$2 B by 1.76% for the quarter and outperformed the S&P BMI EPAC <\$2 B for the year by 1.05%.

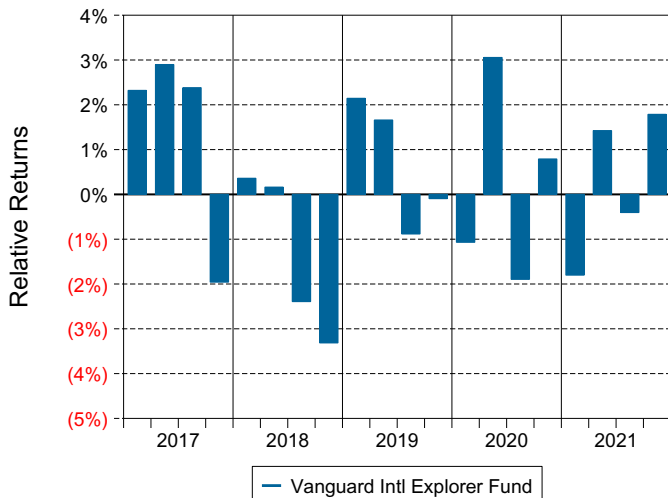
### Quarterly Asset Growth

Beginning Market Value	\$162,639,978
Net New Investment	\$10,000,000
Investment Gains/(Losses)	\$590,198
Ending Market Value	\$173,230,176

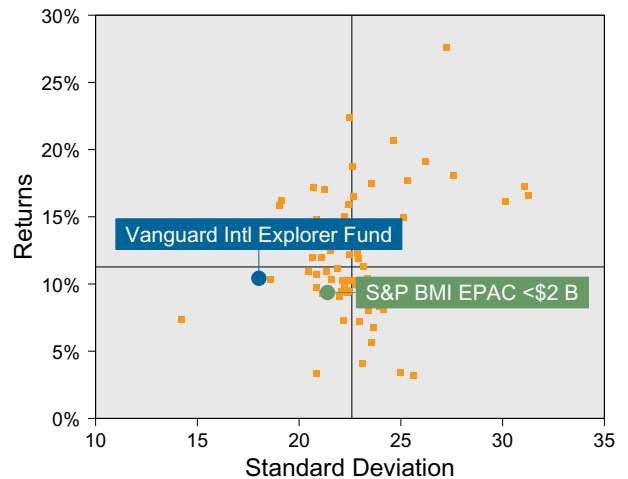
### Performance vs Callan International Small Cap Mut Funds (Net)



### Relative Return vs S&P BMI EPAC <\$2 B



### Callan International Small Cap Mut Funds (Net) Annualized Five Year Risk vs Return



# William Blair

## Period Ended December 31, 2021

### Investment Philosophy

One of the basic investment tenets of William Blair & Company has been its focus on quality growth companies. They believe that investing in quality growth companies will generate above average results with generally less risk than the market. This opportunity exists because they believe the market underestimates the durability and rate of growth in companies that have the following characteristics: strong management with a unique vision, competitive advantages that prolong the duration and size of earnings growth, and conservative financing. Internationally, they believe that this philosophy can be combined with strategic flexibility in managing geographic exposure, capitalization, sector emphasis, and relative growth and valuation at the portfolio level in order to provide an appropriate degree of adaptability to cyclical conditions.

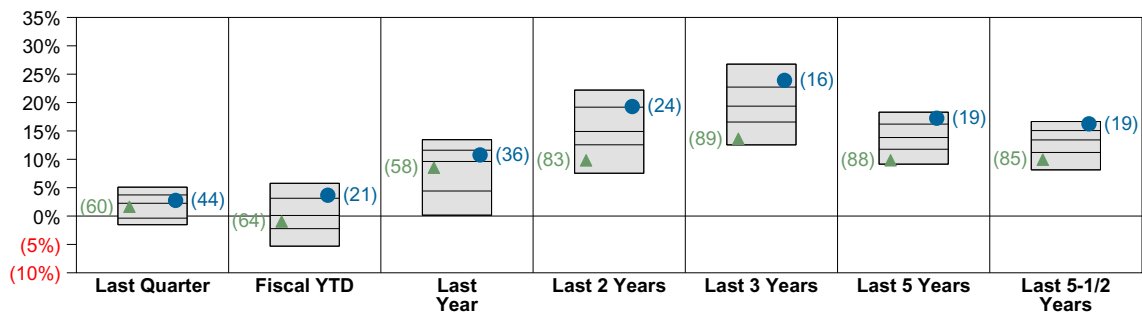
### Quarterly Summary and Highlights

- William Blair's portfolio posted a 2.75% return for the quarter placing it in the 44 percentile of the Callan Non-US All Country Growth Equity group for the quarter and in the 36 percentile for the last year.
- William Blair's portfolio outperformed the MSCI ACWI ex US IMI by 1.11% for the quarter and outperformed the MSCI ACWI ex US IMI for the year by 2.25%.

### Quarterly Asset Growth

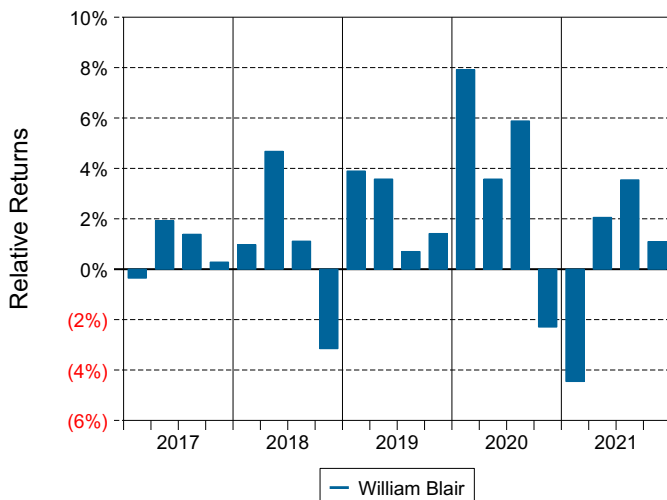
Beginning Market Value	\$730,212,493
Net New Investment	\$24,343,934
Investment Gains/(Losses)	\$21,021,051
Ending Market Value	\$775,577,478

### Performance vs Callan Non-US All Country Growth Equity (Gross)

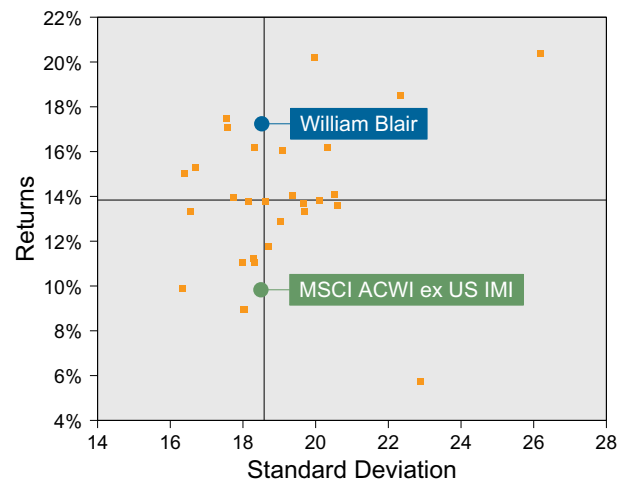


10th Percentile	5.09	5.77	13.46	22.20	26.77	18.30	16.66
25th Percentile	3.72	3.13	11.60	19.19	22.73	16.21	15.07
Median	2.25	0.10	9.62	14.91	19.37	13.84	13.41
75th Percentile	(0.37)	(2.22)	4.41	12.56	16.57	11.77	11.21
90th Percentile	(1.52)	(5.31)	0.15	7.54	12.54	9.15	8.14
William Blair	2.75	3.67	10.77	19.30	23.91	17.24	16.25
MSCI ACWI ex US IMI	1.64	(0.96)	8.53	9.81	13.62	9.83	9.94

### Relative Return vs MSCI ACWI ex US IMI



### Callan Non-US All Country Growth Equity (Gross) Annualized Five Year Risk vs Return





# Sixth Street TAO

## Period Ended December 31, 2021

### Investment Philosophy

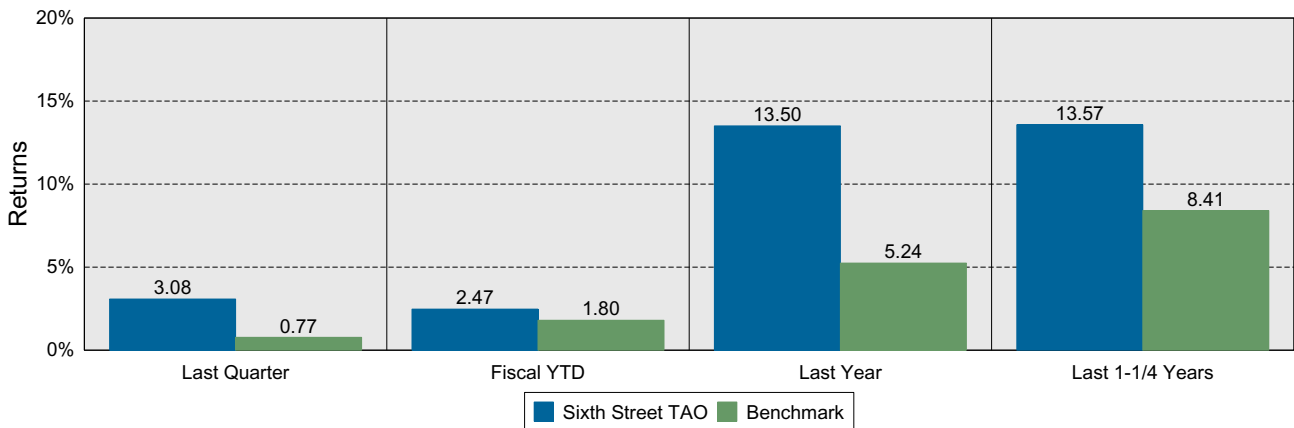
Sixth Street Partners' TAO strategy is an opportunistic, theme-driven multi-strategy credit mandate that seeks to leverage the firm's entire credit platform by investing in theme-driven liquid and less liquid investments across a broad array of credit-oriented opportunities. The strategy invests in opportunities sourced across the firm that feature attractive risk/reward profiles but do not fit the investment mandates of SSP's Special Situations, Direct Lending and Fundamental Strategies platforms, thereby carrying the moniker "Adjacent Opportunities". These opportunities can be an outgrowth of certain conditions: non-control positions with attractive risk-reward profiles; higher return, low money multiples due to short duration situations; and longer duration opportunities with low macroeconomic correlations. **The Benchmark is comprised of 50% S&P/LSTA Leveraged Loan B and 50% Blmbg HY Corp 2% Issue.**

### Quarterly Summary and Highlights

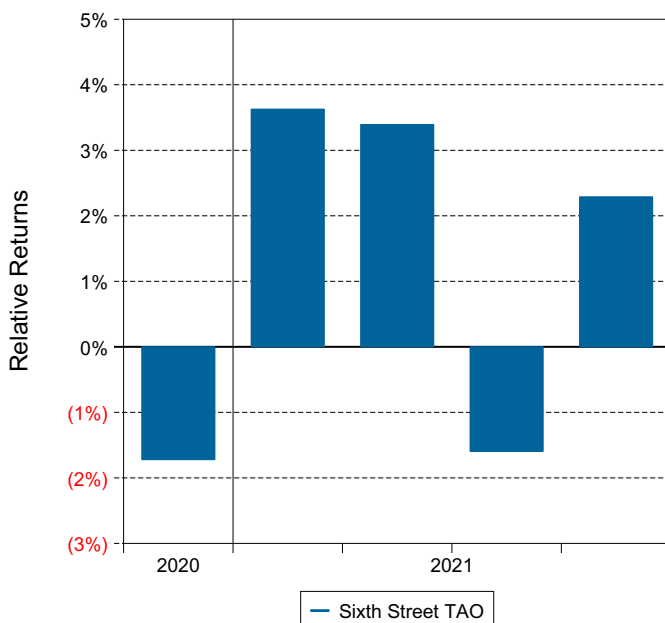
- Sixth Street TAO's portfolio outperformed the Benchmark by 2.31% for the quarter and outperformed the Benchmark for the year by 8.26%.

### Quarterly Asset Growth

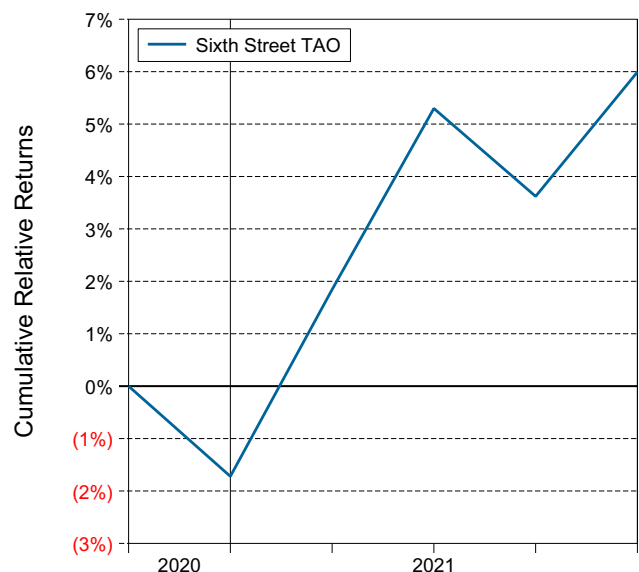
Beginning Market Value	\$23,676,918
Net New Investment	\$6,037,611
Investment Gains/(Losses)	\$748,830
Ending Market Value	\$30,463,359



### Relative Return vs Benchmark



### Cumulative Returns vs Benchmark





# Domestic Fixed Income Period Ended December 31, 2021

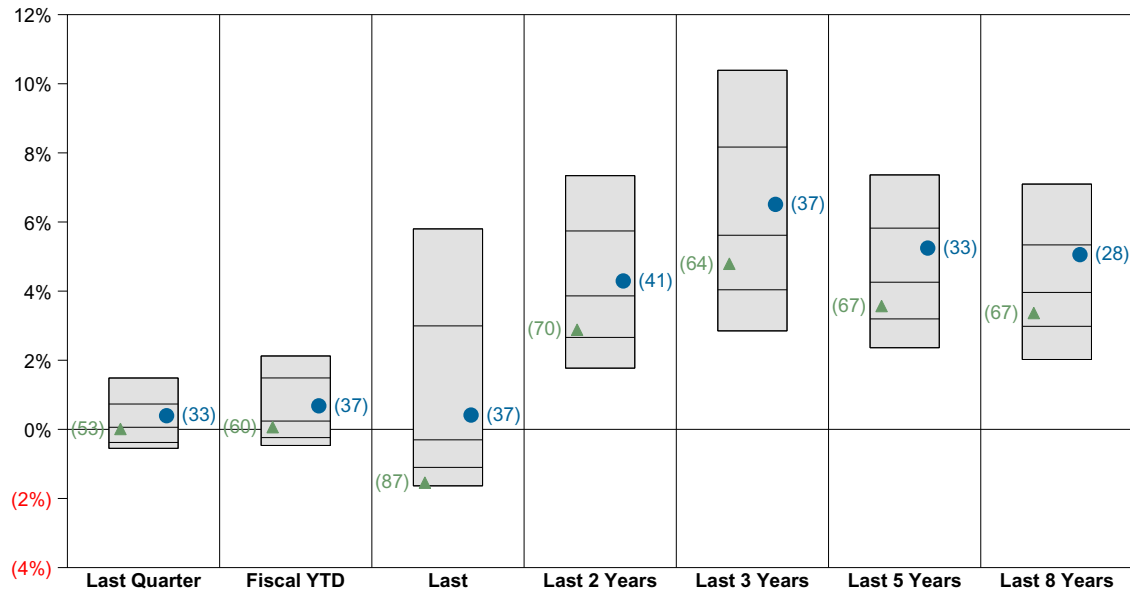
## Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a 0.40% return for the quarter placing it in the 33 percentile of the Total Domestic Fixed-Inc Database group for the quarter and in the 37 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Domestic Fixed Income Target by 0.38% for the quarter and outperformed the Domestic Fixed Income Target for the year by 1.96%.

## Quarterly Asset Growth

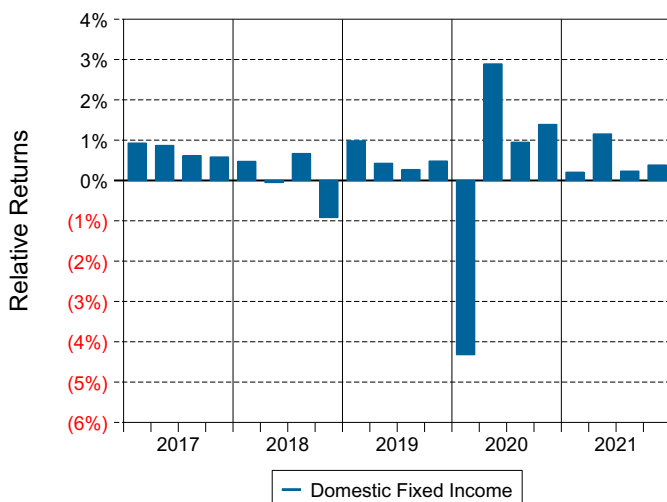
Beginning Market Value	\$2,925,185,401
Net New Investment	\$97,674,163
Investment Gains/(Losses)	\$11,801,155
Ending Market Value	\$3,034,660,719

## Performance vs Total Domestic Fixed-Inc Database (Gross)

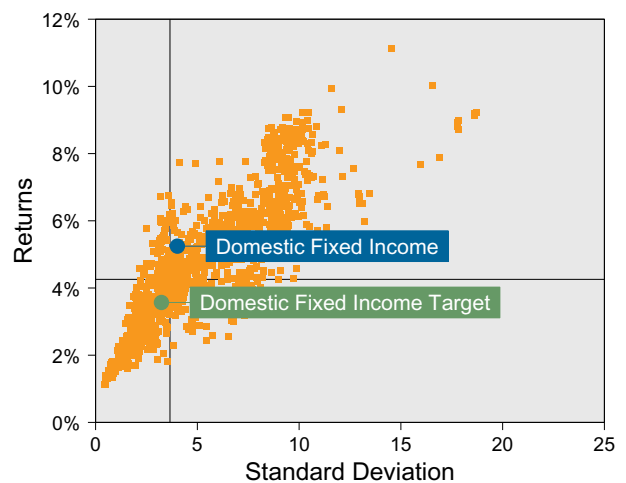


10th Percentile	1.49	2.12	5.80	7.34	10.39	7.36	7.10
25th Percentile	0.73	1.49	2.99	5.74	8.17	5.82	5.34
Median	0.06	0.24	(0.30)	3.86	5.62	4.26	3.96
75th Percentile	(0.38)	(0.24)	(1.10)	2.66	4.04	3.20	2.98
90th Percentile	(0.55)	(0.47)	(1.63)	1.77	2.85	2.36	2.02
<b>Domestic Fixed Income</b>	● 0.40	0.68	0.41	4.29	6.51	5.25	5.06
Domestic Fixed Income Target	▲ 0.01	0.06	(1.54)	2.88	4.79	3.57	3.37

## Relative Returns vs Domestic Fixed Income Target



## Total Domestic Fixed-Inc Database (Gross) Annualized Five Year Risk vs Return





# Ares ND Credit Strategies Fd Period Ended December 31, 2021

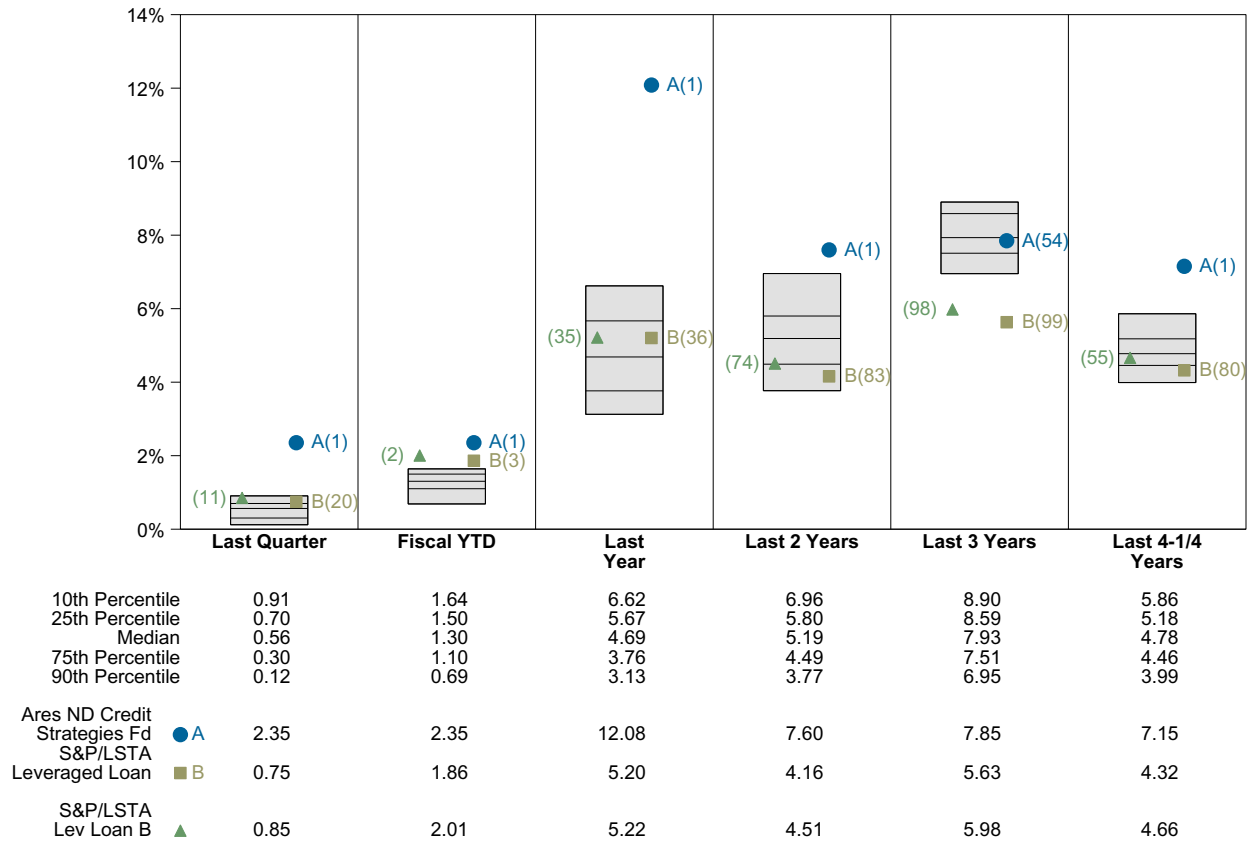
## Quarterly Summary and Highlights

- Ares ND Credit Strategies Fd's portfolio posted a 2.35% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Ares ND Credit Strategies Fd's portfolio outperformed the S&P/LSTA Lev Loan B by 1.50% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 6.87%.

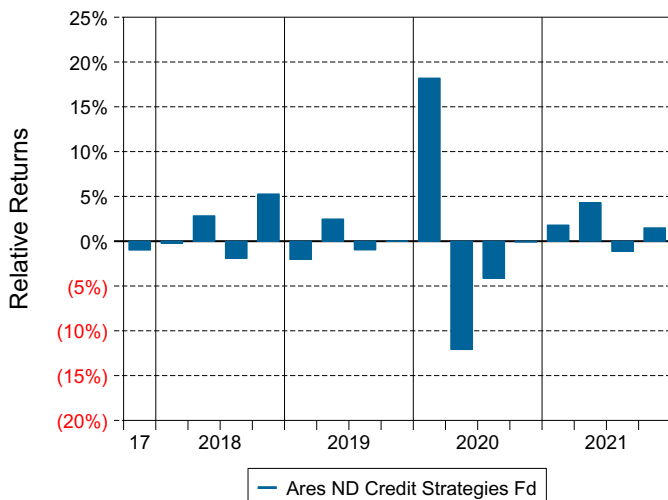
## Quarterly Asset Growth

Beginning Market Value	\$96,681,216
Net New Investment	\$4,024,590
Investment Gains/(Losses)	\$2,274,657
Ending Market Value	\$102,980,463

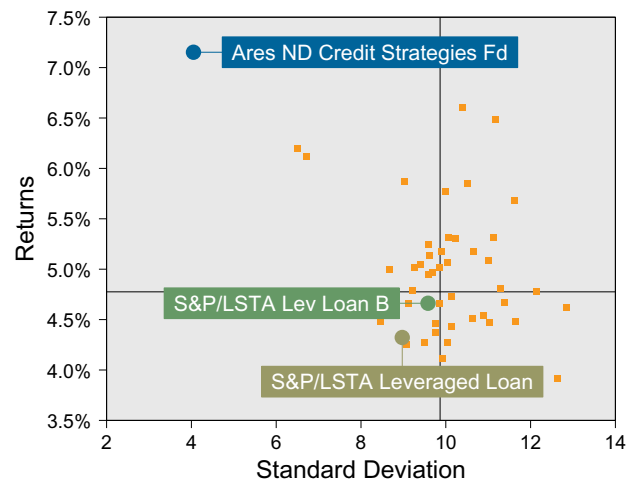
## Performance vs Callan High Yield Mutual Funds (Net)



## Relative Return vs S&P/LSTA Lev Loan B



## Callan High Yield Mutual Funds (Net) Annualized Four and One-Quarter Year Risk vs Return



# Cerberus ND Private Credit Fd Period Ended December 31, 2021

## Investment Philosophy

The investment objective of the LLC is to achieve superior risk-adjusted rates of return primarily through origination of, and investment in, secured debt assets consistent with the Loan Opportunities Strategy of the Cerberus Business Finance lending platform ("CBF", "Cerberus Business Finance" or the "Cerberus Lending Platform"). The Cerberus Lending Platform is a direct origination and lending business focused on providing secured debt primarily to U.S. middle-market companies. The LLC expects to generate both current income and capital appreciation.

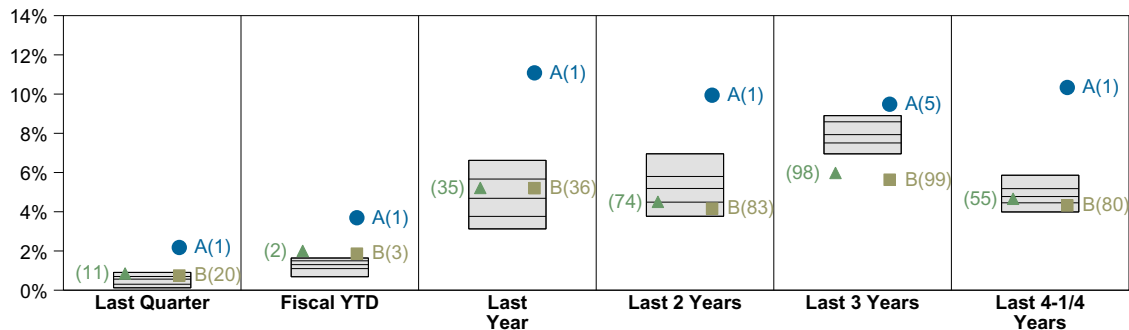
## Quarterly Summary and Highlights

- Cerberus ND Private Credit Fd's portfolio posted a 2.18% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Cerberus ND Private Credit Fd's portfolio outperformed the S&P/LSTA Lev Loan B by 1.33% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 5.87%.

## Quarterly Asset Growth

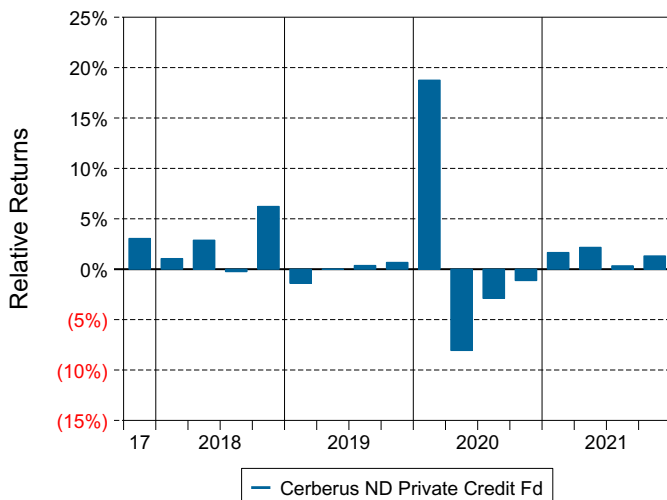
Beginning Market Value	\$114,982,504
Net New Investment	\$12,600,000
Investment Gains/(Losses)	\$2,598,411
Ending Market Value	\$130,180,915

## Performance vs Callan High Yield Mutual Funds (Net)

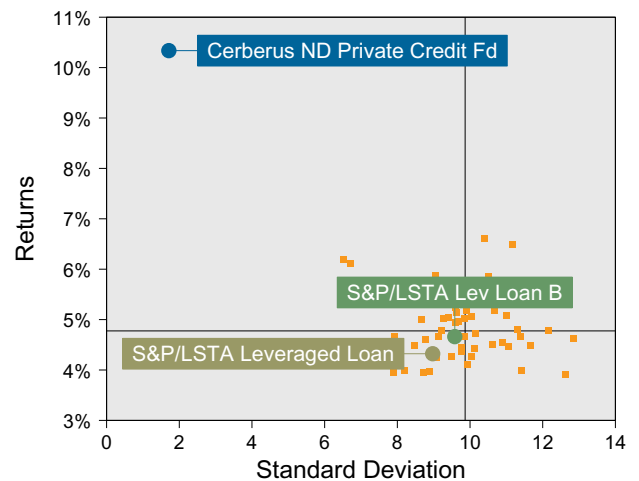


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years	
10th Percentile	0.91	1.64	6.62	6.96	8.90	5.86	
25th Percentile	0.70	1.50	5.67	5.80	8.59	5.18	
Median	0.56	1.30	4.69	5.19	7.93	4.78	
75th Percentile	0.30	1.10	3.76	4.49	7.51	4.46	
90th Percentile	0.12	0.69	3.13	3.77	6.95	3.99	
Cerberus ND Private Credit Fd	● A	2.18	3.69	11.08	9.94	9.48	10.34
S&P/LSTA Leveraged Loan	■ B	0.75	1.86	5.20	4.16	5.63	4.32
S&P/LSTA Lev Loan B	▲	0.85	2.01	5.22	4.51	5.98	4.66

## Relative Return vs S&P/LSTA Lev Loan B



## Callan High Yield Mutual Funds (Net) Annualized Four and One-Quarter Year Risk vs Return



# Declaration Total Return Period Ended December 31, 2021

## Investment Philosophy

The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies (Non-Agency RMBS) and government agencies (Agency MBS) and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Government National Mortgage Association (Ginnie Mae). Portfolio holdings may range from short tenure senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. Smaller portfolio allocations may include consumer asset-backed securities (ABS), or other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only (IO) MBS.

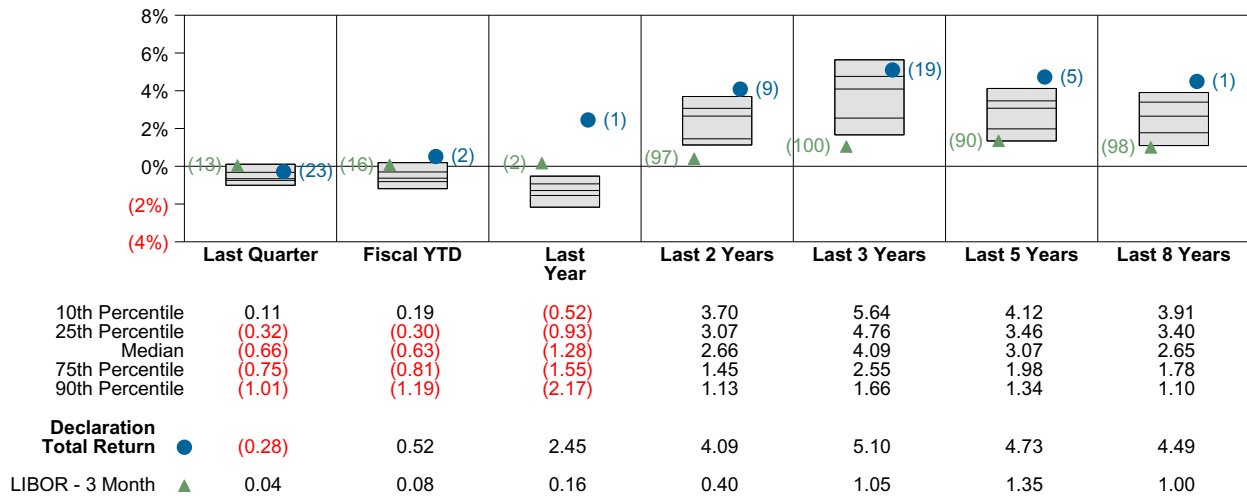
## Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a (0.28)% return for the quarter placing it in the 23 percentile of the Callan Intermediate Fixed Inc Mut Funds group for the quarter and in the 1 percentile for the last year.
- Declaration Total Return's portfolio underperformed the LIBOR - 3 Month by 0.33% for the quarter and outperformed the LIBOR - 3 Month for the year by 2.29%.

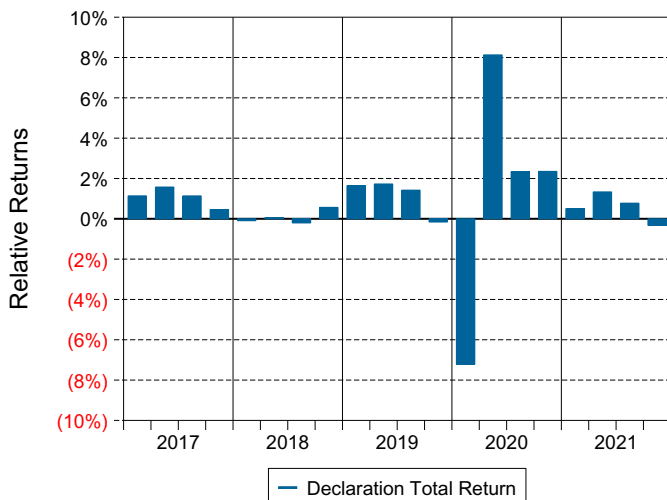
## Quarterly Asset Growth

Beginning Market Value	\$230,963,556
Net New Investment	\$-151,025
Investment Gains/(Losses)	\$-653,250
Ending Market Value	\$230,159,281

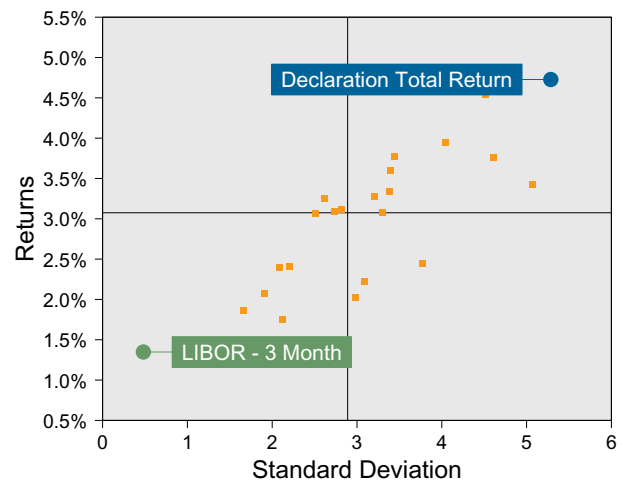
## Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



## Relative Return vs LIBOR - 3 Month



## Callan Intermediate Fixed Inc Mut Funds (Net) Annualized Five Year Risk vs Return



# PIMCO Bravo II

## Period Ended December 31, 2021

### Investment Philosophy

The BRAVO II Fund is a private equity style fund targeting an annualized IRR of 15-20% and multiple of 1.8-2x, net of fees and carried interest with an initial 5-year term. The fund will seek to capitalize on non-economic asset sale decisions by global financial institutions. The fund will have the flexibility to acquire attractively discounted, less liquid loans, structured credit and other assets tied to residential or commercial real estate markets in the U.S. and Europe. **Prior to July 1, 2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning July 1, 2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.**

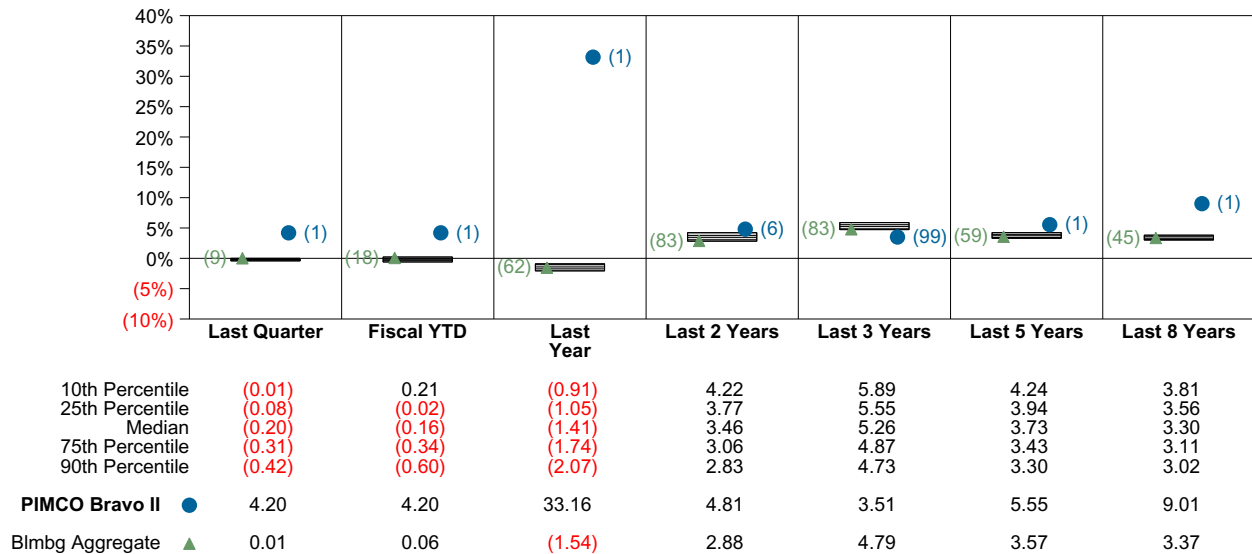
### Quarterly Summary and Highlights

- PIMCO Bravo II's portfolio posted a 4.20% return for the quarter placing it in the 1 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II's portfolio outperformed the Blmbg Aggregate by 4.19% for the quarter and outperformed the Blmbg Aggregate for the year by 34.70%.

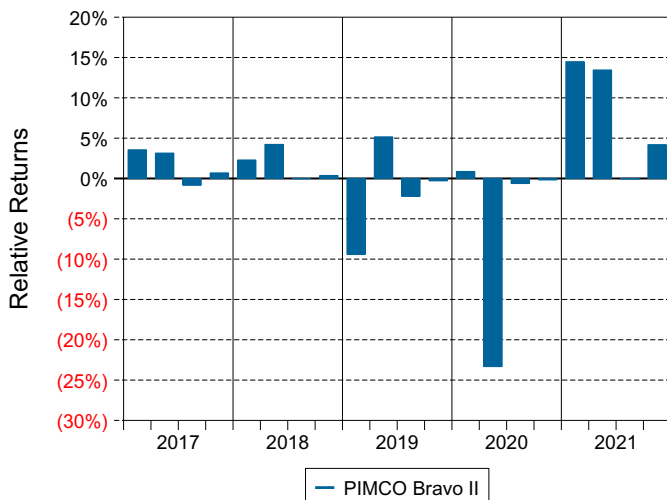
### Quarterly Asset Growth

Beginning Market Value	\$6,181,662
Net New Investment	\$-345,587
Investment Gains/(Losses)	\$259,759
Ending Market Value	\$6,095,834

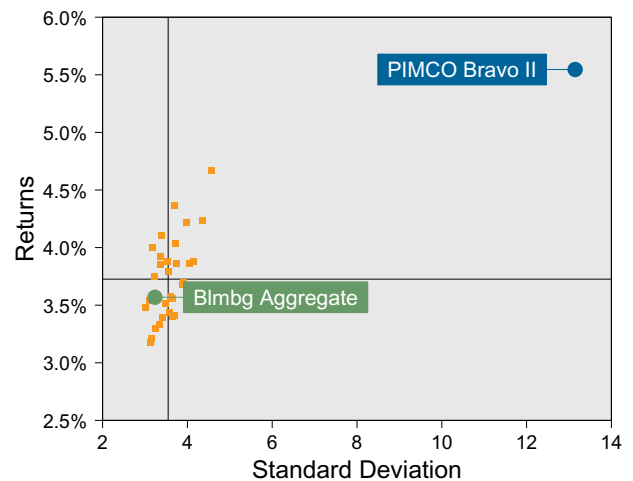
### Performance vs Callan Core Bond Mutual Funds (Net)



### Relative Return vs Blmbg Aggregate



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



# PIMCO DiSCO II

## Period Ended December 31, 2021

### Investment Philosophy

The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors. **Prior to July 1, 2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning July 1, 2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.**

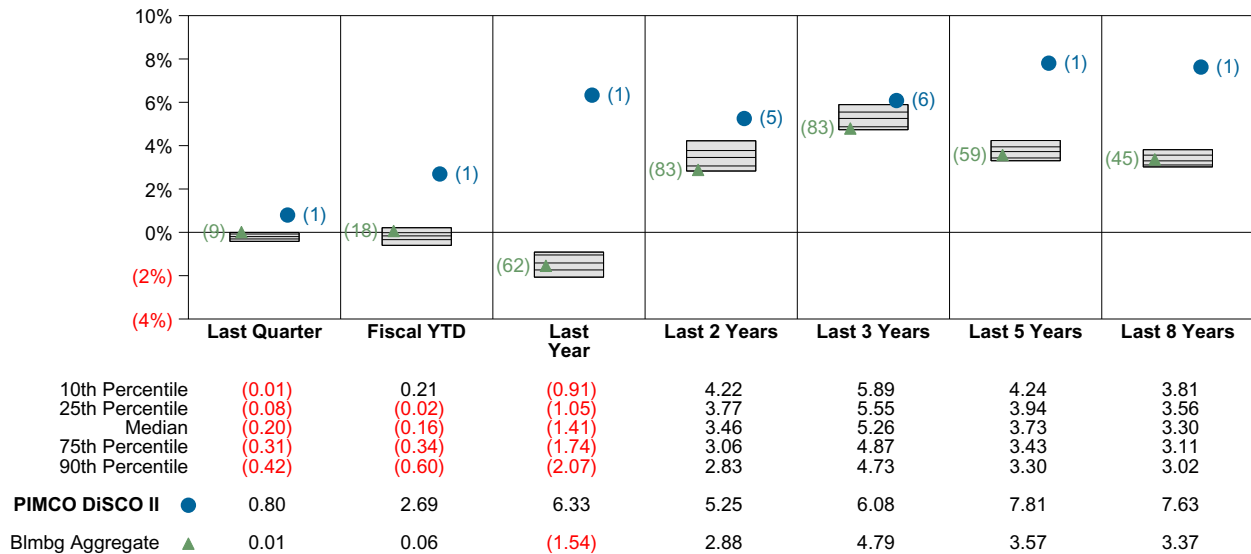
### Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a 0.80% return for the quarter placing it in the 1 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Blmbg Aggregate by 0.79% for the quarter and outperformed the Blmbg Aggregate for the year by 7.87%.

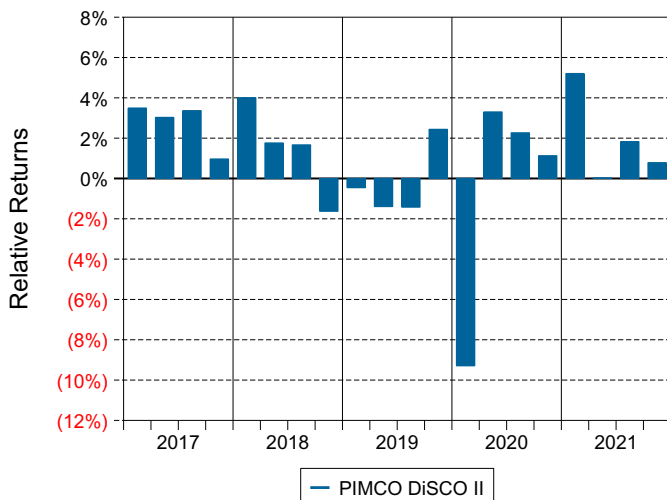
### Quarterly Asset Growth

Beginning Market Value	\$54,595,902
Net New Investment	\$0
Investment Gains/(Losses)	\$434,996
Ending Market Value	\$55,030,898

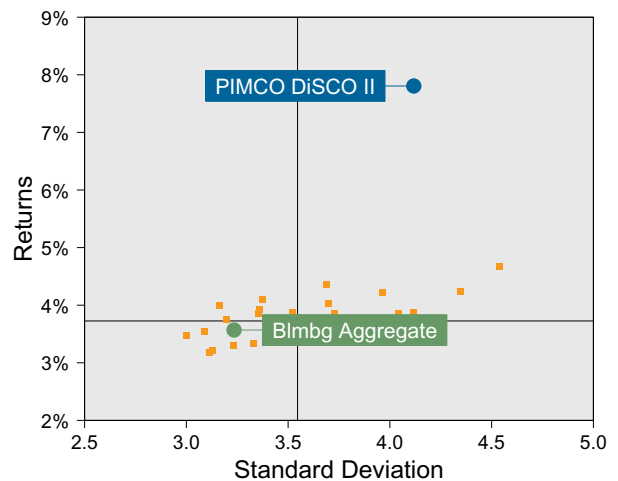
### Performance vs Callan Core Bond Mutual Funds (Net)



### Relative Return vs Blmbg Aggregate



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



# Prudential

## Period Ended December 31, 2021

### Investment Philosophy

PGIM Fixed Income is the primary public fixed income asset management business of Prudential Investment Management, Inc. (PIM). PIM is the largest investment advisor within Prudential Financial, Inc. (Prudential Financial). PIM was registered as an investment advisor with the US Securities and Exchange Commission (SEC) in December of 1984. The Core Plus strategy is an actively managed strategy that seeks +150 bps over the Bloomberg Barclays U.S. Aggregate Bond Index. Portfolio duration is kept within +/- 0.5 years of benchmark. The lead portfolio managers are Mike Collins, Rich Piccirillo and Greg Peters. As of Q2 2017, the strategy had \$24.6 billion in mutual fund assets.

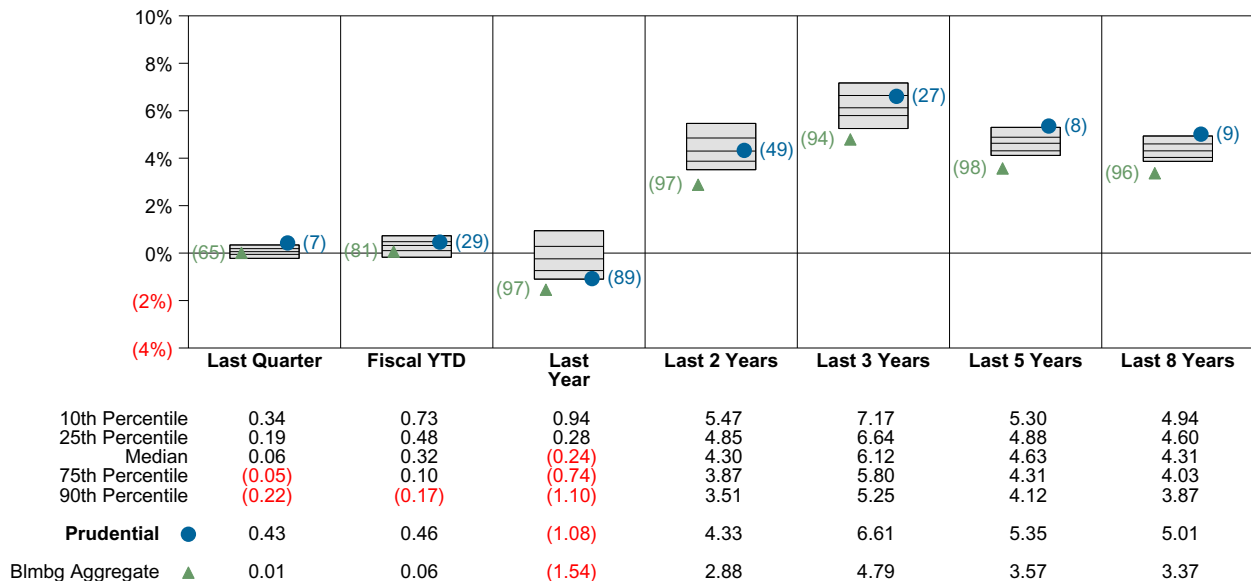
### Quarterly Summary and Highlights

- Prudential's portfolio posted a 0.43% return for the quarter placing it in the 7 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 89 percentile for the last year.
- Prudential's portfolio outperformed the Blmbg Aggregate by 0.42% for the quarter and outperformed the Blmbg Aggregate for the year by 0.47%.

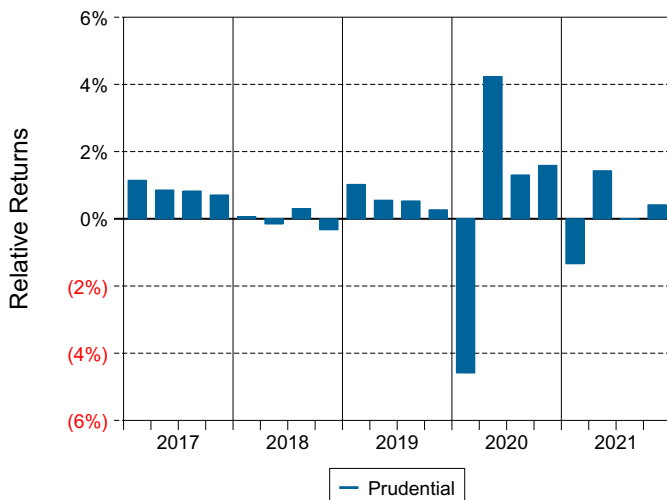
### Quarterly Asset Growth

Beginning Market Value	\$870,440,779
Net New Investment	\$28,549,346
Investment Gains/(Losses)	\$3,814,929
Ending Market Value	\$902,805,054

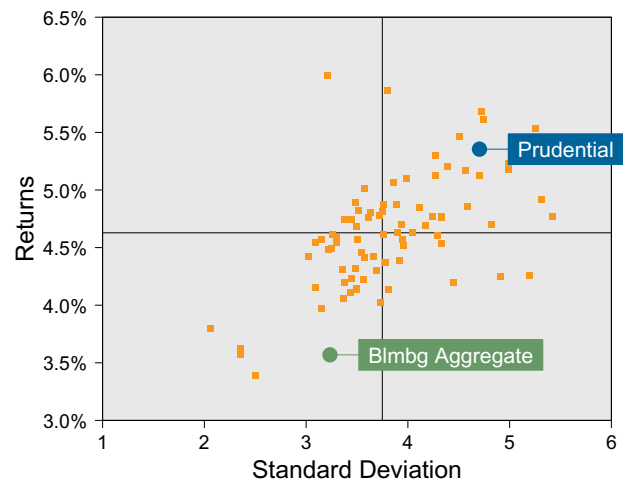
### Performance vs Callan Core Plus Fixed Income (Gross)



### Relative Return vs Blmbg Aggregate



### Callan Core Plus Fixed Income (Gross) Annualized Five Year Risk vs Return



# SSgA US Govt Credit Bd Idx Period Ended December 31, 2021

## Investment Philosophy

The Fund seeks an investment return that approximates as closely as practicable, before expenses, the performance of the Bloomberg Capital U.S. Government/Credit Bond Index over the long term.

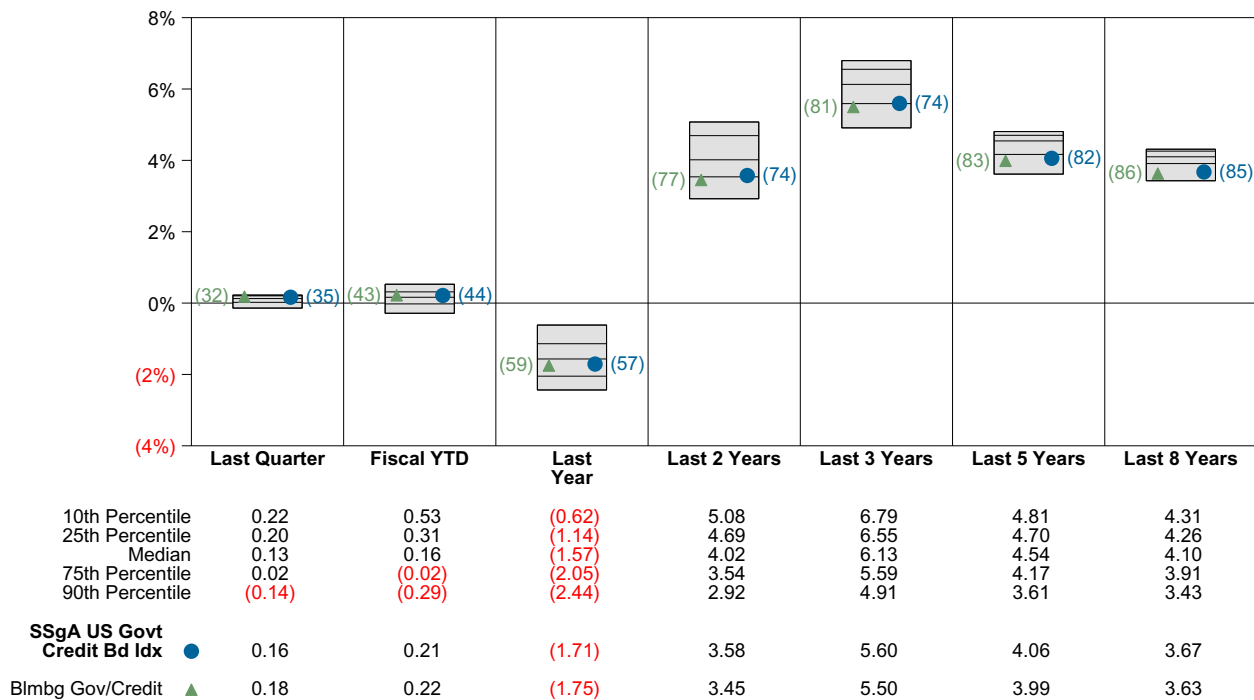
## Quarterly Summary and Highlights

- SSgA US Govt Credit Bd Idx's portfolio posted a 0.16% return for the quarter placing it in the 35 percentile of the Callan Government/Credit group for the quarter and in the 57 percentile for the last year.
- SSgA US Govt Credit Bd Idx's portfolio underperformed the Blmbg Gov/Credit by 0.02% for the quarter and outperformed the Blmbg Gov/Credit for the year by 0.04%.

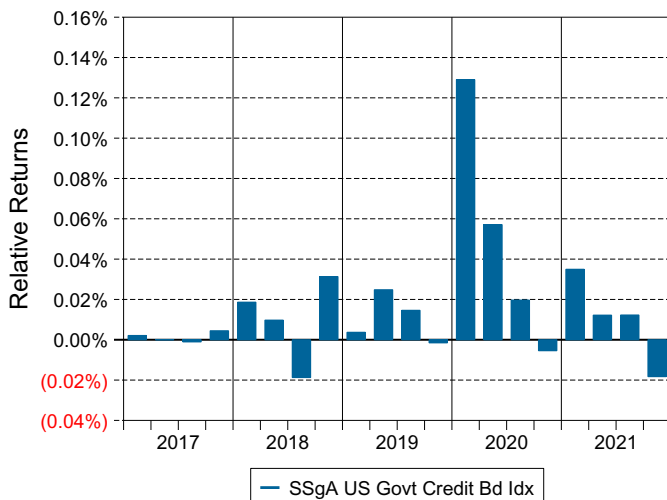
## Quarterly Asset Growth

Beginning Market Value	\$404,455,698
Net New Investment	\$19,985,015
Investment Gains/(Losses)	\$701,504
Ending Market Value	\$425,142,218

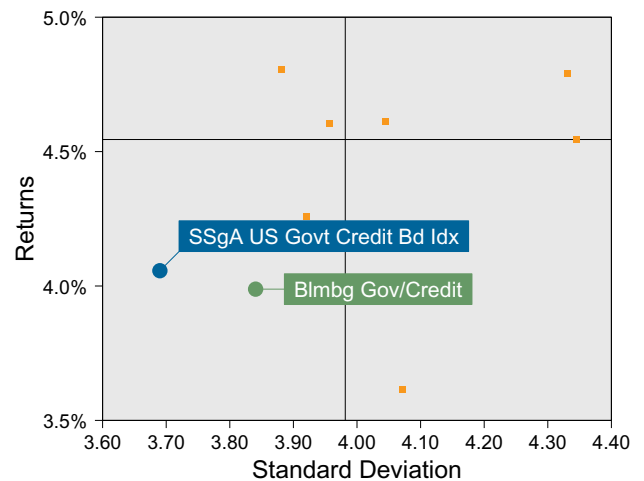
## Performance vs Callan Government/Credit (Gross)



## Relative Return vs Blmbg Gov/Credit



## Callan Government/Credit (Gross) Annualized Five Year Risk vs Return



# Wells Capital

## Period Ended December 31, 2021

### Investment Philosophy

The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. The investment process for this fund starts with a "top-down" strategy. Security selection is determined by in-depth credit research, holding that in-depth knowledge of industries, companies, and their management teams can help identify credit trends that can lead to investment opportunities. Furthermore, a disciplined relative value framework is applied to help determine the optimal position to invest within an industry and within an individual issuer's capital structure.

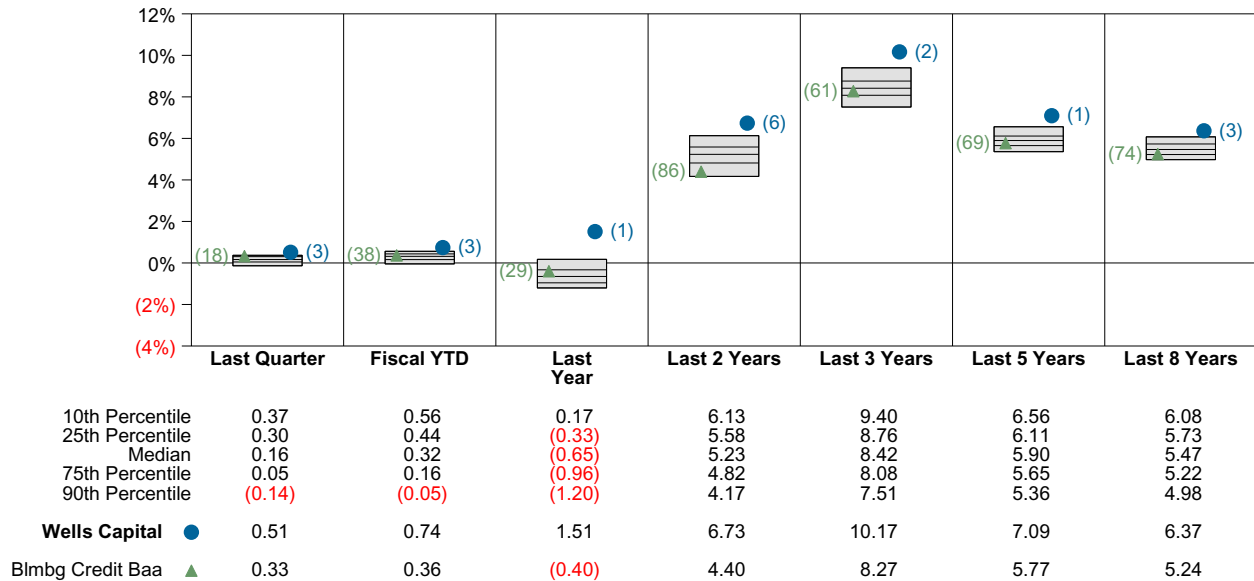
### Quarterly Summary and Highlights

- Wells Capital's portfolio posted a 0.51% return for the quarter placing it in the 3 percentile of the Callan Investment Grade Credit Fixed Inc group for the quarter and in the 1 percentile for the last year.
- Wells Capital's portfolio outperformed the Blmbg Credit Baa by 0.18% for the quarter and outperformed the Blmbg Credit Baa for the year by 1.91%.

### Quarterly Asset Growth

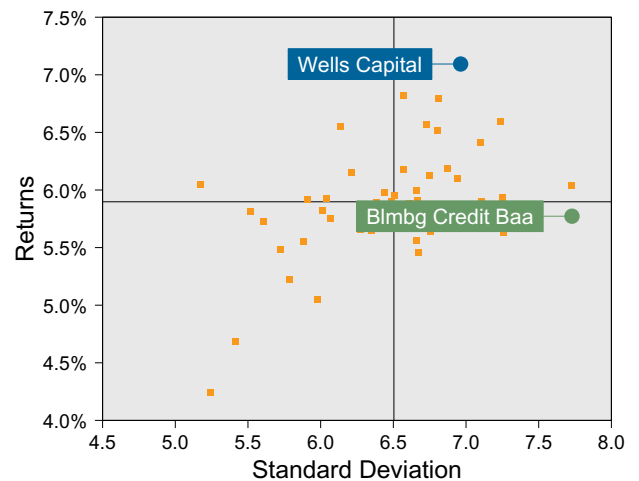
Beginning Market Value	\$228,904,407
Net New Investment	\$7,890,353
Investment Gains/(Losses)	\$1,196,841
Ending Market Value	\$237,991,600

### Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



### Callan Investment Grade Credit Fixed Inc (Gross) Annualized Five Year Risk vs Return

### Relative Return vs Blmbg Credit Baa





# Western Asset Management Company

## Period Ended December 31, 2021

### Investment Philosophy

Western Asset designs this portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.

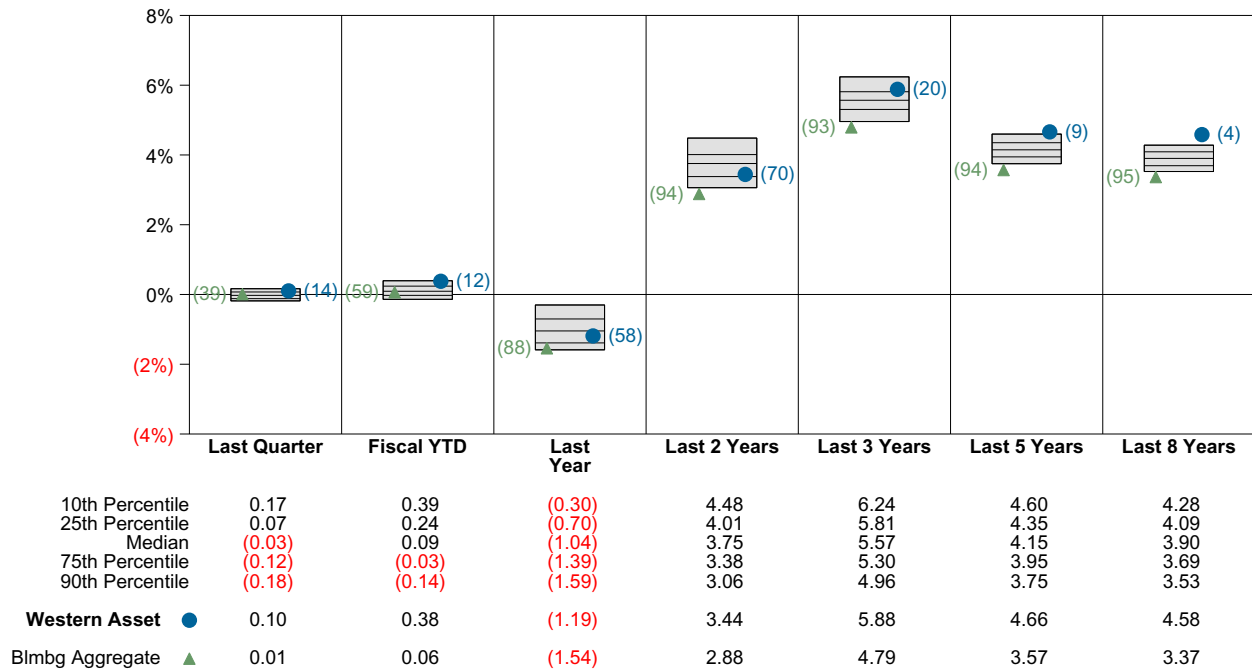
### Quarterly Summary and Highlights

- Western Asset's portfolio posted a 0.10% return for the quarter placing it in the 14 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 58 percentile for the last year.
- Western Asset's portfolio outperformed the Blmbg Aggregate by 0.09% for the quarter and outperformed the Blmbg Aggregate for the year by 0.35%.

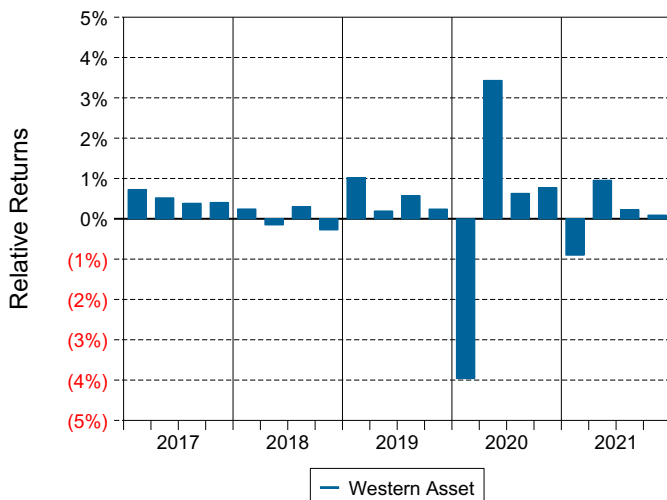
### Quarterly Asset Growth

Beginning Market Value	\$872,088,994
Net New Investment	\$26,767,810
Investment Gains/(Losses)	\$882,541
Ending Market Value	\$899,739,345

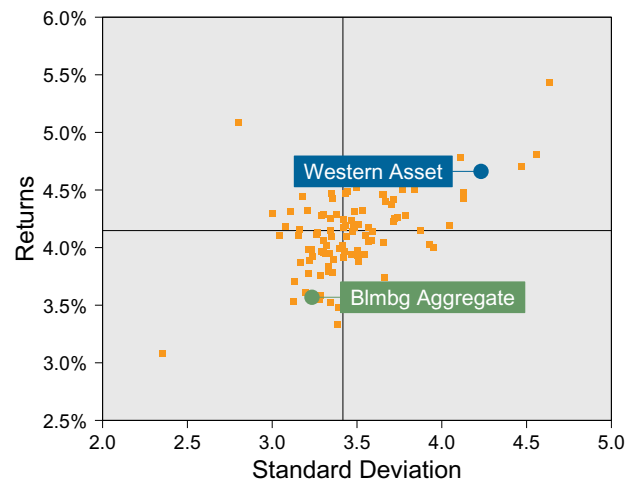
### Performance vs Callan Core Bond Fixed Income (Gross)



### Relative Return vs Blmbg Aggregate



### Callan Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return





# Invesco Core Real Estate

## Period Ended December 31, 2021

### Investment Philosophy

IRE's investment philosophy is comprised of two fundamental principles: (1) maximize the predictability and consistency of investment returns and (2) minimize the risk of capital loss. This philosophy forms the cornerstone of the company's real estate investment philosophy.

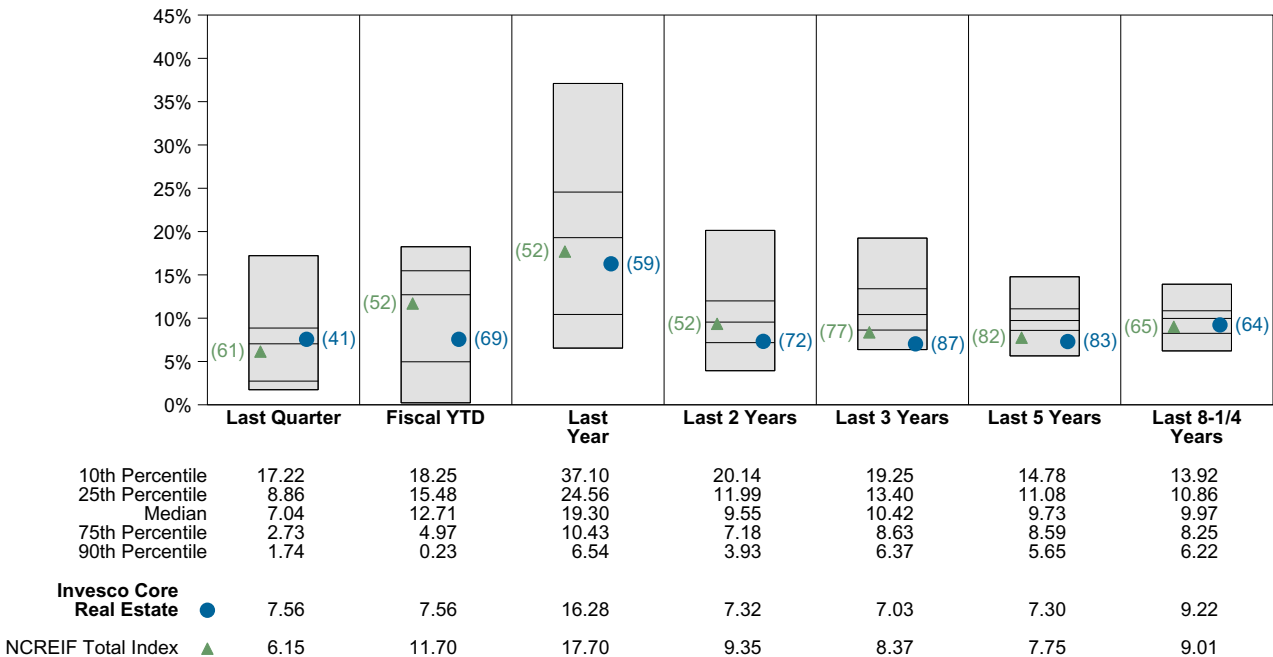
### Quarterly Summary and Highlights

- Invesco Core Real Estate's portfolio posted a 7.56% return for the quarter placing it in the 41 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 59 percentile for the last year.
- Invesco Core Real Estate's portfolio outperformed the NCREIF Total Index by 1.41% for the quarter and underperformed the NCREIF Total Index for the year by 1.42%.

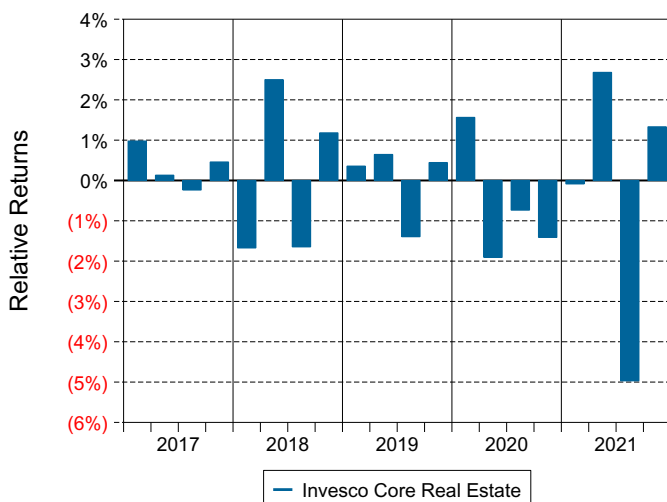
### Quarterly Asset Growth

Beginning Market Value	\$185,546,682
Net New Investment	\$-162,348
Investment Gains/(Losses)	\$14,028,570
Ending Market Value	\$199,412,904

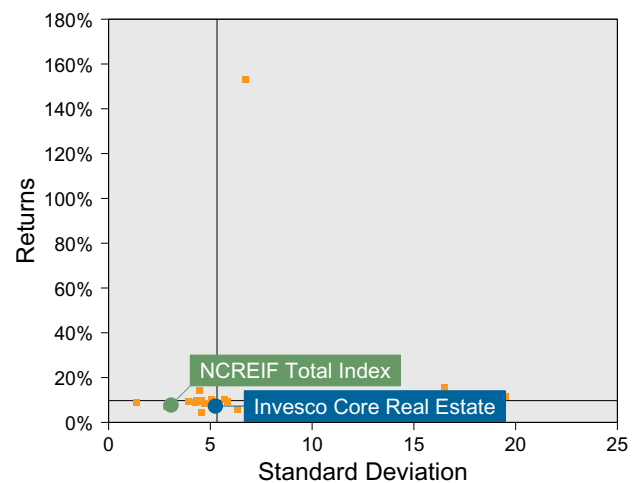
### Performance vs Callan Total Domestic Real Estate DB (Gross)



### Relative Return vs NCREIF Total Index



### Callan Total Domestic Real Estate DB (Gross) Annualized Five Year Risk vs Return



# JP Morgan RE Inc & Growth Period Ended December 31, 2021

## Investment Philosophy

The J.P. Morgan U.S. Real Estate Income and Growth Fund seeks to construct and opportunistically manage a portfolio of core direct real estate investments, complemented by other real estate and real estate-related assets. The Fund pursues a broadly diversified absolute-return strategy and pursues all property investments on an opportunistic basis. The majority of the Fund's investments will be in direct core properties in the office, industrial, retail and residential sectors.

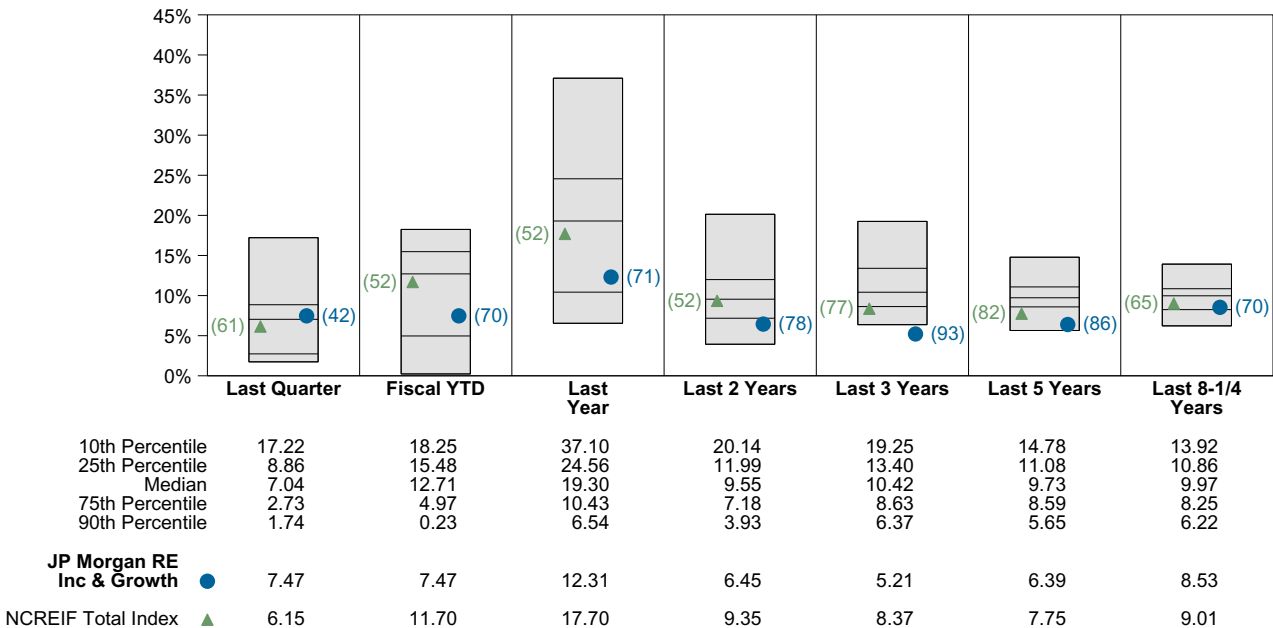
## Quarterly Summary and Highlights

- JP Morgan RE Inc & Growth's portfolio posted a 7.47% return for the quarter placing it in the 42 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 71 percentile for the last year.
- JP Morgan RE Inc & Growth's portfolio outperformed the NCREIF Total Index by 1.33% for the quarter and underperformed the NCREIF Total Index for the year by 5.39%.

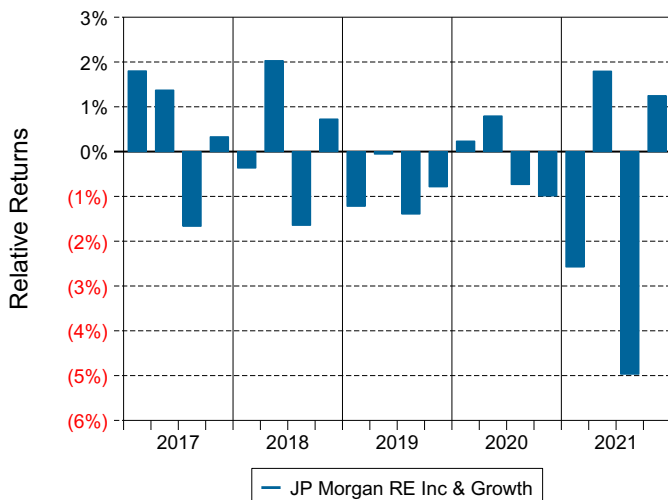
## Quarterly Asset Growth

Beginning Market Value	\$178,977,829
Net New Investment	\$-312,411
Investment Gains/(Losses)	\$13,376,139
Ending Market Value	\$192,041,556

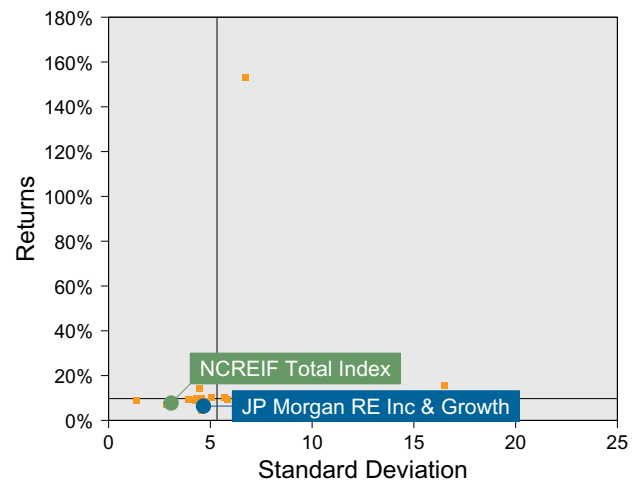
## Performance vs Callan Total Domestic Real Estate DB (Gross)



## Relative Return vs NCREIF Total Index



## Callan Total Domestic Real Estate DB (Gross) Annualized Five Year Risk vs Return





# Western Asset TIPS Period Ended December 31, 2021

## Investment Philosophy

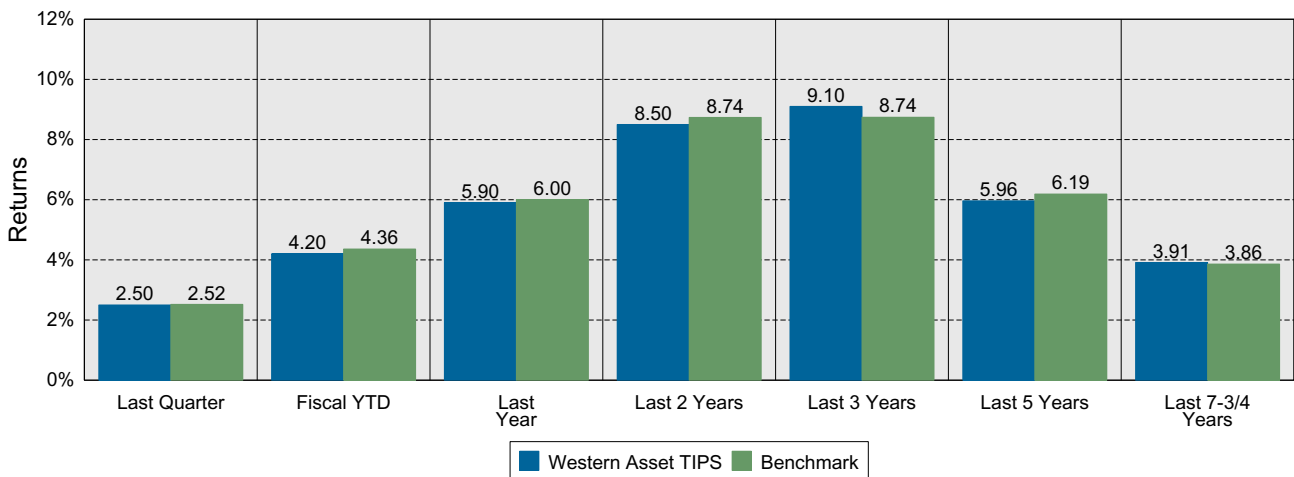
The Western Asset US TIPS Full Discretion strategy is an inflation-protected strategy that aims to maximize total return and add value through duration and curve positioning, sector allocation, and security selection, while approximating benchmark risk. The strategy invests in a diversified portfolio using higher-yielding inflation-protected instruments with a bias toward Treasury Inflation-Protected Securities (TIPS). Opportunistic investments include high-yield, emerging markets, non-dollar securities, commodities and bank loans that may also be employed using derivatives. **Benchmark: Bloomberg US TIPS through 12/31/2009; Bloomberg Global Inflation-Linked through 10/31/2018; Bloomberg US Govt Inflation Linked Bond Index thereafter.**

## Quarterly Summary and Highlights

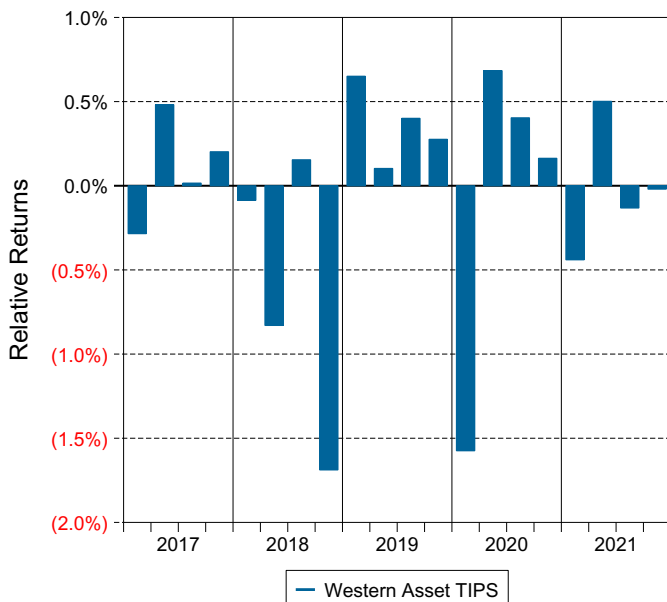
- Western Asset TIPS's portfolio underperformed the Benchmark by 0.02% for the quarter and underperformed the Benchmark for the year by 0.10%.

## Quarterly Asset Growth

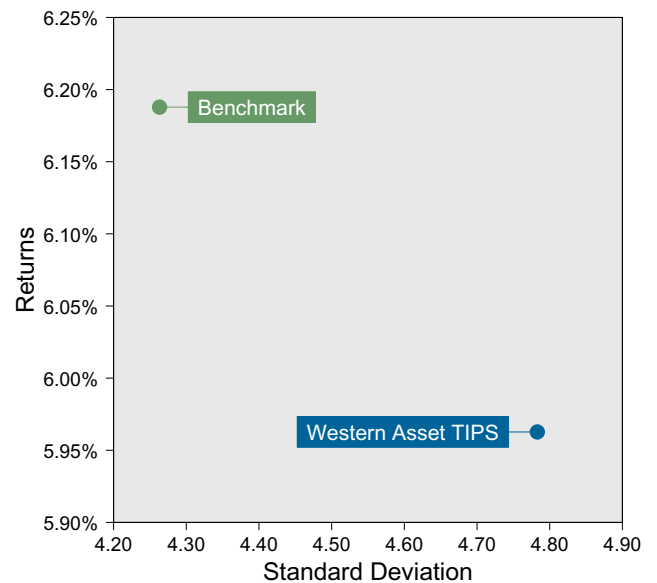
Beginning Market Value	\$515,337,098
Net New Investment	\$-14,140,051
Investment Gains/(Losses)	\$12,853,009
Ending Market Value	\$514,050,057



## Relative Return vs Benchmark



## Annualized Five Year Risk vs Return



# ISQ Global Infrastructure II

## Period Ended December 31, 2021

### Investment Philosophy

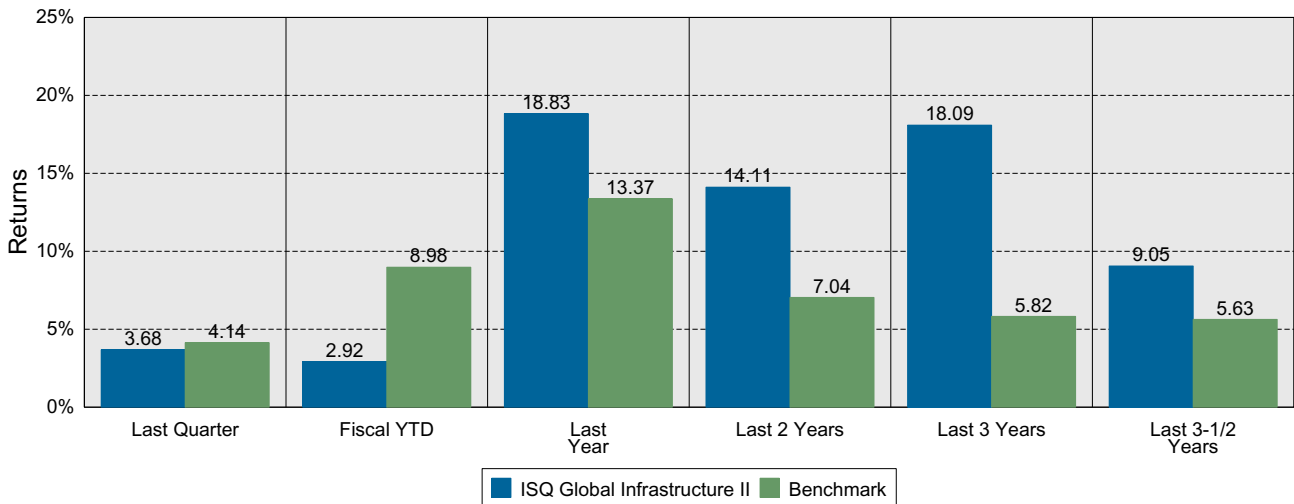
The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia and Latin America. The Fund may also invest in debt Securities that have equity-like returns or an equity component, or are related to its equity investments, including without limitation convertible debt, bank loans and participations and other similar instruments. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

### Quarterly Summary and Highlights

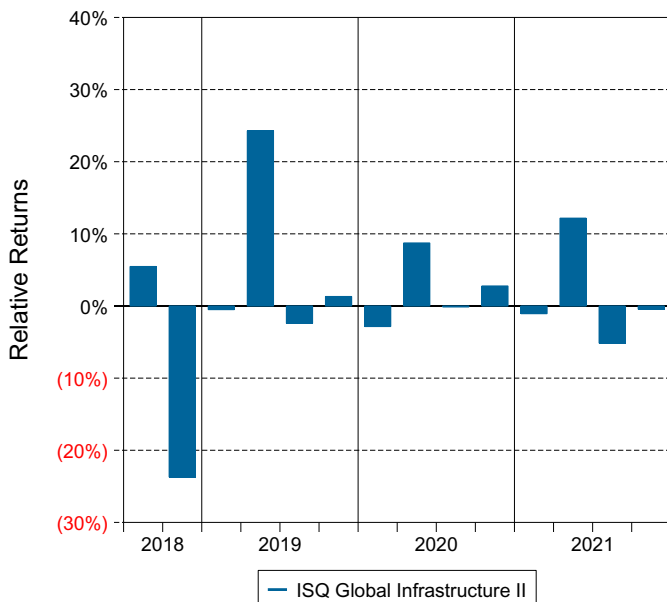
- ISQ Global Infrastructure II's portfolio underperformed the Benchmark by 0.46% for the quarter and outperformed the Benchmark for the year by 5.46%.

