



AGENDA

RETIREMENT BOARD MEETING

REGULAR MEETING

November 17, 2021, 9:00 a.m.

The Board of Retirement will hold its meeting via teleconferencing as permitted by Government Code Section 54953(e). The meeting is accessible telephonically at 669-900-6833, Webinar ID: 849 9279 7484, Passcode: 805759, or via the web at:

<https://us06web.zoom.us/j/84992797484?pwd=YkFnZ1FXb20rdEhuaURCME1iWTlidz09>

Passcode: 805759

Persons who wish to address the Board of Retirement during public comment may call in during the meeting by dialing the phone number and passcode above. Access via Zoom is also available at the weblink above. To indicate you wish to speak during public comment, please select *9 on your phone or “raise your hand” in the Zoom app.

Public comments are limited to any item that is within the subject matter jurisdiction of the Board of Retirement. Comments will be received in real time via telephone or Zoom, subject to a three-minute time limit per speaker.

THE RETIREMENT BOARD MAY DISCUSS AND TAKE ACTION ON THE FOLLOWING:

1. Pledge of Allegiance.
2. Roll Call.
3. Accept comments from the public.
4. Approve minutes from the October 27, 2021 meeting.
5. Review of total portfolio performance for period ending September 30, 2021.
 - a. Presentation from Verus
 - b. Presentation from staff
6. Private Equity Review
 - a. Presentation from staff
 - b. Presentation from StepStone

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.

7. Presentation of alternative investment fees and expense report.
8. Consider and take possible action to issue a Request for Proposal for a Member Service Analysis.
9. Consider and take possible action effective January 1, 2022 to add CCCERA staffing:
 - a. Add two Retirement Services Counselors positions, cancel one Investment Officer position (currently vacant), establish classifications for Senior Investment Officer and Senior Investment Analyst, and add one Senior Investment Officer position and one Senior Investment Analyst position; and
 - b. Amend Attachment A of Resolution 2021-3 providing salary and benefits for unrepresented employees of CCCERA.
10. Consider and take possible action to adopt the 2022 CCCERA budget.
11. Consider and take possible action to authorize the Board to conduct teleconference meetings under Government Code section 54953 (e) and to make related findings.
12. Consider and take possible action on Board meeting schedule for 2022.
13. Miscellaneous
 - a. Staff Report
 - b. Outside Professionals' Report
 - c. Trustees' comments

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.



RETIREMENT BOARD MEETING MINUTES

REGULAR MEETING

October 27, 2021

9:00 a.m.

The Board of Retirement meeting was accessible telephonically at (669) 900-6833, Webinar ID 880 2050 9486, Passcode 832141, as permitted by Government Code Section 54953(e).

1. Pledge of Allegiance

The Board and staff joined in the *Pledge of Allegiance*.

2. Roll Call

Present: Candace Andersen, Dennis Chebotarev, Scott Gordon, Jerry Holcombe, Louie Kroll, Jay Kwon, David MacDonald, John Phillips, Reggie Powell, Mike Sloan and Russell Watts.

Absent: Donald Finley

Staff: Gail Strohl, Chief Executive Officer; Christina Dunn, Deputy Chief Executive Officer; Timothy Price, Chief Investment Officer; Karen Levy, General Counsel; Anne Sommers, Administrative/HR Manager; Henry Gudino, Accounting Manager; Tim Hoppe, Retirement Services Manager; and Jasmine Lee, Member Services Manager.

Outside Professional Support:

Marcel Schindler
Ariel Goldblatt
Urs von Buren
Bryce Doty
Sue Ziegler
Ed Meyers
Srinivas Kolluru
John Finnegan
Jegan Muthusamy

Representing:

StepStone
StepStone
StepStone
Sit Investment Associates
The Segal Group, Inc.
Sagitec Solutions, LLC
Sagitec Solutions, LLC
Sagitec Solutions, LLC
Sagitec Solutions, LLC

3. Accept comments from the public

No member of the public offered comment.

4. Recognition of Jessica Irby for 15 years of service and David Recoder for 15 years of service

Gordon recognized and congratulated Jessica Irby for 15 years of service and David Recoder for 15 years of service.

5. Approval of Minutes

It was **M/S/C** to approve the minutes from the September 8 and September 22, 2021 Board meetings. (Yes: Anderson, Chebotarev, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts)

6. Routine Items

It was **M/S/C** to approve the routine items of the October 27, 2021 Board meeting. (Yes: Andersen, Chebotarev, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts)

7. Review of private credit

a. Presentation from staff

Garbharran reviewed the role of private credit in CCCERA's portfolio, the key participants in the program (CCCERA, StepStone and the Investment Managers), and their functions.

b. Presentation from StepStone (Marcel Schindler, Ariel Goldblatt, Urs von Buren)

Schindler gave an update on the firm and reviewed the team. He reviewed the market trends during Covid as well as the current market trends.

Goldblatt reviewed the private debt program, CCCERA's pacing analysis and the private debt performance noting the portfolio is performing in line with expectations.

Von Buren reviewed the history of the mandate and the outlook of the program for the next 9-12 months. He also reviewed StepStone's activity with CCCERA over the last 12 months.

8. Review of report on Risk Diversifying Sub-portfolio

Price reviewed the role of Risk Diversifying in CCCERA's portfolio, the characteristics of diversifying assets, the structure of the Risk Diversifying allocation, CCCERA's performance in the program and future program enhancements.

Taylor reviewed the Risk Diversifying universe and the strategies CCCERA invests in. He also reviewed CCCERA's asset allocation in the Risk Diversifying portfolio.

9. Presentation from Sit Investment Associates (Bryce Doty)

Doty gave an overview of the firm and their role at CCCERA. He reviewed their performance statistics and the risk diversifying strategy objectives.

10. Update on private equity and real estate commitments

Price gave an update on private equity and real estate commitments noting CCCERA recently made a \$50mm commitment to Trident Fund IX and a \$100mm commitment to Invesco Fund VI.

11. Pension administration system project update

Strohl reported this is the first update on the project noting the project is currently on schedule with end dates and we are in line with the budget.

Lee reviewed the background of the project. She reviewed the features of the new system.

Ziegler reviewed the project management team, the scope of the project, the key milestones completed since the start of the project and the key milestones for the next 90 days.

Meyers and Kolluru reviewed the overall progress noting they have completed 5% of Phase 5 and are on schedule.

12. Consider and take possible action to adopt Resolution 2021-6 authorizing the Board to conduct teleconference meetings under Government Code section 54953(e)

Levy reviewed the new law allowing public meetings to be held via teleconference during a state declared emergency. It was **M/S/C** to adopt Resolution 2021-6 authorizing the Board to conduct teleconference meetings under Government Code Section 54953(e). (Yes: Andersen, Chebotarev, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts)

13. Consider and take possible action concerning the SACRS legislative proposals to be voted on at the November 2021 SACRS Conference

Levy reviewed the legislative proposal. It was **M/S/C** to direct the CCCERA Board voting delegate to vote to support the 2022 SACRS legislative proposal at the November 2021 SACRS Conference. (Yes: Andersen, Chebotarev, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts)

14. Presentation of year-to-date 2021 CCCERA budget vs. actual expenses report

Gudino presented the year-to-date 2021 CCCERA budget vs. actual expenses report noting there is a new section, Capital Budget, which includes costs for the new Pension Administration System.

15. Miscellaneous

a. Staff Report –

Strohl reported we are working on next year's budget including the staffing and resources needed for the new Pension Administration System project; it is anticipated the proposed budget will be presented at the November 17, 2021 Board meeting; and we anticipate having the lobby open on Monday with masks being required in the building and in CCCERA's suite.

b. Outside Professionals' Report -

None

c. Trustees' comments –

Phillips reported on the key takeaways from the CALAPRS Principles of Pension Governance for Trustees conference that he recently attended.

MacDonald encouraged everyone to get their booster shots.

It was **M/S/C** to adjourn the meeting. (Yes: Andersen, Chebotarev, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts)

Scott Gordon, Chairman

Jerry Holcombe, Secretary

Meeting Date
11/17/2021
Agenda Item
#5a.

Verus 



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: SEPTEMBER 30, 2021

Investment Performance Review for

Contra Costa County Employees' Retirement Association

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Investment Landscape

TAB I

Investment Performance
Review

TAB II



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

4TH QUARTER 2021
Investment Landscape

Recent Verus research

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

Topics of interest

THINKING ABOUT INFLATION IN RISK TERMS

Inflation has been subdued in the United States for the last three decades. In this piece, we analyze historic inflationary environments to understand the protection offered by different types of assets. Using a variety of risk tools, we consider the impact inflation has on an investor's overall portfolio and their obligations. No single asset class can reliably protect against inflationary environments but through constructing diversified portfolios and understanding risk exposures, we believe an investor can best position themselves for an uncertain future.

THINKING DIFFERENTLY

Today's market environment appears to be an exceedingly challenging one to navigate, and investors are grappling with the question of how best to structure portfolios that not only meet their return targets but provide impactful diversification and risk management. In this Topic of Interest paper, we will assess a wide variety of less-conventional investment strategies in both mature and nascent marketplaces, and which may only appeal to a specific set of investors.

ESTABLISHMENT OF RISK MITIGATION BUCKETS

An evolving market environment has arguably diminished the role of traditional fixed income as a diversifier in portfolios and led to a higher opportunity cost of holding bonds due to lower yields. This may suggest improved relative attractiveness of other equity risk mitigation approaches. In this research piece we discuss other approaches to risk mitigation and outline their merits, while tying these ideas to the Functionally-Focused Portfolios (FFP) approach to portfolio construction.

Annual research

2021 PRIVATE EQUITY OUTLOOK

In the Verus 2021 Private Equity Outlook, we focus attention on investor appetite for ESG and the growing response from private equity. The outlook also addresses the resilience of private equity in the face of COVID; SPACs rise as a streamlined path to the public markets, however not without risk; Private credit markets continue to gain investor interest; Buyout purchase multiples expand as public market valuations continue to climb; and Venture capital valuations soar alongside increased economic confidence

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3rd quarter summary

THE ECONOMIC CLIMATE

- Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. **p. 10**
- In the U.S. labor market, unemployment has fallen as many workers who desired jobs have been successful in gaining employment. The overall U.S. labor participation rate has not improved, as millions of workers remain neither employed nor seeking employment. **p. 15**
- Consumer sentiment deteriorated during the third quarter, on reports of pessimism around the COVID Delta variant, higher inflation, and unfavorable economic prospects. Small business optimism also fell, as businesses face difficulty in hiring and are concerned about tax increases and more burdensome government regulations. **p. 17**

PORTFOLIO IMPACTS

- Credit markets traded in a relatively tight range throughout the quarter, delivering mild returns. Bank loans outperformed in Q3, returning 1.1% and outpacing high yield bonds (0.9%) and corporate investment grade (0.0%). **p. 24**
- U.S. core CPI, which excludes food & energy prices, rose 4.0% YoY in September. U.S. headline inflation came in at 5.4%. Price changes moderated during Q3, relative to the larger price moves that occurred in March through June. **p. 12**

THE INVESTMENT CLIMATE

- The Biden Administration's \$3.5 trillion social spending package remains in the negotiation stage among Democrats, as the size of the package, the contents, and national concerns over inflation have given some members of the party reason to pause. The package is reportedly being scaled back, which creates the risk of rejection from progressives within the party who are pushing for more spending. **p. 10**
- It seems that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high inflation could indeed persist, and most governments are set to pull back generous stimulus programs. **p. 34**

ASSET ALLOCATION ISSUES

- Equity markets took a breather in Q3. U.S. equities delivered 0.6%, while international equities experienced slight losses of -0.4% and emerging market equities saw a larger selloff of -8.1%, on an unhedged currency basis. **p. 27**
- Factor performance was negative during the quarter, as large capitalization stocks outperformed small cap by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%). **p. 30**

The economic recovery may be slowing, though the environment remains positive for risk assets

We believe a neutral risk stance is warranted in the current environment

What drove the market in Q3?

“Covid cases are rising again in all 50 states across U.S. as delta variant tightens its grip”

DELTA VARIANT SHARE OF COVID CASE GROWTH IN THE UNITED STATES

Apr	May	Jun	Jul	Aug	Sep
0.6%	3.1%	31.9%	96.0%	97.9%	99.9%

Article Source: CNBC, as of July 23rd, 2021

“The World Economy’s Supply Chain Problem Keeps Getting Worse”

SHIPS AT ANCHOR OUTSIDE THE PORT OF LOS ANGELES (MONTHLY AVERAGE)

Apr	May	Jun	Jul	Aug	Sep
11	10	7	12	22	27

Article Source: Bloomberg, August 25th, 2021

“Beijing’s Crackdown Ruins July for Investors Everywhere”

NASDAQ GOLDEN DRAGON CHINA INDEX TOTAL RETURN

Apr	May	Jun	Jul	Aug	Sep
-0.1%	-5.6%	+1.8%	-22.0%	-1.6%	-9.8%

Article Source: Bloomberg, July 27th, 2021

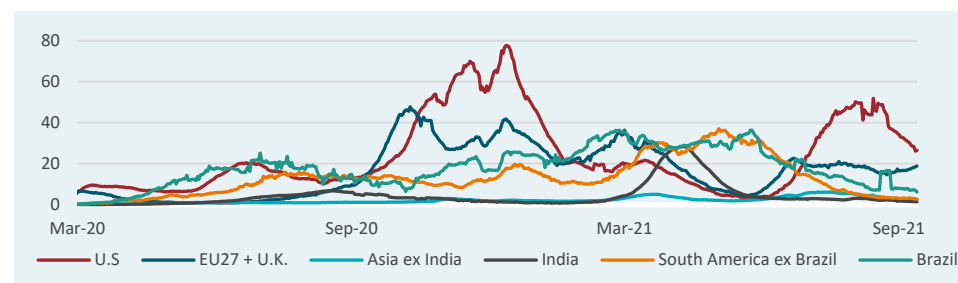
“Commodities surge again; spot price index hits decade high”

BLOOMBERG COMMODITY SPOT INDEX

Apr	May	Jun	Jul	Aug	Sep
464.0	476.9	480.2	487.4	486.3	510.3

Article Source: BNN Bloomberg, September 13th, 2021

AVERAGE DAILY CASE GROWTH PER 100,000 (TRAILING TWO WEEKS)



Source: Bloomberg, as of 9/30/21

SUPPLIER DELIVERY INDICES



Source: Institute for Supply Management, as of 9/30/21

NASDAQ GOLDEN DRAGON CHINA INDEX



Source: NASDAQ, Bloomberg, as of 9/30/21

Economic environment

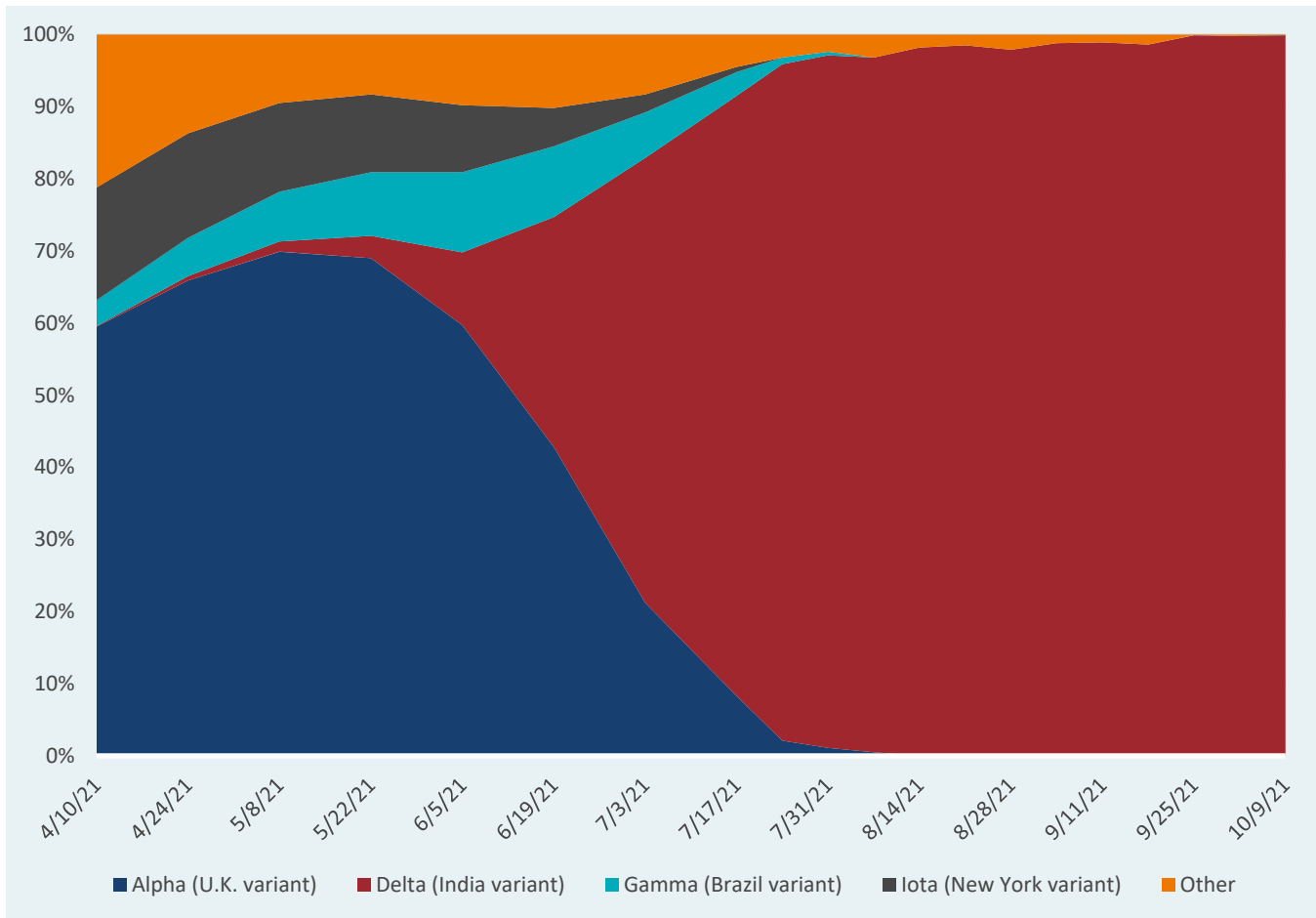
U.S. economics summary

- Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. However, it appears that recent strong economic activity may be slowing down.
- U.S. core CPI, which excludes food & energy prices, rose 4.0% YoY in September. U.S. headline inflation came in at 5.4%. Price changes moderated during Q3, relative to the larger price moves that occurred in March through June, but remain elevated.
- Unemployment fell from 5.9% to 4.8% during the quarter, while the laborforce participation was unmoved at 61.6%. The unemployment rate has fallen as many workers who desired jobs have been successful in gaining employment, but the overall U.S. laborforce participation rate has not improved
- The Biden Administration’s \$3.5 trillion social spending package remains in the negotiation stage among Democrats, as the size of the package, the contents, and national concerns over inflation have given some members of the party reason to pause. The package is reportedly being scaled back, which creates the risk of rejection from progressives within the party who are pushing for more spending.
- U.S. home prices have rocketed higher, up 19.7% over the past year, according to the S&P/Case-Shiller U.S. National Home Price Index.
- Consumer sentiment was mixed over the quarter. The University of Michigan reported that the Delta variant and persistent inflation, as well as unfavorable prospects for the national economy, are weighing on sentiment. High prices of homes, vehicles, and durables are a concern.

	Most Recent	12 Months Prior
GDP (YoY)	12.2% <i>6/30/21</i>	(9.1%) <i>6/30/20</i>
Inflation (CPI YoY, Core)	4.0% <i>9/30/21</i>	1.7% <i>9/30/20</i>
Expected Inflation (5yr-5yr forward)	2.2% <i>9/30/21</i>	1.7% <i>9/30/20</i>
Fed Funds Target Range	0% – 0.25% <i>9/30/21</i>	0% – 0.25% <i>9/30/20</i>
10-Year Rate	1.49% <i>9/30/21</i>	0.68% <i>9/30/20</i>
U-3 Unemployment	4.8% <i>9/30/21</i>	7.8% <i>9/30/20</i>
U-6 Unemployment	8.5% <i>9/30/21</i>	12.8% <i>9/30/20</i>

Delta-plus variant?

SHARE OF NEW COVID-19 CASES ATTRIBUTED TO EACH MAJOR VARIANT



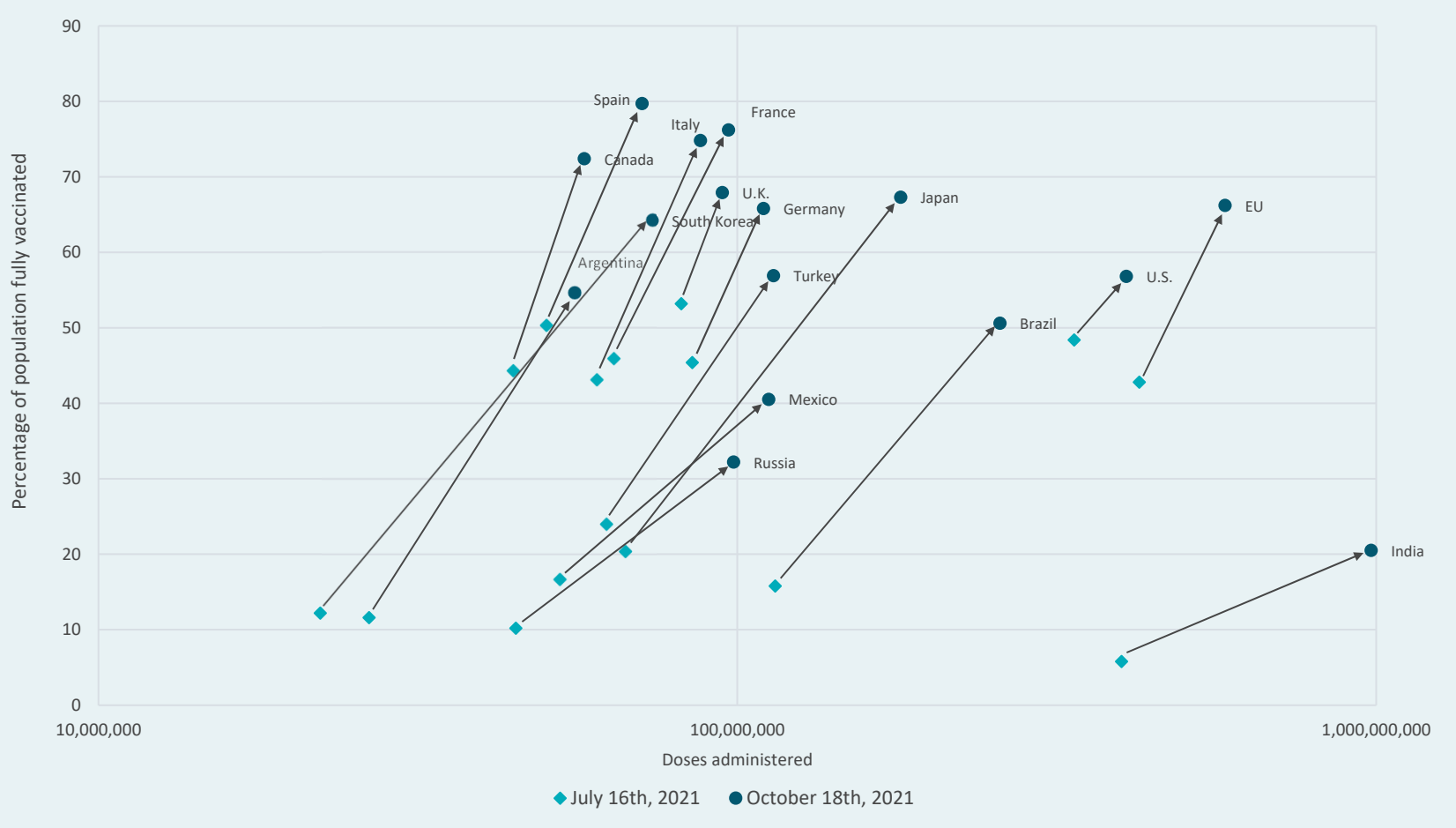
The delta variant of COVID-19 which surged through India in the second quarter took hold in the U.S., and by the end of the quarter, accounted for almost all new cases

Most recently, FDA Commissioner Scott Gottlieb called for “urgent research” into whether a new strain – known as delta plus – could be more transmissible or have partial immune evasion

Source: Bloomberg, BBC, U.K. government, as of 10/9/21

Global vaccination campaign

DOSES ADMINISTERED RELATIVE TO PERCENTAGE OF POPULATION FULLY VACCINATED



Over the last quarter, vaccination rates have improved considerably in Asia, Europe, and to a lesser extent, the emerging markets

Source: Bloomberg, as of 10/18/21

GDP growth

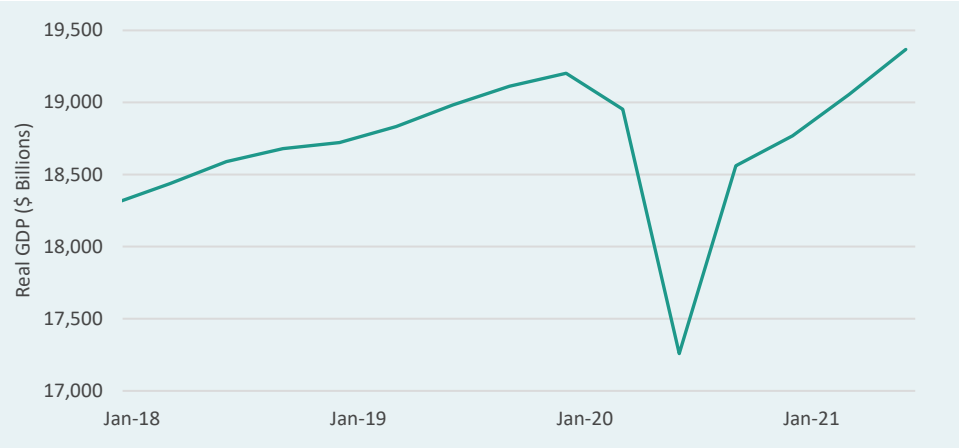
Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. However, it appears that recent strong economic activity may be slowing down. The Atlanta Fed GDPNow estimate, as of October 15th, suggests that GDP growth will slow to 1.2% in the fourth quarter (seasonally-adjusted quarterly annualized rate).

In contrast to the wild swings of 2020, quarterly GDP growth has steadied. Consumption has contributed to the lion’s share of GDP, while supply chain issues have detracted from growth as some businesses have been unable to purchase inventory.

The Biden Administration’s \$3.5 trillion social spending package remains in the negotiation stage among Democrats, as the size of the package, the contents, and national concerns over inflation have given some members of the party reason to pause. The package is reportedly being scaled back, which creates the risk of rejection from progressives within the party who are pushing for more spending. House Speaker Nancy Pelosi reportedly expressed the party’s intent to include each of the original social programs (expanded government healthcare, child tax credit, tuition-free community college, etc.) but to scale back the planned length of guaranteed funding in order to reduce overall costs.

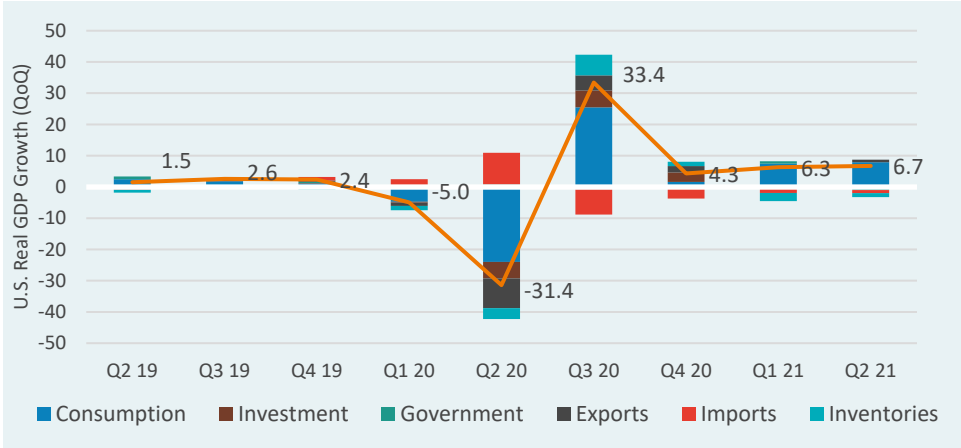
During Q2 2021 the U.S. economy fully recovered from the COVID-19 recession

U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 6/30/21

U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 6/30/21

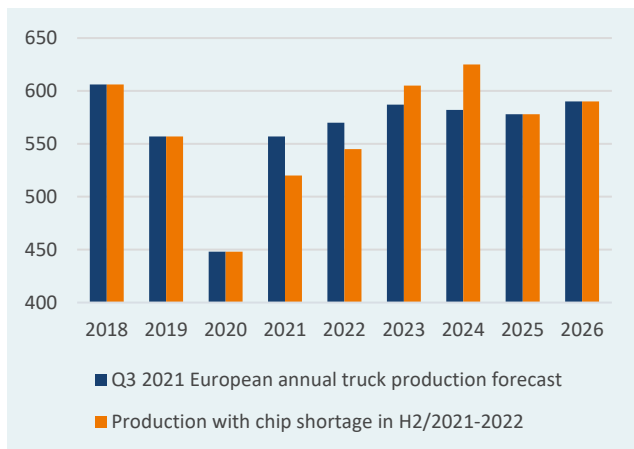
Supply chain disruptions

Throughout the course of the pandemic, idiosyncratic supply chain snags have caused largely temporary price distortions affecting all sorts of markets, from labor, to lumber, to meat-packing and semiconductors, and many others. In some cases, these distortions have had a large impact on overall inflation levels. For example, limited semiconductor chip supplies led major suppliers to ration chips for higher-margin tech clients at the expense of lower-margin automaker clients. This prioritization resulted in a lower level of new vehicle production, and a massive surge in prices for used cars.

In September, key ports in Southern California hit several new cargo ship backlog records, forcing these ships to remain at anchor outside the ports

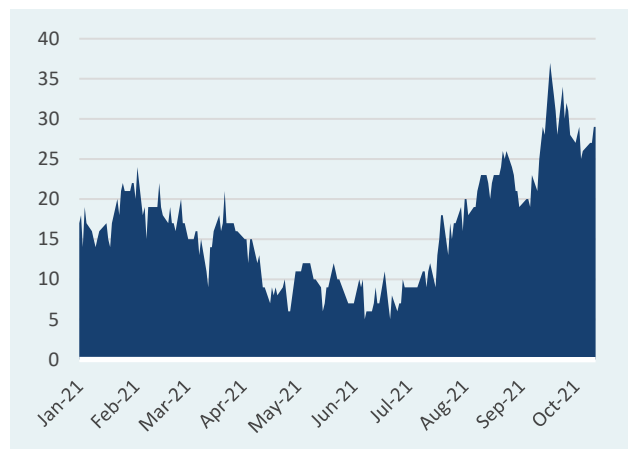
for several weeks in some cases. Part of the problem has been the massive size of these ships, which require many workers to unload, a lot of trucks to ship their cargo, and many warehouses to store that cargo. If there are not enough truckers to move the new cargo coming in, or there is not enough warehouse capacity to offload new cargo, new ships have longer unload times and the problem compounds. It is important to remember that global supply chains are very complex, and issues in certain segments tend to cascade through the others. According to the NFIB's Small Business Optimism Survey, only 10% of small business owners have been insulated from the impacts of these disruptions. We will be watching corporate guidance to gauge the impact of these disruptions on profit margins.

IMPACT OF SEMICONDUCTOR SHORTAGE ON EUROPEAN TRUCK PRODUCTION (THOUSANDS)



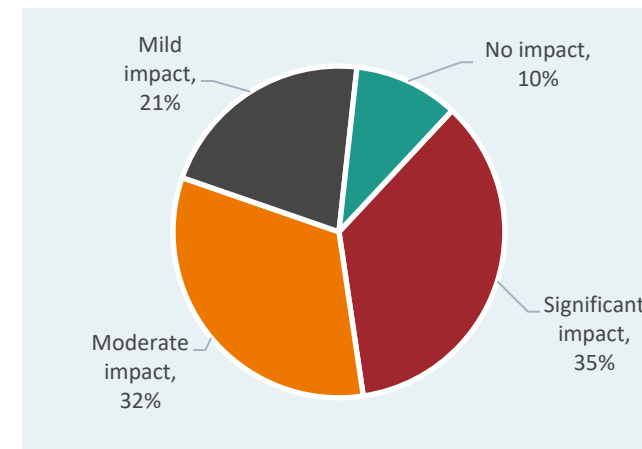
Source: IHS Markit, as of 9/28/21

VESSELS AT ANCHOR – PORT OF LOS ANGELES



Source: The Port of Los Angeles, as of 10/15/21

MAGNITUDE OF THE IMPACT OF SUPPLY CHAIN DISRUPTIONS ON SMALL BUSINESSES IN THE US



Source: NFIB, as of 9/30/21

Inflation

U.S. core CPI, which excludes food & energy prices, rose 4.0% YoY in September. U.S. headline inflation came in at 5.4%. Price changes moderated somewhat during Q3, relative to the larger price moves that occurred from March through June.

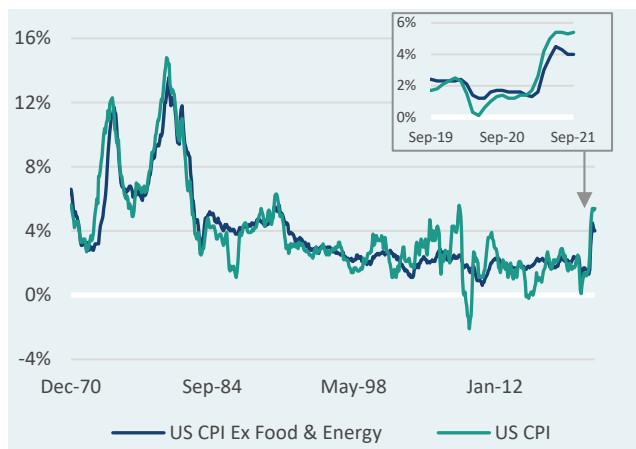
Energy and used automobile prices have had outsized impacts on inflation over the past year, increasing 24.8% and 24.4%, respectively. These two components have driven most of the rise in inflation experienced since 2019. If energy and used auto prices moderate, this will push inflation back down towards “normal” level, all else equal. However, continued supply chain issues appear to be contributing to a material rise in certain goods prices such as food, up +0.9% in September. Rent prices

(+0.5% over the month) are also a concern as costs begin to catch up with real estate values. As food comprises 13.9% of the overall inflation basket, and shelter comprises 32.6%, price moves across these categories could impact the direction of future inflation.

While we retain our long-term view that inflation is likely to return to lower levels, as most of the recent increases can be attributed to base effects or short-term one-time issues, the significant disruptions in the global supply chain are clearly an important component of the developing story. If this disruption continues there will likely be ongoing effects on the economy as a whole, and on inflation outcomes. We continue to research this issue and it’s likely effects.

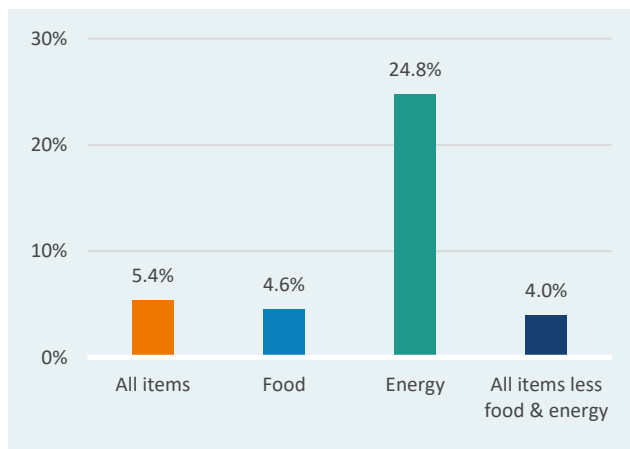
Recent moves suggest a moderation of prices, though we are watching closely for potential structural inflation

U.S. CPI (YOY)



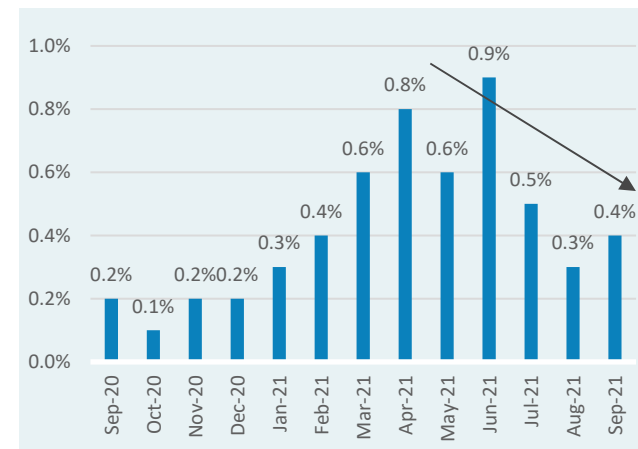
Source: BLS, as of 9/30/21

U.S. CPI (YOY)



Source: BLS, as of 9/30/21

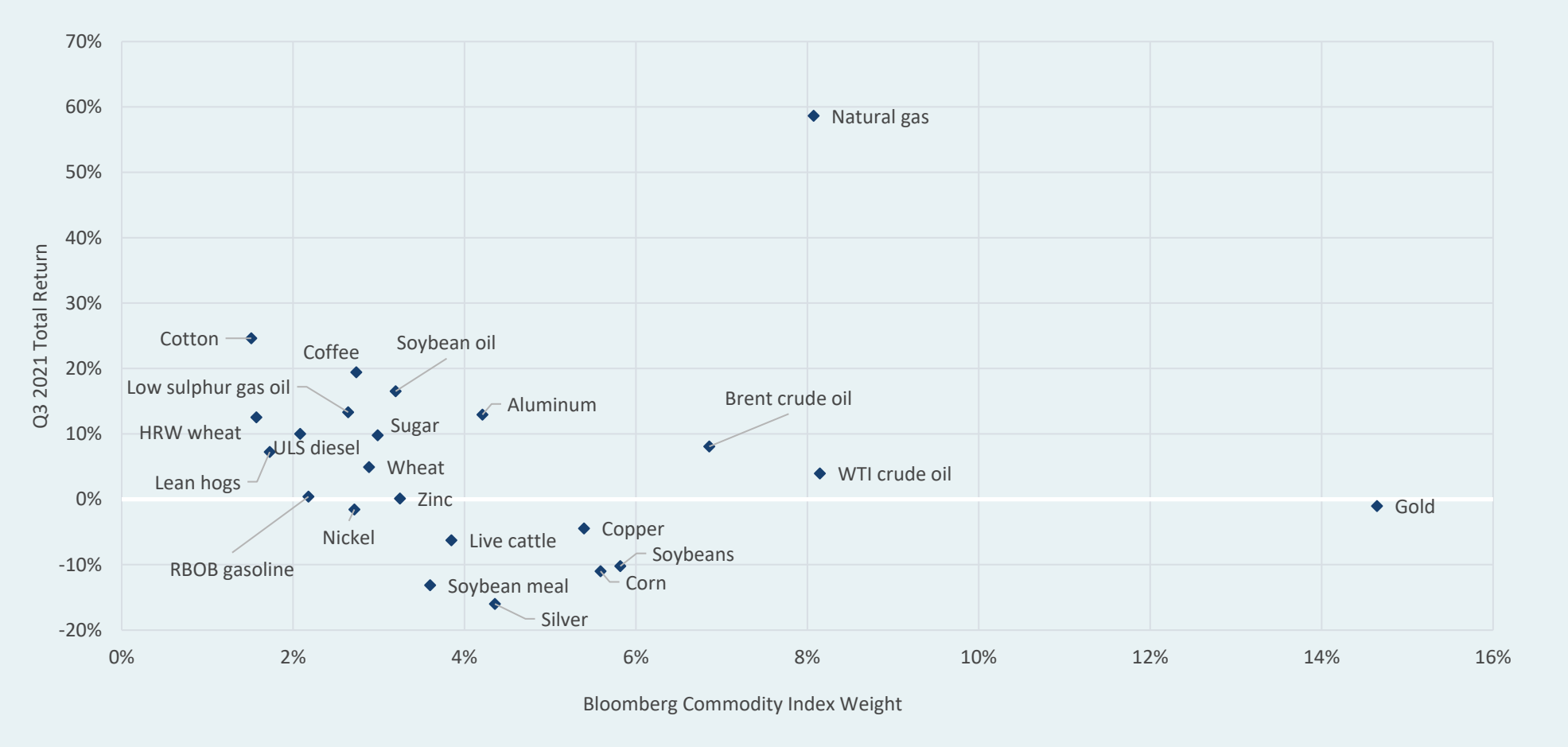
MONTHLY PRICE MOVEMENT



Source: BLS, as of 9/30/21

Commodity surge

BLOOMBERG COMMODITY INDEX – Q3 2021 RETURNS BY INDEX WEIGHT



Source: Bloomberg, as of 9/30/21

Labor market

U.S. unemployment fell from 5.9% to 4.8% during the quarter, while the labor participation rate was unmoved at 61.6%.

Two major themes can be observed in the U.S. labor market: 1) the unemployment rate has fallen as many workers who desired jobs have been successful in gaining employment, but 2) the overall U.S. laborforce participation rate has not improved, as millions of workers remain out of the laborforce and are not seeking employment. We continue to believe that the second effect has been fueled by approximately two million abnormally early retirements since 2020, which implies that the available U.S. workforce is now permanently smaller. As

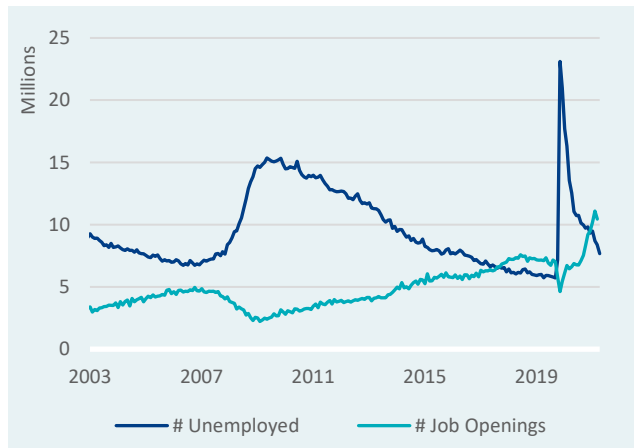
demonstrated below and on the next slide, the proportion of retired Americans per age group has increased markedly since 2019. It is difficult to know the main drivers behind the trend towards early retirement, but greater wealth (strong returns from markets and real estate), the need to take care of family, and an unwillingness to return to full-time work after extended periods of time off, may all be playing a part.

The number of U.S. job openings has far surpassed the supply of workers. As of August, 10.4 million job openings were posted across the country, while only 8.3 million Americans were seeking employment.

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

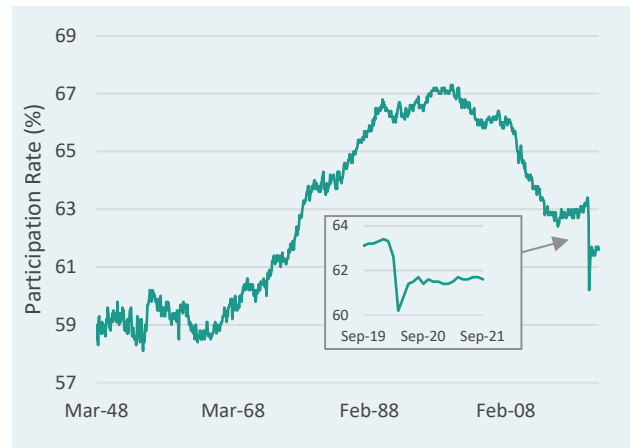
Much of this loss appears to be due to early retirements

UNEMPLOYMENT VS. JOB OPENINGS



Source: FRED, as of 9/30/21

LABOR PARTICIPATION RATE



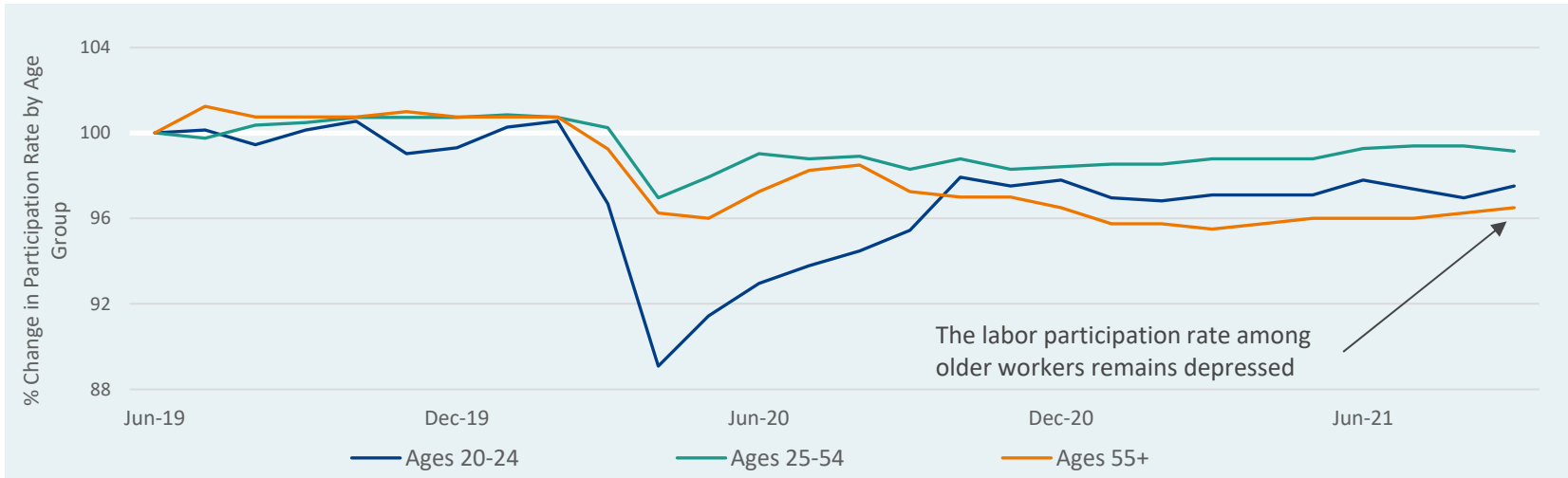
Source: FRED, as of 9/30/21

% OF AMERICANS RETIRED

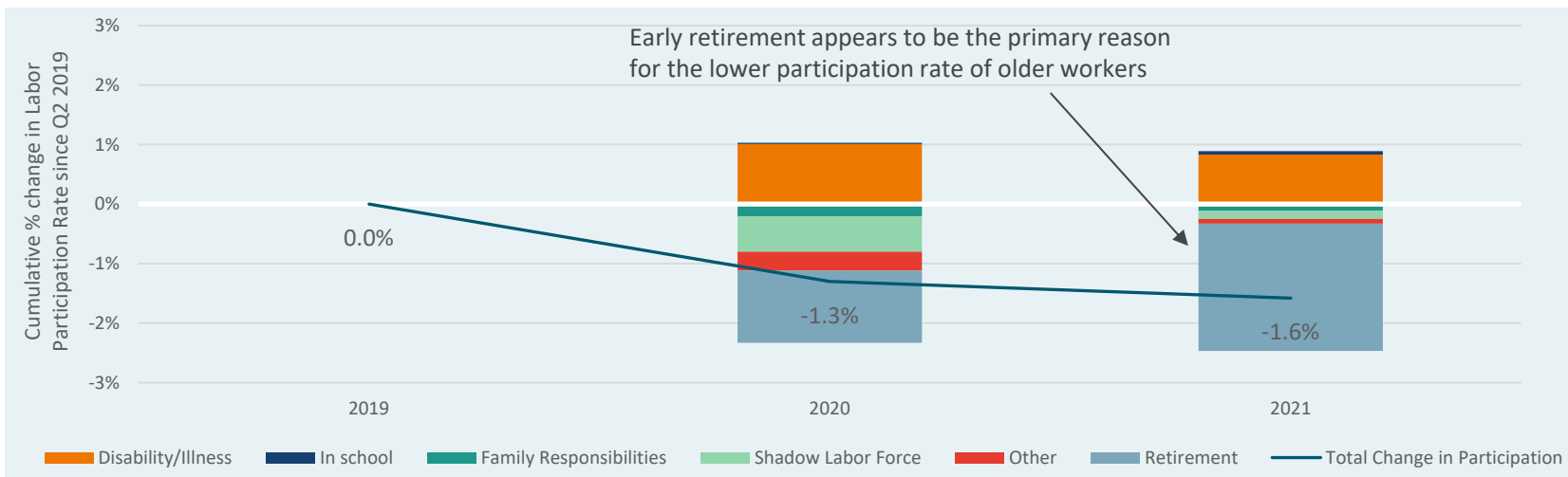
Age cohort	Women		Men	
	2019	2021	2019	2021
55+	52%	54%	44%	45%
55-59	11%	11%	7%	7%
60-64	28%	29%	21%	21%
65-69	59%	62%	52%	53%
70-74	78%	80%	71%	73%
75+	87%	88%	83%	85%

Source: St. Louis Federal Reserve

Labor participation rate



The U.S. labor participation rate remains considerably depressed, due to millions of workers being out of work *and also not seeking work*



Economic data suggests that this effect may be largely due to millions of unusually early retirements since 2019

Source: Federal Reserve Bank of St. Louis, Verus, as of Q2 2021

The consumer

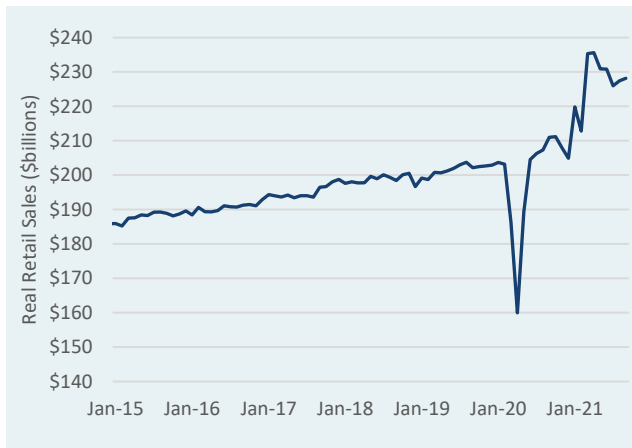
U.S. retail sales remain strong but have now slowed for two consecutive quarters, lower by -1.1% in Q3. The *reopening* spending surge appears to be slowing down, as retail sales, auto sales, and home sales have all declined in recent months. Fears around the COVID-19 Delta variant are also likely weighing on consumer spending activity. We examine quarterly rate of change here, because year-over-year rate of change (the traditional measure) is skewed due to the events of 2020.

Retail sales were expected to fall in September, but exceeded those expectations despite global supply chain issues and the rolling off of some enhanced government benefits. U.S. auto sales continued to fall sharply,

likely fueled by the dual effects of low supply and also the fact that many potential buyers, flush with stimulus cash, had already made a recent purchase.

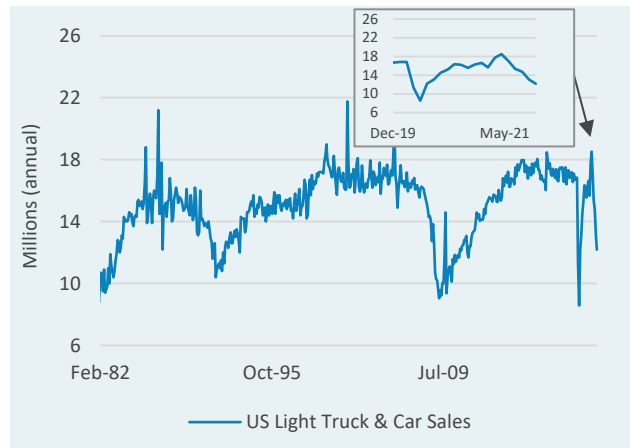
According to anonymized cellular phone data collected by Google for COVID-19 public health research, most economic activity seems to be back to normal for the most part. Public transportation and workplace travel remains the exception, though a recent uptick in workplace mobility might imply that some businesses are bringing staff back to the office.

REAL RETAIL SALES



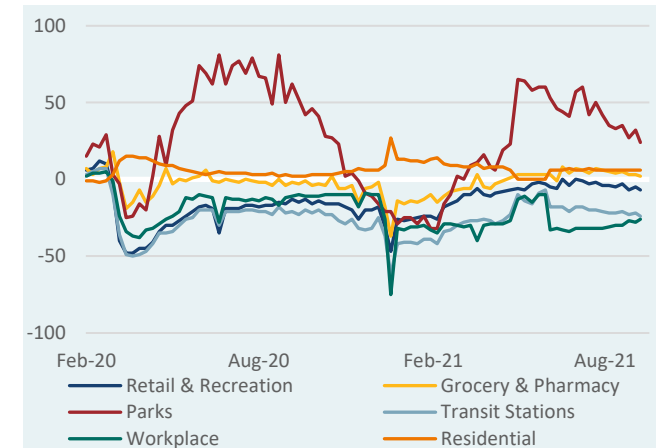
Source: FRED, as of 9/30/21

AUTO SALES



Source: Federal Reserve, as of 9/30/21

GOOGLE U.S. ACTIVITY TRACKER



Source: Google anonymized U.S. citizen mobility, as of 9/30/21

Sentiment

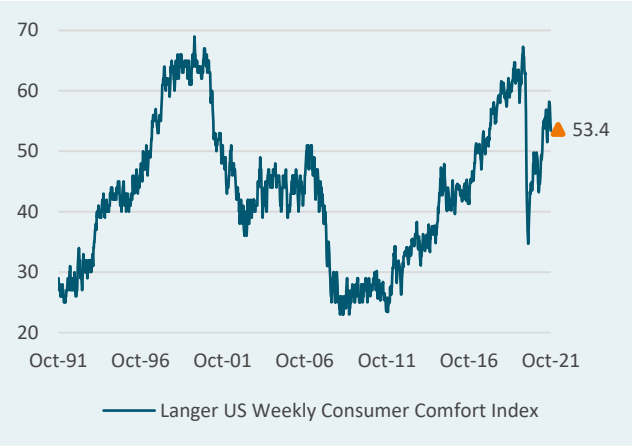
Consumer sentiment deteriorated during the third quarter, on reports of pessimism around COVID-19, inflation, and the economy. Small business optimism also fell as businesses face difficulty in hiring and are concerned about tax increases and more burdensome government regulations.

The University of Michigan Consumer Sentiment Survey attempts to gauge attitudes about the business climate, personal finances, and spending conditions. The survey reading fell from 85.5 to 72.8 on reports that the Delta variant and persistent inflation, as well as unfavorable prospects for the national economy, are weighing on sentiment. High prices of homes, vehicles, and durables are a concern, and only 18% of households anticipate that wage gains will be greater than inflation. The

Bloomberg Consumer Comfort Index attempts to gauge Americans' views on the economy, their personal financial situation, and buying conditions. The index fell from 55.1 to 53.4.

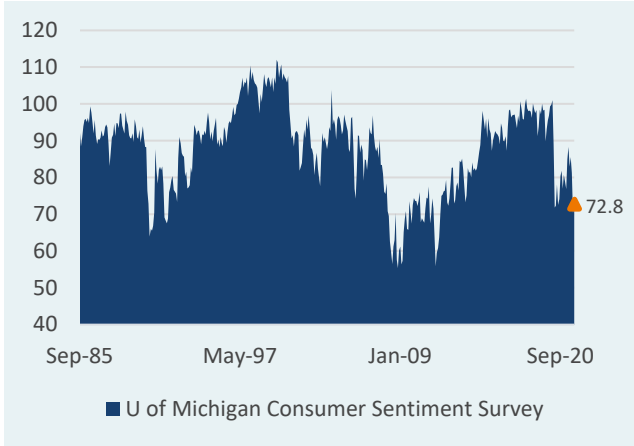
The NFIB Small Business Optimism index fell from 102.5 to 99.1 during the quarter. As reported, "Small business owners are doing their best to meet the needs of customers, but are unable to hire workers or receive the needed supplies and inventories," said NFIB Chief Economist Bill Dunkelberg. "The outlook for economic policy is not encouraging to owners, as lawmakers shift to talks about tax increases and additional regulations."

CONSUMER COMFORT



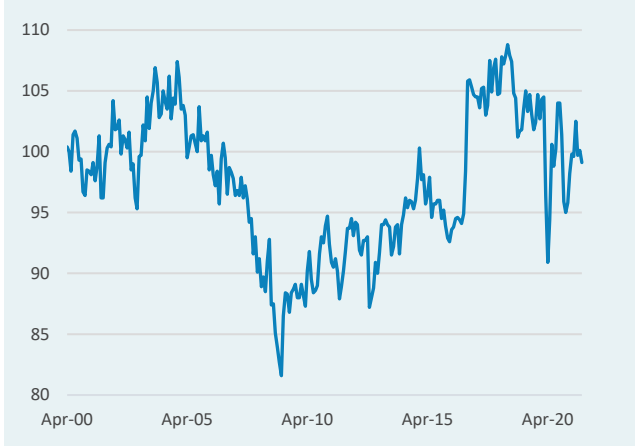
Source: Bloomberg, as of 9/30/21

CONSUMER SENTIMENT



Source: University of Michigan, as of 9/30/21

SMALL BUSINESS OPTIMISM



Source: NFIB, as of 9/30/21

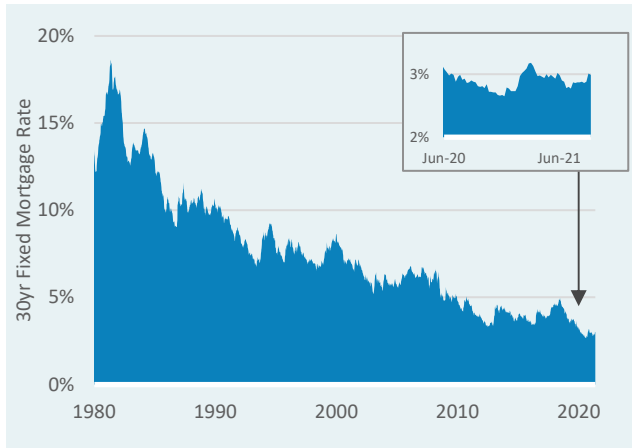
Housing

U.S. home prices have rocketed higher, up 19.7% over the past year, according to the S&P/Case-Shiller U.S. National Home Price Index. This surprising boom appears to have been the product of a perfect storm for home demand, impacted by ultra-low interest rates, Americans' need for more space in the work-from-home environment, and likely pent-up demand from younger families who have been slower to purchase homes than past generations.

