COUNTY OF TULARE

BOARD OF RETIREMENT

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AGENDA OF THE BOARD OF RETIREMENT
REGULAR RETIREMENT BOARD MEETING
Wednesday, February 23, 2022 at 8:30 a.m.
TCERA Board Room, 136 N. Akers Street, Visalia, CA 93291

NOTICE TO THE PUBLIC

Persons who wish to address the Board of Retirement during public comment or regarding an item that is on the agenda may address the Board of Retirement in person at the meeting. Any person addressing the Board will be limited to a maximum of five (5) minutes. A total of 15 minutes will be allotted for the Public Comment period unless otherwise extended by the Board Chair. If you are part of a large group that would like to comment on an agenda item, please consider commenting in writing or sending one spokesperson to speak on behalf of the group. Members of the public may also submit public comment via U.S. mail or via email to BORPublicComment@tularecounty.ca.gov before the meeting. The comments received via U.S. mail or email before the meeting will be read to the Board of Retirement in open session during the meeting as long as the comments meet the requirements for Public Comments as posted in the agenda. Public comments are limited to any item of interest to the public that is within the subject matter jurisdiction of the Board of Retirement. (Gov't Code Section 54954.3(a).)

Persons wishing to listen to the meeting may call the TCERA Office during regular business hours (Monday through Friday, 8:00 a.m. to 5:00 p.m.) within 48 hours of the meeting at 559-713-2900 for access information. Documents related to the items on this agenda are available for public inspection at the Retirement Office, 136 N Akers Street, Visalia, CA, during normal business hours. Such documents are also available on TCERA's website, www.tcera.org, subject to staff's ability to post the documents before the meeting.

As a courtesy to those in attendance, all individuals are requested to place cell phones and other electronic devices in the non-audible alert mode.

I. CALL TO ORDER

II. ROLL CALL

III. PLEDGE OF ALLEGIANCE

IV. PUBLIC COMMENT

At this time, members of the public may comment on any item not appearing on the agenda. Under state law, matters presented under this item cannot be discussed or acted upon by the Board at this time. For items appearing on the agenda, the public is invited to make comments at the time the item comes up for Board consideration. Any person addressing the Board will be limited to a maximum of five (5) minutes. Please state your name for the record.

V. X-AGENDA ITEMS

VI. DISABILITIES

1. Closed session to be held regarding disability matters listed on this agenda.
2. In the matter of the disability application of Rosemarie Boren, consider and take action regarding the application for a disability retirement.
3. In the matter of the disability application of Ixchel Franks, consider and take action regarding the application for a disability retirement.
4. In the matter of the disability application of John Chabrajez, consider and take action regarding the application for a disability retirement.
5. Accept as filed the Disability Status Report Overview.

VII. CONSENT CALENDAR

1. Approve Minutes of the following meetings:
   a. Retirement Board Minutes of January 26, 2022.
2. Approve payments to:
   a. BlackRock – invoice for investment management services in the amount of $64,990.83 for the quarter ended December 31, 2021.
   b. Boston Partners – invoice for investment management services in the amount of $75,878.04 for the quarter ended December 31, 2021.
   c. State Street S&P 500 Flagship Fund – invoice for investment management services in the amount of 7,823.24 for the quarter ended December 31, 2021.
   d. State Street U.S. REIT Index Fund – invoice for investment management services in the amount of $1,014.53 for the quarter ended December 31, 2021.
   e. State Street U.S. Extended Market Index Fund – invoice for investment management services in the amount of $5,079.41for the quarter ended December 31, 2021.
   f. State Street MSCI ACWI Ex USAL Fund – invoice for investment management services in the amount of $13,789.61for the quarter ended December 31, 2021.
   g. Waddell & Reed – invoice for investment management services in the amount of $93,449.43 for the quarter ended December 31, 2021.
   h. William Blair – invoice for investment management services in the amount of $69,456.33 for the quarter ended December 31, 2021.
   i. Verus – invoice for investment consulting services in the amount of $22,500.00 for the month ended January 31, 2022.
3. Pension Board Reports and Actions
   a. Ratify Retirement Administrator actions regarding Retirement Application approvals and Option Selections for the month of January 2021.
   b. Approve Reports regarding Retirement Applications, Option Selections and Deceased Pensioners and 30-Year Members for the month of January 2021.

VIII. INVESTMENTS

1. Presentation from Verus regarding TCERA's December 31, 2021 Investment Performance Report. Discussion and possible action.

2. Discussion and possible action regarding TCERA's strategic investment allocation and investment managers, including performance, contracts, and fees.

IX. NEW BUSINESS

1. Discussion and possible action regarding the rates for crediting interest to TCERA member accounts and reserves for the six-month period ended December 31, 2021.
2. Discussion and possible action regarding the April 2022 Cost of Living Adjustment (COLA) for TCERA pension payees.
3. Discussion and possible action regarding SACRS Voting Proxy for the SACRS Conference to be held May 10-13, 2022.

X. EDUCATION ITEMS

1. Discussion and possible action regarding Summary Education Reports as filed:
   a. Leanne Malison – Verus First Quarter Investment Landscape Webinar, January 27, 2022, 1 hour.
   b. Leanne Malison – Hanson Bridgett Human Resources Issues Legal Update – Webinar, February 9, 2022 1.5 hours.
   c. Leanne Malison – CALAPRS Administrators Round Table – Virtual Event, February 10, 2022 4 hours.
   d. Mary Warner, Verus First Quarter Investment Landscape Webinar, January 27, 2022, 1 hour.
2. Discussion and possible action regarding available educational events.

XI. COMMUNICATIONS

1. County Counsel Report – Cases Pending in Court and Pending Appeal to Court. Discussion and possible action.
2. SACRS Legislative Update, February 2022. Discussion and possible action.

XII. UPCOMING MEETINGS

1. Administrative Committee Meeting, February 23, 2022, 10:00 a.m.
2. Board of Retirement Meeting March 9, 2022, 8:30 a.m.
3. Investment Committee Meeting March 9, 2022, 10:00 a.m.
4. Board of Retirement Meeting, March 23, 2022, 10:00 a.m.
5. Administrative Committee Meeting March 23, 2022, 10:00 a.m.

XIII. TRUSTEE/STAFF COMMMENTS

Under state law, matters presented under this item cannot be discussed or acted upon by the Board at this time.

XIV. ADJOURNMENT

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Secretary of the Board of Retirement at (559) 713-2900. Notification 48 hours prior to the meeting will help enable staff to make reasonable arrangements to ensure meaningful access. Documents related to the items on this Agenda submitted after distribution of the Agenda packet are available for public inspection at TCERA, 136 N. Akers Street, Visalia, CA. during normal business hours.

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

02 - Pending Receipt of Medical Records

9/3/21 Zuniga, Julia (Adriana Gonzales-Chang)

HHS-HS-Dinuba District Off/General Member Psychiatric/Psychological/Service Connected Disability

Retired

Eligible for Service Retirement = Yes

9/3/21 Disability Application Packet Received and Reviewed

9/7/21 Disability Application Documents Scanned

9/7/21 Disability File Folder Created

9/7/21 Infolinx Setup

9/7/21 DMS Notified of Disability Application Filing

9/7/21 Employment Records Requested
Additional Remarks : Due 10/7/21; 12/21/21 1st reminder for pending med recs sent, also pending response from workers comp; 12/23/21 all county records received, pending medical records due 2/1/22

9/9/21 Tulare County Health Centers Records Received

9/16/21 Disability Findings Summary Prepared

12/21/21 County Department Records Received

12/21/21 HR & D Records Received

12/23/21 Risk Management Records Received

9/1/21 Scattareggia, Mario (Adriana Gonzales-Chang)
Presumptive Indicator: N
Active

Sher-Dt-Pre-Trial/Safety Member Orthopedic/ Service Connected Disability

Eligible for Service Retirement = No

9/1/21 DMS Notified of Disability Application Filing

9/1/21 Disability Application Packet Received and Reviewed

9/1/21 Disability Application Documents Scanned

9/1/21 Infolinx Setup

9/1/21 Employment Records Requested
Additional Remarks : Due 10/01/2021; 9/8/21 - Amended TPS and all medical records received from applicant, currently only pending county records; 12/16/21 - second request sent to Risk and Dept, due 1/5/22

9/8/21 Tulare County Health Centers Records Received

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

9/15/21 Disability File Folder Created

1/4/22 HR & D Records Received

12/8/21 Hall, William (Adriana Gonzales-Chang)

CAO-GS-Parks-Mooney Grove/General Member Neurological/Non-Service Connected Disability

Retired

Eligible for Service Retirement = Yes

12/15/21 Disability Application Documents Scanned

12/15/21 Disability Application Packet Received and Reviewed
Additional Remarks : AGC met w/member and rec'd reviewed app packet. NM shadowing.

12/16/21 DMS Notified of Disability Application Filing

12/16/21 Disability File Folder Created

12/16/21 Infolinx Setup

12/16/21 Employment Records Requested
Additional Remarks : Risk recs due 1-8-2022; All other dept. recs due 1-18-2022. Med recs due 2-1-2022.

10/5/21 Flores, Doris (Adriana Gonzales-Chang)

HHS-HS-Visalia District Off/General Member Neurological/Non-Service Connected Disability

Active

Eligible for Service Retirement = Yes

10/5/21 Disability Application Packet Received and Reviewed

10/7/21 Disability Application Documents Scanned

10/7/21 Disability File Folder Created

10/7/21 Disability Findings Summary Prepared

10/7/21 Infolinx Setup

10/8/21 DMS Notified of Disability Application Filing

10/8/21 Employment Records Requested
Additional Remarks : Dept recs due 11/8/21, Med recs due 11/16/21; 12/16/21 - second request for dept recs sent to Risk and TCHC, due 1/5/22; 1/19/21 - All County and Med recs rcvd. Summarization ordered today, due 2/8/22

1/4/22 County Department Records Received
Additional Remarks : HHSA Dept

1/4/22 HR & D Records Received

1/4/22 Tulare County Health Centers Records Received

1/19/22 Risk Management Records Received

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

11/19/21 Anderson, Mark (Nicholas Morse)

RMA-TR-Fleet Central Shop/General Member Orthopedic/Service Connected Disability

Retired

Eligible for Service Retirement = Yes

11/23/21 DMS Notified of Disability Application Filing

11/23/21 Disability Application Packet Received and Reviewed

11/23/21 Employment Records Requested
Additional Remarks : Dept recs due 12-23-2021. No additional med recs pending from applicant.

11/23/21 Disability Application Documents Scanned

11/23/21 Disability File Folder Created

11/23/21 Infolinx Setup

10/29/20 Lack, Tonnya (Adriana Gonzales-Chang)
Presumptive Indicator: N
Active

Prob-Juvenile Detention/Safety Member

Eligible for Service Retirement = Yes

11/5/20 Disability Application Packet Received and Reviewed

11/18/20 Disability Application Documents Scanned

11/18/20 Disability File Folder Created

11/18/20 Infolinx Setup

12/2/20 Employment Records Requested
Additional Remarks : 7/6/21 mailed reminder for medical records, due 8/17/21; 9/22/21 second reminder for med recs mailed, due 11/3/21; 1/20/22 - Final reminder for med recs mailed, due 3/3/22

1/8/21 County Department Records Received
Additional Remarks : Probation Dept

1/8/21 Disability Findings Summary Prepared

1/8/21 HR & D Records Received

1/8/21 Tulare County Health Centers Records Received
Additional Remarks : No records

6/10/21 Risk Management Records Received

7/12/21 Palma, Irma (Christene Brown)

HHS-HS-Lindsay District Off/General Member Orthopedic/Service Connected Disability

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

Active **Eligible for Service Retirement = Yes**

7/13/21 Disability Application Packet Received and Reviewed

7/13/21 DMS Notified of Disability Application Filing

7/13/21 Disability Application Documents Scanned

7/13/21 Disability File Folder Created

7/13/21 Infolinx Setup

7/14/21 Employment Records Requested
Additional Remarks : Dept recs due 8/13/21, med recs due 8/23/21; 12/21/21 1st reminder sent to appl

7/20/21 Tulare County Health Centers Records Received
Additional Remarks : Certificate of No Records received

12/21/21 County Department Records Received

12/21/21 HR & D Records Received

12/21/21 Risk Management Records Received

10/4/21 Woods, Nancy (Adriana Gonzales-Chang) **RMA-Grants/General Member Orthopedic/ Service Connected Disability**

Active **Eligible for Service Retirement = Yes**

10/4/21 Disability Application Packet Received and Reviewed

10/4/21 Disability Application Documents Scanned

10/5/21 Infolinx Setup

10/5/21 DMS Notified of Disability Application Filing

10/5/21 Employment Records Requested
Additional Remarks : Due 11/4/21; 12/16/21 - second request sent to Risk and TCHC, due 1/5/22; 1/18/22 - All medical records received. Summarization ordered today, due 2/7/22.

10/8/21 Disability File Folder Created

1/4/22 County Department Records Received
Additional Remarks : RMA

1/4/22 HR & D Records Received

1/4/22 Risk Management Records Received
Additional Remarks : 12/16/21 - Risk dept recs received, still pending workers comp file

1/4/22 Tulare County Health Centers Records Received

11/17/21 Greenwood, Richard (Nicholas Morse) **Sher-CS-Visalia Superior/Safety Member Orthopedic/Service Connected Disability**
Presumptive Indicator: N
Retired **Eligible for Service Retirement = Yes**

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

11/17/21 Disability Application Packet Received and Reviewed

11/17/21 DMS Notified of Disability Application Filing

11/17/21 Disability Application Documents Scanned

11/17/21 Disability File Folder Created

11/17/21 Employment Records Requested
Additional Remarks : dept recs due 12/17/21, med recs due 12/29/21; dept recs rec'd, one outstanding med rec due, 1st reminder sent to member via cert mail on 1/24/2022, record due 2/28/2022.

11/17/21 Infolinx Setup

11/18/21 Tulare County Health Centers Records Received

7/24/20 Minor, Bryan (Adriana Gonzales-Chang) **Sher-Op-Porterville/Safety Member Disease/ Non-Service Connected Disability**
Presumptive Indicator: N
Retired **Eligible for Service Retirement = Yes**

7/28/20 Disability Application Packet Received and Reviewed

7/28/20 Disability Application Documents Scanned

7/28/20 Disability File Folder Created

7/28/20 Infolinx Setup

8/3/20 Employment Records Requested
Additional Remarks : due 8/31/2020; All dept recs received. pending med recs; 12/9/20 mailed reminder to member re: pending medical records; 4/1/21 Notified member of pending medical records; 6/18/21 called member re pending records and mailed letter, records due 7/16/21

8/14/20 DMS Notified of Disability Application Filing

8/14/20 Tulare County Health Centers Records Received
Additional Remarks : none on file

11/5/20 County Department Records Received
Additional Remarks : Sheriff Dept

11/5/20 HR & D Records Received

11/5/20 Risk Management Records Received
Additional Remarks : none on file

1/20/22 IRC Meeting Scheduled
Additional Remarks : On 1/26/22 IRC agenda

5/6/21 Mahler, Tina (Christene Brown) **County Counsel/General Member**

Retired **Eligible for Service Retirement = Yes**

5/6/21 Disability Application Packet Received and Reviewed

5/6/21 Member Sent Authorization and Questionnaire

5/18/21 Disability Application Documents Scanned

5/18/21 Disability File Folder Created

5/18/21 Infolinx Setup

5/25/21 Employment Records Requested
Additional Remarks : All County records received. 1/19/22 - Mailed 1st reminder re pending med recs, due 3/2/22

7/6/21 HR & D Records Received

7/6/21 Risk Management Records Received
Additional Remarks : Dept records received, pending workers comp records; 7/9/21 Workers Comp recs received

1/19/22 County Department Records Received
Additional Remarks : County Counsel

1/19/22 Tulare County Health Centers Records Received

10/8/21 Brown, Anthony (Christene Brown) **CAPITAL PROJ-Facilities/General Member Orthopedic/Service Connected Disability**

Active **Eligible for Service Retirement = No**

10/11/21 DMS Notified of Disability Application Filing

10/11/21 Disability Interview/Application Packet Provided

10/13/21 Disability Application Documents Scanned

10/13/21 Disability File Folder Created

10/13/21 Infolinx Setup

1/4/22 Employment Records Requested
Additional Remarks : 10/11/21 - due 11/12/21; 12/16/21 - second request sent to Risk, due 1/5/22; 1/19/22 - All County recs rcvd. Still pending med recs from applicant. Mailed 1st reminder, due 3/2/22.

1/4/22 County Department Records Received
Additional Remarks : GSA

1/4/22 HR & D Records Received

1/4/22 Tulare County Health Centers Records Received

1/19/22 Risk Management Records Received

04 - IME Scheduled/Pending Report

12/11/20 Corazzini, Tracie (Adriana Gonzales-Chang) **Tulare County Fire Dept/Safety Member Orthopedic/Service Connected Disability**
Presumptive Indicator: N
Active **Eligible for Service Retirement = No**

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

12/21/20 Disability Application Documents Scanned

12/21/20 Disability Application Packet Received and Reviewed

12/23/20 Benefit Estimate Sent to DMS

12/23/20 DMS Notified of Disability Application Filing

12/23/20 Employment Records Requested
Additional Remarks : due 1/21/21

12/23/20 Disability File Folder Created

12/23/20 Infolinx Setup

2/9/21 Tulare County Health Centers Records Received
Additional Remarks : Declaration of Custodian of Records received

2/9/21 Risk Management Records Received

2/9/21 HR & D Records Received

2/9/21 County Department Records Received
Additional Remarks : Fire Department

7/13/21 IME Appointment Scheduled
Additional Remarks : 6/9/21 Request for appt sent; IME Appt scheduled on 8/25/21 in Clovis 8/25/21 IME Appt rescheduled for 09/23/21 in Clovis, new appt letter sent today.

7/13/21 IME Appointment Letter to Member Sent
Additional Remarks : 8/25/21 Rescheduled IME for 9/23/21, new appt letter sent out today; 10/11/21 - letter mailed to member re late cancellation, response due 11/10/21; 1/4/22 - second letter mailed to member re late cancellation, response due 1/28/22.

1/20/22 IRC Meeting Scheduled
Additional Remarks : On 1/26/22 IRC agenda

4/29/19 Hoogeveen, Sonja (Adriana Gonzales-Chang) **Library-Visalia/General Member Service Connected Disability** **Disease/**

Retired **Eligible for Service Retirement = Yes**

4/30/19 Disability Application Documents Scanned

4/30/19 Disability File Folder Created

4/30/19 Infolinx Setup

5/14/19 Disability Application Packet Received and Reviewed

5/15/19 DMS Notified of Disability Application Filing

5/15/19 Employment Records Requested
Additional Remarks : due 6/14/19; reminder sent to TCHC, records due 7/25/19; 7/12/19 All dept records received, pending medical records from appl; 7/24/19 mailed 1st reminder to appl for pending med recs; 7/6/21 mailed 2nd reminder for medical records, due 8/17/21; 10/29/21 Summarization ordered, due 11/19/21

5/30/19 Risk Management Records Received

7/10/19 County Department Records Received

Additional Remarks : Library Dept

7/10/19 HR & D Records Received

10/29/21 Tulare County Health Centers Records Received

12/30/21 IME Appointment Scheduled
Additional Remarks : 12/21/21 IME ordered; 12/30/21 - Appt scheduled on 2/25/22 in Clovis

1/4/22 IME Appointment Letter to Member Sent

9/13/21 Alonzo, Jimmy (Adriana Gonzales-Chang)
Presumptive Indicator: N
Active

Prob-Juvenile Detention/Safety Member Orthopedic/Service Connected Disability

Eligible for Service Retirement = Yes

9/13/21 Disability Application Packet Received and Reviewed

9/14/21 Employment Records Requested

9/14/21 DMS Notified of Disability Application Filing

9/16/21 Disability Application Documents Scanned

9/16/21 Disability File Folder Created

9/16/21 Infolinx Setup

9/17/21 County Department Records Received
Additional Remarks : Probation Dept

1/4/22 HR & D Records Received

1/4/22 Risk Management Records Received

1/4/22 Tulare County Health Centers Records Received

1/4/22 Medical Records Sent for Review
Additional Remarks : Summarization ordered on 12/20/21, due 1/10/22

08 - Board Agenda/Pending Decision

7/16/21 Boren, Rosemarie (Christene Brown)

Sher-Op-Marijuana Suppression/General Member Orthopedic/Service Connected Disability

Retired

Eligible for Service Retirement = Yes

7/16/21 Disability Application Packet Received and Reviewed

7/16/21 DMS Notified of Disability Application Filing

7/23/21 Disability Application Documents Scanned

7/23/21 Disability File Folder Created

7/23/21 Infolinx Setup

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

8/3/21 Employment Records Requested

8/3/21 Tulare County Health Centers Records Received
Additional Remarks : Not a patient

10/13/21 Medical Records Sent for Review

10/13/21 HR & D Records Received

10/13/21 Risk Management Records Received

11/4/21 IME Appointment Scheduled
Additional Remarks : Scheduled for 11-18-2021 w/ Dr. Pompan in Clovis

1/4/22 IME Appointment Letter to Member Sent

1/4/22 IME Reports Received

1/4/22 Accommodation Memo Sent
Additional Remarks : sent 12/17/21, due 1/17/22

1/4/22 Accommodation Response Received

1/4/22 IRC Meeting Scheduled
Additional Remarks : Added to 1/26/22 IRC agenda

2/17/22 Added to Board Meeting Agenda
Additional Remarks : 02-23-2022

6/23/21 Franks, Ixchel (Christene Brown)

TCSO-Youth Services/Safety Member
Orthopedic/Service Connected Disability

Presumptive Indicator: N
Active

Eligible for Service Retirement = No

6/23/21 DMS Notified of Disability Application Filing

6/23/21 Disability Application Packet Received and Reviewed

6/24/21 Disability Application Documents Scanned

6/24/21 Disability File Folder Created

6/24/21 Infolinx Setup

6/29/21 Benefit Estimate Sent to DMS

7/2/21 Employment Records Requested
Additional Remarks : due 7/30/21; 9/29/21 - All med recs received, sent for Summarization. Due 10/20/21

7/6/21 Tulare County Health Centers Records Received
Additional Remarks : None on file

9/29/21 County Department Records Received
Additional Remarks : Sheriff's Dept

9/29/21 HR & D Records Received

9/29/21 Risk Management Records Received

1/4/22 Accommodation Memo Sent
Additional Remarks : sent 12/30/21, due 1/19/22

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

2/17/22 Added to Board Meeting Agenda
Additional Remarks : 02-23-2022

2/17/22 IME Appointment Letter to Member Sent

2/17/22 IME Appointment Scheduled
Additional Remarks : 12-14-2021 @4:30

2/17/22 IME Reports Received

2/17/22 IRC Meeting Scheduled

5/7/21 Chabrajez, John (Christene Brown) **Sher-Dt-Main Jail/Safety Member**
Presumptive Indicator: N
Active **Eligible for Service Retirement = No**

5/7/21 DMS Notified of Disability Application Filing

5/7/21 Disability Application Packet Received and Reviewed

5/18/21 Disability Application Documents Scanned

5/18/21 Disability File Folder Created

5/18/21 Infolinx Setup

5/25/21 Employment Records Requested

7/6/21 HR & D Records Received

7/20/21 Risk Management Records Received

7/20/21 Tulare County Health Centers Records Received
Additional Remarks : Certificate of No Records received

8/13/21 IME Appointment Letter to Member Sent

8/13/21 IME Appointment Scheduled
Additional Remarks : 09-30-21 In Rancho Cordova. In person IME, Rescheduled for 11-19-21 in Visalia. Cost approved by the board 10-13-21.

1/4/22 Accommodation Memo Sent
Additional Remarks : sent 12/17/21, due 1/17/22

1/4/22 Accommodation Response Received

1/4/22 IME Reports Received

1/4/22 IRC Meeting Scheduled
Additional Remarks : Added to 1/26/22 IRC agenda

2/17/22 Added to Board Meeting Agenda
Additional Remarks : 02-23-2022

3/25/21 Fernandez, Higinio (Christene Brown) **Prob-Admin-Visalia/Safety Member**
Presumptive Indicator: N
Retired - Service Connected Disability **Eligible for Service Retirement = Yes**

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

3/31/21 Disability Application Packet Received and Reviewed
Additional Remarks : TPS had white out- Leanne stated we can accept packet anad date stamp, but he will need to provid a clean TPS. Letter sent to physician and member contacted by JBurks

3/31/21 Disability Interview/Application Packet Provided

3/31/21 Member Sent Authorization and Questionnaire

4/21/21 Disability Application Documents Scanned

4/21/21 Disability File Folder Created

4/21/21 Infolinx Setup

6/18/21 County Department Records Received

6/18/21 Employment Records Requested

6/18/21 HR & D Records Received

6/18/21 Risk Management Records Received

6/18/21 Tulare County Health Centers Records Received

7/7/21 IME Appointment Scheduled
Additional Remarks : IME Appt on 8/6/21 in Bakersfield

7/7/21 IME Appointment Letter to Member Sent

10/4/21 IME Reports Received

11/19/21 Accommodation Response Received

11/19/21 IRC Meeting Scheduled
Additional Remarks : On 12/1/21 IRC agenda

1/4/22 Added to Board Meeting Agenda
Additional Remarks : On 1/12/22 Board agenda

1/4/22 Board Meeting Notification Letter Sent

09 - Referred to Hearing/Pending HO Recommendation

7/31/19 Hays, Mark (Adriana Gonzales-Chang) **TC Association of Governments/General Member**

Retired **Eligible for Service Retirement = Yes**

3/9/15 Disability Interview/Application Packet Provided

8/1/19 Disability Application Documents Scanned

8/1/19 Disability Application Packet Received and Reviewed

8/1/19 Disability File Folder Created

8/1/19 Infolinx Setup

8/7/19 DMS Notified of Disability Application Filing

8/7/19 Employment Records Requested

8/8/19 Tulare County Health Centers Records Received

Additional Remarks : No records for this member.

8/8/19 Disability Findings Summary Prepared

8/21/19 County Department Records Received

11/12/19 Employment Records Reviewed

11/12/19 IME Appointment Letter to Member Sent

11/12/19 IME Appointment Scheduled
Additional Remarks : NDE Dr. Klassen in Fresno.

1/30/20 HR & D Records Received

1/30/20 IME Notify Letter Sent to TPMSP

1/30/20 IME Reports Received
Additional Remarks : Received 12/16/2020

1/30/20 Risk Management Records Received

7/3/20 Accommodation Memo Sent
Additional Remarks : Accommodation letter sent to Risk on 5/4/2020, due 5/26/20; 6/23/20 - Update: Risk is pending additional info from dept, report is still pending

8/3/20 Accommodation Response Received

8/3/20 IRC Meeting Scheduled
Additional Remarks : On 8/26/2020 agenda

9/24/20 Accommodation Response Reviewed

11/30/20 Added to Board Meeting Agenda
Additional Remarks : On Retirement Board Agenda for 11/18/2020.

11/30/20 Board Decision Letter Sent to Applicant
Additional Remarks : Board denied SCDR on 11/18/2020.

11/30/20 Board Meeting Notification Letter Sent

11/30/20 Hearing Request Form Received
Additional Remarks : formal hearing

5/6/21 County Counsel Client Request Form Sent

5/6/21 Exhibits Prepared and Sent
Additional Remarks : deadline to submit list of additional records is 3/4/21; 3/3/21 Hearing scheduled on 7/7/21, notice sent out; Received list of designated records, physical records due 5/3/21; 5/6/21 list of witnesses sent to hearing office and parties

5/12/21 Augmented Exhibits Prepared and Sent, if applicable
Additional Remarks : Still pending add'l designated recs, admin approved to send later; 6/8/21 second set of augmented exhibits delivered, Still pending add'l designated recs, admin approved to send later; 6/24/21 Hearing rescheduled to 9/15/21, notice sent out; 0/7/13/21 Last set of augmented exhibits delivered; Hearing rescheduled on 10/11/21; 9/1/21 Amended Notice of Hearing sent; Hearing rescheduled to 1/19/22; 10/21/21 amended notice of hearing sent; Hearing rescheduled to 3/25/22; 1/12/22 - Amended Notice of Hearing and Amended Witness Subpoenas sent today

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

11/12/19 Milton, Sheryl (Adriana Gonzales-Chang) — **HHS-Admin Human Resources/General Member Multiple/Service Connected Disability**

Active — **Eligible for Service Retirement = No**

11/13/19 Disability Application Packet Received and Reviewed
Additional Remarks : received by mail 11/12/19

11/14/19 Disability Application Documents Scanned

11/14/19 Disability File Folder Created

11/14/19 Infolinx Setup

11/15/19 DMS Notified of Disability Application Filing

11/15/19 Employment Records Requested
Additional Remarks : Due 12/16/19; 1/6/20 - All dept records received, pending medical recs from member; 3/12/2020 all records received, medical record summary ordered, due 4/2/2020

1/6/20 County Department Records Received
Additional Remarks : HHSA

1/6/20 HR & D Records Received

1/6/20 Risk Management Records Received

5/15/20 IME Appointment Scheduled
Additional Remarks : Ortho appt scheduled 5/28/20 in Clovis, CA, IME Cancelled because of high cost, added to 6/24/20 Board agenda for approval; Cost approved, IME rescheduled on 7/21/20 in Clovis

5/15/20 IME Appointment Letter to Member Sent

9/9/20 IRC Meeting Scheduled
Additional Remarks : On 2/26/20 IRC agenda; On 9/9/2020 IRC agenda

11/5/20 Added to Board Meeting Agenda
Additional Remarks : Added to 12/9/20 Board agenda; 12/7/20 Case removed from Board agenda and placed on 12/16/20 IRC agenda; Added to 1/13/21 Board agenda

12/29/20 Board Meeting Notification Letter Sent

1/15/21 Board Decision Letter Sent to Applicant
Additional Remarks : hearing request due 1/25/21

1/27/21 Hearing Request Form Received
Additional Remarks : Formal Hearing Request

1/27/21 County Counsel Client Request Form Sent
Additional Remarks : Parties have been assigned, Hearing Officer Assignment notice mailed on 2/26/21. Deadline for distribution of exhibits is 4/12/21.

4/8/21 Exhibits Prepared and Sent
Additional Remarks : Designation of records due 5/10/21; Atty notice received from applicant; 5/7/21 amended letter re initial exhibits sent to parties with notice of hearing (9/17/21); Received list of designated, physical records due on 7/7/21

7/21/21 Augmented Exhibits Prepared and Sent, if applicable
Additional Remarks : 7/21/21 - 1st set of augmented exhibits sent (still pending more designated records), also sent new Notice of Hearing (hearing rescheduled on 10/19/21); 9/14/21 Notice re: witnesses sent, also sent final augmented exhibits (phase for augmented recs complete); Hearing

rescheduled on 6/14/22 and 6/15/22

11 - Writ Received

11/15/18 Iftimie, Mara (Adriana Gonzales-Chang) — **HHS-HLTH-Visalia Hlth Ctr/General Member Orthopedic/Service Connected Disability**

Active — **Eligible for Service Retirement = No**

12/3/18 Disability Application Documents Scanned

12/3/18 Disability Application Packet Received and Reviewed
Additional Remarks : Filed application for SCDR 11/15/18

12/3/18 Disability File Folder Created

12/3/18 Disability Findings Summary Prepared

12/3/18 Employment Records Requested
Additional Remarks : due 1/2/19; Only pending Risk records, to be submitted asap (per Risk 2/12/19)

12/3/18 Infolinx Setup

12/3/18 DMS Notified of Disability Application Filing

2/12/19 County Department Records Received
Additional Remarks : HHSA Dept

2/12/19 HR & D Records Received

2/12/19 Tulare County Health Centers Records Received

4/9/19 IME Appointment Letter to Member Sent
Additional Remarks : Scheduled through NDE on 4/18/19.

4/9/19 IME Appointment Scheduled

5/14/19 IME Reports Received

5/14/19 IRC Meeting Scheduled
Additional Remarks : Added to 5/22/19 IRC agenda

8/30/19 Accommodation Response Received

8/30/19 Accommodation Response Reviewed

8/30/19 Added to Board Meeting Agenda

8/30/19 Board Meeting Notification Letter Sent
Additional Remarks : On 9/25/19 Board Agenda.

8/30/19 Employment Records Reviewed

8/30/19 Risk Management Records Received

10/16/19 County Counsel Client Request Form Sent

10/16/19 Hearing Request Form Received

2/11/20 Augmented Exhibits Prepared and Sent, if applicable

DISABILITY STATUS REPORT
Status as of February 17, 2022
(22 Active Disability Applications)

2/11/20 Exhibits Prepared and Sent

4/27/20 Brief Notification/Required Correspondence Complete

4/27/20 Findings of Fact and Recommendations Received

4/27/20 Findings of Fact and Recommendations Sent to All Parties by HO

4/27/20 Objection Period Expired
Additional Remarks : Case added to 5/13/20 Board agenda; 5/6/20 Notice regarding upcoming board meeting mailed to applicant; 5/13/20 - Board referred case back to hearing officer; 6/8/20 - Letter sent to hearing officer requesting clarification on decision; 6/12/20 - Copy of 6/8 letter sent to applicant and county counsel; 6/22/2020 - Amended Hearing Officer's Decision received. Deadline to file objections is 7/2/2020; 6/23/20 - Applicant's objection filed

COUNTY OF TULARE
BOARD OF RETIREMENT

Leanne Malison
Retirement Administrator

136 N AKERS STREET
VISALIA, CALIFORNIA 93291

TELEPHONE (559) 713-2900
FAX (559) 730-2631
www.tcera.org

MINUTES OF THE BOARD OF RETIREMENT
REGULAR RETIREMENT BOARD MEETING
Wednesday, January 26, 2022, at 8:30 a.m.
TCERA Board Room, 136 N. Akers Street, Visalia, CA 93291

I. CALL TO ORDER

The meeting was called to order at 8:30 a.m. by Wayne Ross, Chair.

II. ROLL CALL

Voting Trustees Present:	Cass Cook, Wayne Ross, Gary Reed, Nathan Polk, Pete Vander Poel, Jim Young (departed at 11:21 a.m.), Laura Hernandez and Ty Inman
Voting Trustees Absent:	Dave Kehler
Voting Alternate Trustees Present:	George Finney (voting for Kehler)
Alternate Trustees Absent:	Paul Sampietro
Alternate Trustees Present:	Dave Vasquez
Staff Members Present:	Leanne Malison, Retirement Administrator Mary Warner, Assistant Retirement Administrator, Susie Brown, Secretary
Board Counsel Present:	Jennifer Shiffert, Deputy County Counsel
Consultants Present:	Scott Whalen and Mike Kamell, Verus

III. PLEDGE OF ALLEGIANCE

IV. PUBLIC COMMENT

At this time, members of the public may comment on any item not appearing on the agenda. Under state law, matters presented under this item cannot be discussed or acted upon by the Board at this time. For items appearing on the agenda, the public is invited to make comments at the time the item comes up for Board consideration. Any person addressing the Board will be limited to a maximum of five (5) minutes. Please state your name for the record.

None.

V. X-AGENDA ITEMS

None.

VI. CONSENT CALENDAR

1. Approve Minutes of the following meetings:
   a. Retirement Board Minutes of January 12, 2022.
2. Approve payments to:
   a. LMCG – invoice for investment management services in the amount of $58,299.74 for the quarter ended December 31, 2021.

b. Cheiron – invoice for actuarial services in the amount of $61,838.75 for the quarter ended December 31, 2021.

Motion to approve Consent Calendar as presented.

Motion: Vander Poel
Second: Polk
Motion passed unanimously.

VII. INVESTMENT COMMITTEE REPORT

1. Update by Gary Reed regarding the Investment Committee meeting of January 12, 2022. Discussion and possible action regarding the following items:

a. Asset Allocation Status

Mr. Reed indicated that the report reflects ongoing rebalancing.

b. 2021-2022 Investment Committee Goals and Objectives Timeline and 2021-2022 Education Calendar.

Mr. Reed reported updates including the objectives underway for implementing the new asset allocation.

c. Vendor/Investment Firm Referral Report – Barrow Hanley, Small Cap Value Equity

Mr. Reed reported this vendor was approved by the Committee.

d. Investment Managers

1) Verus Flash Report – All Managers

No discussion on the Flash report.

2) Managers of Interest

a) LMCG -Pending transition to Leeward Investments.

No discussion.

II. INVESTMENTS

Mr. Kamell, Verus, provided a brief overview of both firms.

1. Presentation from Sands Capital regarding TCERA's investment allocation to Large Cap Growth Equity. Discussion and possible action.

Matt Pawlak, and Wesley Johnston from Sands Capital presented information regarding the firm, its process, and performance.

2. Presentation from William Blair regarding TCERA's investment allocation to Large Cap Growth Equity. Discussion and possible action.

James Golan and James Dominguez presented information regarding the firm, its process, and performance.

3. Discussion and possible action regarding TCERA's investment allocation to Large Cap Growth Equity.

Motion to approve William Blair as TCERA's Large Cap Growth Equity investment manager, and to waive a due diligence trip because this firm is an existing TCERA manager and on-site activity is limited due to COVID.

Motion: Vander Poel
Second: Polk
Ayes: Cook, Hernandez, Reed, Young, Polk, Vander Poel, Finney
Noes: Inman, Ross

Motion passed 7/2

The Chair authorized 2 hours for Education.

4. Discussion and possible action regarding TCERA's Private Markets Investment Policy Statement.

Mr. Kamell provided a review of the proposed policy highlighting the key elements. The consultant and TCERA Staff will be working on a revised investment policy statement later in the year and this policy will be incorporated either directly or by reference into that document..

Ms. Malison reported the proposed policy does not conflict with the TCERA's current investment policy.

Motion to approve the Private Markets Investment Policy Statement.

Motion: Young
Second: Hernandez

Motion passed 7/1
Mr. Reed absent for the vote.

5. Discussion and possible action regarding TCERA's strategic investment allocation and investment managers, including performance, contracts, and fees.

No discussion or action.

III. NEW BUSINESS

1. Discussion and possible action regarding TCERA Board of Retirement Continuing Education Report – January 1, 2021 through December 31, 2021.

Motion to accept the report as filed.

Motion: Vander Poel
Second: Finney

Motion passed unanimously.

2. Discussion and possible action regarding SACRS Board of Director Elections 2022-2023 – Elections Notice.

No action taken.

IV. EDUCATION ITEMS

1. Discussion and possible action regarding available educational events.

Motion to approve expenses for Inman and Vander Poel to attend DWS/RREEF 2022 America Real Assets Investor Conference, April 26-28, 2022.

Motion: Vander Poel
Second: InmanMotion passed unanimously.

V. COMMUNICATIONS

1. Discussion and possible action regarding SACRS Legislative Update – January 2022.

No discussion or action.

2. Appointment of Investment Committee and Administrative Committee members and chairpersons.

Mr. Ross indicated that he has rotated some members as required by Board policy. The Committee assignments are as follows:

Administrative Committee (10:30 a.m. after the second Board meeting of the month unless otherwise directed by the Committee Chair:
Dave Kehler, Chair
Cass Cook (Paul Sampietro – Alternate)
Laura Hernandez
Nathan Polk (David Vasquez – Alternate)

Investment Committee (10:00 a.m. after the first Board meeting of the month:
Pete Vander Poel, Chair
Gary Reed
Jim Young
Ty Inman

VI. UPCOMING MEETINGS

1. Board of Retirement Meeting February 23, 2022, 8:30 a.m.
2. Investment Committee Meeting – February meeting canceled due to World Ag Expo
3. Administrative Committee Meeting – Pending Committee Assignments.

VII. TRUSTEE/STAFF COMMMENTS

Under state law, matters presented under this item cannot be discussed or acted upon by the Board at this time.

Ms. Hernandez reported enjoying being on the Administrative Committee and would like to join Investment Committee next time. She thanked Ms. Malison and staff for the outreach of seminars, website and the newsletter to members.

Ms. Malison thanked Jennifer Shiffert and wished her well as this was her last meeting with the Board. She announced that Aaron Zaheen would be taking over as Board Counsel for TCERA. Barbara Grunwald is currently working in an Extra Help capacity with the County and will be available to assist with his training.

VIII. ADJOURNMENT

The meeting was adjourned at 11:30 a.m.

_____
Wayne Ross, Chair

BLACKROCK®

40 East 52nd Street
New York, NY 10022
Tel (212) 810-5300
www.blackrock.com

Frank Martin
Tulare County Employees' Retirement Association
136 North Akers Street
Visalia, CA 93291-5121
United States

Invoice Date	31 Jan 2022
Tax Point	31 Jan 2022
Invoice Number	20211231-608-A
Client VAT Number	
Client Invoice Code	8145

TULARE COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Fee for the period 01 Oct 2021 to 31 Dec 2021

Total Base Fee	USD	35,188.28
Total Performance Fee	USD	29,802.55
Total Amount Due	**USD**	**64,990.83**

Please wire payment to our bank account:
JP Morgan Chase Bank
ABA Number: 021000021
Bank Account Number:323-045448
Credit: BlackRock Financial Management, Inc.
Please quote your invoice number (eg. YYYYMMDD-XXXX-X) if your invoice is not settled by Direct Debit

Or mail payment to:
BlackRock Financial Management, Inc.
P.O. Box 978884
Dallas, TX 75397-8884
United States

CHECKED:	FM (Initial)	1/31/22 (Date)
VERIFIED:	DQ (Initial)	1/31/22 (Date)
APPROVED:	(Initial)	(Date)
PAID:	(Wired)	(Date)

Should you have any questions, please contact us at 1-800-777-8389 Option 3 or AMRSClientServices@BlackRock.com

BostonPartners

Frank Martin, Accountant
Tulare County Employees' Retirement Association
136 North Akers Street
Visalia, CA 93291

Invoice Date: 12/31/2021

Invoice Number: 20211231-246-A

Billing Portfolio(s): D709 - Tulare County Employees' Retirement

Billing Period: 10/01/2021 to 12/31/2021

SUMMARY FOR INVESTMENT SERVICES

Current Period Amount Due: $ 75,878.04

QUARTEREND Fee	Invoice	Current Period Due	30-60 Days	60-90 Days	Over 90 Days	Total
Tulare County Employees' Retirement	20211231-246-A	75,878.04				75,878.04
Total Amount Due		75,878.04				75,878.04

Please contact James Vitelli directly at 212-908-0149 with any billing inquiries. As always, you may also direct any questions to your Relationship Manager.

CHECKED:	FM (Initial)	1/19/22 (Date)
VERIFIED:	DQ/CS (Initial)	1/24/22 (Date)
APPROVED:	(Initial)	(Date)
PAID:	(Wired)	(Date)

We would appreciate receiving your payment along with the remittance slip within 30 days of receipt of this invoice.

WIRE / TRANSFER FUNDS TO:

JP Morgan Chase; ABA #021000021; ACCT #066-654610
REFERENCE: Boston Partners
Ref Acct #: D709

MAIL REMITTANCES TO:

Accounts Receivable
Boston Partners
One Grand Central Place, 60 East 42nd Street, Suite 1550
New York, NY 10165

Email jvitelli@boston-partners.com Thank You

STATE STREET GLOBAL ADVISORS

Invoice Number	SSGABA3408975
Period	10/01/2021 - 12/31/2021
Invoice Date	January 24, 2022

136 N. Akers Street
Visalia CA 93291
United States

Tulare County Employees' Retirement Association
S&P 500 (R) Flagship SL Fund (CM11)

Investment Management Fees for the period 10/01/2021 - 12/31/2021
Account(s) TULARE

Fee Amount 7,823.24
Currency USD

Details of fee on following page(s)

Payment is due 30 days from invoice date. Please advise when payment is made by sending an email to SSGAAccounting-RevenueTeam@statestreet.com including the invoice number, client name and invoice period.

Payment Options

By Domestic Wire
State Street Bank & Trust Co.
ABA 011000028
Account: 0014 0921
Account Name: SSGA Fee Payment Account
Invoice # SSGABA3408975

By International Wire
State Street Bank & Trust Co
Boston, MA 02110
SWIFT Code SBOSUS33
Clearing 011000028
Credit Account 0014-092-1
Attn: SSGA Finance
Invoice # SSGABA3408975

	Initial	Date
CHECKED:	FM	1/25/22
VERIFIED:	DQ	1/28/22
APPROVED:		
PAID:	Wired	

For Invoicing questions please contact gabill-ssga@statestreet.com

STATE STREET GLOBAL ADVISORS

Invoice Number	SSGABA3408945
Period	12/10/2021 - 12/31/2021
Invoice Date	January 25, 2022

136 N. Akers Street
Visalia CA 93291
United States

Tulare County Employees' Retirement Association
U.S. REIT Indx NL Fund (CMW4)

Investment Management Fees for the period 12/10/2021 - 12/31/2021
Account(s) TULARE

Fee Amount 1,014.53
Currency USD

Details of fee on following page(s)

Payment is due 30 days from invoice date. Please advise when payment is made by sending an email to SSGAAccounting-RevenueTeam@statestreet.com including the invoice number, client name and invoice period.

Payment Options

By Domestic Wire
State Street Bank & Trust Co.
ABA 011000028
Account: 0014 0921
Account Name: SSGA Fee Payment Account
Invoice # SSGABA3408945

By International Wire
State Street Bank & Trust Co
Boston, MA 02110
SWIFT Code SBOSUS33
Clearing 011000028
Credit Account 0014-092-1
Attn: SSGA Finance
Invoice # SSGABA3408945

	Initial	Date
CHECKED:	FM	1/25/22
VERIFIED:	DQ	1/28/22
APPROVED:		
PAID:	Wired	

For Invoicing questions please contact gabill-ssga@statestreet.com

STATE STREET GLOBAL ADVISORS

Invoice Number	SSGABA3408973
Period	10/01/2021 - 12/31/2021
Invoice Date	January 24, 2022

136 N. Akers Street
Visalia CA 93291
United States

Tulare County Employees' Retirement Association
U.S. Extended Market Index SL Fund (CMJ4)

Investment Management Fees for the period 10/01/2021 - 12/31/2021
Account(s) TULARE

Fee Amount 5,079.41
Currency USD

Details of fee on following page(s)

Payment is due 30 days from invoice date. Please advise when payment is made by sending an email to SSGAAccounting-RevenueTeam@statestreet.com including the invoice number, client name and invoice period.

Payment Options

By Domestic Wire
State Street Bank & Trust Co.
ABA 011000028
Account: 0014 0921
Account Name: SSGA Fee Payment Account
Invoice # SSGABA3408973

By International Wire
State Street Bank & Trust Co
Boston, MA 02110
SWIFT Code SBOSUS33
Clearing 011000028
Credit Account 0014-092-1
Attn: SSGA Finance
Invoice # SSGABA3408973

	Initial	Date
CHECKED:	FM	1/25/22
VERIFIED:	DG	1/28/22
APPROVED:		
PAID:	Wired	Date

For Invoicing questions please contact gabill-ssga@statestreet.com

STATE STREET GLOBAL ADVISORS

Invoice Number	SSGABA3408974
Period	10/01/2021 - 12/31/2021
Invoice Date	January 24, 2022

136 N. Akers Street
Visalia CA 93291
United States

Tulare County Employees' Retirement Association
MSCI ACWI Ex USA SL Fund (ZVGM)

Investment Management Fees for the period 10/01/2021 - 12/31/2021
Account(s) TULARE

Fee Amount 13,789.61
Currency USD

Details of fee on following page(s)

Payment is due 30 days from invoice date. Please advise when payment is made by sending an email to SSGAAccounting-RevenueTeam@statestreet.com including the invoice number, client name and invoice period.

Payment Options

By Domestic Wire
State Street Bank & Trust Co.
ABA 011000028
Account: 0014 0921
Account Name: SSGA Fee Payment Account
Invoice # SSGABA3408974

By International Wire
State Street Bank & Trust Co
Boston, MA 02110
SWIFT Code SBOSUS33
Clearing 011000028
Credit Account 0014-092-1
Attn: SSGA Finance
Invoice # SSGABA3408974

	Initial	Date
CHECKED:	FM	1/25/22
VERIFIED:	DQ	1/28/22
APPROVED:		
PAID:	Wired	Date

For Invoicing questions please contact gabill-ssga@statestreet.com

Invoice No. :	307775
Invoice Date :	01/19/2022
Terms :	Due Upon Recpt
Customer No. :	1256

Bill To:
Tulare County E.R.A.
Ms. Leanne Malison
136 N. Akers Street
Visalia, CA 93291

Remit To:
Bank: UMB Kansas City ABA: 101000695
Beneficiary's Name: Ivy Investment Mgmt Co
Beneficiary's Account Number: 9871404617
Beneficiary's Address: 6300 Lamar Avenue,
Attn: Corporate Treasury Dept
Shawnee Mission, KS 66201-9217

339 - Tulare County Employees Retirement Association

Line #	Description	Amount
1	Investment Management Fees for the Fourth Quarter of 2021	93,449.43

Total	93,449.43

CHECKED:	FM (Initial)	1/19/22 (Date)
VERIFIED:	DQ/CS (Initial)	1/24/22 (Date)
APPROVED:	(Initial)	(Date)
PAID:	(Wired)	(Date)

If you have questions regarding this invoice, or if we might be of assistance, please contact Caroline Mullen-Brown at 913-236-1961.

William Blair

Leanne Malison
Tulare County Employees' Retirment Association
136 N. Akers
Visalia, CA 93291

SUMMARY FOR INVESTMENT SERVICES

Invoice Date	14 January 2022
Invoice Number	20211231-414-A

Billing Period 01 October 2021 to 31 December 2021

Billing Portfolios 793628 - TULARE COUNTY EMPLOYEES RETIREMENT ASSOCIATION

Custodian Account #	Account Name	Fee
793628	TULARE COUNTY EMPLOYEES RETIREMENT ASSOCIATION	69,456.33

Total Amount Due	**$69,456.33**

* See attached worksheet for calculation details

CHECKED:	FM (Initial)	1/26/22 (Date)
VERIFIED:	DQ (Initial)	1/28/22 (Date)
APPROVED:	(Initial)	(Date)
PAID:	(Wired)	(Date)

PAYMENT DUE UPON RECEIPT

PLEASE ENCLOSE COPY OF INVOICE IN RETURN ENVELOPE

Wire or ACH Funds To:
Bank Account: 8900619929
ABA: 021000018
Bank of New York
Further Credit: Account Name and Number

Mail Remittance To:
William Blair
Accounts Receivable
150 North Riverside Plaza
Chicago, IL 60606

IMPORTANT NOTICE: Never trust wire/ACH instructions sent via email. Cyber criminals are hacking email accounts and sending emails with fake wiring instructions. These emails are convincing and sophisticated. Always independently confirm changes to wire/ACH instructions via a live telephone call to a trusted and verified phone number. Never send money without verifying that the payment instructions are correct.

If you have any questions, please contact your client service representative.

Invoice

Verus

800 Fifth Avenue, Suite 3900
Seattle, WA 98104
(206) 622-3700 www.verusinvestments.com

Date	Invoice#
1/31/2022	INV031790
Due Date	**Terms**
3/2/2022	Net 30

Bill To

Ms. Mary Warner
Tulare County Employees' Retirement Association
136 N. Akers Street
Visalia, CA 93291

Services Provided to: Tulare County Employees' Retirement Association

Service Dates: January 2022

Services Rendered	Amount
Monthly Billing - Fee Increase 8/1/2021	$22,500.00

SubTotal	$22,500.00
Past Due Balance	$0.00
Total	**$22,500.00**

We accept wire and EFT payments. Call us to learn more.
Thank you for choosing Verus Advisory, Inc. We sincerely appreciate your business.

Please let us know if you would like to receive a copy of our disclosure brochure Form ADV Part II.

Tax ID Number: 91-1320111

TULARE COUNTY EMPLOYEES'
APPLICATIONS AND DEATHS
January 31, 2022
RETIREMENT APPLICATIONS

Name Department Status - Tier	Option Type Govt. Code	Date of Retirement Age at Retirement	Length of Service Continuance From
ALDACO MARIA DA-Visalia Courthouse General - Tier III	Unmodified Option Service §31760.1	12/31/2021 51	19.7750 years N/A
BARRIENTOS MARIA DA-Investigations-Doe Safety - Tier III	Unmodified Option Service §31760.1	12/20/2021 50	11.0385 years N/A
BRAVO RALPH Solid Waste Teapot Dome General - Tier III	Unmodified Option Service §31760.1	12/24/2021 62	15.3957 years N/A
CARRERA CARMEN HHS-HS-Tulare District Off General - Tier III	Unmodified Option Service §31760.1	12/31/2021 67	11.4384 years N/A
CHAVEZ MARTIN CAO-GS-Custodial South General - Tier III	Unmodified Option Service §31760.1	12/31/2021 75	21.2726 years N/A
CROWLEY KAREN RMA-TR-Terra Bella Rd Yd 5 General - Tier III	Unmodified Option Service §31760.1	12/31/2021 67	21.9220 years N/A
DUGGINS FLOYD Information Technology General - Tier IV	Option 2 Service §31762	12/24/2021 66	8.9231 years N/A
HANSON SUSANA HHS-HS-Public Guardian General - Tier III	Unmodified Option Service §31760.1	12/17/2021 53	25.6695 years N/A
HILL APRIL RMA-Project Processing General - Tier III	Unmodified Option Service §31760.1	12/18/2021 69	20.5185 years N/A
LEHNER CHERI Sher-Op-Sheriff`s Office Safety - Tier II	Unmodified Option Service §31760.1	12/04/2021 55	35.3436 years N/A
NEVE PATRICIA RMA-EN-Flood/Subdiv/Map General - Tier I	Unmodified Option §31760.1	12/19/2021 77	39.4972 years NEVE RON
PILEGARD NEIL CAO-GS-Parks & Rec-Admin General - Tier III	Unmodified Option Service §31760.1	12/18/2021 57	21.9321 years N/A
PLASCENCIA GABRIELA Unknown General - Tier I	Unmodified Option §31760.1	10/24/2021 85	1.0056 years PLASCENCIA PHILLIP

REYNOSO-HARO ALFREDO	Unmodified Option	12/17/2021	10.2009 years
RMA-MG#2- Design,Const,Develop General - Tier III	Service §31760.1	67	N/A
ROUSSEAU JEAN County Administration Office General - Tier III	Unmodified Option Service §31760.1	12/06/2021 60	10.5000 years N/A
SMITH MARK Sher-Dt-Bob Wiley Det. Fac. General - Tier III	Unmodified Option Service §31760.1	12/31/2021 59	20.8846 years N/A
TRIPP RICKY Judicial Officers General - Tier III	Unmodified Option Service §31760.1	12/15/2021 50	14.7692 years N/A
WHITED KAREN HHS-HS-CWS S Mooney Blvd General - Tier II	Unmodified Option Service §31760.1	12/18/2021 62	36.0664 years N/A
WILLIAMS SANDRA Co-operative Extension General - Tier III	Unmodified Option Service §31760.1	10/31/2021 61	3.5385 years N/A

TULARE COUNTY EMPLOYEES'
APPLICATIONS AND DEATHS
January 31, 2022
DECEASED ACTIVE EMPLOYEES

Name Department Status - Tier	Type	Date of Death Age at Death	Length of Service Paid Continuance Death Benefit

TULARE COUNTY EMPLOYEES'
APPLICATIONS AND DEATHS
January 31, 2022
DECEASED PENSIONERS

Name Department Status - Tier	Option Type Govt. Code	Date of Retirement Date of Death Age at Death	Length of Service Paid Continuance to Age at Retirement
FLORES LAURA 9550 General - Tier I	Unmodified Option Service §31760.1	08/12/1995 05/13/2018 88	23.3417 years 66
JEFFRIES KAREN DA-Visalia Courthouse General - Tier III	Unmodified Option Service §31760.1	03/31/2018 11/09/2021 78	17.2692 years 74
KNOY AGATHA Prob-Youth Facility General - Tier I	Unmodified Option Service §31760.1	11/29/2003 11/20/2021 77	25.8639 years 59
NEVE RON RMA-EN-Flood/Subdiv/Map General - Tier I	Unmodified Option Service §31760.1	12/13/2003 12/18/2021 79	39.4972 years NEVE PATRICIA 61
PLASCENCIA PHILLIP Unknown General - Tier I	Unmodified Option Service §31760.1	03/12/2000 10/23/2021 86	1.0056 years PLASCENCIA GABRIELA 64
POE VELDA JUNE General - Tier I	Unmodified Option Service §31760.1	06/01/1989 04/03/2021 92	10.4861 years 61
VOGT JENNIE 9550 General - Tier I	Unmodified Option Service §31760.1	02/01/1994 12/19/2021 87	18.4528 years 60

Report: **30-Year Board Report As of JAN 31, 2022**

First Name	Last Name	Effective Date	Department	New 30-Year Member?
Craig	Anderson	2/14/2021	RMA-MG#2-Design,Const,Develop	No
Karen	Baldwin	7/5/2020	HHS-FISCAL-ACCT/REC	No
Nora	Barrera	11/27/2005	Assessor-Clerk/Recorder	No
Mike	Betzinger	10/15/2017	Solid Waste Visalia	No
Bruce	Bigham	10/11/2020	Ag Commissioner/Sealer	No
Steffany	Bischel	3/4/2018	HHS-HS-MCal Proc Center	No
Anthony	Boland	12/10/2017	RMA-TR-Operations	No
Michael	Boudreaux	5/28/2017	Sher-Op-Sheriff`s Office	No
Steven	Brown	6/20/2021	Ag Commissioner/Sealer	No
Sandra	Burnitzki	1/19/2020	HHS-Admin Human Resources	No
LUCIA	CANABA-GONZALEZ	8/2/2020	Court Reporters	No
Linda	Cantu	3/29/2020	Assessor-Clerk/Recorder	No
David	Case	8/6/2018	Ag Commissioner/Sealer	No
Lori	Catuto	6/24/2018	HHS-Admin-Project Management	No
Rachel	Cazares	10/11/2020	HHS-HS-Dinuba District Off	No
Nancy	Chavira	3/28/2021	County Counsel	No
William	Clark	2/14/2021	Information Technology	No
KATHY	CORREIA	7/17/2011	Court Reporters	No
Gracie	Delgadillo-Johnson	12/8/2019	TCSO-Youth Services	No
MARTINA	DELGADO	11/10/2019	Ab 1058 Commissioner	No
Robert	Dempsie	7/22/2018	DA-Visalia Courthouse	No
Lisa	Dougherty	5/17/2015	CAO-GS-Printing Services	No
SUSAN	EMBREY	9/3/2017	Collections Division	No
Carlene	Estes	7/18/2021	WID-Administration	No
Cheryl	Fallert	8/16/2020	DA-Visalia Courthouse	No
Samantha	Franks	9/29/2019	RMA-LP-Geographic Info Systems	No
Judith	Garcia	7/18/2021	HHS-HLTH-Visalia Hlth Ctr	No
Rebecca	Garcia	11/8/2020	HHS-HS-Dinuba District Off	No
Helen	Gonzalez	2/4/2018	HHS-HLTH-Fville WIC	No
John	Gonzalez	11/27/2016	Sher-Op-Captains	No
Eric	Grant	4/16/2017	DA-Visalia Courthouse	No
Maria	Gutierrez	12/22/2019	HHS-WC-TPC-C	No
Robert	Haines	10/12/2008	Ag Commissioner/Sealer	No
Lance	Heiden	11/11/2018	Sher-Dt-Main Jail	No
Kimberly	Hernandez	9/27/2020	Child Support Services Dept	No
CINDY	HOLWAY	10/25/2020	Court Reporters	No
ELIZABETH	HOSFELDT	9/26/2021	Self Help	No
Robert	Hurtado	10/25/2020	HHS-PUBLIC HEALTH SVS	No
Ursula	Ihl	9/29/2019	DA-Visalia Courthouse	No
Keith	Jahnke	4/28/2019	HHS-HLTH-Environmental Health	No
Jay	Jones	1/19/2020	Information Technology	No
Cleopatra	Juarez	12/9/2007	Child Support Services Dept	No
Phillip	Kelly	3/1/2020	Prob-Center Street	No

First Name	Last Name	Effective Date	Department	New 30-Year Member?
Melodee	Krenk	5/10/2020	Prob-Electronic Monitor Ctr	No
Rebecca	Lopez	3/8/2015	HHS-HS-Visalia District Off	No
Sandra	Maldonado	2/2/2020	HHS-HLTH-Visalia Hlth Ctr	No
Joel	Martens	5/14/2017	HHS-HLTH-Environmental Health	No
PATRICIA	MARTENS	10/27/2019	Visalia Division	No
Raul	Martin	7/24/2016	Solid Waste Visalia	No
AMBER	MATTHEWS	2/18/2018	Pre Trial Facility	No
John	Mauro	4/17/2016	HHS-HS-HUMAN SERVICES	No
Patricia	McCurry	10/11/2020	HHS-Admin Human Resources	No
Patricia	Mendoza	10/19/2014	HHS-HS-CWS Creekside	No
LESIA	MERVIN	5/3/2015	Court Reporters	No
SUSAN	MILLER	1/31/2021	Family Court Services	No
Socorro	Munoz	4/26/2020	HHS-HLTH-Visalia Hlth Ctr	No
Sylvia	Munoz	9/15/2019	HHS-HS-Dinuba District Off	No
Martina	Navarro	10/11/2020	HHS-MH-Trans Liv Ctr	No
LOUISE	NELSON	11/12/2017	Family Court Services	No
Steven	Noland	4/1/2018	RMA-TR-Fleet Central Shop	No
Jane	Nystrem	2/16/2020	TCSO-Inmate Programs Unit	No
Scott	O'Neill	6/11/2017	Sher-Op-Porterville	No
Andrew	Pacheco	7/28/2013	RMA-Project Processing	No
Rodney	Parker	4/16/2017	Sher-Op-Pixley	No
Maria	Pasillas	1/31/2021	HHS-MH-Training Svs	No
Eric	Petersen	3/14/2021	Information Technology	No
Andy	Phetsada	7/8/2018	HHS-MH-Visalia Adult Clinic	No
Julie	Poochigian	6/22/2008	Assessor-Clerk/Recorder	No
Vickie	Rabago	1/15/2012	DA-Visalia Courthouse	No
Katherine	Reim	10/13/2019	Prob-Admin-Visalia	No
Angela	Rose	11/22/2020	County Counsel	No
Sharon	Rowton	11/18/2012	RMA-TR-Fleet Central Shop	No
John	Rozum	3/31/2019	County Counsel	No
Tina	Salmon	6/20/2021	HHS-HS-Ben Elg Sup Team	No
Judith	Sanchez-Duran	3/1/2020	HHS-HLTH-Hillman Lab	No
Ermerejildo	Saucedo	12/6/2020	Tulare County Fire Dept	No
Gregory	Scroggins	6/24/2018	Prob-Electronic Monitor Ctr	No
Nelda	Sell	8/19/2007	RMA-TR-Visalia Rd Yd 2	No
Veronica	Silva Stalis	12/5/2021	HHS-HLTH-Visalia Hlth Ctr	No
Bernice	Soto	8/2/2020	HHS-HS-IMAGING UNIT	No
Angelina	Stanfill	5/28/2017	HHS-HS-Dinuba District Off	No
Patricia	Stanley	9/2/2018	Public Defender	No
Karen	Trevino	5/26/2019	HHS-HS-Hyde Adopt/Special	No
Brenda	Tyler	6/20/2021	HHS-HLTH-Tulare Public CCS	No
Jesusita	Vasquez	1/31/2021	HHS-HLTH-Environmental Health	No
Stella	Velasquez	2/9/2014	Sher-Op-Communications	No
David	Winters	4/28/2019	Sher-Dt-Bob Wiley Det. Fac.	No
Johnny	Wong	6/10/2018	RMA-TR-Operations	No

First Name	Last Name	Effective Date	Department	New 30-Year Member?
DAVID	WOOTEN	10/14/2018	Judicial Officers	No

Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: DECEMBER 31, 2021

Investment Performance Review for

Tulare County Employees' Retirement Association

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Investment Landscape TAB I

Investment Performance Review TAB II

Verus®

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

1ST QUARTER 2022
Investment Landscape

Recent Verus research

Visit: https://www.verusinvestments.com/insights/

Topics of interest

THE ROLE OF INCOME IN PORTFOLIOS

Many aspects of investing are fundamentally rooted in the idea that total investment return includes both investment income and investment price appreciation (growth). Nearly every asset class can be decomposed into these two characteristics—some assets being composed mostly of income and some assets being composed mostly of price appreciation. As interest rates have fallen around the world, the importance of income, and the role it plays in portfolios, has seen a dramatic increase. In this Topic of Interest, we revisit these two fundamental characteristics to provide investors with a lens with which to view decision-making in the current market environment.

INTEGRATING ACTIVE RETURN INTO ASSET ALLOCATION MODELING

Long-term asset class forecasts, or capital market assumptions, typically focus on the future performance of broad markets. However, most investors employ some combination of passive and active management in their portfolios. And active management is most often pursued with the expectation that returns will be different than that of the broad market (specifically, that "active return" will be achieved above and beyond the market return). If capital market assumptions are typically comprised of market forecasts, but investors tend to build portfolios with the expectation of market return plus active return, how might investors estimate the expected behavior of active management (active return) in their asset allocation work? In this Topic of Interest we look at this question from multiple angles.

Annual research

2022 CAPITAL MARKET ASSUMPTIONS

Some important developments occurred in the last year. During our 2022 Capital Market Assumptions webinar, we discussed:

- Market movements of 2021 and how these shifts have improved our long-term outlook,
- The impact of rising inflation and interest rates on asset class expectations,
- And our newly released forecasts for specific hedge fund styles, and forecasts for various strategies/approaches with the private credit universe.

Verus business update

2021

- We celebrated our 35th anniversary. Wurts Johnson & Company (founding name) was established in January 1986.
- Eight employees passed their CFA exams, including two who passed Level III, earning their charters. Verus now has a total of 32 CFA charterholders.
- Jeff MacLean, CEO, was awarded the 2021 Knowledge Broker Award by CIO Magazine in September.
- Verus expanded the ownership group to 30 employees. 95% of senior consultants are shareholders.
- We continued to grow our Pittsburgh footprint by adding three professionals for a total of five and moved to a new space on Liberty Avenue. Verus established our "east coast" office in Pittsburgh, PA in May 2020.
- Our national client footprint expanded to 23 states, with our recent additions of clients in Massachusetts, Illinois, and Texas.
- Our assets under advisement has reached over $664 billion, as a result of strong markets and success in retaining several new clients. Our OCIO business saw continued growth as well, surpassing $5 billion in assets.
- We completed a third-party verification process that supports our claim of GIPS* compliance and have implemented the verified GIPS and policies and procedure for our OCIO performance composites. We have 17 unique composites. Our E&F and Taft-Hartley composites now have >5-year track records.
- The IIDC grew to 24 consulting firms with over $32 trillion in assets under advisement. Verus founded the Institutional Investing Diversity Cooperative in December 2020, leading a call to action in the consulting industry for disclosure of asset manager diversity data at the investment team level.

2022

- Managing Director | Senior Consultant, Margaret Jadallah plans to retire towards the end of the year.

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4th quarter summary

THE ECONOMIC CLIMATE

— Real GDP grew at a 4.9% rate year-over-year in the third quarter (+2.3% quarterly annualized rate). A slowdown in consumer spending contributed to a lower rate of growth. This was due to a combination of factors, including new COVID-19 restrictions, a delay in the reopening of businesses across the country, and general fear of virus spread which has led to less spending on services. ***p. 9***

— The U.S. labor market improved further, as unemployment fell from 4.8% to 3.9%. The labor force participation rate has also improved, though very gradually, rising from 61.6% to 61.9%. ***p. 14***

PORTFOLIO IMPACTS

— Credit spreads have reached extremely tight levels. High yield bonds traded at a credit spread of 283 bps at year-end. However, these spread levels may be justified by record-low bond default activity. Just 0.4% of U.S. high yield bonds defaulted in 2021, on a par-weighted basis. ***p. 24***

— U.S. core CPI increased 5.5% year-over-year in December. Headline inflation, which includes all goods, reached 7.0%. Large price increases have occurred across many goods and services, though approximately half of the rise in inflation continues to be driven by energy prices and automobiles. ***p. 13***

THE INVESTMENT CLIMATE

— In December it was announced that Senator Joe Manchin had communicated a hard "No" regarding his support for the Build Back Better bill. For months, Democrats have sought a solution to the disparate needs and spending interests of their party. ***p. 12***

— Extremely fast spread of the Omicron variant worldwide does not seem to have had an outsized impact on the markets. While this new wave has in fact led to shutdowns in certain economies, much of the world has remained open, perhaps in acknowledgment that the health effects of Omicron are believed to be milder in nature. ***p. 10***

ASSET ALLOCATION ISSUES

— Equity markets delivered strong returns in Q4, up +6.7% and ending the year up 18.5% (MSCI ACWI). U.S. equities delivered 11.0% during the quarter, while international equities delivered 2.7% and emerging market equities saw a slight loss of -1.3%, on an unhedged currency basis. ***p. 27***

— Size and Value factor performance was negative once again during Q4. Large capitalization stocks significantly outperformed small capitalization stocks and Growth beat Value. Tighter monetary conditions and a pullback in some growth stocks has renewed talks of a possible Value rotation. ***p. 29***

Risk assets continue to perform strongly, despite rapid global spread of the Omicron variant

What drove the market in Q4?

"World is put on high alert over the Omicron coronavirus variant"

NUMBER OF NEW DETECTED COVID-19 INFECTIONS WORLDWIDE (MILLIONS)

Jul	Aug	Sep	Oct	Nov	Dec
15.6	19.9	16.0	13.0	15.7	25.4

Article Source: CNN, as of November 28th, 2021

"'Transitory' is out for describing inflation at the Fed… what will take its place?"

HEADLINE CONSUMER PRICE INFLATION (YEAR-OVER-YEAR)

Jul	Aug	Sep	Oct	Nov	Dec
5.4%	5.3%	5.4%	6.2%	6.8%	7.0%

Article Source: MarketWatch, December 15th, 2021

"Unphased by Omicron, Fed policymakers show greater consensus for faster taper"

FEDERAL RESERVE BALANCE SHEET SIZE (TRILLIONS)

Jul	Aug	Sep	Oct	Nov	Dec
$8.2T	$8.3T	$8.4T	$8.6T	$8.7T	$8.8T

Article Source: Reuters, December 2nd, 2021

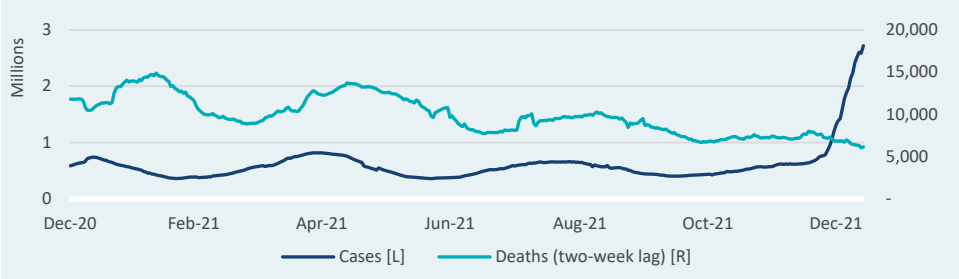
"Dow, S&P 500 end at all-time records as U.S. stocks extend winning streak amid strong company earnings"

S&P 500 INDEX – NUMBER OF CUMULATIVE YEAR-TO-DATE RECORD CLOSES

Jul	Aug	Sep	Oct	Nov	Dec
41	53	54	59	66	70

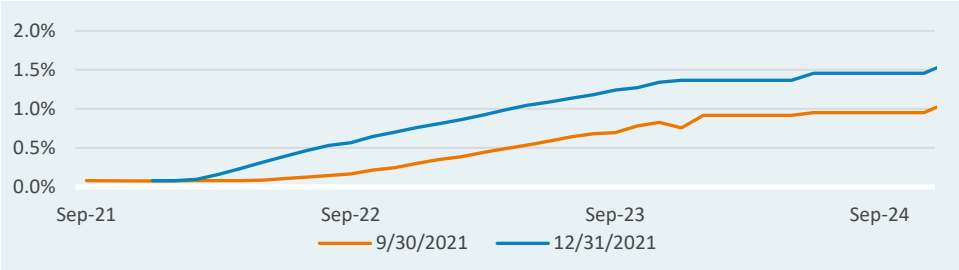
Article Source: October 26th, 2021

GLOBAL CASE GROWTH VS. LAGGED DEATHS (7-DAY TRAILING AVERAGE)



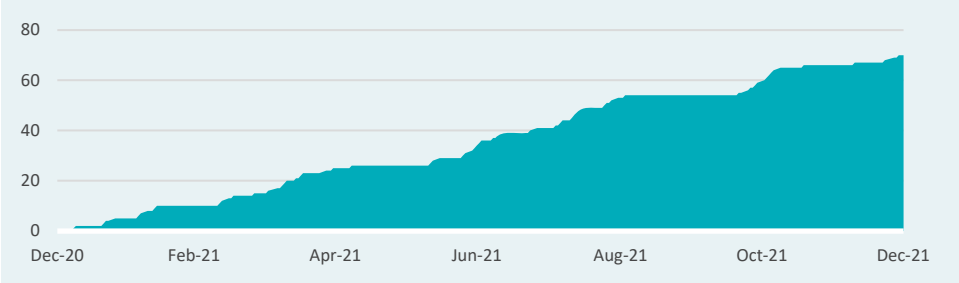
Source: Bloomberg, as of 12/31/21

IMPLIED EFFECTIVE FED FUNDS RATE



Source: Bloomberg, as of 12/31/21

S&P 500 INDEX – CUMULATIVE NUMBER OF RECORD CLOSES IN 2021



Source: Standard & Poor's, Bloomberg, as of 12/31/21

Economic environment

U.S. economics summary

— Real GDP grew at a 4.9% rate year-over-year in the third quarter (+2.3% quarterly annualized rate). A slowdown in consumer spending contributed to a lower pace of growth. This was due to a combination of factors, including new COVID-19 restrictions, a delay in the reopening of businesses, and general fear of virus spread which has led to less spending on services. As GDP growth is stated in *inflation-adjusted* terms, higher inflation has also contributed to slower economic growth.

— U.S. core CPI, which excludes food and energy prices, increased 5.5% year-over-year in December. Headline inflation, which includes all goods, reached 7.0%. Large price increases have occurred across many goods and services, though approximately half of the rise in inflation continues to be driven by energy prices and automobiles.

— The U.S. unemployment fell further, from 4.8% to 3.9% during Q4. The labor force participation rate has improved, though very gradually, rising from 61.6% to 61.9%.

— After months of political brinksmanship, it appears the Build Back Better plan has stalled, as Senator Joe Manchin had communicated a hard "No" on his support for the Build Back Better bill. Democrats continue to seek a solution to the disparate needs and spending interests of their party.

— U.S. home prices increased +19.1% over the past year ending October. However, price growth may be cooling off, as the inventory of homes has expanded materially and mortgage interest rates have begun to rise.

— Consumer sentiment was mixed during the quarter. Depressed survey levels suggest we are no longer in the euphoric spending environment of mid to late 2021.

	Most Recent	12 Months Prior
Real GDP *(YoY)*	4.9% *9/30/21*	(2.9%) *9/30/20*
Inflation *(CPI YoY, Core)*	5.5% *12/31/21*	1.6% *12/31/20*
Expected Inflation *(5yr-5yr forward)*	2.3% *12/31/21*	2.0% *12/31/20*
Fed Funds Target Range	0% – 0.25% *12/31/21*	0% – 0.25% *12/31/20*
10-Year Rate	1.51% *12/31/21*	0.91% *12/31/20*
U-3 Unemployment	3.9% *12/31/21*	6.7% *12/31/20*
U-6 Unemployment	7.3% *12/31/21*	11.7% *12/31/20*

GDP growth

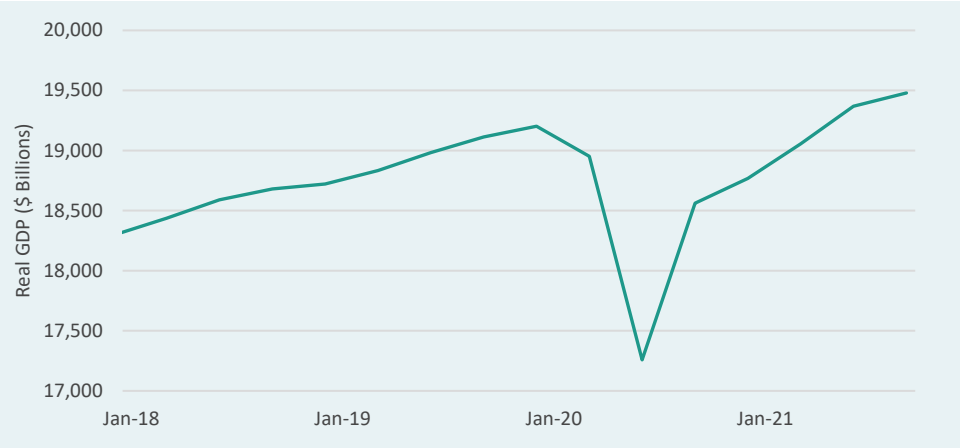
Real GDP grew at a 4.9% rate year-over-year in the third quarter (+2.3% quarterly annualized rate). During the quarter, a slowdown in consumer spending resulted in a lower pace of growth. This was partly a factor of new COVID-19 restrictions and a delay in the reopening of businesses across the country. Fear of contracting the virus likely led to less spending on services. Government assistance to businesses and households also continued to fall, creating a drag on growth. On the other hand, a strong rebuilding of inventories by businesses had a large positive impact on economic growth.

Although Q3 showed a weaker rate of growth, expectations more broadly are for further strong economic expansion—materially above pre-pandemic rates. The Atlanta Fed GDPNow estimate, as of January 14th, suggests a GDP growth rate of 6.8% in the fourth quarter (seasonally-adjusted quarterly annualized rate).

U.S. GDP growth is traditionally quoted in *inflation-adjusted* terms. This means that higher inflation has contributed to slower GDP growth, as shown below. It will be important to watch the rate of inflation and the impact of higher inflation on GDP figures. Multiple past U.S. recessions were caused at least partially by rising inflation rather than solely by slowing growth (see 1970s, 1980s).

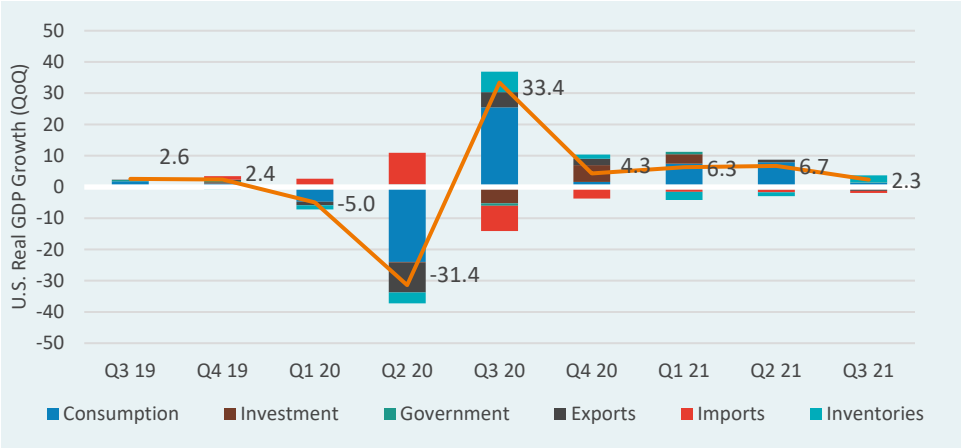
Although Q3 was relatively weak, economists expect continued above-average GDP growth

U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 9/30/21

U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 9/30/21

Omicron variant

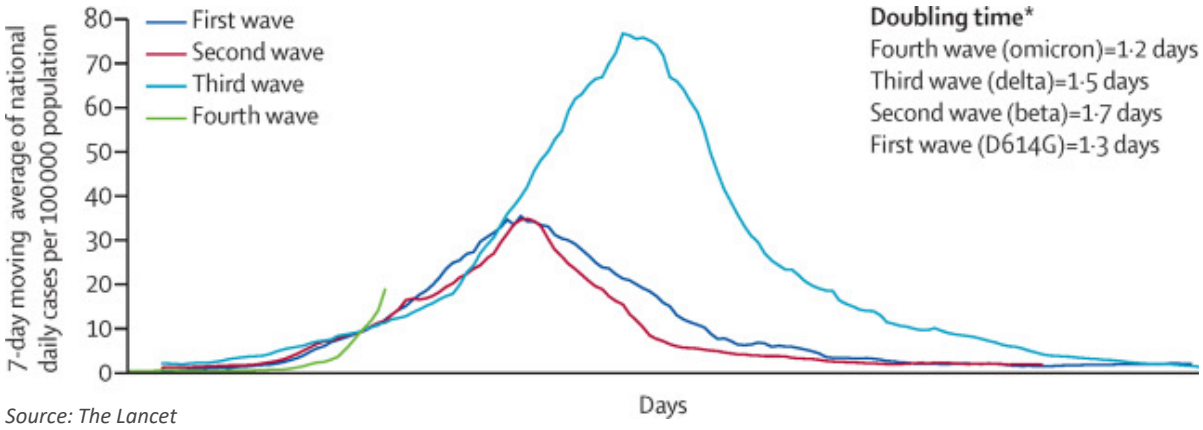
COVID-19 variant B.1.1.529 (Omicron) was discovered in Botswana on November 11th and has since spread exponentially around the globe, replacing the delta variant as the dominant global strain.