### Quarterly Asset Growth

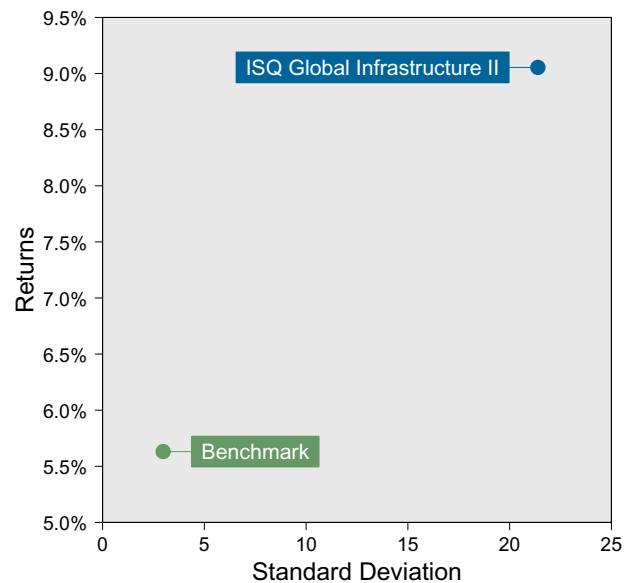
Beginning Market Value	\$65,393,185
Net New Investment	\$0
Investment Gains/(Losses)	\$2,407,779
Ending Market Value	\$67,800,964



Relative Return vs Benchmark



Annualized Three and One-Half Year Risk vs Return



# JP Morgan Infrastructure Period Ended December 31, 2021

## Investment Philosophy

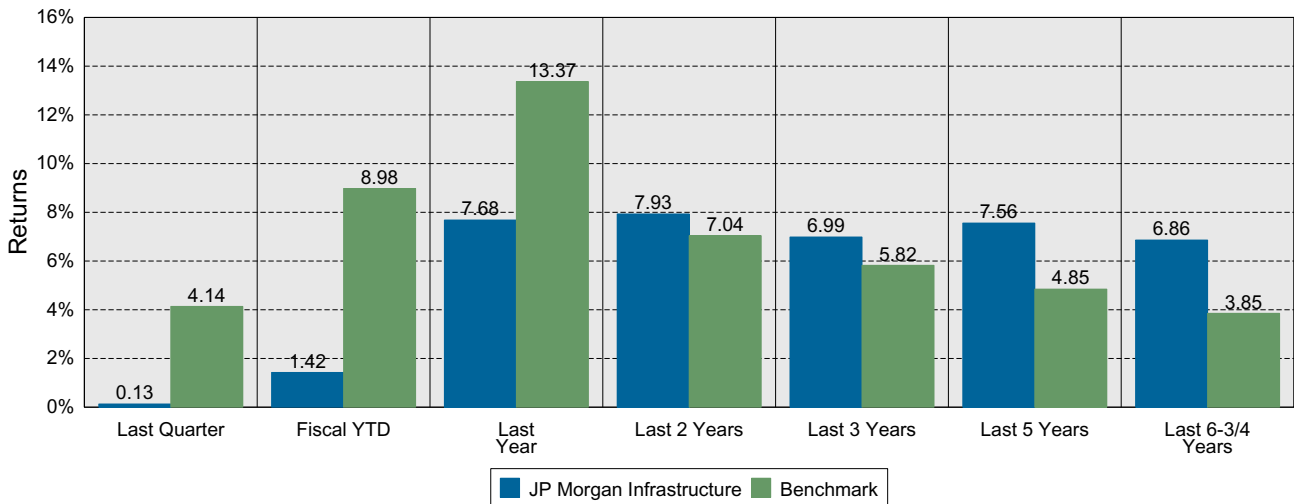
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and seaports and airports. **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

## Quarterly Summary and Highlights

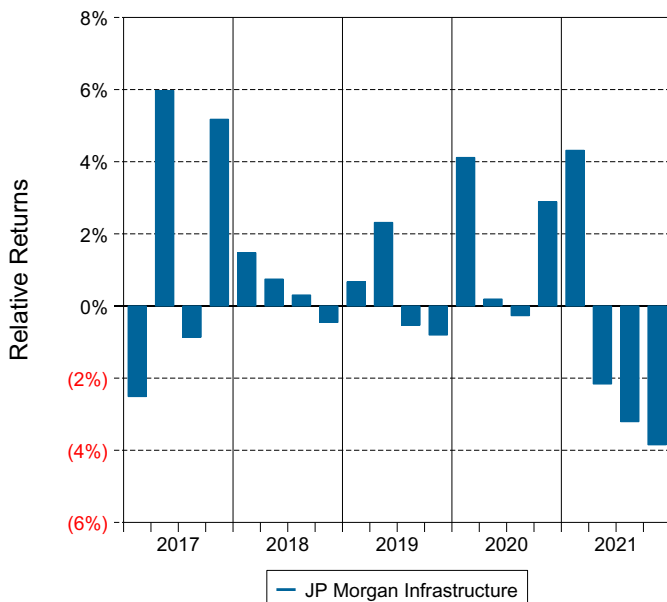
- JP Morgan Infrastructure's portfolio underperformed the Benchmark by 4.01% for the quarter and underperformed the Benchmark for the year by 5.68%.

## Quarterly Asset Growth

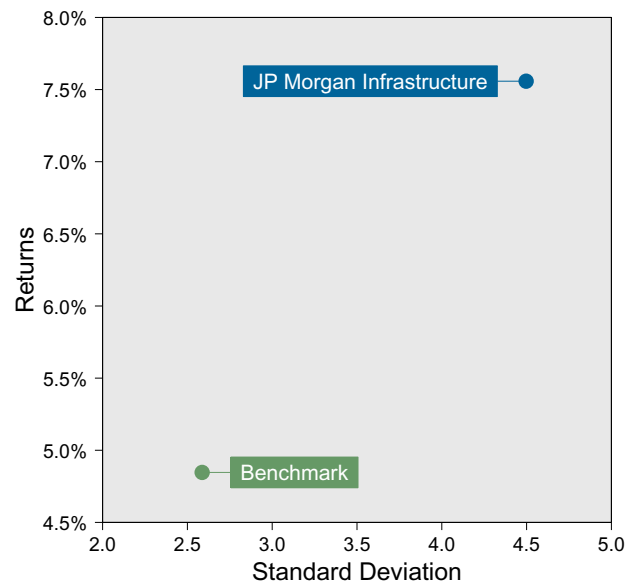
Beginning Market Value	\$108,053,133
Net New Investment	\$-2,870,555
Investment Gains/(Losses)	\$140,432
Ending Market Value	\$105,323,010



## Relative Return vs Benchmark



## Annualized Five Year Risk vs Return





# Grosvenor Cust. Infrastructure Period Ended December 31, 2021

## Investment Philosophy

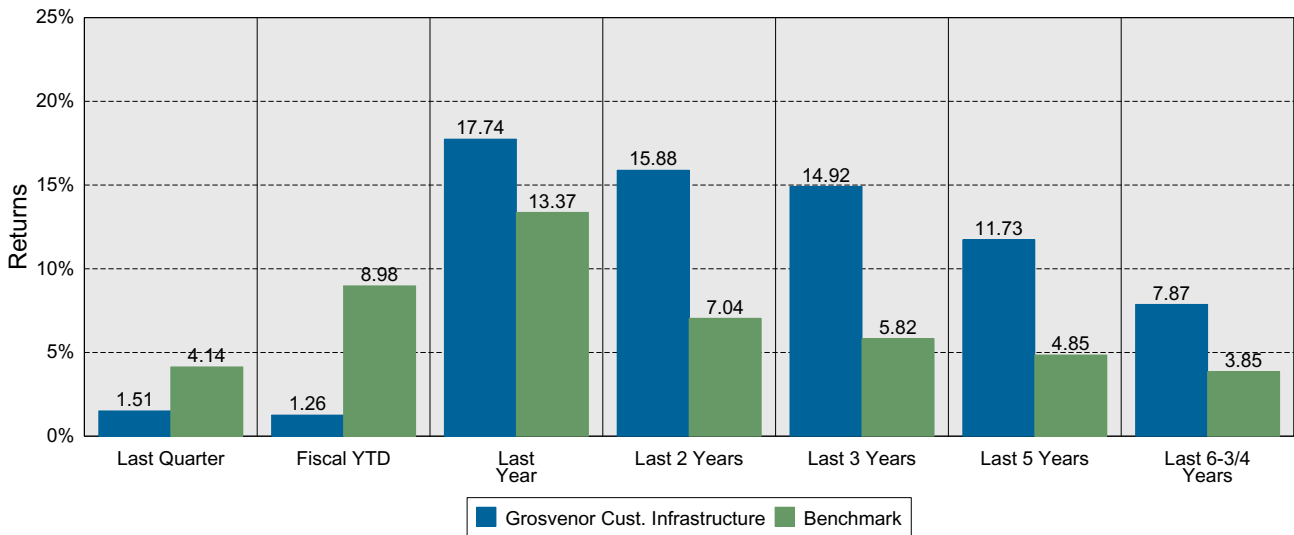
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%). **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

## Quarterly Summary and Highlights

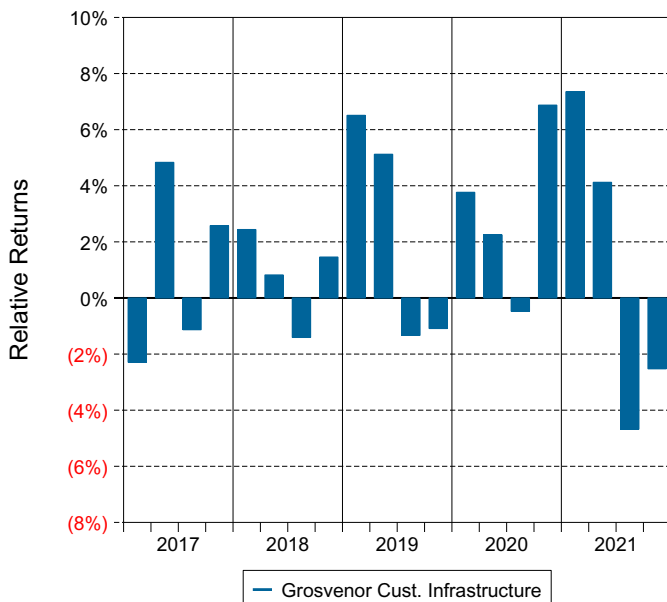
- Grosvenor Cust. Infrastructure's portfolio underperformed the Benchmark by 2.63% for the quarter and outperformed the Benchmark for the year by 4.37%.

## Quarterly Asset Growth

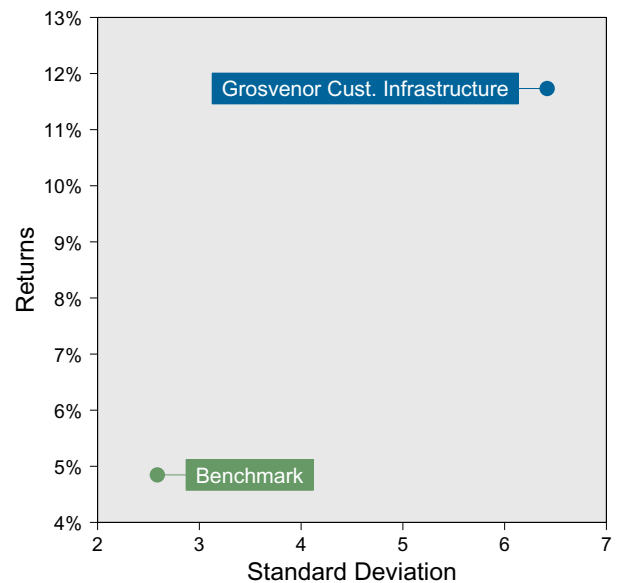
Beginning Market Value	\$60,435,102
Net New Investment	\$-3,636,311
Investment Gains/(Losses)	\$869,792
Ending Market Value	\$57,668,583



## Relative Return vs Benchmark



## Annualized Five Year Risk vs Return



# Macquarie Infrastructure Fund IV

## Period Ended December 31, 2021

### Investment Philosophy

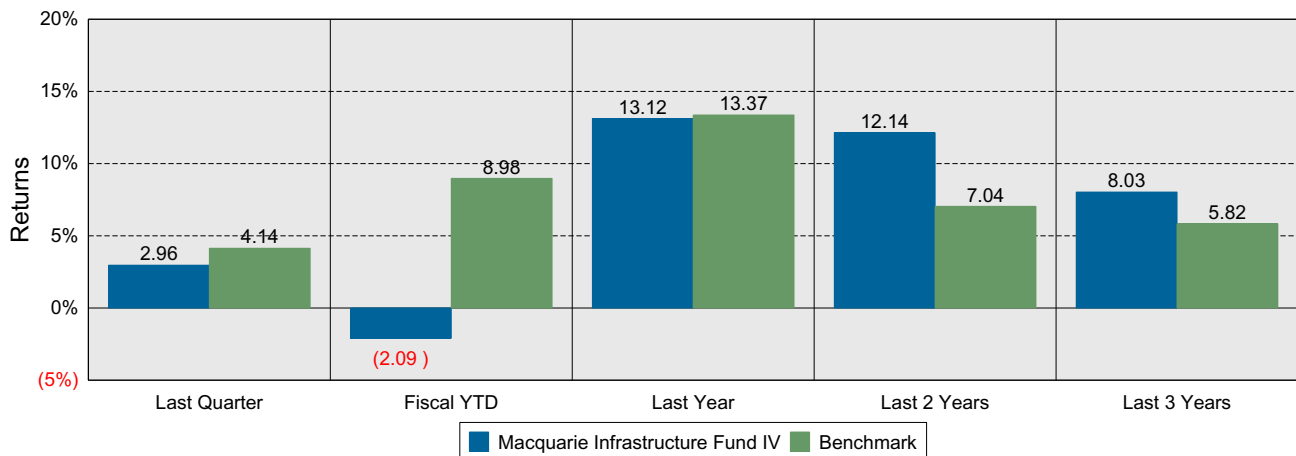
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience will provide a competitive advantage in sourcing and due diligence. Furthermore, the manager will also continue to focus on opportunities where its active management capabilities can add value for investors in terms of enhancing returns and the substantial mitigation and/or elimination of material operational risks. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

### Quarterly Summary and Highlights

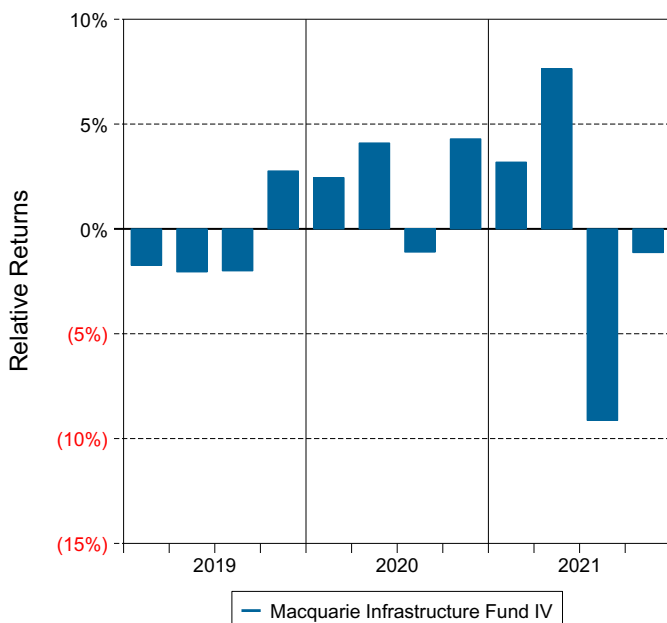
- Macquarie Infrastructure Fund IV's portfolio underperformed the Benchmark by 1.17% for the quarter and underperformed the Benchmark for the year by 0.25%.

### Quarterly Asset Growth

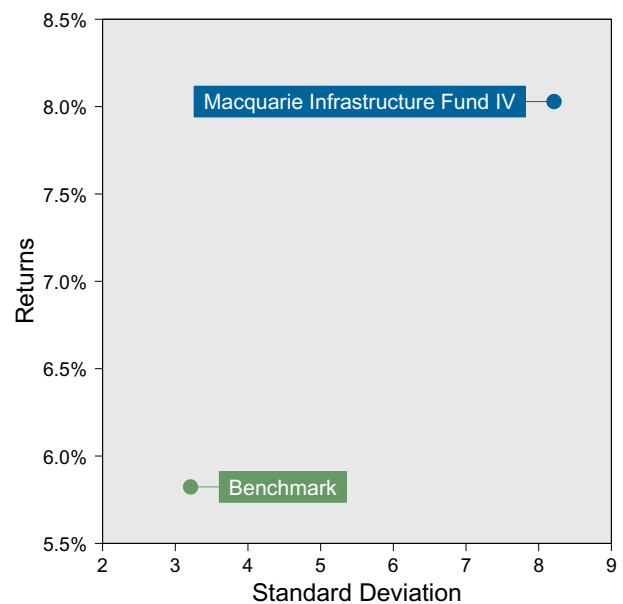
Beginning Market Value	\$73,196,370
Net New Investment	\$-41,704
Investment Gains/(Losses)	\$2,169,213
Ending Market Value	\$75,323,879



Relative Return vs Benchmark



Annualized Three Year Risk vs Return



# Macquarie Infrastructure Fund V

## Period Ended December 31, 2021

### Investment Philosophy

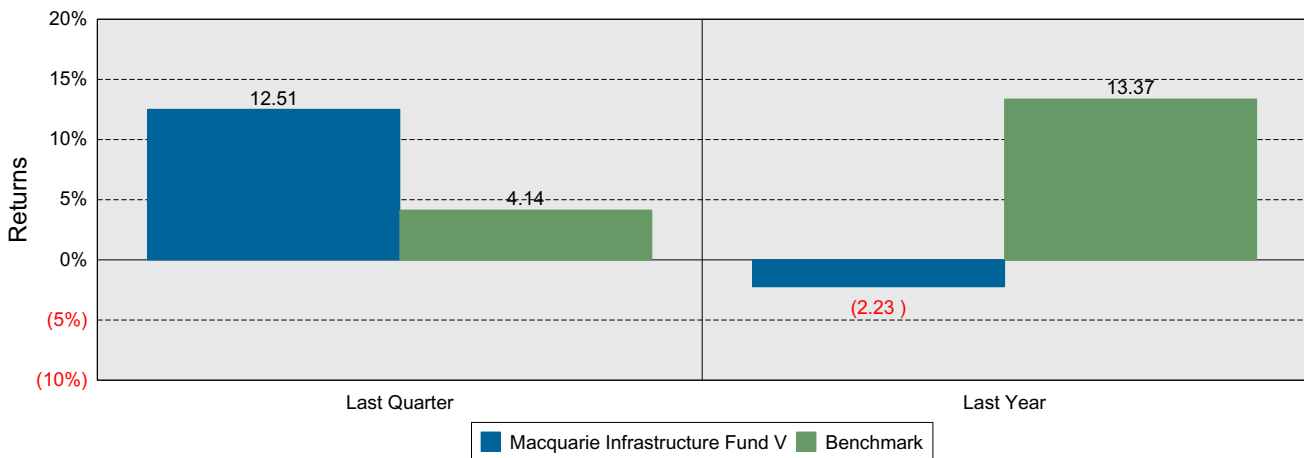
Macquarie’s principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team’s sector expertise and operating experience will provide a competitive advantage in sourcing and due diligence. Furthermore, the manager will also continue to focus on opportunities where its active management capabilities can add value for investors in terms of enhancing returns and the substantial mitigation and/or elimination of material operational risks. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

### Quarterly Summary and Highlights

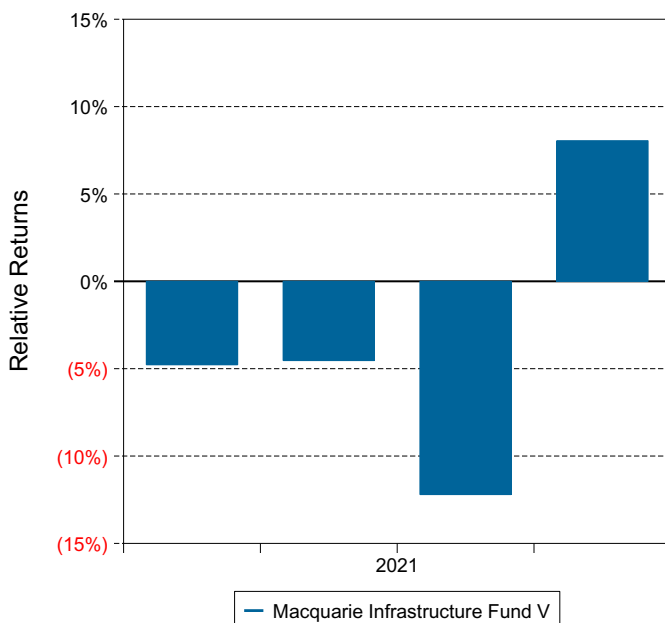
- Macquarie Infrastructure Fund V’s portfolio outperformed the Benchmark by 8.38% for the quarter and underperformed the Benchmark for the year by 15.60%.

### Quarterly Asset Growth

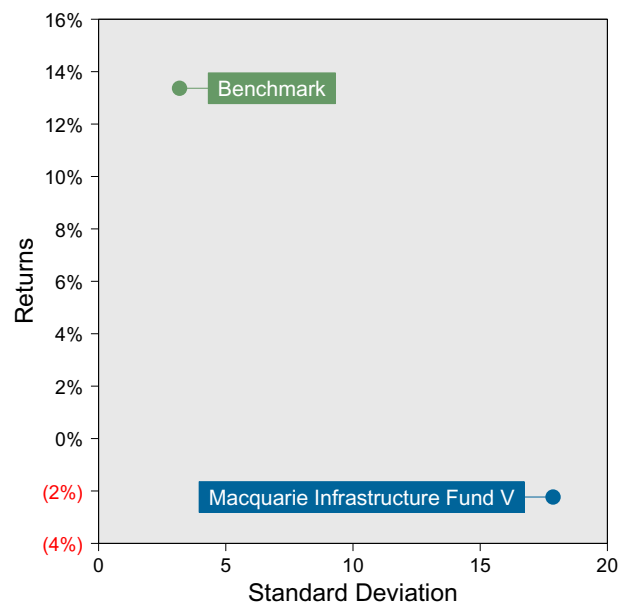
Beginning Market Value	\$24,788,713
Net New Investment	\$25,818,407
Investment Gains/(Losses)	\$2,967,962
Ending Market Value	\$53,575,082



Relative Return vs Benchmark



One Year Risk vs Return





## 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](http://www.callan.com/research-library) to see all of our publications, and [www.callan.com/blog](http://www.callan.com/blog) to view our blog. For more information contact Barb Gerraty at 415-274-3093 / [institute@callan.com](mailto:institute@callan.com).

## New Research from Callan's Experts

**[2021 Investment Management Fee Study](#)** | The purpose of this study, the ninth we have done, is to provide a detailed analysis on institutional investment management fee levels and trends across multiple asset classes and mandate sizes, for both active and passive management.

**[2021 Nuclear Decommissioning Funding Study](#)** | This study offers key insights into the status of nuclear decommissioning funding to make peer comparisons more accurate and relevant.

**[2021 Private Equity Fees and Terms Study](#)** | This study is intended to help institutional investors better evaluate private equity funds, serving as an industry benchmark when comparing a partnership's terms to its peers.

**[2021 Cost of Doing Business Survey](#)** | In this survey, Callan compares the costs of administering and operating funds across all types of tax-exempt and tax-qualified organizations in the U.S. We identify practices to help institutional investors manage expenses.

**[A Guide to Reinsurance for Institutional Investors](#)** | Reinsurance investments are a potential option for institutional investors looking to diversify both equity and rate risks while also offering attractive risk-adjusted returns. Sean Lee examines how insurance-linked securities can be incorporated into institutional investors' portfolios.

**[2021 ESG Survey](#)** | Callan's ninth annual survey assessing the status of environmental, social, and governance (ESG) investing in the U.S. institutional investment market.

## Blog Highlights

**[Rising Rates! Why the Heck Do We Own Bonds?](#)** | Investment grade bonds spin off yield and participate in rising rate markets through principal reinvestment, and their return distribution

provides downside protection that counter-balances growth-oriented portfolio investments. Despite frustratingly low expected returns, IG bonds can still contribute meaningfully to the long-term investment goals of most institutional investors.

**[Understanding Return Forecasts for Public DB Plans](#)** | It is important for decision makers to understand that actuaries and investment consultants offer assumptions on expected return that are inherently different: Actuarial discount rates assume a static return over time with no variability, whereas investment consultants estimate a median and a range of expected returns based on expected risk.

## Quarterly Periodicals

**[Private Equity Trends, 3Q21](#)** | A high-level summary of private equity activity in the quarter through all the investment stages

**[Active vs. Passive Charts, 3Q21](#)** | A comparison of active managers alongside relevant benchmarks over the long term

**[Market Pulse Flipbook, 3Q21](#)** | 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, 3Q21](#)** | Analysis and a broad overview of the economy and public and private market activity each quarter across a wide range of asset classes

**[Hedge Fund Quarterly, 3Q21](#)** | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

**[Real Assets Reporter, 3Q21](#)** | A summary of market activity for real assets and private real estate during the quarter

## Events

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

Please mark your calendar and look forward to upcoming invitations:

**2022 DC Survey Results Webinar**  
February 23, 2022 – 9:30 am (PT)

**National Conference**  
April 25-27, 2022, in San Francisco

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

**March 1-3, 2022 – 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/ccintro-march/](http://callan.com/events/ccintro-march/)

### Introductory Workshop for DC Plan Fiduciaries

**March 23, 2022 – San Francisco**

This one-day workshop centers on the fundamentals of administering a defined contribution (DC) plan. Designed primarily for ERISA fiduciaries and supporting staff members, attendees will gain a better understanding of the key responsibilities of an ERISA fiduciary and best practices for executing those responsibilities. Additionally, we will cover the basics of capital markets theory and DC investment menu design principles; investment manager evaluation, selection, and monitoring; best practices for evaluating fees; the regulatory and legal landscape; and industry trends. This workshop is complimentary and open to institutional investor clients.

Additional information including dates and registration can be found at: [callan.com/events/mar-dc-college/](http://callan.com/events/mar-dc-college/)



"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

Confidential – For Callan Client Use Only

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

abrdrn (Aberdeen Standard Investments)

Acadian Asset Management LLC

Adams Street Partners, LLC

AEGON USA Investment Management Inc.

AllianceBernstein

Allianz

Allspring Global Investments (formerly Wells Fargo Asset Mgmt)

American Century Investments

AQR Capital Management

Ares Management LLC

Ariel Investments, LLC

Aristotle Capital Management, LLC

Atlanta Capital Management Co., LLC

Aviva Investors

AXA Investment Managers

Baillie Gifford International, LLC

Baird Advisors

Barings LLC

### Manager Name

Baron Capital Management, Inc.

Barrow, Hanley, Mewhinney & Strauss, LLC

BlackRock

BMO Global Asset Management

BNP Paribas Asset Management

BNY Mellon Asset Management

Boston Partners

Brandes Investment Partners, L.P.

Brandywine Global Investment Management, LLC

Brookfield Asset Management

Brown Brothers Harriman & Company

Cambiar Investors, LLC

Capital Group

Carillon Tower Advisers

CastleArk Management, LLC

Causeway Capital Management LLC

Chartwell Investment Partners

ClearBridge Investments, LLC



**Manager Name**

Cohen &amp; Steers Capital Management, Inc.

Columbia Threadneedle Investments North America

Credit Suisse Asset Management, LLC

Crescent Capital Group LP

D.E. Shaw Investment Management, LLC

DePrince, Race &amp; Zollo, Inc.

Dimensional Fund Advisors L.P.

Doubleline

Duff &amp; Phelps Investment Management Co.

DWS

EARNEST Partners, LLC

Eaton Vance Management

Epoch Investment Partners, Inc.

Fayez Sarofim &amp; Company

Federated Hermes, Inc.

Fidelity Institutional Asset Management

Fiera Capital Corporation

First Hawaiian Bank Wealth Management Division

First Sentier Investors (formerly First State Investments)

Fisher Investments

Franklin Templeton

GAM (USA) Inc.

GCM Grosvenor

GlobeFlex Capital, L.P.

GoldenTree Asset Management, LP

Goldman Sachs

Guggenheim Investments

GW&amp;K Investment Management

Harbor Capital Group Trust

Heitman LLC

Hotchkis &amp; Wiley Capital Management, LLC

Income Research + Management Inc.

Insight Investment

Intech Investment Management LLC

Intercontinental Real Estate Corporation

Invesco

J.P. Morgan

Janus

Jennison Associates LLC

Jobs Peak Advisors

**Manager Name**

J O Hambro Capital Management Limited

KeyCorp

Lazard Asset Management

LGIM America (formerly Legal &amp; General Inv. Mgmt. America)

Lincoln National Corporation

Longview Partners

Loomis, Sayles &amp; Company, L.P.

Lord Abbett &amp; Company

LSV Asset Management

MacKay Shields LLC

Macquarie Investment Management (MIM)

Manning &amp; Napier Advisors, LLC

Manulife Investment Management

McKinley Capital Management, LLC

Mellon

MetLife Investment Management

MFS Investment Management

MidFirst Bank

Mondrian Investment Partners Limited

Montag &amp; Caldwell, LLC

Morgan Stanley Investment Management

MUFG Union Bank, N.A.

Natixis Investment Managers

Neuberger Berman

Newton Investment Management

Ninety One North America, Inc. (formerly Investec Asset Mgmt.)

Northern Trust Asset Management

Nuveen

P/E Investments

Pacific Investment Management Company

Parametric Portfolio Associates LLC

Partners Group (USA) Inc.

Pathway Capital Management

Peregrine Capital Management, LLC

PFM Asset Management LLC

PGIM Fixed Income

PGIM Quantitative Solutions LLC

PineBridge Investments

Polen Capital Management, LLC

Principal Global Investors

**Manager Name**

Putnam Investments, LLC

RBC Global Asset Management

Regions Financial Corporation

Richard Bernstein Advisors LLC

Riverbridge Partners LLC

Robeco Institutional Asset Management, US Inc.

Rothschild &amp; Co. Asset Management US

S&amp;P Dow Jones Indices

Schroder Investment Management North America Inc.

Securian Asset Management, Inc.

SLC Management

Smith Graham &amp; Co. Investment Advisors, L.P.

State Street Global Advisors

Stone Harbor Investment Partners L.P.

Strategic Global Advisors, LLC

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

**Manager Name**

Thompson, Siegel &amp; Walmsley LLC

Thornburg Investment Management, Inc.

Tri-Star Trust Bank

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Waterton Associates LLC

WCM Investment Management

WEDGE Capital Management

Wellington Management Company, LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair &amp; Company LLC

December 31, 2021



## **North Dakota State Investment Board Pension Funds**

**Investment Measurement Service  
Quarterly Review**

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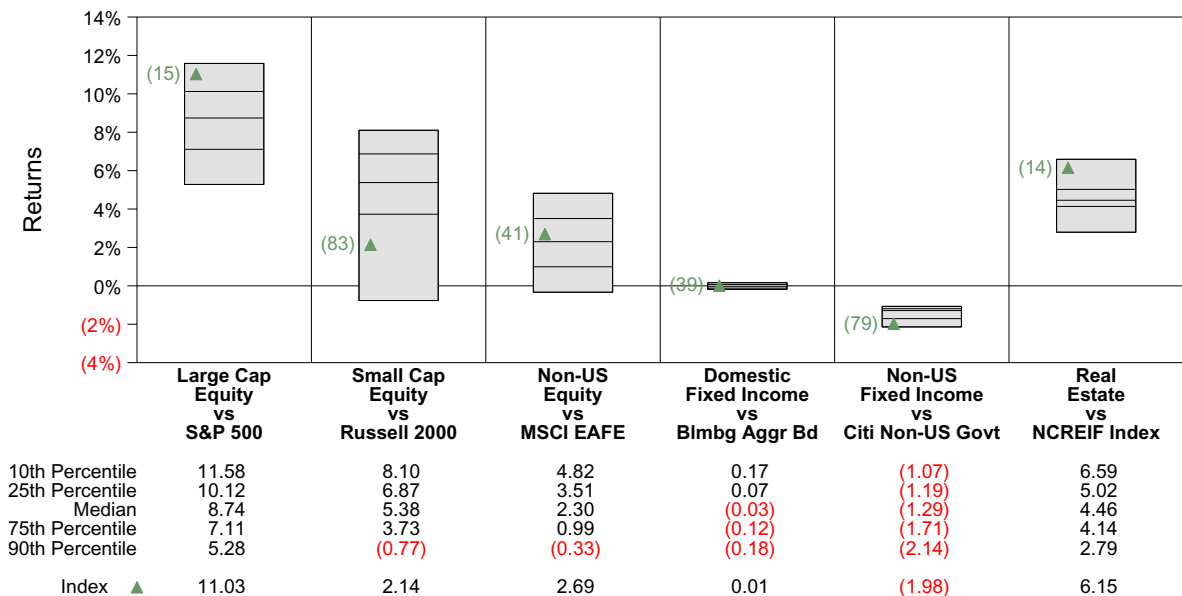
## Market Overview

### Active Management vs Index Returns

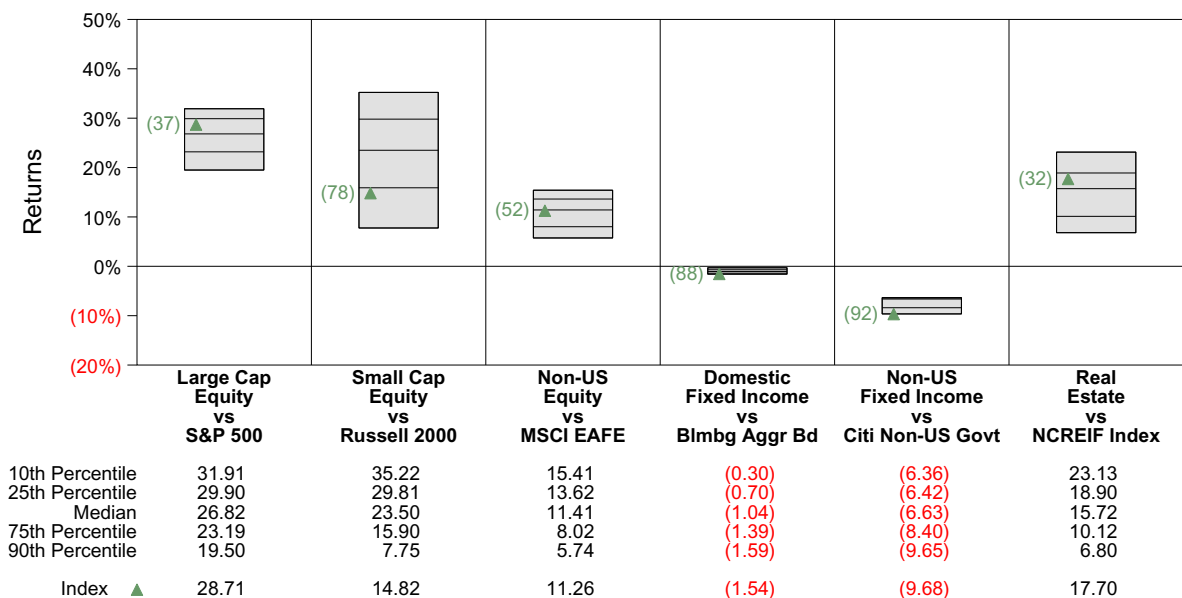
#### Market Overview

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 December 31, 2021



#### Range of Separate Account Manager Returns by Asset Class One Year Ended December 31, 2021





## What's Next for the Recovery in the U.S.?

### ECONOMY

**2** The fourth quarter of 2021 closed out another remarkable year following the wild ride through the pandemic and the recovery. U.S. GDP notched an incredibly strong 6.9% quarterly gain (4Q over 4Q), which translates to annual growth of 5.7% over 2020. So what's next?

## Agg Is Flat as Real Yields Stay Negative

### FIXED INCOME

**8** The Bloomberg Aggregate was flat in 4Q21, and real yields remain solidly in negative territory. Global returns were muted for unhedged U.S. investors in both 4Q and 2021. Emerging market debt indices underperformed most other fixed income sectors in 2021.

## Strong Demand Due to Focus on Yield

### PRIVATE CREDIT

**12** Private credit remains attractive to institutional investors due to its yield and income-generating characteristics. Private credit has, on average, generated net IRRs of 8% to 10% for most trailing periods ended 4Q20. Fundraising significantly rebounded in the first half of 2021.

## Another Year of Gains but New Threats Rise

### INSTITUTIONAL INVESTORS

**4** In 2021 all institutional investor types had strong gains but lagged a benchmark composed of 60% S&P 500/40% Bloomberg US Aggregate Index. For many, the question they face now is what to do in a low-yield environment with growing concerns over inflation.

## ODCE's Best Quarter; U.S. REITs Top Stocks

### REAL ESTATE/REAL ASSETS

**10** The NCREIF ODCE Index had its best performance ever in 4Q21, up 7.7%. Net operating income fell for Office as Omicron delayed office returns. Global REITs rose 10.4% compared to 7.8% for MSCI World; U.S. REITs rose 16.3%, beating the S&P 500 Index, which rose 11.0%.

## Ending the Year on a Positive Note

### HEDGE FUNDS/MACs

**13** Hedge funds ended higher, despite inflation and Omicron concerns growing in 4Q21; the HFRI Fund Weighted Composite Index gained 0.4%. Event-driven strategies finished on a strong note. Equity hedge finished in positive territory; macro strategies ended slightly lower.

## S&P 500 Up Again; Global Stocks Falter

### EQUITY

**6** The S&P 500 posted a strong 11.0% gain in 4Q21; large cap growth was the top performer, small cap growth the worst. Globally, emerging markets struggled relative to developed markets due to the economic slowdown and regulatory crackdown in China.

## Big Bounce Back in 2021 After 2020 Drop

### PRIVATE EQUITY

**11** Private equity fared exceedingly well in 2021, after 2020's big dip. Company investment and exit activity is up across the board, and IPO markets had another gangbuster year. On average, year-over-year transaction activity rose by 30% and dollar volumes by 70%.

## Index Falls in 3Q21, First Time Since 1Q20

### DEFINED CONTRIBUTION

**15** The Callan DC Index™ declined 0.4% in 3Q21. The Age 45 Target Date Fund had a slightly lower return (-0.8%), attributable to its higher allocation to equity, which underperformed fixed income. Balances also fell, by 0.7%. Target date funds received the largest net inflows.

## 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

# What's Next for the Post-Pandemic Economy?

ECONOMY | Jay Kloepfer

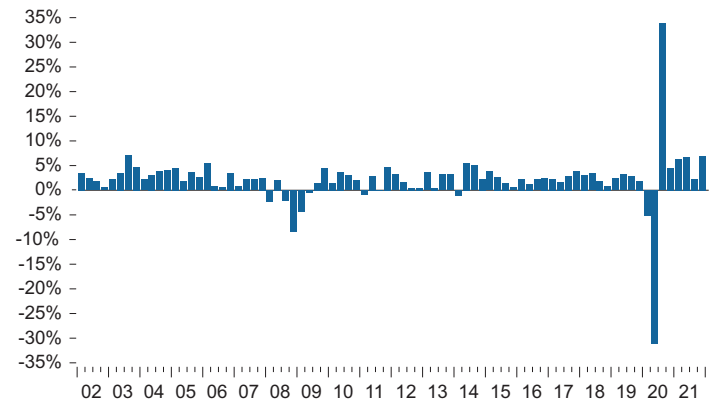
The fourth quarter of 2021 closed out another remarkable year following the wild ride through the pandemic and the recovery, a cycle that began in earnest in February 2020. U.S. GDP notched an incredibly strong 6.9% quarterly gain (4Q over 4Q), which translates to annual growth of 5.7% over 2020. We have not seen such growth since the Ronald Reagan administration, following the consecutive recessions of 1980 and 1982 induced in part to wring double-digit inflation out of the economy.

A short detour into monetary policy history is relevant here. The advent of current monetary policy began during the Reagan administration under Fed Chair Paul Volcker, although he was appointed by Jimmy Carter. Alan Greenspan took on the mantle of “monetarist” from Volcker and enshrined the discipline into Fed policy. That monetarist bent was then modified seriously by Ben Bernanke to address the Global Financial Crisis, where a zero interest rate policy was employed both in the U.S. and by most central banks around the world to rescue the global economy from collapse. Zero rates were combined with massive monetary intervention through the purchase of bonds to keep rates low and infuse liquidity into the system. Emboldened by what we learned in the GFC and the innovation in monetary intervention tools we developed, we applied zero rates with substantial monetary intervention to rescue the global economy again at the onset of the pandemic. After two years and a complete recovery to pre-pandemic GDP levels, the question now is what is next for the post-pandemic economy.

At the risk of *not* sounding an alarm, we believe supply chains will untangle, labor markets will slowly equilibrate, and supply and demand will line up the economy’s production function and the consumer’s normalizing demand for goods, services, food, and shelter. The Fed has begun tapering its asset purchases intended to supply liquidity to capital markets, and it is strongly signaling that interest rates will rise, with three hikes in the Fed Funds rate in 2022 articulated in the last FOMC meeting in January (the market is discounting four hikes). As policy is

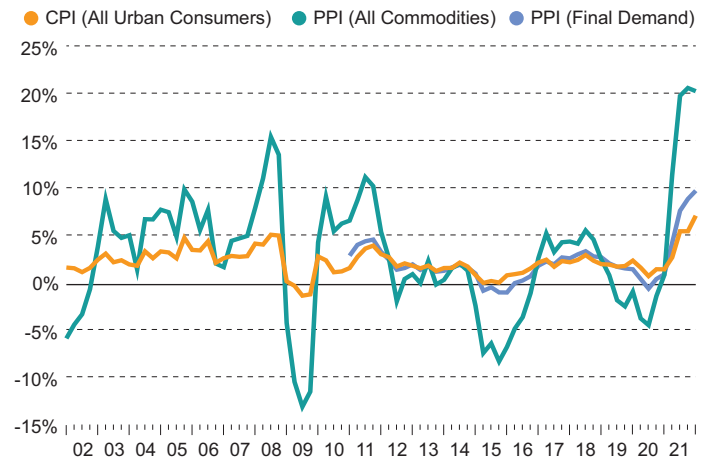
## Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

## Inflation Year-Over-Year



Source: Bureau of Labor Statistics

withdrawn, the global economy will move to stand on its own two feet, complete with the cycles of growth and recession fully expected in a market system. Top of mind for many is inflation, which hit a peak of 7% in 4Q21. There is now an entire generation of market participants who have never experienced sustained inflation, which was last seen in the early 1980s.

After starting 2021 in the shadow of renewed lockdowns in 4Q20 following then-record spikes in pandemic infections and

hospitalizations, the global economy and the U.S. in particular began a spurt of optimistic growth in the spring, and many measures of economic growth took off: consumption, business spending, production, travel, home-buying (which had started surging in 2020), and the opening of retail trade, dining, hospitality, and recreation. U.S. GDP surged in the second and fourth quarters, and the increase of 5.7% for 2021 compares to the 3.6% decline in 2020. Much has been made of the supply chain issues that have restricted output and the supply of goods, the fundamental mismatch between job seekers and available jobs, and the impact of both on potential growth and inflation. We believe the remaining supply chain issues will be ironed out over the course of 2022, increasing the supply of goods and relieving the pressure on prices. We also believe that the labor market will adjust, but that the process may be slower than that for goods and services, and that higher wages may be a feature of the U.S. economy for at least another year and perhaps in to 2023. The job segments most disrupted by the pandemic—retail, wholesale trade, transportation services, hospitality, education, state and local government—are those facing the most obstacles to rehiring at prevailing wages.

A couple of key metrics point toward a slowdown from the manic growth of 2021. First, within GDP, the building of inventory accounted for 4.9% of the 6.9% growth for 4Q21. Inventories built now boost current GDP, but suggest downward pressure on prices of those inventoried goods and slower growth from future production. Second, one of the key forward-looking indicators is the Purchasing Managers' Index (PMI), which surveys planned activity by market participants—new orders, output, input prices, employment—and covers both goods and services. The PMI for new orders around the globe went flat

### The Long-Term View

Index	4Q21	Periods Ended 12/31/21			
		1 Yr	5 Yrs	10 Yrs	25 Yrs
<b>U.S. Equity</b>					
Russell 3000	9.3	25.7	18.0	16.3	9.8
S&P 500	11.0	28.7	18.5	16.6	9.8
Russell 2000	2.1	14.8	12.0	13.2	9.0
<b>Global ex-U.S. Equity</b>					
MSCI EAFE	2.7	11.3	9.5	8.0	5.2
MSCI ACWI ex USA	1.8	7.8	9.6	7.3	--
MSCI Emerging Markets	-1.3	-2.5	9.9	5.5	--
MSCI ACWI ex USA Small Cap	0.6	12.9	11.2	9.5	6.9
<b>Fixed Income</b>					
Bloomberg Agg	0.0	-1.5	3.6	2.9	4.9
90-Day T-Bill	0.0	0.0	1.1	0.6	2.1
Bloomberg Long G/C	2.2	-2.5	7.4	5.7	7.3
Bloomberg GI Agg ex US	-1.2	-7.0	3.1	0.8	3.4
<b>Real Estate</b>					
NCREIF Property	6.1	17.7	7.8	9.3	9.4
FTSE Nareit Equity	16.3	43.2	10.8	11.4	9.9
<b>Alternatives</b>					
CS Hedge Fund	0.9	8.2	5.5	4.9	6.7
Cambridge PE*	4.8	49.5	21.2	17.2	15.7
Bloomberg Commodity	-1.6	27.1	3.7	-2.9	1.1
Gold Spot Price	4.1	-3.5	9.7	1.6	6.6
<b>Inflation – CPI-U</b>	1.6	7.0	2.9	2.1	2.3

\*Data for most recent period lags by a quarter. Data as of 9/30/21.

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

in August 2021 and stayed flat through December, as first the Delta then the Omicron variants spooked consumers and businesses. Third, at the start of 2022, the PMI for new orders has fallen sharply, driven by weakness emerging in the order data in China and the U.S., two of the biggest global economies.

### Recent Quarterly Economic Indicators

	4Q21	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20
Employment Cost–Total Compensation Growth	4.0%	3.7%	2.9%	2.6%	2.5%	2.4%	2.7%	2.8%
Nonfarm Business–Productivity Growth	6.6%	-5.0%	2.4%	4.3%	-3.4%	4.6%	11.2%	-0.8%
GDP Growth	6.9%	2.3%	6.7%	6.3%	4.5%	33.8%	-31.2%	-5.1%
Manufacturing Capacity Utilization	77.0%	76.1%	75.4%	74.5%	74.0%	71.9%	64.3%	74.4%
Consumer Sentiment Index (1966=100)	69.9	74.8	85.6	80.2	79.8	75.6	74.0	96.4

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

# Most Investors Saw Double-Digit Gains in 2021

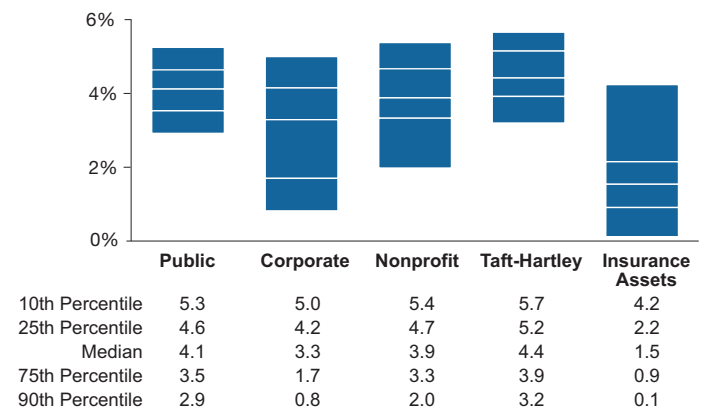
## INSTITUTIONAL INVESTORS

- In 2021 all institutional investor types had strong gains but lagged a benchmark composed of 60% S&P 500/40% Bloomberg US Aggregate.
- Taft Hartley plans (+15.0%) topped the list while corporate defined benefit (DB) plans (+9.5%) had the lowest returns.
- Almost all investor types have seen double-digit returns for four of the last five calendar years, with single-digit losses in 2018 being the exception.
- Their returns more closely track the 60%/40% benchmark over longer time periods, with results over the last 20 years roughly comparable.
- Strategic conversations among investors remain focused on where to go from here. Many just enjoyed the best annual returns, calendar or fiscal year, in a generation, but their elation is tempered by sobering capital markets assumptions.
- Inflation is one major topic of conversation.
- But for all the concern about inflation, few investors have taken action to address it in portfolios.
- Another, related topic is what to do with fixed income:
  - How low can the fixed income allocation go?
  - Should portfolios have bonds at all?
  - Should investors migrate out of an anchor to the Aggregate?
- Fixed income structures focus on the role of the asset

class—to diversify equity, to serve as a flight to quality, to act as a source of liquidity, to provide interest rate exposure—balanced against the desire for return in a very low-yield environment. Investors are evaluating how they can avoid undue risk.

- Some investors have looked at creative reconstruction of “core” fixed income, away from lower-returning segments of the Aggregate anchor position:
  - Private credit
  - Securitized debt
  - High yield

### Quarterly Returns, Callan Database Groups



Source: Callan

### Callan Database Median and Index Returns\* for Periods Ended 12/31/21

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	4.1	13.7	14.8	10.9	9.6	7.5
Corporate Database	3.3	9.5	14.1	10.2	9.0	7.3
Nonprofit Database	3.9	14.0	15.1	11.0	9.5	7.4
Taft-Hartley Database	4.4	15.0	14.8	11.0	10.0	7.2
Insurance Assets Database	1.5	5.1	8.4	6.1	5.3	5.6
All Institutional Investors	4.0	13.4	14.7	10.8	9.5	7.4
Large (>\$1 billion)	3.8	14.4	15.0	11.1	9.9	7.7
Medium (\$100mm - \$1bn)	4.0	12.9	14.7	10.9	9.5	7.3
Small (<\$100 million)	4.2	13.3	14.4	10.3	9.2	7.0
60% S&P 500/40% Bloomberg Agg	6.6	15.9	15.9	17.5	11.1	7.7

\*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.

- Bank loans
  - Private placements
  - Global fixed income
  - TIPS
- Risk-seeking in fixed income is not for all; some investors want to dial down the amount of risk their managers are taking, specifically credit.
  - There is growing concern among investors about a market drawdown, given high valuations relative to historical averages.
  - Hedge funds and other absolute return strategies may gain a new appreciation when compared to low fixed income expectations as a way to diversify growth risk with less of a return penalty.
  - Real assets are under review with the growing concerns over inflation.
    - Will the inflation of the future come from the same sources as the global energy complex evolves?
    - Are investors hedging inflation or outperforming it?
  - Investors are questioning the inclusion of past real assets stalwarts: natural resources, energy, MLPs, and commodities.

**Corporate DB Plans**

- Many are conducting asset/liability (A/L) studies.
- Lower return expectations stress their EROA assumptions, but the American Rescue Plan Act (ARPA) provides a shot

in the arm to them: lower liabilities, higher funded status, and lower required contributions.

**Public DB Plans**

- These investors are also in the midst of numerous A/L studies.
- Low projected returns mean downward pressure on EROA assumptions. Weaker returns may derail the expressed desire to bring in risk, spurring further demand for alternatives exposures and leading to discussions of total fund leverage.

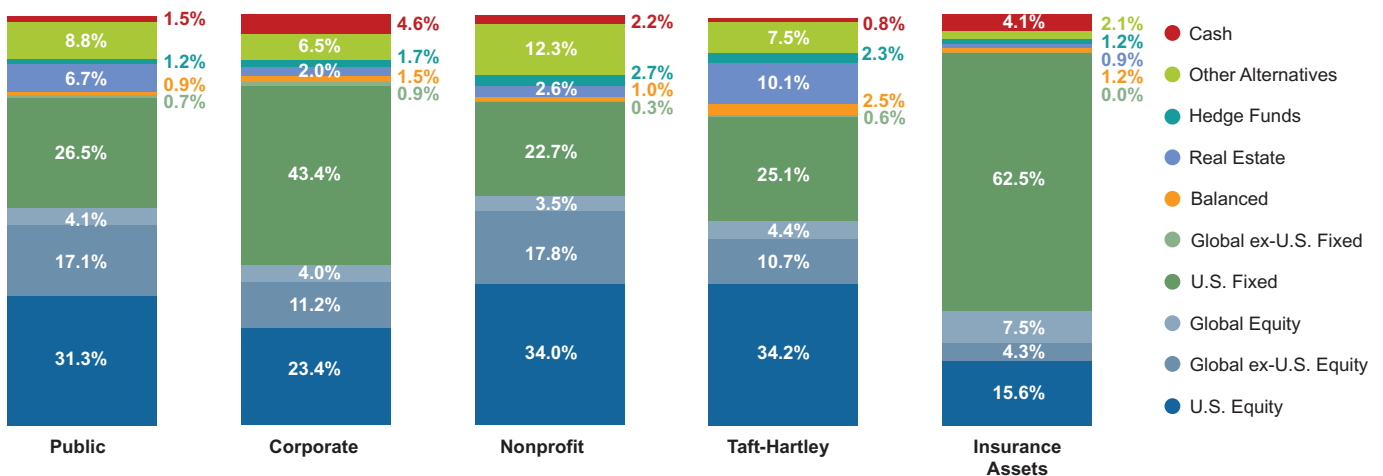
**Defined Contribution Plans**

- DC glidepaths are being reassessed due to lower short-term capital markets assumptions, with some glidepath managers risking up. The long-term equilibrium did not change, but it is coming from a lower starting point.
- Sponsors are starting to discuss retirement income as their plans mature.

**Nonprofits**

- Subdued expectations for capital markets returns are challenging both their risk tolerance and the sustainability of established spending rates.
- They are dissatisfied with private real assets, hedge funds, and fixed income; portfolio reconstruction is on the table.

**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

### Returns grind higher despite mounting concerns

- S&P 500 posted a strong 11.0% gain in 4Q21; large cap growth (Russell 1000 Growth) was the top performer, which contrasted with the worst-performing asset class, small cap growth (Russell 2000 Growth: 0.0%).
- The new Omicron variant, continued supply chain disruptions, and renewed fears of persistent inflation pushed investors into the perceived safety of the largest stocks.
- S&P 500 sector results were mixed, with Real Estate (+17.5%) posting the top returns alongside Technology (+16.7%) and Materials (+15.2%); Communication Services (0.0%) and Financials (+4.6%) lagged broad returns.
- In 2021, small value outperformed small growth by over 2,500 bps (Russell 2000 Value: 28.3% vs. Russell 2000 Growth: 2.8%), a stark reversal from 2020 and a pattern consistent with periods of robust GDP growth.

### Index concentration driving positive returns...

- The 10 largest stocks in the S&P 500 comprised 30.5% of the index but accounted for 65% of the 2021 return.
- During 4Q21, top 10 weights accounted for ~40% of return.

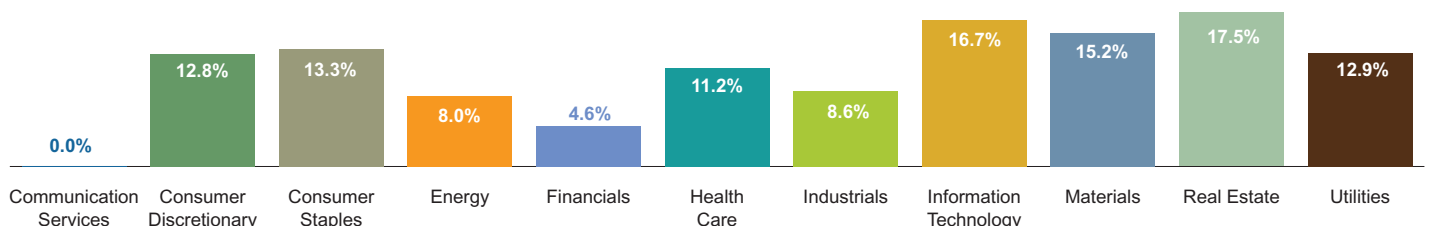
### ...but may be hiding underlying weakness

- Nearly 10% of Russell 3000 stocks fell by 35% or more in 2021, which is unusual for a year when market returns were in excess of 25%.

### Market capitalization, style driving divergence in returns

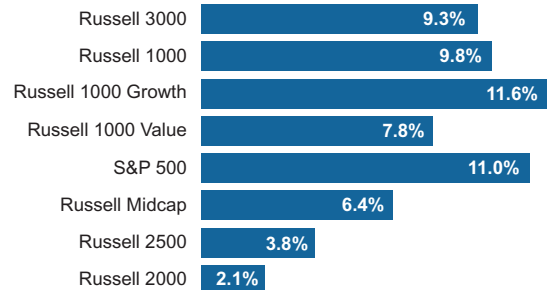
- Mega-cap growth (Russell Top 200 Growth) was the strongest performer in both 4Q21 and 2021.

## Quarterly Performance of Industry Sectors

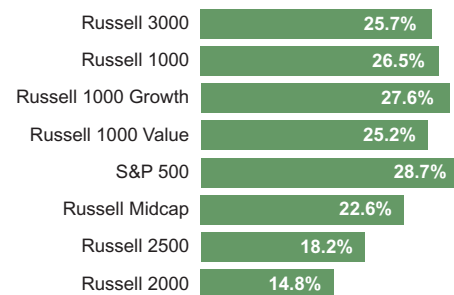


Source: S&P Dow Jones Indices

## U.S. Equity: Quarterly Returns



## U.S. Equity: One-Year Returns



Sources: FTSE Russell and S&P Dow Jones Indices

- Growth style returns highly correlated with market capitalization in both 4Q21 and 2021 (higher market capitalization = high return).
- Within micro-, small-, and smid-cap growth, Health Care (especially biotech/pharma) was biggest detractor to returns.
- Value returns correlated with market capitalization in 4Q21; for 2021, value returns did not experience much divergence.



## Global Equity

### Omicron takes center stage

- A recovery-driven market shifted back to COVID favorites, boosting Information Technology stocks.
- Small cap underperformed large amid global growth concerns.
- Emerging markets struggled relative to developed markets as China experienced significant pressure from an economic slowdown and its regulatory crackdown.

### Stalled recovery

- As the new variant took hold, Energy and Communication Services lagged on fear of restrained growth.
- Japan suffered from both supply chain issues and economic constraints from COVID-19.
- Growth and momentum factors outperformed in developed markets but not in emerging markets.

### U.S. dollar vs. other currencies

- The U.S. dollar rose against other major currencies as tapering accelerated alongside the expectation for 2022 rate hikes, which notably detracted from global ex-U.S. results.

### Growth vs. value

- Inflationary pressures and the ultimate rebound from COVID-19 supported value's leadership for the full year, despite the shift to growth in 4Q21.

### Regulation has spooked Chinese market

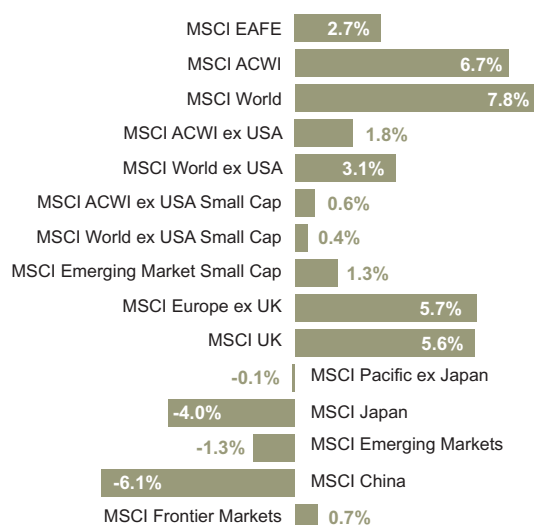
- Although regulation is not new in China, the duration, scope, and intensity of the current regime are unprecedented.
- Regulations have been centered on antitrust, financial markets, data/national security, and social welfare to enhance the sustainability of its economy.
- Regulatory uncertainty should subside as China focuses on implementation.

### Inflation is expected to normalize in a few years

- Forecasted year-over-year core CPI is expected to reach its peak between 1Q22 and 2Q22.
- Inflationary environment by and large has shifted central banks to contractionary policy.

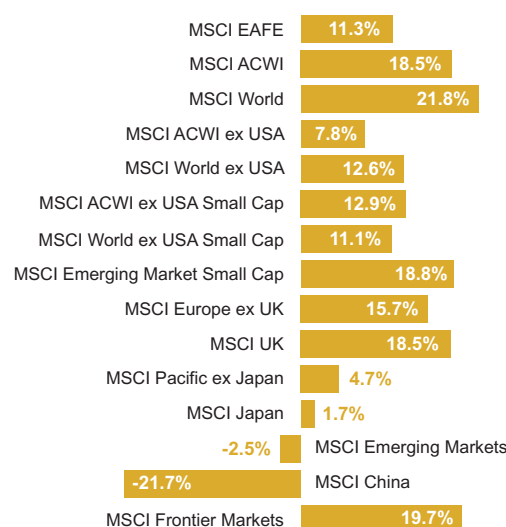
## Global ex-U.S. Equity: Quarterly Returns

(U.S. Dollar)



## Global ex-U.S. Equity: One-Year Returns

(U.S. Dollar)



Source: MSCI

## Rise in inflation expectations tends to stoke value

- Correlation between cyclical sectors and inflation/interest rate expectations generally has been positive.
- Growth relative to value is more vulnerable as interest rates normalize.
- Global recovery from COVID and deficit in Energy should support value.

# Fixed Income

## U.S. Fixed Income

### Treasury yields again unchanged

- 10-year at 1.52% at 9/30 and 12/31, up slightly from 1.45% on 6/30.
- TIPS outperformed nominal Treasuries and 10-year breakeven spreads widened to 2.56%.
- Real yields remain solidly in negative territory.

### Bloomberg Aggregate was flat, literally

- Spread sectors (Agencies, ABS, CMBS, MBS, and Credit) all underperformed UST by a modest amount (but positive YTD).
- Yield curve flattened; curve positioning had a meaningful impact on returns in 4Q.

### High yield and leveraged performed relatively well

- Spreads remain near historic tight.
- High yield issuers' default rate declined to a record low in December (J.P. Morgan).
- New issuance hit a record for the second year in a row as issuers looked to finance at relatively low rates.

### Munis outperformed Treasuries

- Lower-quality bonds continued their trend of outperformance as investors sought yield.

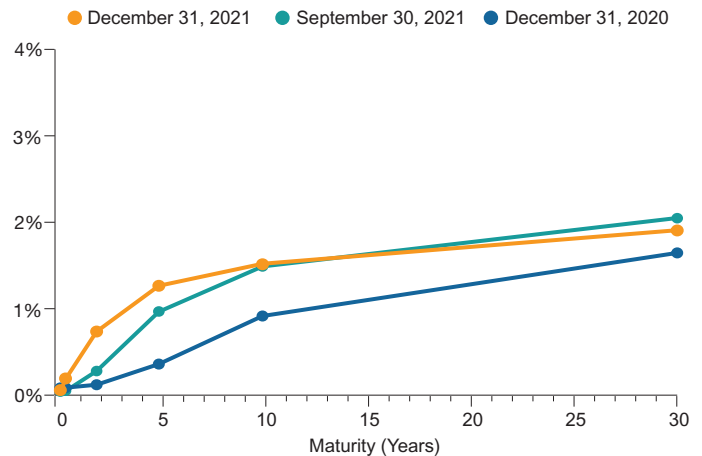
### Inflation is being felt, indicated by several measures

- Annual CPI jumped to 7.0% in December—its eighth consecutive reading above 5% and the largest 12-month increase since the period ending June 1982.
- Increases for shelter and for used cars/trucks were the largest contributors to the seasonally adjusted all-items increase.
- Even service inflation, which had declined initially, has since recovered and is on an upward trend.

### Fed has turned more hawkish than expected

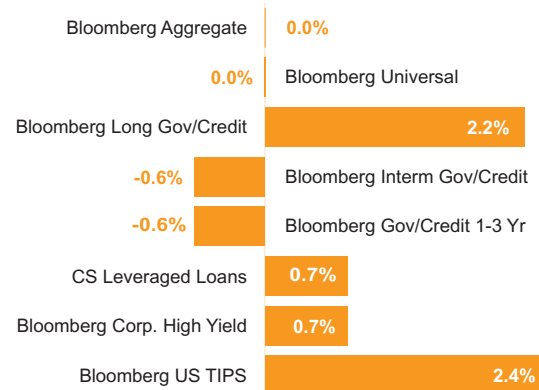
- Fed announced a doubling of the pace of tapering and an upward revision to the anticipated path of rate hikes.
- FOMC participants now expect three rate hikes in 2022 to bring the targeted range to 0.75%-1.0% by year-end.

## U.S. Treasury Yield Curves



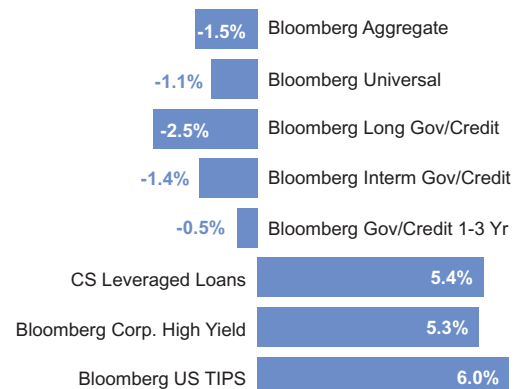
Source: Bloomberg

## U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg and Credit Suisse

## U.S. Fixed Income: One-Year Returns



Sources: Bloomberg and Credit Suisse



## FIXED INCOME (Continued)

### Spreads have returned to tights

- Fundamentals remain strong and default expectations low.
- Revenue, profits, and free cash flow at or near cycle highs.
- Gross and net leverage trending lower while interest coverage trends higher.

### Global Fixed Income

#### Flat on a hedged basis

- Returns were muted and U.S. dollar strength eroded returns for unhedged U.S. investors in both 4Q and 2021.
- Yen was a notable underperformer in developed markets, falling 10% for the year.

#### Emerging market debt posted negative returns

- Emerging market debt indices underperformed most other fixed income sectors in 2021.
- Currencies fared the worst vs. the U.S. dollar; the Turkish lira sank 44% on spiking inflation.

#### Global outlook may shift lower with regional variance

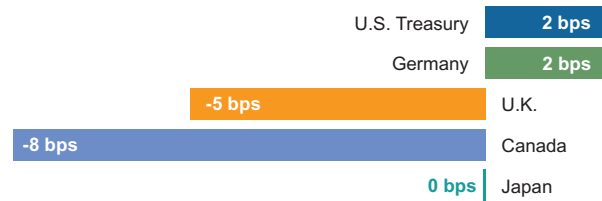
- Moderating and differentiated outlook for various regions reflects certain DM and EM economies shifting to tightening balanced by others managing legacy issues.

#### Central bank policy is mixed

- The U.K. has led the way with interest rate hikes as the BOE expects inflation to peak in April 2022.
- Europe and Japan continue to have below-target inflation and are expected to maintain relatively accommodating monetary policy.
- EM central banks, having moved early to battle inflation, may be moving to a more late-cycle posture.

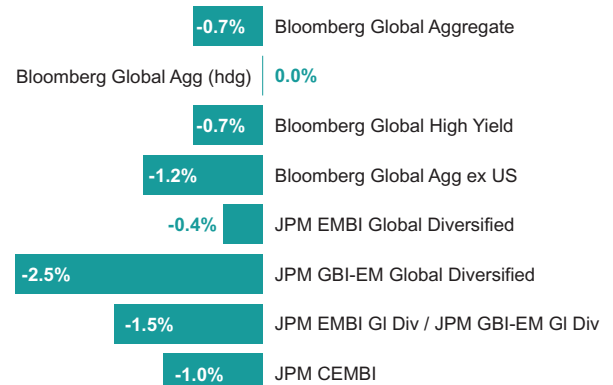
### Change in 10-Year Global Government Bond Yields

3Q21 to 4Q21



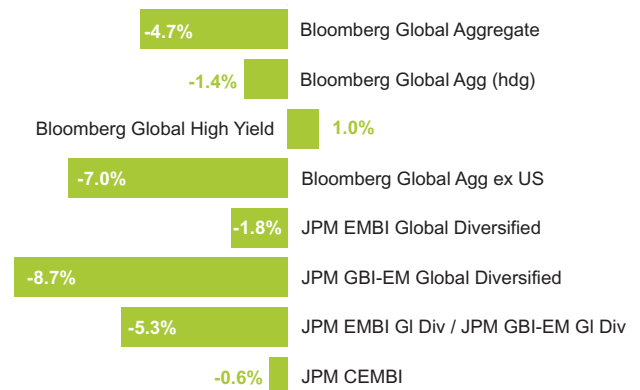
Source: Bloomberg

### Global Fixed Income: Quarterly Returns



Sources: Bloomberg and JPMorgan Chase

### Global Fixed Income: One-Year Returns



Sources: Bloomberg and JPMorgan Chase

# Best Gain Ever for ODCE; U.S. REITs Top Stocks

REAL ESTATE/REAL ASSETS | Munir Iman

## Strongest gains for ODCE ever

- The NCREIF Open End Diversified Core Equity (ODCE) Index posted its best return ever in 4Q21 (7.7%); Industrial was the best performer.
- Income returns were positive across sectors.
- Appraisers are pricing in a recovery due to strong fundamentals in Industrial and Multifamily.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.
- Niche sectors such as self-storage and life sciences continued to be accretive.

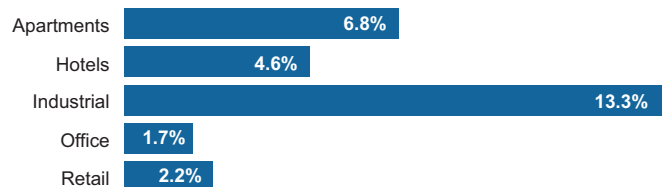
## Compression in vacancy rates

- Vacancy rates kept compressing in Industrial and Multifamily as demand continued.
- Net operating income turned negative for Office as the Omicron variant delayed many return-to-work plans.
- 4Q21 rent collections were stable across all sectors.
- Demand outpaced supply as new construction of preleased Industrial and Multifamily occurred.

## Global REITs and U.S. REITs outperform

- Global REITs outperformed in 4Q21, increasing 10.4% compared to 7.8% for global equities (MSCI World).
- U.S. REITs rose 16.3% in 4Q21, beating the S&P 500 Index, which gained 11.0%.
- Global REITs were trading below NAV, except for those in Australia, Japan, the United States, and Canada.
- Property sectors were mixed as out-of-favor sectors such as Office, Hotels, and Retail traded below NAV.
- Ongoing volatility in REIT share prices offers opportunities to purchase mispriced securities, individual assets from REIT owners, and discounted debt, as well as lend to companies and/or execute take-privates of public companies.

## Sector Quarterly Returns by Property Type



Source: NCREIF

## Callan Database Median and Index Returns\* for Periods Ended 12/31/21

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
<b>Real Estate ODCE Style</b>	<b>4.5</b>	<b>18.5</b>	<b>18.5</b>	<b>7.9</b>	<b>7.8</b>	<b>9.4</b>	<b>5.8</b>
NFI-ODCE (value wt net)	7.7	21.1	21.1	8.2	7.7	9.4	5.8
NCREIF Property	6.1	17.7	17.7	8.4	7.8	9.3	7.2
NCREIF Farmland	3.8	7.8	7.8	5.2	5.7	9.7	10.6
NCREIF Timberland	4.6	9.2	9.2	3.7	3.6	5.3	5.1
<b>Public Real Estate</b>							
<b>Global Real Estate Style</b>	<b>10.5</b>	<b>28.5</b>	<b>28.5</b>	<b>16.1</b>	<b>11.0</b>	<b>11.0</b>	<b>5.5</b>
FTSE EPRA Nareit Developed	10.2	26.1	26.1	11.8	7.8	8.6	3.5
<b>Global ex-U.S. Real Estate Style</b>	<b>3.2</b>	<b>10.8</b>	<b>10.8</b>	<b>10.8</b>	<b>9.7</b>	<b>10.1</b>	<b>3.9</b>
FTSE EPRA Nareit Dev ex US	2.0	8.1	8.1	6.7	6.4	7.2	1.9
<b>U.S. REIT Style</b>	<b>15.9</b>	<b>42.8</b>	<b>42.8</b>	<b>20.9</b>	<b>12.4</b>	<b>12.4</b>	<b>7.9</b>
EPRA Nareit Equity REITs	16.3	43.2	43.2	18.4	10.8	11.4	6.9

\*Returns less than one year are not annualized.

Sources: Callan, FTSE Russell, NCREIF

# A Big Bounce Back in 2021

PRIVATE EQUITY | Gary Robertson

Private equity has adapted well to the COVID environment with tremendous growth last year. On average, year-over-year transaction activity increased by 30% and dollar volumes by 70%.

**Fundraising** ► Based on preliminary data, in 2021 private equity partnerships holding final closes raised \$815 billion across 2,368 partnerships (unless otherwise noted, all data is from PitchBook and 4Q numbers are very preliminary). The dollar amount is only 5% away from 2020's total, while the number of partnerships trails by 22%; both will exceed 2020 when final tallies are concluded. 4Q21 had final closes totaling \$162 billion, up 5% from 3Q. The number of funds totaled 479, down 6%.

**Buyouts** ► New buyout investments for 2021 totaled 12,410, up 32% from 2020. Dollar volume increased 52% to \$797 billion. 4Q saw 3,022 new investments, a 1% decrease from 3Q, and dollar volume fell 20% to \$204 billion.

**VC Investments** ► The year produced 45,665 rounds of new investment in venture capital (VC) companies, up 13% from 2020. Announced volume of \$710 billion was up a stunning 99%. 4Q saw 10,196 new rounds, an 11% decline from 3Q, and dollar volume rose 11% to \$204 billion.

**Exits** ► Last year also saw 3,001 buyout-backed private M&A exits, up 31% from 2020, with proceeds of \$692 billion, up 66%. 4Q had 755 private exits, down 3% from 3Q, with proceeds of \$188 billion, down 11%. The year's 427 buyout-backed IPOs rose 150% from 2020, with proceeds of \$132 billion, up 76%. 4Q IPOs numbered 112, unchanged from 3Q, but proceeds of \$27 billion declined 16%.

Venture-backed M&A exits for the year totaled 3,080, up 40% from 2020. Announced dollar volume of \$218 billion was up 63%. The final quarter had 739 exits, down 10% from 3Q, and value of \$48 billion, down 24%. The year's 636 venture-backed IPOs rose 49% from 2020, with proceeds of \$201 billion, up 179%. There were 162 in 4Q, a 16% jump from 3Q, and the \$39 billion of proceeds rose 18%.

## Funds Closed 1/1/21 to 12/31/21

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	1,536	230,022	28%
Growth Equity	176	103,648	13%
Buyouts	463	354,739	44%
Mezzanine Debt	20	14,163	2%
Distressed	32	48,573	6%
Energy	5	2,129	0%
Secondary and Other	99	52,651	6%
Fund-of-Funds	37	8,691	1%
<b>Totals</b>	<b>2,368</b>	<b>814,616</b>	<b>100%</b>

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

## Private Equity Performance (%) (Pooled Horizon IRRs through 9/30/21\*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	7.2	76.0	36.3	27.5	20.6	15.6	11.5	23.8
Growth Equity	4.4	52.3	29.0	24.3	18.1	15.6	14.7	16.4
All Buyouts	4.4	42.8	21.8	20.2	16.1	12.6	14.2	13.7
Mezzanine	3.0	22.2	11.8	12.4	12.2	11.0	10.5	10.4
Credit Opportunities	2.1	21.7	7.0	8.8	9.9	9.0	9.9	9.9
Control Distressed	7.2	42.6	16.6	14.3	13.5	10.8	11.7	11.9
<b>All Private Equity</b>	<b>5.1</b>	<b>49.8</b>	<b>24.8</b>	<b>21.4</b>	<b>16.7</b>	<b>13.3</b>	<b>13.2</b>	<b>14.8</b>
S&P 500	0.6	30.0	16.0	16.9	16.6	10.4	9.5	9.7
Russell 3000	-0.1	31.9	16.0	16.9	16.6	10.4	9.8	9.7

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

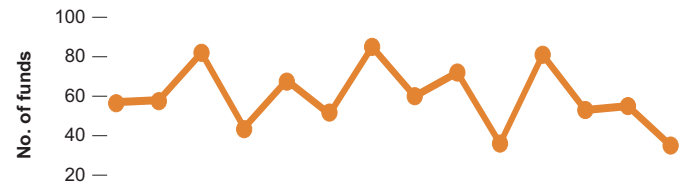
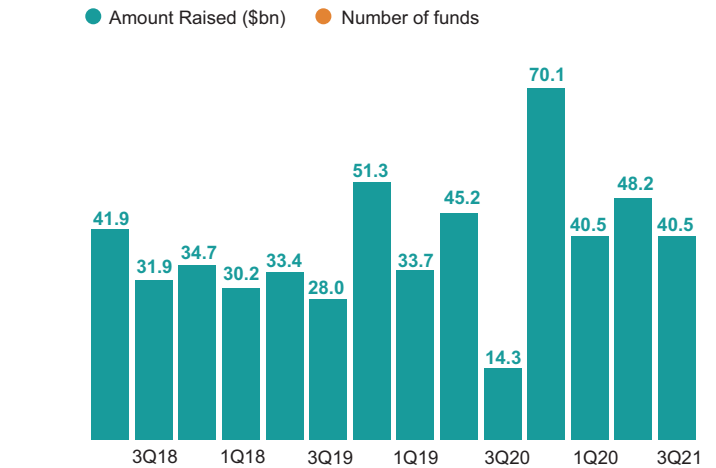
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

# Strong Demand Due to Focus on Yield/Income

PRIVATE CREDIT | Catherine Beard

- The yield and income-generating characteristics of private credit remain attractive in a low-rate environment.
- In addition, many direct lending assets employ a floating rate, which can add protection against rising rates.
- Direct lending pricing is back to pre-COVID levels; portfolios were resilient during the COVID dislocation due to liquidity injected into the U.S. economy.
- That liquidity has also limited U.S. corporate stress and has muted the corporate distressed opportunity set.
- Opportunities within private credit include those that offer diversification through differentiated collateral and/or low correlation to public markets, including specialty finance, asset-backed lending, and niche areas (life science lending and intellectual property).
- Private credit performance varies across sub-asset class and underlying return drivers. On average, the asset class has generated net IRRs of 8% to 10% for trailing periods ended Dec. 31, 2020. Higher-risk strategies performed better than lower-risk strategies.
- Private credit fundraising tapered off in 3Q20 due to COVID-related disruption; it significantly rebounded in 4Q20 and the first half of 2021.
- There was strong fundraising activity in 2021 for senior debt and mezzanine capital, with a ramp-up in specialty finance, asset-backed lending, and venture debt.
- There has also been continued strong PC fundraising activity from large credit shops as well as new offerings from traditional fixed income managers.
- Consolidation is ramping up, with large traditional firms acquiring alternative credit managers, such as T. Rowe Price buying Oak Hill Advisors.

## Private Credit Fundraising (\$bn)



Source: Preqin

# Hedge Funds Ended the Year on a Positive Note

HEDGE FUNDS/MACs | Joe McGuane

The fourth quarter saw a resurgence of COVID as the highly transmissible Omicron variant produced another wave of infections around the world, disrupting the positive momentum markets had experienced up to that point. Supply chain constraints continued, as service sectors were impacted by the new variant, and rising input prices persisted throughout the quarter. Further exacerbating markets were the hawkish comments made by Fed Chair Powell, opening the door to more aggressive tapering and rate increases next year. The confluence of a spike in COVID and the Fed now worried about curbing high inflation called into question the strength of economic growth moving forward. Investors grew concerned as they reassessed the probability of tighter monetary policy.

Despite increased market volatility during the final two months of the year, the S&P 500 (+11%) ended the quarter positive, with investors showing no sign of distress. This

## Hedge Fund Style Group Returns



Sources: Callan, Credit Suisse, Federal Reserve

## Callan Peer Group Median and Index Returns\* for Periods Ended 12/31/21

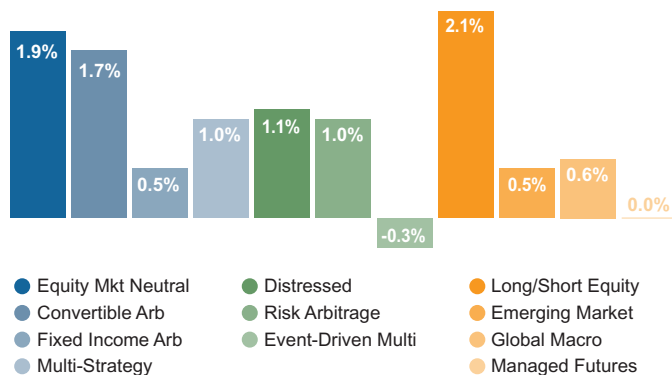
Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	0.6	9.3	6.4	5.4	6.1	7.0
Callan Fund-of-Funds Peer Group	-0.6	5.2	8.9	5.9	5.7	4.8
Callan Absolute Return FOF Style	-0.7	5.6	7.1	4.8	4.7	3.9
Callan Core Diversified FOF Style	0.1	6.2	8.5	5.7	5.5	4.4
Callan Long/Short Equity FOF Style	-2.2	3.3	12.6	8.3	7.1	5.5
BB GS Cross Asset Risk Premia 6% Vol Idx	-2.7	-0.5	1.4	1.9	3.7	5.2
Credit Suisse Hedge Fund	0.9	8.2	8.0	5.5	4.9	4.3
CS Convertible Arbitrage	1.7	6.3	8.2	5.4	4.6	4.3
CS Distressed	1.1	12.5	5.8	4.6	5.3	4.2
CS Emerging Markets	0.5	5.2	10.2	7.1	6.0	4.8
CS Equity Market Neutral	1.9	6.2	3.1	2.5	1.8	-1.2
CS Event-Driven Multi	-0.3	13.9	10.7	6.4	5.2	4.6
CS Fixed Income Arb	0.5	5.2	5.0	4.5	4.6	3.8
CS Global Macro	0.6	9.6	8.8	5.6	4.4	5.8
CS Long/Short Equity	2.1	8.4	9.4	7.2	6.7	5.1
CS Managed Futures	0.0	8.2	6.3	3.0	1.8	2.8
CS Multi-Strategy	1.0	7.0	6.6	5.1	6.2	5.2
CS Risk Arbitrage	1.0	5.3	8.6	6.3	4.4	4.3
HFRI Asset Wtd Composite	1.3	7.5	5.7	4.6	4.6	--
90-Day T-Bill + 5%	1.2	5.1	6.0	6.1	5.6	5.9

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

equity market surge was aided by strength in U.S. mega caps, while riskier equities underperformed in December, particularly within areas of technology such as software, fintech, and electric vehicles, all of which cooled off dramatically. U.S. small cap equities underperformed large cap due to worries around future growth. The Bloomberg High Yield Index ended the quarter higher (+0.7%), as the U.S. yield curve flattened throughout the quarter, driven by concerns for future growth amid expected tightening policies from central banks.