Mortgage interest rates have remained steady at around 3.0%, as attractive borrowing conditions support potential buyers who face elevated home prices.

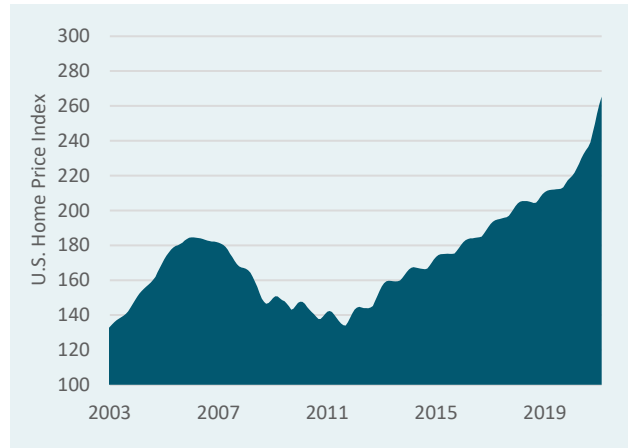
The cost of renting has seen a considerable rise throughout the pandemic, with rents up 9.2% year-over-year in September, according to Zillow. The rise in rent prices has differed quite a bit across the country, and it may be reasonable to assume that states with more outgoing net migration (ex: New York, California) may be experiencing less upward rent pressure than states with more incoming net migration (ex: Arizona, Florida), as demonstrated by recent rental price trends. Dramatic increases in rent prices, without a commensurate improvement in wages, creates obvious issues for many Americans.

30YR FIXED MORTGAGE RATE (AVERAGE)



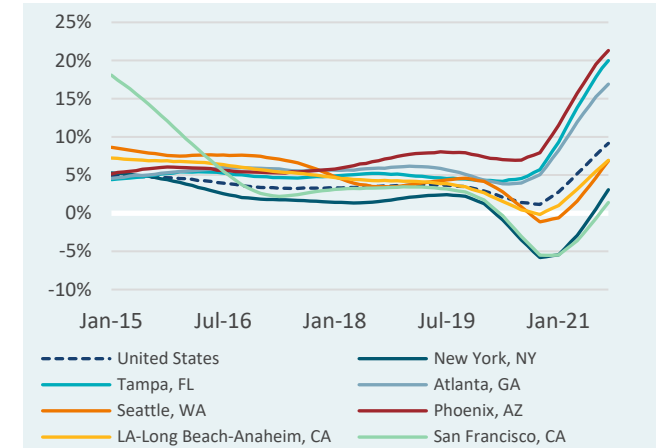
Source: U.S. Census Bureau, as of 9/30/21

U.S. HOME PRICES



Source: S&P/Case-Shiller U.S. National Home Price Index, as of 7/31/21

ZILLOW OBSERVED RENT INDEXES – ZORI* (YOY)



*Measures changes in asking rents across 100 markets over time.

Source: Zillow ZORI, as of 9/30/21

International economics summary

- The emergence of the delta variant of COVID-19 in Europe and the United States over the summer led to the reimplementing of social distancing controls and a subsequent moderation of economic activity in the services sector.
- European and Japanese vaccination rates improved vastly over the quarter, which helped to contain the spread of COVID-19.
- Inflation surprised to the upside around the globe, but particularly in the Eurozone, which has spurred some tough conversations amongst central bank policymakers.
- Global consumer confidence has trended lower over most of the last two quarters on concerns over labor market prospects, as well as the impact of rising prices on purchasing power stability.
- Natural gas prices surged more

than 60% in Q3, primarily as a result of low supply levels and substitution effects due to price surges in other energy sources including coal. On a more thematic basis, Europe's clean energy initiatives also played a role, as renewable sources are not yet equipped to replace carbon-based power supplies, and adequate investment in nuclear plants has not been made. We are keeping a watchful eye on the potential impact of energy prices on inflation.

- Many factories in China were forced to shut down late in the quarter as a result of surging coal and electricity prices. Those shutdowns, alongside weaker than expected investment activity, tighter financing conditions, and stricter social distancing controls, all contributed to a larger-than-expected moderation in Chinese GDP growth, which fell to 4.9% year-over-year in Q3.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	12.2% 6/30/21	5.4% 9/30/21	4.8% 9/30/21
Eurozone	14.3% 6/30/21	3.4% 9/30/21	7.5% 8/31/21
Japan	7.6% 6/30/21	0.3% 9/30/21	2.8% 8/31/21
BRICS Nations	10.1% 6/30/21	2.4% 9/30/21	5.3% 6/30/21
Brazil	12.4% 6/30/21	10.3% 9/30/21	13.7% 7/31/21
Russia	10.5% 6/30/21	7.4% 9/30/21	4.4% 8/31/21
India	20.1% 6/30/21	5.3% 8/31/21	6.9% 9/30/21
China	4.9% 9/30/21	0.7% 9/30/21	5.1% 8/31/21

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.

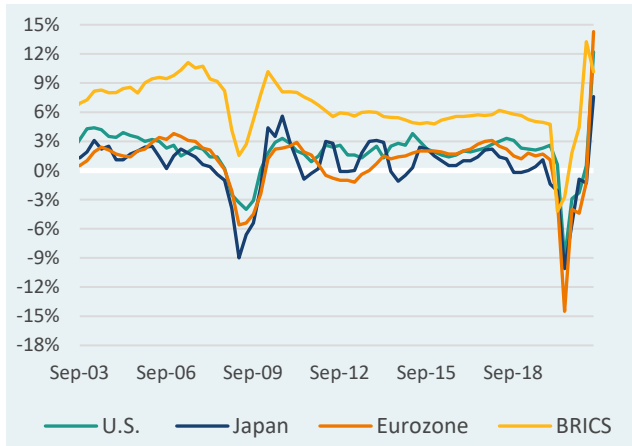
International economics

The IMF expects the global economy will grow by 5.9% in 2021, and 4.9% in 2022. More recently, concerns over the impact of supply chain disruptions have crimped near-term growth expectations for advanced economies, but the expectation remains that those economies will regain their pre-pandemic trend path in 2022 and exceed it by 0.9% by 2024. However, sizable disparities in vaccine access and policy support have resulted in a larger expected setback to living standard improvements in the developing world, where growth is expected to remain 5.5% beneath the pre-pandemic trend by 2024.

Inflation remained high in most global economies, and the United States has seen one of the largest increases among other major developed economies. Inflation trends and the reaction of central banks to these trends will have important implications for markets.

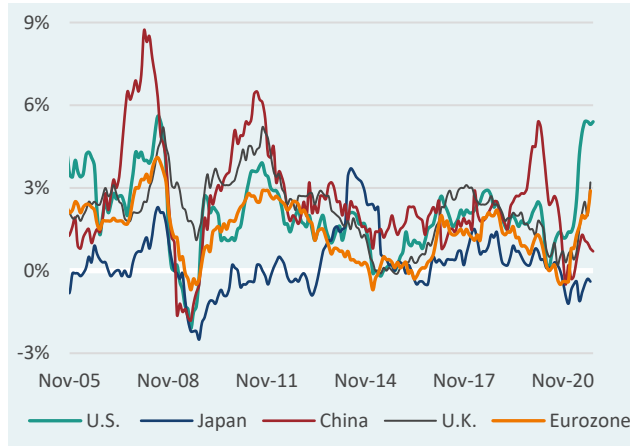
Unemployment around the world has improved as economies recover, government restrictions are loosened, and life moves back towards normalcy.

REAL GDP GROWTH (YOY)



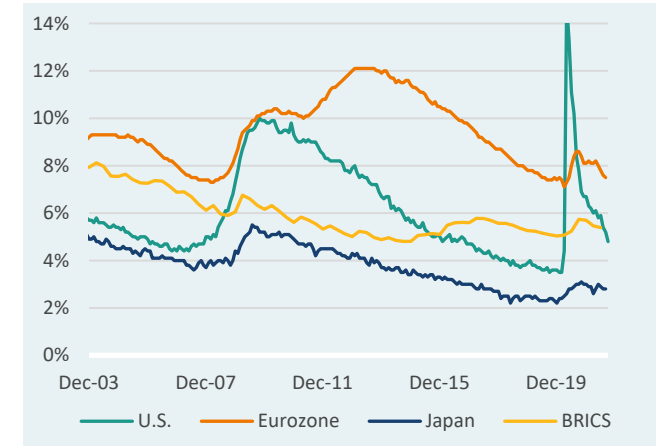
Source: Bloomberg, as of 6/30/21

INFLATION (CPI YOY)



Source: Bloomberg, as of 9/30/21 – or most recent release

UNEMPLOYMENT



Source: Bloomberg, as of 9/30/21 – or most recent release

Fixed income rates & credit

Fixed income environment

— The 10-year U.S. Treasury yield increased slightly during the quarter, from 1.45% to 1.52%. Longer-term Treasury bond yields drifted lower in July and August before picking up considerably in September, as speculation mounted that the Federal Reserve would begin tapering the current asset purchase program (\$80 billion in monthly Treasury purchases and \$40 billion in monthly agency mortgage-backed-securities) in November or December of this year.

— Credit spreads traded in a relatively tight range during the quarter and remained at a very low level relative to the historical average. Historically low credit default rates have supported tight spread levels. Above-average credit quality has also been supportive, specifically in the high-yield universe. Although credit spreads are tight, spreads arguably remain healthy relative to current bond default levels.

— Reports that Evergrande, one of the

largest property developers in China, was on track to miss debt service payments led to a sell-off in Chinese high-yield debt as investors braced for potential contagion. Dollar-denominated high-yield Chinese bonds in aggregate fell by around 20% in value.

— Realized and expected inflation metrics reached high levels relative to history, sparking a number of different policy responses from central bankers. The base case at the Fed and at the ECB remains that inflation will be transitory, and that rates can remain at current levels at least until late next year. In contrast, officials at the Bank of England are now expected to begin hiking rates in November, and many central banks in the emerging markets have already begun tightening policy.

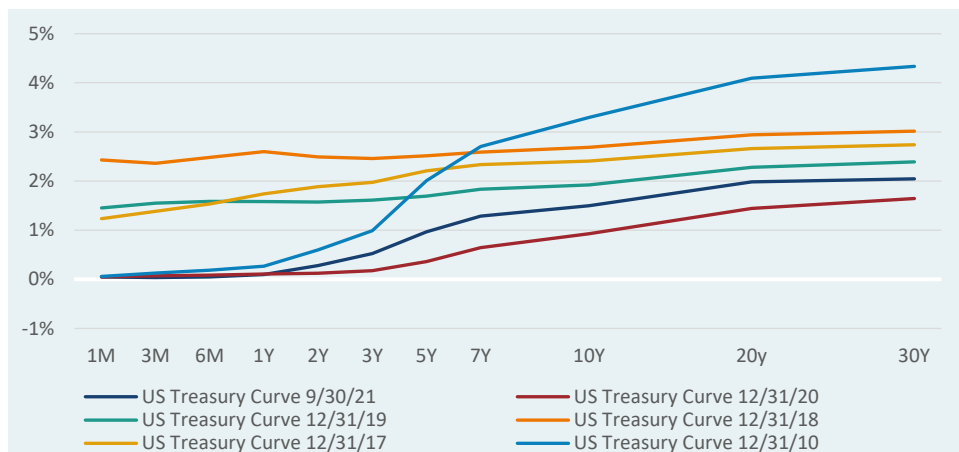
— The four-year discount margin, our preferred spread metric for bank loans, compressed slightly over the quarter from 4.32% to 4.28%.

	QTD Total Return	1 Year Total Return
Core Fixed Income (BBgBarc U.S. Aggregate)	0.1%	(0.9%)
Core Plus Fixed Income (BBgBarc U.S. Universal)	0.1%	0.2%
U.S. Treasuries (BBgBarc U.S. Treasury)	0.1%	(3.3%)
U.S. High Yield (BBgBarc U.S. Corporate HY)	0.9%	11.3%
Bank Loans (S&P/LSTA Leveraged Loan)	1.1%	8.4%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	(3.1%)	2.6%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	(0.7%)	4.4%
Mortgage-Backed Securities (BBgBarc MBS)	0.1%	(0.4%)

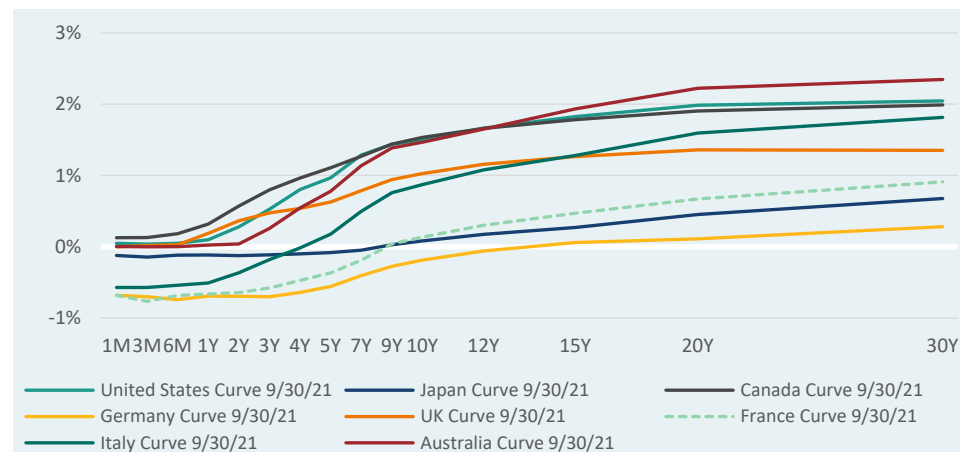
Source: Bloomberg, as of 9/30/21

Yield environment

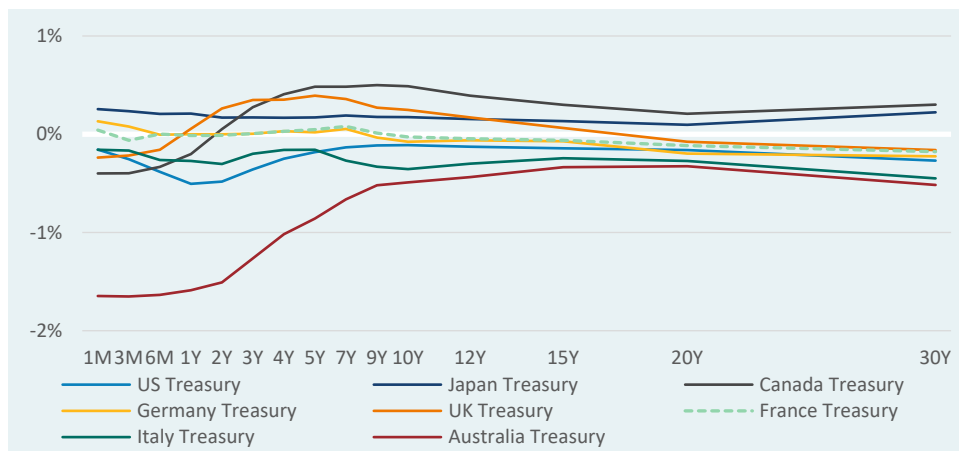
U.S. YIELD CURVE



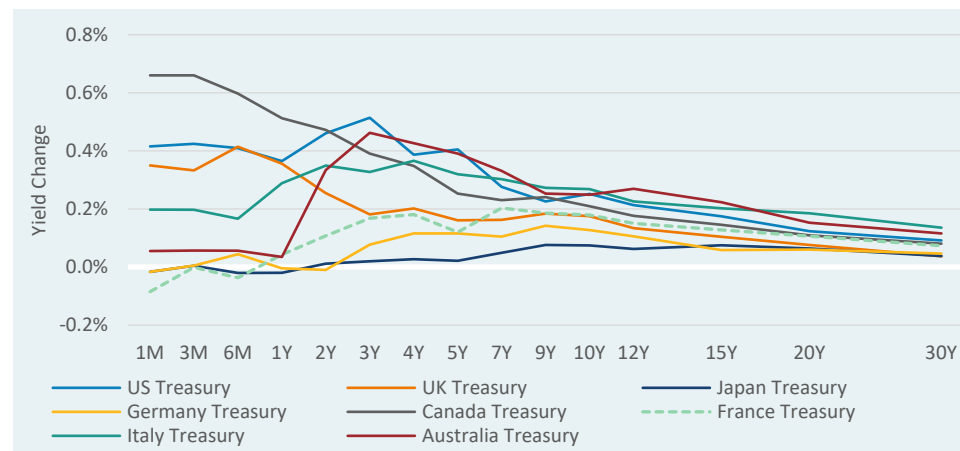
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 9/30/21

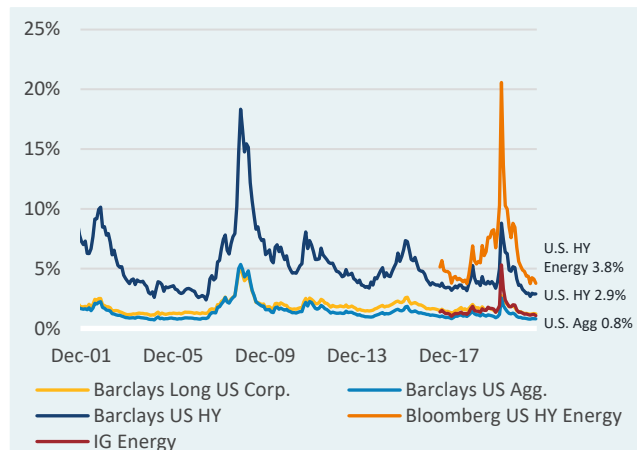
Credit environment

Credit markets traded in a relatively tight range throughout the quarter, delivering mild returns. Bank loans outperformed, returning 1.1% and outpacing high yield bonds (0.9%) and corporate investment grade (0.0%). Credit spreads widened as strong demand did not fully offset lingering concerns around inflation, persistent supply chain delays, default the by Chinese property developer Evergrande, and risk of a government shutdown. High yield spreads widened 21 basis points to 289 basis points while investment grade spreads widened 4 basis points to end the quarter at 84 basis points.

Demand for high quality credit has been strong this year with an estimated \$80 billion flowing into corporate investment grade funds. At the same

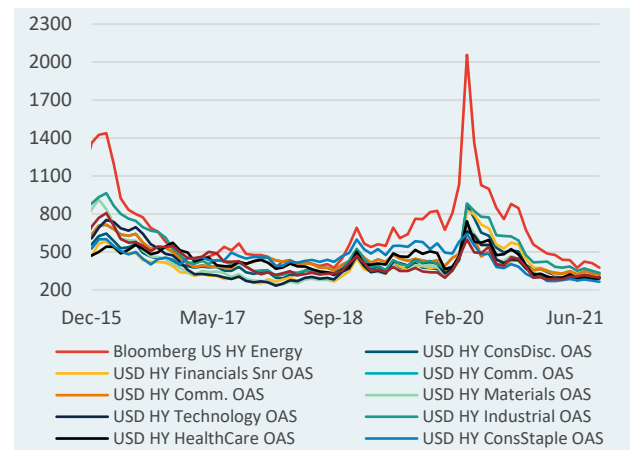
time, the sector has seen improvement in credit fundamentals as businesses repay some of last year's precautionary borrowing, reducing total debt levels. Strong demand and declining leverage, in conjunction with a potentially higher rate environment, are all supportive factors for credit (for example: global investors have stepped in to buy high yield bonds as rates rise, despite tight credit spreads, because the U.S. is a higher interest rate market). Investment grade spreads have only been this tight roughly 5% of the time since 2000. Tight valuations, which product low spread carry and longer relative duration, likely present challenges to credit performance going forward.

SPREADS



Source: Barclays, Bloomberg, as of 9/30/21

HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 9/30/21

Market	Credit Spread (OAS)	
	9/30/21	9/30/20
Long U.S. Corp	1.2%	1.9%
U.S. Inv Grade Corp	0.8%	1.4%
U.S. High Yield	2.9%	5.2%
U.S. Bank Loans*	4.3%	5.3%

Source: Barclays, Credit Suisse, Bloomberg, as of 9/30/21

*Discount margin (4-year life)

Default & issuance

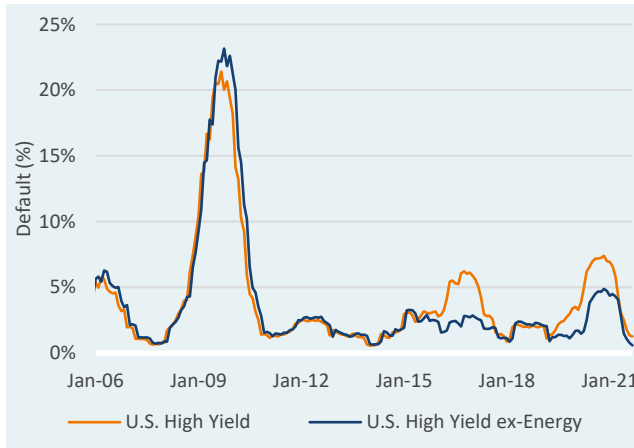
Default activity continued at a moderate pace in the third quarter with three defaults totaling \$1.3 billion across high yield bonds and bank loans. Over the first three quarters of the year, a total of nine companies defaulted on \$6.1 billion. As default activity continues to be light, the par-weighted U.S. high yield default rate declined in half to end the quarter at 1.3% year-over-year. Similarly, the loan par-weighted default rate ended the quarter at 0.9%, falling 3.4% year-to-date.

High yield bond issuance remains strong with Q3 gross issuance of \$129.4 billion, bringing the year-to date total to \$469.8 billion. Leveraged loan issuance continued at a historic pace with \$133.7 billion of new loan issued over the quarter. The \$418.3 billion of loans issued year-to-date has already

surpassed all previous *annual periods* with the exception of 2017 (\$419.2 billion).

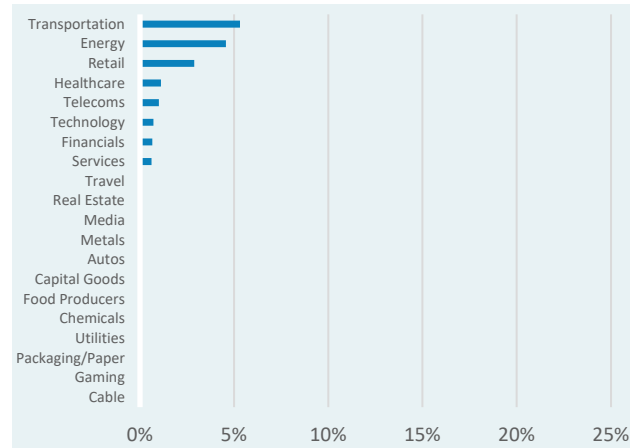
Investment grade issuance for the quarter totaled \$321 billion, below first (\$423 billion) and second quarter (\$350 billion) issuance but in-line with the 4-year average of \$323 billion. Of note, year-to-date Financial sector issuance has seen an uptick, accounting for 42% of issuance versus its four-year average share of roughly one-third of total investment grade issuance.

HY DEFAULT RATE (ROLLING 1-YEAR)



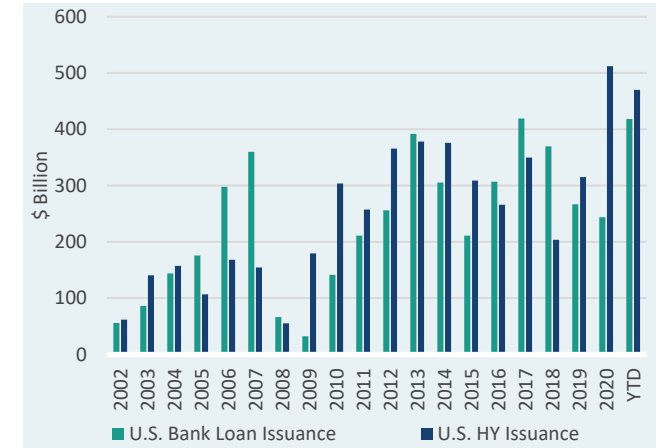
Source: BofA Merrill Lynch, as of 9/30/21

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



Source: BofA Merrill Lynch, as of 9/30/21 – par weighted

U.S. ISSUANCE (\$ BILLIONS)



Source: BofA Merrill Lynch, as of 9/30/21

Equity

Equity environment

- Equity markets took a pause in Q3, a notable change from the seemingly non-stop rally year-to-date. U.S. equities delivered 0.6%, while international equities experienced slight losses of -0.4% and emerging market equities saw a larger selloff of -8.1%, on an unhedged currency basis.
- Size and value factor performance was negative during the quarter, as large capitalization stocks outperformed small capitalization stocks by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%).
- As we observed last quarter, it does seem that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high

inflation could indeed persist, and most governments are set to pull back generous stimulus programs.

- The U.S. is facing acute supply chain issues, and 71% of S&P 500 companies reported negative impacts to their business during quarterly earnings calls, as reported by FactSet.
- Weakness in Chinese equities (MSCI China -18.2%) was the major driver of emerging market equity underperformance, as a wave of new regulations were implemented by the Communist Party of China which cascaded across a number of sectors including Technology, Property Management, and Financials.
- Within MSCI's long-short U.S. factor portfolios, momentum (+1.3%) led the way while volatility (-1.7%) posted a negative total return.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	0.6%		30.0%	
US Small Cap (Russell 2000)	(4.4%)		47.7%	
US Large Value (Russell 1000 Value)	(0.8%)		35.0%	
US Large Growth (Russell 1000 Growth)	1.2%		27.3%	
International Large (MSCI EAFE)	(0.4%)	1.5%	25.7%	28.2%
Eurozone (Euro Stoxx 50)	(2.4%)	0.1%	27.6%	30.6%
U.K. (FTSE 100)	(0.5%)	2.0%	30.7%	26.1%
Japan (NIKKEI 225)	2.5%	2.9%	21.9%	29.3%
Emerging Markets (MSCI Emerging Markets)	(8.1%)	(6.9%)	18.2%	15.9%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 9/30/21

Domestic equity

U.S. equities performed relatively well in Q2, delivering a slightly positive return of 0.6% (S&P 500). The index is expected to report Q3 earnings growth of 27.6% year-over-year, as indicated by FactSet. The U.S. is facing acute supply chain issues, and 71% of S&P 500 companies reported negative impacts to their business during quarterly earnings calls.

Mildly higher interest rates during the quarter likely supported Financials (+2.7%) while acting as a headwind to growth-oriented sectors such as Information Technology (+1.3%).

Performance over the near-term may be constrained by a degree of economic slowdown induced by the COVID-19 Delta variant, as well as moderating earnings growth expectations, although the analyst consensus price target for the S&P 500 over the next year is 5051, as of October 6th.

Recent price increases have raised questions around the defensibility of net profit margins, which are expected to moderate in Q3 but remain elevated well above recent averages. Some investors have begun to discuss positioning within sectors that have exhibited more pricing power.

S&P 500 INDEX



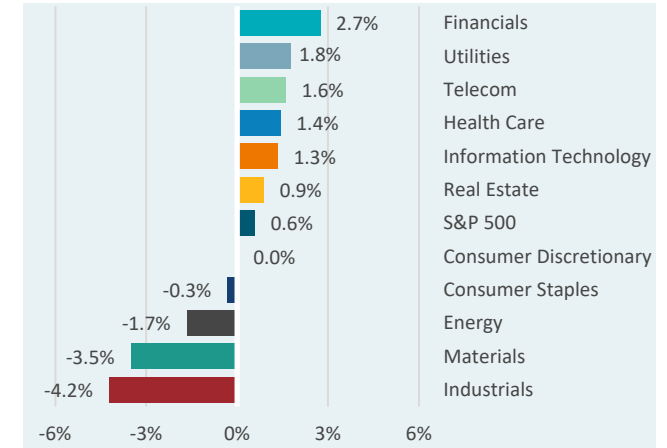
Source: Standard & Poor's, as of 9/30/21

S&P 500 NET PROFIT MARGINS



Source: FactSet, as of 10/18/21

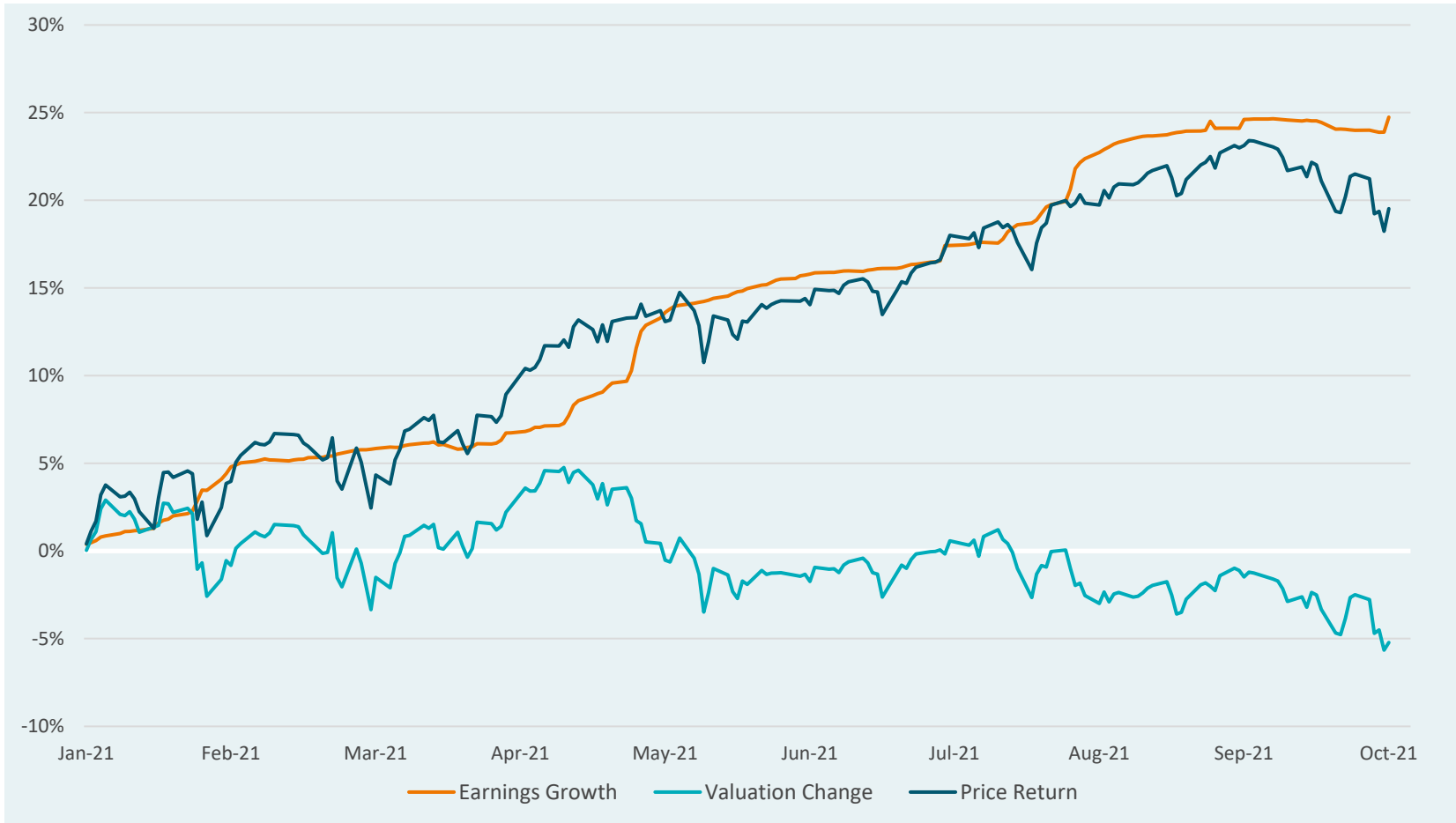
Q3 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 9/30/21

U.S. equity *Price/Earnings*

A very expensive “P” but record-growth of “E”



Corporate earnings growth has been the main driver of U.S. equity returns in 2021

Strong earnings growth expectations have led to slightly cheaper equities, as demonstrated by the *P/E multiple*

Source: Standard & Poor's, Bloomberg, Factset - Forward P/E, as of 9/30/21

Domestic equity size & style

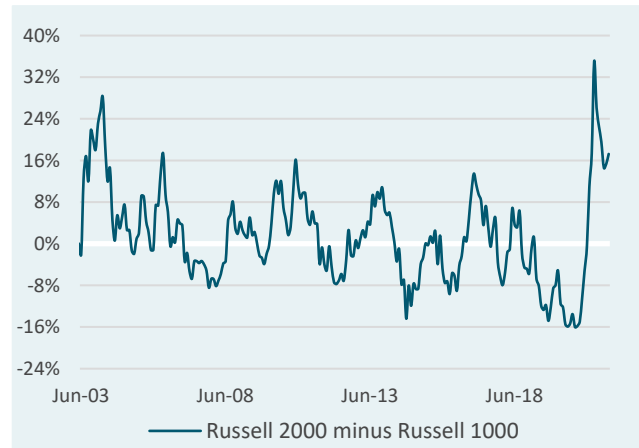
Large capitalization stocks outperformed small cap during the quarter by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%).

Following the notable turnaround in value stock performance during Q1, growth stocks took the lead in Q2, dampening excitement for a value comeback. Growth further outperformed in Q3. As we expressed earlier in the year, style performance is often impacted heavily by sector

randomness, which suggests that investors should be cautious in assuming that performance is *signal* rather than *noise*. Value stocks continue to be cheap relative to growth stocks, historically speaking. However, there does not appear to be a clear catalyst on the horizon that would imply a value timing opportunity. Factor performance tends to be noisy and difficult to predict, which suggests that style investing should in most cases involve a longer-term focus.

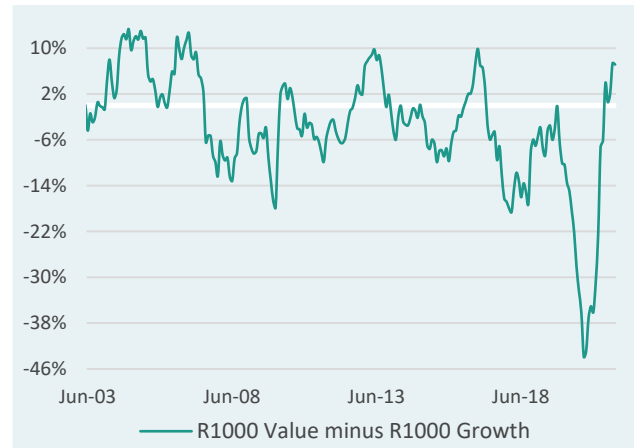
Large cap and growth stocks outperformed during Q3

SMALL CAP VS LARGE CAP (YOY)



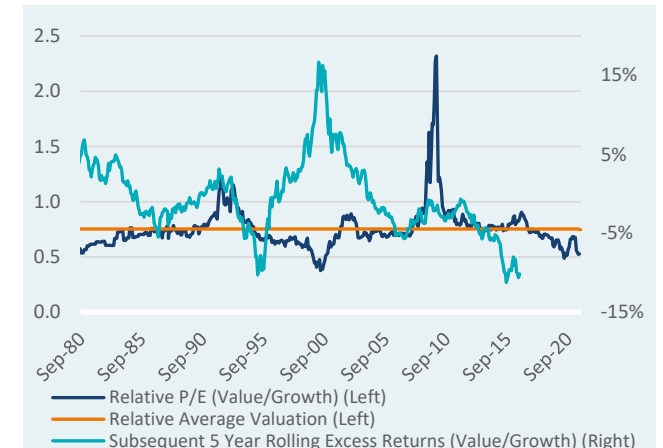
Source: FTSE, as of 9/30/21

VALUE VS GROWTH (YOY)



Source: FTSE, as of 9/30/21

VALUE VS. GROWTH RELATIVE VALUATIONS



Source: Standard & Poor's, as of 9/30/21

International developed equity

International equities experienced slight losses of -0.4% (MSCI EAFE Index) during the quarter on an unhedged currency basis, lagging U.S. equities but outperforming emerging markets. Currency movement during the quarter resulted in a loss of -1.9% relative to those investors with a currency hedging program.

Japanese equities (MSCI Japan +4.6%) rallied on strong earnings, and on the news that Prime Minister Suga's successor, Fumio Kishida, would be less likely to pursue tax hikes on investment income. Japan's vaccination rate also improved considerably, and ended the quarter in line with major European countries, laying the groundwork for a broader reopening of the economy.

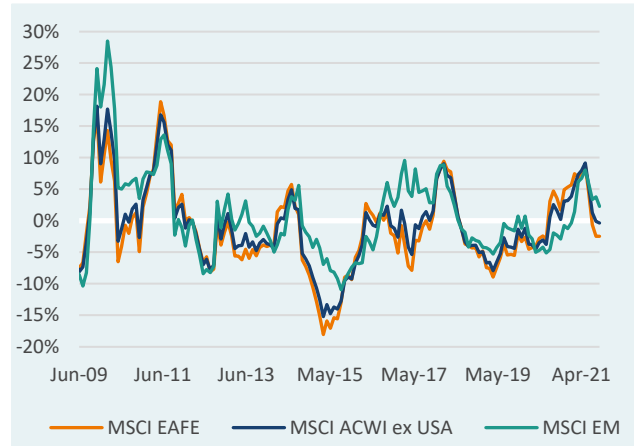
The strong performance of Japanese equities helped to offset for international developed equity investors the negative returns delivered by European equities (MSCI Europe -1.6%), which faced headwinds from a significant weakening in the pound sterling (-2.4%) and euro (-2.3%) relative to the U.S. dollar. According to futures market positioning data from the CFTC, more people are betting that the euro will depreciate in value than those betting that it will appreciate in value, for the first time since March 2020.

INTERNATIONAL DEVELOPED EQUITIES



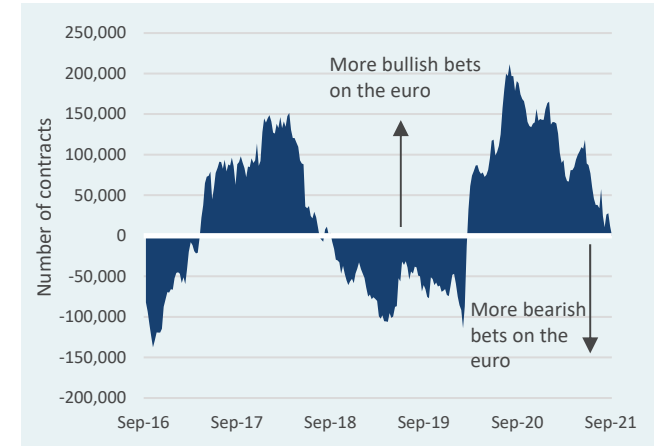
Source: MSCI, as of 9/30/21

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 9/30/21

EURO NET FUTURES POSITIONING



Source: CFTC, non-commercial positioning, as of 9/28/21

Emerging market equity

Emerging market equities saw large losses (MSCI EM -8.1%) on an unhedged currency basis, underperforming other markets during the third quarter. China has dragged down emerging markets performance considerably, producing losses of -18.2% in Q3 relative to ex-China emerging market performance of -2.0%, and producing losses of -7.2% over the past year relative to ex-China emerging market performance of 36.9% (MSCI China vs. MSCI Emerging Markets ex-China). China comprises 34% of the MSCI Emerging Markets Index.

Latin American emerging markets have taken the lead over Asian emerging markets over the past year, a notable change from strong Asian

leadership in recent years (MSCI EM Latin America +27.3%, MSCI EM Asia +13.9%)

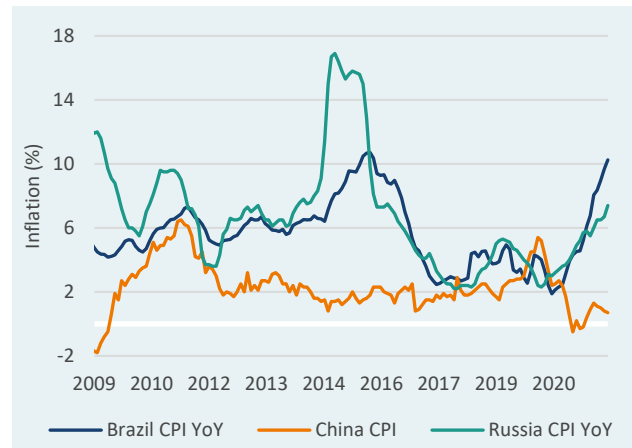
Inflation in Brazil has risen to 10.3%, and in Russia to 7.4%, which has generated responses from central banks. Brazil has hiked their central bank rate from 2.00% to 6.25% to battle rising prices, while Russia has hiked its rate from 4.25% to 6.75% year-to-date. While inflation rate in the U.S. is one of the highest in the developed world, emerging markets are also facing tough decisions regarding the balance between economic recovery and the risks of uncomfortably high inflation.

EMERGING MARKET EQUITY



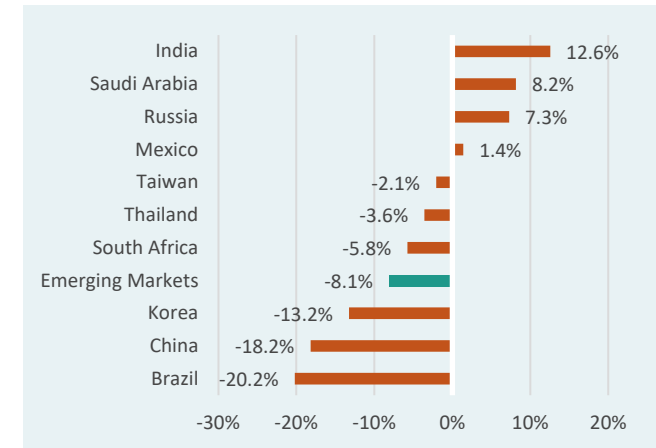
Source: MSCI, as of 9/30/21

INFLATION (YOY)



Source: Bloomberg, as of 9/30/21 or most recent data

Q3 PERFORMANCE – TOP 10 EM CONSTITUENTS



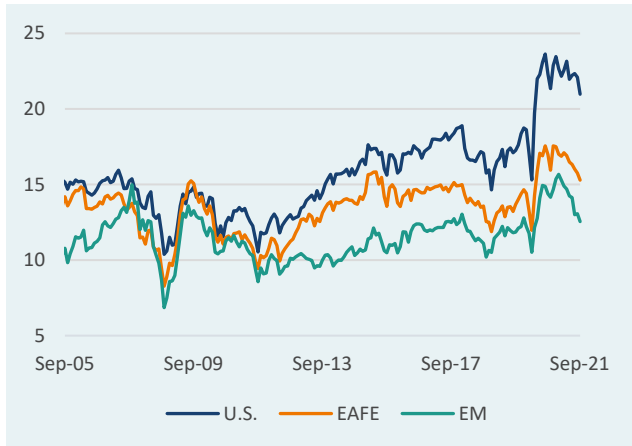
Source: Bloomberg, MSCI, as of 9/30/21, performance in USD terms

Equity valuations

Forward price/earnings equity multiples have been falling around the world, as earnings expectations rise faster than equity prices, though valuations remain very high. U.S. stock valuations are, and have been, incredibly elevated. A larger share of technology stocks in U.S. indices partly explains these historically high prices, as technology stocks tend to demand a higher P/E than most other industry sectors. Investors appear to agree that high prices of domestic stocks will likely translate to below-average future performance over the long-term, as reflected in industry capital market assumptions.

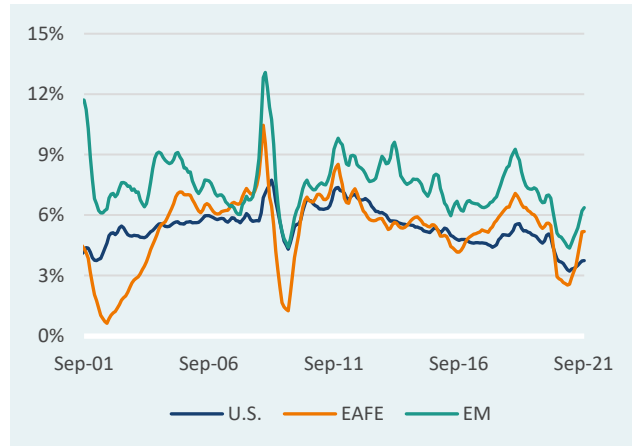
Global equity earnings yields improved considerably, as trailing 12-month earnings have rebounded from low levels. Price growth has moderated in the U.S. and has moved into negative territory across international developed and emerging market equities. The question moving ahead will be whether valuations (which remain rich) are sustainable absent further above-average earnings growth. Rising prices of major input costs, including labor and energy, have dampened the outlook for margins, which may lead companies to raise prices where possible. This pricing power varies by sector and by region.

FORWARD P/E RATIOS



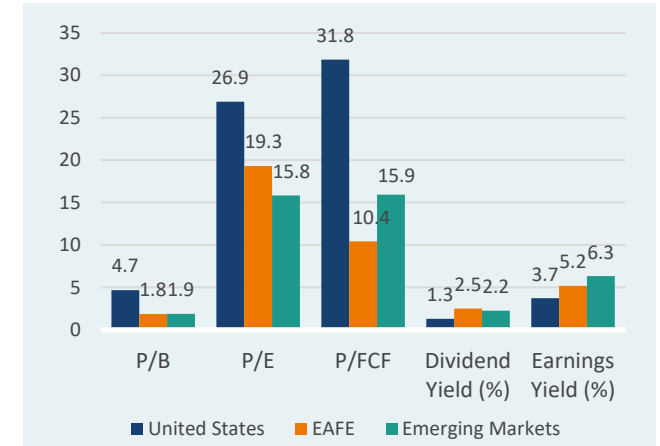
Source: MSCI, 12m forward P/E, as of 9/30/21

CURRENT EARNINGS YIELD (3-MONTH AVERAGE)



Source: Bloomberg, MSCI, as of 9/30/21

VALUATION METRICS (3-MONTH AVERAGE)



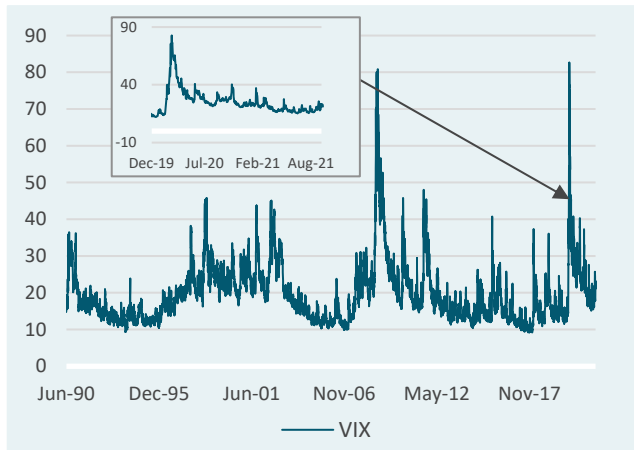
Source: Bloomberg, MSCI as of 9/30/21 - trailing P/E

Equity volatility

The Cboe VIX Index remained below the longer-term average of 19 through July and August, then increased throughout September, ending the quarter at an elevated 23.1. This compares to only 13.9% realized volatility over the past year. As is typical, international developed equity realized volatility has been slightly greater than that of the U.S. market. The realized volatility of emerging market equities, on the other hand, has been on par with the U.S. for a few years—a rare occurrence, historically speaking.

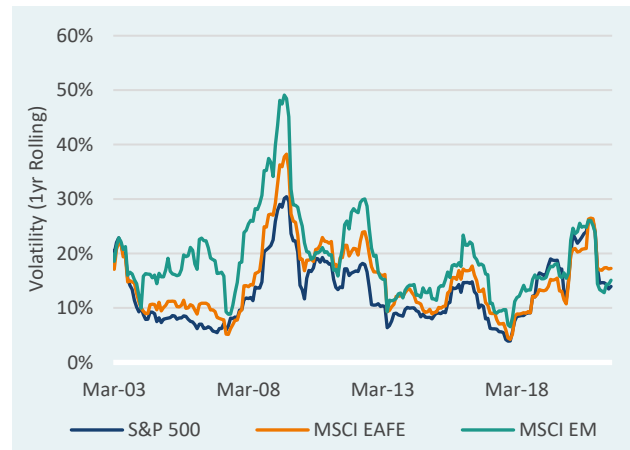
As we observed last quarter, it does seem that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high inflation could indeed persist, and most governments are set to pull back generous stimulus programs. While U.S. equities have marched higher with very few road bumps over the year-to-date, the S&P 500 Index closed the quarter 5.1% below its previous record high level, snapping a streak of 231 consecutive trading days where it had not fallen more than 5% beneath the record high.

U.S. IMPLIED VOLATILITY (VIX)



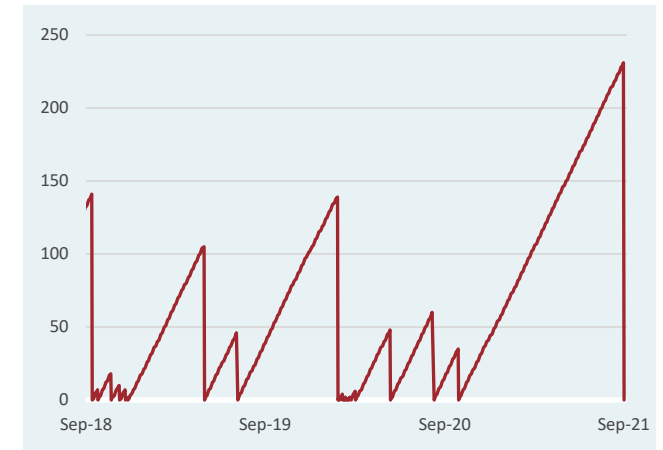
Source: Cboe, as of 9/30/21

REALIZED VOLATILITY



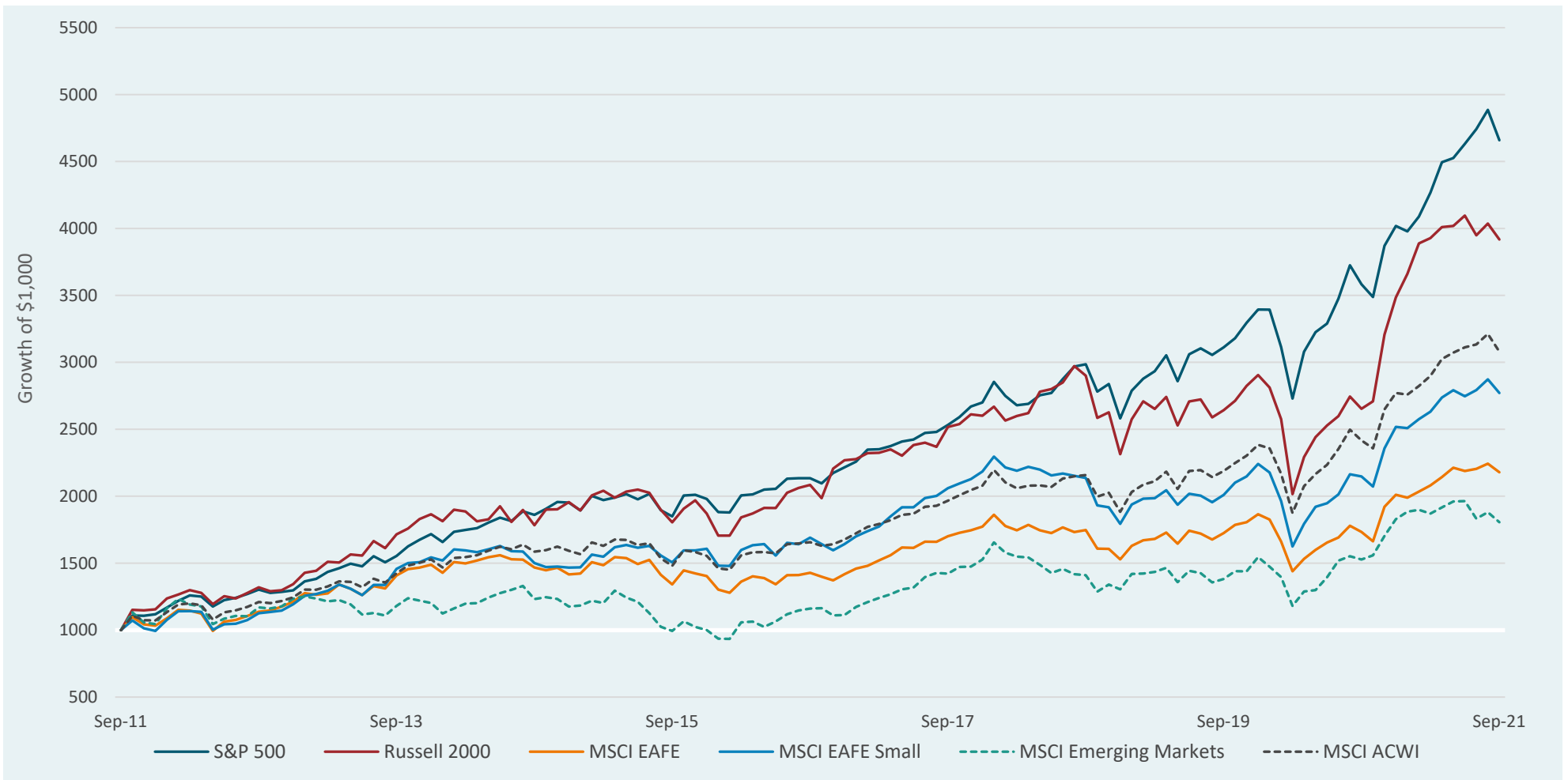
Source: Standard & Poor's, MSCI, as of 9/30/21

DAYS SINCE LAST 5% DRAWDOWN – S&P 500



Source: Standard & Poor's, Verus, as of 9/30/21

Long-term equity performance



Source: Morningstar, as of 9/30/21

Other assets

Currency

The U.S. dollar appreciated 2% during the quarter, continuing its modest rise year-to-date. This move coincided with a slight increase in U.S. Treasury yields and European government bond yields, resulting in little change to interest rate differentials.

U.S. dollar sentiment reached its most optimistic level since late 2019, while sentiment surrounding the euro and pound turned from optimistic to pessimistic. Differences in monetary policy from country-to-country appear to be driving this shift in sentiment. While the U.S. Federal Reserve is expected to begin tapering asset purchases by year-end, the ECB is planning on simply shifting the complexion of its asset purchase program, and the

BOE is planning on adjusting short-term interest rates higher while retaining the majority of its asset purchase program which targets longer-duration bonds.

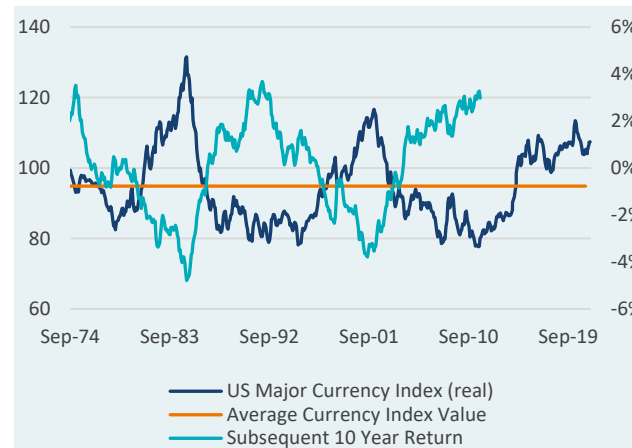
The MSCI Currency Factor Mix Index, Verus' preferred currency beta benchmark, outperformed the currency portfolio of the MSCI ACWI ex-US Index over the twelve months ending September 30th, while exhibiting 1.1% less volatility.