Based on available studies and data, the Omicron variant is much more infectious than prior variants, but its symptoms are less severe. In the Gauteng province within South Africa, the doubling time of cases proved to be faster than each of the previous three waves at 1.2 days

While case growth has accelerated more quickly than in previous waves in South Africa, hospitalizations and deaths have not paced the increase in cases, leaving some to predict that symptoms may be less severe.

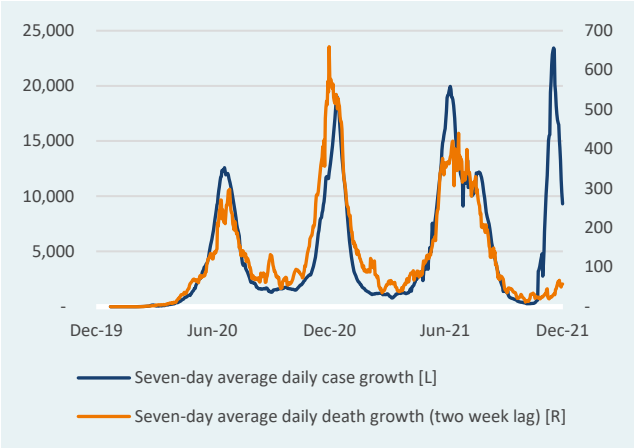
Some have argued that it is a good thing that a highly infectious but not severe strain is spreading around the world, because it will provide some level of neutralizing antibodies to the people it infects, shortening the path to herd immunity. A more pessimistic view would be that "letting it rip" would allow more time for the virus to mutate to a more deadly strain.

COVID WAVE CASE DOUBLING TIME – GAUTENG PROVINCE, SOUTH AFRICA



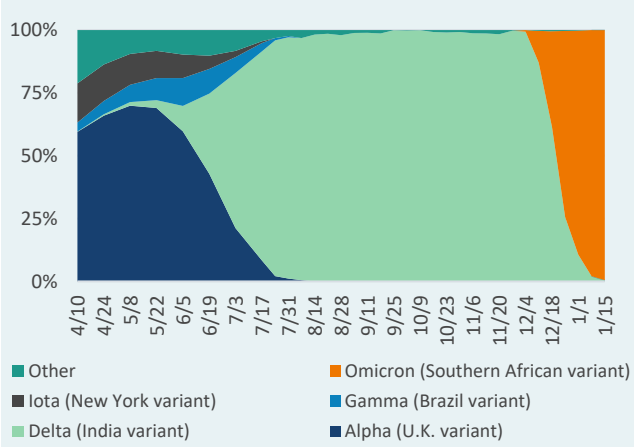
Source: The Lancet

SOUTH AFRICAN CASES AND DEATHS



Source: Bloomberg, as of 12/31/21

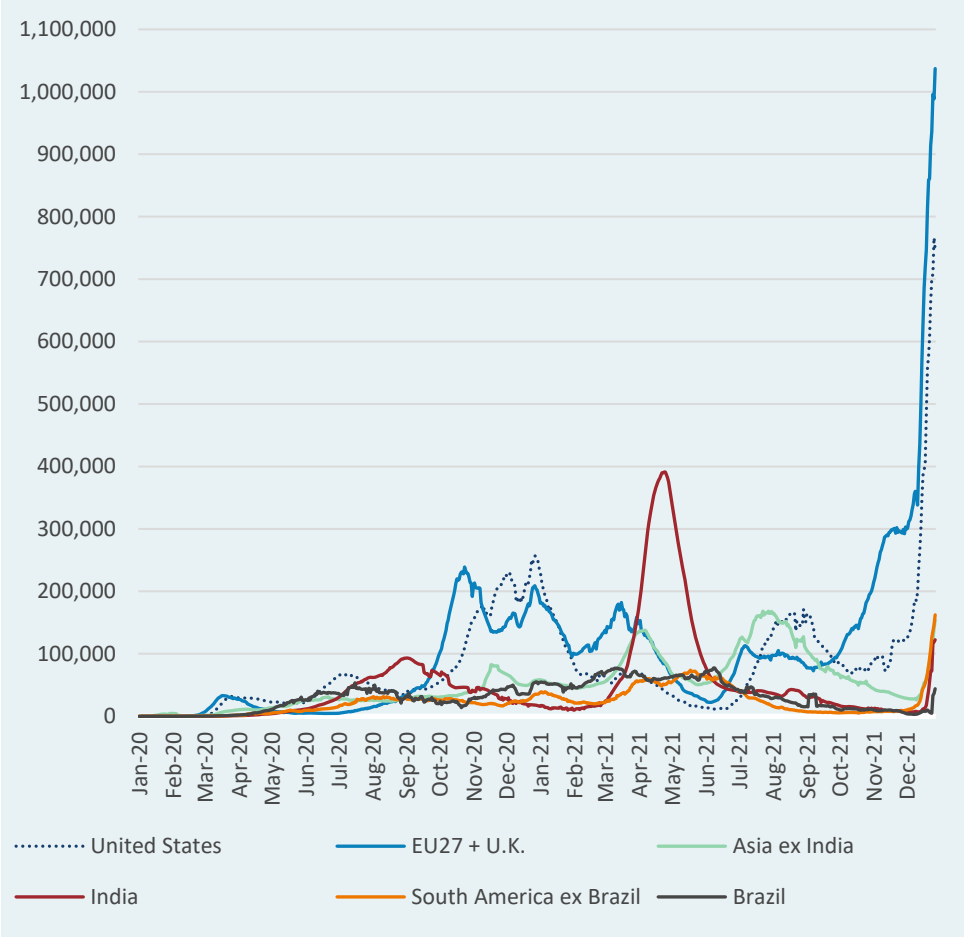
STRAIN DOMINANCE IN THE UNITED STATES



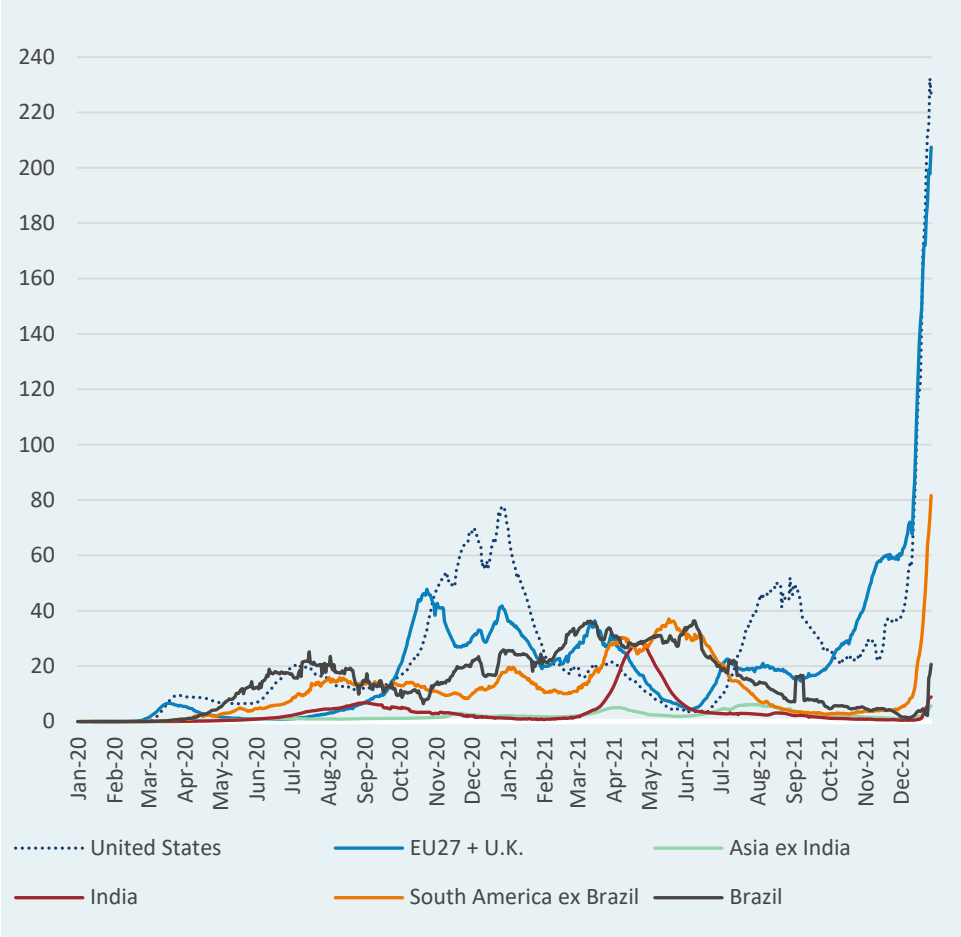
Source: CDC, as of 1/15/22

COVID-19 case growth monitors

DAILY AVERAGE CASE GROWTH (SEVEN-DAY TRAILING)



DAILY AVERAGE CASE GROWTH (SEVEN-DAY TRAILING) – PER 100,000



Source: Bloomberg, as of 1/11/22

“Build Back Better” update

After months of political brinksmanship, it appears the BBB plan has stalled

- For months, Democrats have sought a solution to the disparate needs and spending interests of their party. This ranged from the more aggressive spending demands of Bernie Sanders, who hoped for a total of nearly $6 trillion in new spending, to Senator Joe Manchin who had expressed throughout the year a willingness to support a maximum of $1.5 trillion in new spending. In December it was announced that Senator Joe Manchin communicated a hard “No” regarding his support for the bill.
- The party appears to have taken a calculated risk in continuing to push for spending in excess of the $1.5 trillion limit that Joe Manchin had indicated, as well as refusing to negotiate on other items where disagreement existed, such as tax credits and climate change legislation. Despite DNC claims that the Build Back Better would not raise the national deficit, Manchin also expressed skepticism around sunset clauses and other assumptions within the bill that he believed hid the true magnitude of spending and its likely impact on the U.S. deficit.
- Some remain hopeful for a revival of negotiations and perhaps an agreement on many or most of the items within the bill. However, in January Senator Manchin indicated that he will not support the bill altogether—a reversal from the sentiments expressed during earlier negotiations.

Inflation

U.S. core CPI, which excludes food & energy prices, increased 5.5% year-over-year in December. Headline inflation, which includes all goods, reached 7.0%. Large price increases have occurred across many goods and services, though approximately half of the rise in inflation continues to be driven by energy prices and automobiles. Inflation has proven more "sticky", which suggests that higher prices may be less transitory than previously believed.

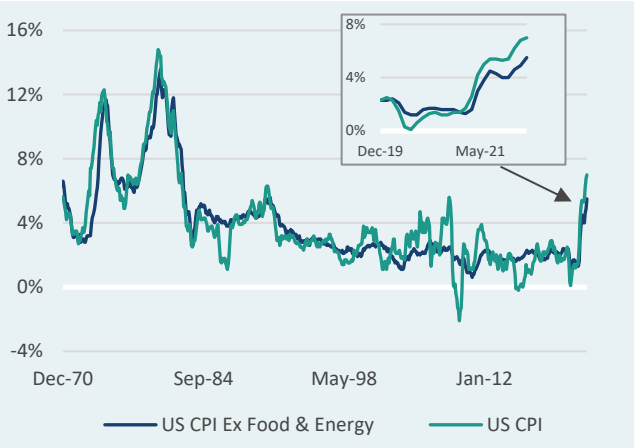
The price of shelter continue to be a notable driver of U.S. inflation, as shelter costs have risen 4.1% over the past year. Although the rate of price growth in this area has been fairly modest, the cost of shelter makes up nearly one third of the overall CPI basket (32.4% as of November). As we have mentioned previously, the way in which housing costs are captured in official statistics is nuanced, and increases in home prices do not necessarily flow through directly to official inflation numbers. Instead, today's higher shelter costs may take quarters or even years to show up in government statistics.

We maintain our view that inflation will most likely begin falling towards previous levels later in 2022, though this could be a slower process. The variables that will likely impact this outcome include: whether energy and automobile prices plateau, the speed at which supply chain problems are resolved, and the willingness of businesses to raise wages in line with rates of inflation (quickly rising wages could further pressure prices upward).

Inflation has proven more "sticky"

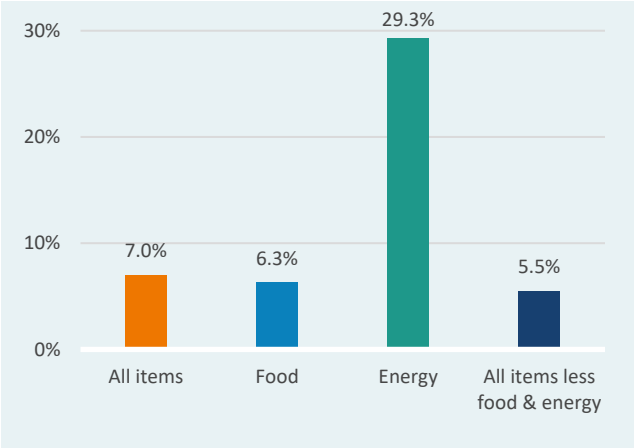
Higher prices may be less transitory than previously believed

U.S. CPI (YOY)



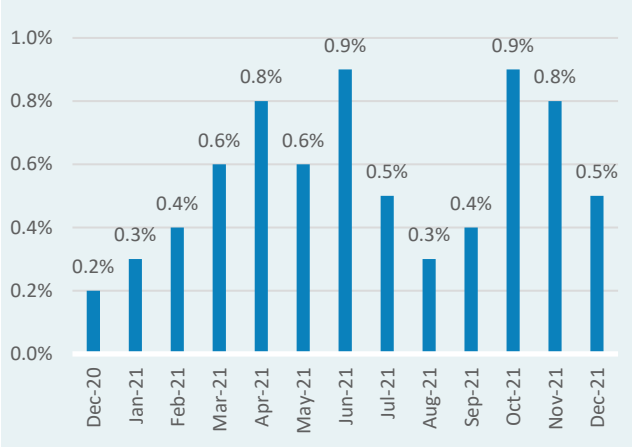
Source: BLS, as of 12/31/21

U.S. CPI (YOY)



Source: BLS, as of 12/31/21

MONTHLY PRICE MOVEMENT



Source: BLS, as of 12/31/21

Labor market

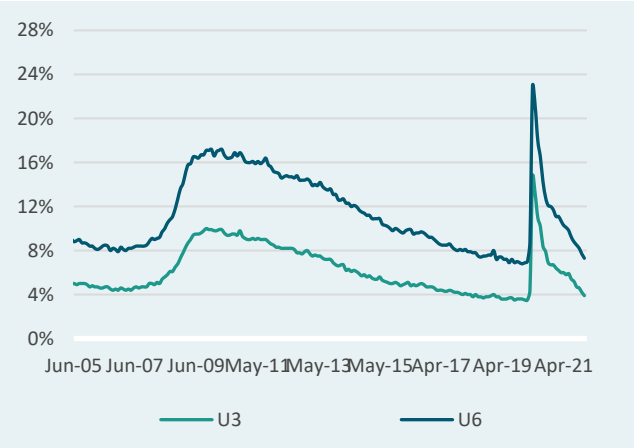
The U.S. unemployment rate fell further, from 4.8% to 3.9% during Q4. The labor force participation rate has improved, though very gradually, rising from 61.6% to 61.9%. The U.S. labor shortage has reached historic proportions. Job openings far exceed the supply of workers. As of November, 10.5 million job openings were posted, while only 6.8 million Americans were seeking work.

In 2021, using U.S. government employment and retirement data, we reached a conclusion that the sudden and historically large quantity of workers leaving the labor force was mostly caused by early retirements. At the time, multiple theories had been proposed, such as COVID-19 fear (workers were not seeking employment due to a fear of human interaction) or that this was due to government aid and stimulus (workers flush with cash were finding it temporarily unnecessary to hold a job). Over recent quarters it does appear that our thesis has held. The U.S. labor force participation rate remains stuck, as two million abnormally early retirements imply that the available workforce is now permanently smaller. This reduction in workforce likely reduces the productive capacity of the U.S. economy and aggregate household income, though it may have an incremental lifting effect on the wages of existing workers.

A portion of the U.S. labor force remains neither employed nor seeking work

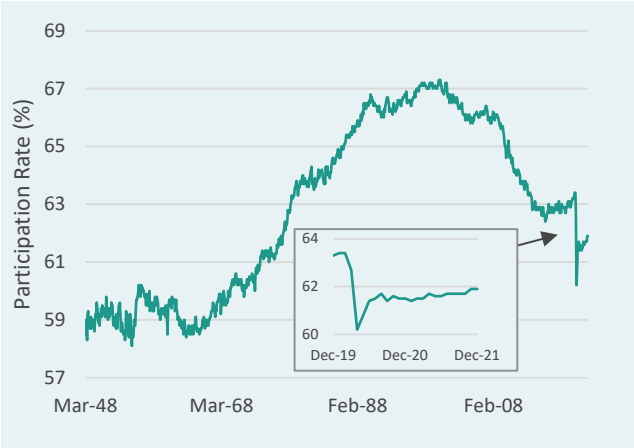
Much of this loss appears to be due to early retirements

U.S. UNEMPLOYMENT



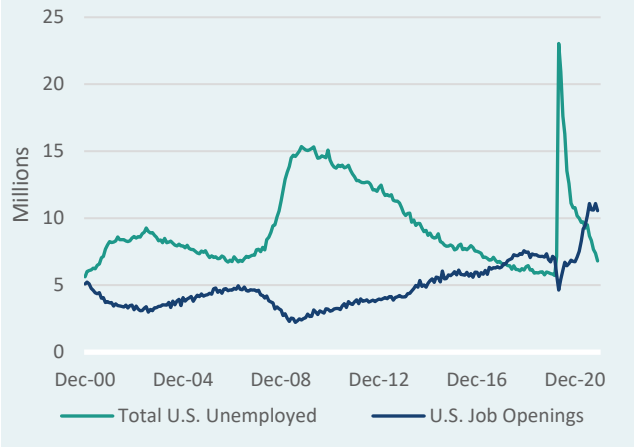
Source: FRED, as of 12/31/21

LABOR PARTICIPATION RATE



Source: FRED, as of 12/31/21

 # UNEMPLOYED VS # JOBS AVAILABLE



Source: FRED, as of 11/30/21

Labor costs & shortages

"We could see mid-single-digit inflation in retails, as **rising raw material pricing, labor and transportation costs are all impacting us and our suppliers**. We have no way to say how long this will last, but our industry has been disciplined about pricing for decades, and we expect that to continue." -AutoZone (Dec. 7)

"Moving on to inflation, again, it's pretty much the same story that we told during each of the last two quarters. **There have been and are a variety of inflationary pressures that we and others are seeing from labor cost to freight cost, to higher demand, to container shortages and port delays, to increased demand on certain product categories**, much of what you see and read out there. Various shortages on everything from chips to oils and chemicals supplied by facilities hit by the Gulf storms a while back. Higher commodities prices." -Costco (Dec. 9)

"To further impact our second-quarter results, I will highlight several key drivers. **The difficult labor market once again had the largest effect on our bottom line, representing an estimated $470 million in additional year-over-year costs**. As I did last quarter, **I'll separate the effect of the labor market into two components: higher rates and network inefficiencies resulting from labor shortages**." -FedEx (Dec. 16)

"To add to the challenge, **industry-wide shortages in the labor market are impacting every part of the supply chain, adding significant costs that are above and beyond inflation. We're seeing record levels of disruptions across our raw material suppliers, internal and external production facilities, our own distribution centers, our customers' warehouses and the logistics networks required to connect each of these elements of the supply chain**. These disruptions are resulting in service challenges and elevated costs across the industry." -General Mills (Dec. 21)

"**Lost production days and unplanned downtimes** were primarily due to **labor shortages** across our manufacturing network, including **COVID-related absenteeism**." -Lamb Weston (Jan. 6)

Source: FactSet, as of 1/13/22

The consumer

U.S. real retail sales remain strong, up 10.6% year-over-year. It is worth noting that this was the growth rate *after* adjusting for inflation. American households continue to spend at a rapid pace, though this could be set to slow down as government spending and other easy money policies are likely in the rearview mirror.

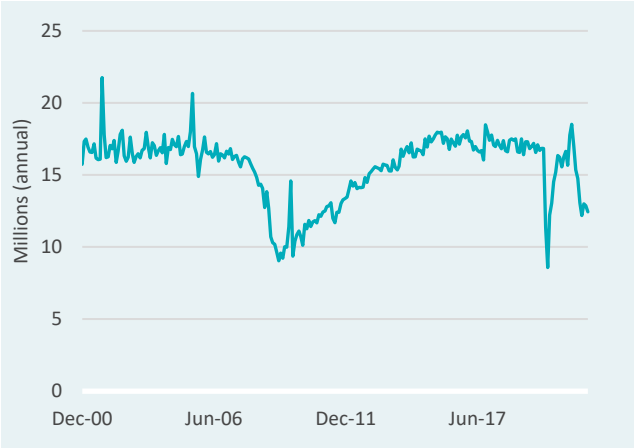
Auto sales volumes fell dramatically in the second half of 2021. Multiple variables are having an impact, as microchip shortages crimp new car production, many households already purchased a vehicle recently (assisted by stimulus checks), and very high auto prices have disincentivized purchases more generally.

A rather surprising economic result of the pandemic has been the jump in household savings rates, paying down of debt, and broadly improved financial situation of domestic households. As we have discussed in recent quarters, the inability of Americans to take vacations during much of the past two years, as well as reduced spending on services such as dining out, meant greater saving and less spending. However, it is incredibly important to point out that economic metrics such as the ones discussed here inherently involve an *averaging* of all household situations. The recent recession has had particularly destructive effects on specific sectors of the economy, and many have yet to recover.

REAL RETAIL SALES GROWTH (MONTHLY)

Source: FRED, as of 11/30/21

AUTO SALES



Source: Federal Reserve, as of 12/31/21

U.S. HOUSEHOLD DEBT BURDEN

Source: FRED, as of 9/30/21 – household debt service payments as a percent of disposable personal income

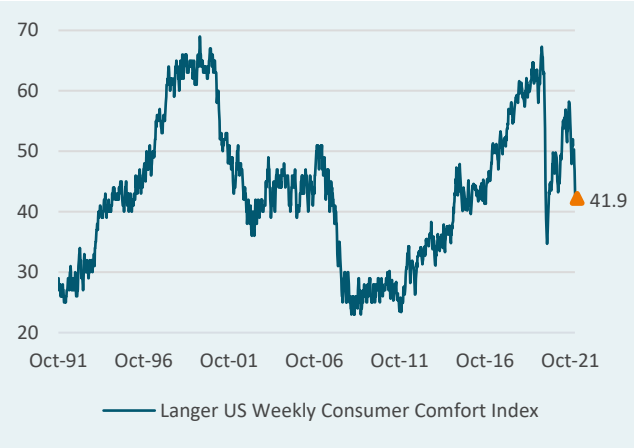
Sentiment

Consumer sentiment was mixed during the quarter. The University of Michigan survey indicated relatively depressed but stable sentiment. Announced increases to Social Security payments (+5.9% YoY) due to inflation and a rise in wages among younger workers lifted sentiment slightly. On the other hand, the Langer U.S. Weekly Consumer Comfort Index suggested a sharp falloff in sentiment. Rising inflation, the spreading Omicron variant, and the steepest one week drop in "buying conditions" in 36 years translated to much poorer sentiment to start 2022. Both surveys seem to communicate an end to the euphoric spending spree that occurred in mid to late 2021.

The NFIB Small Business Optimism index was rangebound during the quarter but remained near the long-term average level. As outlined by the survey, 59% of small businesses have increased prices, which was the highest reading since 1979. The December survey suggests that business conditions are not encouraging to small business owners, as new government mandates and tax increases have been discussed in the legislature. Furthermore, high inflation and supply chain issues continue to create challenges.

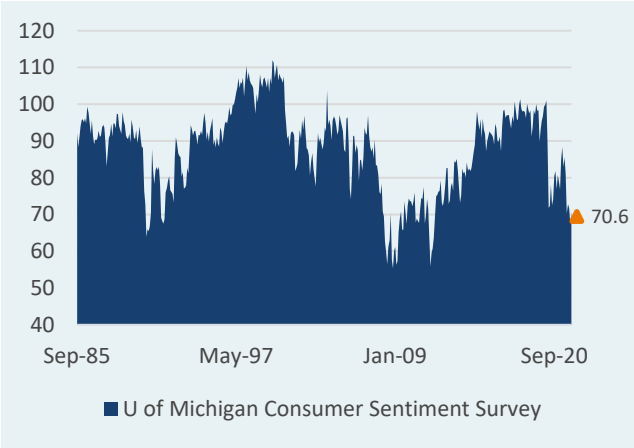
Sentiment remains depressed, as concerns exist around inflation, Omicron, and economic restrictions

CONSUMER COMFORT



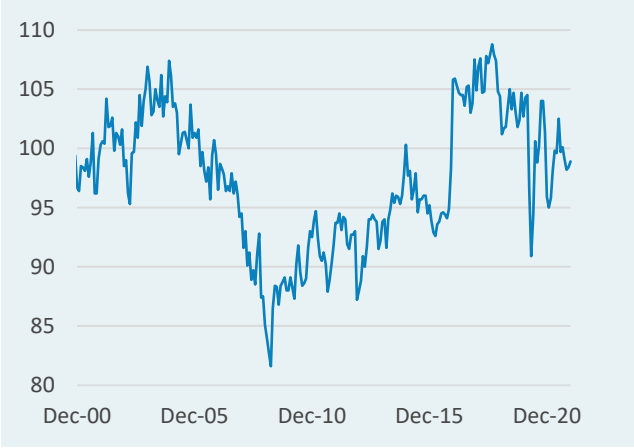
Source: Bloomberg, as of 1/9/22

CONSUMER SENTIMENT



Source: University of Michigan, as of 12/31/21

SMALL BUSINESS OPTIMISM



Source: NFIB, as of 12/31/21

Housing

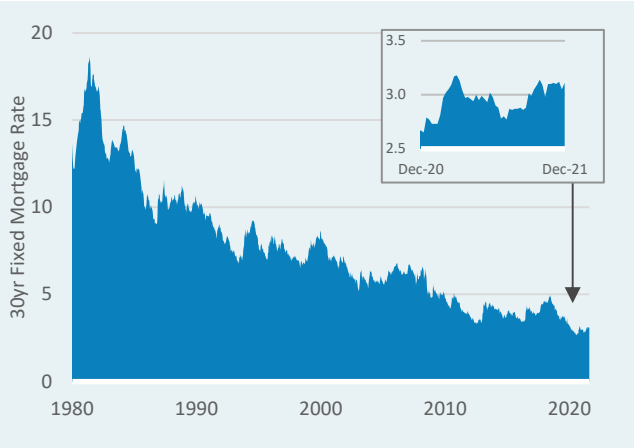
U.S. home prices increased +19.1% over the past year, ending October. However, price growth may be cooling off, as the inventory of homes has expanded materially and mortgage interest rates have begun to rise. The dramatic surge in real estate values throughout the pandemic resulted in considerable wealth gains for those who owned homes, but has also created real financial issues for many who rent as housing costs have risen faster than incomes.

Much higher living costs may lead to further social unrest and political discussions on topics such as the relaxation of zoning restrictions and rent control. The growing homeless crisis in many U.S. areas further compounds the need, both real and perceived, for bringing the costs of housing under control.

U.S. mortgage rates have risen off the all-time-low (2.65%) achieved earlier in 2021. During the first week of January, the 30-year average fixed rate mortgage reached 3.22%. Given high home prices, small increases in interest rates will have a larger impact on affordability. Higher borrowing costs would act as a headwind to further home price appreciation.

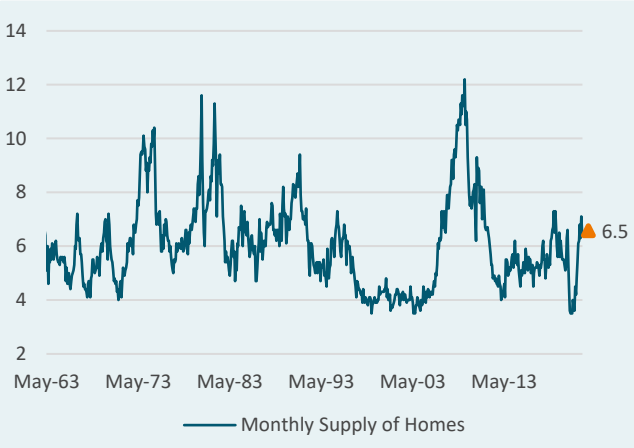
A dramatic jump in shelter costs may be adding pressure to household budgets

30YR FIXED MORTGAGE RATE (AVERAGE)



Source: U.S. Census Bureau, as of 12/31/21

SUPPLY OF HOMES



Source: FRED, as of 11/30/21

CASE-SHILLER HOME PRICE INDEX

Source: FRED, as of 10/31/21

International economics summary

— COVID-19 variant B.1.1.529 (Omicron) was discovered in Botswana on November 11th and has since spread exponentially around the globe, replacing the delta variant as the dominant global strain. Based on available studies and data, the Omicron variant is much more infectious than prior variants, but its symptoms are less severe. Many countries have taken a cautious approach and have reinstituted social distancing controls.

— Several countries including China and New Zealand have implemented zero-COVID approaches with the goal of completely eradicating the virus within their borders. These policies may present upside risks for inflation looking ahead, as they are likely to result in more uncertainty and therefore potentially sustain or even worsen current supply chain problems.

— Prices paid by global producers of goods and services have surged over the last year. Chinese producer price growth (+10.3% in December) hit its highest level in 26 years, and German producer prices (+19.2% in November) grew very quickly as supply chain disruptions squeezed prices for timber and raw metal materials.

— Eurozone GDP grew +3.7% year-over-year in Q3, lagging U.S. growth over the same period (+4.9%). Economic growth was more robust in Italy (+3.8%) and a bit weaker in Germany (+2.5%).

— China's real estate crisis seems to be spreading. In early December, Evergrande, one of the largest property developers in China, defaulted on its debt. An increasing number of Chinese property developers have been strained. Given that real estate development makes up nearly one third of China's economy, a crisis in this sector could have serious ramifications.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	4.9% *9/30/21*	7.0% *12/31/21*	3.9% *12/31/21*
Eurozone	3.9% 9/30/21	5.0% *12/31/21*	7.2% *11/30/21*
Japan	1.2% *9/30/21*	0.8% *12/31/21*	2.7% *11/30/21*
BRICS Nations	5.2% *9/30/21*	3.3% *12/31/21*	5.4% *6/30/21*
Brazil	4.0% *9/30/21*	10.1% *12/31/21*	12.1% *10/31/21*
Russia	4.3% *9/30/21*	8.4% *12/31/21*	4.3% *11/30/21*
India	8.4% *9/30/21*	5.6% *12/31/21*	7.9% *12/31/21*
China	4.0% *12/31/21*	1.5% *12/31/21*	5.1% *12/31/21*

NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy. The Chinese unemployment rate represents the monthly surveyed urban unemployment rate in China.

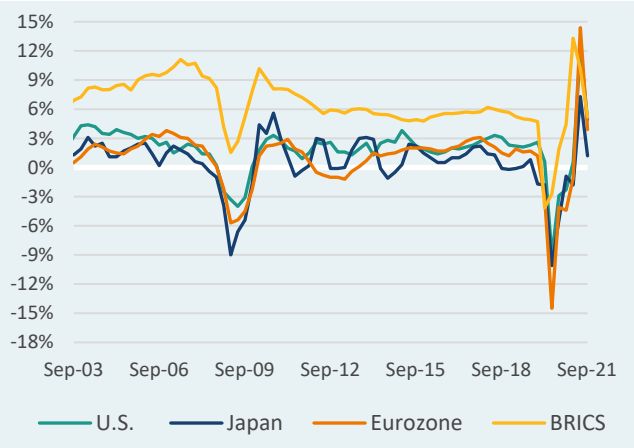
International economics

The rate of economic growth across most economies has moved back towards average levels, as the global recession and recovery fades from the rearview mirror. In October, the International Monetary Fund cut their 2021 advanced economy growth projections (from 5.6% to 5.2%), citing supply chain disruptions which have dampened the outlook for these economies. Worsening pandemic dynamics were flagged as a greater risk for emerging and developing economies, though 2021 growth expectations were revised up 0.1% to 6.4%.

Inflation moved higher in many areas, and the United States continues to cope with one of the highest rates of inflation among other major developed economies. Several countries including China and New Zealand have implemented zero-COVID approaches with the goal of completely eradicating the virus within their borders. These policies may present upside risks for inflation looking ahead, as they are likely to result in more uncertainty and therefore potentially sustain or even worsen current supply chain problems. Inflation trends and the reaction of central banks to these trends will have important implications for markets.

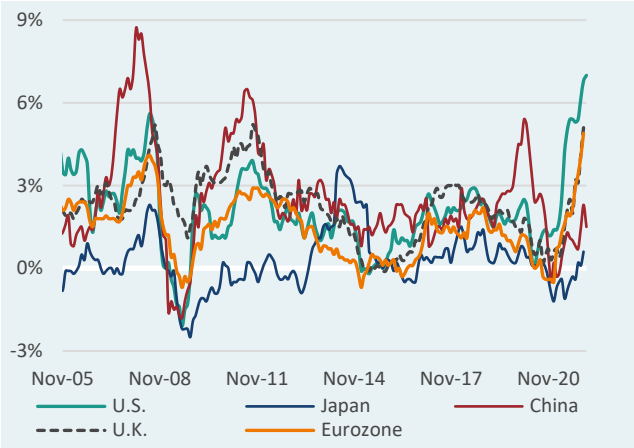
Unemployment has generally improved to pre-pandemic levels, as government restrictions are relaxed, people regain comfort in moving out and about, and economies trend back towards normalcy.

REAL GDP GROWTH (YOY)



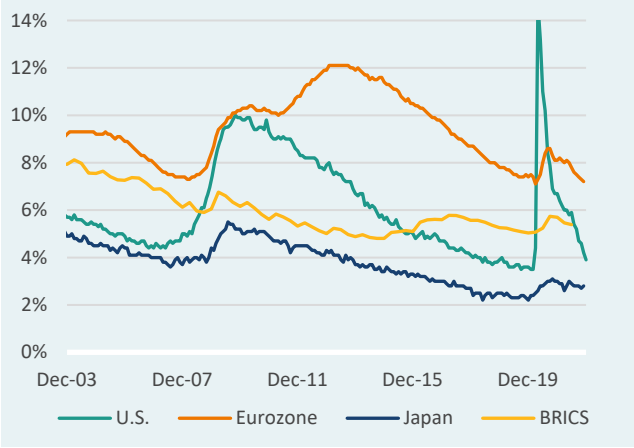
Source: Bloomberg, as of 9/30/21

INFLATION (CPI YOY)



Source: Bloomberg, as of 12/31/21 – or most recent release

UNEMPLOYMENT



Source: Bloomberg, as of 12/31/21 – or most recent release

Fixed income rates & credit

Fixed income environment

— The 10-year U.S. Treasury yield was relatively rangebound during the quarter, remaining at a yield of 1.5%. Thus far, U.S. interest rates have not noticeably reacted to an inflation rate of 7.0%. Market pricing seems to indicate that investors generally expect inflation to be transitory—perhaps falling towards normal levels by the end of this year.

— One of the largest stories over the quarter was the Fed's pivot on inflation, the retirement of the word "transitory" to describe inflation, and a more aggressive policy path expected by investors. The conversation around the balance sheet shifted from concluding the taper in June to concluding in March, and perhaps selling assets as soon as June. The conversation around interest rates shifted from potentially hiking around June to the market fully pricing in a hike by March and maybe two by May. The Fed is now clearly more concerned with inflation relative to unemployment.

— Although credit spreads are tight, bond defaults have dropped to incredibly low levels. The one-year high-yield bond default rate reached 0.4% in December, one of the lowest rates on record.

— New issue activity across credit markets has been historically high. In the fourth quarter, $285 billion of investment grade credit was issued. Over the full year, gross issuance totaled $1.4 trillion, which was second only to the $1.8 trillion issued in 2020.

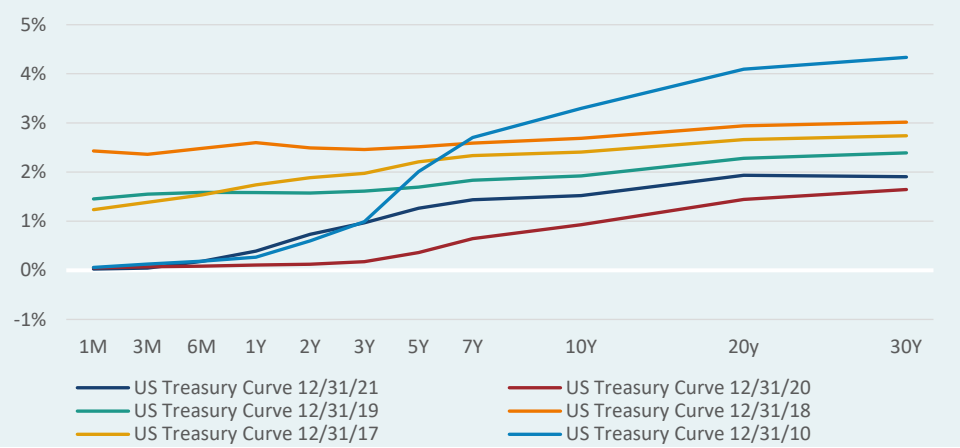
— In early December, Evergrande, one of the largest property developers in China, defaulted on its debt. At the start of 2022, property developer Shimao also defaulted on its debt. These bonds had been classified as investment grade until recently. Credit spreads of Chinese debt have expanding enormously, from near 750 bps in June to 2,175 bps in November.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	0.0%	(1.5%)
Core Plus Fixed Income (Bloomberg U.S. Universal)	0.0%	(1.1%)
U.S. Treasuries (Bloomberg U.S. Treasury)	0.2%	(2.3%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	0.7%	5.3%
Bank Loans (S&P/LSTA Leveraged Loan)	0.7%	5.2%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	(2.5%)	(8.7%)
Emerging Market Debt Hard (JPM EMBI Global Diversified)	(0.4%)	(1.8%)
Mortgage-Backed Securities (Bloomberg MBS)	(0.4%)	(1.0%)

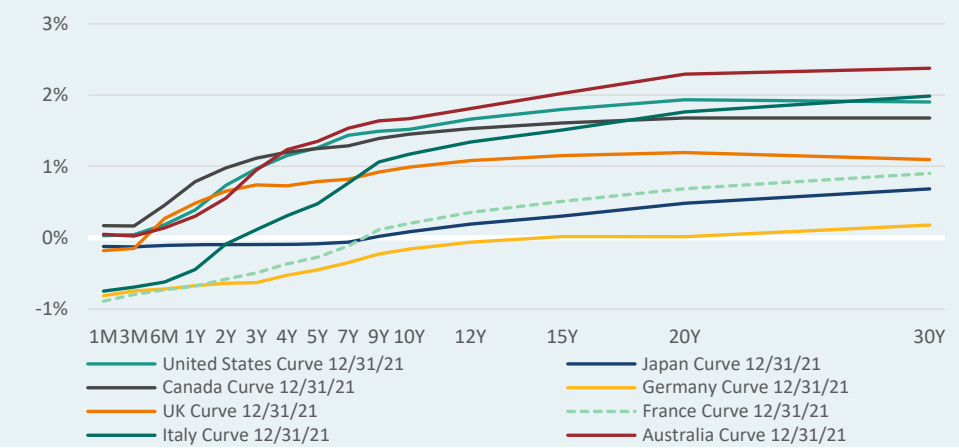
Source: Bloomberg, as of 12/31/21

Yield environment

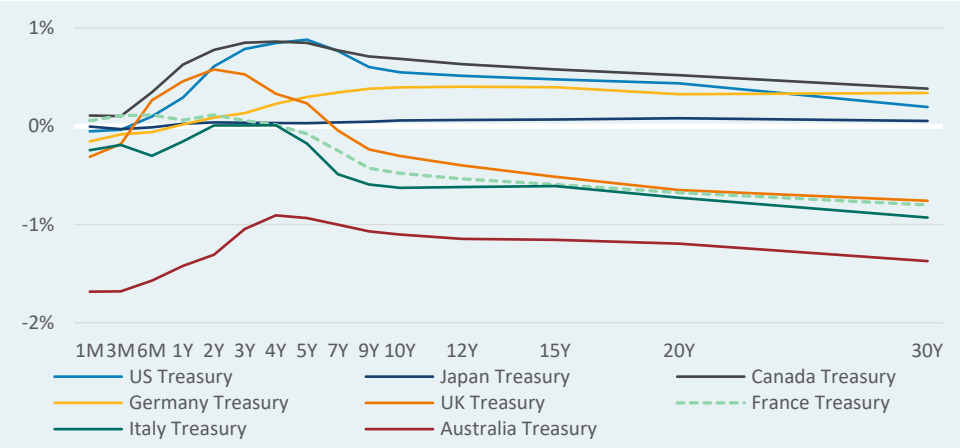
U.S. YIELD CURVE



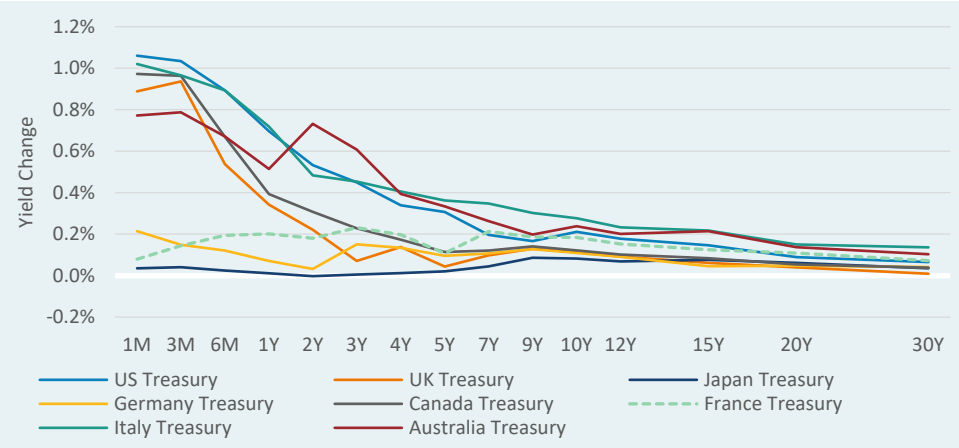
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



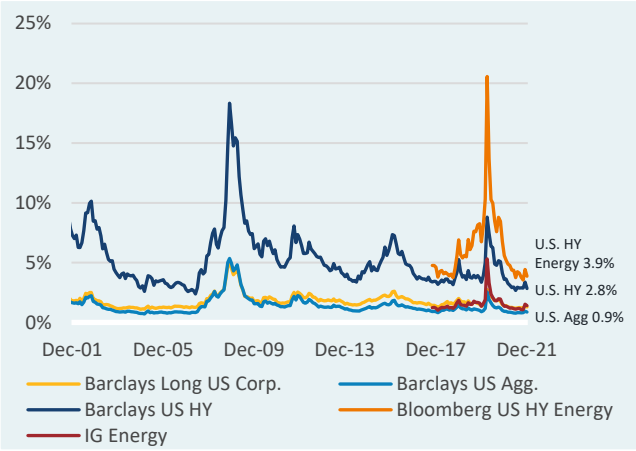
Source: Bloomberg, as of 12/31/21

Credit environment

During the fourth quarter, high yield bonds returned 0.7%, matching the performance of loans and outperforming investment grade credit (+0.2%). Over the full year, leveraged loans returned 5.4%, exceeding high yield performance (+5.3%) as well as investment grade credit (-1.2%). Credit spreads tightened modestly over the course of the year with pockets of volatility. This was also the case during Q4 as the Omicron variant circulated across the globe, reducing the appetite for risk. Investment grade spreads widened 8 basis points to 92 bps, which was 4 bps tighter relative to the beginning of the year. High yield corporate spreads finished 2021 at 283 bps, 6 bps tighter for the quarter and 77 bps tighter to end the year.

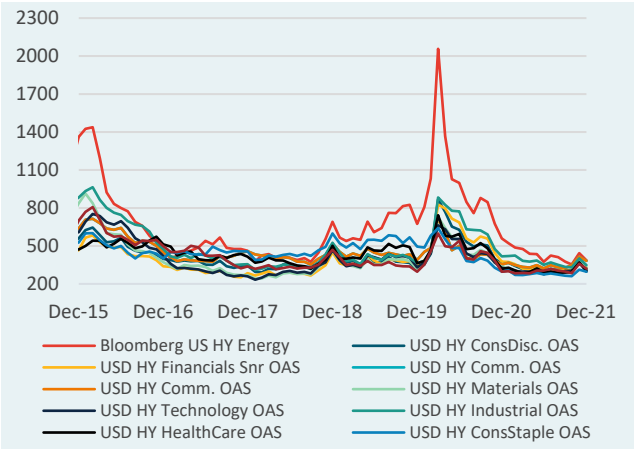
The search for yield continues within credit markets as option-adjusted spreads continue to be at or near historic lows and short-term interest rates remain near zero. We have observed that numerous managers are positioning portfolios relatively more defensively with an eye toward capitalizing on potential future volatility, as well as placing greater focus on more niche segments within credit markets. Despite tight spreads, increased rate volatility, and surging inflation, a record amount of funds ($583 billion) flowed into fixed income funds and ETFs in 2021, exceeding the previous record set in 2019 ($459 billion). Demand was broad-based, driven by demographics, an abundance of cash on corporate balance sheets, and strong equity market returns which led to increased rebalancing activity. Furthermore, given continued low rates across developed markets, U.S. fixed income remains an attractive market for foreign investors to pick up yield.

SPREADS



Source: Barclays, Bloomberg, as of 12/31/21

HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 12/31/21

	Credit Spread (OAS)	
Market	**12/31/21**	**12/31/20**
Long U.S. Corp	1.3%	1.4%
U.S. Inv Grade Corp	0.9%	1.0%
U.S. High Yield	2.8%	3.6%
U.S. Bank Loans*	4.3%	4.6%

Source: Barclays, Credit Suisse, Bloomberg, as of 12/31/21
**Discount margin (4-year life)*

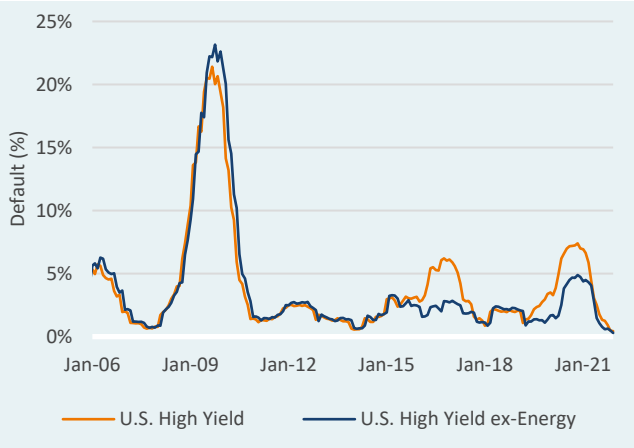
Default & issuance

Contrasting the pandemic-driven surge of credit defaults in 2020, which resulted in the second highest annual dollar volume of defaulted bonds and loans on record, default activity in 2021 was very modest. Overall, 14 companies defaulted on loans and bonds during the year on debt totaling $9.8 billion. The year-over-year improvement was largely fueled by robust economic growth, improving credit fundamentals, and greater access to capital markets, as record bond and loan refinancing activity totaling roughly $1 trillion since 2020 has improved corporate liquidity.

The par-weighted U.S. high yield default rate ended the year at a historic low of 0.4%, down 82 bps for the quarter and down 656 bps for the year. The par-weighted loan default rate ended the year at 0.5%, down 23 bps for the quarter and 348 bps for the year. For context, the 25-year average annual default rate of high yield was 3.1%, while the default rate for loans has averaged 3.0% since 1998.

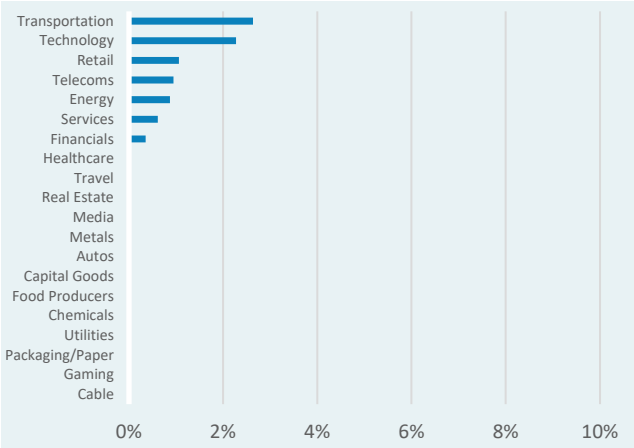
While new issue activity across credit markets fell broadly during the second half of the year, total credit issuance in 2021 was historically high. In the fourth quarter, $285 billion of investment grade credit was issued. Over the full year, gross issuance totaled $1.4 trillion, which was second only to the $1.8 trillion issued in 2020. Similarly, the fourth quarter was the lightest quarter for new issue activity for both high yield bonds and loans with $87.3 billion and $114.4 billion, respectively. However, each asset class experienced record issuance over the year with $557.1 billion in high yield bonds and $534.4 billion in loans.

HY DEFAULT RATE (ROLLING 1-YEAR)



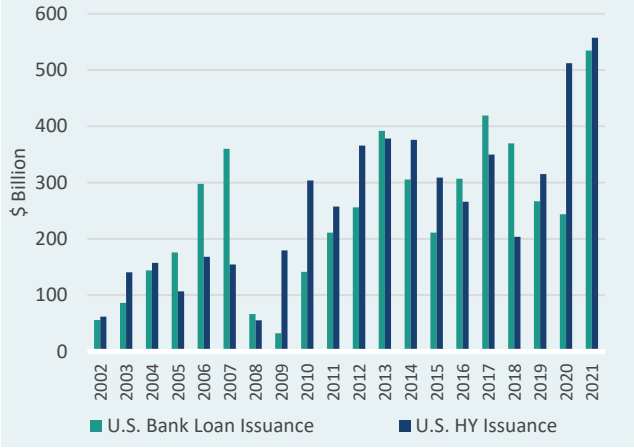
Source: BofA Merrill Lynch, as of 12/31/21

U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 12/31/21 – par weighted

U.S. ISSUANCE ($ BILLIONS)



Source: BofA Merrill Lynch, as of 12/31/21

Equity

Equity environment

— Equity markets delivered strong returns in Q4, up 6.7% and ending the year up 18.5% (MSCI ACWI). U.S. equities delivered 11.0% during the quarter, while international equities delivered 2.7% and emerging market equities saw a slight loss of -1.3%, on an unhedged currency basis.

— Size and Value factor performance was negative once again during Q4. Large capitalization stocks significantly outperformed small capitalization stocks (Russell 1000 +9.8%, Russell 2000 +2.1%) and Growth exceeded Value (Russell 1000 Growth +11.6%, Russell 1000 Value +7.8%). This theme held for full-year 2021.

— Extremely fast spread of the Omicron variant worldwide does not seem to have had an outsized impact on the markets. While this new wave has in fact led to shutdowns in certain countries, much of the world has remained open, perhaps in acknowledgment that the health effects of Omicron are milder in nature.

— Labor costs and labor supply issues are front-of-mind in corporate boardrooms, and 60% of S&P 500 companies have reported negative impacts to Q4 earnings during quarterly calls so far, as reported by FactSet.

— Weakness in Chinese equities (MSCI China -6.1%) continued to drive the broader underperformance of emerging market equities. Chinese policymakers have signaled a shift in focus from containing excessive leverage in the property sector to promoting growth and stability ahead of next year's parliamentary meeting. Still, the risk of further crackdowns on targeted sectors of the economy remains in place.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	11.0%		28.7%	
U.S. Small Cap (Russell 2000)	2.1%		14.8%	
U.S. Equity (Russell 3000)	9.3%		25.7%	
U.S. Large Value (Russell 1000 Value)	7.8%		25.2%	
US Large Growth (Russell 1000 Growth)	11.6%		27.6%	
Global Equity (MSCI ACWI)	6.7%	7.1%	18.5%	20.9%
International Large (MSCI EAFE)	2.7%	4.2%	11.3%	19.4%
Eurozone (Euro Stoxx 50)	4.4%	6.9%	14.6%	24.4%
U.K. (FTSE 100)	5.2%	5.1%	17.3%	18.9%
Japan (NIKKEI 225)	(5.3%)	(2.0%)	(4.7%)	6.7%
Emerging Markets (MSCI Emerging Markets)	(1.3%)	(1.3%)	(2.5%)	(1.3%)

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 12/31/21

Domestic equity

U.S. equities were a top performer in Q4, delivering 11.0% (S&P 500). The S&P 500 Index achieved all-time closing highs on 70 days over the course of the year, which was nearly a record number in and of itself. Performance across sectors was broadly positive during Q4, though those with a greater "value" bias lagged the index (ex: Financials, Energy, Industrials). Per FactSet, the bottom-up price target for the S&P 500 Index by 2022 year-end is around 5300, which implies a price return of roughly 11% for the year.

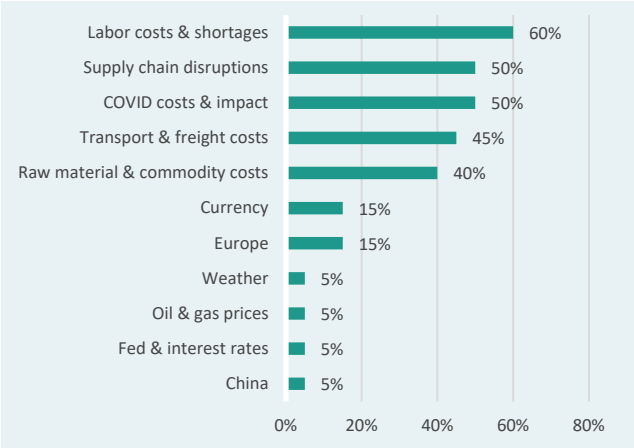
While supply chain disruptions remain a key concern for chief financial officers in the United States and around the globe, the number one headwind for earnings in Q4 shifted to labor costs and shortages, based on earnings calls transcribed by FactSet. Workers have been quitting their jobs in great numbers for a wide variety of reasons, pushing many employers to raise wages in order to retain employees, which could erode margins. Of companies that had reported Q4 earnings, 60% reported that rising labor costs had negatively impacted earnings. On a more optimistic note, those companies reported aggregate year-over-year earnings growth of around 28%, suggesting somewhat defensible margins and modest pricing power. Of companies mentioning labor issues, 85% discussed increasing prices or improving price realization on their earnings calls.

Net profit margins have fallen a percentage point from the record level of 13% achieved in Q2 2021, but remain historically high. If earnings growth in Q4 2021 meets expectations (21.4%), it will mark the fourth consecutive quarter of 20% YoY earnings growth.

S&P 500 INDEX

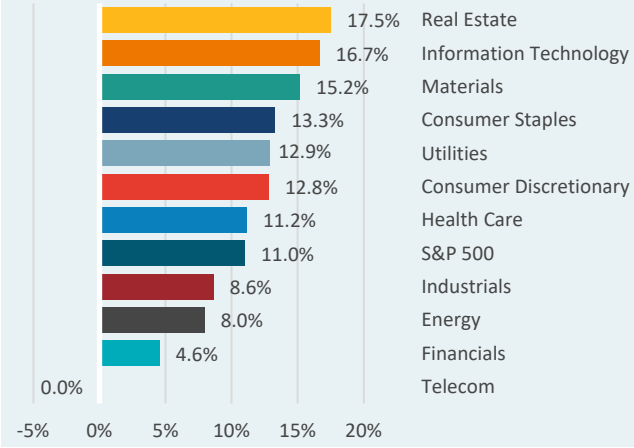
Source: Standard & Poor's, as of 12/31/21

S&P 500 COS. CITING NEGATIVE IMPACT – 4Q21



Source: FactSet, as of 1/13/22

Q4 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 12/31/21

Domestic equity size & style

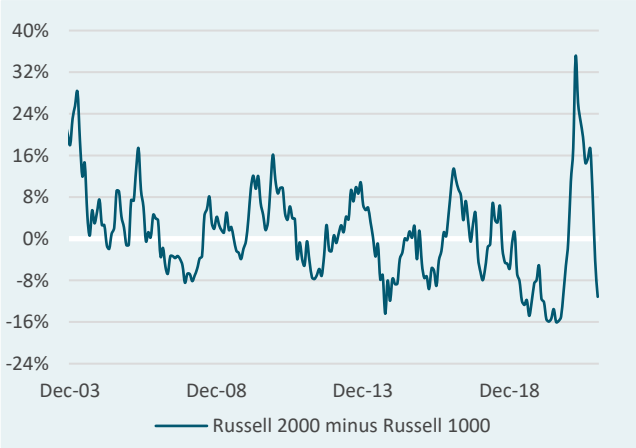
Size and Value factor performance was negative once again during Q4. Large capitalization stocks significantly outperformed small capitalization stocks (Russell 1000 +9.8%, Russell 2000 +2.1%) and Growth exceeded Value (Russell 1000 Growth +11.6%, Russell 1000 Value +7.8%). This theme held for full-year 2021.

Within MSCI's suite of long-only factor indices, Quality (+11.0%) was the top performer in Q4 which generally implies investor appetite for more defensive positioning. The strong performance of the Quality factor was skewed by Nvidia (+42.0%), Apple (+25.7%) and Microsoft (+19.5%).

Towards the end of the year, investor expectations for tighter Fed policy and interest rate hikes increased markedly. If the market is in fact undergoing a transition to tighter monetary conditions, this could have a notable impact on Value and Growth stock performance. The general cheapness of certain Value stocks and richness of certain Growth stocks may accentuate a value rotation, if and when this occurs. As always, we like to keep in mind that factor performance tends to be noisy and difficult to predict, which suggests that style investing should in most cases involve a longer-term focus.

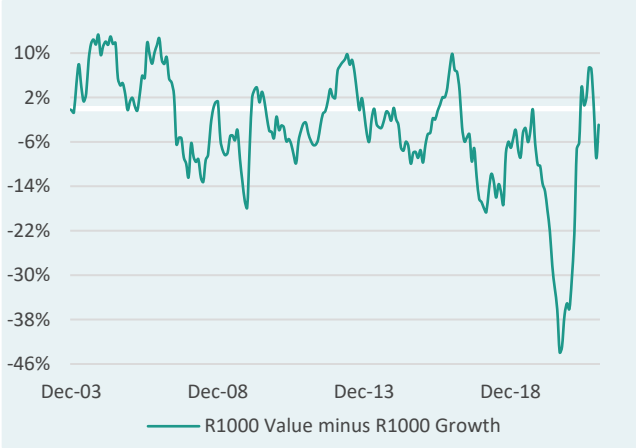
Size and Value underperformed during Q4 2021

SMALL CAP VS LARGE CAP (YOY)



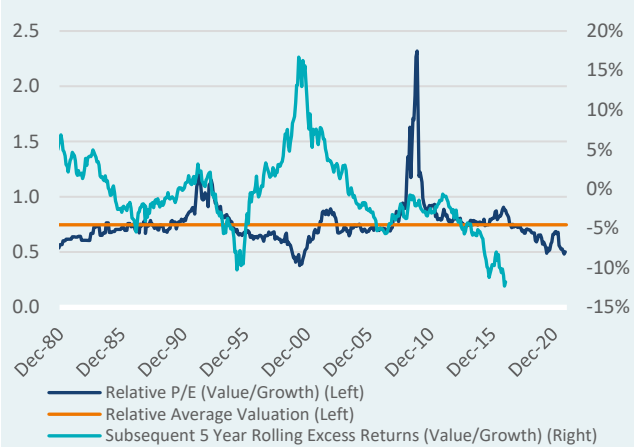
Source: FTSE, as of 12/31/21

VALUE VS GROWTH (YOY)



Source: FTSE, as of 12/31/21

VALUE VS. GROWTH RELATIVE VALUATIONS



Source: Standard & Poor's, as of 12/31/21

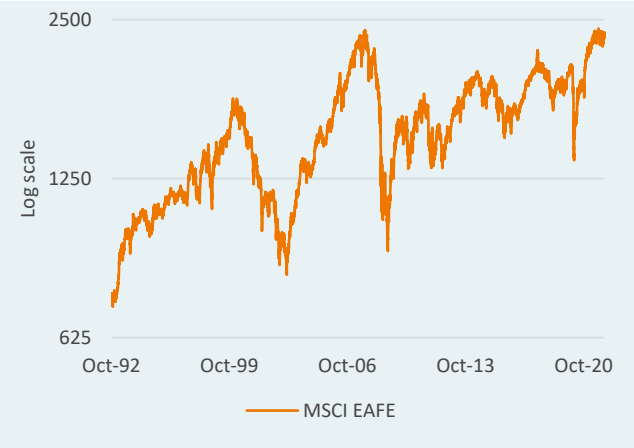
International developed equity

International developed equities delivered 2.7% during the quarter. U.S. equities were the top performer (S&P 500 +11.0%) while emerging market equities saw a slight loss (MSCI Emerging Markets -1.3%), on an unhedged currency basis. Currency movement during the quarter resulted in a loss of -1.5% (MSCI EAFE) relative to those investors with a currency hedging program.

Japanese equities (MSCI Japan -4.0%) underperformed most developed markets, reversing strong third quarter returns, though this was mostly caused by currency market movement (Yen -3.1%). The yen fell to its weakest level relative to the dollar since early 2017 in the fourth quarter as the Bank of Japan's dovish policy increasingly diverged from peers, many of which have signaled the beginning of a normalization process from pandemic stimulus. Rising interest rate differentials, as well as speculation that the new strain of COVID-19 might not be as disruptive as had been feared, has likely contributed to investor flows out of yen positions.

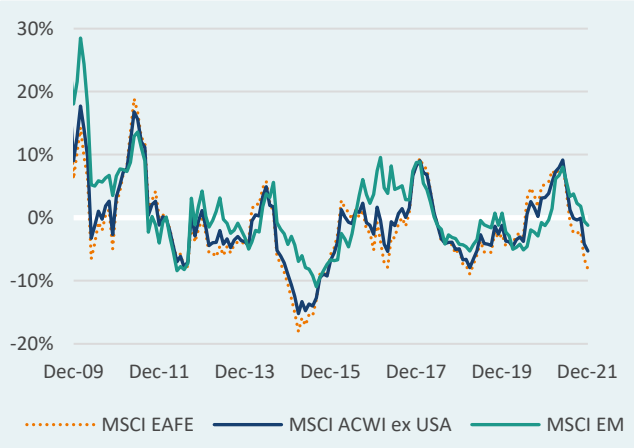
Swiss equities (MSCI Switzerland +12.8%) were the top performer in developed European markets, and unhedged U.S. investors benefitted from a 2.1% appreciation in the Swiss Franc relative to the U.S. dollar.

EFFECT OF CURRENCY (1-YEAR ROLLING)



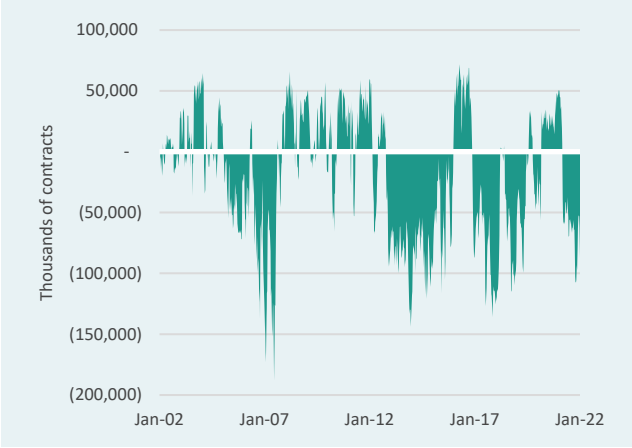
Source: MSCI, as of 12/31/21

INTERNATIONAL DEVELOPED EQUITIES



Source: MSCI, as of 12/31/21

YEN NET FUTURES POSITIONING



Source: CFTC, non-commercial positioning, as of 1/11/22

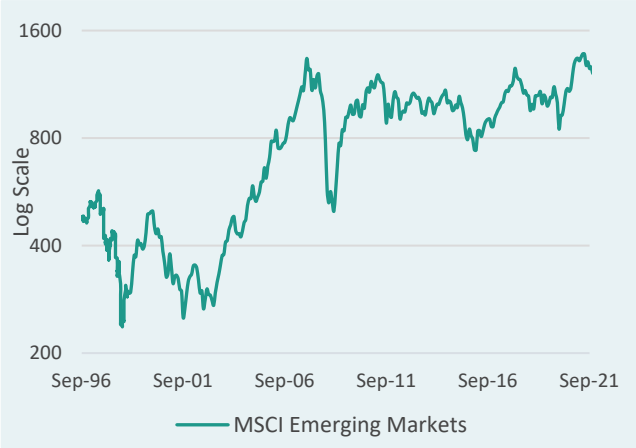
Emerging market equity

Emerging market equities saw a mild loss (MSCI EM -1.5%) on an unhedged currency basis, underperforming global markets again in the fourth quarter. Latin American and Asian emerging markets performed generally on par during the quarter (MSCI EM Latin America -2.7%, MSCI EM Asia -1.0%).

Weakness in Chinese equities (MSCI China -6.1%) continues to drive broader emerging market underperformance, as China delivered -21.7% return in 2021, while the broader complex was down -2.5% (MSCI China, MSCI Emerging Markets).

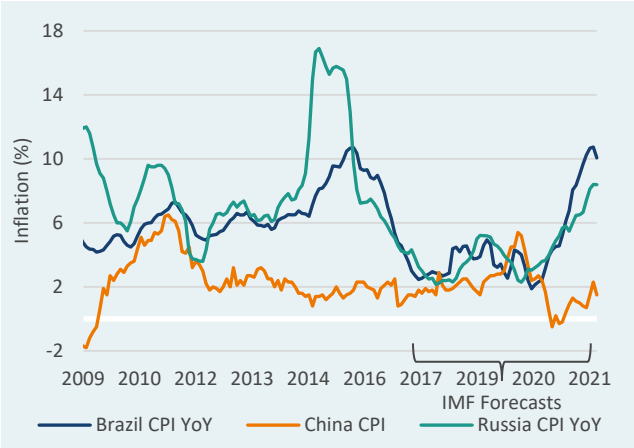
Inflation in Brazil has reached 10.7%, while Russia saw an 8.4% rise in prices and China sits near the longer-term average at 1.5%. Emerging market central banks have continued to raise interest rates. Brazil hiked their rate during the quarter from 6.25% to 9.25% in order to fight rising prices, while Russia hiked its rate from 6.75% to 8.50%. It is worth noting that many of these central banks have very recently implemented a domestic interest rate tightening cycle in order to battle price fluctuations and/or unwanted domestic currency movements. In other words, many emerging central banks deal with these types of issues more often than developed central bankers.

EMERGING MARKET EQUITY



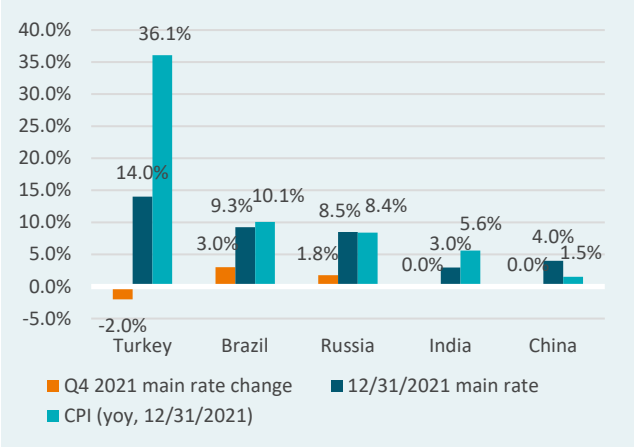
Source: MSCI, as of 12/31/21

INFLATION (YOY)



Source: Bloomberg, as of 12/31/21 or most recent data

CENTRAL BANK RATE CHANGES AND INFLATION



Source: Bloomberg, various, as of 12/31/21

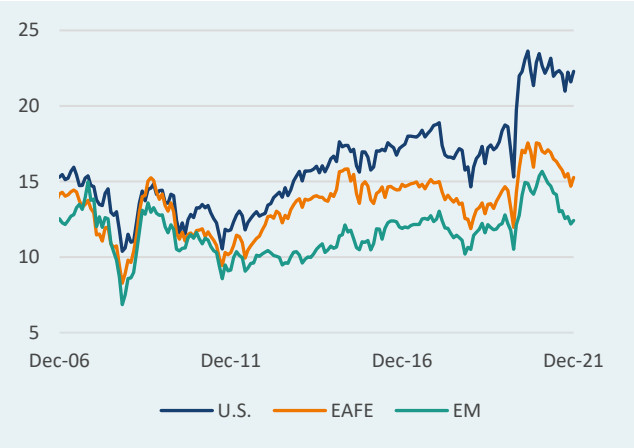
Equity valuations

Forward price/earnings equity multiples have been falling around the world, as earnings expectations rise faster than equity prices. U.S. equities remain the exception in this regard, as U.S. valuations have stayed elevated. The domestic equity market offers one half of the dividend yield of international developed equities (MSCI EAFE), with a forward P/E multiple that is 50% higher. The valuation difference between U.S. and the rest of the world is wider than ever before. This effect is partly due to the rising share of domestic technology stocks, as the technology sector tends to demand loftier valuations than most other sectors, but only partly so. The high prices of U.S. equities may imply more muted returns over the longer-term.

U.S. equity trailing P/E ratio was unmoved during the quarter, while international developed equity valuations fell (19.3 to 17.2) along with emerging market equity valuations (15.8 to 14.0). Relative valuation differences across global markets are apparent in the yield (carry) offered by each market. U.S. equities offer a 3.8% earnings yield, while international developed offer 5.8% and emerging market equities offer 7.1%. In simple terms, for the U.S. market to deliver future performance equivalent to other markets, domestic stocks will either need to deliver outsized profit growth or higher valuations.

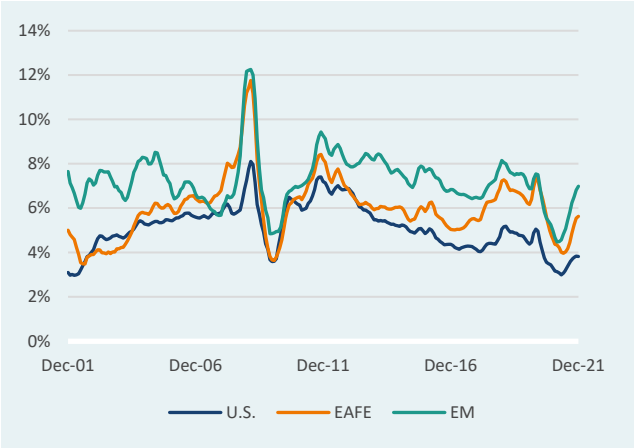
Most equity valuations have moved back towards normal levels, though U.S. prices remain exceptionally rich

FORWARD P/E RATIOS



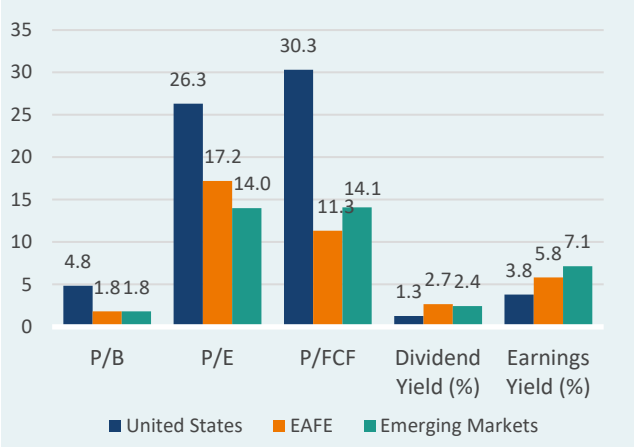
Source: MSCI, 12m forward P/E, as of 12/31/21

CURRENT EARNINGS YIELD (3-MONTH AVERAGE)



Source: Bloomberg, MSCI, as of 12/31/21

VALUATION METRICS (3-MONTH AVERAGE)



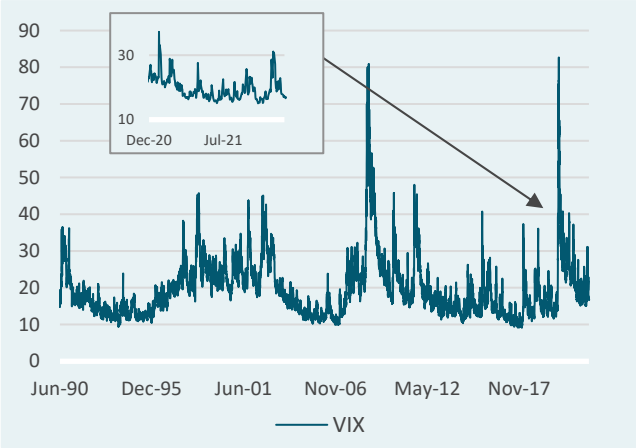
Source: Bloomberg, MSCI as of 12/31/21 - trailing P/E

Equity volatility

The Cboe VIX Index stayed near average levels throughout the fourth quarter, with the exception of market choppiness at the end of November which briefly sent the VIX Index above 30. Realized volatility over the past year was muted. U.S. and emerging market equities exhibited 11% volatility during the calendar year, while international developed showed 9.8%. Historically, it has been uncommon for global markets to show similar levels of volatility, as developed markets tend to deliver lower volatility, and emerging markets higher volatility.

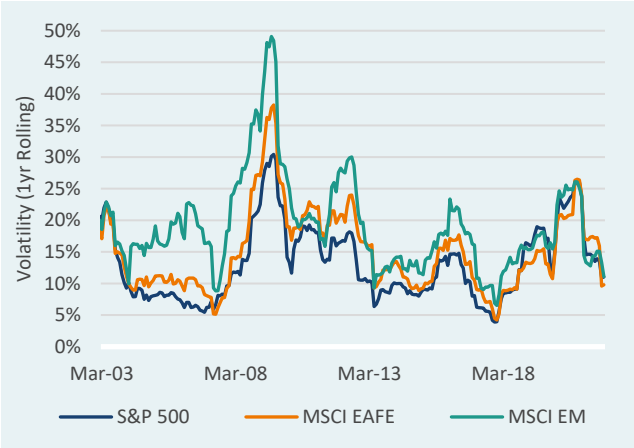
Market response to the Omicron variant was minimal, with a few larger market drops followed by quick recoveries. We believe that investors have largely moved beyond COVID-19, and that markets have adjusted to the transition away from fiscal stimulus and many of the recent unique government spending programs. As we enter 2022, investors seem to be focused on Federal Reserve plans for tapering and interest rate hikes. It is very possible that this rate hike cycle will look similar to those of the past decade—bouts of volatility as markets either accept or push back against tightening financial conditions, "good news is bad news" as positive economic developments are seen as potentially encouraging tighter Fed policy, and "bad news is good news" as economic weakness is interpreted as an excuse for Federal Reserve easiness and accommodation.

U.S. IMPLIED VOLATILITY (VIX)



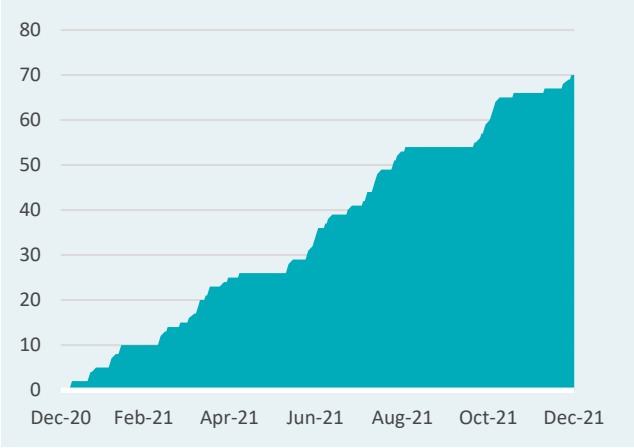
Source: Cboe, as of 12/31/21

REALIZED VOLATILITY



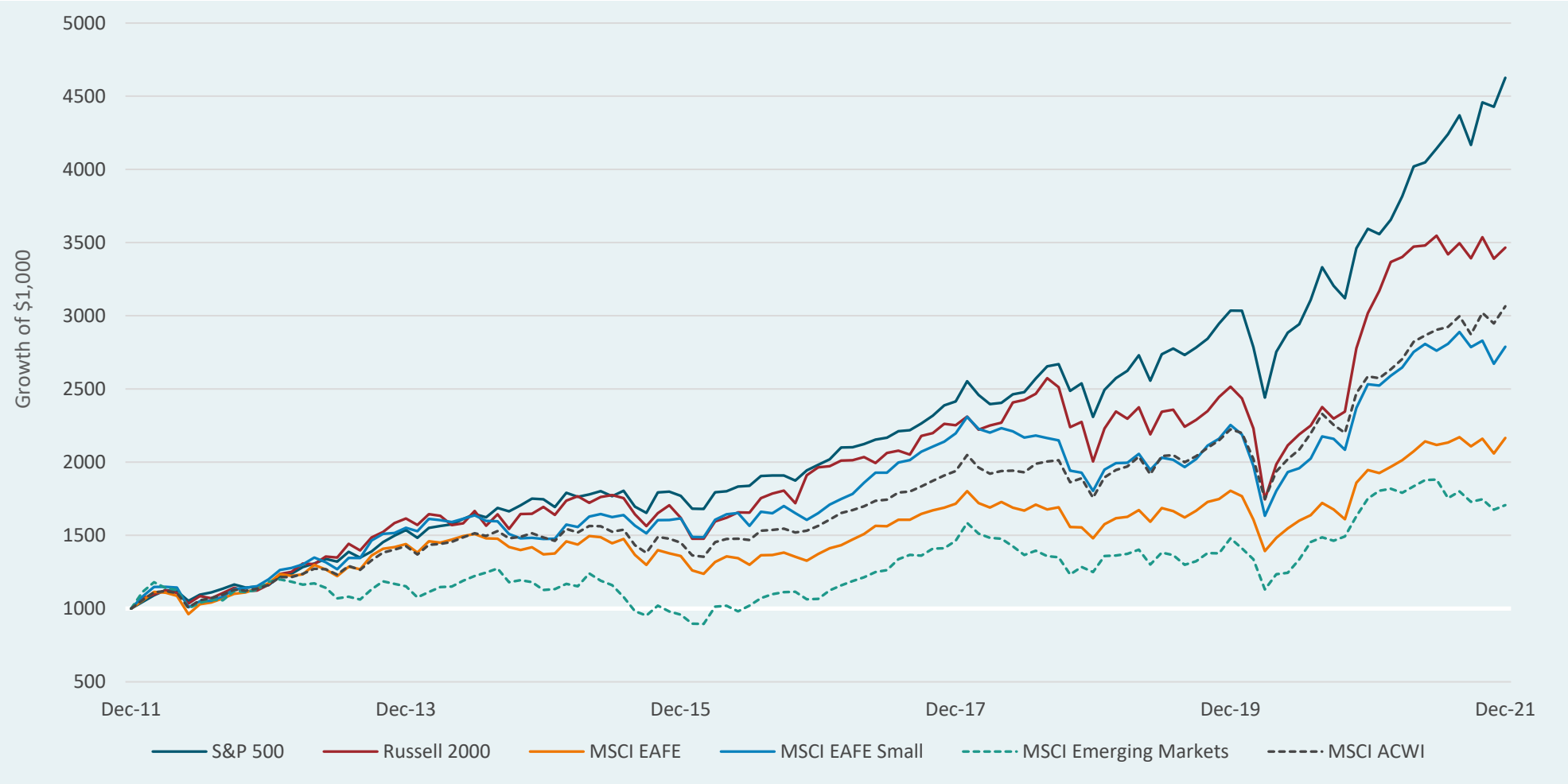
Source: Standard & Poor's, MSCI, as of 12/31/21

S&P 500 INDEX – CUMULATIVE NUMBER OF RECORD CLOSES IN 2021



Source: Standard & Poor's, Bloomberg, as of 12/31/21

Long-term equity performance



Source: Morningstar, as of 12/31/21

Other assets

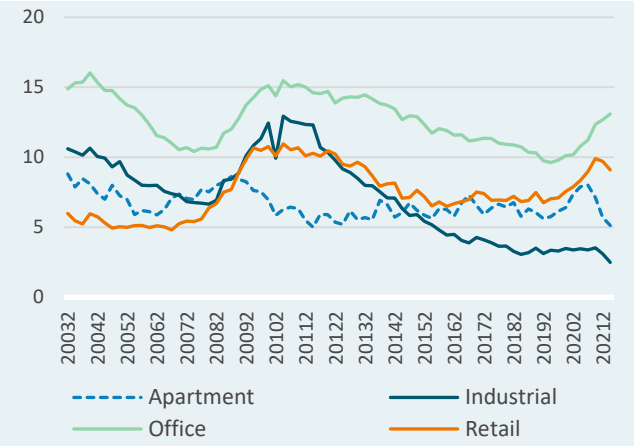
Private real estate fundamentals

Private real estate fundamentals have seen steady improvement in vacancy rates and net operating income (NOI) growth during 2021.