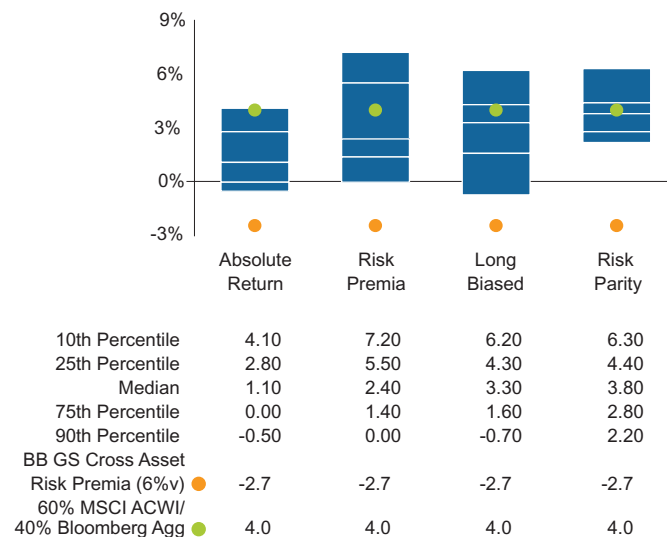
Representing hedge funds reporting performance without implementation costs, the HFRI Fund Weighted Composite

### Credit Suisse Hedge Fund Strategy Returns



Source: Credit Suisse

### MAC Style Group Returns



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

Index gained 0.4% in 4Q. Within the HFRI indices, the best-performing strategy was Event Driven (+1.5%), as an abundance of corporate activity created alpha opportunities. Equity hedge ended higher (+0.8%), when value positioning paid off. Macro strategies had a difficult quarter (-0.5%), after interest rate volatility went against some manager positions.

Across the Callan Hedge FOF Database, the median Absolute Return FOF lost 0.7%. With exposures to non-directional and directional styles, the Core Diversified FOF rose 0.7%. Long/Short Equity FOF was negative at 2.2%, after a difficult December where growth equities sold off aggressively. Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median Callan Institutional Hedge Fund Peer Group added 0.6%.

Since the Global Financial Crisis, liquid alternatives to hedge funds have become popular for their attractive risk-adjusted returns uncorrelated with stock and bond investments but offered at a lower cost. Much of that interest is focused on rules-based, long-short strategies that isolate risk premia such as value, momentum, and carry. These alternative risk premia are often embedded in hedge funds as well as other actively managed investment products.

In 4Q, the Bloomberg GSAM Risk Premia Index decreased 2.7% based upon a 6% volatility target. Within the underlying styles of the index, Equity Low Risk L/S (+5.9%) and Equity Trend (+1.6%) ended the quarter in positive territory as growth sold off relative to value in December. Equity Momentum (-4.8%) and FX Carry (-3.0%) had a difficult quarter as market volatility was elevated throughout the final month of the year.

The median managers of the Callan Multi-Asset Class (MAC) Style Groups generated gains gross of fees. The Callan Risk Premia MAC rose 2.4% based on its exposures to uncorrelated style premia targeting 5% to 15% portfolio volatility. The Callan Risk Parity MAC, which typically targets an equal risk-weighted allocation to the major asset classes with leverage, was up 3.8%. As the most conservative MAC style focused on non-directional strategies of long and short asset class exposures, the Callan Absolute Return MAC gained 1.1%.

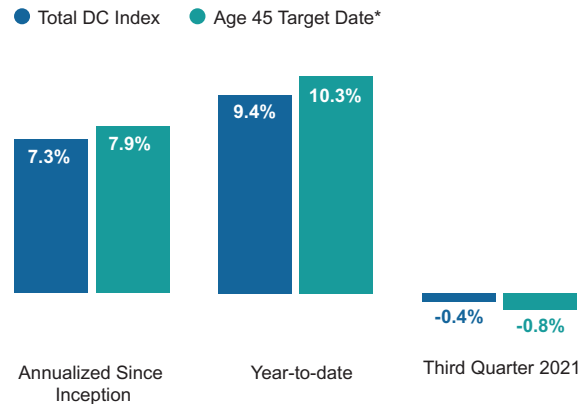
# Index Declines Slightly in 3Q21, First Time Since 1Q20

DEFINED CONTRIBUTION | Patrick Wisdom

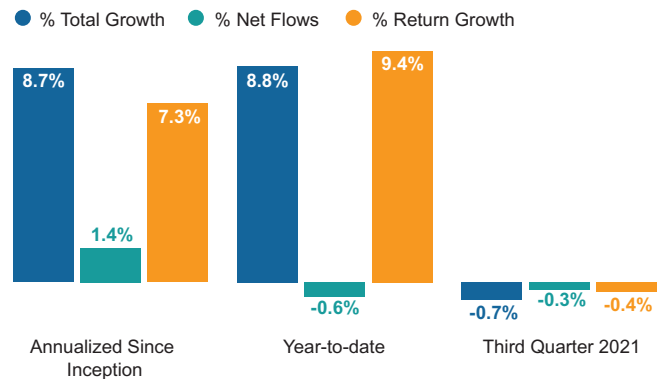
- The Callan DC Index™ fell 0.4% in 3Q21, the first decline since the pandemic-induced 15.0% 1Q20 plunge.
- The Age 45 Target Date Fund (analogous to the 2040 vintage) had a slightly lower return (-0.8%), attributable to its higher allocation to equity, which underperformed fixed income during the quarter.
- Balances within the DC Index declined by 0.7%. Investment returns (-0.4%) and net flows (-0.3%) both contributed to the lower aggregate balances.
- For the third straight quarter, target date funds received the largest net inflows, at 75.6% for the quarter.
- In a reversal from 2Q21, investors transferred assets into money market funds (13.1%). U.S. fixed income (-2.4%) had net outflows, albeit to a much smaller degree than the previous quarter (-17.7%).
- U.S. equity saw material net outflows, as U.S. large cap (-54.2%) and U.S. small/mid cap (-21.8%) drained assets. Global ex-U.S. equity (-1.0%) had smaller net outflows.
- Real return/TIPS also had larger-than-typical net inflows (4.8%), perhaps an indication that more participants are looking to hedge potential inflation.
- Turnover (i.e., net transfer activity levels within DC plans) decreased in 3Q to 0.19% from 2Q's measure of 0.37%.
- The Index's overall allocation to equity (72.23%) increased by 3 basis points.
- In a reversal from the previous quarter, U.S. small/mid cap (8.3%) had the largest percentage decrease in allocation.
- Company stock (2.5%) had the largest percentage increase in allocation.
- For plans with more than \$1 billion in assets, the average asset-weighted investment management fee decreased by 1 basis point. Plans with assets between \$500 million and \$1 billion also saw a fee decrease of 1 basis point, while the fee for plans with assets less than \$500 million had the largest decrease of 3 basis points.

*The Callan DC Index is an equally weighted index tracking the cash flows and performance of over 100 plans, representing nearly \$300 billion in assets. The Index is updated quarterly and is available on Callan's website.*

## Investment Performance



## Growth Sources



## Net Cash Flow Analysis (3Q21)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	75.56%
Money Market	13.14%
U.S. Small/Mid Cap	-21.76%
U.S. Large Cap	-54.20%
<b>Total Turnover**</b>	<b>0.19%</b>

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.

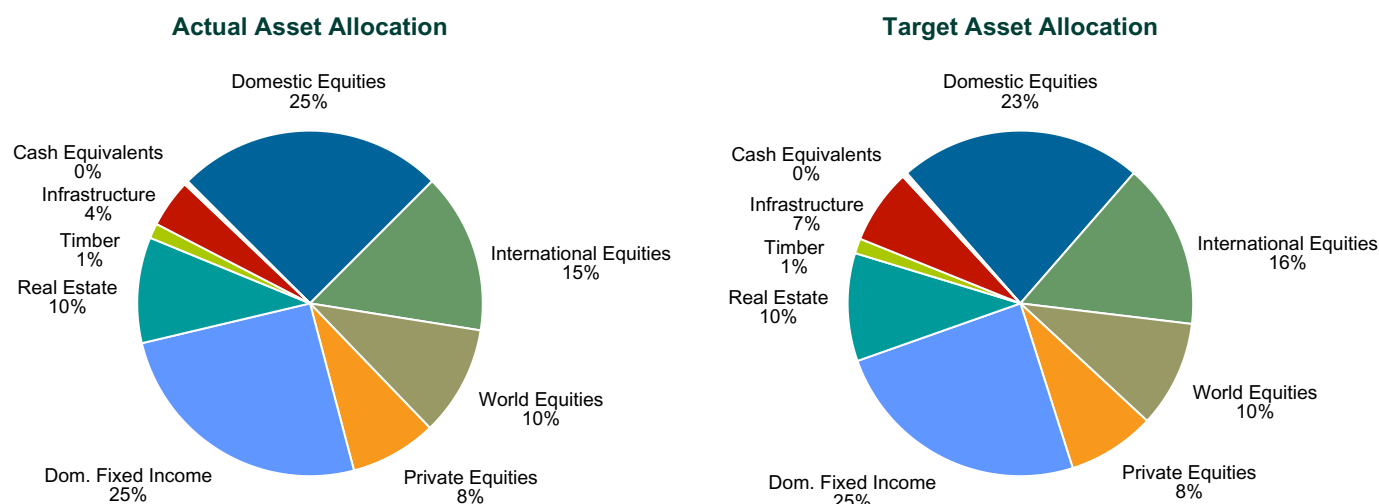
\*\* Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.





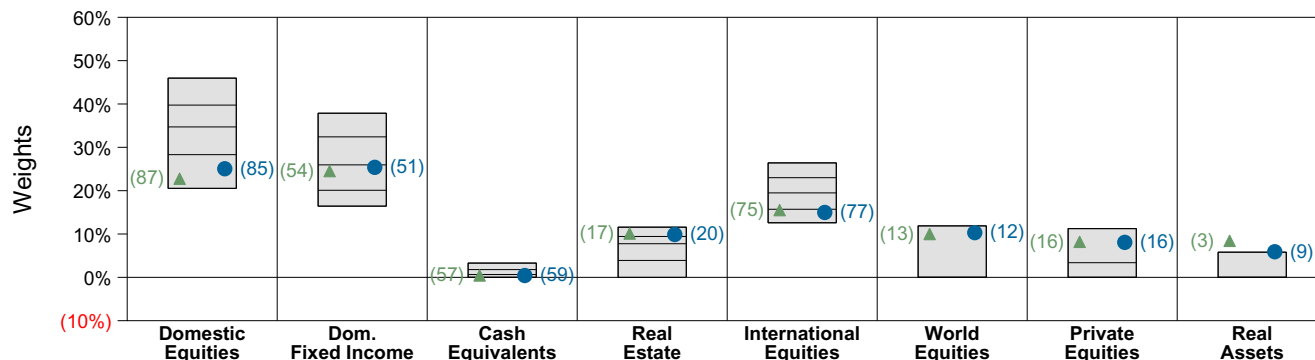
## Actual vs Target Asset Allocation As of December 31, 2021

The top left chart shows the Fund's asset allocation as of December 31, 2021. 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 Sponsor Database.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equities	1,972,924	25.1%	22.8%	2.3%	180,420
International Equities	1,178,930	15.0%	15.5%	(0.5%)	(42,898)
World Equities	812,111	10.3%	10.0%	0.3%	24,680
Private Equities	635,525	8.1%	8.2%	(0.1%)	(10,259)
Dom. Fixed Income	1,998,573	25.4%	24.5%	0.9%	67,371
Real Estate	778,100	9.9%	10.1%	(0.2%)	(18,978)
Timber	113,973	1.4%	1.4%	0.0%	0
Infrastructure	351,113	4.5%	7.0%	(2.5%)	(198,807)
Cash Equivalents	33,062	0.4%	0.4%	(0.0%)	(1,529)
<b>Total</b>	<b>7,874,310</b>	<b>100.0%</b>	<b>100.0%</b>		

### Asset Class Weights vs Callan Public Fund Sponsor Database



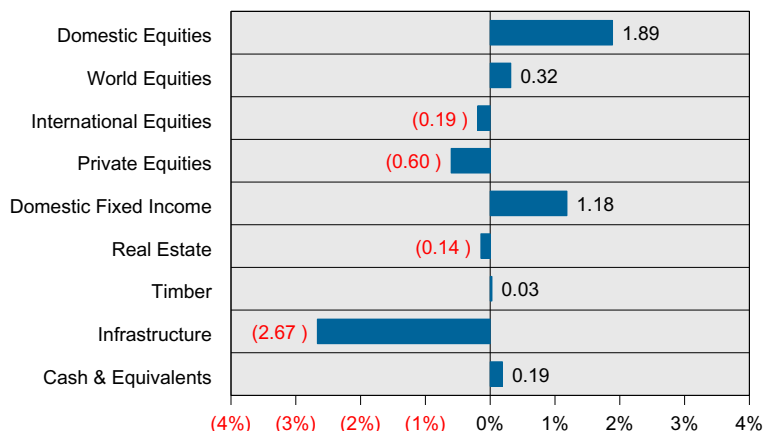
	Domestic Equities	Dom. Fixed Income	Cash Equivalents	Real Estate	International Equities	World Equities	Private Equities	Real Assets
10th Percentile	45.97	37.87	3.29	11.58	26.41	11.87	11.24	5.81
25th Percentile	39.75	32.41	1.79	9.43	22.99	0.00	3.37	0.00
Median	34.71	25.95	0.64	7.76	19.48	0.00	0.00	0.00
75th Percentile	28.31	20.09	0.03	3.90	15.71	0.00	0.00	0.00
90th Percentile	20.53	16.43	0.00	0.00	12.59	0.00	0.00	0.00
<b>Fund</b>	● 25.06	25.38	0.42	9.88	14.97	10.31	8.07	5.91
<b>Target</b>	▲ 22.76	24.53	0.44	10.12	15.52	10.00	8.20	8.43
% Group Invested	95.52%	99.25%	79.85%	80.60%	92.54%	18.66%	27.61%	20.90%

\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

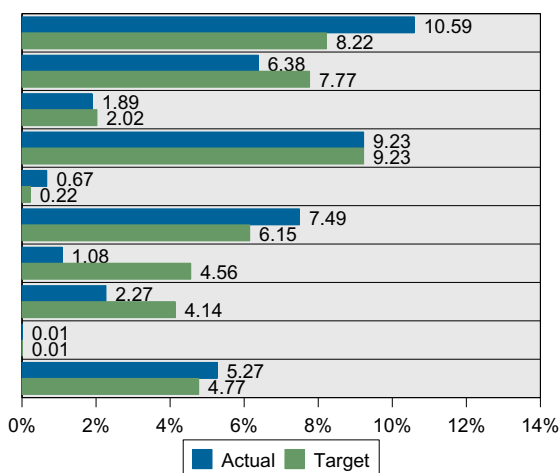
## Quarterly Total Fund Relative Attribution - December 31, 2021

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.

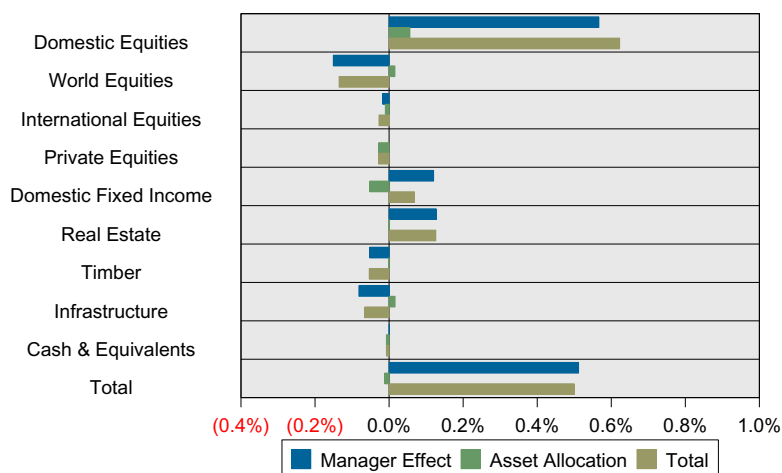
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended December 31, 2021

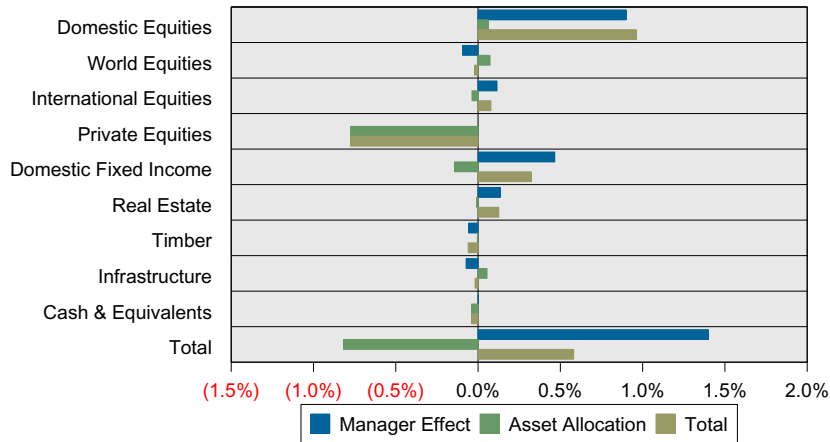
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	25%	23%	10.59%	8.22%	0.57%	0.06%	0.62%
World Equities	10%	10%	6.38%	7.77%	(0.15)%	0.02%	(0.14)%
International Equities	15%	16%	1.89%	2.02%	(0.02)%	(0.01)%	(0.03)%
Private Equities	8%	8%	9.23%	9.23%	0.00%	(0.03)%	(0.03)%
Domestic Fixed Income	26%	25%	0.67%	0.22%	0.12%	(0.05)%	0.07%
Real Estate	10%	10%	7.49%	6.15%	0.13%	(0.00)%	0.13%
Timber	1%	1%	1.08%	4.56%	(0.05)%	(0.00)%	(0.05)%
Infrastructure	4%	7%	2.27%	4.14%	(0.08)%	0.02%	(0.07)%
Cash & Equivalents	1%	0%	0.01%	0.01%	(0.00)%	(0.01)%	(0.01)%
<b>Total</b>			<b>5.27%</b>	<b>4.77%</b>	<b>+ 0.51%</b>	<b>+ (0.01)%</b>	<b>0.50%</b>

\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

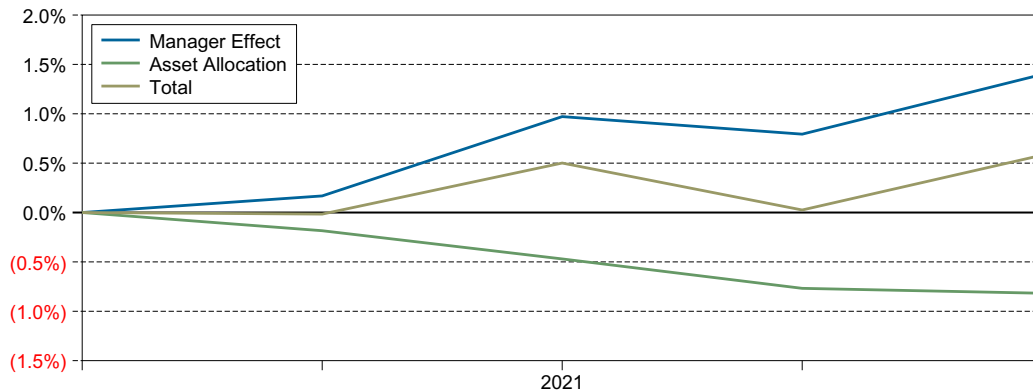
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

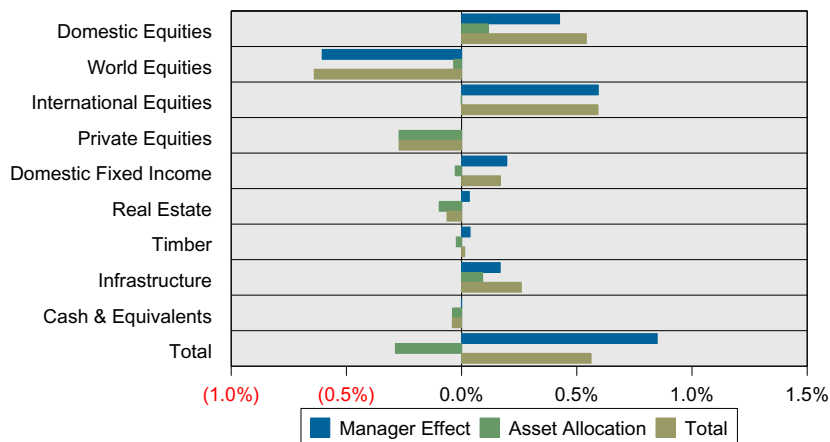
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	24%	23%	28.00%	24.15%	0.90%	0.06%	0.96%
World Equities	12%	10%	20.57%	21.82%	(0.09%)	0.07%	(0.02%)
International Equities	16%	16%	9.40%	8.73%	0.12%	(0.04%)	0.08%
Private Equities	6%	8%	57.24%	57.24%	0.00%	(0.77%)	(0.77%)
Domestic Fixed Income	25%	25%	2.12%	0.49%	0.47%	(0.14%)	0.32%
Real Estate	10%	10%	19.15%	17.70%	0.14%	(0.01%)	0.13%
Timber	2%	2%	5.66%	9.17%	(0.06%)	(0.00%)	(0.06%)
Infrastructure	4%	7%	11.51%	13.37%	(0.07%)	0.05%	(0.02%)
Cash & Equivalents	1%	0%	0.06%	0.05%	0.00%	(0.04%)	(0.04%)
<b>Total</b>			<b>16.72%</b>	<b>16.14%</b>	<b>+ 1.40%</b>	<b>+ (0.82%)</b>	<b>0.58%</b>

\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

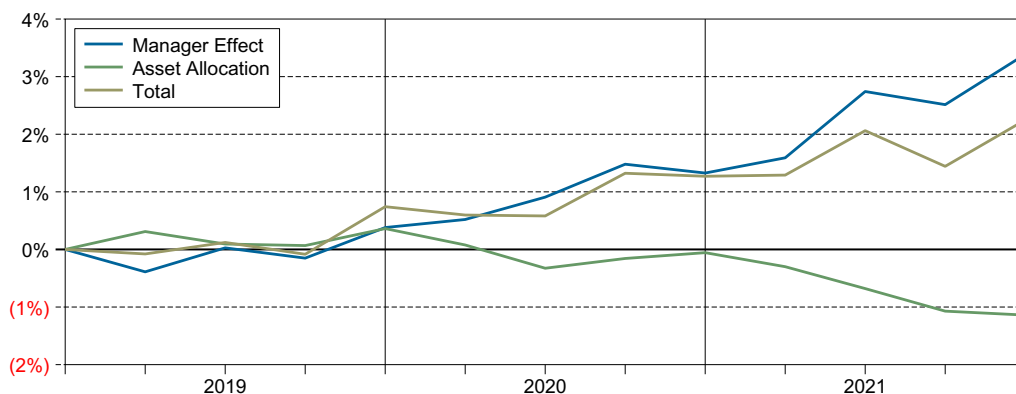
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

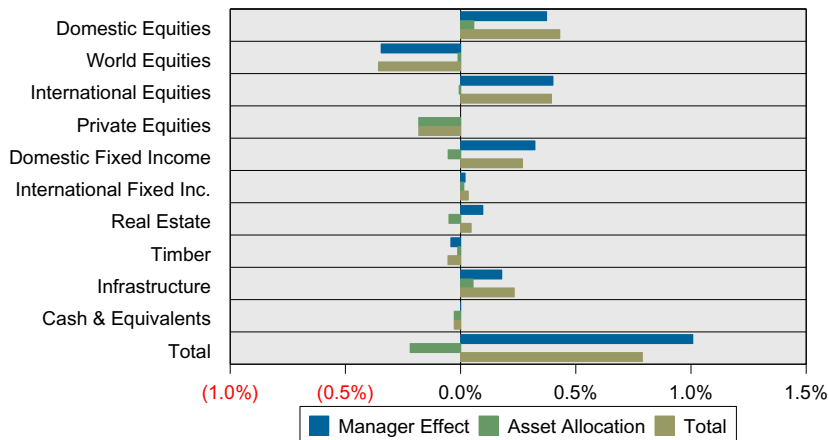
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	22%	27.00%	24.93%	0.43%	0.12%	0.54%
World Equities	14%	14%	17.36%	21.70%	(0.61%)	(0.03%)	(0.64%)
International Equities	15%	15%	17.30%	13.35%	0.59%	(0.00%)	0.59%
Private Equities	5%	7%	23.62%	23.62%	0.00%	(0.27%)	(0.27%)
Domestic Fixed Income	24%	24%	6.77%	6.08%	0.20%	(0.03%)	0.17%
Real Estate	11%	10%	8.68%	8.37%	0.03%	(0.10%)	(0.06%)
Timber	2%	2%	4.90%	3.69%	0.04%	(0.02%)	0.01%
Infrastructure	5%	6%	8.83%	5.82%	0.17%	0.09%	0.26%
Cash & Equivalents	1%	0%	0.92%	0.99%	(0.00%)	(0.04%)	(0.04%)
<b>Total</b>			<b>15.73%</b>	<b>15.17%</b>	<b>+ 0.85%</b>	<b>+ (0.29%)</b>	<b>0.56%</b>

\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

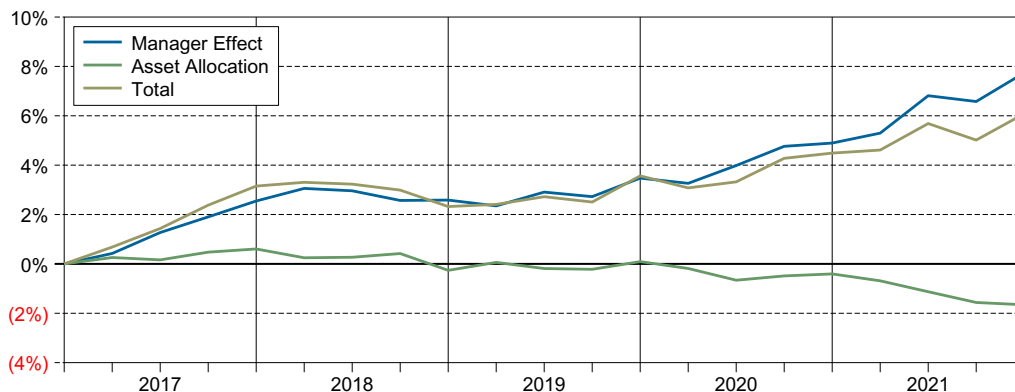
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

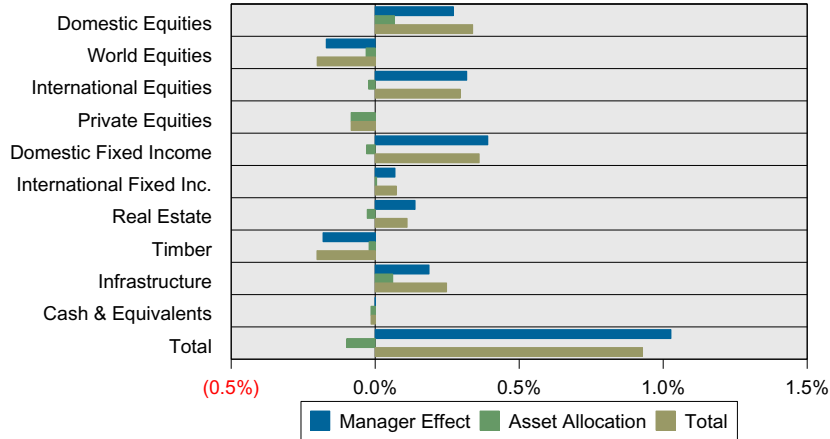
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	18.78%	17.03%	0.37%	0.06%	0.43%
World Equities	15%	15%	12.55%	15.03%	(0.34%)	(0.01%)	(0.36%)
International Equities	16%	15%	12.29%	9.69%	0.40%	(0.01%)	0.39%
Private Equities	4%	7%	16.43%	16.43%	0.00%	(0.18%)	(0.18%)
Domestic Fixed Income	23%	22%	5.80%	4.39%	0.32%	(0.05%)	0.27%
International Fixed Inc.	1%	1%	-	-	0.02%	0.01%	0.03%
Real Estate	11%	10%	8.65%	7.75%	0.10%	(0.05%)	0.05%
Timber	2%	2%	1.97%	3.58%	(0.04%)	(0.01%)	(0.05%)
Infrastructure	5%	6%	8.49%	4.85%	0.18%	0.05%	0.23%
Cash & Equivalents	1%	0%	1.15%	1.14%	(0.00%)	(0.03%)	(0.03%)
<b>Total</b>			<b>11.83%</b>	<b>11.04%</b>	<b>+ 1.01%</b>	<b>+ (0.22%)</b>	<b>0.79%</b>

\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

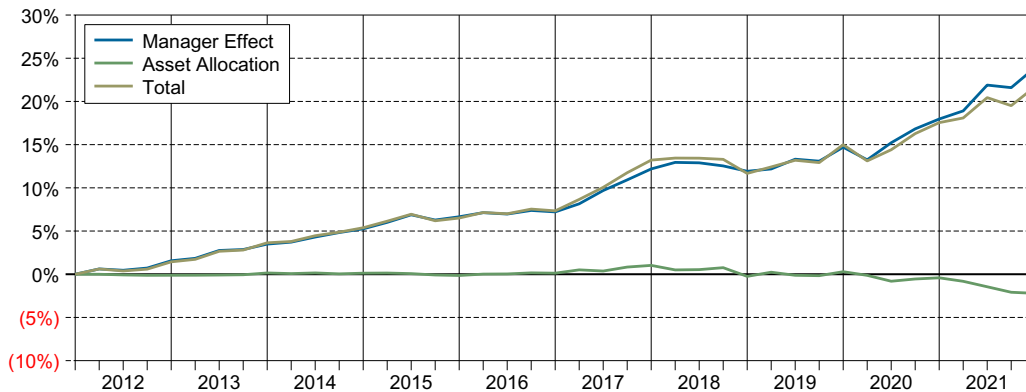
## Cumulative Total Fund Relative Attribution - December 31, 2021

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.

### Ten Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Ten Year Annualized Relative Attribution Effects

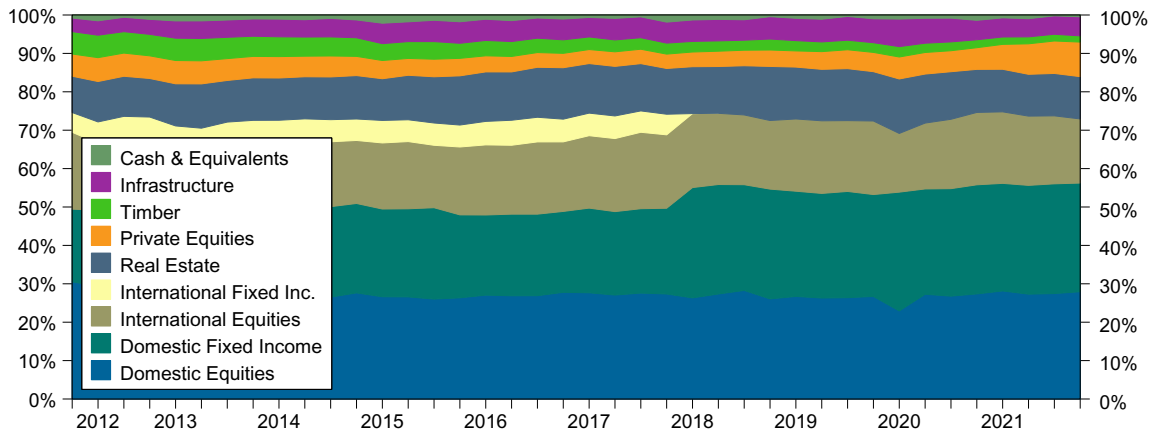
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	22%	17.12%	15.86%	0.27%	0.07%	0.34%
World Equities	15%	14%	11.28%	12.70%	(0.17%)	(0.03%)	(0.20%)
International Equities	15%	15%	9.66%	7.57%	0.32%	(0.02%)	0.30%
Private Equities	4%	6%	8.98%	8.98%	0.00%	(0.08%)	(0.08%)
Domestic Fixed Income	21%	20%	5.94%	4.02%	0.39%	(0.03%)	0.36%
International Fixed Inc.	3%	3%	-	-	0.07%	0.00%	0.07%
Real Estate	10%	10%	10.73%	9.32%	0.14%	(0.03%)	0.11%
Timber	3%	3%	1.08%	5.30%	(0.18%)	(0.02%)	(0.20%)
Infrastructure	4%	5%	7.30%	2.99%	0.19%	0.06%	0.25%
Cash & Equivalents	1%	1%	0.65%	0.63%	0.00%	(0.01%)	(0.01%)
<b>Total</b>			<b>10.37%</b>	<b>9.44%</b>	<b>+ 1.03%</b>	<b>+ (0.10%)</b>	<b>0.93%</b>

\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

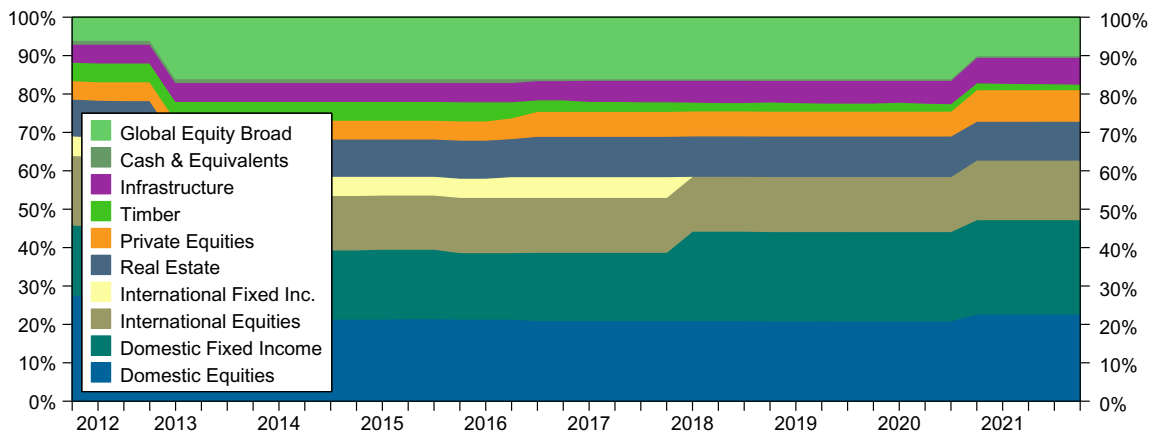
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Sponsor Database.

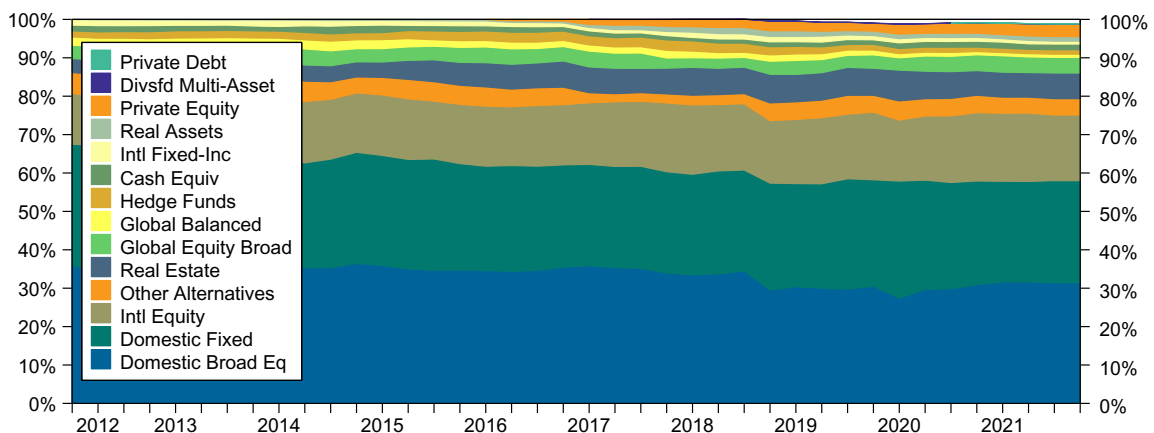
### Actual Historical Asset Allocation



### Target Historical Asset Allocation



### Average Callan Public Fund Sponsor Database Historical Asset Allocation

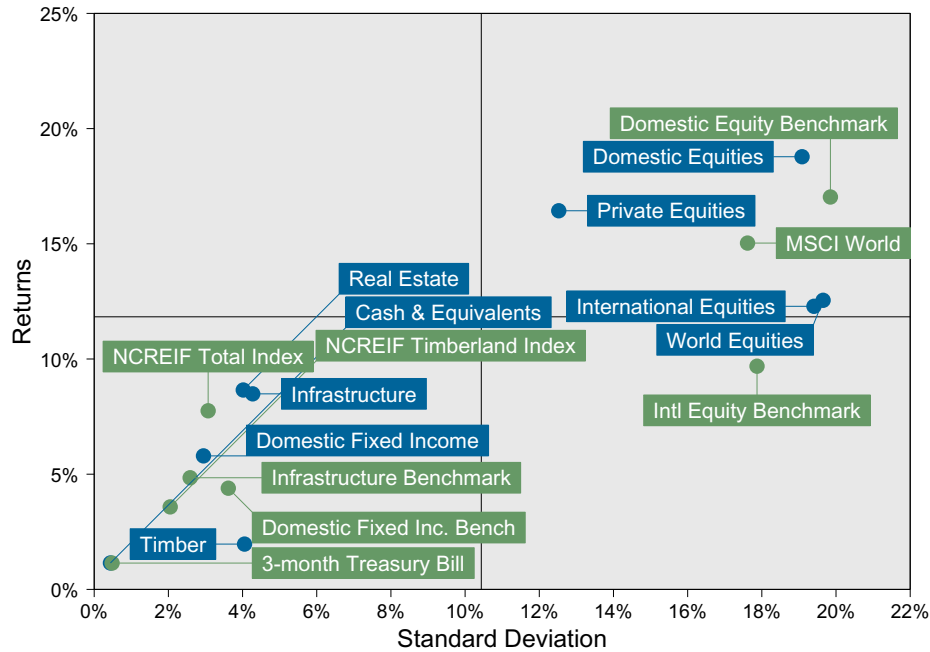


\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

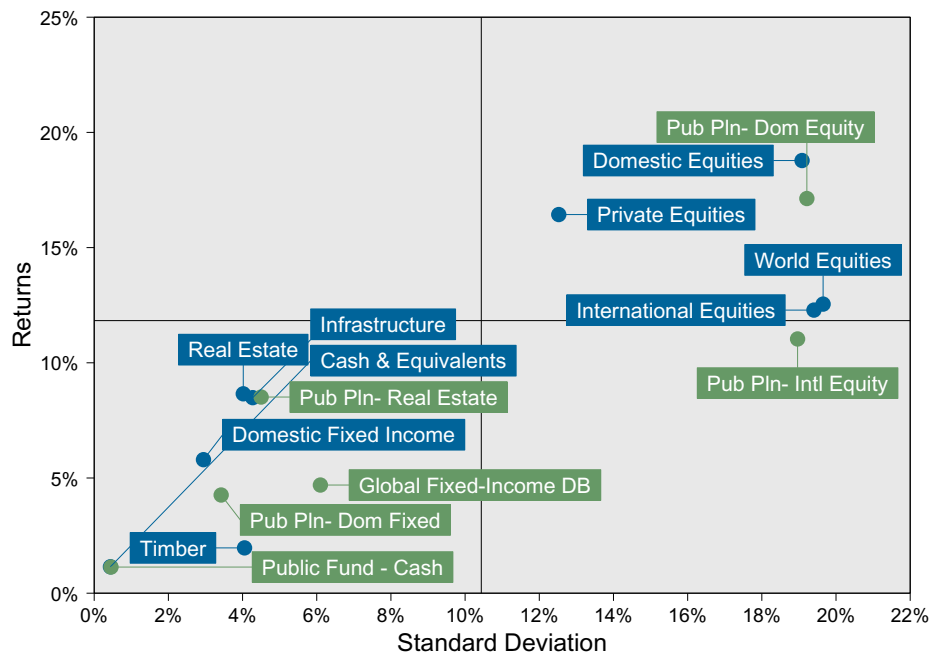
## Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

### Five Year Annualized Risk vs Return Asset Classes vs Benchmark Indices



### Five Year Annualized Risk vs Return Asset Classes vs Asset Class Median

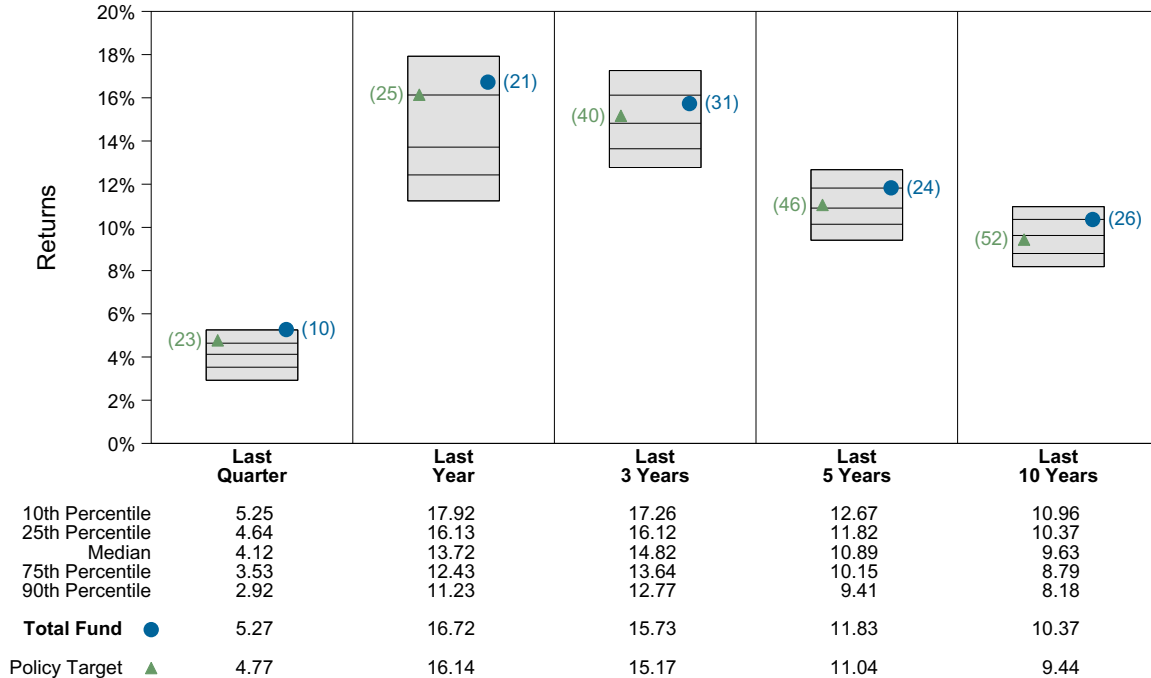




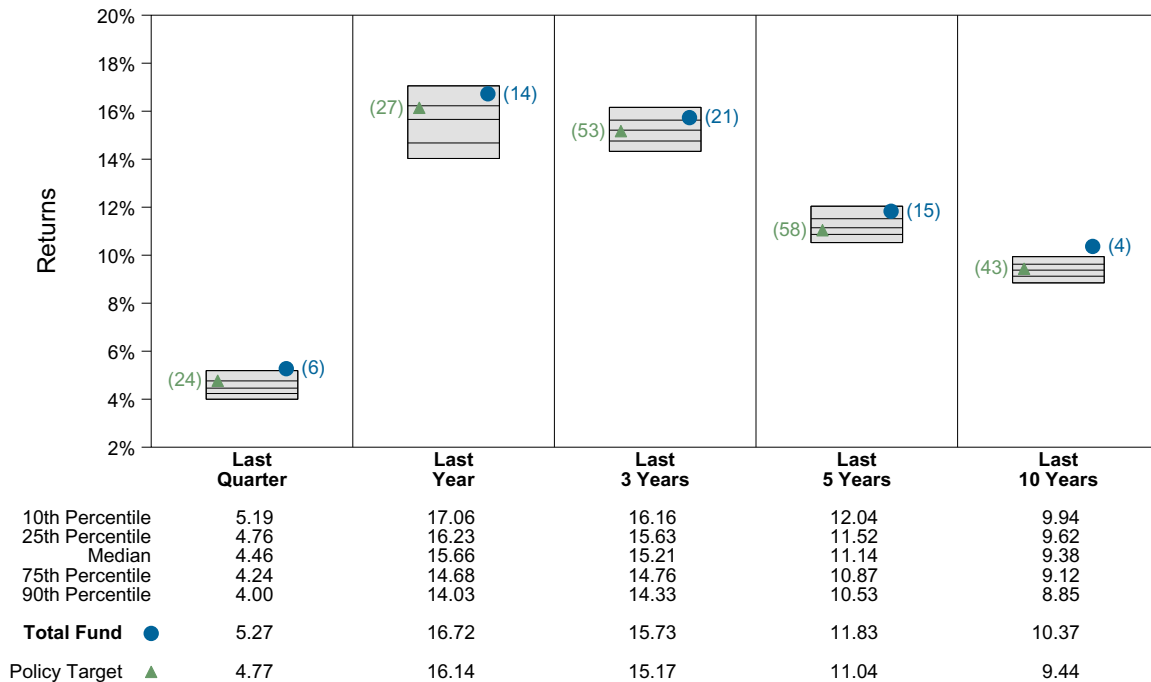
## Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Sponsor Database for periods ended December 31, 2021. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

### Callan Public Fund Sponsor Database



### Asset Allocation Adjusted Ranking

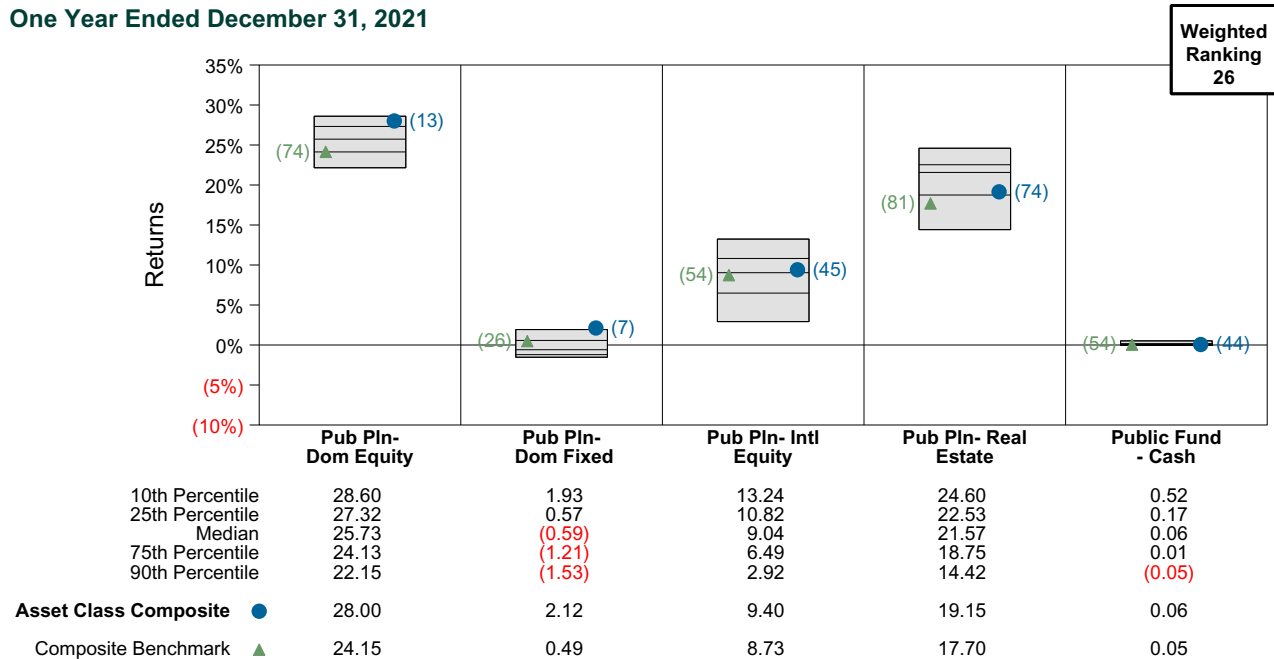


\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

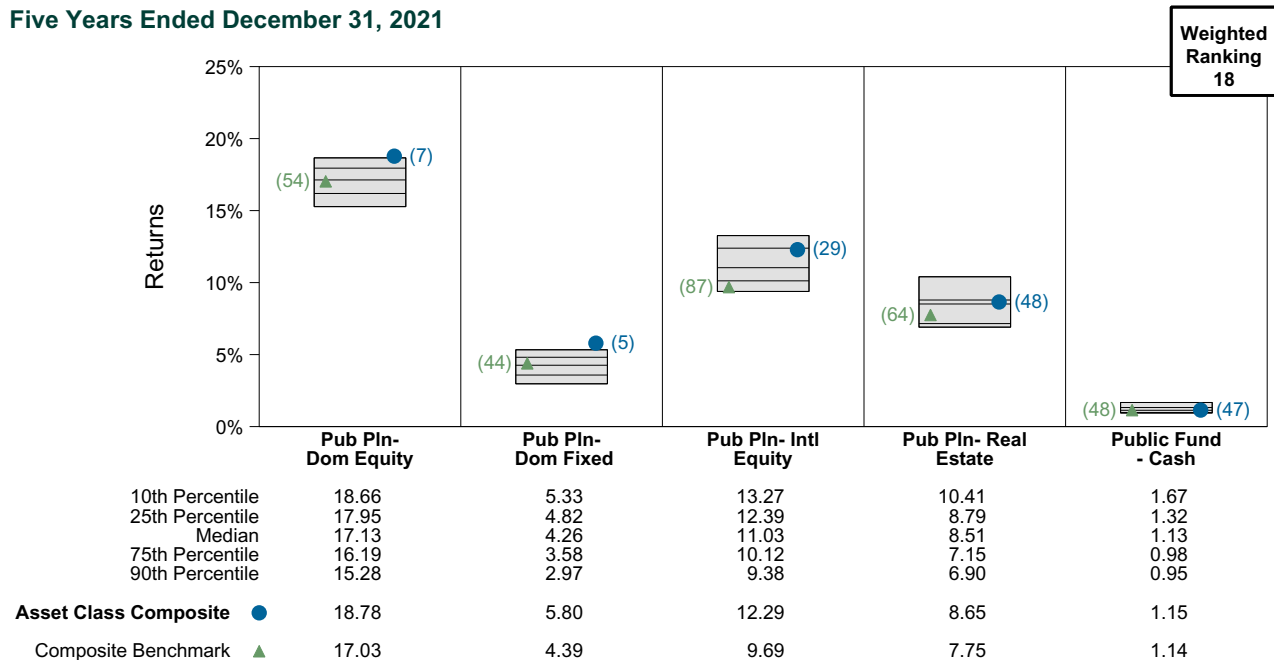
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended December 31, 2021



### Total Asset Class Performance Five Years Ended December 31, 2021



\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2021, with the distribution as of September 30, 2021. 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

	December 31, 2021			Inv. Return	September 30, 2021	
	Market Value	Weight	Net New Inv.		Market Value	Weight
<b>Global Equities</b>	<b>\$4,599,489,593</b>	<b>58.41%</b>	<b>\$(142,337,008)</b>	<b>\$318,842,470</b>	<b>\$4,422,984,131</b>	<b>58.85%</b>
<b>Public Equities</b>	<b>\$3,963,964,692</b>	<b>50.34%</b>	<b>\$(160,962,610)</b>	<b>\$265,825,477</b>	<b>\$3,859,101,825</b>	<b>51.35%</b>
<b>World Equities</b>	<b>\$812,111,173</b>	<b>10.31%</b>	<b>\$(86,232,338)</b>	<b>\$50,320,564</b>	<b>\$848,022,946</b>	<b>11.28%</b>
EPOCH Investment Partners	356,338,094	4.53%	(59,617,115)	28,656,979	387,298,230	5.15%
LSV Asset Management	455,773,078	5.79%	(26,615,223)	21,663,585	460,724,716	6.13%
<b>Domestic Equities</b>	<b>\$1,972,923,725</b>	<b>25.06%</b>	<b>\$(50,992,353)</b>	<b>\$193,020,712</b>	<b>\$1,830,895,366</b>	<b>24.36%</b>
<b>Large Cap</b>	<b>\$1,593,783,419</b>	<b>20.24%</b>	<b>\$(40,390,214)</b>	<b>\$175,154,794</b>	<b>\$1,459,018,839</b>	<b>19.41%</b>
L.A. Capital	633,252,633	8.04%	(40,312,054)	77,534,364	596,030,323	7.93%
LACM Enhanced Index	323,828,361	4.11%	(78,160)	31,767,130	292,139,391	3.89%
Northern Trust AM Enh S&P 500	310,859,768	3.95%	0	34,191,720	276,668,048	3.68%
Parametric Enh S&P 500	325,842,656	4.14%	0	31,661,580	294,181,076	3.91%
<b>Small Cap</b>	<b>\$379,140,306</b>	<b>4.81%</b>	<b>\$(10,602,139)</b>	<b>\$17,865,918</b>	<b>\$371,876,527</b>	<b>4.95%</b>
Atlanta Capital	129,765,296	1.65%	(174,456)	13,100,134	116,839,619	1.55%
Riverbridge Small Cap Growth	116,963,965	1.49%	(2,729,066)	(6,000,538)	125,693,569	1.67%
Sycamore Small Cap Value	132,411,045	1.68%	(7,698,616)	10,766,322	129,343,339	1.72%
<b>International Equities</b>	<b>\$1,178,929,794</b>	<b>14.97%</b>	<b>\$(23,737,919)</b>	<b>\$22,484,201</b>	<b>\$1,180,183,512</b>	<b>15.70%</b>
<b>Developed</b>	<b>\$915,926,168</b>	<b>11.63%</b>	<b>\$(18,995,390)</b>	<b>\$24,533,895</b>	<b>\$910,387,662</b>	<b>12.11%</b>
DFA Int'l Small Cap	92,977,632	1.18%	0	1,786,760	91,190,872	1.21%
Northern Trust AM World Ex US	443,868,404	5.64%	(33,713)	15,320,329	428,581,787	5.70%
Wellington Management Co.	101,817,791	1.29%	(212,878)	(930,776)	102,961,445	1.37%
William Blair	277,262,342	3.52%	(18,748,799)	8,357,583	287,653,558	3.83%
<b>Emerging Markets</b>	<b>\$263,003,626</b>	<b>3.34%</b>	<b>\$(4,742,530)</b>	<b>\$(2,049,694)</b>	<b>\$269,795,850</b>	<b>3.59%</b>
Axiom	193,781,211	2.46%	(242,530)	(2,800,897)	196,824,638	2.62%
DFA	69,222,415	0.88%	(4,500,000)	751,203	72,971,212	0.97%

## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2021, with the distribution as of September 30, 2021. 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

	December 31, 2021			September 30, 2021		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
<b>Private Equities</b>	<b>\$635,524,901</b>	<b>8.07%</b>	<b>\$18,625,602</b>	<b>\$53,016,993</b>	<b>\$563,882,306</b>	<b>7.50%</b>
Adams St Direct Co-Invest Fund	13,150	0.00%	(154,282)	(966)	168,398	0.00%
Adams St Direct Fund 2010	920,786	0.01%	(35,857)	59,290	897,353	0.01%
Adams St 1998 Partnership	13,200	0.00%	0	163	13,037	0.00%
Adams St 1999 Partnership	130,672	0.00%	0	13	130,659	0.00%
Adams St 2000 Partnership	296,540	0.00%	0	(8,080)	304,620	0.00%
Adams St 2001 Partnership	612,586	0.01%	0	(159,485)	772,071	0.01%
Adams St 2002 Partnership	134,200	0.00%	0	(2,155)	136,355	0.00%
Adams St 2003 Partnership	105,340	0.00%	0	(35,619)	140,959	0.00%
Adams St 2010 Partnership	6,800,158	0.09%	(695,081)	724,149	6,771,090	0.09%
Adams St 2008 Fund	6,374,793	0.08%	(706,030)	19,914	7,060,909	0.09%
Adams St 2000 Non-US	193,711	0.00%	0	(25,703)	219,414	0.00%
Adams St 2001 Non-US	94,563	0.00%	0	(3,517)	98,080	0.00%
Adams St 2002 Non-US	91,072	0.00%	0	11,842	79,230	0.00%
Adams St 2003 Non-US	147,585	0.00%	0	(8,198)	155,783	0.00%
Adams St 2004 Non-US	244,564	0.00%	0	(20,059)	264,623	0.00%
Adams St 2010 Non-US	2,990,802	0.04%	(347,755)	47,458	3,291,099	0.04%
Adams St 2010 Non-US Emg	1,950,397	0.02%	(422,730)	157,712	2,215,415	0.03%
Adams St 2015 Global Fund	48,226,677	0.61%	(3,979,103)	4,226,088	47,979,692	0.64%
Adams St 2016 Global Fund	38,691,832	0.49%	(1,073,300)	3,859,709	35,905,423	0.48%
Adams St 2017 Global Fund	77,603,521	0.99%	(1,844,070)	8,618,390	70,829,201	0.94%
Adams St 2018 Global Fund	57,916,418	0.74%	462,738	6,375,205	51,078,475	0.68%
Adams St 2019 Global Fund	39,697,312	0.50%	2,873,254	4,541,290	32,282,768	0.43%
Adams St 2020 Global Fund	19,078,838	0.24%	5,148,000	1,516,586	12,414,252	0.17%
Adams St 2021 Global Fund	3,000,000	0.04%	3,000,000	0	-	-
BlackRock	209,701,464	2.66%	1,133,639	22,014,204	186,553,621	2.48%
Blackrock PEP 2020	29,501,665	0.37%	6,196,364	2,120,888	21,184,413	0.28%
Sixth Street TAO	45,697,267	0.58%	9,056,774	1,123,274	35,517,219	0.47%
Remaining Misc. Funds*	45,295,788	0.58%	13,041	(2,135,400)	47,418,147	0.63%

\* Comprised of Matlin Patterson II, Matlin Patterson III, InvestAmerica Lewis & Clark, InvestAmerica L&C II, Corsair III, Capital Intl Fd V, Capital Intl Fd VI, EIG, Quantum Energy Partners, Hearthstone MSII, Hearthstone MSIII.

## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2021, with the distribution as of September 30, 2021. 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

	December 31, 2021			September 30, 2021		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
<b>Global Fixed Income</b>	<b>\$1,998,573,310</b>	<b>25.38%</b>	<b>\$80,143,577</b>	<b>\$13,184,079</b>	<b>\$1,905,245,654</b>	<b>25.35%</b>
<b>Domestic Fixed Income</b>	<b>\$1,998,573,310</b>	<b>25.38%</b>	<b>\$80,143,577</b>	<b>\$13,184,079</b>	<b>\$1,905,245,654</b>	<b>25.35%</b>
<b>Investment Grade</b>	<b>\$1,484,336,343</b>	<b>18.85%</b>	<b>\$62,201,661</b>	<b>\$6,307,921</b>	<b>\$1,415,826,761</b>	<b>18.84%</b>
Declaration Total Return	157,812,714	2.00%	(103,553)	(447,912)	158,364,179	2.11%
PIMCO DiSCO II	101,534,514	1.29%	0	802,588	100,731,926	1.34%
PIMCO Core Plus Constrained	513,076,455	6.52%	25,851,972	211,235	487,013,248	6.48%
Prudential Core	517,381,326	6.57%	25,860,060	(29,274)	491,550,540	6.54%
SSgA Long US Treas Index	194,531,335	2.47%	10,593,183	5,771,285	178,166,868	2.37%
<b>Below Investment Grade</b>	<b>\$514,236,966</b>	<b>6.53%</b>	<b>\$17,941,915</b>	<b>\$6,876,158</b>	<b>\$489,418,893</b>	<b>6.51%</b>
Ares ND Credit Strategies Fd	146,784,444	1.86%	3,475,410	3,410,158	139,898,876	1.86%
Cerberus ND Private Credit Fd	162,158,253	2.06%	15,400,000	3,175,835	143,582,418	1.91%
Goldman Sachs 2006 Offshore	48,231	0.00%	0	1,230	47,001	0.00%
Goldman Sachs Offshore V	128,336	0.00%	0	1,186	127,150	0.00%
Loomis Sayles	192,654,446	2.45%	(226,922)	(243,343)	193,124,711	2.57%
PIMCO Bravo II Fund	12,463,256	0.16%	(706,573)	531,092	12,638,737	0.17%
<b>Global Real Assets</b>	<b>\$1,243,185,715</b>	<b>15.79%</b>	<b>\$7,557,519</b>	<b>\$63,443,873</b>	<b>\$1,172,184,323</b>	<b>15.60%</b>
<b>Real Estate</b>	<b>\$778,099,555</b>	<b>9.88%</b>	<b>\$(12,735,857)</b>	<b>\$55,033,985</b>	<b>\$735,801,428</b>	<b>9.79%</b>
Invesco Core Real Estate	377,246,272	4.79%	(307,126)	26,538,805	351,014,594	4.67%
Invesco Fund III	230,975	0.00%	0	(1,301)	232,276	0.00%
Invesco Asia RE Fund III	19,353,888	0.25%	0	69,591	19,284,297	0.26%
Invesco Value Added Fd IV	10,350,356	0.13%	(10,989,890)	646,545	20,693,701	0.28%
Invesco Value Added Fd V	62,987,109	0.80%	(1,438,841)	5,209,702	59,216,248	0.79%
JP Morgan	307,280,889	3.90%	0	22,556,449	284,724,440	3.79%
JP Morgan Greater European Opp Fd	650,066	0.01%	0	14,194	635,872	0.01%
<b>Other Real Assets</b>	<b>\$465,086,160</b>	<b>5.91%</b>	<b>\$20,293,376</b>	<b>\$8,409,889</b>	<b>\$436,382,896</b>	<b>5.81%</b>
<b>Infrastructure</b>	<b>\$351,113,231</b>	<b>4.46%</b>	<b>\$24,105,376</b>	<b>\$7,177,702</b>	<b>\$319,830,154</b>	<b>4.26%</b>
ISQ Global Infrastructure II	58,760,832	0.75%	0	2,086,741	56,674,091	0.75%
ISQ Global Infrastructure III	4,712,891	0.06%	4,712,891	0	-	-
The Rohatyn Group	16,016,346	0.20%	105,917	221,480	15,688,949	0.21%
JP Morgan IIF	128,192,936	1.63%	(3,698,690)	375,746	131,515,880	1.75%
Grosvenor Cust. Infrastructure	11,365,378	0.14%	(736,346)	287,193	11,814,531	0.16%
Grosvenor Cust. Infrastructure II	23,067,433	0.29%	(1,454,524)	347,916	24,174,041	0.32%
Grosvenor Cust. Infrastructure III	8,000,000	0.10%	8,000,000	0	-	-
Macquarie Infrastructure Fund IV	65,280,695	0.83%	(36,143)	1,879,984	63,436,854	0.84%
Macquarie Infrastructure Fund V	35,716,721	0.45%	17,212,271	1,978,642	16,525,808	0.22%
<b>Timber</b>	<b>\$113,972,929</b>	<b>1.45%</b>	<b>\$(3,812,000)</b>	<b>\$1,232,187</b>	<b>\$116,552,742</b>	<b>1.55%</b>
TIR Teredo	27,185,857	0.35%	(1,000,000)	508,644	27,677,213	0.37%
TIR Springbank	86,787,072	1.10%	(2,812,000)	723,543	88,875,529	1.18%
<b>Cash</b>	<b>\$33,061,757</b>	<b>0.42%</b>	<b>\$18,228,360</b>	<b>\$4,717</b>	<b>\$14,828,679</b>	<b>0.20%</b>
Northern Trust Cash Account	22,464,049	0.29%	18,228,360	2,848	4,232,841	0.06%
Bank of ND	10,597,708	0.13%	0	1,870	10,595,838	0.14%
<b>Total Fund</b>	<b>\$7,874,310,375</b>	<b>100.0%</b>	<b>\$(36,407,553)</b>	<b>\$395,475,140</b>	<b>\$7,515,242,787</b>	<b>100.0%</b>

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Equities</b>					
Gross	7.31%	24.06%	21.92%	15.42%	13.12%
Net	7.25%	23.73%	21.64%	15.16%	12.80%
Weighted Benchmark	6.61%	23.88%	21.64%	15.02%	12.57%
<b>Public Equities</b>					
Gross	7.01%	20.44%	21.36%	-	-
Net	6.94%	20.09%	21.06%	-	-
Weighted Benchmark	6.12%	18.57%	20.54%	-	-
<b>World Equities</b>					
Gross	6.38%	20.57%	17.36%	12.55%	11.28%
Net	6.29%	20.12%	16.94%	12.15%	10.73%
MSCI World	7.77%	21.82%	21.70%	15.03%	12.70%
EPOCH Investment - Gross(1)	8.25%	18.28%	18.93%	15.11%	12.36%
EPOCH Investment - Net	8.07%	17.46%	18.18%	14.38%	11.64%
MSCI World	7.77%	21.82%	21.70%	15.03%	12.70%
LSV Asset Management - Gross(2)	4.88%	22.39%	15.94%	10.46%	-
LSV Asset Management - Net	4.86%	22.26%	15.82%	10.33%	-
Benchmark(4)	6.10%	18.22%	20.38%	14.64%	-
<b>Domestic Equities</b>					
Gross	10.59%	28.00%	27.00%	18.78%	17.12%
Net	10.54%	27.68%	26.76%	18.57%	16.88%
Weighted Benchmark	8.22%	24.15%	24.93%	17.03%	15.86%
<b>Large Cap</b>					
Gross	12.08%	30.82%	29.32%	20.51%	18.07%
Net	12.05%	30.60%	29.18%	20.39%	17.91%
Large Cap Benchmark(3)	9.78%	26.45%	26.21%	18.43%	16.54%
L.A. Capital - Gross	13.13%	31.80%	34.57%	24.57%	20.07%
L.A. Capital - Net	13.08%	31.56%	34.31%	24.33%	19.83%
Russell 1000 Growth Index	11.64%	27.60%	34.08%	25.32%	19.79%
LACM Enhanced Index - Gross	10.87%	29.04%	26.68%	18.15%	16.94%
LACM Enhanced Index - Net	10.85%	28.91%	26.55%	18.02%	16.81%
Russell 1000 Index	9.78%	26.45%	26.21%	18.43%	16.54%
Northern Tr AM Enh S&P500 - Gross	12.36%	33.05%	23.05%	16.41%	15.64%
Northern Tr AM Enh S&P500 - Net	12.36%	33.05%	23.05%	16.41%	15.46%
S&P 500 Index	11.03%	28.71%	26.07%	18.47%	16.55%
Parametric Enh S&P500 - Gross	10.76%	28.33%	26.95%	18.48%	16.72%
Parametric Enh S&P500 - Net	10.76%	27.90%	26.90%	18.45%	16.66%
S&P 500 Index	11.03%	28.71%	26.07%	18.47%	16.55%
<b>Small Cap</b>					
Gross	4.81%	16.97%	18.60%	12.70%	13.58%
Net	4.65%	16.29%	18.02%	12.21%	13.09%
Russell 2000 Index	2.14%	14.82%	20.02%	12.02%	13.23%
Atlanta Capital - Gross	11.21%	20.10%	19.83%	14.97%	-
Atlanta Capital - Net	11.06%	19.40%	19.07%	14.21%	-
S&P 600 Small Cap Index	5.64%	26.82%	20.11%	12.42%	14.50%
Riverbridge Small Cap Growth - Gross	(4.98%)	4.61%	-	-	-
Riverbridge Small Cap Growth - Net	(5.15%)	3.94%	-	-	-
Russell 2000 Growth Index	0.01%	2.83%	21.17%	14.53%	14.14%
Sycamore Small Cap Value - Gross	8.54%	26.65%	-	-	-
Sycamore Small Cap Value - Net	8.38%	25.98%	-	-	-
Russell 2000 Value Index	4.36%	28.27%	17.99%	9.07%	12.03%

(1) EPOCH Investment was removed from the Domestic Equities Composite to the World Equities Composite as of 1/1/2012.

(3) LSV Asset Management was removed from the Domestic Equities and Intl Equities Composites to the World Equities Composite as of February 1, 2013.

(3) S&P 500 Index through 12/31/2011 and Russell 1000 Index thereafter.

(4) MSCI ACWI Gross through 6/30/2019 and MSCI ACWI IMI thereafter.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>International Equities</b>					
Gross	1.89%	9.40%	17.30%	12.29%	9.66%
Net	1.83%	9.05%	16.99%	12.04%	9.37%
Weighted Benchmark	2.02%	8.73%	13.35%	9.69%	7.57%
<b>Developed</b>					
Gross	2.69%	12.10%	17.74%	12.16%	10.16%
Net	2.64%	11.87%	17.50%	11.92%	9.88%
Benchmark(1)	3.14%	12.62%	14.07%	9.63%	8.10%
DFA Int'l Small Cap Value - Net	1.96%	15.89%	12.23%	6.77%	9.13%
World ex US SC Value	0.72%	13.27%	12.59%	8.30%	8.85%
Northern Tr AM World ex US - Gross	3.57%	12.94%	14.46%	10.03%	-
Northern Tr AM World ex US - Net	3.57%	12.91%	14.42%	10.00%	-
MSCI World ex US	3.14%	12.62%	14.07%	9.63%	7.84%
Wellington Management - Gross	(0.91%)	8.48%	16.92%	11.38%	12.19%
Wellington Management - Net	(1.11%)	7.62%	15.95%	10.46%	11.26%
BMI, EPAC, <\$2 B	(1.67%)	8.50%	13.66%	9.37%	9.52%
William Blair - Gross	2.78%	10.84%	23.94%	17.26%	-
William Blair - Net	2.70%	10.48%	23.52%	16.85%	-
MSCI ACWI ex US IMI	1.64%	8.53%	13.62%	9.83%	7.57%
<b>Emerging Markets</b>					
Gross	(0.81%)	0.93%	15.95%	12.64%	7.55%
Net	(0.90%)	0.22%	15.46%	12.35%	7.23%
Emerging Mkts - Net	(1.31%)	(2.54%)	10.94%	9.88%	5.49%
Axiom - Gross(2)	(1.42%)	(3.37%)	16.54%	13.27%	-
Axiom - Net	(1.55%)	(4.29%)	15.87%	12.88%	-
Emerging Mkts - Net	(1.31%)	(2.54%)	10.94%	9.88%	5.49%
DFA - Net	0.98%	14.58%	14.42%	10.81%	7.90%
Emerging Mkts - Net	(1.31%)	(2.54%)	10.94%	9.88%	5.49%

(1) MSCI EAFE through 12/31/1996; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again through 6/30/2016; MSCI World ex-US thereafter.

(2) Axiom's performance are reported net of fees through 6/30/2020.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Private Equities*</b>					
Net	9.23%	57.24%	23.62%	16.43%	8.96%
Adams St Direct Co-Invest Fund	(0.57%)	(13.01%)	(32.67%)	(28.56%)	(9.58%)
Adams St Direct Fund 2010	6.88%	37.50%	13.16%	17.29%	14.96%
Adams St 1998 Partnership	1.25%	(1.34%)	(0.28%)	1.24%	2.73%
Adams St 1999 Partnership	0.01%	0.73%	(0.27%)	0.90%	2.31%
Adams St 2000 Partnership	(2.65%)	(4.44%)	(5.05%)	1.33%	0.84%
Adams St 2001 Partnership	(20.66%)	0.04%	1.56%	3.68%	5.09%
Adams St 2002 Partnership	(1.58%)	(2.00%)	(4.77%)	(1.83%)	3.08%
Adams St 2003 Partnership	(25.27%)	(26.56%)	(13.94%)	(3.97%)	3.11%
Adams St 2010 Partnership	11.36%	79.39%	40.94%	29.78%	21.36%
Adams St 2008 Fund	0.31%	36.02%	21.54%	20.23%	15.35%
Adams St 2000 Non-US	(11.71%)	(13.66%)	(5.75%)	0.90%	(0.97%)
Adams St 2001 Non-US	(3.59%)	(0.19%)	5.51%	6.11%	9.32%
Adams St 2002 Non-US	14.95%	5.59%	(0.61%)	0.62%	2.80%
Adams St 2003 Non-US	(5.26%)	(8.73%)	(10.04%)	(2.78%)	5.71%
Adams St 2004 Non-US	(7.58%)	31.93%	10.92%	9.31%	7.20%
Adams St 2010 Non-US	1.53%	43.96%	26.40%	24.10%	16.28%
Adams St 2010 Non-US Emg	8.29%	55.70%	24.08%	20.11%	11.49%
Adams St 2015 Global Fund	8.85%	78.44%	33.94%	29.57%	-
Adams St 2016 Global Fund	10.78%	72.68%	28.74%	29.95%	-
Adams St 2017 Global Fund	12.20%	75.78%	30.07%	-	-
Adams St 2018 Global Fund	11.92%	77.90%	34.52%	-	-
Adams St 2019 Global Fund	13.62%	142.33%	-	-	-
Adams St 2020 Global Fund	10.57%	392.02%	-	-	-
BlackRock	11.79%	57.57%	24.55%	-	-
Blackrock PEP 2020	9.81%	-	-	-	-
Sixth Street TAO	3.08%	13.50%	-	-	-
Remaining Misc. Funds**	(4.49%)	3.28%	2.22%	1.40%	(1.00%)

\* Corsair III was taken out from the Private Equity Composite on July 1, 2009. It was then added back into the Private Equity Composite on October 1, 2011. At this time Corsair IV, Capital Intl and EIG were also added to this composite.

\*\* Comprised of Matlin Patterson II, Matlin Patterson III, InvestAmerica Lewis & Clark, InvestAmerica L&C II, Corsair III, Capital Intl Fd V, Capital Intl Fd VI, EIG, Quantum Energy Partners, Hearthstone MSII, Hearthstone MSIII.



## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Fixed Income</b>					
Gross	0.67%	2.12%	6.77%	6.12%	5.53%
Net	0.64%	1.99%	6.62%	5.95%	5.33%
Weighted Benchmark	0.22%	0.49%	6.08%	4.87%	3.71%
<b>Domestic Fixed Income</b>					
Gross	0.67%	2.12%	6.77%	5.80%	5.94%
Net	0.64%	1.99%	6.62%	5.64%	5.75%
Weighted Benchmark	0.22%	0.49%	6.08%	4.39%	4.02%
<b>Investment Grade</b>					
Gross	0.43%	(0.30%)	6.26%	5.17%	5.02%
Net	0.41%	(0.42%)	6.14%	5.06%	4.90%
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
Declaration Total Return - Net Libor-3 Month	(0.28%) 0.04%	2.45% 0.16%	5.10% 1.05%	4.73% 1.35%	- 0.88%
PIMCO Core Plus Cons. - Gross(1)	0.04%	(0.61%)	5.96%	5.09%	-
PIMCO Core Plus Cons. - Net Blended Benchmark(2)	0.01% 0.01%	(0.85%) (1.54%)	5.78% 4.79%	4.88% 3.66%	- -
PIMCO DiSCO II - Net Blmbg Aggregate	0.80% 0.01%	6.33% (1.54%)	6.12% 4.79%	7.83% 3.57%	11.40% 2.90%
Prudential Core - Gross	(0.00%)	(1.19%)	5.75%	-	-
Prudential Core - Net Blmbg Aggregate	(0.03%) 0.01%	(1.29%) (1.54%)	5.60% 4.79%	- 3.57%	- 2.90%
SSgA Long US Treas Idx - Gross	3.08%	(4.61%)	8.90%	6.59%	-
SSgA Long US Treas Idx - Net Blmbg Long Treas	3.07% 3.08%	(4.63%) (4.65%)	8.89% 8.82%	6.56% 6.54%	- 4.51%
<b>Below Investment Grade</b>					
Gross	1.37%	9.14%	8.16%	7.38%	8.35%
Net	1.32%	8.94%	7.93%	7.11%	7.99%
Blmbg HY Corp 2% Issue	0.69%	5.26%	8.81%	6.28%	6.82%
Ares ND Credit Strategies Fd - Net	2.44%	12.18%	7.88%	-	-
Cerberus ND Private Credit Fd - Net S&P/LSTA Leveraged Loan B	2.13% 0.85%	10.84% 5.22%	9.33% 5.98%	- 4.59%	- 5.02%
Goldman Sachs 2006 Offshore - Net	2.62%	7.01%	6.27%	14.40%	14.68%
Goldman Sachs Offshore V - Net	0.93%	11.77%	26.44%	21.56%	16.33%
PIMCO Bravo II Fund - Net Blmbg HY Corp 2% Issue	4.20% 0.69%	33.16% 5.26%	3.51% 8.81%	5.55% 6.28%	- 6.82%
Loomis Sayles - Gross	(0.12%)	4.22%	8.41%	6.46%	7.64%
Loomis Sayles - Net Blmbg HY Corp 2% Issue	(0.24%) 0.69%	3.74% 5.26%	7.88% 8.81%	5.94% 6.28%	7.12% 6.82%

(1) The product changed from Commingled Fund to Separate Account in March 2014.

(2) Libor-3 month through Feb. 28, 2014; Fund's performance through March 31, 2014; Libor-3 month through June 30, 2018; Blmbg Aggregate thereafter.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Real Assets</b>					
Gross	5.42%	15.64%	8.38%	7.74%	7.94%
Net	5.32%	15.17%	7.91%	7.30%	7.44%
Weighted Benchmark	5.26%	15.34%	7.02%	6.35%	6.90%
<b>Real Estate</b>					
Gross	7.49%	19.15%	8.68%	8.65%	10.73%
Net	7.36%	18.56%	8.09%	8.12%	10.07%
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
Invesco Core Real Estate - Gross	7.56%	16.28%	7.03%	7.30%	9.52%
Invesco Core Real Estate - Net	7.47%	15.90%	6.68%	6.96%	9.15%
Invesco Asia RE Fund III - Net	0.36%	5.07%	14.50%	26.48%	-
Invesco Value Added Fd IV - Net	3.12%	13.75%	10.04%	9.95%	-
Invesco Value Added Fd V - Net	8.80%	31.80%	-	-	-
JP Morgan - Gross	7.92%	22.17%	9.53%	9.07%	11.15%
JP Morgan - Net	7.69%	21.07%	8.42%	8.08%	10.11%
JPM Greater European Opp Fd - Net	2.23%	(2.68%)	(3.09%)	(13.41%)	(10.00%)
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
<b>Other Real Assets</b>					
Gross	1.96%	9.85%	7.71%	-	-
Net	1.91%	9.59%	7.41%	-	-
Weighted Benchmark	4.21%	12.58%	5.36%	-	-
<b>Infrastructure</b>					
Gross	2.27%	11.51%	8.83%	8.49%	7.30%
Net	2.20%	11.14%	8.42%	8.03%	6.75%
ISQ Global Infrastructure II - Net	3.68%	18.83%	18.09%	-	-
The Rohatyn Group - Net	1.41%	0.13%	(7.32%)	(3.64%)	(0.45%)
JP Morgan IIF - Gross	0.29%	8.51%	7.99%	8.45%	7.14%
JP Morgan IIF - Net	0.13%	7.68%	7.21%	7.70%	6.28%
Grosvenor Cust. Infrastructure - Net	2.54%	13.31%	7.97%	7.86%	9.13%
Grosvenor Cust. Infrastructure II - Net	1.51%	17.74%	14.92%	11.73%	-
Benchmark(1)	4.14%	13.37%	5.82%	4.85%	2.99%
Macquarie Infrastructure Fd IV - Net	2.96%	13.12%	8.03%	-	-
Macquarie Infrastructure Fd V - Net	12.51%	(2.23%)	-	-	-
Benchmark(2)	4.14%	13.37%	5.82%	-	-
<b>Timber</b>					
Net	1.08%	5.66%	4.90%	1.97%	1.08%
TIR Teredo - Net	1.88%	7.77%	5.28%	0.91%	3.84%
TIR Springbank - Net	0.83%	5.10%	4.84%	2.32%	(0.30%)
NCREIF Timberland Index	4.56%	9.17%	3.69%	3.58%	5.30%
<b>Cash &amp; Cash Equivalents - Net</b>					
Cash Account - Net	0.01%	0.06%	0.92%	1.15%	0.65%
Cash Account - Net	0.01%	0.05%	0.91%	1.14%	0.65%
Bank of ND - Net	0.02%	0.08%	0.94%	1.14%	-
3-month Treasury Bill	0.01%	0.05%	0.99%	1.14%	0.63%
<b>Total Fund</b>					
Gross	5.27%	16.72%	15.73%	11.83%	10.37%
Net	5.21%	16.43%	15.45%	11.56%	10.01%
Target*	4.77%	16.14%	15.17%	11.04%	9.44%

\* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World ex US, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% NDSIB PEN - Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

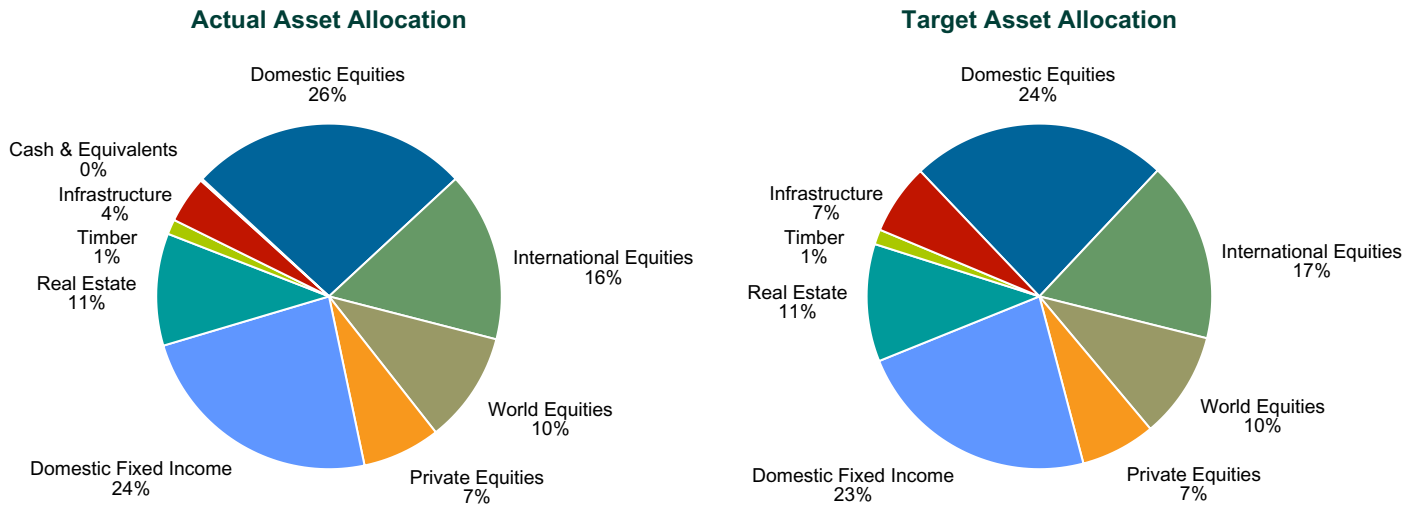
(1) CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

(2) 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.



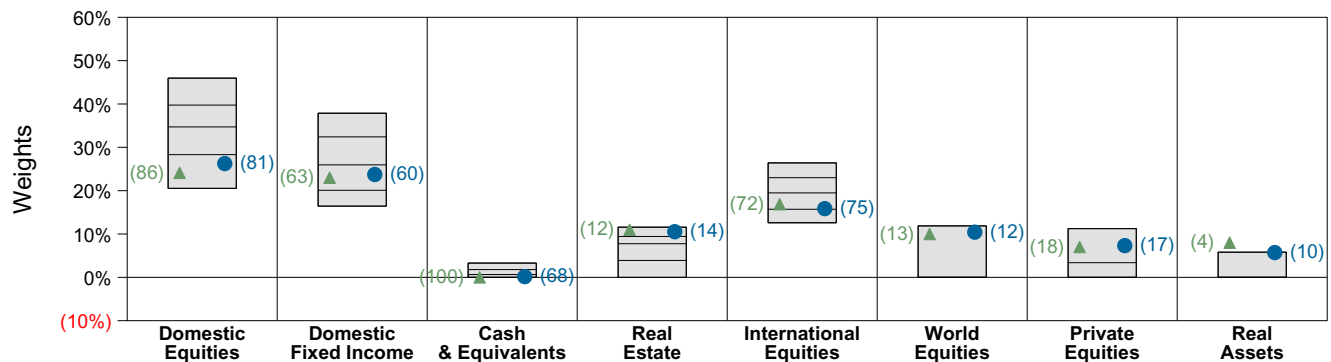
## Actual vs Target Asset Allocation As of December 31, 2021

The top left chart shows the Fund's asset allocation as of December 31, 2021. 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 Sponsor Database.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equities	1,107,640	26.3%	24.1%	2.1%	90,023
International Equities	669,141	15.9%	16.9%	(1.0%)	(43,186)
World Equities	439,742	10.4%	10.0%	0.4%	17,802
Private Equities	308,846	7.3%	7.0%	0.3%	13,488
Domestic Fixed Income	1,001,353	23.7%	23.0%	0.7%	30,892
Real Estate	444,563	10.5%	11.0%	(0.5%)	(19,571)
Timber	57,635	1.4%	1.4%	0.0%	0
Infrastructure	183,610	4.4%	6.6%	(2.3%)	(96,308)
Cash & Equivalents	6,866	0.2%	0.0%	0.2%	6,866
<b>Total</b>	<b>4,219,396</b>	<b>100.0%</b>	<b>100.0%</b>		

### Asset Class Weights vs Callan Public Fund Sponsor Database



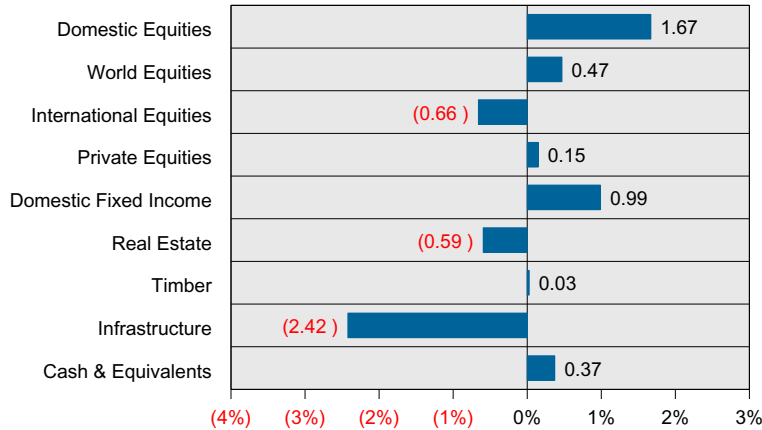
	Domestic Equities	Domestic Fixed Income	Cash & Equivalents	Real Estate	International Equities	World Equities	Private Equities	Real Assets
10th Percentile	45.97	37.87	3.29	11.58	26.41	11.87	11.24	5.81
25th Percentile	39.75	32.41	1.79	9.43	22.99	0.00	3.37	0.00
Median	34.71	25.95	0.64	7.76	19.48	0.00	0.00	0.00
75th Percentile	28.31	20.09	0.03	3.90	15.71	0.00	0.00	0.00
90th Percentile	20.53	16.43	0.00	0.00	12.59	0.00	0.00	0.00
<b>Fund</b> ●	26.25	23.73	0.16	10.54	15.86	10.42	7.32	5.72
<b>Target</b> ▲	24.12	23.00	0.00	11.00	16.88	10.00	7.00	8.00
% Group Invested	95.52%	99.25%	79.85%	80.60%	92.54%	18.66%	27.61%	20.90%

\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

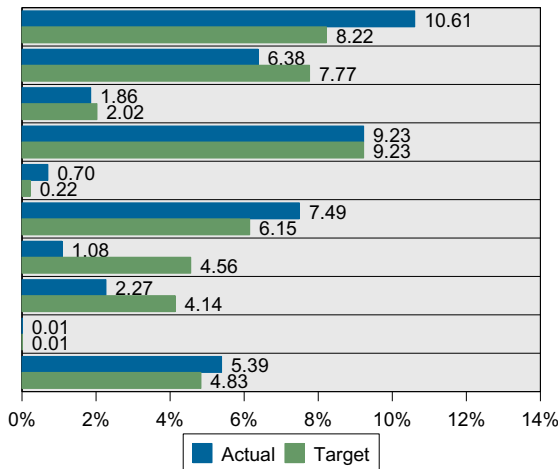
## Quarterly Total Fund Relative Attribution - December 31, 2021

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.