BLOOMBERG DOLLAR SPOT INDEX



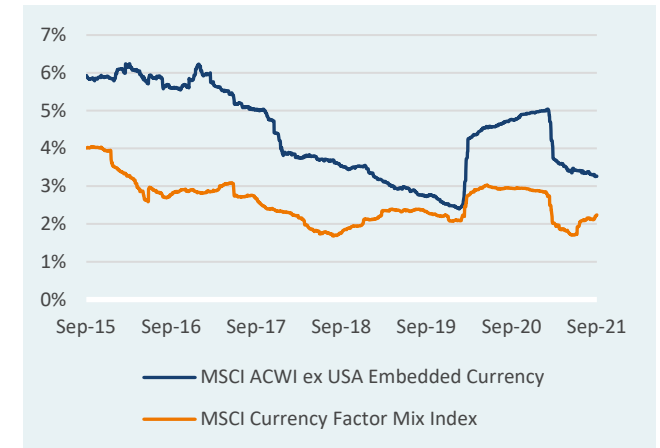
Source: Bloomberg, as of 9/30/21

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 9/30/21

TRAILING ONE-YEAR ANNUALIZED VOLATILITY



Source: Bloomberg, MSCI, as of 9/30/21

Appendix

Periodic table of returns

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	5-Year	10-Year
Commodities	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	29.1	22.8	19.7
Small Cap Value	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	22.9	17.1	16.8
Large Cap Value	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	16.1	15.3	15.7
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	15.2	13.5	14.6
Large Cap Growth	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	14.3	11.0	13.5
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	12.4	10.9	13.2
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	8.3	9.2	8.8
Hedge Funds of Funds	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	6.4	8.9	8.1
Real Estate	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	5.4	8.8	8.0
60/40 Global Portfolio	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	5.0	6.1	6.1
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	5.9	4.5
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	4.5	3.0
Emerging Markets Equity	-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	-1.2	2.9	0.6
US Bonds	-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	-1.6	1.1	-2.7

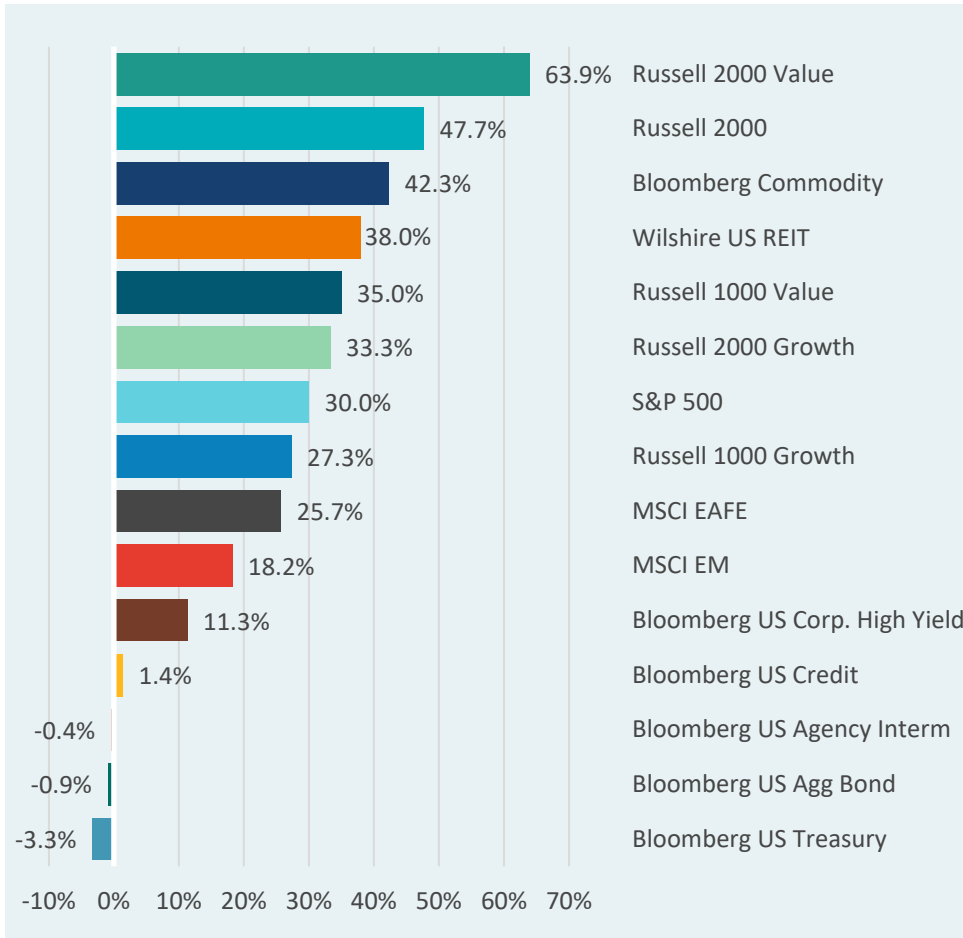
BEST
↑
↓
WORST

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

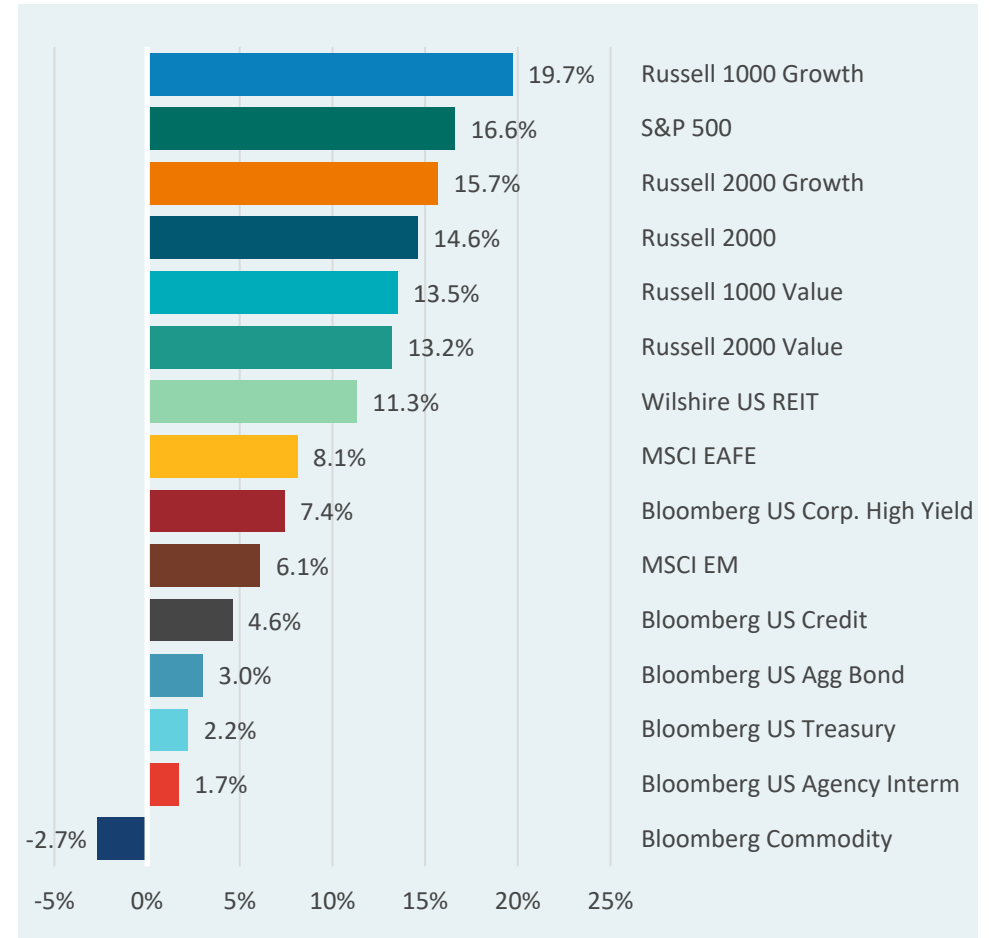
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 6/30/21.

Major asset class returns

ONE YEAR ENDING SEPTEMBER



TEN YEARS ENDING SEPTEMBER



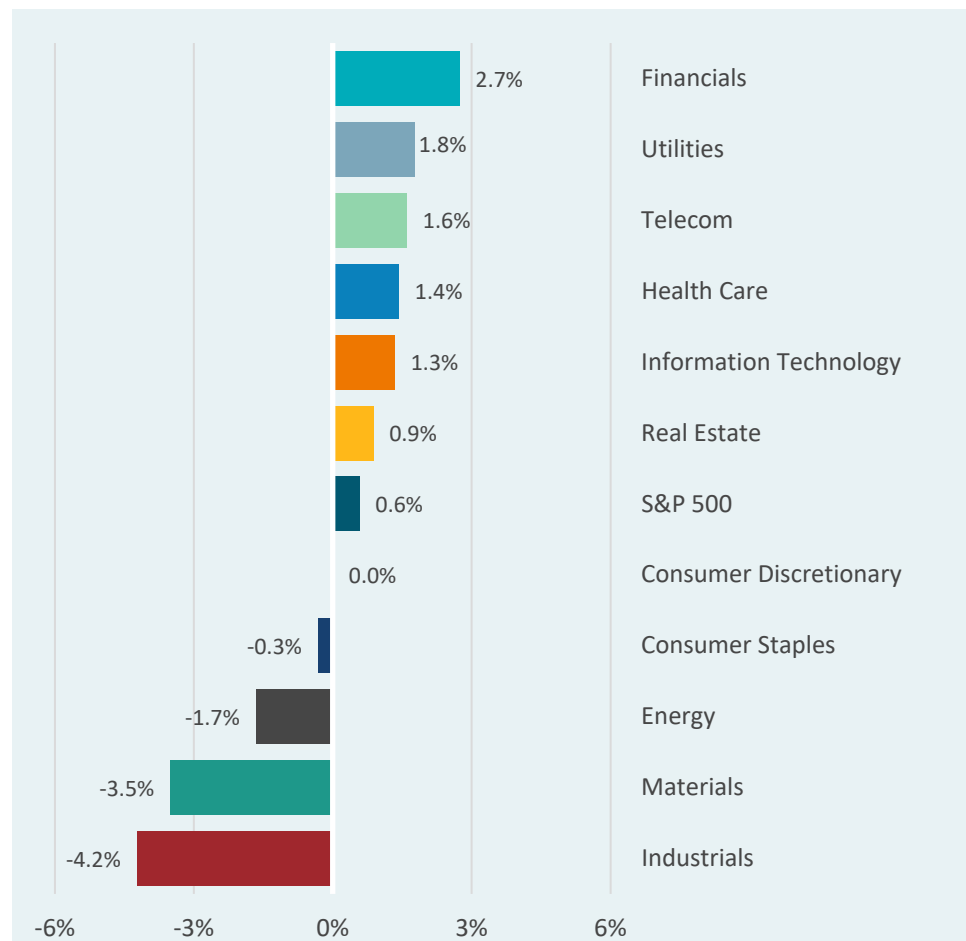
*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 9/30/21

Source: Morningstar, as of 9/30/21

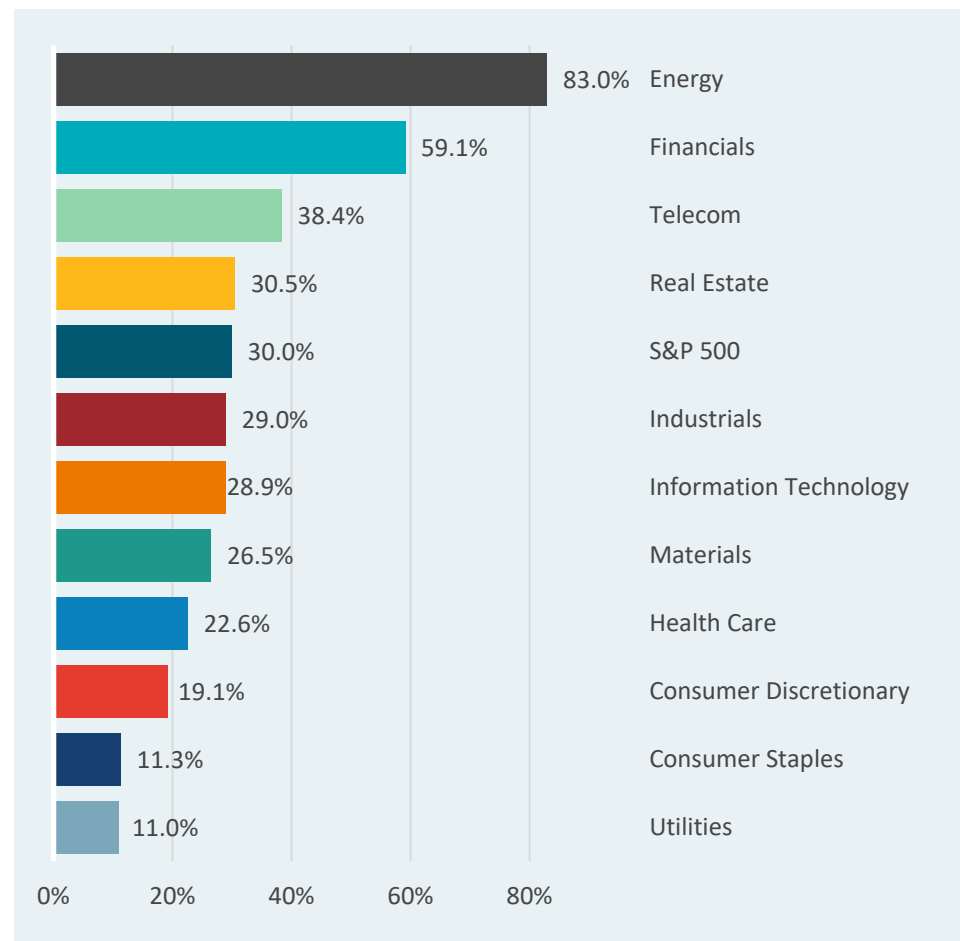
S&P 500 sector returns

Q3 2021



Source: Morningstar, as of 9/30/21

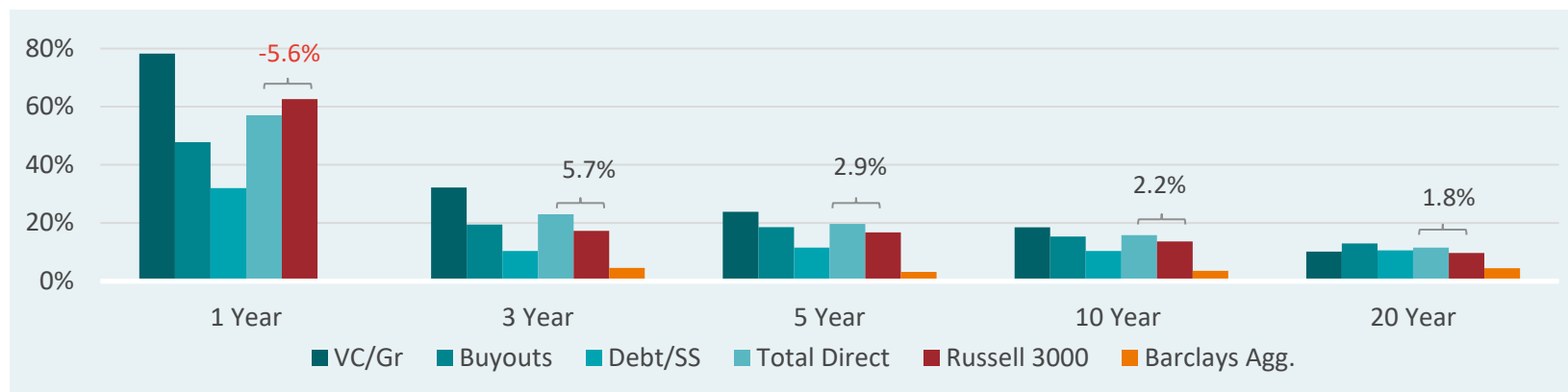
ONE YEAR ENDING SEPTEMBER



Source: Morningstar, as of 9/30/21

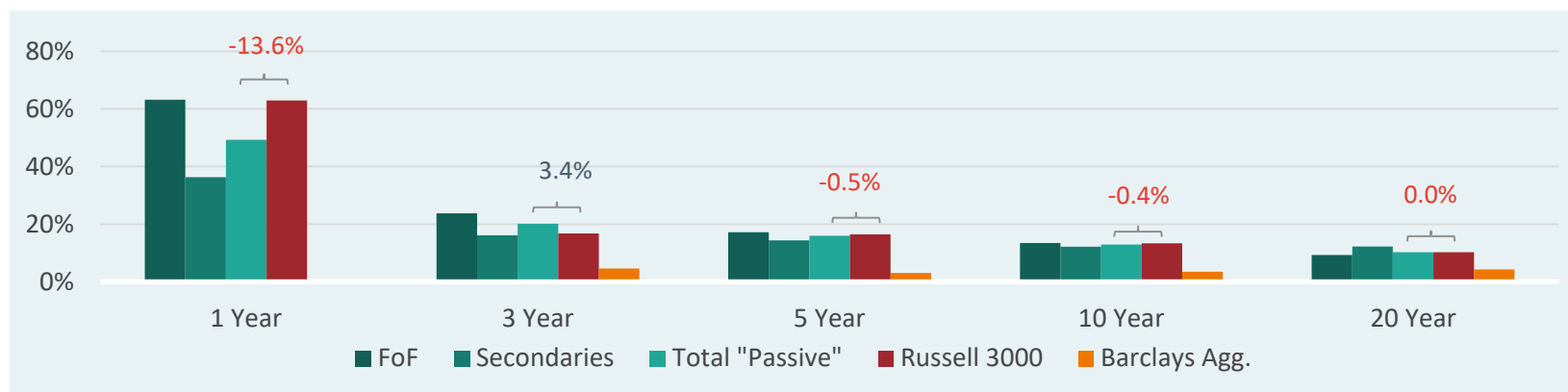
Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



Direct P.E Fund Investments outperformed comparable public equities across all time periods, aside from the 1-year basis.

"PASSIVE" STRATEGIES

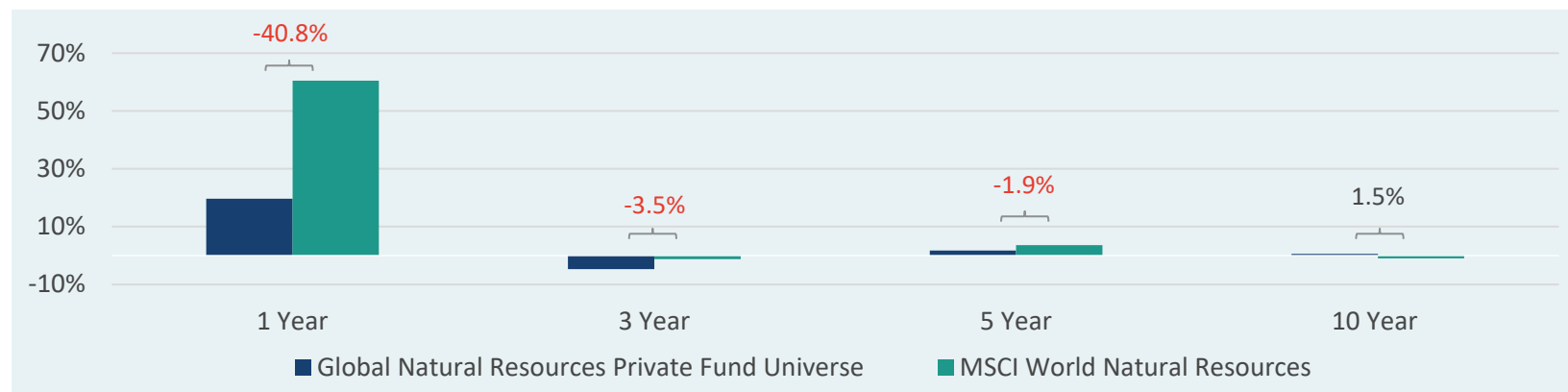


"Passive" strategies underperformed comparable public equities across all time periods, aside from the 3-year basis.

Sources: Refinitiv Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of March 31, 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.

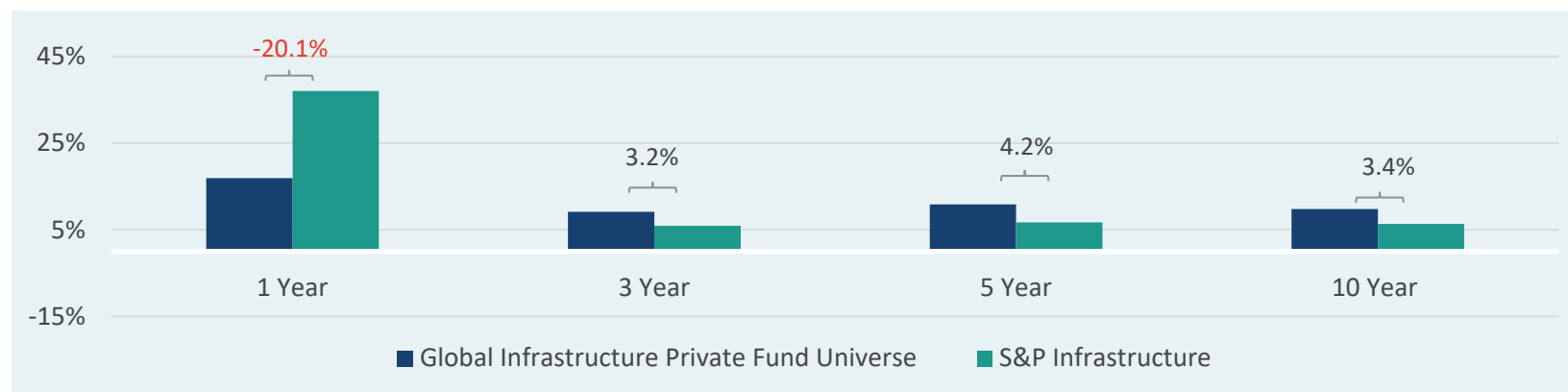
Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



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

GLOBAL INFRASTRUCTURE FUNDS

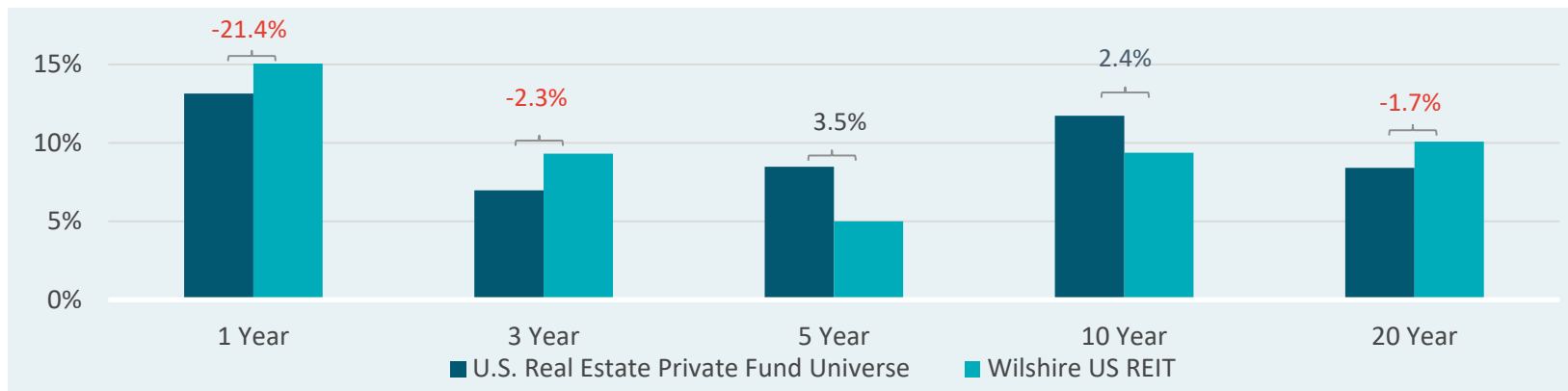


Infra. funds outperformed the S&P Infra. across all periods, aside from the 1-year.

Sources: Refinitiv CJA 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 March 31, 2021. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

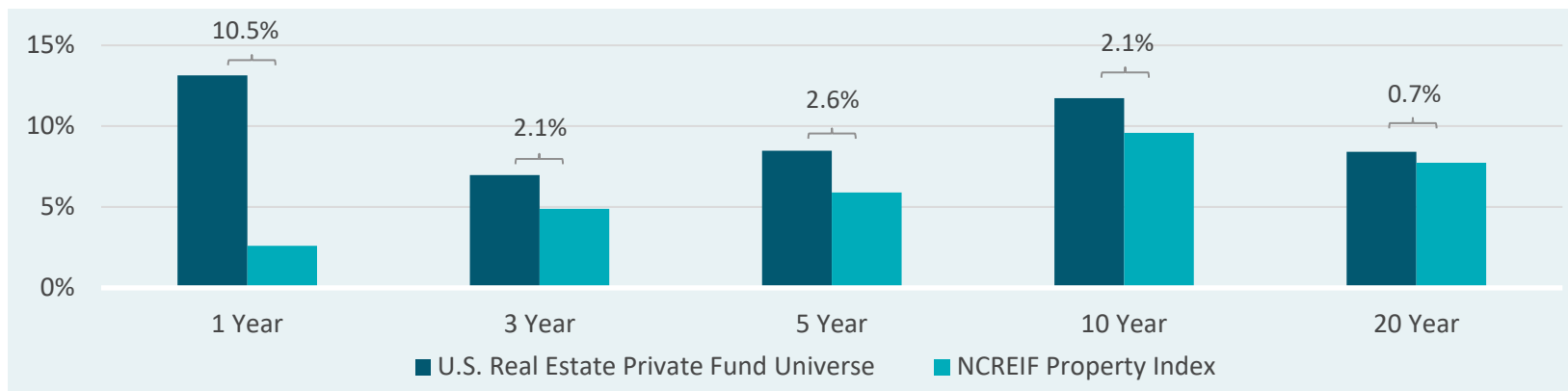
Private vs. liquid and core real estate performance

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



U.S. Private R.E. funds lagged against the Wilshire U.S. REIT Index across all time periods, aside on the 5 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 CJA PME: Global and U.S. Real Estate universes as of March 31, 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	(4.7)	0.6	15.9	30.0	16.0	16.9	16.6
S&P 500 Equal Weighted	(3.8)	(0.2)	18.9	40.9	14.3	14.6	16.0
DJ Industrial Average	(4.2)	(1.5)	12.1	24.2	11.0	15.7	14.7
Russell Top 200	(4.8)	0.6	15.2	28.6	17.3	18.2	17.2
Russell 1000	(4.6)	0.2	15.2	31.0	16.4	17.1	16.8
Russell 2000	(2.9)	(4.4)	12.4	47.7	10.5	13.5	14.6
Russell 3000	(4.5)	(0.1)	15.0	31.9	16.0	16.9	16.6
Russell Mid Cap	(4.1)	(0.9)	15.2	38.1	14.2	14.4	15.5
Style Index							
Russell 1000 Growth	(5.6)	1.2	14.3	27.3	22.0	22.8	19.7
Russell 1000 Value	(3.5)	(0.8)	16.1	35.0	10.1	10.9	13.5
Russell 2000 Growth	(3.8)	(5.7)	2.8	33.3	11.7	15.3	15.7
Russell 2000 Value	(2.0)	(3.0)	22.9	63.9	8.6	11.0	13.2

INTERNATIONAL EQUITY

Broad Index							
MSCI ACWI	(4.1)	(1.1)	11.1	27.4	12.6	13.2	11.9
MSCI ACWI ex US	(3.2)	(3.0)	5.9	23.9	8.0	8.9	7.5
MSCI EAFE	(2.9)	(0.4)	8.3	25.7	7.6	8.8	8.1
MSCI EM	(4.0)	(8.1)	(1.2)	18.2	8.6	9.2	6.1
MSCI EAFE Small Cap	(3.6)	0.9	10.0	29.0	9.0	10.4	10.7
Style Index							
MSCI EAFE Growth	(3.9)	0.1	6.9	20.9	11.9	11.4	10.1
MSCI EAFE Value	(1.8)	(1.0)	9.6	30.7	3.0	6.0	6.0
Regional Index							
MSCI UK	(2.0)	(0.3)	12.2	31.2	2.4	4.8	5.4
MSCI Japan	2.8	4.6	5.9	22.1	7.5	9.4	8.4
MSCI Euro	(5.0)	(2.0)	10.5	29.5	7.9	9.3	8.3
MSCI EM Asia	(4.1)	(9.6)	(4.1)	13.9	10.0	10.7	8.5
MSCI EM Latin American	(10.3)	(13.3)	(5.6)	27.3	(1.4)	1.8	(1.1)

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	(0.7)	1.8	3.5	5.2	7.4	4.3	3.1
Bloomberg US Treasury Bills	0.0	0.0	0.0	0.1	1.2	1.2	0.7
Bloomberg US Agg Bond	(0.9)	0.1	(1.6)	(0.9)	5.4	2.9	3.0
Bloomberg US Universal	(0.9)	0.1	(1.1)	0.2	5.6	3.3	3.5
Duration							
Bloomberg US Treasury 1-3 Yr	(0.1)	0.1	(0.0)	0.0	2.7	1.6	1.2
Bloomberg US Treasury Long	(2.9)	0.5	(7.5)	(10.3)	9.2	3.3	4.4
Bloomberg US Treasury	(1.1)	0.1	(2.5)	(3.3)	4.9	2.2	2.2
Issuer							
Bloomberg US MBS	(0.4)	0.1	(0.7)	(0.4)	3.9	2.2	2.4
Bloomberg US Corp. High Yield	(0.0)	0.9	4.5	11.3	6.9	6.5	7.4
Bloomberg US Agency Interm	(0.4)	0.1	(0.5)	(0.4)	3.2	1.9	1.7
Bloomberg US Credit	(1.1)	(0.0)	(1.3)	1.4	7.1	4.4	4.6

OTHER

Index							
Bloomberg Commodity	5.0	6.6	29.1	42.3	6.9	4.5	(2.7)
Wilshire US REIT	(5.1)	1.6	24.8	38.0	10.4	7.0	11.3
CS Leveraged Loans	0.5	0.9	4.0	8.5	4.1	4.7	5.0
Alerian MLP	3.0	(5.7)	39.4	84.6	(5.2)	(3.5)	1.2
Regional Index							
JPM EMBI Global Div	(2.1)	(0.7)	(1.4)	4.4	5.7	3.9	5.8
JPM GBI-EM Global Div	(3.4)	(3.1)	(6.4)	2.6	3.7	2.1	1.1
Hedge Funds							
HFRI Composite	0.1	(0.0)	10.1	22.1	8.5	7.3	5.9
HFRI FOF Composite	0.8	1.4	6.4	15.0	6.7	5.9	4.5
Currency (Spot)							
Euro	(1.8)	(2.3)	(5.3)	(1.2)	(0.1)	0.6	(1.5)
Pound Sterling	(2.0)	(2.4)	(1.4)	4.3	1.1	0.7	(1.4)
Yen	(1.5)	(0.5)	(7.5)	(5.4)	0.6	(1.9)	(3.6)

Source: Morningstar, HFRI, as of 9/30/21

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.lanqerresearch.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 indices 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 $(\text{Good-Poor} + 100)/2$ to the present and future sales series and $(\text{High/Very High-Low/Very Low} + 100)/2$ 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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Contra Costa County Employees' Retirement Association

Investment Performance Review

Period Ending: September 30, 2021



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SEATTLE 206-622-3700

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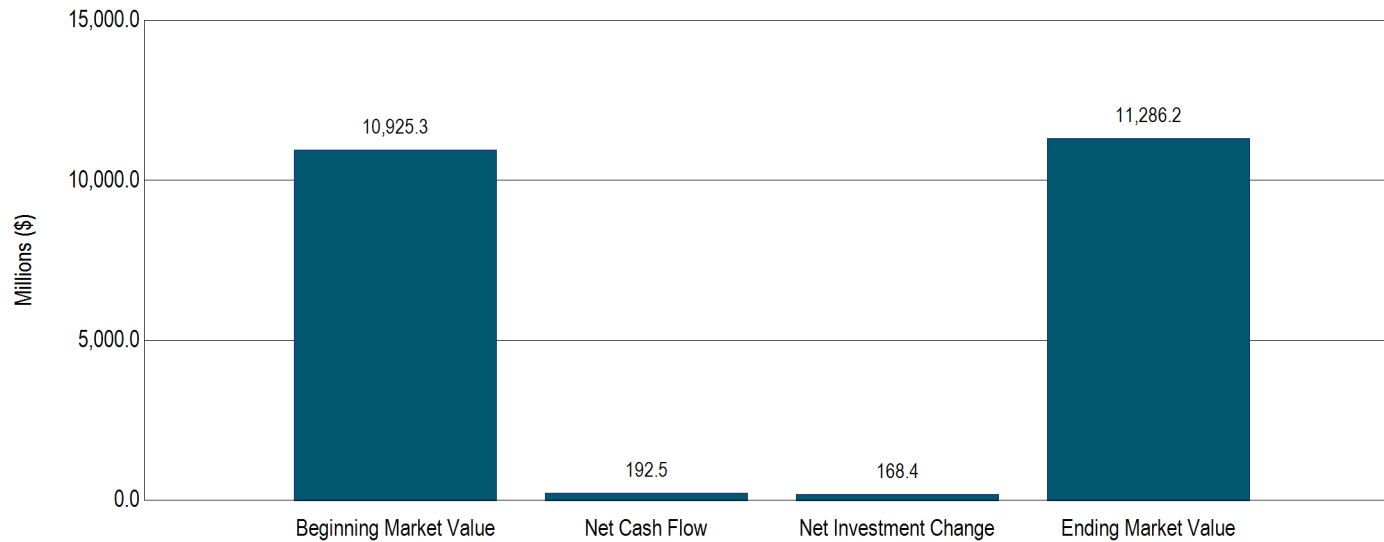
SAN FRANCISCO 415-362-3484

PITTSBURGH 412-784-6678

Portfolio Reconciliation

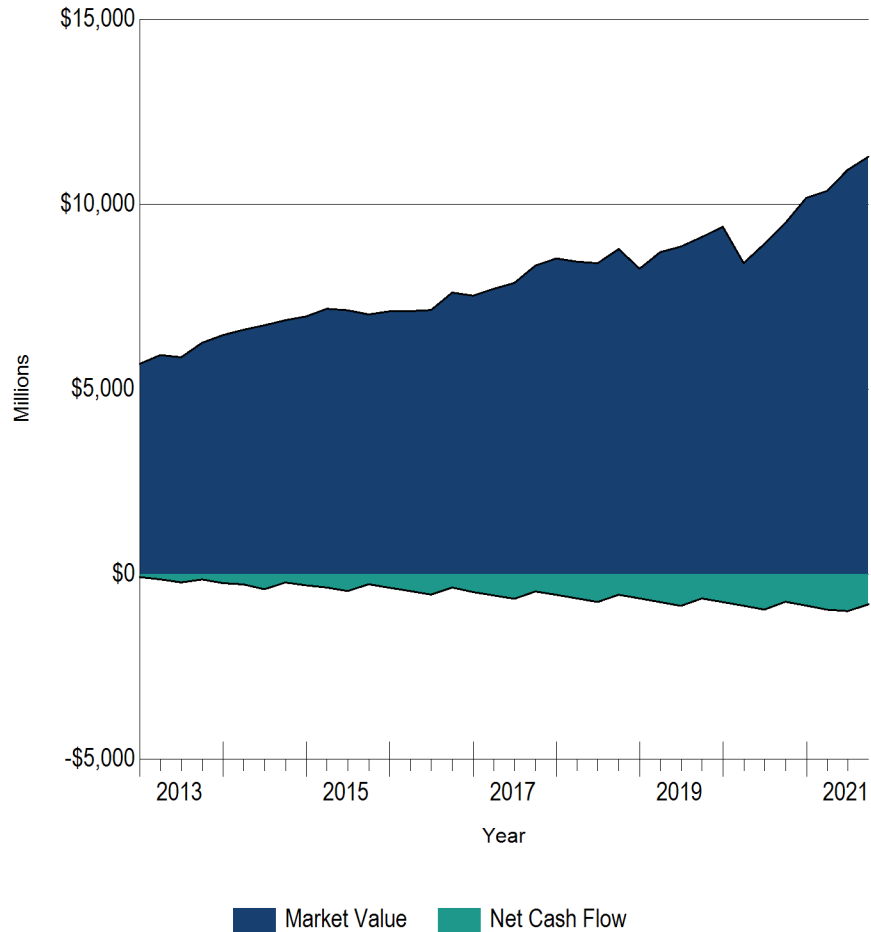
	Last Three Months	Year-To-Date
Beginning Market Value	\$10,925,330,384	\$10,171,802,463
Net Cash Flow	\$192,537,006	\$58,205,103
Net Investment Change	\$168,358,376	\$1,056,218,201
Ending Market Value	\$11,286,225,766	\$11,286,225,766

Change in Market Value
Last Three Months

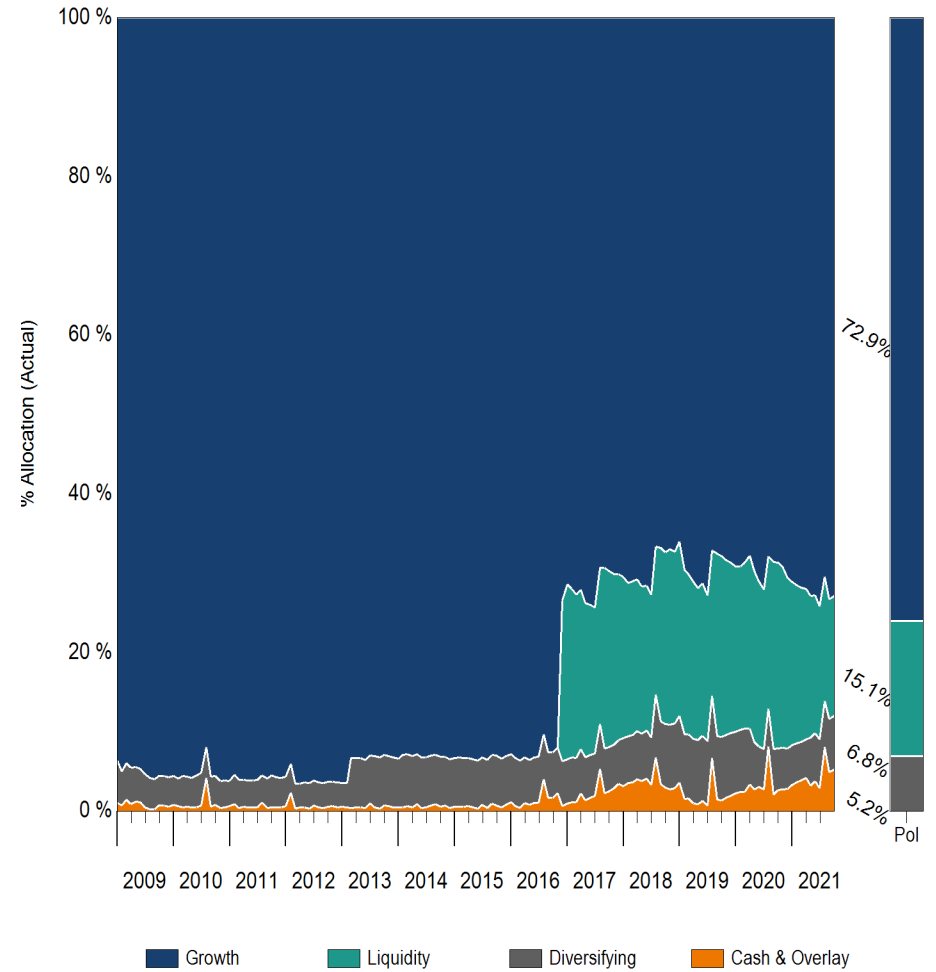


Contributions and withdrawals may include intra-account transfers between managers/funds.

Market Value History
Cumulative Cash Flows



Asset Allocation History

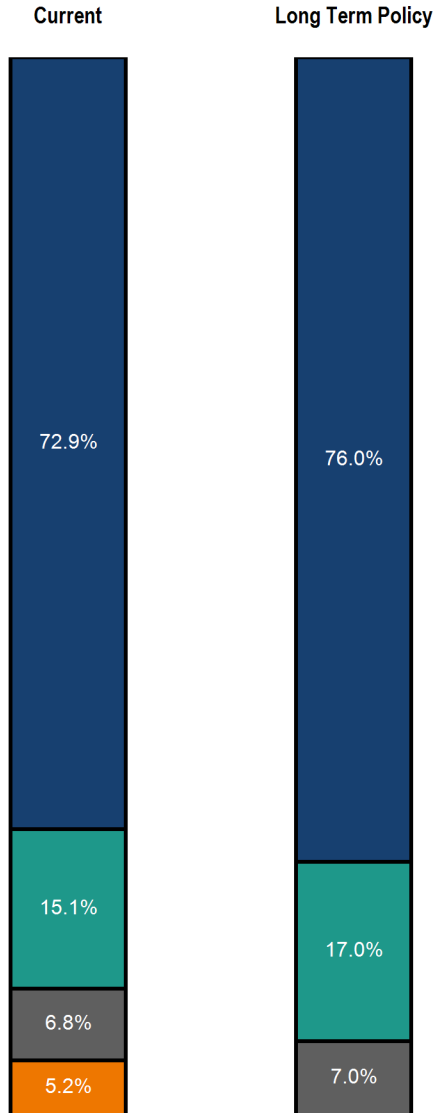


Policy reflects FFP 4-Yr allocations approved in June 2020.

Total Fund

Asset Allocation vs. Long Term Target Policy

Period Ending: September 30, 2021



Allocation vs. Long Term Target

	Current Balance	Current Allocation	Long Term Target	Difference
Growth	\$8,231,590,828	72.9%	76.0%	-\$345,940,754
Liquidity	\$1,701,361,118	15.1%	17.0%	-\$217,297,263
Diversifying	\$766,078,881	6.8%	7.0%	-\$23,956,923
Cash & Overlay	\$587,194,940	5.2%	--	\$587,194,940
Total	\$11,286,225,766	100.0%	100.0%	

Allocation vs. Current Targets

	Current Balance	Current Allocation	Current Target	Difference
Growth	\$8,231,590,828	72.9%	75.0%	-\$233,078,497
Liquidity	\$1,701,361,118	15.1%	18.0%	-\$330,159,520
Diversifying	\$766,078,881	6.8%	7.0%	-\$23,956,923
Cash & Overlay	\$587,194,940	5.2%	--	\$587,194,940
Total	\$11,286,225,766	100.0%	100.0%	

Long Term Targets reflect FFP 4-Yr allocations approved in June 2021.
 Current Targets reflect targets approved in June 2021.

Total Fund

Executive Summary (Net of Fees)

Period Ending: September 30, 2021

	% of Portfolio	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Fund	100.0	1.5	10.5	19.6	9.5	9.0	9.6	9.2	14.6	-2.7	13.9	6.9
<i>Policy Index</i>		2.2	10.6	19.6	10.4	9.7	10.3	10.8	14.6	-0.9	13.7	8.9
Growth	72.9	2.3	14.4	27.4	12.0	11.7	--	12.0	18.4	-3.9	18.7	7.6
<i>Custom Growth Benchmark</i>		2.8	15.1	28.5	13.4	13.0	--	13.8	19.3	-2.1	19.3	10.1
Diversifying	6.8	0.6	2.0	3.1	2.0	1.1	1.2	-1.7	6.8	-2.3	2.6	0.8
<i>Custom Diversifying Benchmark</i>		0.6	1.0	1.9	4.0	3.3	3.3	4.7	6.1	1.4	4.7	4.1
Liquidity	15.1	0.0	0.2	0.6	3.2	--	--	3.4	4.8	1.7	1.4	--
<i>Bloomberg US Govt/Credit 1-3 Yr. TR</i>		0.1	0.1	0.3	2.9	--	--	3.3	4.0	1.6	0.8	--

*Correlation between the Growth and Diversifying composites is .30, .63 and .55 over the previous 1, 3 and 5 year periods respectively.

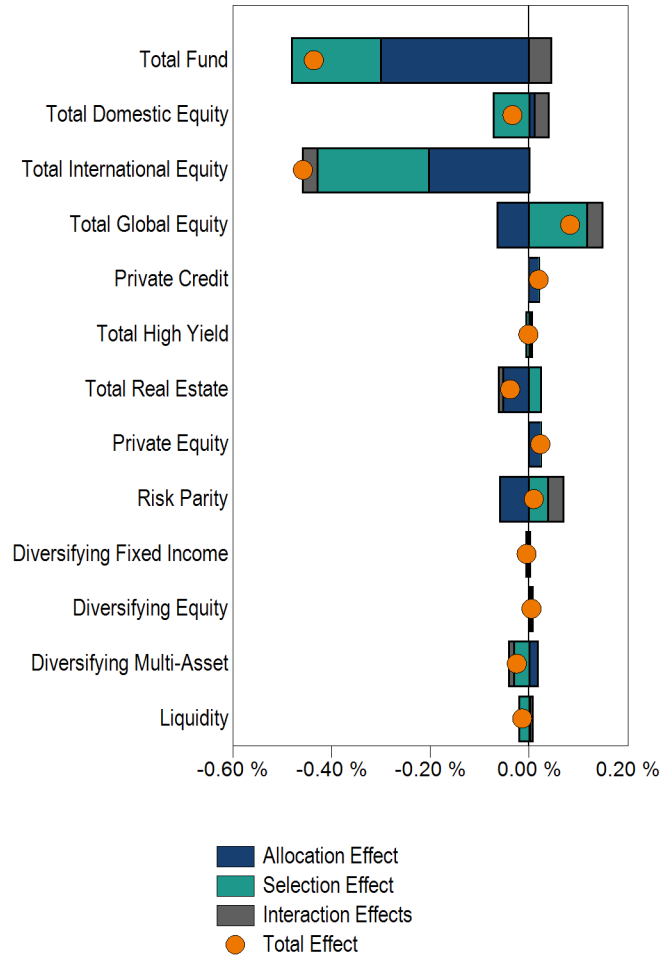
Policy Index (1/1/2021-Present): 9% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 25% Bloomberg 1-3 Yr Gov/Credit, 3% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 7% Private Credit composite returns, 1.5% ICE BofAML High Yield Master II, 1% Wilshire REIT, 8% Private Real Estate composite returns, 1.5% CPI +4%, 11% Private Equity composite returns, 2% HFRI EH Equity Market Neutral. Policy Index (7/1/2020-12/31/2020): 9% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 25% Bloomberg 1-3 Yr Gov/Credit, 3% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 7% ICE BofAML High Yield Master II +2%, 1.5% ICE BofAML High Yield Master II, 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 1.5% CPI +4%, 11% S&P 500 +4%(Lagged), 2% HFRI EH Equity Market Neutral.

Total Fund

Attribution Analysis - Asset Class Level (Net of Fees)

Period Ending: September 30, 2021

Attribution Effects
3 Months Ending September 30, 2021



Performance Attribution

	Quarter
Wtd. Actual Return	1.75%
Wtd. Index Return *	2.19%
Excess Return	-0.44%
Selection Effect	-0.18%
Allocation Effect	-0.30%
Interaction Effect	0.04%

*Calculated from benchmark returns and weightings of each component.

Attribution Summary Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Domestic Equity	-0.5%	-0.1%	-0.4%	-0.1%	0.0%	0.0%	0.0%
Total International Equity	-4.3%	-2.9%	-1.4%	-0.2%	-0.2%	0.0%	-0.5%
Total Global Equity	0.2%	-1.1%	1.3%	0.1%	-0.1%	0.0%	0.1%
Private Credit	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Total High Yield	0.7%	0.9%	-0.3%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	3.9%	3.7%	0.2%	0.0%	-0.1%	0.0%	0.0%
Private Equity	20.8%	20.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Risk Parity	0.2%	-1.0%	1.2%	0.0%	-0.1%	0.0%	0.0%
Diversifying Fixed Income	-0.1%	0.1%	-0.2%	0.0%	0.0%	0.0%	0.0%
Diversifying Equity	1.5%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%
Diversifying Multi-Asset	0.9%	2.0%	-1.0%	0.0%	0.0%	0.0%	0.0%
Liquidity	0.0%	0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%
Total	1.8%	2.2%	-0.4%	-0.2%	-0.3%	0.0%	-0.4%

Total Fund

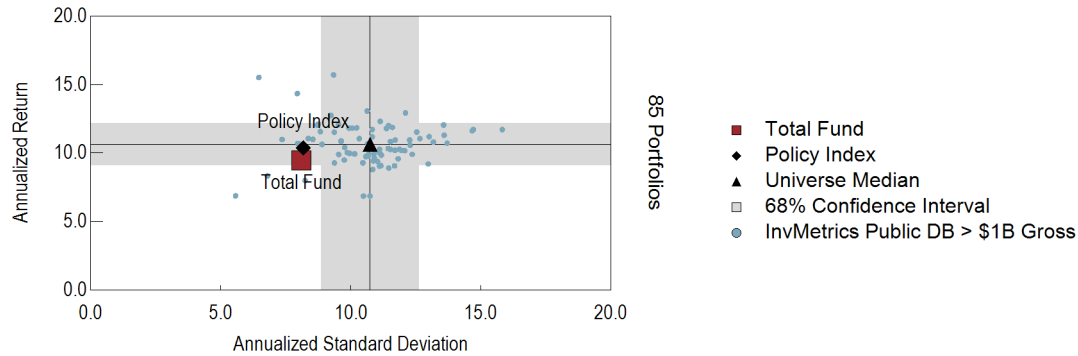
Executive Summary (Net of Fees)

Period Ending: September 30, 2021

3 Years

	Anlzd Return	Ann Excess BM Return	Anlzd Standard Deviation	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Total Fund	9.47%	-0.90%	8.10%	-0.38%	0.95	2.34%	0.92	1.04	-0.38	96.53%	104.76%

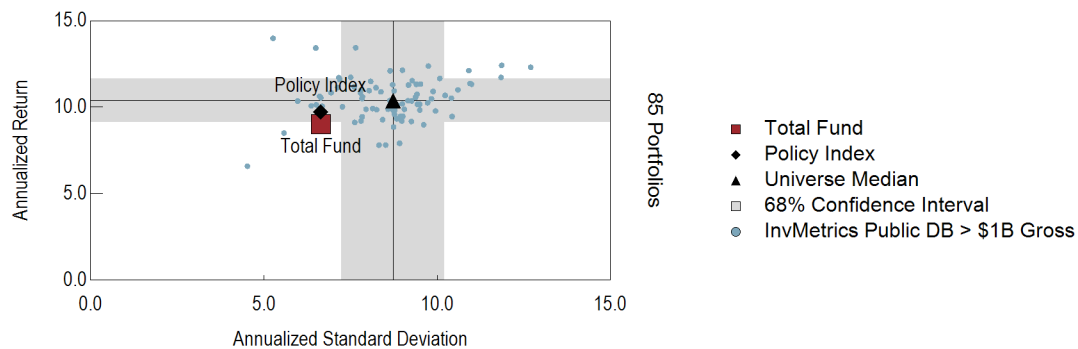
Risk vs. Return



5 Years

	Anlzd Return	Ann Excess BM Return	Anlzd Standard Deviation	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Total Fund	9.01%	-0.72%	6.65%	-0.30%	0.96	1.99%	0.91	1.19	-0.36	96.28%	105.06%

Risk vs. Return



Total Fund Performance Summary (Gross of Fees)

Period Ending: September 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Fund	11,286,225,766	100.0	1.6	10.7	19.9	9.8	9.3	10.1	9.5	15.0	-2.5	14.2	7.4		
Policy Index			2.2	10.6	19.6	10.4	9.7	10.3	10.8	14.6	-0.9	13.7	8.9		
InvMetrics Public DB > \$1B Gross Rank			16	41	81	76	84	50	78	83	25	83	74		
Total Fund ex Overlay & Cash	10,699,030,827	94.8	1.9	11.1	20.3	9.9	9.4	10.2	9.7	14.7	-2.1	14.1	7.4		
Policy Index			2.2	10.6	19.6	10.4	9.7	10.3	10.8	14.6	-0.9	13.7	8.9		
InvMetrics Public DB > \$1B Gross Rank			12	36	77	68	82	47	72	84	20	84	74		
Growth	8,231,590,828	72.9	2.4	14.7	27.8	12.3	12.1	--	12.4	18.8	-3.6	19.1	8.1		
Custom Growth Benchmark			2.8	15.1	28.5	13.4	13.0	--	13.8	19.3	-2.1	19.3	10.1		
Total Domestic Equity	1,754,910,425	15.5	-0.4	13.5	35.6	13.9	15.9	16.5	22.2	26.7	-7.2	23.9	11.5		
Russell 3000			-0.1	15.0	31.9	16.0	16.9	16.6	20.9	31.0	-5.2	21.1	12.7		
InvMetrics Public DB US Eq Gross Rank			76	92	18	81	54	28	10	87	78	6	77		
BlackRock Russell 1000 Index	588,196,950	5.2	0.2	15.2	31.0	16.4	--	--	21.0	31.4	-4.8	--	--	16.7	Apr-17
Russell 1000			0.2	15.2	31.0	16.4	--	--	21.0	31.4	-4.8	--	--	16.7	Apr-17
eV US Large Cap Equity Gross Rank			47	56	46	40	--	--	36	39	47	--	--		
Jackson Square Partners	335,933,556	3.0	-0.4	8.1	25.4	20.0	19.5	17.9	44.8	27.9	-2.0	29.3	-4.4	12.5	May-05
Russell 1000 Growth			1.2	14.3	27.3	22.0	22.8	19.7	38.5	36.4	-1.5	30.2	7.1	13.1	May-05
eV US Large Cap Growth Equity Gross Rank			80	97	71	63	80	73	20	93	59	47	98		
Boston Partners	378,798,555	3.4	-1.3	19.9	42.4	9.8	12.8	14.8	3.0	24.3	-8.7	20.1	15.1	10.9	Jun-95
Russell 1000 Value			-0.8	16.1	35.0	10.1	10.9	13.5	2.8	26.5	-8.3	13.7	17.3	9.6	Jun-95
eV US Large Cap Value Equity Gross Rank			75	25	23	68	44	28	61	77	55	23	50		
Emerald Advisers	255,416,599	2.3	-1.4	5.1	32.6	13.9	18.0	18.7	39.0	30.3	-10.1	28.8	10.1	14.6	Apr-03
Russell 2000 Growth			-5.7	2.8	33.3	11.7	15.3	15.7	34.6	28.5	-9.3	22.2	11.3	12.4	Apr-03
eV US Small Cap Growth Equity Gross Rank			41	80	79	73	68	48	57	45	85	26	54		
Ceredex	196,564,765	1.7	0.8	19.7	52.2	6.5	8.8	--	2.3	18.4	-11.3	11.4	29.8	11.5	Nov-11
Russell 2000 Value			-3.0	22.9	63.9	8.6	11.0	--	4.6	22.4	-12.9	7.8	31.7	11.8	Nov-11
eV US Small Cap Value Equity Gross Rank			10	69	76	89	91	--	69	87	25	48	32		

Individual closed end funds are not shown in performance summary table.

Total Fund
Performance Summary (Gross of Fees)

Period Ending: September 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total International Equity	1,868,802,143	16.6	-4.1	7.7	27.7	11.5	9.9	9.2	15.8	23.7	-14.3	25.5	1.2		
MSCI ACWI ex USA Gross			-2.9	6.3	24.4	8.5	9.4	8.0	11.1	22.1	-13.8	27.8	5.0		
MSCI EAFE Gross			-0.4	8.8	26.3	8.1	9.3	8.6	8.3	22.7	-13.4	25.6	1.5		
InvMetrics Public DB ex-US Eq Gross Rank			96	24	18	10	40	30	23	28	44	90	89		
International Equity	1,040,120,937	9.2	-1.0	7.0	22.2	12.1	11.1	9.8	19.0	27.0	-13.6	25.3	1.2		
MSCI ACWI ex USA Gross			-2.9	6.3	24.4	8.5	9.4	8.0	11.1	22.1	-13.8	27.8	5.0		
InvMetrics Public DB ex-US Eq Gross Rank			12	35	88	6	18	14	13	7	21	93	89		
Pyrford	484,753,473	4.3	-1.8	5.0	16.9	6.7	7.0	--	4.7	22.1	-10.1	19.8	3.4	4.7	May-14
MSCI ACWI ex USA Value			-2.3	9.1	31.4	3.8	6.4	--	-0.8	15.7	-14.0	22.7	8.9	2.5	May-14
eV ACWI ex-US Value Equity Gross Rank			48	99	99	45	57	--	33	35	5	84	74		
William Blair	555,367,465	4.9	0.0	8.9	27.1	17.2	14.9	12.3	33.3	32.0	-16.8	30.9	-1.4	9.7	Oct-10
MSCI ACWI ex USA Growth			-3.6	2.7	17.0	11.9	11.2	9.3	22.2	27.3	-14.4	32.0	0.1	7.0	Oct-10
eV ACWI ex-US Growth Equity Gross Rank			42	39	32	29	38	44	30	39	69	81	55		
Emerging Markets Equity	828,681,205	7.3	-8.0	9.0	36.5	10.6	--	--	11.4	19.4	-15.3	--	--		
MSCI Emerging Markets			-8.1	-1.2	18.2	8.6	--	--	18.3	18.4	-14.6	--	--		
InvMetrics Public DB Emg Mkt Eq Gross Rank			77	14	10	40	--	--	81	31	51	--	--		
PIMCO RAE Emerging Markets	385,990,264	3.4	-3.8	16.5	47.4	8.3	--	--	2.1	14.6	-12.3	--	--	7.6	Feb-17
MSCI Emerging Markets Value NR			-5.1	4.4	28.4	4.8	--	--	5.5	12.0	-10.7	--	--	5.9	Feb-17
eV Emg Mkts All Cap Value Equity Gross Rank			43	7	4	49	--	--	85	72	44	--	--		
TT Emerging Markets	442,690,941	3.9	-11.6	2.7	27.5	13.1	--	--	20.8	24.8	-18.4	--	--	8.7	Jul-17
MSCI Emerging Markets			-8.1	-1.2	18.2	8.6	--	--	18.3	18.4	-14.6	--	--	6.4	Jul-17
eV Emg Mkts Equity Gross Rank			95	47	33	31	--	--	39	24	83	--	--		
Total Global Equity	1,106,687,991	9.8	0.4	9.2	21.1	15.8	14.7	13.0	25.3	28.9	-7.8	23.7	7.6		
MSCI ACWI			-1.1	11.1	27.4	12.6	13.2	11.9	16.3	26.6	-9.4	24.0	7.9		
InvMetrics Public DB Glbl Eq Gross Rank			3	85	90	4	3	37	2	3	60	79	40		
Artisan Partners	604,018,392	5.4	2.2	9.7	21.5	21.8	19.8	--	41.7	37.0	-7.9	32.9	5.6	16.6	Oct-12
MSCI ACWI Growth NR USD			-0.7	9.5	23.8	18.3	17.8	--	33.6	32.7	-8.1	30.0	3.3	13.9	Oct-12
eV All Global Equity Gross Rank			6	77	86	9	9	--	9	7	40	11	61		
First Eagle	502,539,608	4.5	-1.7	8.7	20.5	9.4	8.7	9.6	8.5	21.0	-7.6	15.1	11.7	8.6	Jan-11
MSCI ACWI Value NR USD			-1.4	12.6	31.3	6.5	8.4	8.9	-0.3	20.6	-10.8	18.3	12.6	6.8	Jan-11
eV All Global Equity Gross Rank			76	83	88	77	85	89	70	82	38	89	19		

Individual closed end funds are not shown in performance summary table.