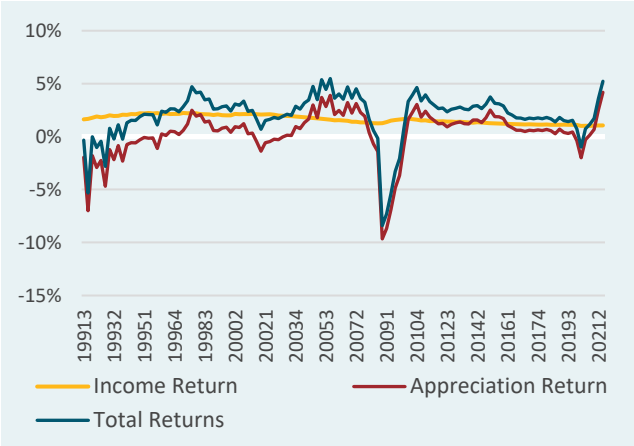
Performance has also been very strong. In Q3 2021, the NCREIF ODCE posted a 6.4% net return, the highest single quarter return in the history of the index, beating the previous high of 6.2% (Q4 1978). Early indications are Q4 2021 will be another strong quarter.

The office sector has been one exception where vacancy rates have continued to climb and NOI growth has been modest (although still positive).

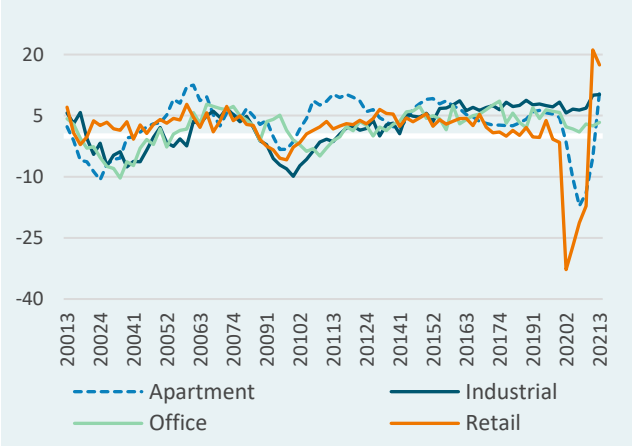
VACANCY BY PROPERTY TYPE



NCREIF PROPERTY INDEX QUARTERLY RETURNS



NOI GROWTH BY PROPERTY TYPE (4-QTR ROLLING)



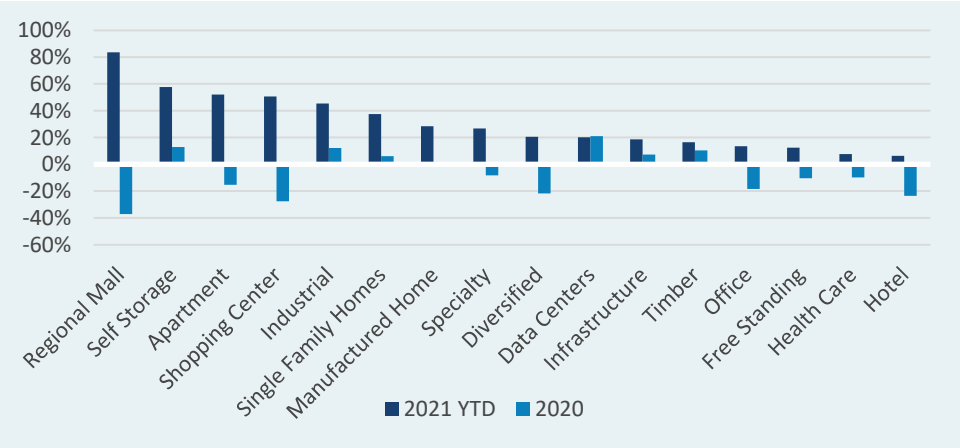
Source: NCREIF, as of 9/30/21

Strong rebound in REITs

REITs rebounded strongly in 2021 posting an overall return of +42.3% for the FTSE NAREIT Equity Index. Several of the strongest sectors of 2021 were those that struggled the most in 2020, such as Regional Malls, Shopping Centers, and Apartments. Sectors with pandemic-driven tailwinds such as Industrial and Data Centers continued to perform well in 2021.

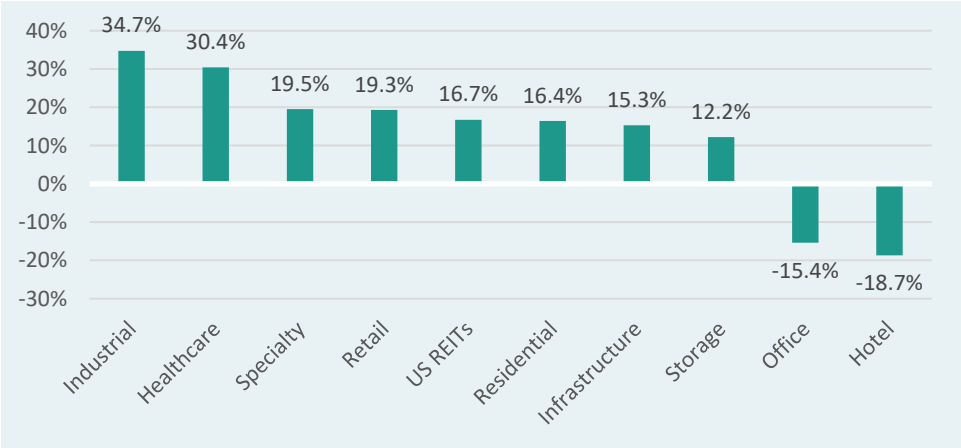
Valuations have become rich across a number of sectors, trading at substantial premiums to their net asset values (NAVs). The U.S. REIT market overall is currently trading at a 16% premium to NAV.

REIT PERFORMANCE BY SUB SECTOR (2021 VS 2020)



Source: Cohen & Steers, as of 11/30/21

REIT PREMIUM/DISCOUNT TO NAV BY SUB SECTOR



Source: Heitman, as of 12/31/21

Appendix

Periodic table of returns

BEST ↑ ↓ WORST

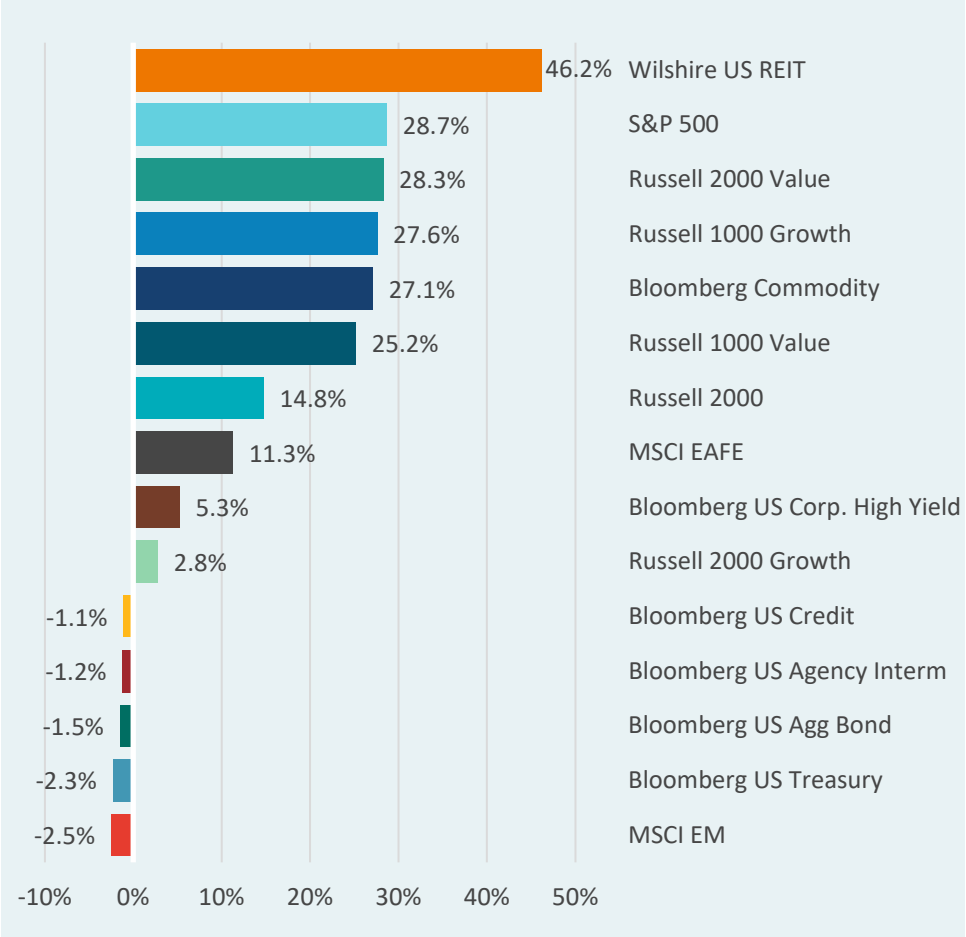
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	5-Year	10-Year
Small Cap Value	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	25.3	19.8
Large Cap Growth	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	18.4	16.5
Commodities	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	14.5	14.1
Large Cap Equity	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	12.0	13.2
Large Cap Value	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	11.2	13.0
Small Cap Equity	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.4	14.0	14.8	10.1	12.0
International Equity	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.0	10.3	11.3	9.9	9.0
Real Estate	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	10.9	9.5	8.0
60/40 Global Portfolio	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	9.1	7.9
Hedge Funds of Funds	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	6.8	5.5
Small Cap Growth	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	5.8	4.6
Cash	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	3.6	2.9
US Bonds	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.5	3.7	0.6
Emerging Markets Equity	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	1.1	-2.9

- Large Cap Equity
- Large Cap Value
- Large Cap Growth
- Small Cap Equity
- Small Cap Value
- Small Cap Growth
- International Equity
- Emerging Markets Equity
- US Bonds
- Cash
- Commodities
- Real Estate
- Hedge Funds of Funds
- 60% MSCI ACWI/40% BBgBarc Global Bond

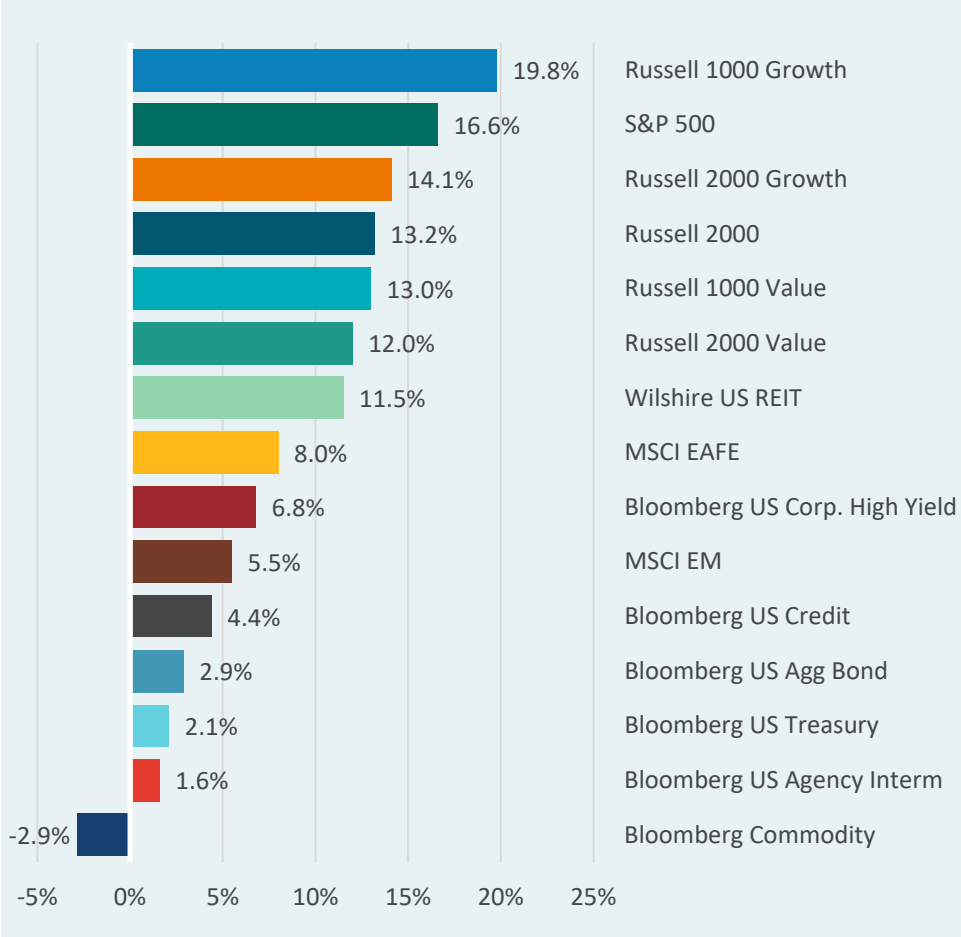
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 9/30/21.

Major asset class returns

ONE YEAR ENDING DECEMBER



TEN YEARS ENDING DECEMBER



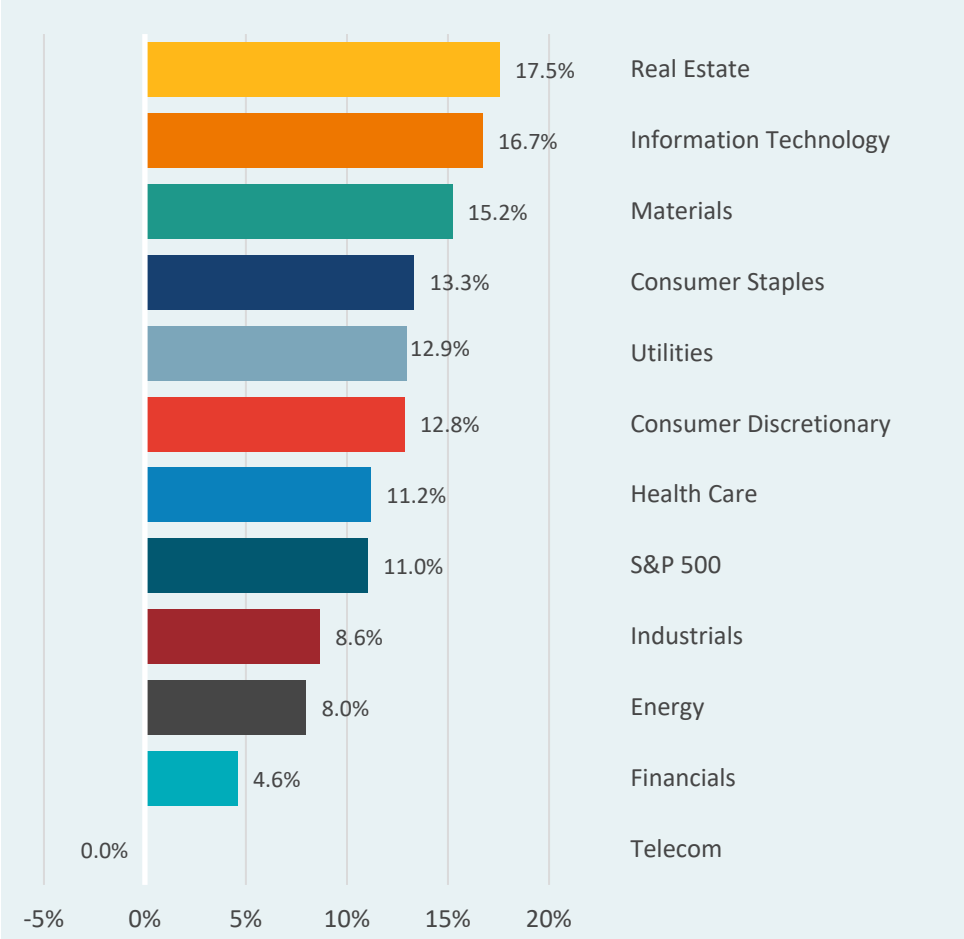
**Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.*

Source: Morningstar, as of 12/31/21

Source: Morningstar, as of 12/31/21

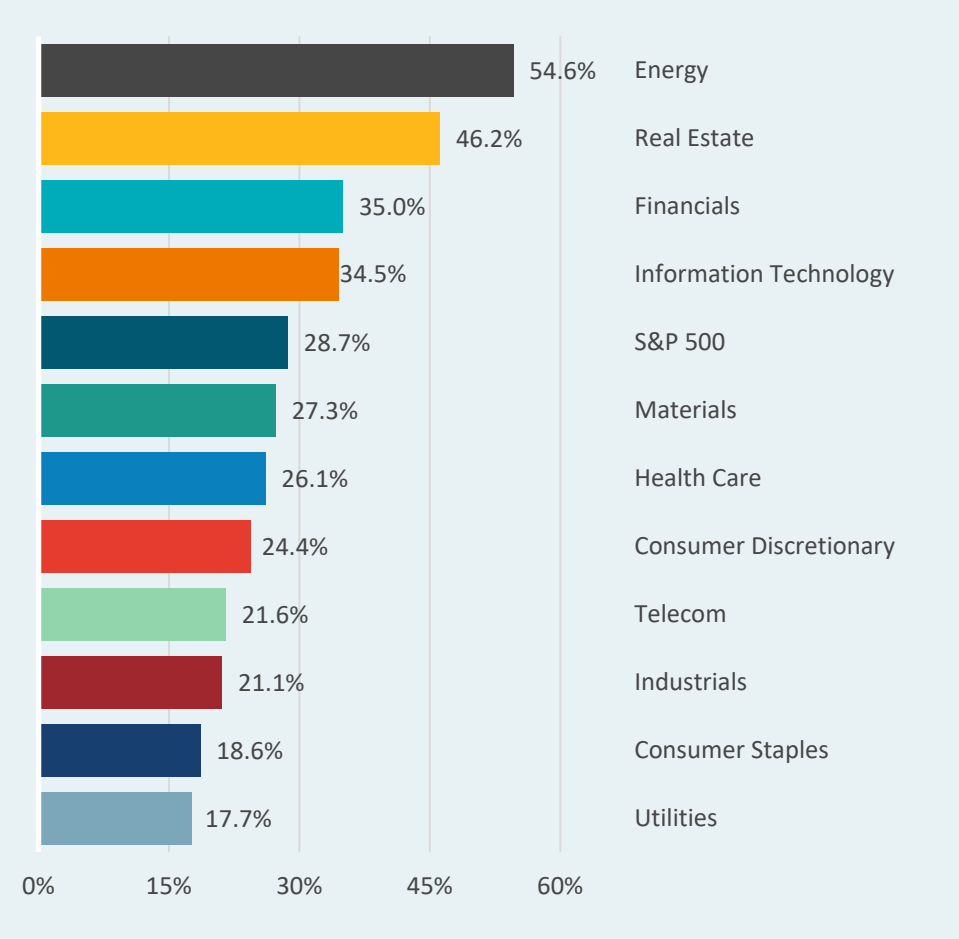
S&P 500 sector returns

Q4 2021



Source: Morningstar, as of 12/31/21

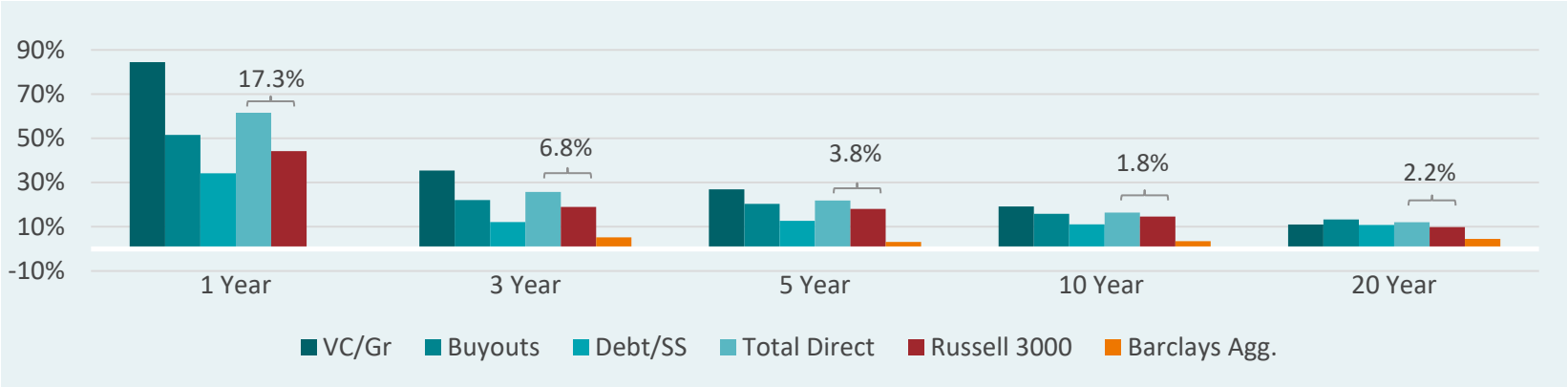
ONE YEAR ENDING DECEMBER



Source: Morningstar, as of 12/31/21

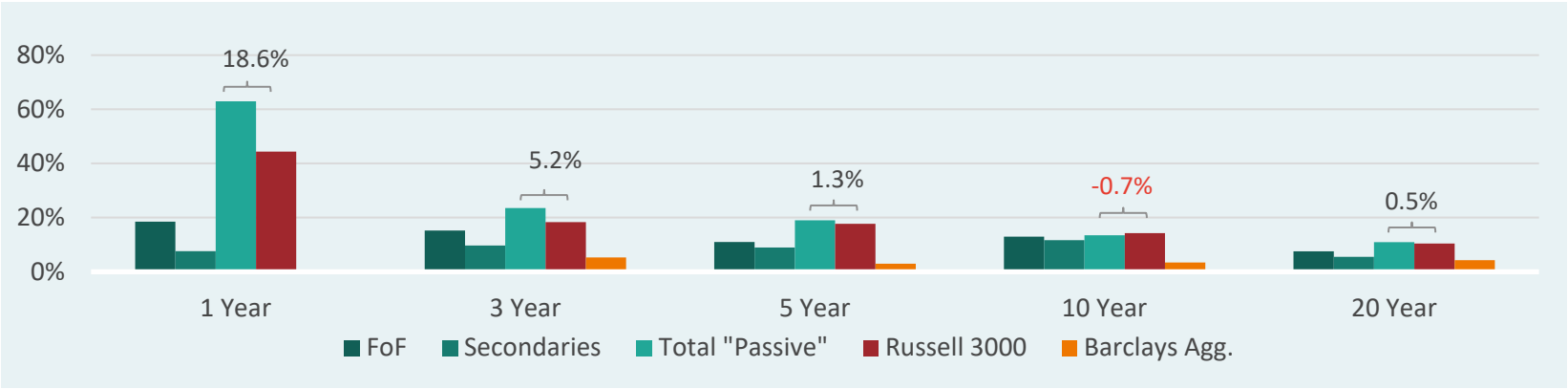
Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



Direct P.E Fund Investments outperformed comparable public equites across all time periods.

"PASSIVE" STRATEGIES

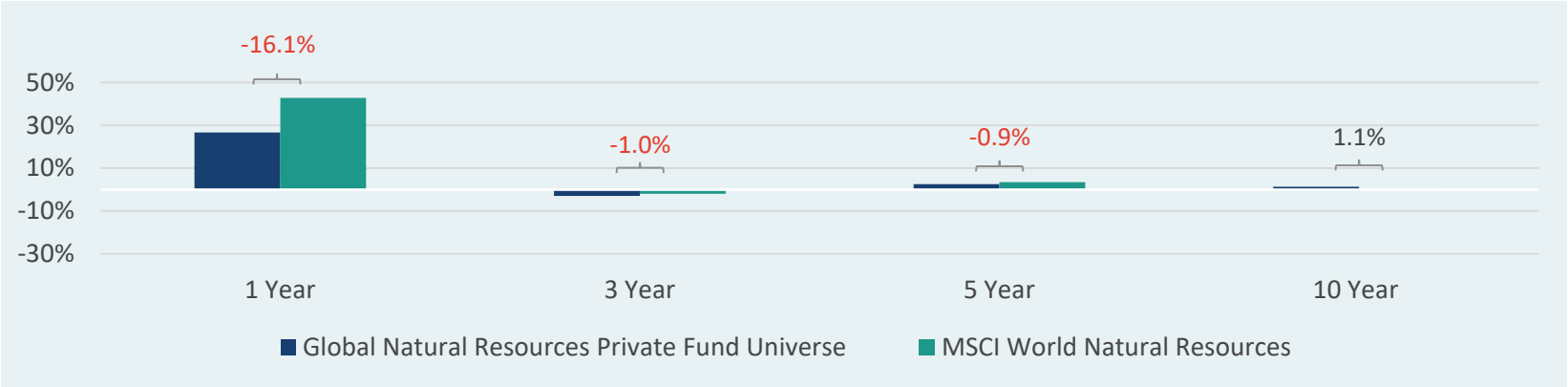


"Passive" strategies outperformed comparable public equities across all time periods, aside from the 10-year basis.

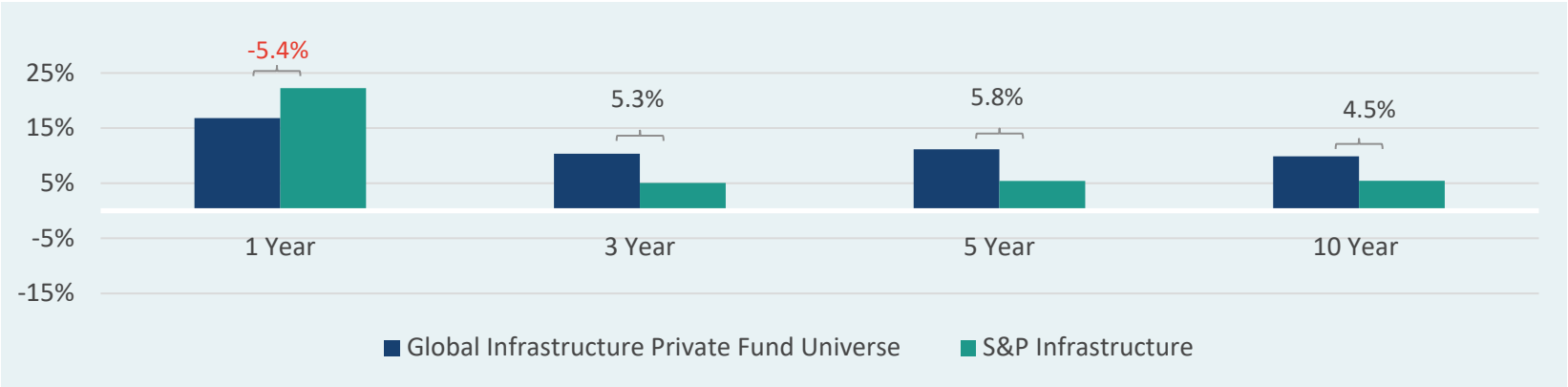
Sources: Refinitiv C|A PME: U.S. Private Equity Funds sub asset classes as of June 30, 2021. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.

Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



GLOBAL INFRASTRUCTURE FUNDS



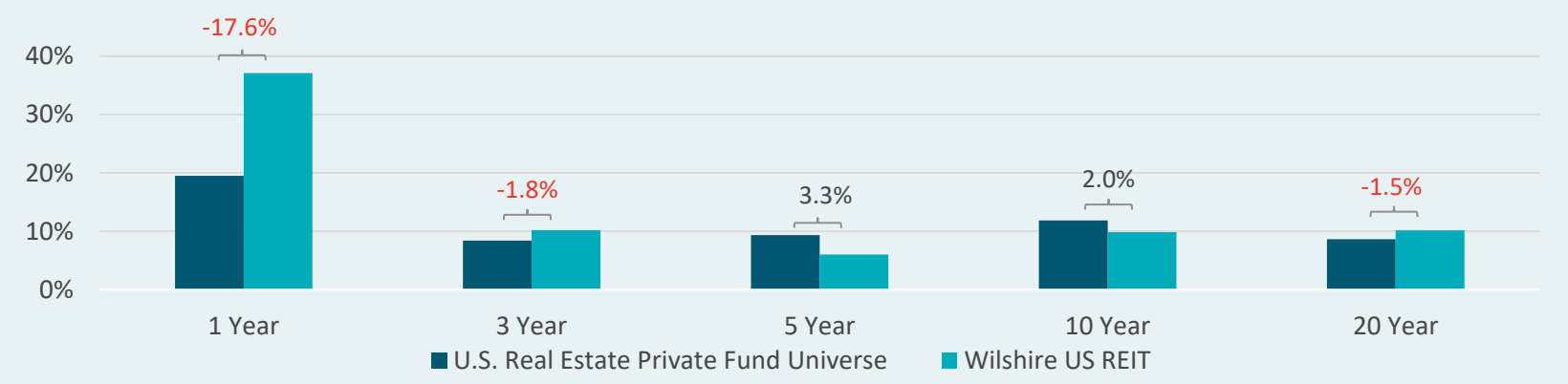
N.R. funds underperformed the MSCI World Natural Resources benchmark across all time periods, aside from the 10-year basis.

Infra. funds outperformed the S&P Infra. across all periods, aside from the 1-year basis.

Sources: Refinitiv C|A PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of June 30, 2021. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

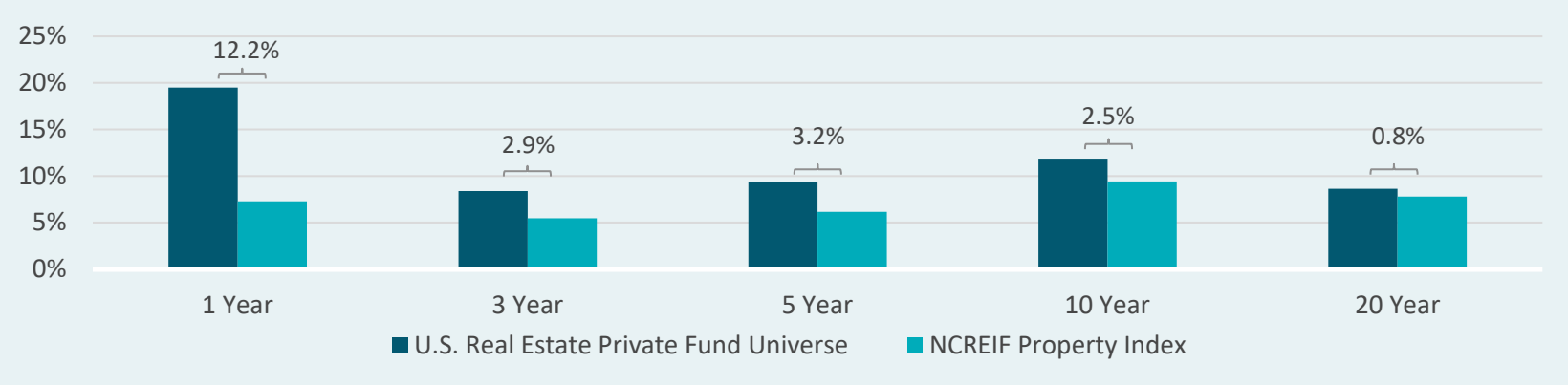
Private vs. liquid and core real estate performance

U.S. PRIVATE REAL ESTATE FUNDS VS. LIQUID UNIVERSE



U.S. Private R.E. funds underperformed the Wilshire U.S. REIT Index across all time periods, aside on a 5-year and 10-year basis.

U.S. PRIVATE REAL ESTATE FUNDS VS. CORE FUNDS



U.S. Private R.E. Funds outperformed the NCREIF Property Index across all time periods.

Sources: Refinitiv C|A PME: Global and U.S. Real Estate universes as of June 30, 2021. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	4.5	11.0	28.7	28.7	26.1	18.5	16.6
S&P 500 Equal Weighted	6.2	9.0	29.6	29.6	23.6	15.7	15.6
DJ Industrial Average	5.5	7.9	20.9	20.9	18.5	15.5	14.2
Russell Top 200	4.0	11.0	27.9	27.9	27.3	19.7	17.2
Russell 1000	4.1	9.8	26.5	26.5	26.2	18.4	16.5
Russell 2000	2.2	2.1	14.8	14.8	20.0	12.0	13.2
Russell 3000	3.9	9.3	25.7	25.7	25.8	18.0	16.3
Russell Mid Cap	4.1	6.4	22.6	22.6	23.3	15.1	14.9
Style Index							
Russell 1000 Growth	2.1	11.6	27.6	27.6	34.1	25.3	19.8
Russell 1000 Value	6.3	7.8	25.2	25.2	17.6	11.2	13.0
Russell 2000 Growth	0.4	0.0	2.8	2.8	21.2	14.5	14.1
Russell 2000 Value	4.1	4.4	28.3	28.3	18.0	9.1	12.0

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	4.0	6.7	18.5	18.5	20.4	14.4	11.9
MSCI ACWI ex US	4.1	1.8	7.8	7.8	13.2	9.6	7.3
MSCI EAFE	5.1	2.7	11.3	11.3	13.5	9.5	8.0
MSCI EM	1.9	(1.3)	(2.5)	(2.5)	10.9	9.9	5.5
MSCI EAFE Small Cap	4.4	0.1	10.1	10.1	15.6	11.0	10.8
Style Index							
MSCI EAFE Growth	4.3	4.1	11.3	11.3	19.0	13.6	10.1
MSCI EAFE Value	6.0	1.2	10.9	10.9	7.8	5.3	5.8
Regional Index							
MSCI UK	7.3	5.6	18.5	18.5	8.7	6.2	5.1
MSCI Japan	1.9	(4.0)	1.7	1.7	11.7	8.5	8.3
MSCI Euro	6.3	3.9	14.9	14.9	14.6	9.7	8.4
MSCI EM Asia	1.5	(1.0)	(5.1)	(5.1)	13.3	11.9	8.1
MSCI EM Latin American	5.9	(2.7)	(8.1)	(8.1)	(2.4)	1.5	(2.2)

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	0.3	2.4	6.0	6.0	8.4	5.3	3.1
Bloomberg US Treasury Bills	0.0	0.0	0.0	0.0	1.0	1.2	0.7
Bloomberg US Agg Bond	(0.3)	0.0	(1.5)	(1.5)	4.8	3.6	2.9
Bloomberg US Universal	(0.1)	(0.0)	(1.1)	(1.1)	5.2	3.8	3.3
Duration							
Bloomberg US Treasury 1-3 Yr	(0.2)	(0.6)	(0.6)	(0.6)	2.0	1.6	1.1
Bloomberg US Treasury Long	(1.4)	3.1	(4.6)	(4.6)	8.8	6.5	4.5
Bloomberg US Treasury	(0.5)	0.2	(2.3)	(2.3)	4.1	3.1	2.1
Issuer							
Bloomberg US MBS	(0.1)	(0.4)	(1.0)	(1.0)	3.0	2.5	2.3
Bloomberg US Corp. High Yield	1.9	0.7	5.3	5.3	8.8	6.3	6.8
Bloomberg US Agency Interm	(0.2)	(0.7)	(1.2)	(1.2)	2.4	2.0	1.6
Bloomberg US Credit	(0.1)	0.2	(1.1)	(1.1)	7.2	5.1	4.4

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	3.5	(1.6)	27.1	27.1	9.9	3.7	(2.9)
Wilshire US REIT	8.8	17.1	46.2	46.2	19.2	10.9	11.5
CS Leveraged Loans	0.6	0.7	5.4	5.4	5.4	4.3	4.8
S&P Global Infrastructure	6.6	4.6	11.9	11.9	10.2	7.8	7.7
Alerian MLP	3.7	0.9	40.9	40.9	1.0	(3.7)	(0.3)
Regional Index							
JPM EMBI Global Div	1.4	(0.4)	(1.8)	(1.8)	5.9	4.7	5.3
JPM GBI-EM Global Div	1.6	(2.5)	(8.7)	(8.7)	2.1	2.8	0.7
Hedge Funds							
HFRI Composite	1.3	0.6	10.3	10.3	10.9	7.1	5.8
HFRI FOF Composite	0.8	0.7	6.5	6.5	8.6	5.8	4.6
Currency (Spot)							
Euro	1.0	(1.9)	(7.1)	(7.1)	(0.2)	1.5	(1.3)
Pound Sterling	2.4	0.5	(0.9)	(0.9)	2.1	1.9	(1.4)
Yen	(1.4)	(3.1)	(10.3)	(10.3)	(1.6)	0.3	(4.0)

Source: Morningstar, HFRI, as of 12/31/21

Definitions

Bloomberg US Weekly Consumer Comfort Index *- tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.langerresearch.com)*

University of Michigan Consumer Sentiment Index *- A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. (www.Bloomberg.com)*

NFIB Small Business Outlook *- Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (http://www.nfib-sbet.org/about/)*

NAHB Housing Market Index – *the housing market index is a weighted average of separate diffusion induces for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula "(Good-Poor + 100)/2" to the present and future sales series and "(High/Very High-Low/Very Low + 100)/2" to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.*

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Tulare County Employees' Retirement Association

Investment Performance Review

Period Ending: December 31, 2021

Verus

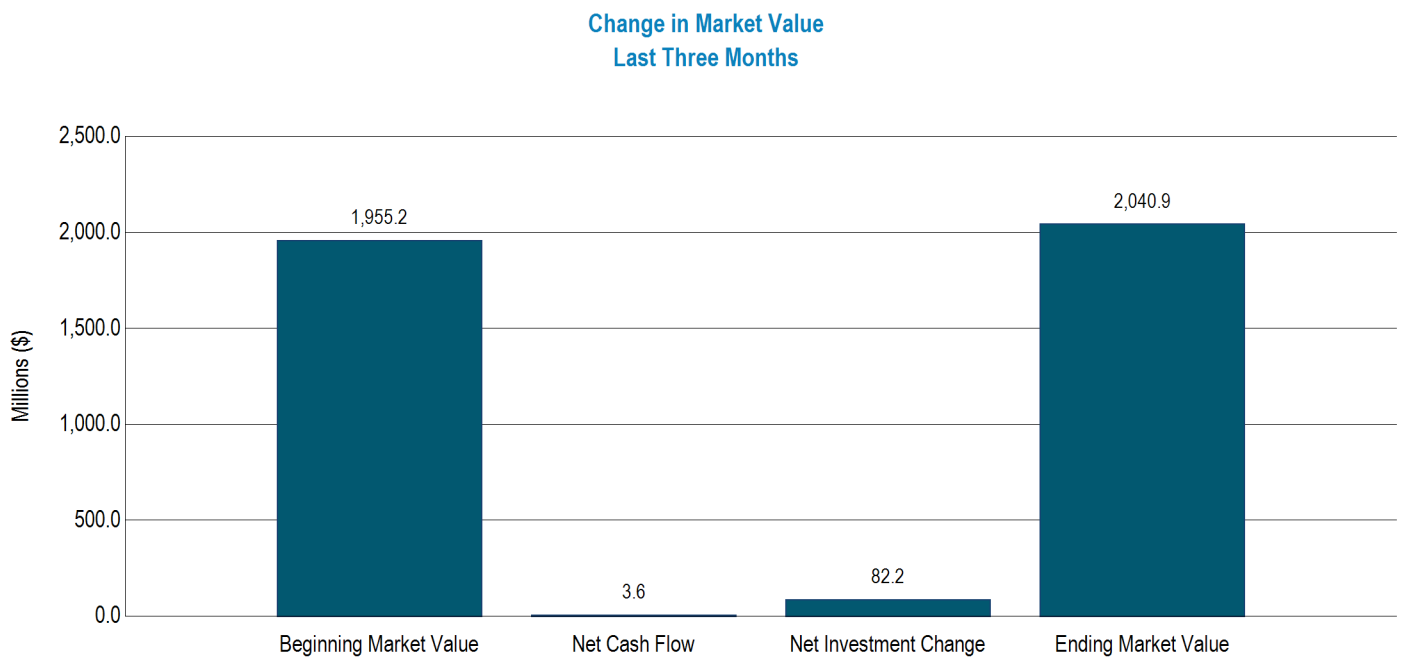
VERUSINVESTMENTS.COM

SEATTLE 206-622-3700
LOS ANGELES 310-297-1777
SAN FRANCISCO 415-362-3484
PITTSBURGH 412-784-6678

Total Fund
Portfolio Reconciliation

Period Ending: December 31, 2021

	Fiscal Year-To-Date
Beginning Market Value	$1,949,660,335
Net Cash Flow	$1,403,579
Net Investment Change	$89,814,696
Ending Market Value	$2,040,878,610



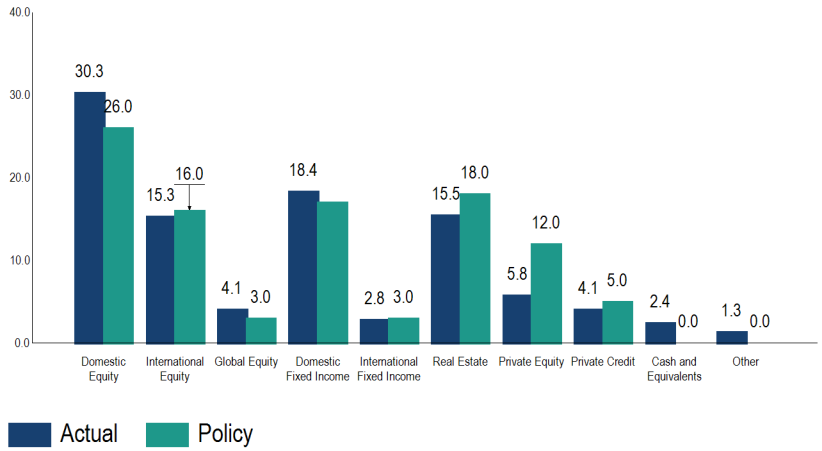
Contributions and withdrawals may include intra-account transfers between managers/funds.

Total Fund
Executive Summary (Net of Fees)

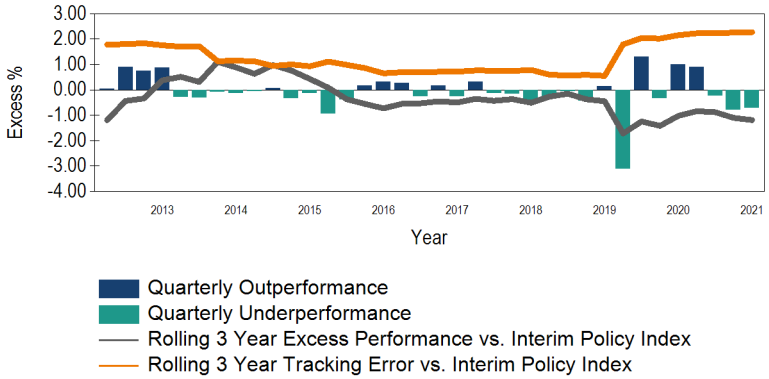
Period Ending: December 31, 2021

	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Fund	**4.1**	**4.5**	**13.4**	**12.5**	**9.5**	**8.4**	**5.5**	**6.6**
Interim Policy Index	*4.8*	*6.0*	*14.4*	*13.7*	*10.4*	*8.7*	*6.6*	*7.3*
InvMetrics Public DB > $1B Net Rank	*45*	*50*	*72*	*94*	*93*	*95*	*98*	*91*
Total Domestic Equity	**8.8**	**8.4**	**26.1**	**24.6**	**17.4**	**16.0**	**10.3**	**9.7**
Russell 3000	*9.3*	*9.2*	*25.7*	*25.8*	*18.0*	*16.3*	*10.6*	*9.7*
InvMetrics Public DB US Eq Net Rank	*66*	*68*	*44*	*39*	*25*	*21*	*36*	*34*
Total International Equity	**1.1**	**-0.9**	**9.6**	**15.1**	**10.5**	**7.8**	**2.9**	**6.5**
MSCI ACWI ex USA Gross	*1.9*	*-1.1*	*8.3*	*13.7*	*10.1*	*7.8*	*4.2*	*7.3*
InvMetrics Public DB ex-US Eq Net Rank	*58*	*34*	*23*	*33*	*36*	*62*	*95*	*70*
Total Global Equity	**9.2**	**10.4**	**28.5**	**22.2**	**15.2**	**--**	**--**	**--**
MSCI ACWI Gross	*6.8*	*5.8*	*19.0*	*21.0*	*15.0*	*--*	*--*	*--*
InvMetrics Public DB Glbl Eq Net Rank	*1*	*1*	*1*	*5*	*8*	*--*	*--*	*--*
Total Fixed Income	**-0.5**	**-0.9**	**-2.2**	**3.5**	**2.9**	**2.9**	**4.1**	**4.4**
Bloomberg US Aggregate TR	*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*4.1*	*4.3*
InvMetrics Public DB US Fix Inc Net Rank	*74*	*99*	*99*	*98*	*74*	*43*	*30*	*32*

Actual vs Target Allocation (%)



Rolling Annualized Excess Performance and Tracking Error
Total Fund vs. Interim Policy Index



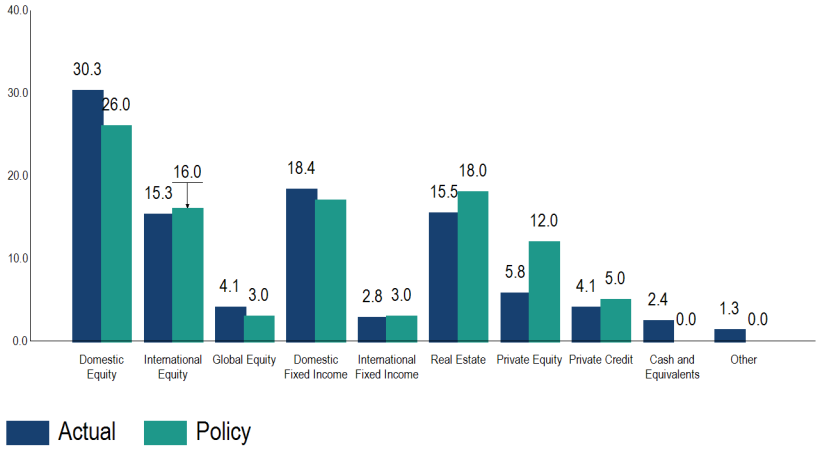
Interim Policy Index as of 10/1/2021: 26% Russell 3000, 16% MSCI ACWI ex US, 3% MSCI ACWI, 17% Bloomberg US Aggregate, 3% JPM GBI Global, 13.4% NCREIF-ODCE, 5% Russell 2000, 4.6% MSCI REIT Index, 7% Private Equity Returns, 5% Private Credit Returns. All return periods greater than 1-year are rolling annualized returns.

Total Fund
Executive Summary (Net of Fees)

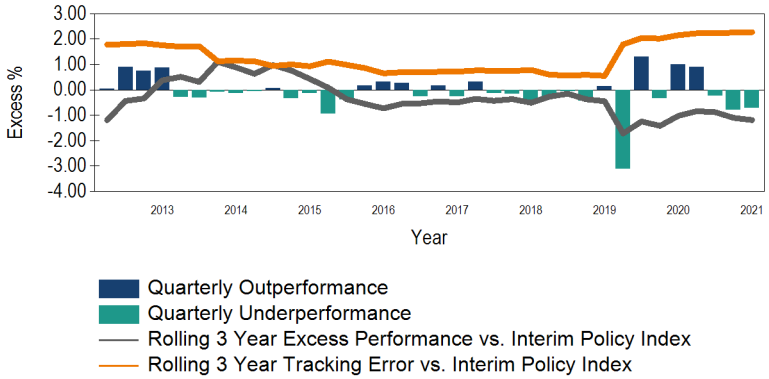
Period Ending: December 31, 2021

	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Domestic Fixed Income	**0.0**	**0.1**	**-0.7**	**5.3**	**3.9**	**3.4**	**--**	**--**
Bloomberg US Aggregate TR	*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*--*	*--*
Total Global Fixed Income	**-0.8**	**-2.4**	**-4.8**	**-3.2**	**-1.1**	**--**	**--**	**--**
JPM GBI Global TR USD	*-0.9*	*-1.9*	*-6.5*	*2.8*	*2.9*	*--*	*--*	*--*
Total Emerging Markets Fixed Income	**-1.8**	**-3.3**	**-5.3**	**--**	**--**	**--**	**--**	**--**
50% JPM EMBI Global Div/50% JPM GBI EM Global Div	*-1.5*	*-3.4*	*-5.3*	*--*	*--*	*--*	*--*	*--*
Total Real Estate	**6.1**	**10.0**	**13.0**	**6.6**	**6.6**	**8.7**	**5.0**	**7.4**
NCREIF ODCE net 1Q Lag	*6.4*	*10.3*	*13.6*	*6.1*	*6.6*	*8.7*	*5.4*	*--*
NCREIF-ODCE	*8.0*	*15.1*	*22.2*	*9.2*	*8.7*	*10.4*	*6.8*	*8.3*
Total Private Equity	**6.3**	**15.0**	**45.6**	**23.0**	**19.7**	**16.4**	**--**	**--**
Private Equity Benchmark	*6.3*	*15.0*	*45.6*	*23.0*	*19.7*	*15.5*	*--*	*--*
Total Private Credit	**2.9**	**2.9**	**12.5**	**9.1**	**8.8**	**--**	**--**	**--**
Private Credit Benchmark	*2.9*	*2.9*	*12.5*	*9.1*	*8.8*	*--*	*--*	*--*
Total Opportunistic	**4.4**	**10.9**	**23.9**	**1.8**	**7.8**	**12.6**	**--**	**--**

Actual vs Target Allocation (%)



Rolling Annualized Excess Performance and Tracking Error
Total Fund vs. Interim Policy Index



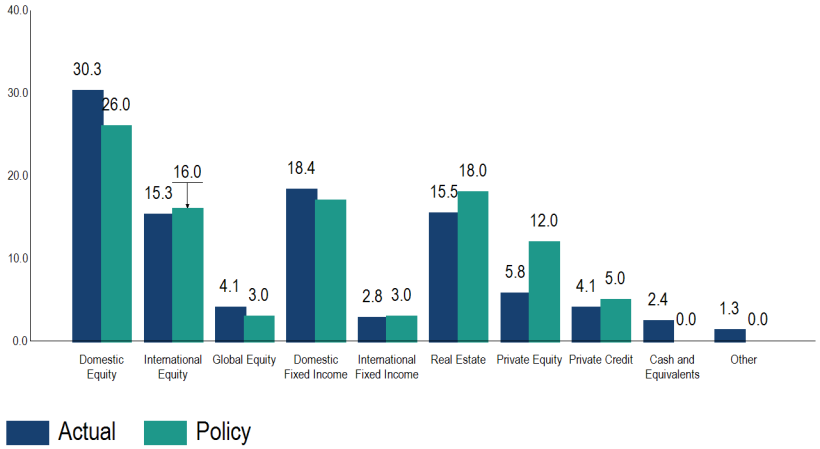
Interim Policy Index as of 10/1/2021: 26% Russell 3000, 16% MSCI ACWI ex US, 3% MSCI ACWI, 17% Bloomberg US Aggregate, 3% JPM GBI Global, 13.4% NCREIF-ODCE, 5% Russell 2000, 4.6% MSCI REIT Index, 7% Private Equity Returns, 5% Private Credit Returns. All return periods greater than 1-year are rolling annualized returns.

Total Fund
Executive Summary (Gross of Fees)

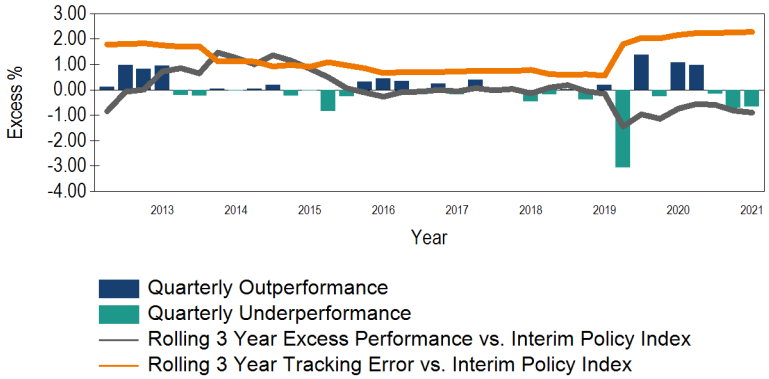
Period Ending: December 31, 2021

	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Fund	**4.2**	**4.6**	**13.7**	**12.8**	**9.8**	**8.8**	**--**	**--**
Interim Policy Index	*4.8*	*6.0*	*14.4*	*13.7*	*10.4*	*8.7*	--	--
Total Domestic Equity	**8.8**	**8.6**	**26.5**	**25.0**	**17.8**	**16.5**	**--**	**--**
Russell 3000	*9.3*	*9.2*	*25.7*	*25.8*	*18.0*	*16.3*	--	--
Total International Equity	**1.2**	**-0.8**	**9.9**	**15.5**	**10.9**	**8.2**	**--**	**--**
MSCI ACWI ex USA Gross	*1.9*	*-1.1*	*8.3*	*13.7*	*10.1*	*7.8*	--	--
Total Global Equity	**9.4**	**10.8**	**29.4**	**23.1**	**16.1**	**--**	**--**	**--**
MSCI ACWI Gross	*6.8*	*5.8*	*19.0*	*21.0*	*15.0*	--	--	--
Total Fixed Income	**-0.4**	**-0.7**	**-1.8**	**3.8**	**3.2**	**3.2**	**--**	**--**
Bloomberg US Aggregate TR	*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	--	--
Total Domestic Fixed Income	**0.0**	**0.2**	**-0.4**	**5.6**	**4.3**	**3.7**	**--**	**--**
Bloomberg US Aggregate TR	*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	--	--
Total Global Fixed Income	**-0.7**	**-2.2**	**-4.4**	**-2.9**	**-0.7**	**--**	**--**	**--**
JPM GBI Global TR USD	*-0.9*	*-1.9*	*-6.5*	*2.8*	*2.9*	--	--	--

Actual vs Target Allocation (%)



Rolling Annualized Excess Performance and Tracking Error
Total Fund vs. Interim Policy Index



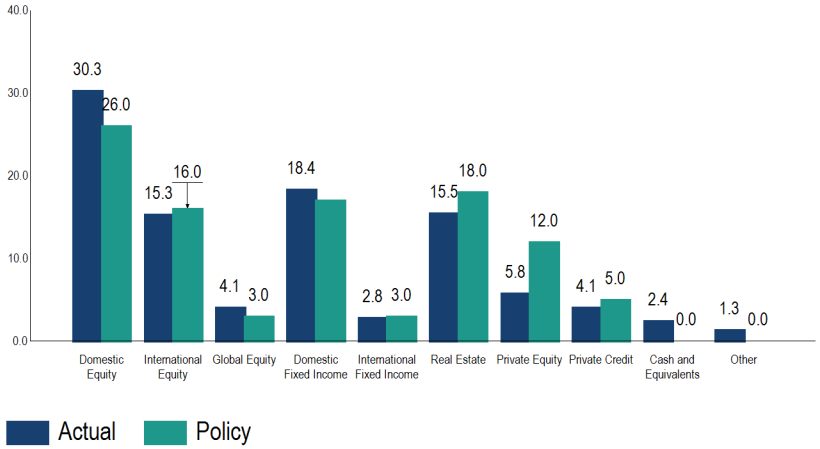
Interim Policy Index as of 10/1/2021: 26% Russell 3000, 16% MSCI ACWI ex US, 3% MSCI ACWI, 17% Bloomberg US Aggregate, 3% JPM GBI Global, 13.4% NCREIF-ODCE, 5% Russell 2000, 4.6% MSCI REIT Index, 7% Private Equity Returns, 5% Private Credit Returns. All return periods greater than 1-year are rolling annualized returns.

Total Fund
Executive Summary (Gross of Fees)

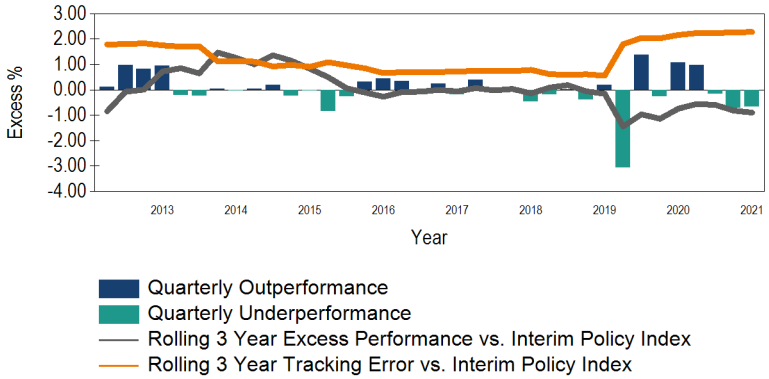
Period Ending: December 31, 2021

	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Emerging Markets Fixed Income	**-1.7**	**-3.1**	**-4.8**	**--**	**--**	**--**	**--**	**--**
50% JPM EMBI Global Div/50% JPM GBI EM Global Div	*-1.5*	*-3.4*	*-5.3*	--	--	--	--	--
Total Real Estate	**6.1**	**10.0**	**13.0**	**6.6**	**6.6**	**9.0**	**--**	**--**
NCREIF ODCE net 1Q Lag	*6.4*	*10.3*	*13.6*	*6.1*	*6.6*	*8.7*	--	--
NCREIF-ODCE	*8.0*	*15.1*	*22.2*	*9.2*	*8.7*	*10.4*	--	--
Total Private Equity	**6.3**	**15.0**	**45.6**	**23.0**	**19.7**	**16.0**	**--**	**--**
Private Equity Benchmark	*6.3*	*15.0*	*45.6*	*23.0*	*19.7*	*15.5*	--	--
Total Private Credit	**2.9**	**2.9**	**12.5**	**9.1**	**8.8**	**--**	**--**	**--**
Private Credit Benchmark	*2.9*	*2.9*	*12.5*	*9.1*	*8.8*	--	--	--
Total Opportunistic	**4.4**	**10.9**	**23.9**	**1.8**	**7.8**	**13.2**	**--**	**--**

Actual vs Target Allocation (%)



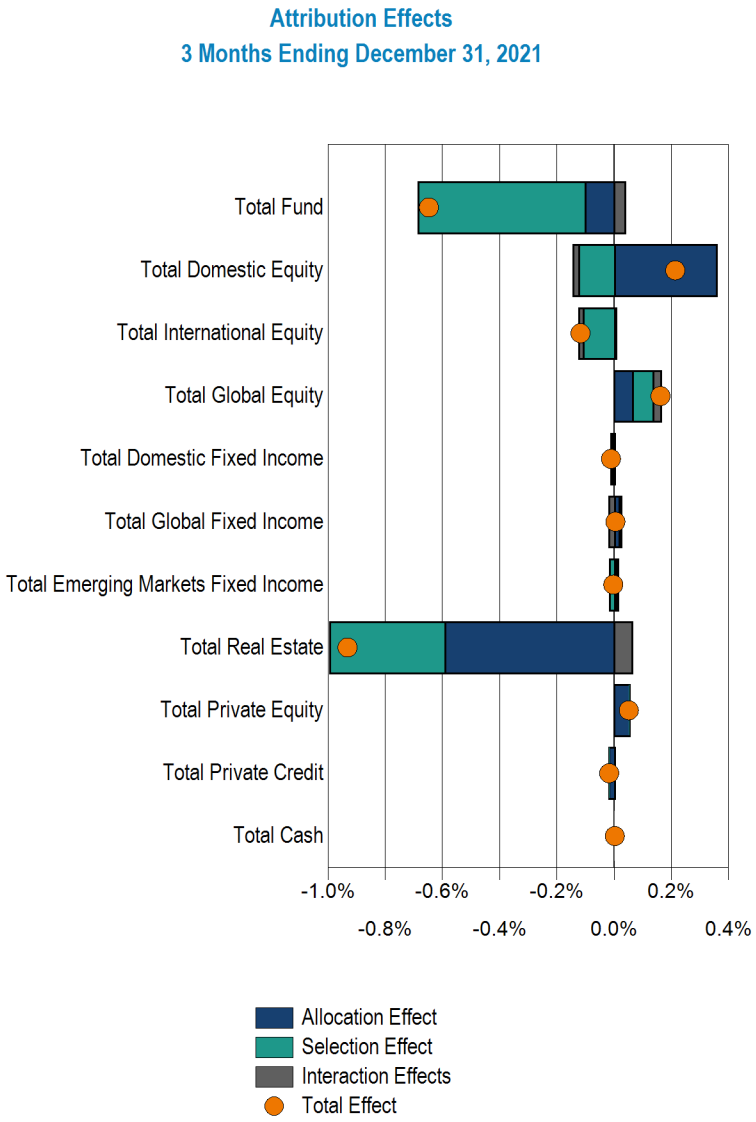
Rolling Annualized Excess Performance and Tracking Error
Total Fund vs. Interim Policy Index



Interim Policy Index as of 10/1/2021: 26% Russell 3000, 16% MSCI ACWI ex US, 3% MSCI ACWI, 17% Bloomberg US Aggregate, 3% JPM GBI Global, 13.4% NCREIF-ODCE, 5% Russell 2000, 4.6% MSCI REIT Index, 7% Private Equity Returns, 5% Private Credit Returns. All return periods greater than 1-year are rolling annualized returns.

Total Fund Attribution

Period Ending: December 31, 2021



Performance Attribution

	Last 3 Mo.
Wtd. Actual Return	4.1%
Wtd. Index Return *	4.8%
Excess Return	**-0.6%**
Selection Effect	-0.6%
Allocation Effect	-0.1%
Interaction Effect	0.0%

*Calculated from policy benchmark returns and policy weightings of each compenent of the policy benchmark.

Attribution Summary
3 Months Ending December 31, 2021

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Domestic Equity	8.8%	9.3%	-0.5%	-0.1%	0.4%	0.0%	0.2%
Total International Equity	1.1%	1.9%	-0.8%	-0.1%	0.0%	0.0%	-0.1%
Total Global Equity	9.2%	6.8%	2.4%	0.1%	0.1%	0.0%	0.2%
Total Domestic Fixed Income	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%	0.0%
Total Global Fixed Income	-0.8%	-0.9%	0.1%	0.0%	0.0%	0.0%	0.0%
Total Emerging Markets Fixed Income	-1.8%	-1.5%	-0.3%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	6.1%	8.0%	-1.9%	-0.4%	-0.6%	0.1%	-0.9%
Total Private Equity	6.3%	6.3%	0.0%	0.0%	0.1%	0.0%	0.1%
Total Private Credit	2.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	**4.1%**	**4.8%**	**-0.6%**	**-0.6%**	**-0.1%**	**0.0%**	**-0.6%**

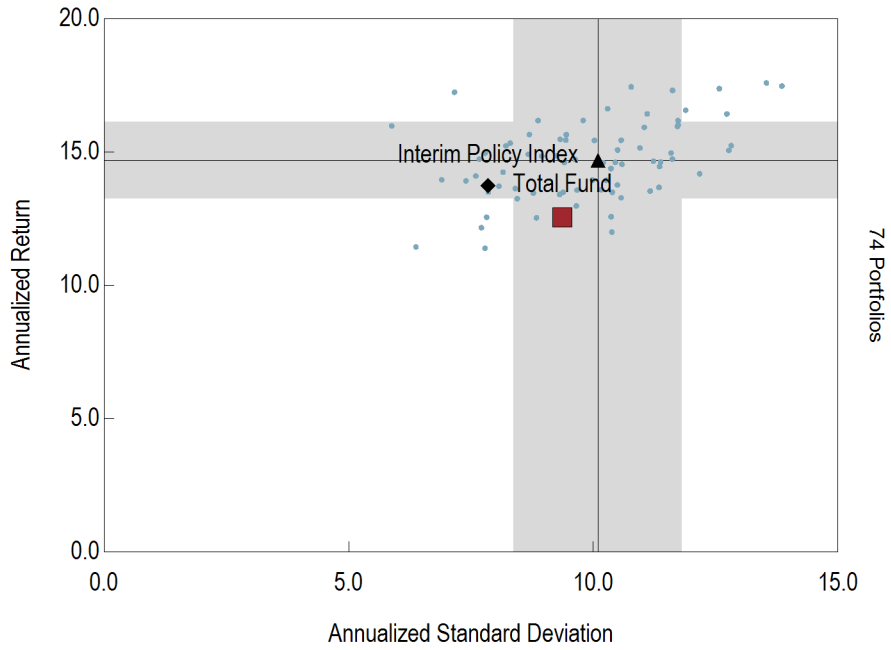
Weighted returns shown in attribution analysis may differ from actual returns. Wtd. Actual Return is the sum of the products of each group's return and its respective weight at the beginning of the period.

Total Fund
Risk Analysis - 3 Years (Net of Fees)

Period Ending: December 31, 2021

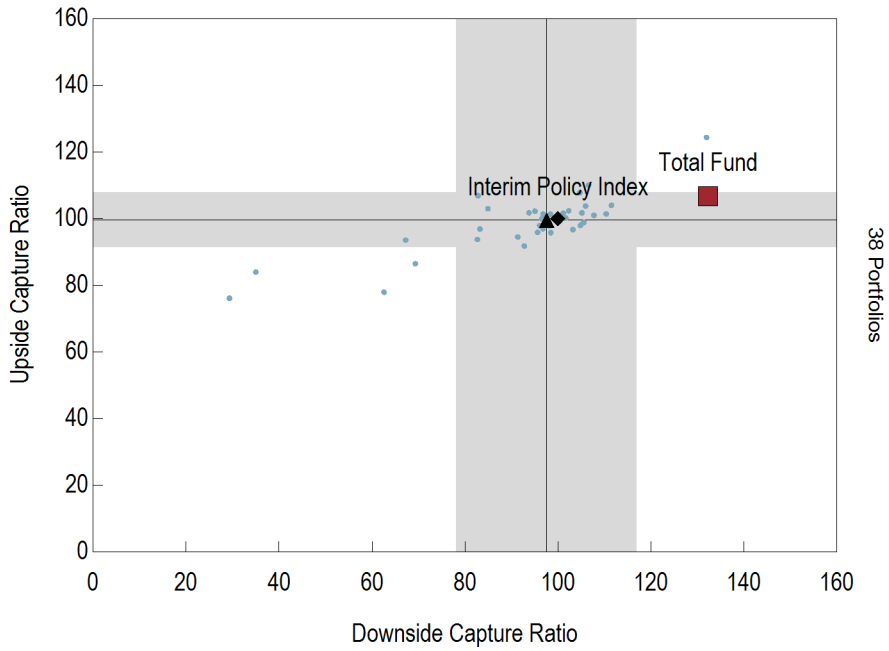
	Anlzd Ret	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	12.55%	9.37%	-3.51%	1.17	2.32%	0.96	1.24	-0.51	106.63%	132.28%

Risk vs. Return



- Total Fund
- Interim Policy Index
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > $1B Net

Up Markets vs. Down Markets



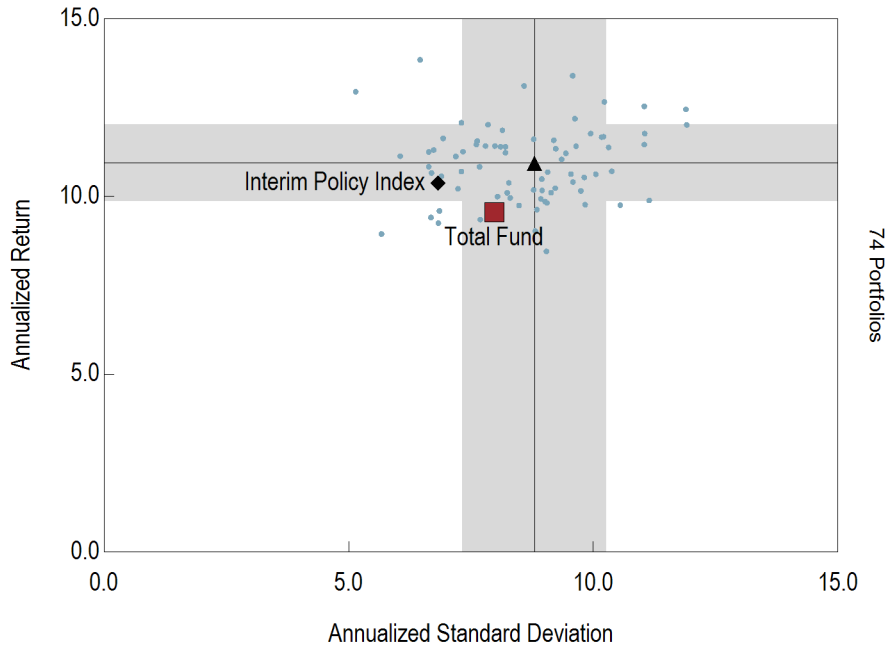
- Total Fund
- Interim Policy Index
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > $1B Net

Total Fund
Risk Analysis - 5 Years (Net of Fees)

Period Ending: December 31, 2021

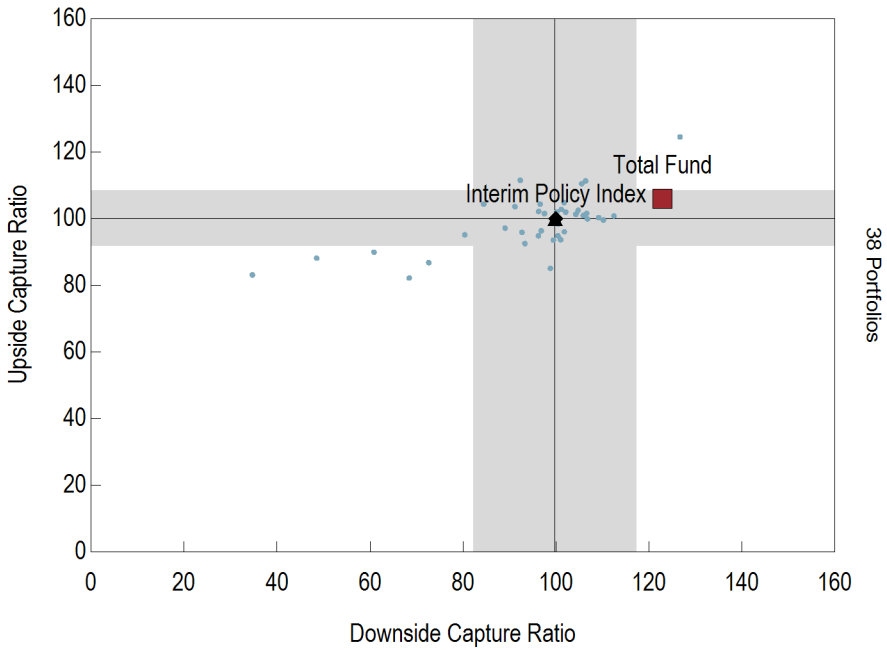
	Anlzd Ret	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	9.55%	7.97%	-2.34%	1.15	1.87%	0.96	1.06	-0.44	105.89%	122.87%

Risk vs. Return



- Total Fund
- Interim Policy Index
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > $1B Net

Up Markets vs. Down Markets

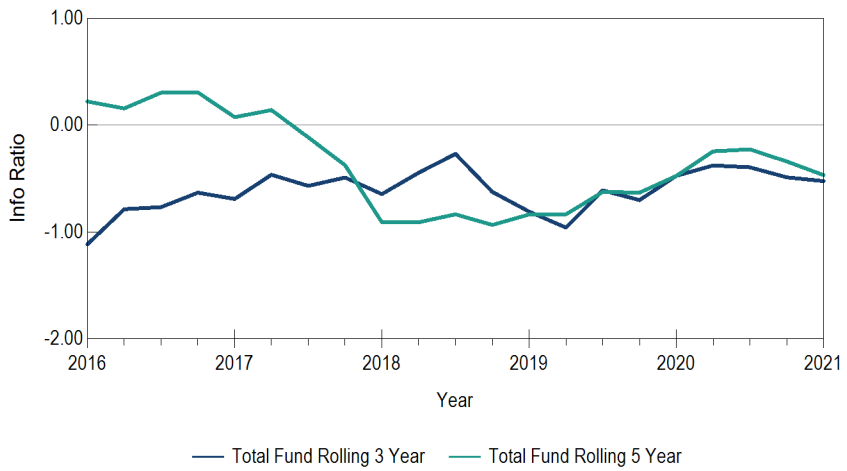


- Total Fund
- Interim Policy Index
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > $1B Net

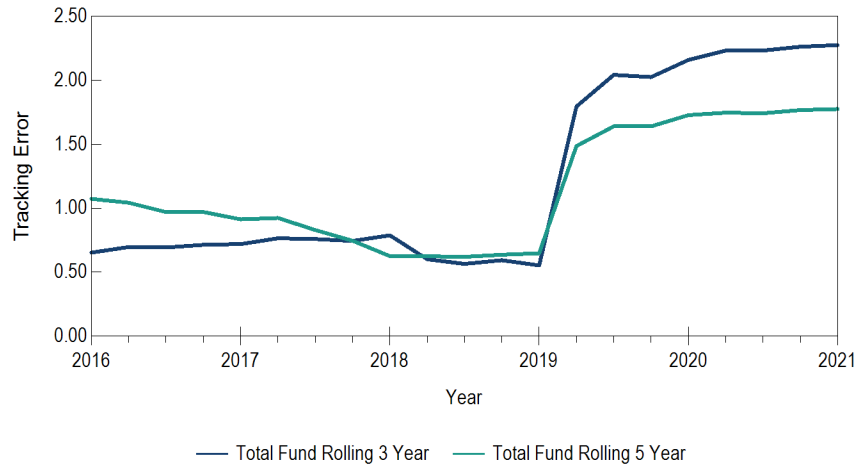
Total Fund
Rolling Risk Statistics (Net of Fees)

Period Ending: December 31, 2021

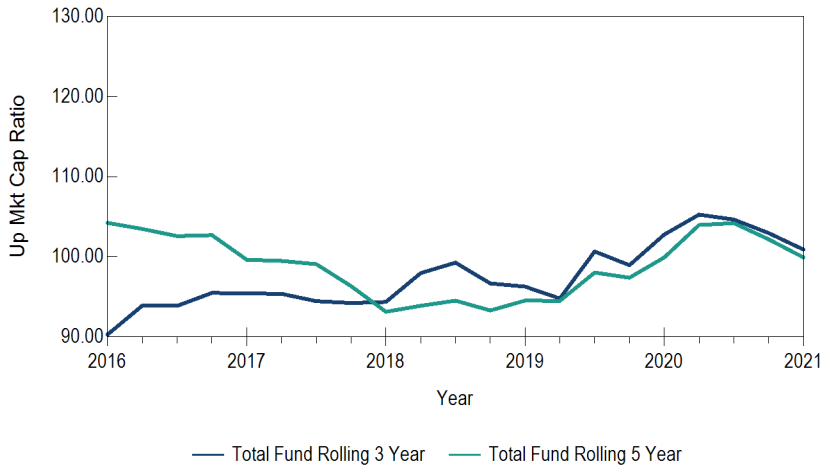
Rolling Information Ratio



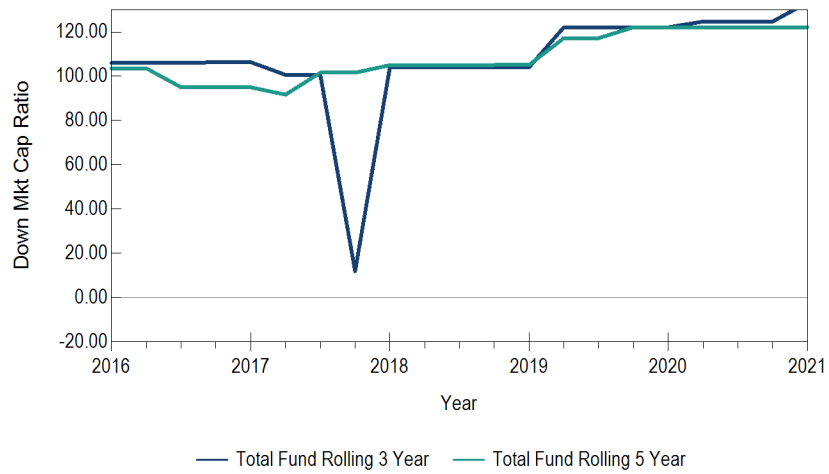
Rolling Tracking Error



Rolling Up Market Capture Ratio (%)



Rolling Down Market Capture Ratio (%)



Total Fund
Performance Summary (Net of Fees)

Period Ending: December 31, 2021

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2021	2020	2019	2018	2017
Total Fund	**2,040,878,610**	**100.0**	**4.1**	**4.5**	**13.4**	**12.5**	**9.5**	**8.4**	**13.4**	**8.9**	**15.4**	**-2.9**	**13.9**
Interim Policy Index			*4.8*	*6.0*	*14.4*	*13.7*	*10.4*	*8.7*	*14.4*	*10.8*	*16.1*	*-2.4*	*14.0*
InvMetrics Public DB > $1B Net Rank			*45*	*50*	*72*	*94*	*93*	*95*	*72*	*80*	*75*	*29*	*79*
Total Domestic Equity	**618,070,475**	**30.3**	**8.8**	**8.4**	**26.1**	**24.6**	**17.4**	**16.0**	**26.1**	**18.2**	**29.8**	**-5.4**	**21.9**
Russell 3000			*9.3*	*9.2*	*25.7*	*25.8*	*18.0*	*16.3*	*25.7*	*20.9*	*31.0*	*-5.2*	*21.1*
InvMetrics Public DB US Eq Net Rank			*66*	*68*	*44*	*39*	*25*	*21*	*44*	*44*	*59*	*34*	*18*
SSGA S&P 500 Flagship Fund	234,053,793	11.5	11.0	11.6	28.6	26.0	18.4	16.6	28.6	18.3	31.5	-4.4	21.8
S&P 500			*11.0*	*11.7*	*28.7*	*26.1*	*18.5*	*16.6*	*28.7*	*18.4*	*31.5*	*-4.4*	*21.8*
eV US Large Cap Core Equity Net Rank			*31*	*28*	*30*	*22*	*19*	*10*	*30*	*29*	*29*	*32*	*46*
QMA Large Cap Core	75,995,865	3.7	10.3	10.4	29.8	23.2	16.3	16.0	29.8	12.0	28.6	-6.8	22.1
S&P 500			*11.0*	*11.7*	*28.7*	*26.1*	*18.5*	*16.6*	*28.7*	*18.4*	*31.5*	*-4.4*	*21.8*
eV US Large Cap Core Equity Net Rank			*48*	*47*	*19*	*59*	*59*	*25*	*19*	*66*	*56*	*62*	*43*
Ivy Large Cap Growth	84,618,945	4.1	11.6	13.0	29.8	32.4	25.3	19.2	29.8	30.9	36.6	2.7	29.5
Russell 1000 Growth			*11.6*	*12.9*	*27.6*	*34.1*	*25.3*	*19.8*	*27.6*	*38.5*	*36.4*	*-1.5*	*30.2*
eV US Large Cap Growth Equity Net Rank			*20*	*18*	*13*	*32*	*28*	*24*	*13*	*64*	*25*	*16*	*46*
Boston Partners Large Cap Value	75,083,622	3.7	9.4	7.6	30.4	18.2	12.5	13.7	30.4	2.4	23.8	-9.0	19.6
Russell 1000 Value			*7.8*	*6.9*	*25.2*	*17.6*	*11.2*	*13.0*	*25.2*	*2.8*	*26.5*	*-8.3*	*13.7*
eV US Large Cap Value Equity Net Rank			*24*	*44*	*15*	*52*	*43*	*30*	*15*	*57*	*75*	*51*	*26*
SSGA US Extended Market Index	81,060,803	4.0	0.8	-2.5	--	--	--	--	--	--	--	--	--
Dow Jones U.S. Completion Total Stock Market			*0.7*	*-2.7*	--	--	--	--	--	--	--	--	--
eV Emg Mkts Large Cap Core Equity Net Rank			*31*	*2*	--	--	--	--	--	--	--	--	--
William Blair SMID Cap Growth	33,043,374	1.6	1.6	0.3	8.7	23.6	19.1	16.8	8.7	32.6	31.1	-1.7	29.3
Russell 2500 Growth			*0.2*	*-3.3*	*5.0*	*25.1*	*17.7*	*15.7*	*5.0*	*40.5*	*32.7*	*-7.5*	*24.5*
eV US Mid Cap Growth Equity Net Rank			*72*	*80*	*78*	*95*	*75*	*52*	*78*	*64*	*78*	*30*	*14*
Lee Munder Small Value	34,214,073	1.7	7.2	6.9	30.7	19.4	9.1	11.9	30.7	3.0	26.3	-15.5	7.7
Russell 2000 Value			*4.4*	*1.2*	*28.3*	*18.0*	*9.1*	*12.0*	*28.3*	*4.6*	*22.4*	*-12.9*	*7.8*
eV US Small Cap Value Equity Net Rank			*35*	*22*	*43*	*46*	*57*	*63*	*43*	*56*	*25*	*56*	*71*

Shenkman High Yield liquidated 3/11/2019. PGIM EMD funded 8/26/19. Gresham Commodity and Wellington Commodity liquidated 9/27/19. American Realty funded 12/20/2019. Titan and Aetos liquidated 1Q 2020. SSGA Russell Small Cap replaced with SSGA US Extended Market Index on 6/10/21. Invesco Commercial Mortgage funded 9/1/21.