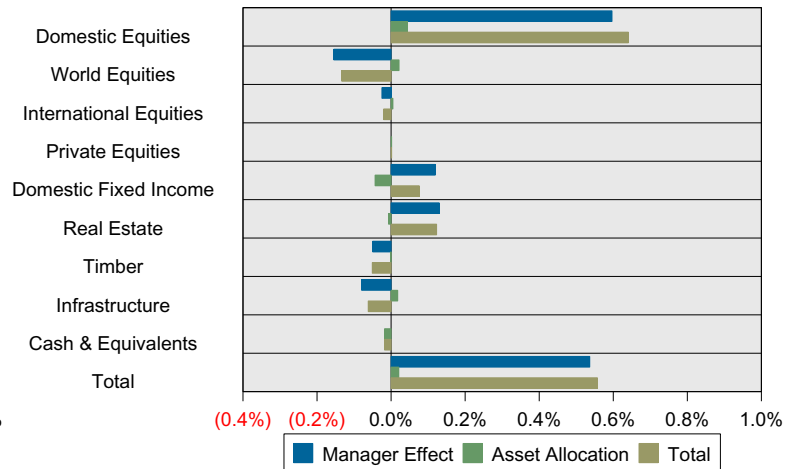
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended December 31, 2021

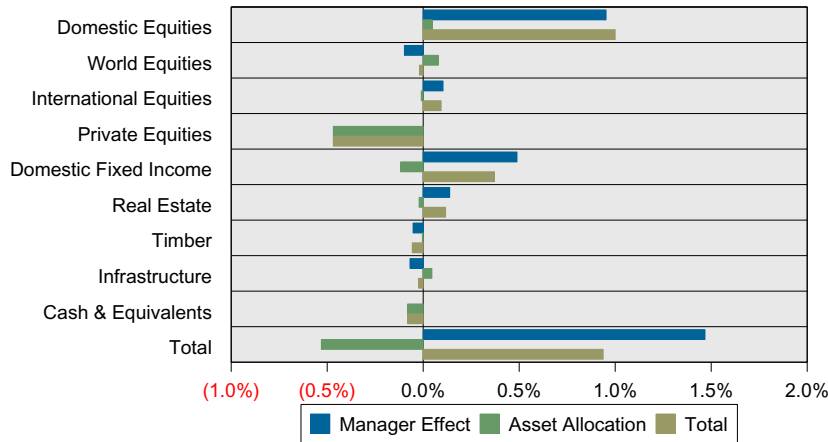
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	26%	24%	10.61%	8.22%	0.60%	0.04%	0.64%
World Equities	10%	10%	6.38%	7.77%	(0.15%)	0.02%	(0.13%)
International Equities	16%	17%	1.86%	2.02%	(0.02%)	0.00%	(0.02%)
Private Equities	7%	7%	9.23%	9.23%	0.00%	0.00%	0.00%
Domestic Fixed Income	24%	23%	0.70%	0.22%	0.12%	(0.04%)	0.08%
Real Estate	10%	11%	7.49%	6.15%	0.13%	(0.01%)	0.12%
Timber	1%	1%	1.08%	4.56%	(0.05%)	(0.00%)	(0.05%)
Infrastructure	4%	7%	2.27%	4.14%	(0.08%)	0.02%	(0.06%)
Cash & Equivalents	0%	0%	0.01%	0.01%	0.00%	(0.02%)	(0.02%)
<b>Total</b>			<b>5.39%</b>	<b>4.83%</b>	<b>+ 0.54%</b>	<b>+ 0.02%</b>	<b>0.56%</b>

\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

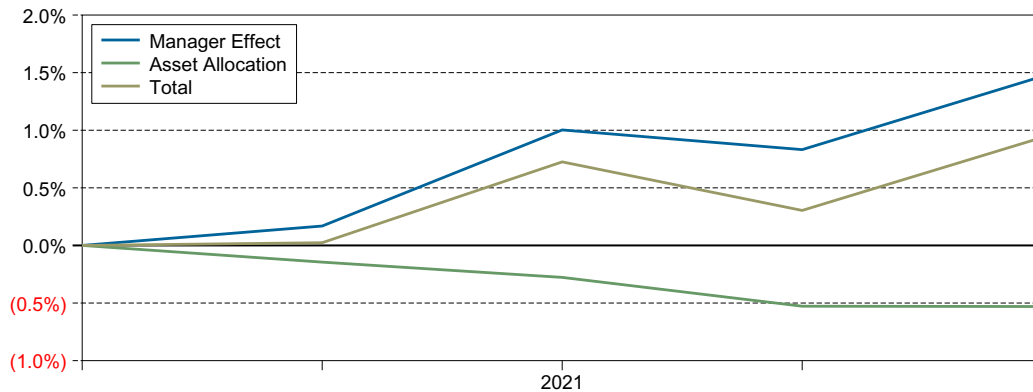
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

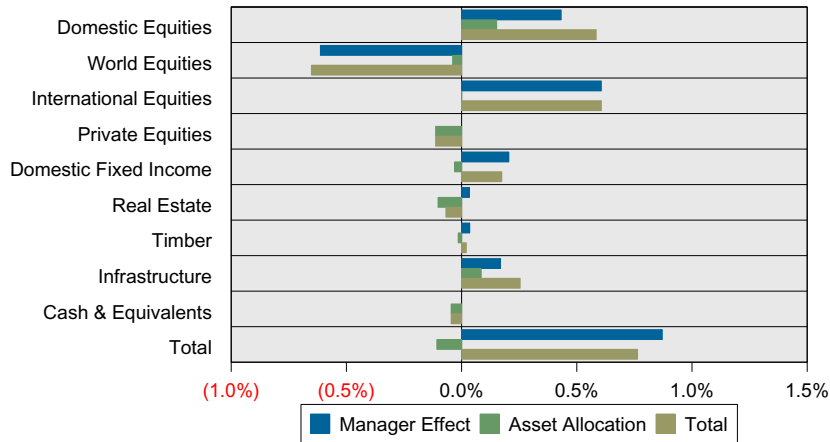
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	25%	24%	28.03%	24.15%	0.95%	0.05%	1.00%
World Equities	12%	10%	20.57%	21.82%	(0.10%)	0.08%	(0.02%)
International Equities	17%	17%	9.30%	8.74%	0.10%	(0.01%)	0.09%
Private Equities	6%	7%	57.24%	57.24%	0.00%	(0.47%)	(0.47%)
Domestic Fixed Income	24%	23%	2.33%	0.50%	0.49%	(0.12%)	0.37%
Real Estate	10%	11%	19.15%	17.70%	0.14%	(0.02%)	0.12%
Timber	2%	1%	5.66%	9.17%	(0.05%)	(0.00%)	(0.06%)
Infrastructure	4%	7%	11.51%	13.37%	(0.07%)	0.05%	(0.02%)
Cash & Equivalents	1%	0%	0.06%	0.06%	0.00%	(0.08%)	(0.08%)
<b>Total</b>			<b>17.00%</b>	<b>16.06%</b>	<b>+ 1.47%</b>	<b>+ (0.53%)</b>	<b>0.94%</b>

\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

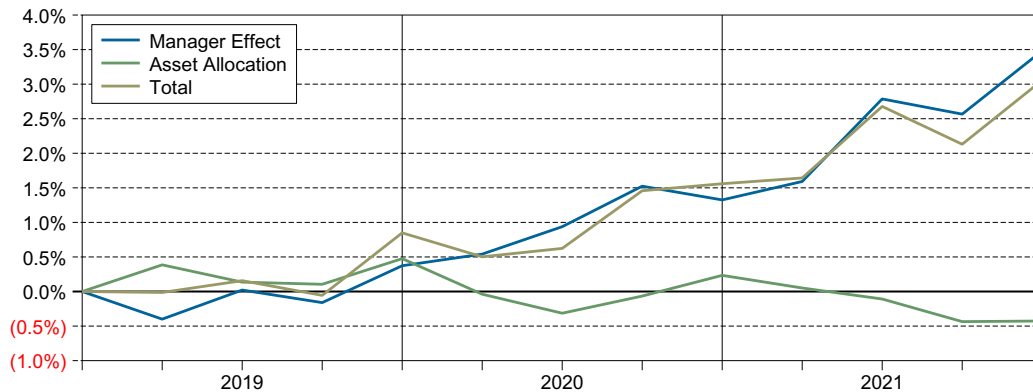
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

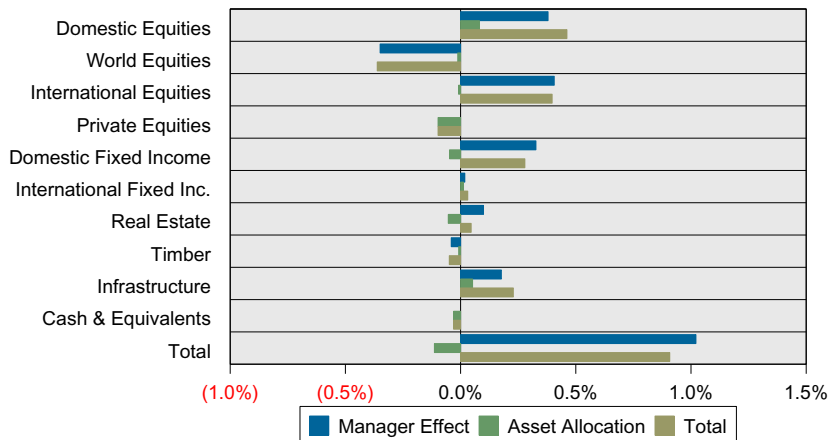
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	22%	27.00%	24.94%	0.43%	0.15%	0.58%
World Equities	14%	14%	17.36%	21.70%	(0.61%)	(0.04%)	(0.65%)
International Equities	16%	15%	17.33%	13.38%	0.61%	0.00%	0.61%
Private Equities	5%	7%	23.63%	23.63%	0.00%	(0.11%)	(0.11%)
Domestic Fixed Income	23%	23%	6.85%	6.09%	0.20%	(0.03%)	0.17%
Real Estate	11%	11%	8.68%	8.37%	0.03%	(0.10%)	(0.07%)
Timber	2%	2%	4.90%	3.69%	0.04%	(0.01%)	0.02%
Infrastructure	5%	6%	8.84%	5.82%	0.17%	0.09%	0.25%
Cash & Equivalents	0%	0%	0.94%	0.94%	0.00%	(0.05%)	(0.05%)
<b>Total</b>			<b>15.88%</b>	<b>15.12%</b>	<b>+ 0.87%</b>	<b>+ (0.11%)</b>	<b>0.76%</b>

\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

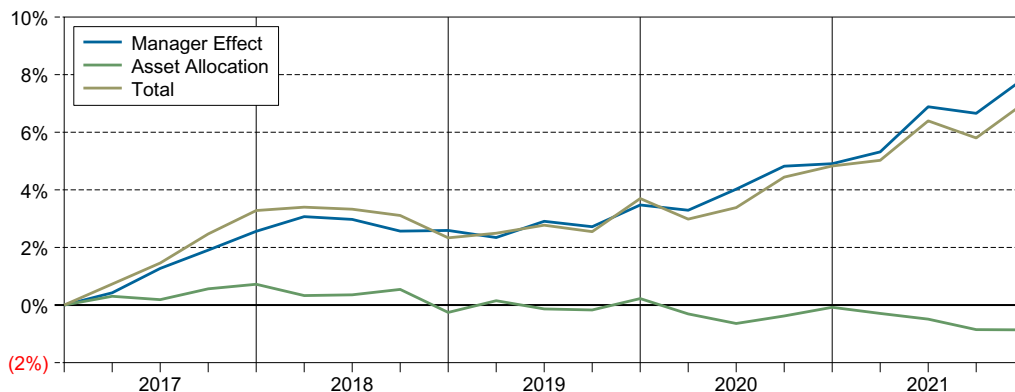
## Cumulative Total Fund Relative Attribution - December 31, 2021

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 Equities	23%	21%	18.78%	17.04%	0.38%	0.08%	0.46%
World Equities	15%	15%	12.55%	15.03%	(0.35%)	(0.01%)	(0.36%)
International Equities	16%	15%	12.34%	9.74%	0.41%	(0.01%)	0.40%
Private Equities	4%	7%	16.44%	16.44%	0.00%	(0.10%)	(0.10%)
Domestic Fixed Income	22%	22%	5.86%	4.42%	0.33%	(0.05%)	0.28%
International Fixed Inc.	1%	1%	-	-	0.02%	0.01%	0.03%
Real Estate	11%	11%	8.65%	7.75%	0.10%	(0.05%)	0.05%
Timber	2%	2%	1.97%	3.58%	(0.04%)	(0.01%)	(0.05%)
Infrastructure	5%	6%	8.49%	4.85%	0.18%	0.05%	0.23%
Cash & Equivalents	1%	0%	1.17%	1.17%	0.00%	(0.03%)	(0.03%)
<b>Total</b>			<b>11.94%</b>	<b>11.03%</b>	<b>+ 1.02%</b>	<b>+ (0.11%)</b>	<b>0.91%</b>

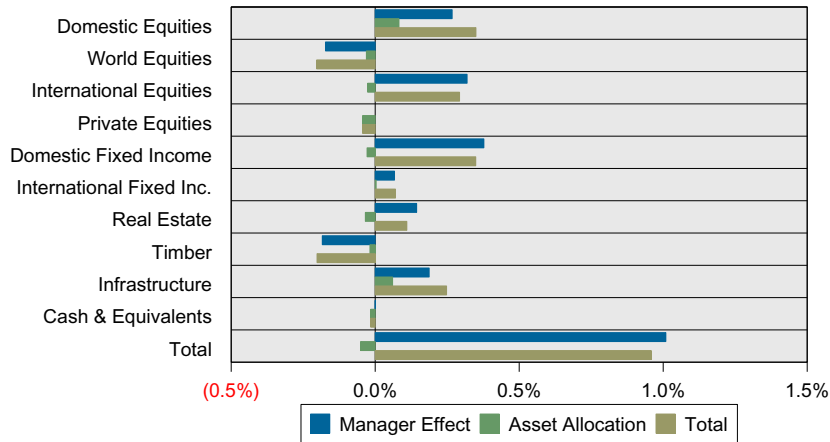
\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.



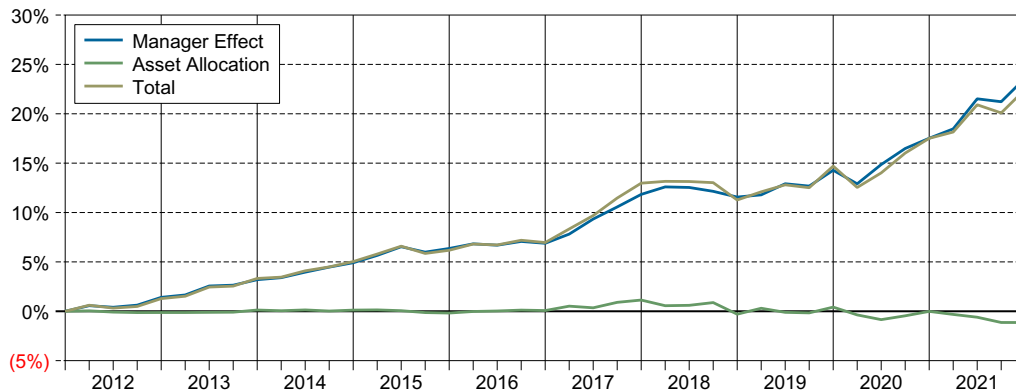
## Cumulative Total Fund Relative Attribution - December 31, 2021

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.

### Ten Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Ten Year Annualized Relative Attribution Effects

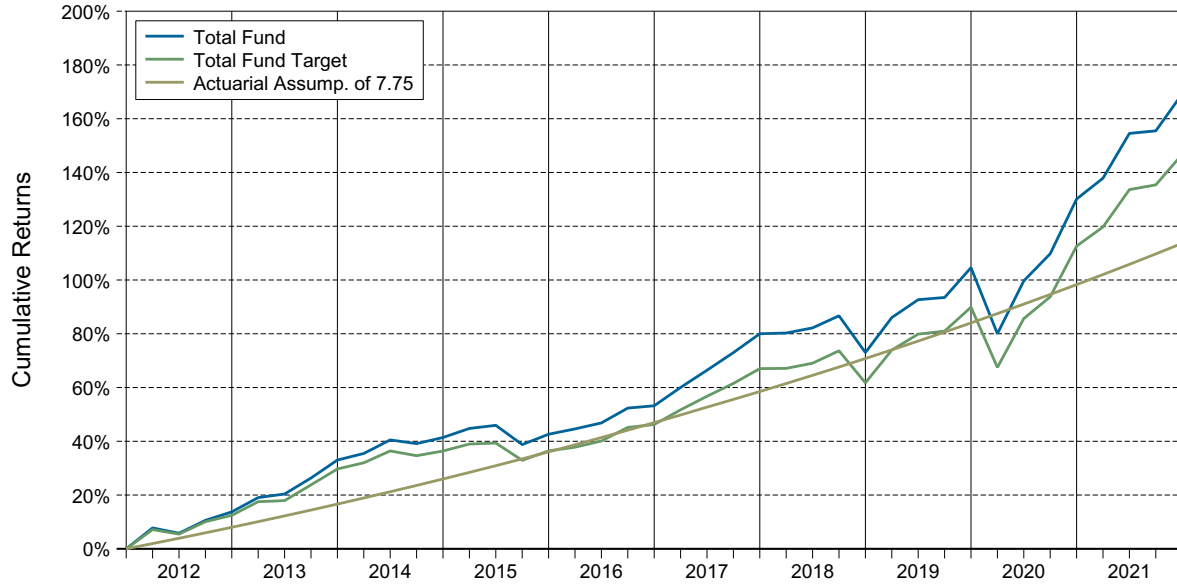
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	22%	17.09%	15.87%	0.27%	0.08%	0.35%
World Equities	15%	14%	11.28%	12.70%	(0.17%)	(0.03%)	(0.20%)
International Equities	16%	15%	9.60%	7.54%	0.32%	(0.03%)	0.29%
Private Equities	4%	6%	8.96%	8.96%	0.00%	(0.04%)	(0.04%)
Domestic Fixed Income	20%	19%	6.00%	4.07%	0.38%	(0.03%)	0.35%
International Fixed Inc.	3%	3%	-	-	0.07%	0.00%	0.07%
Real Estate	11%	11%	10.75%	9.32%	0.14%	(0.03%)	0.11%
Timber	3%	3%	1.08%	5.30%	(0.18%)	(0.02%)	(0.20%)
Infrastructure	4%	5%	7.31%	2.99%	0.19%	0.06%	0.25%
Cash & Equivalents	1%	0%	0.66%	0.65%	0.00%	(0.02%)	(0.02%)
<b>Total</b>			<b>10.41%</b>	<b>9.45%</b>	<b>+ 1.01%</b>	<b>+ (0.05%)</b>	<b>0.96%</b>

\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

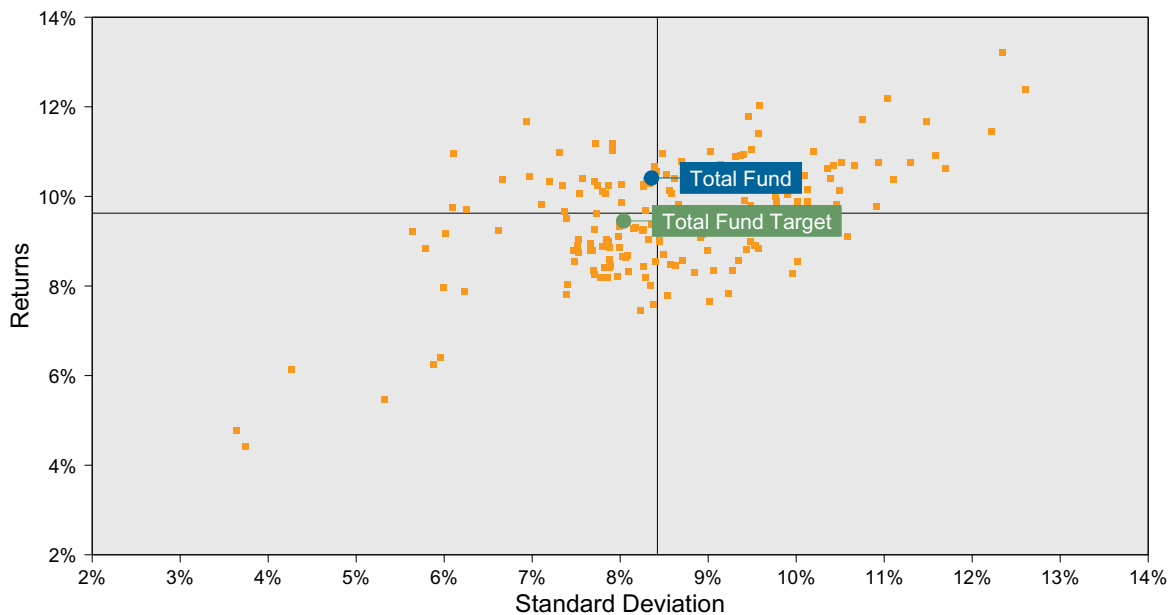
## Cumulative Performance Relative to Target

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 Sponsor Database.

### Cumulative Returns Actual vs Target



### Ten Year Annualized Risk vs Return



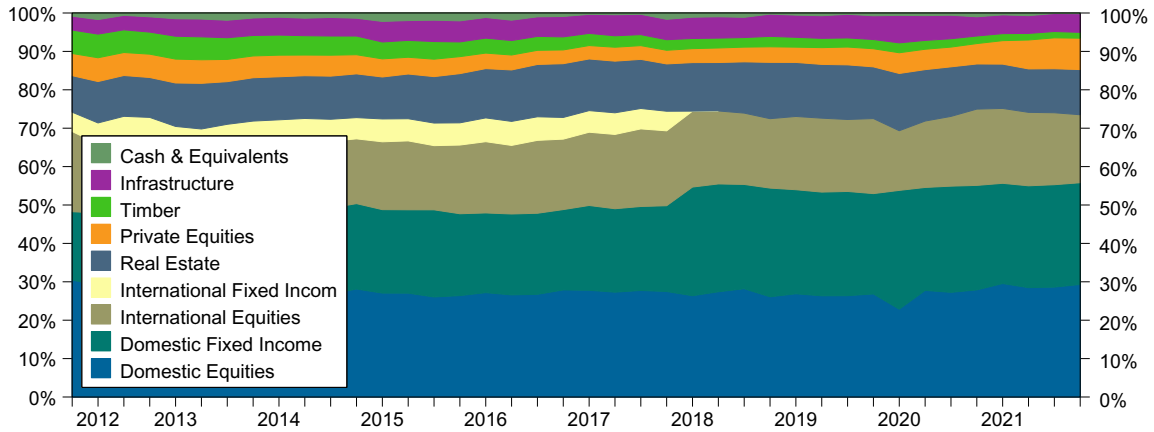
Squares represent membership of the Callan Public Fund Sponsor Database

\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

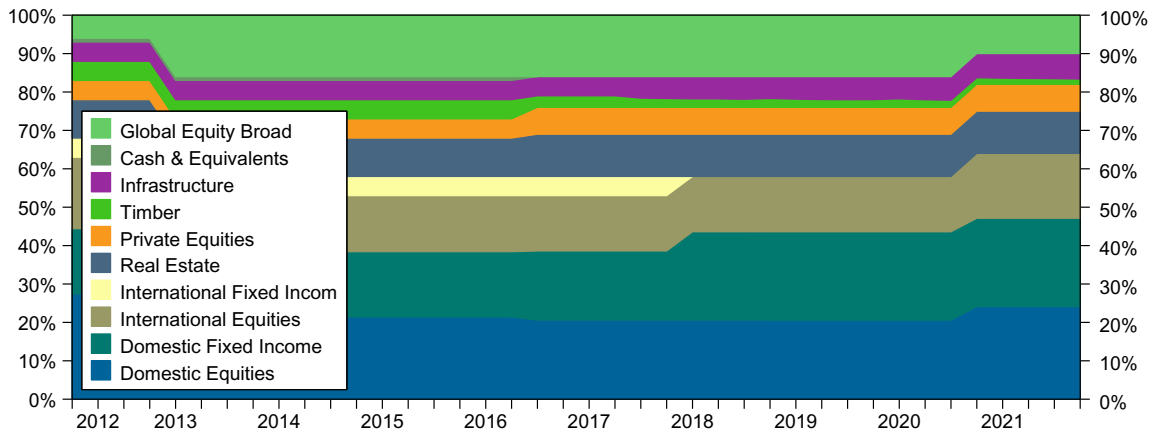
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Sponsor Database.

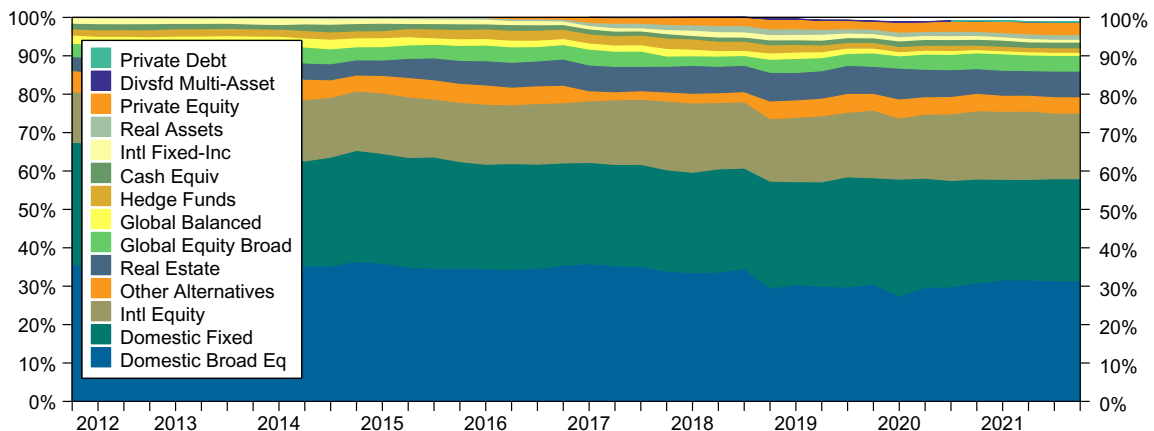
### Actual Historical Asset Allocation



### Target Historical Asset Allocation



### Average Callan Public Fund Sponsor Database Historical Asset Allocation

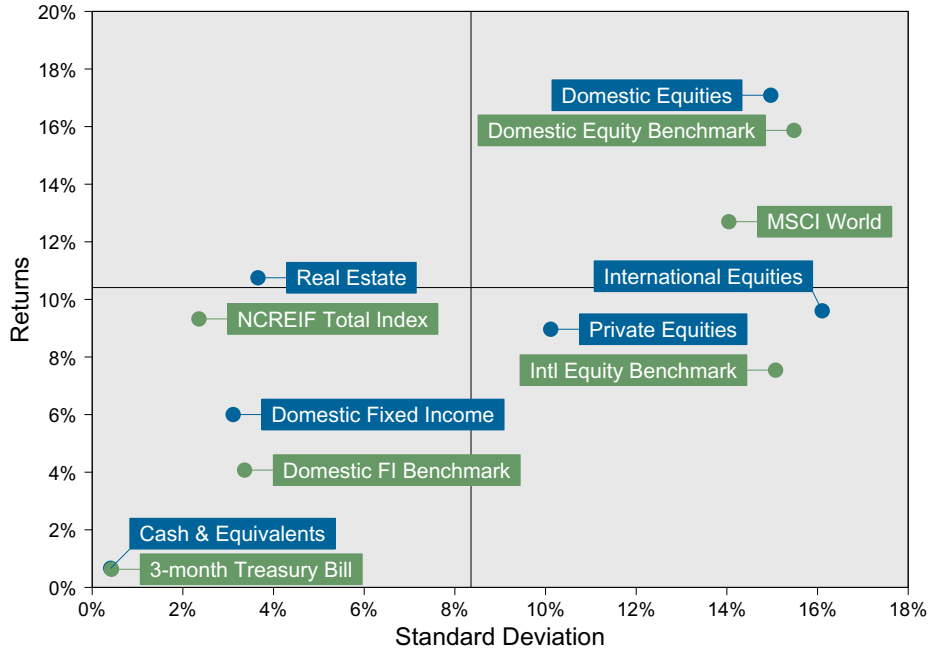


\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

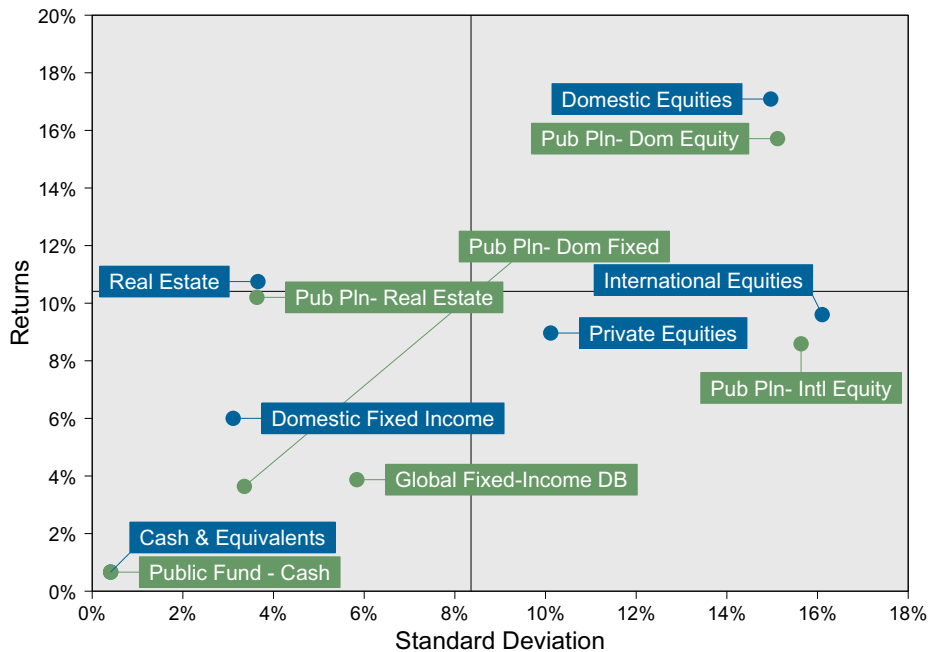
## Asset Class Risk and Return

The charts below show the ten year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

### Ten Year Annualized Risk vs Return Asset Classes vs Benchmark Indices



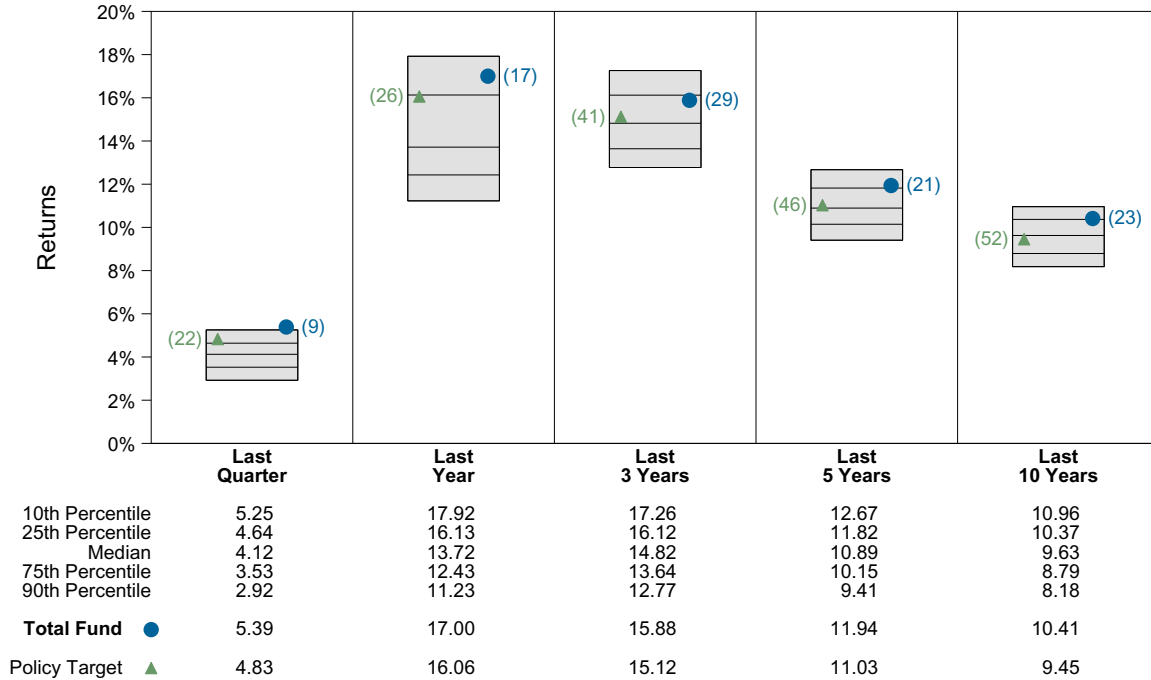
### Ten Year Annualized Risk vs Return Asset Classes vs Asset Class Median



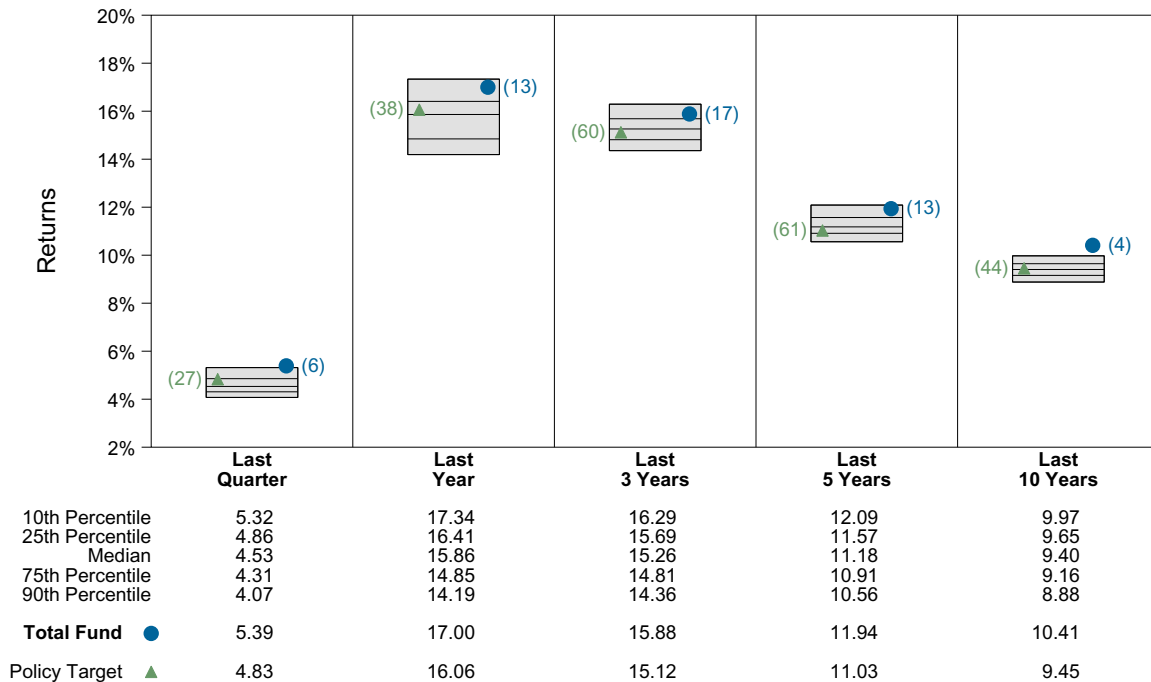
## Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Sponsor Database for periods ended December 31, 2021. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

### Callan Public Fund Sponsor Database



### Asset Allocation Adjusted Ranking

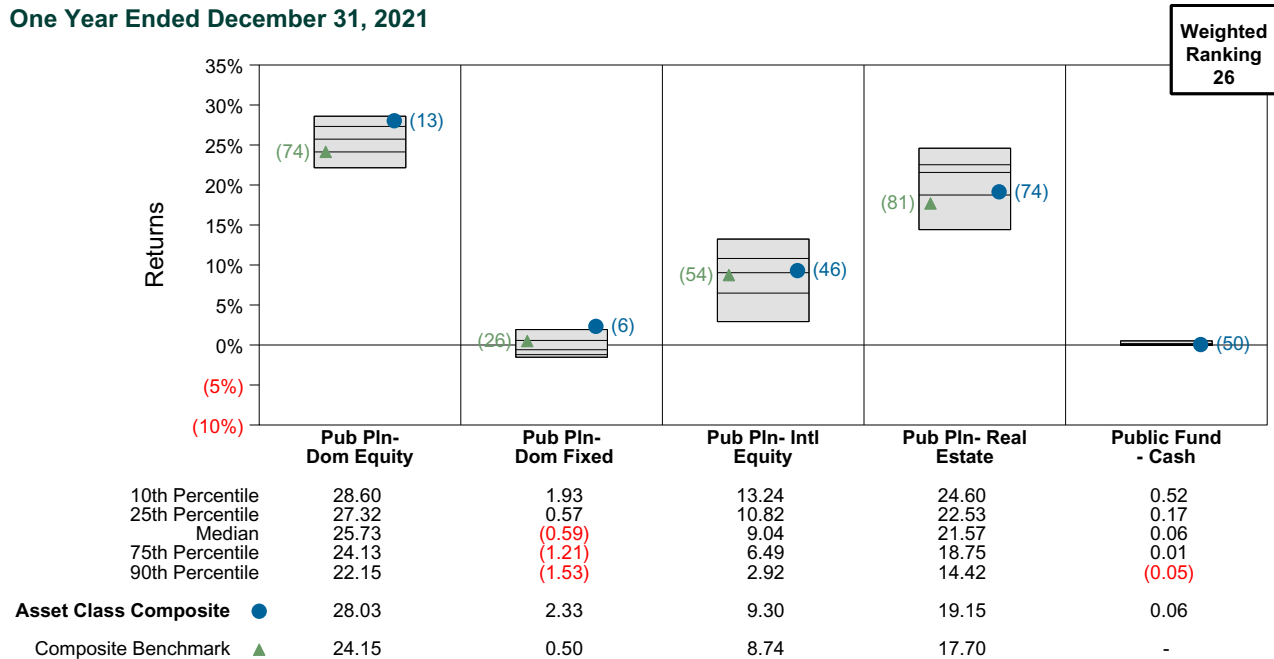


\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

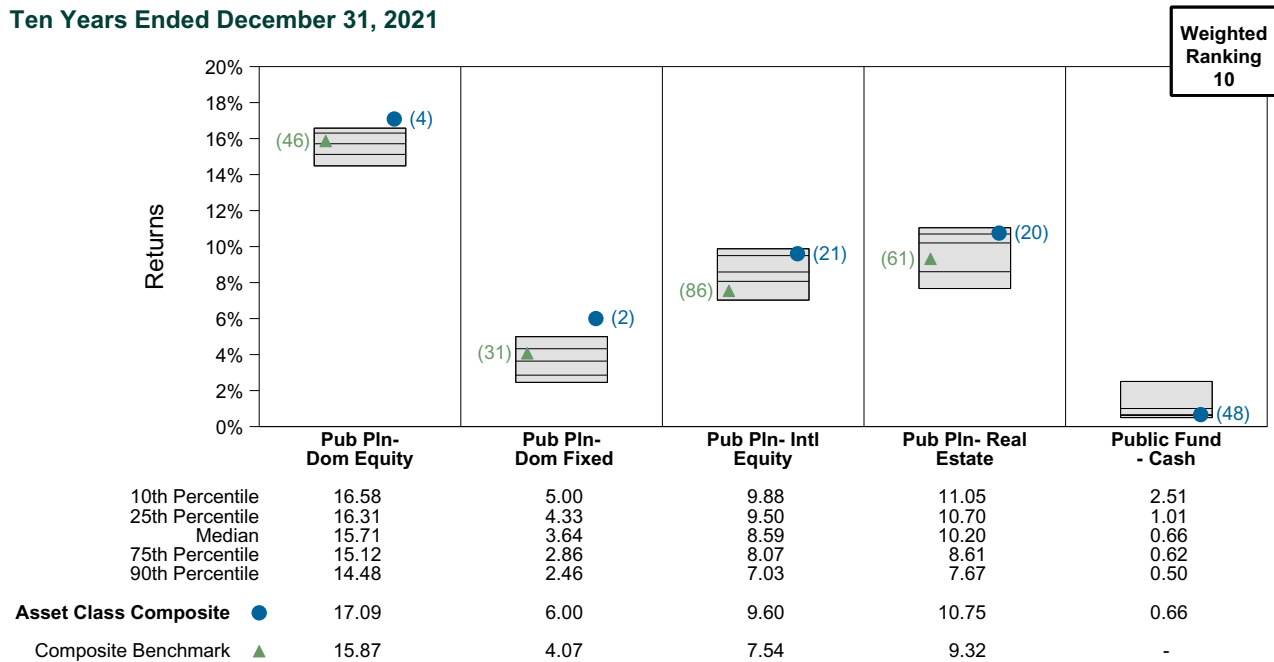
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended December 31, 2021



### Total Asset Class Performance Ten Years Ended December 31, 2021



\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

## Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2021, with the distribution as of September 30, 2021. 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 Class Allocation

	December 31, 2021		Net New Inv.	Inv. Return	September 30, 2021	
	Market Value	Weight			Market Value	Weight
<b>Global Equities</b>	<b>\$2,525,369,108</b>	<b>59.85%</b>	<b>\$(79,750,720)</b>	<b>\$174,521,950</b>	<b>\$2,430,597,879</b>	<b>60.46%</b>
<b>Public Equities</b>	<b>\$2,216,523,051</b>	<b>52.53%</b>	<b>\$(75,128,567)</b>	<b>\$147,777,369</b>	<b>\$2,143,874,248</b>	<b>53.33%</b>
<b>World Equities</b>	<b>\$439,741,864</b>	<b>10.42%</b>	<b>\$(43,629,010)</b>	<b>\$27,235,307</b>	<b>\$456,135,567</b>	<b>11.35%</b>
<b>Domestic Equities</b>	<b>\$1,107,639,971</b>	<b>26.25%</b>	<b>\$(20,301,691)</b>	<b>\$107,946,931</b>	<b>\$1,019,994,731</b>	<b>25.37%</b>
Large Cap	895,570,520	21.23%	(16,980,132)	97,973,798	814,576,854	20.26%
Small Cap	212,069,451	5.03%	(3,321,559)	9,973,133	205,417,877	5.11%
<b>International Equities</b>	<b>\$669,141,216</b>	<b>15.86%</b>	<b>\$(11,197,866)</b>	<b>\$12,595,131</b>	<b>\$667,743,951</b>	<b>16.61%</b>
Developed	514,315,367	12.19%	(8,354,729)	13,804,655	508,865,441	12.66%
Emerging Markets	154,825,849	3.67%	(2,843,137)	(1,209,524)	158,878,510	3.95%
<b>Private Equities</b>	<b>\$308,846,058</b>	<b>7.32%</b>	<b>\$(4,622,153)</b>	<b>\$26,744,581</b>	<b>\$286,723,630</b>	<b>7.13%</b>
<b>Global Fixed Income</b>	<b>\$1,001,353,109</b>	<b>23.73%</b>	<b>\$44,182,117</b>	<b>\$6,848,747</b>	<b>\$950,322,245</b>	<b>23.64%</b>
<b>Domestic Fixed Income</b>	<b>\$1,001,353,109</b>	<b>23.73%</b>	<b>\$44,182,117</b>	<b>\$6,848,747</b>	<b>\$950,322,245</b>	<b>23.64%</b>
Investment Grade	727,089,305	17.23%	34,041,054	3,071,901	689,976,351	17.16%
Below Investment Grade	274,263,804	6.50%	10,141,064	3,776,847	260,345,894	6.48%
<b>Global Real Assets</b>	<b>\$685,807,426</b>	<b>16.25%</b>	<b>\$16,476,437</b>	<b>\$34,926,159</b>	<b>\$634,404,831</b>	<b>15.78%</b>
<b>Real Estate</b>	<b>\$444,562,728</b>	<b>10.54%</b>	<b>\$5,497,772</b>	<b>\$30,561,134</b>	<b>\$408,503,821</b>	<b>10.16%</b>
<b>Other Real Assets</b>	<b>\$241,244,698</b>	<b>5.72%</b>	<b>\$10,978,664</b>	<b>\$4,365,025</b>	<b>\$225,901,009</b>	<b>5.62%</b>
Infrastructure	183,609,667	4.35%	12,906,357	3,741,919	166,961,391	4.15%
Timber	57,635,032	1.37%	(1,927,692)	623,105	58,939,619	1.47%
<b>Cash</b>	<b>\$6,866,373</b>	<b>0.16%</b>	<b>\$2,001,376</b>	<b>\$1,610</b>	<b>\$4,863,387</b>	<b>0.12%</b>
<b>Total Fund</b>	<b>\$4,219,396,016</b>	<b>100.0%</b>	<b>\$(17,090,791)</b>	<b>\$216,298,466</b>	<b>\$4,020,188,341</b>	<b>100.0%</b>

PLEASE REFER TO PAGES 29-31 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Equities</b>					
Gross	7.26%	23.66%	21.84%	15.37%	13.05%
Net	7.20%	23.35%	21.57%	15.12%	12.75%
Weighted Benchmark	6.48%	22.86%	21.24%	14.86%	12.40%
<b>Public Equities</b>					
Gross	6.98%	20.34%	21.35%	-	-
Net	6.91%	20.00%	21.05%	-	-
Weighted Benchmark	6.07%	18.46%	20.49%	-	-
<b>World Equities</b>					
Gross	6.38%	20.57%	17.36%	12.55%	11.28%
Net	6.28%	20.12%	16.95%	12.15%	10.69%
MSCI World	7.77%	21.82%	21.70%	15.03%	12.70%
<b>Domestic Equities</b>					
Gross	10.61%	28.03%	27.00%	18.78%	17.09%
Net	10.55%	27.77%	26.78%	18.58%	16.88%
Weighted Benchmark	8.22%	24.15%	24.94%	17.04%	15.87%
<b>Large Cap</b>					
Gross	12.07%	30.83%	29.35%	20.54%	18.07%
Net	12.04%	30.62%	29.21%	20.41%	17.91%
Benchmark(1)	9.78%	26.45%	26.21%	18.43%	16.54%
<b>Small Cap Equity</b>					
Gross	4.80%	16.96%	18.63%	12.72%	13.54%
Net	4.63%	16.27%	18.05%	12.22%	13.15%
Russell 2000 Index	2.14%	14.82%	20.02%	12.02%	13.23%
<b>International Equities</b>					
Gross	1.86%	9.30%	17.33%	12.34%	9.60%
Net	1.79%	8.94%	17.02%	12.09%	9.34%
Weighted Benchmark	2.02%	8.74%	13.38%	9.74%	7.54%
<b>Developed</b>					
Gross	2.69%	12.11%	17.76%	12.17%	10.13%
Net	2.63%	11.88%	17.52%	11.93%	9.87%
Benchmark(2)	3.14%	12.62%	14.07%	9.63%	8.10%
<b>Emerging Markets</b>					
Gross	(0.81%)	0.92%	15.98%	12.66%	7.51%
Net	(0.90%)	0.21%	15.48%	12.37%	7.24%
Benchmark(3)	(1.31%)	(2.54%)	10.94%	9.88%	5.49%
<b>Private Equities</b>					
Net	9.23%	57.24%	23.63%	16.44%	8.94%

(1) S&P 500 Index through 12/31/2011 and the Russell 1000 Index thereafter.

(2) 50% Hedged EAFE through 3/31/2011, MSCI EAFE through 6/30/2016; MSCI World ex-US thereafter.

(3) MSCI Emerging Mkts Idx (Gross) through 6/30/2011 and MSCI Emerging Mkts Idx Net thereafter.

PLEASE REFER TO PAGES 32-36 FOR INVESTMENT MANAGER LEVEL RETURNS.



## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Fixed Income</b>					
Gross	0.70%	2.33%	6.85%	6.18%	5.56%
Net	0.67%	2.19%	6.70%	6.01%	5.35%
Weighted Benchmark	0.22%	0.50%	6.09%	4.84%	3.71%
<b>Domestic Fixed Income</b>					
Gross	0.70%	2.33%	6.85%	5.86%	6.00%
Net	0.67%	2.19%	6.70%	5.71%	5.81%
Weighted Benchmark	0.22%	0.50%	6.09%	4.42%	4.07%
<b>Inv. Grade Fixed Income</b>					
Gross	0.41%	(0.31%)	6.25%	5.16%	5.02%
Net	0.39%	(0.43%)	6.13%	5.06%	4.90%
Blmbg Aggregate Index	0.01%	(1.54%)	4.79%	3.57%	2.90%
<b>Below Inv. Grade Fixed Income</b>					
Gross	1.42%	9.25%	8.16%	7.40%	8.35%
Net	1.37%	9.06%	7.94%	7.14%	7.99%
Blmbg HY Corp 2% Issue	0.69%	5.26%	8.81%	6.28%	6.82%
<b>Global Real Assets</b>					
Gross	5.52%	15.81%	8.42%	7.79%	7.99%
Net	5.41%	15.34%	7.93%	7.35%	7.55%
Weighted Benchmark	5.33%	15.52%	7.10%	6.41%	6.94%
<b>Real Estate</b>					
Gross	7.49%	19.15%	8.68%	8.65%	10.75%
Net	7.36%	18.56%	8.09%	8.12%	10.21%
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
<b>Other Real Assets</b>					
Gross	1.96%	9.89%	7.74%	-	-
Net	1.91%	9.62%	7.45%	-	-
Weighted Benchmark	4.21%	12.58%	5.37%	-	-
<b>Infrastructure</b>					
Gross	2.27%	11.51%	8.84%	8.49%	7.31%
Net	2.20%	11.14%	8.42%	8.04%	6.75%
Benchmark(1)	4.14%	13.37%	5.82%	4.85%	2.99%
<b>Timber</b>					
Net	1.08%	5.66%	4.90%	1.97%	1.08%
NCREIF Timberland Index	4.56%	9.17%	3.69%	3.58%	5.30%
<b>Cash &amp; Equivalents - Net</b>	<b>0.01%</b>	<b>0.06%</b>	<b>0.94%</b>	<b>1.17%</b>	<b>0.66%</b>
3-month Treasury Bill	0.01%	0.05%	0.99%	1.14%	0.63%
<b>Total Fund</b>					
Gross	5.39%	17.00%	15.88%	11.94%	10.41%
Net	5.33%	16.70%	15.60%	11.67%	10.11%
Target*	4.83%	16.06%	15.12%	11.03%	9.45%

\* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World ex US, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% NDSIB PERS - Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.4% NCREIF Timberland Index.

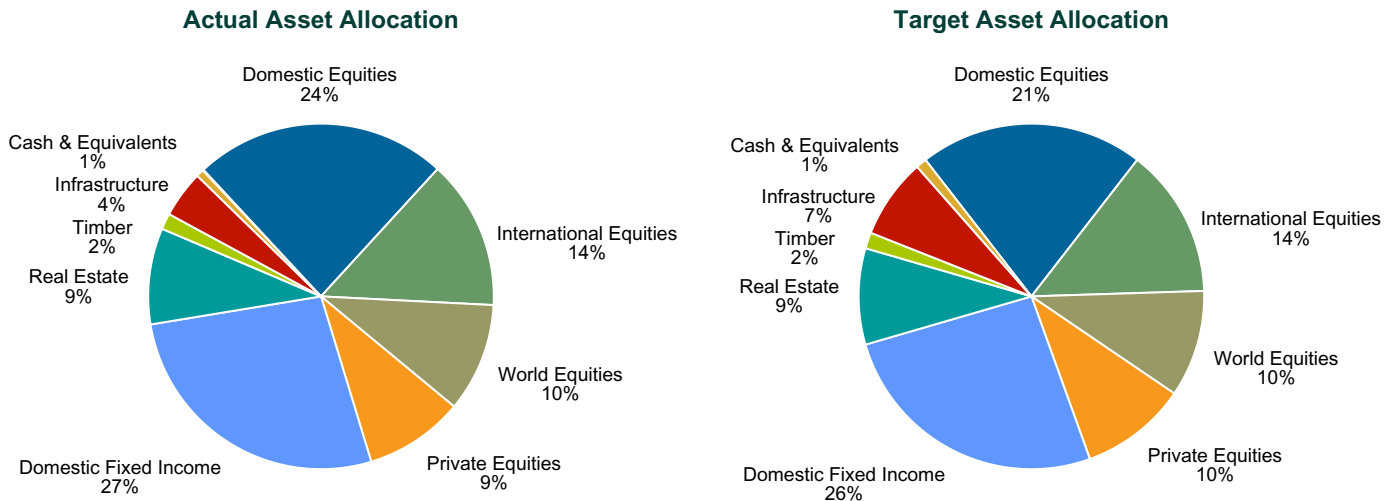
(1) CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

PLEASE REFER TO PAGES 32-36 FOR INVESTMENT MANAGER LEVEL RETURNS.



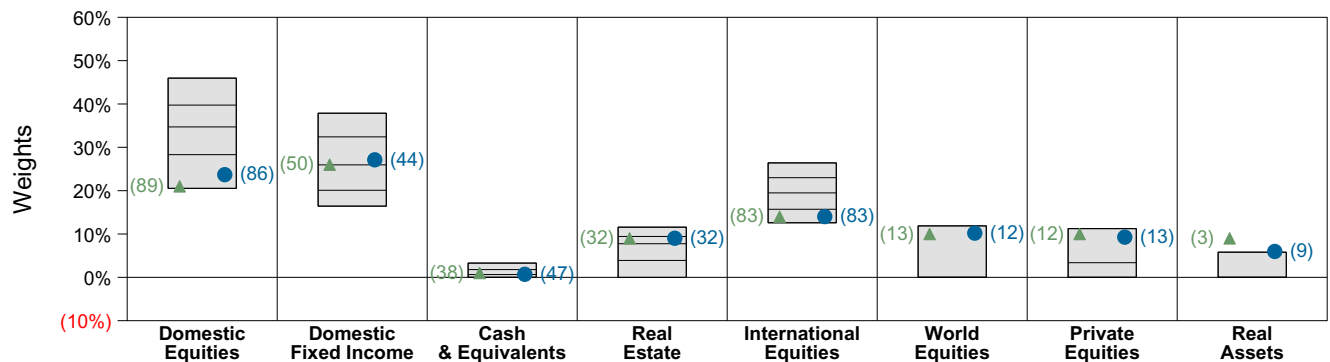
## Actual vs Target Asset Allocation As of December 31, 2021

The top left chart shows the Fund's asset allocation as of December 31, 2021. 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 Sponsor Database.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equities	799,606	23.7%	21.0%	2.7%	90,827
International Equities	473,174	14.0%	14.0%	0.0%	654
World Equities	344,324	10.2%	10.0%	0.2%	6,810
Private Equities	313,231	9.3%	10.0%	(0.7%)	(24,283)
Domestic Fixed Income	915,204	27.1%	26.0%	1.1%	37,667
Real Estate	304,346	9.0%	9.0%	0.0%	583
Timber	51,447	1.5%	1.5%	0.0%	0
Infrastructure	150,087	4.4%	7.5%	(3.0%)	(102,229)
Cash & Equivalents	23,722	0.7%	1.0%	(0.3%)	(10,029)
<b>Total</b>	<b>3,375,141</b>	<b>100.0%</b>	<b>100.0%</b>		

### Asset Class Weights vs Callan Public Fund Sponsor Database



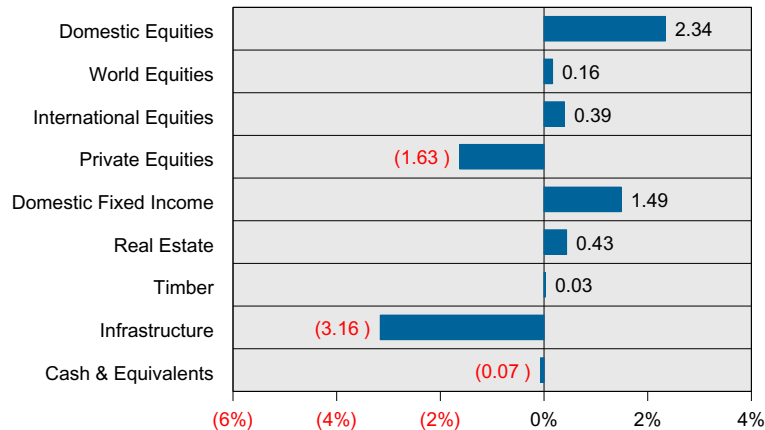
	Domestic Equities	Domestic Fixed Income	Cash & Equivalents	Real Estate	International Equities	World Equities	Private Equities	Real Assets
10th Percentile	45.97	37.87	3.29	11.58	26.41	11.87	11.24	5.81
25th Percentile	39.75	32.41	1.79	9.43	22.99	0.00	3.37	0.00
Median	34.71	25.95	0.64	7.76	19.48	0.00	0.00	0.00
75th Percentile	28.31	20.09	0.03	3.90	15.71	0.00	0.00	0.00
90th Percentile	20.53	16.43	0.00	0.00	12.59	0.00	0.00	0.00
<b>Fund</b>	● 23.69	27.12	0.70	9.02	14.02	10.20	9.28	5.97
<b>Target</b>	▲ 21.00	26.00	1.00	9.00	14.00	10.00	10.00	9.00
% Group Invested	95.52%	99.25%	79.85%	80.60%	92.54%	18.66%	27.61%	20.90%

\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

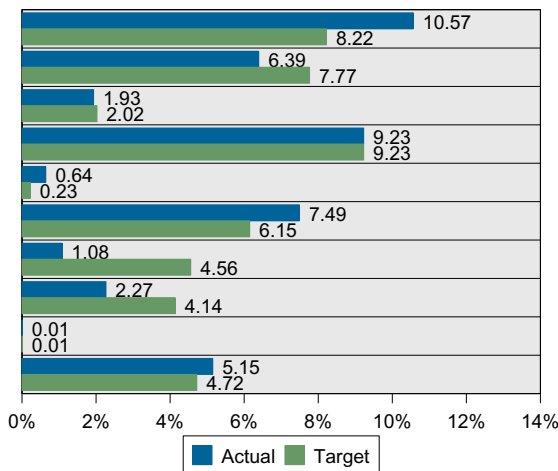
## Quarterly Total Fund Relative Attribution - December 31, 2021

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.

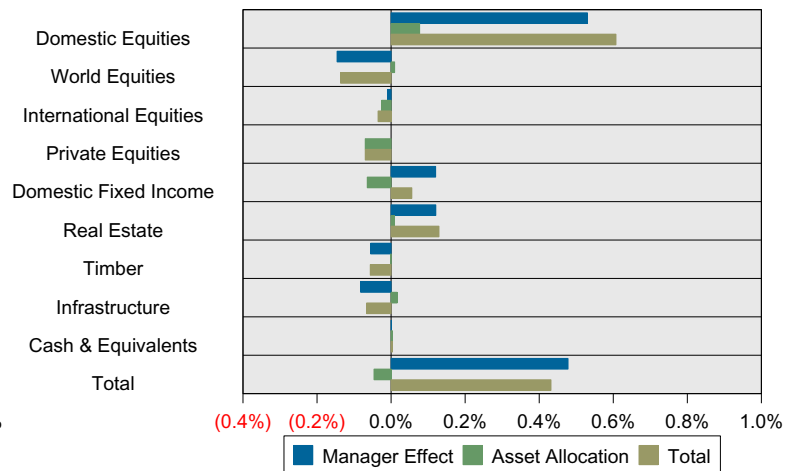
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended December 31, 2021

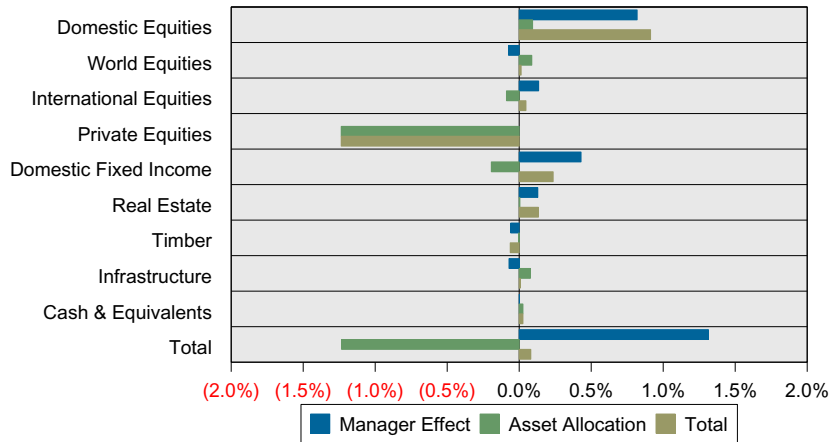
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	10.57%	8.22%	0.53%	0.08%	0.61%
World Equities	10%	10%	6.39%	7.77%	(0.15)%	0.01%	(0.14)%
International Equities	14%	14%	1.93%	2.02%	(0.01)%	(0.03)%	(0.04)%
Private Equities	8%	10%	9.23%	9.23%	0.00%	(0.07)%	(0.07)%
Domestic Fixed Income	27%	26%	0.64%	0.23%	0.12%	(0.06)%	0.06%
Real Estate	9%	9%	7.49%	6.15%	0.12%	0.01%	0.13%
Timber	2%	2%	1.08%	4.56%	(0.06)%	(0.00)%	(0.06)%
Infrastructure	4%	7%	2.27%	4.14%	(0.08)%	0.02%	(0.07)%
Cash & Equivalents	1%	1%	0.01%	0.01%	(0.00)%	0.00%	0.00%
<b>Total</b>			<b>5.15%</b>	<b>4.72%</b>	<b>+ 0.48%</b>	<b>+ (0.05)%</b>	<b>0.43%</b>

\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

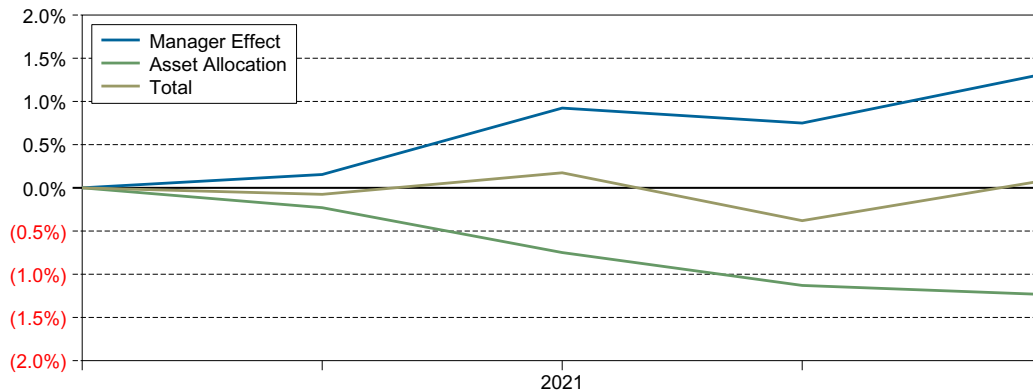
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

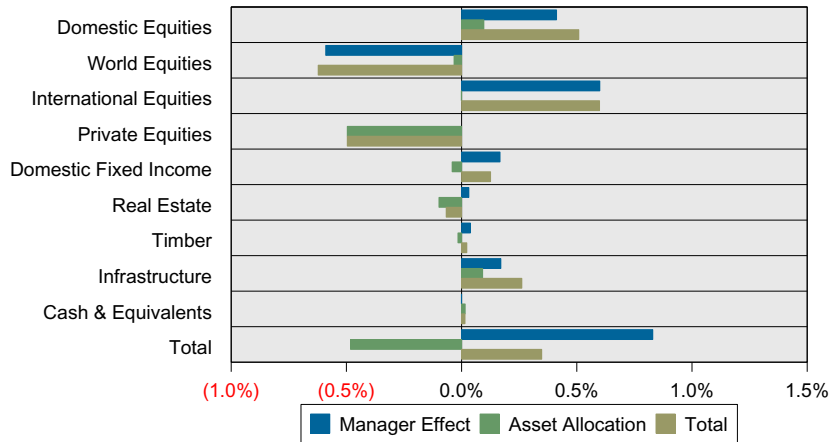
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	27.86%	24.15%	0.82%	0.09%	0.91%
World Equities	12%	10%	20.60%	21.82%	(0.07%)	0.09%	0.01%
International Equities	15%	14%	9.58%	8.74%	0.14%	(0.09%)	0.05%
Private Equities	7%	10%	57.26%	57.26%	0.00%	(1.24%)	(1.24%)
Domestic Fixed Income	27%	26%	1.93%	0.52%	0.43%	(0.19%)	0.24%
Real Estate	9%	9%	19.15%	17.70%	0.13%	0.00%	0.13%
Timber	2%	2%	5.66%	9.17%	(0.06%)	(0.00%)	(0.06%)
Infrastructure	4%	7%	11.51%	13.37%	(0.07%)	0.08%	0.01%
Cash & Equivalents	1%	1%	0.06%	0.05%	0.00%	0.03%	0.03%
<b>Total</b>			<b>16.50%</b>	<b>16.42%</b>	<b>+ 1.31%</b>	<b>+ (1.23%)</b>	<b>0.08%</b>

\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

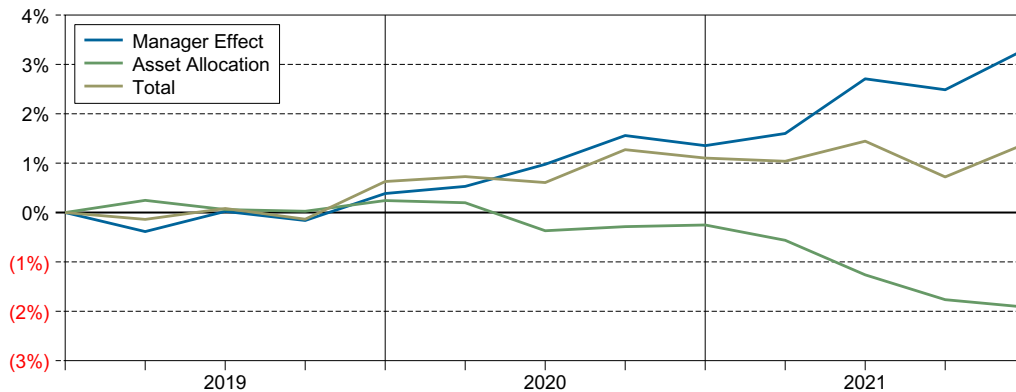
## Cumulative Total Fund Relative Attribution - December 31, 2021

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

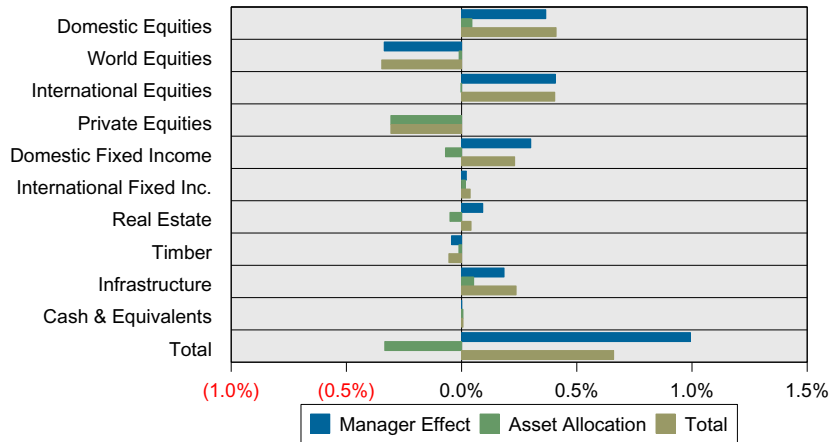
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	27.03%	24.97%	0.41%	0.10%	0.51%
World Equities	14%	14%	17.37%	21.70%	(0.59%)	(0.03%)	(0.62%)
International Equities	15%	14%	17.30%	13.30%	0.60%	(0.00%)	0.60%
Private Equities	5%	7%	23.63%	23.63%	0.00%	(0.50%)	(0.50%)
Domestic Fixed Income	25%	24%	6.64%	6.10%	0.17%	(0.04%)	0.13%
Real Estate	10%	10%	8.68%	8.37%	0.03%	(0.10%)	(0.07%)
Timber	2%	2%	4.90%	3.69%	0.04%	(0.02%)	0.02%
Infrastructure	5%	6%	8.84%	5.82%	0.17%	0.09%	0.26%
Cash & Equivalents	1%	1%	0.94%	0.99%	(0.00%)	0.02%	0.01%
<b>Total</b>			<b>15.66%</b>	<b>15.31%</b>	<b>+ 0.83%</b>	<b>+ (0.48%)</b>	<b>0.35%</b>

\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

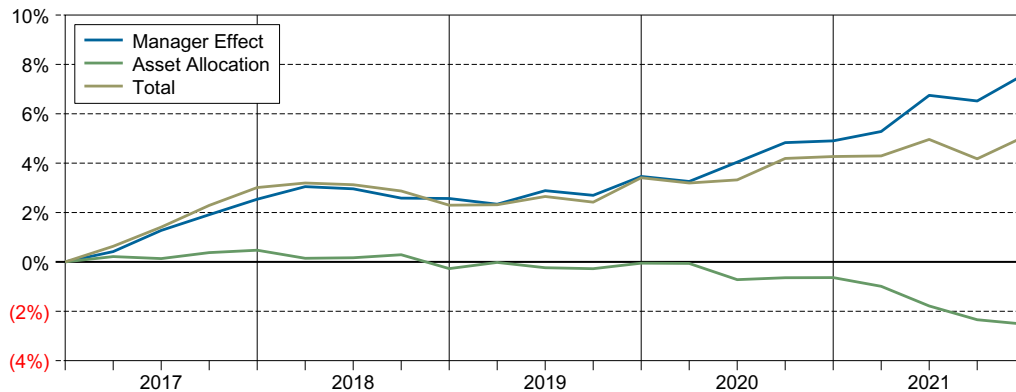
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The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of 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

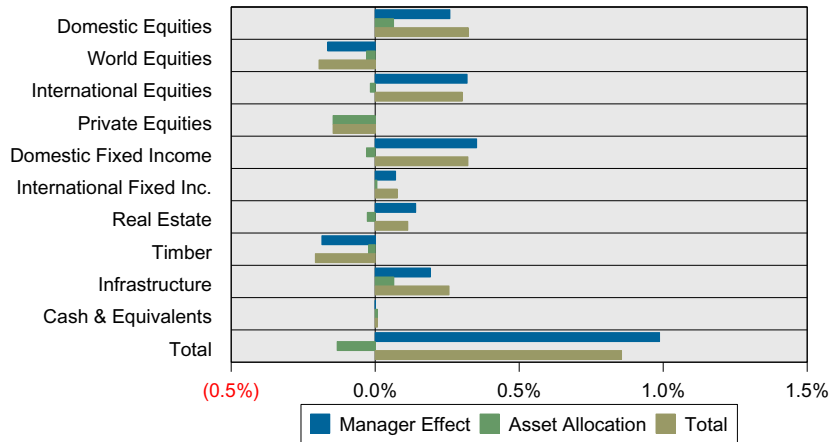
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	18.82%	17.08%	0.37%	0.04%	0.41%
World Equities	15%	15%	12.55%	15.03%	(0.34%)	(0.01%)	(0.35%)
International Equities	15%	14%	12.24%	9.60%	0.41%	(0.00%)	0.40%
Private Equities	5%	7%	16.44%	16.44%	0.00%	(0.31%)	(0.31%)
Domestic Fixed Income	23%	22%	5.69%	4.37%	0.30%	(0.07%)	0.23%
International Fixed Inc.	1%	1%	-	-	0.02%	0.02%	0.04%
Real Estate	10%	10%	8.65%	7.75%	0.09%	(0.05%)	0.04%
Timber	2%	2%	1.97%	3.58%	(0.04%)	(0.01%)	(0.06%)
Infrastructure	5%	6%	8.49%	4.85%	0.18%	0.05%	0.24%
Cash & Equivalents	1%	1%	1.17%	1.14%	0.00%	0.01%	0.01%
<b>Total</b>			<b>11.78%</b>	<b>11.12%</b>	<b>+ 0.99%</b>	<b>+ (0.33%)</b>	<b>0.66%</b>

\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

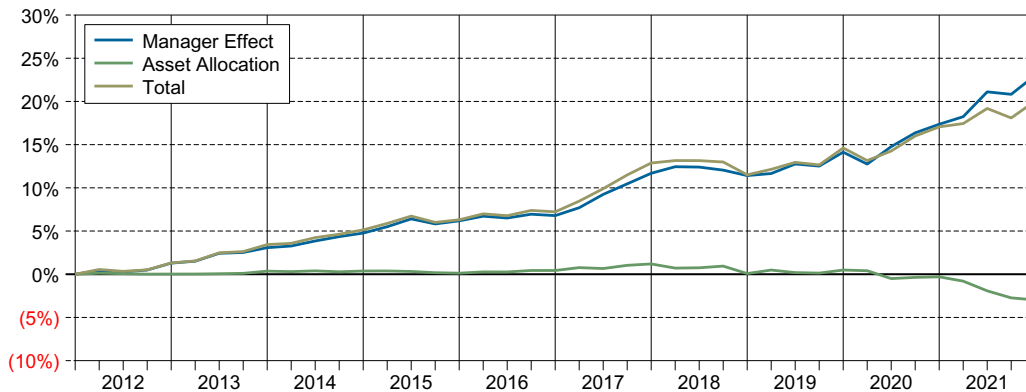
## Cumulative Total Fund Relative Attribution - December 31, 2021

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.

### Ten Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Ten 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 Equities	23%	22%	17.10%	15.88%	0.26%	0.06%	0.32%
World Equities	15%	14%	11.28%	12.70%	(0.16%)	(0.03%)	(0.20%)
International Equities	16%	15%	9.67%	7.60%	0.32%	(0.02%)	0.30%
Private Equities	5%	6%	8.97%	8.97%	0.00%	(0.15%)	(0.15%)
Domestic Fixed Income	20%	20%	5.82%	4.01%	0.35%	(0.03%)	0.32%
International Fixed Inc.	3%	3%	-	-	0.07%	0.01%	0.08%
Real Estate	10%	10%	10.75%	9.32%	0.14%	(0.03%)	0.11%
Timber	3%	4%	1.08%	5.30%	(0.19%)	(0.02%)	(0.21%)
Infrastructure	4%	5%	7.31%	2.99%	0.19%	0.06%	0.26%
Cash & Equivalents	1%	1%	0.66%	0.63%	0.00%	0.01%	0.01%
<b>Total</b>			<b>10.35%</b>	<b>9.50%</b>	<b>+ 0.99%</b>	<b>+ (0.13%)</b>	<b>0.86%</b>

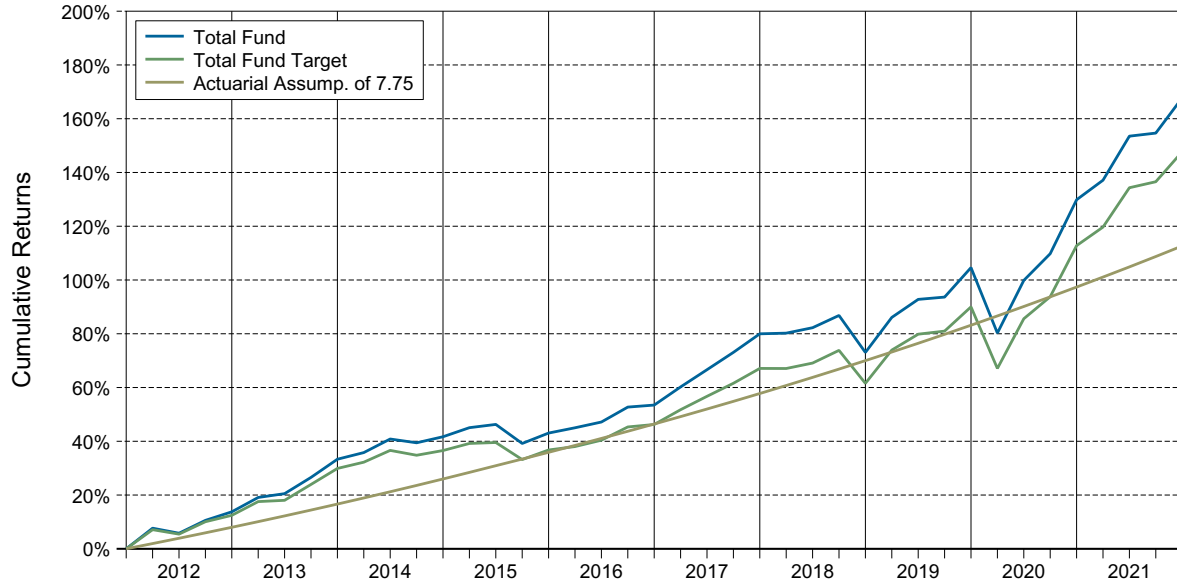
\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.



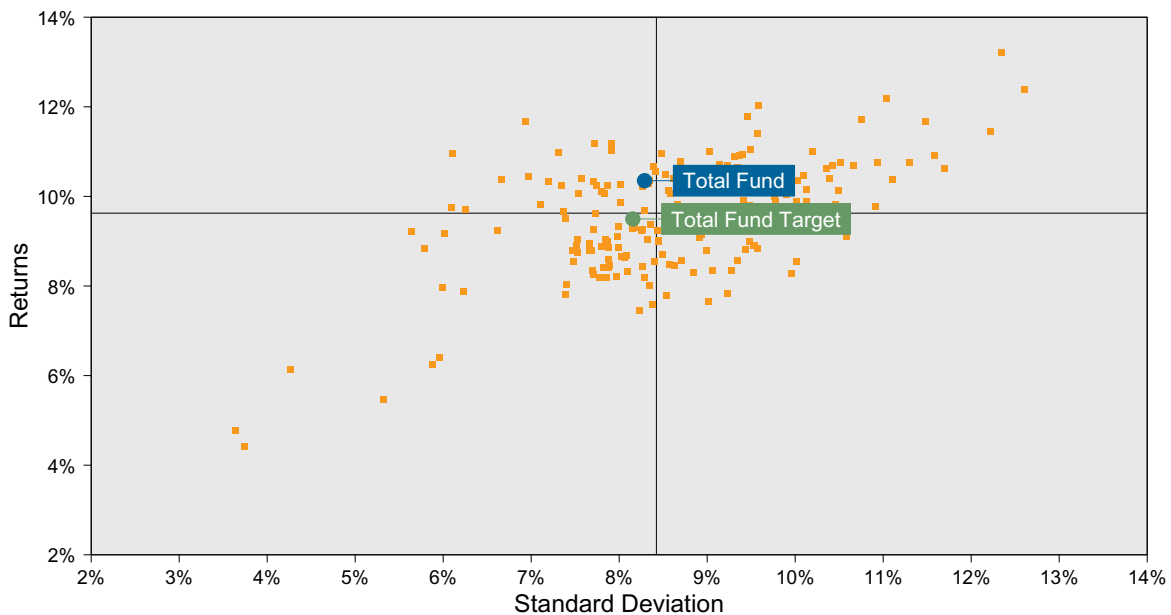
## Cumulative Performance Relative to Target

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 Sponsor Database.

### Cumulative Returns Actual vs Target



### Ten Year Annualized Risk vs Return



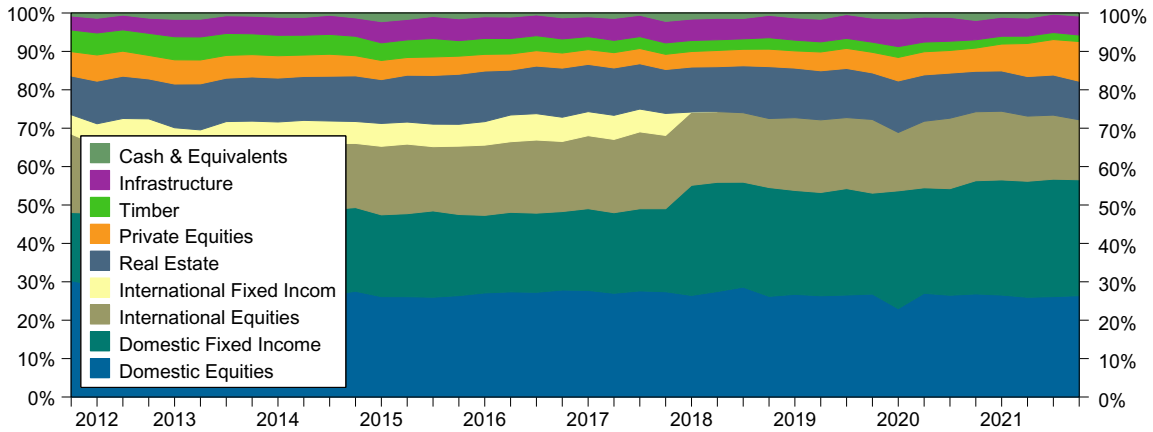
Squares represent membership of the Callan Public Fund Sponsor Database

\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

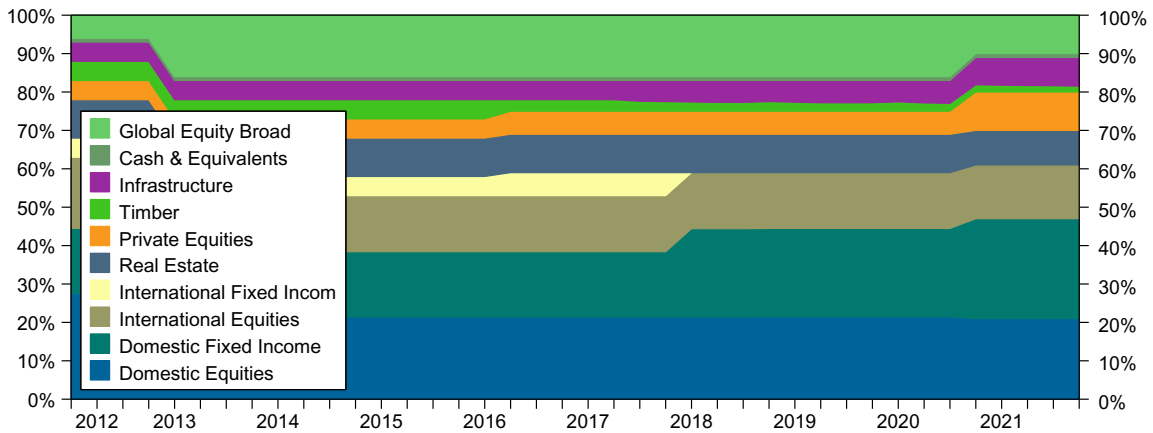
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Sponsor Database.