Total Fund
Performance Summary (Gross of Fees)

Period Ending: September 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Private Credit	765,304,448	6.8	0.1	7.1	10.1	7.6	7.7	11.3	4.0	7.7	8.3	10.4	8.2		
Total High Yield	182,322,740	1.6	0.8	3.0	8.6	6.1	5.7	6.7	5.1	16.0	-3.2	6.5	14.3		
ICE BofAML High Yield Master II			0.9	4.7	11.5	6.6	6.4	7.3	6.2	14.4	-2.3	7.5	17.5		
eV US High Yield Fixed Inc Gross Rank			71	93	82	79	79	82	74	15	88	74	47		
Allianz Global Investors	182,322,740	1.6	0.8	3.0	8.6	6.1	5.7	6.7	5.1	16.0	-3.2	6.5	14.3	6.9	Apr-00
ICE BofAML High Yield Master II			0.9	4.7	11.5	6.6	6.4	7.3	6.2	14.4	-2.3	7.5	17.5	7.1	Apr-00
eV US High Yield Fixed Inc Gross Rank			71	93	82	79	79	82	74	15	88	74	47		
Total Real Estate	725,836,571	6.4	4.0	12.1	14.8	4.7	6.5	10.7	-5.9	8.1	7.4	11.1	5.5		
Real Estate Benchmark			3.7	11.4	14.0	6.7	6.3	9.4	0.6	7.5	6.8	7.1	6.7		
NCREIF-ODCE			6.6	13.1	14.6	7.1	7.5	9.9	1.2	5.3	8.3	7.6	8.8		
NCREIF Property Index			5.2	10.9	12.2	6.7	6.8	9.0	1.6	6.4	6.7	7.0	8.0		
Adelante	97,127,054	0.9	2.6	26.9	40.9	13.3	9.1	12.5	-4.6	28.2	-5.0	7.8	4.1	10.8	Sep-01
Wilshire REIT			1.6	24.8	38.1	10.4	7.0	11.3	-7.9	25.8	-4.8	4.2	7.2	10.2	Sep-01
Total Private Real Estate	628,709,518	5.6	4.2	10.2	11.7	3.6	6.2	--	-6.1	6.2	8.8	11.4	6.0		
Private Equity	1,340,888,884	11.9	20.8	49.4	60.7	21.6	18.2	14.4	8.7	8.4	12.1	11.9	9.4		
Risk Parity	486,837,626	4.3	0.3	6.6	15.8	--	--	--	10.0	--	--	--	--		
60% MSCI ACWI Net/40% Bloomberg Global Aggregate			-1.0	4.9	15.5	--	--	--	14.0	--	--	--	--		
AQR Global Risk Premium-EL	219,173,271	1.9	0.4	7.3	15.4	--	--	--	6.2	--	--	--	--	11.6	Jan-19
HFR Risk Parity Vol 10 Index			-0.6	4.0	11.2	--	--	--	3.6	--	--	--	--	9.2	Jan-19
PanAgora Risk Parity Multi Asset	267,664,355	2.4	0.2	5.8	16.1	--	--	--	14.0	--	--	--	--	13.0	Feb-19
HFR Risk Parity Vol 10 Index			-0.6	4.0	11.2	--	--	--	3.6	--	--	--	--	7.4	Feb-19

Individual closed end funds are not shown in performance summary table.

Total Fund
Performance Summary (Gross of Fees)

Period Ending: September 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Diversifying	766,078,881	6.8	0.7	2.3	3.6	2.3	1.4	1.5	-1.3	7.1	-2.0	2.8	1.3		
Custom Diversifying Benchmark			0.6	1.0	1.9	4.0	3.3	3.3	4.7	6.1	1.4	4.7	4.1		
Diversifying Fixed Income	263,228,910	2.3	-0.1	-0.6	-0.5	3.1	1.6	2.5	1.6	8.6	-1.7	2.8	2.8		
eV US Core Fixed Inc Gross Rank			89	27	67	99	99	99	99	80	99	96	72		
AFL-CIO	263,109,664	2.3	-0.1	-0.6	-0.5	5.4	3.0	3.3	6.6	8.2	0.6	3.6	2.4	6.0	Jun-91
Bloomberg US Aggregate TR			0.1	-1.6	-0.9	5.4	2.9	3.0	7.5	8.7	0.0	3.5	2.6	5.6	Jun-91
eV US Core Fixed Inc Gross Rank			89	27	67	87	91	83	95	88	16	76	87		
Diversifying Equity	115,246,287	1.0	1.5	6.4	9.3	-0.8	--	--	-8.9	3.3	--	--	--		
Parametric Defensive Equity	115,246,287	1.0	1.5	6.4	9.3	-0.8	--	--	-8.9	3.3	--	--	--	-0.7	Jul-18
91 Day T-Bill +4%			1.0	3.0	4.0	5.0	--	--	4.5	6.1	--	--	--	5.1	Jul-18
Diversifying Multi-Asset	387,603,684	3.4	1.0	3.5	6.2	--	--	--	--	--	--	--	--		
Custom Diversifying Multi-Asset Benchmark			0.8	3.3	4.6	--	--	--	--	--	--	--	--		
Acadian Multi-Asset Absolute Return Fund	181,348,766	1.6	1.5	2.8	5.4	--	--	--	--	--	--	--	--	3.9	Aug-20
FTSE 3-Month T-bill +5%			1.2	3.8	5.1	--	--	--	--	--	--	--	--	5.1	Aug-20
Sit LLCAR	206,254,919	1.8	1.0	--	--	--	--	--	--	--	--	--	--	4.8	Apr-21
Bloomberg US Aggregate Index + 100 bps			0.3	--	--	--	--	--	--	--	--	--	--	2.4	Apr-21
Liquidity	1,701,361,118	15.1	0.0	0.3	0.7	3.3	--	--	3.5	4.9	1.8	1.5	--		
Bloomberg US Govt/Credit 1-3 Yr. TR			0.1	0.1	0.3	2.9	--	--	3.3	4.0	1.6	0.8	--		
eV US Short Duration Fixed Inc Gross Rank			96	41	42	51	--	--	77	34	24	50	--		
DFA Short Credit	315,987,938	2.8	0.0	0.2	0.7	3.2	--	--	2.9	5.2	1.2	1.9	--	2.4	Nov-16
ICE BofA 1-5 Yrs US Corp & Govt TR			0.0	-0.2	0.2	3.7	--	--	4.6	5.1	1.4	1.3	--	2.5	Nov-16
eV US Short Duration Fixed Inc Gross Rank			87	45	40	56	--	--	90	21	93	26	--		
Insight Short Duration	803,583,093	7.1	0.1	0.4	1.0	3.0	--	--	3.2	4.7	1.7	1.5	--	2.4	Nov-16
Bloomberg US Govt/Credit 1-3 Yr. TR			0.1	0.1	0.3	2.9	--	--	3.3	4.0	1.6	0.8	--	2.1	Nov-16
eV US Short Duration Fixed Inc Gross Rank			38	31	33	75	--	--	86	45	38	50	--		
Sit Short Duration	581,790,087	5.2	-0.2	0.2	0.2	3.9	--	--	4.6	4.9	2.5	1.3	--	2.8	Nov-16
Bloomberg US Govt 1-3 Yr TR			0.1	0.0	0.0	2.7	--	--	3.1	3.6	1.6	0.4	--	1.8	Nov-16
eV US Short Duration Fixed Inc Gross Rank			99	45	85	15	--	--	26	35	1	68	--		
Total Cash	452,267,493	4.0	0.1	0.3	0.5	1.8	1.6	3.1	1.3	3.3	1.7	0.9	0.9		
91 Day T-Bills			0.0	0.0	0.0	1.0	1.1	0.6	0.5	2.1	1.9	0.9	0.3		
Cash	452,247,590	4.0	0.1	0.3	0.5	1.9	1.6	3.2	1.3	3.4	1.7	0.9	0.9		
Northern Trust Transition	19,903	0.0	-2.8	-5.6	-2.0	--	--	--	104.1	--	--	--	--	31.5	Mar-19

Individual closed end funds are not shown in performance summary table. Effective 3/1/2019 the custodian of record switched from State Street to Northern Trust. Wellington Real Total Return was liquidated 4/30/2020. \$126,992.88 in residual value is reflected in the Diversifying Fixed Income composite. State Street Cash/Tax Reclaims balance of \$-28,918 in cash and \$223,127 in potential tax reclaims at State Street after assets were transferred to Northern Trust.

Total Fund Performance Summary (Net of Fees)

Period Ending: September 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Fund	11,286,225,766	100.0	1.5	10.5	19.6	9.5	9.0	9.6	9.2	14.6	-2.7	13.9	6.9		
<i>Policy Index</i>			2.2	10.6	19.6	10.4	9.7	10.3	10.8	14.6	-0.9	13.7	8.9		
Total Fund ex Overlay & Cash	10,699,030,827	94.8	1.8	10.8	19.9	9.6	9.1	9.7	9.4	14.4	-2.4	13.8	6.9		
<i>Policy Index</i>			2.2	10.6	19.6	10.4	9.7	10.3	10.8	14.6	-0.9	13.7	8.9		
Growth	8,231,590,828	72.9	2.3	14.4	27.4	12.0	11.7	--	12.0	18.4	-3.9	18.7	7.6		
<i>Custom Growth Benchmark</i>			2.8	15.1	28.5	13.4	13.0	--	13.8	19.3	-2.1	19.3	10.1		
Total Domestic Equity	1,754,910,425	15.5	-0.5	13.2	35.1	13.4	15.4	16.0	21.8	26.1	-7.6	23.5	11.1		
<i>Russell 3000</i>			-0.1	15.0	31.9	16.0	16.9	16.6	20.9	31.0	-5.2	21.1	12.7		
BlackRock Russell 1000 Index	588,196,950	5.2	0.2	15.2	31.0	16.4	--	--	20.9	31.4	-4.8	--	--	16.7	Apr-17
<i>Russell 1000</i>			0.2	15.2	31.0	16.4	--	--	21.0	31.4	-4.8	--	--	16.7	Apr-17
Jackson Square Partners	335,933,556	3.0	-0.5	7.8	24.9	19.5	19.0	17.4	44.1	27.3	-2.4	28.7	-4.8	12.0	May-05
<i>Russell 1000 Growth</i>			1.2	14.3	27.3	22.0	22.8	19.7	38.5	36.4	-1.5	30.2	7.1	13.1	May-05
Boston Partners	378,798,555	3.4	-1.3	19.7	42.0	9.4	12.4	14.4	2.6	23.8	-8.9	19.7	14.7	10.5	Jun-95
<i>Russell 1000 Value</i>			-0.8	16.1	35.0	10.1	10.9	13.5	2.8	26.5	-8.3	13.7	17.3	9.6	Jun-95
Emerald Advisers	255,416,599	2.3	-1.5	4.6	31.8	13.2	17.3	18.0	38.2	29.4	-10.7	28.0	9.4	13.9	Apr-03
<i>Russell 2000 Growth</i>			-5.7	2.8	33.3	11.7	15.3	15.7	34.6	28.5	-9.3	22.2	11.3	12.4	Apr-03
Ceredex	196,564,765	1.7	0.7	19.2	51.4	5.9	8.2	--	1.7	17.7	-11.8	10.7	29.1	10.9	Nov-11
<i>Russell 2000 Value</i>			-3.0	22.9	63.9	8.6	11.0	--	4.6	22.4	-12.9	7.8	31.7	11.8	Nov-11
Total International Equity	1,868,802,143	16.6	-4.3	7.4	27.1	10.9	9.4	8.7	15.2	23.2	-14.7	25.0	0.8		
<i>MSCI ACWI ex USA Gross</i>			-2.9	6.3	24.4	8.5	9.4	8.0	11.1	22.1	-13.8	27.8	5.0		
<i>MSCI EAFE Gross</i>			-0.4	8.8	26.3	8.1	9.3	8.6	8.3	22.7	-13.4	25.6	1.5		
International Equity	1,040,120,937	9.2	-1.1	6.7	21.7	11.7	10.6	9.4	18.5	26.5	-13.9	24.8	0.8		
<i>MSCI ACWI ex USA Gross</i>			-2.9	6.3	24.4	8.5	9.4	8.0	11.1	22.1	-13.8	27.8	5.0		
Pyrford	484,753,473	4.3	-1.9	4.7	16.5	6.3	6.5	--	4.2	21.6	-10.5	19.3	3.0	4.3	May-14
<i>MSCI ACWI ex USA Value</i>			-2.3	9.1	31.4	3.8	6.4	--	-0.8	15.7	-14.0	22.7	8.9	2.5	May-14
William Blair	555,367,465	4.9	-0.1	8.6	26.6	16.8	14.5	11.9	32.8	31.5	-17.1	30.4	-1.8	9.2	Oct-10
<i>MSCI ACWI ex USA Growth</i>			-3.6	2.7	17.0	11.9	11.2	9.3	22.2	27.3	-14.4	32.0	0.1	7.0	Oct-10
Emerging Markets Equity	828,681,205	7.3	-8.1	8.5	35.7	10.0	--	--	10.7	18.7	-15.7	--	--		
<i>MSCI Emerging Markets</i>			-8.1	-1.2	18.2	8.6	--	--	18.3	18.4	-14.6	--	--		
PIMCO RAE Emerging Markets	385,990,264	3.4	-3.9	16.0	46.6	7.7	--	--	1.6	14.0	-12.6	--	--	7.0	Feb-17
<i>MSCI Emerging Markets Value NR</i>			-5.1	4.4	28.4	4.8	--	--	5.5	12.0	-10.7	--	--	5.9	Feb-17
TT Emerging Markets	442,690,941	3.9	-11.8	2.2	26.7	12.4	--	--	20.0	24.0	-18.9	--	--	8.0	Jul-17
<i>MSCI Emerging Markets</i>			-8.1	-1.2	18.2	8.6	--	--	18.3	18.4	-14.6	--	--	6.4	Jul-17

Individual closed end funds are not shown in performance summary table.

Total Fund
Performance Summary (Net of Fees)

Period Ending: September 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Global Equity	1,106,687,991	9.8	0.2	8.6	20.2	15.0	13.9	12.2	24.4	27.9	-8.5	22.8	6.9		
<i>MSCI ACWI</i>			-1.1	11.1	27.4	12.6	13.2	11.9	16.3	26.6	-9.4	24.0	7.9		
Artisan Partners	604,018,392	5.4	2.0	9.1	20.6	20.9	18.9	--	40.6	36.0	-8.6	31.9	4.8	15.7	Oct-12
<i>MSCI ACWI Growth NR USD</i>			-0.7	9.5	23.8	18.3	17.8	--	33.6	32.7	-8.1	30.0	3.3	13.9	Oct-12
First Eagle	502,539,608	4.5	-1.9	8.1	19.6	8.6	7.9	8.8	7.7	20.1	-8.3	14.3	10.9	7.8	Jan-11
<i>MSCI ACWI Value NR USD</i>			-1.4	12.6	31.3	6.5	8.4	8.9	-0.3	20.6	-10.8	18.3	12.6	6.8	Jan-11
Private Credit	765,304,448	6.8	0.1	7.1	10.1	7.6	7.7	10.4	4.0	7.7	8.3	10.4	6.9		
Total High Yield	182,322,740	1.6	0.7	2.7	8.1	5.7	5.3	6.3	4.7	15.4	-3.6	6.1	13.9		
<i>ICE BofAML High Yield Master II</i>			0.9	4.7	11.5	6.6	6.4	7.3	6.2	14.4	-2.3	7.5	17.5		
Allianz Global Investors	182,322,740	1.6	0.7	2.7	8.1	5.7	5.3	6.3	4.7	15.4	-3.6	6.1	13.9	6.5	Apr-00
<i>ICE BofAML High Yield Master II</i>			0.9	4.7	11.5	6.6	6.4	7.3	6.2	14.4	-2.3	7.5	17.5	7.1	Apr-00
Total Real Estate	725,836,571	6.4	3.9	12.0	14.7	4.6	6.4	10.1	-6.0	8.1	7.4	11.0	4.8		
<i>Real Estate Benchmark</i>			3.7	11.4	14.0	6.7	6.3	9.4	0.6	7.5	6.8	7.1	6.7		
<i>NCREIF-ODCE</i>			6.6	13.1	14.6	7.1	7.5	9.9	1.2	5.3	8.3	7.6	8.8		
<i>NCREIF Property Index</i>			5.2	10.9	12.2	6.7	6.8	9.0	1.6	6.4	6.7	7.0	8.0		
Adelante	97,127,054	0.9	2.4	26.4	40.2	12.7	8.5	11.9	-5.2	27.5	-5.5	7.2	3.6	10.2	Sep-01
<i>Wilshire REIT</i>			1.6	24.8	38.1	10.4	7.0	11.3	-7.9	25.8	-4.8	4.2	7.2	10.2	Sep-01
Total Private Real Estate	628,709,518	5.6	4.2	10.2	11.7	3.6	6.1	--	-6.1	6.2	8.8	11.4	5.2		
Private Equity	1,340,888,884	11.9	20.8	49.4	60.7	21.6	18.2	13.4	8.7	8.4	12.1	11.9	8.9		
Risk Parity	486,837,626	4.3	0.2	6.3	15.3	--	--	--	9.6	--	--	--	--		
<i>60% MSCI ACWI Net/40% Bloomberg Global Aggregate</i>			-1.0	4.9	15.5	--	--	--	14.0	--	--	--	--		
AQR Global Risk Premium-EL	219,173,271	1.9	0.3	7.0	14.9	--	--	--	5.8	--	--	--	--	11.2	Jan-19
<i>HFR Risk Parity Vol 10 Index</i>			-0.6	4.0	11.2	--	--	--	3.6	--	--	--	--	9.2	Jan-19
PanAgora Risk Parity Multi Asset	267,664,355	2.4	0.1	5.6	15.7	--	--	--	13.6	--	--	--	--	12.6	Feb-19
<i>HFR Risk Parity Vol 10 Index</i>			-0.6	4.0	11.2	--	--	--	3.6	--	--	--	--	7.4	Feb-19

Individual closed end funds are not shown in performance summary table.

Total Fund

Performance Summary (Net of Fees)

Period Ending: September 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Diversifying	766,078,881	6.8	0.6	2.0	3.1	2.0	1.1	1.2	-1.7	6.8	-2.3	2.6	0.8		
<i>Custom Diversifying Benchmark</i>			0.6	1.0	1.9	4.0	3.3	3.3	4.7	6.1	1.4	4.7	4.1		
Diversifying Fixed Income	263,228,910	2.3	-0.1	-0.9	-0.8	2.7	1.3	2.2	1.2	8.3	-2.0	2.6	2.3		
AFL-CIO	263,109,664	2.3	-0.1	-0.9	-0.8	5.0	2.6	2.9	6.2	7.8	0.2	3.2	1.9	5.6	Jun-91
<i>Bloomberg US Aggregate TR</i>			0.1	-1.6	-0.9	5.4	2.9	3.0	7.5	8.7	0.0	3.5	2.6	5.6	Jun-91
Diversifying Equity	115,246,287	1.0	1.5	6.2	8.7	-1.2	--	--	-9.4	3.0	--	--	--		
Parametric Defensive Equity	115,246,287	1.0	1.5	6.2	8.7	-1.2	--	--	-9.4	3.0	--	--	--	-1.0	Jul-18
<i>91 Day T-Bill +4%</i>			1.0	3.0	4.0	5.0	--	--	4.5	6.1	--	--	--	5.1	Jul-18
Diversifying Multi-Asset	387,603,684	3.4	0.9	3.2	5.7	--	--	--	--	--	--	--	--		
<i>Custom Diversifying Multi-Asset Benchmark</i>			0.8	3.3	4.6	--	--	--	--	--	--	--	--		
Acadian Multi-Asset Absolute Return Fund	181,348,766	1.6	1.4	2.4	4.8	--	--	--	--	--	--	--	--	3.4	Aug-20
<i>FTSE 3-Month T-bill +5%</i>			1.2	3.8	5.1	--	--	--	--	--	--	--	--	5.1	Aug-20
Sit LLCAR	206,254,919	1.8	0.9	--	--	--	--	--	--	--	--	--	--	4.7	Apr-21
<i>Bloomberg US Aggregate Index + 100 bps</i>			0.3	--	--	--	--	--	--	--	--	--	--	2.4	Apr-21
Liquidity	1,701,361,118	15.1	0.0	0.2	0.6	3.2	--	--	3.4	4.8	1.7	1.4	--		
<i>Bloomberg US Govt/Credit 1-3 Yr. TR</i>			0.1	0.1	0.3	2.9	--	--	3.3	4.0	1.6	0.8	--		
DFA Short Credit	315,987,938	2.8	0.0	0.1	0.6	3.1	--	--	2.8	5.2	1.1	1.8	--	2.3	Nov-16
<i>ICE BofA 1-5 Yrs US Corp & Govt TR</i>			0.0	-0.2	0.2	3.7	--	--	4.6	5.1	1.4	1.3	--	2.5	Nov-16
Insight Short Duration	803,583,093	7.1	0.1	0.3	1.0	2.9	--	--	3.1	4.6	1.7	1.5	--	2.3	Nov-16
<i>Bloomberg US Govt/Credit 1-3 Yr. TR</i>			0.1	0.1	0.3	2.9	--	--	3.3	4.0	1.6	0.8	--	2.1	Nov-16
Sit Short Duration	581,790,087	5.2	-0.2	0.1	0.0	3.7	--	--	4.4	4.7	2.3	1.1	--	2.6	Nov-16
<i>Bloomberg US Govt 1-3 Yr TR</i>			0.1	0.0	0.0	2.7	--	--	3.1	3.6	1.6	0.4	--	1.8	Nov-16
Total Cash	452,267,493	4.0	0.1	0.3	0.5	1.8	1.6	3.1	1.3	3.3	1.7	0.9	0.9		
<i>91 Day T-Bills</i>			0.0	0.0	0.0	1.0	1.1	0.6	0.5	2.1	1.9	0.9	0.3		
Cash	452,247,590	4.0	0.1	0.3	0.5	1.9	1.6	3.2	1.3	3.4	1.7	0.9	0.9		
Northern Trust Transition	19,903	0.0	-2.8	-5.6	-2.0	--	--	--	104.1	--	--	--	--	31.5	Mar-19

Individual closed end funds are not shown in performance summary table. Effective 3/1/2019 the custodian of record switched from State Street to Northern Trust. Wellington Real Total Return was liquidated 4/30/2020. \$126,992.88 in residual value is reflected in the Diversifying Fixed Income composite.

Total Fund
Closed End Funds - Investment Summary

Period Ending: September 30, 2021

StepStone Group Analysis (*)												
Closing Date	Manager Name/Fund Name	Estimated Market Value as of 9/30/2021 ¹	Total Commitment	% Called	Contributed Capital	Current Qtr. Change in Contributed Capital	Current Qtr. Change in Distributed Capital	Total Distributions	Remaining Commitment	Distrib./ Paid-In (DPI) ²	Tot. Value/ Paid-In (TVPI) ³	Latest Valuation
Private Credit												
8/31/2015	Angelo Gordon Energy Credit Opp. ⁴	\$3,274,937	\$16,500,000	0%	\$18,750,000	\$0	\$0	\$18,829,566	\$2,319,783	1.00	1.18	3/31/2021
12/18/2017	Stepstone CC Opportunities Fund	\$738,076,805	\$1,020,000,000	65%	\$667,718,192	\$26,805,228	\$0	\$41,561,990	\$393,746,709	0.06	1.17	3/31/2021
7/1/2006	Torchlight II	\$0	\$128,000,000	0%	\$218,263,562	\$0	\$0	\$208,623,727	\$0	0.96	0.96	12/31/2020
12/12/2008	Torchlight III	\$0	\$75,000,000	0%	\$83,825,058	\$0	\$0	\$124,848,870	\$0	1.49	1.49	12/23/2020
8/1/2012	Torchlight IV	\$9,132,061	\$60,000,000	0%	\$84,866,971	\$0	\$1,037,944	\$105,847,451	\$0	1.25	1.35	9/30/2021
3/12/2015	Torchlight V	\$14,820,645	\$75,000,000	0%	\$60,000,000	\$0	\$3,458,331	\$62,772,472	\$15,000,000	1.05	1.29	6/30/2021
Total Private Credit		\$765,304,448										
% of Portfolio (Market Value)		6.8%										

*All Data provided by StepStone Group

¹Latest valuation + capital calls - distributions

²(DPI) is equal to (capital returned / capital called)

³(TVPI) is equal to (market value + capital returned) / capital called

⁴Capital has been fully called and fund is in redemption.

Total Fund
Closed End Funds - Investment Summary

Period Ending: September 30, 2021

Verus Internal Analysis												
Inception Date	Manager Name/Fund Name	Estimated Market Value as of 9/30/2021 ¹	Total Commitment	Total % Called	Capital Called	Current Qtr. Capital Called	Current Qtr. Distributions	Total Distributions ⁸	Remaining Commitment	Distrib./Paid-In (DPI) ²	Tot. Value/Paid-In (TVPI) ³	Latest Valuation
Real Estate												
1/23/2012	Angelo Gordon Realty Fund VIII ⁴	\$19,130,924	\$80,000,000	94%	\$75,401,855	\$0	\$0	\$98,433,174	\$12,334,302	1.31	1.56	6/30/2021
12/8/2014	Angelo Gordon Realty Fund IX	\$56,565,222	\$65,000,000	93%	\$60,125,000	\$0	\$2,600,000	\$26,650,001	\$7,572,500	0.44	1.38	6/30/2021
6/23/2005	DLJ RECP III	\$15,358,258	\$75,000,000	134%	\$100,709,313 ⁴	\$0	\$645,518	\$69,364,915	\$4,031,338	0.69	0.84	6/30/2021
2/11/2008	DLJ RECP IV	\$54,600,549	\$100,000,000	130%	\$129,892,605 ⁵	\$0	\$1,186,865	\$91,650,494	\$3,162,610	0.71	1.13	6/30/2021
7/1/2014	DLJ RECP V	\$64,513,363	\$75,000,000	131%	\$98,624,967 ⁶	\$68,177	\$0	\$58,913,882	\$20,488,576	0.60	1.25	6/30/2021
3/19/2019	DLJ RECP VI	\$32,044,718	\$50,000,000	60%	\$30,103,770	\$4,767,904	\$0	\$220,742	\$25,050,462	0.01	1.07	6/30/2021
6/17/1998	Hearthstone II ⁴	\$1,383	\$25,000,000	80%	\$19,938,463	\$0	\$2,223	\$27,475,885	\$0	1.38	1.38	6/30/2021
6/30/2013	Invesco Real Estate III ⁴	\$162,593	\$35,000,000	93%	\$32,386,423	\$0	\$0	\$47,423,062	\$2,613,577	1.46	1.47	6/30/2021
6/30/2014	Invesco Real Estate IV ⁴	\$10,920,678	\$35,000,000	87%	\$30,546,401	\$0	\$5,795,158	\$30,639,302	\$4,453,599	1.00	1.36	9/30/2021
2/20/2019	Invesco Real Estate V	\$68,821,484	\$75,000,000	77%	\$57,485,048	\$0	\$1,867,223	\$7,549,060	\$22,214,852 ⁹	0.13	1.33	9/30/2021
7/16/2013	LaSalle Income & Growth IV ⁴	\$19,683,553	\$75,000,000	95%	\$71,428,571	\$0	\$0	\$84,523,353	\$3,571,429	1.18	1.46	6/30/2021
2/28/2017	LaSalle Income & Growth VII	\$56,287,370	\$75,000,000	103%	\$77,293,582	\$0	\$0	\$36,698,925	-\$2,293,582	0.47	1.20	6/30/2021
7/3/2013	Long Wharf Fund IV ⁴	\$1,549,725	\$25,000,000	100%	\$25,000,000	\$0	\$147,958	\$34,824,789	\$0	1.39	1.45	9/30/2021
9/30/2016	Long Wharf Fund V ⁴	\$33,681,291	\$50,000,000	100%	\$50,000,000	\$0	\$2,399,177	\$31,303,553	\$0	0.63	1.30	9/30/2021
6/27/2019	Long Wharf Fund VI	\$16,608,184	\$50,000,000	37%	\$18,394,450	\$1,744,301	\$0	\$5,748,265	\$31,605,550	0.31	1.22	9/30/2021
12/31/2011	Oaktree REOF V ⁴	\$1,825,772	\$50,000,000	101%	\$50,315,673	\$0	\$1,240,000	\$75,692,733	-\$315,673 ⁹	1.50	1.54	9/30/2021
9/30/2013	Oaktree REOF VI ⁴	\$27,915,785	\$80,000,000	100%	\$80,000,000	\$0	\$0	\$84,010,175	\$18,400,000 ⁹	1.05	1.40	9/30/2021
4/1/2015	Oaktree REOF VII	\$46,081,893	\$65,000,000	100%	\$65,000,000	\$0	\$0	\$42,829,688	\$18,915,000 ⁹	0.66	1.37	9/30/2021
11/10/2013	Paulson Real Estate Fund II ⁴	\$19,499,810	\$20,000,000	97%	\$19,345,623	\$0	\$3,061,199	\$18,011,523	\$654,377	0.93	1.94	6/30/2021
1/25/2012	Siguler Guff DREOF	\$22,962,522	\$75,000,000	93%	\$69,375,000	\$0	\$375,796	\$95,617,898	\$5,625,000	1.38	1.71	6/30/2021
8/31/2013	Siguler Guff DREOF II	\$44,506,601	\$70,000,000	89%	\$61,985,000	\$0	\$2,754,508	\$43,977,939	\$8,015,000	0.71	1.43	6/30/2021
1/27/2016	Siguler Guff DREOF II Co-Inv	\$15,987,839	\$25,000,000	82%	\$20,537,862	\$0	\$300,000	\$10,573,350	\$4,462,138	0.51	1.29	6/30/2021
Total Closed End Real Estate		\$628,709,518	\$1,275,000,000	98%	\$1,243,889,607	\$6,580,382	\$22,375,625	\$1,022,132,709	\$190,561,054	0.82	1.33	
% of Portfolio (Market Value)		5.6%										

¹Latest valuation + capital calls - distributions

²(DPI) is equal to (capital returned / capital called)

³(TVPI) is equal to (market value + capital returned) / capital called

⁴Capital has been fully called and fund is in redemption.

⁵Total distributions may include recallable distributions

⁶Remianing commitment includes recallable distributions

Total Fund

Closed End Funds - Investment Summary

Period Ending: September 30, 2021

StepStone Group Analysis (*)												
Closing Date	Manager Name/Fund Name	Estimated Market Value as of 9/30/2021 ¹	Total Commitment	Total % Called	Contributed Capital	Current Qtr. Change in Contributed Capital	Current Qtr. Change in Distributed Capital	Total Distributions	Remaining Commitment	Distrib./Paid-In (DPI) ²	Tot. Value/Paid-In (TVPI) ³	Latest Valuation
Private Equity & Venture Capital												
2/11/2004	Adams Street Partners	\$185,421,744	\$210,000,000	0%	\$191,780,625	\$905,000	\$12,137,366	\$218,103,832	\$18,219,375	1.14	2.10	6/30/2021
1/15/2009	Adams Street Partners II	\$4,924,886	\$30,000,000	0%	\$28,365,000	\$0	\$1,273,500	\$44,224,512	\$1,635,000	1.56	1.73	6/30/2021
9/21/2012	Adams Street Partners - Fund 5	\$18,653,240	\$40,000,000	0%	\$30,845,875	\$0	\$2,153,766	\$23,437,858	\$9,154,125	0.76	1.36	6/30/2021
1/18/1996	Adams Street Partners - BPF	\$2,015,202	\$59,565,614	0%	\$57,517,409	\$0	\$0	\$102,731,103	\$2,048,205	1.79	1.82	6/30/2021
3/31/2016	Adams Street Venture Innovation	\$169,392,494	\$75,000,000	9%	\$66,037,500	\$6,750,000	\$14,248,654	\$22,517,673	\$8,962,500	0.34	2.91	6/30/2021
5/18/2018	AE Industrial Partners Fund II, LP	\$29,718,682	\$35,000,000	6%	\$20,656,562	\$2,044,275	\$1,277,637	\$2,081,972	\$16,425,411	0.10	1.54	6/30/2021
11/27/2013	Aether Real Assets III	\$18,491,403	\$25,000,000	2%	\$25,022,835	\$615,114	\$1,151,078	\$5,064,961	\$2,207,024	0.20	0.94	6/30/2021
11/30/2013	Aether Real Assets III Surplus	\$42,188,713	\$50,000,000	1%	\$51,788,932	\$448,973	\$2,659,384	\$11,632,535	\$1,825,533	0.22	1.04	6/30/2021
1/30/2016	Aether Real Assets IV	\$53,277,636	\$50,000,000	2%	\$45,770,752	\$851,719	\$94,428	\$3,536,857	\$6,925,464	0.08	1.24	6/30/2021
4/30/2004	Bay Area Equity Fund I ⁴	\$2,389,492	\$10,000,000	0%	\$10,000,000	\$0	\$0	\$37,018,019	\$0	3.70	3.94	6/30/2021
6/29/2009	Bay Area Equity Fund II ⁴	\$12,656,090	\$10,000,000	0%	\$10,000,000	\$0	\$0	\$3,684,910	\$0	0.37	1.63	6/30/2021
6/30/2013	Commonfund	\$39,784,228	\$50,000,000	0%	\$45,899,994	\$0	\$2,100,408	\$15,353,483	\$4,100,006	0.33	1.20	6/30/2021
7/15/2005	EIF US Power Fund II ⁴	\$4,858,580	\$50,000,000	0%	\$65,029,556	\$0	\$0	\$74,001,371	\$0	1.14	1.21	6/30/2021
5/31/2007	EIF US Power Fund III ⁴	\$11,760,290	\$65,000,000	0%	\$71,409,097	\$0	\$9,075,989	\$82,858,310	\$0	1.16	1.33	6/30/2021
11/28/2011	EIF US Power Fund IV	\$30,345,050	\$50,000,000	0%	\$64,917,547	\$0	\$4,843,388	\$39,079,197	\$4	0.60	1.07	6/30/2021
11/28/2016	EIF US Power Fund V	\$21,674,082	\$50,000,000	0%	\$52,779,673	\$0	\$12,407	\$48,446,329	\$22,742,894	0.92	1.33	6/30/2021
2/21/2019	Genstar Capital Partners IX, L.P.	\$54,968,799	\$50,000,000	28%	\$44,939,528	\$14,078,875	\$4,598,486	\$5,765,154	\$7,116,485	0.13	1.35	6/30/2021
4/1/2021	Genstar Capital Partners X, L.P.	\$0	\$42,500,000	0%	\$0	\$0	\$0	\$0	\$42,500,000	-	-	-
10/27/2020	GTCR Fund XIII, L.P.	\$4,275,822	\$50,000,000	7%	\$3,530,000	\$3,530,000	\$0	\$0	\$46,470,000	-	-	6/30/2021
5/10/2021	Hellman & Friedman Capital Partners X, L.P.	-\$66,021	\$75,000,000	0%	\$0	\$0	\$0	\$0	\$75,000,000	-	-	6/30/2021
11/18/2009	Oaktree PIF 2009	\$505,097	\$40,000,000	0%	\$34,812,560	\$176	\$760,000	\$47,032,470	\$6,308,961	1.35	1.37	6/30/2021
5/2/2013	Ocean Avenue Fund II	\$27,153,134	\$30,000,000	0%	\$27,000,000	\$0	\$900,000	\$34,339,096	\$3,000,000	1.27	2.28	6/30/2021
4/15/2016	Ocean Avenue Fund III	\$44,100,795	\$50,000,000	0%	\$44,000,000	\$0	\$15,000,000	\$38,000,000	\$6,000,000	0.86	1.87	6/30/2021
11/30/2007	Paladin III	\$27,754,533	\$25,000,000	1%	\$34,592,761	\$261,664	\$6,389,975	\$67,070,144	\$419,157	1.94	2.74	6/30/2021
8/22/2011	Pathway 6	\$49,560,278	\$40,000,000	0%	\$39,108,460	\$63,000	\$2,822,894	\$39,238,026	\$3,768,864	1.00	2.27	6/30/2021
7/10/2013	Pathway 7	\$96,782,978	\$70,000,000	2%	\$68,625,361	\$1,154,448	\$6,773,282	\$58,875,616	\$5,523,768	0.86	2.27	6/30/2021
11/23/2015	Pathway 8	\$80,810,860	\$50,000,000	2%	\$46,023,087	\$956,540	\$4,444,933	\$20,131,090	\$5,711,685	0.44	2.19	6/30/2021
1/19/1999	Pathway	\$7,904,303	\$125,000,000	0%	\$125,702,204	\$62,082	\$2,405,683	\$184,310,917	\$10,660,225	1.47	1.53	6/30/2021
7/31/2009	Pathway 2008	\$23,854,620	\$30,000,000	0%	\$29,716,614	\$108,595	\$2,062,637	\$44,412,654	\$2,997,481	1.49	2.30	6/30/2021
6/3/2014	Siguler Guff CCCERA Opportunities	\$179,110,564	\$200,000,000	1%	\$174,083,208	\$1,000,000	\$18,022,683	\$147,336,319	\$29,597,500	0.85	1.88	6/30/2021
5/18/2018	Siris Partners IV, L.P.	\$25,532,340	\$35,000,000	8%	\$22,527,930	\$2,917,088	\$1,135,545	\$4,030,441	\$14,895,014	0.18	1.31	6/30/2021
5/27/2021	TA XIV-A, L.P.	\$0	\$50,000,000	0%	\$0	\$0	\$0	\$0	\$50,000,000	-	-	-
6/28/2019	TPG Healthcare Partners, L.P.	\$20,859,305	\$24,000,000	5%	\$9,792,197	\$1,300,061	\$0	\$1,956,092	\$15,827,533	0.20	2.33	6/30/2021
9/17/2021	Trident IX, L.P.	\$0	\$50,000,000	0%	\$0	\$0	\$0	\$0	\$50,000,000	-	-	-
5/24/2019	Trident VIII, L.P.	\$33,753,971	\$40,000,000	15%	\$30,413,786	\$5,843,807	\$56,423	\$622,374	\$10,202,086	0.02	1.13	6/30/2021
12/8/2015	Wastewater Opportunity Fund	\$16,475,694	\$25,000,000	2%	\$29,127,277	\$434,174	\$358,756	\$12,597,844	\$1,320,083	0.43	1.00	6/30/2021
Total Private Equity and Venture Capital		\$1,340,888,884	\$1,961,065,614	82%	\$1,601,816,329	\$43,325,592	\$116,759,303	\$1,439,491,158	\$481,564,380	0.90	1.74	
% of Portfolio (Market Value)		11.9%										

* All Data provided by StepStone Group

¹Latest valuation + capital calls - distributions

²(DPI) is equal to (capital returned / capital called)

³(TVPI) is equal to (market value + capital returned) / capital called

⁴Capital has been fully called and fund is in redemption.

Total Fund
Closed End Funds - IRR Summary

Period Ending: September 30, 2021

Private Credit	Inception	Fund Level (G) ²	CCCERA (G)	Fund Level (N) ^{2,3}	CCCERA (N) ³	IRR Date
Angelo Gordon Energy Cred Opp. ⁴	09/24/2015	-	-	-	7.1%	06/30/2021
Stepstone CC Opportunities Fund	02/02/2018	-	8.8%	-	9.3%	03/31/2021
Torchlight IV	08/01/2012	12.0%	12.5%	9.7%	10.4%	06/30/2021
Torchlight V	03/12/2015	15.0%	15.1%	10.5%	10.5%	06/30/2021

Real Estate	Inception	Fund Level (G) ²	CCCERA (G)	Fund Level (N) ^{2,3}	CCCERA (N) ³	IRR Date
Angelo Gordon VIII ⁴	01/23/2012	-	-	-	13.5%	06/30/2021
Angelo Gordon IX	12/08/2014	-	-	-	9.3%	06/30/2021
DLJ RECP III	06/23/2005	-1.0%	-1.0%	-4.0%	-3.0%	06/30/2021
DLJ RECP IV	02/11/2008	4.0%	4.0%	1.0%	1.0%	06/30/2021
DLJ RECP V	07/01/2014	17.0%	17.0%	9.0%	9.0%	06/30/2021
DLJ RECP VI ¹	03/19/2019	10.0%	10.0%	3.0%	3.0%	06/30/2021
Hearthstone II ⁴	06/17/1998	-	30.1%	-	30.1%	03/31/2020
Invesco Fund III ⁴	06/30/2013	16.6%	-	13.6%	-	12/31/2020
Invesco Fund IV ⁴	06/30/2014	15.8%	-	12.1%	-	06/30/2021
Invesco Fund V	02/20/2019	24.1%	-	16.0%	-	06/30/2021
LaSalle Income & Growth VI ⁴	07/16/2013	12.9%	12.9%	10.7%	10.7%	06/30/2021
LaSalle Income & Growth VII	02/28/2017	14.5%	14.6%	12.1%	12.2%	06/30/2021
Long Wharf IV ⁴	07/03/2013	16.6%	16.0%	11.9%	11.9%	06/30/2021
Long Wharf V ⁴	09/30/2016	11.6%	12.2%	8.8%	9.2%	06/30/2021
Long Wharf VI	06/27/2019	45.6%	58.1%	24.3%	29.7%	06/30/2021
Oaktree REOF V ⁴	12/31/2011	16.7%	-	12.3%	-	06/30/2021
Oaktree REOF VI ⁴	09/30/2013	12.1%	-	8.4%	-	06/30/2021
Oaktree REOF VII	04/01/2015	26.8%	-	17.5%	-	06/30/2021
Paulson ⁴	11/10/2013	-	-	13.8%	-	12/31/2020
Siguler Guff I	01/25/2012	13.0%	15.7%	11.5%	12.6%	06/30/2021
Siguler Guff II	08/31/2013	10.6%	11.1%	9.3%	8.9%	06/30/2021
Siguler Guff DREOF II Co-Inv	01/27/2016	8.1%	8.4%	7.1%	6.8%	06/30/2021

¹Manager has yet to report IRR figure.

²Fund level data includes CCCERA and all other fund investors.

³Net IRR calculated after deductions of management fees and carried interest to the General Partner.

⁴Capital has been fully called and fund is in redemption.

Total Fund
Closed End Funds - IRR Summary

Period Ending: September 30, 2021

Private Equity & Venture Capital	Closing Date	Fund Level (G) ²	CCCERA (G)	Fund Level (N) ^{2,3}	CCCERA (N) ³	IRR Date
Adams Street Partners	2/11/2004	-	14.7%	-	12.6%	3/31/2021
Adams Street Partners II	12/31/2008	-	18.0%	-	14.3%	3/31/2021
Adams Street Partners - Fund 5	12/31/2008	-	9.8%	-	6.7%	3/31/2021
Adams Street Partners Venture	1/18/1996	-	60.0%	-	56.3%	3/31/2021
Adams Street Partners - BPF	3/31/2016	-	14.2%	-	11.6%	3/31/2021
AE Industrial Partners Fund II, LP	5/18/2018	43.4%	-	45.8%	-	6/30/2021
Aether Real Assets III	11/27/2013	1.6%	1.6%	-1.3%	-1.3%	6/30/2021
Aether Real Assets III Surplus	11/30/2013	2.6%	2.6%	0.9%	0.9%	6/30/2021
Aether Real Assets IV	1/30/2016	12.1%	12.1%	8.3%	8.3%	6/30/2021
Bay Area Equity Fund I ⁹	11/26/2003	31.4%	31.4%	23.1%	23.1%	6/30/2021
Bay Area Equity Fund II ⁹	11/26/2003	10.9%	10.9%	6.3%	6.3%	6/30/2021
CommonFund	6/30/2013	-	-	-	5.7%	6/30/2021
Energy Investor Fund II ⁹	7/15/2005	6.1%	5.7%	3.4%	3.1%	6/30/2021
Energy Investor Fund III ⁹	5/31/2007	6.8%	6.8%	4.4%	4.4%	6/30/2021
Energy Investor Fund IV	8/31/2010	4.6%	4.6%	1.3%	1.1%	6/30/2021
Energy Investor Fund V	11/28/2016	19.6%	16.5%	15.8%	12.7%	6/30/2021
Genstar Capital Partners IX, L.P. ¹	2/21/2019	42.5%	-	-	-	6/30/2021
Oaktree PIF 2009	2/28/2010	6.8%	-	6.6%	-	6/30/2021
Ocean Avenue II	8/15/2013	-	-	19.3%	-	6/30/2021
Ocean Avenue III	4/15/2016	-	-	22.6%	-	12/31/2020
Paladin III	11/30/2007	22.7%	-	15.8%	-	6/30/2021
Pathway 6	8/22/2011	20.3%	20.3%	18.1%	18.1%	6/30/2021
Benchmark ⁴		16.7%	-	-	-	6/30/2021
Pathway 7	7/10/2013	23.1%	23.1%	21.0%	21.0%	6/30/2021
Benchmark ⁵		18.1%	-	-	-	6/30/2021
Pathway 8	11/23/2015	28.9%	29.0%	27.4%	27.7%	6/30/2021
Benchmark ⁶		23.2%	-	-	-	6/30/2021
Pathway Private Equity Fund	1/19/1999	10.3%	10.3%	8.4%	8.4%	6/30/2021
Benchmark ⁷		10.6%	-	-	-	6/30/2021
Pathway Private Equity Fund 2008	7/31/2009	18.5%	18.5%	16.2%	16.2%	6/30/2021
Benchmark ⁸		14.6%	-	-	-	6/30/2021
Siguler Guff CCCERA Opportunities	6/3/2014	21.2%	22.0%	20.7%	19.2%	6/30/2021
Siguler Guff Secondary Opportunities ⁹	8/31/2013	55.3%	118.4%	49.5%	69.0%	9/30/2020
Siris Partners IV, L.P. ¹	5/18/2018	25.7%	25.7%	20.2%	20.2%	6/30/2021
TPG Healthcare Partners, L.P. ¹	6/28/2019	-	-	-	-	-
Trident VIII, L.P. ¹	5/24/2019	-	-	-	-	-
Wastewater Opportunity Fund	12/8/2015	4.5%	-	0.4%	-	6/30/2021

¹Manager has yet to report IRR figure.

²Fund level data includes CCCERA and all other fund investors.

³Net IRR calculated after deductions of management fees and carried interest to the General Partner.

⁴Private iQ global all private equity median pooled return for vintage years 2011-2014, as of June 30, 2020.

⁵Private iQ global all private equity median pooled return for vintage years 2012-2016, as of June 30, 2020.

⁶Private iQ global all private equity median pooled return for vintage years 2015-2018, as of June 30, 2020.

⁷Private iQ global all private equity median pooled return for vintage years 1999-2011, as of June 30, 2020.

⁸Private iQ global all private equity median pooled return for vintage years 2008-2014, as of June 30, 2020.

⁹Capital has been fully called and fund is in redemption.

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

Period Ending: September 30, 2021

	3 Years											
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio	
BlackRock Russell 1000 Index	16.41%	-0.02%	19.37%	-0.01%	1.00	0.02%	1.00	0.79	-0.90	99.92%	99.98%	
Jackson Square Partners	19.45%	-2.55%	20.50%	-1.73%	0.96	6.53%	0.90	0.90	-0.39	85.51%	94.59%	
Boston Partners	9.43%	-0.64%	21.57%	-1.25%	1.06	2.85%	0.99	0.39	-0.22	103.74%	104.18%	
Emerald Advisers	13.22%	1.53%	24.93%	2.18%	0.94	6.07%	0.94	0.49	0.25	98.18%	95.96%	
Ceredex	5.91%	-2.68%	24.70%	-1.69%	0.89	6.97%	0.94	0.20	-0.38	76.69%	93.16%	
Pyrford	6.27%	2.46%	15.03%	3.57%	0.71	7.64%	0.89	0.35	0.32	77.18%	77.76%	
William Blair	16.78%	4.85%	18.38%	3.79%	1.09	4.21%	0.95	0.86	1.15	124.71%	100.78%	
PIMCO RAE Emerging Markets	7.72%	2.95%	22.36%	2.43%	1.11	5.02%	0.96	0.30	0.59	119.78%	102.24%	
TT Emerging Markets	12.41%	3.83%	23.37%	2.35%	1.17	6.32%	0.95	0.49	0.61	138.02%	110.15%	
Artisan Partners	20.87%	2.54%	17.53%	4.07%	0.92	4.70%	0.94	1.13	0.54	96.89%	87.70%	
First Eagle	8.62%	2.13%	14.29%	3.94%	0.72	6.38%	0.94	0.53	0.33	76.22%	75.53%	
JP Morgan Global Opportunities	1.28%	-11.30%	6.97%	-0.21%	0.12	17.36%	0.10	0.03	-0.65	8.24%	17.87%	
Allianz Global Investors	5.65%	-0.97%	8.40%	-0.07%	0.86	2.30%	0.95	0.55	-0.42	85.66%	90.83%	
Adelante	12.70%	2.30%	18.37%	2.84%	0.95	1.64%	0.99	0.63	1.41	103.39%	94.19%	
AFL-CIO	4.97%	-0.39%	3.09%	0.50%	0.84	1.06%	0.92	1.27	-0.36	84.37%	72.49%	
DFA Short Credit	3.09%	-0.56%	1.77%	-0.04%	0.86	1.31%	0.46	1.16	-0.43	78.17%	32.55%	
Insight Short Duration	2.94%	0.07%	2.00%	0.31%	0.92	1.80%	0.20	0.95	0.04	94.79%	-50.56%	
Sit Short Duration	3.74%	1.07%	1.86%	0.19%	1.33	1.08%	0.70	1.45	0.99	155.47%	300.11%	

Performance Analysis excludes closed end funds and those funds without 3 years of performance.

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

Period Ending: September 30, 2021

	5 Years										
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Jackson Square Partners	18.96%	-3.88%	16.69%	-2.88%	0.96	5.74%	0.88	1.07	-0.68	76.79%	94.65%
Boston Partners	12.40%	1.46%	17.58%	0.74%	1.07	2.92%	0.98	0.64	0.50	111.86%	101.46%
Emerald Advisers	17.30%	1.96%	20.83%	2.56%	0.96	5.41%	0.93	0.78	0.36	100.70%	95.14%
Ceredex	8.19%	-2.84%	20.37%	-1.40%	0.87	6.63%	0.91	0.35	-0.43	72.70%	93.95%
Pyrford	6.52%	0.09%	12.62%	1.98%	0.71	6.84%	0.85	0.43	0.01	67.33%	78.88%
William Blair	14.50%	3.29%	15.16%	2.58%	1.06	3.61%	0.95	0.88	0.91	117.28%	96.83%
Total Global Equity	13.88%	0.69%	12.60%	2.90%	0.83	3.97%	0.94	1.02	0.17	85.52%	84.05%
Artisan Partners	18.87%	1.11%	14.60%	2.36%	0.93	4.32%	0.92	1.22	0.26	94.13%	89.05%
First Eagle	7.91%	-0.46%	11.45%	1.96%	0.71	5.53%	0.92	0.60	-0.08	65.41%	75.53%
JP Morgan Global Opportunities	5.29%	-7.91%	6.83%	3.76%	0.12	14.55%	0.06	0.61	-0.54	14.83%	14.07%
Allianz Global Investors	5.28%	-1.07%	6.64%	-0.23%	0.87	1.80%	0.95	0.63	-0.59	83.88%	92.64%
Adelante	8.54%	1.57%	15.59%	1.96%	0.94	1.72%	0.99	0.48	0.91	98.07%	93.07%
AFL-CIO	2.60%	-0.34%	2.92%	0.10%	0.85	0.93%	0.93	0.52	-0.37	81.51%	80.23%

Performance Analysis excludes closed end funds and those funds without 5 years of performance.

Total Fund Investment Fund Fee Analysis

Period Ending: September 30, 2021

Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
BlackRock Russell 1000 Index	Growth	0.03% of Assets	\$588,196,950	\$176,459	0.03%
Jackson Square Partners	Growth	0.40% of First 400.0 Mil, 0.35% Thereafter	\$335,933,556	\$1,343,734	0.40%
Boston Partners	Growth	0.50% of First 25.0 Mil, 0.30% Thereafter	\$378,798,555	\$1,186,396	0.31%
Emerald Advisers	Growth	0.75% of First 10.0 Mil, 0.60% Thereafter	\$255,416,599	\$1,547,500	0.61%
Ceredex	Growth	0.85% of First 10.0 Mil, 0.68% of Next 40.0 Mil, 0.51% Thereafter	\$196,564,765	\$1,104,480	0.56%
Pyrford	Growth	0.70% of First 50.0 Mil, 0.50% of Next 50.0 Mil, 0.35% Thereafter	\$484,753,473	\$1,946,637	0.40%
William Blair	Growth	0.80% of First 20.0 Mil, 0.60% of Next 30.0 Mil, 0.50% of Next 50.0 Mil, 0.45% of Next 50.0 Mil, 0.40% of Next 50.0 Mil, 0.30% Thereafter	\$555,367,465	\$2,081,102	0.37%
PIMCO RAE Emerging Markets	Growth	0.75% of First 50.0 Mil, 0.68% of Next 50.0 Mil, 0.50% of Next 100.0 Mil, 0.45% Thereafter	\$385,990,264	\$2,049,456	0.53%
TT Emerging Markets	Growth	0.70% of First 100.0 Mil, 0.65% of Next 100.0 Mil, 0.60% Thereafter	\$442,690,941	\$2,806,146	0.63%
Artisan Partners	Growth	0.75% of Assets	\$604,018,392	\$4,530,138	0.75%
First Eagle	Growth	0.75% of Assets	\$502,539,608	\$3,769,047	0.75%
Allianz Global Investors	Growth	0.50% of First 50.0 Mil, 0.40% of Next 50.0 Mil, 0.35% Thereafter	\$182,322,740	\$738,130	0.40%
AQR Global Risk Premium-EL	Growth	0.38% of Assets	\$219,173,271	\$832,858	0.38%
PanAgora Risk Parity Multi Asset	Growth	0.35% of Assets	\$267,664,355	\$936,825	0.35%

Mutual fund fees shown are sourced from Morningstar and are as of the most current prospectus.

Total Fund
Investment Fund Fee Analysis

Period Ending: September 30, 2021

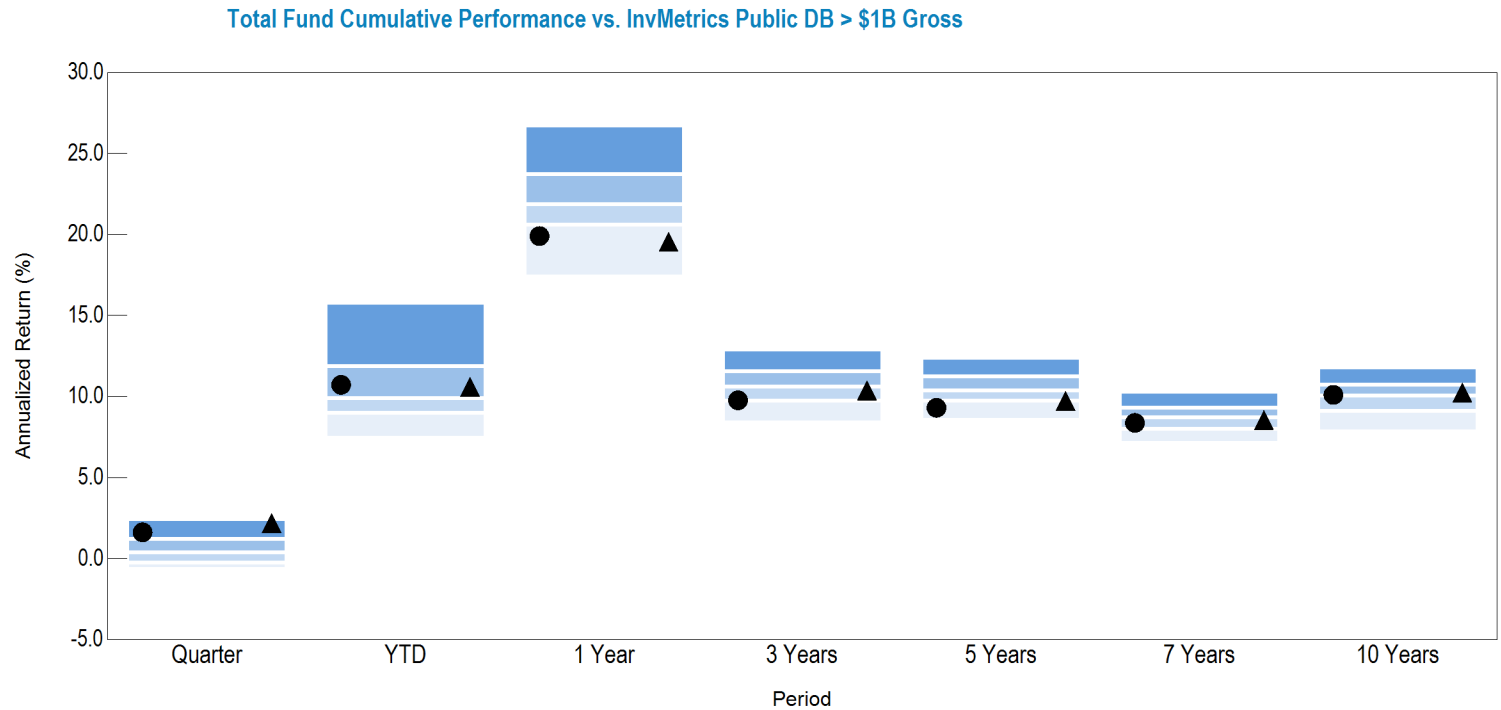
Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
AFL-CIO	Diversifying	0.32% of Assets	\$263,109,664	\$841,951	0.32%
Parametric Defensive Equity	Diversifying	0.42% of First 200.0 Mil, 0.39% Thereafter	\$115,246,287	\$484,034	0.42%
Acadian Multi-Asset Absolute Return Fund	Diversifying	0.50% of Assets	\$181,348,766	\$906,744	0.50%
Sit LLCAR	Diversifying	0.39% of First 200.0 Mil, 0.35% Thereafter	\$206,254,919	\$801,892	0.39%
DFA Short Credit	Liquidity	0.20% of First 25.0 Mil, 0.10% Thereafter	\$315,987,938	\$340,988	0.11%

Mutual fund fees shown are sourced from Morningstar and are as of the most current prospectus.