Total Fund
Performance Summary (Net of Fees)

Period Ending: December 31, 2021

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2021	2020	2019	2018	2017
Total International Equity	**313,074,462**	**15.3**	**1.1**	**-0.9**	**9.6**	**15.1**	**10.5**	**7.8**	**9.6**	**13.4**	**22.7**	**-14.5**	**26.5**
MSCI ACWI ex USA Gross			*1.9*	*-1.1*	*8.3*	*13.7*	*10.1*	*7.8*	*8.3*	*11.1*	*22.1*	*-13.8*	*27.8*
InvMetrics Public DB ex-US Eq Net Rank			*58*	*34*	*23*	*33*	*36*	*62*	*23*	*41*	*54*	*42*	*77*
SSGA MSCI ACWI Ex US Index Fund	109,164,876	5.3	1.9	-1.2	7.9	13.4	9.8	7.5	7.9	10.9	21.8	-14.0	27.5
MSCI ACWI ex USA			*1.8*	*-1.2*	*7.8*	*13.2*	*9.6*	*7.3*	*7.8*	*10.7*	*21.5*	*-14.2*	*27.2*
eV All EAFE Equity Net Rank			*57*	*82*	*75*	*60*	*52*	*81*	*75*	*36*	*54*	*38*	*45*
PIMCO RAE Fundamental Global Ex US Fund	103,332,117	5.1	0.8	-2.1	12.3	9.8	7.2	--	12.3	1.7	16.1	-15.1	26.0
MSCI ACWI ex USA Value			*1.2*	*-1.1*	*10.5*	*8.2*	*6.0*	*--*	*10.5*	*-0.8*	*15.7*	*-14.0*	*22.7*
eV EAFE Value Equity Net Rank			*69*	*86*	*44*	*72*	*42*	*--*	*44*	*61*	*86*	*38*	*38*
SGA Global Growth	100,577,469	4.9	0.5	0.7	9.1	21.5	--	--	9.1	26.0	30.5	--	--
MSCI ACWI ex USA Growth			*2.4*	*-1.3*	*5.1*	*17.8*	*--*	*--*	*5.1*	*22.2*	*27.3*	*--*	*--*
eV ACWI ex-US Growth Equity Net Rank			*61*	*56*	*51*	*51*	*--*	*--*	*51*	*50*	*42*	*--*	*--*
Total Global Equity	**83,341,459**	**4.1**	**9.2**	**10.4**	**28.5**	**22.2**	**15.2**	**--**	**28.5**	**14.3**	**24.2**	**-15.9**	**32.6**
MSCI ACWI Gross			*6.8*	*5.8*	*19.0*	*21.0*	*15.0*	*--*	*19.0*	*16.8*	*27.3*	*-8.9*	*24.6*
InvMetrics Public DB Glbl Eq Net Rank			*1*	*1*	*1*	*5*	*8*	*--*	*1*	*48*	*59*	*95*	*1*
Skellig Water Fund (aka KBI)	83,341,459	4.1	9.2	10.4	28.5	22.2	15.2	--	28.5	14.3	24.2	-15.9	32.6
MSCI ACWI			*6.7*	*5.6*	*18.5*	*20.4*	*14.4*	*--*	*18.5*	*16.3*	*26.6*	*-9.4*	*24.0*
eV Global All Cap Equity Net Rank			*5*	*4*	*1*	*44*	*44*	*--*	*1*	*59*	*65*	*91*	*12*
Total Fixed Income	**432,252,477**	**21.2**	**-0.5**	**-0.9**	**-2.2**	**3.5**	**2.9**	**2.9**	**-2.2**	**4.7**	**8.1**	**0.1**	**3.9**
Bloomberg US Aggregate TR			*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
InvMetrics Public DB US Fix Inc Net Rank			*74*	*99*	*99*	*98*	*74*	*43*	*99*	*99*	*49*	*60*	*46*
Total Domestic Fixed Income	**374,766,880**	**18.4**	**0.0**	**0.1**	**-0.7**	**5.3**	**3.9**	**3.4**	**-0.7**	**7.9**	**9.0**	**-0.2**	**4.1**
Bloomberg US Aggregate TR			*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
BlackRock Fixed Income	133,792,449	6.6	0.0	0.0	-1.4	5.1	3.8	3.2	-1.4	8.4	8.7	0.1	3.6
Bloomberg US Aggregate TR			*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
eV All US Fixed Inc Net Rank			*50*	*51*	*82*	*46*	*49*	*54*	*82*	*26*	*44*	*53*	*56*
Doubleline Core Plus	117,744,659	5.8	-0.1	0.1	-0.2	4.4	3.3	--	-0.2	5.2	8.3	-0.3	3.9
Bloomberg US Aggregate TR			*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*--*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
eV US Core Plus Fixed Inc Net Rank			*80*	*55*	*41*	*97*	*98*	*--*	*41*	*98*	*90*	*34*	*87*
MacKay Shields Core Plus	123,229,773	6.0	0.0	0.1	-0.4	6.3	4.4	--	-0.4	9.9	9.6	-1.0	4.5
Bloomberg US Aggregate TR			*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*--*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
eV US Core Plus Fixed Inc Net Rank			*45*	*63*	*48*	*38*	*40*	*--*	*48*	*22*	*56*	*74*	*62*

Shenkman High Yield liquidated 3/11/2019. PGIM EMD funded 8/26/19. Gresham Commodity and Wellington Commodity liquidated 9/27/19. American Realty funded 12/20/2019. Titan and Aetos liquidated 1Q 2020. SSGA Russell Small Cap replaced with SSGA US Extended Market Index on 6/10/21. Invesco Commercial Mortgage funded 9/1/21. Franklin Templeton Global liquidated 12/28/2021. SSGA US REIT Index Funded 12/10/2021.

Total Fund
Performance Summary (Net of Fees)

Period Ending: December 31, 2021

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2021	2020	2019	2018	2017
Total Global Fixed Income	**--**	**--**	**-0.8**	**-2.4**	**-4.8**	**-3.2**	**-1.1**	**--**	**-4.8**	**-5.7**	**0.9**	**1.9**	**2.4**
JPM GBI Global TR USD			*-0.9*	*-1.9*	*-6.5*	*2.8*	*2.9*	*--*	*-6.5*	*9.7*	*6.0*	*-0.7*	*6.8*
Total Emerging Markets Fixed Income	**57,485,597**	**2.8**	**-1.8**	**-3.3**	**-5.3**	**--**	**--**	**--**	**-5.3**	**4.6**	**--**	**--**	**--**
50% JPM EMBI Global Div/50% JPM GBI EM Global Div			*-1.5*	*-3.4*	*-5.3*	*--*	*--*	*--*	*-5.3*	*4.0*	*--*	*--*	*--*
PGIM Emerging Markets Debt	57,485,597	2.8	-1.8	-3.3	-5.3	--	--	--	-5.3	4.6	--	--	--
50% JPM EMBI Global Div/50% JPM GBI EM Global Div			*-1.5*	*-3.4*	*-5.3*	*--*	*--*	*--*	*-5.3*	*4.0*	*--*	*--*	*--*
eV Emg Mkts Fixed Inc - Blended Currency Net Rank			*56*	*57*	*76*	*--*	*--*	*--*	*76*	*67*	*--*	*--*	*--*
Total Real Estate	**315,873,560**	**15.5**	**6.1**	**10.0**	**13.0**	**6.6**	**6.6**	**8.7**	**13.0**	**1.8**	**5.2**	**8.8**	**4.3**
NCREIF ODCE net 1Q Lag			*6.4*	*10.3*	*13.6*	*6.1*	*6.6*	*8.7*	*13.6*	*0.5*	*4.6*	*7.7*	*6.7*
NCREIF-ODCE			*8.0*	*15.1*	*22.2*	*9.2*	*8.7*	*10.4*	*22.2*	*1.2*	*5.3*	*8.3*	*7.6*
RREEF America II	180,697,807	8.9	5.9	9.8	12.8	6.5	6.5	9.4	12.8	1.8	5.3	8.6	4.4
NCREIF ODCE net 1Q Lag			*6.4*	*10.3*	*13.6*	*6.1*	*6.6*	*8.7*	*13.6*	*0.5*	*4.6*	*7.7*	*6.7*
NCREIF Property Index			*6.2*	*11.7*	*17.7*	*8.4*	*7.8*	*9.3*	*17.7*	*1.6*	*6.4*	*6.7*	*7.0*
American Realty	37,834,746	1.9	4.8	8.0	11.3	--	--	--	11.3	1.1	--	--	--
NCREIF ODCE net 1Q Lag			*6.4*	*10.3*	*13.6*	*--*	*--*	*--*	*13.6*	*0.5*	*--*	*--*	*--*
NCREIF-ODCE			*8.0*	*15.1*	*22.2*	*--*	*--*	*--*	*22.2*	*1.2*	*--*	*--*	*--*
Invesco Commercial Mortgage Income Fund	55,260,873	2.7	0.9	--	--	--	--	--	--	--	--	--	--
NCREIF ODCE net 1Q Lag			*6.4*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*
NCREIF-ODCE			*8.0*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*
SSGA US REIT Index Non-Lending Fund	42,080,134	2.1	--	--	--	--	--	--	--	--	--	--	--
NCREIF ODCE net 1Q Lag			*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*
NCREIF-ODCE			*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*

Shenkman High Yield liquidated 3/11/2019. PGIM EMD funded 8/26/19. Gresham Commodity and Wellington Commodity liquidated 9/27/19. American Realty funded 12/20/2019. Titan and Aetos liquidated 1Q 2020. SSGA Russell Small Cap replaced with SSGA US Extended Market Index on 6/10/21. Invesco Commercial Mortgage funded 9/1/21. Franklin Templeton Global liquidated 12/28/2021. SSGA US REIT Index Funded 12/10/2021.

Total Fund
Performance Analysis - 5 Years (Net of Fees)

Period Ending: December 31, 2021

	Anlzd Ret	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
SSGA S&P 500 Flagship Fund	18.44%	15.39%	-0.04%	1.00	0.02%	1.00	1.13	-1.35	99.92%	100.07%
QMA Large Cap Core	16.28%	16.17%	-2.96%	1.04	2.17%	0.98	0.94	-1.01	97.11%	107.30%
Ivy Large Cap Growth	25.28%	15.41%	2.13%	0.91	3.13%	0.97	1.57	-0.01	92.35%	92.74%
Boston Partners Large Cap Value	12.47%	17.59%	0.71%	1.05	2.80%	0.98	0.65	0.46	109.40%	100.69%
William Blair SMID Cap Growth	19.14%	17.82%	3.61%	0.88	4.76%	0.95	1.01	0.31	89.47%	88.04%
Lee Munder Small Value	9.12%	20.67%	0.69%	0.93	4.65%	0.95	0.39	0.01	86.75%	94.35%
SSGA MSCI ACWI Ex US Index Fund	9.82%	14.77%	0.24%	1.00	0.12%	1.00	0.59	1.76	100.84%	99.67%
PIMCO RAE Fundamental Global Ex US Fund	7.22%	17.53%	1.02%	1.03	2.57%	0.98	0.35	0.48	107.27%	99.52%
Skellig Water Fund (aka KBI)	15.24%	17.05%	-0.30%	1.08	5.95%	0.88	0.83	0.14	110.26%	103.73%
BlackRock Fixed Income	3.81%	3.19%	0.19%	1.01	0.74%	0.95	0.85	0.32	105.88%	102.73%
Doubleline Core Plus	3.35%	3.75%	0.23%	0.87	2.65%	0.51	0.60	-0.08	96.98%	102.15%
MacKay Shields Core Plus	4.43%	3.65%	0.67%	1.05	1.72%	0.78	0.92	0.50	118.27%	103.76%
RREEF America II	6.49%	3.77%	0.55%	0.91	1.18%	0.91	1.43	-0.06	94.65%	32.90%

Illiquid Alternative Investments

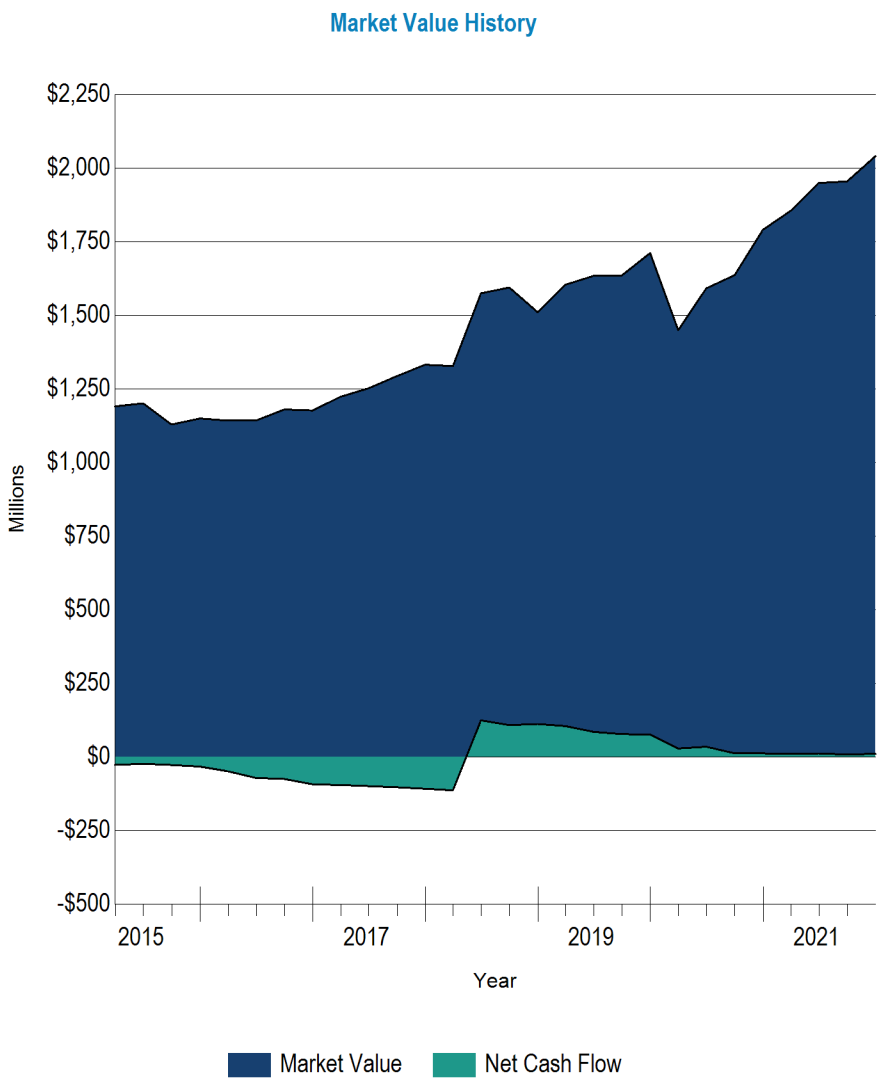
Period Ending: December 31, 2021

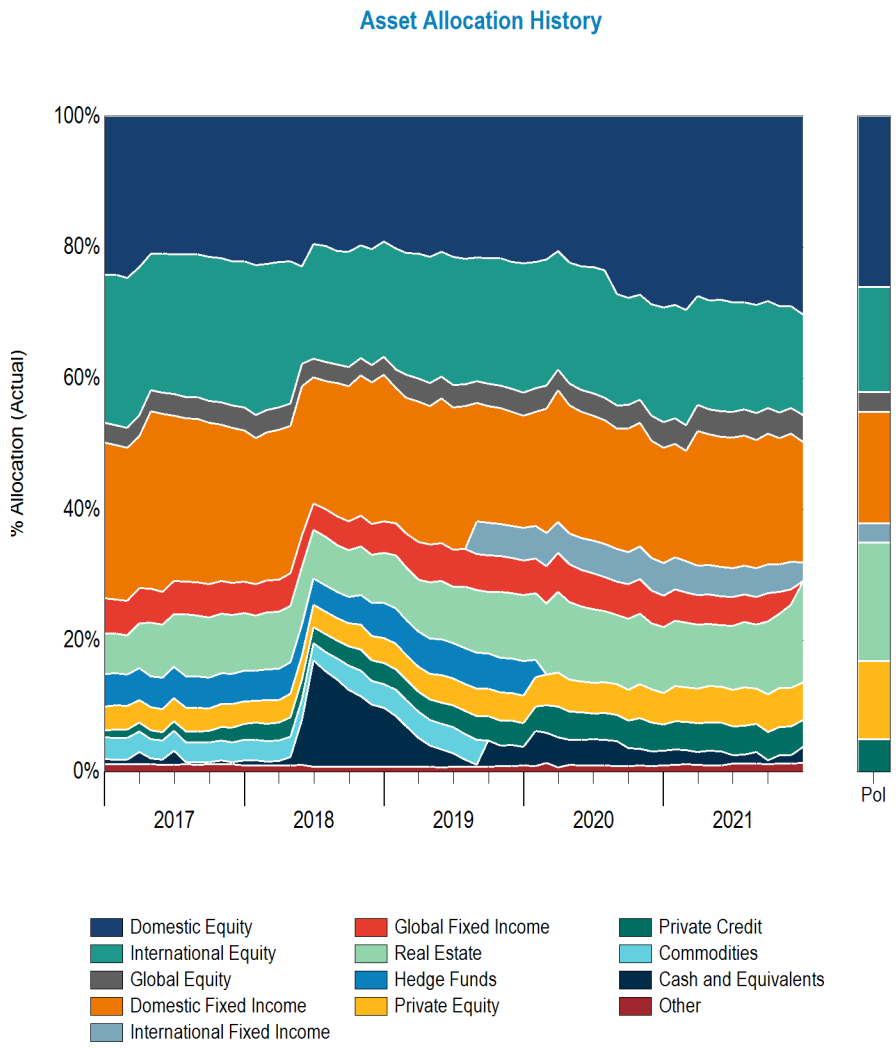
			IRR Analysis as of IRR date									
Vintage Year	Manager Name/Fund Name	Estimated Market Value as of 12/31/2021 [3]	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[5]	IRR Date
Private Equity												
2004	Pantheon USA Fund VI	$420,959	$15,000,000	$14,175,000	95%	$825,000	$21,515,924	$443,622	*151.8%*	*154.8%*	*6.8%*	06/30/21
2005	BlackRock Private Capital II[6]	$514,486	$15,000,000	$15,000,000	100%	$0	$23,878,829	$2,124,498	*159.2%*	*162.6%*	*6.7%*	09/30/21
2011	Stepstone Secondary Opportunities Fund II	$6,211,096	$27,500,000	$27,500,000	100%	$0	$32,154,572	$9,956,072	*116.9%*	*139.5%*	*11.0%*	09/30/21
2016	Ocean Avenue Fund III	$19,428,500	$20,000,000	$17,400,000	87%	$2,600,000	$15,400,000	$17,537,099	*88.5%*	*200.2%*	*24.3%*	09/30/21
2016	Pathway Private Equity Fund Investors 8	$33,854,318	$20,000,000	$14,273,407	71%	$5,726,593	$5,057,766	$33,759,147	*35.4%*	*272.6%*	*26.0%*	09/30/21
2017	Pathway Private Equity Fund Investors 9	$24,383,776	$20,000,000	$13,199,100	66%	$6,800,900	$1,263,026	$24,369,357	*9.6%*	*194.3%*	*30.1%*	06/30/21
2019	Ocean Avenue Fund IV	$20,601,057	$26,000,000	$17,451,964	67%	$8,548,036	$1,690,000	$18,521,057	*9.7%*	*127.7%*	*41.1%*	09/30/21
2020	Pathway Private Equity Fund Investors 10[4]	$12,374,850	$10,000,000	$11,619,413	116%	-$1,619,413	$630,145	$0	*5.4%*	*111.9%*	*N/A*	N/A
Private Credit												
2016	Sixth Street DCP	$83,485,391	$140,000,000	$75,927,553	54%	$64,072,447	$15,667,032	$87,709,773	*20.6%*	*130.6%*	*11.9%*	09/30/21
Opportunistic												
2010	KKR Mezzanine Partners	$3,904,517	$15,000,000	$13,535,064	90%	$1,464,936	$18,023,835	$3,697,003	*133.2%*	*162.0%*	*6.9%*	09/30/21
2011	PIMCO Bravo	$10,362	$15,000,000	$15,000,000	100%	$0	$27,216,525	$148,451	*181.4%*	*181.5%*	*22.1%*	09/30/19
2020	Sixth Street TAO Contingent	$20,995,589	$50,000,000	$22,536,838	45%	$27,463,162	$3,984,317	$19,301,183	*17.7%*	*110.8%*	*10.9%*	09/30/21
	Total Private Markets	**$226,184,901**	$373,500,000	$257,618,339	69%	$115,881,661	$166,481,970	$217,567,262	*64.6%*	*152.4%*		
	% of Portfolio (Market Value)	***11.1%***										

[1](DPI) is equal to (capital returned / capital called)
[2](TVPI) is equal to (market value + capital returned) / capital called
[3]Last known market value + capital calls - distributions
[4]IRR currently unavailable for these funds.
[5]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR figure is provided by its respective manager.
[6]BlackRock: Total capital called is $15,519,967 which includes recycled distributions.

Total Fund
Asset Allocation History

Period Ending: December 31, 2021

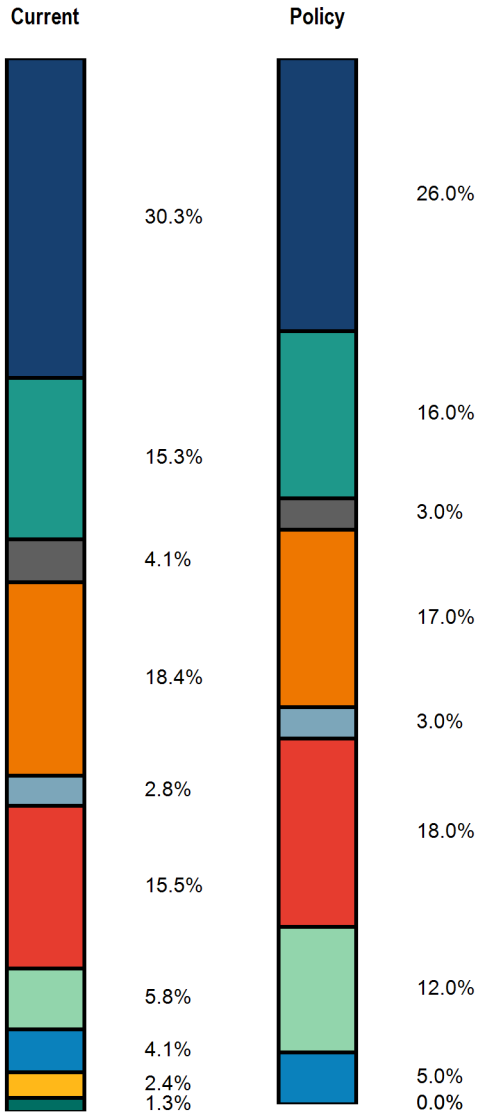




Net Cash flow history prior to 4Q 2010 is not available due to lack of data from previous consultant.

Total Fund
Asset Allocation vs. Policy

Period Ending: December 31, 2021

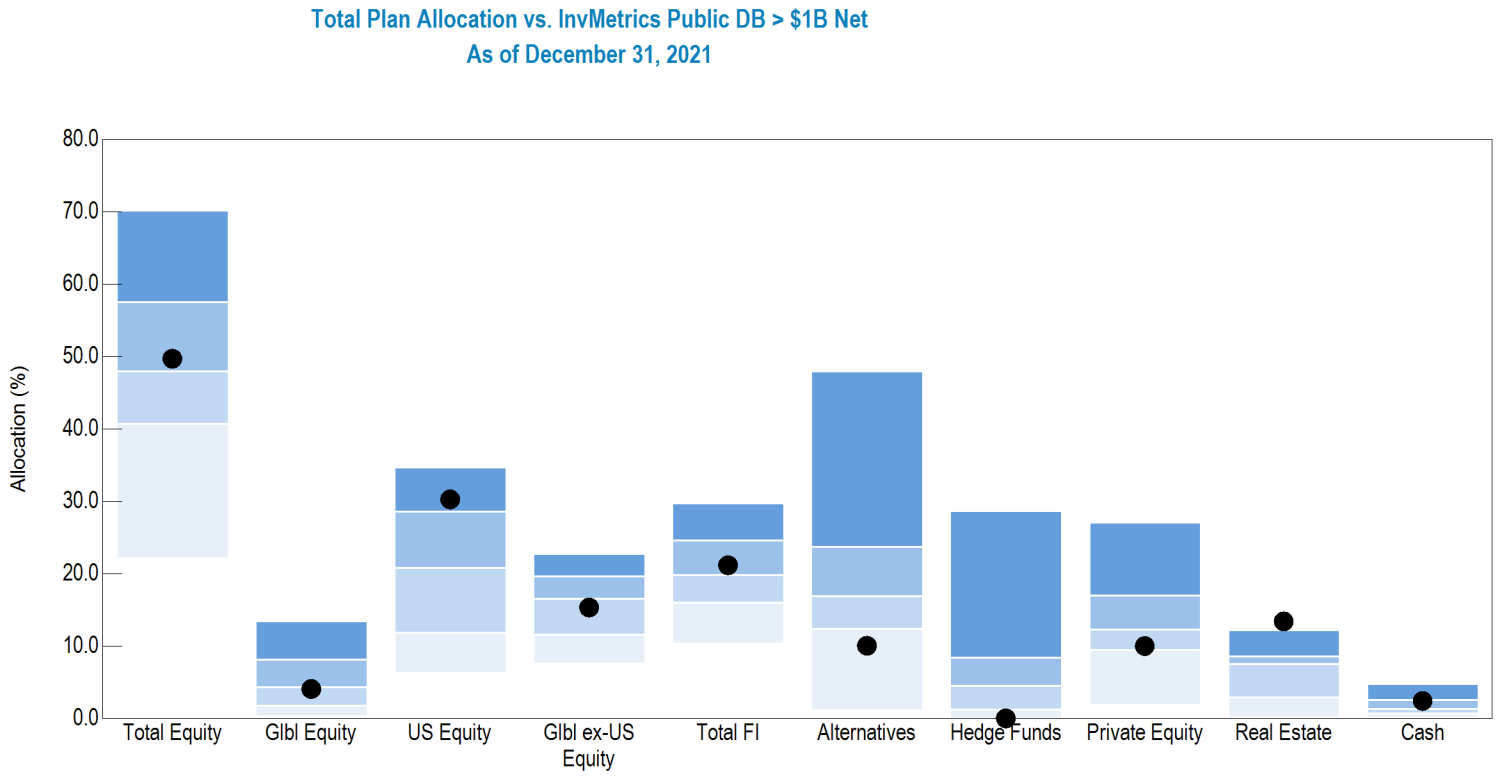


	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
Domestic Equity	$618,070,475	30.3%	26.0%	$87,442,037	15.0% - 35.0%	Yes
International Equity	$313,074,462	15.3%	16.0%	-$13,466,115	5.0% - 25.0%	Yes
Global Equity	$83,341,459	4.1%	3.0%	$22,115,101	0.0% - 5.0%	Yes
Domestic Fixed Income	$374,766,880	18.4%	17.0%	$27,817,517	10.0% - 30.0%	Yes
International Fixed Income	$57,485,597	2.8%	3.0%	-$3,740,761	0.0% - 6.0%	Yes
Real Estate	$315,873,560	15.5%	18.0%	-$51,484,590	10.0% - 30.0%	Yes
Private Equity	$117,789,042	5.8%	12.0%	-$127,116,391	0.0% - 16.0%	Yes
Private Credit	$83,485,391	4.1%	5.0%	-$18,558,539	0.0% - 10.0%	Yes
Cash and Equivalents	$49,489,338	2.4%	--	$49,489,338	--	No
Other	$27,502,405	1.3%	--	$27,502,405	--	No
Total	**$2,040,878,610**	**100.0%**	**100.0%**			

Aetos holdback of $93,982 not included in total market value.

Total Fund
Asset Allocation vs. Peers

Period Ending: December 31, 2021



	Allocation (Rank)																					
5th Percentile	70.2		13.5		34.7		22.8		29.8		48.0		28.7		27.0		12.2		4.8		-
25th Percentile	57.7		8.2		28.7		19.7		24.7		23.8		8.5		17.1		8.6		2.6		-
Median	48.1		4.4		20.9		16.6		19.9		17.0		4.6		12.4		7.6		1.4		-
75th Percentile	40.8		1.8		11.9		11.7		16.1		12.4		1.4		9.6		3.0		0.8		-
95th Percentile	22.2		0.3		6.4		7.7		10.5		1.3		0.0		1.9		0.3		0.3		-
# of Portfolios	40		20		31		37		40		38		28		34		37		40		-
● **Total Fund**	49.7	(45)	4.1	(56)	30.3	(17)	15.3	(54)	21.2	(42)	10.1	(84)	0.0	(97)	10.0	(74)	13.4	(1)	2.4	(29)	-

Investment Fund Fee Analysis

Period Ending: December 31, 2021

Account	Fee Schedule	Market Value As of 12/31/2021	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
American Realty	1.25% of First 10.0 Mil, 1.20% of Next 15.0 Mil, 1.10% of Next 25.0 Mil, 1.00% Thereafter	$37,834,746	1.9%	$446,182	1.18%
BlackRock Alternative Advisors	120,000 Annually	$514,486	0.0%	$120,000	23.32%
BlackRock Fixed Income	0.25% of First 100.0 Mil, 0.25% of Next 100.0 Mil	$133,792,449	6.6%	$334,481	0.25%
Boston Partners Large Cap Value	0.45% of First 50.0 Mil, 0.35% of Next 50.0 Mil, 0.30% Thereafter	$75,083,622	3.7%	$312,793	0.42%
Doubleline Core Plus	0.28% of First 100.0 Mil, 0.25% Thereafter	$117,744,659	5.8%	$324,362	0.28%
Invesco Commercial Mortgage Income Fund	1.00% of First 50.0 Mil, 0.90% of Next 50.0 Mil, 0.80% Thereafter	$55,260,873	2.7%	$547,348	0.99%
Ivy Large Cap Growth	0.60% of First 25.0 Mil, 0.50% of Next 25.0 Mil, 0.40% Thereafter	$84,618,945	4.1%	$413,476	0.49%
KKR Mezzanine Partners I	0.38% of Assets	$3,904,517	0.2%	$14,642	0.38%
Lee Munder Small Value	0.70% of Assets	$34,214,073	1.7%	$239,499	0.70%
MacKay Shields Core Plus	0.30% of Assets	$123,229,773	6.0%	$369,689	0.30%
Mellon Capital Cash Account	No Fee	$49,489,338	2.4%	--	--
Ocean Avenue Fund III	0.85% of Assets	$19,428,500	1.0%	$165,142	0.85%
Ocean Avenue Fund IV	1.25% of Assets	$20,601,057	1.0%	$257,513	1.25%
Pantheon Ventures	0.47% of Assets	$420,959	0.0%	$1,995	0.47%
Pathway Private Equity Fund Investors 10	0.58% of Assets	$12,374,850	0.6%	$71,774	0.58%
Pathway Private Equity Fund Investors 8	0.61% of Assets	$33,854,318	1.7%	$206,511	0.61%
Pathway Private Equity Fund Investors 9	0.58% of Assets	$24,383,776	1.2%	$141,426	0.58%
PGIM Emerging Markets Debt	0.44% of Assets	$57,485,597	2.8%	$252,937	0.44%
PIMCO Bravo	1.60% of Assets	$10,362	0.0%	$663	6.40%
PIMCO RAE Fundamental Global Ex US Fund	0.78% of First 25.0 Mil, 0.43% of Next 75.0 Mil, 0.38% Thereafter	$103,332,117	5.1%	$530,162	0.51%
QMA Large Cap Core	Performance-based 0.00 and 25.00	$75,995,865	3.7%	$0	0.00%
RREEF America II	0.95% of Assets	$180,697,807	8.9%	$1,716,629	0.95%

Fees shown for Pathway are estimated effective average fees over 15-year fund lifespan.

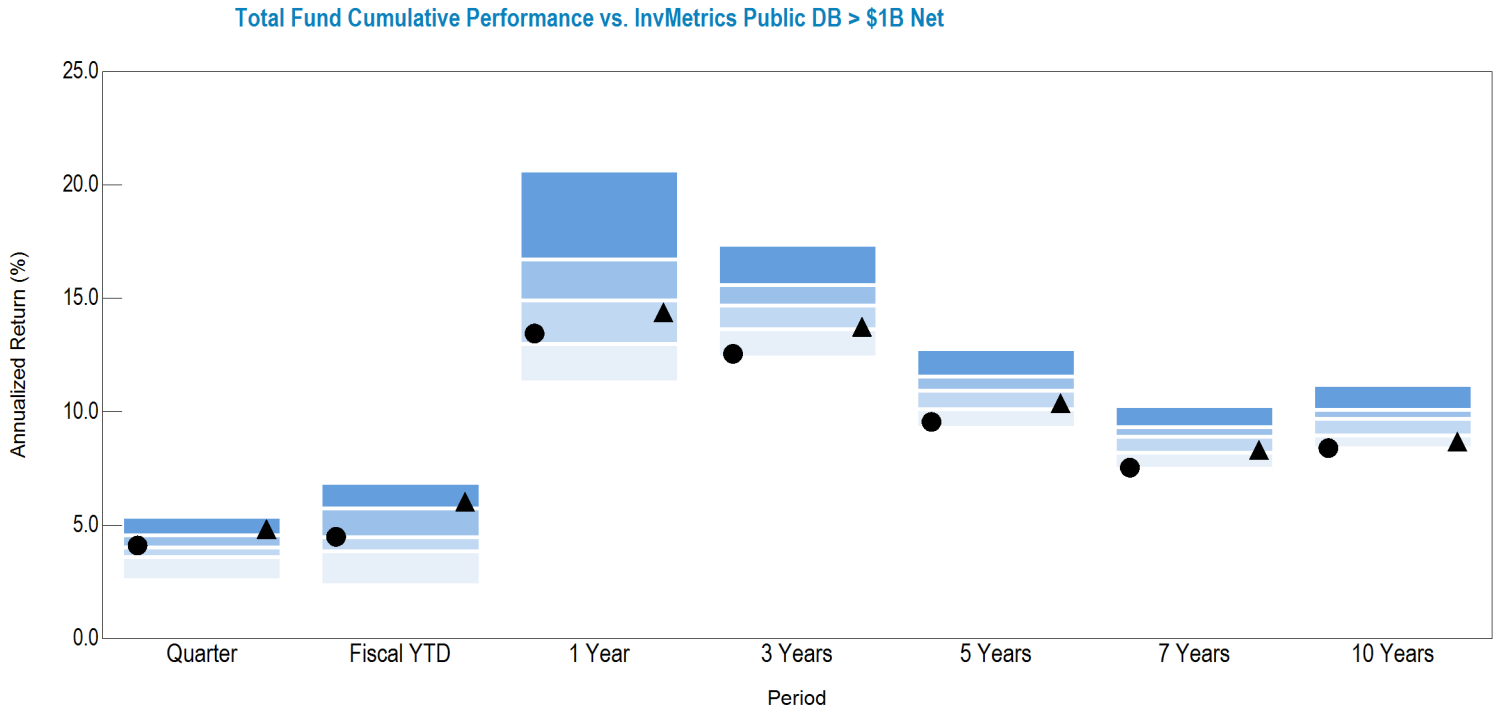
Investment Fund Fee Analysis

Period Ending: December 31, 2021

Account	Fee Schedule	Market Value As of 12/31/2021	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
SGA Global Growth	0.45% of Assets	$100,577,469	4.9%	$452,599	0.45%
Sixth Street DCP (frmrly TSSP DCP)	1.11% of Assets	$83,485,391	4.1%	$926,688	1.11%
Sixth Street TAO Contingent (frmrly TSSP TAO Contingent)	1.35% of Assets	$23,587,526	1.2%	$318,432	1.35%
Skellig Water Fund (aka KBI)	0.77% of Assets	$83,341,459	4.1%	$637,562	0.76%
SSGA MSCI ACWI Ex US Index Fund	0.08% of First 25.0 Mil, 0.07% of Next 25.0 Mil, 0.06% Thereafter	$109,164,876	5.3%	$72,999	0.07%
SSGA S&P 500 Flagship Fund	0.03% of Assets	$234,053,793	11.5%	$70,216	0.03%
SSGA US Extended Market Index	0.03% of First 50.0 Mil, 0.03% of Next 50.0 Mil, 0.02% Thereafter	$81,060,803	4.0%	$23,076	0.03%
SSGA US REIT Index Non-Lending Fund	No Fee	$42,080,134	2.1%	--	--
Stepstone Secondary Opportunities Fund II	343,750 Annually	$6,211,096	0.3%	$343,750	5.53%
William Blair SMID Cap Growth	0.95% of First 10.0 Mil, 0.80% of Next 20.0 Mil, 0.75% of Next 20.0 Mil, 0.70% of Next 50.0 Mil, 0.65% of Next 100.0 Mil, 0.60% Thereafter	$33,043,374	1.6%	$277,825	0.84%
Investment Management Fee		**$2,040,878,610**	**100.0%**	**$9,590,371**	**0.47%**

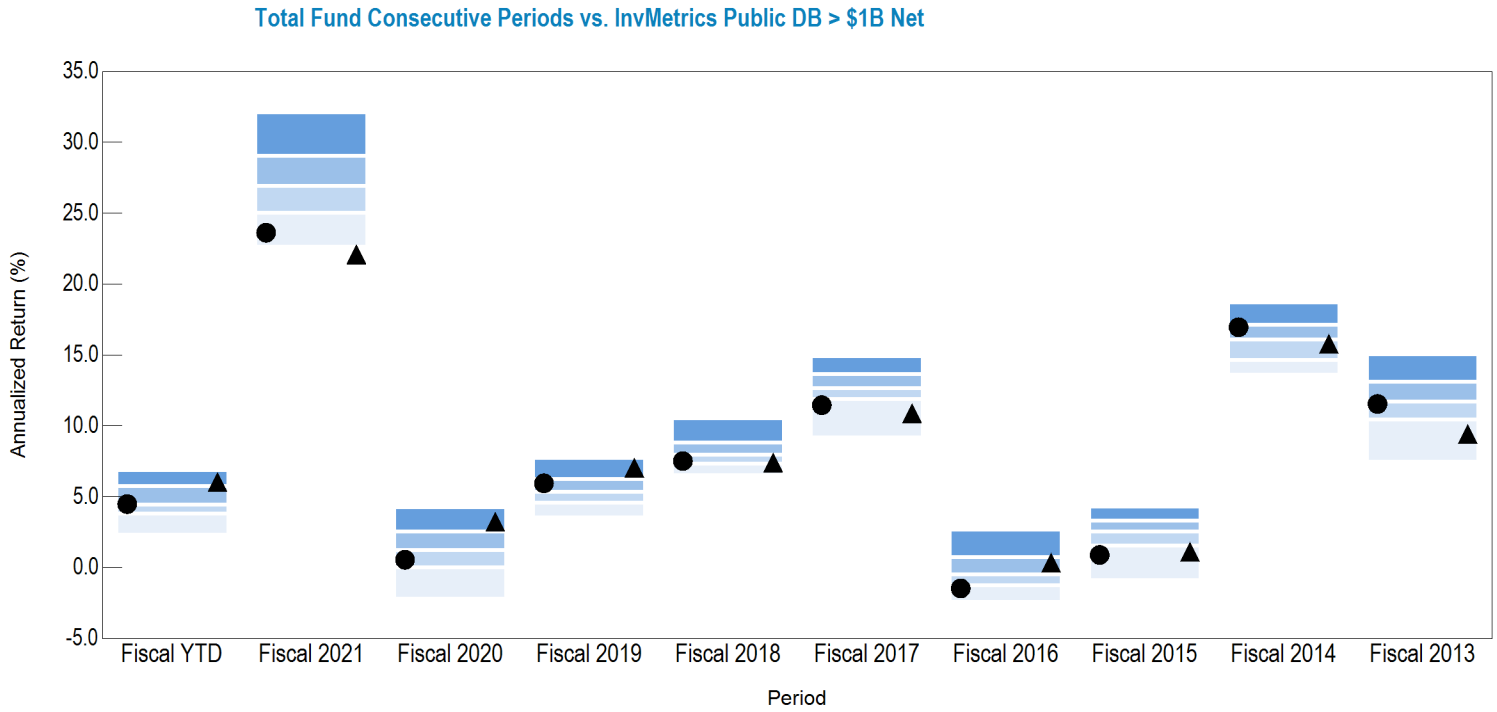
**Sixth Street Partners fee schedule is as follows: No management fee at SMA level. Subject to the annual fees of each of the underlying TSSP funds. (1) TAO 65bps on unfunded commitments and 1.35% on remaining capital contributions (long-term investor designation) (2) TSLE 1.5% on commitments, 1.25% on remaining capital contributions post commitment period (3) TICP 30bps on remaining capital contributions. TAO Contingent fee schedule is 65bps on unfunded commitments and 1.35% on remaining capital contributions.*

Total Fund
Peer Universe Comparison: Cumulative Performance (Net of Fees) Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	5.4		6.9		20.6		17.3		12.8		10.2		11.2	
25th Percentile	4.6		5.8		16.7		15.6		11.6		9.3		10.1	
Median	4.0		4.5		14.9		14.7		10.9		8.9		9.7	
75th Percentile	3.6		3.9		13.0		13.6		10.1		8.2		9.0	
95th Percentile	2.6		2.4		11.3		12.4		9.3		7.5		8.4	
# of Portfolios	75		74		74		74		74		72		68	
● **Total Fund**	4.1	(45)	4.5	(50)	13.4	(72)	12.5	(94)	9.5	(93)	7.5	(95)	8.4	(95)
▲ **Interim Policy Index**	4.8	(15)	6.0	(20)	14.4	(54)	13.7	(72)	10.4	(68)	8.3	(73)	8.7	(89)

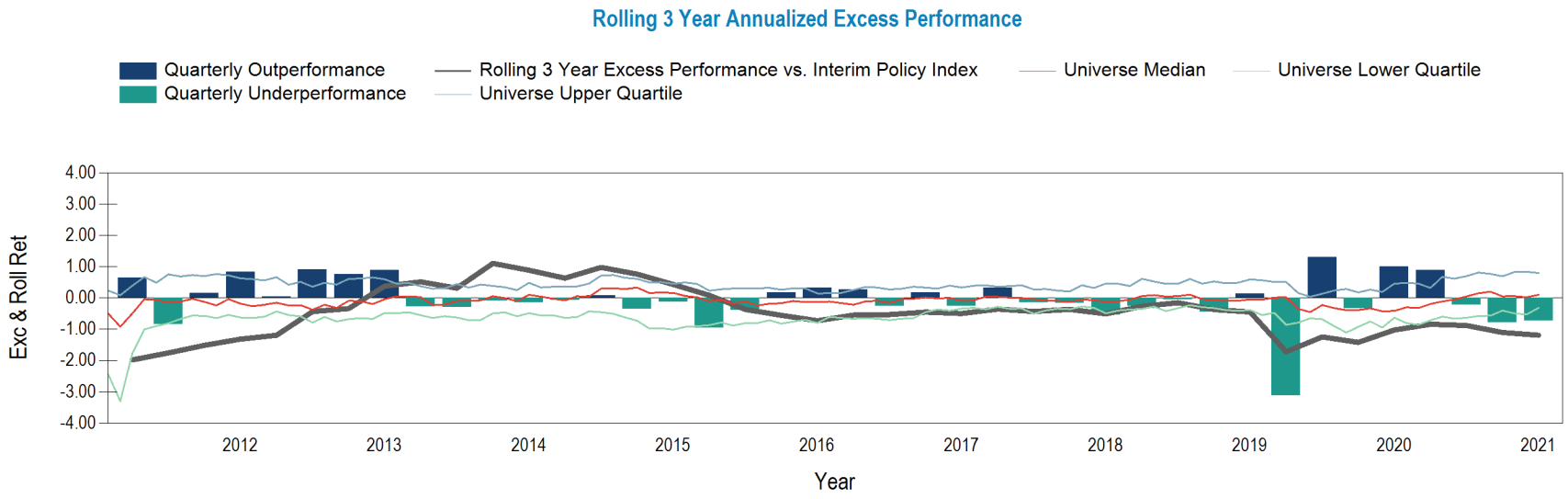
Total Fund
Peer Universe Comparison: Consecutive Periods (Net of Fees) Period Ending: December 31, 2021

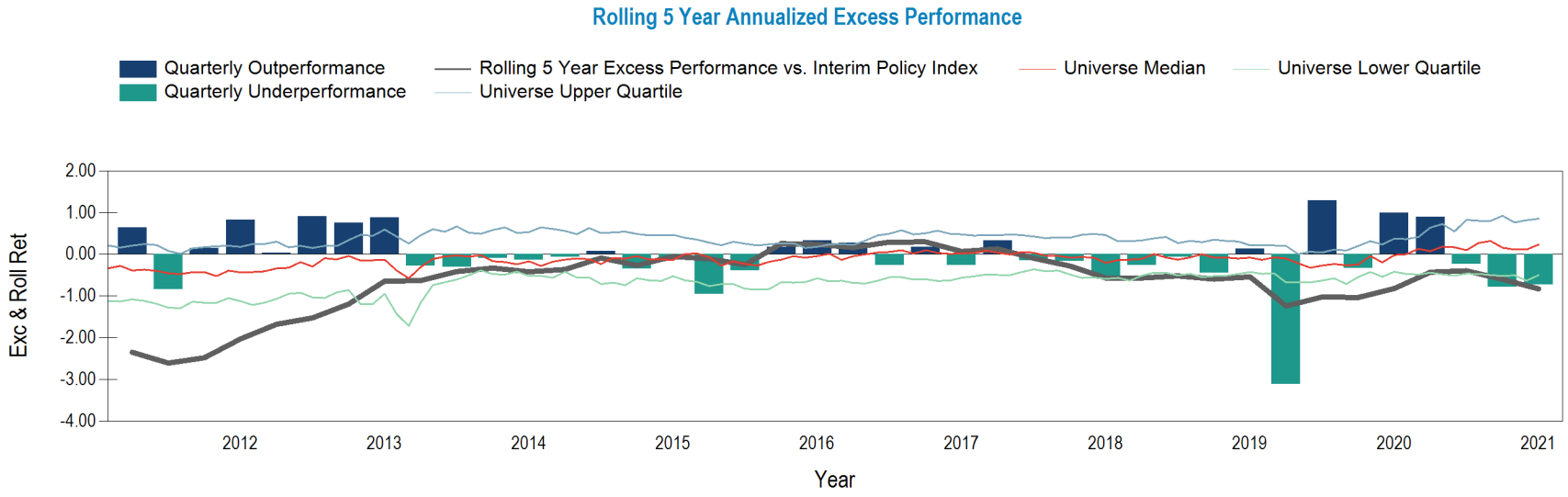


	Return (Rank)									
5th Percentile	6.9	32.1	4.2	7.7	10.5	14.9	2.7	4.3	18.7	15.0
25th Percentile	5.8	29.1	2.6	6.3	8.8	13.7	0.8	3.3	17.2	13.1
Median	4.5	27.0	1.3	5.4	8.0	12.7	-0.5	2.6	16.1	11.8
75th Percentile	3.9	25.1	0.0	4.6	7.3	11.9	-1.2	1.6	14.7	10.5
95th Percentile	2.4	22.7	-2.2	3.5	6.5	9.2	-2.4	-0.9	13.6	7.5
# of Portfolios	74	77	71	77	51	65	55	53	43	56
● Total Fund	4.5 (50)	23.6 (91)	0.6 (65)	6.0 (35)	7.5 (69)	11.5 (82)	-1.5 (81)	0.9 (87)	17.0 (30)	11.5 (53)
▲ Interim Policy Index	6.0 (20)	22.1 (98)	3.2 (16)	7.0 (14)	7.4 (74)	10.9 (87)	0.3 (37)	1.1 (86)	15.8 (56)	9.4 (86)

Total Fund
Rolling Return Analysis (Net of Fees)

Period Ending: December 31, 2021



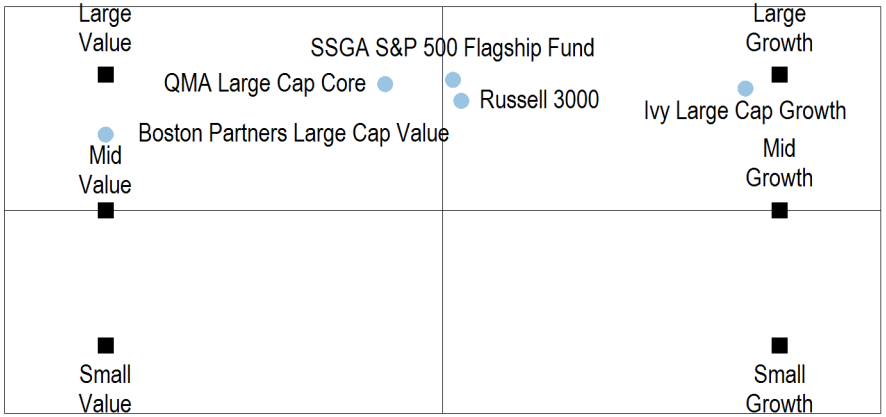


Total Domestic Equity
Asset Class Overview (Net of Fees)

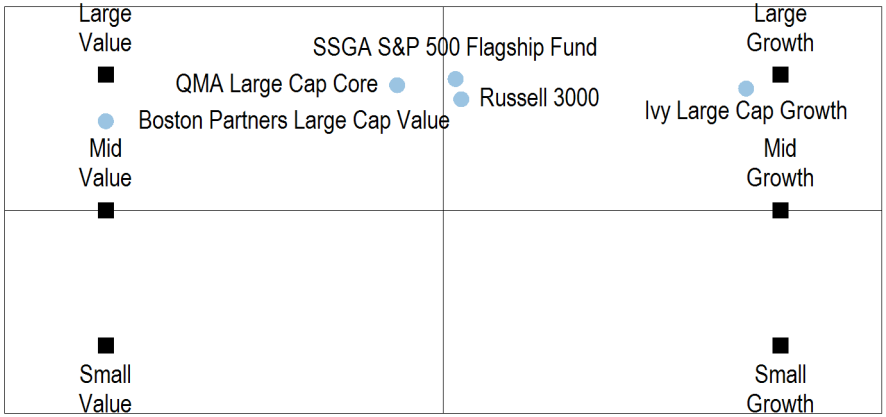
Period Ending: December 31, 2021

	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2021	2020	2019	2018	2017
Total Domestic Equity	**618,070,475**	**8.8**	**8.4**	**26.1**	**24.6**	**17.4**	**16.0**	**26.1**	**18.2**	**29.8**	**-5.4**	**21.9**
Russell 3000		*9.3*	*9.2*	*25.7*	*25.8*	*18.0*	*16.3*	*25.7*	*20.9*	*31.0*	*-5.2*	*21.1*
InvMetrics Public DB US Eq Net Rank		*66*	*68*	*44*	*39*	*25*	*21*	*44*	*44*	*59*	*34*	*18*
SSGA S&P 500 Flagship Fund	234,053,793	11.0	11.6	28.6	26.0	18.4	16.6	28.6	18.3	31.5	-4.4	21.8
S&P 500		*11.0*	*11.7*	*28.7*	*26.1*	*18.5*	*16.6*	*28.7*	*18.4*	*31.5*	*-4.4*	*21.8*
eV US Large Cap Core Equity Net Rank		*31*	*28*	*30*	*22*	*19*	*10*	*30*	*29*	*29*	*32*	*46*
QMA Large Cap Core	75,995,865	10.3	10.4	29.8	23.2	16.3	16.0	29.8	12.0	28.6	-6.8	22.1
S&P 500		*11.0*	*11.7*	*28.7*	*26.1*	*18.5*	*16.6*	*28.7*	*18.4*	*31.5*	*-4.4*	*21.8*
eV US Large Cap Core Equity Net Rank		*48*	*47*	*19*	*59*	*59*	*25*	*19*	*66*	*56*	*62*	*43*
Ivy Large Cap Growth	84,618,945	11.6	13.0	29.8	32.4	25.3	19.2	29.8	30.9	36.6	2.7	29.5
Russell 1000 Growth		*11.6*	*12.9*	*27.6*	*34.1*	*25.3*	*19.8*	*27.6*	*38.5*	*36.4*	*-1.5*	*30.2*
eV US Large Cap Growth Equity Net Rank		*20*	*18*	*13*	*32*	*28*	*24*	*13*	*64*	*25*	*16*	*46*
Boston Partners Large Cap Value	75,083,622	9.4	7.6	30.4	18.2	12.5	13.7	30.4	2.4	23.8	-9.0	19.6
Russell 1000 Value		*7.8*	*6.9*	*25.2*	*17.6*	*11.2*	*13.0*	*25.2*	*2.8*	*26.5*	*-8.3*	*13.7*
eV US Large Cap Value Equity Net Rank		*24*	*44*	*15*	*52*	*43*	*30*	*15*	*57*	*75*	*51*	*26*

U.S. Effective Style Map
3 Years



U.S. Effective Style Map
5 Years

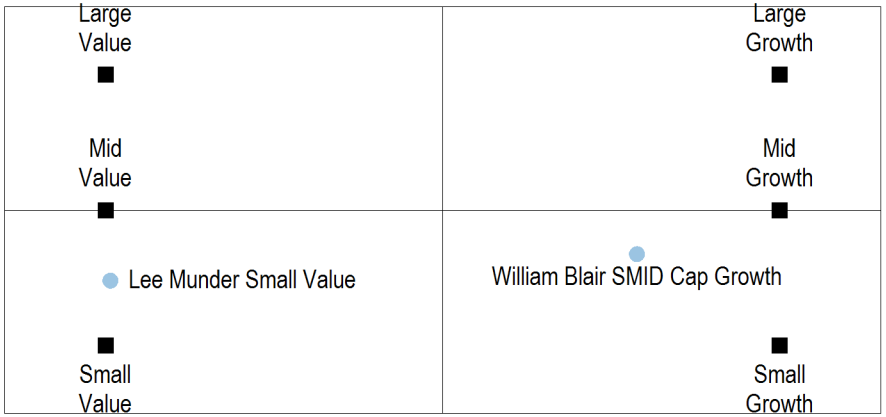


Total Domestic Equity
Asset Class Overview (Net of Fees)

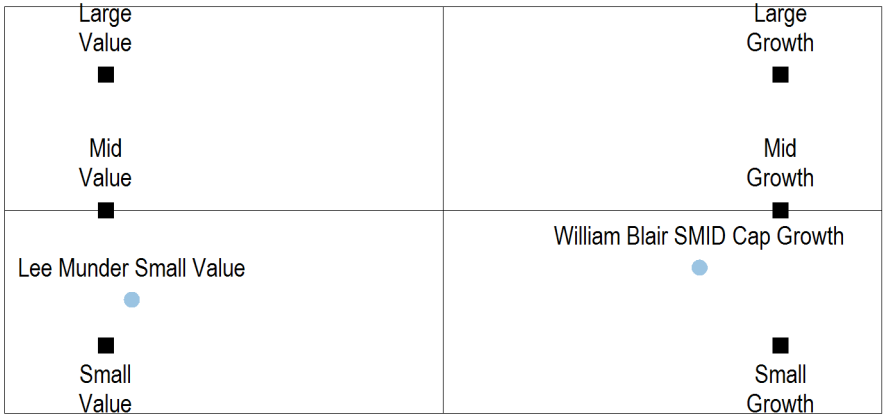
Period Ending: December 31, 2021

	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2021	2020	2019	2018	2017
SSGA US Extended Market Index	81,060,803	0.8	-2.5	--	--	--	--	--	--	--	--	--
Dow Jones U.S. Completion Total Stock Market		*0.7*	*-2.7*	--	--	--	--	--	--	--	--	--
eV Emg Mkts Large Cap Core Equity Net Rank		*31*	*2*	--	--	--	--	--	--	--	--	--
William Blair SMID Cap Growth	33,043,374	1.6	0.3	8.7	23.6	19.1	16.8	8.7	32.6	31.1	-1.7	29.3
Russell 2500 Growth		*0.2*	*-3.3*	*5.0*	*25.1*	*17.7*	*15.7*	*5.0*	*40.5*	*32.7*	*-7.5*	*24.5*
eV US Mid Cap Growth Equity Net Rank		*72*	*80*	*78*	*95*	*75*	*52*	*78*	*64*	*78*	*30*	*14*
Lee Munder Small Value	34,214,073	7.2	6.9	30.7	19.4	9.1	11.9	30.7	3.0	26.3	-15.5	7.7
Russell 2000 Value		*4.4*	*1.2*	*28.3*	*18.0*	*9.1*	*12.0*	*28.3*	*4.6*	*22.4*	*-12.9*	*7.8*
eV US Small Cap Value Equity Net Rank		*35*	*22*	*43*	*46*	*57*	*63*	*43*	*56*	*25*	*56*	*71*

U.S. Effective Style Map
3 Years



U.S. Effective Style Map
5 Years



Total Domestic Equity
Common Holdings Matrix

Period Ending: December 31, 2021

	SSGA S&P 500 Flagship Fund		QMA Large Cap Core		Ivy Large Cap Growth		Boston Partners Large Cap Value		William Blair SMID Cap Growth		Lee Munder Small Value		SSGA Russell Small Cap Completeness Index	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
SSGA S&P 500 Flagship Fund	--	--	154	92.6	35	93.4	67	81.9	6	11.0	0	0.0	0	--
QMA Large Cap Core	154	69.5	--	--	21	68.0	38	54.7	2	4.2	5	8.2	0	--
Ivy Large Cap Growth	35	34.6	21	32.9	--	--	4	6.6	0	0.0	0	0.0	0	--
Boston Partners Large Cap Value	67	20.3	38	22.3	4	12.9	--	--	0	0.0	0	0.0	0	--
William Blair SMID Cap Growth	6	0.3	2	0.1	0	0.0	0	0.0	--	--	3	3.6	0	--
Lee Munder Small Value	0	0.0	5	0.5	0	0.0	0	0.0	3	4.9	--	--	0	--
SSGA Russell Small Cap Completeness Index	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	--	--

Total Domestic Equity
Correlation Matrix

Period Ending: December 31, 2021

Correlation Matrix
1 Year Ending December 31, 2021

	SSGA S&P 500 Flagship Fund	QMA Large Cap Core	Ivy Large Cap Growth	Boston Partners Large Cap Value	William Blair SMID Cap Growth	Lee Munder Small Value	SSGA Russell Small Cap Completeness Index	S&P 500
SSGA S&P 500 Flagship Fund	1.00	--	--	--	--	--	--	--
QMA Large Cap Core	0.97	1.00	--	--	--	--	--	--
Ivy Large Cap Growth	0.93	0.84	1.00	--	--	--	--	--
Boston Partners Large Cap Value	0.72	0.79	0.44	1.00	--	--	--	--
William Blair SMID Cap Growth	0.69	0.59	0.69	0.40	1.00	--	--	--
Lee Munder Small Value	0.52	0.56	0.26	0.90	0.44	1.00	--	--
SSGA Russell Small Cap Completeness Index	--	--	--	--	--	--	--	--
S&P 500	1.00	0.97	0.93	0.72	0.69	0.52	--	1.00

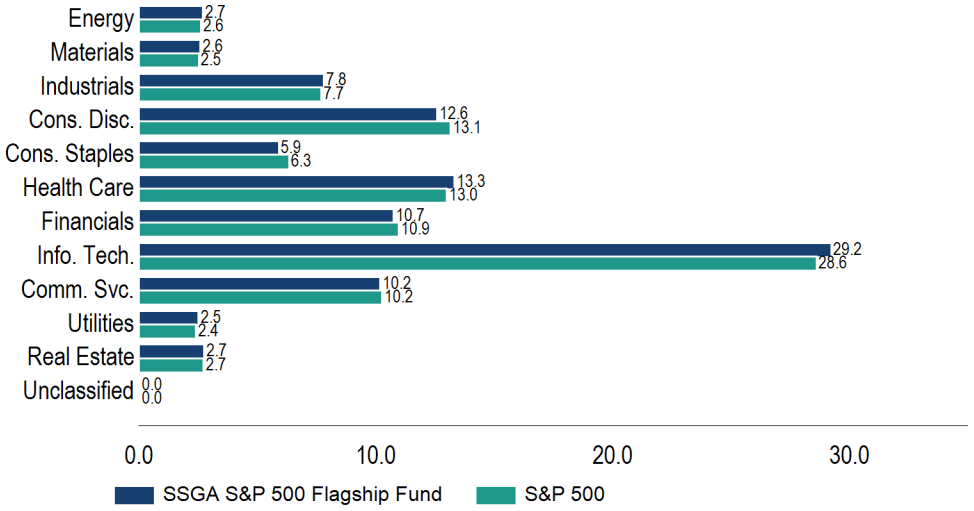
SSGA S&P 500 Flagship Fund
Manager Portfolio Overview

Period Ending: December 31, 2021

Characteristics

	Portfolio	S&P 500
Number of Holdings	505	504
Weighted Avg. Market Cap. ($B)	668.08	670.50
Median Market Cap. ($B)	34.55	34.55
Price To Earnings	26.22	26.23
Price To Book	4.94	4.92
Price To Sales	3.77	3.70
Return on Equity (%)	30.61	30.43
Yield (%)	1.31	1.28
Beta	1.00	1.00

Sector Allocation (%) vs S&P 500



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

APPLE INC	6.87%
MICROSOFT CORP	6.27%
AMAZON.COM INC	3.61%
ALPHABET INC	2.16%
TESLA INC	2.13%
ALPHABET INC	2.01%
META PLATFORMS INC	1.98%
NVIDIA CORPORATION	1.82%
BERKSHIRE HATHAWAY INC	1.36%
UNITEDHEALTH GROUP INC	1.17%
Total	**29.38%**

Top Contributors

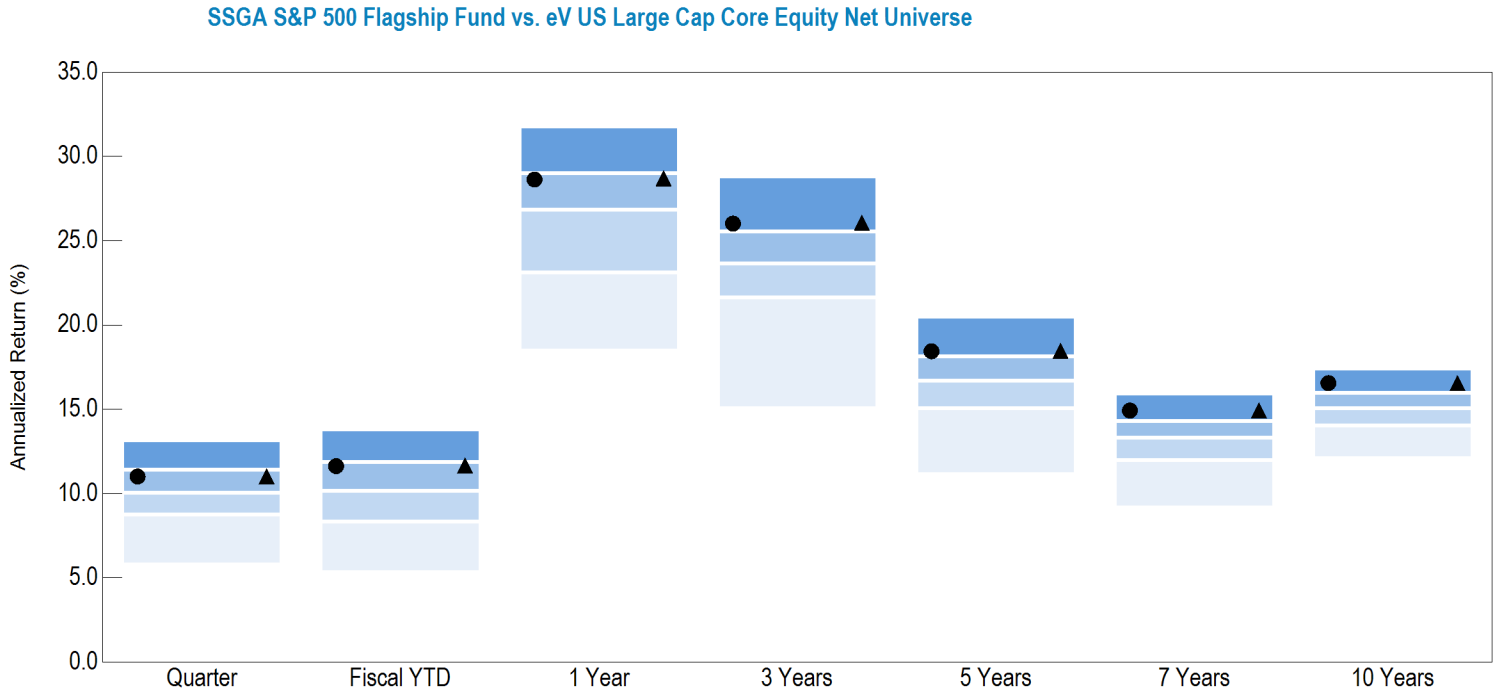
	Avg Wgt	Return	Contribution
APPLE INC	6.09	25.67	1.56
MICROSOFT CORP	5.80	19.51	1.13
TESLA INC	1.73	36.27	0.63
NVIDIA CORPORATION	1.42	41.99	0.59
UNITEDHEALTH GROUP INC	1.01	28.92	0.29
HOME DEPOT INC. (THE)	0.96	26.95	0.26
PFIZER INC	0.66	38.51	0.25
BROADCOM INC	0.54	38.09	0.21
ALPHABET INC	2.21	8.36	0.18
ALPHABET INC	2.06	8.57	0.18

Bottom Contributors

	Avg Wgt	Return	Contribution
PAYPAL HOLDINGS INC	0.84	-27.53	-0.23
MODERNA INC	0.37	-34.01	-0.13
MEDTRONIC PLC	0.46	-16.96	-0.08
WALT DISNEY CO (THE)	0.84	-8.44	-0.07
COMCAST CORP	0.70	-9.62	-0.07
CITIGROUP INC	0.39	-13.32	-0.05
SALESFORCE.COM INC	0.72	-6.30	-0.05
TWITTER INC	0.13	-28.43	-0.04
AT&T INC	0.53	-7.17	-0.04
JPMORGAN CHASE & CO	1.34	-2.69	-0.04

SSGA S&P 500 Flagship Fund
Cumulative Performance Comparison (Net of Fees)

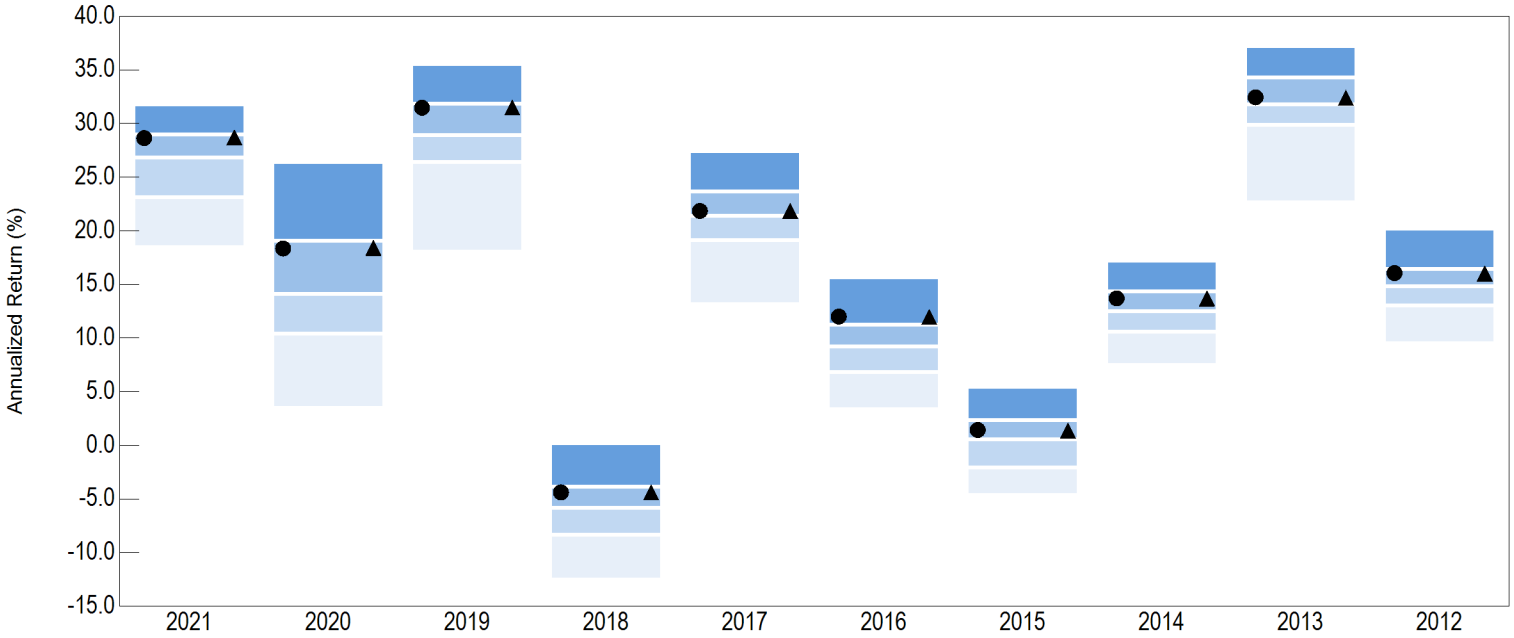
Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	13.2		13.8		31.8		28.8		20.5		15.9		17.4	
25th Percentile	11.4		11.9		29.0		25.6		18.1		14.3		16.0	
Median	10.1		10.2		26.9		23.7		16.7		13.3		15.1	
75th Percentile	8.8		8.4		23.1		21.7		15.1		12.0		14.1	
95th Percentile	5.8		5.4		18.5		15.1		11.2		9.2		12.1	
# of Portfolios	217		217		217		207		194		179		151	
● **SSGA S&P 500 Flagship Fund**	11.0	(31)	11.6	(28)	28.6	(30)	26.0	(22)	18.4	(19)	14.9	(11)	16.6	(10)
▲ **S&P 500**	11.0	(31)	11.7	(28)	28.7	(29)	26.1	(22)	18.5	(18)	14.9	(11)	16.6	(10)

SSGA S&P 500 Flagship Fund
Consecutive Performance Comparison (Net of Fees)

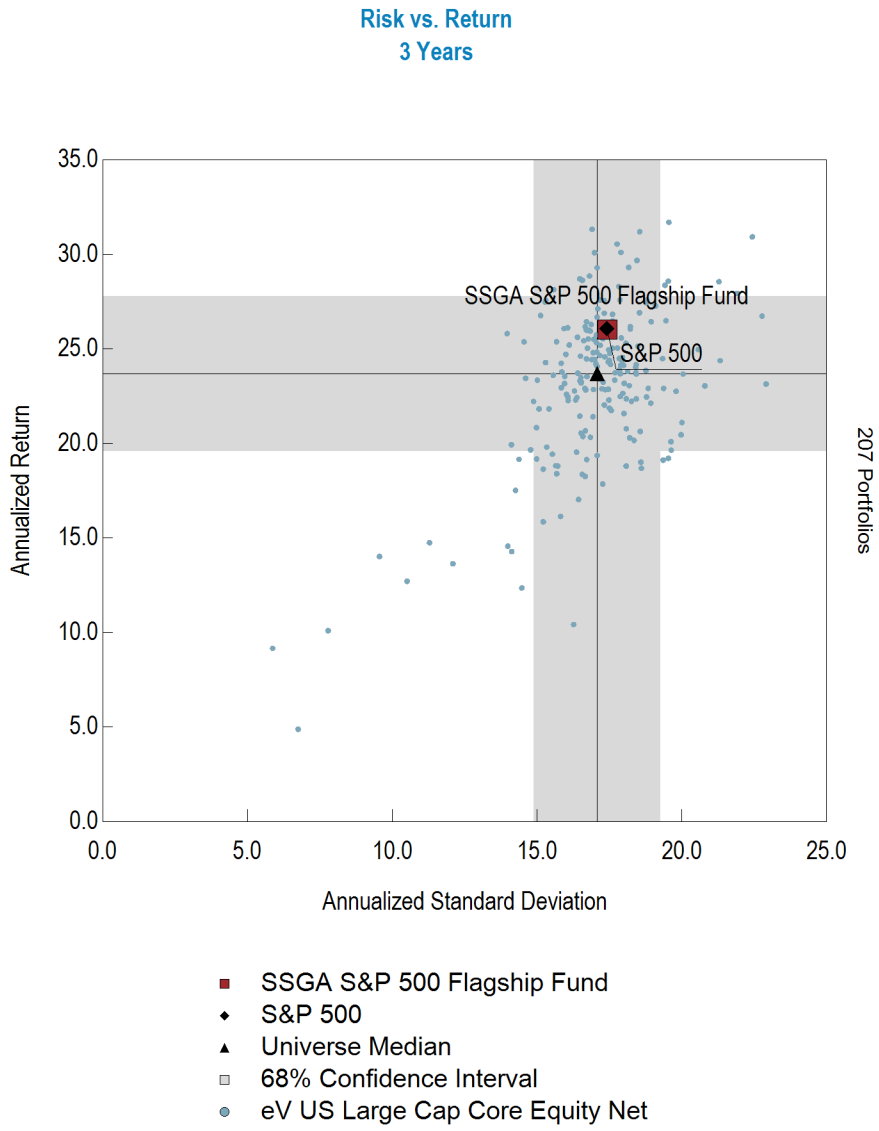
Period Ending: December 31, 2021

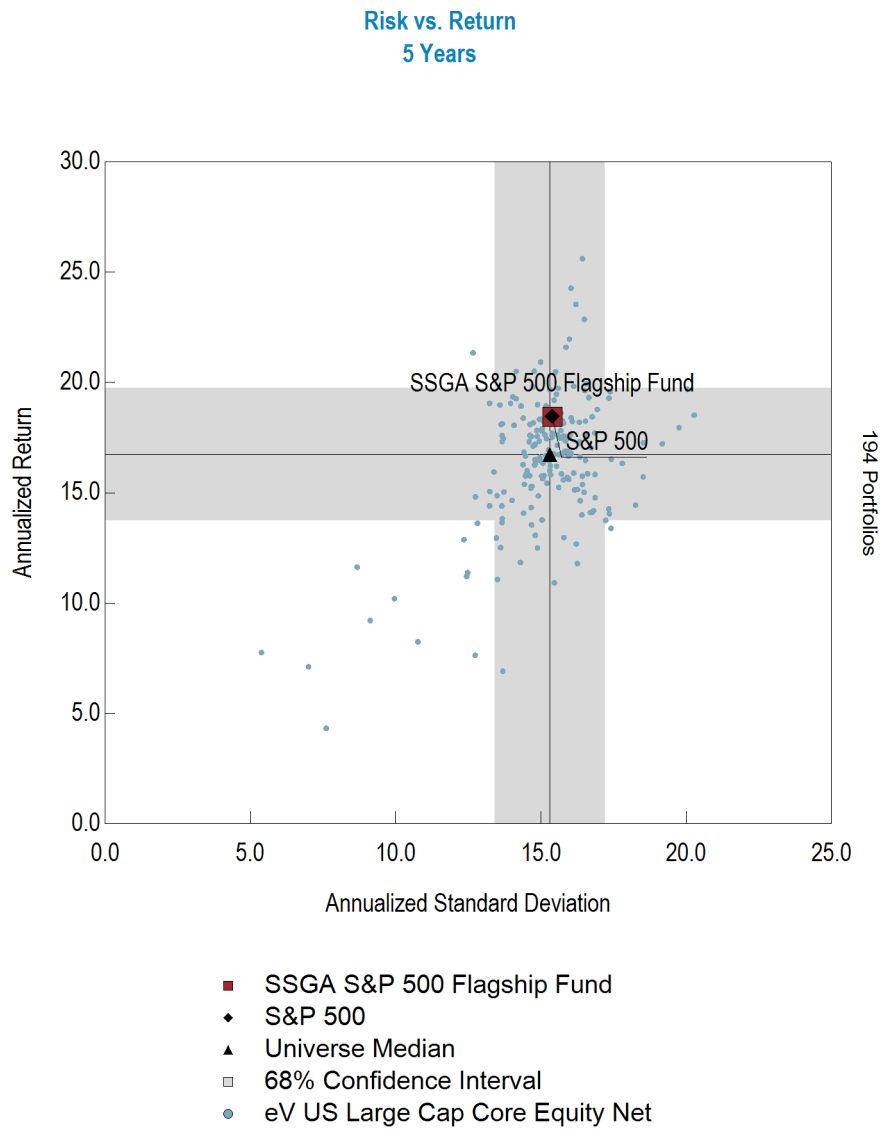


	Return (Rank)									
5th Percentile	31.8	26.4	35.5	0.1	27.4	15.6	5.4	17.2	37.2	20.2
25th Percentile	29.0	19.1	31.9	-3.8	23.7	11.3	2.4	14.4	34.3	16.5
Median	26.9	14.1	28.9	-5.8	21.4	9.3	0.6	12.5	31.8	14.8
75th Percentile	23.1	10.4	26.5	-8.3	19.2	6.9	-2.0	10.6	29.9	13.0
95th Percentile	18.5	3.5	18.1	-12.5	13.2	3.4	-4.6	7.5	22.7	9.5
# of Portfolios	217	216	203	189	188	177	142	140	125	111
● **SSGA S&P 500 Flagship Fund**	28.6 (30)	18.3 (29)	31.5 (29)	-4.4 (32)	21.8 (46)	12.0 (20)	1.4 (36)	13.7 (33)	32.4 (42)	16.0 (30)
▲ **S&P 500**	28.7 (29)	18.4 (29)	31.5 (28)	-4.4 (32)	21.8 (46)	12.0 (21)	1.4 (37)	13.7 (33)	32.4 (43)	16.0 (30)

SSGA S&P 500 Flagship Fund
Risk vs Return Three & Five Year (Net of Fees)

Period Ending: December 31, 2021





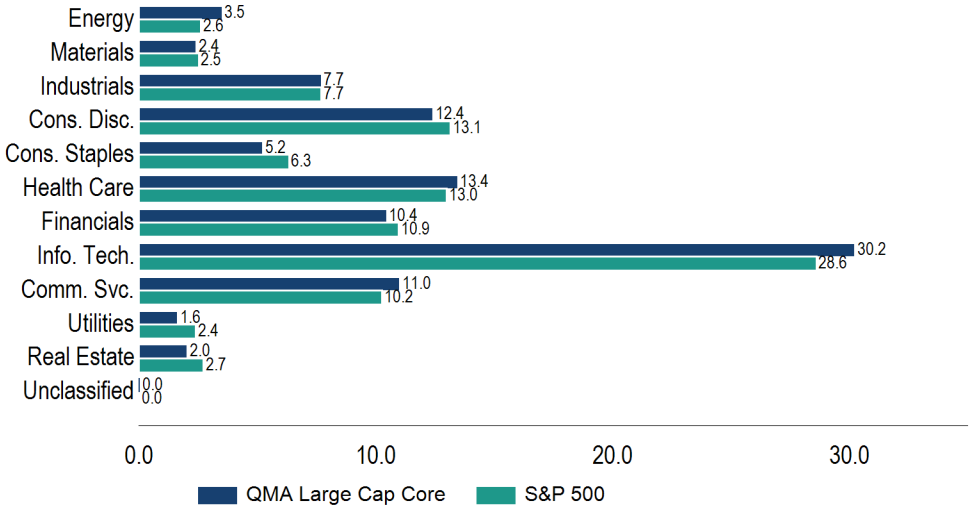
QMA Large Cap Core
Manager Portfolio Overview