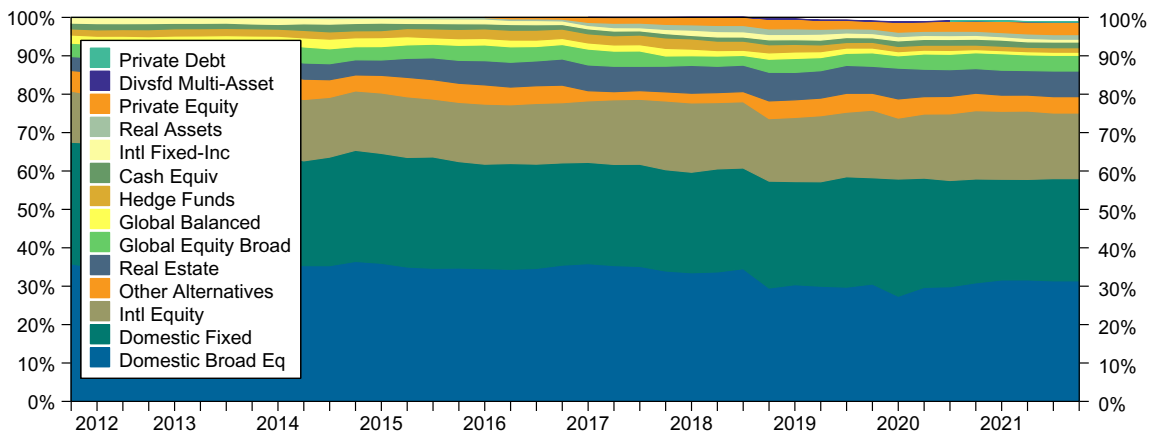
### Actual Historical Asset Allocation



### Target Historical Asset Allocation



### Average Callan Public Fund Sponsor Database Historical Asset Allocation

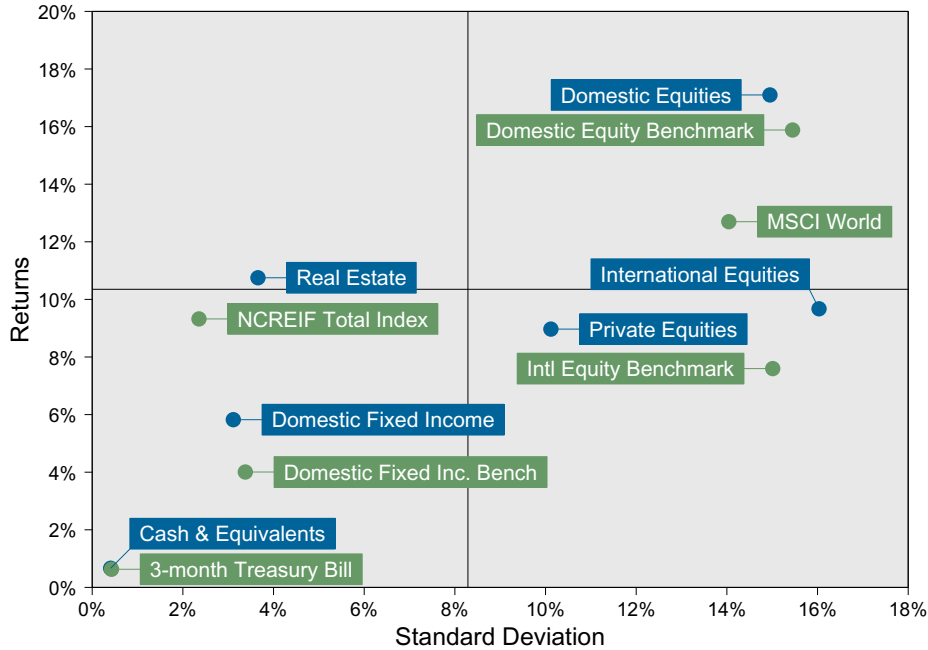


\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

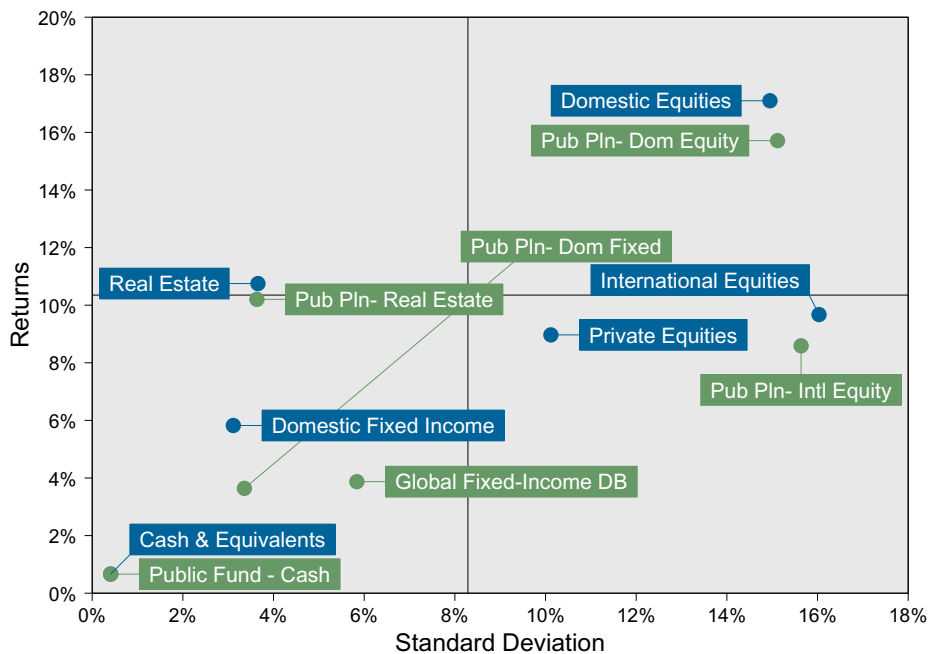
## Asset Class Risk and Return

The charts below show the ten year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

### Ten Year Annualized Risk vs Return Asset Classes vs Benchmark Indices



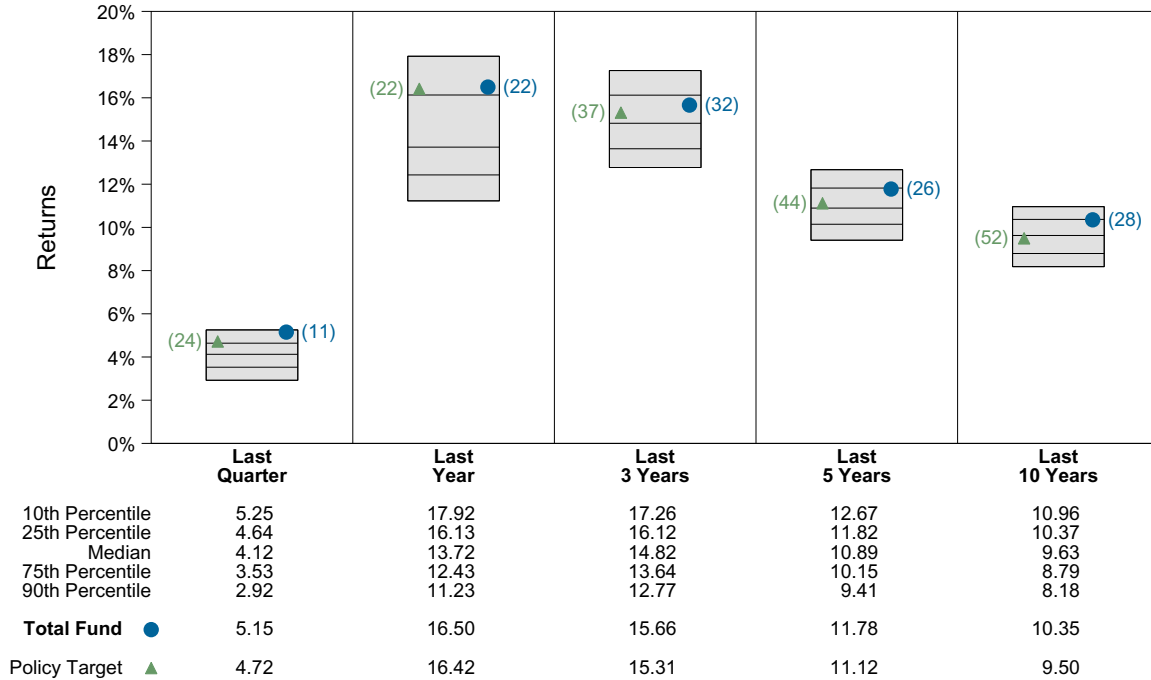
### Ten Year Annualized Risk vs Return Asset Classes vs Asset Class Median



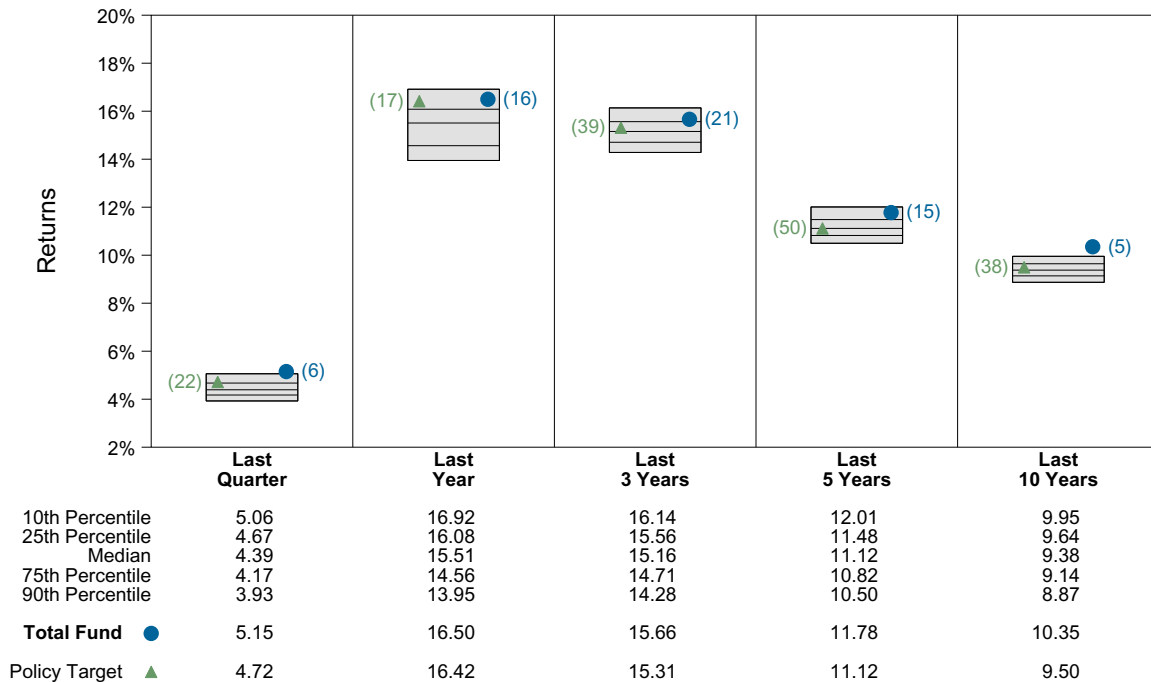
## Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Sponsor Database for periods ended December 31, 2021. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

### Callan Public Fund Sponsor Database



### Asset Allocation Adjusted Ranking

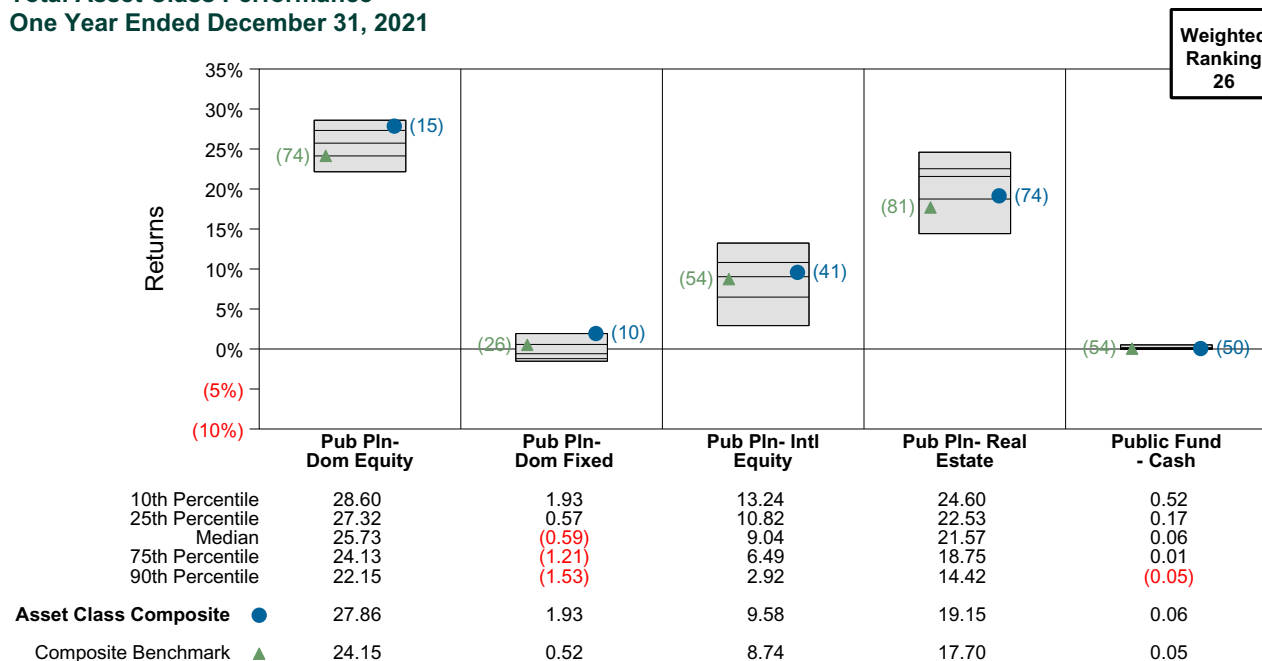


\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

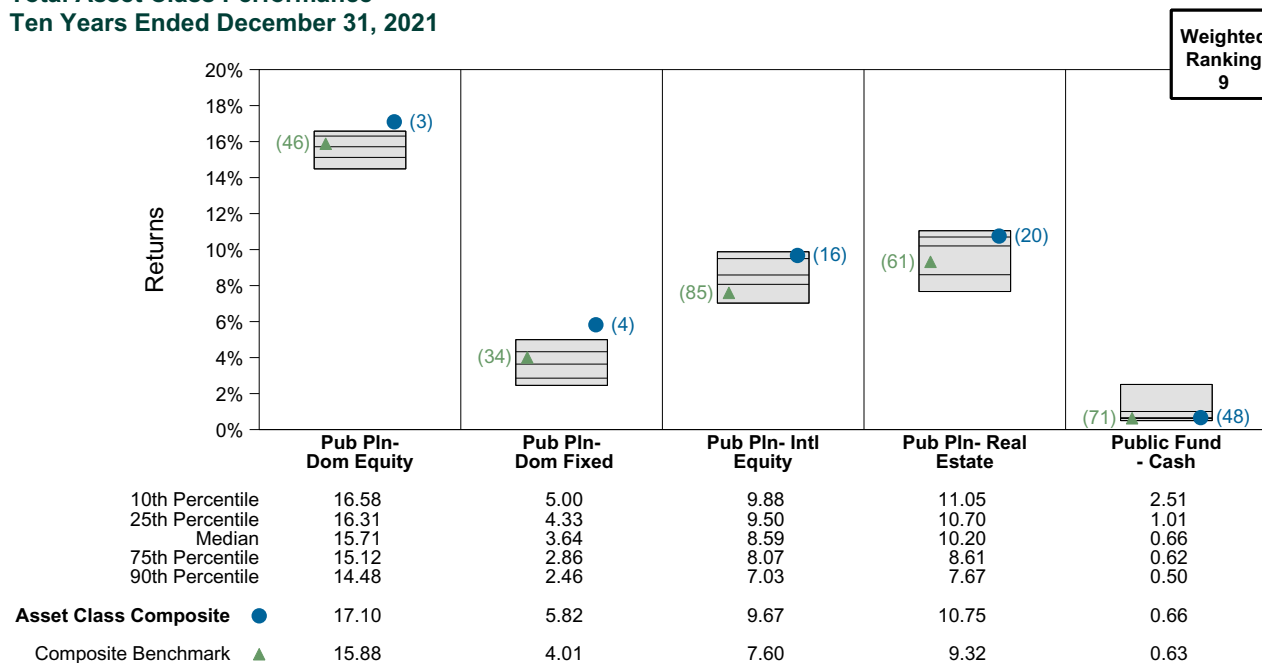
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended December 31, 2021



### Total Asset Class Performance Ten Years Ended December 31, 2021



\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

## Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2021, with the distribution as of September 30, 2021. 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 Class Allocation

	December 31, 2021		Net New Inv.	Inv. Return	September 30, 2021	
	Market Value	Weight			Market Value	Weight
<b>Global Equities</b>	<b>\$1,930,334,978</b>	<b>57.19%</b>	<b>\$(57,197,873)</b>	<b>\$134,010,069</b>	<b>\$1,853,522,783</b>	<b>57.48%</b>
<b>Public Equities</b>	<b>\$1,617,103,946</b>	<b>47.91%</b>	<b>\$(81,267,347)</b>	<b>\$108,921,320</b>	<b>\$1,589,449,974</b>	<b>49.29%</b>
<b>World Equities</b>	<b>\$344,324,024</b>	<b>10.20%</b>	<b>\$(42,034,954)</b>	<b>\$21,310,570</b>	<b>\$365,048,409</b>	<b>11.32%</b>
<b>Domestic Equities</b>	<b>\$799,606,325</b>	<b>23.69%</b>	<b>\$(26,158,789)</b>	<b>\$78,405,585</b>	<b>\$747,359,529</b>	<b>23.18%</b>
Large Cap	645,750,304	19.13%	(18,920,834)	71,141,723	593,529,415	18.41%
Small Cap	153,856,021	4.56%	(7,237,955)	7,263,862	153,830,114	4.77%
<b>International Equities</b>	<b>\$473,173,597</b>	<b>14.02%</b>	<b>\$(13,073,604)</b>	<b>\$9,205,165</b>	<b>\$477,042,036</b>	<b>14.79%</b>
Developed	374,615,952	11.10%	(10,782,139)	9,983,526	375,414,565	11.64%
Emerging Markets	98,557,645	2.92%	(2,291,465)	(778,361)	101,627,471	3.15%
<b>Private Equities</b>	<b>\$313,231,031</b>	<b>9.28%</b>	<b>\$24,069,474</b>	<b>\$25,088,749</b>	<b>\$264,072,809</b>	<b>8.19%</b>
<b>Global Fixed Income</b>	<b>\$915,203,508</b>	<b>27.12%</b>	<b>\$34,950,761</b>	<b>\$5,783,271</b>	<b>\$874,469,476</b>	<b>27.12%</b>
<b>Domestic Fixed Income</b>	<b>\$915,203,508</b>	<b>27.12%</b>	<b>\$34,950,761</b>	<b>\$5,783,271</b>	<b>\$874,469,476</b>	<b>27.12%</b>
Investment Grade	694,742,314	20.58%	27,449,438	2,957,068	664,335,807	20.60%
Below Investment Grade	220,461,194	6.53%	7,501,323	2,826,203	210,133,668	6.52%
<b>Global Real Assets</b>	<b>\$505,879,889</b>	<b>14.99%</b>	<b>\$(7,703,437)</b>	<b>\$25,947,403</b>	<b>\$487,635,924</b>	<b>15.12%</b>
<b>Real Estate</b>	<b>\$304,345,884</b>	<b>9.02%</b>	<b>\$(16,587,633)</b>	<b>\$22,334,569</b>	<b>\$298,598,948</b>	<b>9.26%</b>
<b>Other Real Assets</b>	<b>\$201,534,005</b>	<b>5.97%</b>	<b>\$8,884,196</b>	<b>\$3,612,834</b>	<b>\$189,036,975</b>	<b>5.86%</b>
Infrastructure	150,087,325	4.45%	10,604,909	3,056,632	136,425,784	4.23%
Timber	51,446,680	1.52%	(1,720,713)	556,202	52,611,192	1.63%
<b>Cash</b>	<b>\$23,722,133</b>	<b>0.70%</b>	<b>\$14,883,066</b>	<b>\$2,976</b>	<b>\$8,836,092</b>	<b>0.27%</b>
<b>Total Fund</b>	<b>\$3,375,140,508</b>	<b>100.0%</b>	<b>\$(15,067,484)</b>	<b>\$165,743,718</b>	<b>\$3,224,464,273</b>	<b>100.0%</b>

PLEASE REFER TO PAGES 29-31 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Equities</b>					
Gross	7.37%	24.54%	22.09%	15.53%	13.14%
Net	7.31%	24.22%	21.82%	15.28%	12.84%
Weighted Benchmark	6.78%	25.34%	22.25%	15.35%	12.68%
<b>Public Equities</b>					
Gross	7.03%	20.51%	21.45%	-	-
Net	6.96%	20.16%	21.14%	-	-
Weighted Benchmark	6.17%	18.69%	20.58%	-	-
<b>World Equities</b>					
Gross	6.39%	20.60%	17.37%	12.55%	11.28%
Net	6.30%	20.15%	16.96%	12.16%	10.70%
MSCI World	7.77%	21.82%	21.70%	15.03%	12.70%
<b>Domestic Equities</b>					
Gross	10.57%	27.86%	27.03%	18.82%	17.10%
Net	10.51%	27.57%	26.80%	18.61%	16.89%
Weighted Benchmark	8.22%	24.15%	24.97%	17.08%	15.88%
<b>Large Cap</b>					
Gross	12.06%	30.75%	29.33%	20.53%	18.06%
Net	12.03%	30.54%	29.20%	20.40%	17.89%
Benchmark(1)	9.78%	26.45%	26.21%	18.43%	16.54%
<b>Small Cap</b>					
Gross	4.81%	16.98%	18.63%	12.72%	13.54%
Net	4.65%	16.29%	18.05%	12.22%	13.15%
Russell 2000 Index	2.14%	14.82%	20.02%	12.02%	13.23%
<b>International Equities</b>					
Gross	1.93%	9.58%	17.30%	12.24%	9.67%
Net	1.87%	9.23%	17.00%	11.99%	9.41%
Weighted Benchmark	2.02%	8.74%	13.30%	9.60%	7.60%
<b>Developed</b>					
Gross	2.68%	12.10%	17.74%	12.16%	10.13%
Net	2.62%	11.87%	17.50%	11.92%	9.87%
Benchmark(2)	3.14%	12.62%	14.07%	9.63%	8.10%
<b>Emerging Markets</b>					
Gross	(0.83%)	0.91%	15.97%	12.65%	7.50%
Net	(0.92%)	0.20%	15.48%	12.36%	7.23%
Benchmark(3)	(1.31%)	(2.54%)	10.94%	9.88%	5.49%
<b>Private Equities</b>					
Net	9.23%	57.26%	23.63%	16.44%	8.95%

(1) S&P 500 Index through 12/31/2011 and the Russell 1000 Index thereafter.

(2) 50% Hedged EAFE through 3/31/2011; MSCI EAFE through 6/30/16; MSCI World ex-US thereafter.

(3) MSCI Emerging Mkts Idx (Gross) through 6/30/2011 and MSCI Emerging Mkts Idx Net thereafter.

PLEASE REFER TO PAGES 32-36 FOR INVESTMENT MANAGER LEVEL RETURNS.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Fixed Income</b>					
Gross	0.64%	1.93%	6.64%	6.05%	5.40%
Net	0.61%	1.79%	6.50%	5.88%	5.24%
Weighted Benchmark	0.23%	0.52%	6.10%	4.89%	3.67%
<b>Domestic Fixed Income</b>					
Gross	0.64%	1.93%	6.64%	5.69%	5.82%
Net	0.61%	1.79%	6.50%	5.54%	5.70%
Weighted Benchmark	0.23%	0.52%	6.10%	4.37%	4.01%
<b>Inv. Grade Fixed Income</b>					
Gross	0.42%	(0.31%)	6.25%	5.16%	5.02%
Net	0.40%	(0.43%)	6.14%	5.06%	4.90%
Blmbg Aggregate	0.01%	(1.54%)	4.79%	3.57%	2.90%
<b>Below Inv. Grade Fixed Income</b>					
Gross	1.31%	9.00%	8.18%	7.38%	8.34%
Net	1.26%	8.79%	7.94%	7.11%	7.98%
Blmbg HY Corp 2% Issue	0.69%	5.26%	8.81%	6.28%	6.82%
<b>Global Real Assets</b>					
Gross	5.33%	15.47%	8.34%	7.68%	7.92%
Net	5.23%	15.01%	7.87%	7.24%	7.49%
Weighted Benchmark	5.18%	15.12%	6.93%	6.28%	6.87%
<b>Real Estate</b>					
Gross	7.49%	19.15%	8.68%	8.65%	10.75%
Net	7.36%	18.56%	8.09%	8.12%	10.21%
NCREIF Total Index	6.15%	17.70%	8.37%	7.75%	9.32%
<b>Other Real Assets</b>					
Gross	1.94%	9.79%	7.67%	-	-
Net	1.89%	9.52%	7.38%	-	-
Weighted Benchmark	4.21%	12.58%	5.35%	-	-
<b>Infrastructure</b>					
Gross	2.27%	11.51%	8.84%	8.49%	7.31%
Net	2.20%	11.14%	8.42%	8.04%	6.75%
Benchmark(1)	4.14%	13.37%	5.82%	4.85%	2.99%
<b>Timber</b>					
Net	1.08%	5.66%	4.90%	1.97%	1.08%
NCREIF Timberland Index	4.56%	9.17%	3.69%	3.58%	5.30%
<b>Cash &amp; Equivalents - Net</b>	<b>0.01%</b>	<b>0.06%</b>	<b>0.94%</b>	<b>1.17%</b>	<b>0.66%</b>
3-month Treasury Bill	0.01%	0.05%	0.99%	1.14%	0.63%
<b>Total Fund</b>					
Gross	5.15%	16.50%	15.66%	11.78%	10.35%
Net	5.10%	16.21%	15.39%	11.51%	10.05%
Target*	4.72%	16.42%	15.31%	11.12%	9.50%

\* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World ex US, 10.0% NDTFFR-Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.7% NCREIF NFI-ODCE Eq Wt Net, 3.7% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

(1) CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

PLEASE REFER TO PAGES 32-36 FOR INVESTMENT MANAGER LEVEL RETURNS.





# Domestic Equities

## Period Ended December 31, 2021

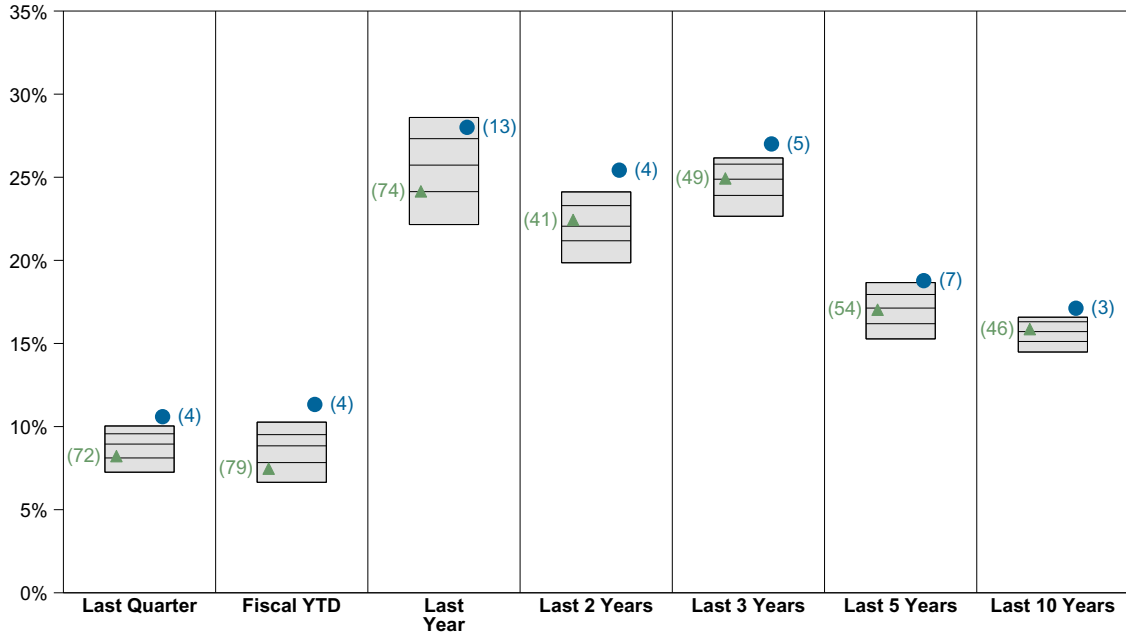
### Quarterly Summary and Highlights

- Domestic Equities's portfolio posted a 10.59% return for the quarter placing it in the 4 percentile of the Public Fund - Domestic Equity group for the quarter and in the 13 percentile for the last year.
- Domestic Equities's portfolio outperformed the Domestic Equity Target by 2.37% for the quarter and outperformed the Domestic Equity Target for the year by 3.85%.

### Quarterly Asset Growth

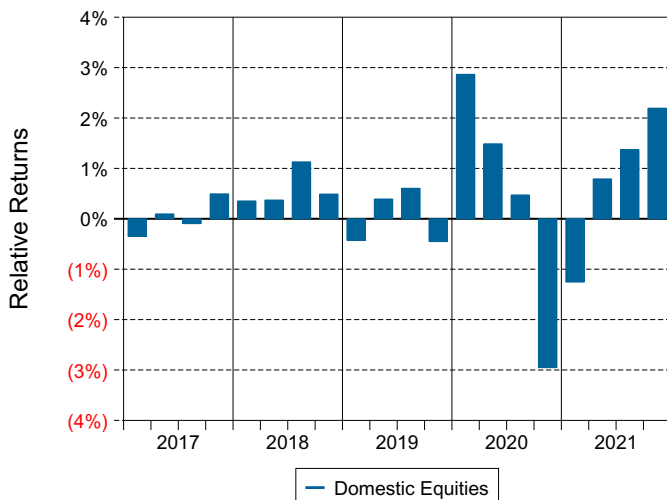
Beginning Market Value	\$1,830,895,366
Net New Investment	\$-50,992,353
Investment Gains/(Losses)	\$193,020,712
Ending Market Value	\$1,972,923,725

### Performance vs Public Fund - Domestic Equity (Gross)

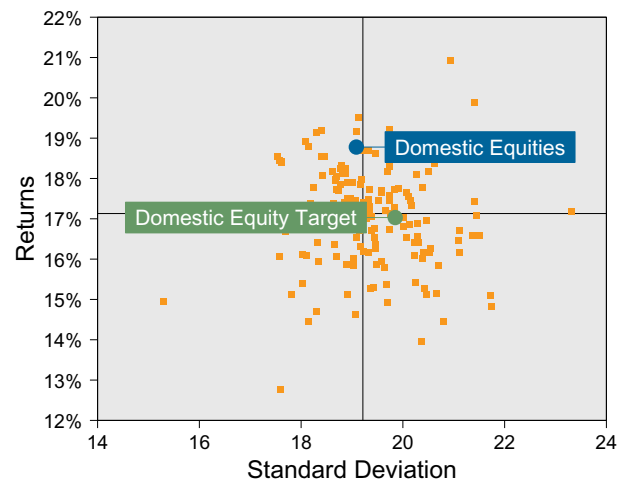


10th Percentile	10.04	10.27	28.60	24.12	26.16	18.66	16.58
25th Percentile	9.57	9.52	27.32	23.29	25.79	17.95	16.31
Median	8.95	8.84	25.73	22.05	24.88	17.13	15.71
75th Percentile	8.11	7.83	24.13	21.18	23.91	16.19	15.12
90th Percentile	7.25	6.65	22.15	19.85	22.65	15.28	14.48
<b>Domestic Equities</b>	<b>10.59</b>	<b>11.33</b>	<b>28.00</b>	<b>25.43</b>	<b>27.00</b>	<b>18.78</b>	<b>17.12</b>
Domestic Equity Target	8.22	7.47	24.15	22.44	24.93	17.03	15.86

### Relative Return vs Domestic Equity Target



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



# L.A. Capital Period Ended December 31, 2021

## Investment Philosophy

The LA Capital Structured portfolio is a large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that it targets a 2% alpha and constrains its risk budget (tracking error) to 4% relative to the benchmark. LA Capital believes that investment results are driven by Investor Preferences and thus recognize that when preferences shift a different posture related to that factor is warranted.

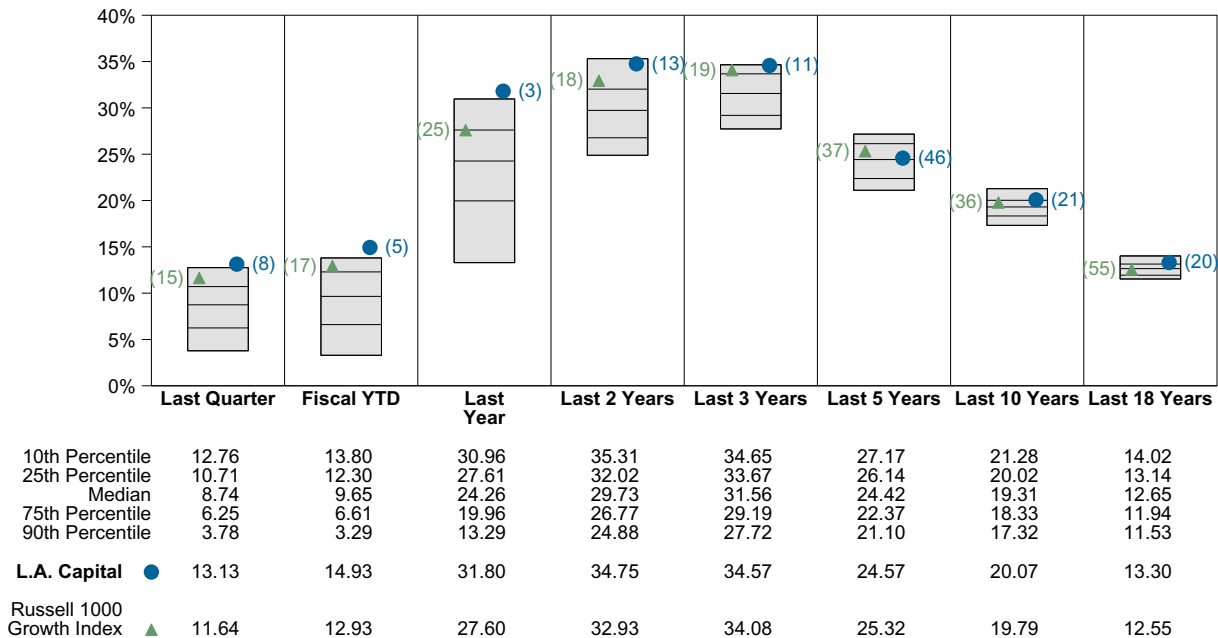
## Quarterly Summary and Highlights

- L.A. Capital's portfolio posted a 13.13% return for the quarter placing it in the 8 percentile of the Callan Large Cap Growth group for the quarter and in the 3 percentile for the last year.
- L.A. Capital's portfolio outperformed the Russell 1000 Growth Index by 1.50% for the quarter and outperformed the Russell 1000 Growth Index for the year by 4.21%.

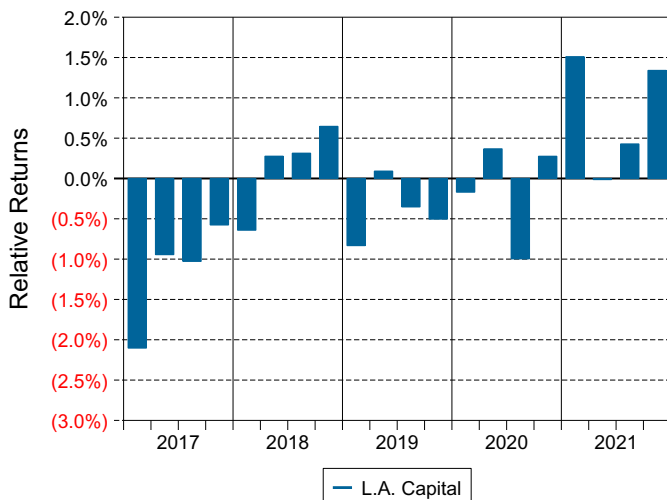
## Quarterly Asset Growth

Beginning Market Value	\$596,030,323
Net New Investment	\$-40,312,054
Investment Gains/(Losses)	\$77,534,364
Ending Market Value	\$633,252,633

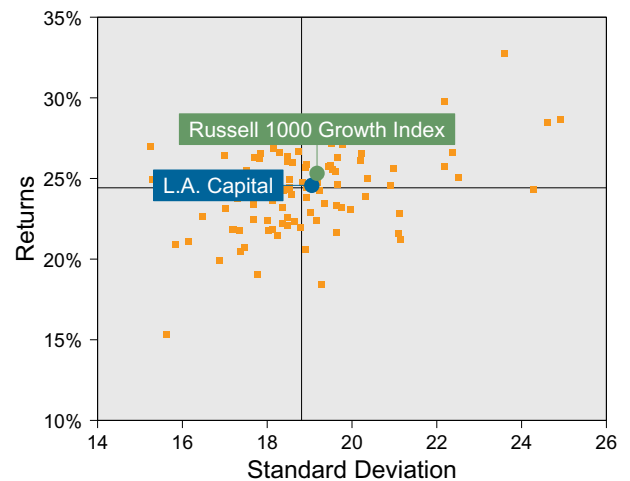
## Performance vs Callan Large Cap Growth (Gross)



## Relative Return vs Russell 1000 Growth Index



## Callan Large Cap Growth (Gross) Annualized Five Year Risk vs Return



# L.A. Capital Management Enhanced Index Period Ended December 31, 2021

## Investment Philosophy

The LA Capital Enhanced portfolio is a large core portfolio benchmarked to the Russell 1000 Index. Characterized as an enhanced index assignment, its objective is to track the benchmark with lower variability. The pension portfolio began in August of 2000 and the insurance portfolio was initiated in April of 2004. Since October of 2006 a small portion of each of the two core accounts was allocated into the Large Cap Alpha Fund with intent to add incremental alpha to the assignment given that the information ratio was expected to be higher.

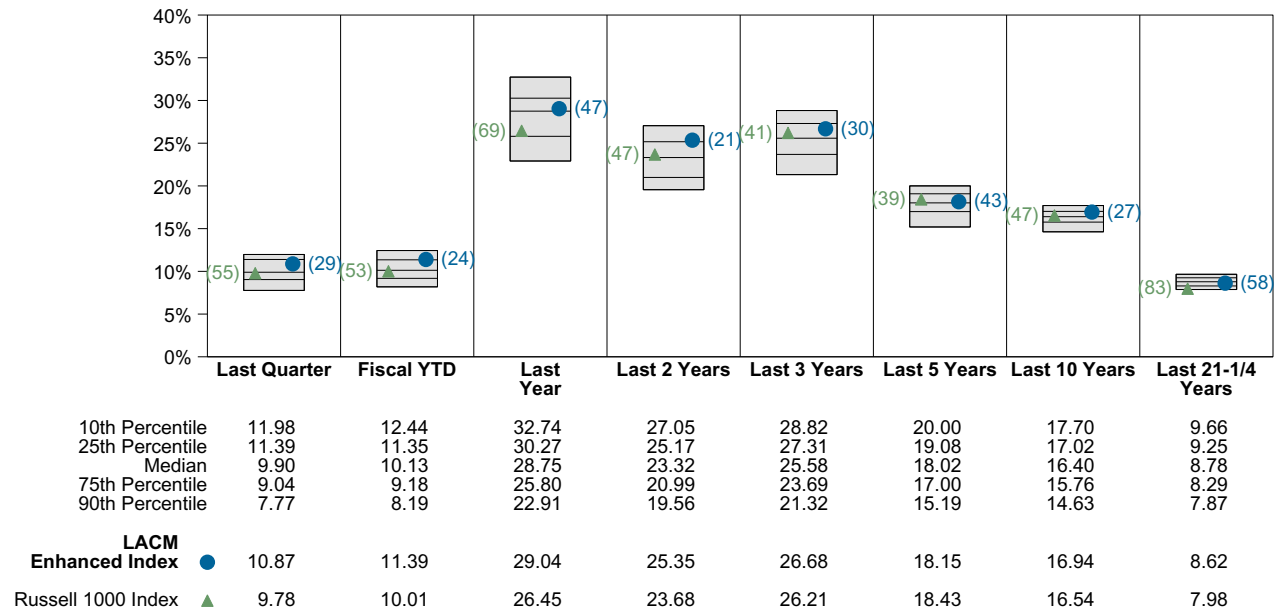
## Quarterly Summary and Highlights

- LACM Enhanced Index's portfolio posted a 10.87% return for the quarter placing it in the 29 percentile of the Callan Large Cap Core group for the quarter and in the 47 percentile for the last year.
- LACM Enhanced Index's portfolio outperformed the Russell 1000 Index by 1.10% for the quarter and outperformed the Russell 1000 Index for the year by 2.58%.

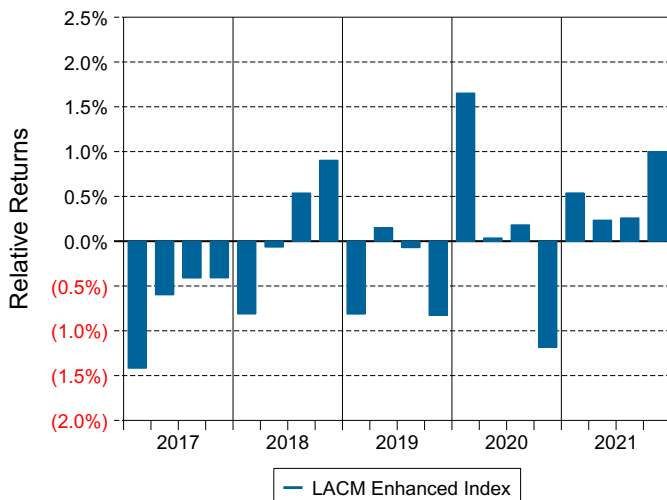
## Quarterly Asset Growth

Beginning Market Value	\$292,139,391
Net New Investment	\$-78,160
Investment Gains/(Losses)	\$31,767,130
Ending Market Value	\$323,828,361

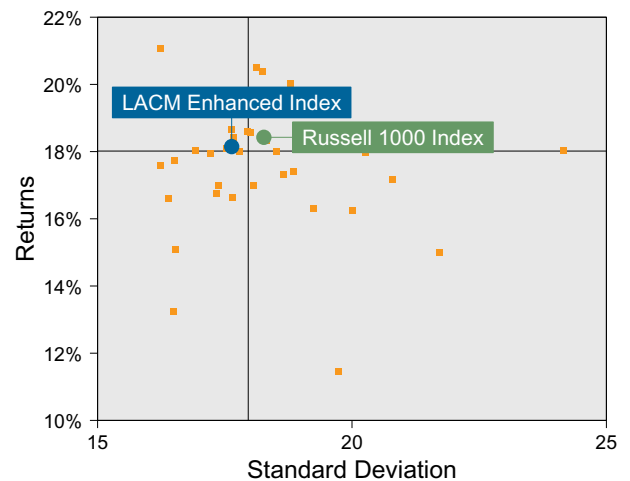
## Performance vs Callan Large Cap Core (Gross)



## Relative Return vs Russell 1000 Index



## Callan Large Cap Core (Gross) Annualized Five Year Risk vs Return



# Northern Trust AM Enh S&P500 Period Ended December 31, 2021

## Investment Philosophy

Northern Trust AM Enhanced S&P 500 employs a quantitative investment approach, focusing on the stock selection process as the principal source of value added. The account invests primarily in a broadly diversified portfolio of equity securities that include securities convertible into equity securities (including common stock), warrants, rights and units or shares in trusts, exchange traded funds and investment companies. The Investment Manager intends to use futures and options to manage market risk associated with the account's investments.

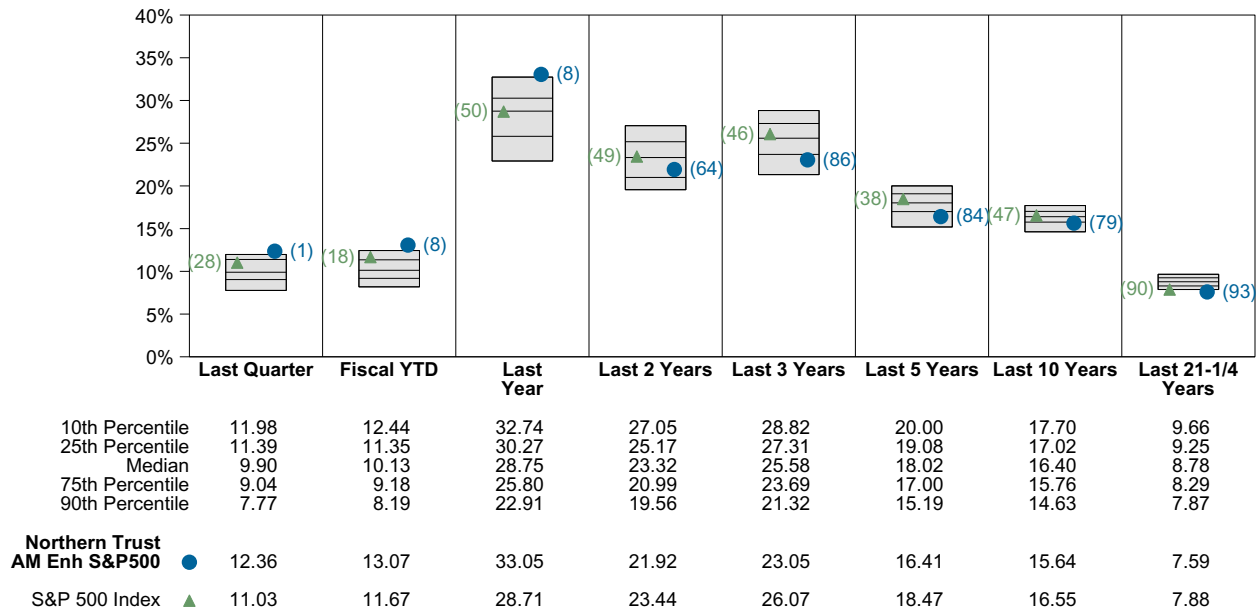
## Quarterly Summary and Highlights

- Northern Trust AM Enh S&P500's portfolio posted a 12.36% return for the quarter placing it in the 1 percentile of the Callan Large Cap Core group for the quarter and in the 8 percentile for the last year.
- Northern Trust AM Enh S&P500's portfolio outperformed the S&P 500 Index by 1.33% for the quarter and outperformed the S&P 500 Index for the year by 4.35%.

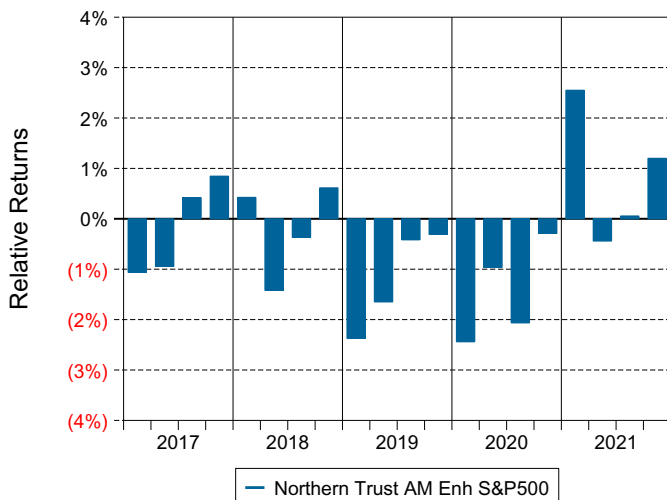
## Quarterly Asset Growth

Beginning Market Value	\$276,668,048
Net New Investment	\$0
Investment Gains/(Losses)	\$34,191,720
Ending Market Value	\$310,859,768

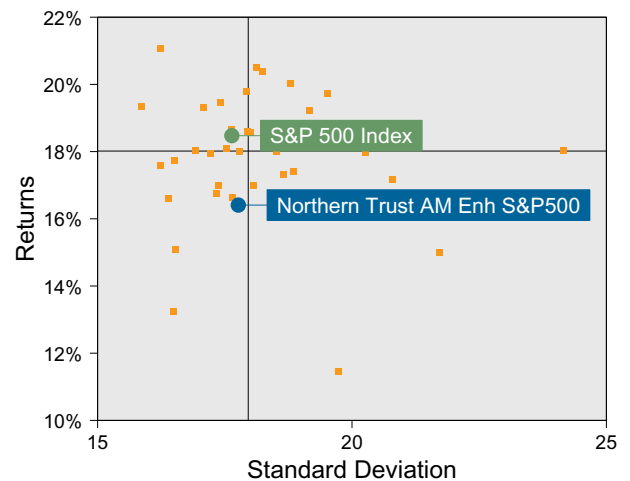
## Performance vs Callan Large Cap Core (Gross)



## Relative Return vs S&P 500 Index



## Callan Large Cap Core (Gross) Annualized Five Year Risk vs Return



# Parametric Enh S&P 500 Period Ended December 31, 2021

## Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

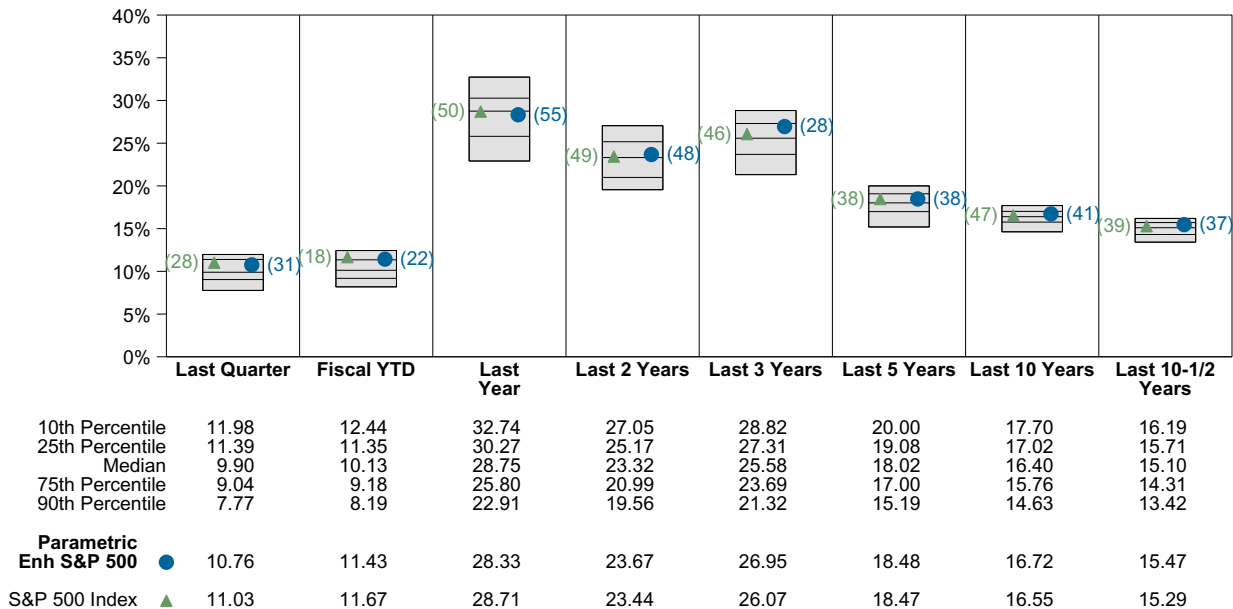
## Quarterly Summary and Highlights

- Parametric Enh S&P 500's portfolio posted a 10.76% return for the quarter placing it in the 31 percentile of the Callan Large Cap Core group for the quarter and in the 55 percentile for the last year.
- Parametric Enh S&P 500's portfolio underperformed the S&P 500 Index by 0.26% for the quarter and underperformed the S&P 500 Index for the year by 0.38%.

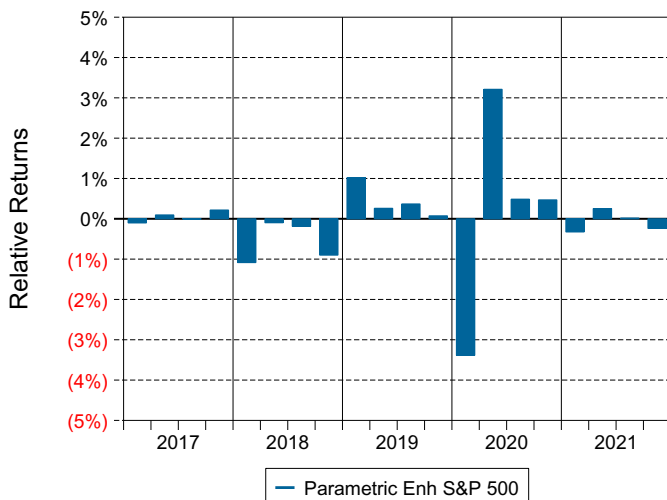
## Quarterly Asset Growth

Beginning Market Value	\$294,181,076
Net New Investment	\$0
Investment Gains/(Losses)	\$31,661,580
Ending Market Value	\$325,842,656

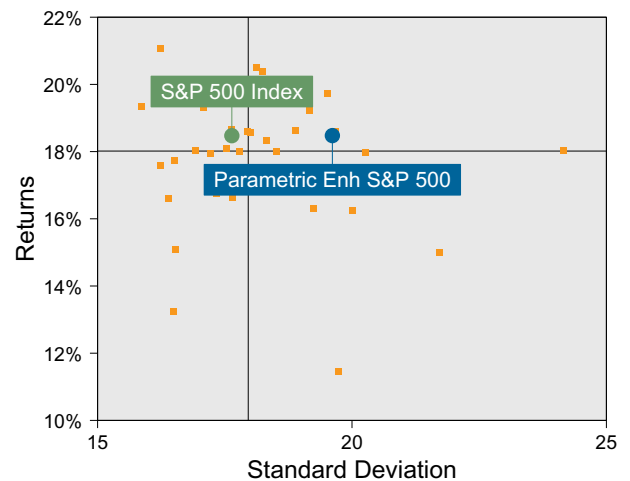
## Performance vs Callan Large Cap Core (Gross)



## Relative Return vs S&P 500 Index



## Callan Large Cap Core (Gross) Annualized Five Year Risk vs Return



# Atlanta Capital Period Ended December 31, 2021

## Investment Philosophy

Atlanta Capital Managements approach with its small cap product is to focus on high quality companies with an overall portfolio risk exposure tied to the Russell 2000 Index. Key characteristics of this portfolio include: (1) stocks rated B+ or better by S&P, (2) equally weighting 75 stocks, (3) sector concentrations similar to that of the benchmark. A group of ten analysts is in charge of screening the Russell 2000 to identify companies they believe have strong price appreciation potential and good business fundamentals. These analysts present the ideas to the portfolio management team, led by Chip Reed, who makes the final decisions on the inclusion of stocks. In general, stocks are sold from the portfolio if the B+ or better financial rating is no longer met, there is an adverse change in the fundamental business, or because of regular portfolio maintenance to ensure broad diversification.

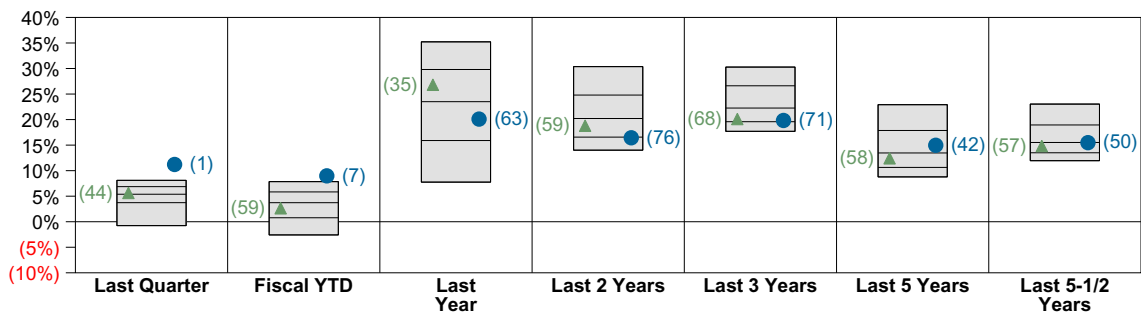
## Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a 11.21% return for the quarter placing it in the 1 percentile of the Callan Small Capitalization group for the quarter and in the 63 percentile for the last year.
- Atlanta Capital's portfolio outperformed the S&P 600 Small Cap Index by 5.57% for the quarter and underperformed the S&P 600 Small Cap Index for the year by 6.72%.

## Quarterly Asset Growth

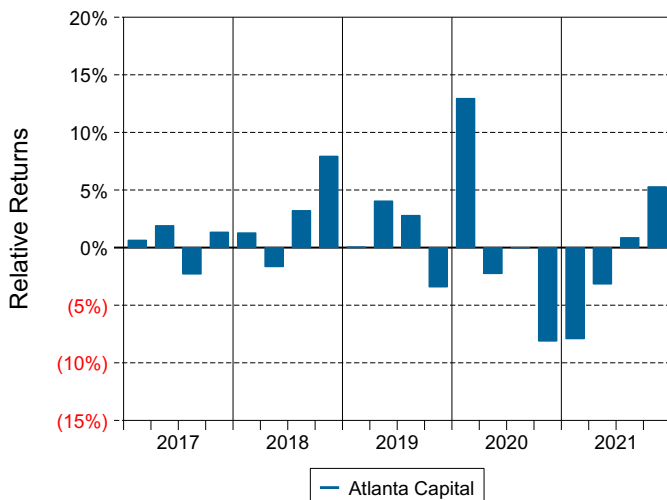
Beginning Market Value	\$116,839,619
Net New Investment	\$-174,456
Investment Gains/(Losses)	\$13,100,134
Ending Market Value	\$129,765,296

## Performance vs Callan Small Capitalization (Gross)

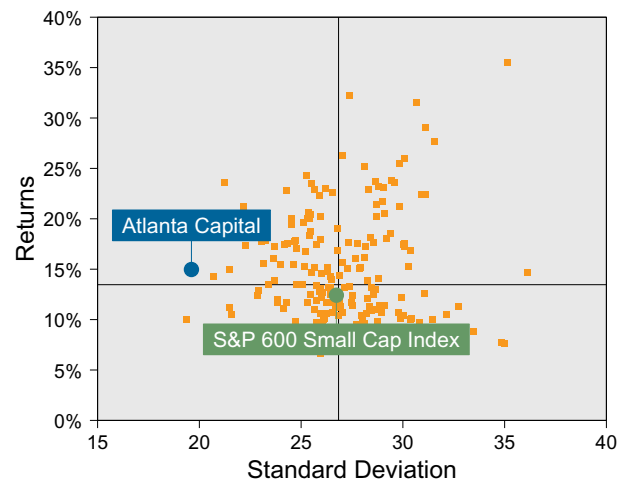


10th Percentile	8.10	7.85	35.22	30.37	30.28	22.92	23.03
25th Percentile	6.87	5.84	29.81	24.80	26.62	17.87	18.95
Median	5.38	3.73	23.50	20.21	22.26	13.46	15.52
75th Percentile	3.73	0.78	15.90	16.56	19.59	10.63	13.50
90th Percentile	(0.77)	(2.59)	7.75	14.01	17.70	8.78	11.95
<b>Atlanta Capital</b>	● 11.21	8.98	20.10	16.44	19.83	14.97	15.48
S&P 600 Small Cap Index	▲ 5.64	2.64	26.82	18.80	20.11	12.42	14.83

## Relative Return vs S&P 600 Small Cap Index



## Callan Small Capitalization (Gross) Annualized Five Year Risk vs Return



# Riverbridge Small Cap Growth Period Ended December 31, 2021

## Investment Philosophy

Riverbridge believes earnings power determines the value of a franchise. They focus on companies that are building earnings power and intrinsic value of the company over long periods of time. They also look for high-quality growth companies that demonstrate the ability to sustain strong secular earnings growth, regardless of overall economic conditions.

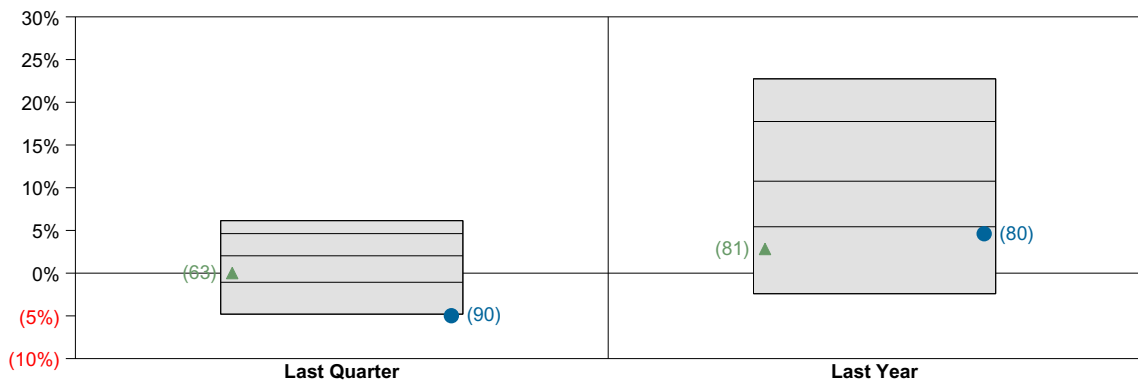
## Quarterly Summary and Highlights

- Riverbridge Small Cap Growth's portfolio posted a (4.98)% return for the quarter placing it in the 90 percentile of the Callan Small Cap Growth group for the quarter and in the 80 percentile for the last year.
- Riverbridge Small Cap Growth's portfolio underperformed the Russell 2000 Growth Index by 4.99% for the quarter and outperformed the Russell 2000 Growth Index for the year by 1.78%.

## Quarterly Asset Growth

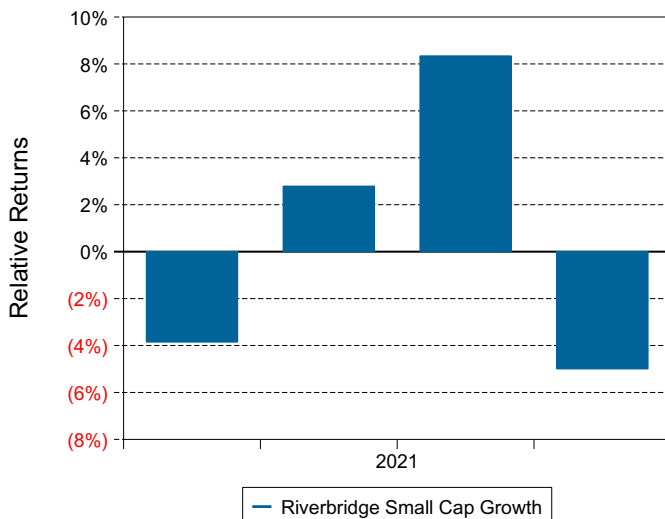
Beginning Market Value	\$125,693,569
Net New Investment	\$-2,729,066
Investment Gains/(Losses)	\$-6,000,538
Ending Market Value	\$116,963,965

## Performance vs Callan Small Cap Growth (Gross)

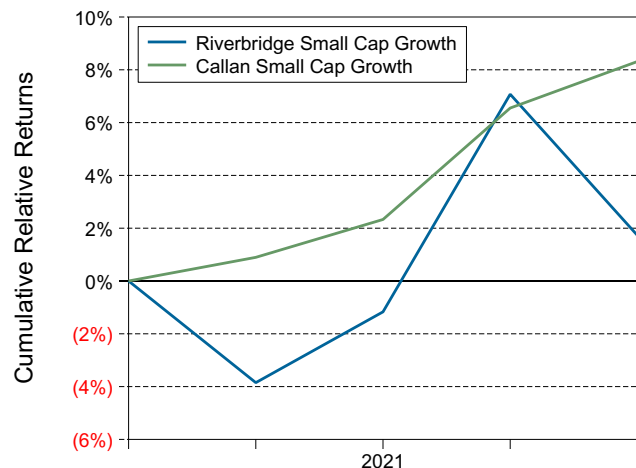


	Last Quarter	Last Year
10th Percentile	6.15	22.75
25th Percentile	4.63	17.75
Median	2.03	10.76
75th Percentile	(1.07)	5.43
90th Percentile	(4.80)	(2.41)
<b>Riverbridge Small Cap Growth</b> ●	<b>(4.98)</b>	4.61
Russell 2000 Growth Index ▲	0.01	2.83

## Relative Return vs Russell 2000 Growth Index



## Cumulative Returns vs Russell 2000 Growth Index





# Sycamore Small Cap Value Period Ended December 31, 2021

## Investment Philosophy

The Victory Small Cap Value Equity investment approach focuses on companies with market capitalizations between \$100 million and \$2 billion that are believed offer above-average total return potential with limited risk. The Small Cap Value Equity investment process seeks to identify high quality, low expectation small cap companies that appear poised for continued or improved earnings. Portfolios typically hold 100-125 stocks with average annual portfolio turnover of 40%. The team will begin to sell when a company's market capitalization exceeds \$4 billion, however they focus on the weighted average market capitalization of the total portfolio and thus may retain exposure to some mid cap companies.

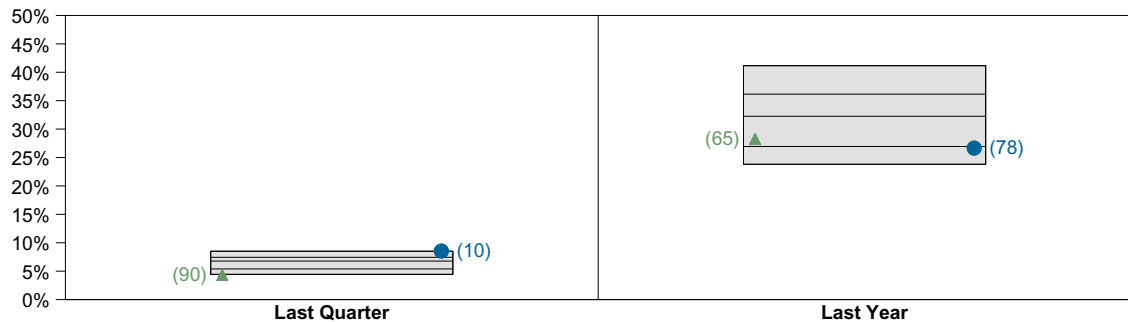
## Quarterly Summary and Highlights

- Sycamore Small Cap Value's portfolio posted a 8.54% return for the quarter placing it in the 10 percentile of the Callan Small Cap Value group for the quarter and in the 78 percentile for the last year.
- Sycamore Small Cap Value's portfolio outperformed the Russell 2000 Value Index by 4.18% for the quarter and underperformed the Russell 2000 Value Index for the year by 1.62%.

## Quarterly Asset Growth

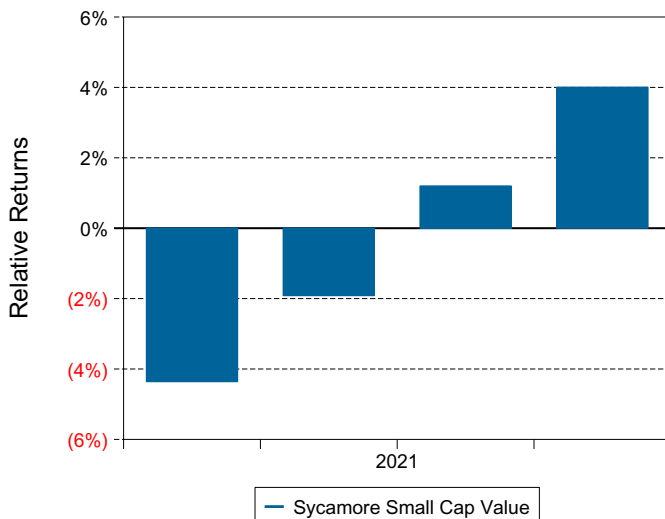
Beginning Market Value	\$129,343,339
Net New Investment	\$-7,698,616
Investment Gains/(Losses)	\$10,766,322
Ending Market Value	\$132,411,045

## Performance vs Callan Small Cap Value (Gross)

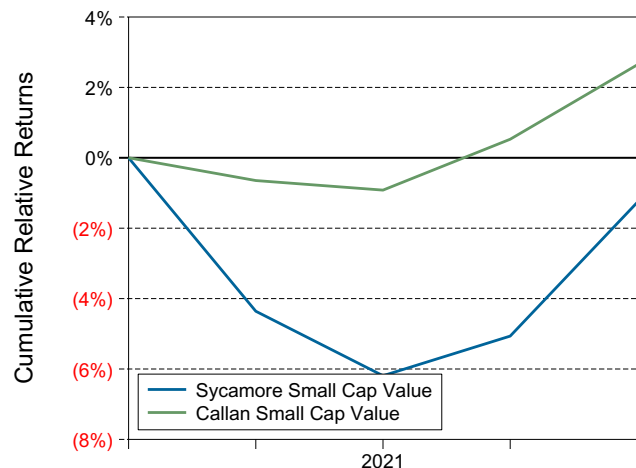


	Last Quarter	Last Year
10th Percentile	8.51	41.16
25th Percentile	7.44	36.15
Median	6.78	32.26
75th Percentile	5.40	26.94
90th Percentile	4.44	23.81
<b>Sycamore Small Cap Value</b>	<b>8.54</b>	<b>26.65</b>
Russell 2000 Value Index	4.36	28.27

## Relative Return vs Russell 2000 Value Index



## Cumulative Returns vs Russell 2000 Value Index





# International Equities

## Period Ended December 31, 2021

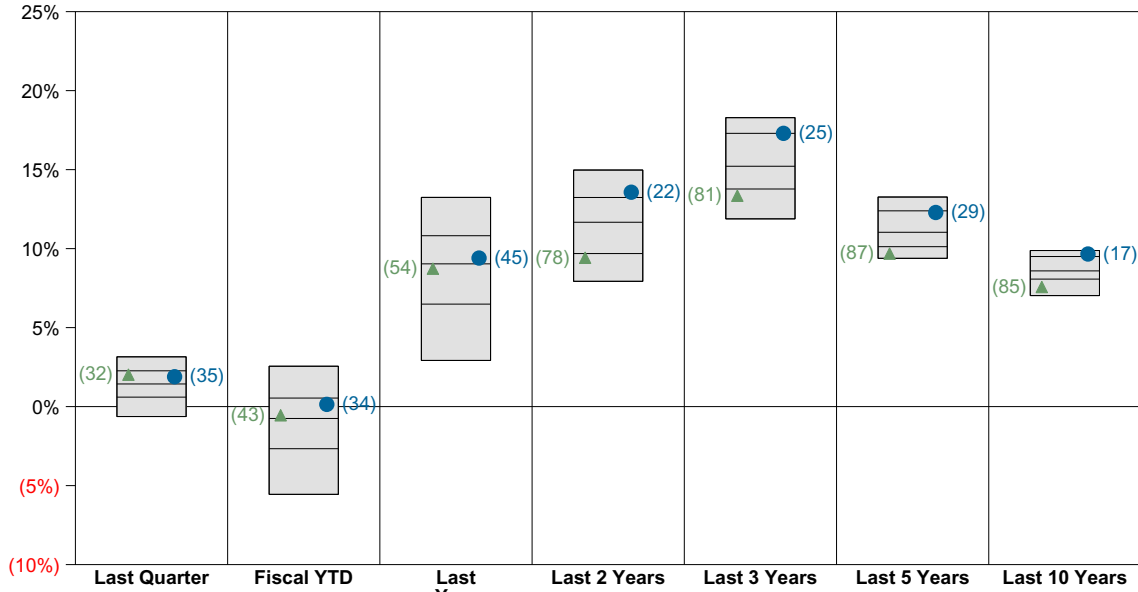
### Quarterly Summary and Highlights

- International Equities's portfolio posted a 1.89% return for the quarter placing it in the 35 percentile of the Public Fund - International Equity group for the quarter and in the 45 percentile for the last year.
- International Equities's portfolio underperformed the International Equity Target by 0.13% for the quarter and outperformed the International Equity Target for the year by 0.67%.

### Quarterly Asset Growth

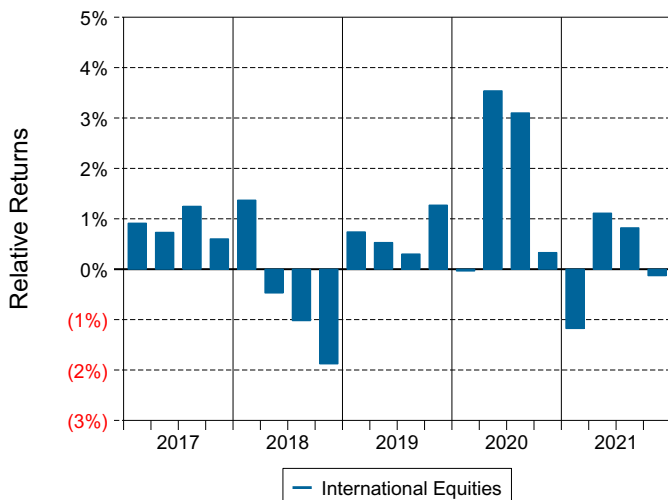
Beginning Market Value	\$1,180,183,512
Net New Investment	\$-23,737,919
Investment Gains/(Losses)	\$22,484,201
Ending Market Value	\$1,178,929,794

### Performance vs Public Fund - International Equity (Gross)

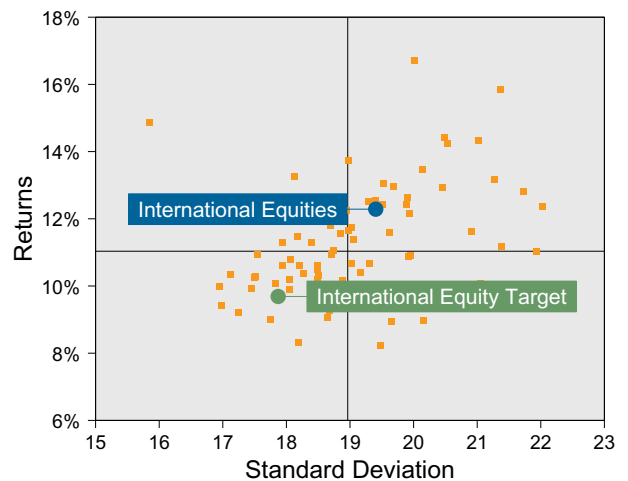


10th Percentile	3.15	2.56	13.24	14.97	18.29	13.27	9.88
25th Percentile	2.27	0.54	10.82	13.24	17.30	12.39	9.50
Median	1.43	(0.75)	9.04	11.67	15.21	11.03	8.59
75th Percentile	0.60	(2.66)	6.49	9.69	13.77	10.12	8.07
90th Percentile	(0.63)	(5.55)	2.92	7.93	11.88	9.38	7.03
<b>International Equities</b>	● 1.89	0.14	9.40	13.57	17.30	12.29	9.66
International Equity Target	▲ 2.02	(0.55)	8.73	9.42	13.35	9.69	7.57

### Relative Return vs International Equity Target



### Public Fund - International Equity (Gross) Annualized Five Year Risk vs Return



# DFA International Small Cap Value Fund

## Period Ended December 31, 2021

### Investment Philosophy

The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Specifically, it looks at companies that fall within the smallest 8-10% of each country's market capitalization, and who's shares have a high book value in relation to their market value (BtM). It does not invest in emerging markets.

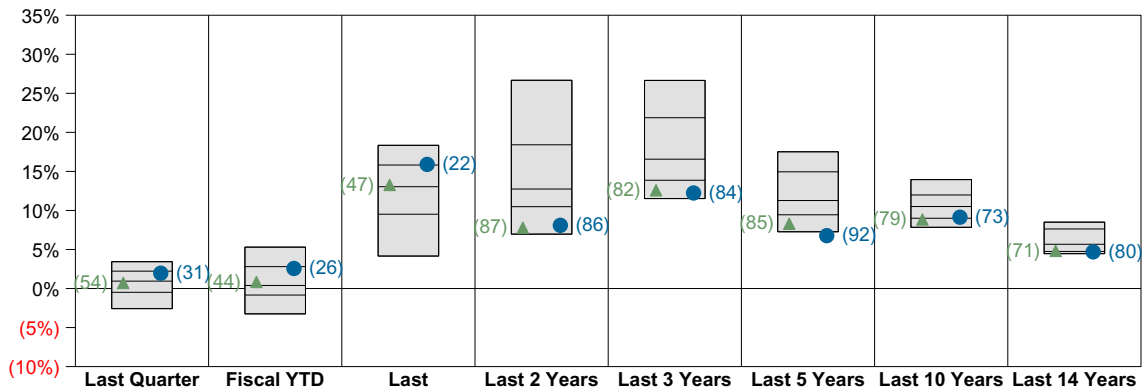
### Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a 1.96% return for the quarter placing it in the 31 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 22 percentile for the last year.
- DFA Intl Small Cap Value's portfolio outperformed the World ex US SC Value by 1.24% for the quarter and outperformed the World ex US SC Value for the year by 2.63%.

### Quarterly Asset Growth

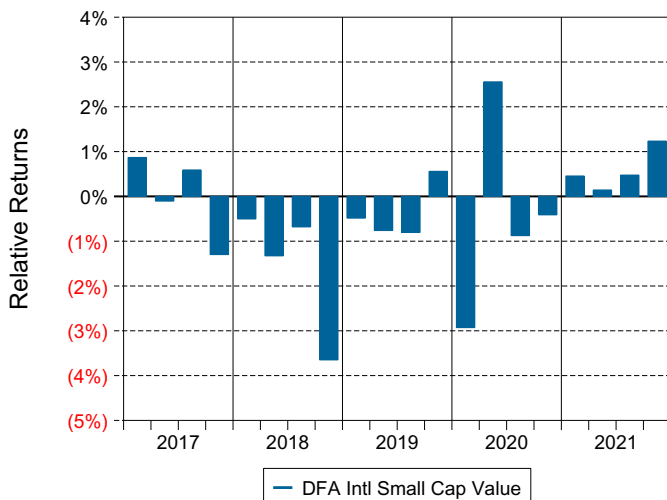
Beginning Market Value	\$91,190,872
Net New Investment	\$0
Investment Gains/(Losses)	\$1,786,760
Ending Market Value	\$92,977,632

### Performance vs Callan International Small Cap Mut Funds (Net)

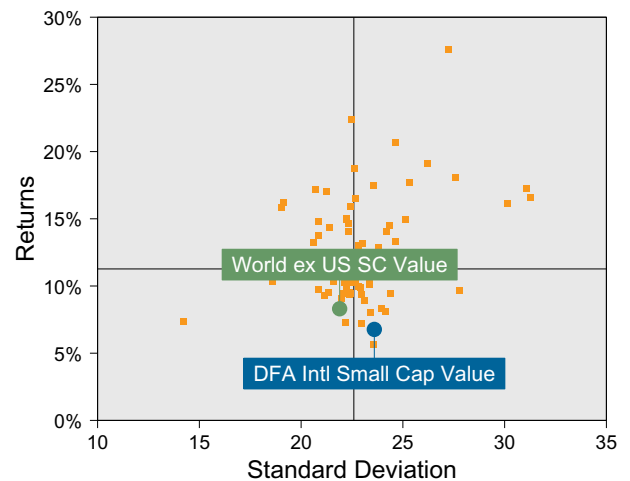


10th Percentile	3.44	5.30	18.34	26.67	26.65	17.52	13.95	8.50
25th Percentile	2.22	2.80	15.82	18.41	21.88	14.95	11.98	7.63
Median	0.95	0.39	13.04	12.74	16.56	11.27	10.50	5.67
75th Percentile	(0.49)	(0.84)	9.52	10.48	13.87	9.44	9.00	4.75
90th Percentile	(2.58)	(3.25)	4.16	6.96	11.52	7.27	7.84	4.46
<b>DFA Intl Small Cap Value</b>	<b>1.96</b>	<b>2.57</b>	<b>15.89</b>	<b>8.09</b>	<b>12.23</b>	<b>6.77</b>	<b>9.13</b>	<b>4.69</b>
World ex US SC Value	0.72	0.84	13.27	7.79	12.59	8.30	8.85	4.82

### Relative Return vs World ex US SC Value



### Callan International Small Cap Mut Funds (Net) Annualized Five Year Risk vs Return



# Northern Tr AM Wrld ex US Period Ended December 31, 2021

## Investment Philosophy

The Fund's objective is to provide investment results that approximate the overall performance of the MSCI World ex-US Equity Index.

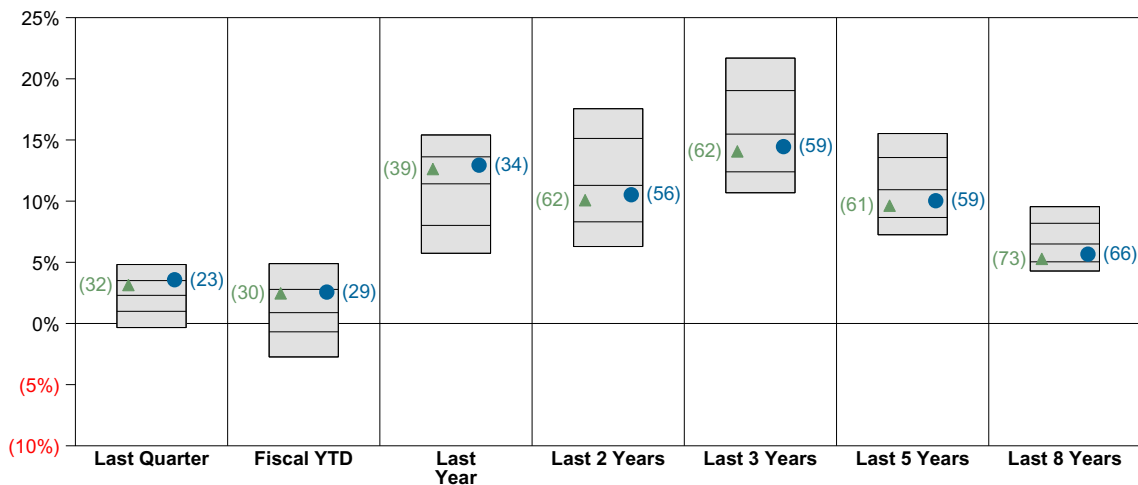
## Quarterly Summary and Highlights

- Northern Tr AM Wrld ex US's portfolio posted a 3.57% return for the quarter placing it in the 23 percentile of the Callan Non-US Equity group for the quarter and in the 34 percentile for the last year.
- Northern Tr AM Wrld ex US's portfolio outperformed the MSCI World ex US by 0.43% for the quarter and outperformed the MSCI World ex US for the year by 0.32%.

## Quarterly Asset Growth

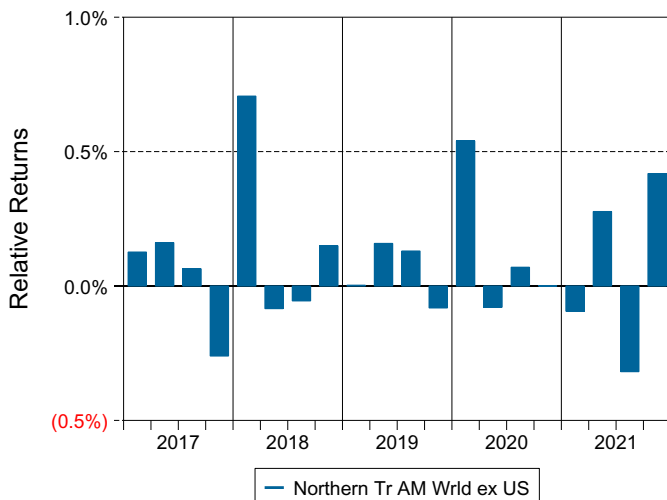
Beginning Market Value	\$428,581,787
Net New Investment	\$-33,713
Investment Gains/(Losses)	\$15,320,329
Ending Market Value	\$443,868,404

## Performance vs Callan Non-US Equity (Gross)

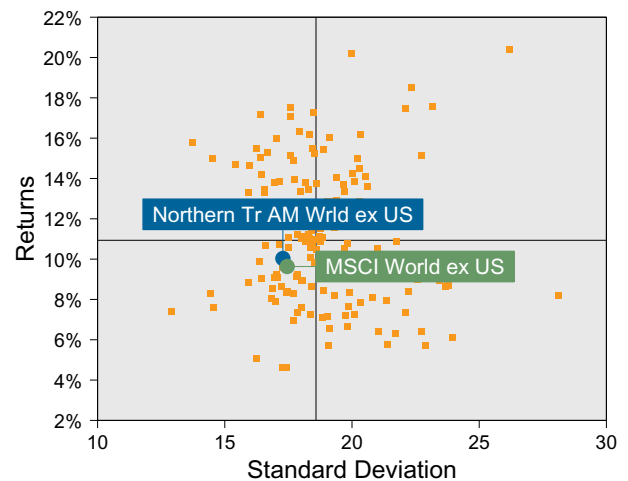


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 8 Years
10th Percentile	4.82	4.89	15.41	17.56	21.69	15.53	9.55
25th Percentile	3.51	2.79	13.62	15.13	19.04	13.56	8.19
Median	2.30	0.88	11.41	11.29	15.48	10.93	6.50
75th Percentile	0.99	(0.68)	8.02	8.31	12.40	8.66	5.04
90th Percentile	(0.33)	(2.74)	5.74	6.29	10.68	7.25	4.29
<b>Northern Tr AM Wrld ex US</b> ●	3.57	2.56	12.94	10.52	14.46	10.03	5.66
MSCI World ex US ▲	3.14	2.46	12.62	10.08	14.07	9.63	5.28

## Relative Return vs MSCI World ex US



## Callan Non-US Equity (Gross) Annualized Five Year Risk vs Return



# Wellington Management Period Ended December 31, 2021

## Investment Philosophy

The International Small Cap Opportunities investment approach is bottom-up focused, and leverages the global research resources at Wellington Management. In implementing purchase decisions, consideration is given to the size, liquidity, and volatility of these prospects. Sell decisions are based on changing fundamentals or valuations, or on finding better opportunities elsewhere. The assets are not hedged.