Total Fund

Peer Universe Comparison: Cumulative Performance (Gross of Fees)

Period Ending: September 30, 2021



	Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	2.4	15.8	26.7	12.9	12.4	10.3	11.8							
25th Percentile	1.2	11.9	23.7	11.6	11.3	9.3	10.7							
Median	0.4	9.9	21.9	10.6	10.4	8.7	10.1							
75th Percentile	-0.2	9.0	20.6	9.8	9.8	8.0	9.1							
95th Percentile	-0.6	7.5	17.4	8.4	8.6	7.2	7.9							
# of Portfolios	85	85	85	85	85	84	80							
● Total Fund	1.6	(16)	10.7	(41)	19.9	(81)	9.8	(76)	9.3	(84)	8.4	(60)	10.1	(50)
▲ Policy Index	2.2	(6)	10.6	(43)	19.6	(83)	10.4	(53)	9.7	(76)	8.6	(57)	10.3	(43)

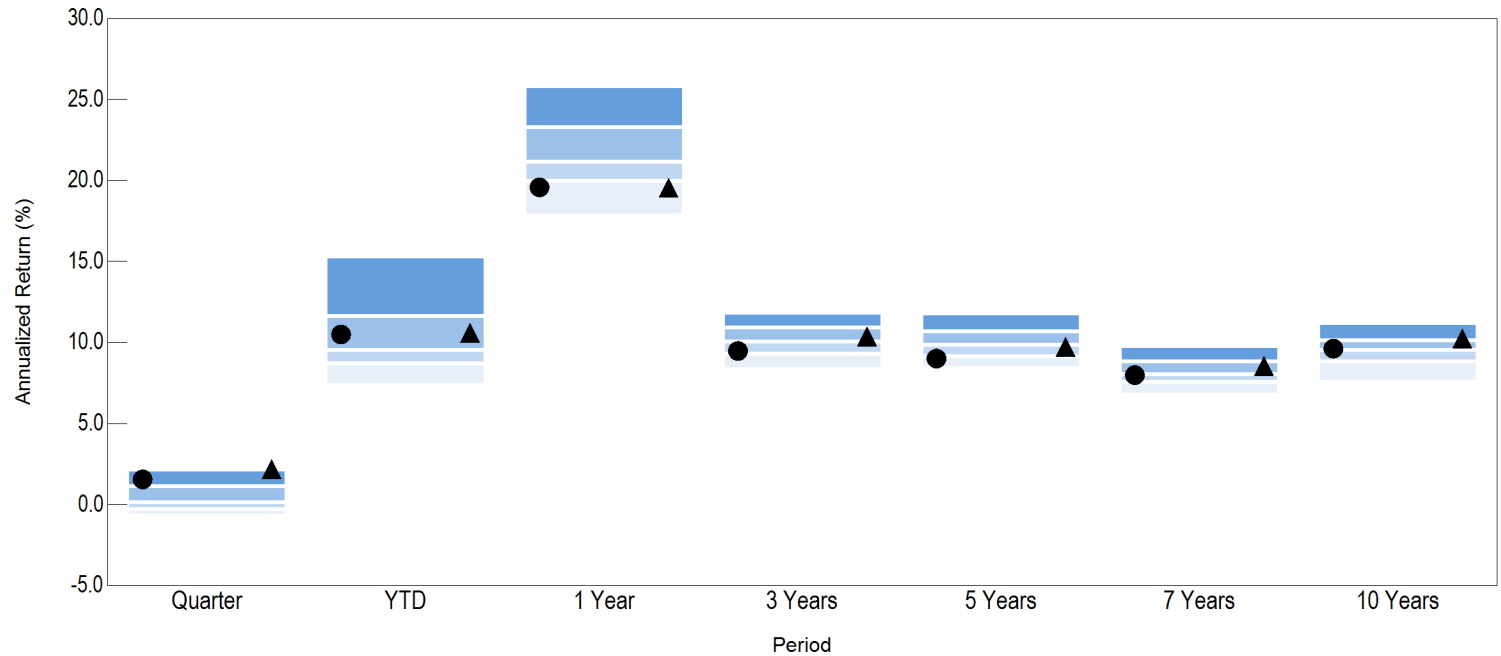
Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Fund

Peer Universe Comparison: Cumulative Performance (Net of Fees)

Period Ending: September 30, 2021

Total Fund Cumulative Performance vs. InvMetrics Public DB > \$1B Net

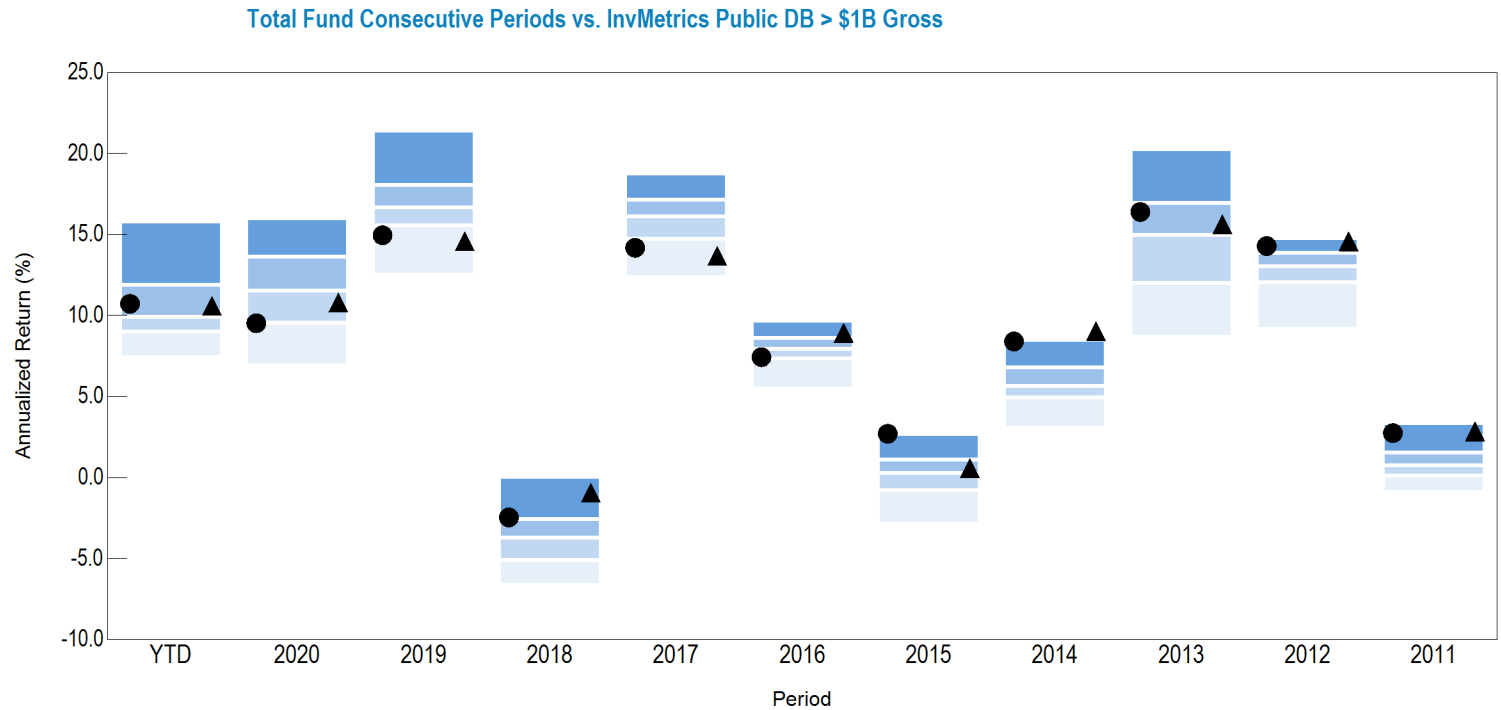


	Return (Rank)											
	Quarter	YTD	1 Year	3 Years	5 Years	7 Years	10 Years					
5th Percentile	2.2	15.3	25.8	11.8	11.8	9.8	11.2					
25th Percentile	1.1	11.7	23.3	10.9	10.7	8.8	10.2					
Median	0.2	9.6	21.2	10.1	9.9	8.1	9.6					
75th Percentile	-0.3	8.7	20.0	9.3	9.2	7.6	8.9					
95th Percentile	-0.7	7.4	17.8	8.4	8.4	6.8	7.6					
# of Portfolios	80	80	80	80	80	78	73					
● Total Fund	1.5 (14)	10.5 (39)	19.6 (81)	9.5 (72)	9.0 (82)	8.0 (56)	9.6 (49)					
▲ Policy Index	2.2 (4)	10.6 (36)	19.6 (81)	10.4 (40)	9.7 (54)	8.6 (36)	10.3 (23)					

Total Fund

Peer Universe Comparison: Consecutive Periods (Gross of Fees)

Period Ending: September 30, 2021



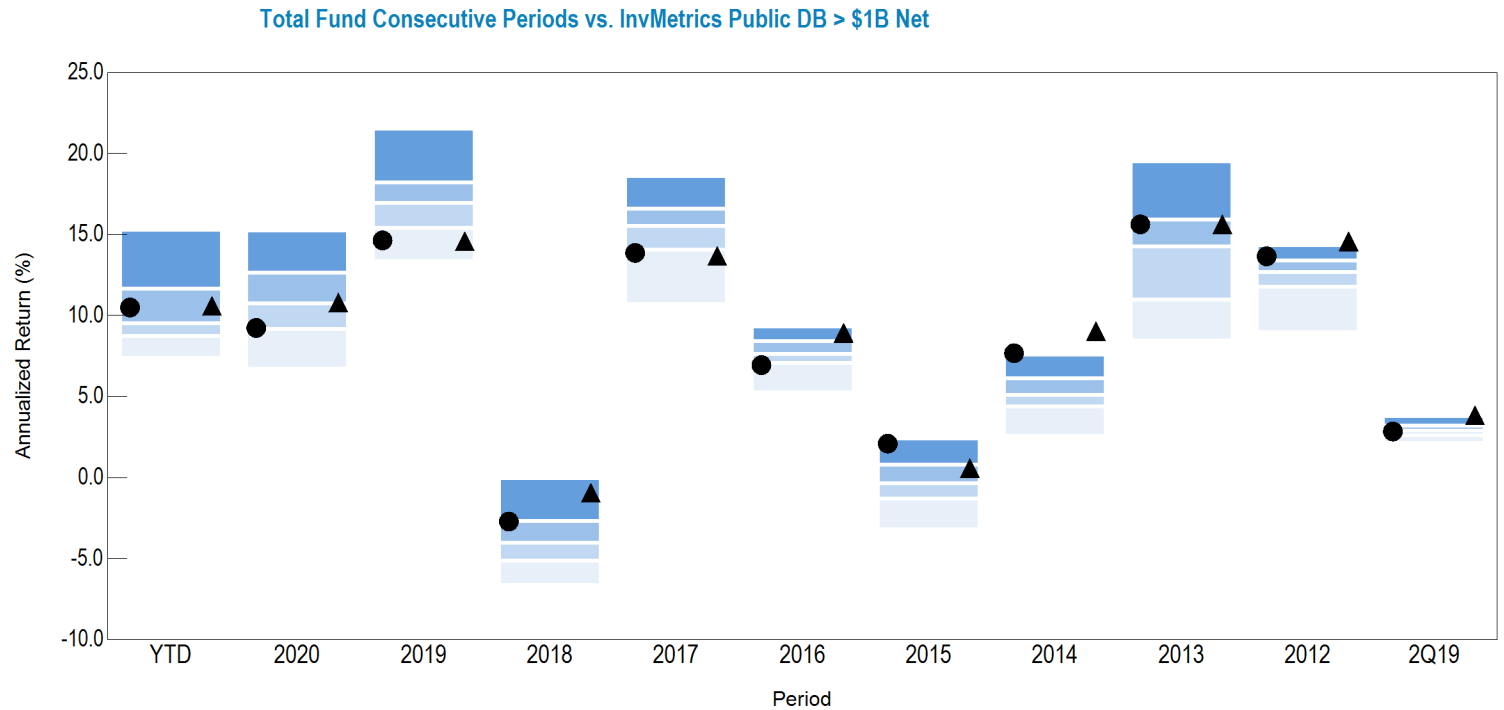
	Return (Rank)										
	YTD	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
5th Percentile	15.8	16.0	21.4	0.0	18.8	9.7	2.7	8.5	20.2	14.7	3.3
25th Percentile	11.9	13.6	18.1	-2.6	17.2	8.6	1.1	6.8	17.0	13.9	1.6
Median	9.9	11.5	16.7	-3.7	16.2	8.0	0.3	5.7	15.0	13.0	0.8
75th Percentile	9.0	9.6	15.6	-5.1	14.8	7.4	-0.7	4.9	12.0	12.1	0.1
95th Percentile	7.5	6.9	12.5	-6.6	12.4	5.5	-2.8	3.1	8.7	9.2	-0.9
# of Portfolios	85	94	81	71	98	92	98	79	67	74	68
● Total Fund	10.7 (41)	9.5 (78)	15.0 (83)	-2.5 (25)	14.2 (83)	7.4 (74)	2.7 (5)	8.4 (6)	16.4 (33)	14.3 (13)	2.7 (9)
▲ Policy Index	10.6 (43)	10.8 (60)	14.6 (87)	-0.9 (8)	13.7 (89)	8.9 (15)	0.6 (40)	9.0 (2)	15.6 (43)	14.6 (8)	2.8 (9)

Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Fund

Peer Universe Comparison: Consecutive Periods (Net of Fees)

Period Ending: September 30, 2021

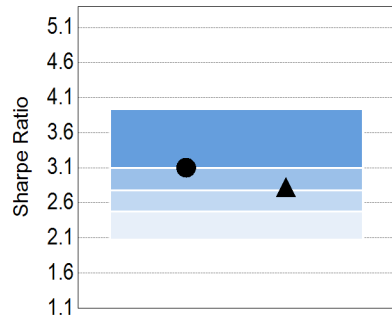


	YTD	2020	2019	2018	2017	2016	2015	2014	2013	2012	2Q19
Return (Rank)											
5th Percentile	15.3	15.2	21.5	-0.1	18.6	9.3	2.4	7.6	19.5	14.3	3.8
25th Percentile	11.7	12.7	18.2	-2.7	16.6	8.4	0.8	6.1	16.0	13.4	3.2
Median	9.6	10.8	17.0	-4.0	15.6	7.7	-0.4	5.1	14.3	12.7	2.9
75th Percentile	8.7	9.2	15.4	-5.1	14.1	7.1	-1.3	4.4	11.0	11.8	2.6
95th Percentile	7.4	6.8	13.4	-6.6	10.7	5.3	-3.2	2.6	8.5	9.0	2.2
# of Portfolios	80	80	69	63	61	62	57	55	48	44	78
● Total Fund	10.5 (39)	9.2 (73)	14.6 (92)	-2.7 (27)	13.9 (81)	6.9 (78)	2.1 (12)	7.7 (5)	15.6 (33)	13.6 (21)	2.8 (57)
▲ Policy Index	10.6 (36)	10.8 (49)	14.6 (92)	-0.9 (8)	13.7 (85)	8.9 (13)	0.6 (29)	9.0 (2)	15.6 (33)	14.6 (1)	3.8 (5)

Total Fund
Sharpe Ratio Ranking (Gross of Fees)

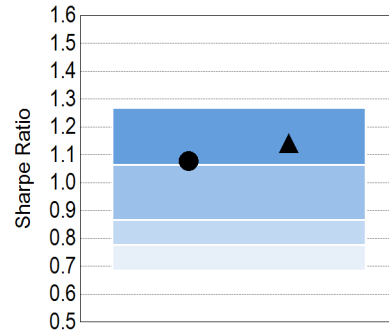
Period Ending: September 30, 2021

Sharpe Ratio
1 Year



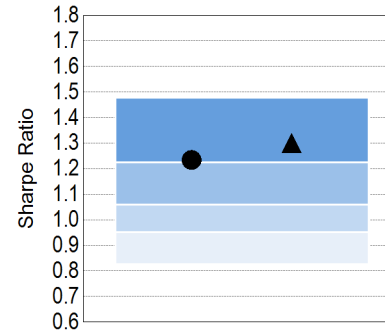
● Total Fund	
Value	3.1
Rank	26
▲ Policy Index	
Value	2.8
Rank	47
Universe	
5th %tile	3.9
25th %tile	3.1
Median	2.8
75th %tile	2.5
95th %tile	2.1

Sharpe Ratio
3 Year



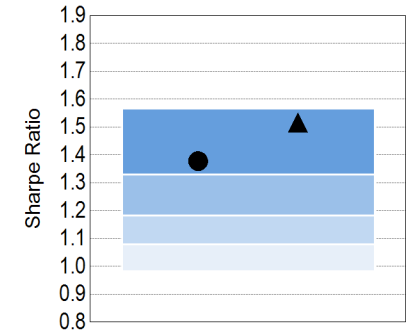
● Total Fund	
Value	1.1
Rank	21
▲ Policy Index	
Value	1.1
Rank	16
Universe	
5th %tile	1.3
25th %tile	1.1
Median	0.9
75th %tile	0.8
95th %tile	0.7

Sharpe Ratio
5 Year



● Total Fund	
Value	1.2
Rank	25
▲ Policy Index	
Value	1.3
Rank	19
Universe	
5th %tile	1.5
25th %tile	1.2
Median	1.1
75th %tile	1.0
95th %tile	0.8

Sharpe Ratio
10 Year



● Total Fund	
Value	1.4
Rank	18
▲ Policy Index	
Value	1.5
Rank	8
Universe	
5th %tile	1.6
25th %tile	1.3
Median	1.2
75th %tile	1.1
95th %tile	1.0

Domestic Equity Managers

Jackson Square Partners

Manager Portfolio Overview

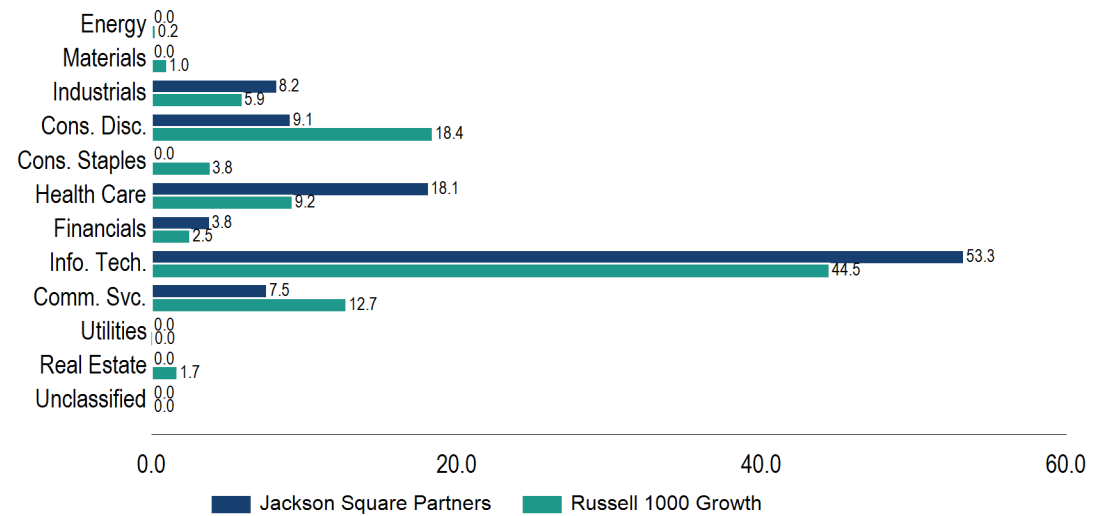
Period Ending: September 30, 2021

Domestic equity large cap growth portfolio concentrated in companies with sustainable long-term growth characteristics. Primary personnel include Jeffrey Van Harte, Christopher Ericksen, Billy Montana, and Daniel Prislin. Daniel Prislin will be retiring at the end of 2021.

Characteristics

	Portfolio	Russell 1000 Growth
Number of Holdings	27	500
Weighted Avg. Market Cap. (\$B)	423.20	815.28
Median Market Cap. (\$B)	66.76	19.50
Price To Earnings	45.18	34.56
Price To Book	10.90	12.85
Price To Sales	9.89	6.18
Return on Equity (%)	18.14	43.05
Yield (%)	0.25	0.74
Beta	0.95	1.00

Sector Allocation (%) vs Russell 1000 Growth



Largest Holdings

	End Weight	Return
MICROSOFT CORP	9.62	4.27
AMAZON.COM INC	5.71	-4.51
UBER TECHNOLOGIES INC	5.54	-10.61
VISA INC	5.51	-4.60
MASTERCARD INC	4.81	-4.65
CHARTER COMMUNICATIONS INC	4.67	0.85
PAYPAL HOLDINGS INC	4.61	-10.73
SERVICENOW INC	4.57	13.23
TWILIO INC	4.39	-19.06
EDWARDS LIFESCIENCES CORP	4.14	9.31

Top Contributors

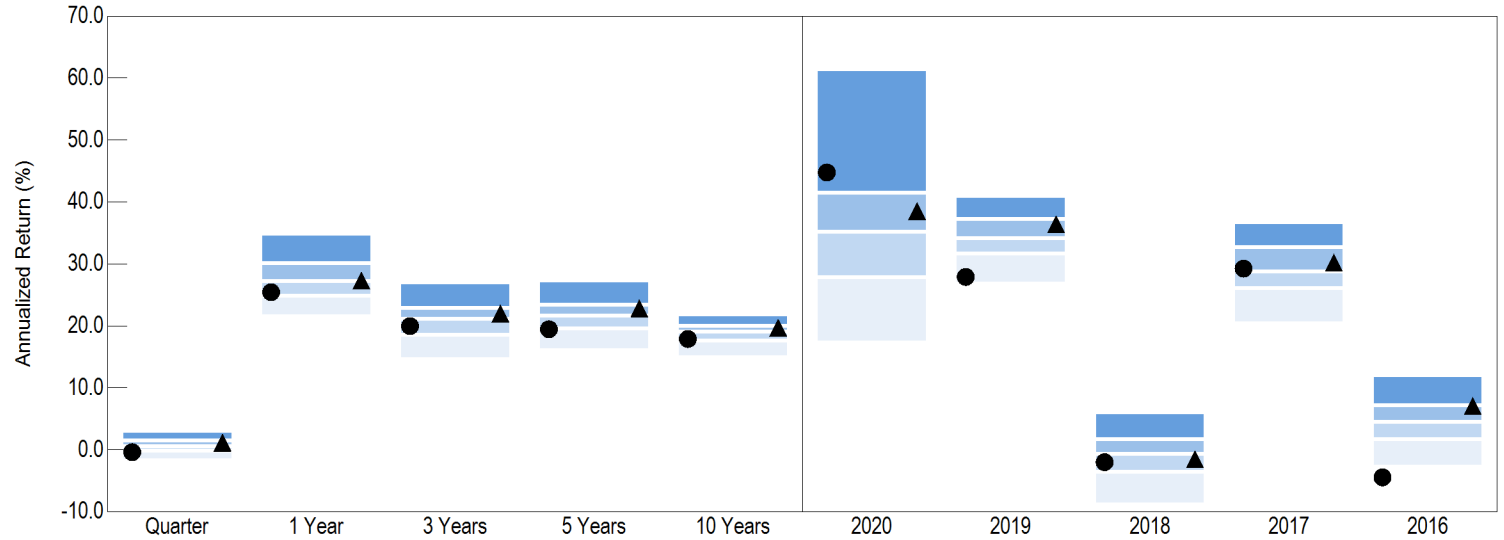
	Avg Wgt	Return	Contribution
DATADOG INC	0.99	35.81	0.35
PAYCOM SOFTWARE INC	0.93	36.39	0.34
SERVICENOW INC	1.34	13.23	0.18
NETFLIX INC	0.92	15.55	0.14
MICROSOFT CORP	3.06	4.27	0.13
EDWARDS LIFESCIENCES CORP	1.32	9.31	0.12
INTUITIVE SURGICAL INC	1.17	8.10	0.09
ALIGN TECHNOLOGY INC	0.97	8.91	0.09
WASTE MANAGEMENT INC.	0.85	6.99	0.06
KKR & CO INC	1.17	2.99	0.04

Bottom Contributors

	Avg Wgt	Return	Contribution
TWILIO INC	1.79	-19.06	-0.34
ZOOM VIDEO COMMUNICATIONS INC	0.87	-32.43	-0.28
WIX.COM LTD	0.84	-32.49	-0.27
10X GENOMICS INC	0.93	-25.66	-0.24
UBER TECHNOLOGIES INC	1.82	-10.61	-0.19
PAYPAL HOLDINGS INC	1.71	-10.73	-0.18
COUPA SOFTWARE INC	0.79	-16.38	-0.13
AMAZON.COM INC	1.98	-4.51	-0.09
VISA INC	1.91	-4.60	-0.09
VEEVA SYSTEMS INC	0.99	-7.33	-0.07

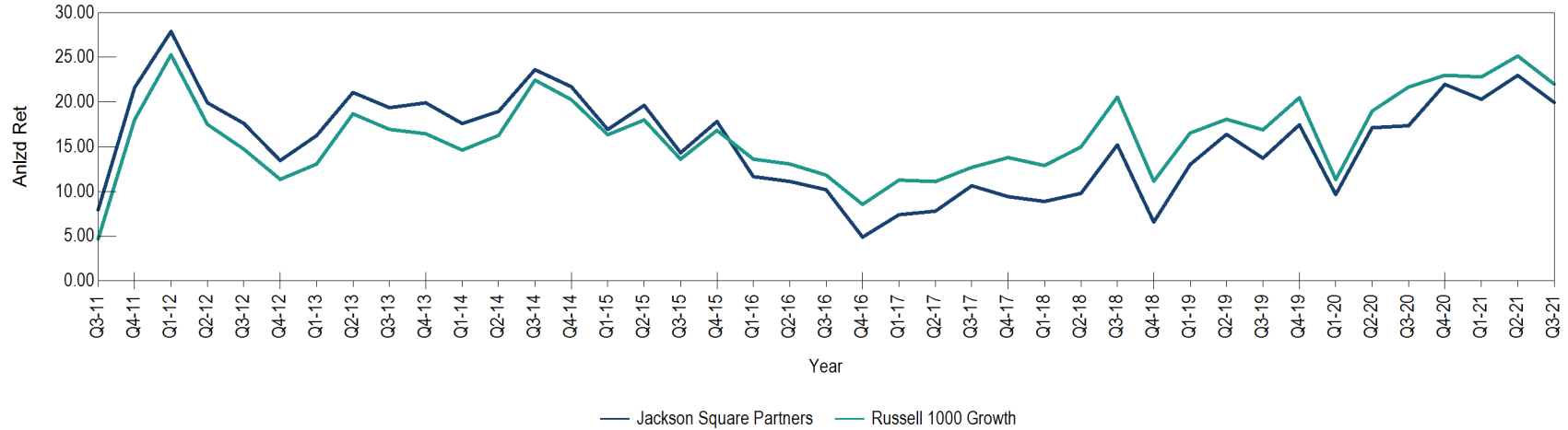
Unclassified sector allocation includes cash allocations.

Jackson Square Partners vs. eV US Large Cap Growth Equity Gross Universe

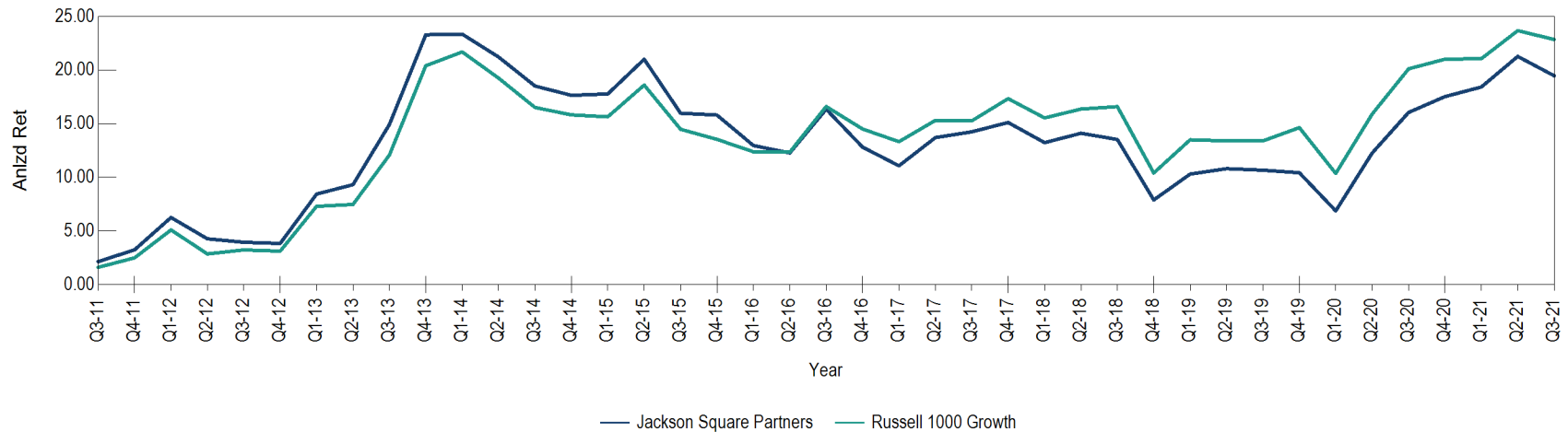


	Return (Rank)										
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	
5th Percentile	3.0	34.8	27.0	27.3	21.8	61.4	41.0	6.1	36.7	12.0	
25th Percentile	1.5	30.2	23.0	23.4	20.1	41.6	37.3	1.7	32.7	7.3	
Median	0.7	27.3	21.2	21.7	19.1	35.2	34.2	-0.6	28.8	4.6	
75th Percentile	-0.1	24.9	18.7	19.7	17.7	27.9	31.7	-3.5	26.2	1.8	
95th Percentile	-1.7	21.6	14.7	16.2	15.0	17.4	26.9	-8.8	20.5	-2.7	
# of Portfolios	260	260	254	236	210	263	253	255	265	282	
● Jackson Square Partners	-0.4 (80)	25.4 (71)	20.0 (63)	19.5 (80)	17.9 (73)	44.8 (20)	27.9 (93)	-2.0 (59)	29.3 (47)	-4.4 (98)	
▲ Russell 1000 Growth	1.2 (37)	27.3 (50)	22.0 (39)	22.8 (36)	19.7 (36)	38.5 (34)	36.4 (32)	-1.5 (57)	30.2 (42)	7.1 (26)	

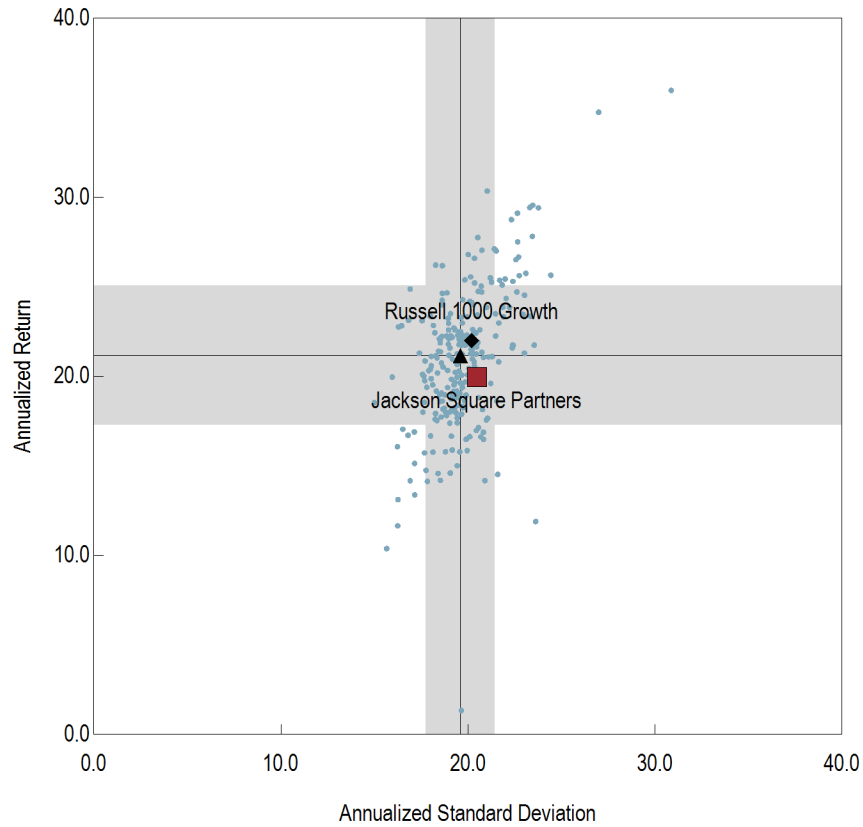
Rolling 3 Year Annualized Return (%)



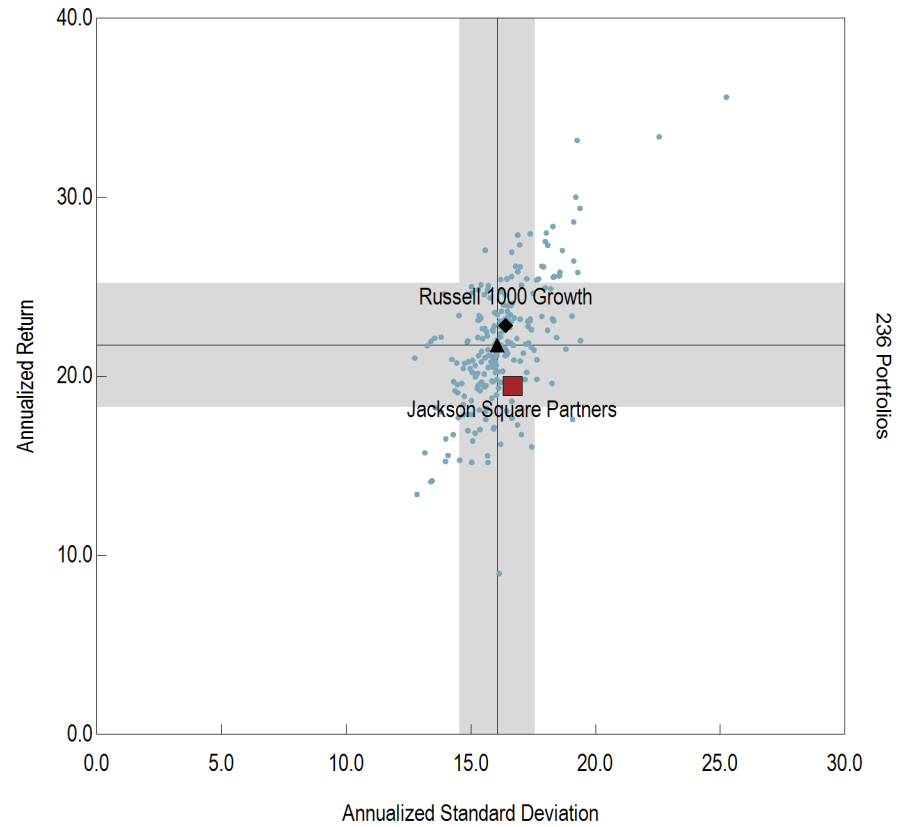
Rolling 5 Year Annualized Return (%)



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Jackson Square Partners	20.0%	20.5%	0.9
Russell 1000 Growth	22.0%	20.2%	1.0
eV US Large Cap Growth Equity Gross Median	21.2%	19.6%	1.0

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Jackson Square Partners	19.5%	16.7%	1.1
Russell 1000 Growth	22.8%	16.4%	1.3
eV US Large Cap Growth Equity Gross Median	21.7%	16.1%	1.3

Boston Partners Manager Portfolio Overview

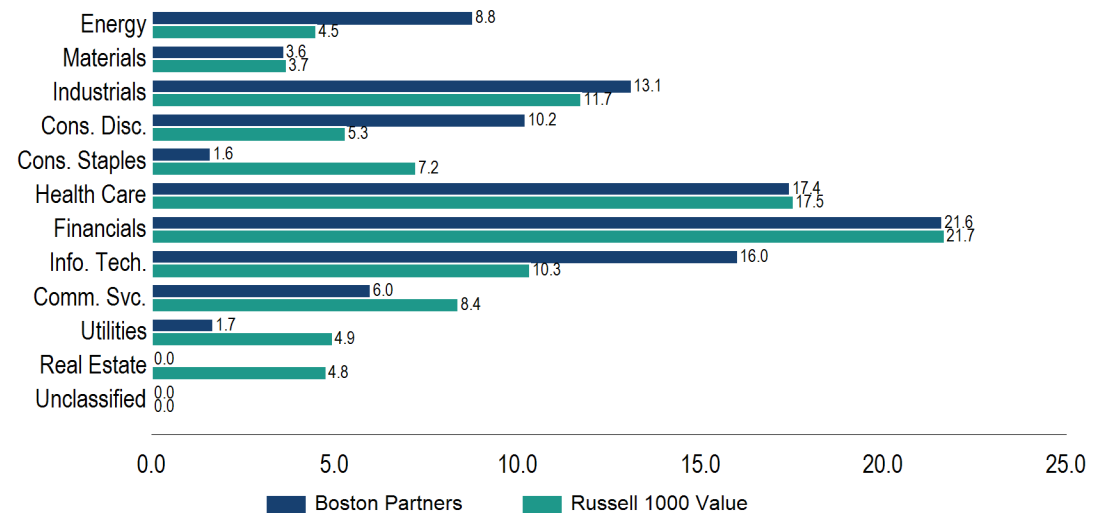
Period Ending: September 30, 2021

Domestic equity large cap value portfolio exhibiting low turnover in companies with low valuations relative to intrinsic value. Primary personnel include Mark Donovan and David Pyle.

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	92	848
Weighted Avg. Market Cap. (\$B)	176.46	156.27
Median Market Cap. (\$B)	47.18	13.84
Price To Earnings	17.03	18.70
Price To Book	2.50	2.62
Price To Sales	1.88	2.37
Return on Equity (%)	17.52	14.94
Yield (%)	1.62	2.03
Beta	1.10	1.00

Sector Allocation (%) vs Russell 1000 Value



Largest Holdings

	End Weight	Return
JPMORGAN CHASE & CO	3.30	5.85
JOHNSON & JOHNSON	3.08	-1.38
BERKSHIRE HATHAWAY INC	2.90	-1.79
CISCO SYSTEMS INC	2.54	3.41
CONOCOPHILLIPS	2.48	12.15
ALPHABET INC	2.33	9.49
AUTOZONE INC	2.23	13.79
WELLS FARGO & CO	2.14	2.91
BANK OF AMERICA CORP	1.99	3.49
CIGNA CORP	1.89	-15.18

Top Contributors

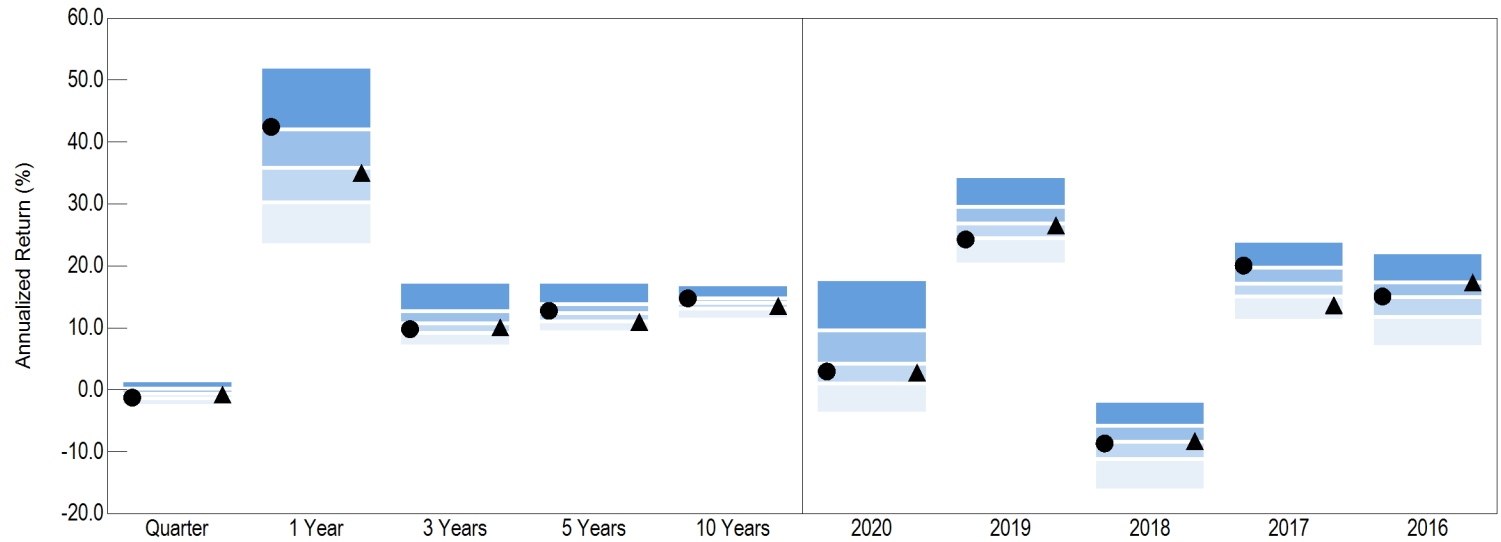
	Avg Wgt	Return	Contribution
AUTOZONE INC	0.69	13.79	0.10
CONOCOPHILLIPS	0.73	12.15	0.09
ALPHABET INC	0.70	9.49	0.07
AVANTOR INC	0.43	15.18	0.06
JPMORGAN CHASE & CO	1.03	5.85	0.06
CHUBB LTD	0.53	9.63	0.05
SONY GROUP CORPORATION	0.35	13.74	0.05
ORACLE CORP	0.37	12.34	0.05
PFIZER INC	0.38	10.83	0.04
AMERICAN INTERNATIONAL GROUP INC	0.24	15.99	0.04

Bottom Contributors

	Avg Wgt	Return	Contribution
CIGNA CORP	0.65	-15.18	-0.10
MICRON TECHNOLOGY INC.	0.56	-16.36	-0.09
LAS VEGAS SANDS CORP	0.24	-30.54	-0.07
DUPONT DE NEMOURS INC	0.58	-11.82	-0.07
APPLIED MATERIALS INC	0.64	-9.44	-0.06
CENTENE CORP	0.40	-14.56	-0.06
TAPESTRY INC	0.38	-14.33	-0.05
CATERPILLAR INC	0.45	-11.31	-0.05
NOVARTIS AG	0.49	-10.37	-0.05
FIDELITY NATIONAL INFORMATION SERVICES INC	0.36	-13.85	-0.05

Unclassified sector allocation includes cash allocations.

Boston Partners vs. eV US Large Cap Value Equity Gross Universe

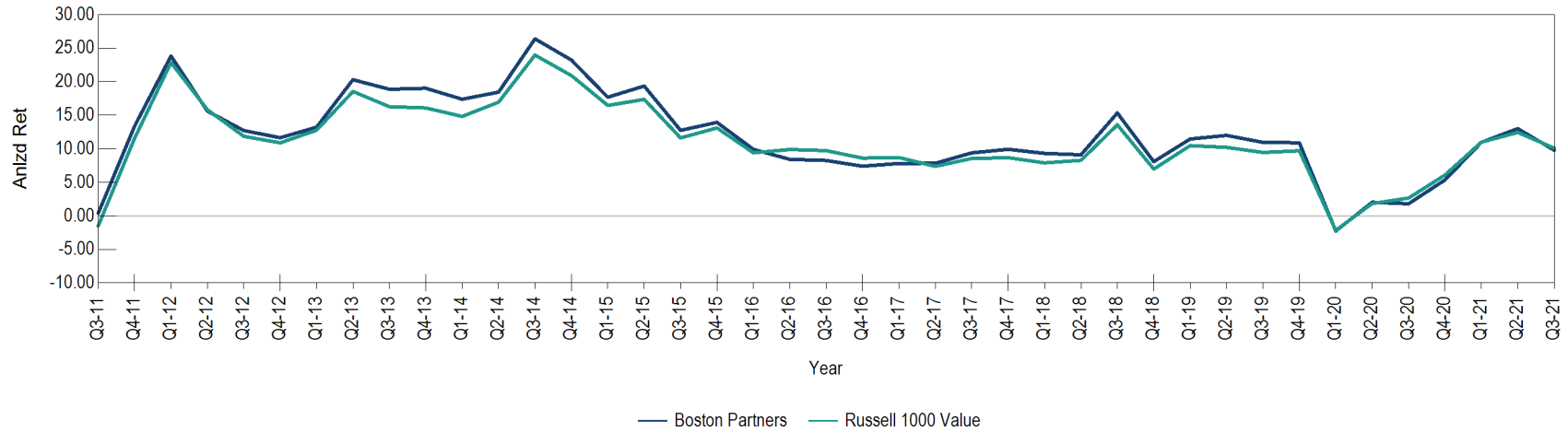


	Return (Rank)										
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	
5th Percentile	1.5	52.1	17.4	17.4	17.0	17.8	34.4	-1.8	24.0	22.1	
25th Percentile	0.2	42.1	12.8	13.9	14.9	9.6	29.6	-5.8	19.8	17.4	
Median	-0.5	35.9	10.7	12.4	14.1	4.2	26.9	-8.3	17.2	15.0	
75th Percentile	-1.3	30.3	9.2	11.0	13.2	1.1	24.5	-11.1	15.1	11.8	
95th Percentile	-2.6	23.3	7.0	9.3	11.4	-3.8	20.3	-16.1	11.2	7.0	
# of Portfolios	341	340	332	315	273	326	331	336	342	346	
● Boston Partners	-1.3 (75)	42.4 (23)	9.8 (68)	12.8 (44)	14.8 (28)	3.0 (61)	24.3 (77)	-8.7 (55)	20.1 (23)	15.1 (50)	
▲ Russell 1000 Value	-0.8 (61)	35.0 (54)	10.1 (65)	10.9 (77)	13.5 (70)	2.8 (62)	26.5 (54)	-8.3 (50)	13.7 (87)	17.3 (26)	

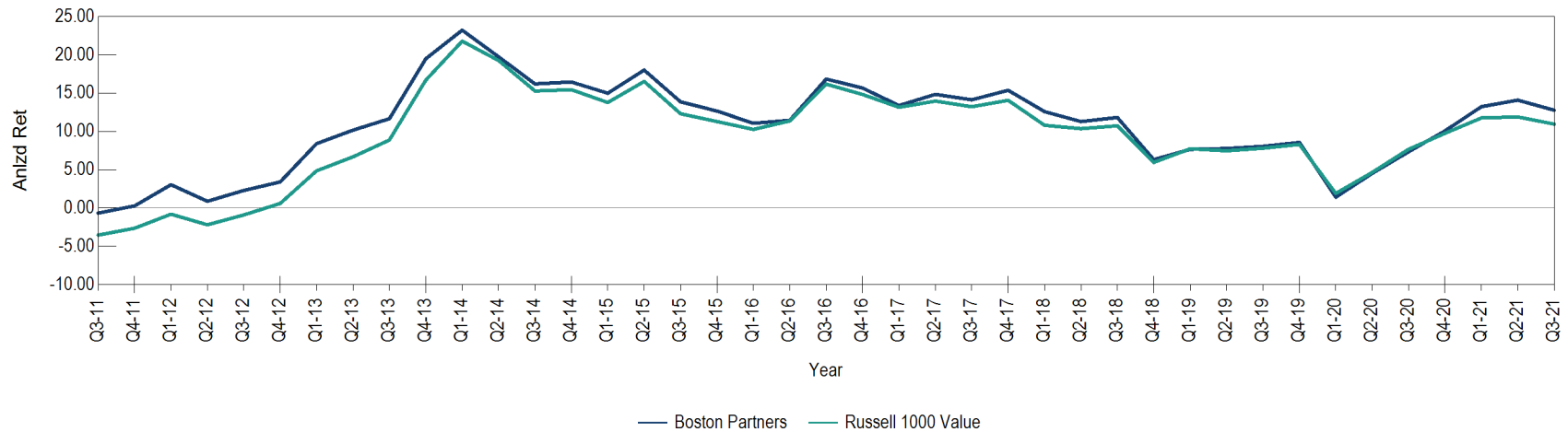
Boston Partners
 Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2021

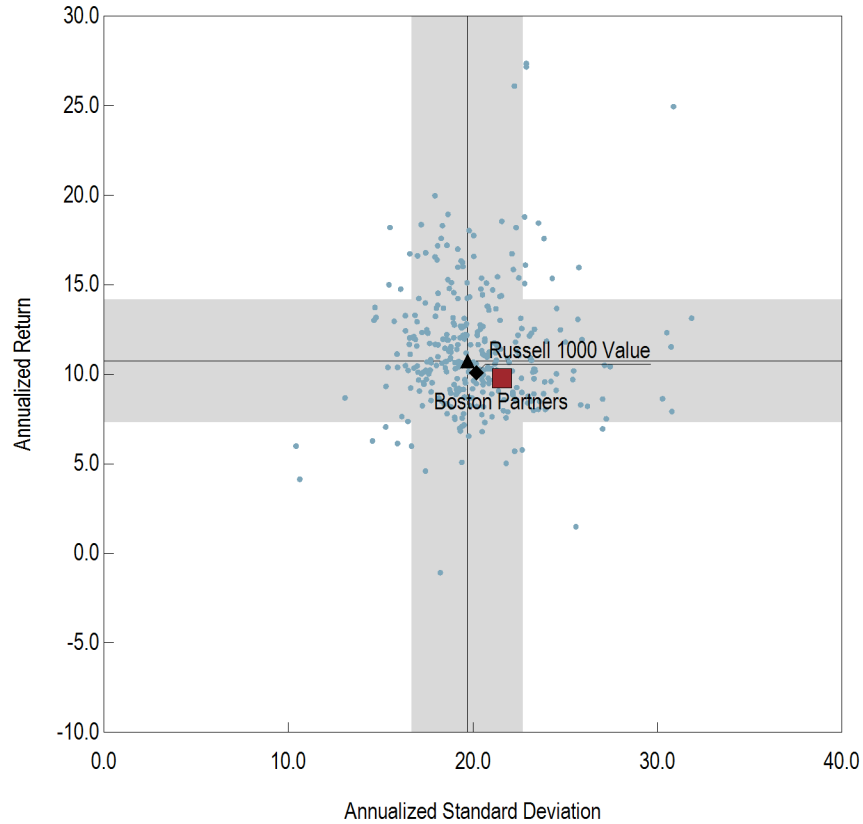
Rolling 3 Year Annualized Return (%)



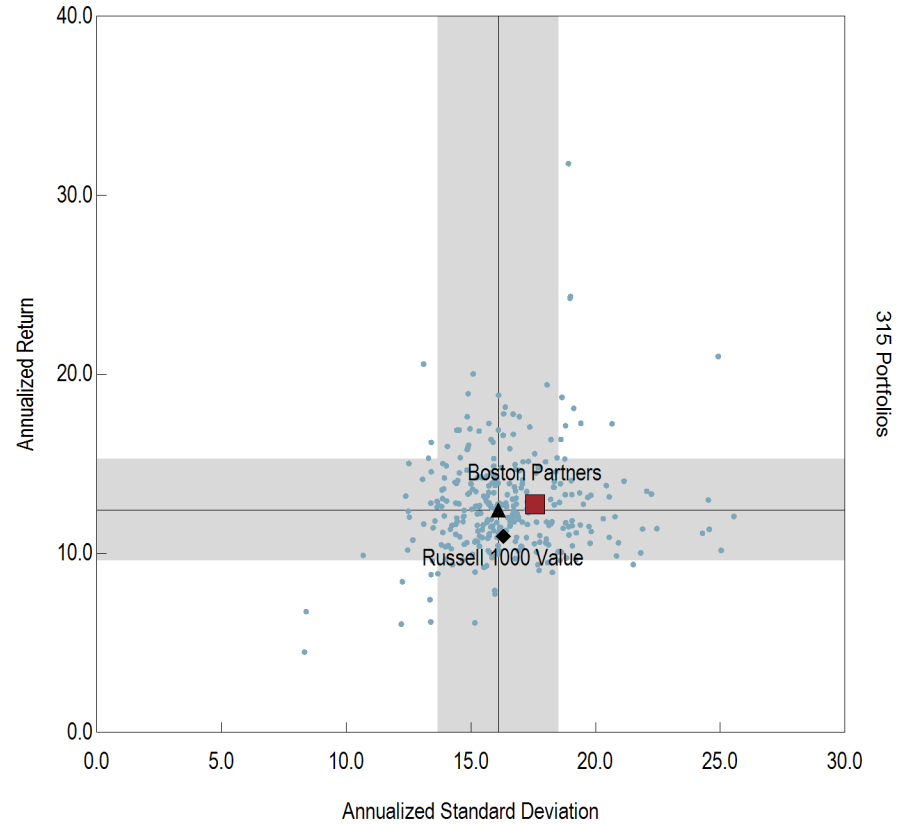
Rolling 5 Year Annualized Return (%)



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Boston Partners	9.8%	21.6%	0.4
Russell 1000 Value	10.1%	20.2%	0.4
eV US Large Cap Value Equity Gross Median	10.7%	19.7%	0.5

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Boston Partners	12.8%	17.6%	0.7
Russell 1000 Value	10.9%	16.3%	0.6
eV US Large Cap Value Equity Gross Median	12.4%	16.1%	0.7

Emerald Advisers Manager Portfolio Overview

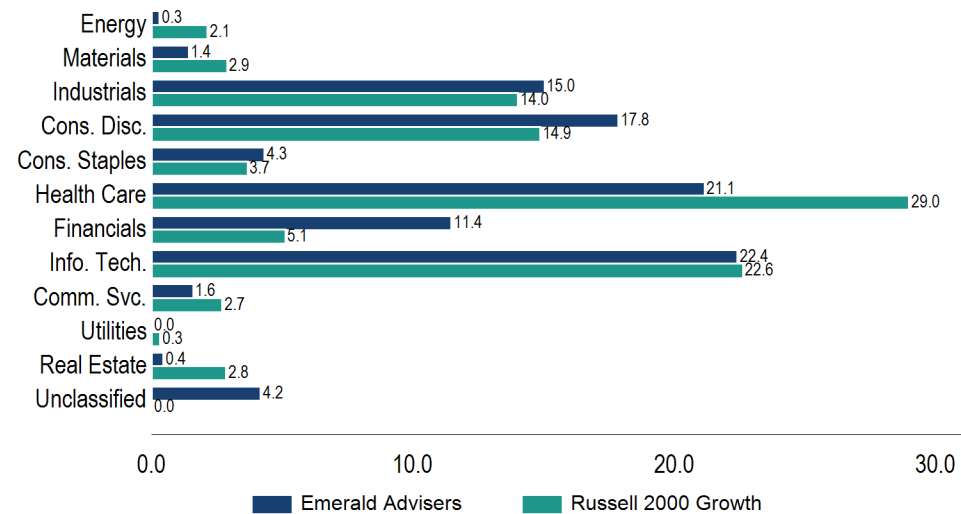
Period Ending: September 30, 2021

Domestic equity small cap growth portfolio of companies with significantly high growth rates. Primary personnel include Kenneth Mertz, Joseph Garner, and Stacey Sears.