Period Ending: December 31, 2021

Characteristics

	Portfolio	S&P 500
Number of Holdings	207	504
Weighted Avg. Market Cap. ($B)	661.44	670.50
Median Market Cap. ($B)	51.97	34.55
Price To Earnings	22.46	26.23
Price To Book	4.35	4.92
Price To Sales	3.01	3.70
Return on Equity (%)	28.90	30.43
Yield (%)	1.52	1.28
Beta	1.07	1.00

Sector Allocation (%) vs S&P 500



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

MICROSOFT CORP	6.78%
APPLE INC	6.18%
AMAZON.COM INC	3.42%
ALPHABET INC	2.52%
ALPHABET INC	2.50%
TESLA INC	2.12%
NVIDIA CORPORATION	1.93%
META PLATFORMS INC	1.59%
JOHNSON & JOHNSON	1.40%
EXXON MOBIL CORP	1.31%
Total	**29.74%**

Top Contributors

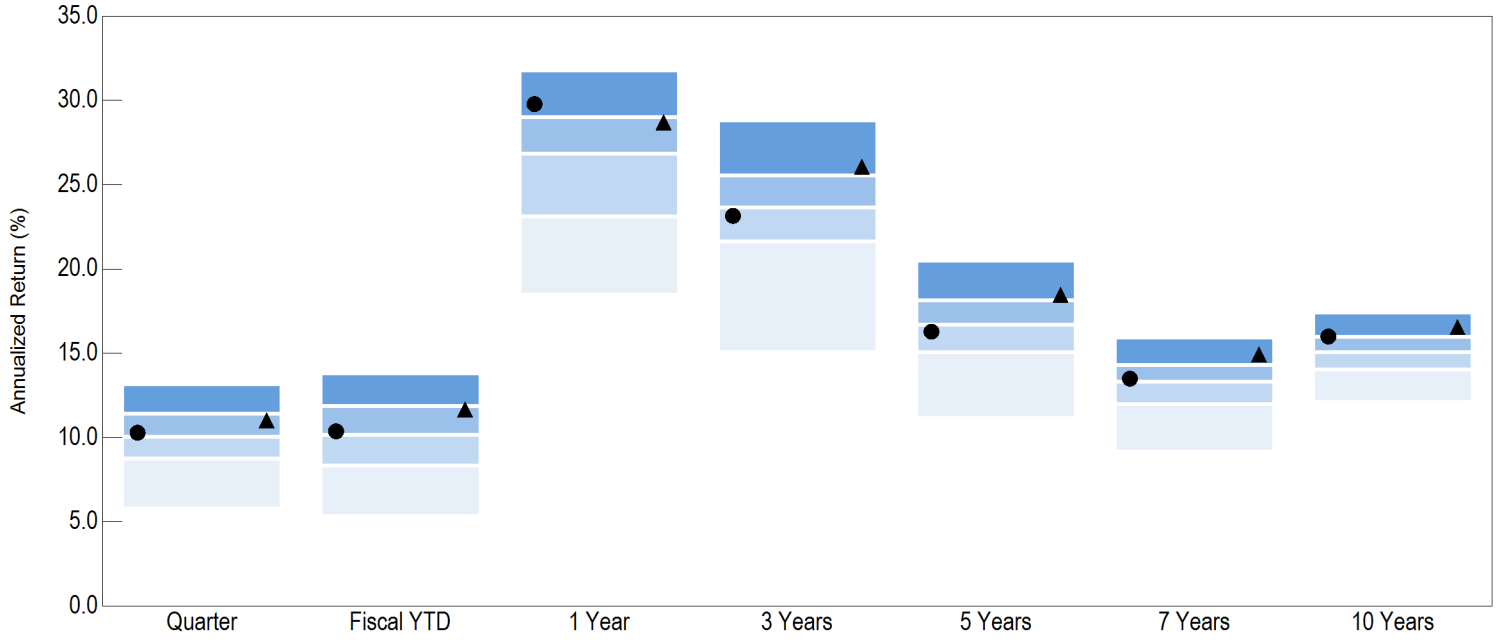
	Avg Wgt	Return	Contribution
APPLE INC	5.56	25.67	1.43
MICROSOFT CORP	5.93	19.51	1.16
BROADCOM INC	1.06	38.09	0.40
QUALCOMM INC.	0.86	42.33	0.36
TESLA INC	0.82	36.27	0.30
ACCENTURE PLC	0.98	29.96	0.29
NVIDIA CORPORATION	0.68	41.99	0.29
PFIZER INC	0.70	38.51	0.27
UNITEDHEALTH GROUP INC	0.88	28.92	0.25
FORD MOTOR CO	0.47	47.43	0.22

Bottom Contributors

	Avg Wgt	Return	Contribution
CITIGROUP INC	0.86	-13.32	-0.11
MEDTRONIC PLC	0.57	-16.96	-0.10
COMCAST CORP	0.98	-9.62	-0.09
PAYPAL HOLDINGS INC	0.34	-27.53	-0.09
CAPITAL ONE FINANCIAL CORP.	0.89	-10.08	-0.09
ACTIVISION BLIZZARD INC	0.47	-14.03	-0.07
AT&T INC	0.91	-7.17	-0.07
SALESFORCE.COM INC	0.79	-6.30	-0.05
VISA INC	1.52	-2.54	-0.04
PAYCOM SOFTWARE INC	0.22	-16.25	-0.04

QMA Large Cap Core
Cumulative Performance Comparison (Net of Fees)

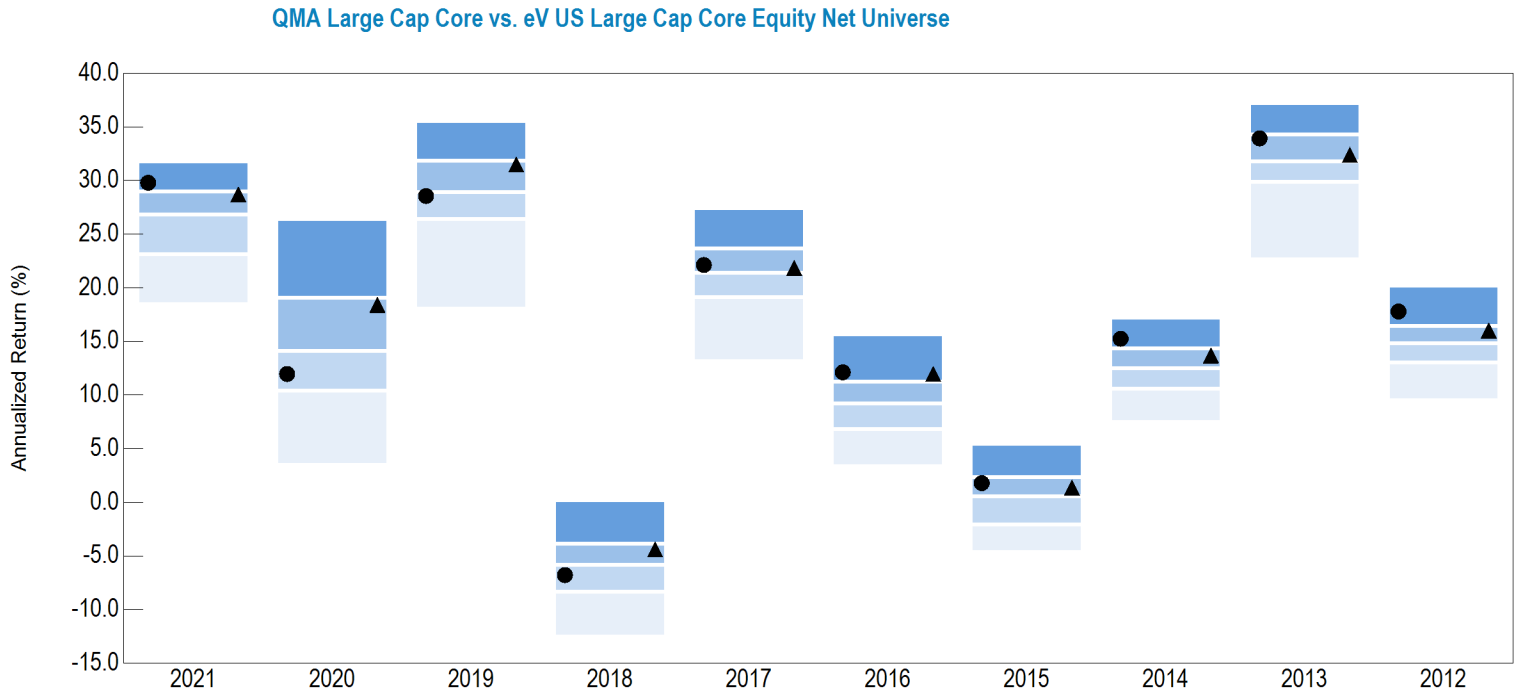
Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	13.2		13.8		31.8		28.8		20.5		15.9		17.4	
25th Percentile	11.4		11.9		29.0		25.6		18.1		14.3		16.0	
Median	10.1		10.2		26.9		23.7		16.7		13.3		15.1	
75th Percentile	8.8		8.4		23.1		21.7		15.1		12.0		14.1	
95th Percentile	5.8		5.4		18.5		15.1		11.2		9.2		12.1	
# of Portfolios	217		217		217		207		194		179		151	
● **QMA Large Cap Core**	10.3	(48)	10.4	(47)	29.8	(19)	23.2	(59)	16.3	(59)	13.5	(46)	16.0	(25)
▲ **S&P 500**	11.0	(31)	11.7	(28)	28.7	(29)	26.1	(22)	18.5	(18)	14.9	(11)	16.6	(10)

QMA Large Cap Core
Consecutive Performance Comparison (Net of Fees)

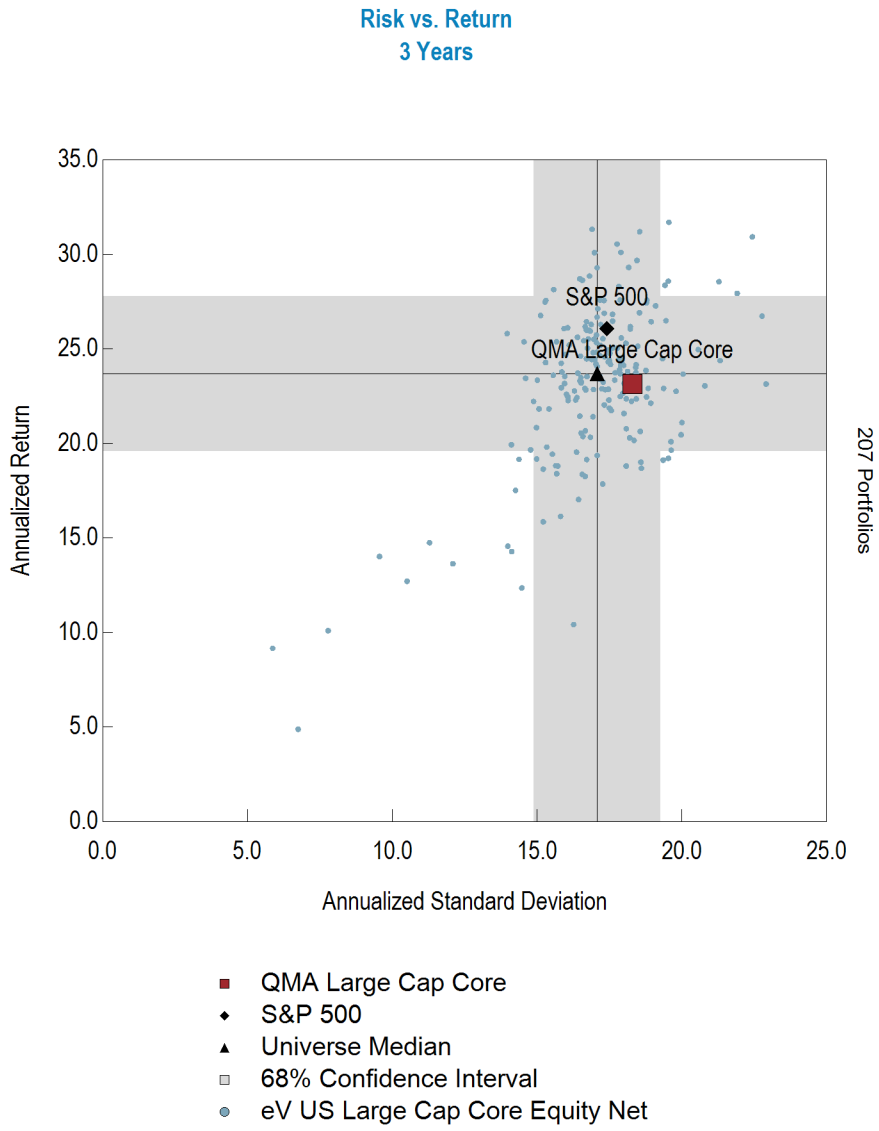
Period Ending: December 31, 2021

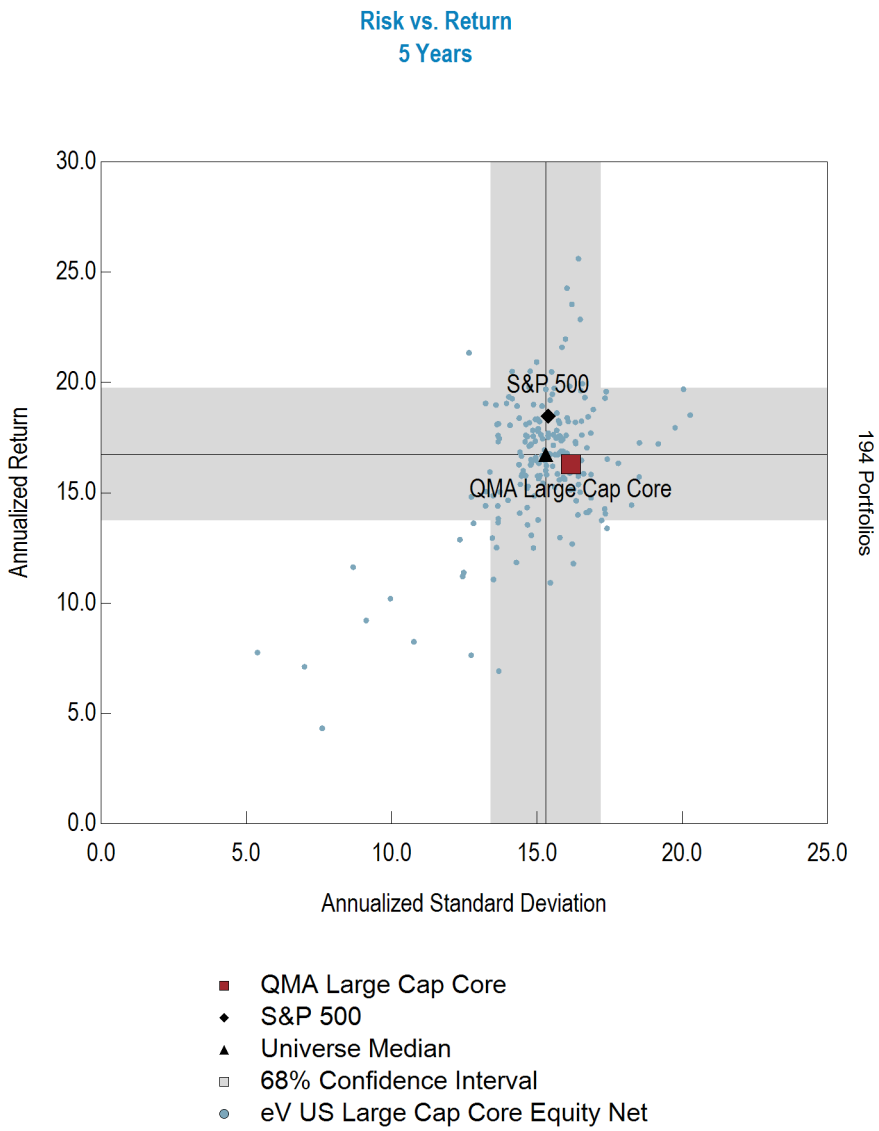


	Return (Rank)									
5th Percentile	31.8	26.4	35.5	0.1	27.4	15.6	5.4	17.2	37.2	20.2
25th Percentile	29.0	19.1	31.9	-3.8	23.7	11.3	2.4	14.4	34.3	16.5
Median	26.9	14.1	28.9	-5.8	21.4	9.3	0.6	12.5	31.8	14.8
75th Percentile	23.1	10.4	26.5	-8.3	19.2	6.9	-2.0	10.6	29.9	13.0
95th Percentile	18.5	3.5	18.1	-12.5	13.2	3.4	-4.6	7.5	22.7	9.5
# of Portfolios	217	216	203	189	188	177	142	140	125	111
● QMA Large Cap Core	29.8 (19)	12.0 (66)	28.6 (56)	-6.8 (62)	22.1 (43)	12.1 (19)	1.8 (30)	15.2 (18)	33.9 (29)	17.8 (13)
▲ S&P 500	28.7 (29)	18.4 (29)	31.5 (28)	-4.4 (32)	21.8 (46)	12.0 (21)	1.4 (37)	13.7 (33)	32.4 (43)	16.0 (30)

QMA Large Cap Core
Risk vs Return Three & Five Year (Net of Fees)

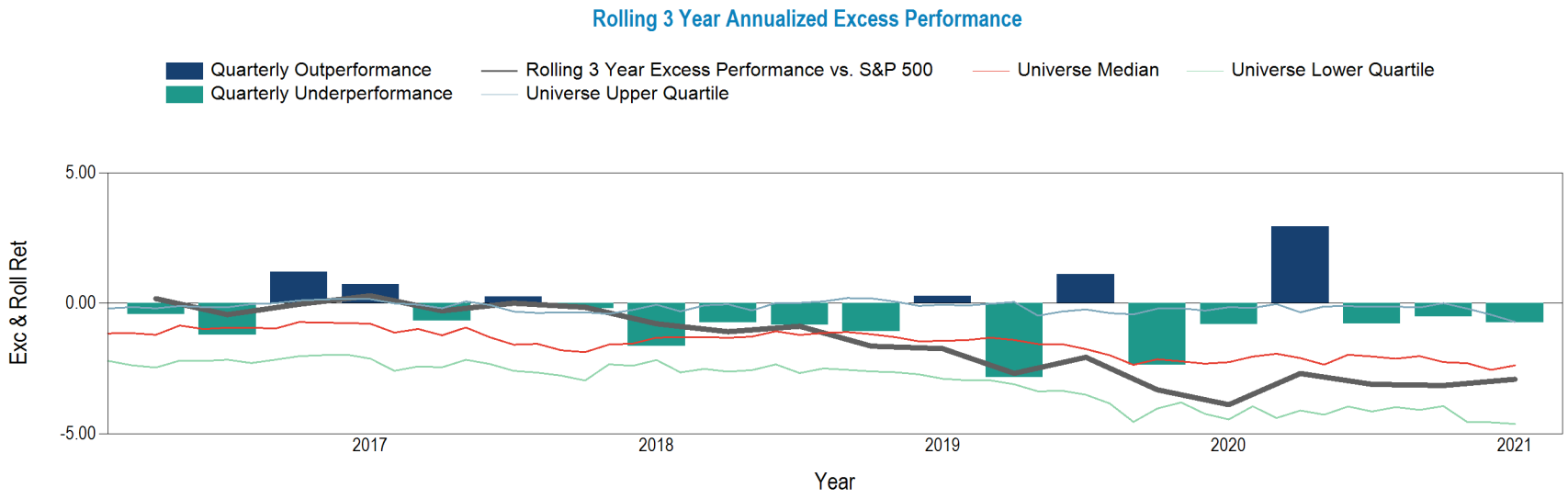
Period Ending: December 31, 2021

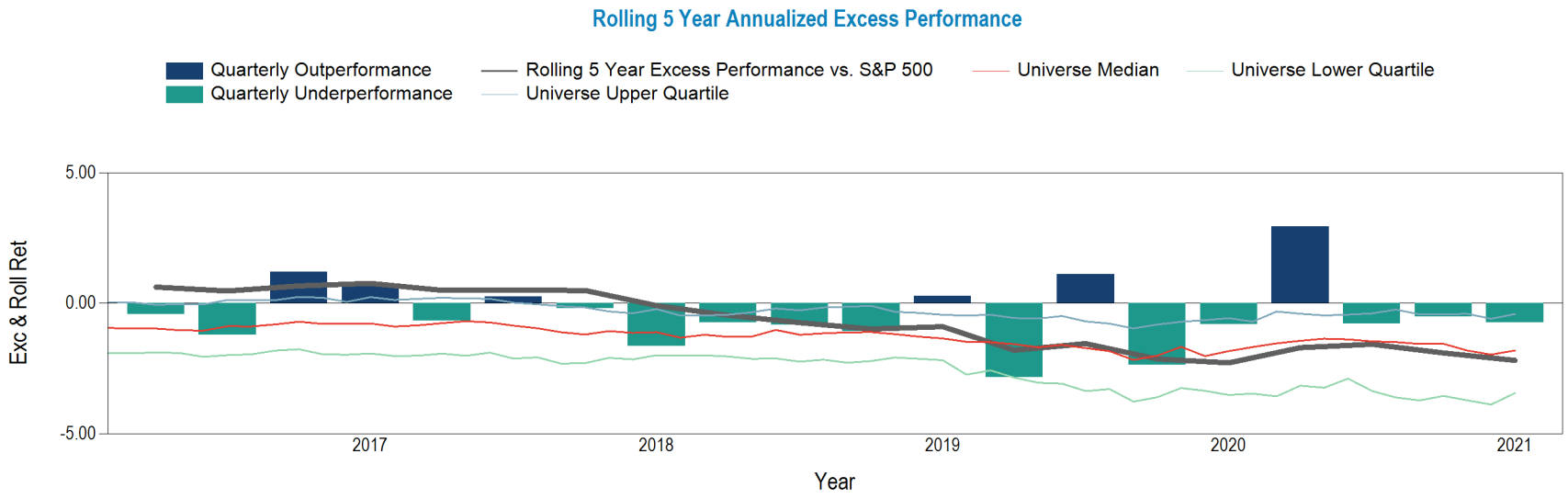




QMA Large Cap Core
Rolling Return Analysis (Net of Fees)

Period Ending: December 31, 2021





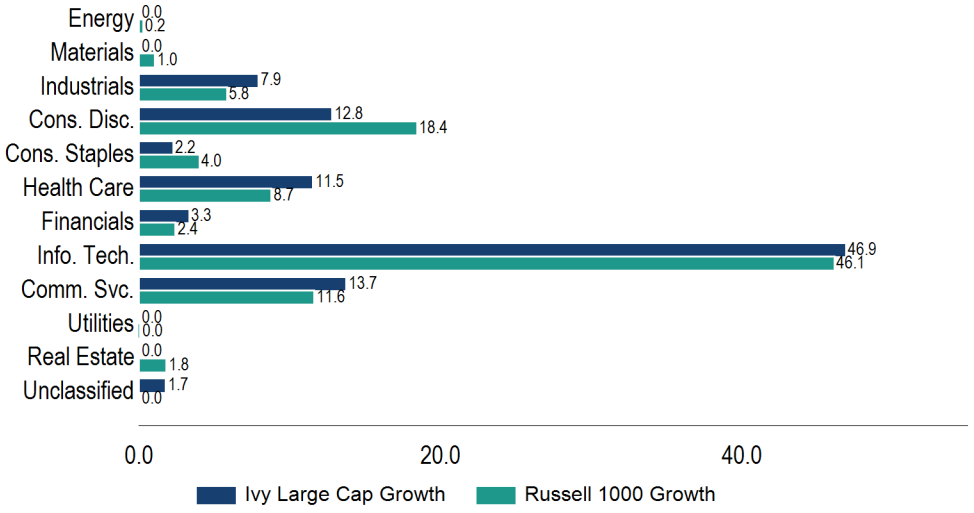
Ivy Large Cap Growth
Manager Portfolio Overview

Period Ending: December 31, 2021

Characteristics

	Portfolio	Russell 1000 Growth
Number of Holdings	40	503
Weighted Avg. Market Cap. ($B)	887.17	992.27
Median Market Cap. ($B)	115.46	20.33
Price To Earnings	38.30	36.05
Price To Book	9.99	13.39
Price To Sales	7.47	6.57
Return on Equity (%)	48.05	42.34
Yield (%)	0.51	0.69
Beta	0.90	1.00

Sector Allocation (%) vs Russell 1000 Growth



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

MICROSOFT CORP	10.51%
APPLE INC	7.89%
AMAZON.COM INC	6.98%
ALPHABET INC	5.63%
VISA INC	4.43%
MOTOROLA SOLUTIONS INC	3.81%
META PLATFORMS INC	3.56%
NVIDIA CORPORATION	3.49%
ELECTRONIC ARTS INC	2.90%
UNITEDHEALTH GROUP INC	2.87%
Total	**52.06%**

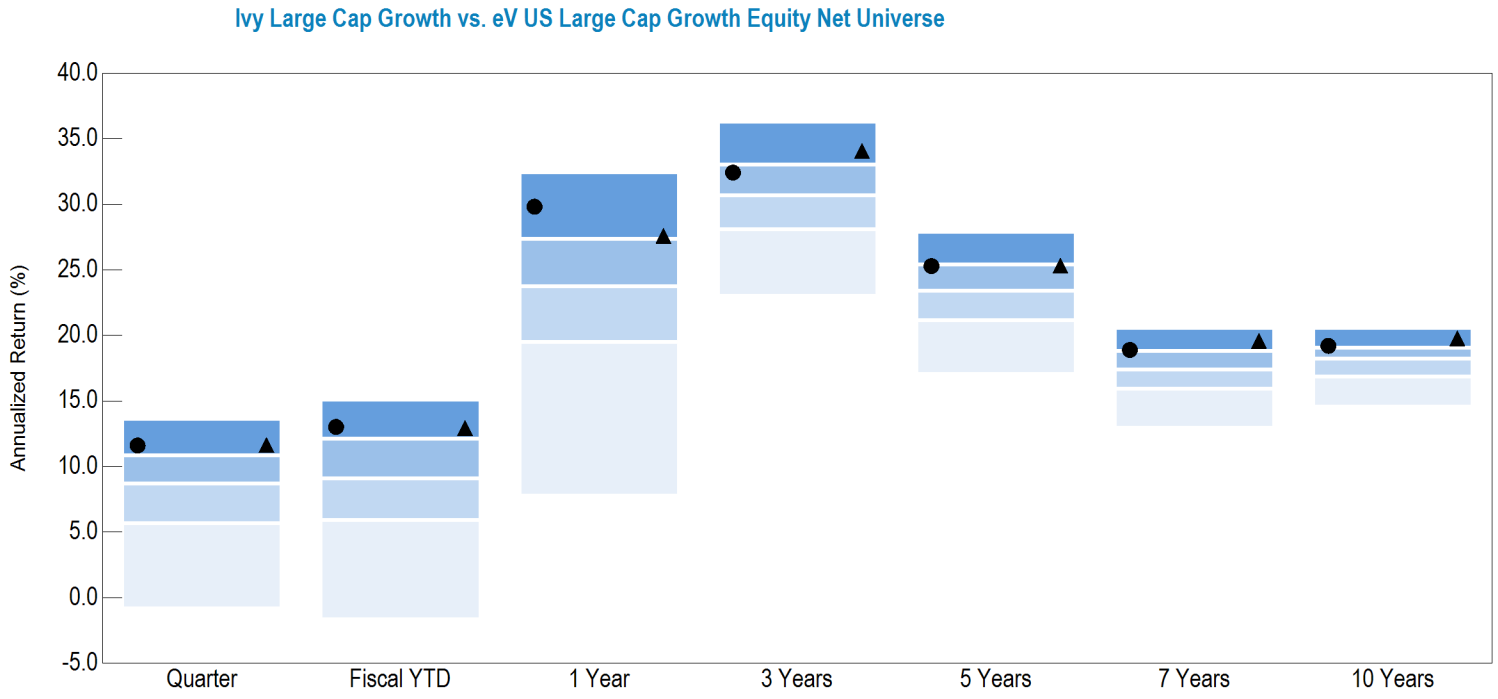
Top Contributors

	Avg Wgt	Return	Contribution
MICROSOFT CORP	10.51	19.51	2.05
APPLE INC	7.89	25.67	2.03
NVIDIA CORPORATION	3.49	41.99	1.47
UNITEDHEALTH GROUP INC	2.87	28.92	0.83
CERNER CORP	2.40	32.08	0.77
MOTOROLA SOLUTIONS INC	3.81	17.31	0.66
VERISIGN INC	2.65	23.81	0.63
INTUIT INC.	2.67	19.37	0.52
ALPHABET INC	5.63	8.36	0.47
HOME DEPOT INC. (THE)	1.68	26.95	0.45

Bottom Contributors

	Avg Wgt	Return	Contribution
PAYPAL HOLDINGS INC	2.65	-27.53	-0.73
ELECTRONIC ARTS INC	2.90	-7.15	-0.21
PINTEREST INC	0.70	-28.66	-0.20
SALESFORCE.COM INC	1.97	-6.30	-0.12
VISA INC	4.43	-2.54	-0.11
COSTAR GROUP INC	0.80	-8.17	-0.07
ADOBE INC	2.18	-1.50	-0.03
META PLATFORMS INC	3.56	-0.90	-0.03
AUTODESK INC	0.67	-1.40	-0.01
BOOKING HOLDINGS INC	1.31	1.07	0.01

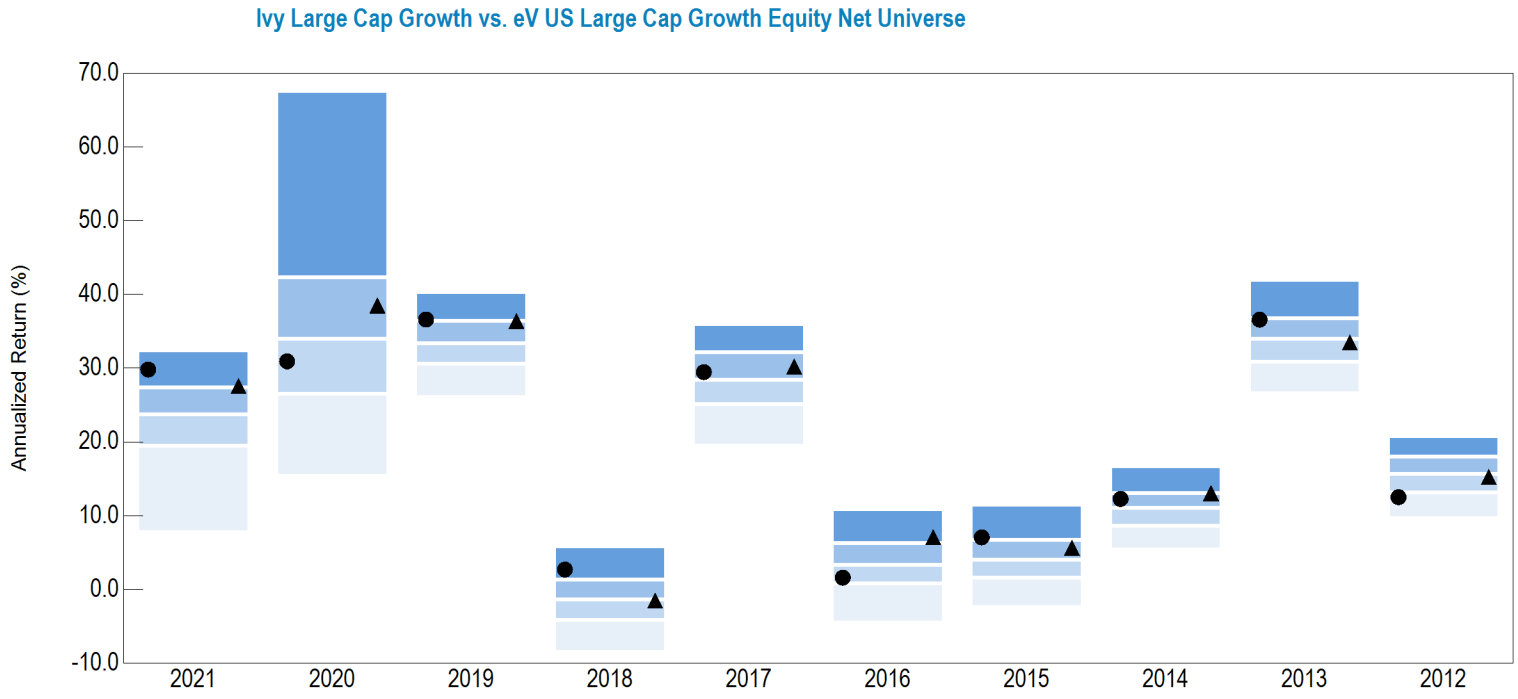
Ivy Large Cap Growth
Cumulative Performance Comparison (Net of Fees) Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	13.6		15.1		32.4		36.3		27.9		20.5		20.6	
25th Percentile	10.9		12.1		27.4		33.1		25.4		18.9		19.1	
Median	8.7		9.1		23.8		30.7		23.4		17.4		18.2	
75th Percentile	5.7		5.9		19.5		28.1		21.2		16.0		16.9	
95th Percentile	-0.8		-1.6		7.8		23.0		17.1		13.0		14.6	
# of Portfolios	194		194		194		188		175		161		145	
● **Ivy Large Cap Growth**	11.6	(20)	13.0	(18)	29.8	(13)	32.4	(32)	25.3	(28)	18.9	(25)	19.2	(24)
▲ **Russell 1000 Growth**	11.6	(20)	12.9	(18)	27.6	(25)	34.1	(14)	25.3	(27)	19.6	(14)	19.8	(14)

Ivy Large Cap Growth
Consecutive Performance Comparison (Net of Fees)

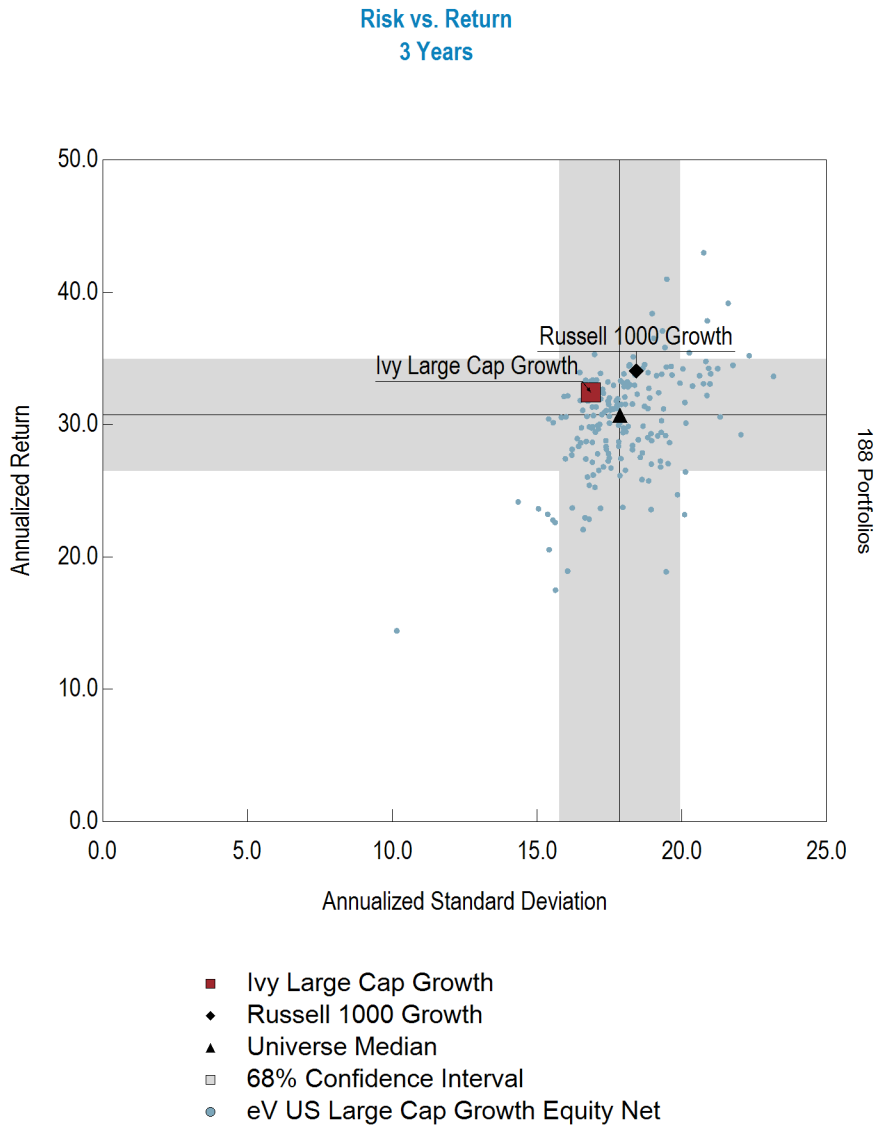
Period Ending: December 31, 2021

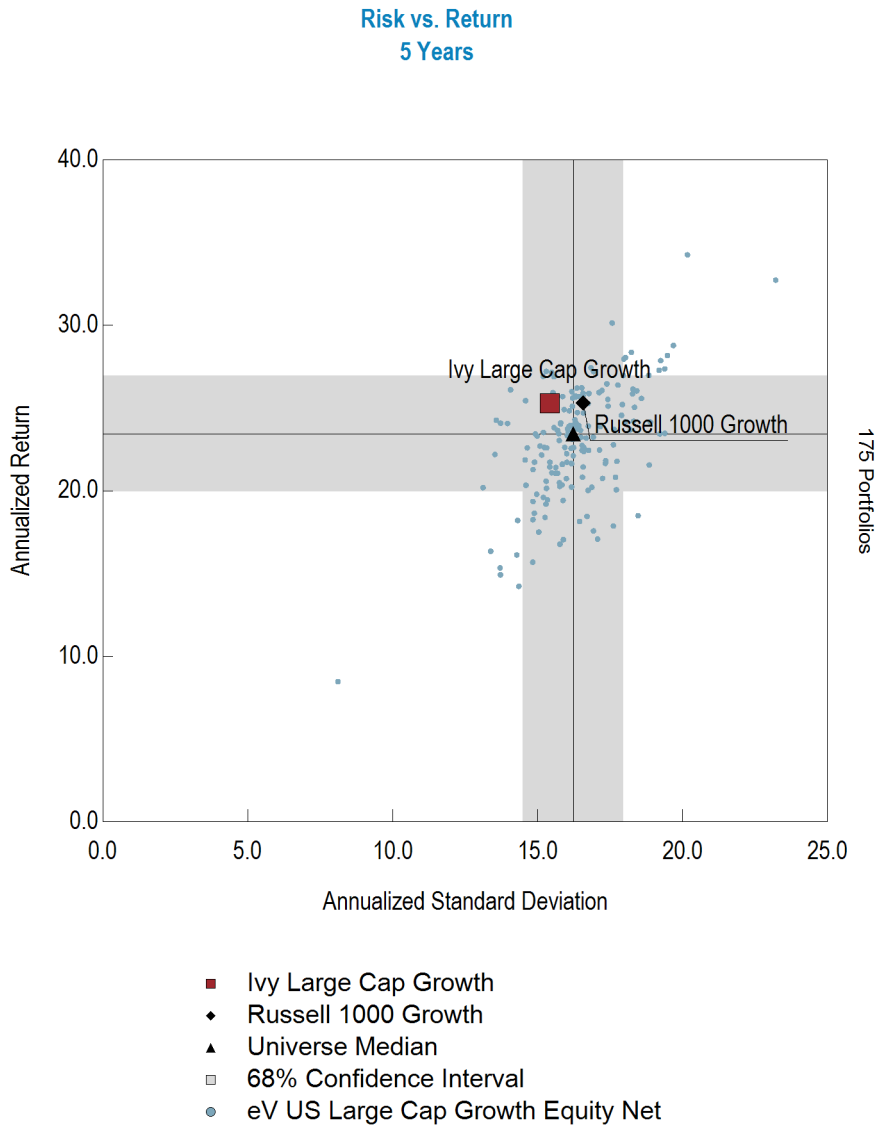


	Return (Rank)									
5th Percentile	32.4	67.5	40.3	5.8	36.0	10.8	11.4	16.7	41.9	20.7
25th Percentile	27.4	42.4	36.5	1.4	32.2	6.3	6.8	13.1	36.8	18.1
Median	23.8	34.1	33.4	-1.3	28.5	3.4	4.1	11.1	34.0	15.7
75th Percentile	19.5	26.6	30.6	-4.1	25.2	0.8	1.6	8.7	30.9	13.2
95th Percentile	7.8	15.5	26.1	-8.4	19.5	-4.5	-2.3	5.5	26.6	9.7
# of Portfolios	194	198	186	179	182	182	175	180	158	140
● Ivy Large Cap Growth	29.8 (13)	30.9 (64)	36.6 (25)	2.7 (16)	29.5 (46)	1.6 (70)	7.1 (23)	12.3 (36)	36.6 (28)	12.5 (80)
▲ Russell 1000 Growth	27.6 (25)	38.5 (33)	36.4 (27)	-1.5 (52)	30.2 (38)	7.1 (20)	5.7 (35)	13.0 (28)	33.5 (54)	15.3 (58)

Ivy Large Cap Growth
Risk vs Return Three & Five Year (Net of Fees)

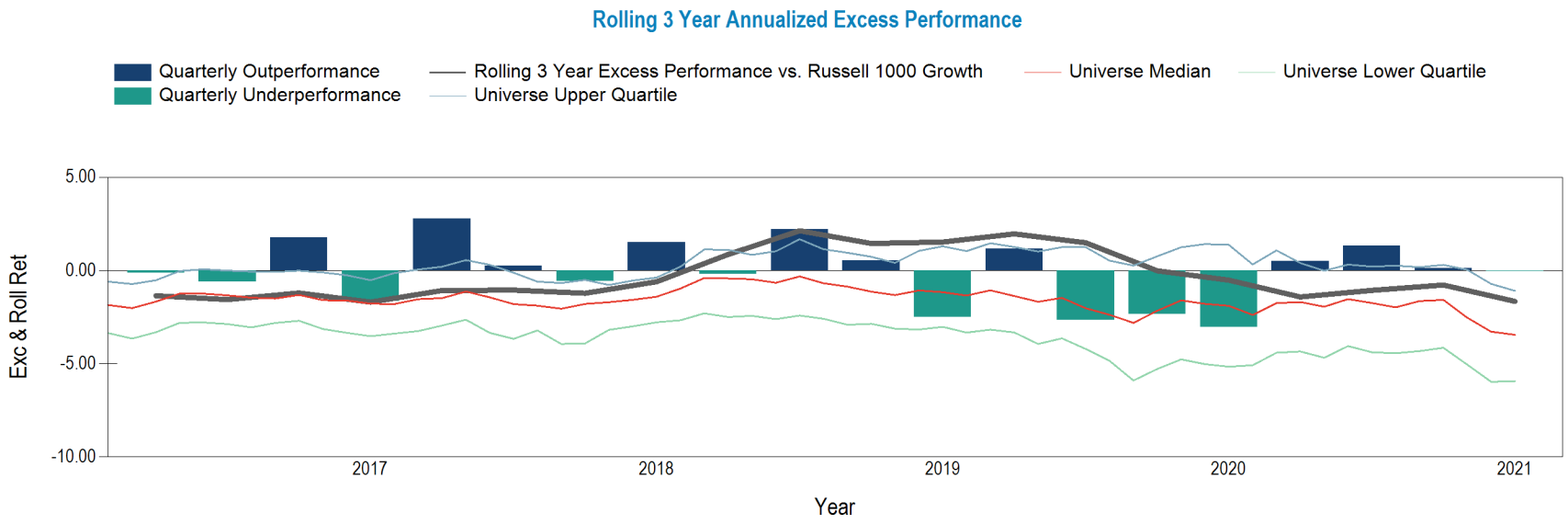
Period Ending: December 31, 2021

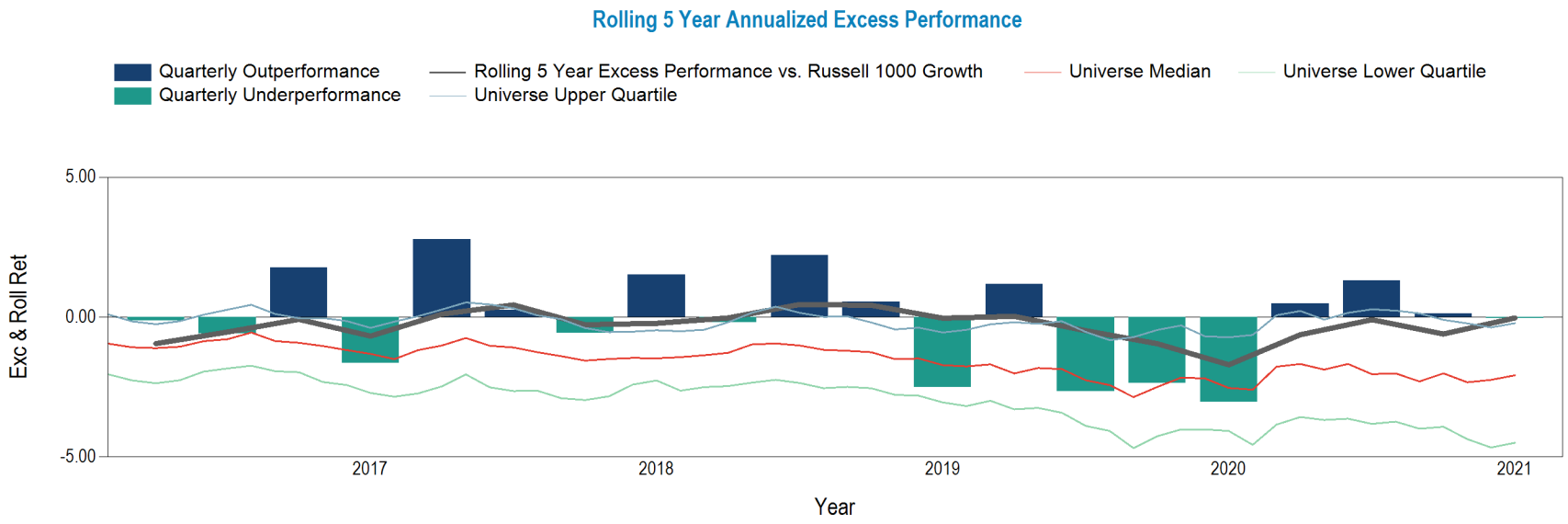




Ivy Large Cap Growth
Rolling Return Analysis (Net of Fees)

Period Ending: December 31, 2021





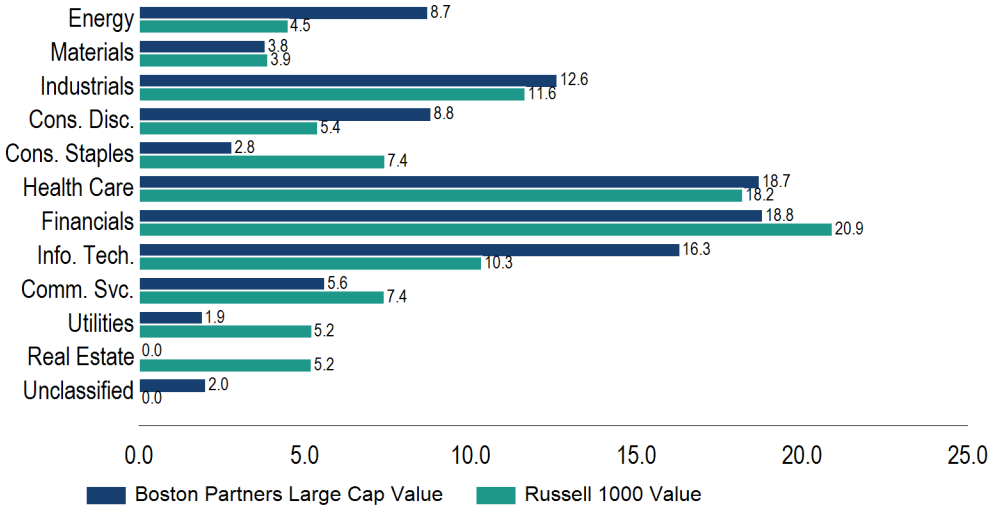
Boston Partners Large Cap Value
Manager Portfolio Overview

Period Ending: December 31, 2021

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	90	852
Weighted Avg. Market Cap. ($B)	185.49	167.34
Median Market Cap. ($B)	49.46	14.97
Price To Earnings	18.28	19.03
Price To Book	2.62	2.79
Price To Sales	1.96	2.47
Return on Equity (%)	19.39	16.02
Yield (%)	1.55	1.93
Beta	1.10	1.00

Sector Allocation (%) vs Russell 1000 Value



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

JOHNSON & JOHNSON	3.20%
BERKSHIRE HATHAWAY INC	2.90%
JPMORGAN CHASE & CO	2.90%
AUTOZONE INC	2.50%
CISCO SYSTEMS INC	2.40%
CONOCOPHILLIPS	2.40%
ALPHABET INC	2.30%
UNITEDHEALTH GROUP INC	2.10%
SUPERMONTAGE TEST	2.00%
WELLS FARGO & CO	2.00%
Total	**24.70%**

Top Contributors

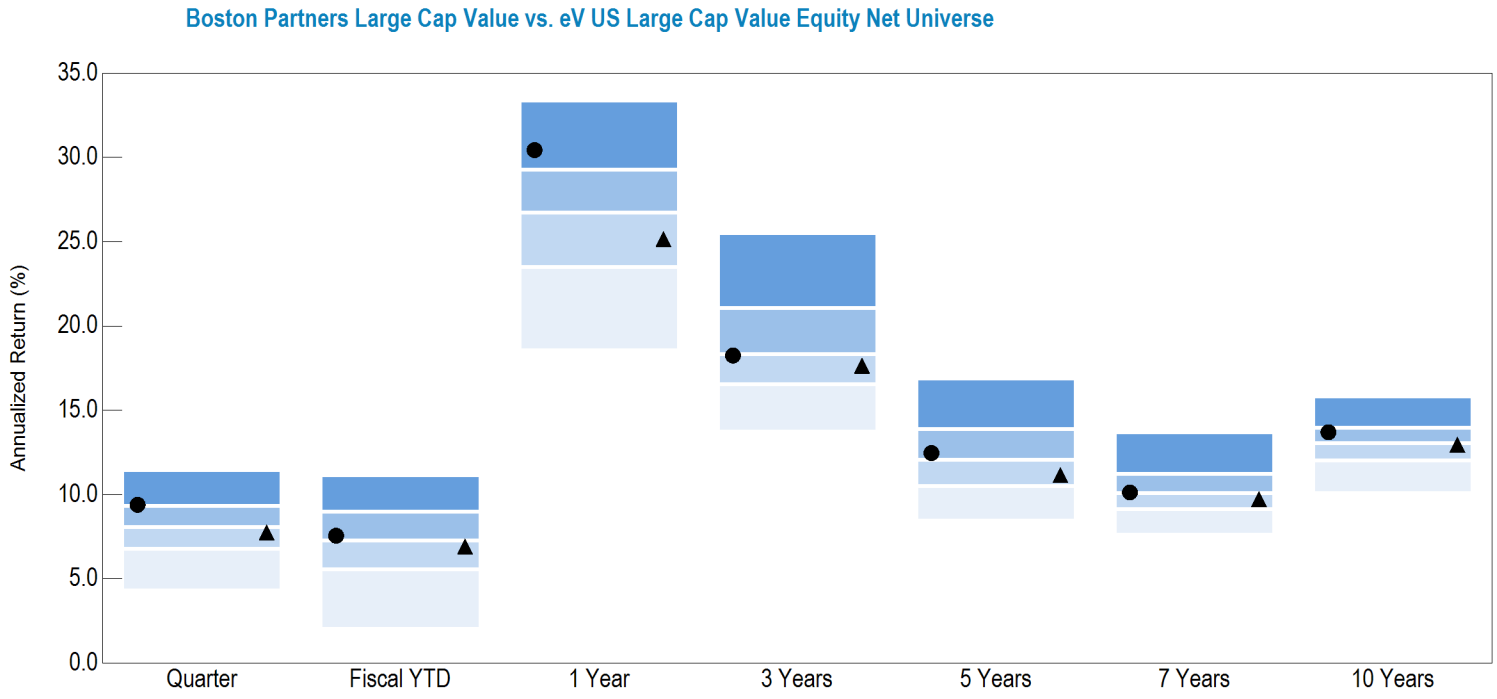
	Avg Wgt	Return	Contribution
QUALCOMM INC.	1.38	42.33	0.58
UNITEDHEALTH GROUP INC	1.82	28.92	0.53
AUTOZONE INC	2.20	23.46	0.52
PFIZER INC	1.28	38.51	0.49
MICRON TECHNOLOGY INC.	1.51	31.37	0.47
CISCO SYSTEMS INC	2.49	17.22	0.43
CENTENE CORP	1.01	32.24	0.33
APPLIED MATERIALS INC	1.44	22.44	0.32
DUPONT DE NEMOURS INC	1.53	19.27	0.29
CIGNA CORP	1.86	15.28	0.28

Bottom Contributors

	Avg Wgt	Return	Contribution
CITIGROUP INC	1.56	-13.32	-0.21
CAPITAL ONE FINANCIAL CORP.	1.40	-10.08	-0.14
FIDELITY NATIONAL INFORMATION SERVICES INC	1.27	-9.96	-0.13
GLOBAL PAYMENTS INC	0.76	-14.05	-0.11
FLEETCOR TECHNOLOGIES INC	0.68	-14.33	-0.10
JPMORGAN CHASE & CO	3.26	-2.69	-0.09
CHARTER COMMUNICATIONS INC	0.81	-10.39	-0.08
ACTIVISION BLIZZARD INC	0.59	-14.03	-0.08
T-MOBILE US INC	0.77	-9.22	-0.07

Boston Partners Large Cap Value
Cumulative Performance Comparison (Net of Fees)

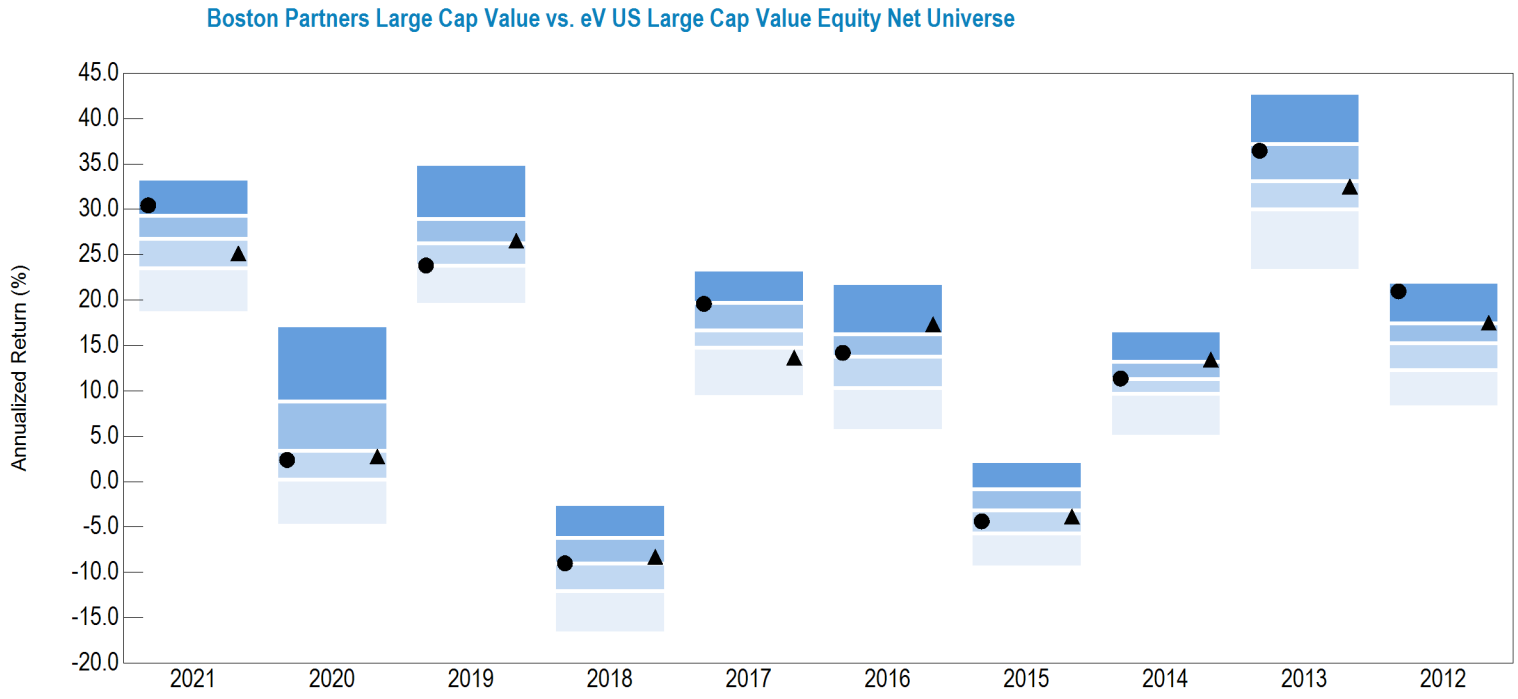
Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	11.4		11.1		33.4		25.5		16.9		13.7		15.8	
25th Percentile	9.4		9.0		29.3		21.1		13.9		11.2		14.0	
Median	8.1		7.3		26.8		18.3		12.1		10.1		13.1	
75th Percentile	6.8		5.6		23.5		16.6		10.5		9.1		12.1	
95th Percentile	4.3		2.1		18.6		13.8		8.5		7.6		10.1	
# of Portfolios	241		241		240		234		225		213		187	
● **Boston Partners Large Cap Value**	9.4	(24)	7.6	(44)	30.4	(15)	18.2	(52)	12.5	(43)	10.1	(50)	13.7	(30)
▲ **Russell 1000 Value**	7.8	(56)	6.9	(56)	25.2	(65)	17.6	(59)	11.2	(68)	9.7	(60)	13.0	(53)

Boston Partners Large Cap Value
Consecutive Performance Comparison (Net of Fees)

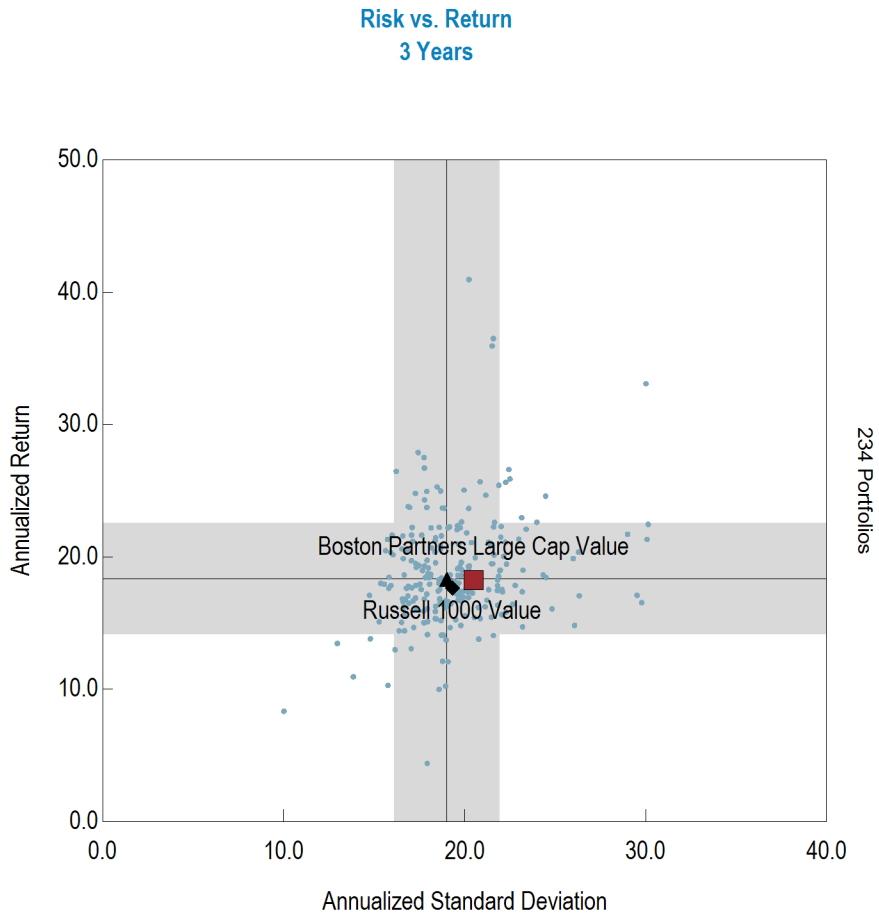
Period Ending: December 31, 2021



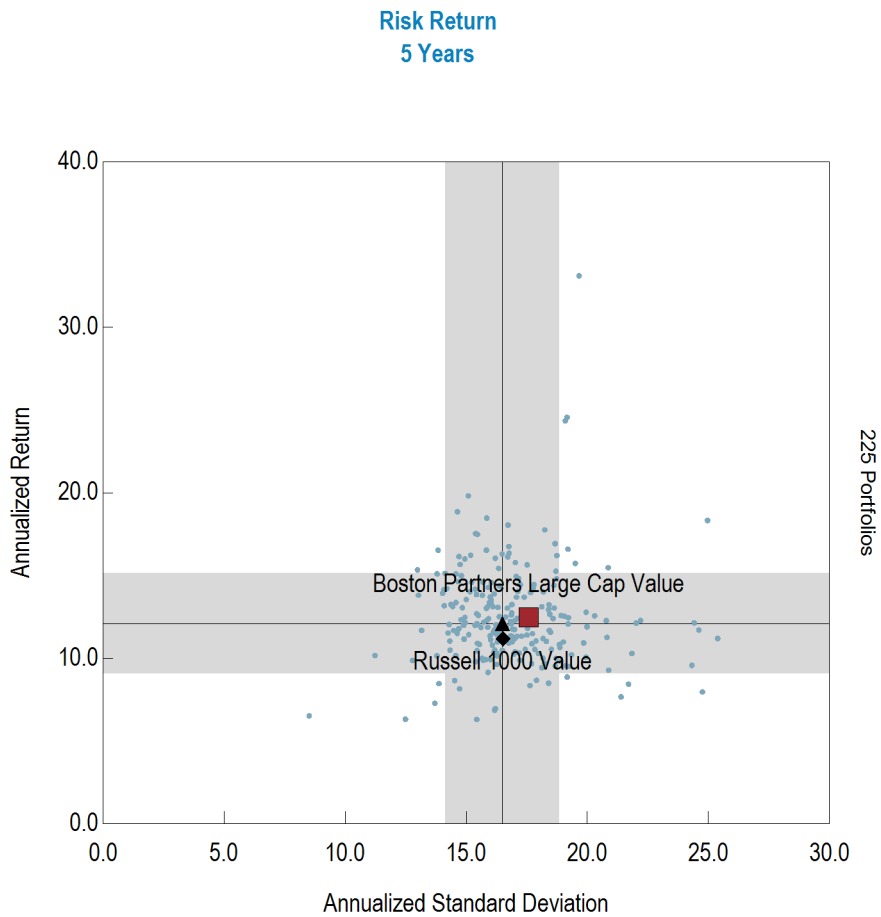
	Return (Rank)									
5th Percentile	33.4	17.2	34.9	-2.5	23.3	21.8	2.2	16.6	42.8	22.0
25th Percentile	29.3	8.9	28.9	-6.1	19.7	16.3	-0.8	13.3	37.3	17.5
Median	26.8	3.4	26.3	-9.0	16.7	13.8	-3.1	11.3	33.1	15.3
75th Percentile	23.5	0.2	23.8	-12.0	14.8	10.4	-5.7	9.7	30.0	12.3
95th Percentile	18.6	-4.8	19.5	-16.7	9.4	5.6	-9.4	5.0	23.2	8.2
# of Portfolios	240	239	249	239	231	225	195	197	184	164
● Boston Partners Large Cap Value	30.4 (15)	2.4 (57)	23.8 (75)	-9.0 (51)	19.6 (26)	14.2 (47)	-4.4 (63)	11.4 (50)	36.4 (30)	21.0 (7)
▲ Russell 1000 Value	25.2 (65)	2.8 (54)	26.5 (49)	-8.3 (43)	13.7 (86)	17.3 (19)	-3.8 (59)	13.5 (24)	32.5 (54)	17.5 (25)

Boston Partners Large Cap Value
Risk vs Return Three & Five Year (Net of Fees)

Period Ending: December 31, 2021



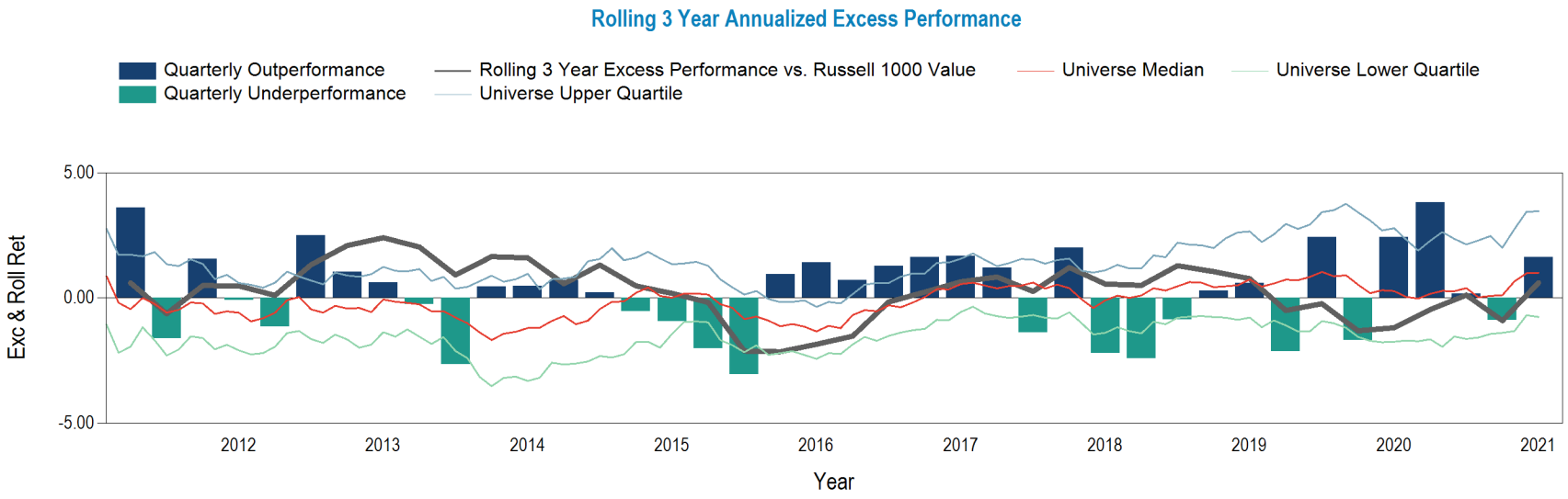
- Boston Partners Large Cap Value
- Russell 1000 Value
- Universe Median
- 68% Confidence Interval
- eV US Large Cap Value Equity Net

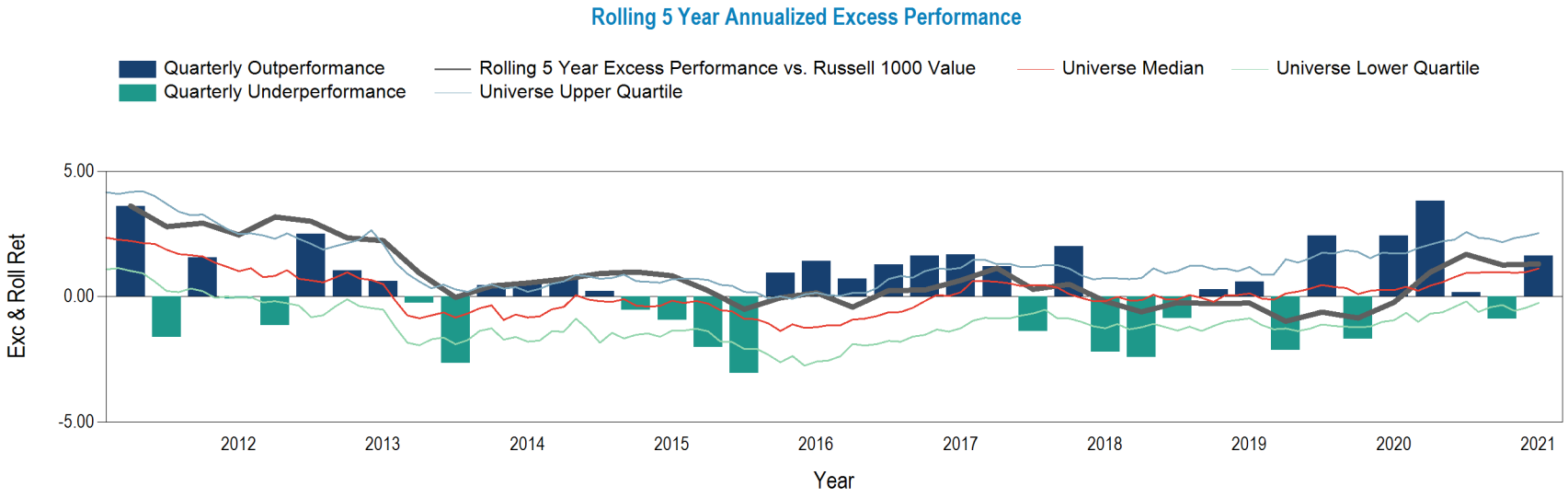


- Boston Partners Large Cap Value
- Russell 1000 Value
- Universe Median
- 68% Confidence Interval
- eV US Large Cap Value Equity Net

Boston Partners Large Cap Value
Rolling Return Analysis (Net of Fees)

Period Ending: December 31, 2021





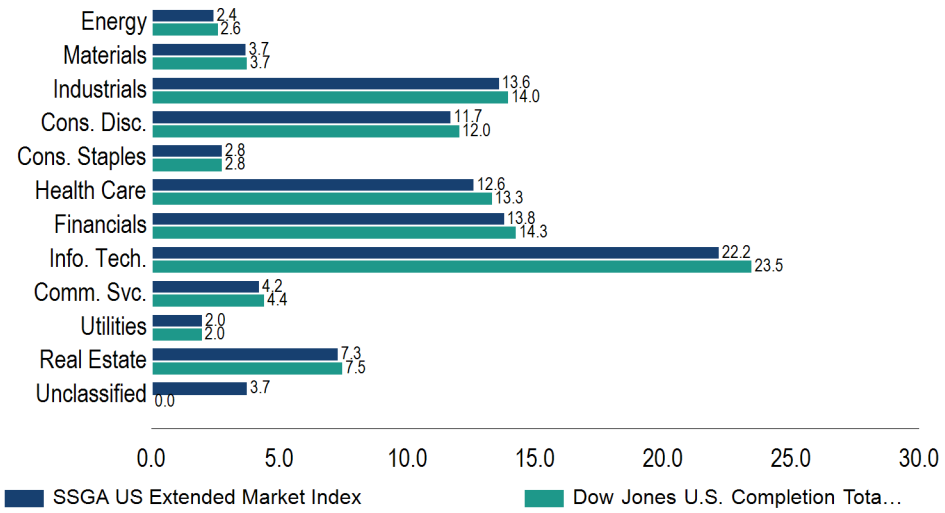
SSGA US Extended Market Index
Manager Portfolio Overview

Period Ending: December 31, 2021

Characteristics

	Portfolio	Dow Jones U.S. Completion Total Stock Market
Number of Holdings	3,713	3,693
Weighted Avg. Market Cap. ($B)	14.55	14.58
Median Market Cap. ($B)	0.84	0.85
Price To Earnings	18.49	18.50
Price To Book	3.35	3.35
Price To Sales	2.38	2.46
Return on Equity (%)	3.72	3.56
Yield (%)	1.00	0.99
Beta		1.00

Sector Allocation (%) vs Dow Jones U.S. Completion Total Stock Market



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

BLACKSTONE GROUP INC	1.08%
SNOWFLAKE INC	0.96%
MARVELL TECHNOLOGY INC	0.88%
UBER TECHNOLOGIES INC	0.86%
BLOCK INC	0.79%
AIRBNB INC	0.71%
PALO ALTO NETWORKS INC	0.67%
WORKDAY INC	0.64%
SNAP INC	0.62%
LULULEMON ATHLETICA INC	0.56%
Total	**7.76%**

Top Contributors

	End Weight	Return	Contribution
MARVELL TECHNOLOGY INC	0.87	45.20	0.39
ON SEMICONDUCTOR CORP	0.35	48.39	0.17
TRADE DESK INC (THE)	0.49	30.36	0.15
DATADOG INC	0.55	26.01	0.14
BLACKSTONE GROUP INC	1.08	12.09	0.13
BUILDERS FIRSTSOURCE INC	0.20	65.65	0.13
LUCID GROUP INC COMMON STOCK USD.0001	0.25	49.92	0.13
KKR & CO INC	0.53	22.60	0.12
PALO ALTO NETWORKS INC	0.66	16.23	0.11
SYNAPTICS INC	0.14	61.08	0.08

Bottom Contributors

	End Weight	Return	Contribution
BLOCK INC	0.78	-32.66	-0.25
SNAP INC	0.61	-36.33	-0.22
DOCUSIGN INC.	0.36	-40.83	-0.15
ZOOM VIDEO COMMUNICATIONS INC	0.48	-29.67	-0.14
TWILIO INC	0.54	-17.46	-0.09
ROKU INC	0.32	-27.17	-0.09
CROWDSTRIKE HOLDINGS INC	0.51	-16.69	-0.09
DOORDASH INC CL A COM USD0.00001 CLASS A	0.29	-27.71	-0.08
PELOTON INTERACTIVE INC	0.13	-58.92	-0.07
PINTEREST INC	0.25	-28.66	-0.07

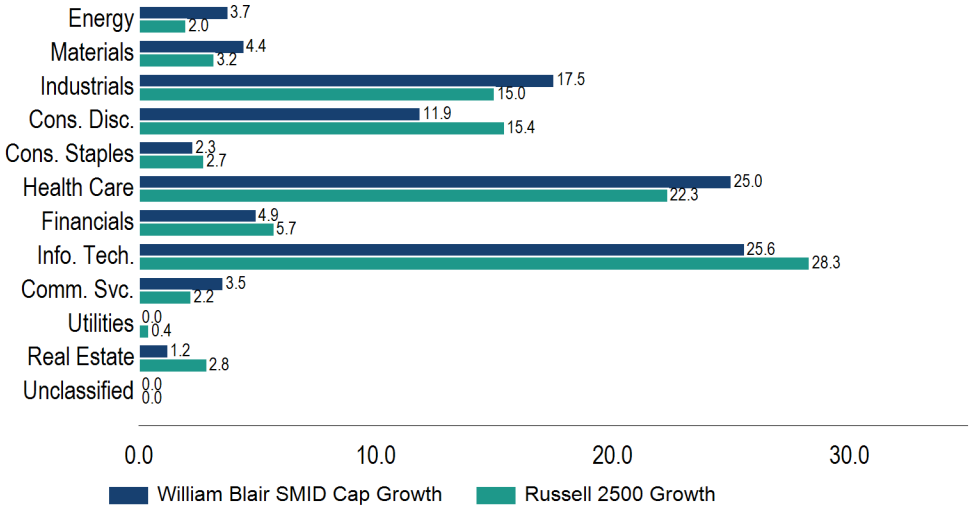
William Blair SMID Cap Growth
Manager Portfolio Overview

Period Ending: December 31, 2021

Characteristics

	Portfolio	Russell 2500 Growth
Number of Holdings	69	1,471
Weighted Avg. Market Cap. ($B)	10.52	8.40
Median Market Cap. ($B)	7.49	1.89
Price To Earnings	36.82	28.35
Price To Book	5.71	5.99
Price To Sales	4.37	3.30
Return on Equity (%)	9.69	5.74
Yield (%)	0.36	0.48
Beta	0.80	1.00

Sector Allocation (%) vs Russell 2500 Growth



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

BUILDERS FIRSTSOURCE INC	3.59%
TREX CO INC	2.79%
PURE STORAGE INC	2.66%
CROWN HOLDINGS INC	2.43%
WYNDHAM HOTELS & RESORTS INC	2.33%
CHARLES RIVER LABORATORIES INTERNATIONAL INC	2.26%
AZENTA INC	2.21%
DYNATRACE INC	2.21%
NICE LTD	2.11%
BIO-TECHNE CORP	2.11%
Total	**24.70%**

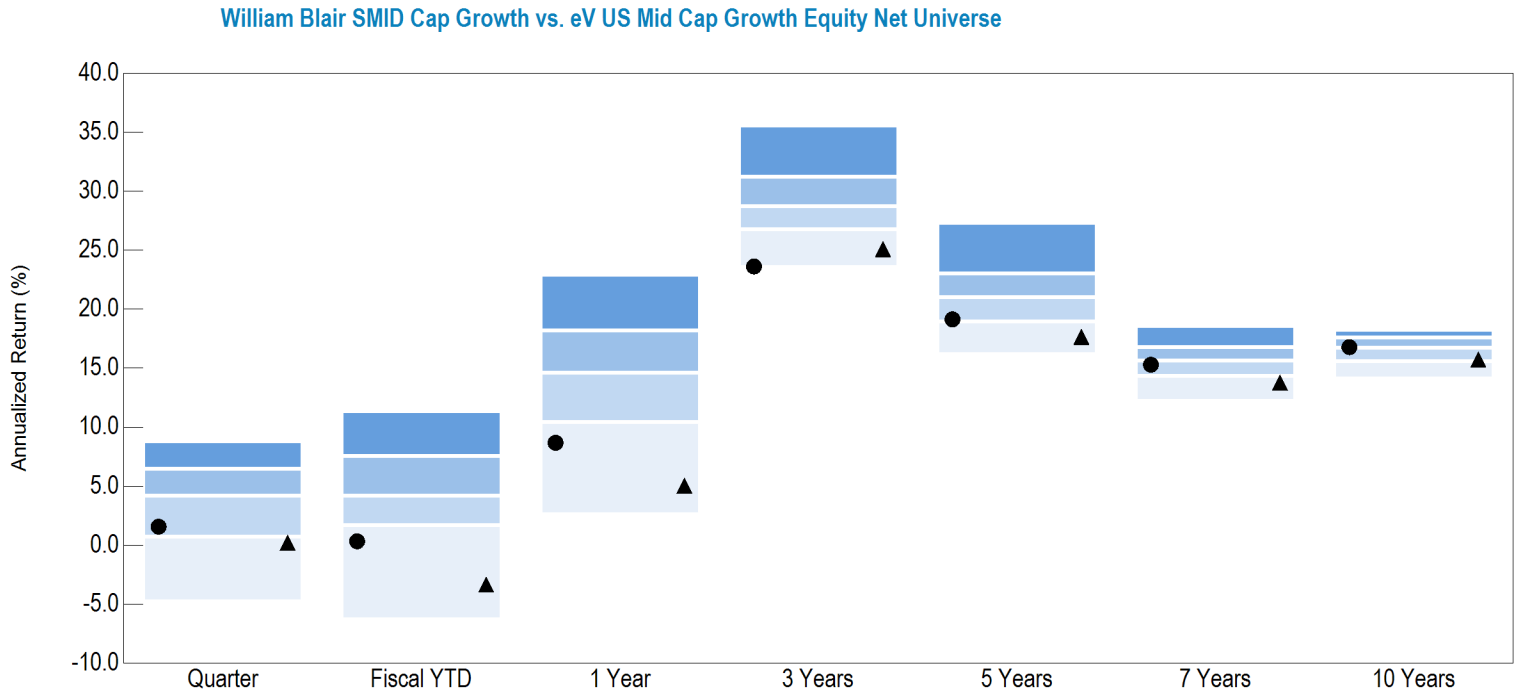
Top Contributors

	Avg Wgt	Return	Contribution
BUILDERS FIRSTSOURCE INC	2.43	65.65	1.59
TREX CO INC	2.05	32.47	0.66
PURE STORAGE INC	2.01	29.37	0.59
MARTIN MARIETTA MATERIALS INC.	1.89	29.12	0.55
LIVE NATION ENTERTAINMENT INC	1.26	31.34	0.39
VIRTU FINANCIAL INC	1.47	19.00	0.28
WOLFSPEED INC	0.71	38.45	0.27
FOX FACTORY HOLDING CORP	1.52	17.68	0.27
WYNDHAM HOTELS & RESORTS INC	1.47	16.61	0.24
GODADDY INC	1.02	21.75	0.22