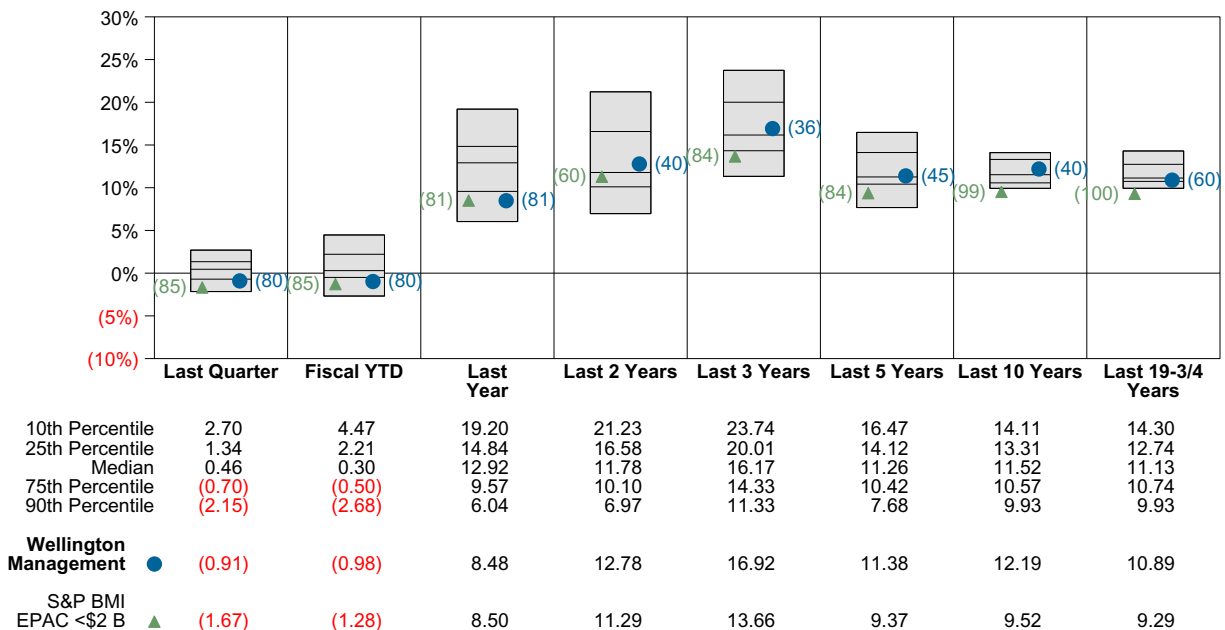
## Quarterly Summary and Highlights

- Wellington Management's portfolio posted a (0.91)% return for the quarter placing it in the 80 percentile of the Callan International Small Cap group for the quarter and in the 81 percentile for the last year.
- Wellington Management's portfolio outperformed the S&P BMI EPAC <\$2 B by 0.77% for the quarter and underperformed the S&P BMI EPAC <\$2 B for the year by 0.02%.

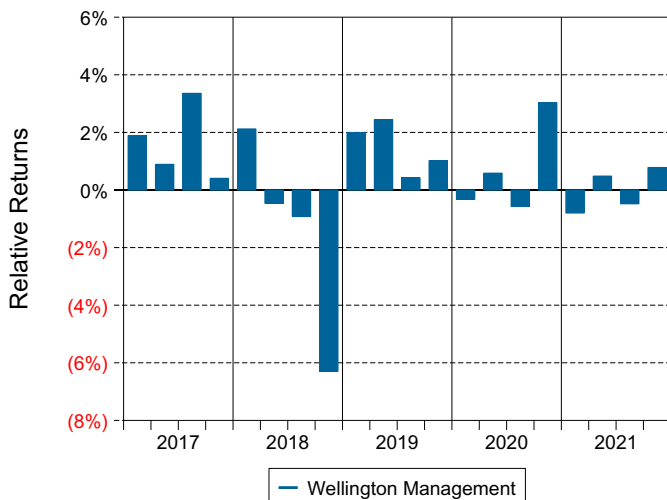
## Quarterly Asset Growth

Beginning Market Value	\$102,961,445
Net New Investment	\$-212,878
Investment Gains/(Losses)	\$-930,776
Ending Market Value	\$101,817,791

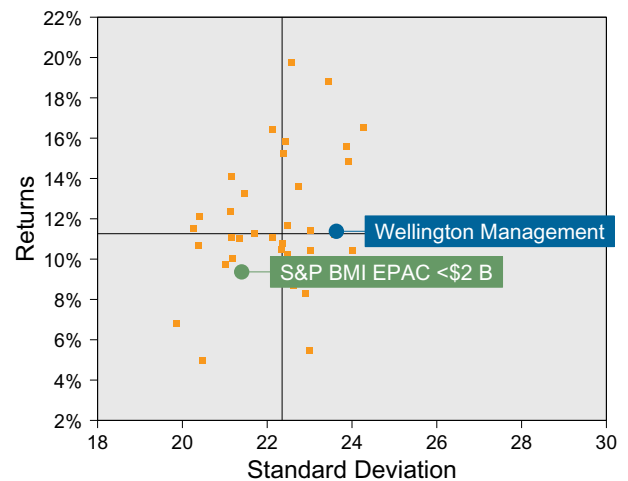
## Performance vs Callan International Small Cap (Gross)



## Relative Return vs S&P BMI EPAC <\$2 B



## Callan International Small Cap (Gross) Annualized Five Year Risk vs Return



# William Blair

## Period Ended December 31, 2021

### Investment Philosophy

One of the basic investment tenets of William Blair & Company has been its focus on quality growth companies. They believe that investing in quality growth companies will generate above average results with generally less risk than the market. This opportunity exists because they believe the market underestimates the durability and rate of growth in companies that have the following characteristics: strong management with a unique vision, competitive advantages that prolong the duration and size of earnings growth, and conservative financing. Internationally, they believe that this philosophy can be combined with strategic flexibility in managing geographic exposure, capitalization, sector emphasis, and relative growth and valuation at the portfolio level in order to provide an appropriate degree of adaptability to cyclical conditions.

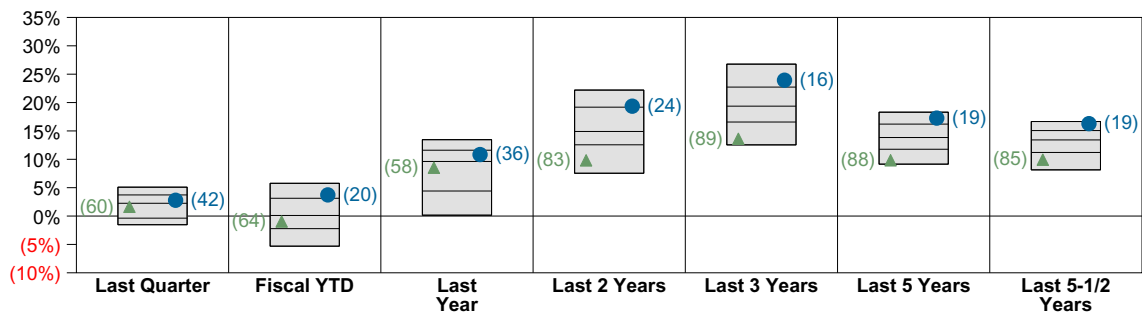
### Quarterly Summary and Highlights

- William Blair's portfolio posted a 2.78% return for the quarter placing it in the 42 percentile of the Callan Non-US All Country Growth Equity group for the quarter and in the 36 percentile for the last year.
- William Blair's portfolio outperformed the MSCI ACWI ex US IMI by 1.14% for the quarter and outperformed the MSCI ACWI ex US IMI for the year by 2.31%.

### Quarterly Asset Growth

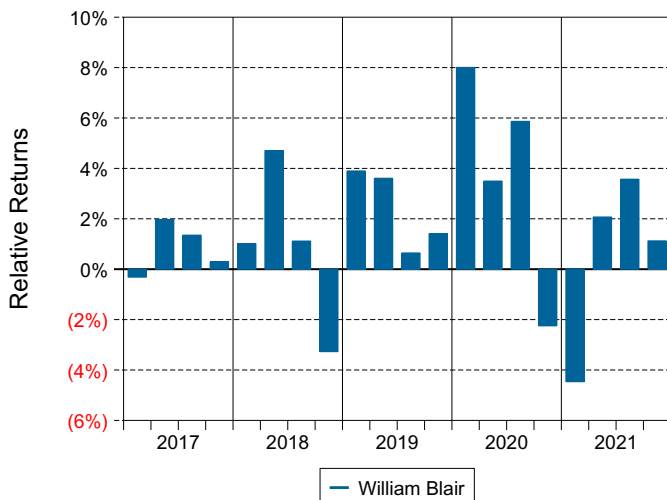
Beginning Market Value	\$287,653,558
Net New Investment	\$-18,748,799
Investment Gains/(Losses)	\$8,357,583
Ending Market Value	\$277,262,342

### Performance vs Callan Non-US All Country Growth Equity (Gross)

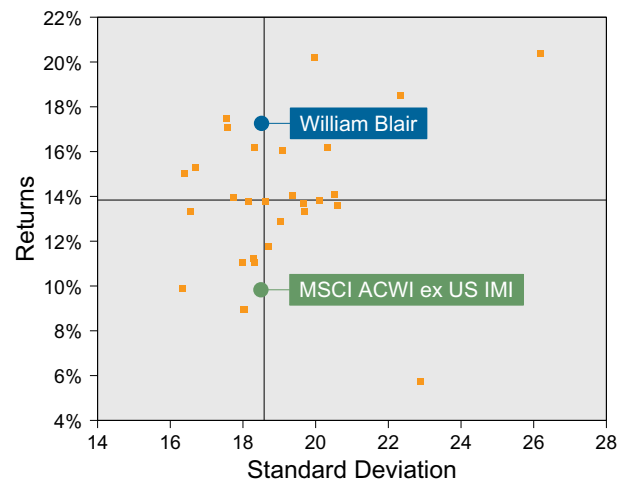


10th Percentile	5.09	5.77	13.46	22.20	26.77	18.30	16.66
25th Percentile	3.72	3.13	11.60	19.19	22.73	16.21	15.07
Median	2.25	0.10	9.62	14.91	19.37	13.84	13.41
75th Percentile	(0.37)	(2.22)	4.41	12.56	16.57	11.77	11.21
90th Percentile	(1.52)	(5.31)	0.15	7.54	12.54	9.15	8.14
William Blair	2.78	3.73	10.84	19.36	23.94	17.26	16.28
MSCI ACWI ex US IMI	1.64	(0.96)	8.53	9.81	13.62	9.83	9.94

### Relative Return vs MSCI ACWI ex US IMI



### Callan Non-US All Country Growth Equity (Gross) Annualized Five Year Risk vs Return



# Axiom Emerging Markets Period Ended December 31, 2021

## Investment Philosophy

The Emerging Markets Equity strategy seeks to invest in emerging market securities issued by companies whose key business drivers are both improving and exceeding expectations, as determined by Axiom's stock selection techniques focused on fundamental company analysis. The strategy considers companies either (i) located in countries that are not included in the MSCI Developed Markets Index series or (ii) that derive a majority of their revenues or assets from a country or countries not included in the MSCI Developed Markets Index series, in each case at the time of investment. Although the Manager generally expects the strategy's investment portfolio to be geographically diverse, there are no prescribed limits on geographic distribution of the strategy's investments and the strategy has the authority to invest in securities traded in securities markets or any country in the world.

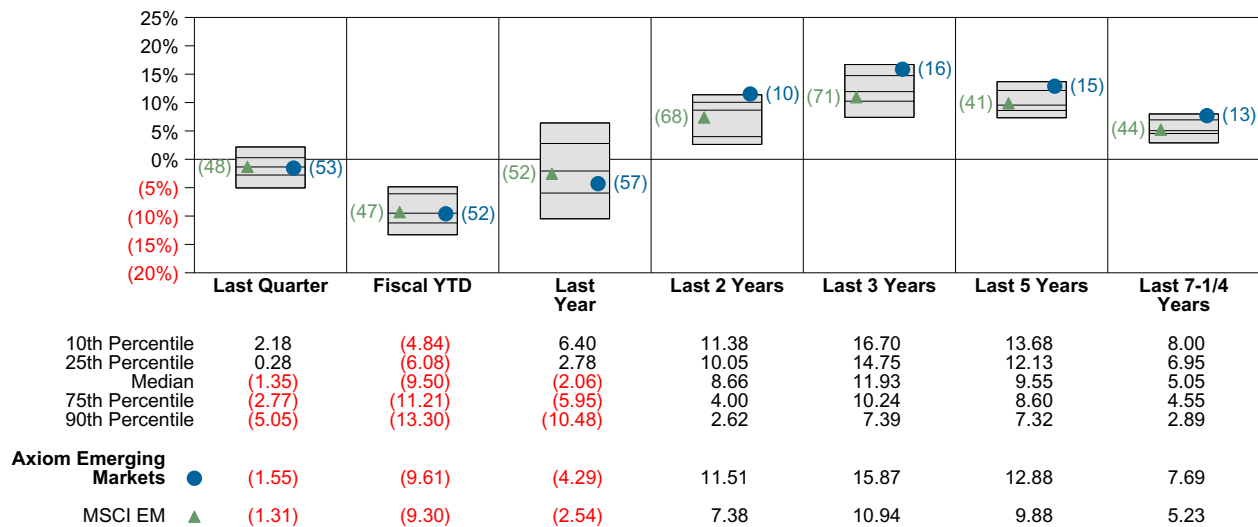
## Quarterly Summary and Highlights

- Axiom Emerging Markets's portfolio posted a (1.55)% return for the quarter placing it in the 53 percentile of the Callan Emerging Markets Equity Mut Funds group for the quarter and in the 57 percentile for the last year.
- Axiom Emerging Markets's portfolio underperformed the MSCI EM by 0.23% for the quarter and underperformed the MSCI EM for the year by 1.75%.

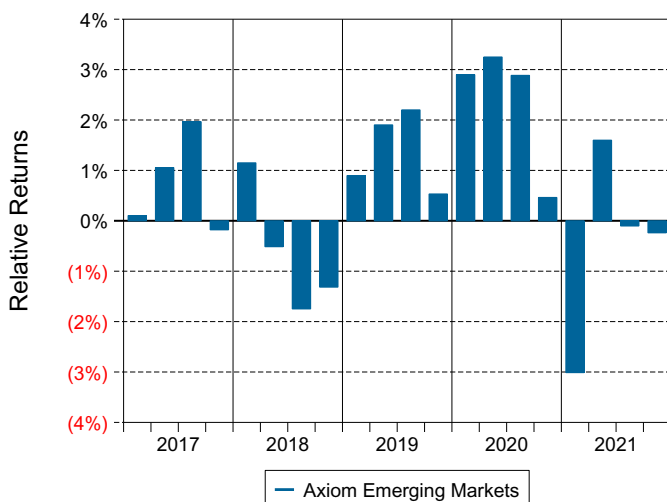
## Quarterly Asset Growth

Beginning Market Value	\$196,824,638
Net New Investment	\$0
Investment Gains/(Losses)	\$-3,043,427
Ending Market Value	\$193,781,211

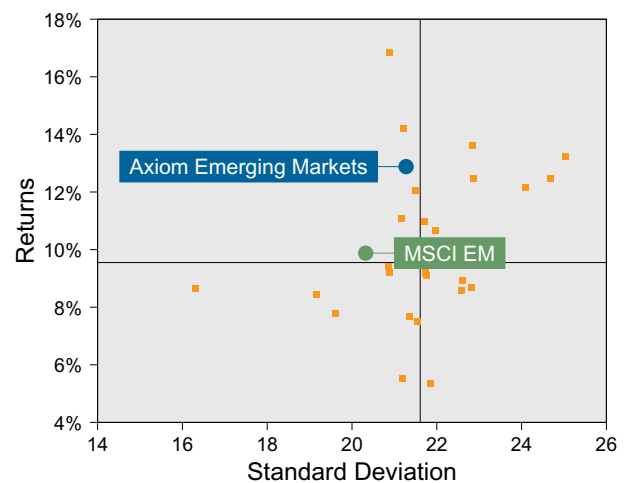
## Performance vs Callan Emerging Markets Equity Mut Funds (Net)



## Relative Return vs MSCI EM



## Callan Emerging Markets Equity Mut Funds (Net) Annualized Five Year Risk vs Return





# DFA Emerging Markets Period Ended December 31, 2021

## Investment Philosophy

The Emerging Markets Small Cap Portfolio invests in small cap emerging markets companies. Presently, this means investment in companies whose market capitalization is less than \$2.3 billion at the time of purchase. Dimensional considers, among other things, information disseminated by the International Finance Corporation in determining and approving emerging market countries.

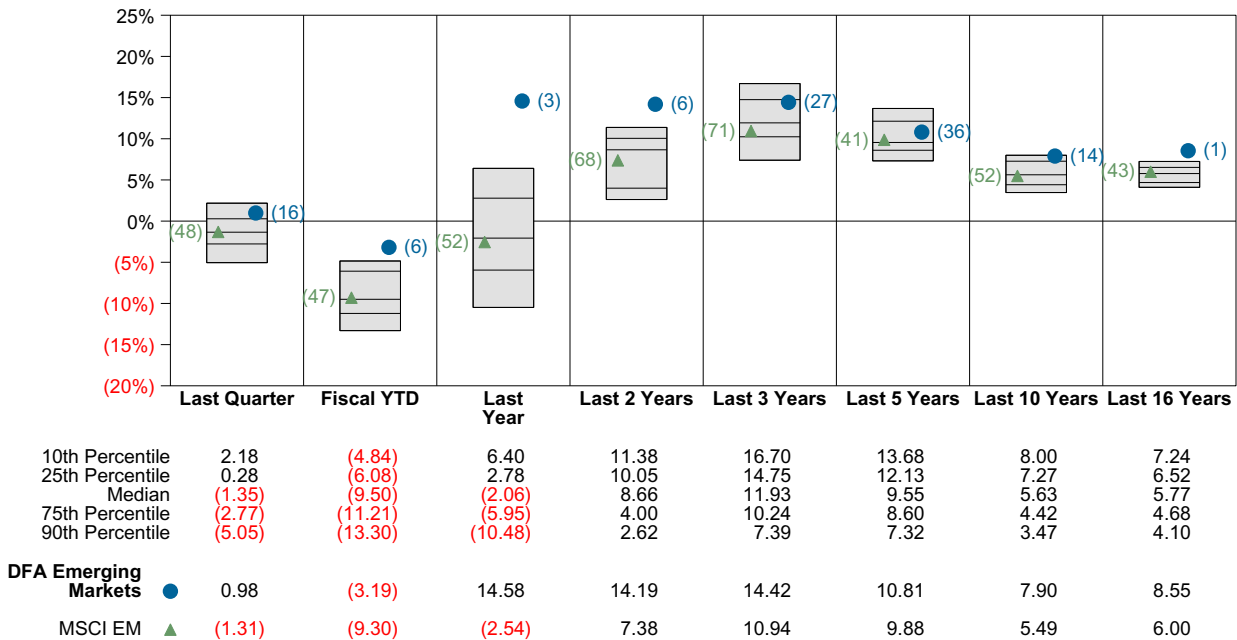
## Quarterly Summary and Highlights

- DFA Emerging Markets's portfolio posted a 0.98% return for the quarter placing it in the 16 percentile of the Callan Emerging Markets Equity Mut Funds group for the quarter and in the 3 percentile for the last year.
- DFA Emerging Markets's portfolio outperformed the MSCI EM by 2.30% for the quarter and outperformed the MSCI EM for the year by 17.12%.

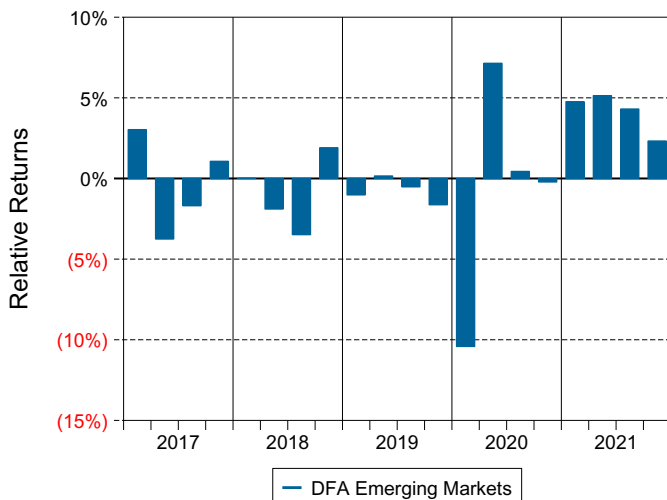
## Quarterly Asset Growth

Beginning Market Value	\$72,971,212
Net New Investment	\$-4,500,000
Investment Gains/(Losses)	\$751,203
Ending Market Value	\$69,222,415

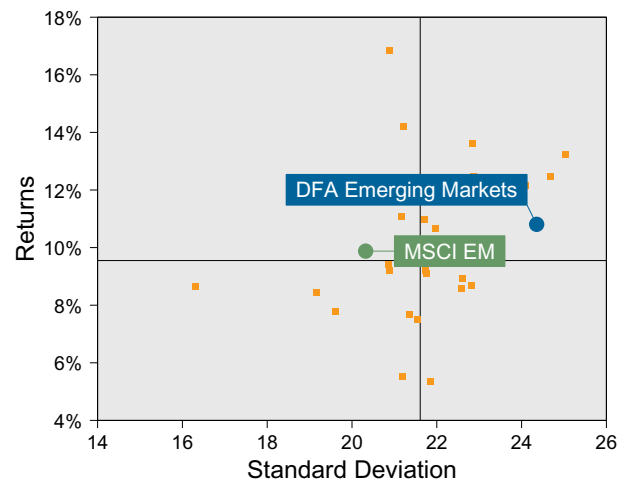
## Performance vs Callan Emerging Markets Equity Mut Funds (Net)



## Relative Return vs MSCI EM



## Callan Emerging Markets Equity Mut Funds (Net) Annualized Five Year Risk vs Return





# EPOCH Investment Period Ended December 31, 2021

## Investment Philosophy

Epoch seeks to produce superior risk adjusted returns by building portfolios of businesses with outstanding risk/reward profiles without running a high degree of capital risk. They analyze businesses in the same manner private investors would in looking to purchase the entire company. The strategy only invests in businesses that are understood and where they have confidence in the financial statements. They seek businesses that generate "free cash flow" and securities that have unrecognized potential yet possess a combination of above average yield, above average free cash flow growth, and/or below average valuation. Global Choice is a "best ideas" portfolio at Epoch with every stock held in other strategies managed by the firm.

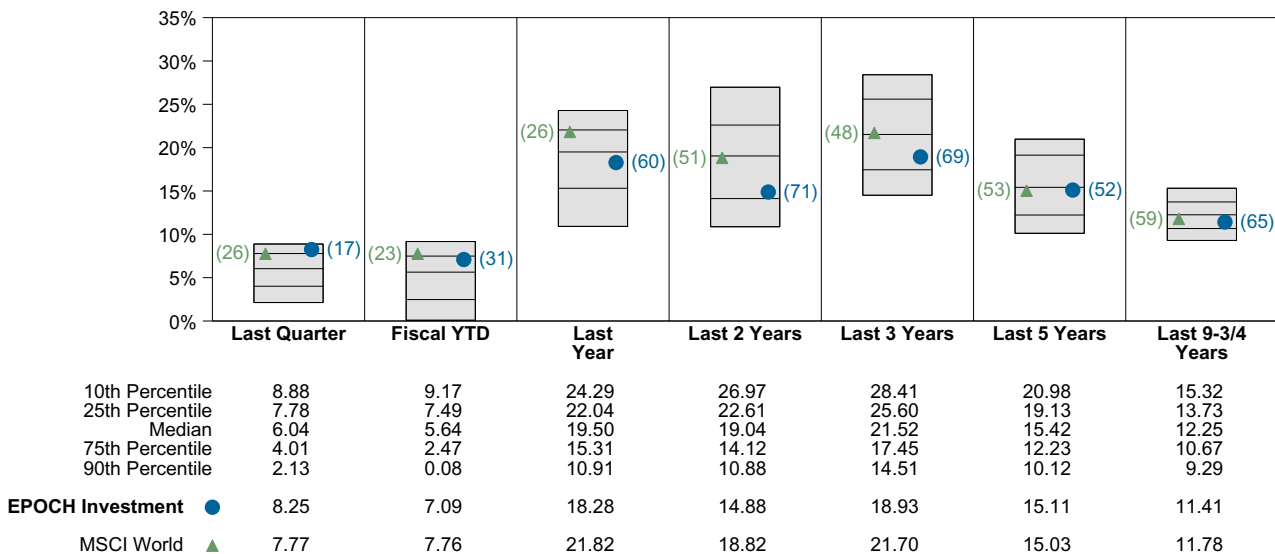
## Quarterly Summary and Highlights

- EPOCH Investment's portfolio posted a 8.25% return for the quarter placing it in the 17 percentile of the Callan Global Equity group for the quarter and in the 60 percentile for the last year.
- EPOCH Investment's portfolio outperformed the MSCI World by 0.48% for the quarter and underperformed the MSCI World for the year by 3.54%.

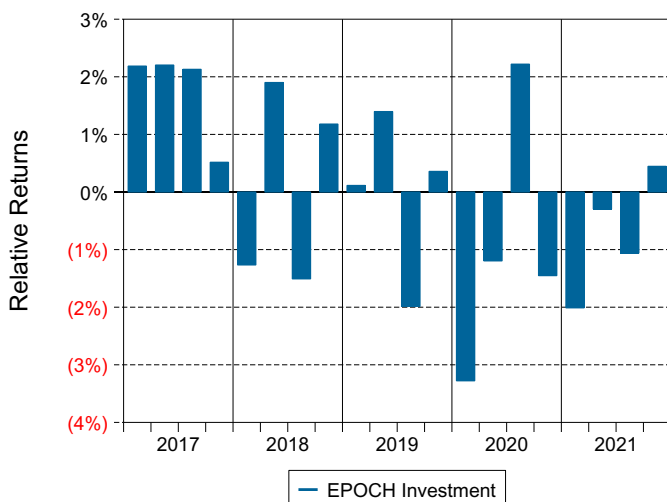
## Quarterly Asset Growth

Beginning Market Value	\$387,298,230
Net New Investment	\$-59,617,115
Investment Gains/(Losses)	\$28,656,979
Ending Market Value	\$356,338,094

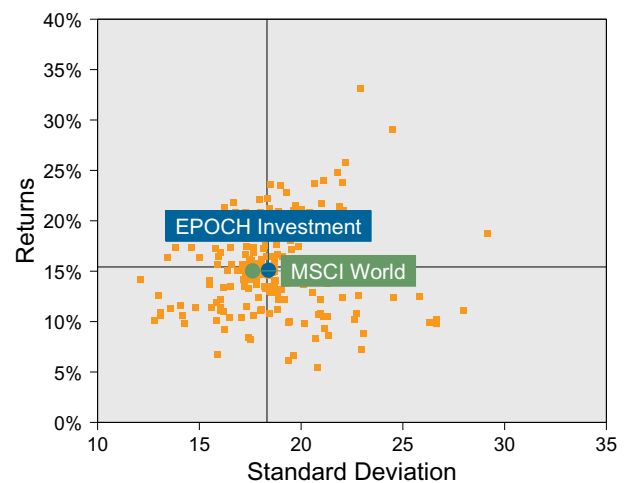
## Performance vs Callan Global Equity (Gross)



## Relative Return vs MSCI World



## Callan Global Equity (Gross) Annualized Five Year Risk vs Return



# LSV Asset Management Period Ended December 31, 2021

## Investment Philosophy

The Global Value (ACWI) Equity strategy is managed using quantitative techniques to select individual securities in a risk-controlled, bottom-up approach. Value factors and security selection dominate sector/industry factors as explainers of performance. **The Benchmark is comprised of MSCI ACWI through June 30, 2019; MSCI ACWI IMI Index thereafter.**

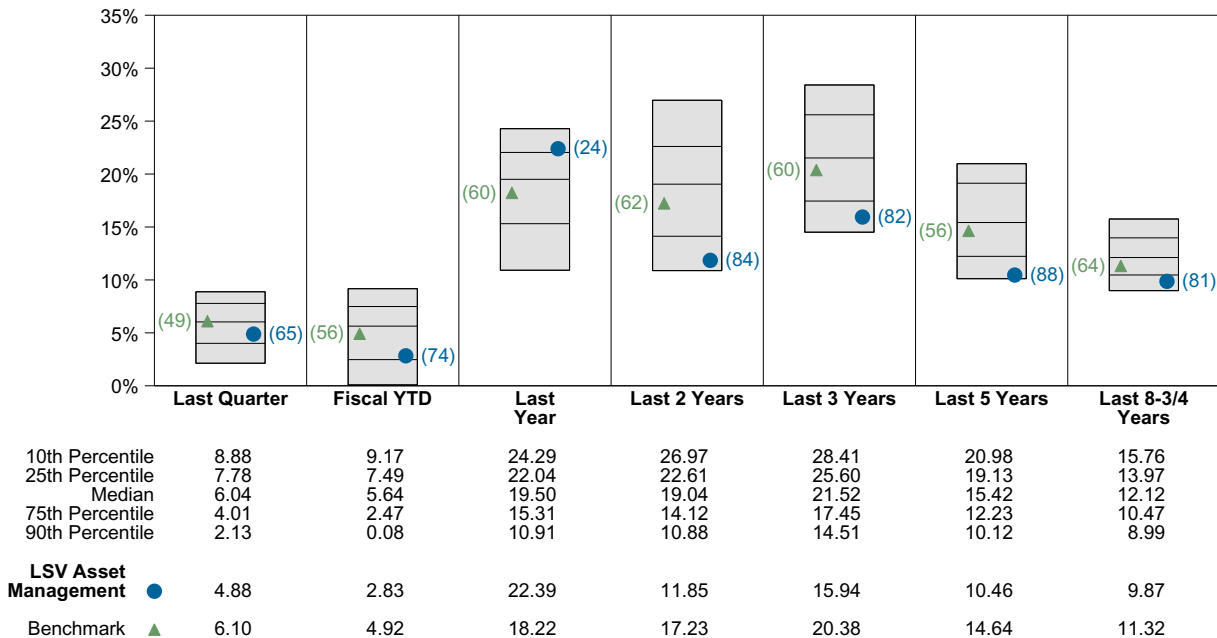
## Quarterly Summary and Highlights

- LSV Asset Management's portfolio posted a 4.88% return for the quarter placing it in the 65 percentile of the Callan Global Equity group for the quarter and in the 24 percentile for the last year.
- LSV Asset Management's portfolio underperformed the Benchmark by 1.22% for the quarter and outperformed the Benchmark for the year by 4.17%.

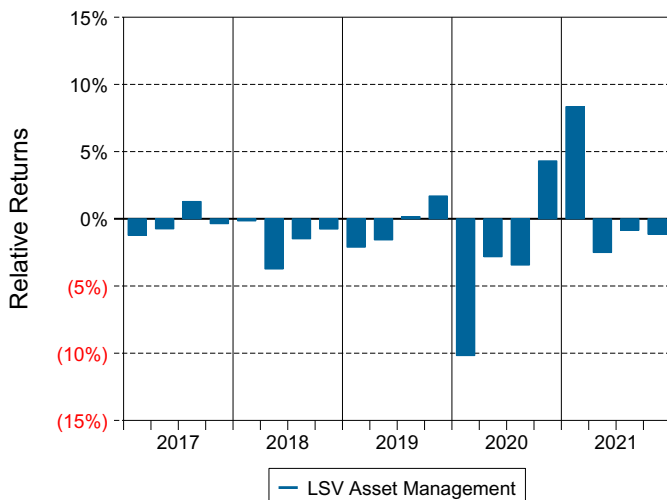
## Quarterly Asset Growth

Beginning Market Value	\$460,724,716
Net New Investment	\$-26,615,223
Investment Gains/(Losses)	\$21,663,585
Ending Market Value	\$455,773,078

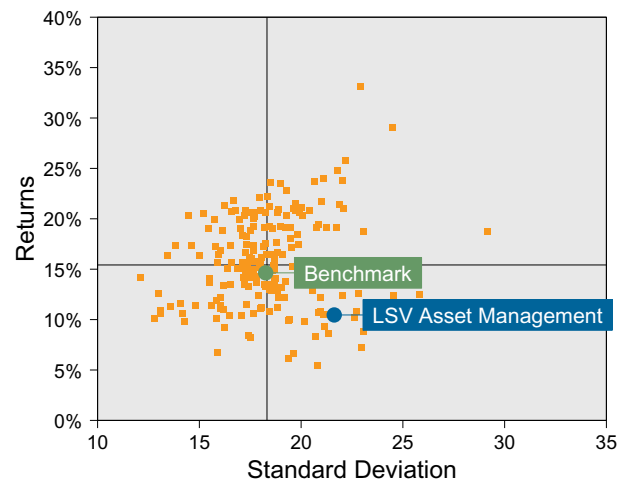
## Performance vs Callan Global Equity (Gross)



## Relative Return vs Benchmark



## Callan Global Equity (Gross) Annualized Five Year Risk vs Return





## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2021. 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 December 31, 2021

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 21 Years
<b>Private Equity</b>	<b>9.23%</b>	<b>57.24%</b>	<b>23.62%</b>	<b>16.43%</b>	<b>5.30%</b>
Adams St Direct Co-Invest Fund	(0.57%)	(13.01%)	(32.67%)	(28.56%)	-
Adams St Direct Fd 2010	6.88%	37.50%	13.16%	17.29%	-
Adams St 1998 Partnership	1.25%	(1.34%)	(0.28%)	1.24%	1.59%
Adams St 1999 Partnership	0.01%	0.73%	(0.27%)	0.90%	2.30%
Adams St 2000 Partnership	(2.65%)	(4.44%)	(5.05%)	1.33%	2.72%
Adams St 2001 Partnership	(20.66%)	0.04%	1.56%	3.68%	3.75%
Adams St 2002 Partnership	(1.58%)	(2.00%)	(4.77%)	(1.83%)	-
Adams St 2003 Partnership	(25.27%)	(26.56%)	(13.94%)	(3.97%)	-
Adams St 2010 Partnership	11.36%	79.39%	40.94%	29.78%	-
Adams St 2008 Fund	0.31%	36.02%	21.54%	20.23%	-
Adams St 2000 Non-US	(11.71%)	(13.66%)	(5.75%)	0.90%	2.25%
Adams St 2001 Non-US	(3.59%)	(0.19%)	5.51%	6.11%	-
Adams St 2002 Non-US	14.95%	5.59%	(0.61%)	0.62%	-
Adams St 2003 Non-US	(5.26%)	(8.73%)	(10.04%)	(2.78%)	-
Adams St 2004 Non-US	(7.58%)	31.93%	10.92%	9.31%	-
Adams St 2010 Non-US	1.53%	43.96%	26.40%	24.10%	-
Adams St 2010 NonUS Emg	8.29%	55.70%	24.08%	20.11%	-
Adams St 2015 Global Fund	8.85%	78.44%	33.94%	29.57%	-
Adams St 2016 Global Fund	10.78%	72.68%	28.74%	29.95%	-
Adams St 2017 Global Fund	12.20%	75.78%	30.07%	-	-
Adams St 2018 Global Fund	11.92%	77.90%	34.52%	-	-
Adams St 2019 Global Fund	13.62%	142.33%	-	-	-
Adams St 2020 Global Fund	10.57%	392.02%	-	-	-
BlackRock	11.79%	57.57%	24.55%	-	-
Blackrock PEP 2020	9.81%	-	-	-	-
Sixth Street TAO	3.08%	13.50%	-	-	-
Remaining Misc. Funds*	(4.49%)	3.28%	2.22%	1.40%	-
Russell 1000 Index	9.78%	26.45%	26.21%	18.43%	8.57%
Russell 2000 Index	2.14%	14.82%	20.02%	12.02%	9.02%

\* Comprised of Matlin Patterson II, Matlin Patterson III, InvestAmerica Lewis & Clark, InvestAmerica L&C II, Corsair III, Capital Intl Fd V, Capital Intl Fd VI, EIG, Quantum Energy Partners, Hearthstone MSII, Hearthstone MSIII.



# Domestic Fixed Income Period Ended December 31, 2021

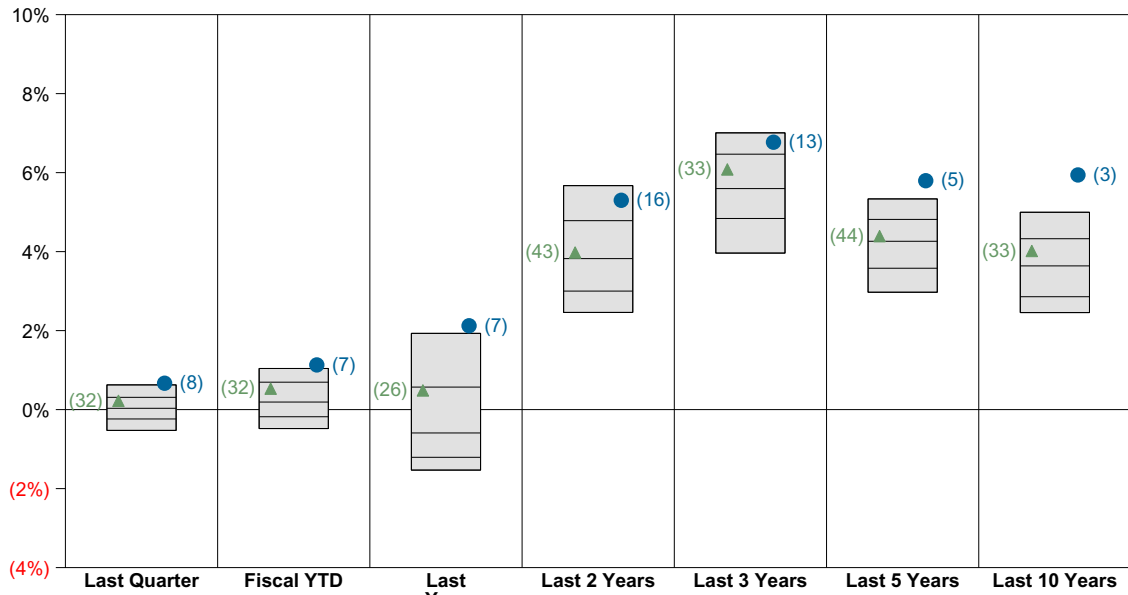
## Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a 0.67% return for the quarter placing it in the 8 percentile of the Public Fund - Domestic Fixed group for the quarter and in the 7 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Domestic Fixed Income Target by 0.45% for the quarter and outperformed the Domestic Fixed Income Target for the year by 1.64%.

## Quarterly Asset Growth

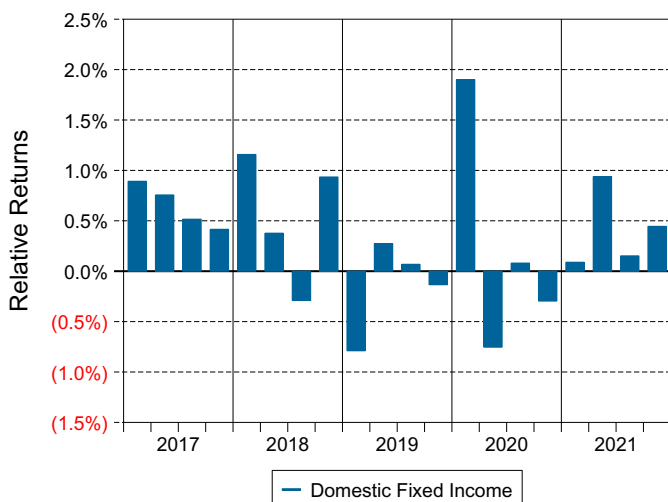
Beginning Market Value	\$1,905,245,654
Net New Investment	\$80,143,577
Investment Gains/(Losses)	\$13,184,079
Ending Market Value	\$1,998,573,310

## Performance vs Public Fund - Domestic Fixed (Gross)

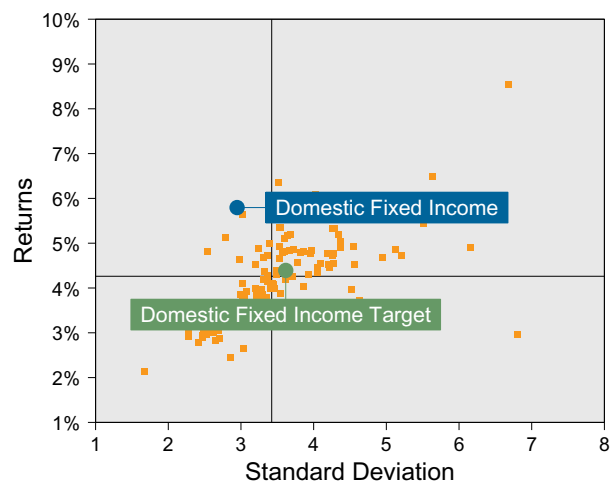


10th Percentile	0.63	1.04	1.93	5.67	7.01	5.33	5.00
25th Percentile	0.31	0.69	0.57	4.78	6.47	4.82	4.33
Median	0.03	0.19	(0.59)	3.82	5.60	4.26	3.64
75th Percentile	(0.24)	(0.18)	(1.21)	3.00	4.84	3.58	2.86
90th Percentile	(0.53)	(0.48)	(1.53)	2.46	3.96	2.97	2.46
<b>Domestic Fixed Income</b>	● 0.67	1.13	2.12	5.30	6.77	5.80	5.94
Domestic Fixed Income Target	▲ 0.22	0.53	0.49	3.98	6.08	4.39	4.02

## Relative Returns vs Domestic Fixed Income Target



## Public Fund - Domestic Fixed (Gross) Annualized Five Year Risk vs Return





# Declaration Total Return Period Ended December 31, 2021

## Investment Philosophy

The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies (Non-Agency RMBS) and government agencies (Agency MBS) and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Government National Mortgage Association (Ginnie Mae). Portfolio holdings may range from short tenure senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. Smaller portfolio allocations may include consumer asset-backed securities (ABS), or other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only (IO) MBS.

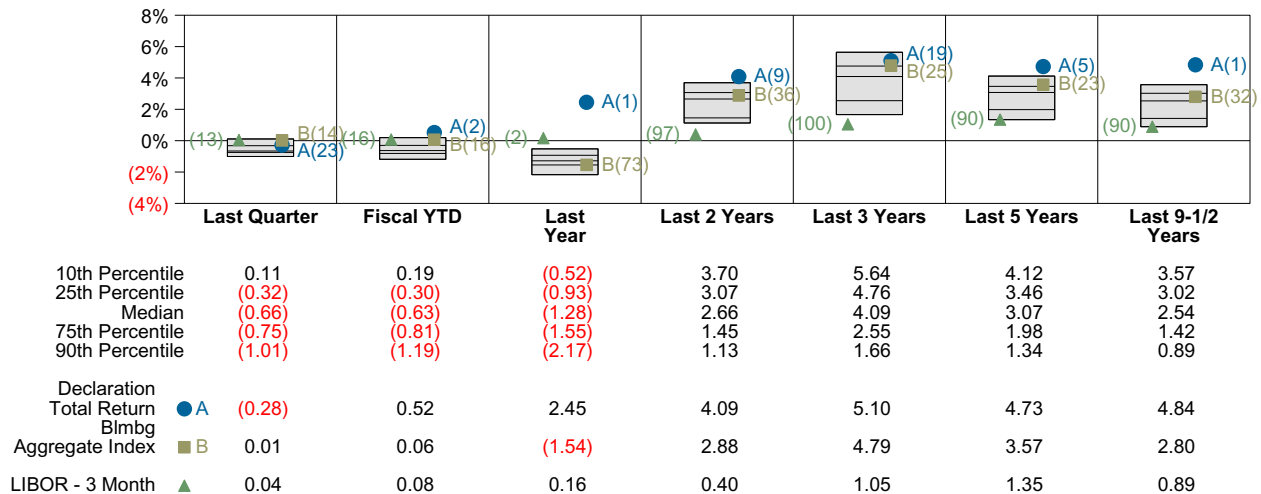
## Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a (0.28)% return for the quarter placing it in the 23 percentile of the Callan Intermediate Fixed Inc Mut Funds group for the quarter and in the 1 percentile for the last year.
- Declaration Total Return's portfolio underperformed the LIBOR - 3 Month by 0.33% for the quarter and outperformed the LIBOR - 3 Month for the year by 2.28%.

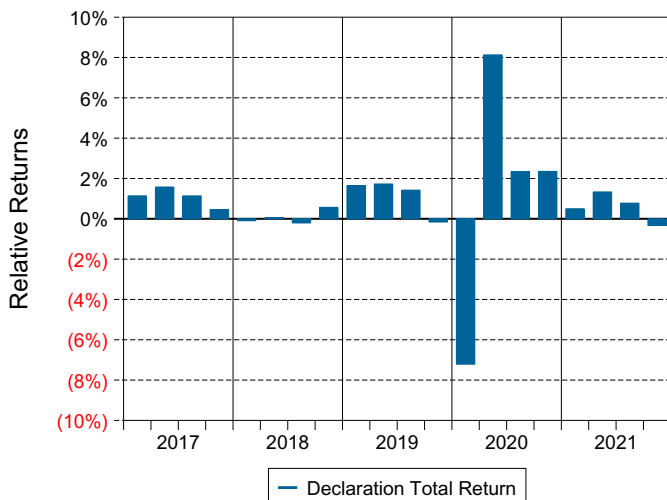
## Quarterly Asset Growth

Beginning Market Value	\$158,364,179
Net New Investment	\$-103,553
Investment Gains/(Losses)	\$-447,912
Ending Market Value	\$157,812,714

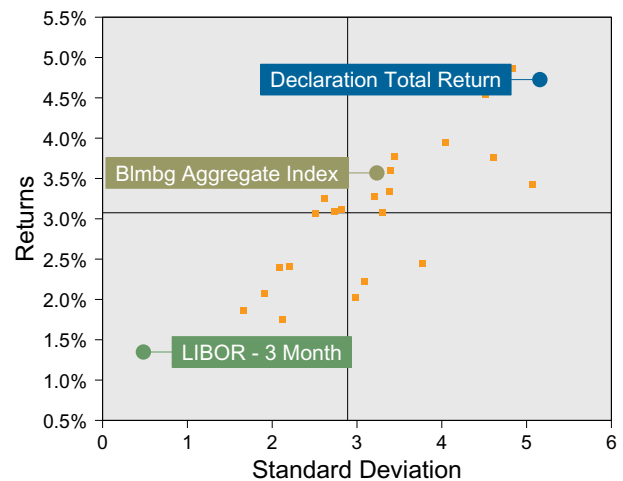
## Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



## Relative Return vs LIBOR - 3 Month



## Callan Intermediate Fixed Inc Mut Funds (Net) Annualized Five Year Risk vs Return



# PIMCO DiSCO II

## Period Ended December 31, 2021

### Investment Philosophy

The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors.

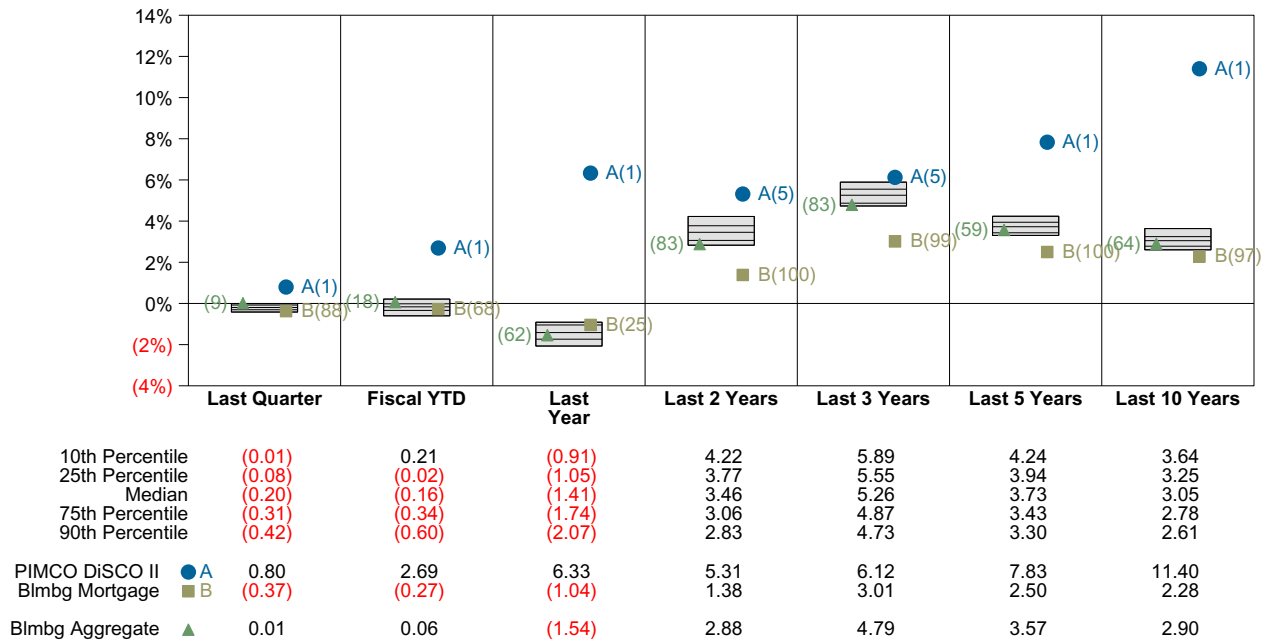
### Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a 0.80% return for the quarter placing it in the 1 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Blmbg Aggregate by 0.79% for the quarter and outperformed the Blmbg Aggregate for the year by 7.87%.

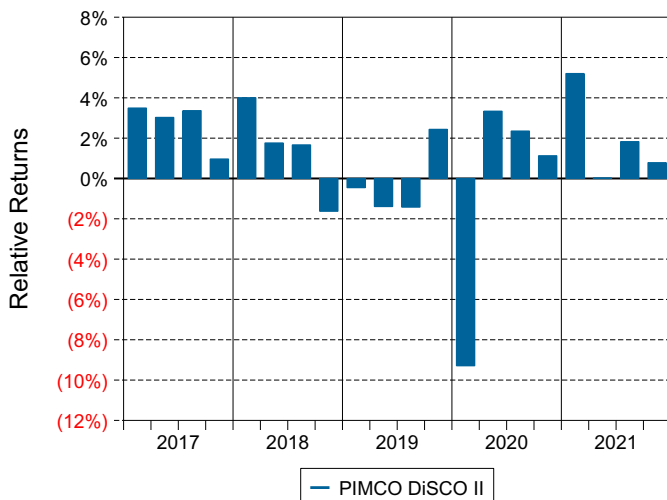
### Quarterly Asset Growth

Beginning Market Value	\$100,731,926
Net New Investment	\$0
Investment Gains/(Losses)	\$802,588
Ending Market Value	\$101,534,514

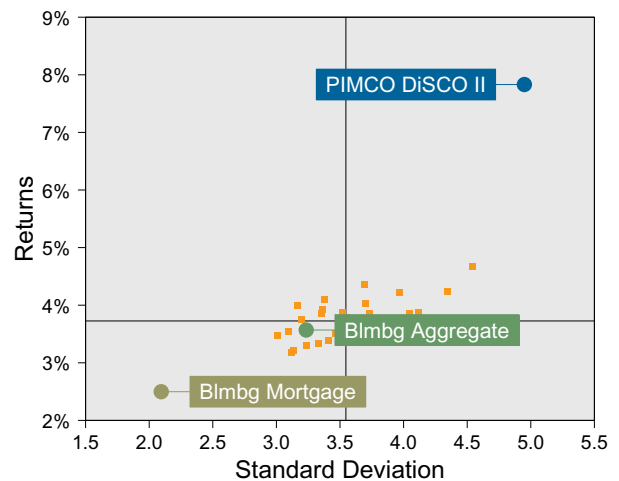
### Performance vs Callan Core Bond Mutual Funds (Net)



### Relative Return vs Blmbg Aggregate



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



# PIMCO Core Plus Constrained Period Ended December 31, 2021

## Investment Philosophy

PIMCO's investment process utilizes both "top-down" and "bottom-up" strategies. Top-down strategies focus on duration, yield curve positioning, volatility, and sector rotation. These strategies are deployed from a macro view of the portfolio driven by their secular outlook of the forces likely to influence the economy and financial markets over the next three to five years and their cyclical views of two- to four-quarter trends. Implementation in portfolios is effected by selecting securities that achieve the designated objectives. Bottom-up strategies drive their security selection process and facilitate the identification and analysis of undervalued securities. **The product changed from Commingled Fund to Separate Account in March 2014. \*Libor-3 month through February 28, 2017; Fund's performance through March 31, 2014; Libor-3 month through June 30, 2018; Bloomberg Aggregate thereafter.**

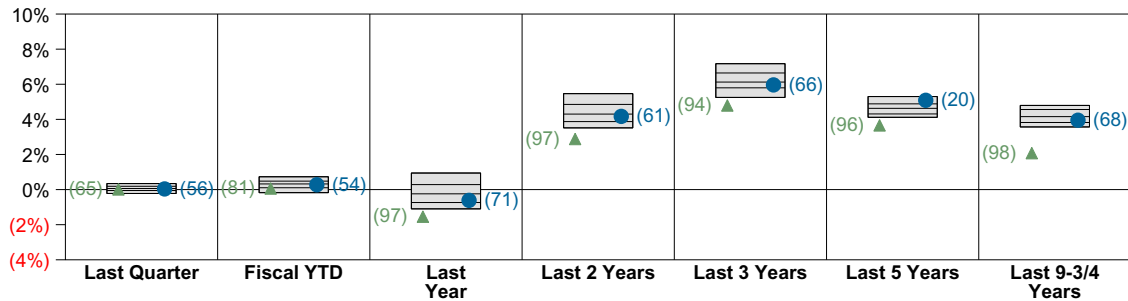
## Quarterly Summary and Highlights

- PIMCO Core Plus Constrained's portfolio posted a 0.04% return for the quarter placing it in the 56 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 71 percentile for the last year.
- PIMCO Core Plus Constrained's portfolio outperformed the Blended Benchmark\* by 0.03% for the quarter and outperformed the Blended Benchmark\* for the year by 0.93%.

## Quarterly Asset Growth

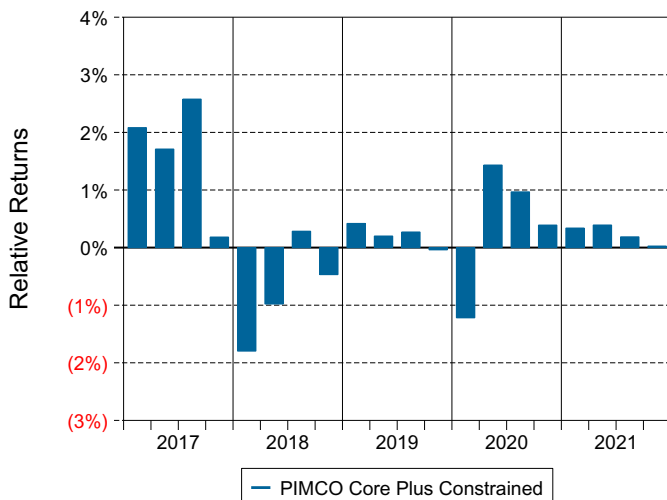
Beginning Market Value	\$487,013,248
Net New Investment	\$25,851,972
Investment Gains/(Losses)	\$211,235
Ending Market Value	\$513,076,455

## Performance vs Callan Core Plus Fixed Income (Gross)

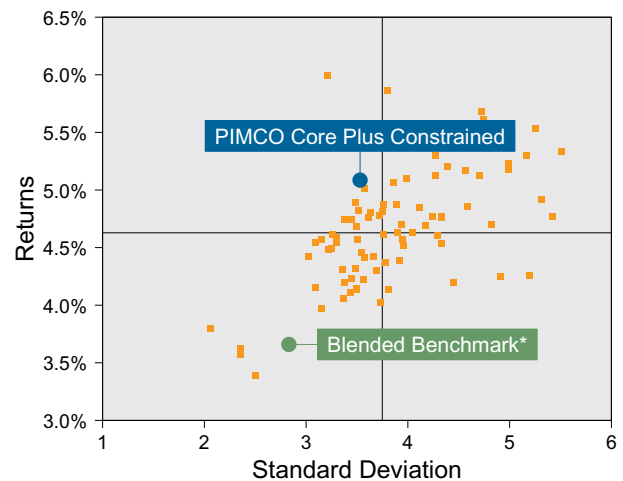


10th Percentile	0.34	0.73	0.94	5.47	7.17	5.30	4.79
25th Percentile	0.19	0.48	0.28	4.85	6.64	4.88	4.56
Median	0.06	0.32	(0.24)	4.30	6.12	4.63	4.16
75th Percentile	(0.05)	0.10	(0.74)	3.87	5.80	4.31	3.82
90th Percentile	(0.22)	(0.17)	(1.10)	3.51	5.25	4.12	3.57
<b>PIMCO Core Plus Constrained</b>	<b>0.04</b>	<b>0.27</b>	<b>(0.61)</b>	<b>4.17</b>	<b>5.96</b>	<b>5.09</b>	<b>3.95</b>
<b>Blended Benchmark*</b>	<b>0.01</b>	<b>0.06</b>	<b>(1.54)</b>	<b>2.88</b>	<b>4.79</b>	<b>3.66</b>	<b>2.08</b>

## Relative Return vs Blended Benchmark\*



## Callan Core Plus Fixed Income (Gross) Annualized Five Year Risk vs Return



# Prudential Core Period Ended December 31, 2021

## Investment Philosophy

The PGIM Fixed Income Core Fixed Income strategy seeks to provide +60 bps over the Bloomberg Barclays Aggregate Index over a market cycle. The strategy tends to generate its excess return from fairly equal increments of both sector allocation and subsector/security allocation. Duration and yield curve positioning is generally de-emphasized, but will be considered when market opportunities dictate. The primary way they add value is through intensive research-based sector, industry, and security selection. The strategy is predominately investment grade, but may also invest nominally in crossover/high yield bonds and emerging markets debt, when guidelines permit.

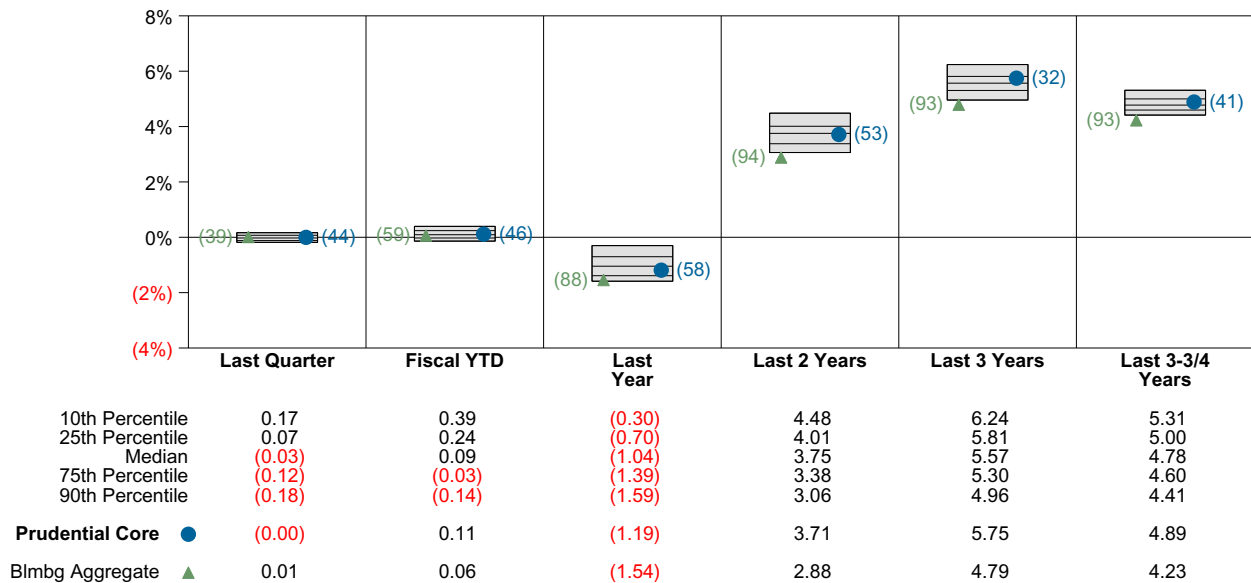
## Quarterly Summary and Highlights

- Prudential Core's portfolio posted a (0.00)% return for the quarter placing it in the 44 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 58 percentile for the last year.
- Prudential Core's portfolio underperformed the Blmbg Aggregate by 0.02% for the quarter and outperformed the Blmbg Aggregate for the year by 0.35%.

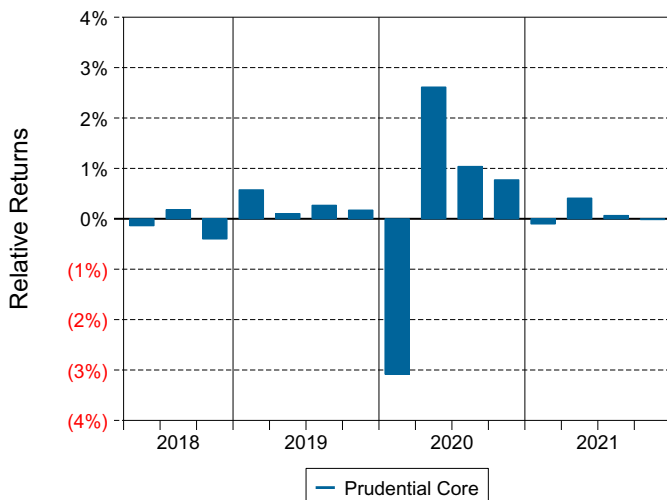
## Quarterly Asset Growth

Beginning Market Value	\$491,550,540
Net New Investment	\$25,860,060
Investment Gains/(Losses)	\$-29,274
Ending Market Value	\$517,381,326

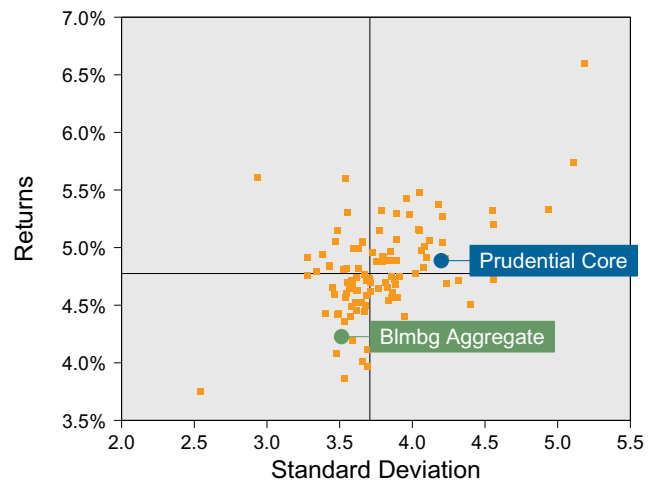
## Performance vs Callan Core Bond Fixed Income (Gross)



## Relative Return vs Blmbg Aggregate



## Callan Core Bond Fixed Income (Gross) Annualized Three and Three-Quarter Year Risk vs Return



# SSgA Long US Treas Index Period Ended December 31, 2021

## Investment Philosophy

The Fund seeks an investment return that approximates as closely as practicable, before expenses, the performance of the Bloomberg Capital U.S. Long Treasury Bond Index over the long term.

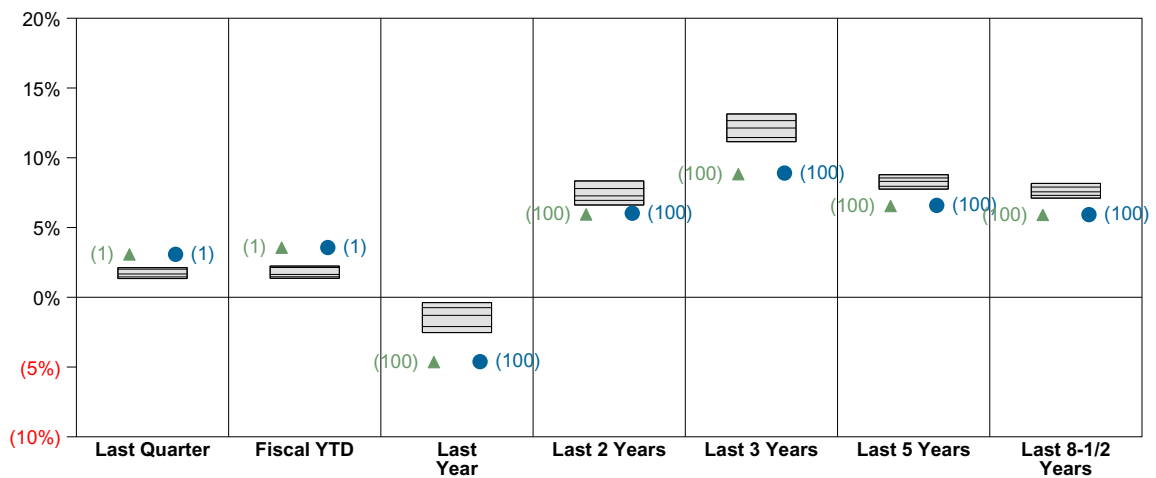
## Quarterly Summary and Highlights

- SSgA Long US Treas Index's portfolio posted a 3.08% return for the quarter placing it in the 1 percentile of the Callan Extended Maturity Fixed Income group for the quarter and in the 100 percentile for the last year.
- SSgA Long US Treas Index's portfolio outperformed the Blmbg Long Treasury by 0.00% for the quarter and outperformed the Blmbg Long Treasury for the year by 0.03%.

## Quarterly Asset Growth

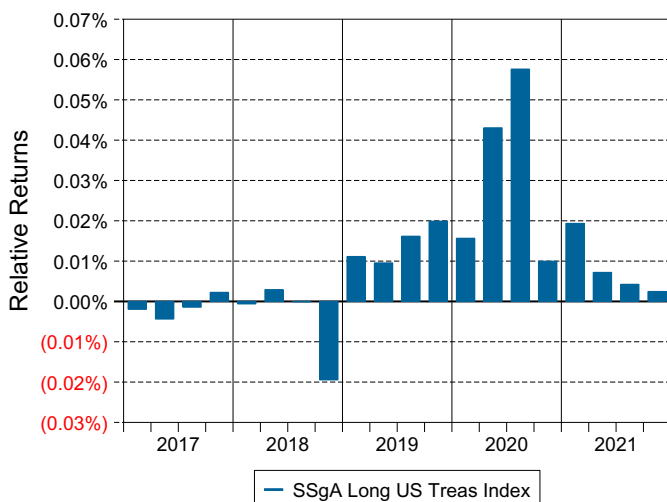
Beginning Market Value	\$178,166,868
Net New Investment	\$10,593,183
Investment Gains/(Losses)	\$5,771,285
Ending Market Value	\$194,531,335

## Performance vs Callan Extended Maturity Fixed Income (Gross)

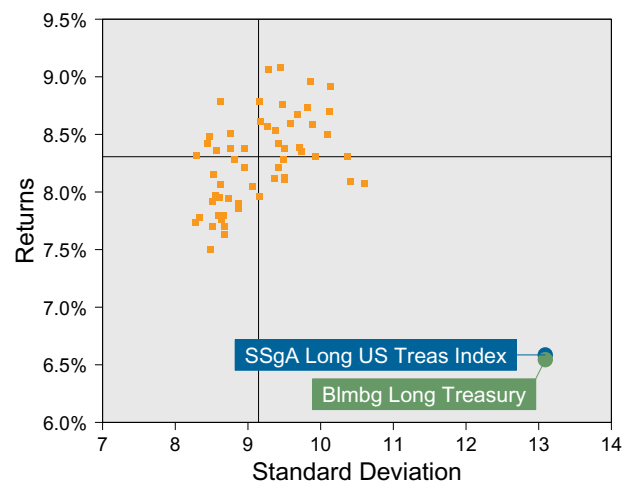


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 8-1/2 Years
10th Percentile	2.13	2.24	(0.38)	8.34	13.14	8.78	8.16
25th Percentile	2.02	2.13	(0.74)	7.79	12.66	8.55	7.90
Median	1.67	1.64	(1.30)	7.27	12.13	8.31	7.56
75th Percentile	1.46	1.47	(2.10)	6.95	11.45	7.95	7.30
90th Percentile	1.34	1.36	(2.53)	6.61	11.15	7.75	7.11
<b>SSgA Long US Treas Index</b>	<b>● 3.08</b>	<b>3.57</b>	<b>(4.61)</b>	<b>6.03</b>	<b>8.90</b>	<b>6.59</b>	<b>5.92</b>
Blmbg Long Treasury	▲ 3.08	3.56	(4.65)	5.94	8.82	6.54	5.91

## Relative Return vs Blmbg Long Treasury



## Callan Extended Maturity Fixed Income (Gross) Annualized Five Year Risk vs Return



# Ares ND Credit Strategies Fd Period Ended December 31, 2021

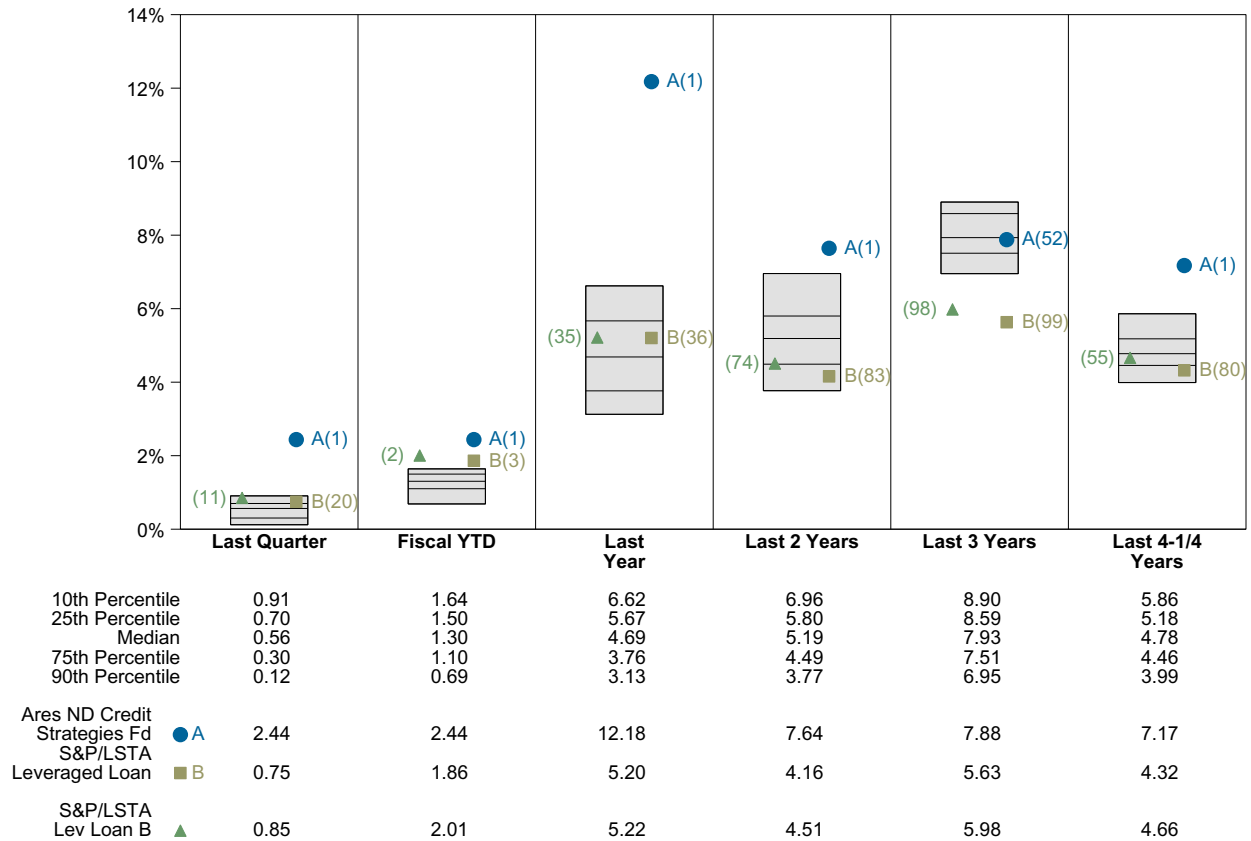
## Quarterly Summary and Highlights

- Ares ND Credit Strategies Fd's portfolio posted a 2.44% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Ares ND Credit Strategies Fd's portfolio outperformed the S&P/LSTA Lev Loan B by 1.59% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 6.96%.

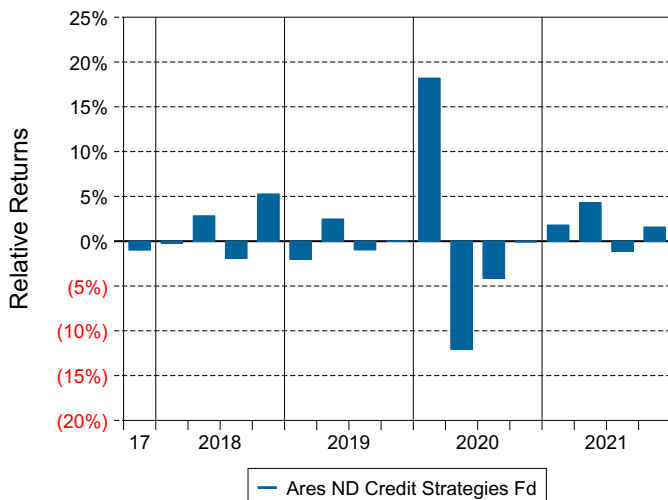
## Quarterly Asset Growth

Beginning Market Value	\$139,898,876
Net New Investment	\$3,475,410
Investment Gains/(Losses)	\$3,410,158
Ending Market Value	\$146,784,444

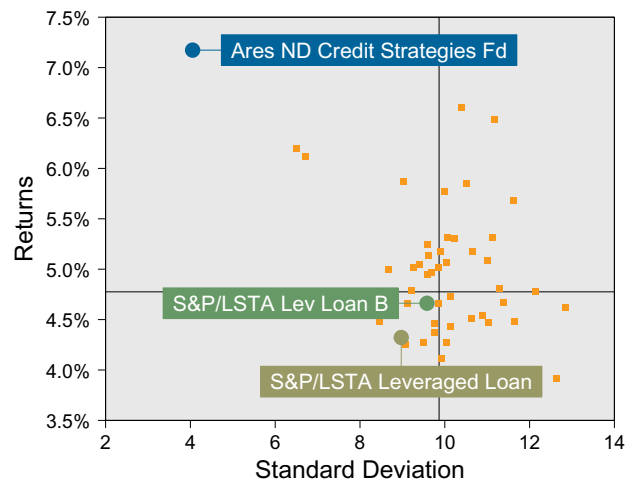
## Performance vs Callan High Yield Mutual Funds (Net)



## Relative Return vs S&P/LSTA Lev Loan B



## Callan High Yield Mutual Funds (Net) Annualized Four and One-Quarter Year Risk vs Return



# Cerberus ND Private Credit Fd Period Ended December 31, 2021

## Investment Philosophy

The investment objective of the LLC is to achieve superior risk-adjusted rates of return primarily through origination of, and investment in, secured debt assets consistent with the Loan Opportunities Strategy of the Cerberus Business Finance lending platform ("CBF", "Cerberus Business Finance" or the "Cerberus Lending Platform"). The Cerberus Lending Platform is a direct origination and lending business focused on providing secured debt primarily to U.S. middle-market companies. The LLC expects to generate both current income and capital appreciation.

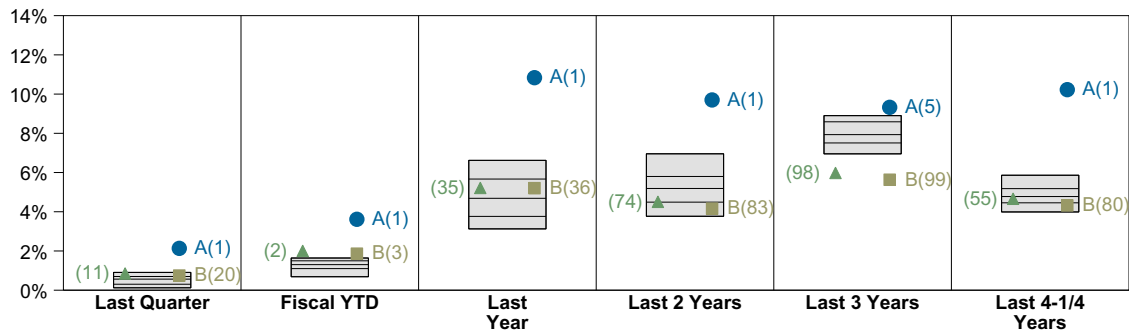
## Quarterly Summary and Highlights

- Cerberus ND Private Credit Fd's portfolio posted a 2.13% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Cerberus ND Private Credit Fd's portfolio outperformed the S&P/LSTA Lev Loan B by 1.28% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 5.62%.

## Quarterly Asset Growth

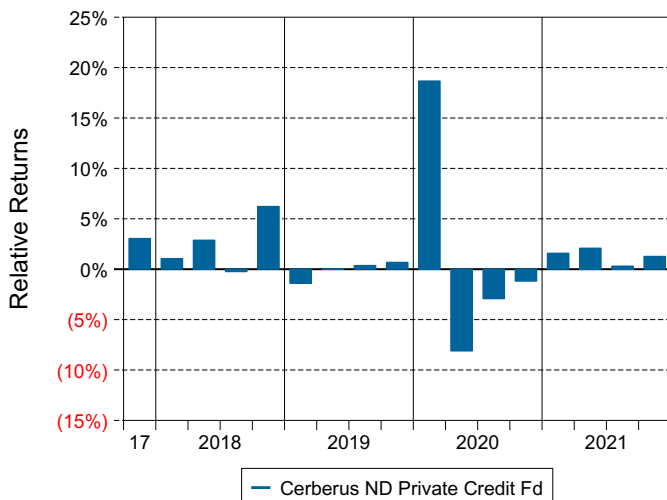
Beginning Market Value	\$143,582,418
Net New Investment	\$15,400,000
Investment Gains/(Losses)	\$3,175,835
Ending Market Value	\$162,158,253

## Performance vs Callan High Yield Mutual Funds (Net)

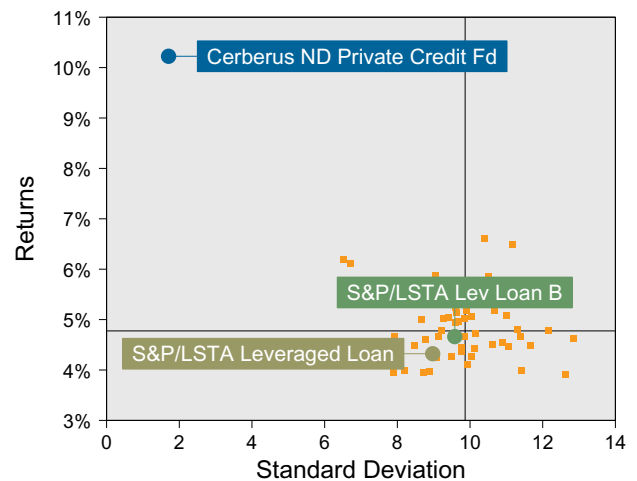


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years
10th Percentile	0.91	1.64	6.62	6.96	8.90	5.86
25th Percentile	0.70	1.50	5.67	5.80	8.59	5.18
Median	0.56	1.30	4.69	5.19	7.93	4.78
75th Percentile	0.30	1.10	3.76	4.49	7.51	4.46
90th Percentile	0.12	0.69	3.13	3.77	6.95	3.99
Cerberus ND Private Credit Fd	● A	2.13	10.84	9.70	9.33	10.22
S&P/LSTA Leveraged Loan	■ B	0.75	5.20	4.16	5.63	4.32
S&P/LSTA Lev Loan B	▲	0.85	2.01	4.51	5.98	4.66

## Relative Return vs S&P/LSTA Lev Loan B



## Callan High Yield Mutual Funds (Net) Annualized Four and One-Quarter Year Risk vs Return



# Goldman Sachs 2006 Offshore Period Ended December 31, 2021

## Investment Philosophy

GS Mezzanine Partners seeks large-sized mezzanine investments comprised generally of fixed income securities and an associated equity component. They focus on providing "private high yield" capital for mid- to large-sized leveraged and management buyout transactions, recapitalizations, financings, re-financings, acquisitions and restructurings for private equity firms, private family companies and corporate issuers.

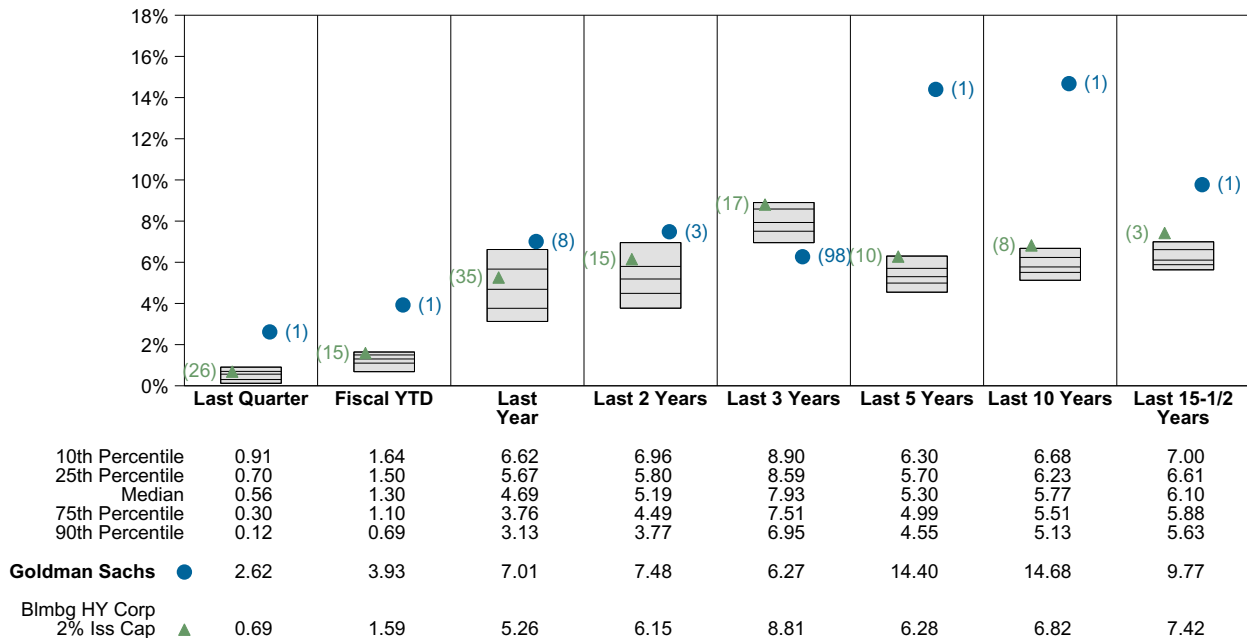
## Quarterly Summary and Highlights

- Goldman Sachs's portfolio posted a 2.62% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 8 percentile for the last year.
- Goldman Sachs's portfolio outperformed the Blmbg HY Corp 2% Iss Cap by 1.93% for the quarter and outperformed the Blmbg HY Corp 2% Iss Cap for the year by 1.75%.

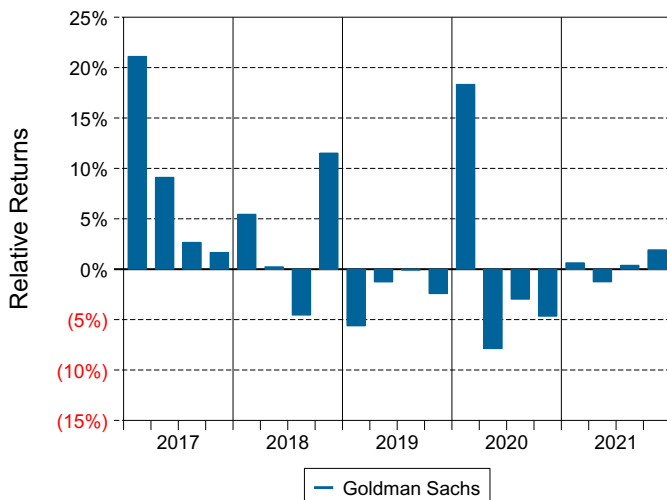
## Quarterly Asset Growth

Beginning Market Value	\$47,001
Net New Investment	\$0
Investment Gains/(Losses)	\$1,230
Ending Market Value	\$48,231

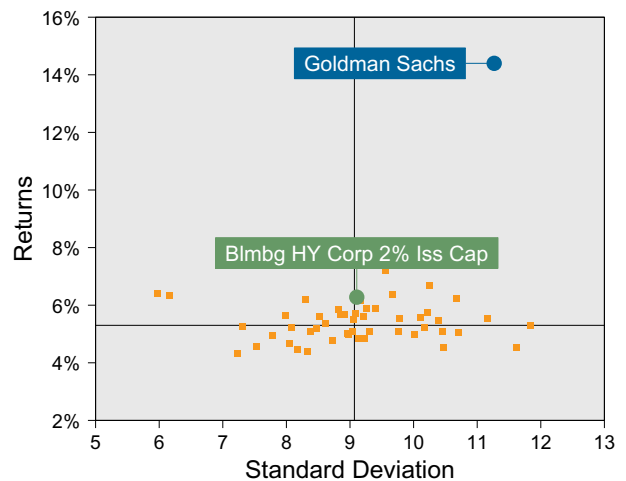
## Performance vs Callan High Yield Mutual Funds (Net)



## Relative Return vs Blmbg HY Corp 2% Iss Cap



## Callan High Yield Mutual Funds (Net) Annualized Five Year Risk vs Return





# Goldman Sachs Offshore Fund V Period Ended December 31, 2021

## Investment Philosophy

GS Mezzanine Partners seeks large-sized mezzanine investments comprised generally of fixed income securities and an associated equity component. They focus on providing "private high yield" capital for mid- to large-sized leveraged and management buyout transactions, recapitalizations, financings, re-financings, acquisitions and restructurings for private equity firms, private family companies and corporate issuers.