Characteristics

	Portfolio	Russell 2000 Growth
Number of Holdings	114	1,224
Weighted Avg. Market Cap. (\$B)	4.23	3.75
Median Market Cap. (\$B)	3.18	1.37
Price To Earnings	28.19	26.10
Price To Book	4.35	5.14
Price To Sales	3.86	2.75
Return on Equity (%)	3.65	-2.21
Yield (%)	0.37	0.42
Beta	0.99	1.00

Sector Allocation (%) vs Russell 2000 Growth



Largest Holdings

	End Weight	Return
CHART INDUSTRIES INC	2.65	30.61
RAPID7 INC	2.58	19.43
MACOM TECHNOLOGY SOLUTIONS HOLDINGS INC	2.23	1.23
PERFICIENT INC	2.10	43.87
VARONIS SYSTEMS INC	1.95	5.61
CHURCHILL DOWNS INC	1.89	21.09
MOELIS & CO	1.85	9.86
NEOGENOMICS INC	1.81	6.80
EVERI HOLDINGS INC	1.67	-3.05
FRESHPET INC	1.64	-12.44

Top Contributors

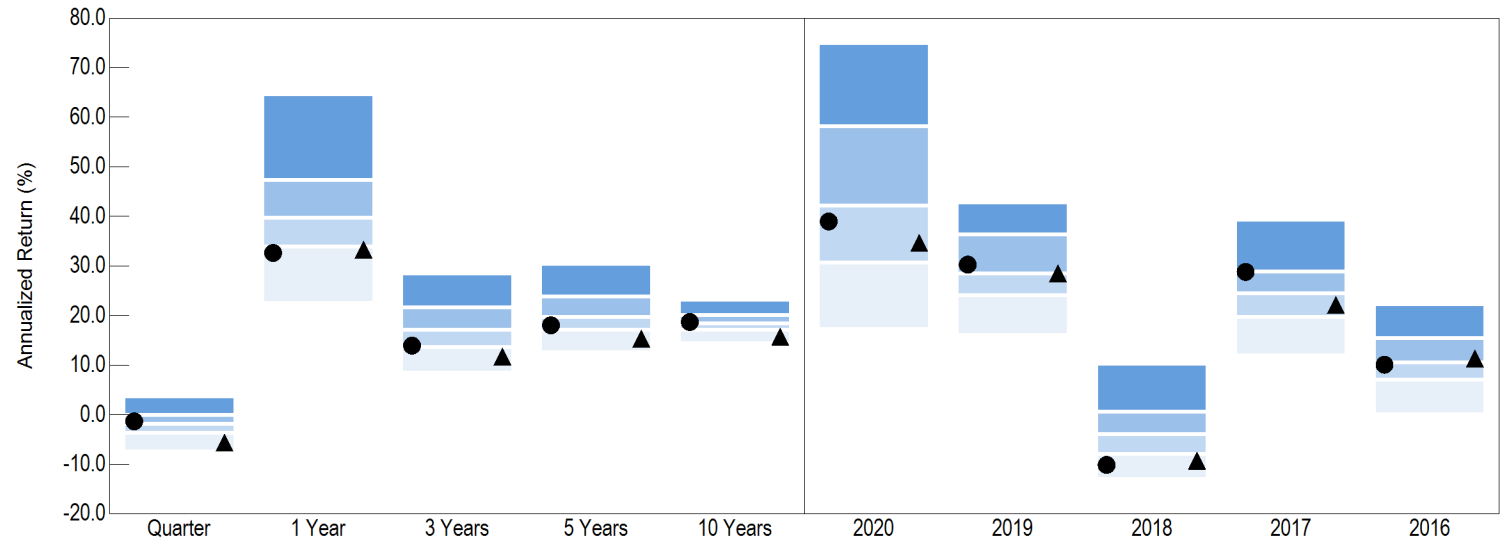
	Avg Wgt	Return	Contribution
CHART INDUSTRIES INC	0.67	30.61	0.21
PERFICIENT INC	0.46	43.87	0.20
RAPID7 INC	0.73	19.43	0.14
ECHO GLOBAL LOGISTICS INC	0.23	55.21	0.13
CHURCHILL DOWNS INC	0.52	21.09	0.11
TETRA TECH INC	0.49	22.55	0.11
TRINET GROUP INC	0.34	30.49	0.10
BRP GROUP INC	0.40	24.92	0.10
DICK'S SPORTING GOODS INC.	0.34	24.91	0.09
GOSSAMER BIO INC	0.13	54.80	0.07

Bottom Contributors

	Avg Wgt	Return	Contribution
MEDIAALPHA INC	0.33	-55.63	-0.18
COMMON STOCK USD	0.45	-28.91	-0.13
REATA PHARMACEUTICALS INC	0.22	-48.69	-0.11
LATHAM GROUP INC	0.58	-18.16	-0.11
CHEGG INC	0.23	-45.98	-0.10
DICERNA PHARMACEUTICALS INC	0.23	-42.99	-0.10
EVERQUOTE INC	0.44	-21.69	-0.10
KRATOS DEFENSE & SECURITY SOLUTIONS INC	0.75	-12.44	-0.09
FRESHPET INC	0.75	-12.44	-0.09

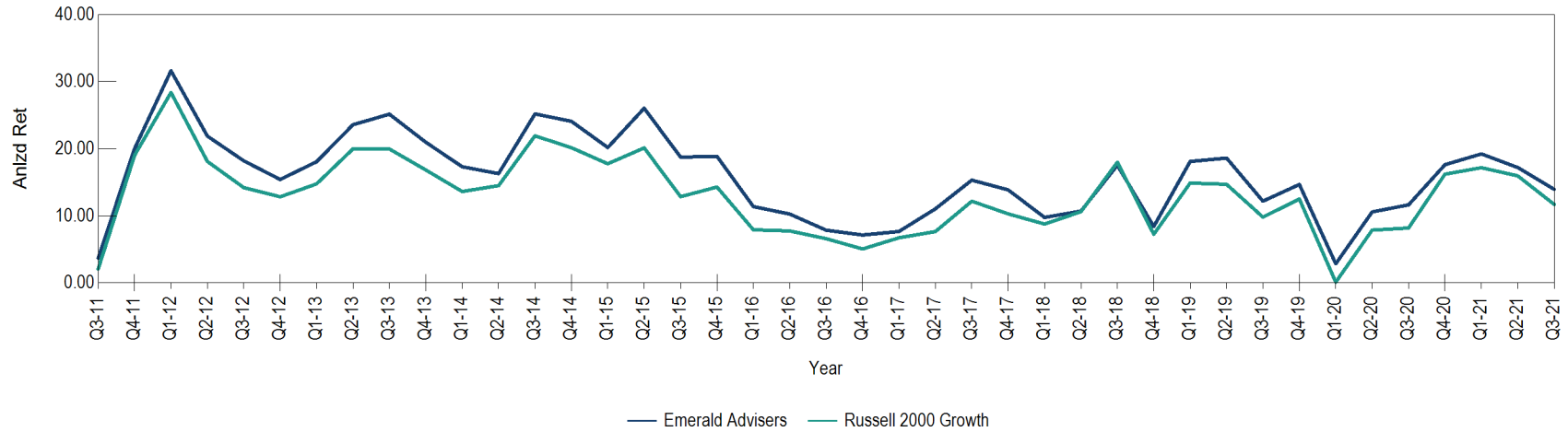
Unclassified sector allocation includes cash allocations.

Emerald Advisers vs. eV US Small Cap Growth Equity Gross Universe

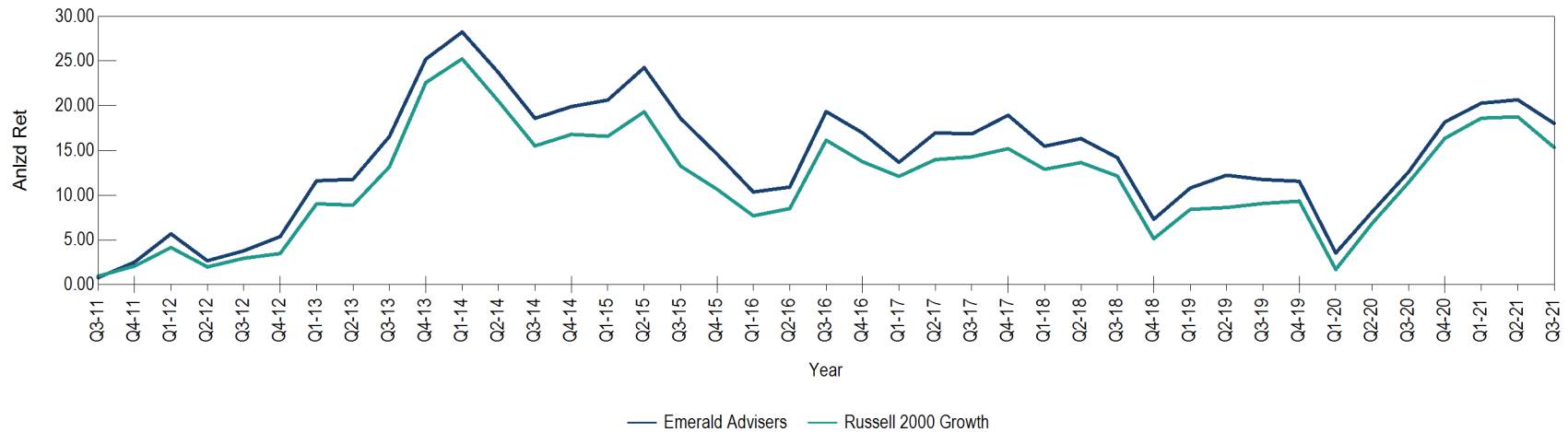


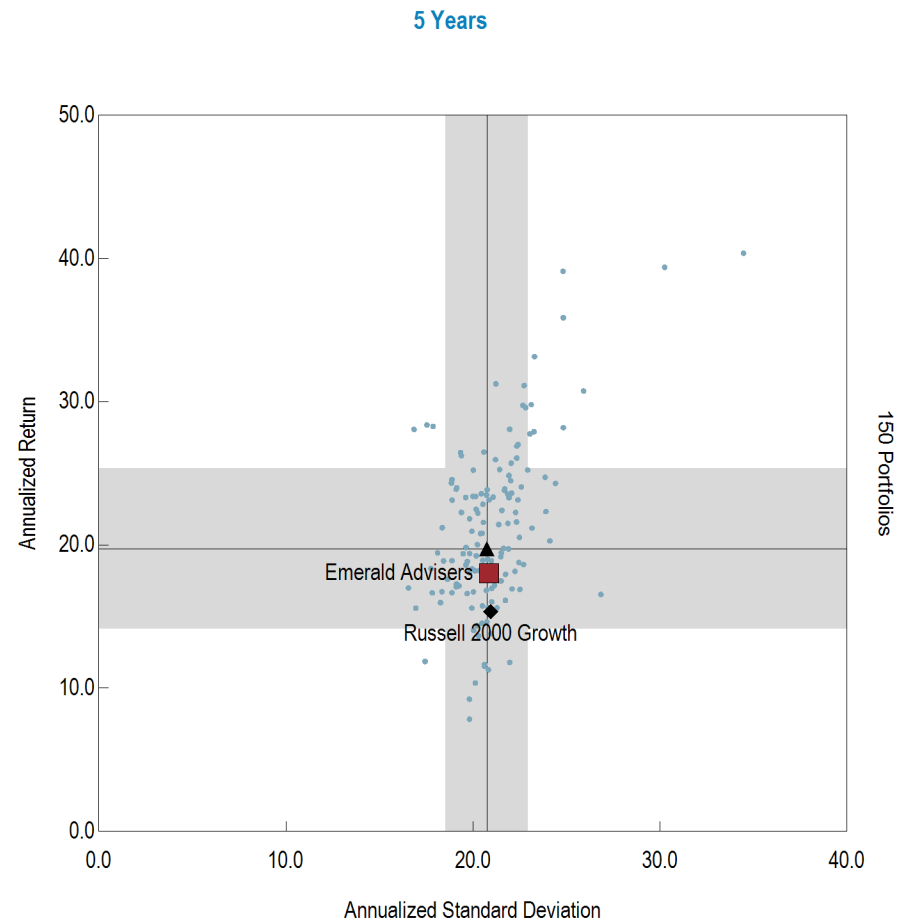
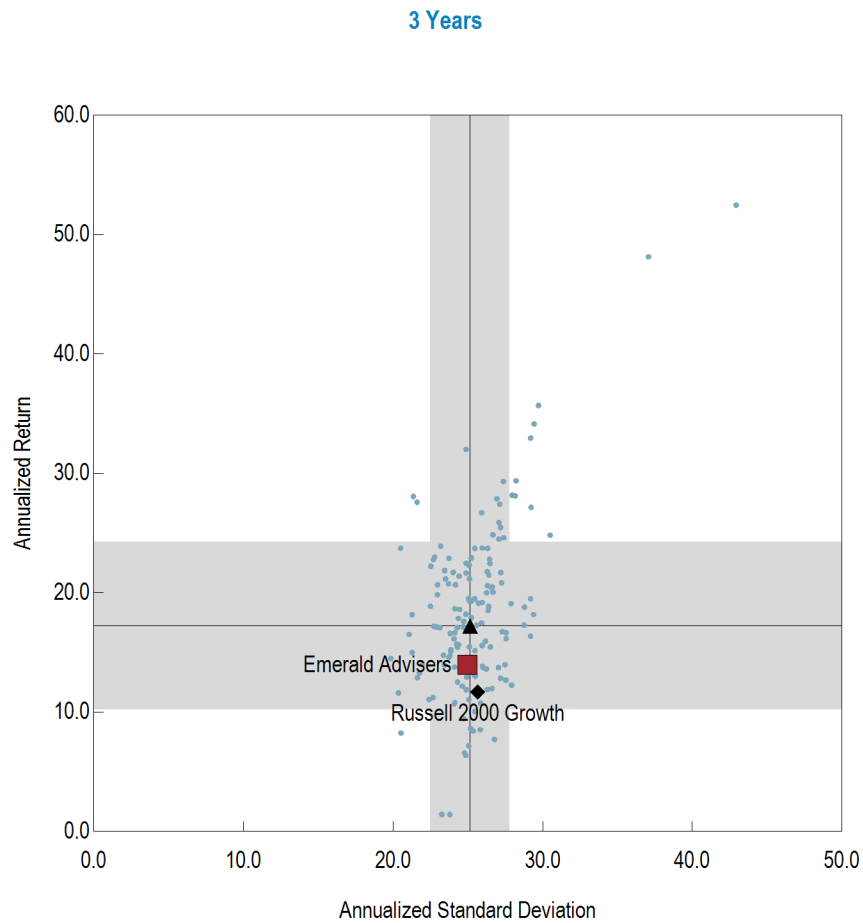
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	3.7	64.6	28.4	30.3	23.1	75.0	42.8	10.2	39.2	22.2
25th Percentile	0.0	47.4	21.7	23.9	20.2	58.3	36.4	0.7	28.9	15.5
Median	-1.7	39.8	17.2	19.7	18.5	42.2	28.5	-3.9	24.6	10.6
75th Percentile	-3.6	34.0	13.8	17.2	17.2	30.8	24.2	-7.9	19.8	7.1
95th Percentile	-7.3	22.6	8.5	12.7	14.5	17.4	16.2	-12.8	12.1	0.2
# of Portfolios	160	160	156	150	134	161	157	164	174	170
● Emerald Advisers	-1.4 (41)	32.6 (79)	13.9 (73)	18.0 (68)	18.7 (48)	39.0 (57)	30.3 (45)	-10.1 (85)	28.8 (26)	10.1 (54)
▲ Russell 2000 Growth	-5.7 (91)	33.3 (79)	11.7 (89)	15.3 (91)	15.7 (88)	34.6 (66)	28.5 (51)	-9.3 (80)	22.2 (62)	11.3 (49)

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)





	3 Years			5 Years			
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	
Emerald Advisers	13.9%	25.0%	0.5	Emerald Advisers	18.0%	20.9%	0.8
Russell 2000 Growth	11.7%	25.7%	0.4	Russell 2000 Growth	15.3%	21.0%	0.7
eV US Small Cap Growth Equity Gross Median	17.2%	25.1%	0.7	eV US Small Cap Growth Equity Gross Median	19.7%	20.8%	0.9

Ceredex Manager Portfolio Overview

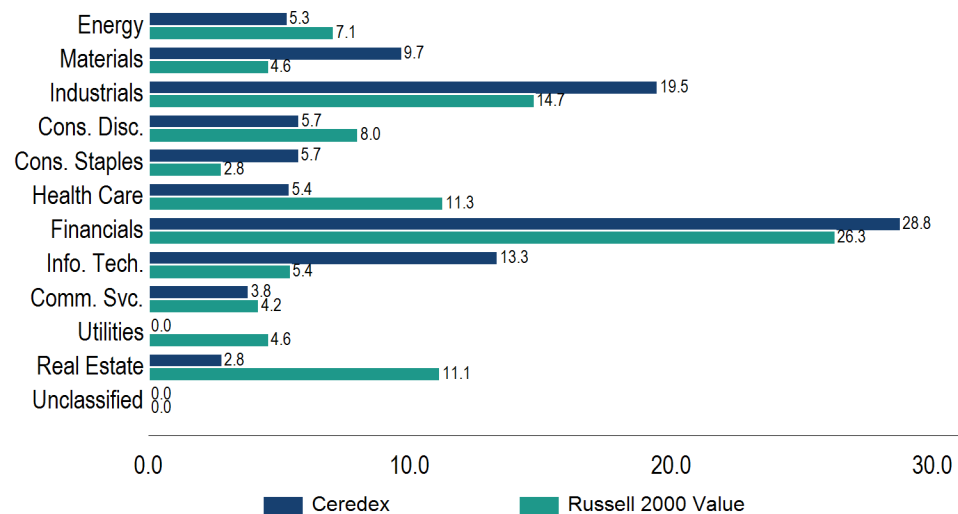
Period Ending: September 30, 2021

Domestic equity small cap value portfolio of companies with dividend yields and low valuations. Primary personnel include Brett Barner and David Maynard.

Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	64	1,426
Weighted Avg. Market Cap. (\$B)	5.76	2.89
Median Market Cap. (\$B)	5.36	1.09
Price To Earnings	18.68	13.82
Price To Book	2.63	1.78
Price To Sales	1.52	1.44
Return on Equity (%)	14.55	3.83
Yield (%)	1.76	1.71
Beta	0.85	1.00

Sector Allocation (%) vs Russell 2000 Value



Largest Holdings

	End Weight	Return
POWER INTEGRATIONS INC	4.24	20.77
OVINTIV INC	3.91	4.90
FIRST CITIZENS BANCSHARES INC	3.90	1.31
APTARGROUP INC.	3.51	-15.01
JEFFERIES FINANCIAL GROUP INC	3.28	9.34
BROOKS AUTOMATION INC	3.28	7.55
EVERCORE INC	3.27	-4.57
KEMPER CORP	3.18	-9.20
STANTEC INC	3.01	5.70
SLM CORP	3.00	-15.81

Top Contributors

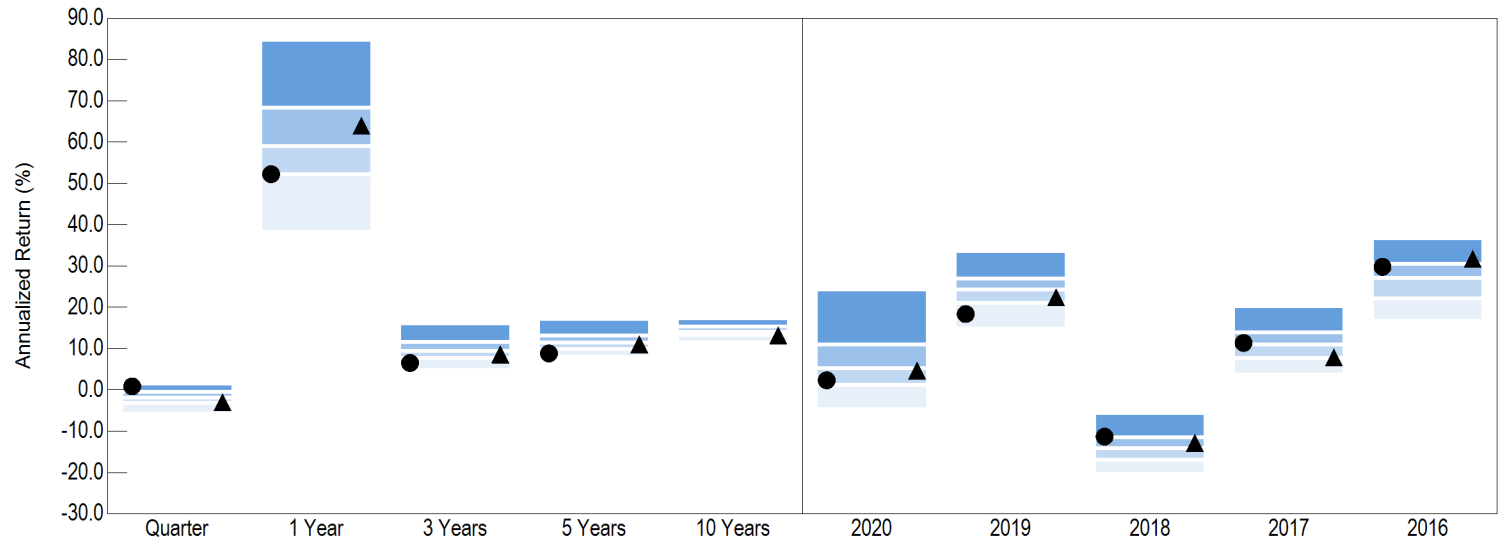
	Avg Wgt	Return	Contribution
ALEXANDER & BALDWIN INC	0.47	28.98	0.14
HILL-ROM HOLDINGS INC	0.35	32.26	0.11
POWER INTEGRATIONS INC	0.47	20.77	0.10
INTERPUBLIC GROUP OF COS INC (THE)	0.63	13.70	0.09
ZIONS BANCORPORATION NA	0.48	17.88	0.09
PENSKE AUTOMOTIVE GROUP INC	0.24	33.95	0.08
LITTELFUSE INC	0.98	7.46	0.07
FIRST HAWAIIAN INC	1.19	4.56	0.05
HEALTHCARE TRUST OF AMERICA INC	0.34	11.09	0.04

Bottom Contributors

	Avg Wgt	Return	Contribution
OWENS & MINOR INC.	1.48	-26.08	-0.39
CALAVO GROWERS INC	0.72	-39.70	-0.28
ENERSYS	0.93	-23.66	-0.22
APTARGROUP INC.	1.20	-15.01	-0.18
KEMPER CORP	1.01	-9.20	-0.09
BARNES GROUP INC	0.48	-18.30	-0.09
MINERALS TECHNOLOGIES INC.	0.78	-11.17	-0.09
SOUTHSTATE CORPORATION	1.05	-8.05	-0.08
ENPRO INDUSTRIES INC.	0.83	-10.05	-0.08
MKS INSTRUMENTS INC	0.53	-15.07	-0.08

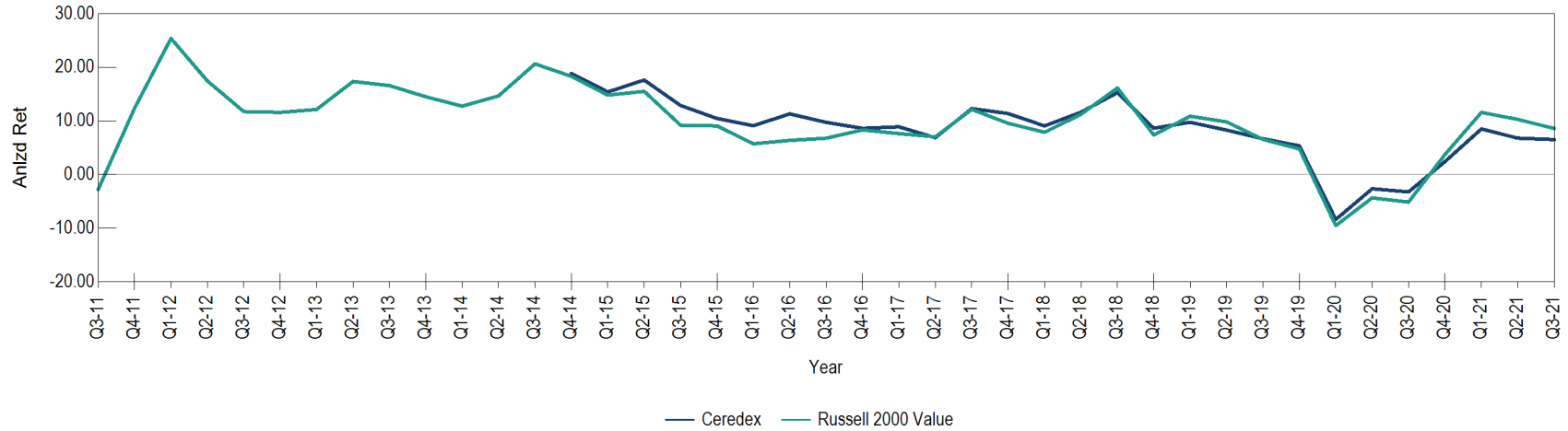
Unclassified sector allocation includes cash allocations.

Ceredex vs. eV US Small Cap Value Equity Gross Universe

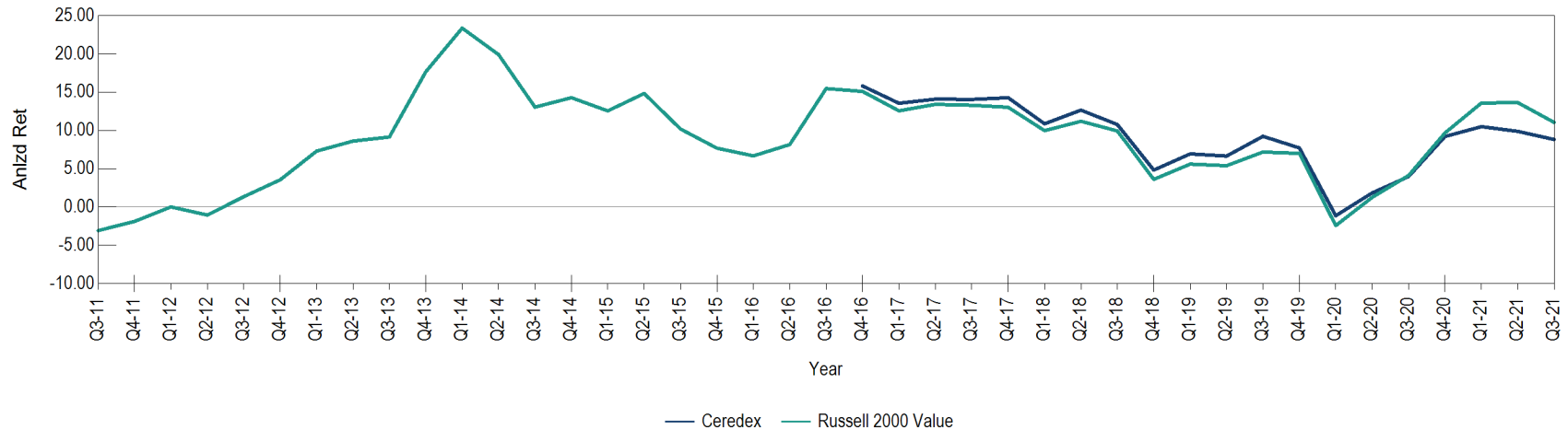


	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	1.5	84.6	16.0	17.1	17.2	24.2	33.6	-5.7	20.2	36.7
25th Percentile	-0.4	68.3	11.6	13.2	15.4	11.1	27.0	-11.4	14.1	30.7
Median	-1.7	59.1	9.6	11.5	14.2	5.3	24.4	-14.0	11.1	27.2
75th Percentile	-3.0	52.3	7.9	10.0	13.3	1.3	21.2	-16.7	7.8	22.2
95th Percentile	-5.6	38.3	4.8	8.1	11.5	-4.6	15.0	-20.2	3.7	16.8
# of Portfolios	212	212	206	198	176	219	217	220	224	222
● Ceredex	0.8 (10)	52.2 (76)	6.5 (89)	8.8 (91)	-- (--)	2.3 (69)	18.4 (87)	-11.3 (25)	11.4 (48)	29.8 (32)
▲ Russell 2000 Value	-3.0 (75)	63.9 (35)	8.6 (64)	11.0 (62)	13.2 (76)	4.6 (53)	22.4 (69)	-12.9 (39)	7.8 (75)	31.7 (17)

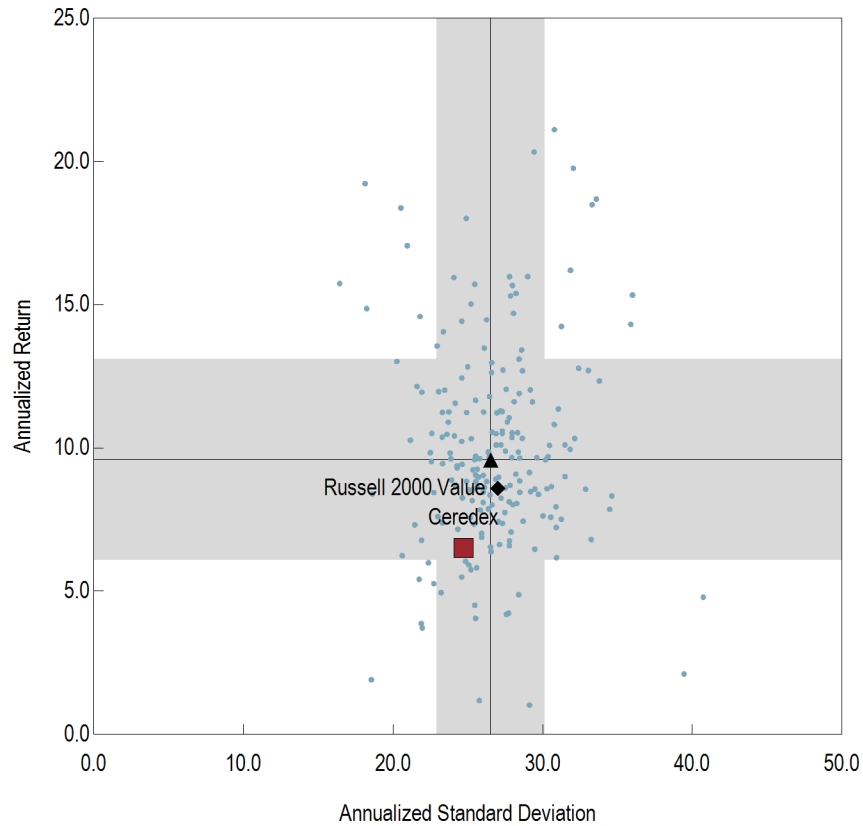
Rolling 3 Year Annualized Return (%)



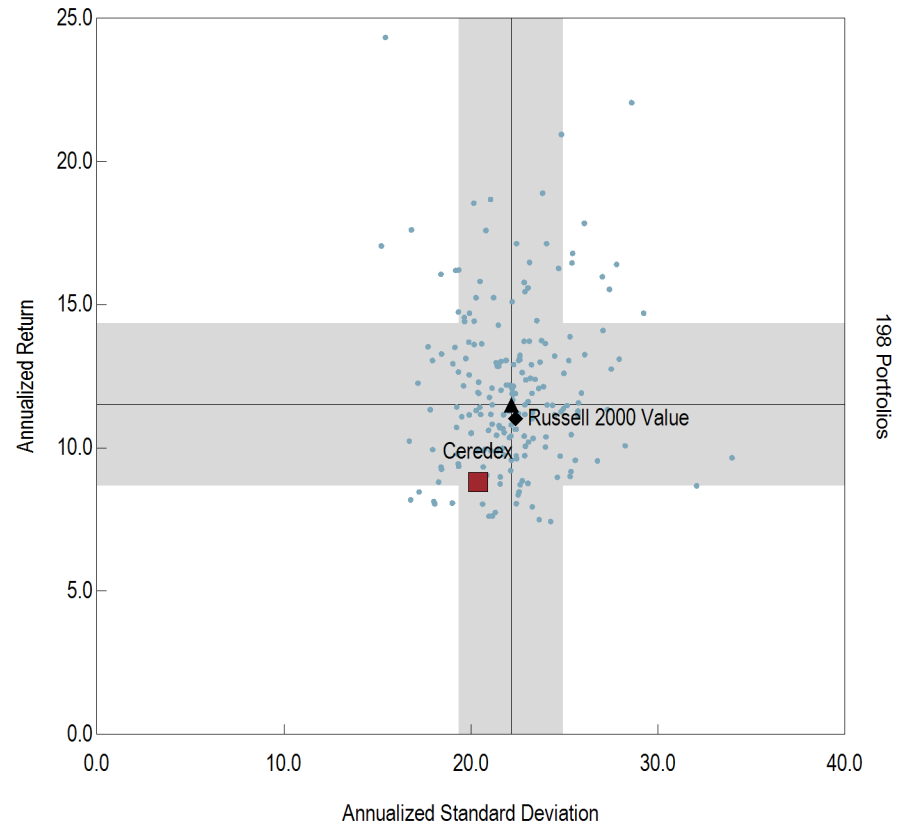
Rolling 5 Year Annualized Return (%)



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Ceredex	6.5%	24.7%	0.2
Russell 2000 Value	8.6%	27.0%	0.3
eV US Small Cap Value Equity Gross Median	9.6%	26.5%	0.3

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Ceredex	8.8%	20.4%	0.4
Russell 2000 Value	11.0%	22.4%	0.4
eV US Small Cap Value Equity Gross Median	11.5%	22.2%	0.5

International Equity Managers

Pyrford Manager Portfolio Overview

Period Ending: September 30, 2021

International equity value portfolio of non-US companies with low valuations at the country and stock level. Primary personnel include Tony Cousins, Daniel McDonagh, and Paul Simons.

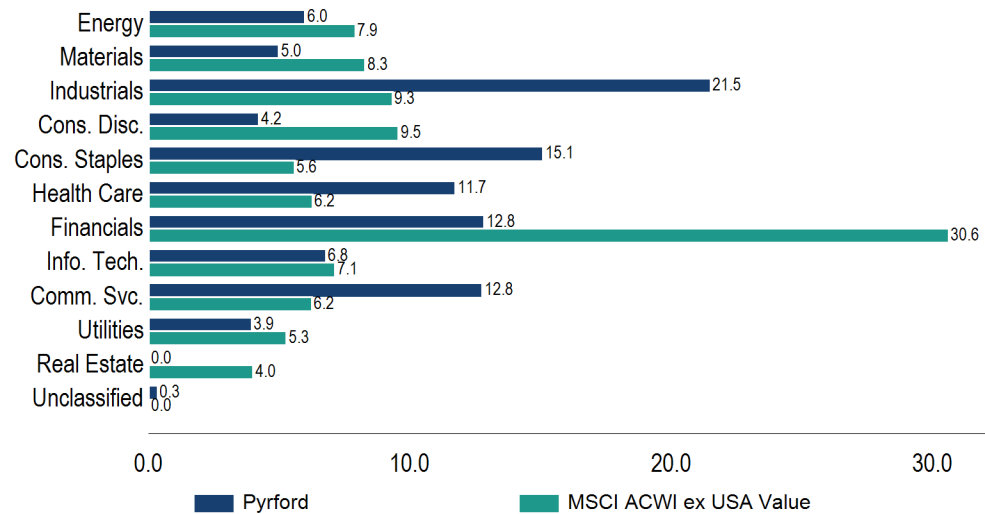
Characteristics

	MSCI ACWI Portfolio	MSCI ACWI ex USA Value
Number of Holdings	71	1,495
Weighted Avg. Market Cap. (\$B)	66.28	62.47
Median Market Cap. (\$B)	28.09	9.46
Price To Earnings	17.13	11.44
Price To Book	2.34	1.85
Price To Sales	1.81	0.95
Return on Equity (%)	15.78	10.24
Yield (%)	3.86	3.84
Beta	0.71	1.00

Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	91.4%	69.8%
Emerging*	8.6%	30.2%
Top 10 Largest Countries		
United Kingdom	17.3%	10.8%
Japan	14.7%	15.7%
Switzerland	11.4%	4.2%
Australia	9.5%	4.4%
Germany	9.3%	7.0%
France	7.3%	7.1%
Singapore	6.2%	0.7%
Hong Kong	4.4%	1.7%
Malaysia*	3.2%	0.4%
Taiwan*	3.1%	4.3%
Total-Top 10 Largest Countries	86.5%	56.4%

Sector Allocation (%) vs MSCI ACWI ex USA Value



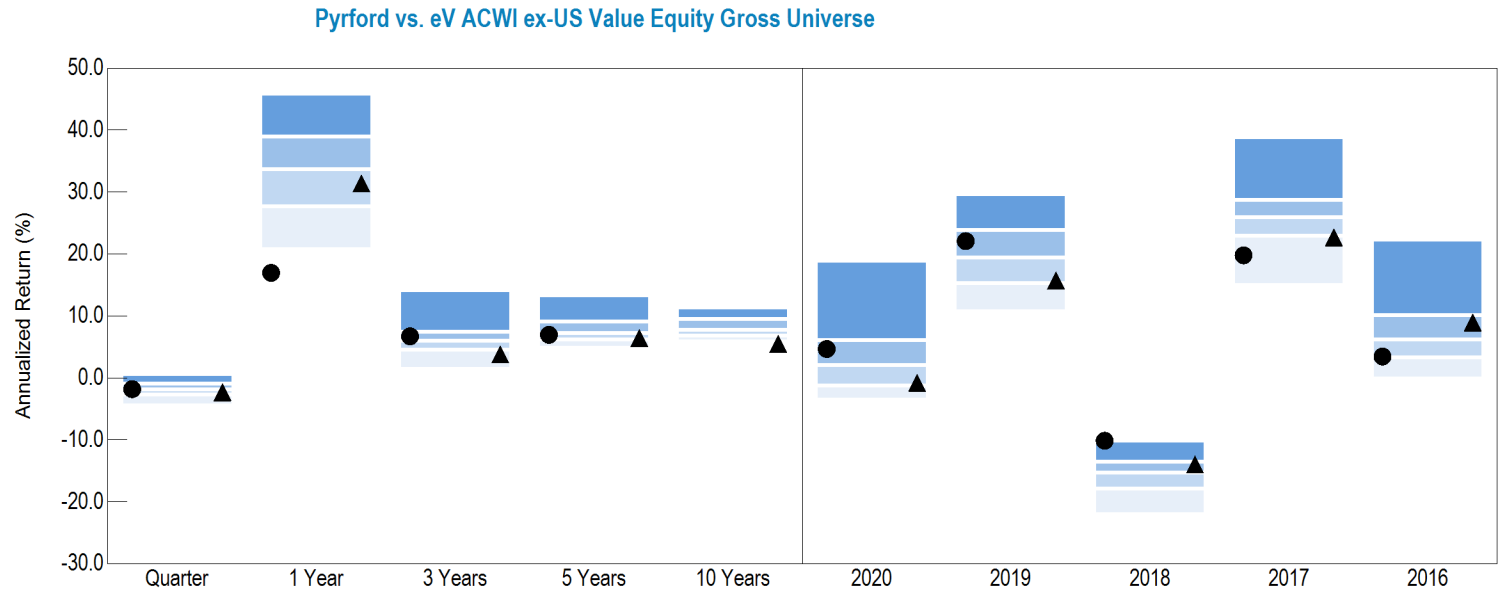
Top Contributors

	Avg Wgt	Return	Contribution
NIHON KOHDEN CORP	1.73	19.87	0.34
ROYAL DUTCH SHELL PLC	1.31	16.65	0.22
TELEKOMUNIKASI INDONESIA	0.98	19.18	0.19
KDDI CORP	2.39	7.68	0.18
LEGAL & GENERAL GROUP PLC	1.96	8.71	0.17
SAMPO PLC	1.72	8.22	0.14
SINGAPORE TELECOMMUNICATIONS LTD	1.79	7.61	0.14
JAPAN TOBACCO INC	3.27	3.83	0.13
COMPUTERSHARE LTD C:PII	2.05	5.66	0.12

Bottom Contributors

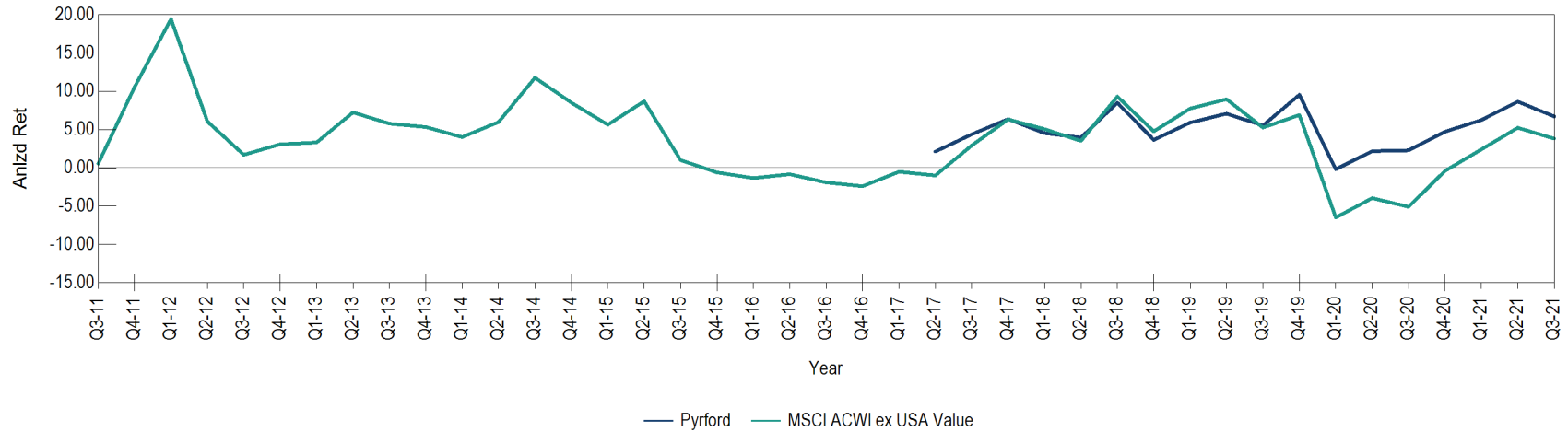
	Avg Wgt	Return	Contribution
VTECH HOLDINGS LTD	1.14	-25.34	-0.29
RUBIS SA, PARIS	1.09	-22.06	-0.24
NOVARTIS AG	2.25	-9.72	-0.22
RIO TINTO GROUP	1.01	-18.74	-0.19
BRAMBLES LTD	2.20	-7.99	-0.18
KONINKLIJKE VOPAK NV	1.28	-13.22	-0.17
DEUTSCHE POST AG	2.16	-7.15	-0.15
L'AIR LIQUIDE SA	1.85	-8.26	-0.15
SANOFI	1.85	-8.09	-0.15
FIELMANN AG, HAMBURG	1.15	-12.97	-0.15

Unclassified sector allocation includes cash allocations.

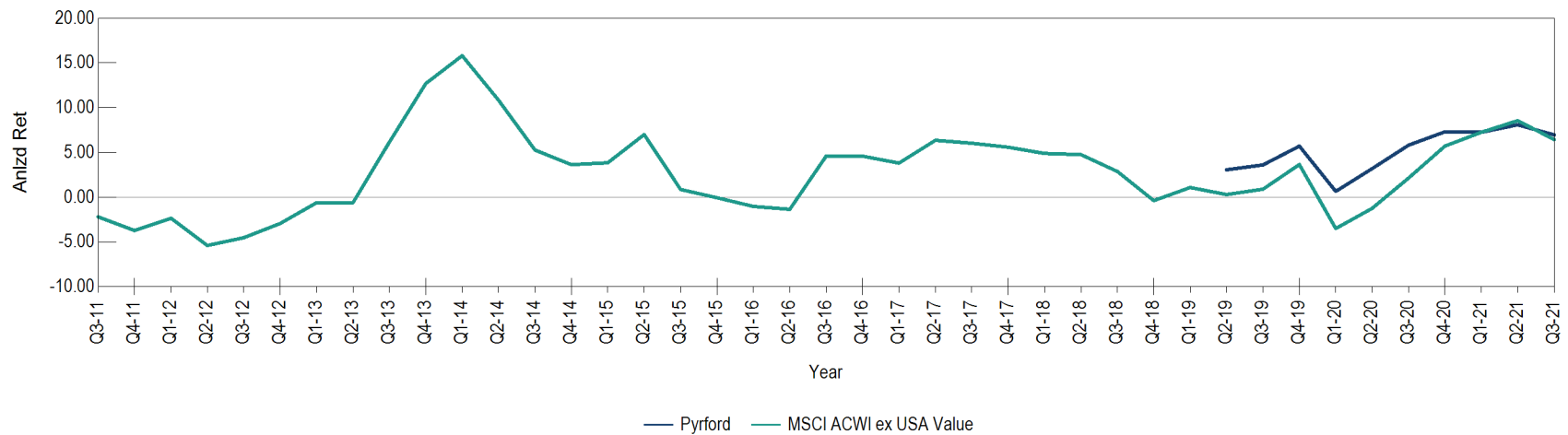


	Return (Rank)									
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	0.6	45.8	14.1	13.3	11.3	18.8	29.6	-10.2	38.8	22.3
25th Percentile	-0.9	39.0	7.5	9.1	9.6	6.2	24.0	-13.4	28.8	10.2
Median	-1.8	33.7	6.0	7.3	7.8	2.1	19.5	-15.2	26.0	6.2
75th Percentile	-2.7	27.7	4.6	6.3	6.9	-1.2	15.4	-17.9	23.0	3.3
95th Percentile	-4.4	20.8	1.5	5.0	6.0	-3.5	10.8	-21.9	15.0	-0.1
# of Portfolios	46	46	46	44	27	49	52	54	56	55
● Pyrford	-1.8 (48)	16.9 (99)	6.7 (45)	7.0 (57)	-- (--)	4.7 (33)	22.1 (35)	-10.1 (5)	19.8 (84)	3.4 (74)
▲ MSCI ACWI ex USA Value	-2.3 (63)	31.4 (63)	3.8 (87)	6.4 (70)	5.5 (99)	-0.8 (73)	15.7 (74)	-14.0 (32)	22.7 (77)	8.9 (35)

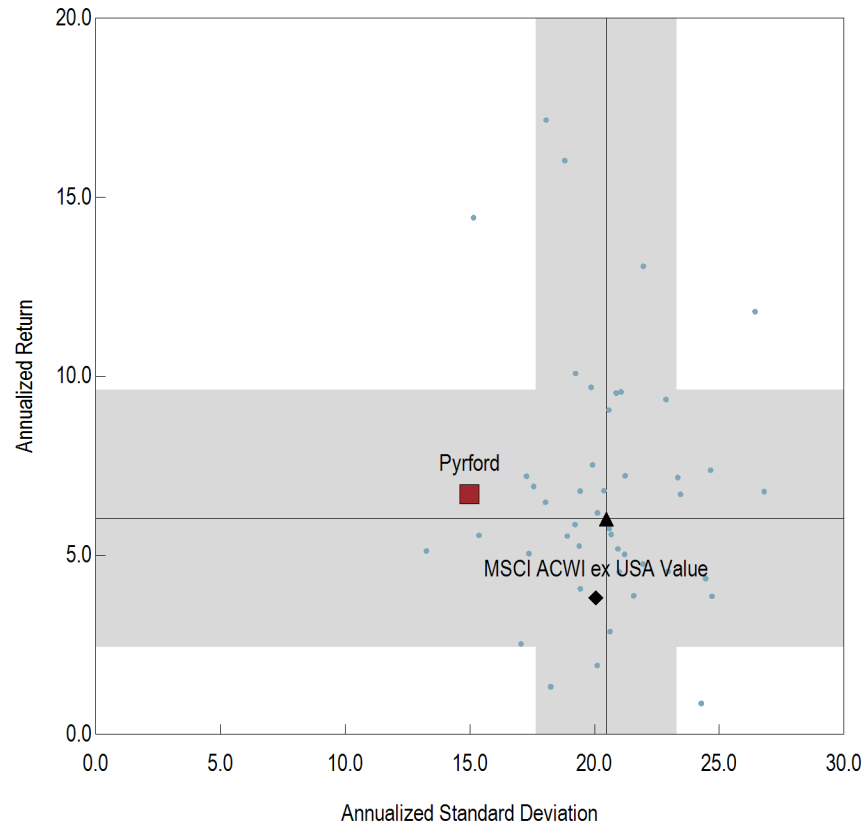
Rolling 3 Year Annualized Return (%)



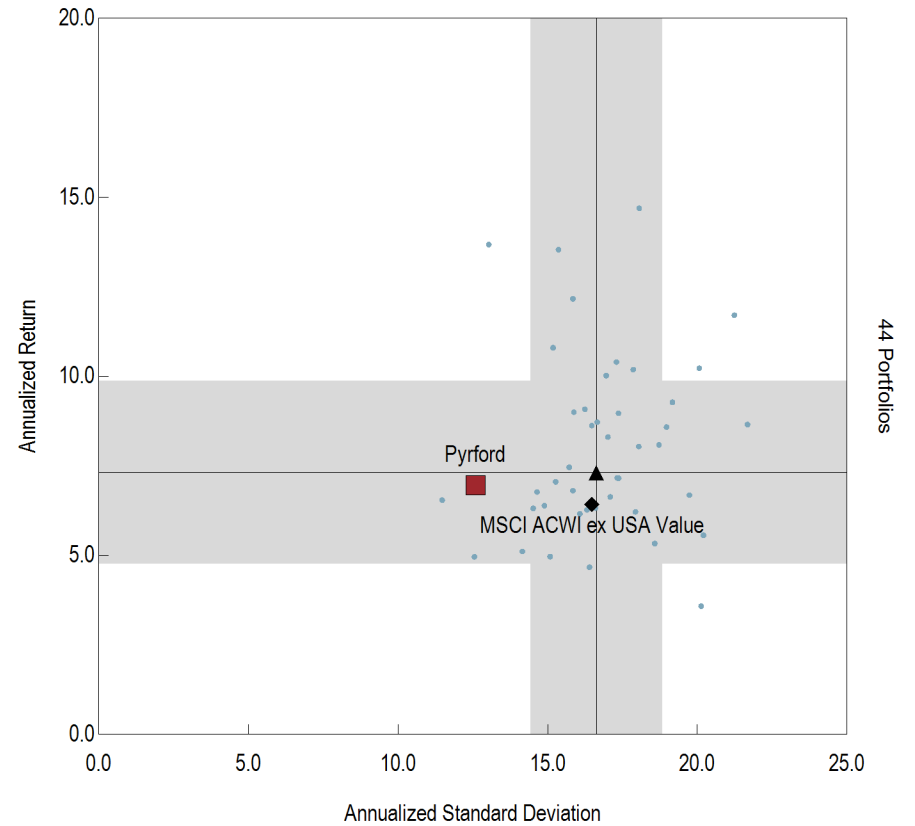
Rolling 5 Year Annualized Return (%)



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Pyrford	6.7%	15.0%	0.4
MSCI ACWI ex USA Value	3.8%	20.0%	0.1
eV ACWI ex-US Value Equity Gross Median	6.0%	20.5%	0.3

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Pyrford	7.0%	12.6%	0.5
MSCI ACWI ex USA Value	6.4%	16.5%	0.3
eV ACWI ex-US Value Equity Gross Median	7.3%	16.6%	0.4

William Blair Manager Portfolio Overview

Period Ending: September 30, 2021

International equity growth portfolio of non-US companies with high growth rates constructed from the security level. Primary personnel include Simon Fennell and Kenneth McAtamney.

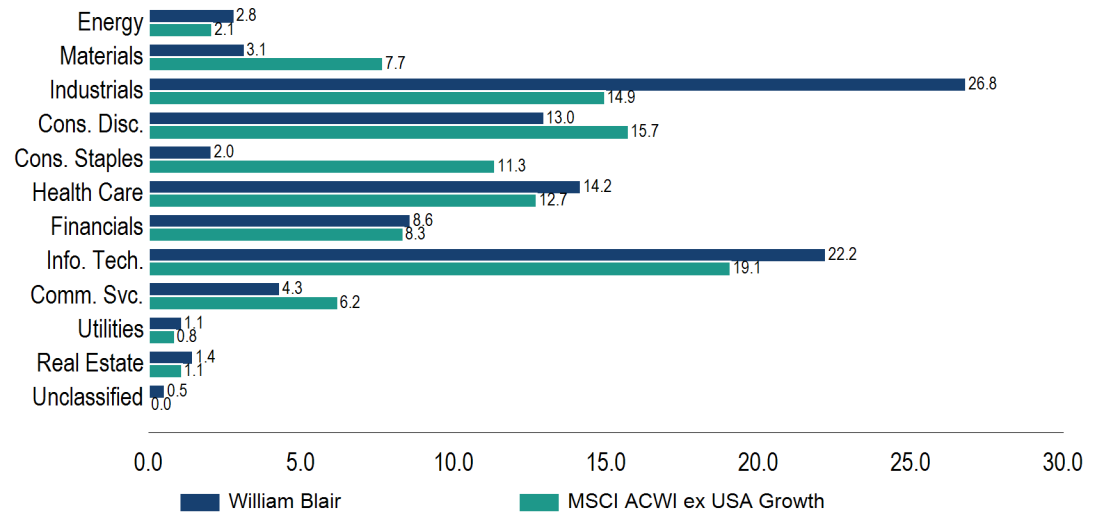
Characteristics

	Portfolio	MSCI ACWI ex USA Growth
Number of Holdings	191	1,167
Weighted Avg. Market Cap. (\$B)	74.56	125.66
Median Market Cap. (\$B)	12.30	10.98
Price To Earnings	39.04	25.09
Price To Book	6.18	3.97
Price To Sales	6.05	3.07
Return on Equity (%)	16.39	17.18
Yield (%)	0.79	1.49
Beta	1.16	1.00

Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	81.3%	71.1%
Emerging*	18.7%	28.9%
Top 10 Largest Countries		
United Kingdom	10.9%	7.5%
Japan	10.5%	15.0%
France	9.4%	7.2%
Switzerland	7.3%	7.8%
Sweden	6.9%	3.4%
Netherlands	6.6%	4.7%
China*	6.4%	10.0%
Germany	5.5%	4.6%
India*	4.6%	3.6%
Denmark	4.2%	2.9%
Total-Top 10 Largest Countries	72.6%	66.5%

Sector Allocation (%) vs MSCI ACWI ex USA Growth



Top Contributors

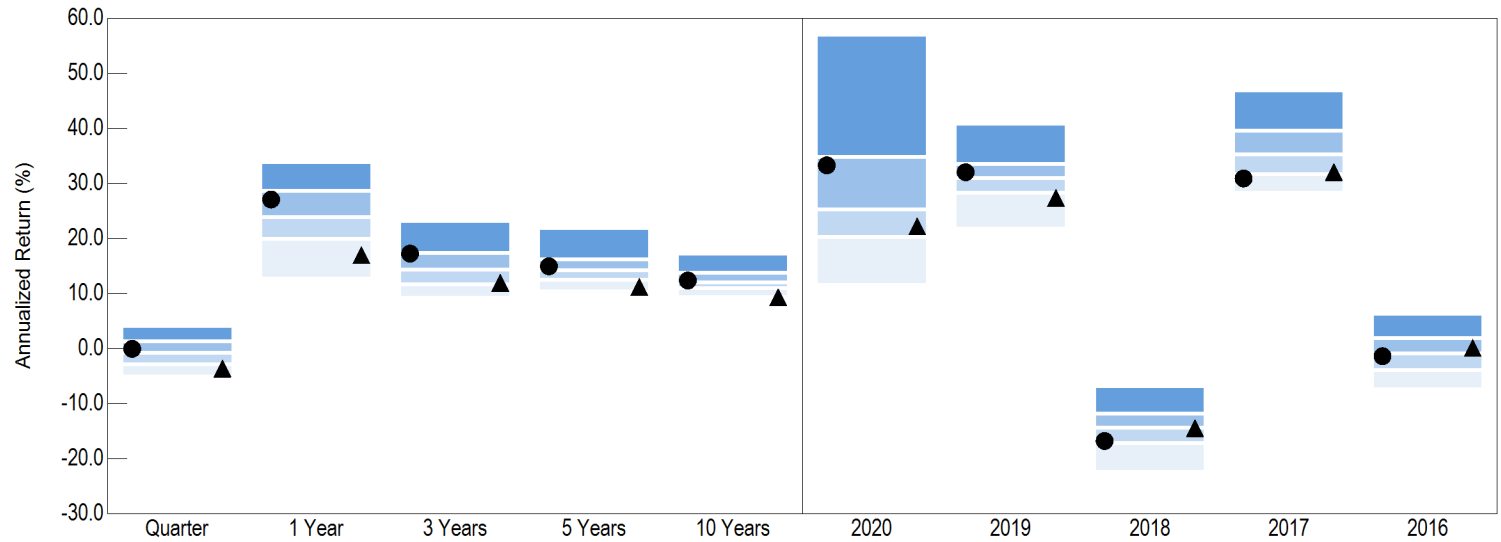
	Avg Wgt	Return	Contribution
ATLISSIAN CORP PLC	0.64	52.39	0.33
RELIANCE INDUSTRIES LTD	1.40	19.62	0.28
KEYENCE CORP	1.03	19.05	0.20
ICON PLC	0.71	26.76	0.19
PT BANK CENTRAL ASIA TBK	1.03	18.20	0.19
OMRON CORP	0.70	25.83	0.18
ASML HOLDING NV	1.98	8.97	0.18
DAIKIN INDUSTRIES LTD	0.88	18.06	0.16
ADYEN N.V	1.08	14.57	0.16
CANADIAN NATIONAL RAILWAY CO	1.48	10.40	0.15

Bottom Contributors

	Avg Wgt	Return	Contribution
ALIBABA GROUP HOLDING LTD	1.24	-35.52	-0.44
PING AN INSURANCE GROUP	1.02	-28.81	-0.29
TENCENT HOLDINGS LTD	1.39	-21.19	-0.29
KERING	1.36	-18.30	-0.25
KAKAO CORP	0.77	-30.75	-0.24
WIX.COM LTD	0.59	-32.49	-0.19
NETEASE INC	0.64	-25.22	-0.16
TAL EDUCATION GROUP	0.18	-80.82	-0.15
LVMH MOET HENNESSY LOUIS VUITTON SE	1.68	-8.34	-0.14
AIER EYE HOSPITAL GROUP CO LTD	0.56	-24.62	-0.14

Unclassified sector allocation includes cash allocations.