Bottom Contributors

	Avg Wgt	Return	Contribution
HEALTHEQUITY INC	1.43	-31.69	-0.45
AVALARA INC	1.50	-26.12	-0.39
DYNATRACE INC	2.56	-14.96	-0.38
OVERSTOCK COM INC	1.17	-24.27	-0.28
VARONIS SYSTEMS INC	1.31	-19.84	-0.26
BWX TECHNOLOGIES INC	2.08	-10.74	-0.22
TWIST BIOSCIENCE CORP	0.78	-27.65	-0.22
AXON ENTERPRISE INC	2.01	-10.30	-0.21
ENCOMPASS HEALTH CORP	1.48	-12.66	-0.19
CHARLES RIVER LABORATORIES INTERNATIONAL INC	2.14	-8.70	-0.19

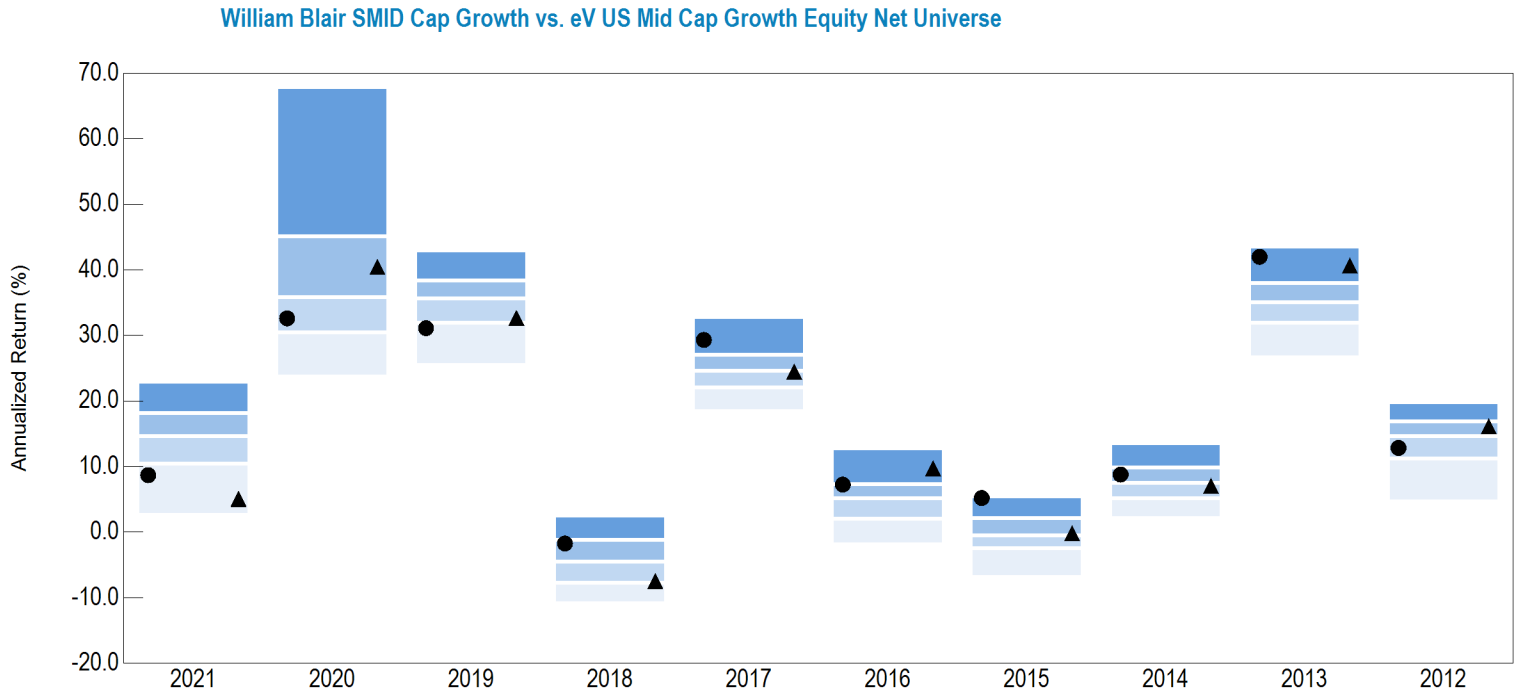
William Blair SMID Cap Growth
Cumulative Performance Comparison (Net of Fees) — Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	8.8		11.4		22.9		35.5		27.3		18.5		18.3	
25th Percentile	6.5		7.6		18.2		31.2		23.1		16.8		17.6	
Median	4.2		4.2		14.7		28.7		21.1		15.7		16.8	
75th Percentile	0.8		1.7		10.5		26.8		19.0		14.4		15.6	
95th Percentile	-4.7		-6.3		2.6		23.6		16.2		12.2		14.1	
# of Portfolios	69		69		69		65		62		59		56	
● William Blair SMID Cap Growth	1.6	(72)	0.3	(80)	8.7	(78)	23.6	(95)	19.1	(75)	15.3	(61)	16.8	(52)
▲ Russell 2500 Growth	0.2	(77)	-3.3	(92)	5.0	(91)	25.1	(90)	17.7	(91)	13.8	(85)	15.7	(69)

William Blair SMID Cap Growth
Consecutive Performance Comparison (Net of Fees)

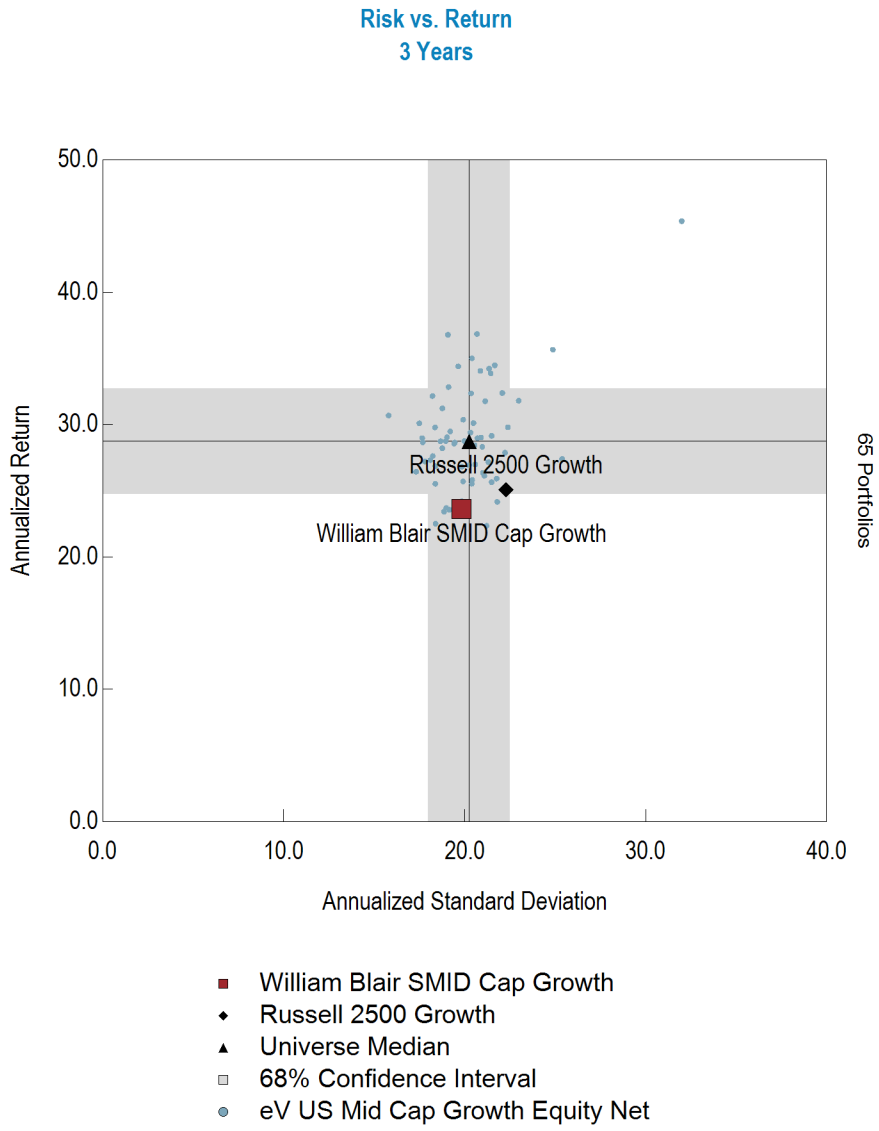
Period Ending: December 31, 2021

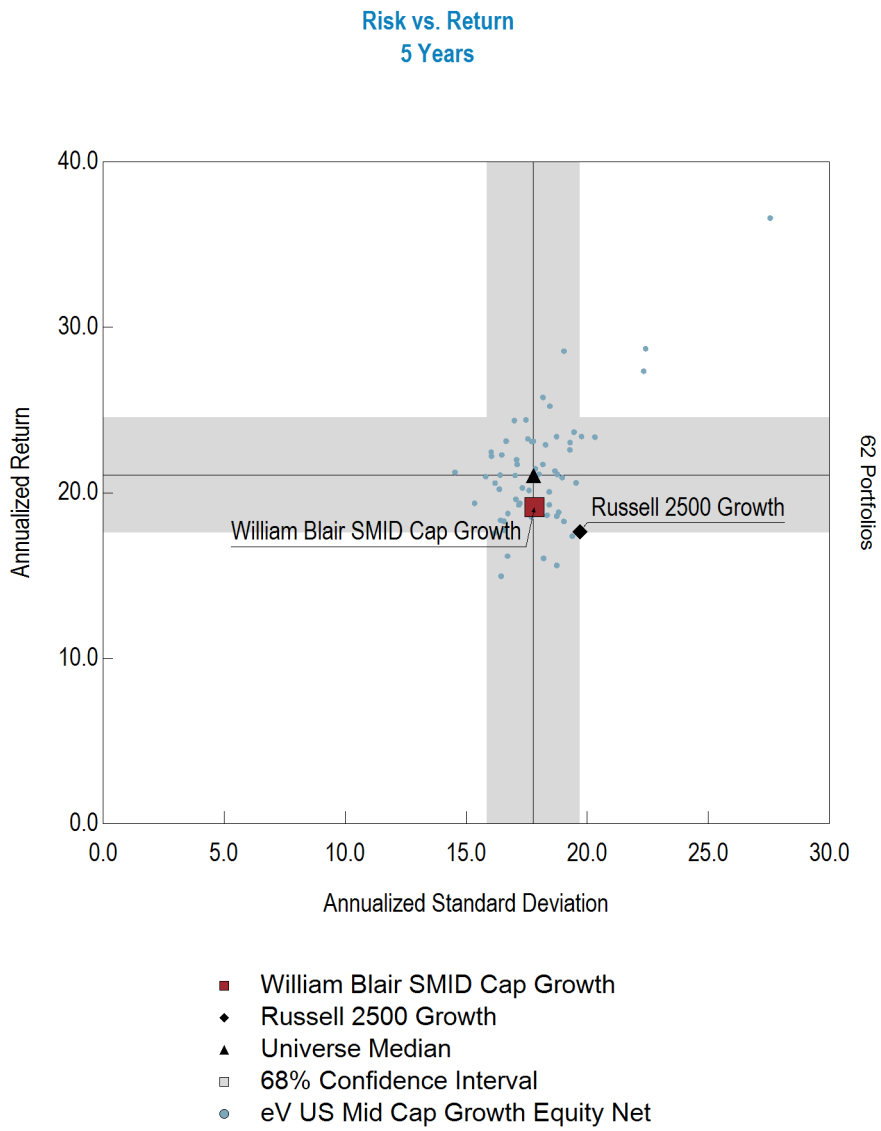


	Return (Rank)																			
5th Percentile	22.9		67.8		42.9		2.5		32.8		12.7		5.4		13.5		43.5		19.8	
25th Percentile	18.2		45.2		38.4		-1.2		27.1		7.3		2.2		9.9		38.0		16.9	
Median	14.7		35.9		35.7		-4.4		24.7		5.2		-0.5		7.6		35.1		14.7	
75th Percentile	10.5		30.5		32.0		-7.7		22.1		2.1		-2.4		5.2		32.0		11.3	
95th Percentile	2.6		23.8		25.6		-10.8		18.5		-1.8		-6.8		2.2		26.7		4.7	
# of Portfolios	69		71		65		70		73		72		63		75		68		64	
● **William Blair SMID Cap Growth**	8.7	(78)	32.6	(64)	31.1	(78)	-1.7	(30)	29.3	(14)	7.2	(28)	5.2	(6)	8.8	(36)	42.0	(9)	12.8	(69)
▲ **Russell 2500 Growth**	5.0	(91)	40.5	(40)	32.7	(70)	-7.5	(74)	24.5	(52)	9.7	(12)	-0.2	(48)	7.1	(59)	40.7	(14)	16.1	(33)

William Blair SMID Cap Growth
Risk vs Return Three & Five Year (Net of Fees)

Period Ending: December 31, 2021

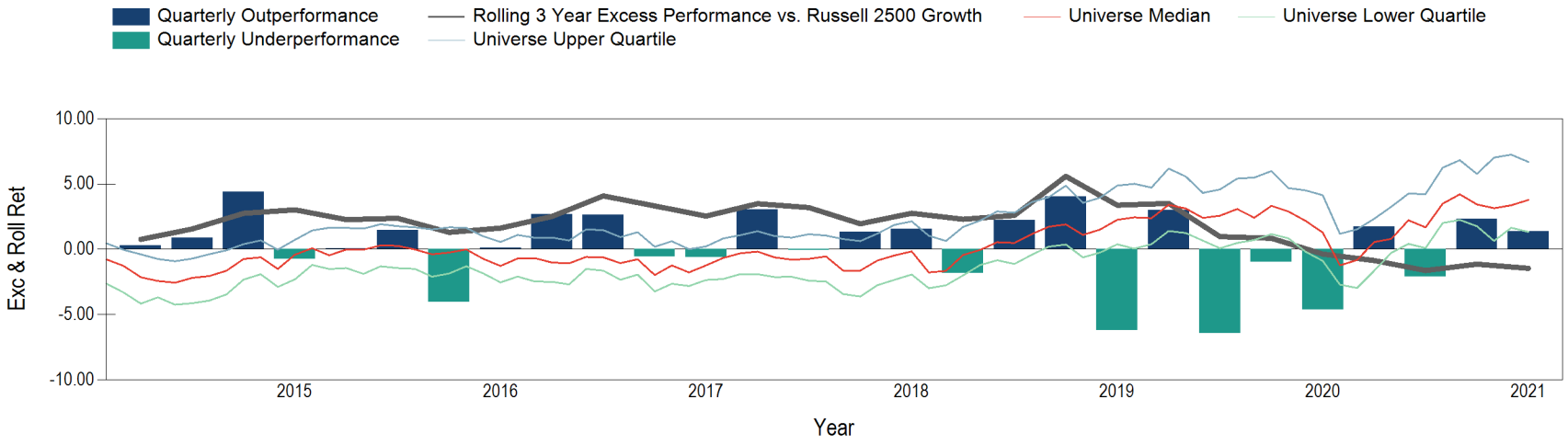




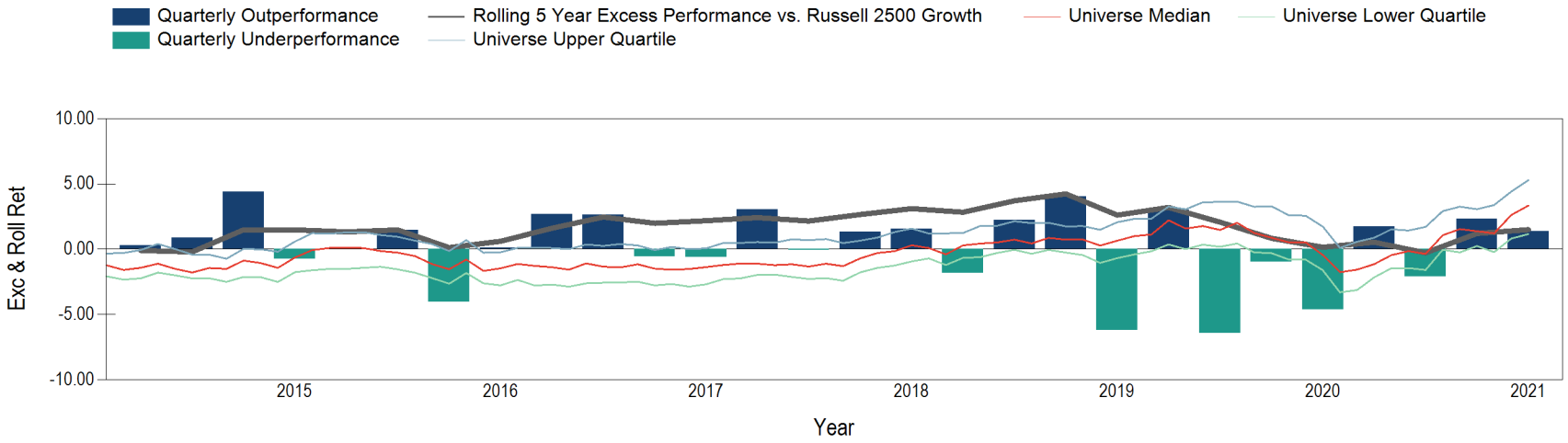
William Blair SMID Cap Growth
Rolling Return Analysis (Net of Fees)

Period Ending: December 31, 2021

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance



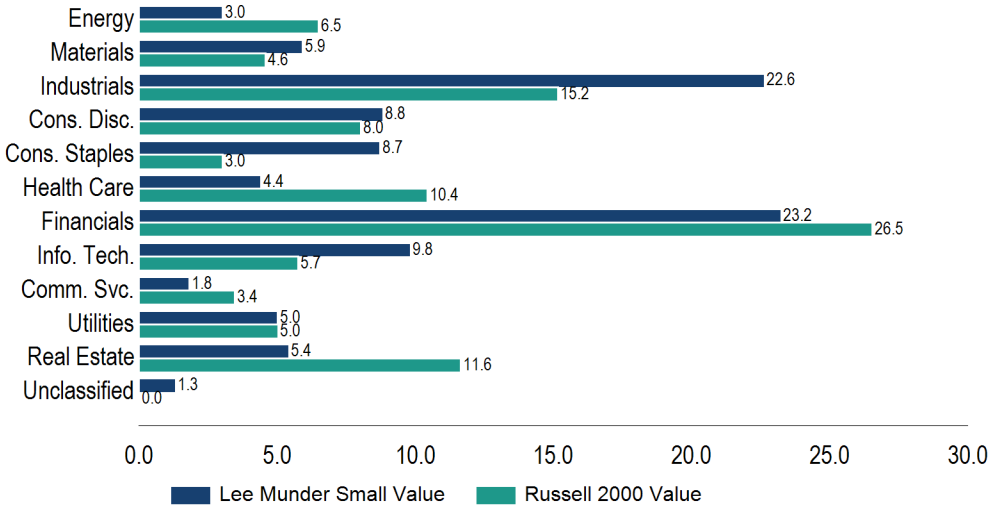
Lee Munder Small Value
Manager Portfolio Overview

Period Ending: December 31, 2021

Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	88	1,449
Weighted Avg. Market Cap. ($B)	4.62	3.04
Median Market Cap. ($B)	3.98	1.14
Price To Earnings	16.23	14.21
Price To Book	2.24	1.83
Price To Sales	1.86	1.49
Return on Equity (%)	13.24	5.27
Yield (%)	1.41	1.71
Beta	0.91	1.00

Sector Allocation (%) vs Russell 2000 Value



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

REGAL REXNORD CORPORATION	3.35%
NEWMARK GROUP INC	2.64%
WESTERN ALLIANCE BANCORPORATION	2.33%
HOSTESS BRANDS INC	2.23%
MURPHY USA INC	2.23%
PINNACLE FINANCIAL PARTNERS INC	2.23%
PORTLAND GENERAL ELECTRIC CO	2.23%
STERLING BANCORP	2.23%
BANKUNITED INC	2.03%
ROGERS CORP.	2.03%
Total	**23.53%**

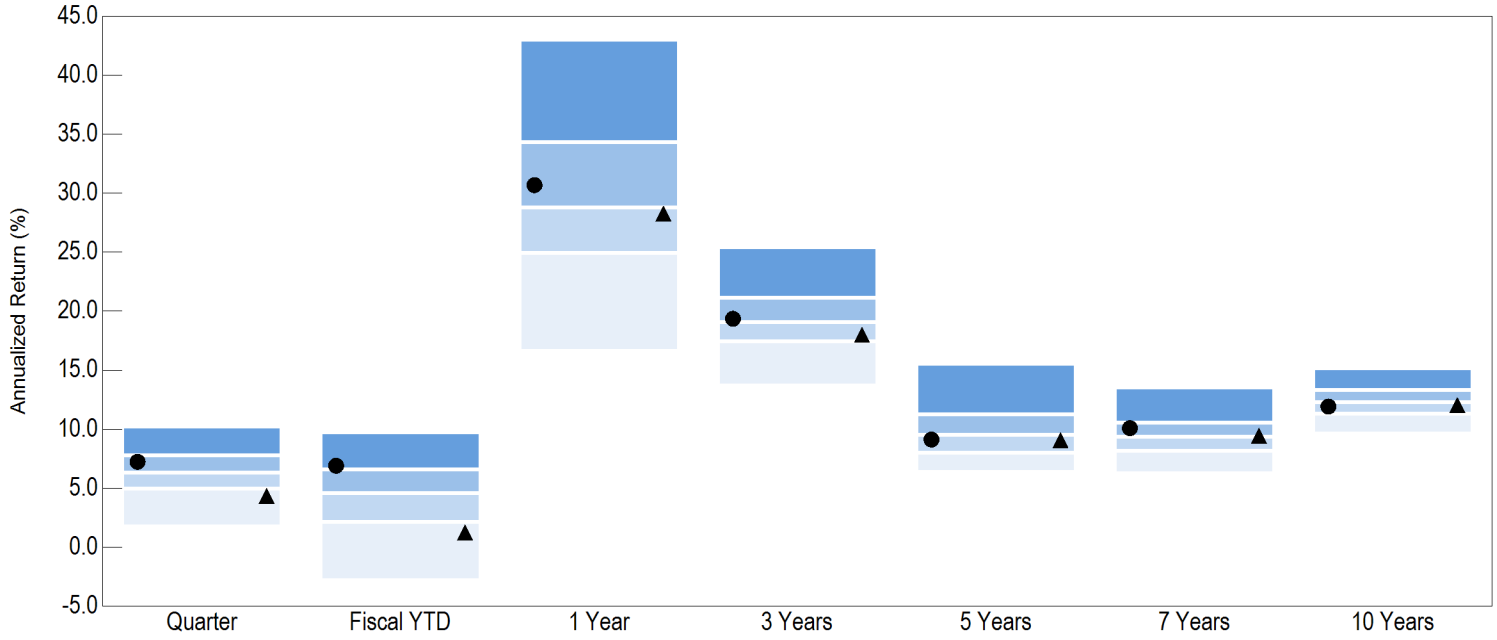
Top Contributors

	Avg Wgt	Return	Contribution
ROGERS CORP.	1.50	46.40	0.70
NEWMARK GROUP INC	2.20	30.75	0.68
HOSTESS BRANDS INC	2.22	17.56	0.39
MURPHY USA INC	2.01	19.32	0.39
ENPRO INDUSTRIES INC.	1.29	26.67	0.35
HARMONIC INC	0.96	34.40	0.33
ITT INC	1.66	19.31	0.32
PORTLAND GENERAL ELECTRIC CO	2.17	13.56	0.29
MGP INGREDIENTS INC	0.74	30.76	0.23
GOODYEAR TIRE & RUBBER CO	1.06	20.45	0.22

Bottom Contributors

	Avg Wgt	Return	Contribution
O I GLASS INC	1.15	-15.70	-0.18
HEXCEL CORP	1.01	-12.78	-0.13
BWX TECHNOLOGIES INC	1.05	-10.74	-0.11
CIRCOR INTERNATIONAL INC	0.59	-17.66	-0.10
NUVASIVE INC	0.74	-12.31	-0.09
ALTRA INDUSTRIAL MOTION CORP	1.33	-6.67	-0.09
HELMERICH & PAYNE INC.	0.64	-12.66	-0.08
TEGNA INC	1.47	-5.43	-0.08
UMPQUA HOLDINGS CORP	1.94	-4.00	-0.08
CLEAN HARBORS INC	1.84	-3.95	-0.07

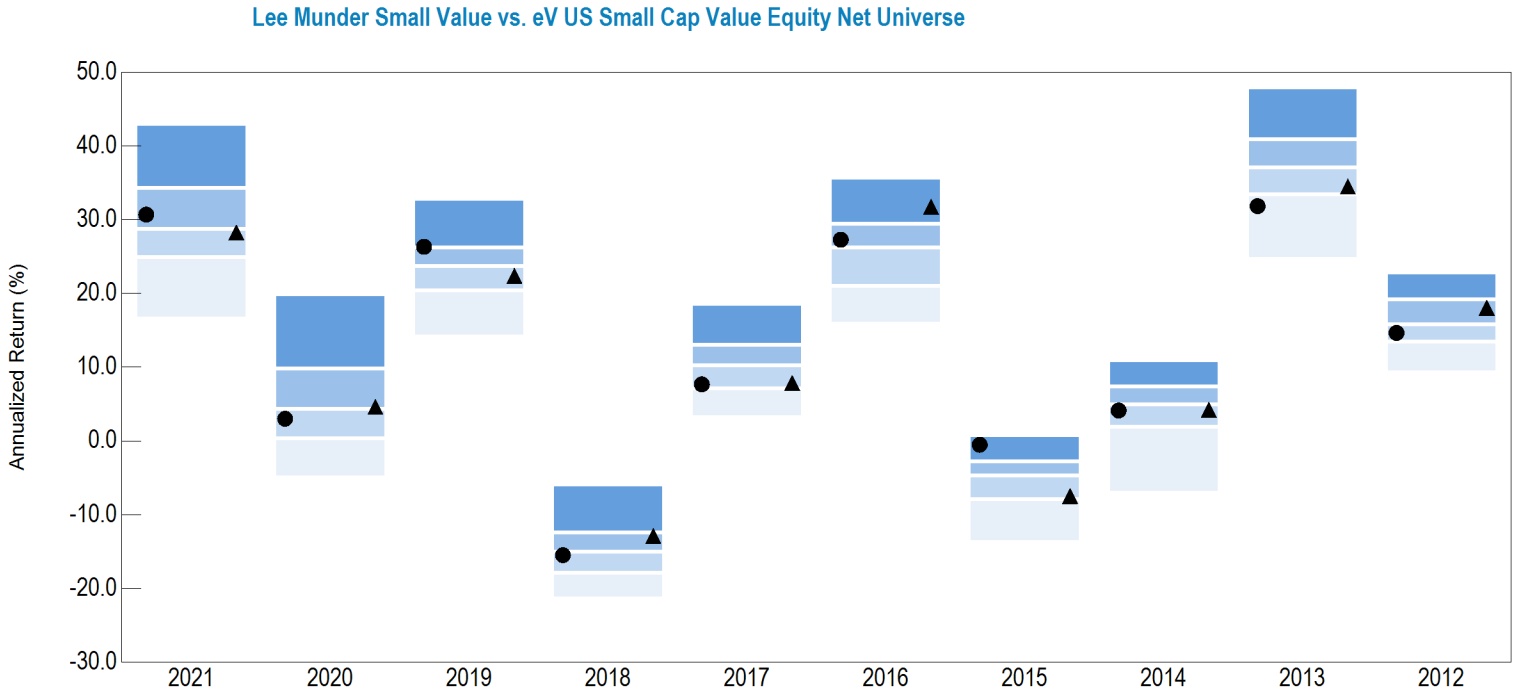
Lee Munder Small Value
Cumulative Performance Comparison (Net of Fees) — Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	10.2		9.7		43.0		25.4		15.5		13.5		15.1	
25th Percentile	7.8		6.6		34.4		21.1		11.3		10.6		13.4	
Median	6.3		4.6		28.8		19.1		9.6		9.4		12.3	
75th Percentile	5.0		2.2		24.9		17.5		8.0		8.2		11.4	
95th Percentile	1.8		-2.8		16.7		13.7		6.4		6.3		9.6	
# of Portfolios	172		172		172		166		161		147		134	
● **Lee Munder Small Value**	7.2	(35)	6.9	(22)	30.7	(43)	19.4	(46)	9.1	(57)	10.1	(38)	11.9	(63)
▲ **Russell 2000 Value**	4.4	(81)	1.2	(81)	28.3	(53)	18.0	(65)	9.1	(58)	9.5	(50)	12.0	(58)

Lee Munder Small Value
Consecutive Performance Comparison (Net of Fees)

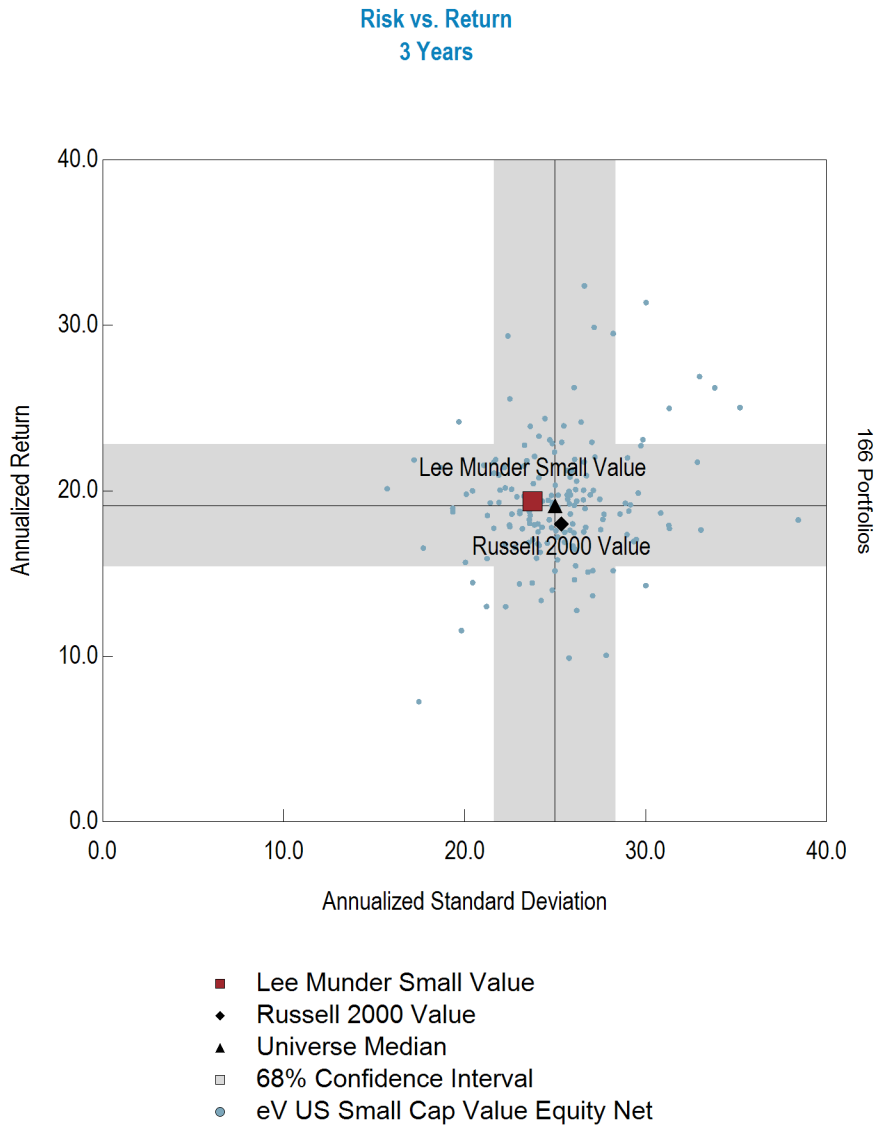
Period Ending: December 31, 2021

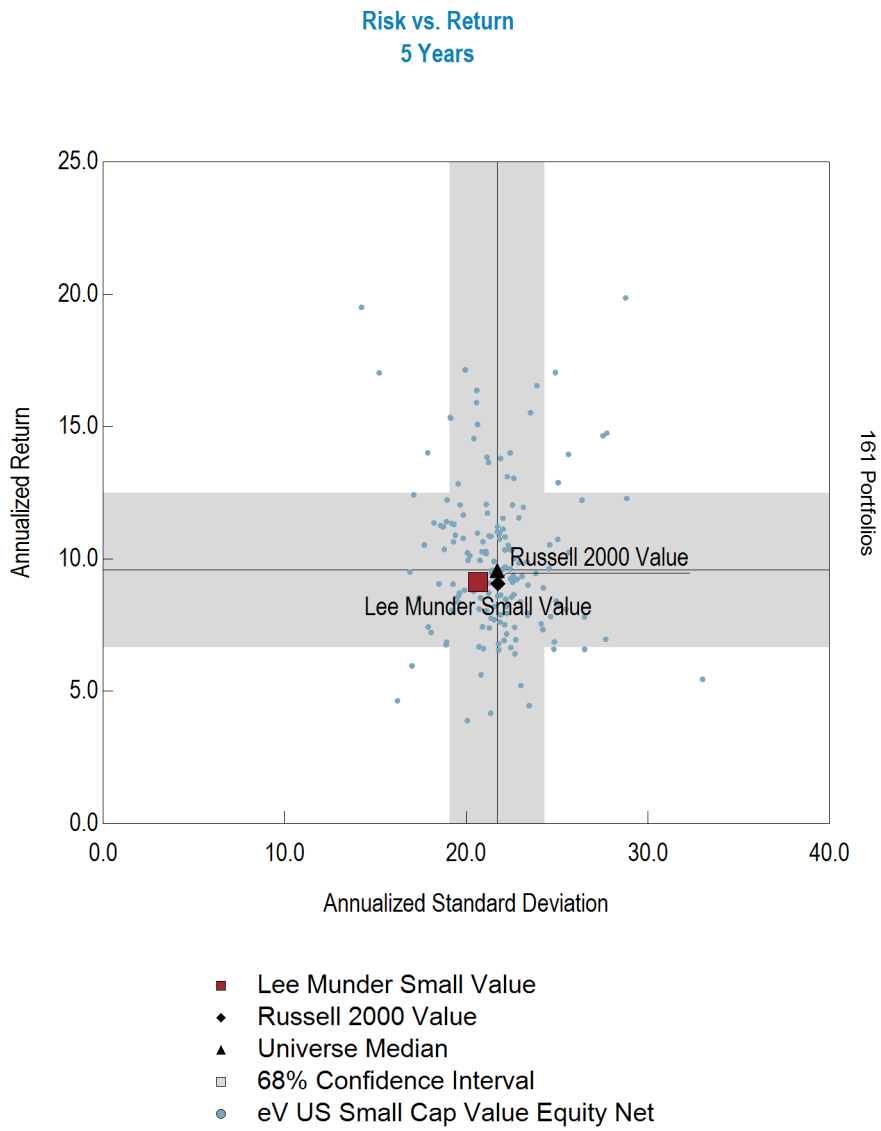


	Return (Rank)									
5th Percentile	43.0	19.9	32.8	-6.0	18.6	35.7	0.8	10.9	47.9	22.8
25th Percentile	34.4	9.9	26.3	-12.4	13.1	29.5	-2.7	7.4	41.0	19.2
Median	28.8	4.4	23.8	-15.0	10.3	26.2	-4.6	5.0	37.1	15.9
75th Percentile	24.9	0.4	20.4	-17.8	7.2	21.1	-7.8	2.0	33.4	13.5
95th Percentile	16.7	-4.9	14.2	-21.3	3.3	15.9	-13.7	-7.0	24.7	9.4
# of Portfolios	172	178	176	168	170	151	137	135	125	104
● **Lee Munder Small Value**	30.7 (43)	3.0 (56)	26.3 (25)	-15.5 (56)	7.7 (71)	27.3 (38)	-0.5 (10)	4.1 (59)	31.8 (86)	14.6 (59)
▲ **Russell 2000 Value**	28.3 (53)	4.6 (50)	22.4 (60)	-12.9 (31)	7.8 (70)	31.7 (15)	-7.5 (73)	4.2 (58)	34.5 (70)	18.1 (34)

Lee Munder Small Value
Risk vs Return Three & Five Year (Net of Fees)

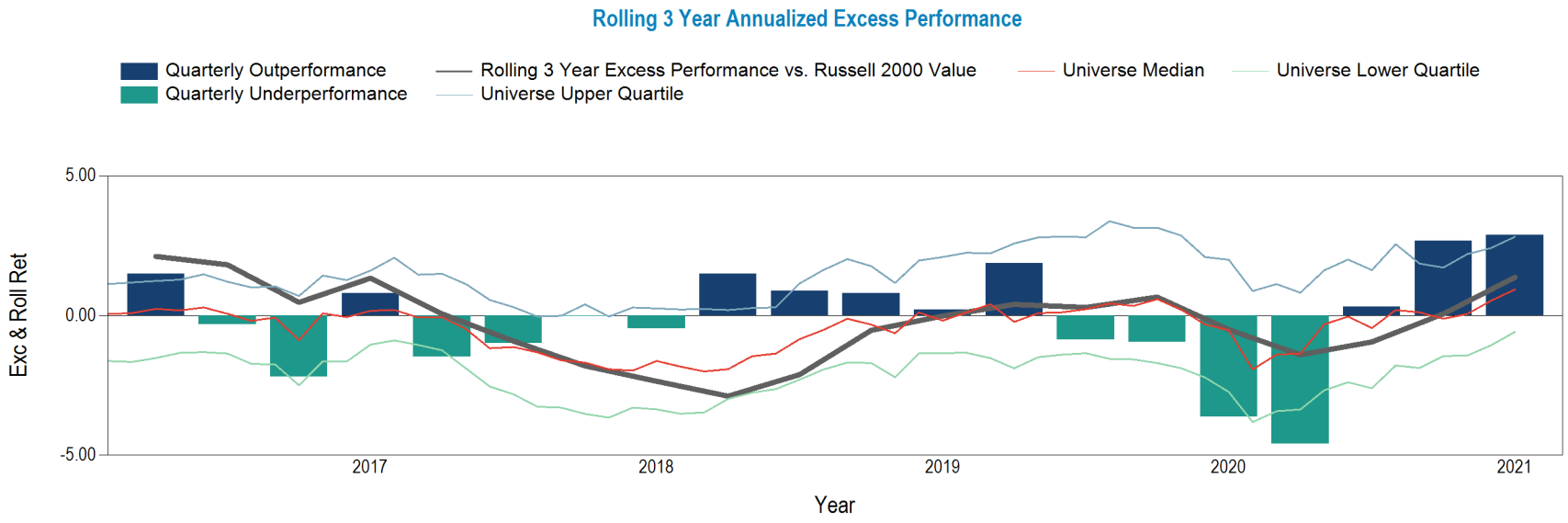
Period Ending: December 31, 2021

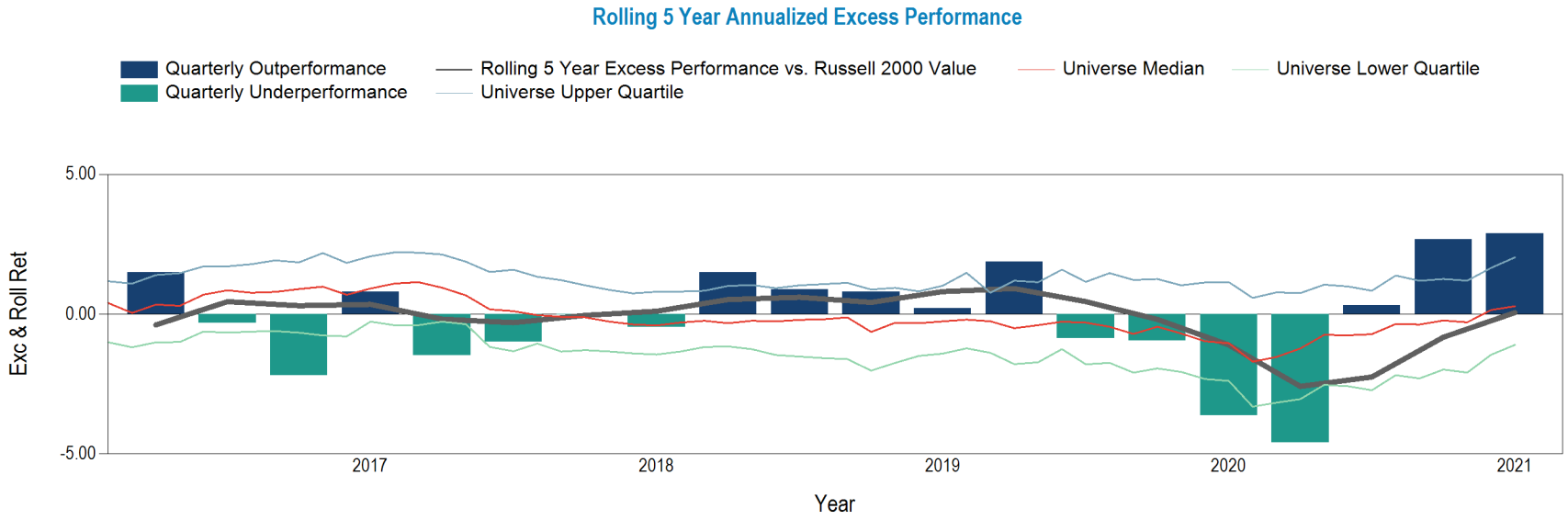




Lee Munder Small Value
Rolling Return Analysis (Net of Fees)

Period Ending: December 31, 2021



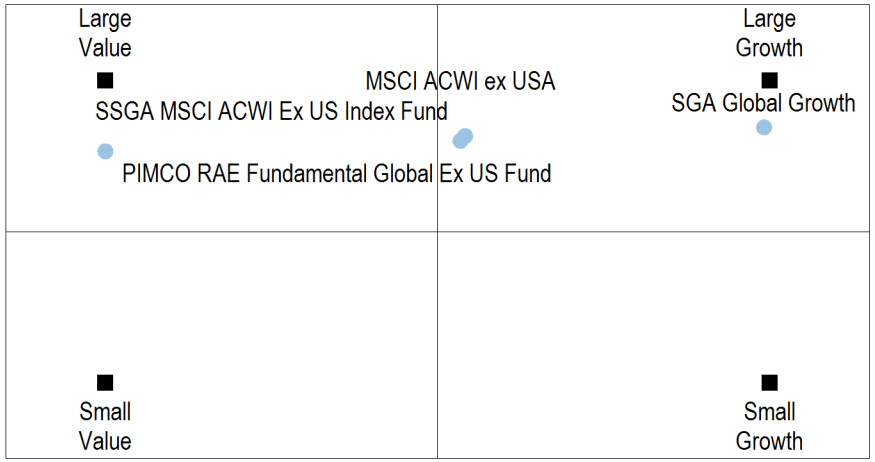


Total International Equity
Asset Class Overview (Net of Fees)

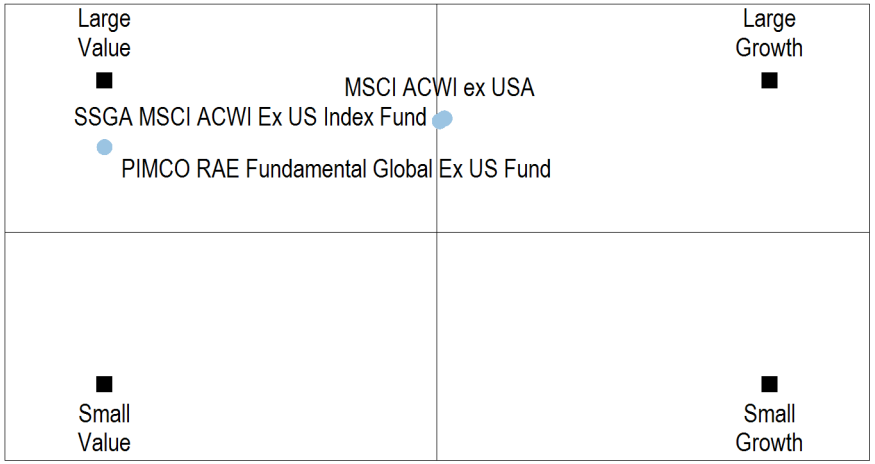
Period Ending: December 31, 2021

	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2021	2020	2019	2018	2017
Total International Equity	**313,074,462**	**1.1**	**-0.9**	**9.6**	**15.1**	**10.5**	**7.8**	**9.6**	**13.4**	**22.7**	**-14.5**	**26.5**
MSCI ACWI ex USA Gross		*1.9*	*-1.1*	*8.3*	*13.7*	*10.1*	*7.8*	*8.3*	*11.1*	*22.1*	*-13.8*	*27.8*
InvMetrics Public DB ex-US Eq Net Rank		*58*	*34*	*23*	*33*	*36*	*62*	*23*	*41*	*54*	*42*	*77*
SSGA MSCI ACWI Ex US Index Fund	109,164,876	1.9	-1.2	7.9	13.4	9.8	7.5	7.9	10.9	21.8	-14.0	27.5
MSCI ACWI ex USA		*1.8*	*-1.2*	*7.8*	*13.2*	*9.6*	*7.3*	*7.8*	*10.7*	*21.5*	*-14.2*	*27.2*
eV All EAFE Equity Net Rank		*57*	*82*	*75*	*60*	*52*	*81*	*75*	*36*	*54*	*38*	*45*
PIMCO RAE Fundamental Global Ex US Fund	103,332,117	0.8	-2.1	12.3	9.8	7.2	--	12.3	1.7	16.1	-15.1	26.0
MSCI ACWI ex USA Value		*1.2*	*-1.1*	*10.5*	*8.2*	*6.0*	--	*10.5*	*-0.8*	*15.7*	*-14.0*	*22.7*
eV EAFE Value Equity Net Rank		*69*	*86*	*44*	*72*	*42*	--	*44*	*61*	*86*	*38*	*38*
SGA Global Growth	100,577,469	0.5	0.7	9.1	21.5	--	--	9.1	26.0	30.5	--	--
MSCI ACWI ex USA Growth		*2.4*	*-1.3*	*5.1*	*17.8*	--	--	*5.1*	*22.2*	*27.3*	--	--
eV ACWI ex-US Growth Equity Net Rank		*61*	*56*	*51*	*51*	--	--	*51*	*50*	*42*	--	--

EAFE Effective Style Map
3 Years



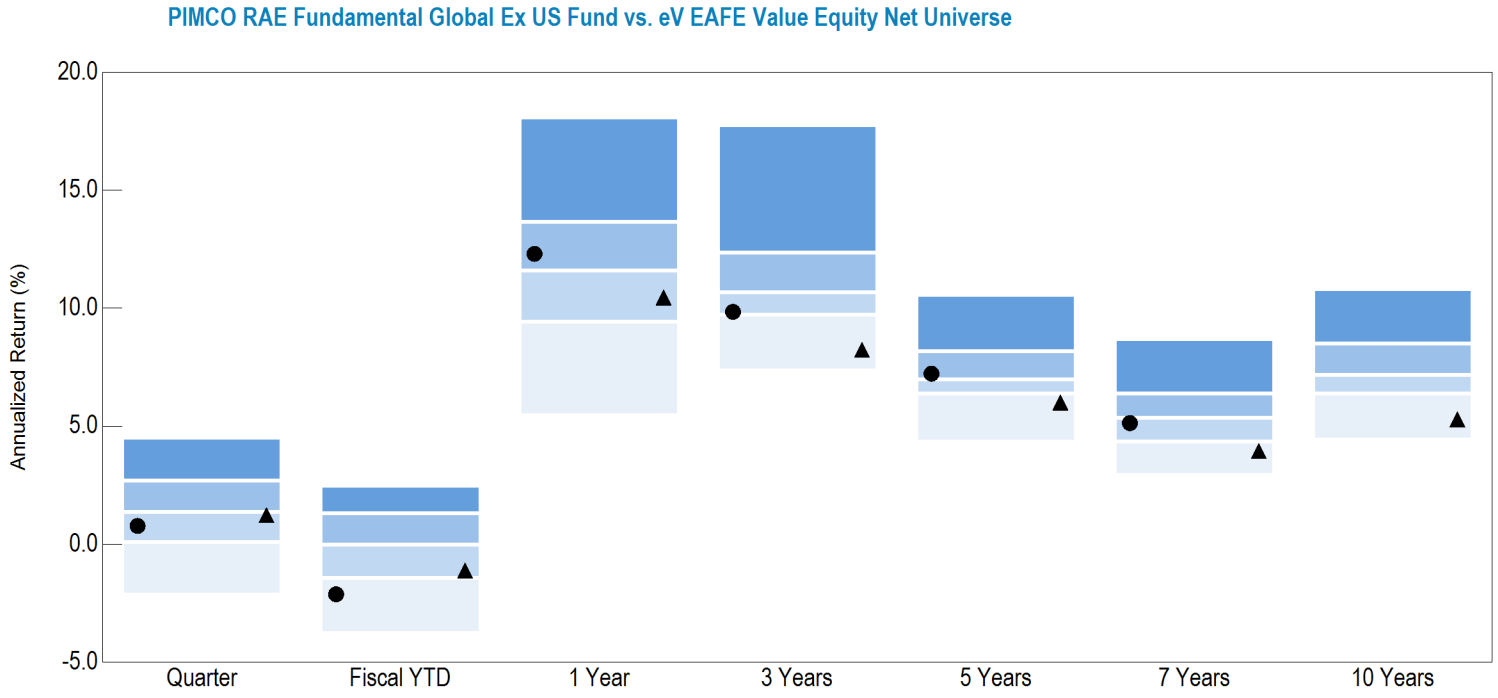
EAFE Effective Style Map
5 Years



Research Affiliates converted to PIMCO RAE Fundamental Global Ex US Fund on 6/5/15 (performance prior to this date represents previously held Enhanced RAFI Global ex US).

PIMCO RAE Fundamental Global Ex US Fund
Cumulative Performance Comparison (Net of Fees)

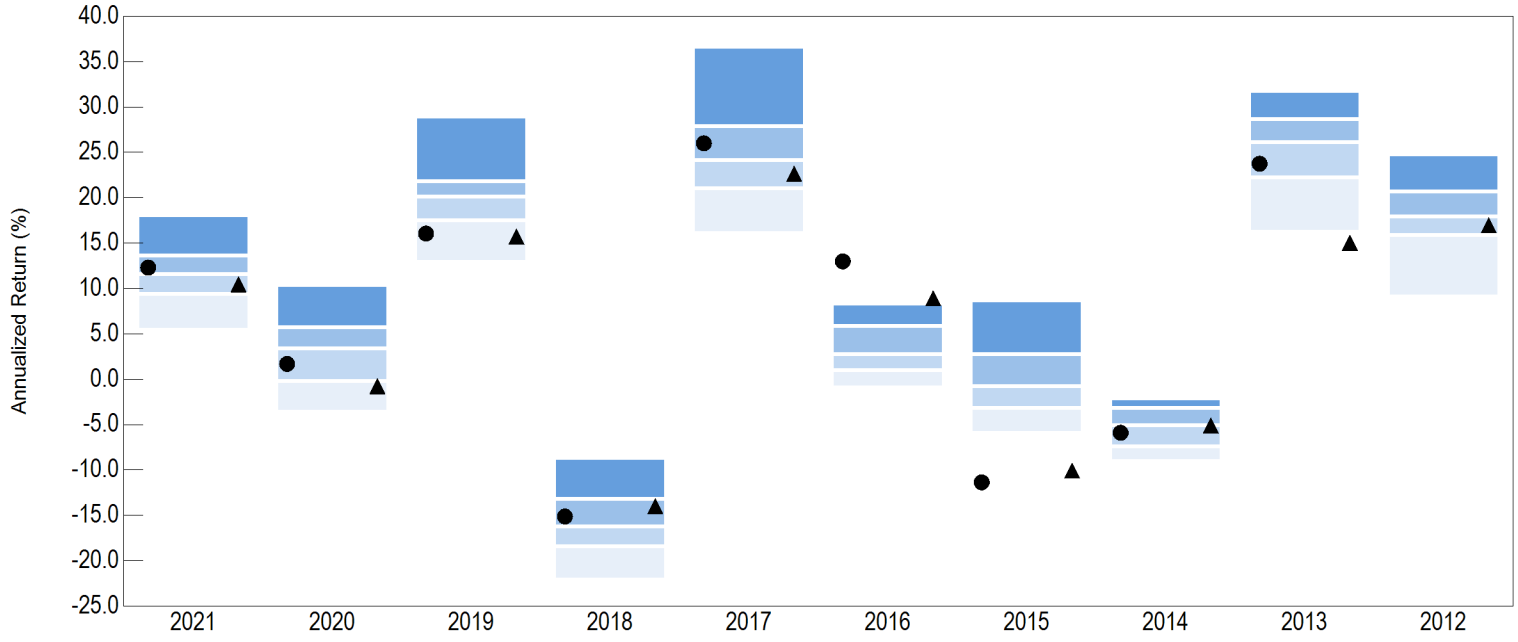
Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	4.5		2.5		18.1		17.7		10.5		8.7		10.8	
25th Percentile	2.7		1.3		13.7		12.4		8.2		6.4		8.5	
Median	1.4		0.0		11.6		10.7		7.0		5.4		7.2	
75th Percentile	0.1		-1.4		9.5		9.7		6.4		4.4		6.4	
95th Percentile	-2.1		-3.8		5.5		7.4		4.4		3.0		4.5	
# of Portfolios	62		62		62		55		47		43		40	
● **PIMCO RAE Fundamental Global Ex US Fund**	0.8	(69)	-2.1	(86)	12.3	(44)	9.8	(72)	7.2	(42)	5.1	(64)	--	(--)
▲ **MSCI ACWI ex USA Value**	1.2	(57)	-1.1	(72)	10.5	(63)	8.2	(89)	6.0	(82)	3.9	(87)	5.3	(90)

PIMCO RAE Fundamental Global Ex US Fund
Consecutive Performance Comparison (Net of Fees)

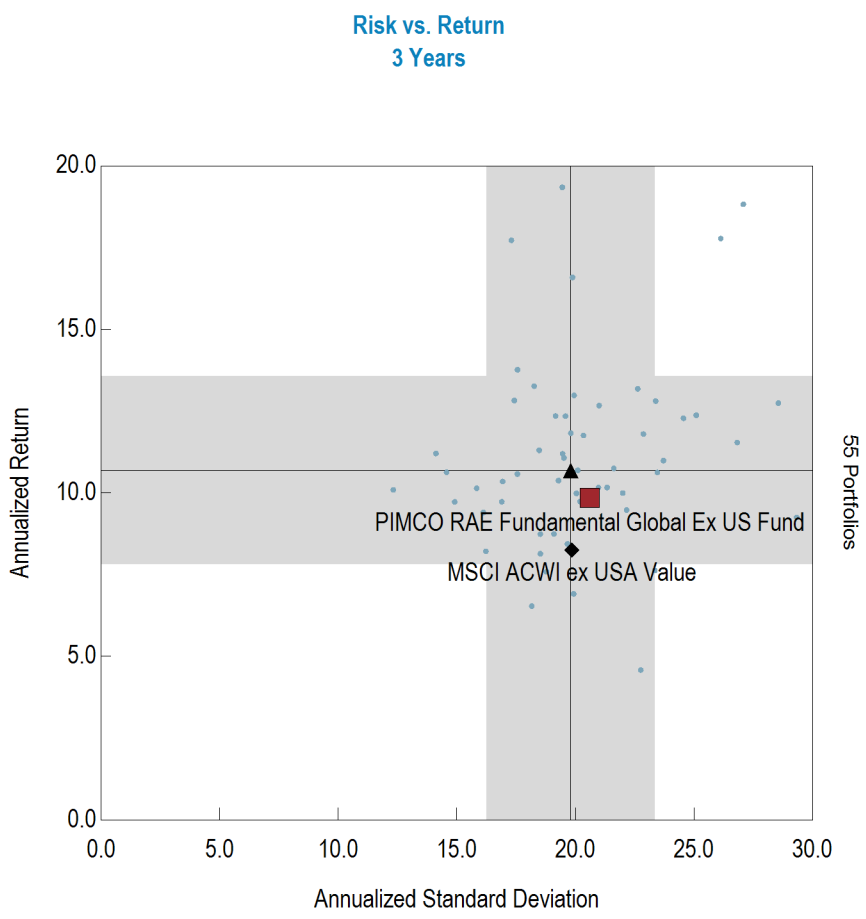
Period Ending: December 31, 2021



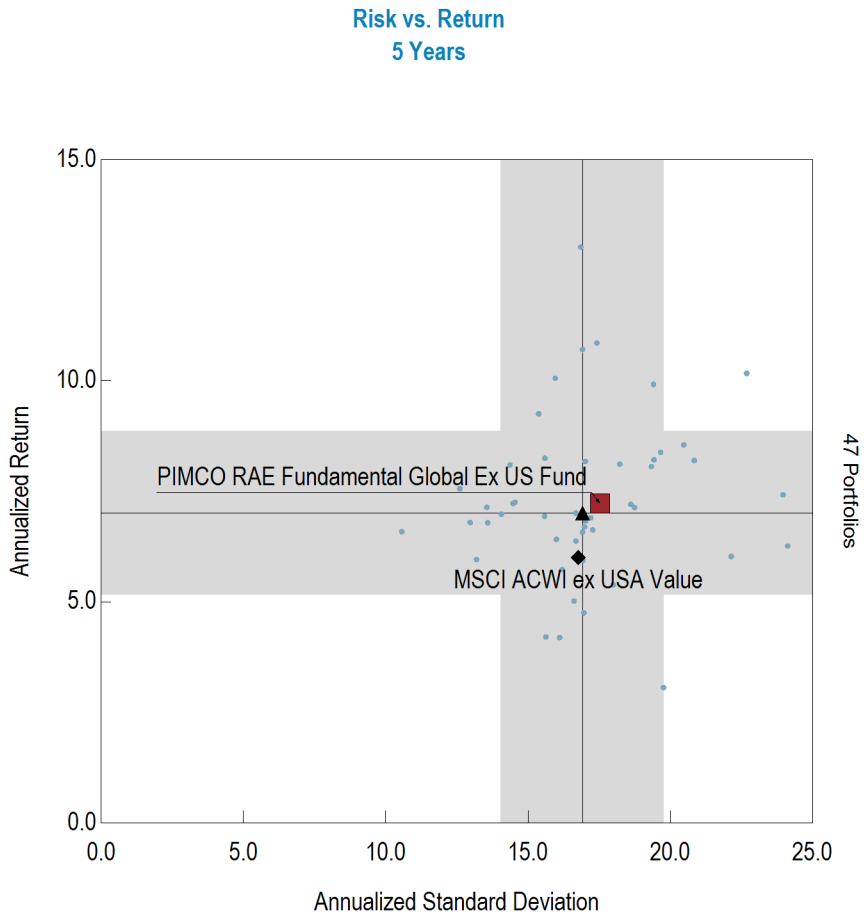
	Return (Rank)									
5th Percentile	18.1	10.3	28.9	-8.7	36.6	8.3	8.7	-2.1	31.8	24.7
25th Percentile	13.7	5.7	21.9	-13.2	27.9	5.9	2.8	-3.1	28.7	20.8
Median	11.6	3.5	20.2	-16.2	24.2	2.8	-0.7	-5.0	26.1	18.0
75th Percentile	9.5	-0.1	17.5	-18.3	21.1	1.0	-3.1	-7.3	22.3	15.9
95th Percentile	5.5	-3.6	13.0	-22.0	16.1	-0.9	-5.9	-9.0	16.3	9.2
# of Portfolios	62	59	56	53	53	58	55	52	49	47
● PIMCO RAE Fundamental Global Ex US Fund	12.3 (44)	1.7 (61)	16.1 (86)	-15.1 (38)	26.0 (38)	13.0 (1)	-11.4 (99)	-5.9 (65)	23.7 (64)	-- (--)
▲ MSCI ACWI ex USA Value	10.5 (63)	-0.8 (80)	15.7 (88)	-14.0 (34)	22.7 (58)	8.9 (4)	-10.1 (99)	-5.1 (53)	15.0 (97)	17.0 (64)

PIMCO RAE Fundamental Global Ex US Fund
Risk vs Return Three & Five Year (Net of Fees)

Period Ending: December 31, 2021

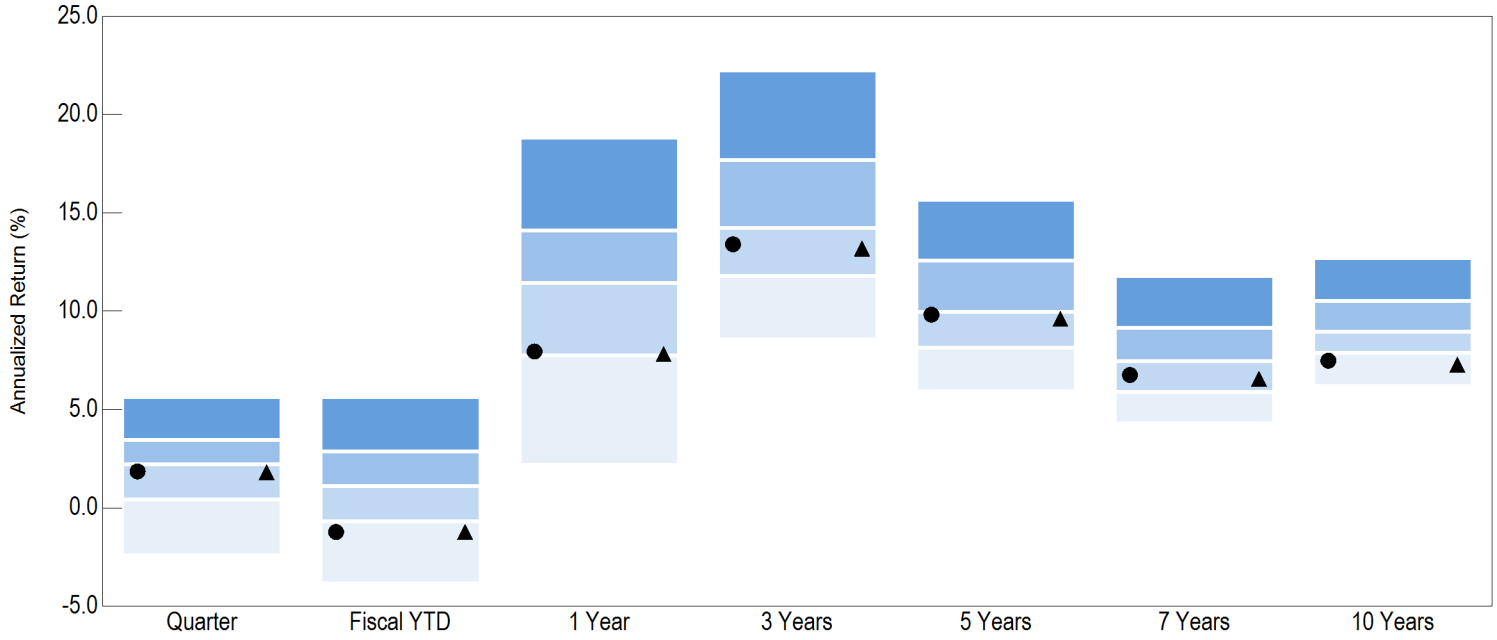


- PIMCO RAE Fundamental Global Ex US Fund
- MSCI ACWI ex USA Value
- Universe Median
- 68% Confidence Interval
- eV EAFE Value Equity Net



- PIMCO RAE Fundamental Global Ex US Fund
- MSCI ACWI ex USA Value
- Universe Median
- 68% Confidence Interval
- eV EAFE Value Equity Net

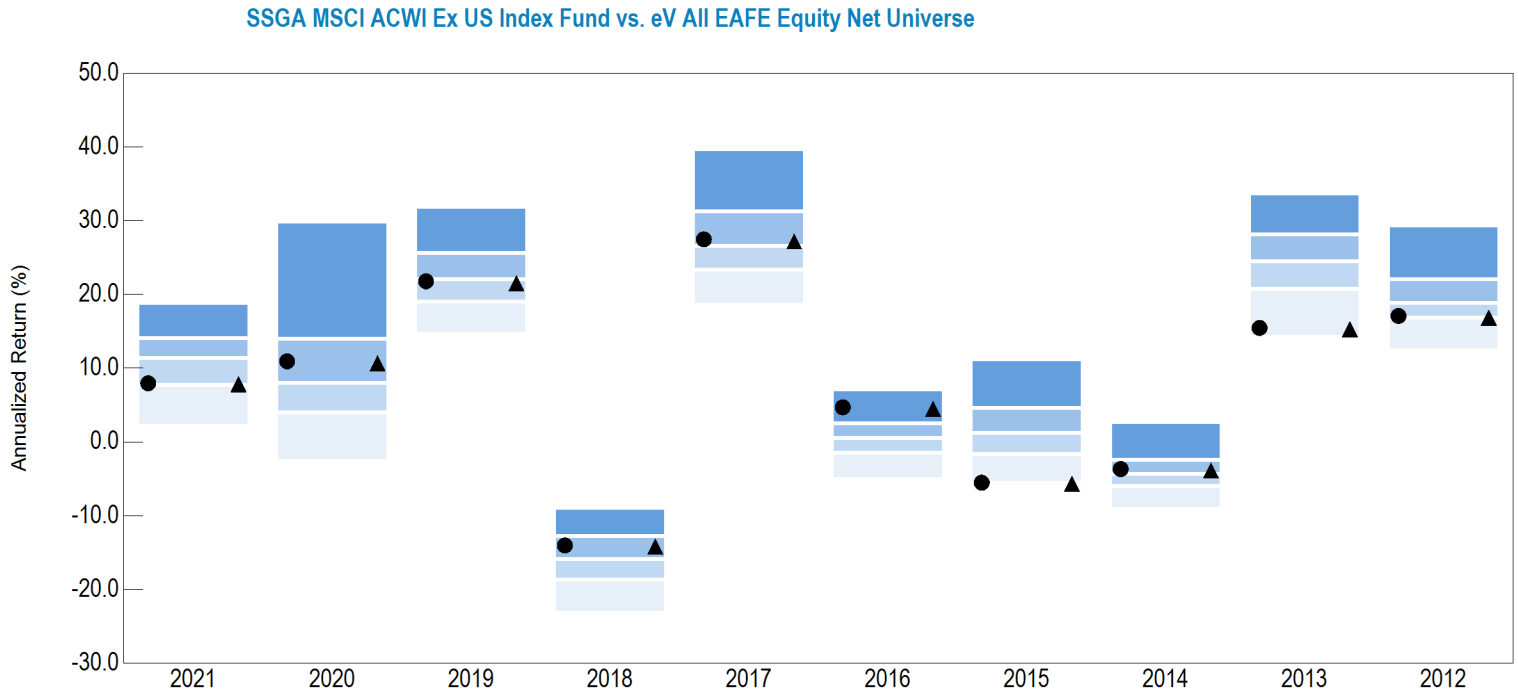
SSGA MSCI ACWI Ex US Index Fund
Cumulative Performance Comparison (Net of Fees) — Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	5.6		5.6		18.8		22.2		15.6		11.8		12.7	
25th Percentile	3.5		2.9		14.1		17.7		12.6		9.2		10.5	
Median	2.2		1.1		11.4		14.3		10.0		7.5		9.0	
75th Percentile	0.4		-0.7		7.8		11.8		8.2		5.9		7.9	
95th Percentile	-2.4		-3.8		2.2		8.6		5.9		4.3		6.2	
# of Portfolios	255		255		255		245		231		196		162	
● **SSGA MSCI ACWI Ex US Index Fund**	1.9	(57)	-1.2	(82)	7.9	(75)	13.4	(60)	9.8	(52)	6.8	(62)	7.5	(81)
▲ **MSCI ACWI ex USA**	1.8	(57)	-1.2	(82)	7.8	(75)	13.2	(62)	9.6	(57)	6.6	(67)	7.3	(84)

SSGA MSCI ACWI Ex US Index Fund
Consecutive Performance Comparison (Net of Fees)

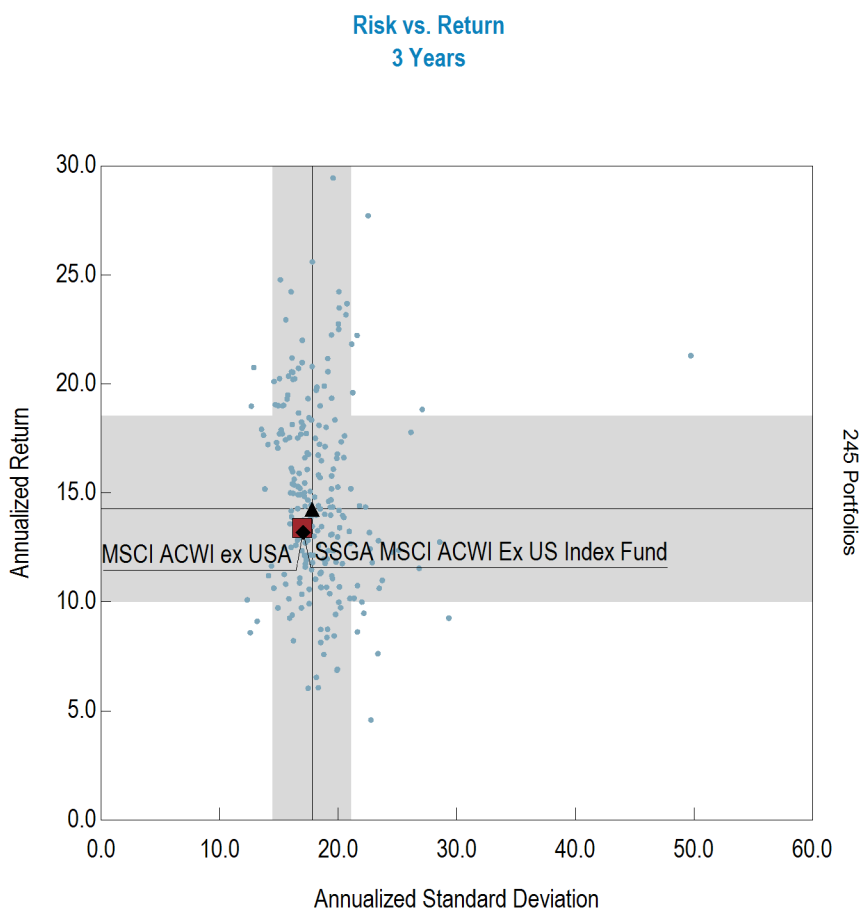
Period Ending: December 31, 2021



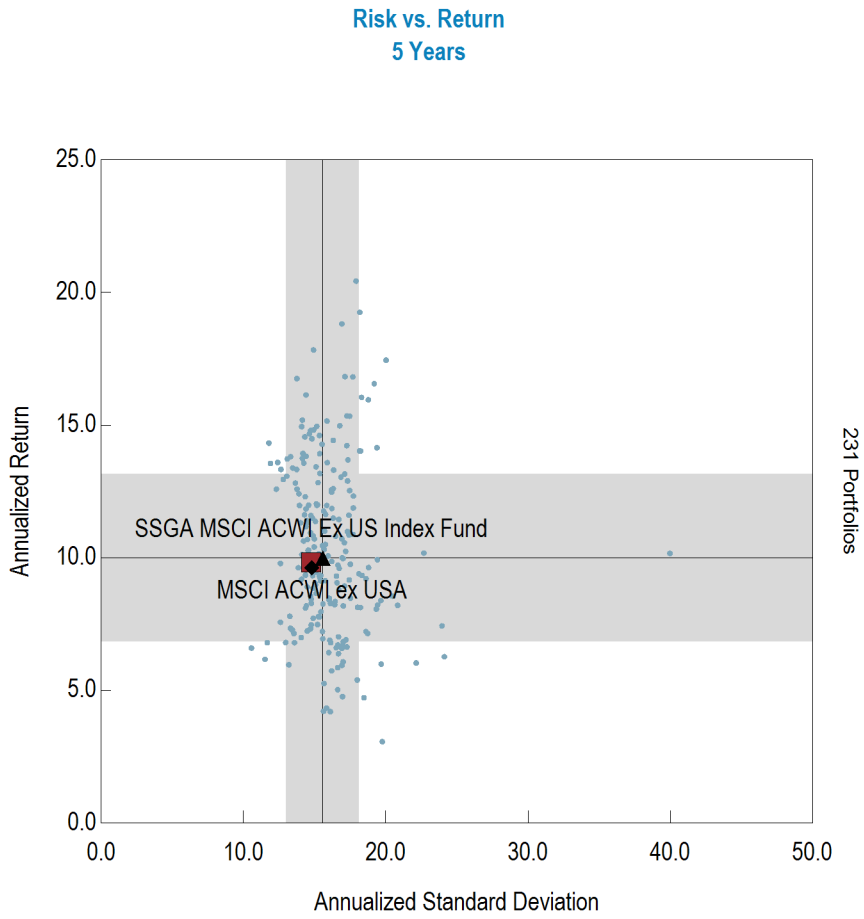
	Return (Rank)									
5th Percentile	18.8	29.8	31.9	-9.0	39.6	7.1	11.2	2.6	33.6	29.3
25th Percentile	14.1	14.0	25.7	-12.7	31.3	2.6	4.7	-2.4	28.2	22.1
Median	11.4	8.0	22.1	-15.8	26.6	0.6	1.2	-4.3	24.5	18.9
75th Percentile	7.8	4.0	19.1	-18.6	23.4	-1.5	-1.6	-6.0	20.8	16.9
95th Percentile	2.2	-2.6	14.7	-23.1	18.6	-5.0	-5.5	-9.1	14.3	12.5
# of Portfolios	255	255	255	243	232	215	188	164	151	144
● SSGA MSCI ACWI Ex US Index Fund	7.9 (75)	10.9 (36)	21.8 (54)	-14.0 (38)	27.5 (45)	4.7 (15)	-5.5 (96)	-3.7 (42)	15.5 (92)	17.1 (74)
▲ MSCI ACWI ex USA	7.8 (75)	10.7 (37)	21.5 (58)	-14.2 (39)	27.2 (46)	4.5 (16)	-5.7 (96)	-3.9 (45)	15.3 (92)	16.8 (77)

SSGA MSCI ACWI Ex US Index Fund
Risk vs Return Three & Five Year (Net of Fees)

Period Ending: December 31, 2021



- SSGA MSCI ACWI Ex US Index Fund
- MSCI ACWI ex USA
- Universe Median
- 68% Confidence Interval
- eV All EAFE Equity Net



- SSGA MSCI ACWI Ex US Index Fund
- MSCI ACWI ex USA
- Universe Median
- 68% Confidence Interval
- eV All EAFE Equity Net

Total Fixed Income
Asset Class Overview (Net of Fees)

Period Ending: December 31, 2021

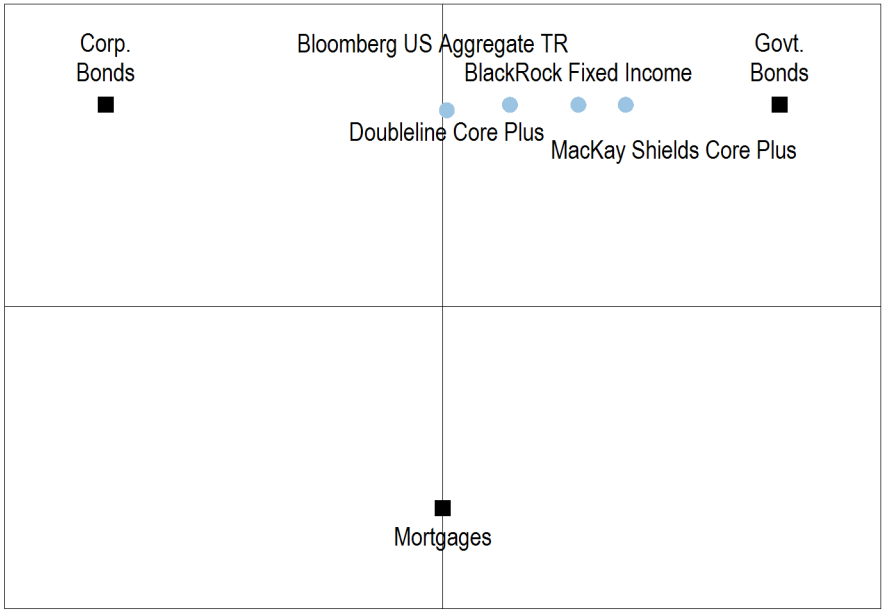
	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2021	2020	2019	2018	2017
Total Fixed Income	**432,252,477**	**-0.5**	**-0.9**	**-2.2**	**3.5**	**2.9**	**2.9**	**-2.2**	**4.7**	**8.1**	**0.1**	**3.9**
Bloomberg US Aggregate TR		*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
InvMetrics Public DB US Fix Inc Net Rank		*74*	*99*	*99*	*98*	*74*	*43*	*99*	*99*	*49*	*60*	*46*
Total Domestic Fixed Income	**374,766,880**	**0.0**	**0.1**	**-0.7**	**5.3**	**3.9**	**3.4**	**-0.7**	**7.9**	**9.0**	**-0.2**	**4.1**
Bloomberg US Aggregate TR		*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
BlackRock Fixed Income	133,792,449	0.0	0.0	-1.4	5.1	3.8	3.2	-1.4	8.4	8.7	0.1	3.6
Bloomberg US Aggregate TR		*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*2.9*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
eV All US Fixed Inc Net Rank		*50*	*51*	*82*	*46*	*49*	*54*	*82*	*26*	*44*	*53*	*56*
Doubleline Core Plus	117,744,659	-0.1	0.1	-0.2	4.4	3.3	--	-0.2	5.2	8.3	-0.3	3.9
Bloomberg US Aggregate TR		*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*--*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
eV US Core Plus Fixed Inc Net Rank		*80*	*55*	*41*	*97*	*98*	*--*	*41*	*98*	*90*	*34*	*87*
MacKay Shields Core Plus	123,229,773	0.0	0.1	-0.4	6.3	4.4	--	-0.4	9.9	9.6	-1.0	4.5
Bloomberg US Aggregate TR		*0.0*	*0.1*	*-1.5*	*4.8*	*3.6*	*--*	*-1.5*	*7.5*	*8.7*	*0.0*	*3.5*
eV US Core Plus Fixed Inc Net Rank		*45*	*63*	*48*	*38*	*40*	*--*	*48*	*22*	*56*	*74*	*62*
Total Global Fixed Income	**--**	**-0.8**	**-2.4**	**-4.8**	**-3.2**	**-1.1**	**--**	**-4.8**	**-5.7**	**0.9**	**1.9**	**2.4**
JPM GBI Global TR USD		*-0.9*	*-1.9*	*-6.5*	*2.8*	*2.9*	*--*	*-6.5*	*9.7*	*6.0*	*-0.7*	*6.8*
Total Emerging Markets Fixed Income	**57,485,597**	**-1.8**	**-3.3**	**-5.3**	**--**	**--**	**--**	**-5.3**	**4.6**	**--**	**--**	**--**
50% JPM EMBI Global Div/50% JPM GBI EM Global Div		*-1.5*	*-3.4*	*-5.3*	*--*	*--*	*--*	*-5.3*	*4.0*	*--*	*--*	*--*
PGIM Emerging Markets Debt	57,485,597	-1.8	-3.3	-5.3	--	--	--	-5.3	4.6	--	--	--
50% JPM EMBI Global Div/50% JPM GBI EM Global Div		*-1.5*	*-3.4*	*-5.3*	*--*	*--*	*--*	*-5.3*	*4.0*	*--*	*--*	*--*
eV Emg Mkts Fixed Inc - Blended Currency Net Rank		*56*	*57*	*76*	*--*	*--*	*--*	*76*	*67*	*--*	*--*	*--*

SSGA TIPS liquidated in 12/28/18. Shenkman HY liquidated 3/11/19. PGIM EMD funded 8/26/19. Franklin Templeton Global Bond Plus liquidated 12/28/2021.