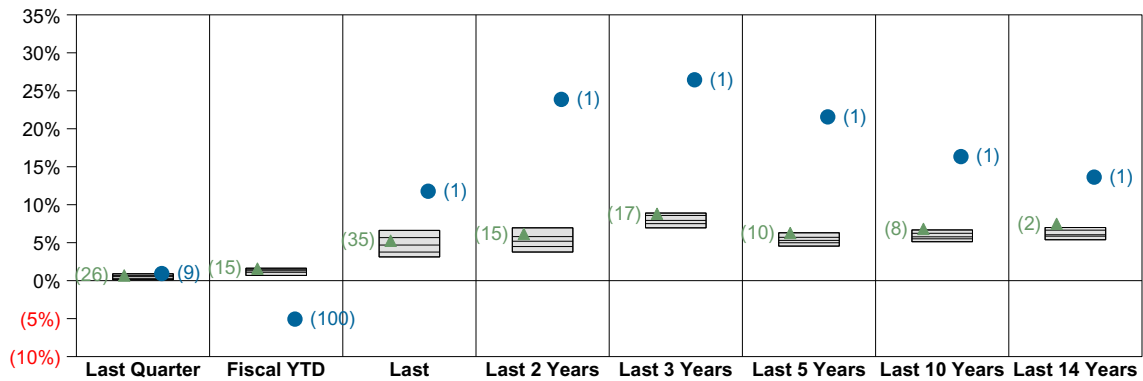
## Quarterly Summary and Highlights

- Goldman Sachs Offshore V's portfolio posted a 0.93% return for the quarter placing it in the 9 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Goldman Sachs Offshore V's portfolio outperformed the Blmbg HY Corp 2% Iss Cap by 0.24% for the quarter and outperformed the Blmbg HY Corp 2% Iss Cap for the year by 6.51%.

## Quarterly Asset Growth

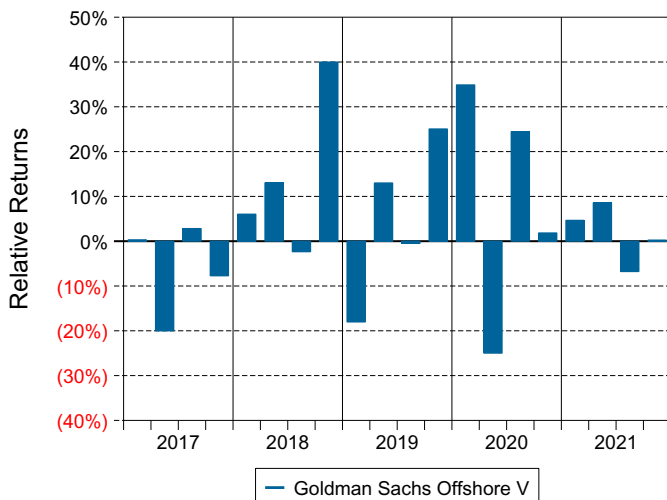
Beginning Market Value	\$127,150
Net New Investment	\$0
Investment Gains/(Losses)	\$1,186
Ending Market Value	\$128,336

## Performance vs Callan High Yield Mutual Funds (Net)

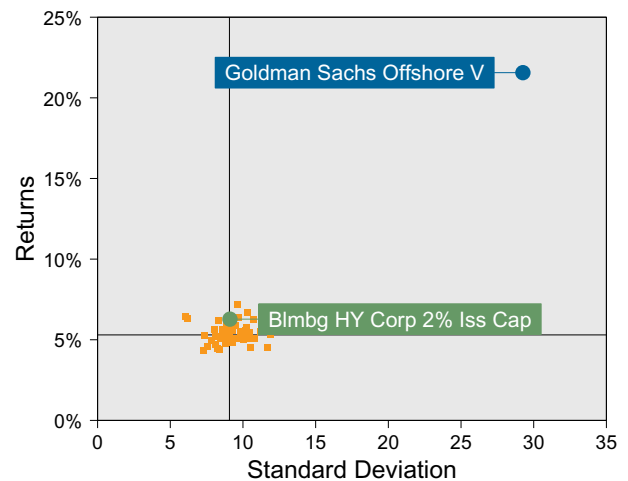


10th Percentile	0.91	1.64	6.62	6.96	8.90	6.30	6.68	7.00
25th Percentile	0.70	1.50	5.67	5.80	8.59	5.70	6.23	6.65
Median	0.56	1.30	4.69	5.19	7.93	5.30	5.77	6.04
75th Percentile	0.30	1.10	3.76	4.49	7.51	4.99	5.51	5.86
90th Percentile	0.12	0.69	3.13	3.77	6.95	4.55	5.13	5.39
<b>Goldman Sachs Offshore V</b>	<b>0.93</b>	<b>(5.06)</b>	<b>11.77</b>	<b>23.87</b>	<b>26.44</b>	<b>21.56</b>	<b>16.33</b>	<b>13.63</b>
Blmbg HY Corp 2% Iss Cap	0.69	1.59	5.26	6.15	8.81	6.28	6.82	7.48

## Relative Return vs Blmbg HY Corp 2% Iss Cap



## Callan High Yield Mutual Funds (Net) Annualized Five Year Risk vs Return



# Loomis Sayles

## Period Ended December 31, 2021

### Investment Philosophy

The High Yield Full Discretion Strategy seeks to identify attractive sectors and specific investment opportunities primarily within the global fixed income market through a global economic and interest rate framework. Portfolio managers incorporate a long-term macroeconomic view along with a stringent bottom-up investment evaluation process that drives security selection and resulting sector allocations. Opportunistic investments in non-benchmark sectors including investment grade corporate, emerging market, and non-US dollar debt and convertible bonds help to manage overall portfolio risk and enhance total return potential.

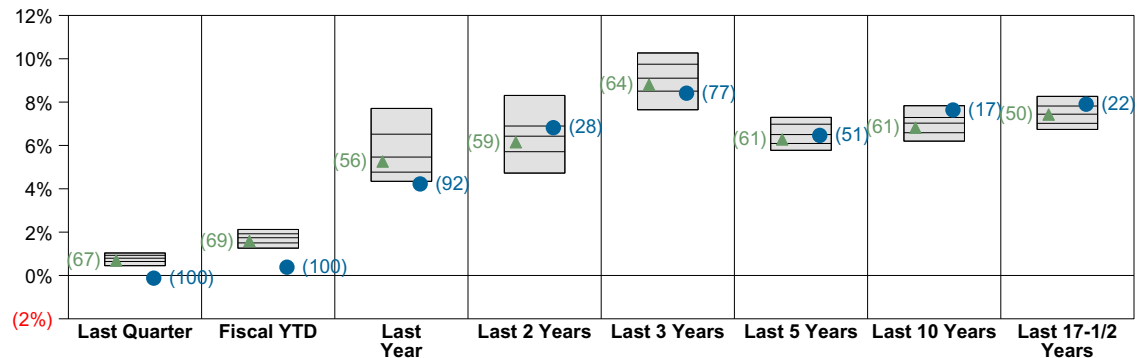
### Quarterly Summary and Highlights

- Loomis Sayles's portfolio posted a (0.12)% return for the quarter placing it in the 100 percentile of the Callan High Yield Fixed Income group for the quarter and in the 92 percentile for the last year.
- Loomis Sayles's portfolio underperformed the Blmbg HY Corp 2% Iss Cap by 0.81% for the quarter and underperformed the Blmbg HY Corp 2% Iss Cap for the year by 1.04%.

### Quarterly Asset Growth

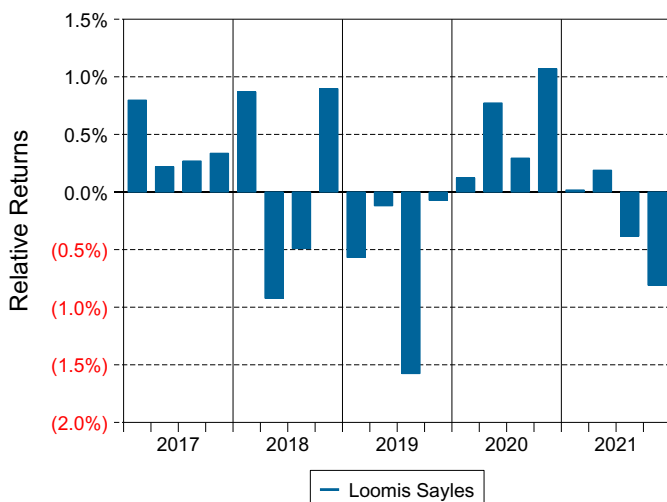
Beginning Market Value	\$193,124,711
Net New Investment	\$-226,922
Investment Gains/(Losses)	\$-243,343
Ending Market Value	\$192,654,446

### Performance vs Callan High Yield Fixed Income (Gross)

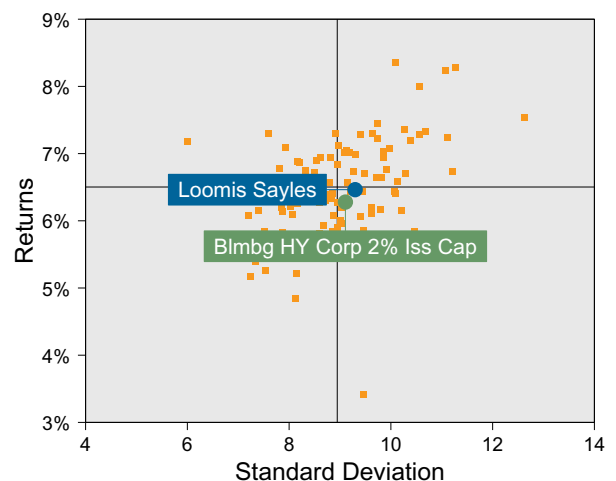


10th Percentile	1.04	2.12	7.71	8.31	10.27	7.30	7.83	8.26
25th Percentile	0.93	1.92	6.52	6.90	9.75	6.98	7.29	7.82
Median	0.80	1.74	5.46	6.43	9.10	6.50	7.03	7.44
75th Percentile	0.64	1.50	4.77	5.71	8.51	6.09	6.59	7.02
90th Percentile	0.45	1.26	4.34	4.72	7.65	5.78	6.20	6.74
<b>Loomis Sayles</b>	● (0.12)	0.38	4.22	6.82	8.41	6.46	7.64	7.90
Blmbg HY Corp 2% Iss Cap	▲ 0.69	1.59	5.26	6.15	8.81	6.28	6.82	7.43

### Relative Return vs Blmbg HY Corp 2% Iss Cap



### Callan High Yield Fixed Income (Gross) Annualized Five Year Risk vs Return



# PIMCO Bravo II Fund

## Period Ended December 31, 2021

### Investment Philosophy

The BRAVO II Fund is a private equity style fund targeting an annualized IRR of 15-20% and multiple of 1.8-2x, net of fees and carried interest with an initial 5-year term. The fund will seek to capitalize on non-economic asset sale decisions by global financial institutions. The fund will have the flexibility to acquire attractively discounted, less liquid loans, structured credit and other assets tied to residential or commercial real estate markets in the U.S. and Europe.

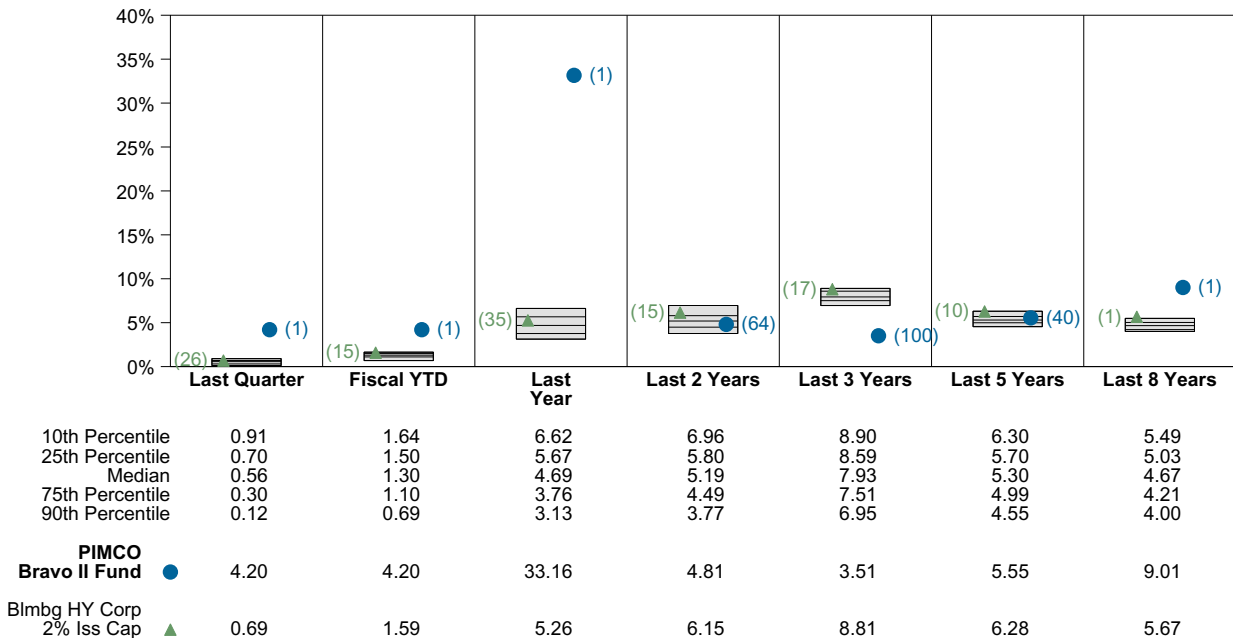
### Quarterly Summary and Highlights

- PIMCO Bravo II Fund's portfolio posted a 4.20% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II Fund's portfolio outperformed the Blmbg HY Corp 2% Iss Cap by 3.51% for the quarter and outperformed the Blmbg HY Corp 2% Iss Cap for the year by 27.90%.

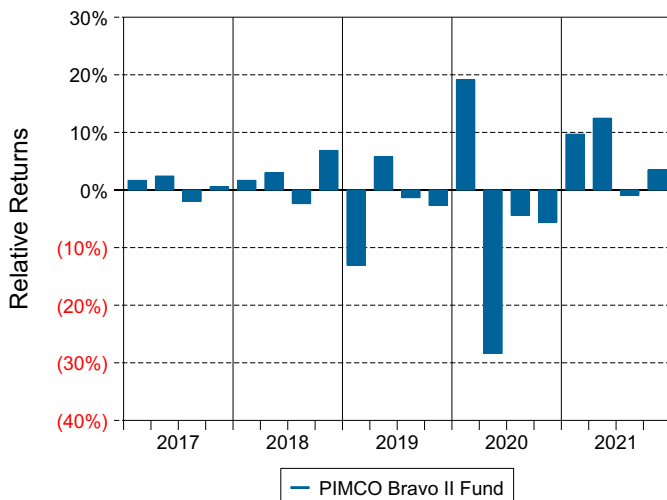
### Quarterly Asset Growth

Beginning Market Value	\$12,638,737
Net New Investment	\$-706,573
Investment Gains/(Losses)	\$531,092
Ending Market Value	\$12,463,256

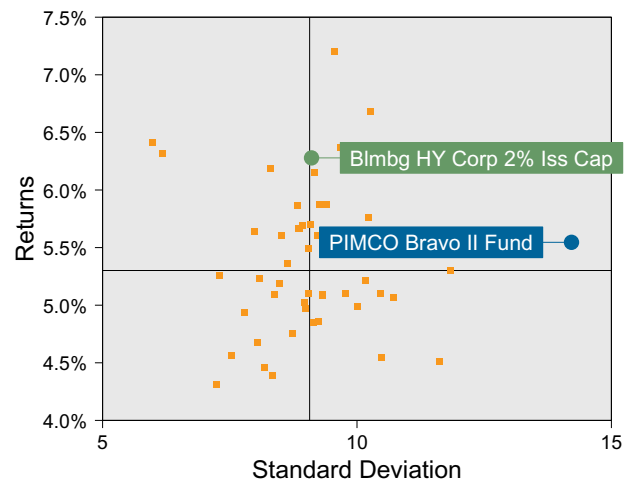
### Performance vs Callan High Yield Mutual Funds (Net)



### Relative Return vs Blmbg HY Corp 2% Iss Cap



### Callan High Yield Mutual Funds (Net) Annualized Five Year Risk vs Return





# Real Estate Period Ended December 31, 2021

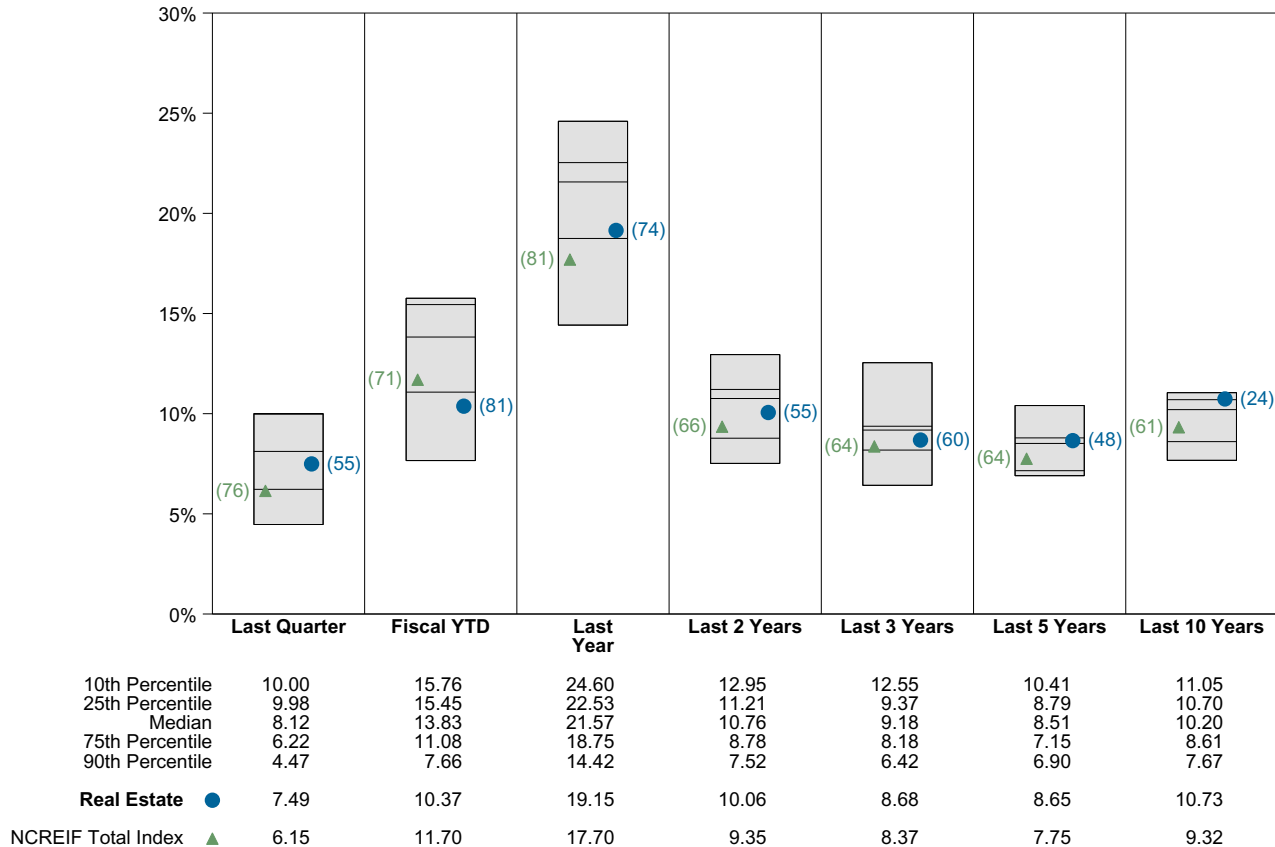
## Quarterly Summary and Highlights

- Real Estate's portfolio posted a 7.49% return for the quarter placing it in the 55 percentile of the Public Fund - Real Estate group for the quarter and in the 74 percentile for the last year.
- Real Estate's portfolio outperformed the NCREIF Total Index by 1.34% for the quarter and outperformed the NCREIF Total Index for the year by 1.45%.

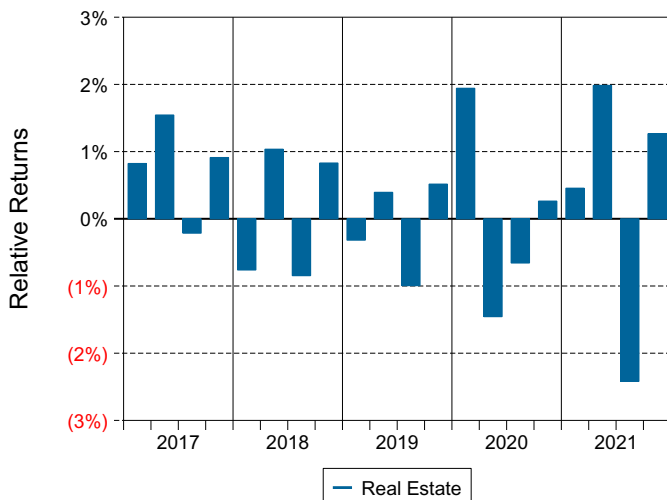
## Quarterly Asset Growth

Beginning Market Value	\$735,801,428
Net New Investment	\$-12,735,857
Investment Gains/(Losses)	\$55,033,985
Ending Market Value	\$778,099,555

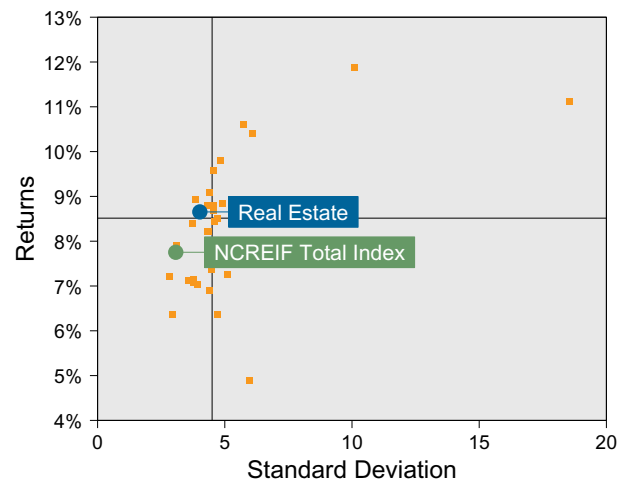
## Performance vs Public Fund - Real Estate (Gross)



## Relative Return vs NCREIF Total Index



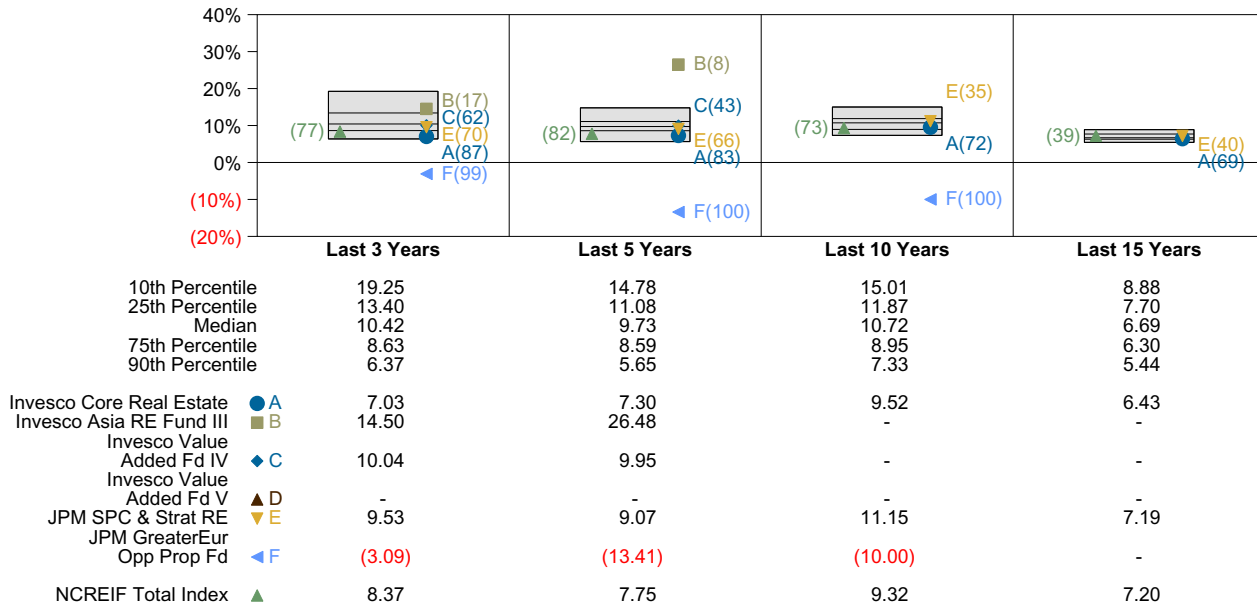
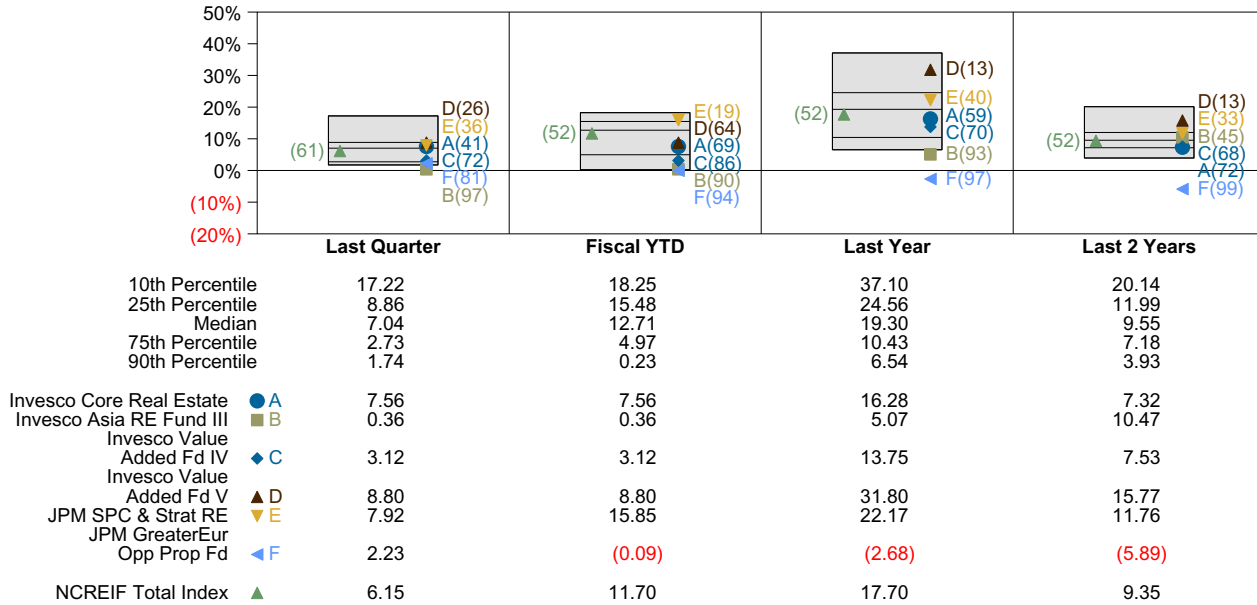
## Public Fund - Real Estate (Gross) Annualized Five Year Risk vs Return



# North Dakota State Investment Board Pension Funds Performance vs Callan Total Domestic Real Estate DB Periods Ended December 31, 2021

## Return Ranking

The chart below illustrates fund rankings over various periods versus the Callan Total Domestic Real Estate DB. The bars represent the range of returns from the 10th percentile to the 90th percentile for each period for all funds in the Callan Total Domestic Real Estate DB. The numbers to the right of the bar represent the percentile rankings of the funds being analyzed. The table below the chart details the rates of return plotted in the graph above.





# TIR Teredo

## Period Ended December 31, 2021

### Investment Philosophy

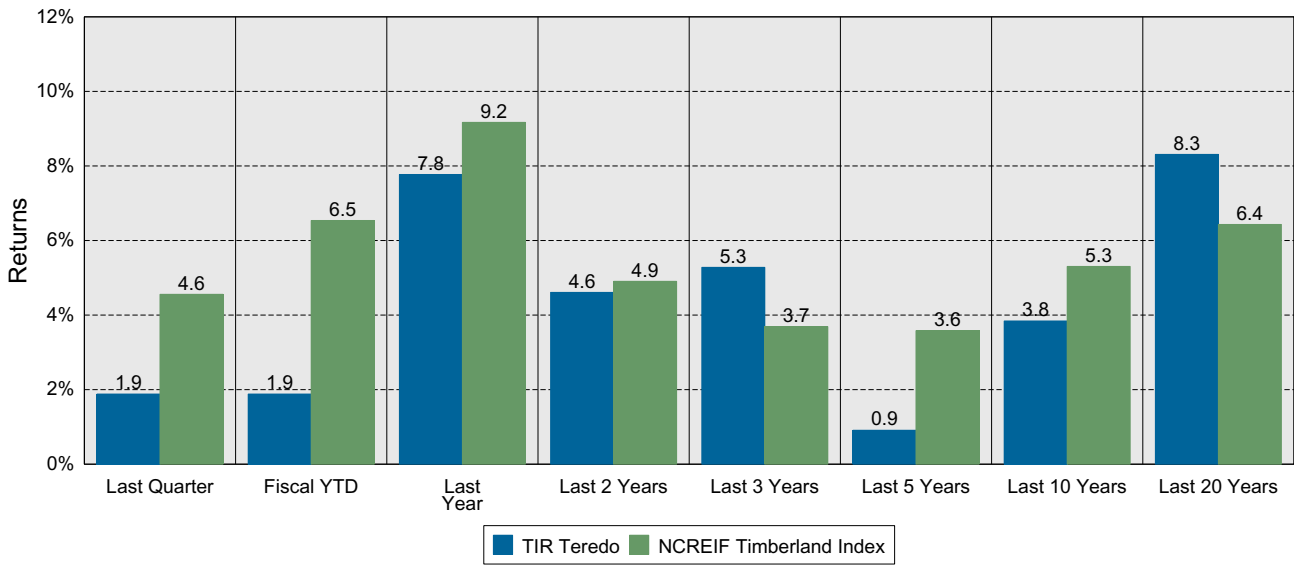
Teredo Timber LLC - The investment objective of Teredo is to provide competitive investment returns from increasing saw timber production through the 20 year term of the partnership. TIR's management strategy is to maximize saw timber volume by applying intensive forest management techniques which accelerate growth through the diameter class distribution. Periodic cash flows are produced from thinning and final harvests of the individual timber stands.

### Quarterly Summary and Highlights

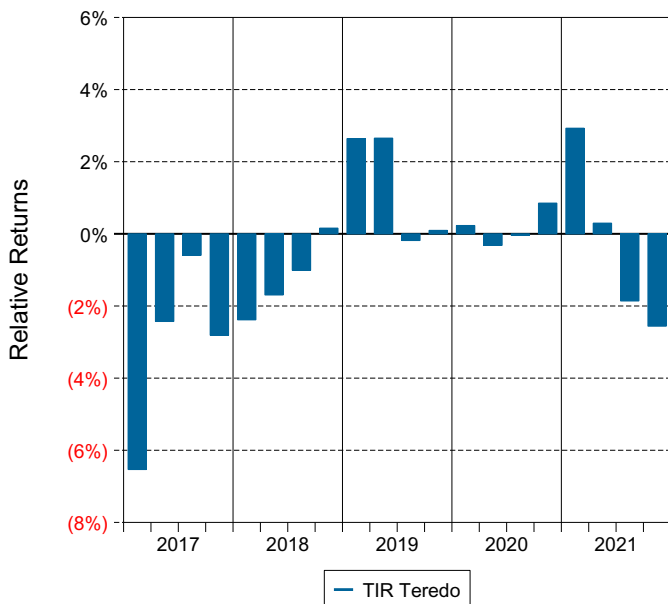
- TIR Teredo's portfolio underperformed the NCREIF Timberland Index by 2.68% for the quarter and underperformed the NCREIF Timberland Index for the year by 1.40%.

### Quarterly Asset Growth

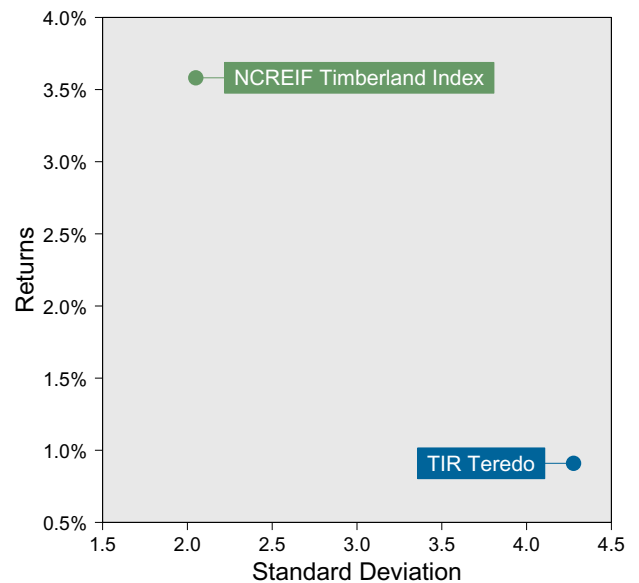
Beginning Market Value	\$27,677,213
Net New Investment	\$-1,000,000
Investment Gains/(Losses)	\$508,644
Ending Market Value	\$27,185,857



Relative Return vs NCREIF Timberland Index



Annualized Five Year Risk vs Return





# TIR Springbank Period Ended December 31, 2021

## Investment Philosophy

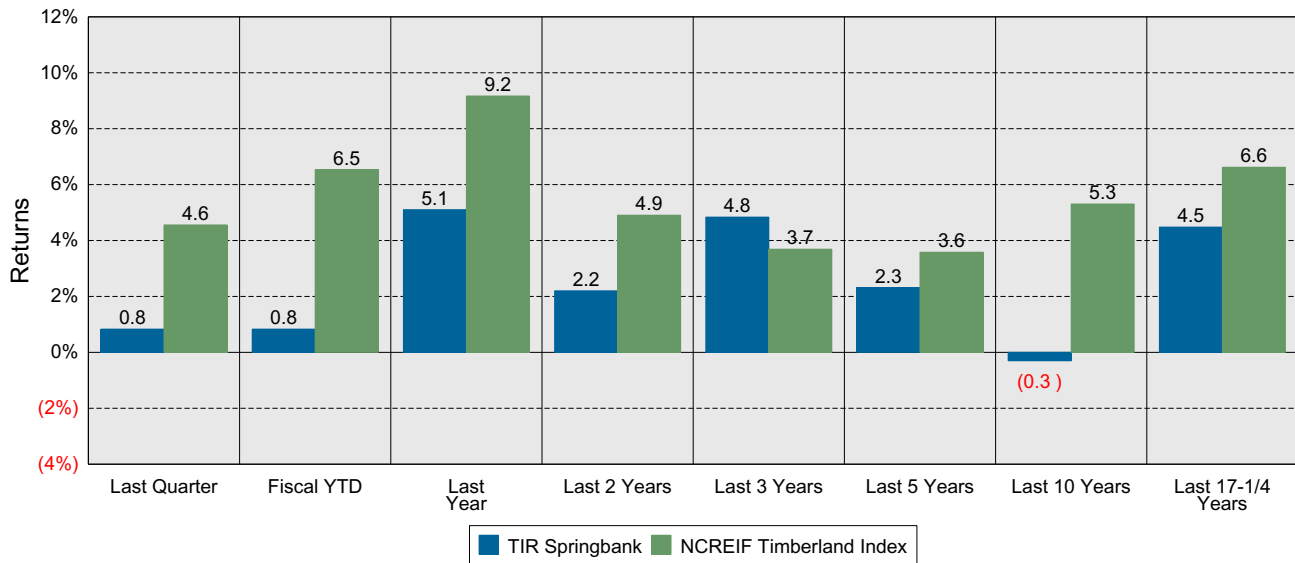
Springbank LLC - The investment objective of Springbank is to maximize long-term investment potential by means of the formation of a dedicated land management group, intensive timber management to increase timber production, the coordination of timber harvesting with land management activities and direct marketing and selective real estate partnerships.

## Quarterly Summary and Highlights

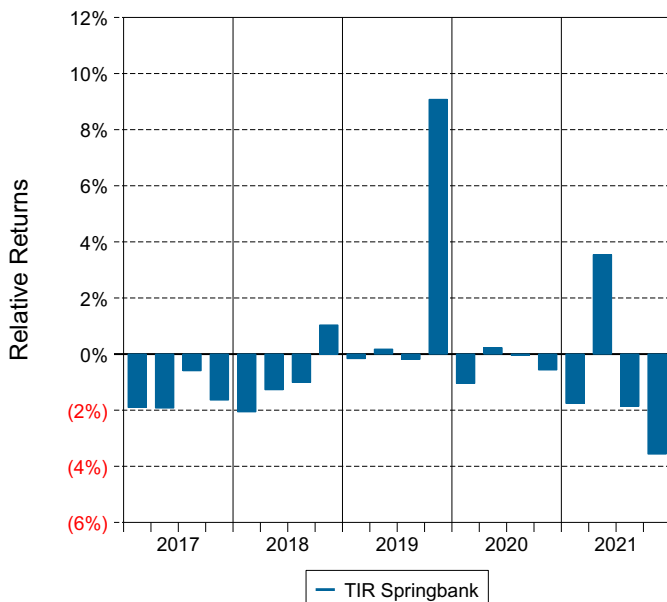
- TIR Springbank's portfolio underperformed the NCREIF Timberland Index by 3.73% for the quarter and underperformed the NCREIF Timberland Index for the year by 4.06%.

## Quarterly Asset Growth

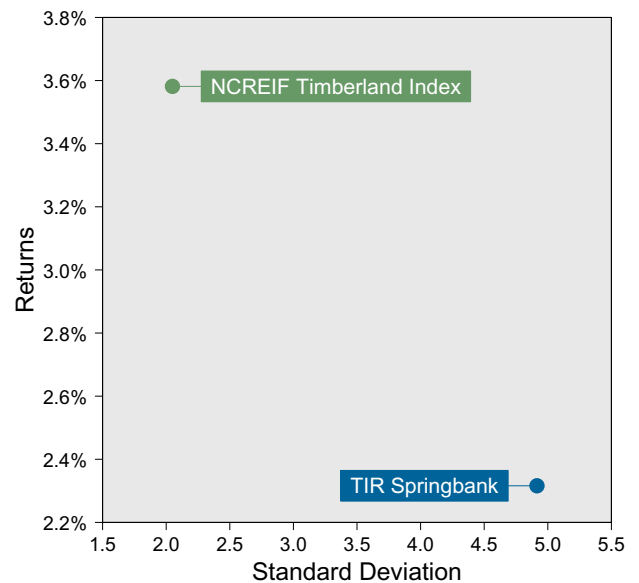
Beginning Market Value	\$88,875,529
Net New Investment	\$-2,812,000
Investment Gains/(Losses)	\$723,543
Ending Market Value	\$86,787,072



Relative Return vs NCREIF Timberland Index



Annualized Five Year Risk vs Return





# ISQ Global Infrastructure II Period Ended December 31, 2021

## Investment Philosophy

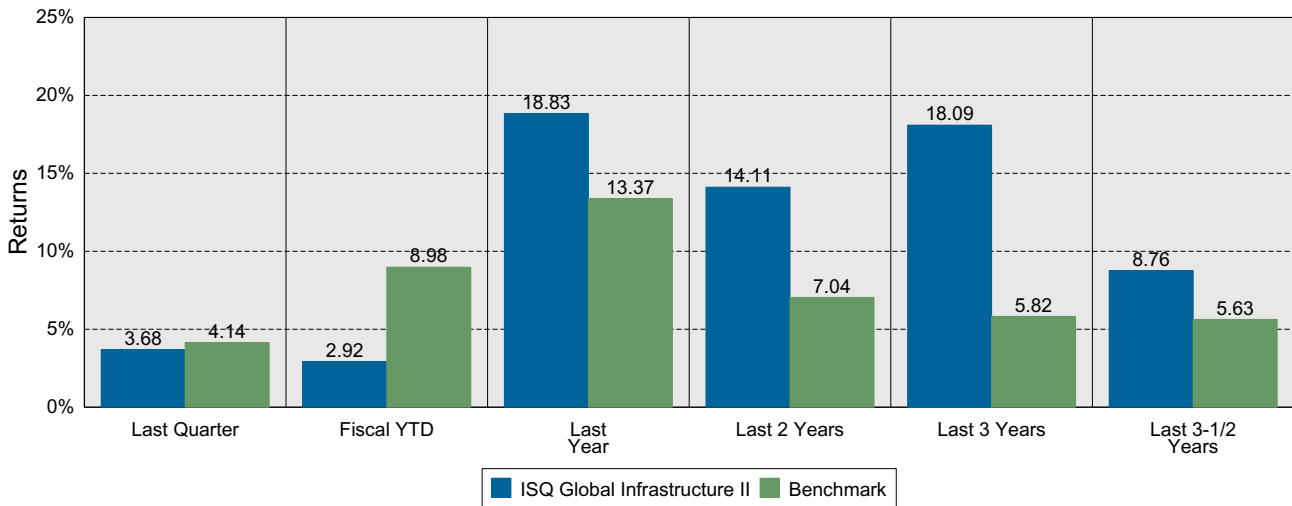
The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia and Latin America. The Fund may also invest in debt Securities that have equity-like returns or an equity component, or are related to its equity investments, including without limitation convertible debt, bank loans and participations and other similar instruments. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

## Quarterly Summary and Highlights

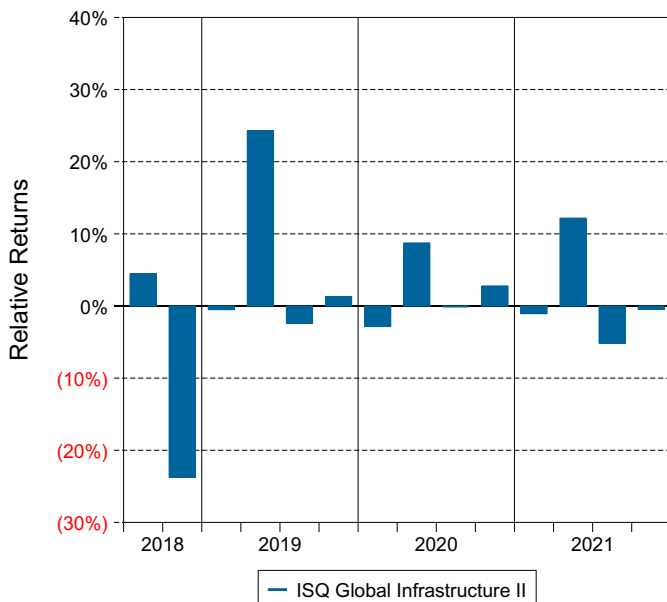
- ISQ Global Infrastructure II's portfolio underperformed the Benchmark by 0.46% for the quarter and outperformed the Benchmark for the year by 5.46%.

## Quarterly Asset Growth

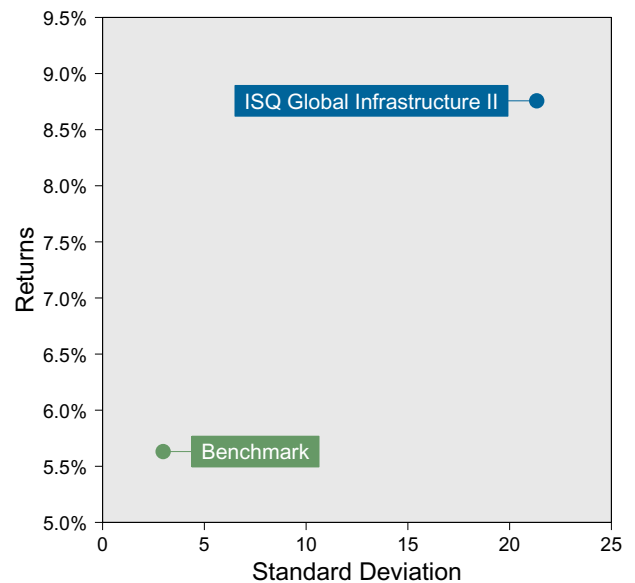
Beginning Market Value	\$56,674,091
Net New Investment	\$0
Investment Gains/(Losses)	\$2,086,741
Ending Market Value	\$58,760,832



## Relative Return vs Benchmark



## Annualized Three and One-Half Year Risk vs Return



# The Rohatyn Group

## Period Ended December 31, 2021

### Investment Philosophy

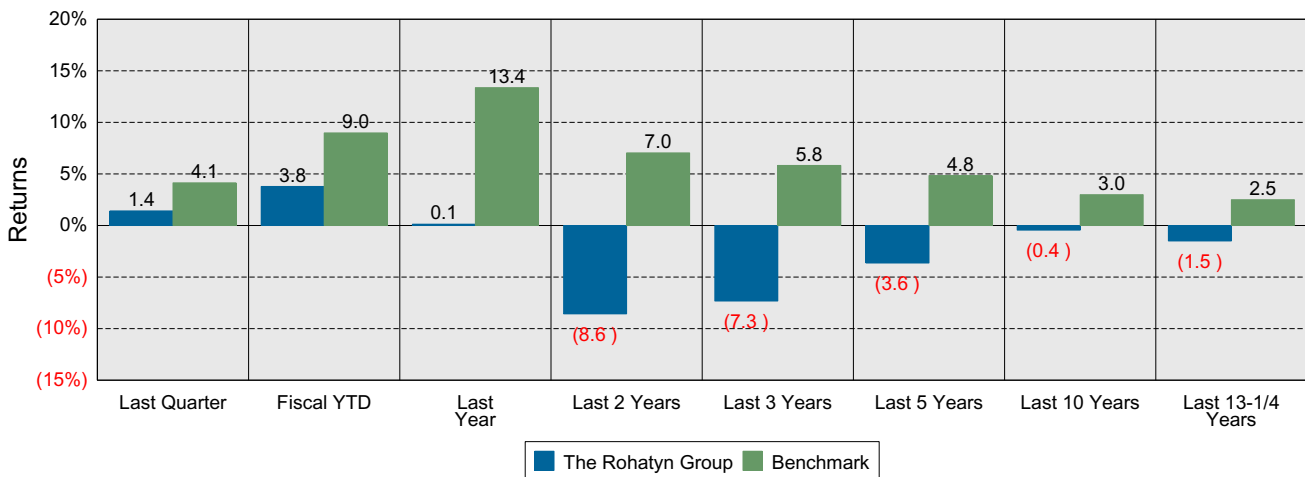
The Rohatyn Group's Asian Infrastructure & Related Resources Opportunity (AIRRO) Fund seeks to invest in infrastructure and related resources opportunities across the greater Asia Pacific region. The Fund seeks to invest in a broad range of assets, including: core infrastructure, power both from conventional and renewable sources, communications, water and waste-water, public works, urban development and other "social" infrastructure assets and related resources. The management of the AIRRO Fund was transferred from JP Morgan to The Rohatyn Group in May, 2018. **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

### Quarterly Summary and Highlights

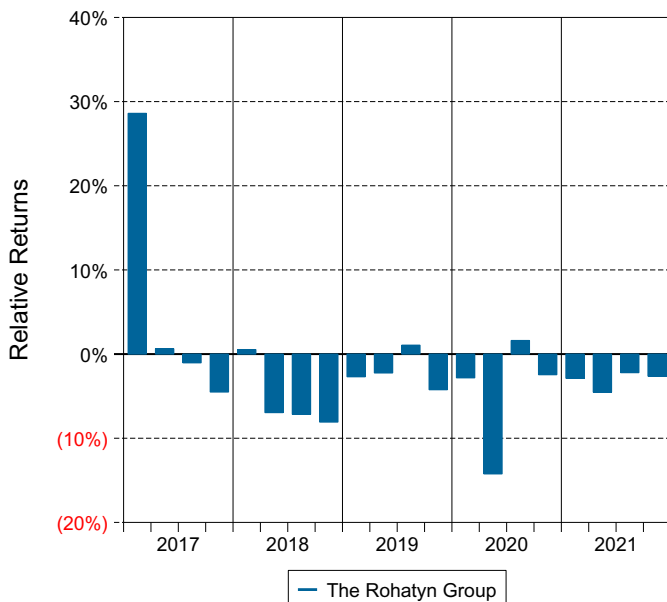
- The Rohatyn Group's portfolio underperformed the Benchmark by 2.72% for the quarter and underperformed the Benchmark for the year by 13.24%.

### Quarterly Asset Growth

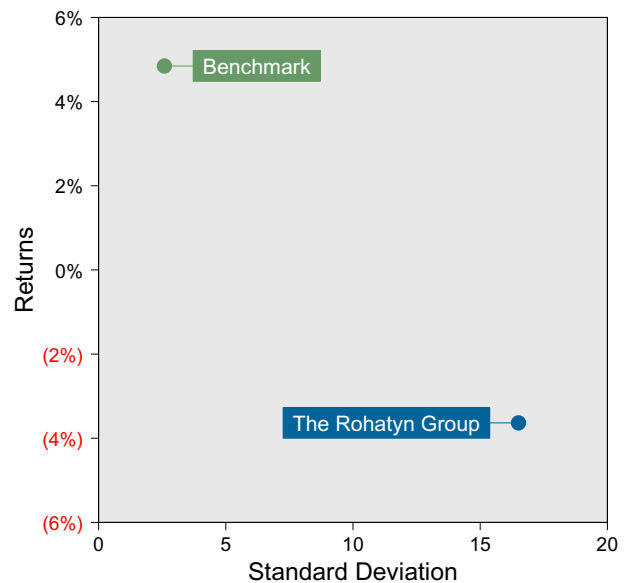
Beginning Market Value	\$15,688,949
Net New Investment	\$105,917
Investment Gains/(Losses)	\$221,480
Ending Market Value	\$16,016,346



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



# JPM Infrastructure Fund

## Period Ended December 31, 2021

### Investment Philosophy

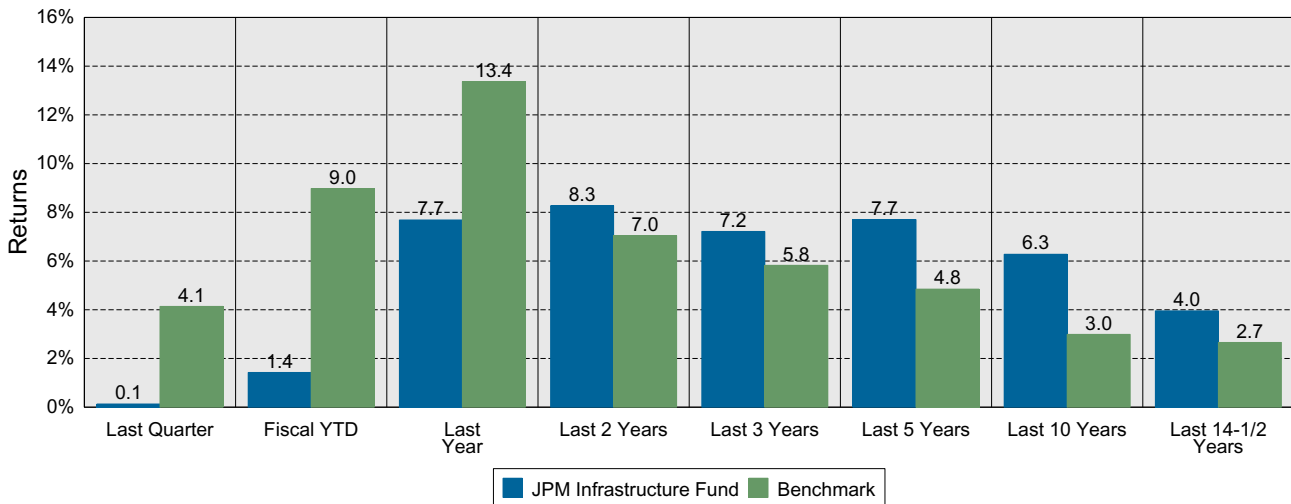
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and seaports and airports. **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

### Quarterly Summary and Highlights

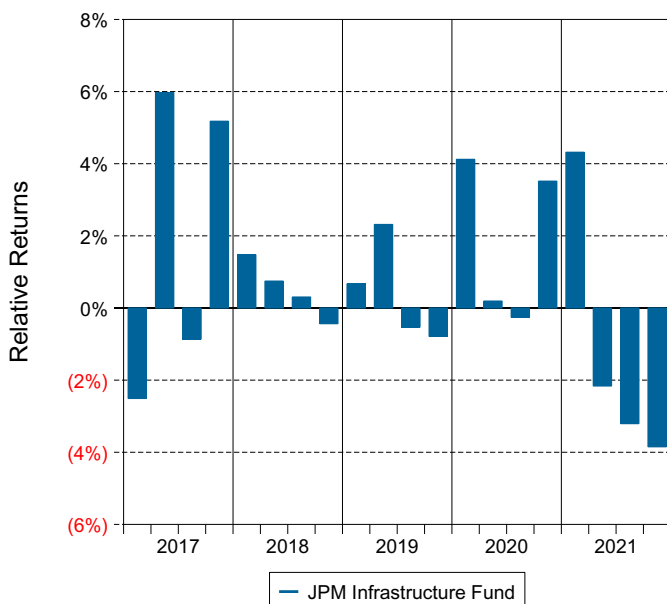
- JPM Infrastructure Fund's portfolio underperformed the Benchmark by 4.01% for the quarter and underperformed the Benchmark for the year by 5.68%.

### Quarterly Asset Growth

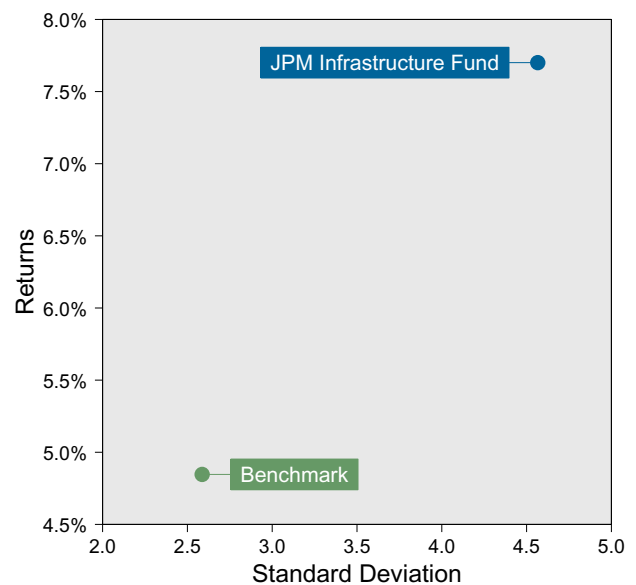
Beginning Market Value	\$131,515,880
Net New Investment	\$-3,493,869
Investment Gains/(Losses)	\$170,925
Ending Market Value	\$128,192,936



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



# Grosvenor Cust. Infrastructure Period Ended December 31, 2021

## Investment Philosophy

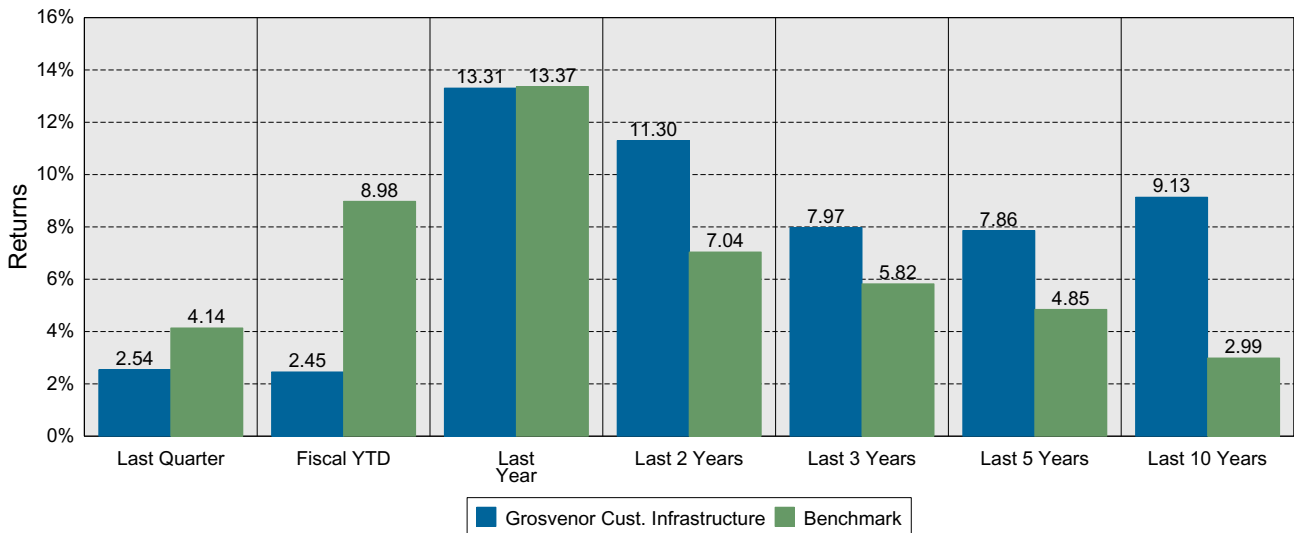
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%). **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

## Quarterly Summary and Highlights

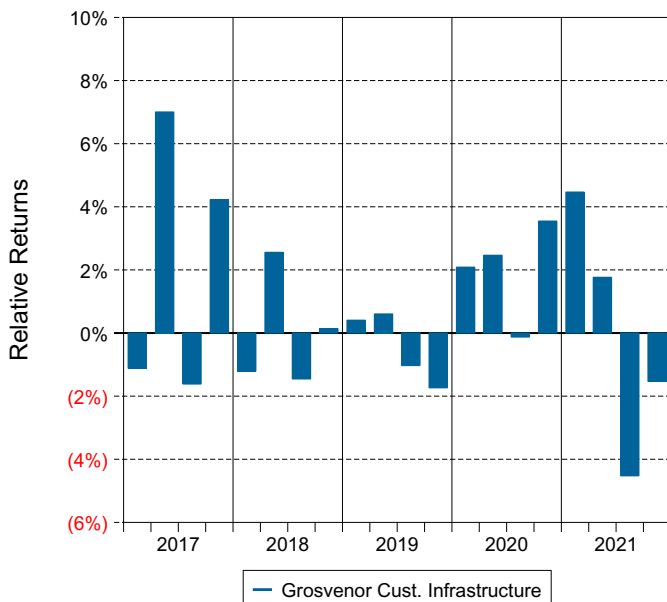
- Grosvenor Cust. Infrastructure's portfolio underperformed the Benchmark by 1.60% for the quarter and underperformed the Benchmark for the year by 0.06%.

## Quarterly Asset Growth

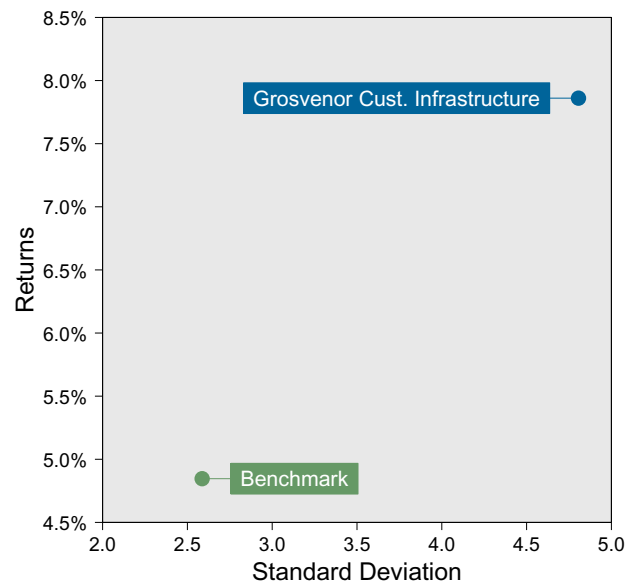
Beginning Market Value	\$11,814,531
Net New Investment	\$-736,346
Investment Gains/(Losses)	\$287,193
Ending Market Value	\$11,365,378



## Relative Return vs Benchmark



## Annualized Five Year Risk vs Return



# Grosvenor Cust. Infrastructure II Period Ended December 31, 2021

## Investment Philosophy

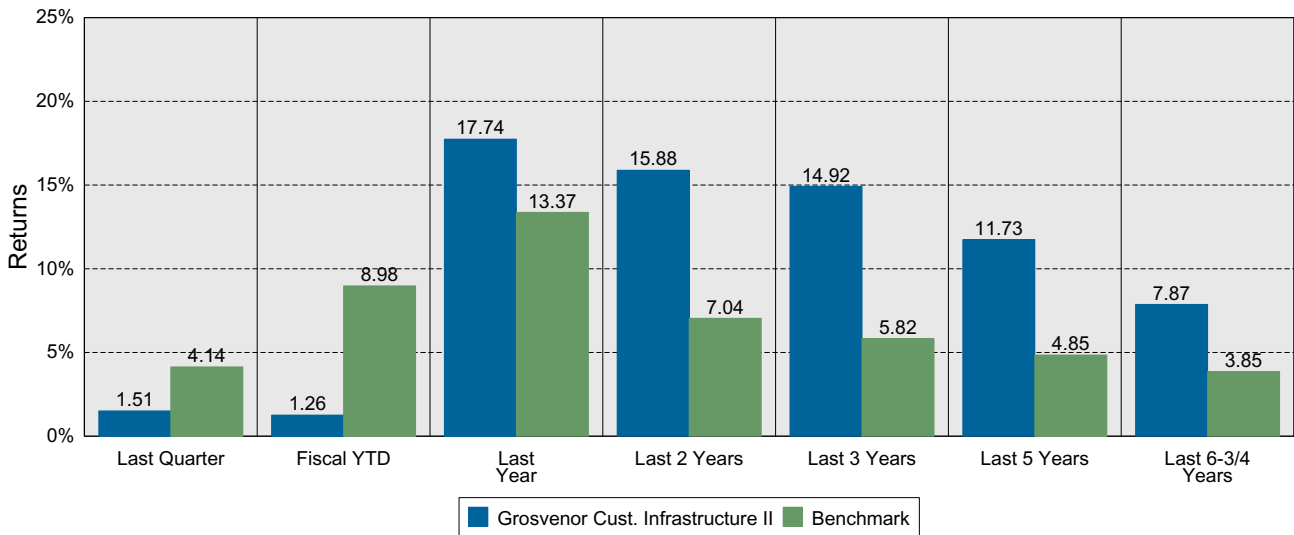
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%). **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

## Quarterly Summary and Highlights

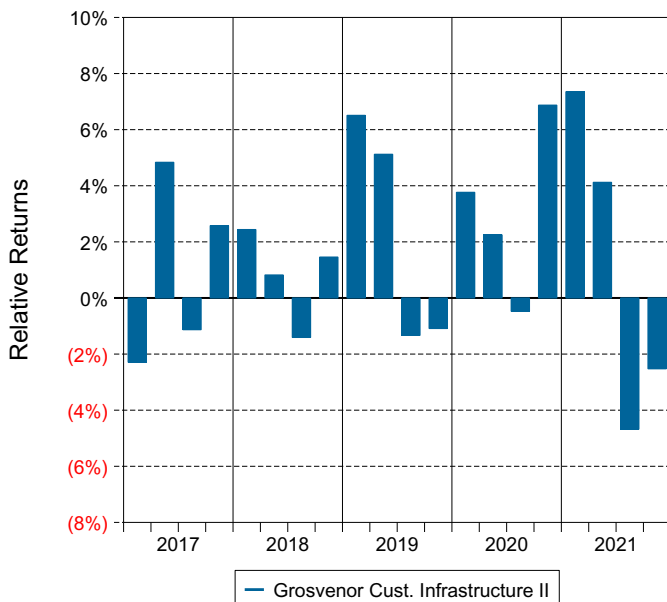
- Grosvenor Cust. Infrastructure II's portfolio underperformed the Benchmark by 2.63% for the quarter and outperformed the Benchmark for the year by 4.37%.

## Quarterly Asset Growth

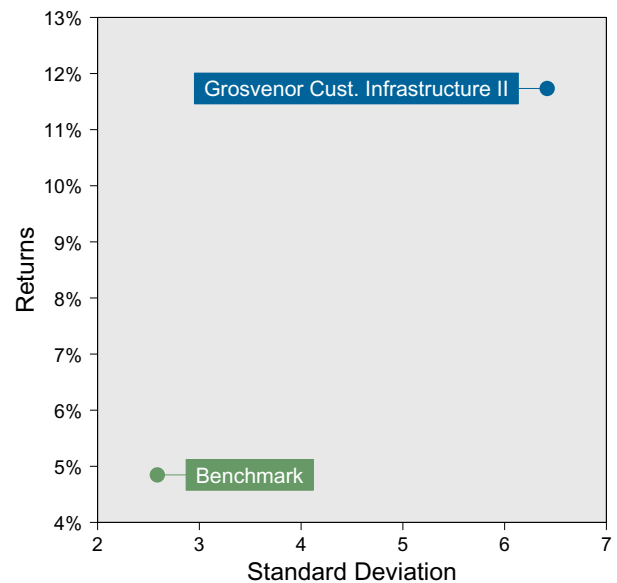
Beginning Market Value	\$24,174,041
Net New Investment	\$-1,454,524
Investment Gains/(Losses)	\$347,916
Ending Market Value	\$23,067,433



## Relative Return vs Benchmark



## Annualized Five Year Risk vs Return



# Macquarie Infrastructure Fund IV

## Period Ended December 31, 2021

### Investment Philosophy

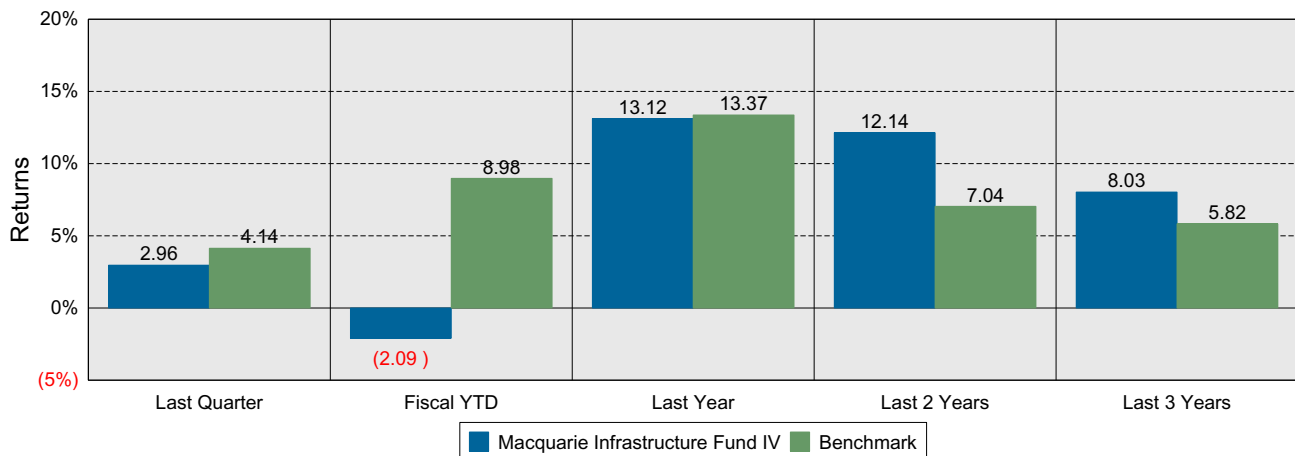
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience will provide a competitive advantage in sourcing and due diligence. Furthermore, the manager will also continue to focus on opportunities where its active management capabilities can add value for investors in terms of enhancing returns and the substantial mitigation and/or elimination of material operational risks. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

### Quarterly Summary and Highlights

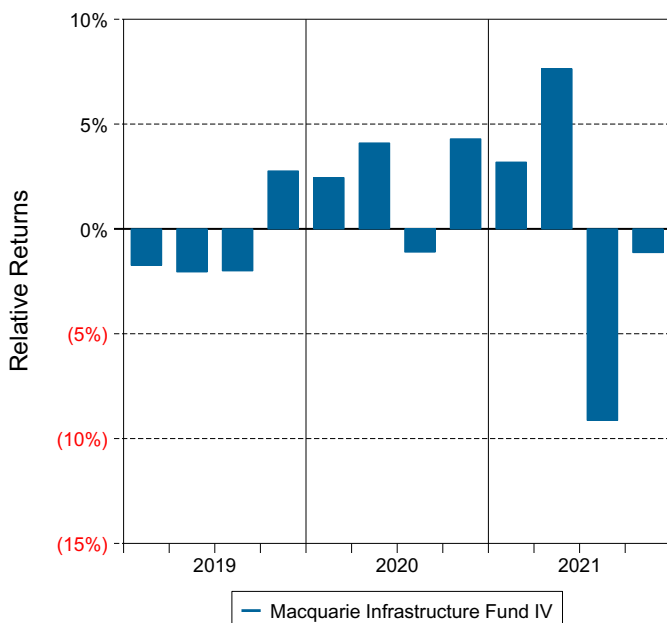
- Macquarie Infrastructure Fund IV's portfolio underperformed the Benchmark by 1.17% for the quarter and underperformed the Benchmark for the year by 0.25%.

### Quarterly Asset Growth

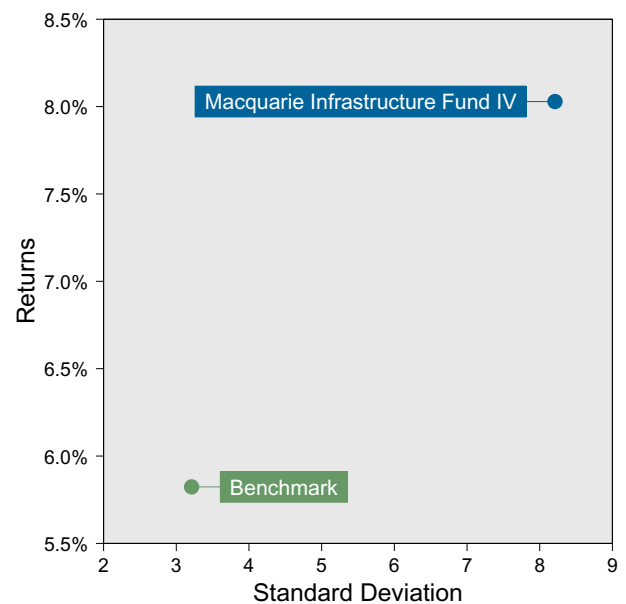
Beginning Market Value	\$63,436,854
Net New Investment	\$-36,143
Investment Gains/(Losses)	\$1,879,984
Ending Market Value	\$65,280,695



Relative Return vs Benchmark



Annualized Three Year Risk vs Return





# Macquarie Infrastructure Fund V

## Period Ended December 31, 2021

### Investment Philosophy

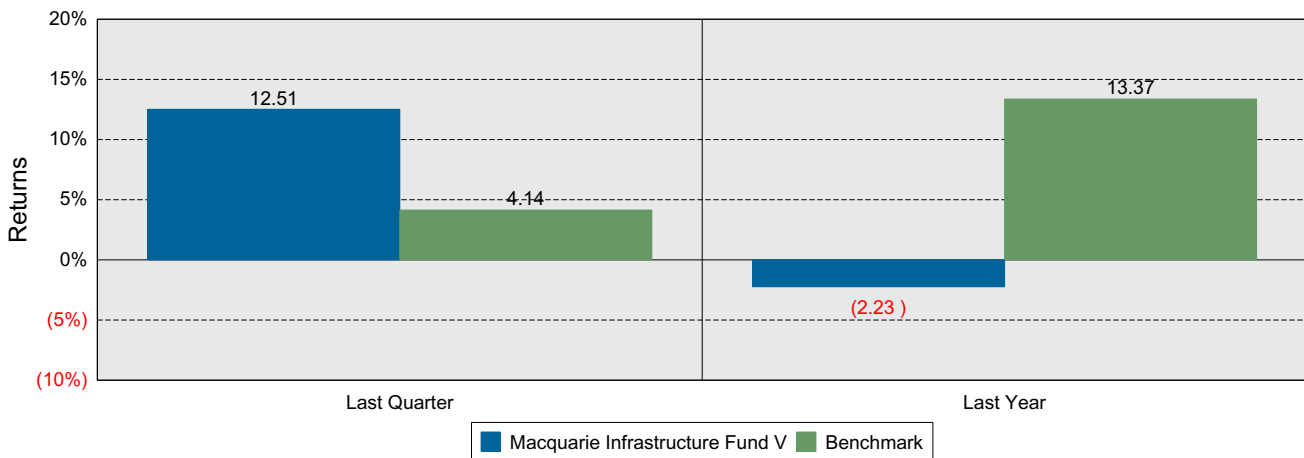
Macquarie’s principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team’s sector expertise and operating experience will provide a competitive advantage in sourcing and due diligence. Furthermore, the manager will also continue to focus on opportunities where its active management capabilities can add value for investors in terms of enhancing returns and the substantial mitigation and/or elimination of material operational risks. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

### Quarterly Summary and Highlights

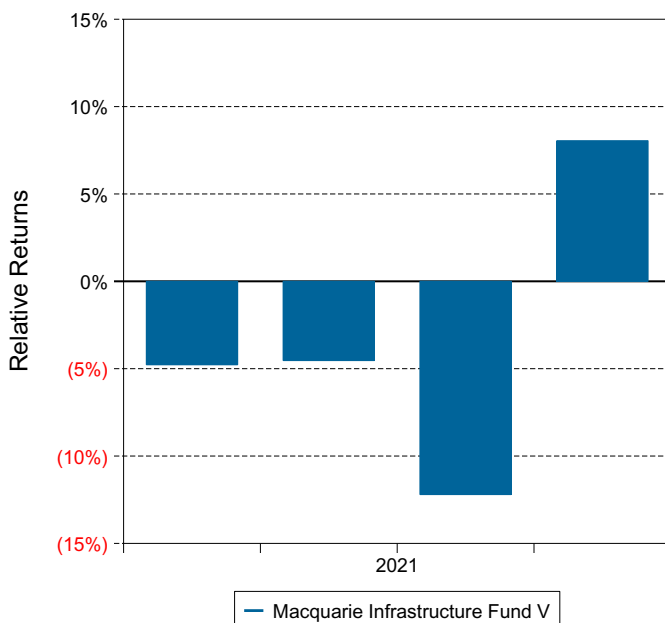
- Macquarie Infrastructure Fund V’s portfolio outperformed the Benchmark by 8.38% for the quarter and underperformed the Benchmark for the year by 15.60%.

### Quarterly Asset Growth

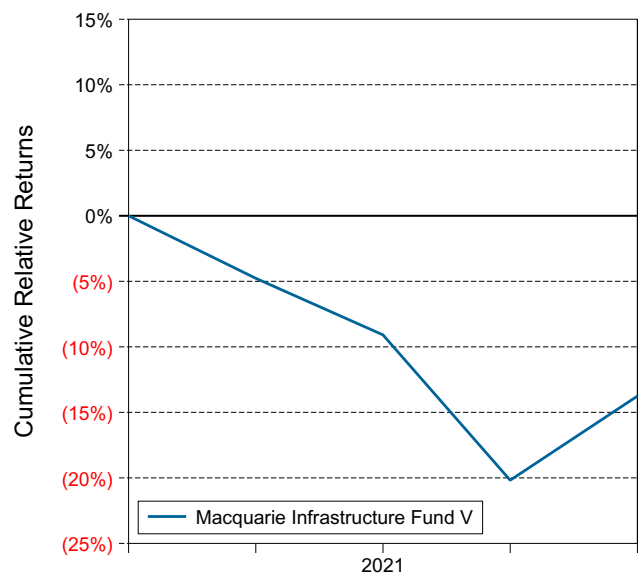
Beginning Market Value	\$16,525,808
Net New Investment	\$17,212,271
Investment Gains/(Losses)	\$1,978,642
Ending Market Value	\$35,716,721



Relative Return vs Benchmark



Cumulative Returns vs Benchmark





## 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](http://www.callan.com/research-library) to see all of our publications, and [www.callan.com/blog](http://www.callan.com/blog) to view our blog. For more information contact Barb Gerraty at 415-274-3093 / [institute@callan.com](mailto:institute@callan.com).

## New Research from Callan's Experts

**[2021 Investment Management Fee Study](#)** | The purpose of this study, the ninth we have done, is to provide a detailed analysis on institutional investment management fee levels and trends across multiple asset classes and mandate sizes, for both active and passive management.

**[2021 Nuclear Decommissioning Funding Study](#)** | This study offers key insights into the status of nuclear decommissioning funding to make peer comparisons more accurate and relevant.

**[2021 Private Equity Fees and Terms Study](#)** | This study is intended to help institutional investors better evaluate private equity funds, serving as an industry benchmark when comparing a partnership's terms to its peers.

**[2021 Cost of Doing Business Survey](#)** | In this survey, Callan compares the costs of administering and operating funds across all types of tax-exempt and tax-qualified organizations in the U.S. We identify practices to help institutional investors manage expenses.

**[A Guide to Reinsurance for Institutional Investors](#)** | Reinsurance investments are a potential option for institutional investors looking to diversify both equity and rate risks while also offering attractive risk-adjusted returns. Sean Lee examines how insurance-linked securities can be incorporated into institutional investors' portfolios.

**[2021 ESG Survey](#)** | Callan's ninth annual survey assessing the status of environmental, social, and governance (ESG) investing in the U.S. institutional investment market.

## Blog Highlights

**[Rising Rates! Why the Heck Do We Own Bonds?](#)** | Investment grade bonds spin off yield and participate in rising rate markets through principal reinvestment, and their return distribution

provides downside protection that counter-balances growth-oriented portfolio investments. Despite frustratingly low expected returns, IG bonds can still contribute meaningfully to the long-term investment goals of most institutional investors.

**[Understanding Return Forecasts for Public DB Plans](#)** | It is important for decision makers to understand that actuaries and investment consultants offer assumptions on expected return that are inherently different: Actuarial discount rates assume a static return over time with no variability, whereas investment consultants estimate a median and a range of expected returns based on expected risk.

## Quarterly Periodicals

**[Private Equity Trends, 3Q21](#)** | A high-level summary of private equity activity in the quarter through all the investment stages

**[Active vs. Passive Charts, 3Q21](#)** | A comparison of active managers alongside relevant benchmarks over the long term

**[Market Pulse Flipbook, 3Q21](#)** | 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, 3Q21](#)** | Analysis and a broad overview of the economy and public and private market activity each quarter across a wide range of asset classes

**[Hedge Fund Quarterly, 3Q21](#)** | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

**[Real Assets Reporter, 3Q21](#)** | A summary of market activity for real assets and private real estate during the quarter

## Events

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

Please mark your calendar and look forward to upcoming invitations:

**2022 DC Survey Results Webinar**  
February 23, 2022 – 9:30 am (PT)

**National Conference**  
April 25-27, 2022, in San Francisco

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

**March 1-3, 2022 – 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/ccintro-march/](http://callan.com/events/ccintro-march/)

### Introductory Workshop for DC Plan Fiduciaries

**March 23, 2022 – San Francisco**

This one-day workshop centers on the fundamentals of administering a defined contribution (DC) plan. Designed primarily for ERISA fiduciaries and supporting staff members, attendees will gain a better understanding of the key responsibilities of an ERISA fiduciary and best practices for executing those responsibilities. Additionally, we will cover the basics of capital markets theory and DC investment menu design principles; investment manager evaluation, selection, and monitoring; best practices for evaluating fees; the regulatory and legal landscape; and industry trends. This workshop is complimentary and open to institutional investor clients.

Additional information including dates and registration can be found at: [callan.com/events/mar-dc-college/](http://callan.com/events/mar-dc-college/)



"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

Confidential – For Callan Client Use Only

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	Manager Name
abrdrn (Aberdeen Standard Investments)	Baron Capital Management, Inc.
Acadian Asset Management LLC	Barrow, Hanley, Mewhinney & Strauss, LLC
Adams Street Partners, LLC	BlackRock
AEGON USA Investment Management Inc.	BMO Global Asset Management
AllianceBernstein	BNP Paribas Asset Management
Allianz	BNY Mellon Asset Management
Allspring Global Investments (formerly Wells Fargo Asset Mgmt)	Boston Partners
American Century Investments	Brandes Investment Partners, L.P.
AQR Capital Management	Brandywine Global Investment Management, LLC
Ares Management LLC	Brookfield Asset Management
Ariel Investments, LLC	Brown Brothers Harriman & Company
Aristotle Capital Management, LLC	Cambiar Investors, LLC
Atlanta Capital Management Co., LLC	Capital Group
Aviva Investors	Carillon Tower Advisers
AXA Investment Managers	CastleArk Management, LLC
Baillie Gifford International, LLC	Causeway Capital Management LLC
Baird Advisors	Chartwell Investment Partners
Barings LLC	ClearBridge Investments, LLC

**Manager Name**

Cohen &amp; Steers Capital Management, Inc.

Columbia Threadneedle Investments North America

Credit Suisse Asset Management, LLC

Crescent Capital Group LP

D.E. Shaw Investment Management, LLC

DePrince, Race &amp; Zollo, Inc.

Dimensional Fund Advisors L.P.

Doubleline

Duff &amp; Phelps Investment Management Co.

DWS

EARNEST Partners, LLC

Eaton Vance Management

Epoch Investment Partners, Inc.

Fayez Sarofim &amp; Company

Federated Hermes, Inc.

Fidelity Institutional Asset Management

Fiera Capital Corporation

First Hawaiian Bank Wealth Management Division

First Sentier Investors (formerly First State Investments)

Fisher Investments

Franklin Templeton

GAM (USA) Inc.

GCM Grosvenor

GlobeFlex Capital, L.P.

GoldenTree Asset Management, LP

Goldman Sachs

Guggenheim Investments

GW&amp;K Investment Management

Harbor Capital Group Trust

Heitman LLC

Hotchkis &amp; Wiley Capital Management, LLC

Income Research + Management Inc.

Insight Investment

Intech Investment Management LLC

Intercontinental Real Estate Corporation

Invesco

J.P. Morgan

Janus

Jennison Associates LLC

Jobs Peak Advisors

**Manager Name**

J O Hambro Capital Management Limited

KeyCorp

Lazard Asset Management

LGIM America (formerly Legal &amp; General Inv. Mgmt. America)

Lincoln National Corporation

Longview Partners

Loomis, Sayles &amp; Company, L.P.

Lord Abbett &amp; Company

LSV Asset Management

MacKay Shields LLC

Macquarie Investment Management (MIM)

Manning &amp; Napier Advisors, LLC

Manulife Investment Management

McKinley Capital Management, LLC

Mellon

MetLife Investment Management

MFS Investment Management

MidFirst Bank

Mondrian Investment Partners Limited

Montag &amp; Caldwell, LLC

Morgan Stanley Investment Management

MUFG Union Bank, N.A.

Natixis Investment Managers

Neuberger Berman

Newton Investment Management

Ninety One North America, Inc. (formerly Investec Asset Mgmt.)

Northern Trust Asset Management

Nuveen

P/E Investments

Pacific Investment Management Company

Parametric Portfolio Associates LLC

Partners Group (USA) Inc.

Pathway Capital Management

Peregrine Capital Management, LLC

PFM Asset Management LLC

PGIM Fixed Income

PGIM Quantitative Solutions LLC

PineBridge Investments

Polen Capital Management, LLC

Principal Global Investors

**Manager Name**

Putnam Investments, LLC

RBC Global Asset Management

Regions Financial Corporation

Richard Bernstein Advisors LLC

Riverbridge Partners LLC

Robeco Institutional Asset Management, US Inc.

Rothschild &amp; Co. Asset Management US

S&amp;P Dow Jones Indices

Schroder Investment Management North America Inc.

Securian Asset Management, Inc.

SLC Management

Smith Graham &amp; Co. Investment Advisors, L.P.

State Street Global Advisors

Stone Harbor Investment Partners L.P.

Strategic Global Advisors, LLC

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

**Manager Name**

Thompson, Siegel &amp; Walmsley LLC

Thornburg Investment Management, Inc.