William Blair vs. eV ACWI ex-US Growth Equity Gross Universe

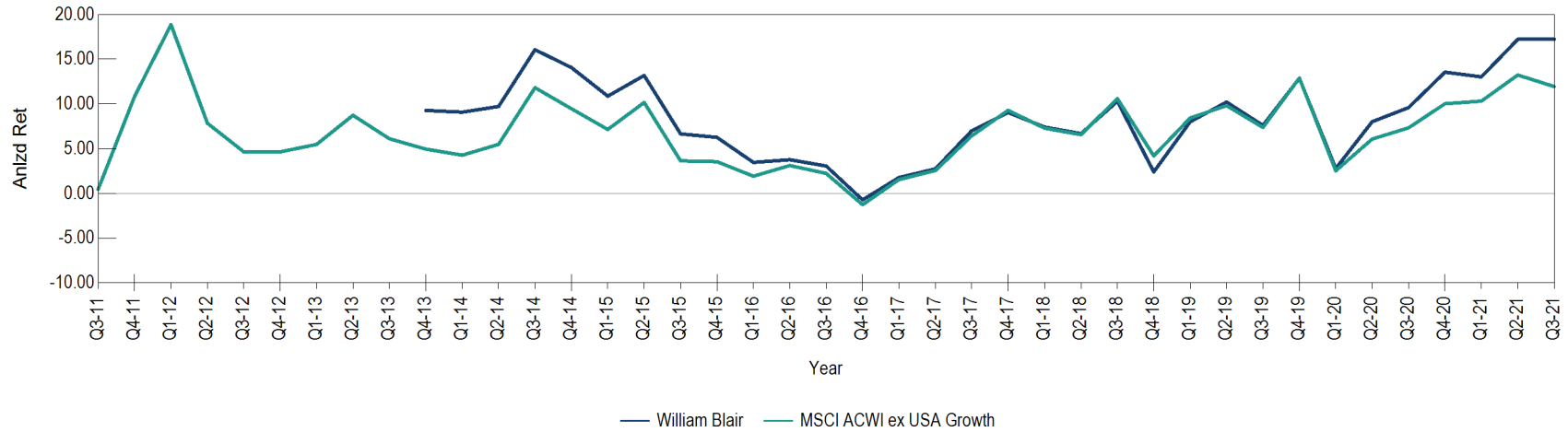


	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	4.1	33.8	23.1	21.9	17.2	57.0	40.8	-6.8	46.8	6.3
25th Percentile	1.4	28.7	17.4	16.3	13.8	34.8	33.6	-11.7	39.6	2.0
Median	-0.7	23.9	14.4	14.3	12.1	25.4	31.0	-14.3	35.3	-0.9
75th Percentile	-2.8	19.9	11.8	12.5	11.0	20.3	28.3	-17.2	31.8	-3.9
95th Percentile	-5.0	12.7	9.3	10.4	9.4	11.6	21.8	-22.3	28.3	-7.4
# of Portfolios	98	98	92	84	58	95	93	82	94	90
● William Blair	0.0 (42)	27.1 (32)	17.2 (29)	14.9 (38)	12.3 (44)	33.3 (30)	32.0 (39)	-16.8 (69)	30.9 (81)	-1.4 (55)
▲ MSCI ACWI ex USA Growth	-3.6 (84)	17.0 (86)	11.9 (75)	11.2 (88)	9.3 (97)	22.2 (64)	27.3 (80)	-14.4 (51)	32.0 (75)	0.1 (45)

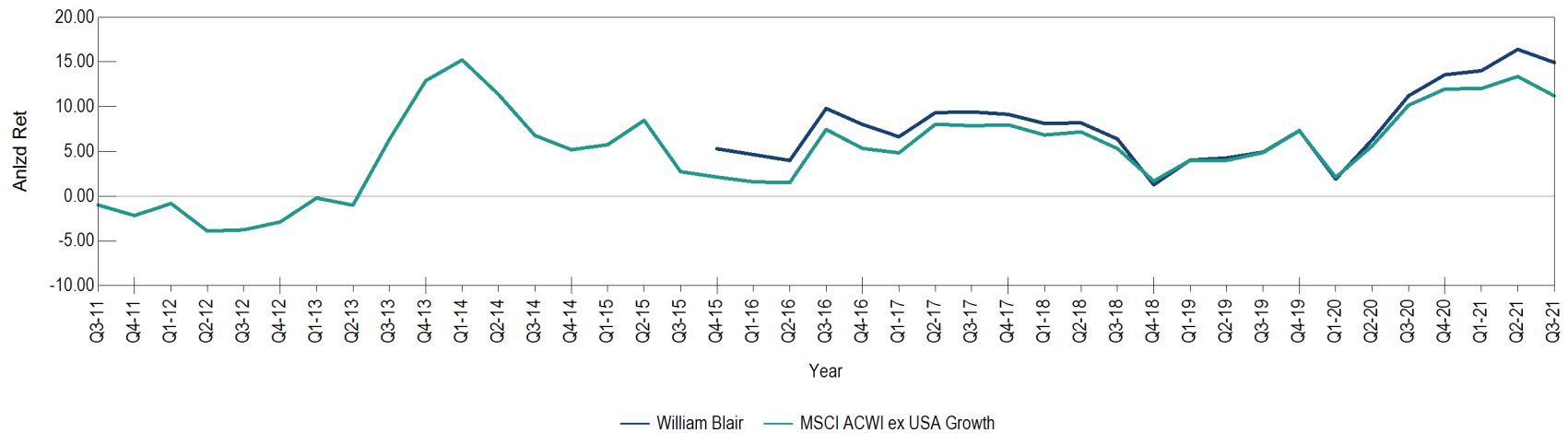
William Blair
 Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2021

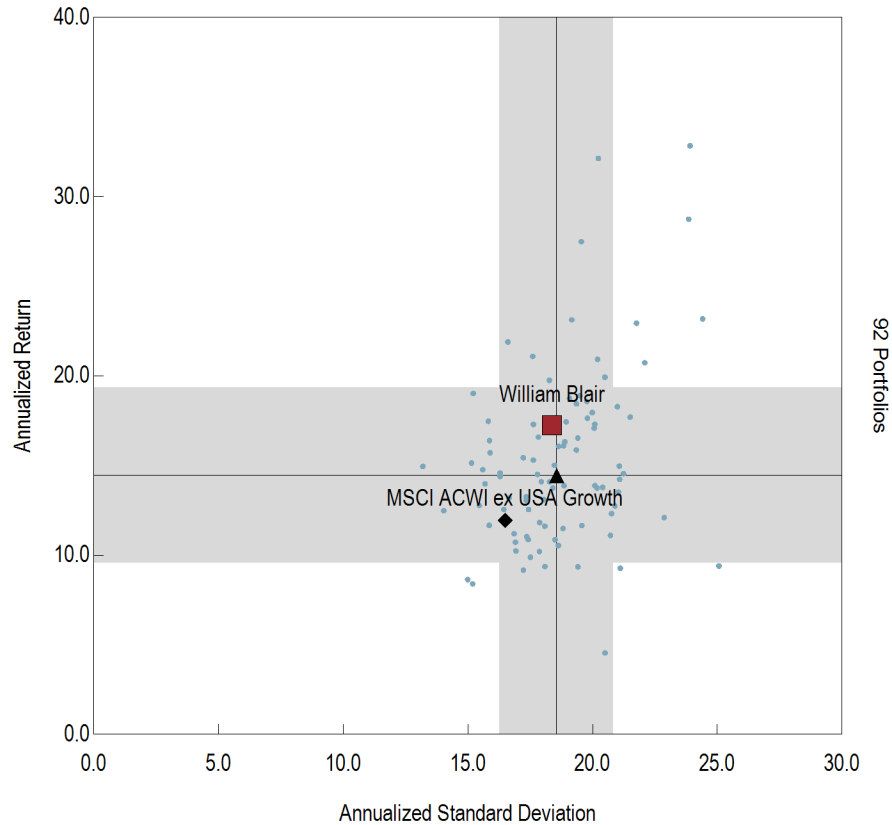
Rolling 3 Year Annualized Return (%)



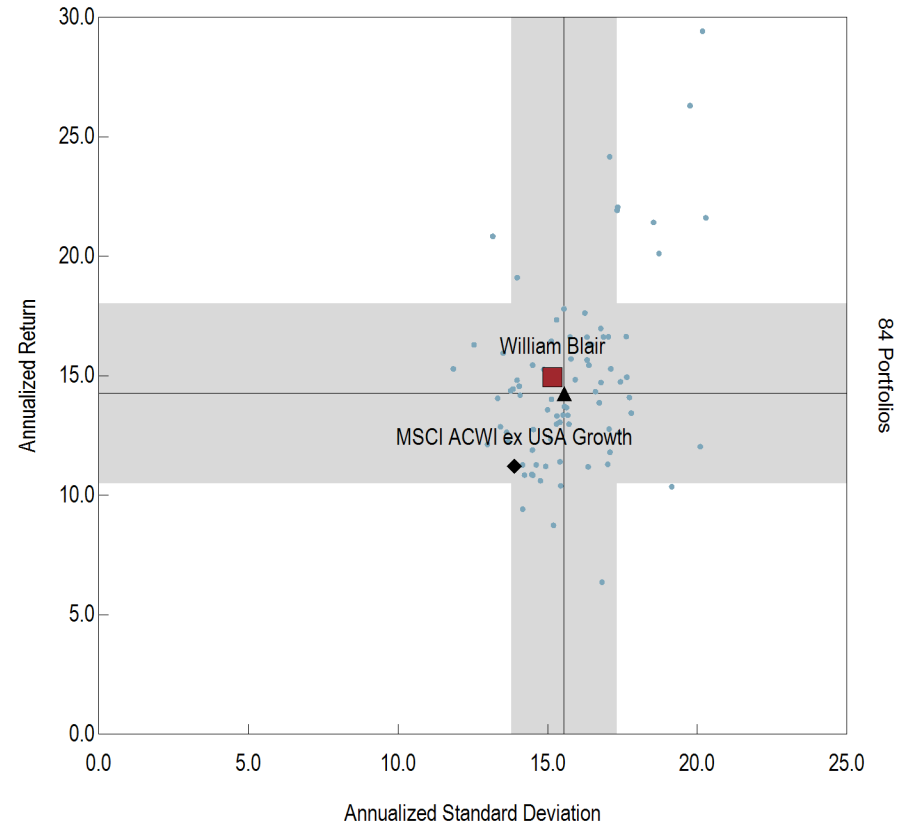
Rolling 5 Year Annualized Return (%)



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
William Blair	17.2%	18.4%	0.9
MSCI ACWI ex USA Growth	11.9%	16.5%	0.7
eV ACWI ex-US Growth Equity Gross Median	14.4%	18.6%	0.8

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
William Blair	14.9%	15.2%	0.9
MSCI ACWI ex USA Growth	11.2%	13.9%	0.7
eV ACWI ex-US Growth Equity Gross Median	14.3%	15.6%	0.8

PIMCO RAE Emerging Markets Manager Portfolio Overview

Period Ending: September 30, 2021

The PIMCO RAE Emerging Markets seeks to invest 80% of its assets in investments that are economically tied to emerging market countries. The portfolio is sub-advised by Research Affiliates, LLC.

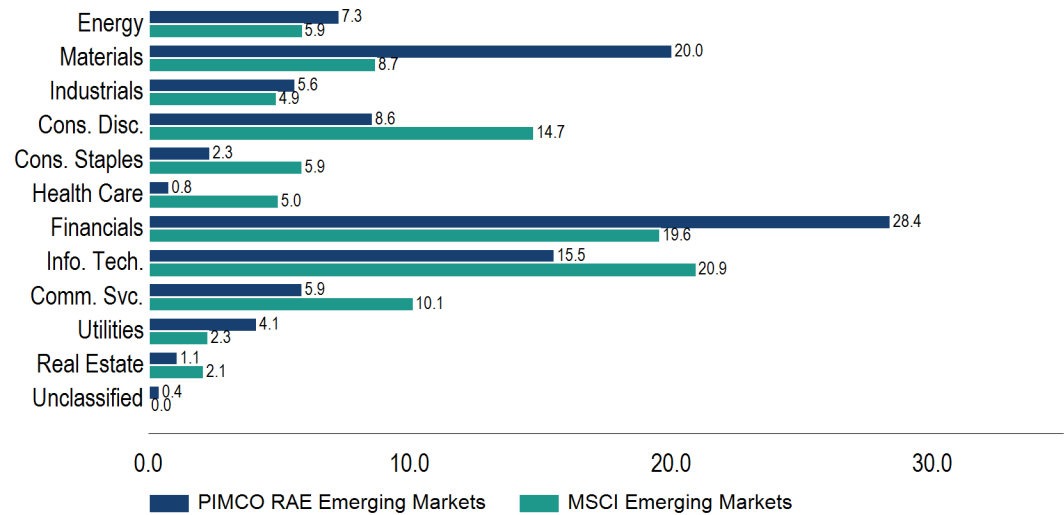
Characteristics

	Portfolio	MSCI Emerging Markets
Number of Holdings	386	1,415
Weighted Avg. Market Cap. (\$B)	23.56	136.24
Median Market Cap. (\$B)	4.77	7.14
Price To Earnings	7.33	13.31
Price To Book	1.70	2.77
Price To Sales	0.50	1.46
Return on Equity (%)	11.59	13.44
Yield (%)	4.51	2.54
Beta	1.14	1.00

Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	4.3%	0.0%
Emerging*	95.7%	100.0%
Top 10 Largest Countries		
India*	15.5%	12.2%
Brazil*	14.0%	4.5%
Taiwan*	12.1%	14.8%
Korea*	11.4%	12.7%
China*	10.0%	34.1%
Russia*	8.0%	3.6%
Mexico*	6.2%	1.9%
South Africa*	6.0%	3.2%
Thailand*	5.7%	1.6%
Hong Kong	4.1%	0.0%
Total-Top 10 Largest Countries	92.9%	88.5%

Sector Allocation (%) vs MSCI Emerging Markets



Top Contributors

	End Weight	Return	Contribution
CHINA RESOURCES POWER HOLDINGS CO LTD	0.64	113.93	0.73
UNITED MICROELECTRONICS CORP	2.50	24.57	0.61
VEDANTA LTD	2.02	16.46	0.33
AMERICA MOVIL SA DE CV, MEXICO	1.67	19.78	0.33
SIAM COMMERCIAL BANK PUBLIC CO LTD	1.50	20.64	0.31
MTN GROUP LTD	1.00	30.29	0.30
HINDALCO INDUSTRIES LTD	0.82	32.34	0.27
OIL & NATURAL GAS CORP LTD	1.02	24.95	0.25

Bottom Contributors

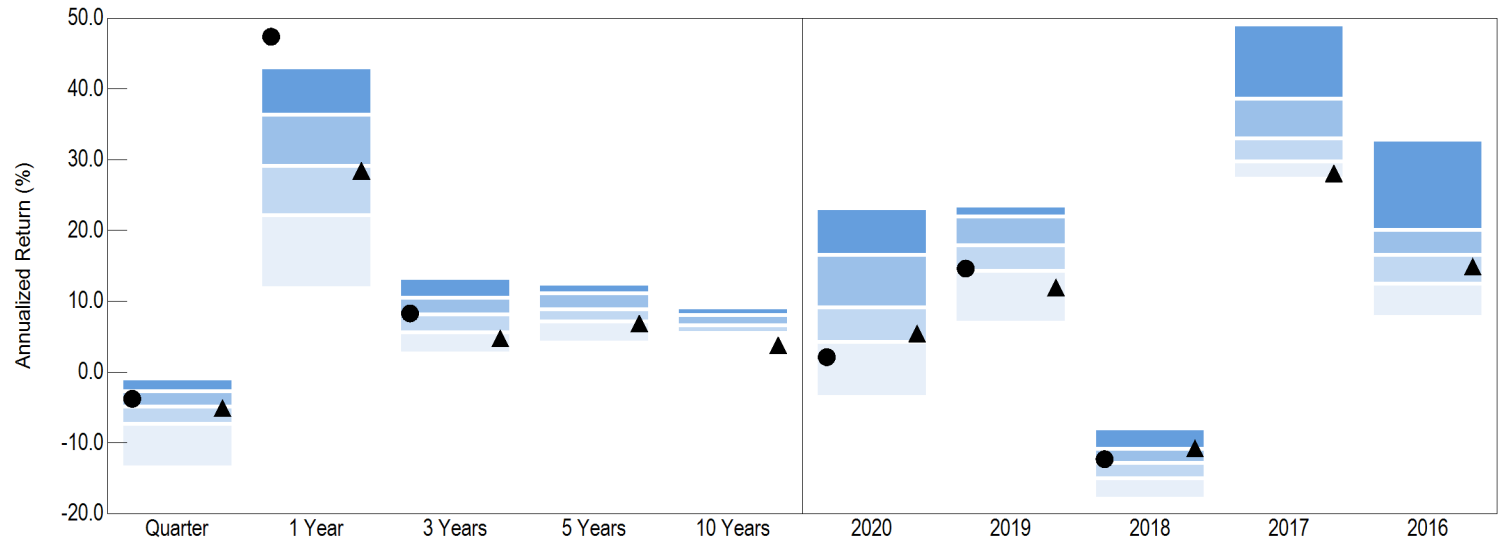
	End Weight	Return	Contribution
BANCO BRADESCO SA BRAD	2.00	-23.31	-0.47
BANCO DO BRASIL ON	2.33	-15.31	-0.36
LG ELECTRONICS INC	1.13	-25.41	-0.29
CEMEX SAB DE CV	1.86	-13.98	-0.26
ITAU UNIBANCO HOLDING PN	2.66	-9.75	-0.26
KIA CORPORATION	1.66	-13.31	-0.22
VALE SA	0.63	-31.25	-0.20
AU OPTRONICS	0.90	-21.87	-0.20
CIELO SA	0.47	-41.40	-0.20
INNOLUX CORP	1.14	-16.10	-0.18

Unclassified sector allocation includes cash allocations.

PIMCO RAE Emerging Markets
 Manager Performance Comparisons (Gross of Fees)

Period Ending: September 30, 2021

PIMCO RAE Emerging Markets vs. eV Emg Mkts All Cap Value Equity Gross Universe



	Return (Rank)															
5th Percentile	-0.9	43.0	13.2	12.4	9.1	23.1	23.5	-7.9	49.0	32.8						
25th Percentile	-2.6	36.4	10.5	11.2	8.1	16.6	22.1	-10.8	38.6	20.1						
Median	-4.8	29.1	8.2	8.9	6.7	9.2	18.0	-12.7	33.0	16.6						
75th Percentile	-7.2	22.2	5.7	7.2	5.6	4.3	14.4	-14.9	29.8	12.6						
95th Percentile	-13.4	11.9	2.7	4.3	5.3	-3.4	7.0	-17.8	27.4	7.8						
# of Portfolios	32	32	28	25	15	37	33	36	37	38						
● PIMCO RAE Emerging Markets	-3.8 (43)	47.4 (4)	8.3 (49)	-- (--)	-- (--)	2.1 (85)	14.6 (72)	-12.3 (44)	-- (--)	-- (--)						
▲ MSCI Emerging Markets Value NR	-5.1 (57)	28.4 (52)	4.8 (87)	6.9 (77)	3.8 (99)	5.5 (73)	12.0 (86)	-10.7 (25)	28.1 (90)	14.9 (59)						

TT Emerging Markets Manager Portfolio Overview

Period Ending: September 30, 2021

The Emerging Markets Unconstrained strategy aims to outperform its benchmark, MSCI Emerging Markets Index by 5% per annum over a three-year rolling period. It targets high returns and long term capital growth by investing in a focused portfolio of primarily equity and equity-related securities traded in the Emerging Markets.

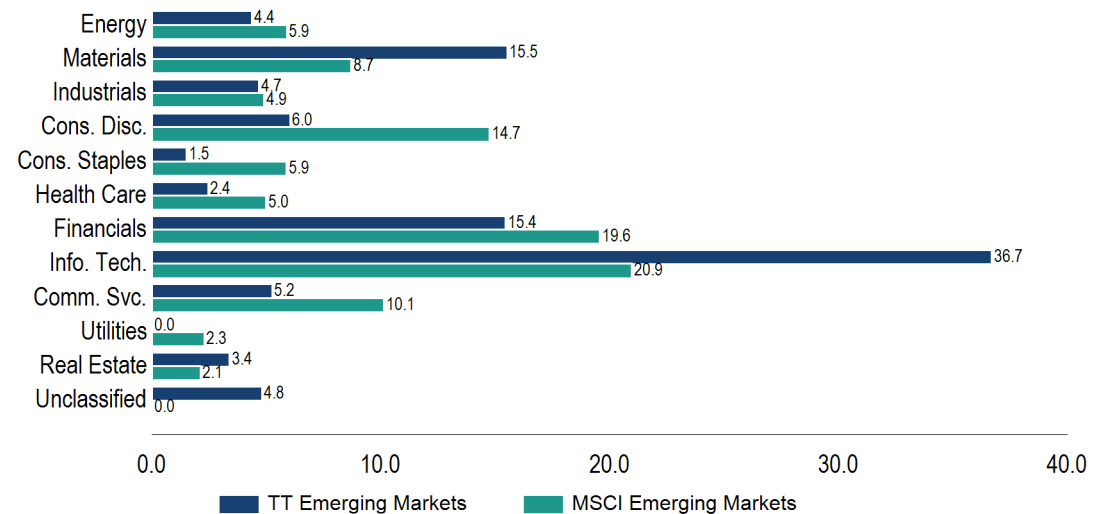
Characteristics

	Portfolio	MSCI Emerging Markets
Number of Holdings	73	1,415
Weighted Avg. Market Cap. (\$B)	137.54	136.24
Median Market Cap. (\$B)	17.16	7.14
Price To Earnings	12.55	13.31
Price To Book	2.96	2.77
Price To Sales	1.51	1.46
Return on Equity (%)	14.91	13.44
Yield (%)	2.19	2.54
Beta	1.18	1.00

Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	14.5%	0.0%
Emerging*	84.5%	100.0%
Frontier**	1.0%	0.0%
Top 10 Largest Countries		
China*	23.5%	34.1%
Taiwan*	18.0%	14.8%
Korea*	14.1%	12.7%
India*	8.9%	12.2%
Netherlands	7.8%	0.0%
Brazil*	6.0%	4.5%
Hong Kong	3.5%	0.0%
Russia*	3.1%	3.6%
Turkey*	3.0%	0.3%
United Kingdom	2.9%	0.0%
Total-Top 10 Largest Countries	92.8%	82.0%

Sector Allocation (%) vs MSCI Emerging Markets



Top Contributors

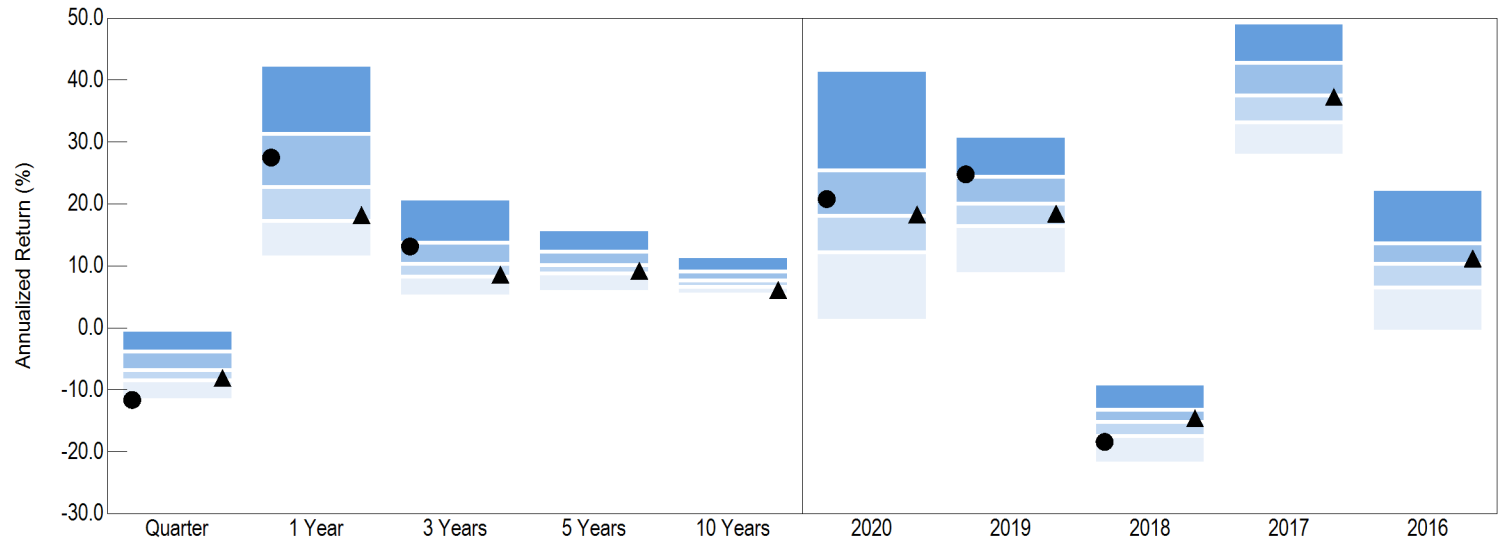
	End Weight	Return	Contribution
BEIJING JINGYUNTONG TECHNOLOGY CO LTD	1.72	22.85	0.39
OCI NV	1.63	21.57	0.35
GAZPROM	0.99	35.11	0.35
GAZPROM PJSC	0.86	34.85	0.30
ICICI BANK	2.43	11.65	0.28
SINOMA SCIENCE & TECHNOLOGY CO LTD	0.70	35.54	0.25
OIL & NATURAL GAS CORP LTD	0.95	24.95	0.24
HANSOL CHEMICAL	0.68	35.01	0.24
VEON LTD	1.37	13.66	0.19
TKI.GARANTI BKSI.	1.54	8.84	0.14

Bottom Contributors

	End Weight	Return	Contribution
360 DIGITECH INC	1.61	-51.43	-0.83
TENCENT HOLDINGS LTD	3.87	-21.19	-0.82
AMERICANAS S A	1.17	-56.83	-0.66
VNET GROUP INC	2.30	-24.58	-0.56
SK HYNIX INC	2.39	-22.73	-0.54
ALIBABA GROUP HOLDING LTD	1.43	-35.52	-0.51
A-LIVING ORD H	1.76	-28.51	-0.50
SAMSUNG ELECTRONICS CO LTD	3.73	-11.74	-0.44
DELTA ELECTRONICS INC	2.88	-15.08	-0.43
IMPALA PLATINUM HOLDINGS LTD	1.52	-25.69	-0.39

Unclassified sector allocation includes cash allocations.

TT Emerging Markets vs. eV Emg Mkts Equity Gross Universe



	Return (Rank)									
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	-0.4	42.5	20.9	15.9	11.5	41.6	30.9	-9.0	49.2	22.4
25th Percentile	-3.7	31.4	13.8	12.3	9.1	25.5	24.4	-13.2	42.8	13.7
Median	-6.7	22.8	10.3	10.2	7.7	18.2	20.1	-15.2	37.6	10.4
75th Percentile	-8.4	17.3	8.3	8.9	6.6	12.2	16.5	-17.4	33.2	6.6
95th Percentile	-11.6	11.4	5.1	5.9	5.4	1.2	8.8	-21.8	27.8	-0.6
# of Portfolios	390	388	359	321	200	391	386	355	343	337
● TT Emerging Markets	-11.6 (95)	27.5 (33)	13.1 (31)	-- (--)	-- (--)	20.8 (39)	24.8 (24)	-18.4 (83)	-- (--)	-- (--)
▲ MSCI Emerging Markets	-8.1 (70)	18.2 (72)	8.6 (70)	9.2 (66)	6.1 (84)	18.3 (49)	18.4 (63)	-14.6 (43)	37.3 (53)	11.2 (45)

Global Equity Managers

Artisan Partners Manager Portfolio Overview

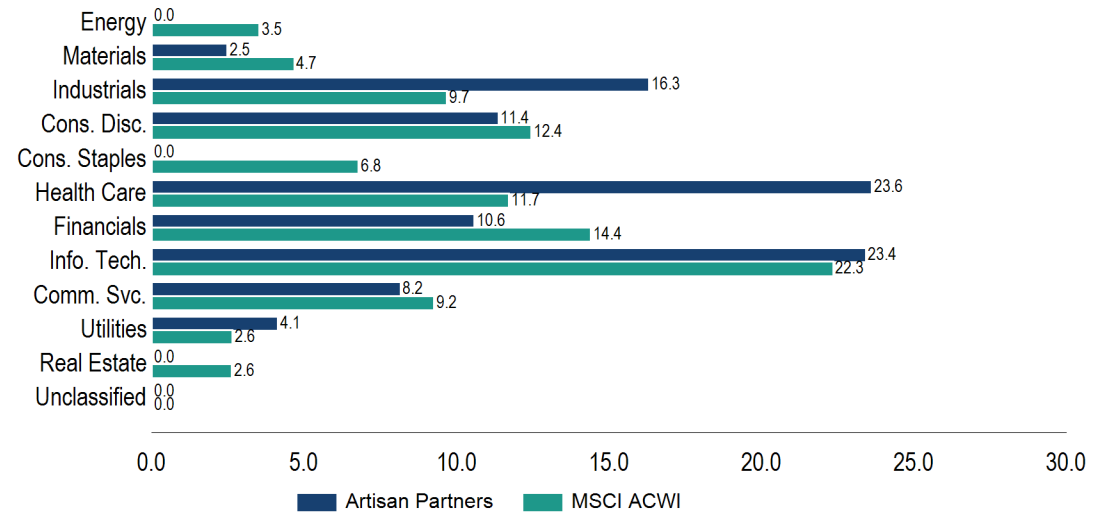
Period Ending: September 30, 2021

Global equity portfolio of companies that is benchmark agnostic with accelerating profit cycles and a focus on capital allocation. Primary personnel include James Hamel, Craig Cepukenas, and Matthew Kamm.

Characteristics

	Portfolio	MSCI ACWI
Number of Holdings	45	2,973
Weighted Avg. Market Cap. (\$B)	178.57	353.48
Median Market Cap. (\$B)	56.08	13.68
Price To Earnings	33.42	20.42
Price To Book	5.61	3.66
Price To Sales	5.51	2.32
Return on Equity (%)	14.58	19.54
Yield (%)	0.86	1.88
Beta	0.98	1.00

Sector Allocation (%) vs MSCI ACWI



Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	99.1%	88.1%
Emerging*	0.9%	11.9%
Top 10 Largest Countries		
United States	48.6%	59.6%
United Kingdom	10.7%	3.7%
Hong Kong	7.6%	0.8%
Switzerland	6.8%	2.4%
Sweden	4.8%	0.9%
Japan	4.0%	6.2%
Canada	3.7%	2.9%
Australia	3.1%	1.8%
Denmark	3.1%	0.7%
Spain	2.9%	0.6%
Total-Top 10 Largest Countries	95.3%	79.5%

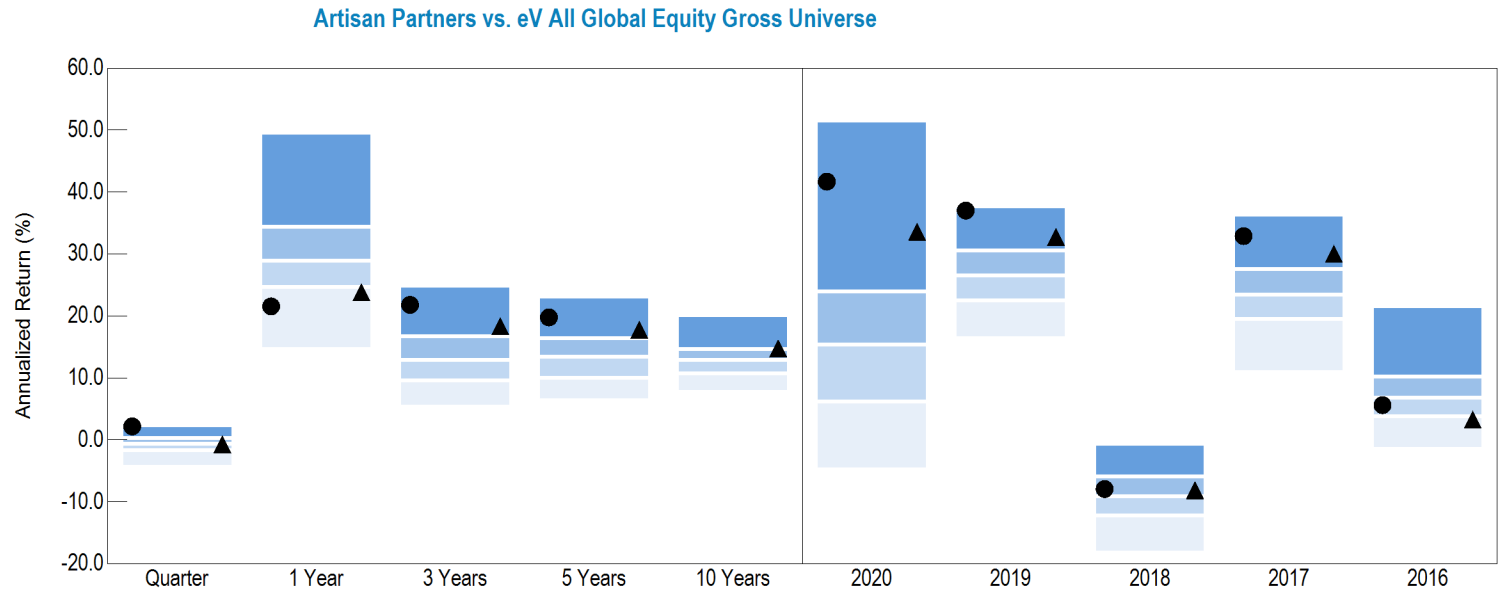
Top Contributors

	Avg Wgt	Return	Contribution
ATLASSIAN CORP PLC	2.46	52.39	1.29
TECHTRONIC INDUSTRIES CO LTD	5.19	14.66	0.76
DANAHER CORP	3.27	13.52	0.44
DEXCOM INC	1.48	28.07	0.41
ADVANCED MICRO DEVICES INC	4.14	9.55	0.40
HOYA CORP	1.91	18.34	0.35
NETFLIX INC	1.97	15.55	0.31
KEYENCE CORP	1.51	19.05	0.29
ALPHABET INC	2.76	9.49	0.26
NEXTERA ENERGY INC	2.95	7.64	0.23

Bottom Contributors

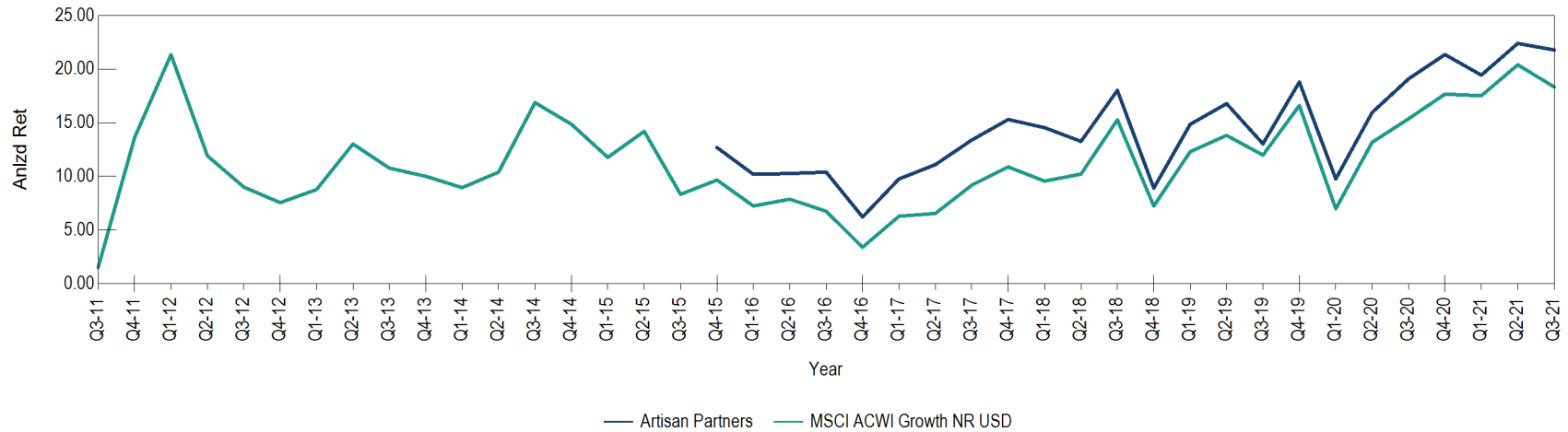
	Avg Wgt	Return	Contribution
ACTIVISION BLIZZARD INC	3.49	-18.91	-0.66
FIDELITY NATIONAL INFORMATION SERVICES INC	3.14	-13.85	-0.43
MAGAZINE LUIZA S/A	1.07	-37.23	-0.40
ZOOM VIDEO COMMUNICATIONS INC	1.08	-32.43	-0.35
IBERDROLA SA, BILBAO	1.76	-15.37	-0.27
VEEVA SYSTEMS INC	3.66	-7.33	-0.27
TELEFONAKTIEBOLAGET LM ERICSSON	2.89	-8.99	-0.26
LG CHEM LTD	1.84	-12.67	-0.23
UBER TECHNOLOGIES INC	1.56	-10.61	-0.17

Unclassified sector allocation includes cash allocations.

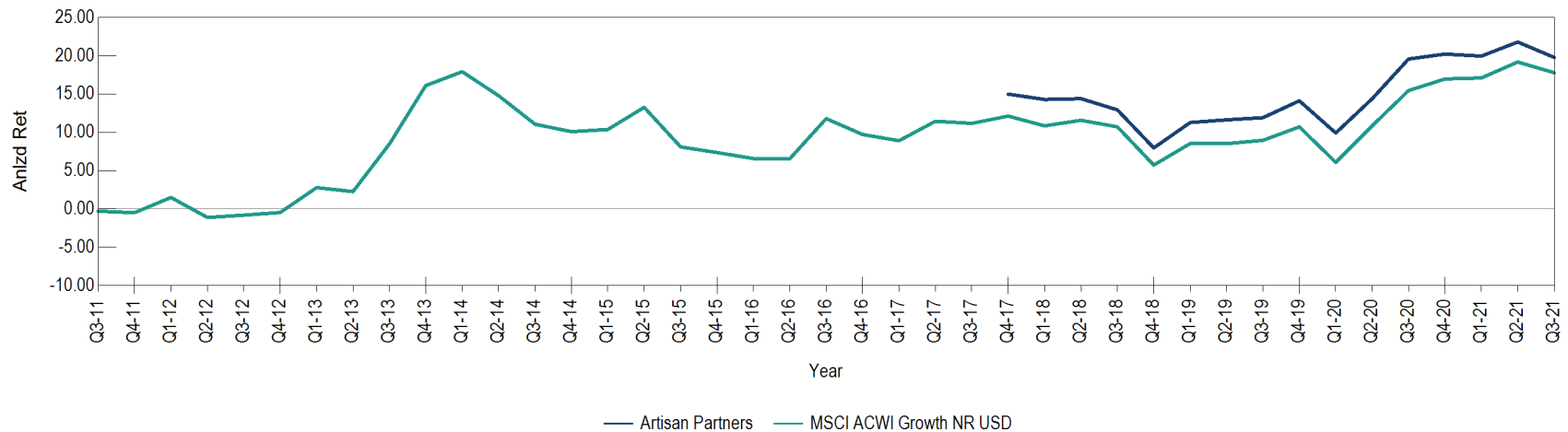


	Return (Rank)									
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	2.3	49.5	24.9	23.1	20.1	51.5	37.6	-0.7	36.3	21.5
25th Percentile	0.4	34.4	16.8	16.4	14.7	24.0	30.7	-5.8	27.6	10.3
Median	-0.6	29.0	12.9	13.5	12.9	15.4	26.6	-9.1	23.5	6.8
75th Percentile	-1.6	24.7	9.6	10.1	10.8	6.3	22.6	-12.2	19.6	3.9
95th Percentile	-4.3	14.7	5.4	6.4	7.8	-4.7	16.5	-18.1	11.0	-1.4
# of Portfolios	1,126	1,126	1,029	918	595	1,093	989	920	880	842
● Artisan Partners	2.2 (6)	21.5 (86)	21.8 (9)	19.8 (9)	-- (--)	41.7 (9)	37.0 (7)	-7.9 (40)	32.9 (11)	5.6 (61)
▲ MSCI ACWI Growth NR USD	-0.7 (55)	23.8 (79)	18.3 (18)	17.8 (19)	14.7 (25)	33.6 (14)	32.7 (17)	-8.1 (42)	30.0 (17)	3.3 (80)

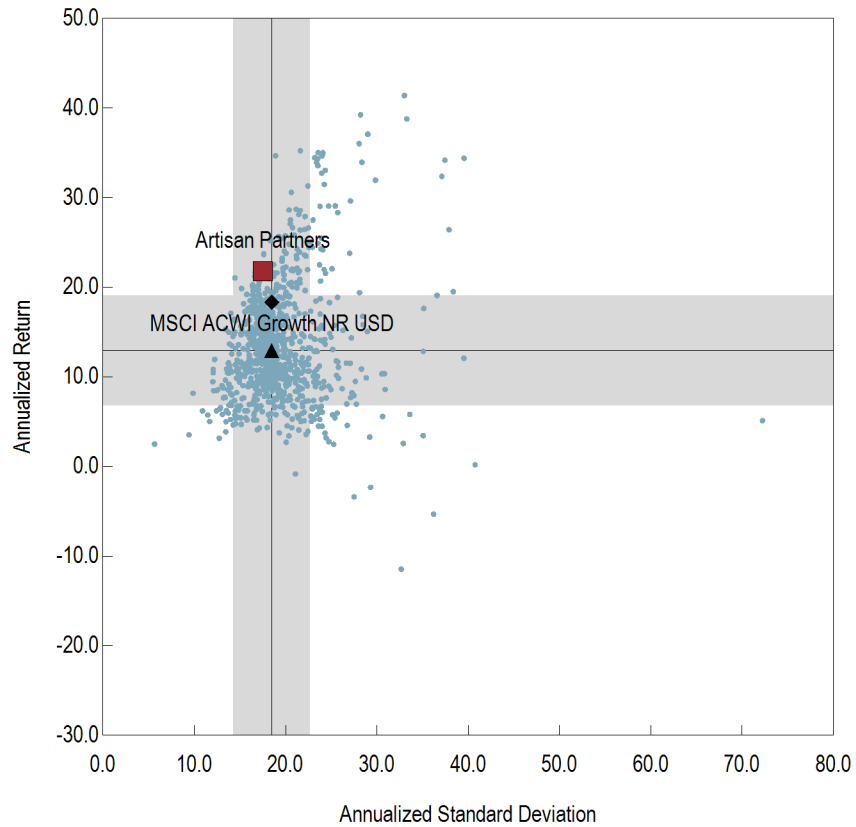
Rolling 3 Year Annualized Return (%)



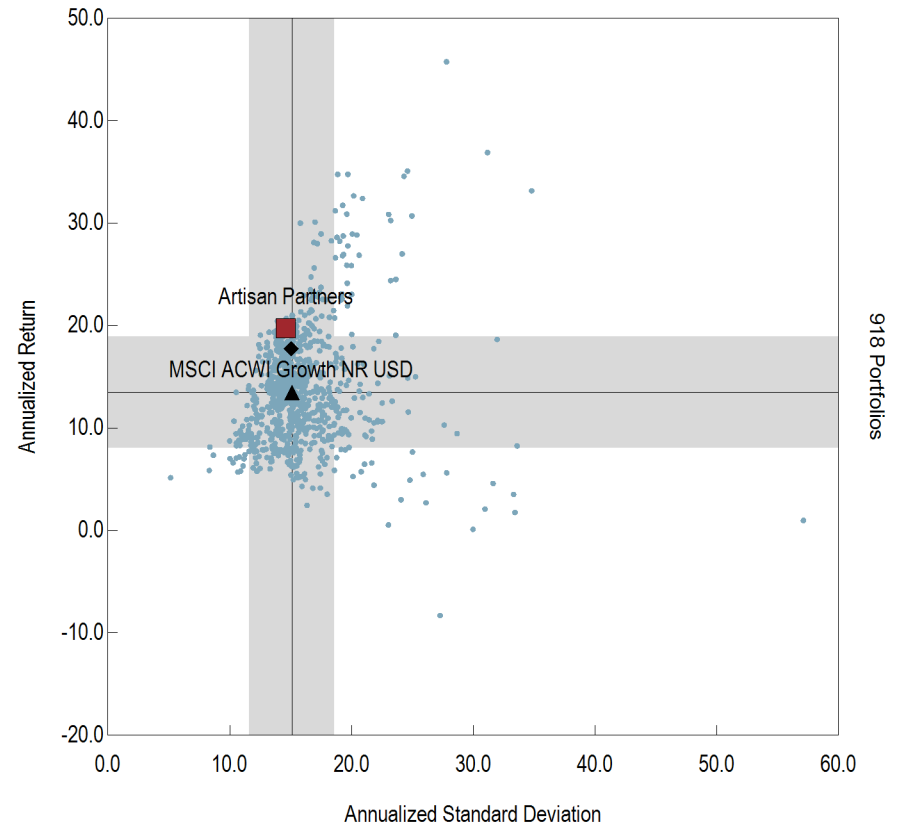
Rolling 5 Year Annualized Return (%)



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Artisan Partners	21.8%	17.5%	1.2
MSCI ACWI Growth NR USD	18.3%	18.5%	0.9
eV All Global Equity Gross Median	12.9%	18.5%	0.6

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Artisan Partners	19.8%	14.6%	1.3
MSCI ACWI Growth NR USD	17.8%	15.0%	1.1
eV All Global Equity Gross Median	13.5%	15.1%	0.8

First Eagle Manager Portfolio Overview

Period Ending: September 30, 2021

Global equity portfolio that is benchmark agnostic comprised of companies with low valuations. Primary personnel include Matt McLennan and Kimball Brooker.

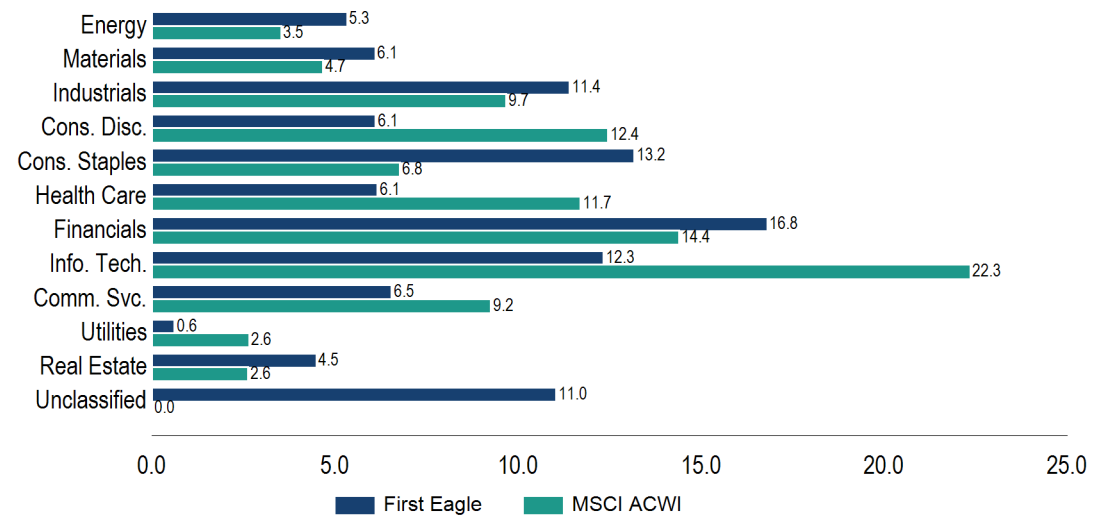
Characteristics

	Portfolio	MSCI ACWI
Number of Holdings	132	2,973
Weighted Avg. Market Cap. (\$B)	159.40	353.48
Median Market Cap. (\$B)	31.21	13.68
Price To Earnings	19.08	20.42
Price To Book	2.49	3.66
Price To Sales	1.99	2.32
Return on Equity (%)	14.00	19.54
Yield (%)	2.09	1.88
Beta	0.77	1.00

Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	93.1%	88.1%
Emerging*	6.9%	11.9%
Top 10 Largest Countries		
United States	57.8%	59.6%
Japan	9.8%	6.2%
United Kingdom	6.8%	3.7%
France	4.6%	2.9%
Canada	4.5%	2.9%
Switzerland	2.3%	2.4%
Korea*	1.8%	1.5%
Belgium	1.7%	0.2%
Sweden	1.4%	0.9%
Taiwan*	1.3%	1.8%
Total-Top 10 Largest Countries	93.1%	82.1%

Sector Allocation (%) vs MSCI ACWI



Top Contributors

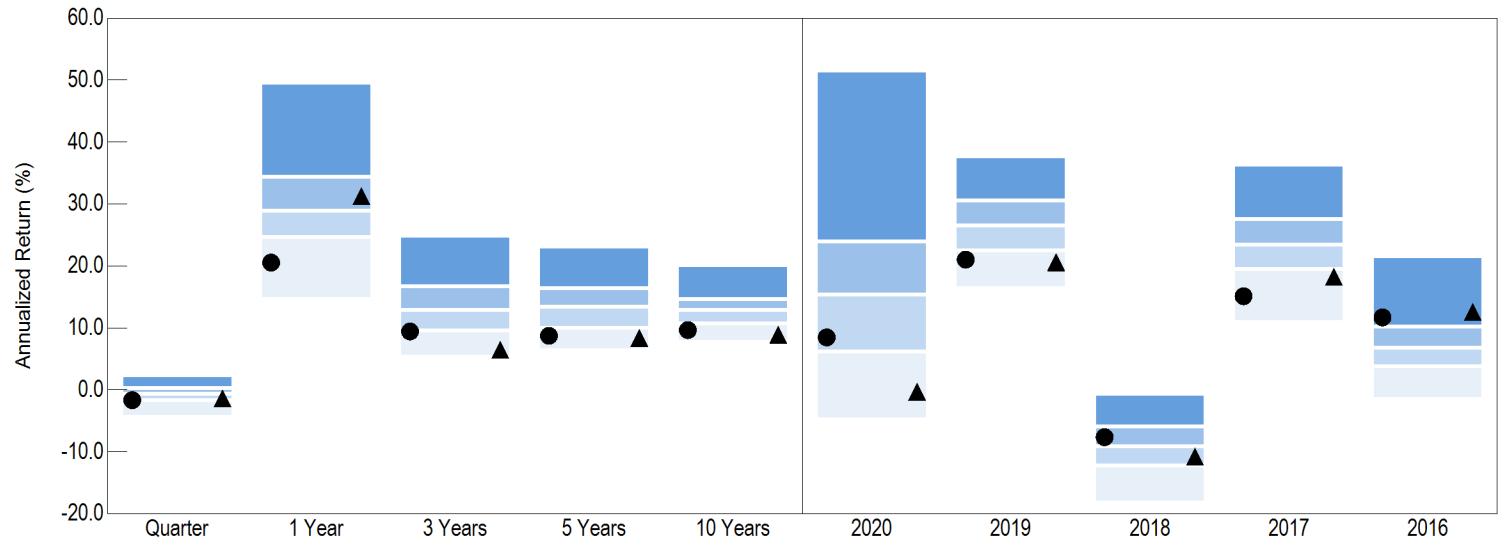
	End Weight	Return	Contribution
ORACLE CORP	3.80	12.34	0.47
SOMPO HOLDINGS INC	1.07	20.77	0.22
SHIMANO INC	0.89	24.23	0.22
HCA HEALTHCARE INC	0.88	17.62	0.16
TERADATA CORP	1.02	14.77	0.15
KEYENCE CORP	0.66	19.05	0.13
MS&AD INSURANCE GROUP HOLDINGS INC	0.54	18.96	0.10
SALESFORCE.COM INC	0.86	11.03	0.09
NUTRIEN LTD	1.17	7.71	0.09
HIROSE ELECTRIC CO LTD	0.59	14.86	0.09

Bottom Contributors

	End Weight	Return	Contribution
CIE FINANCIERE RICHMONT AG, ZUG	1.33	-11.98	-0.16
AMBEV SA	0.79	-19.77	-0.16
NEWMONT CORPORATION	1.05	-13.51	-0.14
ALIBABA GROUP HOLDING LTD	0.40	-34.72	-0.14
IPG PHOTONICS CORP	0.52	-24.85	-0.13
EXXON MOBIL CORP	2.35	-5.34	-0.13
JARDINE MATHESON HOLDINGS LTD	0.69	-16.36	-0.11
NOV INC	0.75	-14.43	-0.11
FANUC CORP	1.26	-7.93	-0.10
SCHLUMBERGER LTD	1.39	-6.99	-0.10

Unclassified sector allocation includes cash allocations and Gold allocations (8.55% as of 6/30/2021).