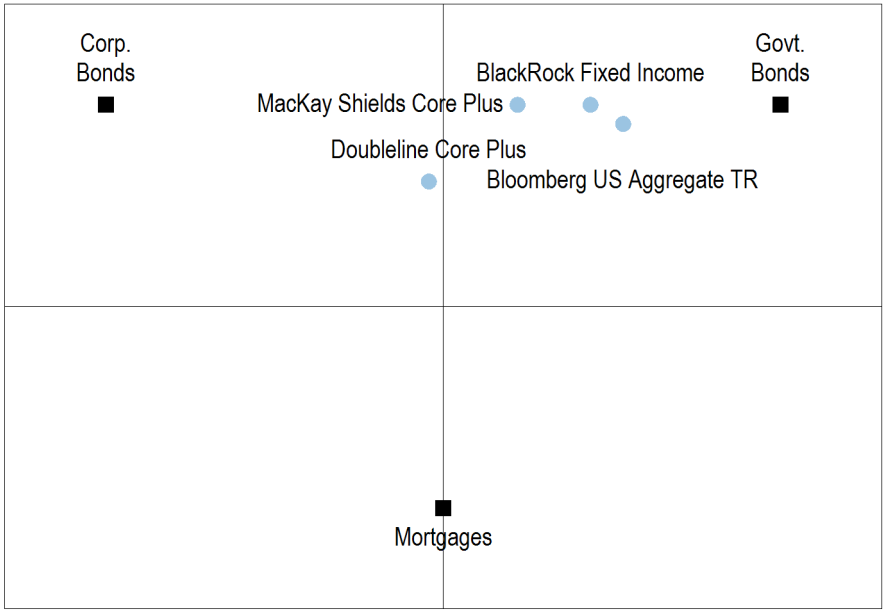
Total Fixed Income
Asset Class Overview (Net of Fees)

Period Ending: December 31, 2021

Fixed Income Style Map
3 Years

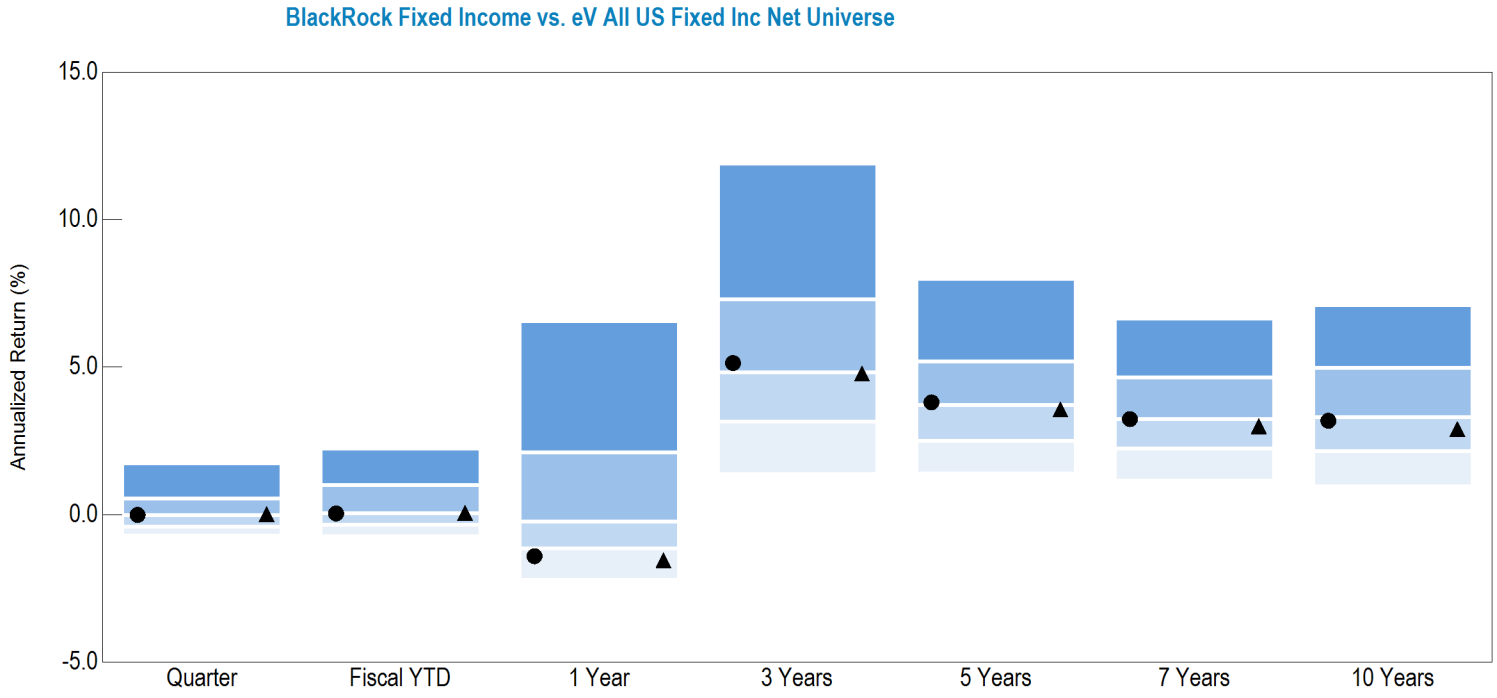


Fixed Income Style Map
5 Years



BlackRock Fixed Income
Cumulative Performance Comparison (Net of Fees)

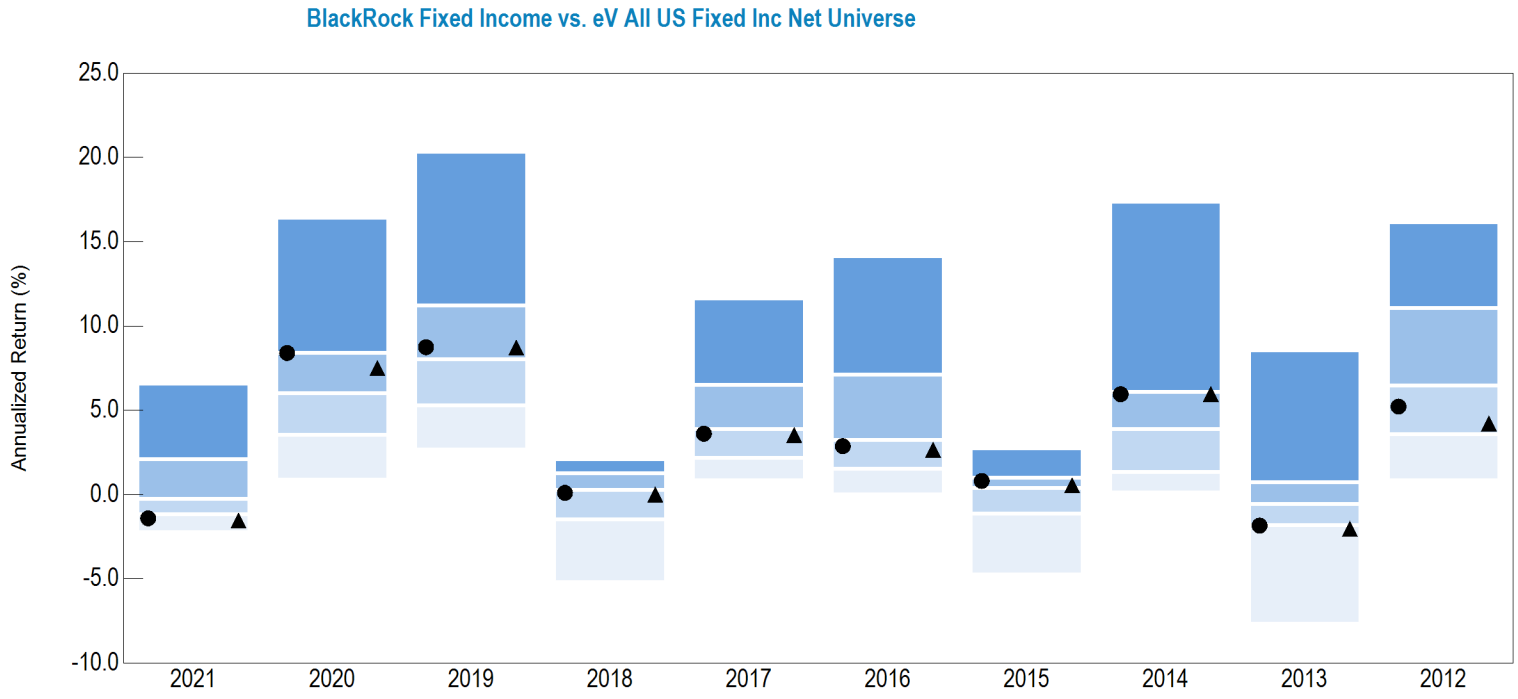
Period Ending: December 31, 2021



	Return (Rank)													
5th Percentile	1.7		2.2		6.6		11.9		8.0		6.6		7.1	
25th Percentile	0.6		1.0		2.1		7.3		5.2		4.7		5.0	
Median	0.0		0.1		-0.2		4.8		3.7		3.2		3.3	
75th Percentile	-0.4		-0.3		-1.1		3.2		2.5		2.2		2.2	
95th Percentile	-0.7		-0.7		-2.2		1.4		1.4		1.2		1.0	
# of Portfolios	1,321		1,321		1,316		1,277		1,210		1,131		991	
● **BlackRock Fixed Income**	0.0	(50)	0.0	(51)	-1.4	(82)	5.1	(46)	3.8	(49)	3.2	(51)	3.2	(54)
▲ **Bloomberg US Aggregate TR**	0.0	(47)	0.1	(50)	-1.5	(85)	4.8	(51)	3.6	(55)	3.0	(57)	2.9	(60)

BlackRock Fixed Income
Consecutive Performance Comparison (Net of Fees)

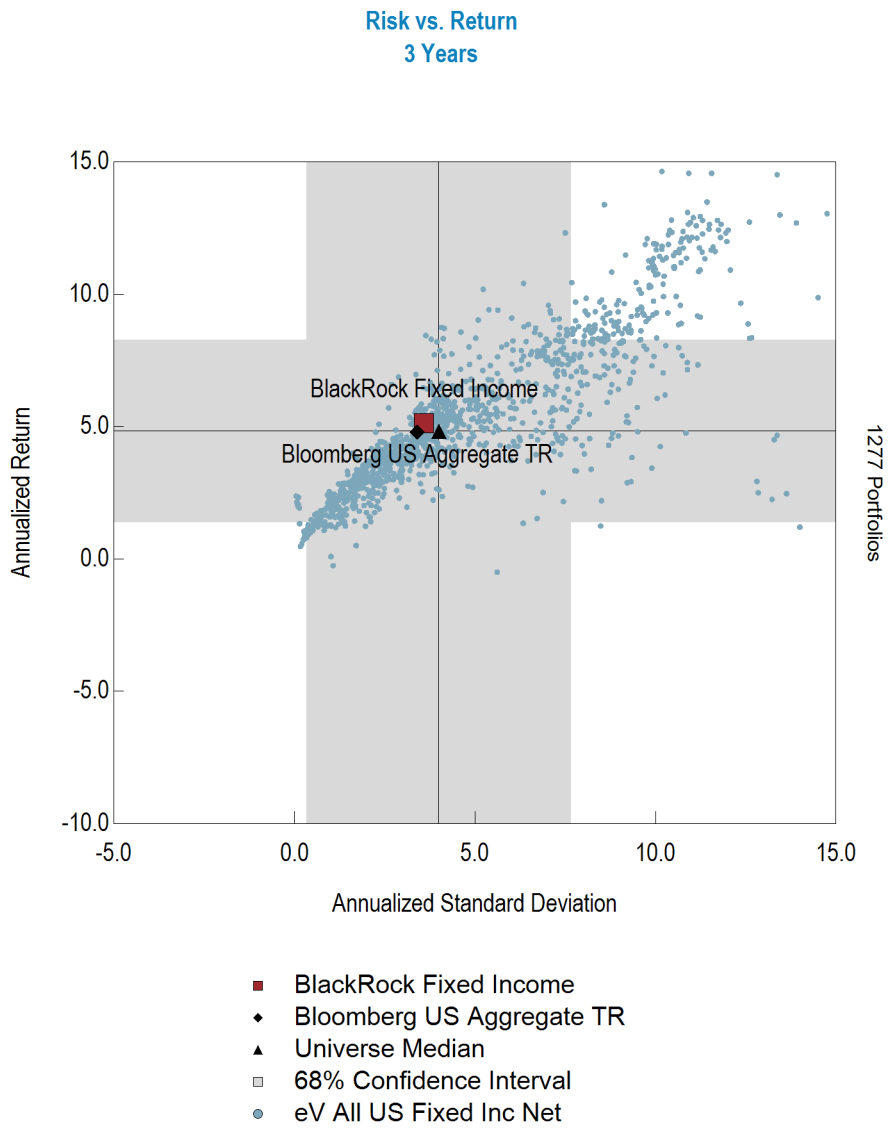
Period Ending: December 31, 2021

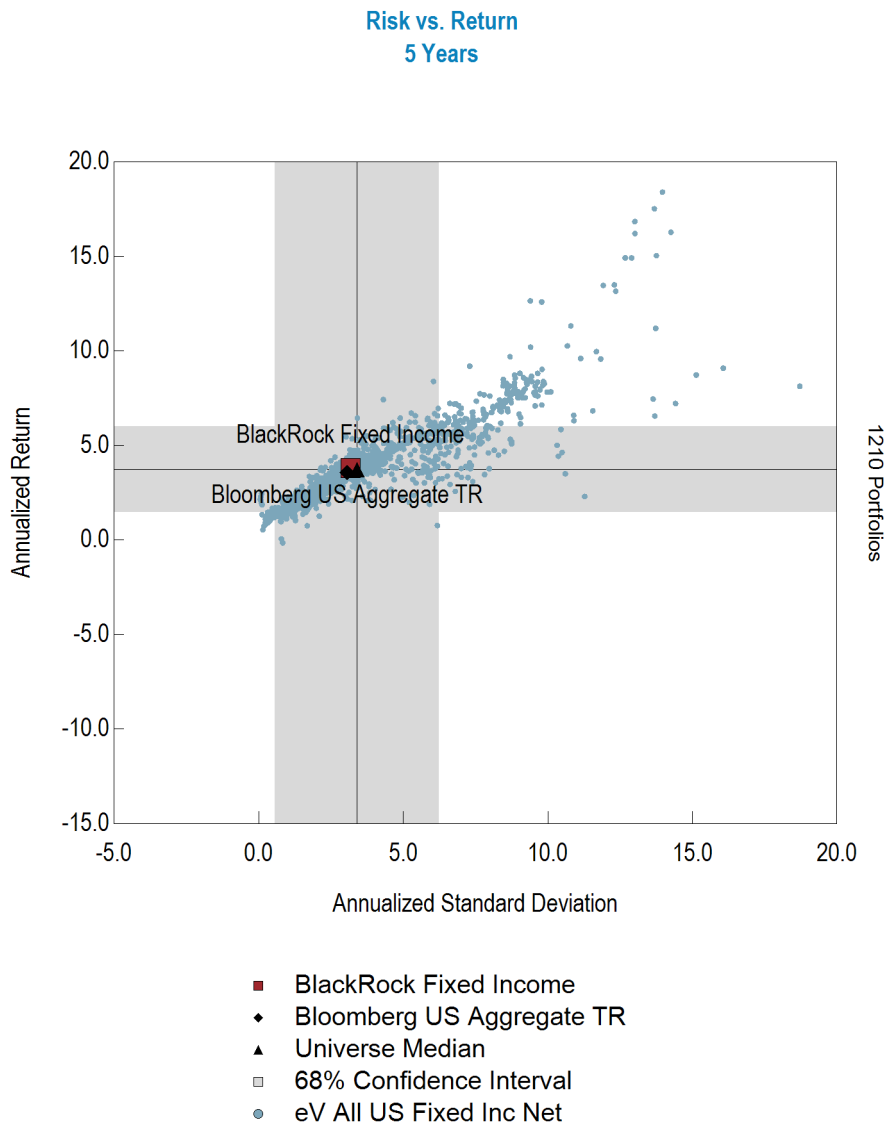


	Return (Rank)									
5th Percentile	6.6	16.4	20.3	2.1	11.6	14.1	2.7	17.4	8.5	16.1
25th Percentile	2.1	8.4	11.2	1.3	6.5	7.1	1.0	6.1	0.8	11.1
Median	-0.2	6.0	8.1	0.3	3.9	3.3	0.4	3.9	-0.5	6.5
75th Percentile	-1.1	3.6	5.3	-1.5	2.2	1.6	-1.1	1.4	-1.8	3.6
95th Percentile	-2.2	0.9	2.7	-5.2	0.9	0.0	-4.7	0.2	-7.6	0.9
# of Portfolios	1,316	1,295	1,248	1,173	1,135	1,033	827	758	662	555
● BlackRock Fixed Income	-1.4 (82)	8.4 (26)	8.7 (44)	0.1 (53)	3.6 (56)	2.9 (54)	0.8 (35)	6.0 (28)	-1.8 (76)	5.2 (60)
▲ Bloomberg US Aggregate TR	-1.5 (85)	7.5 (36)	8.7 (45)	0.0 (55)	3.5 (57)	2.6 (57)	0.6 (45)	6.0 (28)	-2.0 (80)	4.2 (70)

BlackRock Fixed Income
Risk vs Return Three & Five Year (Net of Fees)

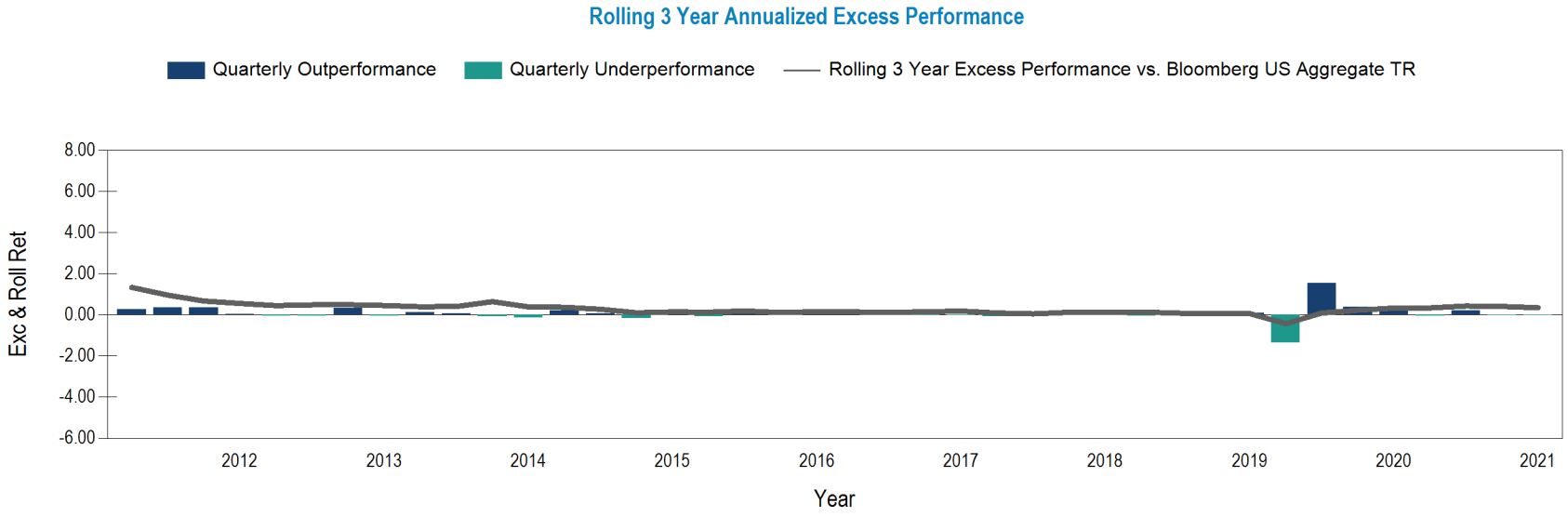
Period Ending: December 31, 2021

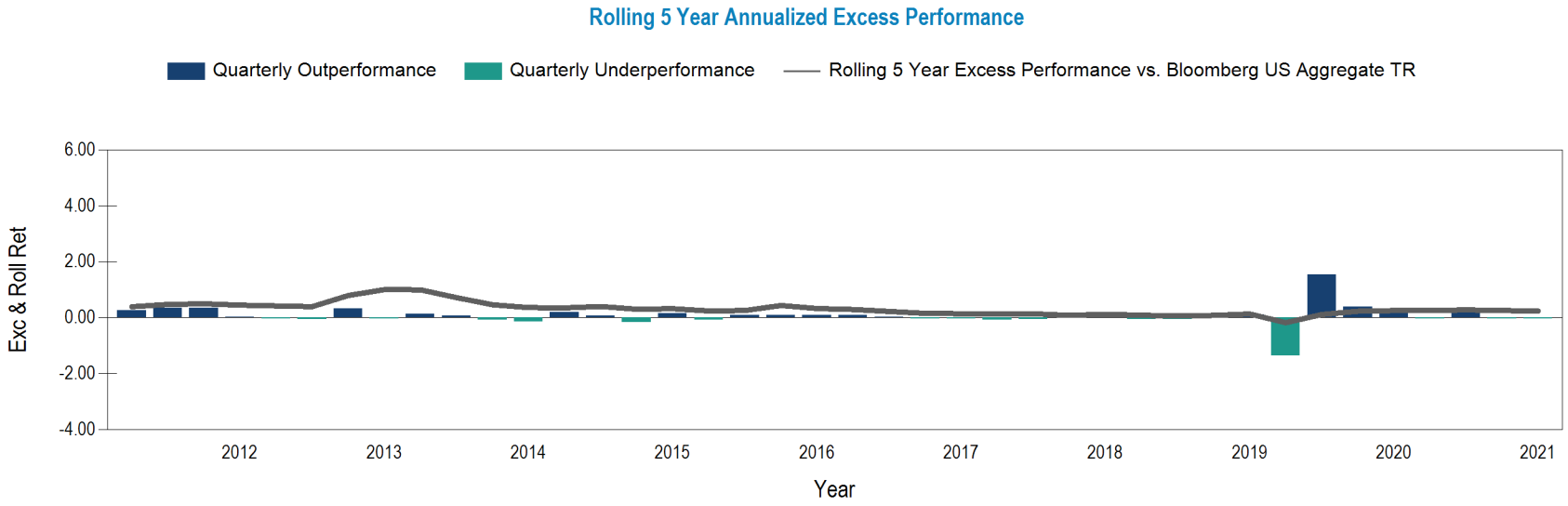




BlackRock Fixed Income
Rolling Return Analysis (Net of Fees)

Period Ending: December 31, 2021





Total Real Estate
Asset Class Overview (Net of Fees)

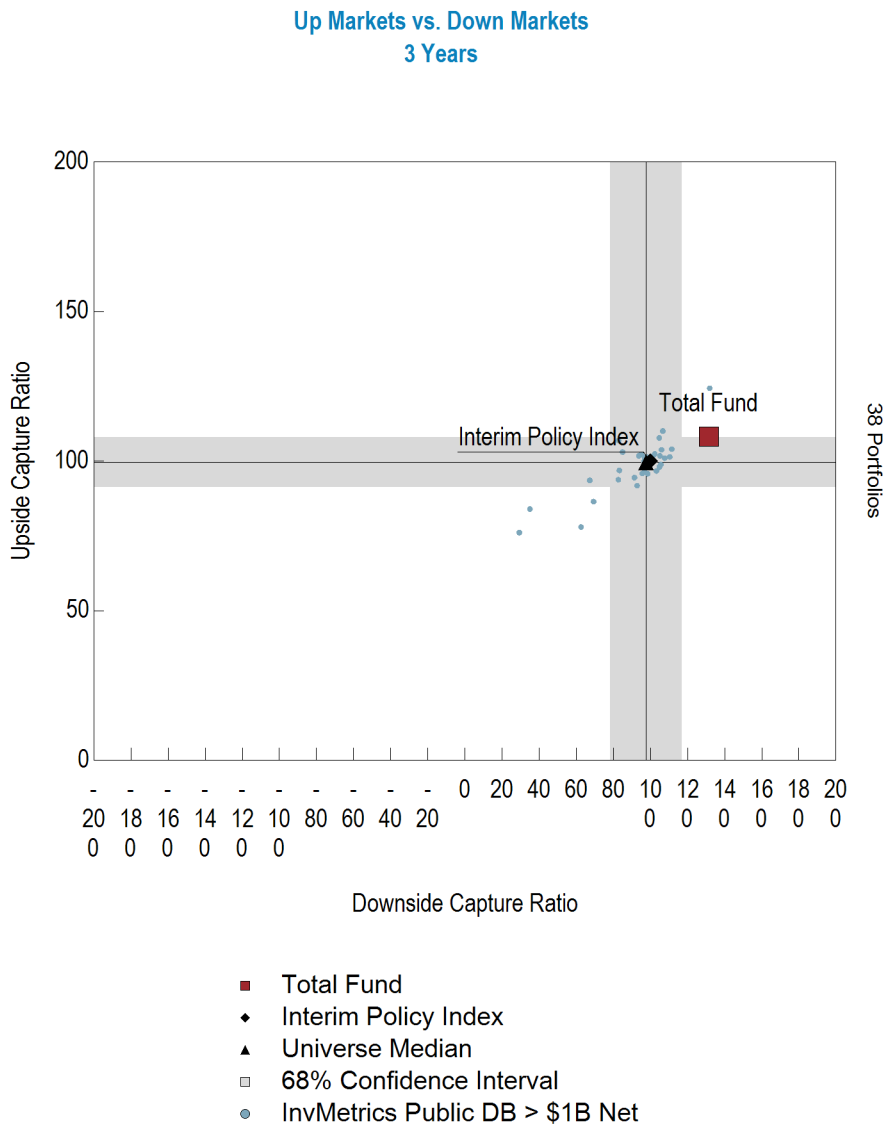
Period Ending: December 31, 2021

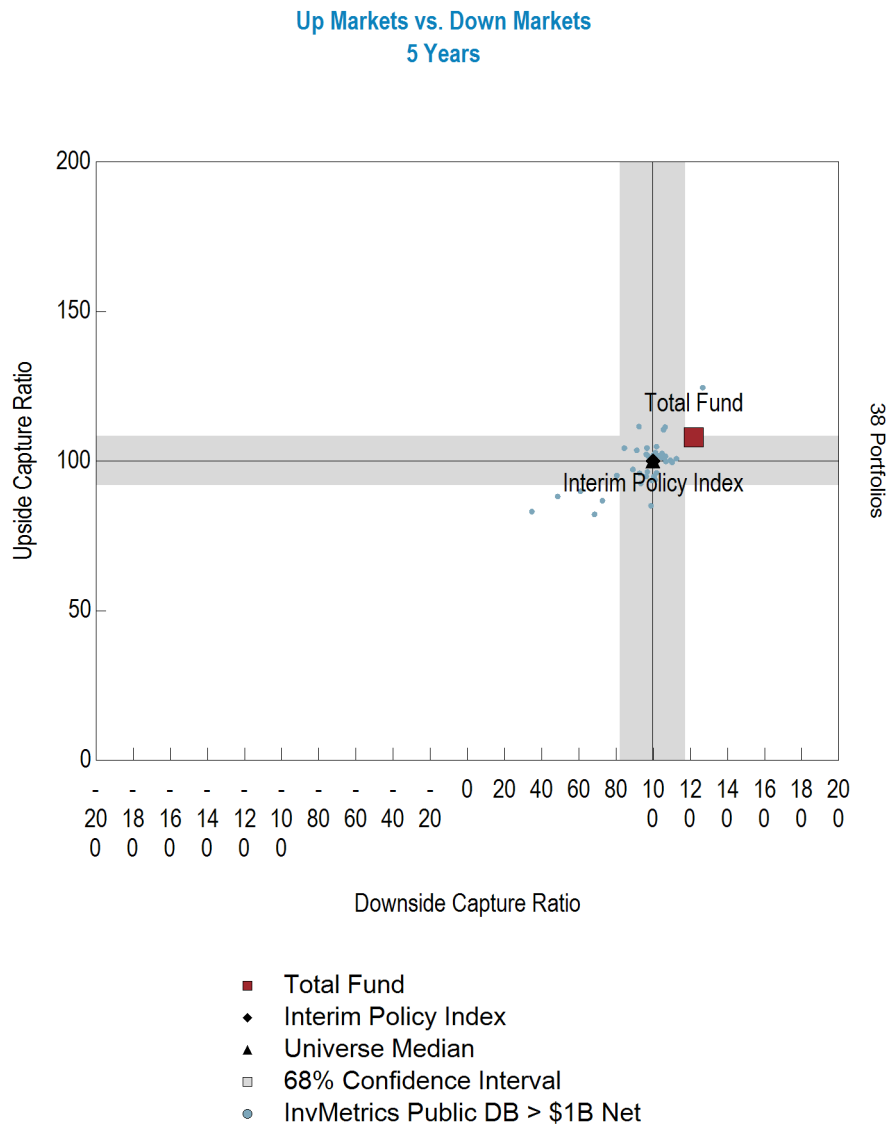
	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2021	2020	2019	2018	2017
Total Real Estate	**315,873,560**	**6.1**	**10.0**	**13.0**	**6.6**	**6.6**	**8.7**	**13.0**	**1.8**	**5.2**	**8.8**	**4.3**
NCREIF ODCE net 1Q Lag		*6.4*	*10.3*	*13.6*	*6.1*	*6.6*	*8.7*	*13.6*	*0.5*	*4.6*	*7.7*	*6.7*
NCREIF-ODCE		*8.0*	*15.1*	*22.2*	*9.2*	*8.7*	*10.4*	*22.2*	*1.2*	*5.3*	*8.3*	*7.6*
RREEF America II	180,697,807	5.9	9.8	12.8	6.5	6.5	9.4	12.8	1.8	5.3	8.6	4.4
NCREIF ODCE net 1Q Lag		*6.4*	*10.3*	*13.6*	*6.1*	*6.6*	*8.7*	*13.6*	*0.5*	*4.6*	*7.7*	*6.7*
NCREIF Property Index		*6.2*	*11.7*	*17.7*	*8.4*	*7.8*	*9.3*	*17.7*	*1.6*	*6.4*	*6.7*	*7.0*
American Realty	37,834,746	4.8	8.0	11.3	--	--	--	11.3	1.1	--	--	--
NCREIF ODCE net 1Q Lag		*6.4*	*10.3*	*13.6*	--	--	--	*13.6*	*0.5*	--	--	--
NCREIF-ODCE		*8.0*	*15.1*	*22.2*	--	--	--	*22.2*	*1.2*	--	--	--
Invesco Commercial Mortgage Income Fund	55,260,873	0.9	--	--	--	--	--	--	--	--	--	--
NCREIF ODCE net 1Q Lag		*6.4*	--	--	--	--	--	--	--	--	--	--
NCREIF-ODCE		*8.0*	--	--	--	--	--	--	--	--	--	--
SSGA US REIT Index Non-Lending Fund	42,080,134	--	--	--	--	--	--	--	--	--	--	--
NCREIF ODCE net 1Q Lag		--	--	--	--	--	--	--	--	--	--	--
NCREIF-ODCE		--	--	--	--	--	--	--	--	--	--	--

RREEF liquidated in 1Q 2018. American Realty funded 4Q 2019. Invesco Commerical Mortgage Income Fund Funded 9/1/2021. SSGA US REIT Index funded 12/10/2021.

Total Fund
Up Markets vs. Down Markets

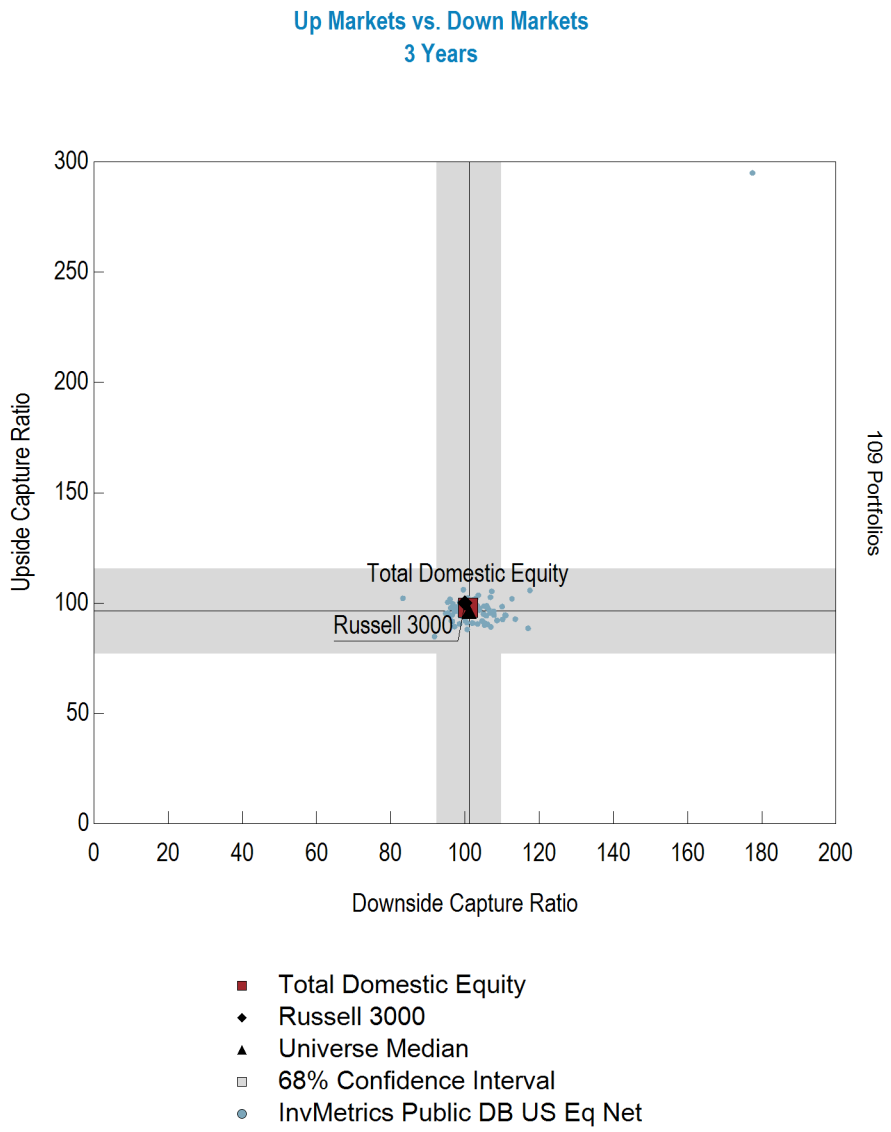
Period Ending: December 31, 2021

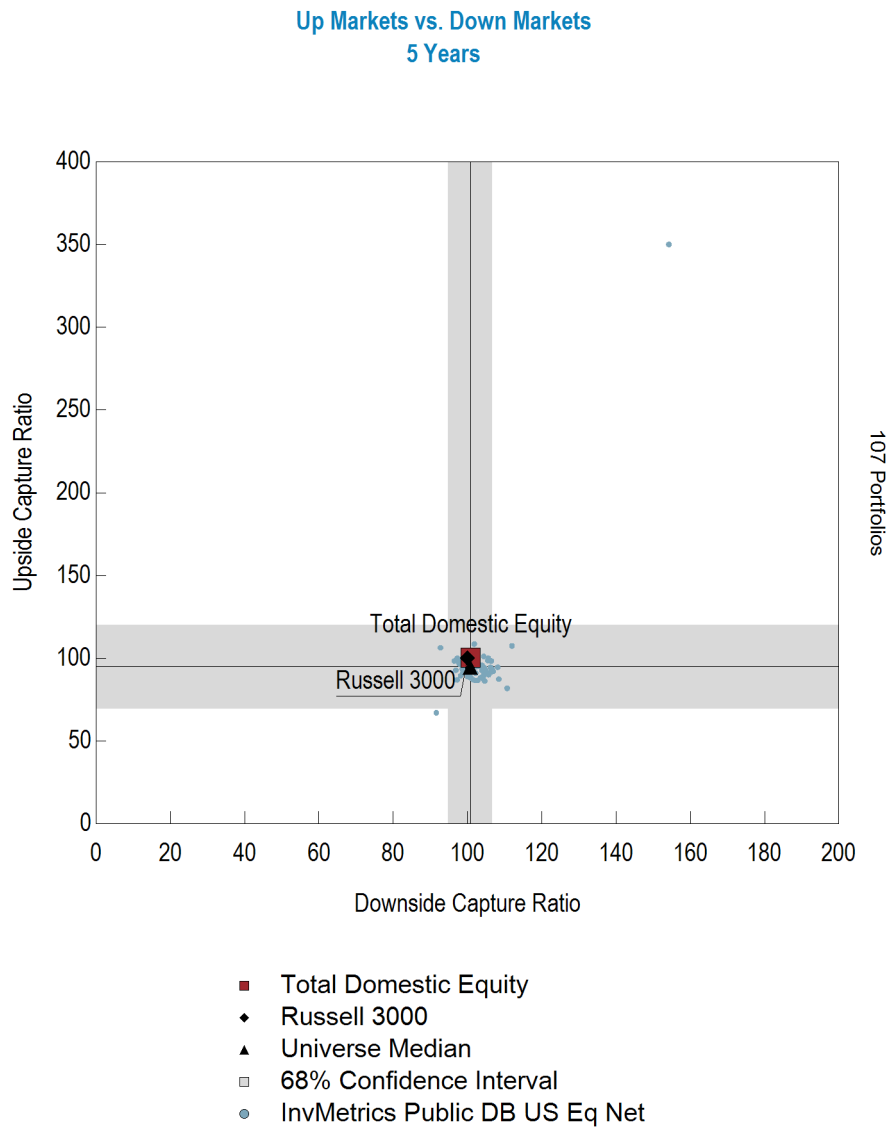




Total Domestic Equity
Up Markets vs. Down Markets

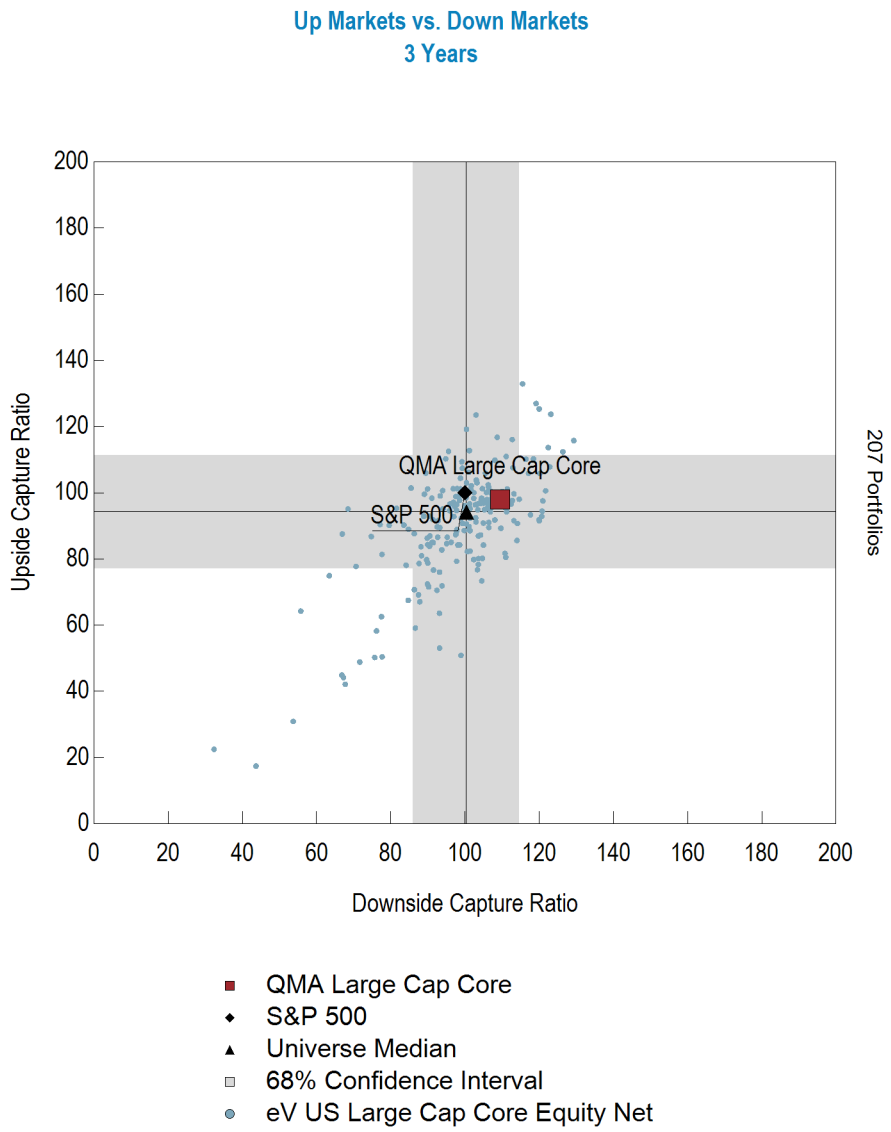
Period Ending: December 31, 2021

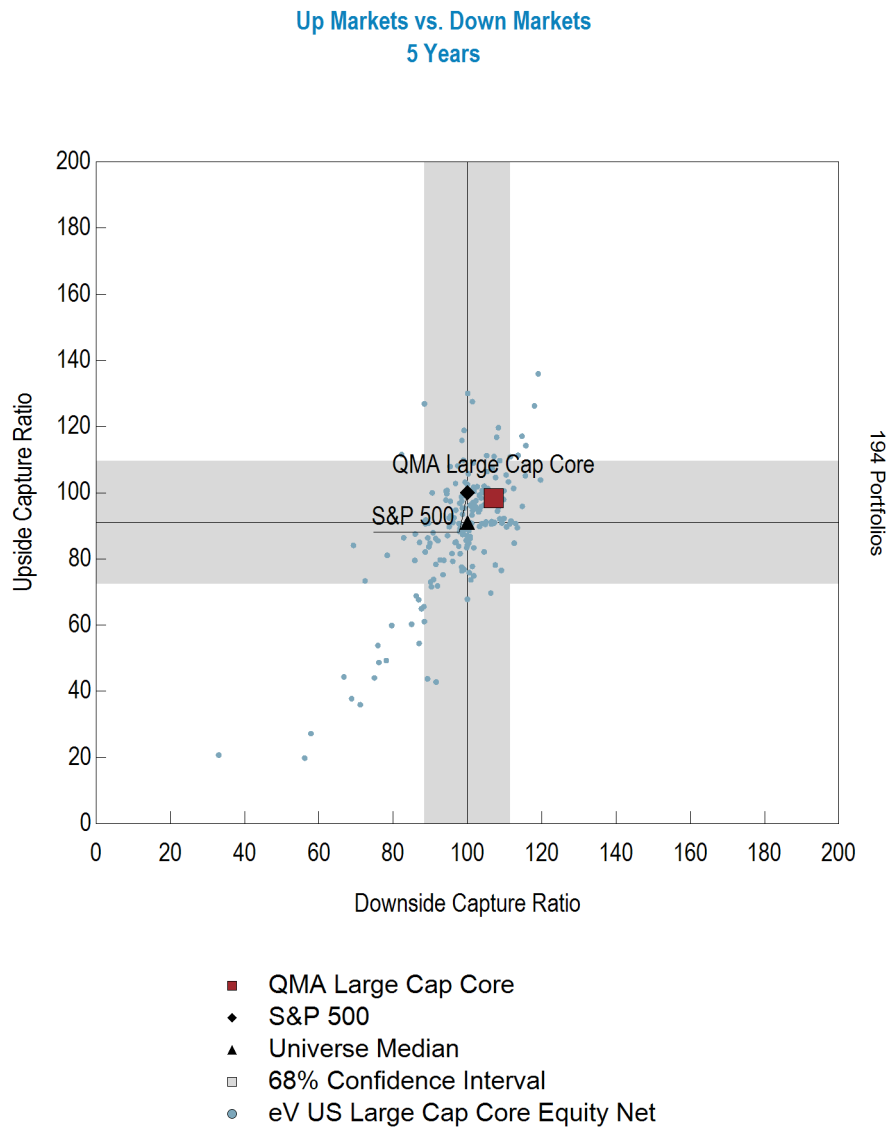




QMA Large Cap Core
Up Markets vs. Down Markets

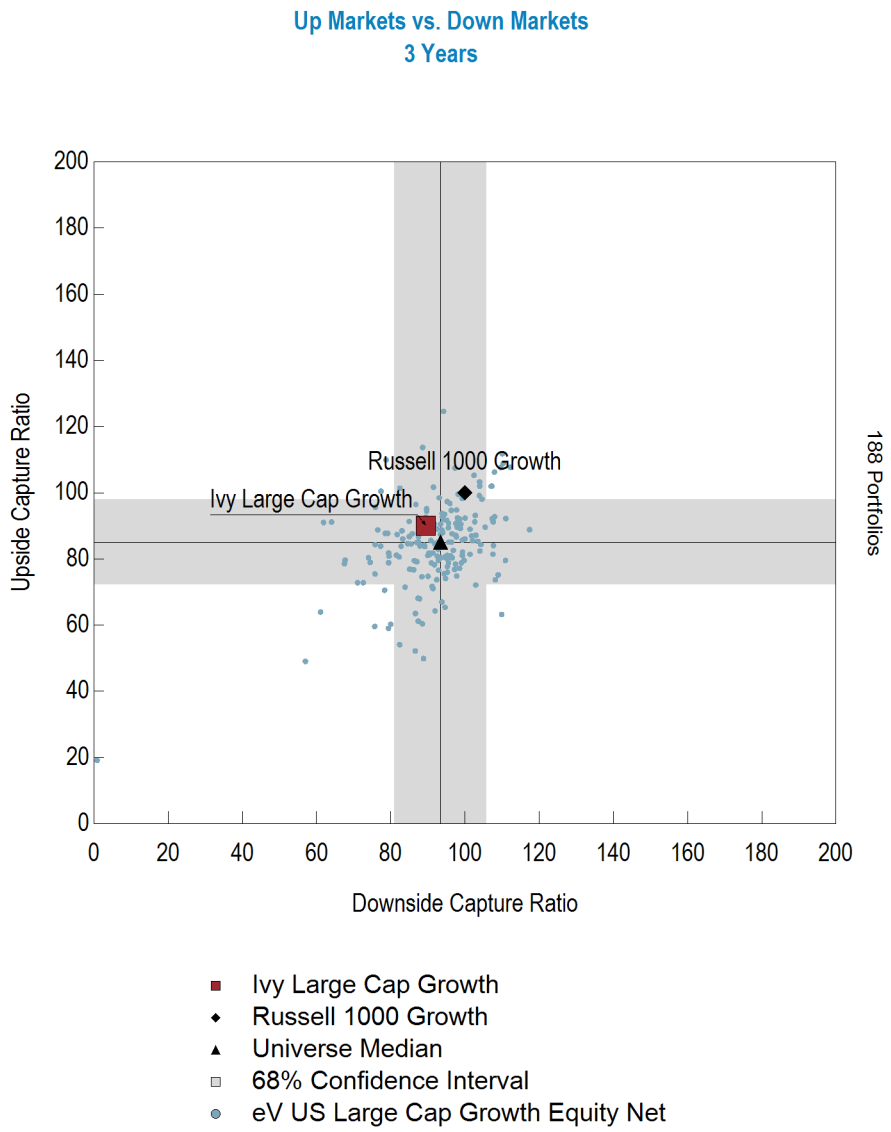
Period Ending: December 31, 2021

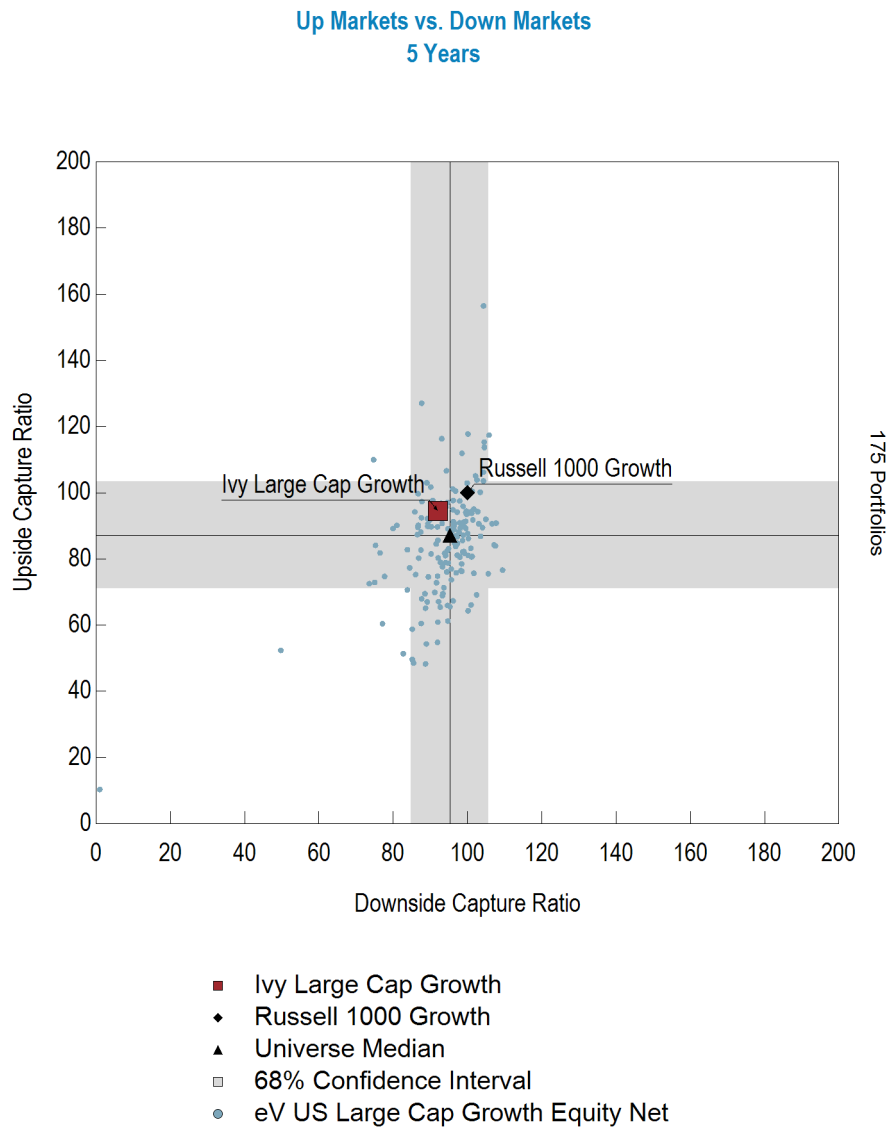




Ivy Large Cap Growth
Up Markets vs. Down Markets

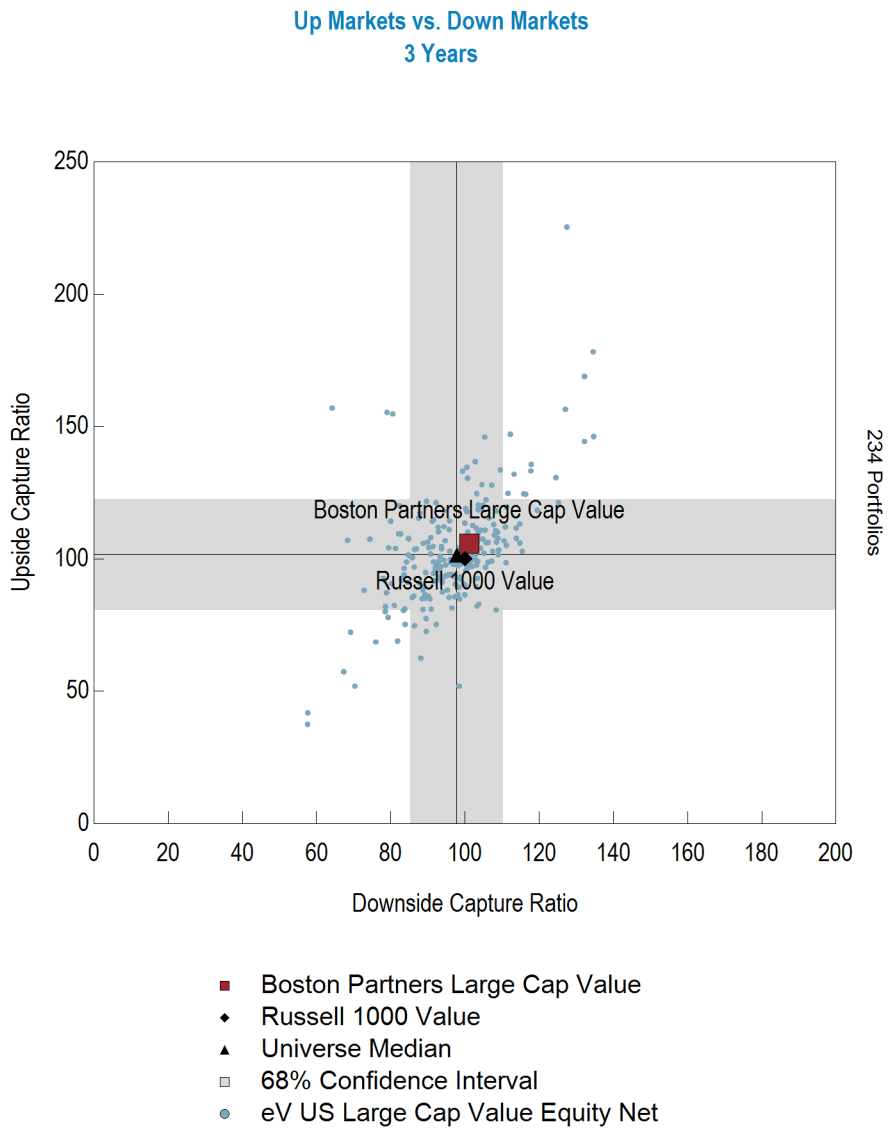
Period Ending: December 31, 2021

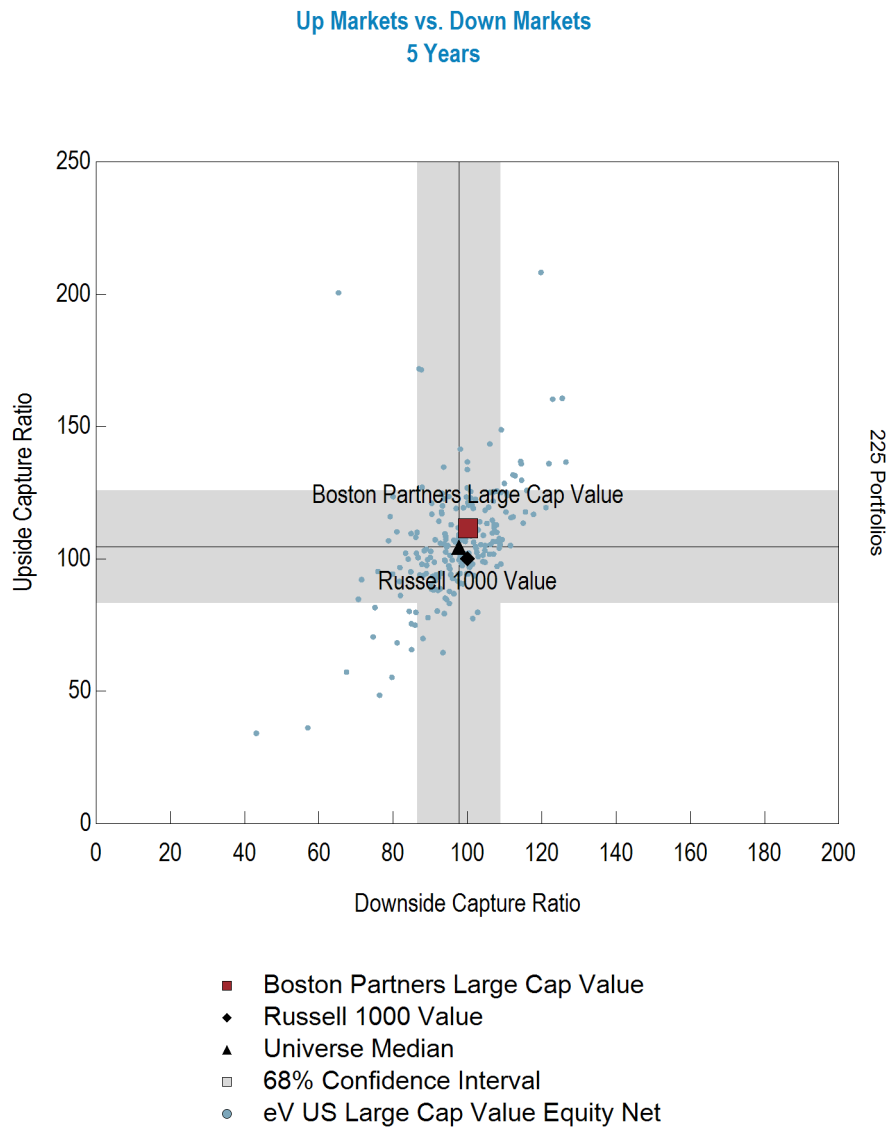




Boston Partners Large Cap Value
Up Markets vs. Down Markets

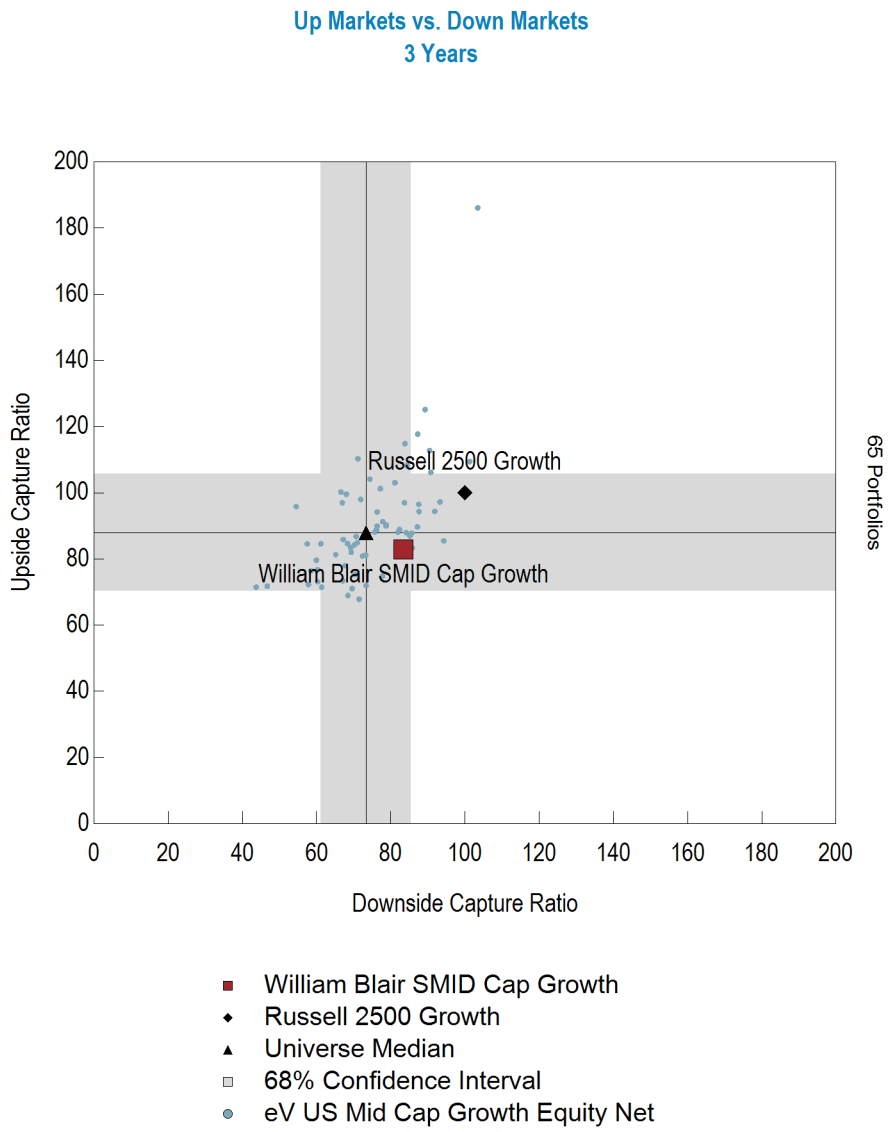
Period Ending: December 31, 2021

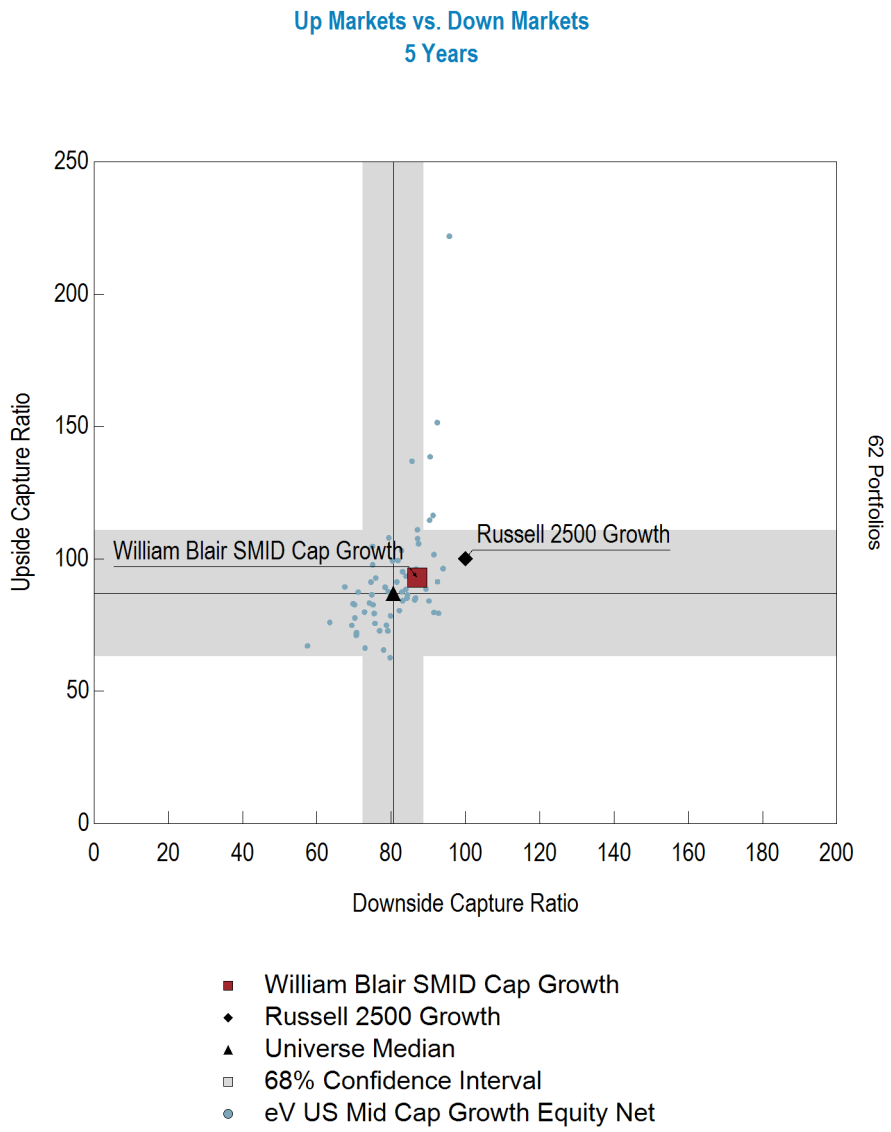




William Blair SMID Cap Growth
Up Markets vs. Down Markets

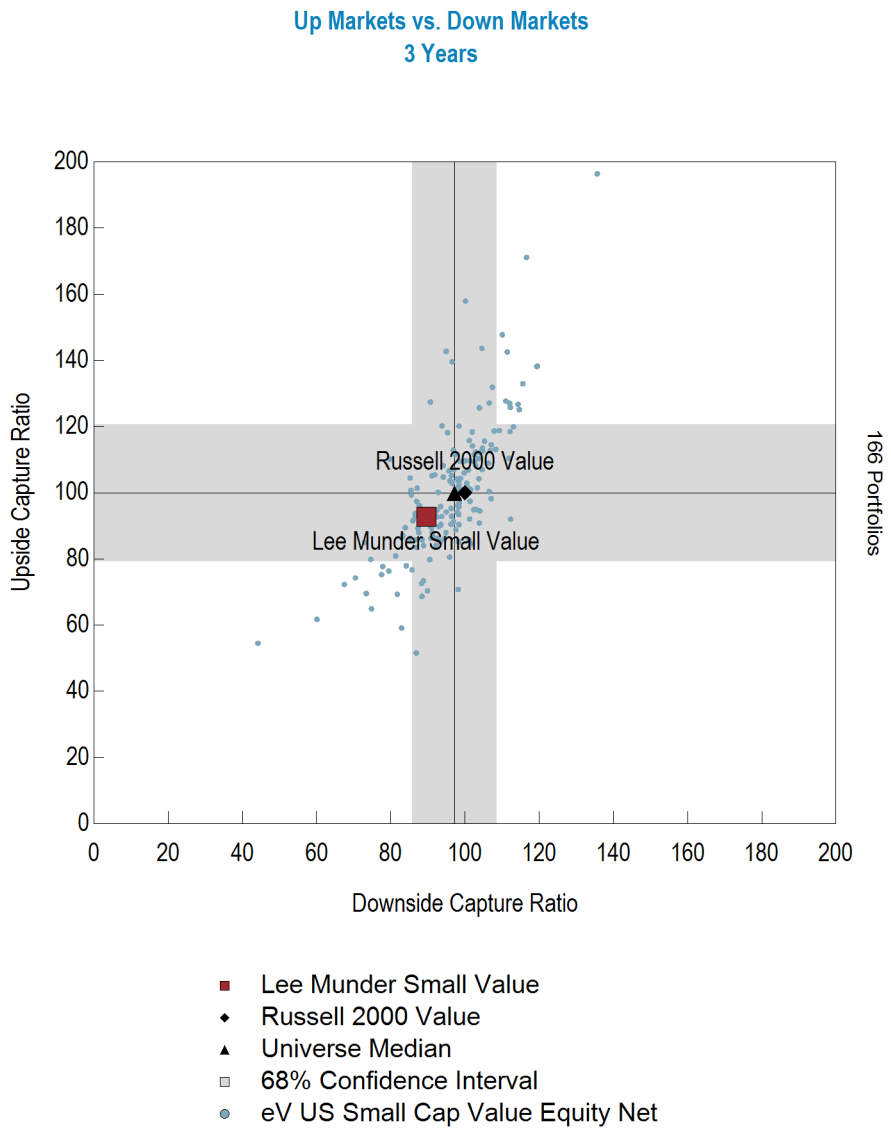
Period Ending: December 31, 2021





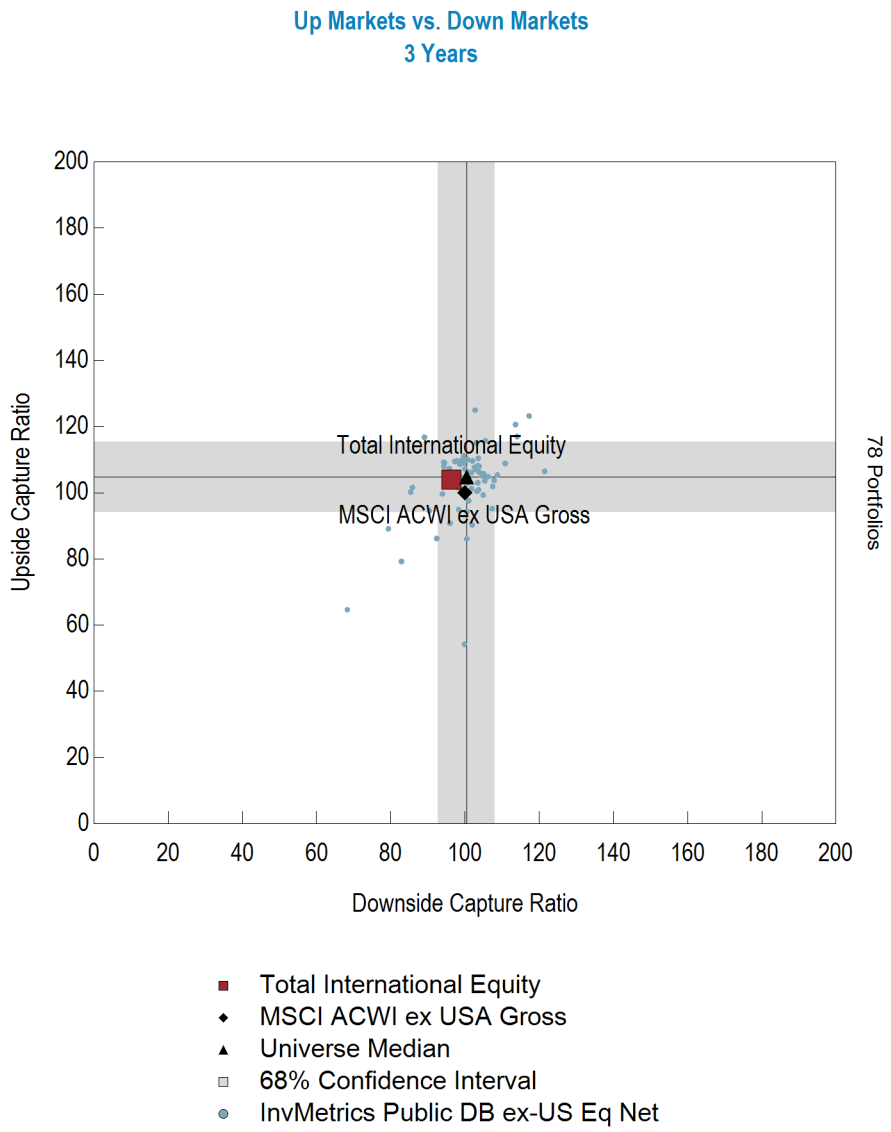
Lee Munder Small Value
Up Markets vs. Down Markets

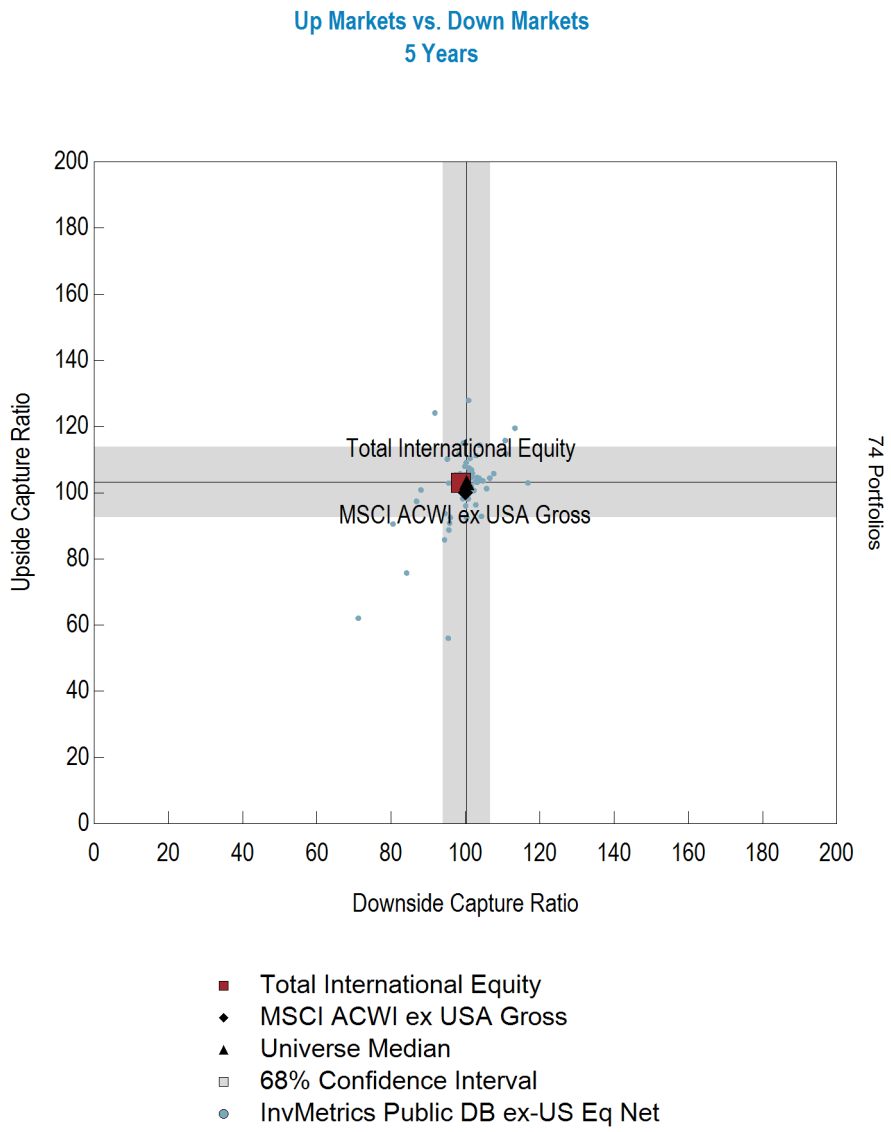
Period Ending: December 31, 2021



Total International Equity
Up Markets vs. Down Markets

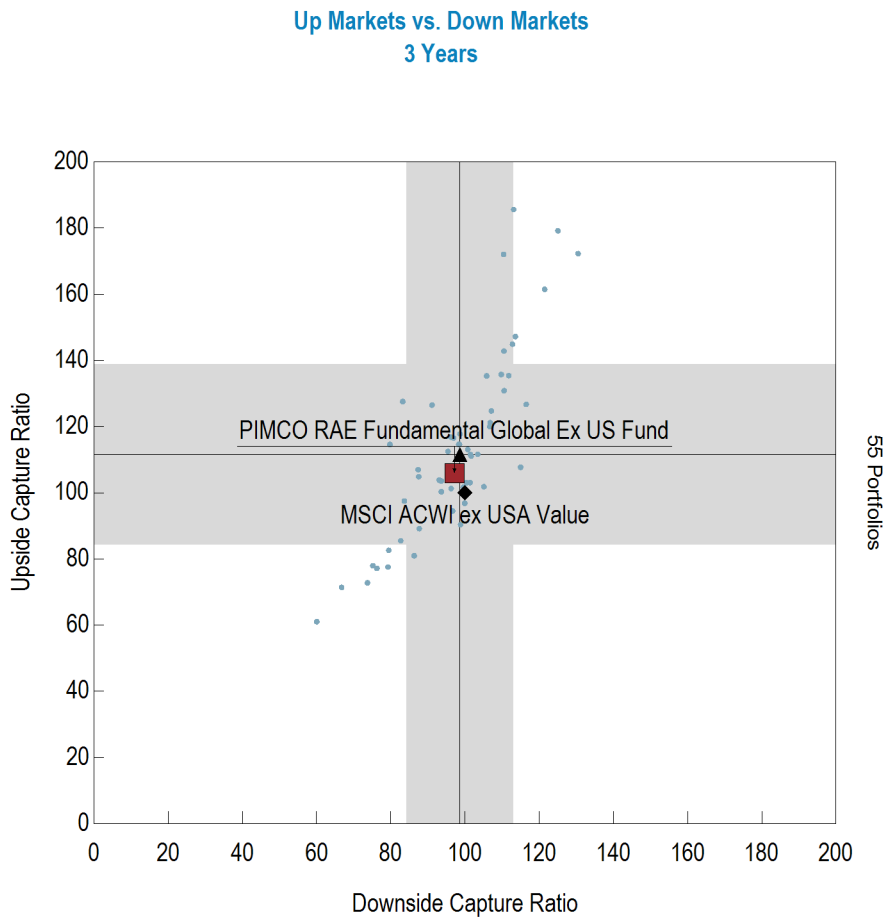
Period Ending: December 31, 2021



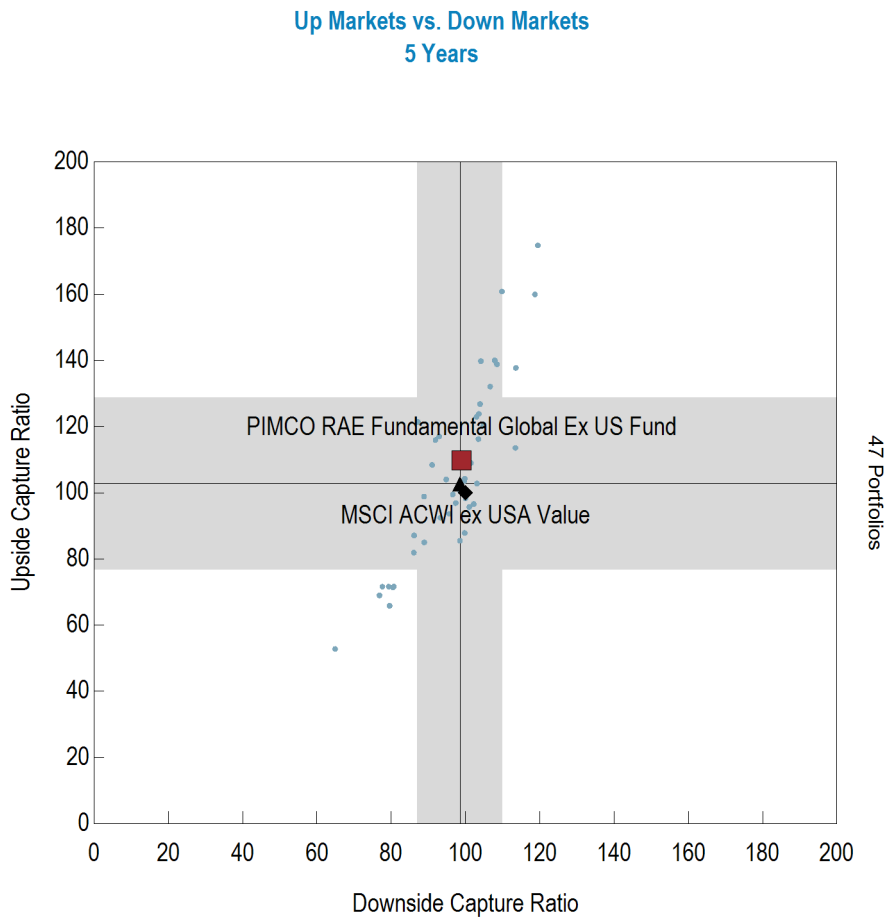


PIMCO RAE Fundamental Global Ex US Fund
Up Markets vs. Down Markets

Period Ending: December 31, 2021



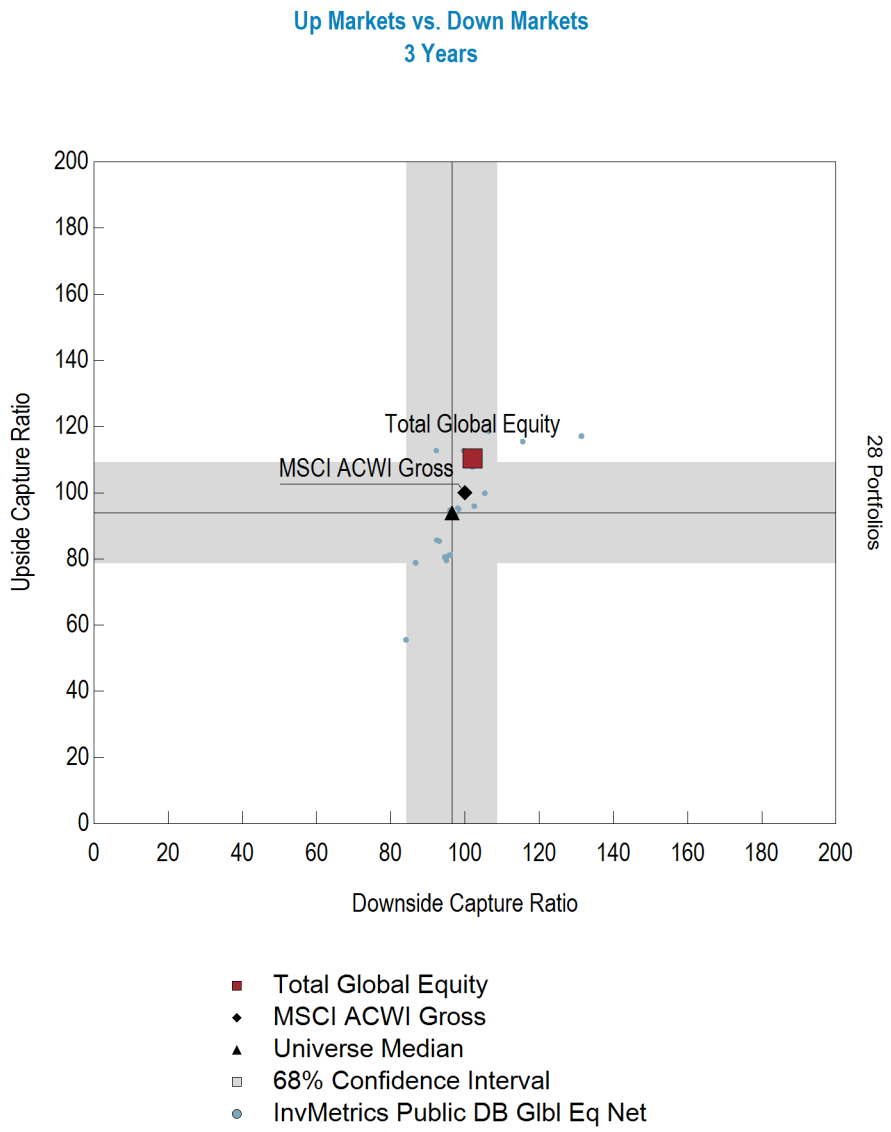
- PIMCO RAE Fundamental Global Ex US Fund
- MSCI ACWI ex USA Value
- Universe Median
- 68% Confidence Interval
- eV EAFE Value Equity Net