Tri-Star Trust Bank

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Waterton Associates LLC

WCM Investment Management

WEDGE Capital Management

Wellington Management Company, LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair &amp; Company LLC



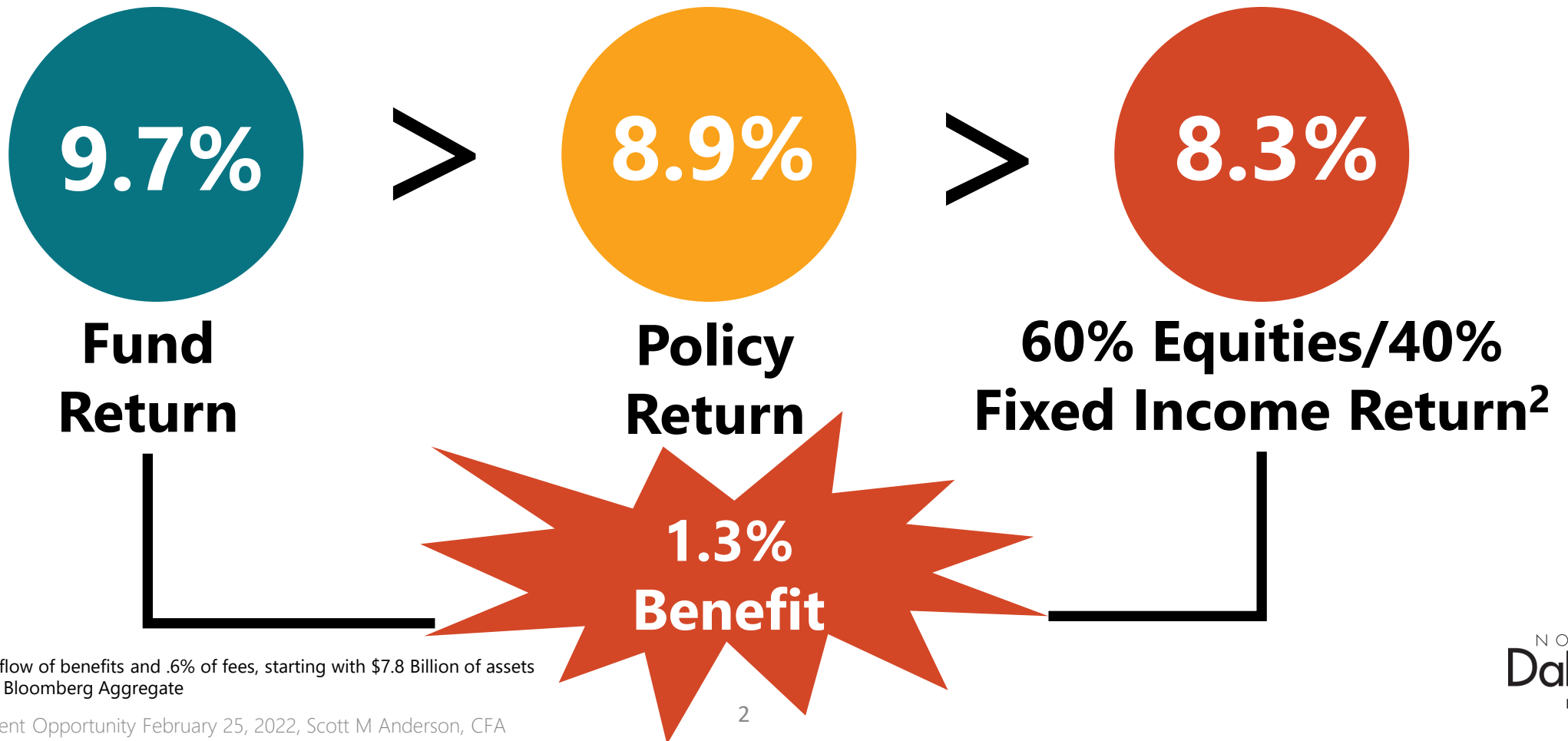
# THE INVESTMENT MANAGEMENT OPPORTUNITY

Scott M Anderson, CFA  
February 15, 2022

# INVESTMENT MANAGEMENT BENEFITS

-with similar results, investment management would add more than **\$2.5 billion net of fees** to the pension pool over the next twelve years<sup>1</sup>

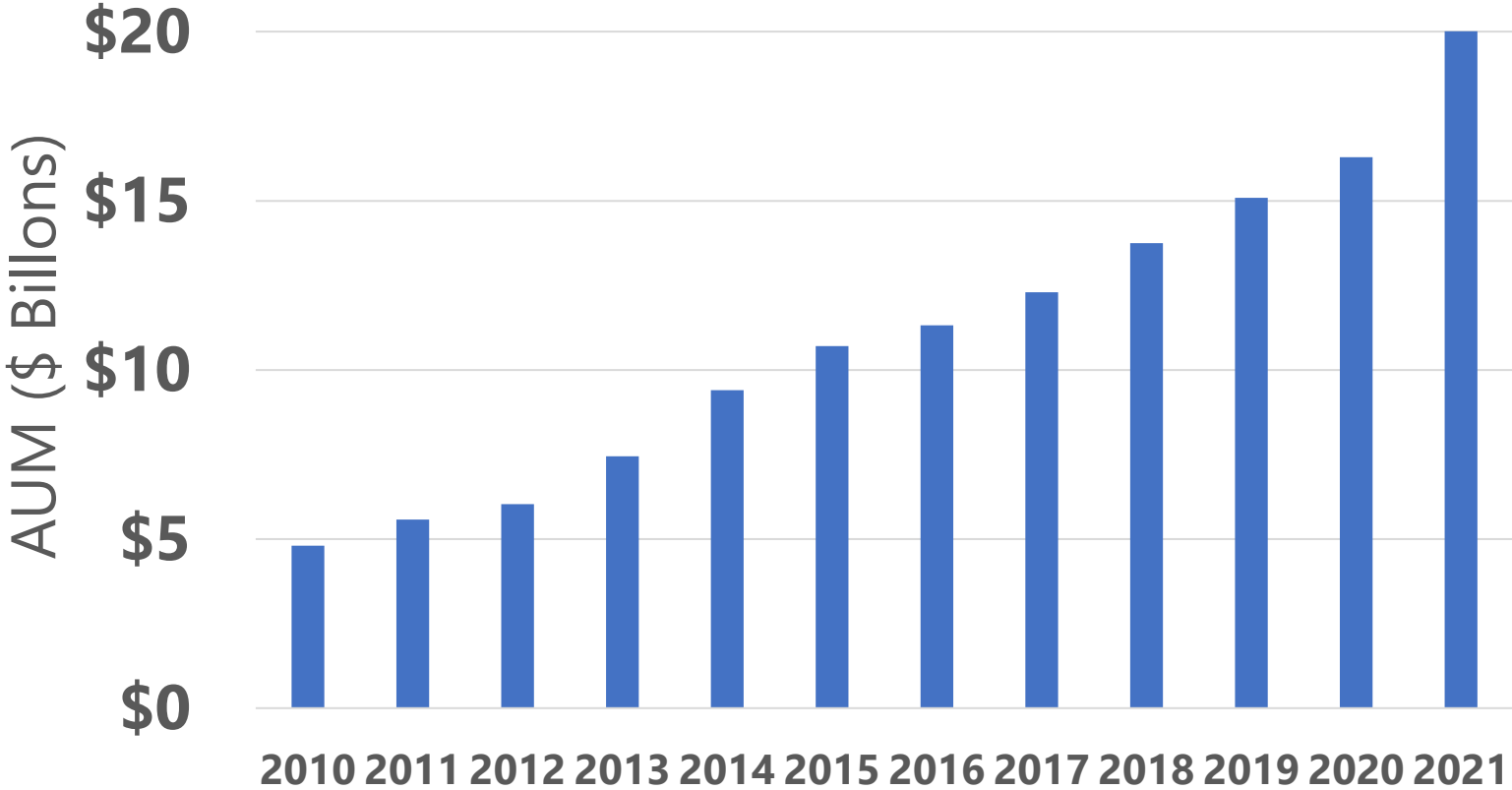
## Pension Pool Twelve Year Average Return



1. Assumes a 2% net outflow of benefits and .6% of fees, starting with \$7.8 Billion of assets  
2. 60% MSCI World/40% Bloomberg Aggregate

# ASSETS UNDER MANAGEMENT GROWTH

-the Assets Under Management (AUM) have grown dramatically



**+320%**

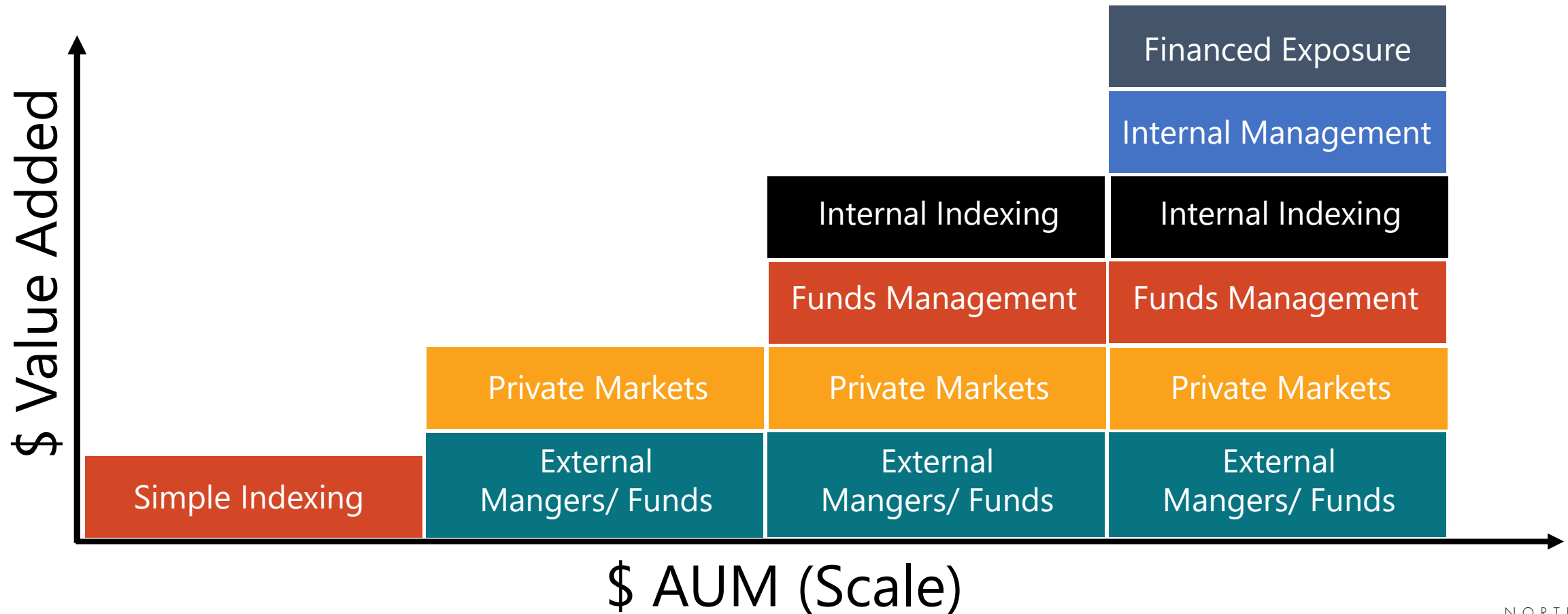
# SCALE BENEFITS

-the total net value added of a plan improves with scale

<b>AUM (\$ Billions)</b>	<b>Gross Value Added</b>	<b>Net Value Added</b>	<b>Cost of Implementation</b>
AUM < \$1	47 bps	-3 bps	50 bps
\$1 < AUM < \$10	67 bps	15 bps	52 bps
AUM > \$10	83 bps	29 bps	54 bps

# OPPORTUNITY

-scale enables a lower cost per unit of Asset Under Management (AUM) as well as better investment performance



# NECESSARY CAPABILITIES FOR SUCCESS

-the benefits of scale can be unlocked

## Governance

A governance hierarchy including a staff run investment committee with some delegation as well as board level investment expertise

## Talent Management

Specific investment role recognition as well as a total rewards package that is competitive with similar investment organizations

## Operations

Appropriate staffing and skills or outsourcing of critical investment accounting, transaction processing, and enterprise risk capabilities

## Data and Technology Infrastructure

High frequency and high-quality data as well as infrastructure to support data throughput and processing speeds

## Research and Knowledge Management

A culture of research, learning, creativity and knowledge management supported by expectations, resources, and recognition

# PORTFOLIO REVIEW

-will complete a portfolio review in the coming months to identify opportunities

## Across Client Funds, Asset Classes, Sub-asset Classes and Managers

### Asset Allocation

- What are the funds' purposes?
- What are the risk and return objectives?
- What benchmarks were used in developing the asset allocations?

### Policy Statement/ Guidelines

- What are the portfolio expectations?
- What are the risk control constraints?
- What are the portfolio composition constraints?

### Benchmarks

- What benchmarks are being used?
- What are the benchmark weights?
- What are the rebalancing rules?

### Manager Selection

- What are the managers' benchmark?
- What are the managers' investment philosophies?
- What are risk characteristics of the investment managers' style of investing?
- How do the managers perform in a range of risk environments?

## MEMORANDUM

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**TO:** SIB  
**FROM:** Jan Murtha, Executive Director  
**DATE:** February 22, 2022  
**RE:** Legacy and Budget Stabilization Fund Advisory Board Update

The Legacy and Budget Stabilization Fund Advisory Board met February 15, 2022. The link to the meeting and presentation materials provided by RIO staff to the Advisory Board is attached for your reference.

<https://www.legis.nd.gov/assembly/67-2021/interim/23-5120-02000-meeting-agenda.pdf>

During this meeting RIO staff provided the Advisory Board with a fund status update and education related to the asset allocation process. The Advisory Board also received presentations from consultants for the Legacy Fund asset allocation project. The Advisory board awarded the project to RVK. RIO staff will be present at the meeting to provide a verbal update on feedback from the Advisory Board and next steps for the project.

**BOARD ACTION REQUESTED: Board Discussion.**



## MEMORANDUM

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**TO:** SIB  
**FROM:** Jan Murtha, Executive Director  
**DATE:** February 22, 2022  
**RE:** 2<sup>nd</sup> Reading - GPR Committee

At its January 28, 2022, meeting, the SIB reviewed and discussed the creation of a Governance & Policy Review (GPR) standing committee at the recommendation of the Audit Committee.

An amendment to Policy B-6 and proposed committee charter were introduced and a first reading was approved in accordance with Policy B-10. A Second Reading and Final adoption is required for creation of the new GPR committee. Policy B-10 states:

*Upon request of the Executive Director or a Board member a new policy or amendment shall be placed on the Board's agenda for action as follows:*

*1. Introduction and first reading. A brief explanation or summary of the new policy or amendment shall be presented to the Board. Upon approval of introduction and first reading, the measure shall be placed on the agenda of the next scheduled meeting of the Board for second reading and adoption. When appropriate, the measure shall be distributed to interested parties.*

*2. Second reading and adoption. Interested parties and the public shall be allowed an opportunity to comment on the policy or amendment before final action by the Board. The measure shall take effect immediately following second reading and adoption by the Board, unless a different effective date is stated.*

*3. Amendments. Amendments may be proposed at any time before final adoption of the measure. Upon determination by the Board that adoption of an amendment constitutes a substantive change that significantly changes the meaning or effect of the measure, the Board shall continue consideration of second reading and adoption to the next meeting to permit further review and comment.*

A draft of the proposed policy change and draft charter are enclosed for your consideration.

**BOARD ACTION REQUESTED: Motion to approve Amendment to Policy B-6 and Draft GPR Committee Charter for Second Reading & Final Adoption. If approved, nominate, and approve three committee members by a majority vote of the Board.**

The board's standing committees are set forth in this policy as follows:

1. Audit Committee
2. Securities Litigation Committee
3. Executive Review Committee
- 3.4. Governance and Policy Review Committee

- A. The Audit Committee, Securities Litigation Committee, ~~and~~ Executive Review Committee, and Governance and Policy Review Committee shall operate under the terms of a charter approved by the board.

#### INTRODUCTION – Audit Committee

An Audit Committee has been established as a standing committee of the State Investment Board (SIB). The Audit Committee will assist the SIB in carrying out its oversight responsibilities as they relate to the Retirement and Investment Office (RIO) internal and external audit programs, including financial and other reporting practices, internal controls, and compliance with laws, regulations, and ethics.

The primary objective of the internal audit function is to assist the SIB and management in the effective discharge of their responsibilities. To this end, internal auditing will furnish them with analyses, appraisals, recommendations, and pertinent information concerning the activities reviewed.

Functions and units within RIO will be reviewed at appropriate intervals to determine whether they are effectively carrying out their responsibilities of planning, organizing, directing, and controlling in accordance with SIB and management instructions, applicable laws, policies, and procedures, and in a manner consistent with both the RIO objectives and high standards of administrative practice.

#### POLICY OF THE STATE INVESTMENT BOARD – Audit Committee

The audit staff shall have full, free, and unrestricted access to all RIO activities, records, property, and personnel relative to the subject under review. The audit function will be conducted in a manner consistent with acceptable professional standards and coordinated with others to best achieve the audit objectives and the RIO objectives.

The Internal Audit Services Unit is responsible for developing and directing a broad, comprehensive program of internal auditing within RIO. The Internal Audit Services Unit will report administratively to management and functionally to the Audit Committee of the SIB.

The RIO unit supervisors are responsible for seeing that corrective action on reported weaknesses is either planned or taken within 30 days from the receipt of a report disclosing those weaknesses if known or applicable. The unit supervisors are also responsible for seeing that a written report of action planned or completed is sent to the executive director. If a plan for action is reported, a second report shall be made promptly upon completion of the plan.

#### INTRODUCTION – Securities Litigation Committee

A Securities Litigation Committee (SLC) has been established as a standing committee of the State Investment Board (SIB). The SLC will assist the SIB in fulfilling its fiduciary oversight responsibilities of monitoring the investment assets entrusted to it by the various statutory and contracted funds, and to serve as a communications link for the SIB, RIO's management and staff, third party securities litigation firms, and others.

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**POLICY TITLE: *STANDING COMMITTEES***

The SLC will determine when an active role should be pursued in regards to securities litigation affecting investments within the SIB's portfolios based on the SIB approved Securities Litigation Policy and approved SIB Securities Litigation Committee Charter.

**POLICY OF THE STATE INVESTMENT BOARD – Securities Litigation Committee**

The SLC is authorized to:

- Draft policy (to be formally approved by SIB) regarding dollar and/or risk thresholds for determining when to opt-out of class actions and/or seek direct litigation or lead plaintiff status;
- Based on SIB approved policy make decisions on the level of participation the SIB will take in direct litigation, opt-in or group litigation, anti-trust and other class actions; and
- Approve the selection of special assistant attorneys (in conjunction with the approval of the Office of the Attorney General) in cases of direct litigation.

RIO's management is responsible for ongoing monitoring of securities litigation and claims filing. RIO management and staff will enable the SLC to provide a periodic update to the SIB on the SLC's activities and related recommendations.

The SLC has the responsibility to provide oversight in the areas of:

- policy development;
- determination on direct litigation and/or lead plaintiff status; and
- approval of special assistant attorneys (outside counsel) with concurrence of the Attorney General.

**INTRODUCTION – Executive Review Committee**

An Executive Review Committee (ERC) has been established as a standing committee of the SIB. The ERC will assist the SIB in fulfilling its fiduciary oversight responsibilities of “monitoring executive performance (which) is synonymous with monitoring organizational performance against board policies on *Ends* and *Executive Limitations*”. Internal audit will be responsible for preparing an annual summary of the required reports submitted to the SIB by the Executive Director in connection with its review of policy adherence to *Ends* and *Executive Limitations*. Internal audit will also assist the ERC in completing annual surveys of the Executive Director with the SIB, SIB clients, and RIO team members.

The ERC will conduct a formal evaluation of the Executive Director during the first half of every calendar year. This formal evaluation by the ERC will serve as the basis for an annual compensation recommendation to be reviewed and approved by the SIB on or before June 30<sup>th</sup> each year. Internal audit will also assist the SIB and ERC in administering the annual board self-assessment process.

**POLICY OF THE STATE INVESTMENT BOARD – Executive Review Committee**

The ERC is authorized to:

- Conduct a formal evaluation of the Executive Director annually;
- Obtain SIB approval of the annual performance evaluation of the Executive Director;
- Make a compensation recommendation to the SIB on or before June 30<sup>th</sup> of each year; and
- Administer a formal self-assessment of the SIB periodically (unless instructed otherwise).

The ERC and/or RIO will seek SIB approval prior to formally engaging any third party assistance in conducting the annual executive review process or board self-assessment.

**INTRODUCTION – Governance & Policy Review**

A Governance and Policy Review Committee has been established as a standing committee of the SIB. The Governance and Policy Review Committee will assist the SIB in fulfilling its fiduciary oversight responsibilities to fulfill its responsibilities regarding matters that relate to governing the SIB, policies, and identifying and making recommendations to the SIB.

The Governance and Policy Review Committee will be responsible for reviewing the governance manual, recommending policy changes, and when directed by the board review governance specific concerns, and make recommendations for improvement.

**POLICY OF THE STATE INVESTMENT BOARD – Governance & Policy Review Committee**

The Governance & Policy Review Committee is authorized to:

- Review and recommend policies for the governance manual.
- Ensure the governance manual reflects best practices and good governance.
- As directed by the board, review specific governance concerns, and make recommendations for improvement.
- Request RIO staff for specific topic training or education

## **Governance & Policy Review Committee Charter**

### **PURPOSE**

The Governance & Policy Review Committee (“Committee”) will assist the State Investment Board (SIB) to fulfill its responsibilities regarding matters that relate to governing the SIB, policies, and identifying and making recommendations to the SIB.

### **KEY RESPONSIBILITIES**

The Governance & Policy Review Committee shall perform all duties as requested or required by the SIB. The Governance & Policy Review Committee will specifically be responsible for the following duties and responsibilities:

1. Advise the SIB about operational strategies relevant to the SIB’s governance manual to strengthen the SIB and empower the Board members to meet its obligations related to sound governance principles and abide by the agency’s mission.
2. Advise the SIB about strategies that strive to increase the individual Board member effectiveness and their abilities to work collaboratively with their peers.
3. Review and make recommendations for policies for the governance manual that reflect best practices for overall good governance.
4. As directed by the board, review specific governance concerns and make recommendations for improvement.
5. Request Retirement and Investment Office staff for specific topic training and education for Board members. Make recommendations regarding an orientation process for newly appointed SIB members.

### **GOVERNANCE COMMITTEE COMPOSITION AND TERM LIMITS**

The Governance Committee shall be composed of at least three members. They will be nominated and approved by a majority vote of the SIB. This is a standing committee with no term limits. The Executive Director will be responsible for meeting preparation.

### **MEETINGS**

The Governance Committee will meet quarterly and hold additional meetings as needed to fulfill its responsibilities as described in this Committee Charter and as called by the Governance Committee Chair.

### **AUTHORIZATION AND LIMITATIONS OF POWER**

The Governance Committee is established by the SIB governance manual and has no power or authority to act on behalf of the full board. The Governance Committee will abide by the provisions in the governance manual that pertain to the meetings and actions of the Board.

## State Investment Board Self-Assessment Executive Review Summary February 23, 2022

### **Background**

The State Investment Board (SIB) requested Internal Audit of the Retirement and Investment Office (RIO) to assist the SIB Executive Review Committee in developing and administering a Board Self-Evaluation. Internal Audit worked with the Executive Review Committee in administering and reporting the self-evaluation results.

### **Scope**

The evaluation is comprised of twenty-nine questions and consists of five categories for both the self-assessment and board assessment portions. The five categories in each section included: 1. board and staff roles, 2. board and committee structure, 3. board meetings, 4. policy making and reviews, and 5. financial management and investment practices. There were two open-ended questions at the end that asked for any other input for the evaluation and any recommendations for topics to be included in future evaluations. The evaluation was administered through Survey Monkey and results were reviewed by the Executive Review Committee. A four-point scale was used, with 4 – strongly agree, 3 – agree, 2 – disagree, and 1 – strongly disagree as the rating system. Ten out of twelve board members participated in the evaluation.

### **Results Summary**

The average score of the self-assessment portion of the evaluation decreased from 3.67 in 2021 to 3.50 in 2022. All scores decreased from last year except for the question on being actively engaged in Board meetings. In the self-assessment section, Board members agreed they understand their legal duties and responsibilities of being a fiduciary and understand Board conduct. Areas of improvement also have been identified. With the challenges of the past year, Board members stated that the significant time to prepare for each meeting has become burdensome with other responsibilities that Board members have outside of serving on the Board. Overall comments included that the Executive Summary for Board meetings is appreciated as there is a lot of information to review and that establishing the Governance and Policy Review Committee will help with reviewing policies. Board members were also complimentary to staff on their presentations, board education, and willingness to answer questions.

The average score of the board assessment portion of the evaluation also decreased from 3.59 in 2021 to 3.43 in 2022. Similarly, all scores declined from last year, except for all Board members regularly attend Board meetings which had a slight increase. From a board level, board members felt that meetings were a good use of time and well-ran. All agreed the Board regularly reviews the financial, investment, and portfolio status. There were several areas identified for improvement. Comments included reviewing governance and bylaws more frequently; however, the establishment of the Governance and Policy Review Committee should help strengthen this area. Secondly, Board packets can be large so prioritizing information within them so the Board members can better prepare.

Overall, the general comments were positive. Comments included:

- The Board Self-Evaluation as a good tool for the Board.
- Appreciation of staff and all they do.
- The Board has weathered a rough patch but seems to be on the right track.
- Board members may feel a lack of clarity surrounding the decisions that need to be made especially with the in-state investing and Legacy Fund. That there are many unanswered questions, and the Board needs to get on the same page to before just doing something because they feel compelled to.

For the comparison of the self-assessment and board assessment, an area that the board may need more clarity in is what authority does the Board retain and what authority is delegated to staff. Similarly, reviewing policies and board governance is an area that could be strengthened; however, the establishment of the Governance and Policy Review Committee should assist in this area. Also, being adequately prepared for Board meetings, as comments stated it can be hard given the volume of materials contained in the board packets.

Overall, the SIB Board Self-Evaluation was positive and continues to show areas the Board wishes to improve on.



State Investment Board  
RETIREMENT & INVESTMENT

# 2022 State Investment Board Evaluation

February 23, 2022



# Self-Assessment Results

## Areas of Strength

- Actively Engaged
- Understands Board Code of Conduct
- Avoids Conflicts of Interest

## Areas of Improvement

- Overwhelming amount of information for Board meetings
- Reviewing Governance Regularly

# Board Assessment Results

## Areas of Strength

- Meetings are well-run
- Willingness to discuss difficult topics
- Regularly reviews financial, investment, and portfolio reports

## Areas of Improvement

- Prioritizing Board Packet information
- Reviewing Bylaws & Governance regularly

# General Comments



The Board Self-Evaluation as a good tool for the Board.



Appreciation of staff and all they do.



The Board has weathered a rough patch but seems to be on the right track.



Board members may feel a lack of clarity surrounding the decisions that need to be made especially with the in-state investing and Legacy Fund. That there are many unanswered questions, and the Board needs to get on the same page to before just doing something because they feel compelled to.

# Observations

## Clarity on Authority

- Board versus Delegated to Staff

## Reviewing Policies & Governance

## Board Packets

- Prioritizing Information



State Investment Board

RETIREMENT & INVESTMENT

QUESTIONS OR COMMENTS?

**RETIREMENT AND INVESTMENT OFFICE**  
**Internal Audit**  
**2021-2022 2nd Quarter Audit Activities Report**  
**October 1, 2021 – December 31, 2021**

The audit objective of Internal Audit (IA) is twofold: first, to provide comprehensive, practical audit coverage of the Retirement and Investment Office (RIO) programs; second, to assist RIO management and the State Investment Board (SIB) by conducting special reviews or audits.

Audit coverage is based on the July 1, 2021 through June 30, 2022 work plan approved by the SIB Audit Committee. The audit activities undertaken are consistent with the Internal Audit charter and goals, and the goals of RIO. To the extent possible, our audits are being carried out in accordance with the International Standards for the Professional Practice of Internal Auditing. Audit effort is being directed to the needs of RIO and the concerns of management and the SIB Audit Committee.

There were several events that occurred during the first and second quarter of 2021-22 that altered the original work plan. The events were as follows: The Executive Director/Chief Investment Officer and the Deputy Chief Investment Officer resigned from their positions. Also, three Retirement Service/Administrative Services staff members retired - the Supervisor of Administrative Services, the Office Assistant, and the Membership Specialist. These staff members represent over one hundred years of service to RIO. RIO also moved to a new location in Bismarck at 1600 E. Century Ave, Suite 3 during the second quarter.

**Investment and Agency Audit Activities**

• **Executive Limitation Audit**

On an annual basis, IA reviews the Executive Director/CIO's level of compliance with the SIB Governance Manual Executive Limitation Policies A-1 through A-11. The Executive Limitations Audit was started in November 2021. The audit will review calendar year 2021.

After the resignation of the Executive Director/Chief Investment Office in June of 2021, the SIB separated the role of the Executive Director/Chief Investment Officer into two positions at the August 2021 SIB meeting: the Executive Director and the Chief Investment Officer. The Supervisor of IA is having to review, re-evaluate, and revise the audit program for Executive Limitations for the 2021 audit.

The audit will be completed and reported to SIB Audit Committee at the February 16, 2022 meeting.

• **External Audit Support**

IA provided support to our external audit partners, CliftonLarsonAllen (CLA), in the 2021 Annual Financial Audit. The results of the Independent Auditor's Report were presented to the SIB Audit Committee at the meeting held Nov 16, 2021. An unmodified "clean" opinion that the financial statements are presented fairly, in all material respects, in conformity with US Generally Accepted Accounting Principles (GAAP) was issued.

For the GASB 68 Census Data Audit, the Independent Auditor's Results was also issued for the Schedule of Employer Allocations and Pension Amounts by Employer. The Independent Auditors issued an unmodified "clean" opinion that the schedule of employer allocations and the net pension liability, total deferred outflows, total deferred inflows, and total pension expense are presented fairly, in all material respects, in conformity with the US Generally Accepted Accounting Principles (GAAP).

For both audit reports, no material weaknesses or significant deficiencies were identified.

- **SIB Board Governance Review**

At the May 21, 2021 SIB meeting, the Board requested that the SIB Audit Committee review SIB Governance Policy B-2, governing style, in Section B governance process. The SIB Audit Committee was to clearly define inquiry and to review the Board's structure and how it operates and bring a recommendation back to the full Board. The SIB operates under the Carver Board Governance Model.

The SIB Board structure and membership is established in statute and would require that the statute be amended. IA researched and reviewed board governance and presented a report to the SIB Audit Committee. In the report, there were questions to be discussed/answered and possible recommendations for the SIB Audit Committee to consider at the August 11, 2021 Audit Committee meeting.

After discussion at the August meeting, the SIB Audit Committee requested the Supervisor of IA to develop a comprehensive on-boarding process for new SIB members, to develop a plan for annual Board education, and to establish a standing Governance and Policy Committee for the SIB. The draft report was reviewed at a special SIB Audit Committee meeting held October 14, 2021.

The draft report was presented by Dr. Lech to the SIB at the meeting held October 22, 2021. The IA Supervisor will be working with the Executive Director on the next step in the process of developing a standing Governance and Policy Committee.

- **SIB Executive Search Committee**

The Executive Director/Chief Investment Officer of RIO (ED/CIO) resigned from his position effective June 22, 2021.

The SIB Board selected and approved Board members to serve on the Executive Search Committee (ESC) at the August 2021 meeting. EFL, an executive recruitment service, was selected for the search at the end of July 2021 through the procurement process. At the August 27, 2021, SIB meeting, the SIB voted to divide the combined Executive Director/Chief Investment Officer (ED/CIO) position into two separate positions to better serve RIO's needs for current and future operations. The ESC proceeded to instruct EFL to first search for candidates for the CIO role. EFL felt that the applicant pool would increase by dividing the position as the two positions require different skill sets. The Supervisor of IA attended ESC meetings and assisted in providing requested information.

At the November 19, 2021 SIB meeting, the ESC represented by Dr. Lech, led discussion with the Board on selecting an Executive Director. The SIB Board voted on and appointed Ms. Jan Murtha to be the Executive Director of the Retirement and Investment Office.

During the second quarter, the ESC interviewed candidates provided by EFL for the CIO position. The top two candidates were selected by the ESC from the pool of candidates. They attended the special December 15, 2021 SIB meeting. The SIB Board conducted the two interviews and selected Mr. Scott Anderson as the Chief Investment Officer. His first day will be January 18, 2022.

- **Succession Planning**

Due to five staff members resigning/retiring during the first quarter, RIO Management reorganized the agency structure and job duties to better fit the current and future needs of the agency. During the first quarter, IA reviewed and analyzed the responsibilities for three of the vacant positions. IA wanted to ensure that current requirements and deadlines continued to be met. The responsibilities were classified by function – Executive Boards, Continuity of Operations (Business Continuity), Human

Resources, Procurement, Records Management, Risk Management (Risk Management/Workforce Safety programs), Investment Services, Fiscal Services, and Retirement Services (TFFR Administrative Assistant/Office Assistant). The duties were forwarded to RIO Management to assign to the newly organized positions.

In the second quarter, IA reviewed the job descriptions and duties for the newly organized positions: Contracts and Records Management Administrative Assistant, the Executive Administrative Assistant, Retirement Program Administrative Assistant, Temporary Office Assistant-Receptionist, and the Temporary Member Specialist. IA compared the new job duties to the retired positions job duties and found no omissions.

The Supervisor of IA attended meetings and provided information requested to prepare for the special Legislative Session. In the special session held in November 2021, the then interim/now Executive Director presented the risk associated with the shortage in RIO staff, and requested, and was granted six new FTE's – four investment positions, a Programs Outreach Coordinator, and another Accountant for Fiscal Services.

IA also attended education at the P2F2 virtual Conference on Business Continuity Management (BCM): after the pandemic and the lessons learned. The presentation explained updates that need to be made to the Business Continuity Plan (BCP) and changes to the business impact analysis (BIA) or risk assessments. The session also talked about the challenges of working remotely, changes that occur when returning to the office, things to consider with a long-term hybrid plan, and best practices for BCM post pandemic.

IA also attended another session on what to look for when auditing BCM and the BCP. This session listed the key components to BCP, emerging trends, the BCM lifecycle, overview of the BIA, the key contents of the BCP, and IA considerations.

### **Retirement Program Audit Activities**

- **Annual Employer Participant Data/Salary Verification Review**

On an annual basis, IA verifies retirement salaries and contributions reported to TFFR for the prior fiscal year for 65 randomly selected member accounts. TFFR eligibility and service hours were also verified. The project increases the number of participating employers included in the overall audit activities and reinforces to our participating employers the importance of accurate reporting.

The Annual Participant Data/Salary Verification Review report on fiscal year 2018-19 was issued May 11, 2021 and was presented to the SIB Audit Committee at the May 2021 meeting. IA had three recommendations in the report.

During the first and second quarters, IA worked with Retirement Services as they responded to the three audit findings. The audit report was presented to the TFFR Board at the November 2021 meeting. The response to the audit report from Retirement Services was reported to the Audit Committee at the November 2021 meeting. IA has set-up a matrix to monitor the corrections when made by Retirement Services.

- **Benefit Payment Audit – Deaths**

A review of the processes and procedures was completed in April of 2020. The report was presented to the SIB Audit Committee at the May 2020 meeting.

IA recommended that RS's consider investigating the expanded use of LifeStatus 360 for national searches on a daily or weekly basis and discontinue the manual searches of state newspapers and



obituaries. Discontinuing the manual searches would free-up staff time which can be utilized for other time sensitive tasks. There will still be time associated with investigating the deaths located by the automated searches.

The LifeStatus 360 contract expired and their last search for TFFR was April of 2021. IA worked with the Executive Director, Procurement, and Retirement Services and issued a RFP for services. A contract was signed with PBI in September of 2021 to complete weekly search/comparisons of the CPAS database for deaths. The first payroll file was sent to PBI for comparison on 10/25/2021. TFFR has been receiving weekly reports of database comparison from PBI.

IA attended a meeting with RS's and NDIT staff to discuss the completeness of the PBI reports. IA reviewed and analyzed the procedures and reports of the database comparison received from PBI on the following dates: 10/28/2021, 11/4/2021, 11/11/2021, 11/18/2021, 11/25/2021, 12/9/2021, 12/16/2021, 12/23/2021, and 12/30/2021. The reports found 17 deaths. The retirees lived in California, Florida, Minnesota, North Dakota, Washington DC, and Wisconsin. Manual obituary searches will be discontinued in January of 2022. At the above meeting, RS's stated that there were three deaths missed by PBI and ND Vital Statistics. IA reviewed the three retiree's information and determined the that timing of the deaths was the issue. The deaths occurred after LifeStatus 360's contract expired, occurred before PBI was contracted, the deaths all occurred in Arizona, and the timing of the PBI reports during the holidays.

- **TFFR File Maintenance Audit**

On an annual basis, IA will review system generated (CPAS) audit tables to ensure transactions initiated by staff are expected and appropriate given an individual's role with the organization. Member account information from Member Action Forms, Address Change Forms, Direct Deposit Authorization Forms, and Point of Contact Forms are reviewed to verify that contact and demographic information has been updated correctly. The Records Management review was moved to Succession Planning. The Contracts and Records Management Administrative Assistant is now responsible for this function.

Audit fieldwork started the end of June 2021 and continued during the months of July and August 2021. IA was reviewing information for the month of May 2020 during the fourth quarter of 2020 (new procedures due to COVID) and the month of October 2020 during the second quarter of 2021.

Due to the Succession Planning review, the fieldwork was suspended, and the audit has not been completed. Audit work will continue during the third quarter of 2022. The audit timeframe will be adjusted due to the change in staff.

- **TFFR Pension Administration Software Assistance (PAS Project)**

TFFR was approved funds for a pension system upgrade by the legislature. IA assisted with Phase I & 2 by playing a role that was educational, consultative or audit in nature, and by bringing independent subject-matter expertise to the most common risk areas. IA's ability to operate across the agency and across all individual work streams in a program provides visibility of risks that might otherwise be lost between silos. IA also attended training on project management for auditors to help with the upgrade process.

RIO was on schedule and completed Stage 1 of the PAS project at the close of fiscal year 2020-21. In Stage 2 of the project, RIO planned procurement, developed the RFP, and issued the RFP on June 1, 2021. During the month of July, RIO management (including IA) reviewed the responses received to the issued RFP. RIO staff (including IA) also attended scheduled software demonstrations during the month of August.

During the second quarter, the Supervisor of IA has participated by attending meetings and completing assigned task during the negotiation process of the procurement process. The negotiation process has taken longer than anticipated and is still on-going.

IA also attended a session at the P2F2 conference in October 2021 on Pension Account Software. Another pension system gave a presentation on their experiences in updating their PAS. They shared their objectives, project goals, challenges, path to success and lessons learned. IA also attended a session on employer reporting and projects. Three other pension systems shared their experiences with instituting a new software for employer reporting. They talked about the phases for the project management, the business case for the change, roles and responsibilities, goals, achievements, what went well, and the lessons learned. They also discussed the general do's and don't when working with the employers during the change.

### **Administrative Activities**

The IA staff attended the monthly RIO staff meetings, monthly RIO manager's meetings, divisional meetings, two Audit Committee meetings, three SIB meetings, two TFFR meetings, and one Securities Litigation meeting.

- **Records Retention**

IA has a retention schedule for the audit files and records. Annually, the schedule is reviewed to determine if changes need to be made. The annual purge of information occurred during the second quarter to meet the schedule set by NDIT Records Management. Almost all the audit files and records are currently electronic. IA maintains a table of contents for the information that describes the audit and what files are found on the audit drive. The table of contents is annually updated at this time. A list of new and purged files was forwarded to the Contracts and Records Assistant (CRA). The CRA then forwards the RIO agency information to Records Management at NDIT.

- **Office Relocation**

RIO moved to the new office space located at the Workforce Safety and Insurance Building at 1600 East Century Avenue, Suite 3, on November 22, 2021. IA staff assisted in packing, moving, unpacking, and setting up the new space.

- **Professional Development/CE/General Education**

IA staff attended the virtual Public Pension Financial Forum Annual Conference (P2F2) for education and training starting Oct. 19th and ending Oct. 29th. P2F2 included members from the Association of Public Pension Fund Auditors (APPFA) to attend their annual conference. Sessions were held daily with up to 35 CPES available to earn. The Pension 101 and 201 tracks were also scheduled two days prior to the general conference to provide foundational basis to attendees. Sessions were classified as General Session, Pension 101, Pension 201, General Accounting, Investment Accounting, Audit, and Employer Reporting/Personal Development: General session classes included some of the following topics: annual fiscal year-end report, actuarial-funding/monitoring, accounting best practices, audits - continuous/actuarial/annual, business continuity - plans and audits, the cloud, the role of custodians currently and in the future, cyber threats, the death match process, the economy, ethics, fraud, GASB 68 and 75, investment due diligence, investment technology and trends, IRS regulations, Nonverbal Communication for the virtual environment, pension obligation bonds, PAS projects learn from a peer, Employer reporting – project management, Stress and Time Management Skills, sustainability of funds, and third-party risk.

IA staff also attended quarterly NDIT training and agency wide color training. The color training will help IA to communicate better with RIO staff.

**Internal Audit Report**  
**Succession Planning Phase I**  
**February 15, 2022**

**Background**

The Retirement and Investment Office (RIO) is responsible for administering two programs: the State Investment Board (SIB) program, which serves 27 government client funds, and the Teachers' Fund for Retirement (TFFR) Program, which serves over 20,000 members and over 200 employers. The State Investment Board program currently has over 20 billion dollars in assets under management (AUM) as of December 31, 2021, compared with 4.8 billion AUM in fiscal year 2010. RIO's investment program has more than quadrupled in just over a decade. The TFFR program is also procuring a new pension administration system, as the current system is over 15 years old.

Within the past 19 months, the top two staff members from each of the respective programs left within 60 days of each other. In 2020, the retirement program had their Chief Retirement Officer and Retirement Program Manager both retire within 60 days of each other. In June 2021, the Executive Director/Chief Investment Officer resigned. In August 2021, the Deputy Chief Investment Officer resigned from their position. In August 2021, the Supervisor of Administrative Services and the Office Assistant retired. In September 2021, the Membership Specialist retired from the retirement program. These departures represent over 150 years of institutional knowledge.

Due to the vast amount of knowledge that left RIO in a short timeframe and the agency's ongoing substantial amount of responsibility, the need for succession planning was highlighted as there was no formal succession plan in place. In August 2021, the Interim Executive Director requested from the SIB Audit Committee the assistance of the Internal Audit Division in reviewing succession planning and coming forth with recommendations. On August 11, 2021, the SIB Audit Committee approved for Internal Audit Staff to work with the RIO's executive staff on outlining the parameters of a succession planning audit. On August 20, 2021, a kick-off meeting with Internal Audit Staff, the Interim Executive Director, Interim Chief Investment Officer, Chief Financial Officer/Chief Operating Officer, and the IT Supervisor met to discuss succession planning.

The attendees of the kick-off meeting agreed that succession planning would need to be done in phases as it is a significant project with staff limitations. The first phase would focus on documentation and immediate risks.

RIO Management reorganized the agency structure effective September 1, 2021, to better fit the current and future needs of the agency.

**Scope**

Review the vacated positions to ensure proper documentation of their responsibilities and that all responsibilities were transferred to the new positions developed in the reorganization of RIO. Secondly, review the risks facing the investment program.

## **Observations**

Internal Audit staff split the reviewing of the programs with the Internal Auditor reviewing and documenting the retirement program, and the Supervisor of Internal Audit reviewing the risk pertaining to the investment program.

Step one was to review the organization structure and job duties. On July 1, 2021, the RIO's information technology staff was transferred to NDIT as part of the state initiative for information technology unification. Effective September 1, 2021, RIO's organization was restructured. This reflected the splitting of the Executive Director and Chief Investment Officer and the reorganization of the administrative support staff. Administrative staff had been its own division but to better assist the agency going forward the positions were reorganized. There now is a TFFR Administrative Assistant to support the retirement program, Contracts/Records Administrative Assistance to support the fiscal and investment programs, and an Executive Administrative Assistant to support the executive positions and boards. The previous Supervisor of Administrative Services was also RIO's Office Manager. The responsibilities of the Office Manager were allocated to the fiscal division. The Chief Financial Officer took the oversight responsibilities to centralize office operations, and the new title is Chief Financial Officer/Chief Operating Officer.

During the first quarter of the fiscal year 2022, IA reviewed and analyzed the responsibilities for the vacant positions: Supervisor of Administrative Services, Office Assistant, Membership Specialist, and the TFFR Administrative Assistant. IA wanted to ensure that current requirements and deadlines continued to be met. The responsibilities were classified by function – Executive Boards, Continuity of Operations (Business Continuity), Human Resources, Procurement, Records Management, Risk Management (Risk Management/Workforce Safety programs), Investment Services, Fiscal Services, and Retirement Services.

In the second quarter, IA reviewed the job descriptions and duties for the newly organized positions: Contracts and Records Management Administrative Assistant, the Executive Administrative Assistant, Retirement Program Administrative Assistant, Temporary Office Assistant-Receptionist, and the Temporary Member Specialist. IA compared the new job duties to the retired positions job duties and found no omissions.

Secondly, IA held meetings with the executive staff during the first and second fiscal quarters of 2022. The focus of the meetings was to document the risks for the programs. At the time, there were 19 full-time employees (FTEs) allotted to RIO to support both the retirement and investment programs. The 2021 Legislative Assembly Special Session was held in November 2021. House Bill 1506 approved an additional six FTEs for RIO. This includes four additional investment positions, one accounting position, and an outreach programs coordinator. As of December 1, 2021, RIO was allocated 25 FTEs for both programs.

With the additional FTEs that were granted, many of the investment program's risks were alleviated. The following risks could occur again due to growth in the program.

### **Executive Level**

The risks to the RIO agency if staffing is not adequate can be substantial for the organization, its clients, and members. Lack of adequate staffing means that legislative mandates take longer to implement, operations suffer such as outreach levels for TFFR and SIB, committee meetings could be canceled, and the risk of burnout for the remaining staff due to the demands. The SIB may not be able to approve complex asset allocations and move to a passive instead of active investment management strategy. The TFFR Board may have to reduce the level of service expected for its membership. This results in clients having to lower benchmarks and reduce performance expectations. Both the SIB and TFFR Boards may also find themselves in a position to prioritize program needs.

## **Investments**

The investment program only had four investment professionals dedicated to the investment program. With the resignation of two investment professionals, the investment team was cut in half. The substantial growth in investment assets and the complexity of asset allocations can pose a severe risk. Additional investment professionals were needed to give more depth and back-up for the investment program. As the investment program grows, staffing needs should be evaluated and added if needed. If the investment program is not adequately staffed, potential risks can be a loss of assets, not generating benchmark returns, asset allocations not being implemented, and inadequate monitoring. There is also a steep learning curve for any investment professional when hired. Onboarding a new investment professional is time-intensive due to the complexity of learning the processes, systems, and allocations.

## **Fiscal**

The fiscal division works with both the investment and retirement programs. The fiscal divisions main priorities are paying bills, rebalancing asset allocations, processing client flows (cash requests), external audit, reconciling accounts, budget, procurement, records management, tax reporting, reconciling CPAS, processing daily deposits and generating monthly financial statements for investment clients. The fiscal division does monthly investment performance reports for all 27 clients and ensures that investment fees are paid timely to the approximately 40 investment managers currently hired. Despite the growth with both programs, the fiscal staff is comprised of three accounting professionals and one administrative staff. One additional FTE was allocated to the fiscal division with the passage of HB 1506 in special session. Potential risks that can occur if fiscal operations are not adequately staffed are as follows: asset allocations not in balance, clients are not getting cash requests processed, financial performance monitoring not being completed timely for clients, agency bills going unpaid, accounts not being reconciled, not meeting contract requirements such as capital calls, financial statements not completed in a timely manner, and daily deposits not being posted.

## **Recommendations and Conclusions**

IA has the following recommendations:

1. Document succession planning for all executive staff identifying the key responsibilities for each.
2. Document a plan for the agency and each program if the top two positions were to leave the organization simultaneously.
3. Evaluate the purpose and duties of positions as they become vacant.
4. Review the agency's staffing needs on a biannual basis to ensure that there is adequate staff to keep pace with the agency's growth.

**MEMORANDUM**

**TO:** State Investment Board (SIB)  
State Investment Board (SIB) Audit Committee  
Janilyn Murtha, Executive Director

**FROM:** Sara Sauter, Supervisor of Internal Audit

**DATE:** February 16, 2021

**SUBJECT:** Executive Limitations Final Audit Report

*Significant changes have happened within the Retirement and Investment Office in 2021. In June 2021, the Executive Director/CIO resigned from RIO. In August 2021, the State Investment Board voted to split the position. Only the Executive Director position will be reporting to the Board directly, and the Chief Investment Officer will be reporting to the Executive Director. Due to staffing issues and time constraints, updating the Executive Limitations in the Governance manual to reflect the position changes was not completed. However, on November 16, 2021, the Audit Committee approved for Internal Audit to use the necessary discretion to do the Executive Limitations Audit. On November 19, 2021, the State Investment Board appointed Janilyn Murtha as the Executive Director who had been the acting Interim Executive Director since June 2021.*

Internal Audit has completed the annual review of the Executive Director's level of compliance with the State Investment Board (SIB) Governance Manual Executive Limitation policies for the calendar year beginning January 1, 2021 and ending December 31, 2021.

The governance policies reviewed during the audit were:

- General Executive Constraint (A-1)
- Staff Relations (A-2)
- Relating to Public and Government (A-3)
- Budgeting (A-4)
- Financial Condition (A-5)
- Communication and Counsel to the Board (A-6)
- Asset Protection (A-7)
- Compensation and Benefits (A-8)
- Conflict of Interest (A-9)
- Code of Conduct (A-10)
- Unrelated Business Interests (A-11)

Internal Audit is sufficiently satisfied that the Executive Director was in compliance with SIB Governance Manual Executive Limitation Policies A-1 through A-11 during calendar year 2021.

**RETIREMENT AND INVESTMENT OFFICE  
INTERNAL AUDIT  
EXECUTIVE LIMITATIONS AUDIT REPORT  
January 1, 2021 – December 31, 2021**

**Executive Limitations – General Executive Constraint (A-1)**

The following documents were reviewed and found to support the Executive Director's compliance with Executive Limitation A-1:

- Executive Team Members – Communication Questionnaires
- State Investment Board (SIB) Meeting Agendas, Materials, and Minutes

The executive team indicated that frequent communication occurs regarding board and executive issues and processes. Executive team members believe they are well informed and not lacking pertinent or relevant information. The executive team continues to demonstrate great cohesiveness. There is still a consensus regarding the most important issues facing the organization. With the sudden departure of two executive team members in 2021, a formal succession plan for executive staff currently is in development.

**Executive Limitations – Staff Relations (A-2)**

The following documents were reviewed and found to support the Executive Director's compliance with Executive Limitation A-2:

- RIO Administrative Manual and Employee Acknowledgements
- RIO Termination Checklist, Exit Interview, and Employee Termination Documents
- ND State Engagement Surveys

RIO maintains an Administrative Manual which includes personnel rules for staff, provides for the effective handling of grievances, and protects against wrongful conditions or violations of state and federal law. All staff members signed acknowledgements indicating that they reviewed and understood all policies contained within the Administrative Manual. The ND State Engagement Surveys confirm that the office culture continues to improve.

**Executive Limitations – Relating to Public and Government (A-3)**

The following documents were reviewed and found to support the Executive Director's compliance with Executive Limitation A-3:

- 2021 SIB Client Satisfaction Survey and Responses
- RIO Administrative Manual (Media Policy), Media Inquiry
- Open Record Requests

SIB clients were asked to rate the services provided by RIO staff on behalf of the SIB. A score of 3.63 was received on a 4.0 weighted average scale. Comments received were generally positive and indicated clients have a great deal of trust in staff, staff is knowledgeable and helpful. The Executive Director routinely responds to media requests and open records requests. The requests reviewed revealed that information provided by staff was accurate and when applicable distinguished between fact and personal opinion. Open records requests are tracked and appear to be responded to in a reasonable time.

**Executive Limitations – Budgeting (A-4) and Financial Condition (A-5)**

The following documents were reviewed and found to support the Executive Director’s compliance with Executive Limitation A-4 and A-5:

- RIO 2021-2023 Biennium Budget and Other Supporting Documentation
- Budget and Financial Condition Quarterly Monitoring Reports – SIB Meeting Materials
- Investment Fee Monitoring
- Legislative Special Assembly 2021 Documentation
- Contingency Line Request & Approval

A review of the quarterly monitoring reports for fiscal year 2021 revealed that RIO operated well within budget and had not made any expenditure which exceeded the appropriation authorized by the legislature. RIO’s budget for the 2021-2023 biennium was approved by the legislature with House Bill 1022. Additional funding and staffing were approved by the legislature during the 2021 special session with House Bill 1506. During calendar year 2021, RIO did not reduce the level of service of any programs nor request the assistance of the Emergency Commission. Investment fees increased for fiscal year 2021 due to the strong investment performance with the infrastructure managers and private equity managers. Investment fees increased to 0.64% in fiscal year 2021 from fees of 0.45% in fiscal year 2020. In fiscal year 2021, the SIB approximately paid \$120.98 million in fees and earned approximately \$361.9 million in estimated excess returns after fees. The \$361.9 million is in excess of returns after the benchmarks were met and fees were paid. RIO continues to earn positive risk adjusted rates of return all while reducing fees for most clients. All but one client earned net returns which exceeded their respective policy benchmarks for the 5-year period ending June 30, 2021.

**Executive Limitations – Communication and Counsel to the Board (A-6)**

The following documents were reviewed and found to support the Executive Director’s compliance with Executive Limitation A-6:

- SIB Governance Manual Policy C-4 (Monitoring Executive Performance Policy)
- SIB Meeting Agendas, Materials, and Minutes – Calendar Year 2021
- RIO Financial Audit - Fiscal Year Ended June 30, 2021

The SIB receives quarterly internal reports on staff relations, financial conditions, investment services, and investment performance. CliftonLarsonAllen, external auditor, completed the annual financial audit for year ended June 30, 2021, issued an unmodified clean opinion. Callan LLC provides quarterly external reports on the investment performance of the consolidated pension trust, consolidated insurance trust, and the Legacy Fund throughout the fiscal year. In calendar year 2021, board education included Meaning in Numbers, ND Growth Fund Investment Process, Equity Markets, SIB Investment Operations, and Audit Operations to help provide the board with the necessary information required to facilitate informed decision making.

**Executive Limitations – Asset Protection (A-7)**

The following documents were reviewed and found to support the Executive Director’s compliance with Executive Limitation A-7:

- State Fire and Tornado Fund Insurance Policy – FY 2021 and FY 2022
- OMB/Risk Management – Risk Management Fund Manual
- State Bonding Fund – Commercial Blanket Bond – CY 2021
- RIO Financial Audit - Fiscal Year Ended June 30, 2021
- SIB Meeting Agendas, Materials, and Minutes – Nov 20, 2020



**Executive Limitations – Asset Protection (A-7) (continued)**

RIO has obtained adequate insurance for board members, staff, and the organization to protect against theft and casualty losses as well as to protect against liability losses. All RIO personnel who have access to funds are properly bonded. External auditors, CLA, confirmed that funds are received, processed, and distributed under controls which are sufficient to meet State Auditor standards. The most recent asset allocation information available from Callan LLC is as of September 30, 2020. Most asset classes in the consolidated pension trust were within less than +/- 2% of asset allocation target levels. All asset classes in the consolidated insurance trust were within less than +/- 1% of asset allocation target levels. The asset classes in the Legacy Fund were all within less than +/- 1% of asset allocation target levels. Actual asset allocation versus target asset allocation data indicates that current asset allocations are well within established thresholds. Risk-adjusted excess returns measure how much risk was required to produce an investment return. Actual portfolio results adjusted by its risk are compared to a benchmark portfolio. Positive risk-adjusted excess returns indicate that returns have been generated without excess risk. RIO continues to earn positive risk adjusted rates of return all while managing fees for most clients. All but one client earned net returns which exceeded their respective policy benchmarks for the 5-year period ending June 30, 2021.

**Executive Limitations – Compensation and Benefits (A-8)**

The following documents were reviewed and found to support the Executive Director’s compliance with Executive Limitation A-8:

- OMB ND Salary Ranges – July 1, 2021 – June 2022
- RIO Salaries & Pay Grades
- ND Administrative Code, Chapter 04-07-02
- SIB Meeting Agenda, Materials, and Minutes
- ND State Personnel Board
- Executive Search Committee Meeting Materials and Minutes

A review of available documents confirmed that compensation and benefits for staff are compliant with the ND Administrative Code, Chapter 04-07-02. The SIB separated the Executive Director and Chief Investment Officer position in August 2021. The SIB hired both positions and approved the respective salaries. The ND State Personnel Board approved two additional non-classified positions for RIO. As of December 31, 2021, RIO was approved to have 25 FTEs, however, only 15 of them were filled at the time.

**Executive Limitations – General Executive Constraint (A-1), Conflict of Interest (A-9), Code of Conduct (A-10), and Unrelated Business Interests (A-11)**

The following documents were reviewed and found to support the Executive Director’s compliance with Executive Limitation A-1, A-9, A-10, and A-11:

- SIB Governance Manual Policy A-9 and Conflict of Interest Statement
- SIB Meeting Agenda, Materials, and Minutes – Feb 26, 2021 and July 23, 2021
- SIB Audit Committee Agenda, Materials, and Minutes – Feb 25, 2021

The Executive Director affirmed understanding of the Executive Limitation Conflict of Interest Policy (A-9) located within the SIB Governance Manual. Executive team members independently confirmed that they are not aware of any actual or perceived conflicts of interest concerning the Executive Director.

## MEMORANDUM

**TO:** State Investment Board  
**FROM:** Jan Murtha, Executive Director  
**DATE:** February 18, 2022  
**RE:** Executive Limitations/Staff Relations

Ms. Murtha will provide a verbal update at the meeting on agency efforts to address current and future organizational risk through strategic planning. Including updates on the following topics:

1. **Staff Engagement:** As part of its commitment to team member professional development and in partnership with WSI, all RIO team members have or are scheduled to participate in Crucial Conversations training in 2022.
2. **Retirements/Resignations/FTE's/Temporary Assistance:**

Employee Title	Status
Executive Director	Filled 11/21
Chief Investment Officer	Filled 01/22
Deputy ED – Chief Retirement Officer	Anticipated posting February 2022.
Chief Risk Officer	Start date 1/31/22
Contracts/Records Admin	Filled 11/21
Retirement Program Admin	Filled 11/21
Front Desk Temp	Filled 10/21
Membership Specialist Temp	Started 10/18/21; reposted in 11/21 and 1/22. Interviews 2/22.
Employer Reporting Intern	Started 2/7/22
Investment #1	Authorized by HB 1506 in 2021 Legislative Special Session: staff is creating JDQ's
Investment #2	Authorized by HB 1506 in 2021 Legislative Special Session: staff is creating JDQ's
Investment #3	Authorized by HB 1506 in 2021 Legislative Special Session: staff is creating JDQ's
Investment #4	Authorized by HB 1506 in 2021 Legislative Special Session: staff is creating JDQ's
Accounting #1	Authorized by HB 1506 in 2021 Legislative Special Session: staff is creating JDQ's
Programs Coordinator	Authorized by HB 1506 in 2021 Legislative Special Session: staff is creating JDQ's

### **3. Current Procurement Activities including:**

- **PAS Project** – We anticipate the contract negotiating phase to complete within February 2022. The ESC may issue a notice of award at the conclusion of contract negotiations and Phase 3 (final phase) will initiate. The next ESC meeting is scheduled for March 1, 2022.
- **Legacy Fund Advisory Board Consultant RFP** – The consultant for the Legacy Fund Advisory Board RFP was issued in January 2022. Finalists were presented to the Advisory Board on February 15, 2022. The Advisory Board awarded both projects to RVK.

**4. Strategic Planning:** RIO is undertaking the development of a comprehensive strategic plan by partnering with other state agencies who are leading such efforts. RIO has accepted an invitation to participate in a strategic planning project with ITD. RIO is also collaborating with HRMS for the strategic planning of staffing needs. Further, WSI has also offered to provide strategic planning guidance and assistance. RIO will provide the SIB with a strategic plan presentation at the March 2022 meeting.

**5. Public Presentations:** During February RIO staff will or have provided presentations to the following organizations:

NDAFMIC – Annual Conference - February 10, 2022

Legacy and Budget Stabilization Advisory Board – Meeting – February 15, 2022

NDPERS – Investment Subcommittee Meeting – February 24, 2022

**BOARD ACTION REQUESTED: Board Acceptance.**

# BOARD LEADERSHIP

January–February 2022 • No. 179

## INNOVATIVE APPROACHES TO GOVERNANCE

EDITOR: NICHOLAS KING

### PGA LEAD: Bringing Diversity to Boards Nationally

BY SANDY CROSS

*Sandy Cross is chief people officer at the Professional Golfers' Association of America. In this article, she showcases a leadership development program aimed at driving greater diversity within her association's national and regional boards.*

In 2014, the PGA of America embedded inclusion and diversity as foundational principles in our long-term strategic plan. This was just prior to celebrating the 100th anniversary of our association. Like many organizations, our boards nationally and regionally were suffering from what I call a self-reinforcing vortex of sameness.

The professional membership at the PGA has historically been homogeneous, meaning the vast majority are male and white. Since most of the board seats nationally and regionally are peer-elected and not appointed, the process had very often been an exercise in sameness—individuals electing other individuals who come from backgrounds and identities very similar to their own. We recognized the need to make our volunteer leadership across the association mirror the demographics of America if we are going to fulfill our mission successfully: To establish and elevate the standards of the profession and to grow interest and participation in the game

of golf. So, we set out to create the PGA LEAD program to disrupt this exercise in sameness. It's working, but there is still much to do.

Prior to my current role as chief people officer, I came into the role of Senior Director of Inclusion and Diversity in 2014, tasked with fostering an environment and culture of inclusion to support long-term growth and development. To this end, in 2015, I led efforts—along with our diversity and inclusion committee—to create PGA LEAD, which we rolled out nationally in January 2016.

The PGA of America is a not-for-profit professional trade association, composed of more than 28,000 PGA Professionals who have elected to have a career in the business of golf (versus being PGA or LPGA Tour Professionals). Our governance structure is significant and the Association is vast within an \$84 billion golf industry.

Structurally, we have 14 geographic districts across the association. While the districts don't have boards, each district has a director who sits on the National Board of Directors. Layered into these districts are 41 PGA sections, not organized along state lines but rather according to where the majority of PGA Professionals were congregated during the Association's formative years. For instance, in Florida, we have two sections, but in New York—which was (and still is) very populous with PGA Professionals—there are four. Within those sections, there are chapters, and within all of the aforementioned are committees that help shape strategy and programs.

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4 ESG Issues Elevated to the Board Room in Spate of 2022 Changes to Regulatory Rules and Benchmarks

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News

**New board appointments at the College Board, the Irvine Foundation and the Kresge Foundation, among others**

Several leading foundations and nonprofit organizations have made changes to their boards of directors in recent weeks, welcoming fresh perspectives that will help guide their decisionmaking going forward.

Here are some examples:

- The College Board elected three new members to its board:
  - Melody Bustillos, a counselor at Hermiston High School in Hermiston, Ore.
  - Catalina Cifuentes, the executive director of College and Career Readiness at the Riverside County Office of Education in California.
  - Raul Hiojosa, the director of community engagement at the University of Texas at Dallas.
- The James Irvine Foundation elected two new members to its board:
  - Brenna Butler Garcia, vice president of community relations at A.G. Spanos Companies.
  - Teresa Matsui, president and CEO of Matsui Nursery

Inc. and head of the Matsui Foundation.

- The Kresge Foundation has elected Cecilia Munoz as its board chair. Munoz joined the board in 2017, offering expertise in public policy and public interest technology. She served under the Obama administration as director of the Domestic Policy Council.
- The New Leaders Council has elected four new members to its board:
  - Anne Moses, founder and president of IGNITE, a group that trains young women to become civically and politically engaged.
  - David Lee, the co-founder and president of the *Texas Signal*, a political news publication.
  - Raymonde Charles, the vice president of communications, education and venture at the Chan Zuckerberg Initiative.
  - Wendy Davis, a former Texas state senator and founding director of the women’s political empowerment group Deeds Not Words. ■

**When We Say...**

*Board Leadership's* mission is “to discover, explain and discuss innovative approaches to board governance with the goal of helping organizations achieve effective, meaningful and successful leadership to fulfill their missions.”

Board Leadership aims to fulfill this mission by engaging its readers in a lively and illuminating inquiry into how board governance can be made more effective. This inquiry is based on three key assumptions:

- Boards exist to lead organizations, not merely monitor them.
- Effective board governance is not about either systems, structures, processes, theories, practices, culture, or behaviors—it is about all of them.
- Significant improvements are likely to come only through challenging the status quo and trying out new ideas in theory and in practice.

Uniquely among regular publications on board governance, *Board Leadership* primarily focuses on the job of board leadership as a whole, rather than on individual elements of practice within the overall job.

Over time, *Board Leadership* will provide a repository of different approaches to governance created through its regular “One Way to Govern” feature.

Here’s what a few of the key terms we use mean to us:

- **Innovative:** Creating significant positive change
- **Approaches:** Principles, theories, ideas, methodologies and practices.
- **Board governance:** The job of governing whole organizations.

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# What Does the Latest Adoption of the Model Non-Profit Corporations Act Mean for Board Leaders?

BY KYLE N. RICHARD

*Kyle N. Richard is a principal with Foster Garvey, a Seattle-based law firm. In this article, he explores new provisions in state and national guidelines that will impact various aspects of non-profit board activities and responsibilities.*

The American Bar Association (ABA) has published several versions of the Model Non-Profit Corporations Act (MNCA), including a widely adopted 1988 Revised Model Non-Profit Corporations Act (RMNCA) and, most recently, a “Final Exposure Draft” of the Fourth Edition of the RMNCA on May 28, 2021.

## The American Bar Association’s Model Non-Profit Corporations Act

The ABA first published a version of the MNCA in 1952. The ABA published a comprehensive update to the MNCA in 1988 and third edition of the MNCA in 2008. The 2021 update represents a fourth edition (third revision) of the MNCA and reflects a 2016 comprehensive update to the ABA’s Model Business Corporations Act (MBCA), along with a number of other substantive changes.

Versions of the MNCA have been adopted by a majority of states. As of 2008, 14 states’ non-profit corporations statutes were based on the 1952 MNCA, while 24 states had adopted a version of the 1988 RMNCA (Malamut, 2008). Until the 2021 legislative session, Washington State was one of the states still using a version of the 1952 MNCA.

## The Most Recent Adoption of the Model Non-Profit Corporation Act (Washington SB 5034) Goes into Effect Jan. 1, 2022

On Jan. 1, 2022, the law governing Washington State non-profit corporations will be completely overhauled for the first time in nearly 50 years. What Washington State non-profits knew as Chapter 24.03 will be replaced with a new law (the “WNCA”) generally based on the fourth edition of the MNCA, which takes into account the 1988 revision as well as certain more recent changes.

Washington State non-profit corporations should be prepared to amend their articles and bylaws to respond to this new law, and even non-profits who will not have a legal requirement to update their organizational documents should be prepared for significant changes. These changes are reflective of broader trends in non-profit governance reflected in the RMNCA more generally, and for non-profits located

in states that adopt a version of the RMNCA or otherwise update their non-profit entity statutes, they are instructive for the types of changes to articles and bylaws that may be either required for compliance or provide an opportunity to take advantage of clearer or more favorable organizational provisions.

## Bylaw Changes for Non-Profit Corporations with Members

The WNCA makes substantial changes to Washington law regarding the designation and rights of members in a membership non-profit corporation. Prior Washington law provided very little guidance regarding the rights, classes, and duties of members. In fact, the only provision setting forth the substantive rights of members in a non-profit corporation stated that members are “individual[s] or entit[ies] having membership rights in a corporation in accordance with the provisions of its articles of incorporation or bylaws” (Corporations and Associations (Nonprofit), 2015).

The WNCA reflects more recent revisions of the RMNCA by establishing an entire new chapter that governs the substantive rights and responsibilities of members. Both the WNCA and RMNCA provide for specific standards for the admission, resignation, termination, rights and obligations, and liability of members (WNCA, 2021 and ABA, 2021). Like the RMNCA, the WNCA does not require a Washington non-profit corporation to have members, and where the organization is intended to have members, the articles or bylaws of a non-profit corporation must provide for membership and provide for the right to vote on directors or on at least one category of fundamental transaction. In a departure from the RMNCA, the WNCA provides that members do not have the right to vote on matters unless specifically given that right by the governing documents of the non-profit corporation (WNCA, 2021).

Given the ambiguity of prior law regarding the definition of a “member” and the rights and responsibilities associated with membership, Washington State non-profit corporations with members may wish to amend their bylaws to clarify who

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# ESG Issues Elevated to the Board Room in Spate of 2022 Changes to Regulatory Rules and Benchmarks

BY STEPHANIE RESNICK, ESQ. AND JOHN C. FULLER, ESQ.

*Stephanie Resnick, Chair of the Directors' & Officers' Liability & Corporate Governance Practice Group at Fox Rothschild LLP, and John Fuller, Partner in the firm's Directors' & Officers' Liability & Corporate Governance Practice Group. In this article, they discuss regulatory proposals that will impact the care that boards need to take to address environmental, social, and governance issues.*

Directors and officers have faced increasing internal and external pressures to address environmental, social, and governance concerns in recent years. The pressure for companies to improve in these areas has come from all directions, including from activist shareholders, non-governmental watchdogs, and directly from consumers. While many directors and officers aspire to elevate these value principles, until now there have been only limited sources of potential liability if ESG-related goals are not met.

However, a series of recently adopted and proposed regulatory rule changes signal that new standards of accountability may be taking root. Among the new regulations and benchmarks announced at the end of 2021 are proposed changes to investment considerations for ERISA plans, Treasury Department recognition of the effects of climate change, and proxy voting policies that demand increased equality. Each of these will elevate ESG issues directly to the board level. It follows that the recognition of ESG concerns in fiduciary decision-making may set the stage for new theories of liability and additional regulation in the years to come.

## ERISA Changes Open Door to Considering ESG Factors

Proposed amendments to the regulations relating to the appropriate investment considerations for fiduciaries of retirement plans subject to ERISA signal that ESG factors may play an increasingly material role in fiduciary decision-making. Specifically, on Oct. 13, 2021, the U.S. Department of Labor released a proposed rule (the "Proposed Rule") that would change current regulations and allow increased consideration of ESG factors in selecting investments for ERISA plans.

In the years leading up to the Proposed Rule, the role of ESG considerations in selecting investments for an ERISA plan varied dramatically. Section 404(a) of ERISA establishes the general rule that plan fiduciaries must act in accordance with their duties of loyalty and prudence. Related DOL guidance appeared to embrace "socially responsible" investing and the potential long-term financial benefits of investments

in socially conscious companies.

However, in 2018, the DOL released the Field Assistance Bulletin 2018-01, in which they stated that ESG factors should not be given undue weight when compared with the financial performance of a potential investment opportunity for the plan. Further, in a 2020 Rule titled *Financial Factors in Selecting Plan Investments*, the DOL expressly stated that investment decisions should be based solely on "pecuniary factors," except in limited circumstances. The DOL also amended proxy voting rules in such a manner that fiduciaries were not required to (and in some cases should abstain from) voting proxies in favor of social goals that were not in direct alignment with the financial benefits to the plan. These rule changes, which also included documentation obligations to evidence the consideration of pecuniary factors, were widely viewed as creating significant additional scrutiny (and potential liability) for any fiduciary who sought to give consideration to ESG factors.

The Proposed Rule would remove the "pecuniary factors" requirement and acknowledge that ESG factors are part of the considerations that fiduciaries can undertake as part of their duties of loyalty and prudence. Instead of the "pecuniary factors" language, the Proposed Rule states that "a prudent fiduciary may consider any factor in the evaluation of an investment or investment course of action that, depending on the facts and circumstances, is material to the risk-return analysis."

Moreover, the Proposed Rule includes specific examples of ESG considerations that may be evaluated as part of the risk-return analysis. Among the examples are climate change-related factors such as a company's exposure to the economic impacts of climate change and the potential effects of government regulations designed to mitigate climate change; governance considerations, including the composition of the board and its accountability and transparency policies; and workforce factors, including diversity and inclusion efforts, and investments in employee training.

To be clear, the Proposed Rule does not place ESG factors above the financial benefit of a potential investment, but

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rather allows ESG factors to be considered. The Proposed Rule contains a “tie-breaker” rule under which fiduciaries can weigh various collateral benefits of an investment if the fiduciary has found that competing investments equally serve the financial interests of the plan. Finally, the Proposed Rule provides for consideration of ESG factors in participant-directed defined contribution plans, provided that certain disclosures are made. The DOL has also proposed amendments to related proxy voting rules, removing current restrictions on voting proxies and reducing onerous monitoring and recording requirements.

While the Proposed Rule does not compel fiduciaries to consider ESG factors, it could open the door to liability where shareholders believe ESG factors were not properly considered as material aspects of a plan investment. Further, while some record-keeping requirements have been relaxed, fiduciaries should continue to document their evaluation of financial and non-financial considerations when making investment decisions on behalf of an ERISA plan.

### **Treasury Report Formally Recognizes Financial Impact of Climate Change**

On Oct. 21, 2021, the U.S. Department of the Treasury’s Financial Stability and Oversight Council released a report formally identifying climate change as a threat to U.S. financial stability. The FSOC was created under the Dodd–Frank Wall Street Reform and Consumer Protection Act. It is chaired by Secretary of the Treasury Janet Yellen and consists of 15 members representing federal and state regulators as well as independent insurance experts.

The FSOC’s report was issued in response to President Biden’s Executive Order 14030, in which the President directed the Secretary of the Treasury to assess the financial risks that climate change poses to the stability of the federal government and the U.S. financial system. Significantly, the report marks the first time that climate change has been identified as an emerging and increasing threat to the stability of the U.S. financial system.

In addition to the assessment, the report contains four central recommendations: scenario analysis modeling to determine whether additional regulations or guidance are appropriate to mitigate climate change risks; promoting enhanced climate-based risk disclosures and standardizing data formats for such disclosures; increasing the public availability of climate-related data; and building monitoring capacity within the FSOC, including new committees dedicated to climate-related risks.

The FSOC’s report and recommendations are consistent with and build upon recent initiatives by several federal agencies including the U.S. Securities and Exchange Commission’s evaluation of public disclosures regarding climate-related risk;

the Federal Reserve Board’s creation of two committees to analyze climate-related risk and its effect on financial stability; the Commodities Futures Trading Commission’s issuance of a September 2020 report through its Market Risk Advisory Committee examining increasing risks to core commodities; and the Federal Housing Authority’s call for information from the public regarding the impact of climate change.

Now that climate change has been formally identified as a risk to U.S. financial stability, additional regulation appears imminent. The FSOC and other federal agencies appear initially focused on reporting and disclosure obligations and the standardization of data. Companies must stay abreast of changing disclosure requirements and ensure that they have internal mechanisms to measure core ESG metrics. Once data is standardized, calls for improvements with respect to ESG may come from federal regulations, but will likely come sooner from non-governmental organizations and shareholders who will utilize publicly disclosed data.

### **Largest Proxy Advisory Firm Expands Equality and Environmental Voting Policies**

Beyond the changing regulatory landscape, new benchmarks are being set in the private sector that create additional pressures for board members. In December 2021, Institutional Shareholder Services, the largest proxy advisory firm in the world, released its 2022 Proxy Voting Guidelines, setting forth benchmarks that ISS will use when voting as proxy for its significant base of institutional investor clients. Among the changes in the benchmarks behind the 2022 Guidelines are the expansion of gender equality policies and entirely new policies relating to racial diversity and climate change.

In 2019, ISS first announced that it would cast proxy votes against (or withhold proxy votes in favor) of the chair of the nominating committee at companies where there were no women on the board of directors. While this policy applied only to companies in the Russell 3000 or S&P 1500, the 2022 Guidelines will now implement this policy for all companies.

The 2022 Guidelines include new policies for voting on shareholder proposals to increase racial equality and anti-discrimination initiatives. Among the factors that ISS has announced it will evaluate when deciding whether to vote in favor of such a shareholder proposal are: the company’s established internal processes for addressing racial inequality and discrimination; the company’s external commitments to diversity, equity, and inclusion efforts; whether the company has engaged with impacted communities, stakeholders, and civil rights experts, and its track record of outreach; whether the company has been the subject of specific controversy or litigation relating to inequality; and, whether the company’s

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### ESG

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actions are aligned with market norms in this area.

The 2022 Guidelines also contain two new policies regarding the impact of climate change. First, ISS announced its “Say on Climate” analysis framework. For climate transition action plans proposed by management, ISS will evaluate factors including the completeness of the company’s short-, medium-, and long-term climate planning (including independent scientific review); whether the company’s plan is in line with market and supply chain standards; and the external commitments made by the company and other industry participants to achieve decarbonization goals. For shareholder proposals to increase disclosures and shareholder voting on climate-related issues, ISS will evaluate the rigor of the company’s current disclosures and performance in reducing emissions; recent litigation or controversies relating to climate change issues; and the overall burden of the proposal on operations.

Also included in the 2022 Guidelines is a new climate accountability policy applicable to companies that emit a “significant” amount of greenhouse gases. Under this policy, ISS will vote against (or withhold votes from) board members responsible for addressing environmental issues who

have failed to take minimum steps to “understand, assess, and mitigate risks related to climate change to the company and the larger economy.” In the initial year of this policy, the minimum criteria will be the disclosure of climate risks facing the company and the board and management measures being implemented to mitigate these risks, as well as the establishment of “appropriate” emissions reduction targets.

Recognition of central ESG considerations in proxy voting policies represents yet another area in which new standards of board conduct are being established. The ISS benchmarks provide some periods for compliance; however, the significant and simultaneous expansion of policies relating environmental impact and gender and racial discrimination is a dramatic, market-driven uptick from ISS’s first gender representation benchmark issued just three years ago.

As we enter 2022, the changes discussed above signal that consideration of ESG factors is only gaining momentum. While some will argue that these changes lack enforcement mechanisms and do not push companies hard enough to advance ESG issues, these changes will nonetheless create a foundational baseline for additional regulation in the medium and long term, and, in a much shorter term, the type of objective performance comparisons that can give rise to civil liability and support new damage theories. ■

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### REGULATIONS

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is deemed a “member” for statutory purposes. By providing more specific member rights and responsibilities in statute, the WNCA could create ambiguity regarding whether a power is vested in the members and who is entitled to participate in decisions and actions vested in members unless governing documents are reviewed. In particular, Washington non-profit corporations will likely want to check their governing documents to ensure that members are clearly given the right to vote on matters on which they are intended to exercise decision-making authority.

Because the RMNCA and WNCA require that (a) members be provided for in the articles, and that (b) members have the right to vote for the election of directors or at least one category of fundamental transactions (generally defined as amendments to governing documents and dissolution, transfer of ownership, or conversion), non-profit corporations subject to these new revisions should review their governing documents to ensure members are provided with sufficient rights to ensure that they will be treated as such. The new law also provides additional guidelines related to member admission and new options for structuring membership rights and classes, which also must be specified in governing documents.

These provisions contain a member of technical details for which a non-profit corporation should likely consult with an attorney familiar with both the prior and new acts to ensure that appropriate transition provisions are drafted.

### Alignment of Board Fiduciary Standards with Duties of Corporate Directors

A board will typically be governed by one of two sets of fiduciary standards—the trustee standard or the corporate standard. Under prior Washington State law, the fiduciary standard applicable to a non-profit board was unclear. Both the WNCA and the RMNCA resolve this ambiguity by clearly applying the corporate fiduciary standard to directors rather than the trustee standards applicable to trustees (and board members of charities formed as trusts) (WNCA, 2021 and ABA, 2021). It is also worth noting that whole non-profit organizations frequently refer to their board as a “Board of Trustees” and members of that body as “Trustees”; these individuals will be governed by the corporate director standard and not the higher trustee standard. The term used to refer to the members of the governing board do not control the applicable duties.

As those familiar with corporate governance are aware, the corporate standard is substantially less strict than the trustee

standard. In particular, the corporate standard gives directors the benefit of the “business judgment rule,” a protection that trustees do not have. To the extent that there were concerns regarding the applicable standard, this change represents a welcome clarification of the duties applicable to non-profit corporate directors. This may increase access to board service opportunities for individuals concerned with potential liability associated with board service. Although this change is automatic, non-profit corporations will likely want to review their bylaws, policies, governance practices, and insurance products to determine if they remain appropriate in light of this change.

### Alignment with UPMIFA for Donor-Restricted and Endowment Assets

Under prior Washington State law, non-profit corporations were subject to unclear application of both the Uniform Prudent Management of Institutional Funds Act (UPMIFA) and Washington state trust law when managing charitable assets. The WNCA provides for explicit application of the Washington State law adoption of UPMIFA to the protection and management of charitable assets, rather than the trust statutes (WNCA, 2021).

As part of its changes to the requirements regarding the management of institutional assets, the WNCA establishes procedures to modify restrictions on gifts, to prevent the improper distribution or use of charitable assets, for the appropriate protection, distribution, or allocation of charitable assets in a merger, dissolution, or similar transaction, and new standards for reporting changes to a charitable organization’s purpose. This is a departure from the RMNCA, which relies on the doctrine of cy pres for the release of restrictions on gifts. Conversely, both the RMNCA and the WNCA prohibit the diversion of charitable assets as a result of a merger or reorganization transaction unless approved by a court or under the generally applicable provisions of each act for the release of charitable restrictions. These changes are significant, and while many provide additional certainty to non-profit corporations, they include specific statutory and compliance requirements that non-profit organizations should carefully review to ensure compliance. In particular, in the event of a merger or other reorganization, non-profits should ensure that charitable gift restrictions either are not affected or are released in accordance with the new law.

### Standardization of Board Size and Modernization of Electronic Communication and Meeting Requirements

Additionally, the WNCA now generally requires a minimum of three directors for non-profit organizations seeking public charity status (in accordance with IRS procedure)

(ABA, 2021). This is a slight departure from the RMNCA, which requires a minimum of three directors, regardless of public charity status (ABA, 2021). Unlike the RMNCA, the WNCA provides procedures for remote board of directors’ meetings (Procedures for Remote Meetings, § 24.03A.485 and § 24.03A.485 580, 2021). The RMNCA only specifically provides for remote meetings of the membership (ABA, 2021). The remote meeting provisions more clearly authorize a wide variety of technologies, as long as participants can participate simultaneously. Under prior Washington state law, the procedures and authorized technologies for holding remote meetings were unclear. The WNCA and RMNCA also permits the use of electronic communications and notices to directors, members, and officers by default.

These provisions likely do not present compliance challenges, and may provide opportunities for non-profits to hold meetings where members are geographically disbursed and to simplify the notice procedures associated with meetings. This may allow non-profits to diversify their membership and boards and to permit more frequent meetings. Given that non-profit organizations often face significant scheduling and commitment restraints based on the schedules and commitments of members and directors, this provision may present an opportunity to improve governance by allowing members and boards to meet more frequently and consider a broader subset of corporate actions. ■

*Kyle Richard focuses his practice on helping non-profit and government clients navigate complex tax issues, and also teaches the course on non-profit corporations at the University of Washington School of Law. For non-profit corporations with questions regarding SB 5034, what actions they need to take before year-end, and what opportunities this new law presents, you may contact him at [kyle.richard@foster.com](mailto:kyle.richard@foster.com) or (206) 447-2906.*

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### DIVERSITY

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To serve on the national board or be elected to a national officer role, which is the top seat, a candidate typically must work their way through the intricate chairs, which can often take many years. The intent of PGA LEAD is to identify and develop PGA Members from diverse backgrounds so they can step into leadership roles. I am proud to say that we are currently at the precipice of having our first PGA LEAD alumni on the national board, along with helping develop one section president, two section vice presidents, six section board members, and 15 national committee members (which is very often a precursor to becoming recognized and elected by peers).

### The Process

PGA Members who aspire to ascend through the volunteer leadership ranks apply to the two-year program, which begins every January with two cohorts made up of up to 15 members each, one cohort of new members and the other entering their second year of the program. The program provides a deep bench of PGA Members from diverse backgrounds who aspire to lead, and prepares these individuals to serve within the PGA and on nonprofit boards within their communities.

Each cohort is on a separate track even though they run concurrently. They meet monthly through video conferencing with subject matter experts, including PGA of America executives and staff, as well as business leaders from inside and outside the golf industry.

The PGA LEAD cohorts also meet in person at two Association governance functions each year (sponsored by the Association). The first event is the PGA merchandise show, which is the world's largest golf trade show and is where the business of golf takes place. The second in-person event is our annual fall meeting, which is our largest governance event, where our LEAD Members can see our governance model in action. Connecting in this way with other PGA LEAD participants and Association and industry colleagues has proven invaluable in developing Members' professional networks.

### Eligibility

Each applicant must meet the following criteria.

- Class A PGA Member for at least 1 year and in good standing.
- Aspires to serve as a national volunteer leader within the Association.
  - Is committed to actively participating in monthly virtual meetings and completing related assignments.
  - Is committed to participating in PGA LEAD for 2 years, including PGA LEAD activities at the PGA Merchandise Shows and/or PGA Annual Meetings during the term.

- Is committed to making a PGA LEAD presentation at a PGA Section Meeting at the conclusion of the program as an inspiration to others.

### First-Year Goals

During our first year, we encouraged the first cohort to give us any and all feedback, which became instrumental in helping us shape PGA LEAD for future cohorts. This first cohort gave us many successes—most notably, Howie Pruitt, who is the first African-American in the history of the PGA of America to serve as a PGA Section Officer. He is currently the President of the Pacific Northwest PGA Section.

### Learnings

One of the major learnings that we still grapple with is the variety of skill and experience levels of the members who apply to the program. Some PGA Members have been Members for years and are at a point in their lives, careers, and/or families where they can take on a leadership role within the association. The other group is new to the PGA and knows within their first year or two that they want to be a leader in the association.

Each of these individuals has differing needs and frames of reference, which can be challenging for our presenters or when creating and delivering a curriculum. However, despite that, the blended approach has offered some surprising benefits as each group learns from each other—particularly the newer PGA Members having exposure to our more seasoned Members.

### Long-Term and Immediate Goals

Our vision has always been to have the volunteer leadership at the chapter, section, and national levels of the PGA of America reflect the demographics of America. More specifically, we want and need more women, individuals who are racially and ethnically diverse, individuals with disabilities, and individuals who identify as LGBTQ+ serving in these leadership roles.

To accelerate this vision, we are encouraging our 41 PGA sections to create their own PGA Section LEAD Programs. We've made available a simple tool kit that provides guidance and structure that includes everything from curriculum to sourcing local speakers. This will allow the PGA of America to more effectively accelerate the diversification of its governance structure and, ultimately, better fulfill our mission of serving our PGA Members and growing participation in golf. Integrating a multitude of dimensions of difference into our leadership ranks helps position the Association for success for decades to come, and the future looks bright. ■