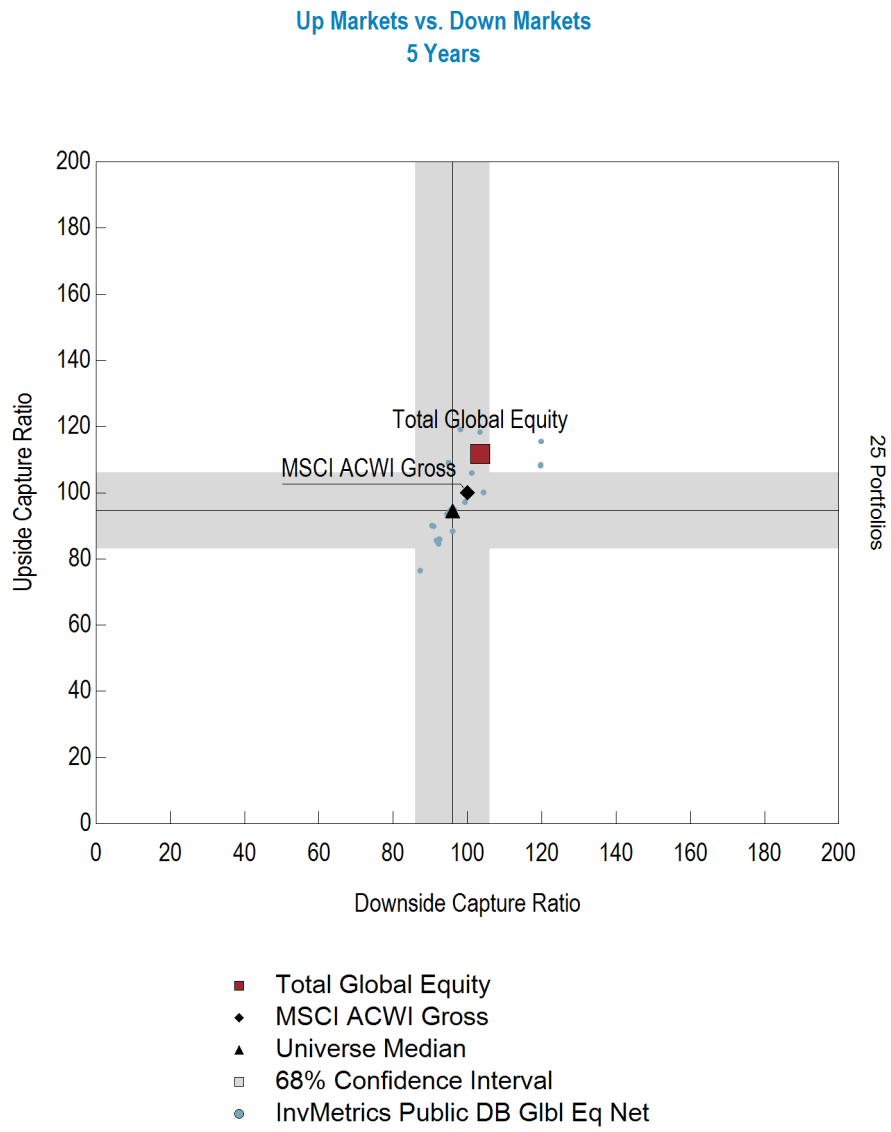


- PIMCO RAE Fundamental Global Ex US Fund
- MSCI ACWI ex USA Value
- Universe Median
- 68% Confidence Interval
- eV EAFE Value Equity Net

Total Global Equity
Up Markets vs. Down Markets

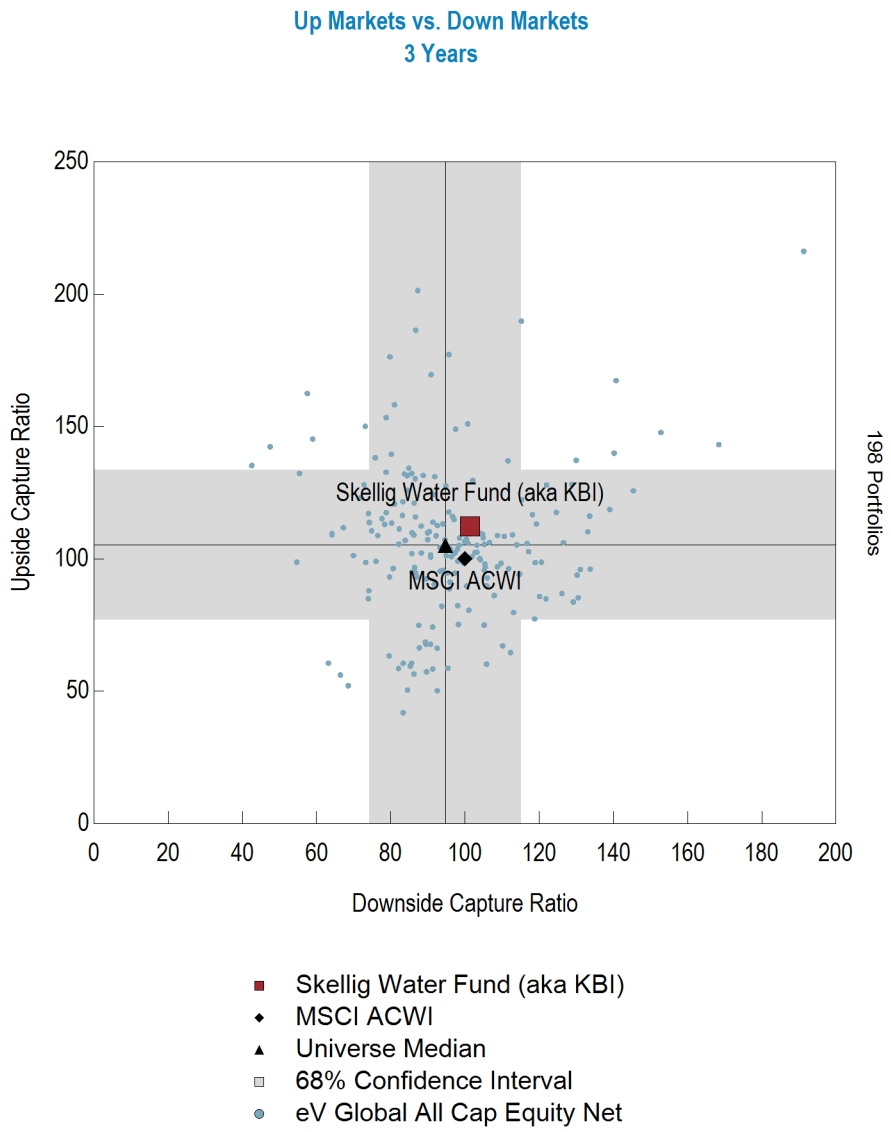
Period Ending: December 31, 2021

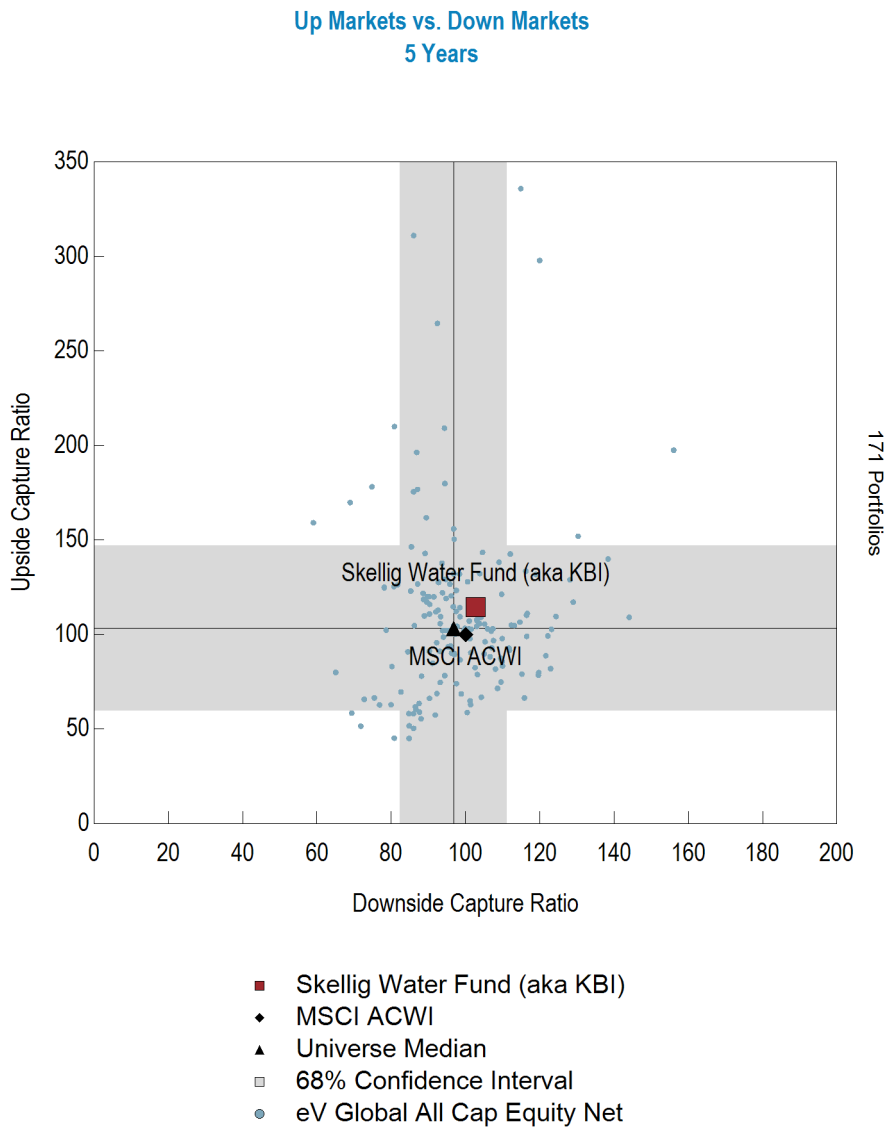




Skellig Water Fund (aka KBI)
Up Markets vs. Down Markets

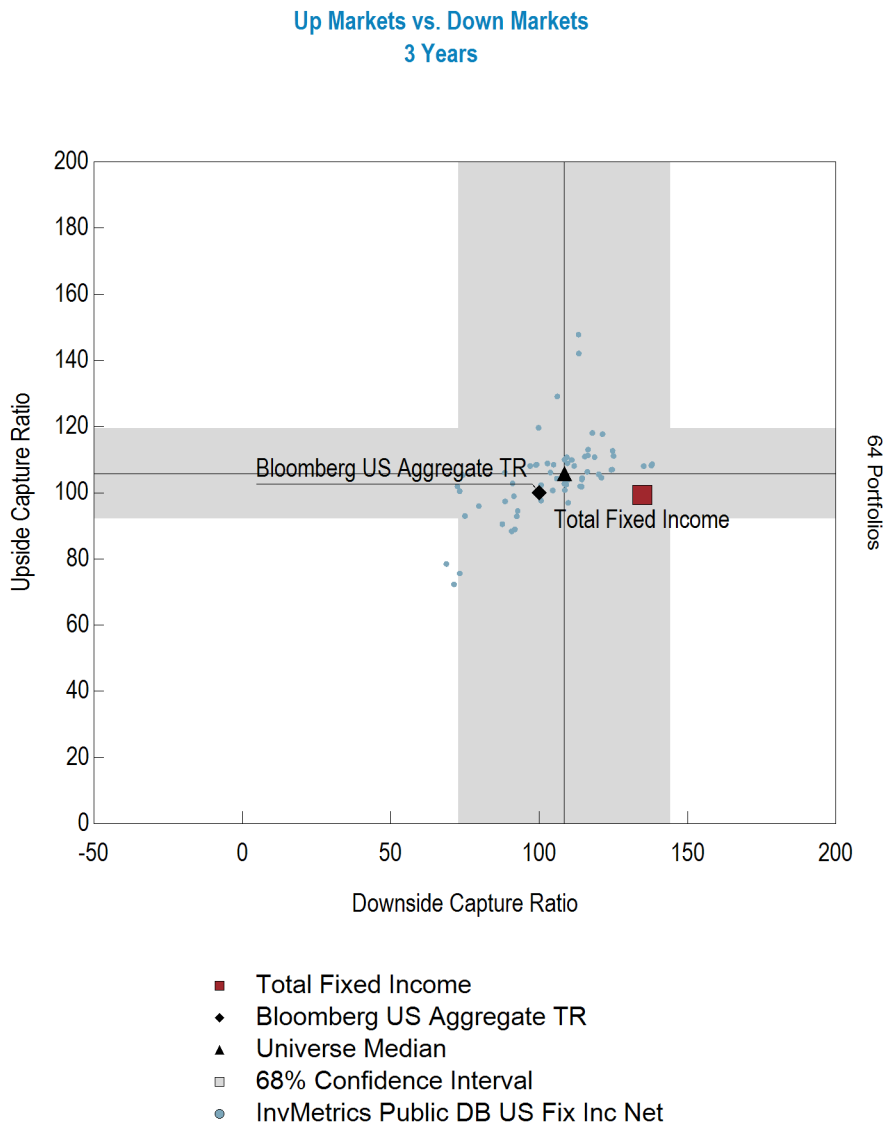
Period Ending: December 31, 2021

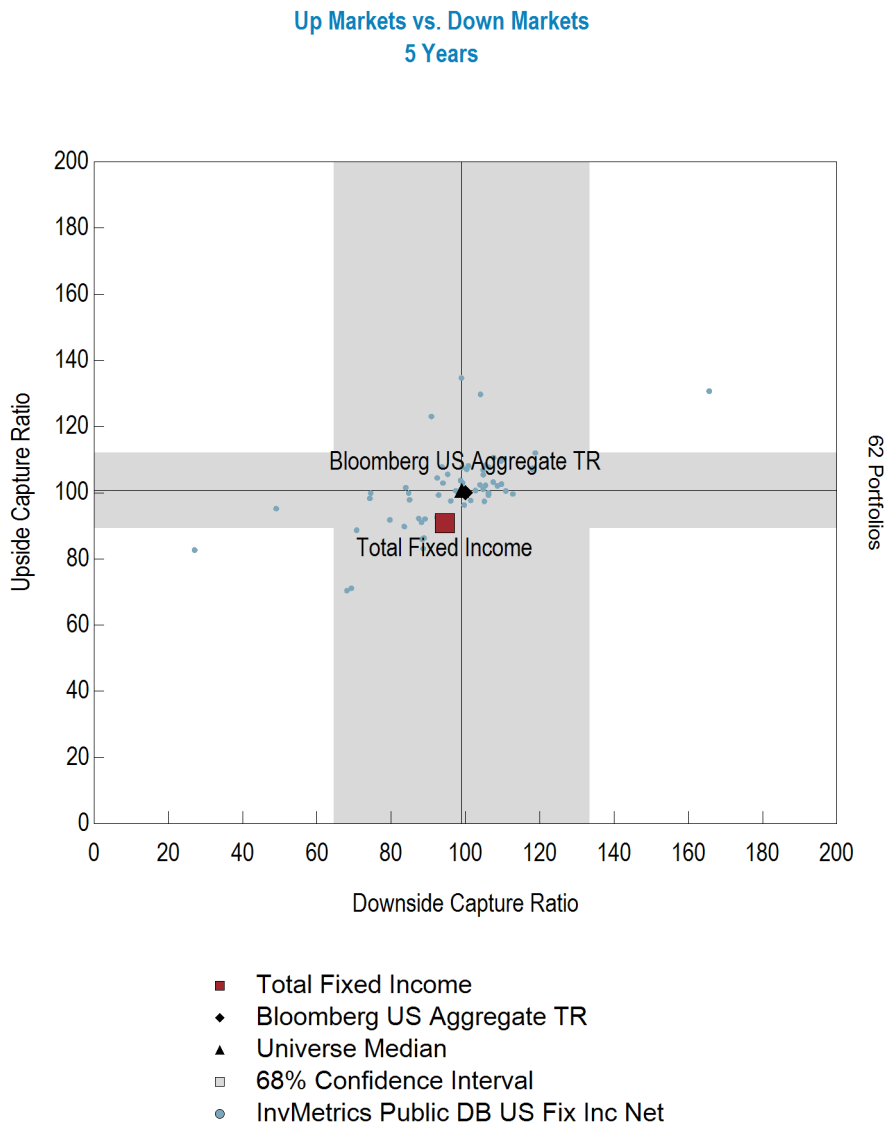




Total Fixed Income
Up Markets vs. Down Markets

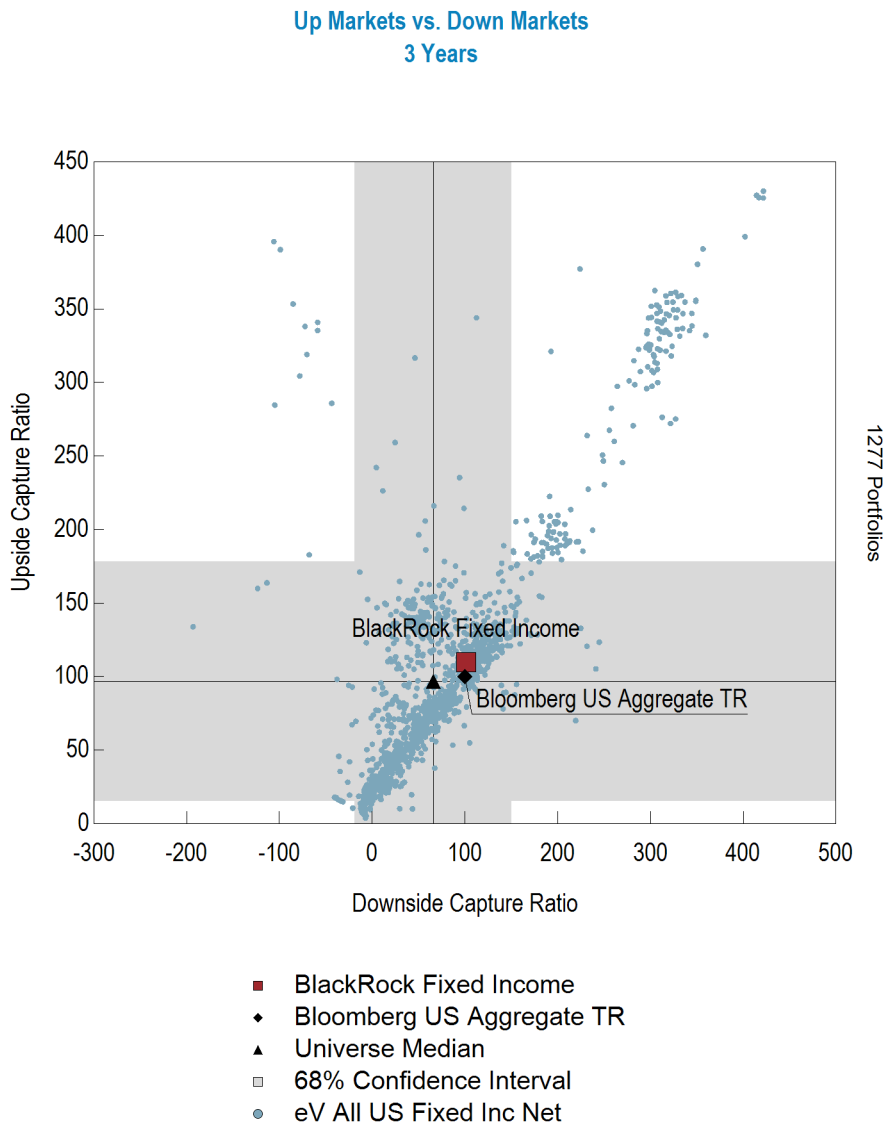
Period Ending: December 31, 2021

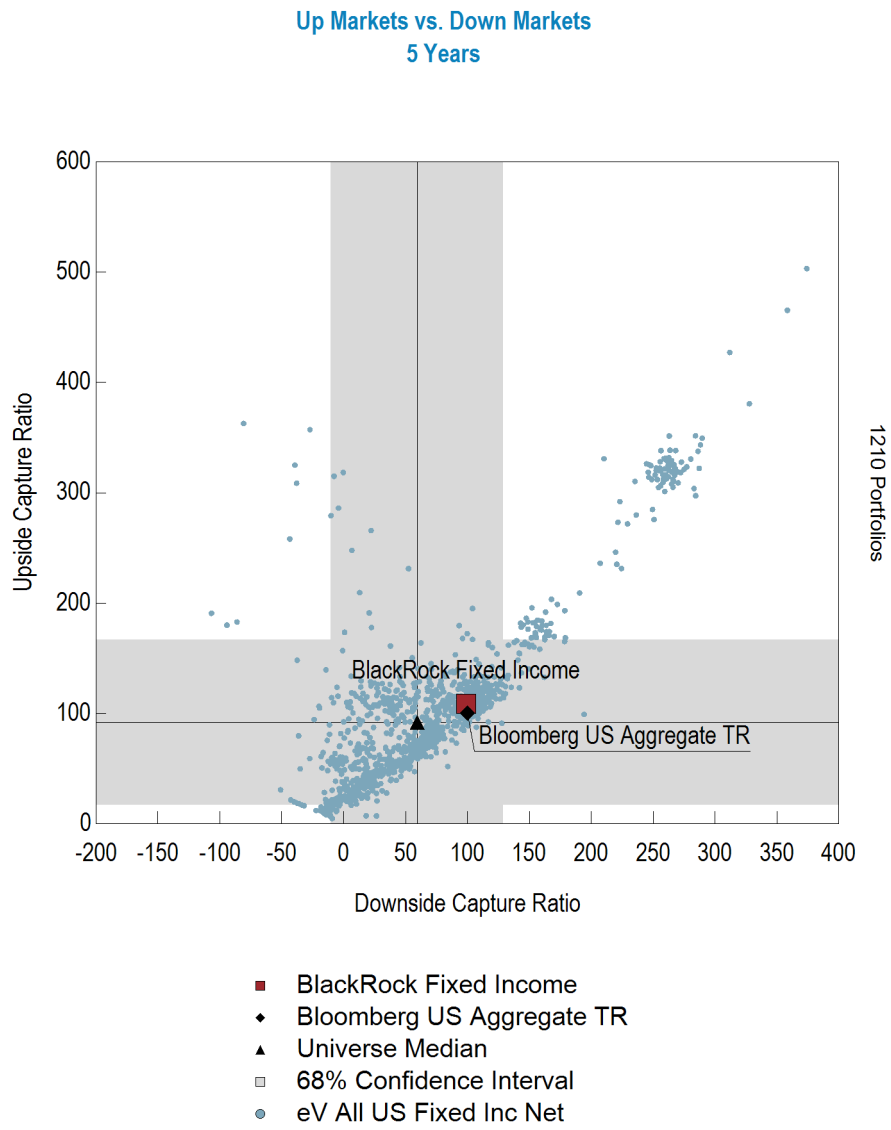




BlackRock Fixed Income
Up Markets vs. Down Markets

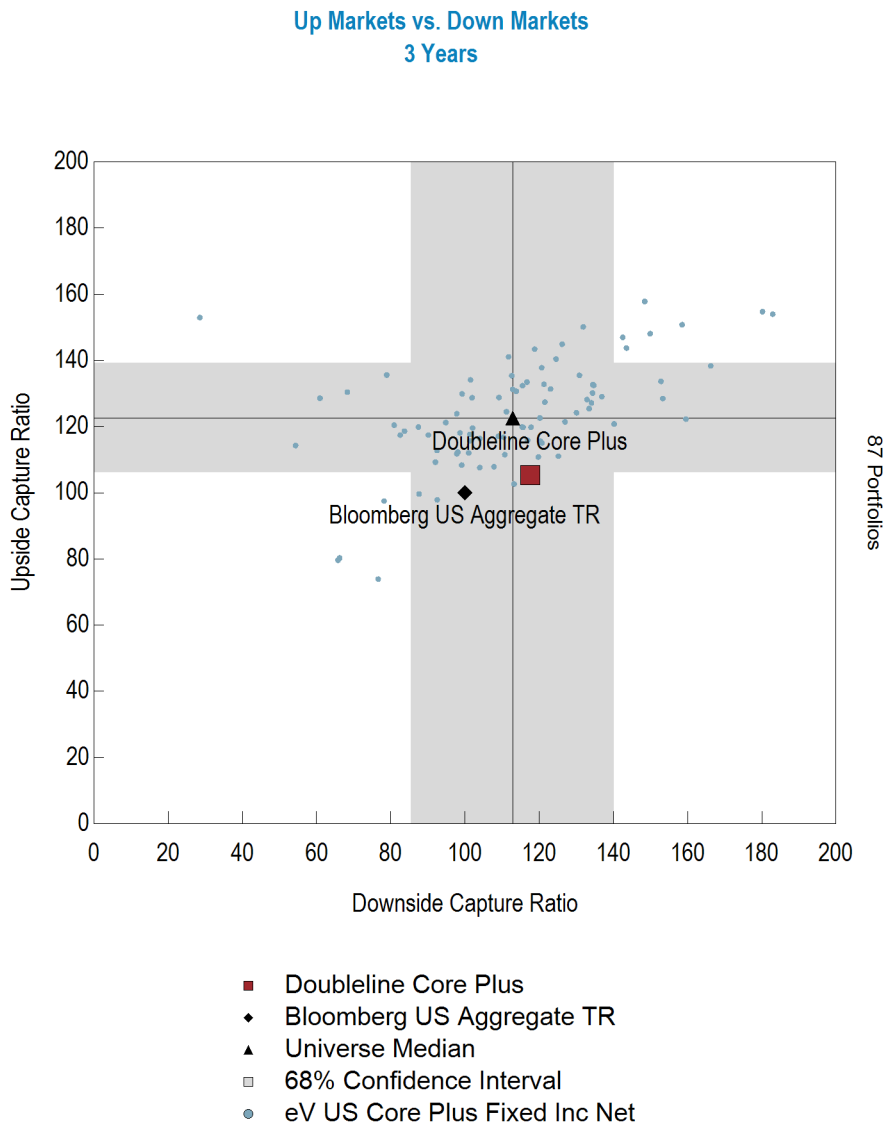
Period Ending: December 31, 2021

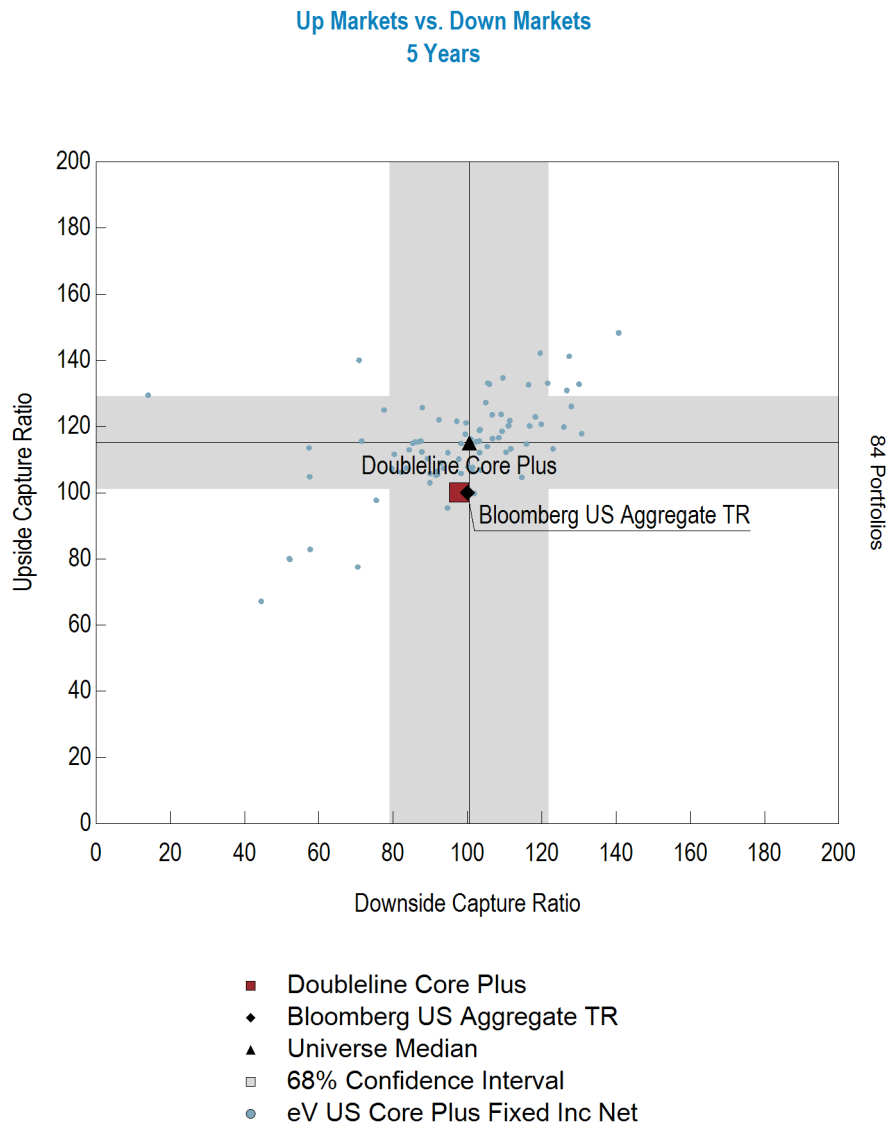




Doubleline Core Plus
Up Markets vs. Down Markets

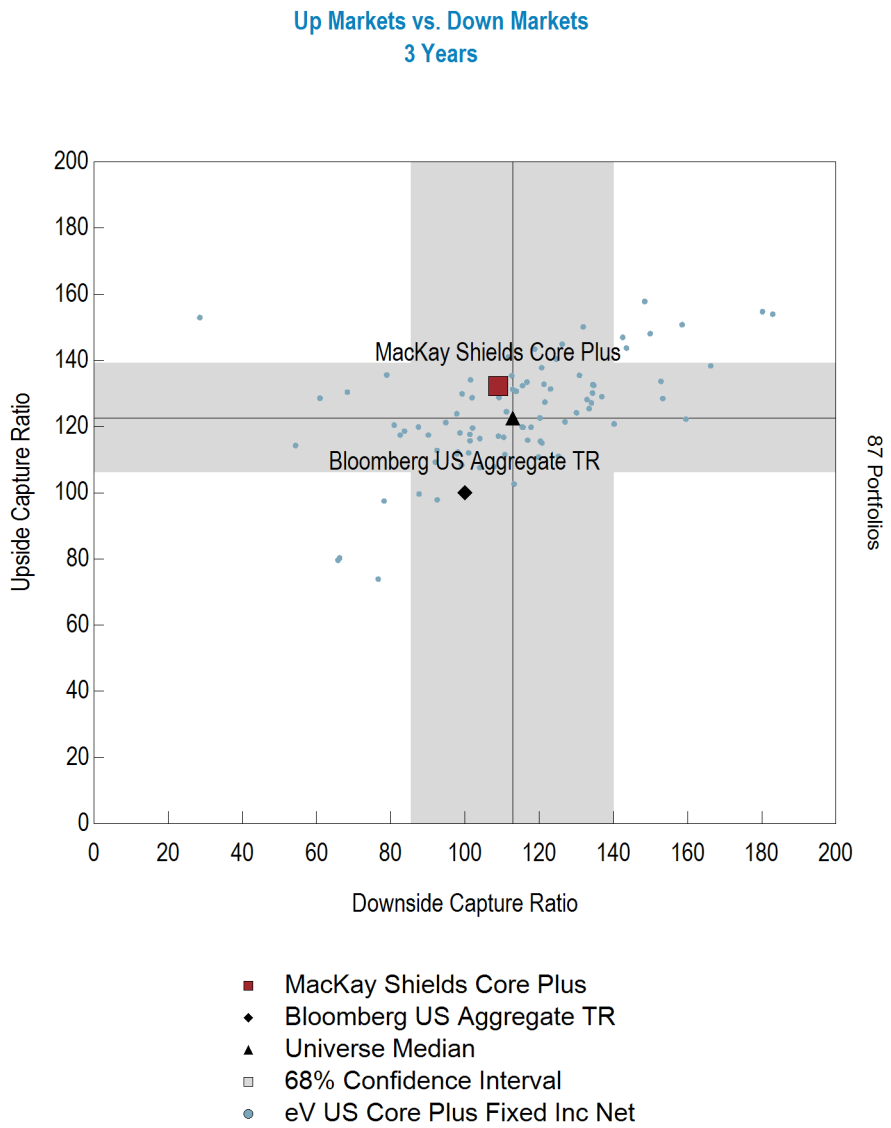
Period Ending: December 31, 2021

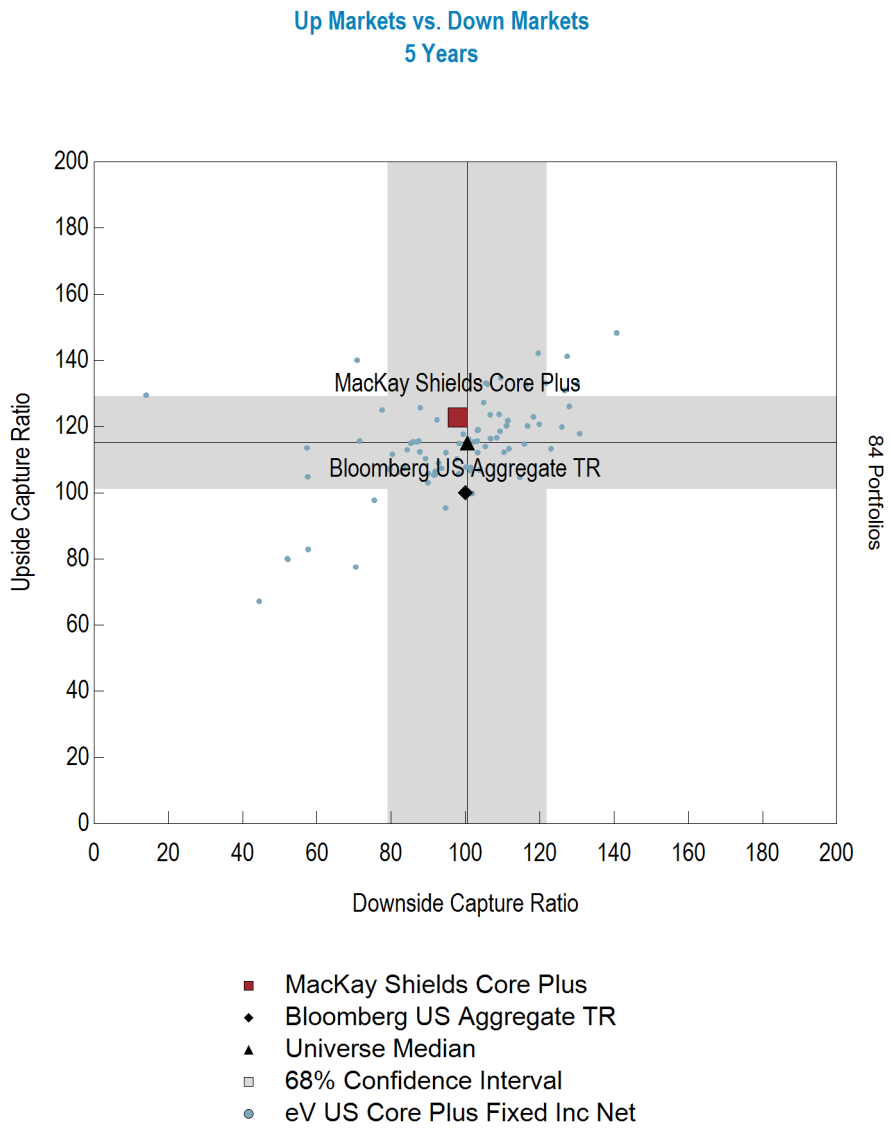




MacKay Shields Core Plus
Up Markets vs. Down Markets

Period Ending: December 31, 2021





Performance Return Calculations

Performance is calculated using Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are linked geometrically and annualized for periods longer than one year.

Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

Illiquid Alternatives

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

Manager Line Up

Manager	Fund Incepted	Data Source	Manager	Fund Incepted	Data Source
SSGA S&P 500 Flagship Fund	7/27/2011	SSGA	RREEF America II	3/1/2003	Deutsche
QMA Large Cap Core	12/1/2008	BNY	TA Associates Realty	6/1/2007	TA Realty
Waddell & Reed	6/4/2010	BNY	BlackRock Private Capital II	7/13/2005	BlackRock
Robeco Boston Partners	2/1/1999	BNY	Pantheon USA Fund VI	7/26/2005	Pantheon
William Blair Mid Cap Grw	12/1/2006	BNY	PIMCO BRAVO	1/14/2011	PIMCO
Lee Munder Small Value	8/26/2009	BNY	KKR Mezzanine Partners	7/8/2011	KKR
SSGA US Extended Market Index	6/10/2021	SSGA	Stepstone Secondary Opps II	5/10/2013	Stepstone
PIMCO RAE	8/14/2012	PIMCO	Ocean Avenue Fund III	5/27/2016	Ocean Ave
SSGA MSCI ACWI ex US	1/1/2010	SSGA	Ocean Avenue Fund IV	9/16/2019	Ocean Ave
SGA Global Growth	6/4/2018	SGA	Pathway Fund 8	4/12/2016	Pathway
Skellig DST Water Fund	10/28/2014	KBI	Pathway Fund 9	5/31/2018	Pathway
BlackRock Fixed Income	12/1/1995	BNY	Pathway Fund 10	3/31/2020	Pathway
Doubleline Core Plus	12/1/2015	BNY	Sixth Street Partners Diversified Credit	11/21/2016	Sixth Street
MacKay Shields Core Plus	12/1/2015	MacKay	Sixth Stree TAO Contingent	4/16/2020	Sixth Street
PGIM Emerging Markets Debt	8/26/2019	BNY	American Realty	12/20/2019	American Realty
SSGA US REIT Index Non-Lending Fund	12/10/2021	BNY	Invesco Commercial Mortgage	9/1/2021	Invesco

Policy & Custom Index Composition

Policy Index: 26% Russell 3000, 16% MSCI ACWI ex US, 3% MSCI ACWI, 17% Bloomberg US Aggregate, 3% JPM GBI Global, 13.4% NCREIF-ODCE, 7% Private Equity Returns, 5% Private Credit Returns, 5% Russell 2000, 4.6% MSCI US REIT Index.

Other Disclosures

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: Portfolio Return - [Risk-free Rate + Portfolio Beta x (Market Return - Risk-free Rate)].

Benchmark R-squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book-to-Market: The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price-to-Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

R-Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard Deviation.

Sortino Ratio: Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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The information presented may be deemed to contain forward-looking information. Examples of forward looking information include, but are not limited to, (a) projections of or statements regarding return on investment, future earnings, interest income, other income, growth prospects, capital structure and other financial terms, (b) statements of plans or objectives of management, (c) statements of future economic performance, and (d) statements of assumptions, such as economic conditions underlying other statements. Such forward-looking information can be identified by the use of forward looking terminology such as believes, expects, may, will, should, anticipates, or the negative of any of the foregoing or other variations thereon comparable terminology, or by discussion of strategy. No assurance can be given that the future results described by the forward-looking information will be achieved. Such statements are subject to risks, uncertainties, and other factors which could cause the actual results to differ materially from future results expressed or implied by such forward looking information. The findings, rankings, and opinions expressed herein are the intellectual property of Verus and are subject to change without notice. The information presented does not claim to be all-inclusive, nor does it contain all information that clients may desire for their purposes. The information presented should be read in conjunction with any other material provided by Verus, investment managers, and custodians.

Verus will make every reasonable effort to obtain and include accurate market values. However, if managers or custodians are unable to provide the reporting period's market values prior to the report issuance, Verus may use the last reported market value or make estimates based on the manager's stated or estimated returns and other information available at the time. These estimates may differ materially from the actual value. Hedge fund market values presented in this report are provided by the fund manager or custodian. Market values presented for private equity investments reflect the last reported NAV by the custodian or manager net of capital calls and distributions as of the end of the reporting period. These values are estimates and may differ materially from the investments actual value. Private equity managers report performance using an internal rate of return (IRR), which differs from the time-weighted rate of return (TWRR) calculation done by Verus. It is inappropriate to compare IRR and TWRR to each other. IRR figures reported in the illiquid alternative pages are provided by the respective managers, and Verus has not made any attempts to verify these returns. Until a partnership is liquidated (typically over 10-12 years), the IRR is only an interim estimated return. The actual IRR performance of any LP is not known until the final liquidation.

Verus receives universe data from InvMetrics, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is not static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.

COUNTY OF TULARE
BOARD OF RETIREMENT

Leanne Malison
Retirement Administrator

136 N AKERS STREET
VISALIA, CALIFORNIA 93291

TELEPHONE (559) 713-2900
FAX (559) 730-2631
www.tcera.org

MEMORANDUM

DATE: February 23, 2022

TO: Trustees, Board of Retirement

FROM: Mary Warner, Assistant Retirement Administrator

SUBJECT: Posting Interest for December 31, 2021

TCERA staff have calculated and created multiple interest-crediting options for board assessment to post to all member accounts and reserves in the Retirement Fund as of December 31, 2021. As a result, staff recommends that the following options be considered by the Board of Retirement. Please direct staff to adjust the Contingency Reserve and credit the member accounts and reserves pursuant to the selection deemed optimal:

For Members in Tiers 1-3:

1) Allocate a sufficient amount to maintain the Contingency Reserve at 3.0% of total assets as previously approved by the Board. The amount required to increase the Contingency Reserve to 3.0% at December 31, 2021 is $2,260,279.25. Credit member accounts and reserves entitled to interest at a rate of 3.7845% for the period ending December 31, 2021 and credit excess earnings in accordance with Section 31619 of the 1937 Act. This option would result in excess earnings of $10,745,912.36 of which $5,372,956.18 would be posted to the Supplemental Retiree Benefit Reserve's (SRBR) and the remaining 50% split among the member accounts and other reserves. The balance in the SRBR account prior to posting December 31, 2021 interest is $108,446,851.09.

   TCERA staff recommends that the Board adopts the option to maintain the Contingency Reserve at 3% for members in Tiers 1-3.

2) Allocate a sufficient amount to maintain the Contingency Reserve at 2.5% of total assets. The amount required to decrease the Contingency Reserve to 2.5% at December 31, 2021 is ($7,516,612.57). Credit member accounts and reserves entitled to interest at a rate of 4.097% for the period ending December 31, 2021 and credit excess earnings in accordance with Section 31619 of the 1937 Act. This option would result in excess earnings of $20,524,136.03 of which $10,262,068.01 would be posted to the Supplemental Retiree Benefit Reserve's (SRBR) and the remaining 50% split among the member accounts and other reserves. The balance in the SRBR account prior to posting December 31, 2021 interest is $108,446,851.09.

For Members in Tier 4:

1) Allocate a sufficient amount to maintain the Contingency Reserve at 3.0% of total assets as previously approved by the Board. The amount required to increase the Contingency Reserve to 3.0% at December 31, 2021 is $360,739.32. Credit member accounts and reserves entitled to interest at a rate of 3.441% for the period ending December 31, 2021. This option would result in excess earnings of $678,456.64 which would be posted to Tier 4 Contingency Reserve.

   TCERA staff recommends that the Board adopts the option to maintain the Contingency Reserve at 3% for members in Tier 4.

2) Allocate a sufficient amount to maintain the Contingency Reserve at 2.5% of total assets. The amount required to decrease the Contingency Reserve to 2.5% at December 31, 2021 is ($421,805.62). Credit member accounts and reserves entitled to interest at a rate of 3.441% for the period ending December 31, 2021. This option would result in excess earnings of $1,459,669.73 of which would be posted to Tier 4 Contingency Reserve.

Supporting worksheets have been provided to Cheiron, TCERA's current Actuary.

Contingency Reserve Calculations for 12/31/2021
Tier 1-3

Tier 1-3 @ 3.0%		
Earnings @ Actuarial Value	68,144,490.68	f
Unapportioned Reserve from prior 6 month	2,456,628.51	g
Manual Interest postings - current period	(93,727.48)	h
Manual Interest postings - prior period	56,638.71	i
Total earnings apportionable	**70,564,030.42**	
Interest @ 3.4410	(57,557,838.81)	k
Excess earnings	(10,745,912.36)	l
Total Interest @ 3.7845	**(68,303,751.17)**	
Increase/(Decrease) Contingency Reserve	13,006,191.61	e
Contingency Reserve prior to interest posting	56,406,804.79	d
Contingency Reserve 12/31/2021	**58,667,084.04**	c
Total Assets for Tier 1-3 @ 12/31/2021	1,955,569,468.12	
% Contingency Reserve	**0.0300**	

Tier 1-3 @ 2.5%		
Earnings @ Actuarial Value	68,144,490.68	f
Unapportioned Reserve from prior 6 month	2,456,628.51	g
Manual Interest postings - current period	(93,727.48)	h
Manual Interest postings - prior period	56,638.71	i
Total earnings apportionable	**70,564,030.42**	
Interest @ 3.441	(57,557,838.81)	k
Excess earnings	(20,524,136.03)	l
Total Interest @ 4.0970	**(78,081,974.84)**	
Increase/(Decrease) Contingency Reserve	(7,517,944.42)	e
Contingency Reserve prior to interest posting	56,406,804.79	d
Contingency Reserve 12/31/2021	**48,888,860.37**	c
Total Assets for Tier 1-3 @ 12/31/2021	1,955,569,468.12	
% Contingency Reserve	**0.0250**	

Contingency Reserve at 3.0%

INTEREST CALCULATION RESERVES December 31, 2021			member total interest 3.78448%
Tier 1-3 Increase/Decrease Contingency Reserve	BALANCE 06/30/21	ADJUSTED ACTUARIAL RATE	SECOND PASS
(Member interest can only go to 5 places)		3.44100%	0.34348%
Member Deposit Reserve (minus termed members)	276,957,010.08		
Less: Refunds Manual Interest Postings	(15,566.07)		
	276,941,444.01	9,529,555.09	951,244.90
Other Reserves - Unapportioned	2,456,628.51		0.00
Employer Advance Reserves	817,761,066.73		
	817,761,066.73	28,139,158.31	2,808,864.70
Retiree Reserves	445,062,528.50		
Less: Retiree Manual Interest Postings	(78,161.41)		
Plus: New Retirees	24,573,007.47		
	469,557,374.56	16,157,469.26	1,612,846.57
Supplemental Retiree Benefit Reserve	108,446,851.09	3,731,656.15	5,372,956.18
Total	1,672,706,736.39	57,557,838.81	10,745,912.35
Interest posting rate (Nominal Assumption Rate = 3.441)		3.4410%	0.34348%

Reserves minus SRBR 1,564,259,885.30

Purpose: To apportion regular interest at the actuarial assumed interest rate, or at the highest rate possible if "net earnings rate based on Actuarial Market" is not sufficient to credit the full actuarial assumed interest rate, to be credited semi-annually to all contributions, reserves, and accounts except the Contingency Reserve Account.

Source: The prior 6-month General Ledger Reserve Accounts, the Actual Value of Assets & Earnings at Actuarial Value output report, and the CPAS Credited Interest Buffer report (interest proof batch).

Scope: Extract a list of names from the Pension Journal of all Retirees who have retired since the last 6-month closing. Adjust the retiree reserves by adding in the prior six totals of those members that have retired since the last 6 month closing. Calculate the interest as stated in Purpose on the adjusted total of the retiree reserve. *Note: second pass for SRBR is 50% of excess and actual $ amount keyed is not calculated.*

Conclusion: Interest Calculation should be apportioned as stated above.

Interest Allocation for 12/31/2021

Tier 1-3

Contingency Reserve at 3.0%

Assets at 12/31/2021 (Less Securities Lending Collateral)			2,111,887,352.76
Tier 1-3 Assets based on percent of total at beginning of interest period	0.9260		1,955,569,468.12
Total Assets (base contingency on)		a	1,955,569,468.12
3.0% contingency reserve factor		b	0.030
Contingency Reserve at 3.0%		c=(a*b)	58,667,084.04
Increase/Decrease Contingency Reserve			
Contingency Balance - prior 6 month (3410.1) for Tier 1-3		d	56,406,804.79
Contingency Reserve at 3.0% current six month end for Tier 1-3		c	58,667,084.04
Contingency (Increase)/Decrease		e=(d-c)	(2,260,279.25)
Contingency excess		e	(2,260,279.25)
Net Earnings on Actuarial Market			73,591,601.00
Net Earnings based on percent of total at beginning of interest period	0.9260	f	68,144,490.68
Unapportioned Reserve - prior 6 month (3120.1) for Tier 1-3		g	2,456,628.51
Manual Interest postings - current period for Tier 1-3		h	(93,727.48)
Manual Interest postings - prior period for Tier 1-3		i	56,638.71
Total earnings apportionable		j=(e+f+g+h+i)	68,303,751.17
Total Interest		k	57,557,838.81
Total Excess Earnings		l=(j-k)	10,745,912.36
50% factor for SRBR		m	0.50
Excess earnings to SRBR		n=(l*m)	5,372,956.18

Contingency Reserve at 2.5%

INTEREST CALCULATION RESERVES December 31, 2021			member total interest 4.09703%
Tier 1-3 Increase/Decrease Contingency Reserve	BALANCE 06/30/21	ADJUSTED ACTUARIAL RATE	SECOND PASS
(Member interest can only go to 5 places)		3.44100%	0.65603%
Member Deposit Reserve (minus termed members)	276,957,010.08		
Less: Refunds Manual Interest Postings	(15,566.07)		
	276,941,444.01	9,529,555.09	1,816,828.50
Other Reserves - Unapportioned	2,456,628.51		0.00
Employer Advance Reserves	817,761,066.73		
	817,761,066.73	28,139,158.31	5,364,786.10
Retiree Reserves	445,062,528.50		
Less: Retiree Manual Interest Postings	(78,161.41)		
Plus: New Retirees	24,573,007.47		
	469,557,374.56	16,157,469.26	3,080,453.42
Supplemental Retiree Benefit Reserve	108,446,851.09	3,731,656.15	10,262,068.01
Total	1,672,706,736.39	57,557,838.81	20,524,136.03
Interest posting rate (Nominal Assumption Rate = 3.441)		3.4410%	0.65603%

Reserves minus SRBR 1,564,259,885.30

Purpose: To apportion regular interest at the actuarial assumed interest rate, or at the highest rate possible if "net earnings rate based on Actuarial Market" is not sufficient to credit the full actuarial assumed interest rate, to be credited semi-annually to all contributions, reserves, and accounts except the Contingency Reserve Account.

Source: The prior 6-month General Ledger Reserve Accounts, the Actual Value of Assets & Earnings at Actuarial Value output report, and the CPAS Credited Interest Buffer report (interest proof batch).

Scope: Extract a list of names from the Pension Journal of all Retirees who have retired since the last 6-month closing. Adjust the retiree reserves by adding in the prior six totals of those members that have retired since the last 6 month closing. Calculate the interest as stated in Purpose on the adjusted total of the retiree reserve. *Note: second pass for SRBR is 50% of excess and actual $ amount keyed is not calculated.*

Conclusion: Interest Calculation should be apportioned as stated above.

Interest Allocation for 6/30/2021

Tier 1-3

Contingency Reserve at 2.5%

Assets at 6/30/2021 (Less Securities Lending Collateral)			2,111,887,352.76
Tier 1-3 Assets based on percent of total at beginning of interest period	0.9260		1,955,607,688.66
Total Assets (base contingency on)		a	1,955,607,688.66
2.5% contingency reserve factor		b	0.025
Contingency Reserve at 2.5%		c=(a*b)	48,890,192.22
Increase/Decrease Contingency Reserve			
Contingency Balance - prior 6 month (3410.1) for Tier 1-3		d	56,406,804.79
Contingency Reserve at 2.5% current six month end for Tier 1-3		c	48,890,192.22
Contingency (Increase)/Decrease		e=(d-c)	7,516,612.57
Contingency excess		e	7,516,612.57
Net Earnings on Actuarial Market			73,591,601.00
Net Earnings based on percent of total at beginning of interest period	0.9260	f	68,145,822.53
Unapportioned Reserve - prior 6 month (3120.1) for Tier 1-3		g	2,456,628.51
Manual Interest postings - current period for Tier 1-3		h	(93,727.48)
Manual Interest postings - prior period for Tier 1-3		i	56,638.71
Total earnings apportionable		j=(e+f+g+h+i)	78,081,974.84
Total Interest		k	57,557,838.81
Total Excess Earnings		l=(j-k)	20,524,136.03
50% factor for SRBR		m	0.50
Excess earnings to SRBR		n=(l*m)	10,262,068.01

Contingency Reserve Calculations for 12/31/2021
Tier 4

Tier 4 @ 3.0%		
Earnings @ Actuarial Value	5,447,110.32	f
Unapportioned Reserve from prior 6 month	203,920.25	g
Manual Interest postings - current period	(16,127.80)	h
Manual Interest postings - prior period	4,132.55	i
Total earnings apportionable	**5,639,035.32**	
Interest @ 3.441	(4,599,839.36)	k
Excess earnings	(678,456.64)	l
Total Interest @ 3.441	**(5,278,296.00)**	
Increase/(Decrease) Contingency Reserve (3% adjustment + excess)	1,039,195.96	e+l
Contingency Reserve prior to interest posting	4,328,797.22	d
Contingency Reserve 12/31/2021	**5,367,993.18**	
Total Assets for Tier 4 @ 12/31/2021	156,317,884.64	
% Contingency Reserve	**0.0343**	

Tier 4 @ 2.5%		
Earnings @ Actuarial Value	5,447,110.32	f
Unapportioned Reserve from prior 6 month	203,920.25	g
Manual Interest postings - current period	(16,127.80)	h
Manual Interest postings - prior period	4,132.55	i
Total earnings apportionable	**5,639,035.32**	
Interest @ 3.441	(4,599,839.36)	k
Excess earnings	(1,459,669.73)	l
Total Interest @ 3.441	**(6,059,509.09)**	
Increase/(Decrease) Contingency Reserve (3% adjustment + excess)	(420,473.77)	e+l
Contingency Reserve prior to interest posting	4,328,797.22	d
Contingency Reserve 12/31/2021	**3,908,323.45**	
Total Assets for Tier 4 @ 12/31/2021	156,317,884.64	
% Contingency Reserve	**0.0250**	

Contingency Reserve at 3.0%

INTEREST CALCULATION RESERVES December 31, 2021			member total interest 3.44100%
Tier 4 Increase/Decrease Contingency Reserve	BALANCE 06/30/21	ADJUSTED ACTUARIAL RATE	SECOND PASS
(Member interest can only go to 5 places)		3.44100%	
Member Deposit Reserve (minus termed members)	39,813,473.54		
Less: Refunds Manual Interest Postings	(10,901.35)		
	39,802,572.19	1,369,606.51	
Other Reserves - Unapportioned	203,920.25		
Employer Advance Reserves	91,125,737.46		
	91,125,737.46	3,135,636.63	
Retiree Reserves	1,193,049.05		
Less: Retiree Manual Interest Postings	(5,226.45)		
Plus: New Retirees	1,561,268.50		
	2,749,091.10	94,596.22	
Tier 4 Excess to Contigency Reserve (no cap)			678,456.64
Total	133,677,400.75	4,599,839.36	678,456.64
Interest posting rate (Nominal Assumption Rate = 3.441)		3.4410%	

Reserves minus Excess	133,677,400.75

Purpose: To apportion regular interest at the actuarial assumed interest rate, or at the highest rate possible if "net earnings rate based on Actuarial Market" is not sufficient to credit the full actuarial assumed interest rate, to be credited semi-annually to all contributions, reserves, and accounts except the Contingency Reserve Account.

Source: The prior 6-month General Ledger Reserve Accounts, the Actual Value of Assets & Earnings at Actuarial Value output report, and the CPAS Credited Interest Buffer report (interest proof batch).

Scope: Extract a list of names from the Pension Journal of all Retirees who have retired since the last 6-month closing. Adjust the retiree reserves by adding in the prior six totals of those members that have retired since the last 6 month closing. Calculate the interest as stated in Purpose on the adjusted total of the retiree reserve. *Note: second pass for SRBR is 50% of excess and actual $ amount keyed is not calculated.*

Conclusion: Interest Calculation should be apportioned as stated above.

Interest Allocation for 12/31/2021

Tier 4

Contingency Reserve at 3.0%

Assets at 12/31/2021 (Less Securities Lending Collateral)			2,111,887,352.76
Tier 4 Assets based on percent of total at beginning of interest period	0.0740		156,317,884.64
Total Assets (base contingency on)		a	156,317,884.64
3% contingency reserve factor		b	0.030
Contingency Reserve at 3%		c=(a*b)	4,689,536.54
Increase/Decrease Contingency Reserve			
Contingency Balance - prior 6 month (3410.2) for Tier 4		d	4,328,797.22
Contingency Reserve at 3% current six month end for Tier 4		c	4,689,536.54
Contingency (Increase)/Decrease		e=(d-c)	(360,739.32)
Contingency excess		e	(360,739.32)
Net Earnings on Actuarial Market			73,591,601.00
Net Earnings based on percent of total at beginning of interest period	0.0740	f	5,447,110.32
Unapportioned Reserve - prior 6 month (3120.2) for Tier 4		g	203,920.25
Manual Interest postings - current period for Tier 4		h	(16,127.80)
Manual Interest postings - prior period for Tier 4		i	4,132.55
Total earnings apportionable		j=(e+f+g+h+i)	5,278,296.00
Total Interest		k	4,599,839.36
Total Excess earnings		l=(j-k)	678,456.64

Contingency Reserve at 2.5%

INTEREST CALCULATION RESERVES December 31, 2021			member total interest 3.44100%
Tier 4 Increase/Decrease Contingency Reserve	BALANCE 06/30/21	ADJUSTED ACTUARIAL RATE	SECOND PASS
(Member interest can only go to 5 places)		3.44100%	
Member Deposit Reserve (minus termed members)	39,813,473.54		
Less: Refunds Manual Interest Postings	(10,901.35)		
	39,802,572.19	1,369,606.51	
Other Reserves - Unapportioned	203,920.25		
Employer Advance Reserves	91,125,737.46		
	91,125,737.46	3,135,636.63	
Retiree Reserves	1,193,049.05		
Less: Retiree Manual Interest Postings	(5,226.45)		
Plus: New Retirees	1,561,268.50		
	2,749,091.10	94,596.22	
Tier 4 Excess to Contigency Reserve (no cap)			1,459,669.73
Total	133,677,400.75	4,599,839.36	1,459,669.73
Interest posting rate (Nominal Assumption Rate = 3.441)		3.4410%	

Reserves minus Excess	133,677,400.75

Purpose: To apportion regular interest at the actuarial assumed interest rate, or at the highest rate possible if "net earnings rate based on Actuarial Market" is not sufficient to credit the full actuarial assumed interest rate, to be credited semi-annually to all contributions, reserves, and accounts except the Contingency Reserve Account.

Source: The prior 6-month General Ledger Reserve Accounts, the Actual Value of Assets & Earnings at Actuarial Value output report, and the CPAS Credited Interest Buffer report (interest proof batch).

Scope: Extract a list of names from the Pension Journal of all Retirees who have retired since the last 6-month closing. Adjust the retiree reserves by adding in the prior six totals of those members that have retired since the last 6 month closing. Calculate the interest as stated in Purpose on the adjusted total of the retiree reserve. *Note: second pass for SRBR is 50% of excess and actual $ amount keyed is not calculated.*

Conclusion: Interest Calculation should be apportioned as stated above.

Interest Allocation for 12/31/2021

Tier 4

Contingency Reserve at 2.5%

Assets at 12/31/2021 (Less Securities Lending Collateral)			2,111,887,352.76
Tier 4 Assets based on percent of total at beginning of interest period	0.0740		156,279,664.10
Total Assets (base contingency on)		a	156,279,664.10
2.5% contingency reserve factor		b	0.025
Contingency Reserve at 2.5%		c=(a*b)	3,906,991.60
Increase/Decrease Contingency Reserve			
Contingency Balance - prior 6 month (3410.2) for Tier 4		d	4,328,797.22
Contingency Reserve at 2.5% current six month end for Tier 4		c	3,906,991.60
Contingency (Increase)/Decrease		e=(d-c)	421,805.62
Contingency excess		e	421,805.62
Net Earnings on Actuarial Market			73,591,601
Net Earnings based on percent of total at beginning of interest period	0.0740	f	5,445,778.47
Unapportioned Reserve - prior 6 month (3120.2) for Tier 4		g	203,920.25
Manual Interest postings - current period for Tier 4		h	(16,127.80)
Manual Interest postings - prior period for Tier 4		i	4,132.55
Total earnings apportionable		j=(e+f+g+h+i)	6,059,509.09
Total Interest		k	4,599,839.36
Total Excess earnings		l=(j-k)	1,459,669.73

Via Electronic Mail

January 21, 2022

Ms. Leanne Malison, Retirement Administrator
Tulare County Employees' Retirement Association
136 N. Akers Street
Visalia, CA 93291

Re: April 1, 2022 Cost-of-Living Adjustment (COLA)

Dear Leanne:

Pursuant to the scope of retainer services under Cheiron's agreement to provide actuarial services to the Tulare County Employees' Retirement Association (TCERA), we are providing you with the April 1, 2022 cost-of-living adjustment schedule for TCERA members, prepared in accordance with Sections 31870.1 (Tier 1) and 31870 (Tiers 2-4) of the 1937 Act. Below we present our calculation of the April 1, 2022 adjustment.

Retired members are adjusted each April 1 based on the year-end *Consumer Price Index (CPI) for All Urban Consumers, All Items, (December 2017 = 100), Riverside-San Bernardino-Ontario.* The adjustment is rounded to the nearest half of a percent, not to exceed 3% for Tier 1 and 2% for Tiers 2-4. Since the December CPI was not published for the *Riverside-San Bernardino-Ontario* region for 2020 or 2021, we are using the November CPI.

The summary of the April 1, 2022 cost-of-living adjustments and change in accumulated carryover balances, if applicable, are shown below:

CPI Increases			
November CPI[1]		**Percentage Increase in CPI**	**Rounded CPI Increase**
2020	2021		
108.626	117.206	7.90%	8.00%

[1]The November CPI is used since the December CPI is not published for the Riverside-San Bernardino-Ontario region.

Tier 1 (Section 31870.1)		
Initial Retirement Date	**April 1, 2022 COLA**	**Change in Accumulated Carryover**
On or Before 4/1/2022	3.00%	5.00%

Tiers 2-4 (Section 31870)		
Initial Retirement Date	**April 1, 2022 COLA**	**Change in Accumulated Carryover**
On or Before 4/1/2022	2.00%	6.00%

The 1937 Act specifies that the difference between the actual CPI percentage calculated without regard to the cap and the actual COLA used is to be accumulated and carried over each year. This accumulated carryover balance may be used to provide cost-of-living adjustments up to the maximum, if the actual CPI increase is lower. Exhibits I (Tier 1) and II (Tiers 2-4) show the accumulated carryover balances as of April 1, 2021 and April 1, 2022 for each cohort of retirees.

In preparing this letter, we have relied on information (some oral and some written) supplied by the TCERA staff. This information includes, but is not limited to, the plan provisions and historical COLA information.

This letter and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this letter. This letter does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This letter was prepared exclusively for TCERA for the purpose of determining the April 1, 2022 cost-of-living adjustment schedule for TCERA members. This letter is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Please call if you have any questions.

Sincerely,
Cheiron

Graham A. Schmidt, ASA, EA, FCA, MAAA
Consulting Actuary

Steven M. Hastings, FSA, EA, FCA, MAAA
Consulting Actuary

Enclosures

Exhibit I

Tulare County Employees' Retirement Association
Suggested Cost-of-Living Adjustments for Tier 1 (Section 31870.1)
Based on Historical Information Provided by TCERA
April 1, 2022

	As of April 1, 2021			As of April 1, 2022		
Came on Pension Roll	CPI Change	COLA Granted	Accumulated Carryover*	CPI Change	COLA Granted	Accumulated Carryover*
On or before 04/01/74	1.93%	3.0%	53.0%	7.90%	3.0%	58.0%
04/02/74 to 04/01/75	1.93%	3.0%	50.5%	7.90%	3.0%	55.5%
04/02/75 to 04/01/76	1.93%	3.0%	43.0%	7.90%	3.0%	48.0%
04/02/76 to 04/01/77	1.93%	3.0%	35.5%	7.90%	3.0%	40.5%
04/02/77 to 04/01/78	1.93%	3.0%	32.0%	7.90%	3.0%	37.0%
04/02/78 to 04/01/79	1.93%	3.0%	28.0%	7.90%	3.0%	33.0%
04/02/79 to 04/01/80	1.93%	3.0%	23.5%	7.90%	3.0%	28.5%
04/02/80 to 04/01/81	1.93%	3.0%	15.5%	7.90%	3.0%	20.5%
04/02/81 to 04/01/82	1.93%	3.0%	3.0%	7.90%	3.0%	8.0%
04/02/82 to 04/01/83	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/83 to 04/01/84	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/84 to 04/01/85	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/85 to 04/01/86	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/86 to 04/01/87	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/87 to 04/01/88	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/88 to 04/01/89	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/89 to 04/01/90	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/90 to 04/01/91	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/91 to 04/01/92	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/92 to 04/01/93	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/93 to 04/01/94	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/94 to 04/01/95	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/95 to 04/01/96	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/96 to 04/01/97	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/97 to 04/01/98	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/98 to 04/01/99	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/99 to 04/01/00	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/00 to 04/01/01	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/01 to 04/01/02	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/02 to 04/01/03	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/03 to 04/01/04	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/04 to 04/01/05	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/05 to 04/01/06	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/06 to 04/01/07	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/07 to 04/01/08	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/08 to 04/01/09	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/09 to 04/01/10	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/10 to 04/01/11	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/11 to 04/01/12	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/12 to 04/01/13	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/13 to 04/01/14	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/14 to 04/01/15	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/15 to 04/01/16	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/16 to 04/01/17	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/17 to 04/01/18	1.93%	2.5%	0.0%	7.90%	3.0%	5.0%
04/02/18 to 04/01/19	1.93%	2.0%	0.0%	7.90%	3.0%	5.0%
04/02/19 to 04/01/20	1.93%	2.0%	0.0%	7.90%	3.0%	5.0%
04/02/20 to 04/01/21	1.93%	2.0%	0.0%	7.90%	3.0%	5.0%
04/02/21 to 04/01/22				7.90%	3.0%	5.0%

** Information prior to 2016 was prepared by the prior actuary.*

Exhibit II

Tulare County Employees' Retirement Association
Suggested Cost-of-Living Adjustments for Tiers 2-4 (Section 31870)
Based on Historical Information Provided by TCERA
April 1, 2022

	As of April 1, 2021			As of April 1, 2022		
Came on Pension Roll	CPI Change	COLA Granted	Accumulated Carryover*	CPI Change	COLA Granted	Accumulated Carryover*
On or before 04/01/81	1.93%	2.0%	56.5%	7.90%	2.0%	62.5%
04/02/81 to 04/01/82	1.93%	2.0%	43.0%	7.90%	2.0%	49.0%
04/02/82 to 04/01/83	1.93%	2.0%	35.0%	7.90%	2.0%	41.0%
04/02/83 to 04/01/84	1.93%	2.0%	31.0%	7.90%	2.0%	37.0%
04/02/84 to 04/01/85	1.93%	2.0%	31.0%	7.90%	2.0%	37.0%
04/02/85 to 04/01/86	1.93%	2.0%	28.5%	7.90%	2.0%	34.5%
04/02/86 to 04/01/87	1.93%	2.0%	26.0%	7.90%	2.0%	32.0%
04/02/87 to 04/01/88	1.93%	2.0%	24.5%	7.90%	2.0%	30.5%
04/02/88 to 04/01/89	1.93%	2.0%	22.0%	7.90%	2.0%	28.0%
04/02/89 to 04/01/90	1.93%	2.0%	19.0%	7.90%	2.0%	25.0%
04/02/90 to 04/01/91	1.93%	2.0%	16.0%	7.90%	2.0%	22.0%
04/02/91 to 04/01/92	1.93%	2.0%	11.5%	7.90%	2.0%	17.5%
04/02/92 to 04/01/93	1.93%	2.0%	10.5%	7.90%	2.0%	16.5%
04/02/93 to 04/01/94	1.93%	2.0%	10.5%	7.90%	2.0%	16.5%
04/02/94 to 04/01/95	1.93%	2.0%	10.5%	7.90%	2.0%	16.5%
04/02/95 to 04/01/96	1.93%	2.0%	10.5%	7.90%	2.0%	16.5%
04/02/96 to 04/01/97	1.93%	2.0%	10.5%	7.90%	2.0%	16.5%
04/02/97 to 04/01/98	1.93%	2.0%	10.5%	7.90%	2.0%	16.5%
04/02/98 to 04/01/99	1.93%	2.0%	10.5%	7.90%	2.0%	16.5%
04/02/99 to 04/01/00	1.93%	2.0%	10.5%	7.90%	2.0%	16.5%
04/02/00 to 04/01/01	1.93%	2.0%	10.0%	7.90%	2.0%	16.0%
04/02/01 to 04/01/02	1.93%	2.0%	8.5%	7.90%	2.0%	14.5%
04/02/02 to 04/01/03	1.93%	2.0%	8.5%	7.90%	2.0%	14.5%
04/02/03 to 04/01/04	1.93%	2.0%	7.0%	7.90%	2.0%	13.0%
04/02/04 to 04/01/05	1.93%	2.0%	7.0%	7.90%	2.0%	13.0%
04/02/05 to 04/01/06	1.93%	2.0%	4.5%	7.90%	2.0%	10.5%
04/02/06 to 04/01/07	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/07 to 04/01/08	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/08 to 04/01/09	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/09 to 04/01/10	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/10 to 04/01/11	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/11 to 04/01/12	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/12 to 04/01/13	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/13 to 04/01/14	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/14 to 04/01/15	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/15 to 04/01/16	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/16 to 04/01/17	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/17 to 04/01/18	1.93%	2.0%	3.5%	7.90%	2.0%	9.5%
04/02/18 to 04/01/19	1.93%	2.0%	2.0%	7.90%	2.0%	8.0%
04/02/19 to 04/01/20	1.93%	2.0%	1.0%	7.90%	2.0%	7.0%
04/02/20 to 04/01/21	1.93%	2.0%	0.0%	7.90%	2.0%	6.0%
04/02/21 to 04/01/22				7.90%	2.0%	6.0%

** Information prior to 2016 was prepared by the prior actuary.*

SACRS

SACRS VOTING PROXY FORM

The following are authorized by the _____ County Retirement Board to vote on behalf of the County Retirement System at the upcoming SACRS Conference

(If you have more than one alternate, please attach the list of alternates in priority order):

_____ Voting Delegate

_____ Alternate Voting Delegate

These delegates were approved by the Retirement Board on _____ / _____ / _____.

The person authorized to fill out this form and submit electronically on behalf of the Retirement Board:

Signature: _____

Print Name: _____

Position: _____

Date: _____

Please send your system's voting proxy by April 28, 2022 to Sulema H. Peterson, SACRS Executive Director at Sulema@sacrs.org.

TULARE COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

SUMMARY EDUCATION REPORT

NAME OF ATTENDEE: Leanne Malison

CONFERENCE/SEMINAR ATTENDED: VERUS FIRST QUARTER INVESTMENT LANDSCAPE WEBINAR

DATES ATTENDED: JANUARY 27, 2022

NUMBER OF CONTINUING EDUCATION HOURS OBTAINED: 1

TOPICS OF DISCUSSION: Jeff MacLean provided a firm update. Ian Toner discussed Verus current market conditions including inflation, interest rates, supply chain, growth levels and asset prices.

REASON MEETING WAS BENEFICIAL TO RETIREMENT SYSTEM: Webinars are providing important information during an ever-changing investment environment. It is important to stay up to date with the information available from TCERA's investment consultant.

RECOMMENDATION REGARDING FUTURE ATTENDANCE: *(I.E., SHOULD WE SEND A REPRESENTATIVE IN THE FUTURE? IF SO, WHO SHOULD ATTEND?)*

Trustees and Staff should participate as schedules permit whenever TCERA manager and consultant webinars are available.

Leanne Malison
Signature

1/27/22
Date

NOTE: Attachments to this report will be held on file in the Retirement Office for review by interested parties, but will not be photocopied for the Retirement Board.
RETBD\EDUC-SUM.RPT

TULARE COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

SUMMARY EDUCATION REPORT

NAME OF ATTENDEE: Leanne Malison

CONFERENCE/SEMINAR ATTENDED: HANSONBRIDGETT HUMAN RESOURCES ISSUES LEGAL UPDATE - WEBINAR

DATES ATTENDED: FEBRUARY 9, 2022

NUMBER OF CONTINUING EDUCATION HOURS OBTAINED: 1.5

TOPICS OF DISCUSSION: Judith Boyette and other staff members reviewed changes for 2022. The presentation covered vested rights, requirements for the new Form W-4P and changes regarding the treatment of rehired retirees. The webinar also included a review of the ERISA Proposed Rule on ESG Investing and Proxy Voting. While ERISA is not applicable to TCERA it does provide reasonable guidance for government pension plans. Finally there was an update regarding fiduciary litigation associated with StanCERA which upheld actions taken by the StanCERA Retirement Board in response to the great recession.

REASON MEETING WAS BENEFICIAL TO RETIREMENT SYSTEM: Hanson Bridgett is one of TCERA's outside counsel legal firms. The firm offers periodic seminars to keep clients informed. The information provided is always timely and important.

RECOMMENDATION REGARDING FUTURE ATTENDANCE: *(I.E., SHOULD WE SEND A REPRESENTATIVE IN THE FUTURE? IF SO, WHO SHOULD ATTEND?)*

The Retirement Administrator should participate in this webinar/conference whenever schedules allow.

Leanne Malison
Signature

2/9/22
Date

NOTE: Attachments to this report will be held on file in the Retirement Office for review by interested parties, but will not be photocopied for the Retirement Board.
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TULARE COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

SUMMARY EDUCATION REPORT

NAME OF ATTENDEE: Leanne Malison

CONFERENCE/SEMINAR ATTENDED: CALAPRS ADMINISTRATORS ROUND TABLE – VIRTUAL EVENT

DATES ATTENDED: FEBRUARY 10, 2022

NUMBER OF CONTINUING EDUCATION HOURS OBTAINED: 4

TOPICS OF DISCUSSION: The discussion included the experience of the various plans dealing with the pandemic, Brown Act issues, member self-service and disability issues. An important and timely topic was the status of the assumed rate of return for the plans and expectations regarding lowering the assumption.

REASON MEETING WAS BENEFICIAL TO RETIREMENT SYSTEM: This conference allows for the sharing of important information with member systems as well as provide a networking opportunity with colleagues from other pension plans.

RECOMMENDATION REGARDING FUTURE ATTENDANCE: *(I.E., SHOULD WE SEND A REPRESENTATIVE IN THE FUTURE? IF SO, WHO SHOULD ATTEND?)*

The Retirement Administrator should participate as schedules and workload permit.

Leanne Malison
Signature

2/10/22
Date

NOTE: Attachments to this report will be held on file in the Retirement Office for review by interested parties, but will not be photocopied for the Retirement Board.

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TULARE COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

SUMMARY EDUCATION REPORT

NAME OF ATTENDEE: Mary Warner

CONFERENCE/SEMINAR ATTENDED: Verus 1st Quarter Investment Landscape

DATES ATTENDED: January 27, 2022

NUMBER OF CONTINUING EDUCATION HOURS OBTAINED: 1 hour

TOPICS OF DISCUSSION: The discussion covered first quarter summary of the current economic & investment climate, portfolio impacts and asset allocation issues.

REASON MEETING WAS BENEFICIAL TO RETIREMENT SYSTEM: The webinar provided insight into the current market environment.

RECOMMENDATION REGARDING FUTURE ATTENDANCE: ***(i.e., should we send a representative in the future? If so, who should attend?)*** Trustees and staff should participate whenever Verus Webinars are available.

Mary Warner

Signature

1/28/2022

Date

Members of a legislative body shall provide brief reports on meetings attended at the expense of the local agency ***at the next regular meeting*** *of the legislative body. (Gov. Code, § 53232.3, subd. (d).)*

NOTE: Attachments to this report will be held on file in the Retirement Office for review by interested parties, but will not be photocopied for the Retirement Board.

RETBD\EDUC-SUM.RPT

EDUCATIONAL EVENTS - Board of Retirement

2022

1. **CAL***APRS*, General Assembly, March 5 - 8, 2022, Mission Bay Resort, San Diego, CA. "Focusing on the Future", Agenda includes – AB1234 Ethics for Trustees, and Inflation. Keynote Session, Kristina Hooper, Chief Global Market Strategist, Invesco. Agenda is in binder.

2. **CAL***APRS*, Advanced Principles of Pension Governance for Trustees, March 30 to April 1, 2022, Los Angeles, 5:30 p.m.- 1:30 p.m.

3. **DWS**, Americas Real Estate Client Conference, April 26-28, Balboa Bay Resort, Newport Beach, CA. Topics: Key trends impacting real estate investing through a series of panels from their research, transactions and portfolio mgmt. teams.
   No current updates.

4. **SACRS**, Spring Conference, May 10-13, Omni Rancho Las Palmas Resort & Spa, Rancho Mirage, CA.

5. **SACRS**, Fall Conference, November 8-11, Hyatt Regency Long Beach, Long Beach, CA.

OFFICE MEMORANDUM * TULARE COUNTY * COUNTY COUNSEL

(559) 636-4950
Fax # (559) 737-4319

To: Leanne Malison, Administrator
Retirement Board

Date: January 11, 2021

From: Jennifer M. Shiffert
Deputy County Counsel

Subject: Cases Pending in Court and Pending Appeal to Court
RETBD-General

DISABILITY CASES

PENDING APPEAL TO COURT

Appeal Period Running

No new cases.

Appeal Period Expired

No new cases.

PENDING IN COURT

Mara Iftimie

7/22/2020	Board adopted Hearing Officer's recommendation to deny application.
7/27/2020	Notice of decision mailed to member.
8/17/2020	Member filed a "Motion for Judicial Review."
11/18/2020	Case Management Conference scheduled.
12/14/2020	Deadline for Response to Amended Writ.
1/26/2021	Hearing on Demurrer to amended petition. Demurrer sustained, leave to amend the petition for writ a second time was granted. Further amendment must be filed and served by March 10, 2021
3/10/2021	New petition filed
5/11/2021	Case Management Conference scheduled.
8/24/2021	Case Management Conference – Status of Administrative Record
9/28/2021	Case Management Conference/Hearing on Motion to Augment Record. Motion Denied. Trial date set.
2/23/2022	Writ of Mandate Hearing

NON-DISABILITY CASES

None.

JMS/1/11/2022/RETBD-General/1730294

EDELSTEIN GILBERT ROBSON & SMITH LLC

Donald B. Gilbert Michael R. Robson Trent E. Smith Jason D. Ikerd Associate Bridget E. McGowan Associate

February 4, 2022

TO: State Association of County Retirement Systems

FROM: Edelstein Gilbert Robson & Smith, LLC

RE: Legislative Update – February 2022

General Update

The Legislature reconvened for the second year of the 2021-22 Legislative session on Monday January 3. In the first month of session, legislators focused much of their efforts on two-year bills that were still in their first house due to the House of Origin deadline on January 31.

The highest profile of these bills was AB 1400 (Kalra), a proposal that would have established single-payer healthcare in California. This proposal was anticipated to cost the state between $314 billion to $391 billion each year which far exceeds the annual state budget. The bill was accompanied by ACA 11, the constitutional amendment to pay for single-payer by proposing higher taxes on businesses, employees and high-earning individuals in the state. After much anticipation and debate, AB 1400 was not brought up for a vote on the floor because the author did not have the votes for it to pass. Consequently, the bill failed the House of Origin deadline and cannot progress further.

Legislators have until February 18 to introduce new legislation. Now that the House of Origin deadline has passed, we are seeing more introduced bills each day. As is typical for most years, more than 2,000 new bills will be introduced by the bill introduction deadline later this month.

2022-23 California State Budget

Governor Newsom presented January 2022-23 State Budget on January 10. Like last year, California is anticipating a record surplus. The Legislative Analyst's Office estimates the surplus at $29 billion, excluding constitutionally required payments of $13 billion for education.

The Governor's budget proposal includes $8.4 billion in statutorily required contributions to CalPERS and $3.7B for CalSTRS.

Legislative Budget Subcommittees are beginning to meet now and will continue to do so through the May Revision and into June. The final budget must be adopted by the Legislature by June 15. Because of the large surplus, it will be another busy budget

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www.egrslobby.com

year as legislators and the Governor determine what proposals will make the cut into the final budget.

SACRS Sponsored Bill

The SACRS membership approved the SACRS proposed legislation at the Fall Conference in November.

As discussed in previous reports, half of the SACRS proposed legislation will be amended into an Assembly Public Employment and Retirement Committee annual omnibus cleanup bill. The remaining proposals will be introduced in a separate bill by Assemblymember Cooper, Chair of the Assembly Public Employment and Retirement Committee.

Both bills will be introduced prior to the bill introduction deadline on February 18.