First Eagle vs. eV All Global Equity Gross Universe

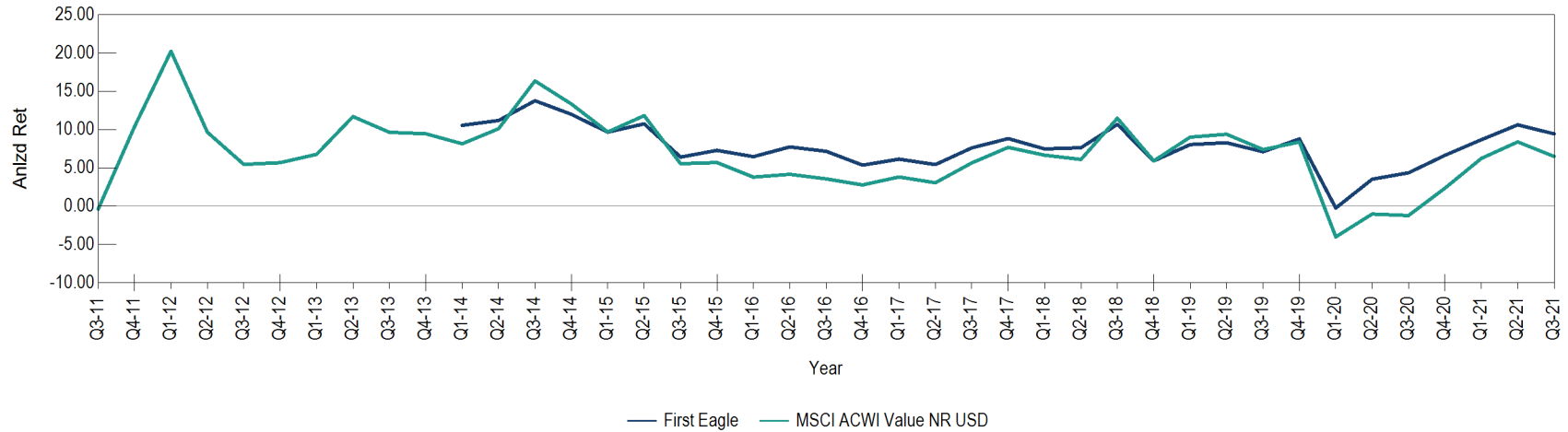


	Return (Rank)										
5th Percentile	2.3	49.5	24.9	23.1	20.1	51.5	37.6	-0.7	36.3	21.5	
25th Percentile	0.4	34.4	16.8	16.4	14.7	24.0	30.7	-5.8	27.6	10.3	
Median	-0.6	29.0	12.9	13.5	12.9	15.4	26.6	-9.1	23.5	6.8	
75th Percentile	-1.6	24.7	9.6	10.1	10.8	6.3	22.6	-12.2	19.6	3.9	
95th Percentile	-4.3	14.7	5.4	6.4	7.8	-4.7	16.5	-18.1	11.0	-1.4	
# of Portfolios	1,126	1,126	1,029	918	595	1,093	989	920	880	842	
● First Eagle	-1.7 (76)	20.5 (88)	9.4 (77)	8.7 (85)	9.6 (89)	8.5 (70)	21.0 (82)	-7.6 (38)	15.1 (89)	11.7 (19)	
▲ MSCI ACWI Value NR USD	-1.4 (71)	31.3 (38)	6.5 (91)	8.4 (87)	8.9 (93)	-0.3 (89)	20.6 (83)	-10.8 (65)	18.3 (81)	12.6 (16)	

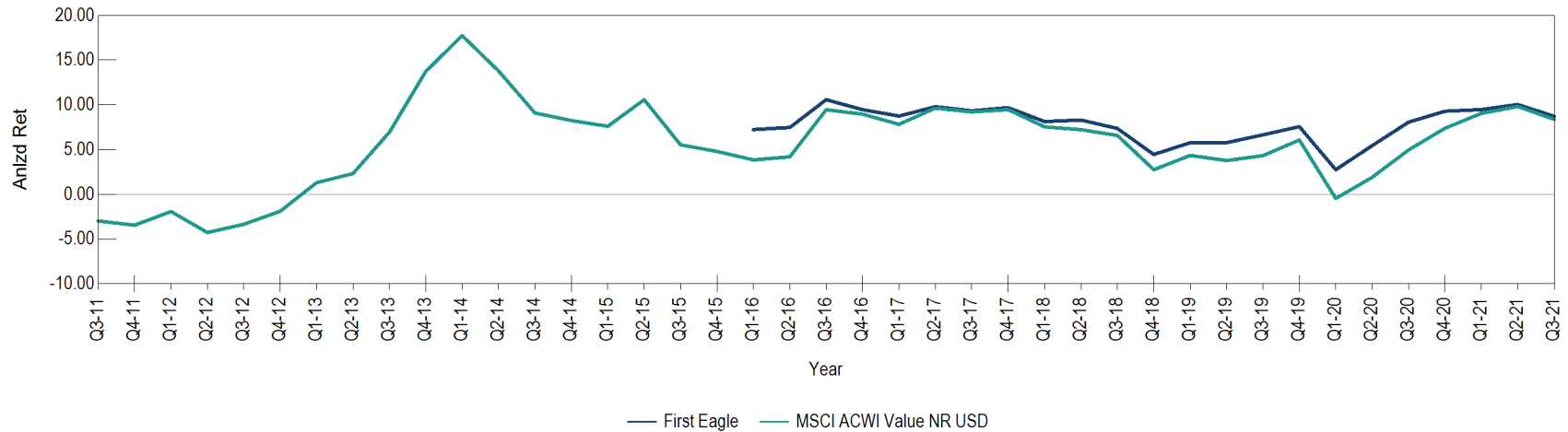
First Eagle
 Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2021

Rolling 3 Year Annualized Return (%)



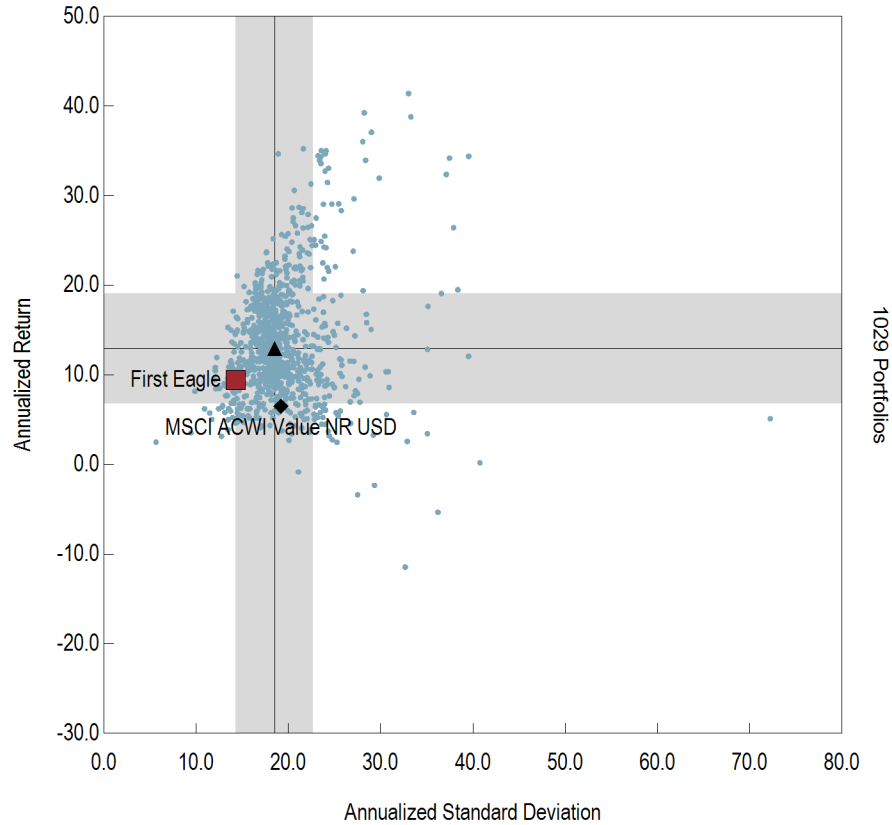
Rolling 5 Year Annualized Return (%)



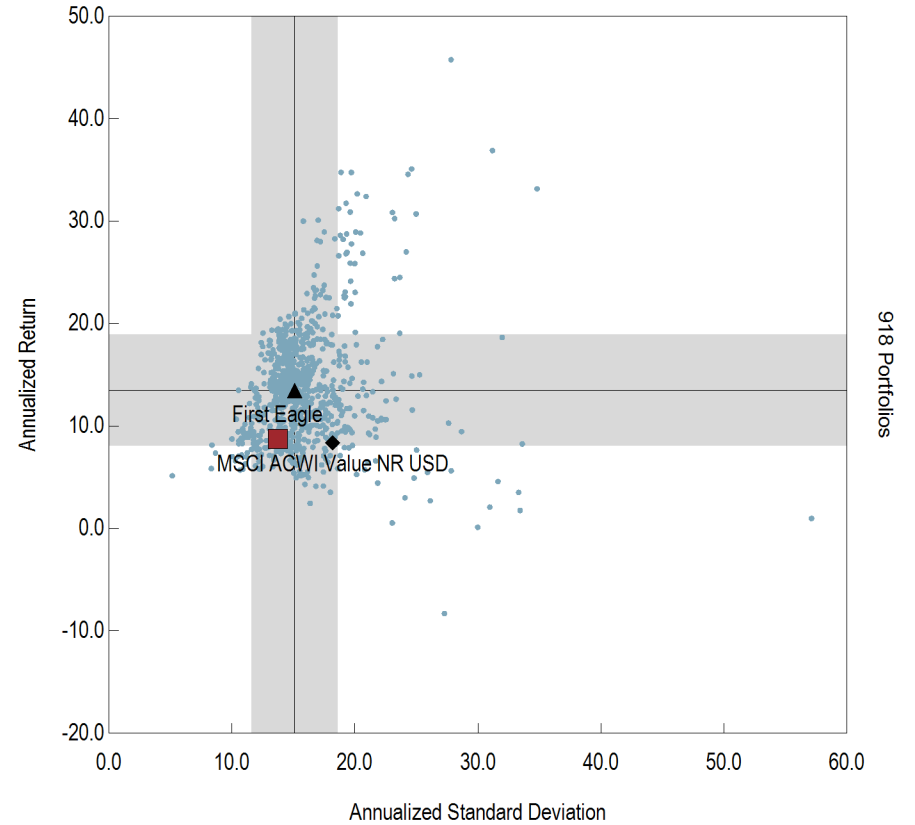
First Eagle
Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2021

3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
First Eagle	9.4%	14.3%	0.6
MSCI ACWI Value NR USD	6.5%	19.2%	0.3
eV All Global Equity Gross Median	12.9%	18.5%	0.6

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
First Eagle	8.7%	11.4%	0.7
MSCI ACWI Value NR USD	8.4%	15.5%	0.5
eV All Global Equity Gross Median	13.5%	15.1%	0.8

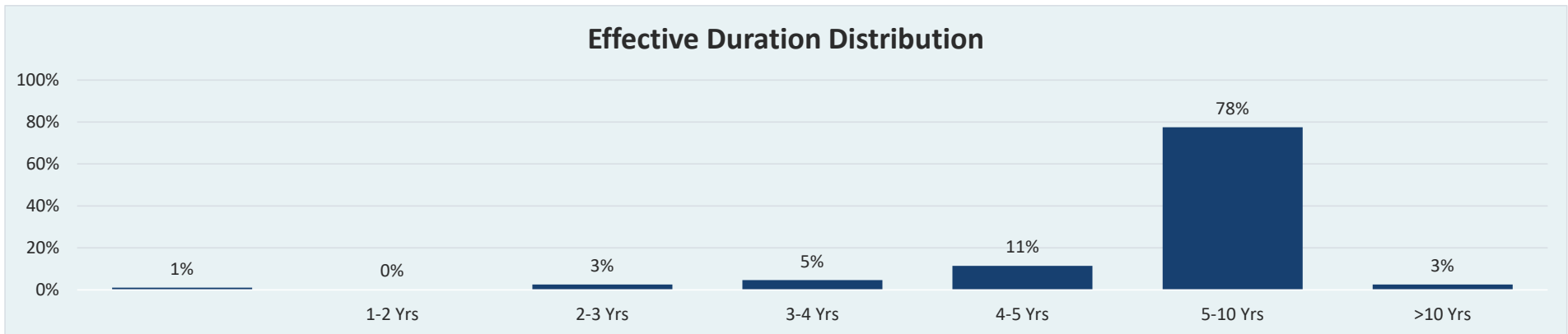
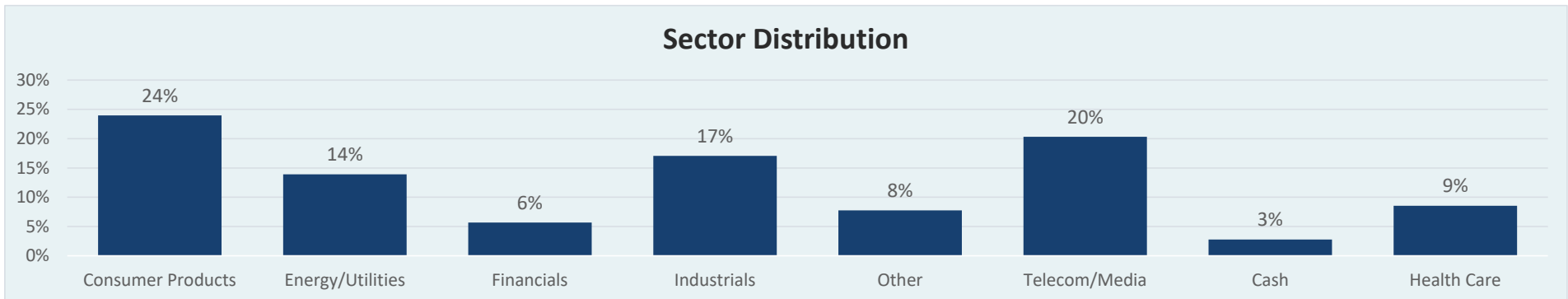
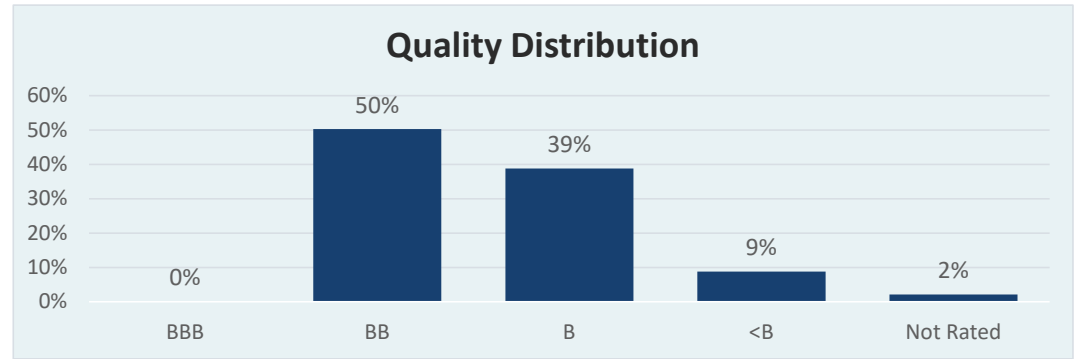
High Yield Managers

Allianz Global Investors Manager Portfolio Overview

Period Ending: September 30, 2021

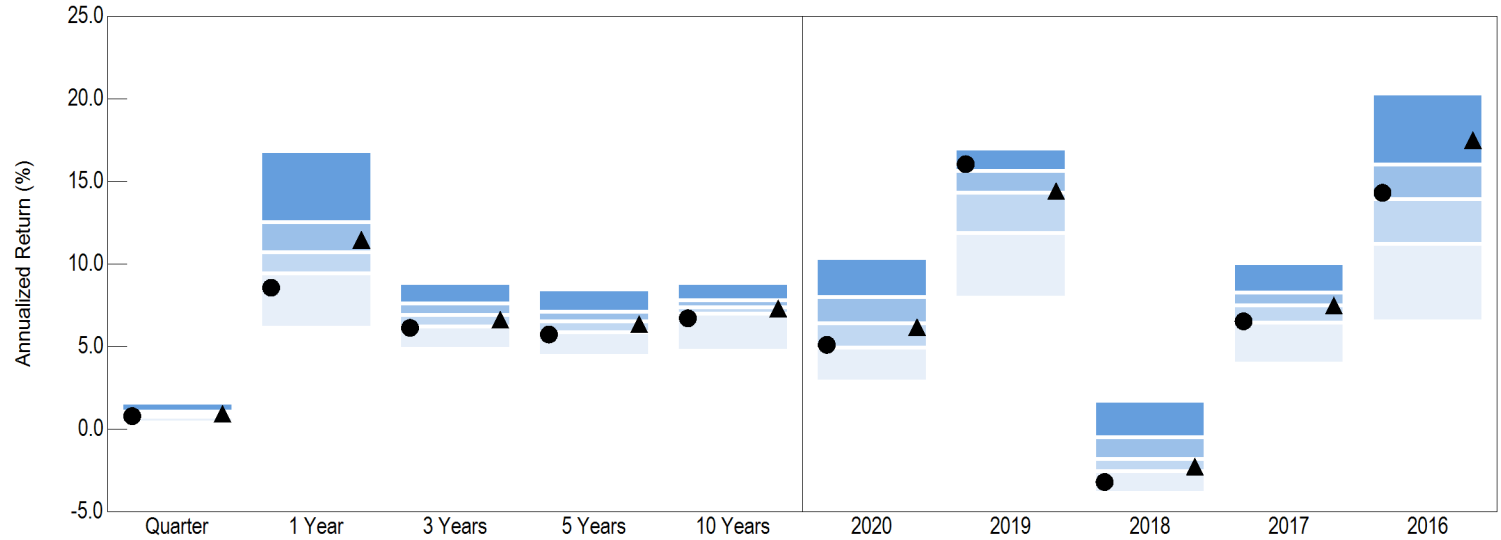
Domestic high yield fixed income portfolio with a focus on security selection. Primary personnel include Douglas Forsyth, Justin Kass, William Stickney, and Michael Yee.

	Allianz	ICE BofAML HY Master II
Effective Duration	4.10	4.20
Yield to Maturity	4.70	4.70
Average Quality	B1	B1
Average Coupon	5.9%	5.7%



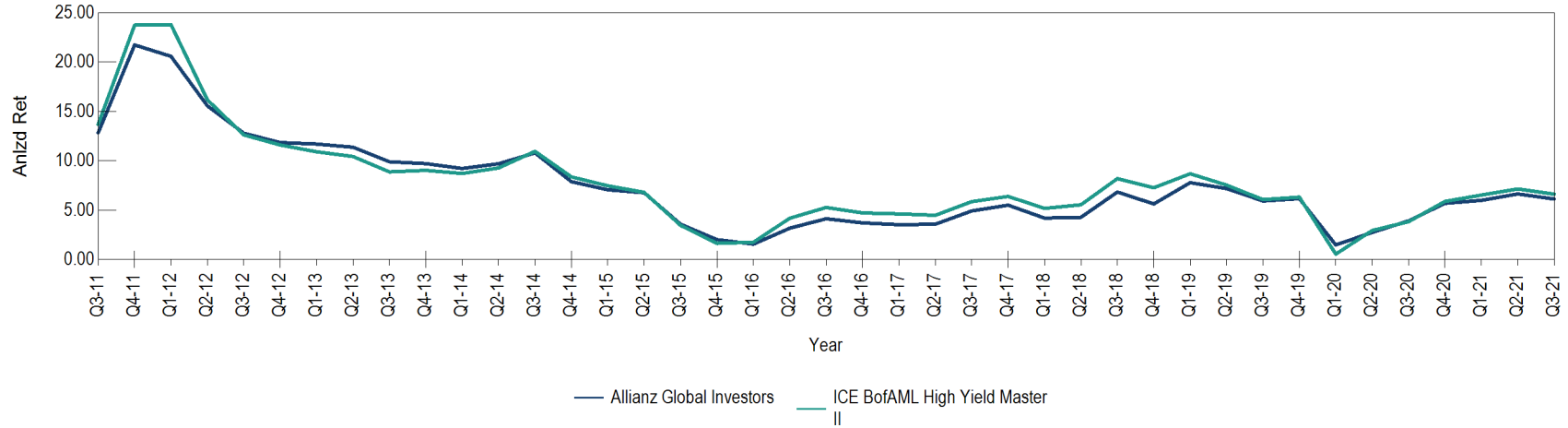
Quality distribution excludes cash.

Allianz Global Investors vs. eV US High Yield Fixed Inc Gross Universe

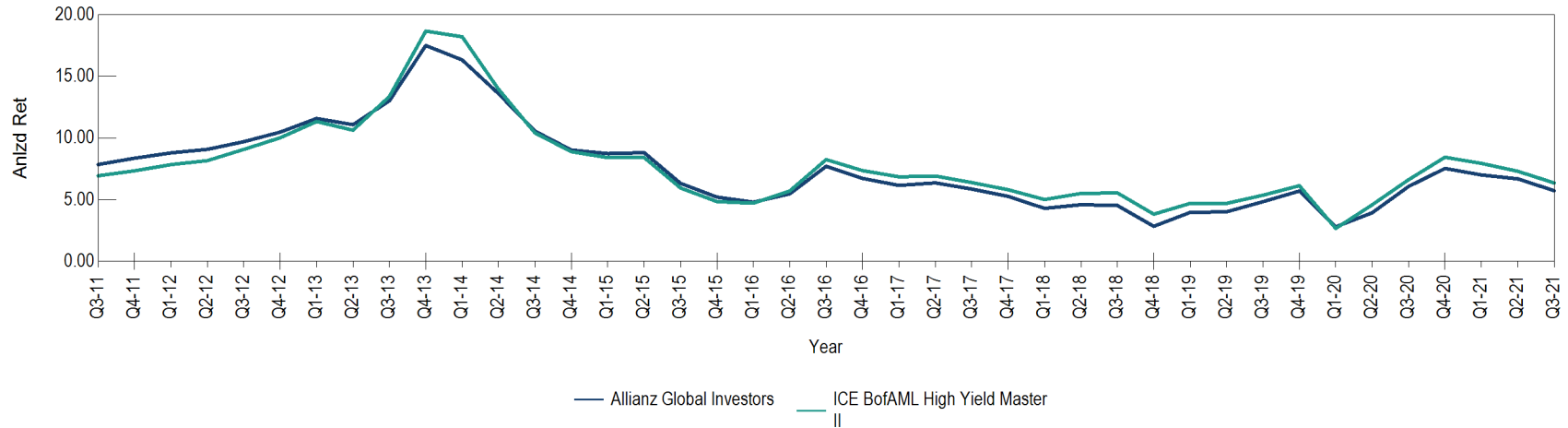


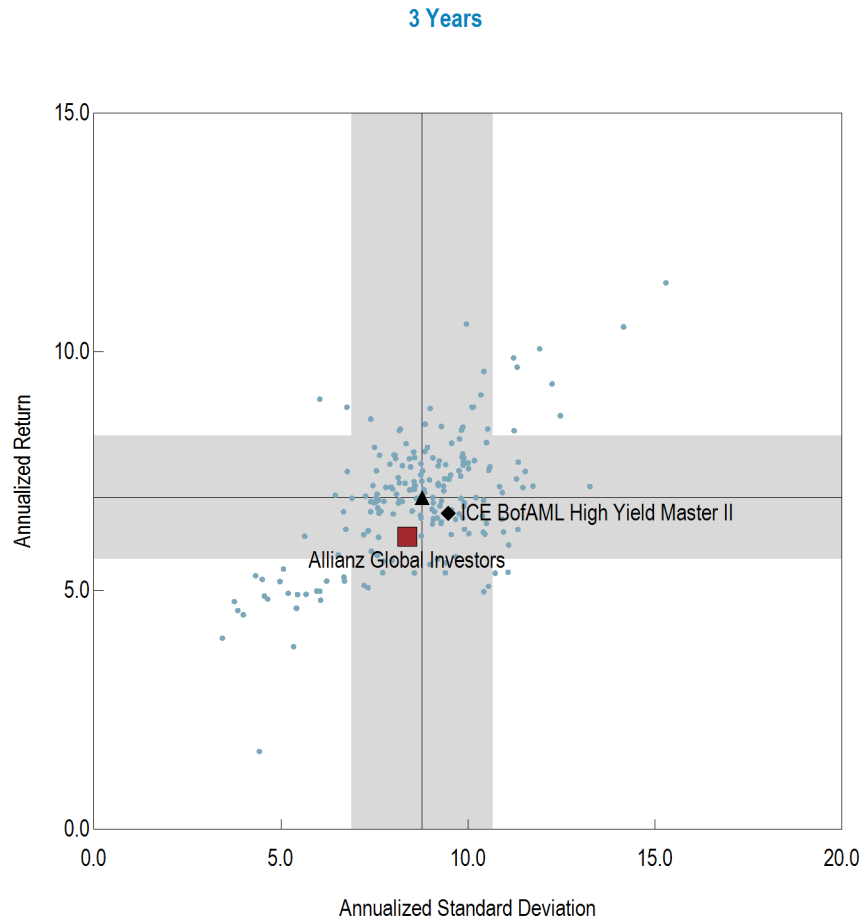
	Return (Rank)									
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	1.6	16.8	8.8	8.4	8.8	10.3	16.9	1.7	10.0	20.3
25th Percentile	1.1	12.6	7.6	7.1	7.8	8.0	15.6	-0.5	8.3	16.0
Median	0.9	10.7	7.0	6.5	7.4	6.4	14.3	-1.8	7.5	14.0
75th Percentile	0.8	9.4	6.2	5.9	7.0	5.0	11.9	-2.5	6.5	11.3
95th Percentile	0.4	6.2	4.9	4.5	4.8	2.9	8.0	-3.8	4.0	6.6
# of Portfolios	207	207	204	191	142	217	226	210	198	183
● Allianz Global Investors	0.8 (71)	8.6 (82)	6.1 (79)	5.7 (79)	6.7 (82)	5.1 (74)	16.0 (15)	-3.2 (88)	6.5 (74)	14.3 (47)
▲ ICE BofAML High Yield Master II	0.9 (45)	11.5 (39)	6.6 (65)	6.4 (58)	7.3 (60)	6.2 (55)	14.4 (49)	-2.3 (69)	7.5 (53)	17.5 (14)

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)





3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Allianz Global Investors	6.1%	8.4%	0.6
ICE BofAML High Yield Master II	6.6%	9.5%	0.6
eV US High Yield Fixed Inc Gross Median	7.0%	8.8%	0.7

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Allianz Global Investors	5.7%	6.6%	0.7
ICE BofAML High Yield Master II	6.4%	7.5%	0.7
eV US High Yield Fixed Inc Gross Median	6.5%	7.0%	0.8

Real Estate Managers

Adelante Manager Portfolio Overview

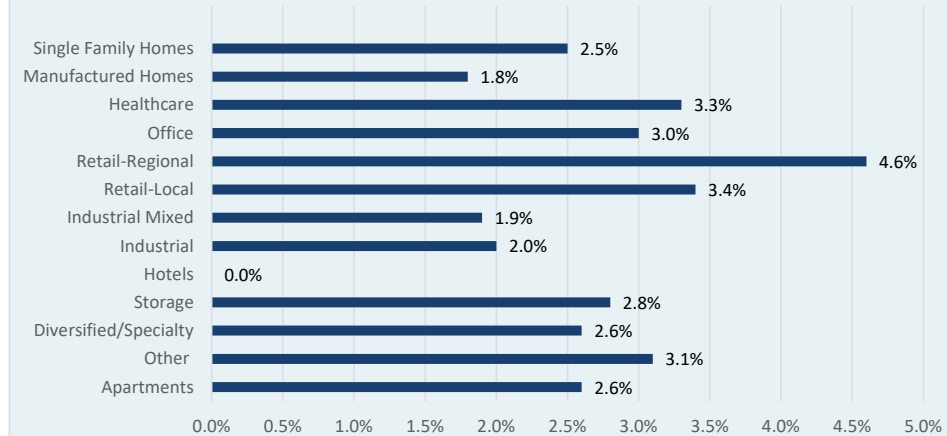
Period Ending: September 30, 2021

Diversified portfolio of U.S. REITs with a focus on the underlying real estate assets

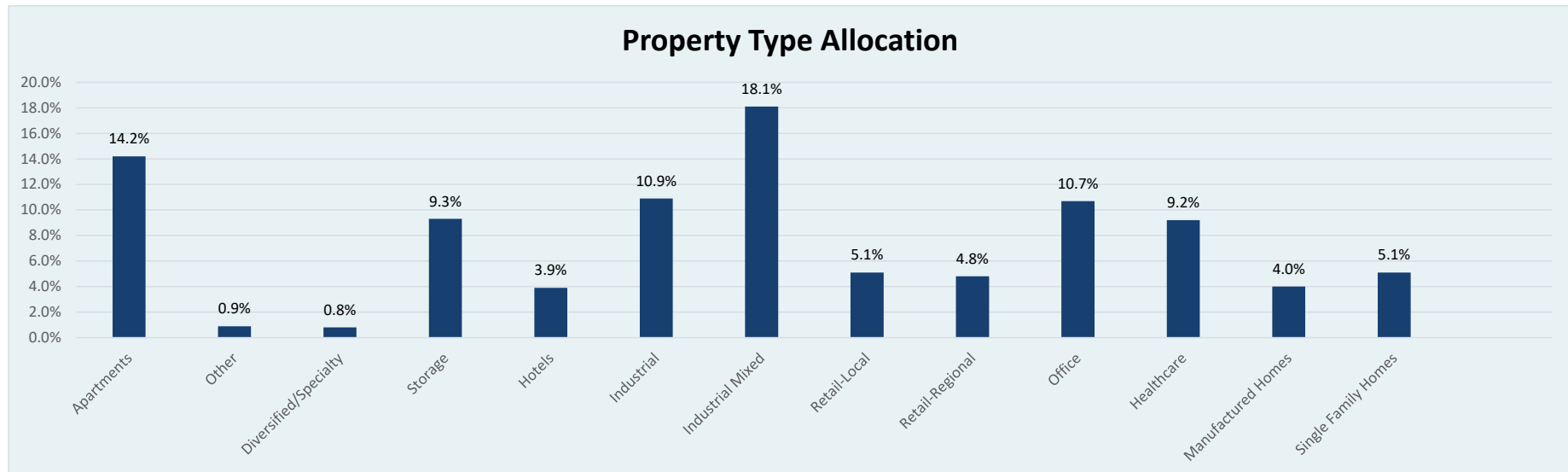
Top Five Holdings

Company	Property Type	Allocation
Equinix Inc	Industrial Mixed	9.8%
ProLogis Inc.	Industrial	9.1%
Welltower, Inc.	Healthcare	6.2%
Equity Residential	Apartments	5.4%
Duke Realty Corporation	Industrial Mixed	4.8%

Dividend Yield by Property Type



Property Type Allocation



0.029% is allocated to Cash and Cash Equivalents.

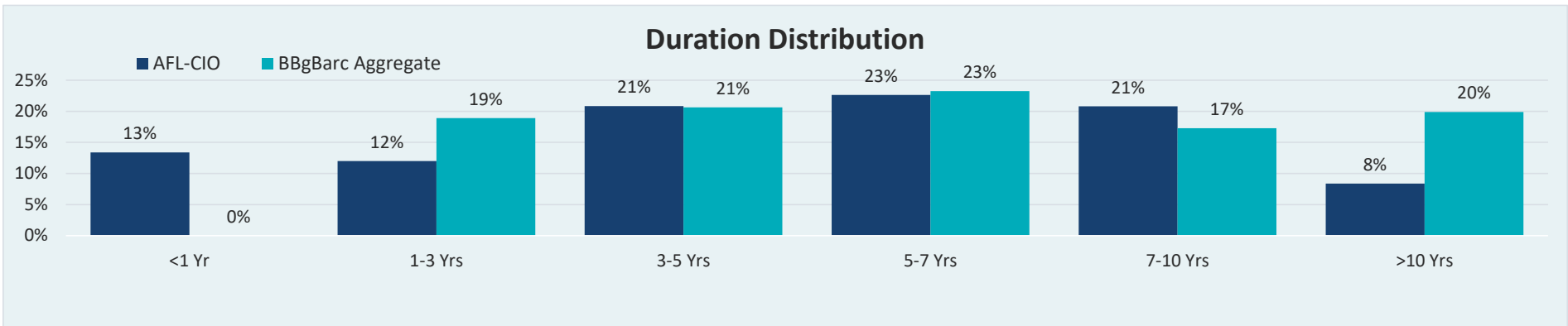
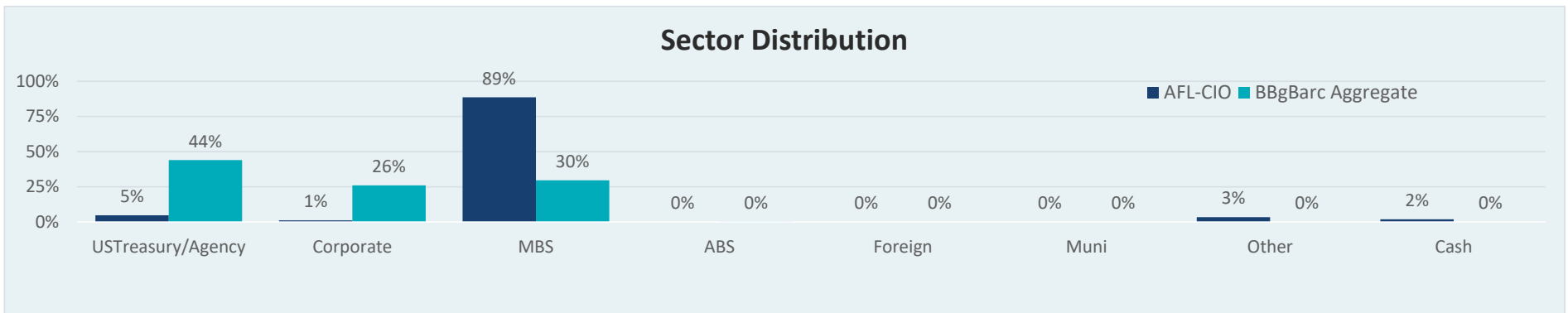
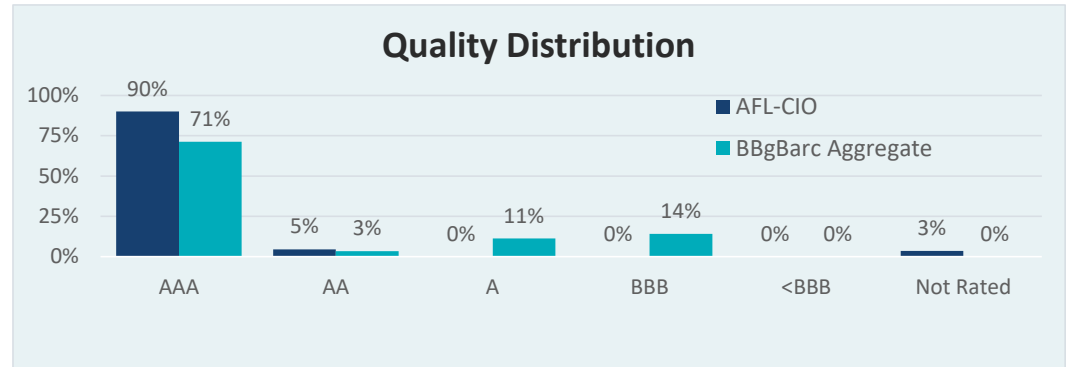
Diversifying Fixed Income Managers

AFL-CIO Manager Portfolio Overview

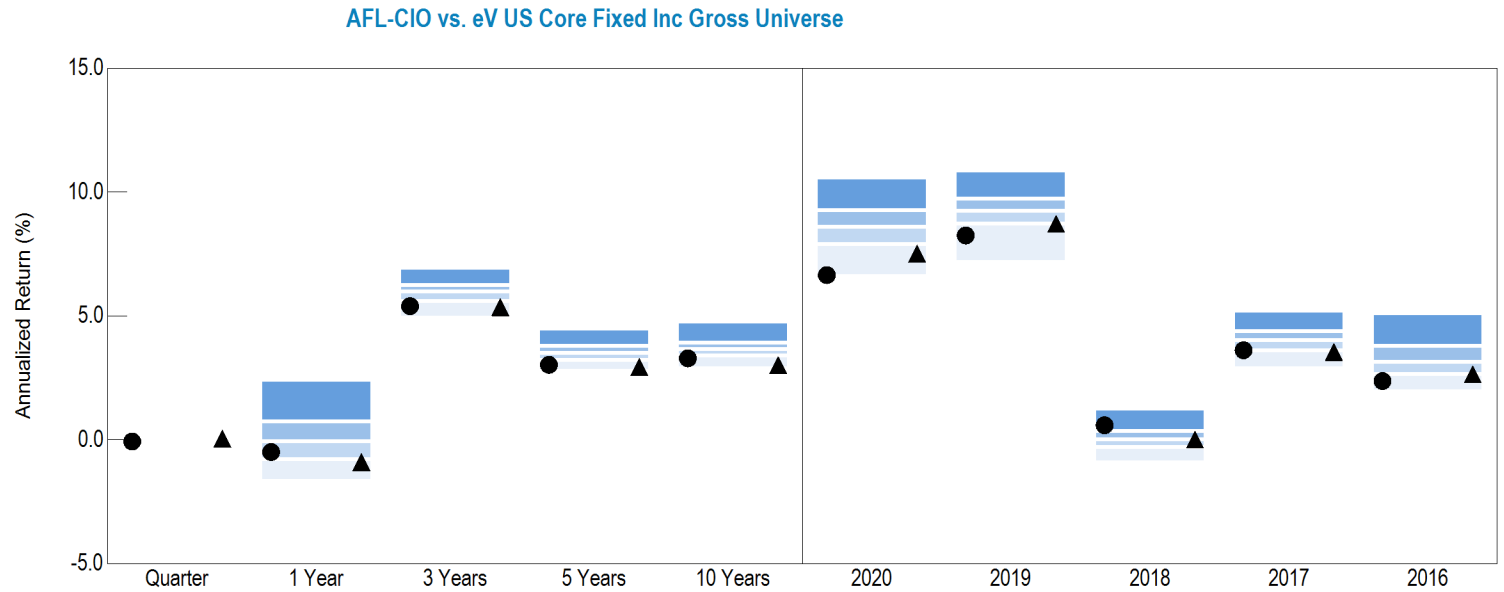
Period Ending: September 30, 2021

Domestic core fixed income portfolio with an exclusive focus on mortgage-related securities. Primary personnel include Stephen Coyle and Chang Su.

	AFL-CIO	BBgBarc Aggregate
Effective Duration	6.13	6.71
Yield to Maturity	2.53	1.56
Average Quality	AAA	AA/AA+
Average Coupon	2.6%	2.5%

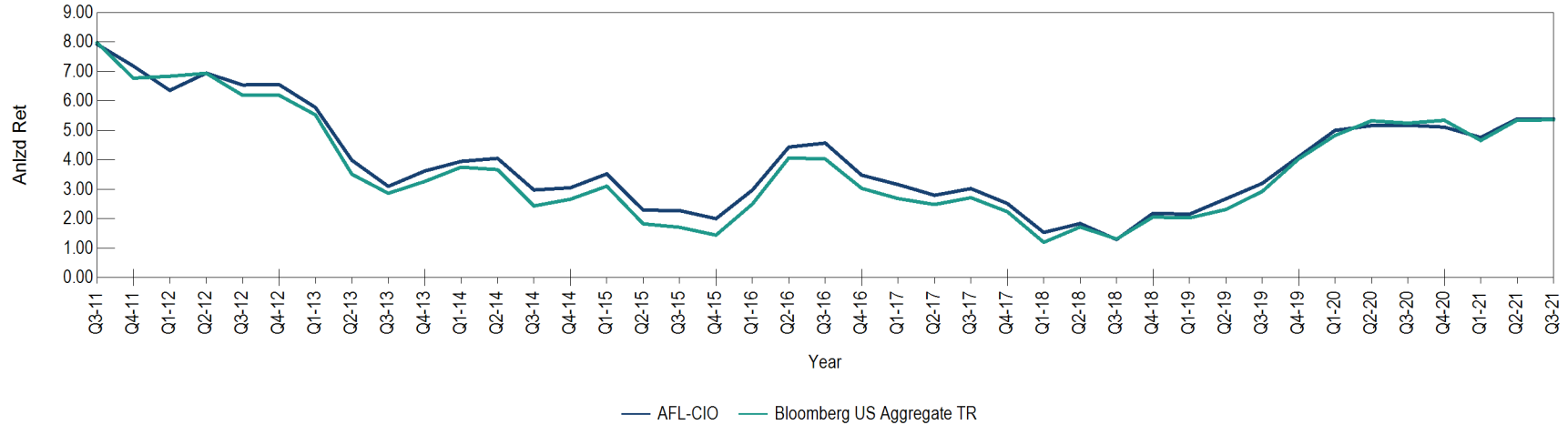


Duration and Quality distributions exclude cash.

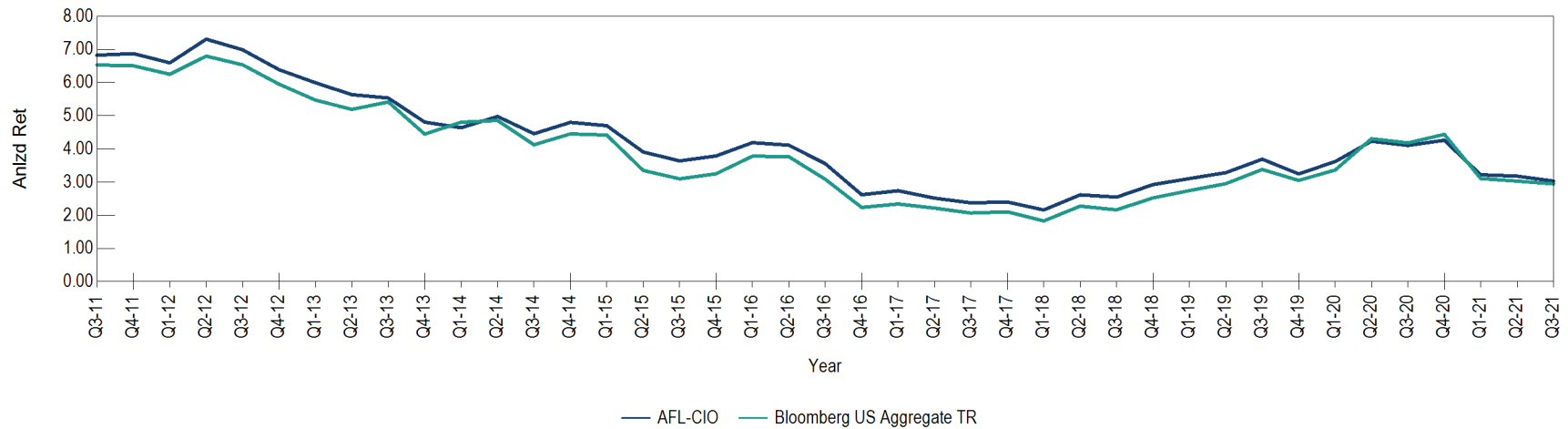


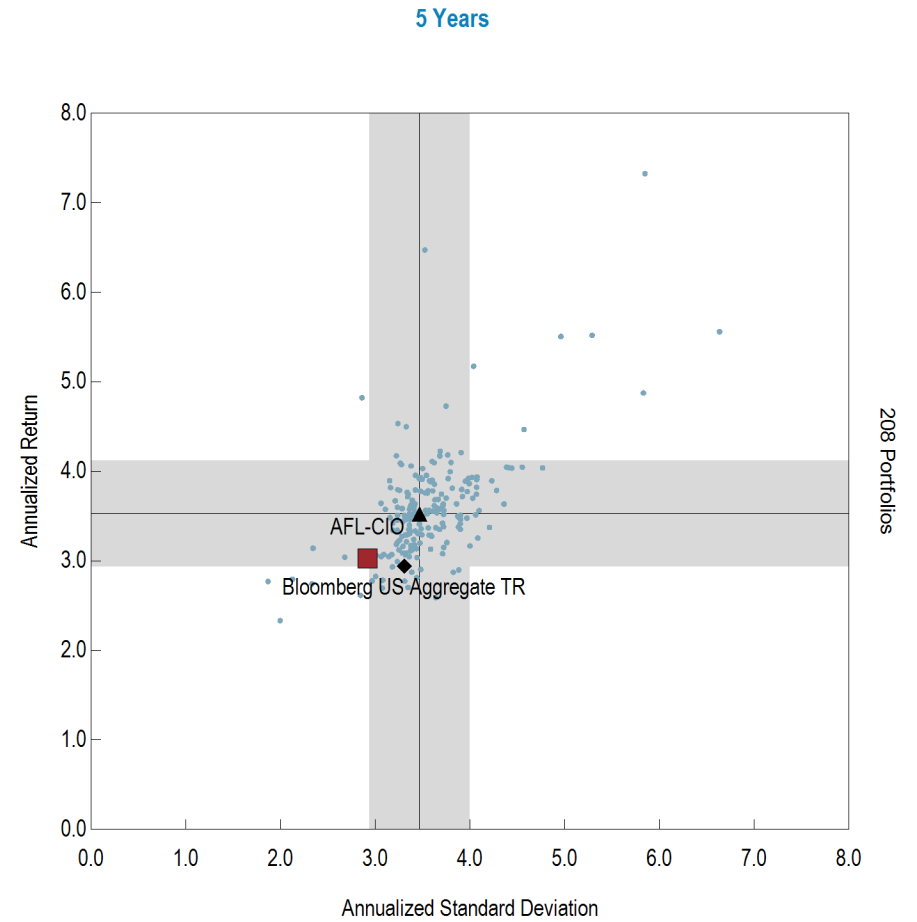
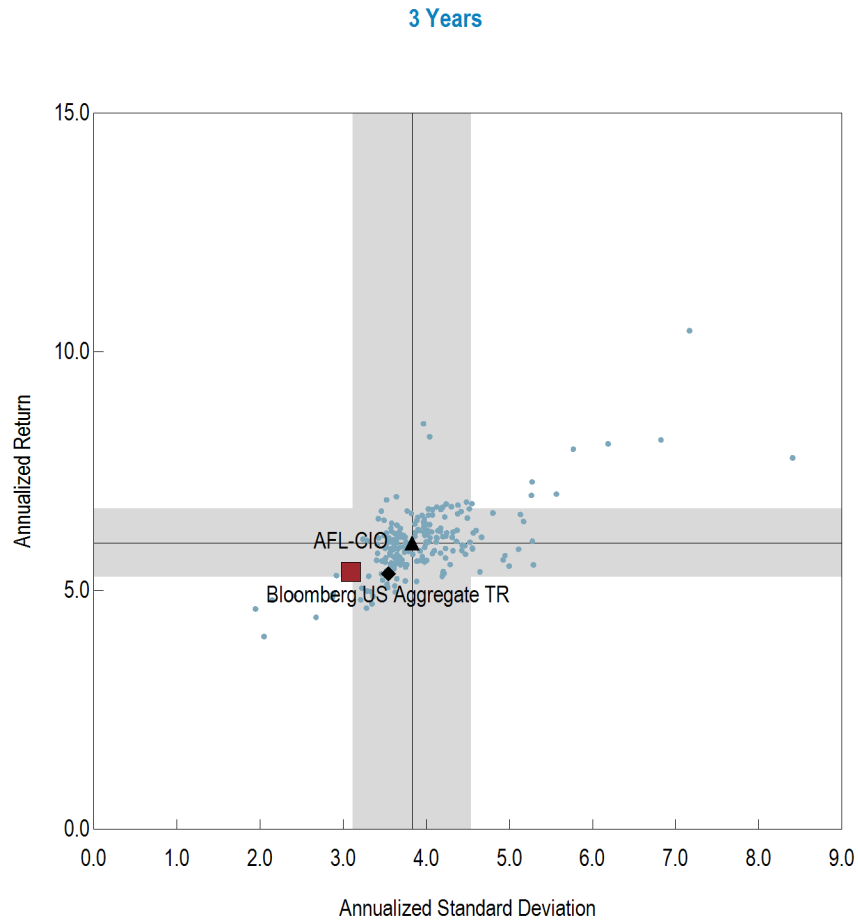
	Return (Rank)										
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	
5th Percentile	0.3	2.4	6.9	4.5	4.8	10.6	10.9	1.2	5.2	5.1	
25th Percentile	0.2	0.8	6.3	3.8	3.9	9.3	9.8	0.4	4.4	3.8	
Median	0.1	0.0	6.0	3.5	3.7	8.6	9.3	0.0	4.0	3.2	
75th Percentile	0.0	-0.8	5.6	3.3	3.4	7.9	8.7	-0.3	3.6	2.7	
95th Percentile	-0.1	-1.7	5.0	2.8	2.9	6.6	7.2	-0.9	2.9	2.0	
# of Portfolios	214	214	210	208	200	225	228	240	233	223	
● AFL-CIO	-0.1 (89)	-0.5 (67)	5.4 (87)	3.0 (91)	3.3 (83)	6.6 (95)	8.2 (88)	0.6 (16)	3.6 (76)	2.4 (87)	
▲ Bloomberg US Aggregate TR	0.1 (62)	-0.9 (84)	5.4 (88)	2.9 (92)	3.0 (95)	7.5 (85)	8.7 (77)	0.0 (54)	3.5 (79)	2.6 (77)	

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)





	3 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
AFL-CIO	5.4%	3.1%	1.4
Bloomberg US Aggregate TR	5.4%	3.5%	1.2
eV US Core Fixed Inc Gross Median	6.0%	3.8%	1.3

	5 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
AFL-CIO	3.0%	2.9%	0.7
Bloomberg US Aggregate TR	2.9%	3.3%	0.6
eV US Core Fixed Inc Gross Median	3.5%	3.5%	0.7

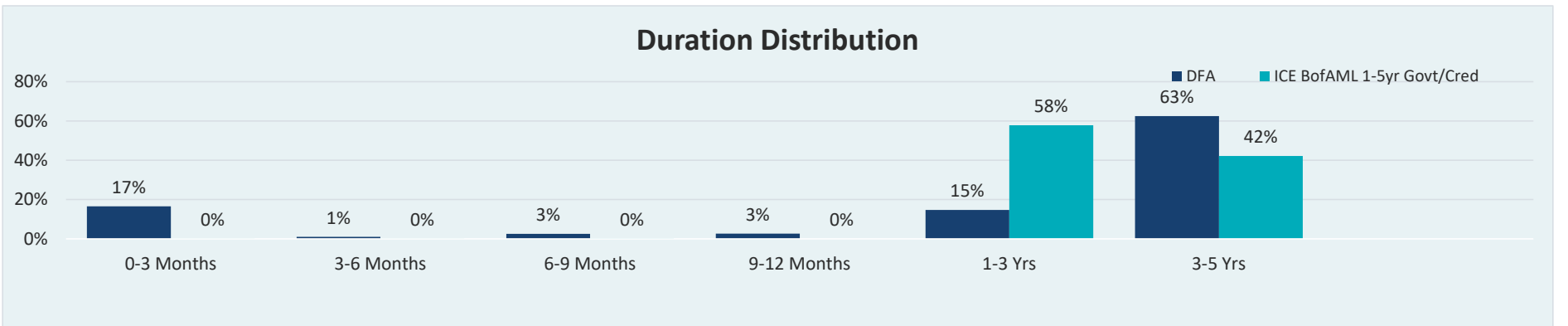
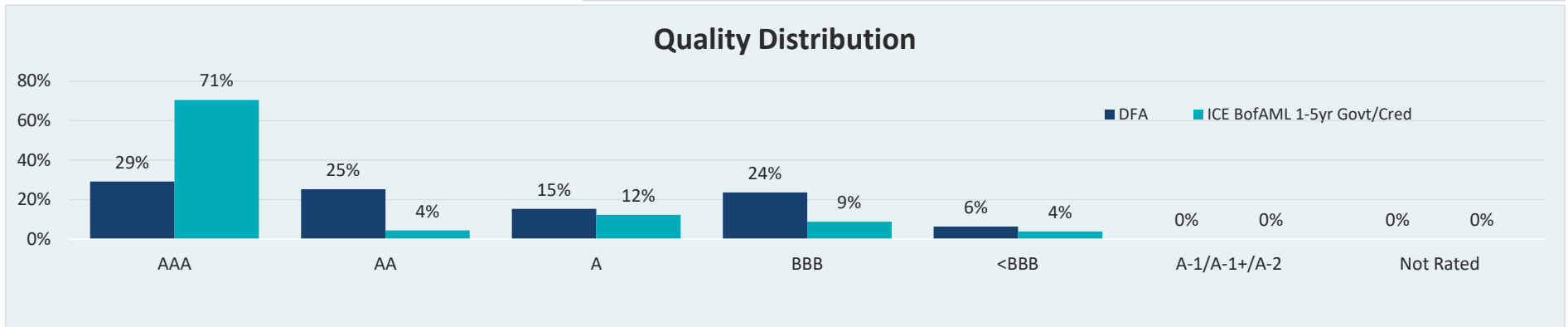
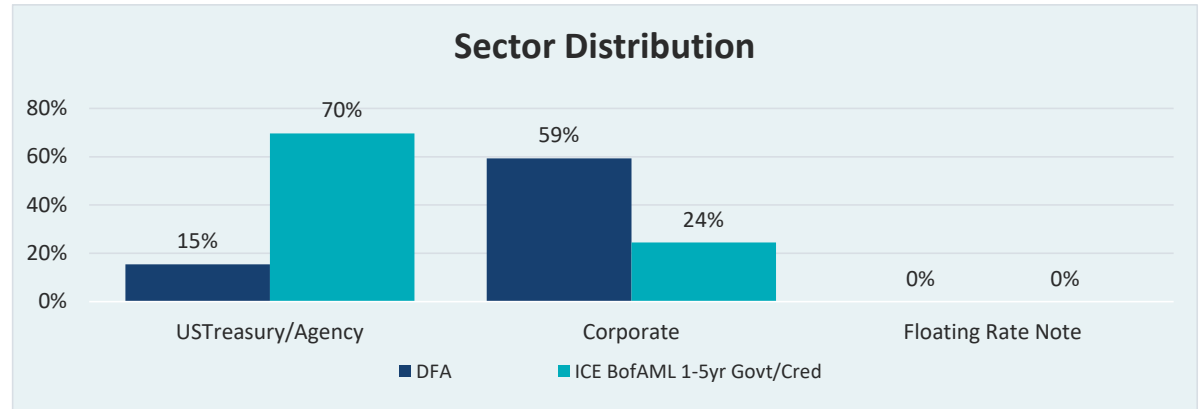
Liquidity Managers

DFA Short Credit Manager Portfolio Overview

Period Ending: September 30, 2021

Domestic short term US credit fixed income portfolio that maximizes total return through income and capital appreciation. Primary personnel include Dave Plecha and Joseph Kolerich.

	DFA	ICE BofAML 1-5yr Govt/Cred
Effective Duration	2.88	2.70
Yield to Maturity	0.98	0.67
Average Quality	A+	AA+
Average Coupon	1.80%	1.89%

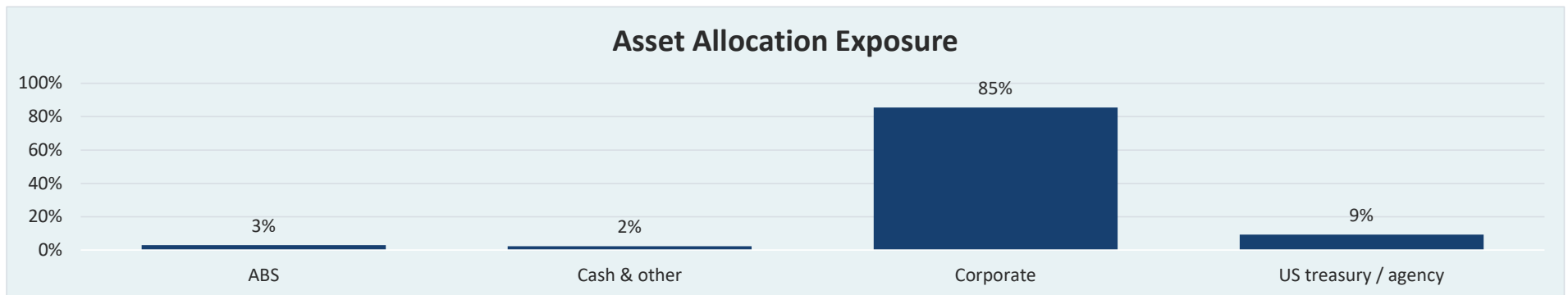
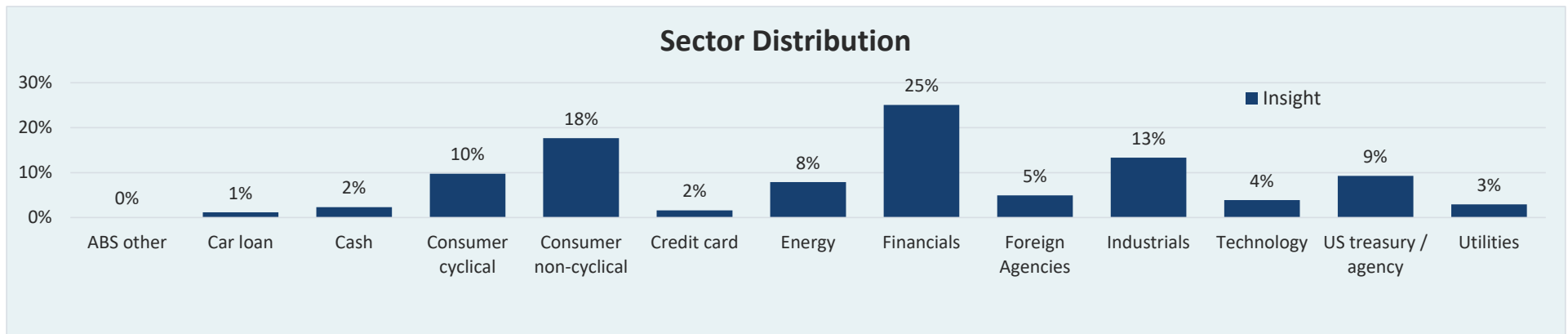
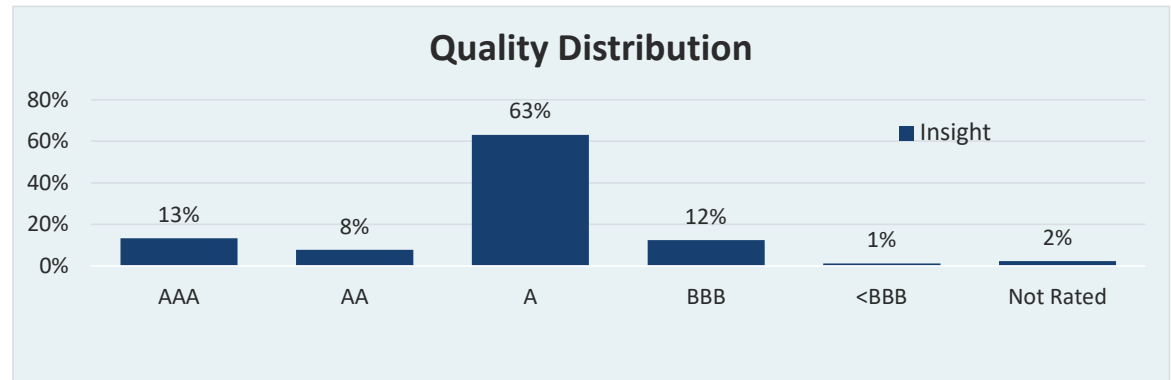


Insight Short Duration Manager Portfolio Overview

Period Ending: September 30, 2021

High quality, short duration multi-sector fixed income portfolio comprised of Treasuries, Agencies, investment grade corporates, and ABS designed specifically to meet CCCERA's liabilities. Key personnel include Gerard Berrigan and Jesse Fogarty.

	Insight	BBgBarc 1-3yr Govt
Effective Duration	1.13	1.97
Yield to Maturity	0.64	0.29
Average Quality	A	AAA
Average Coupon	2.85%	1.24%

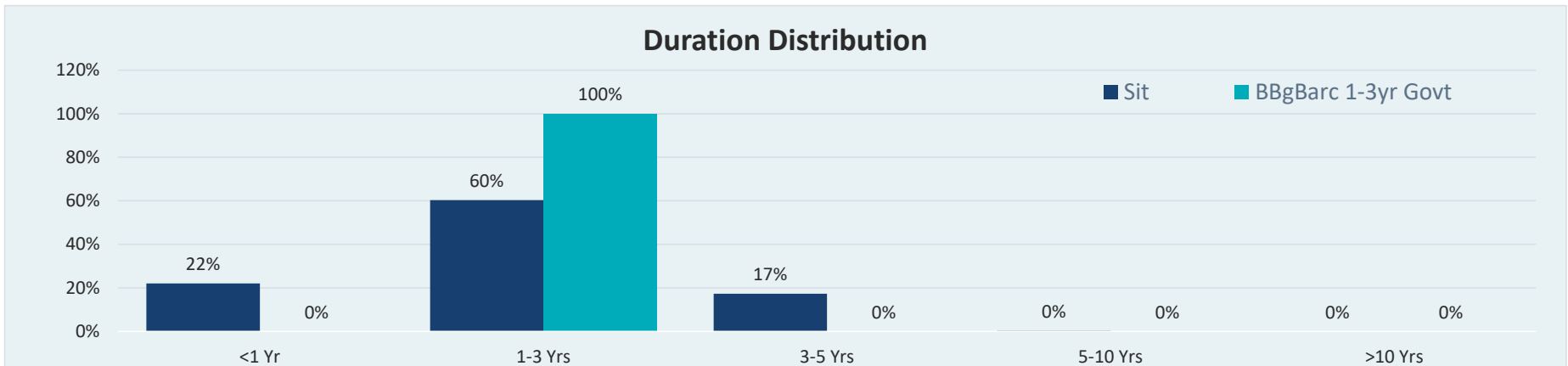
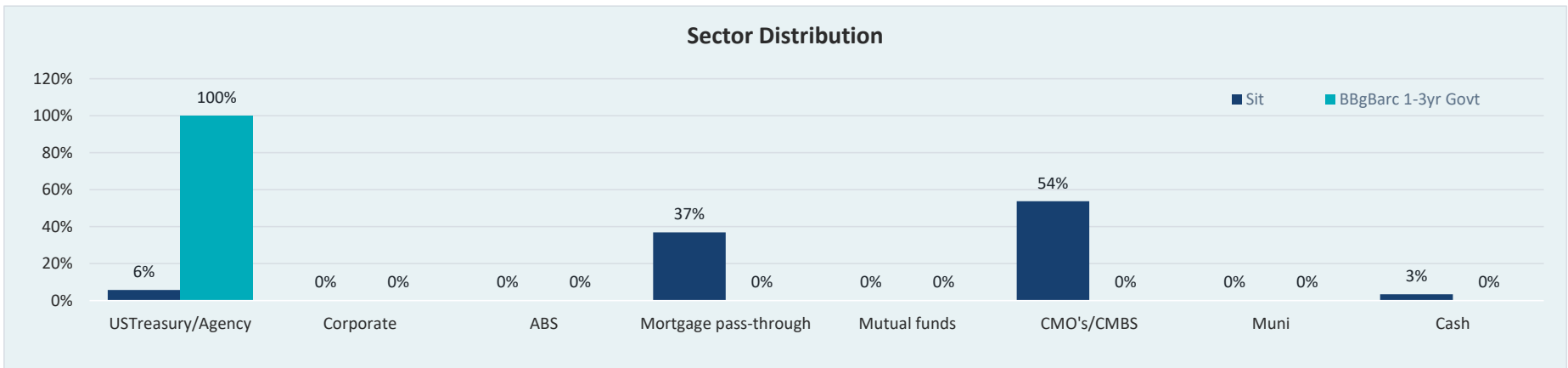
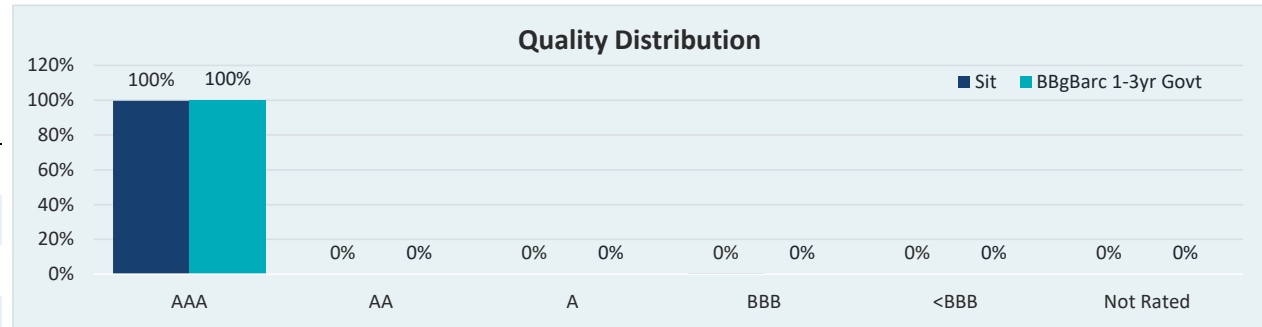


Sit Short Duration Manager Portfolio Overview

Period Ending: September 30, 2021

Short duration fixed income portfolio with a focus on earning high levels of interest income. Primary personnel include Bryce Doty, Paul Jungquist and Michael Brilley.

	Sit	BBgBarc 1-3yr Govt
Modified Duration	1.90	2.00
Yield to Maturity	1.50	0.30
Average Quality	AAA	AAA
Average Coupon	5.60%	1.20%



Performance Return Calculations

Performance is calculated using Modified Dietz and for time periods with large cash flow (generally greater than 10% of portfolio value), Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked 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.

Policy & Custom Index Composition

Policy Index (7/1/2021 - present)	16% Russell 3000, 16% MSCI ACWI ex-US (Gross), 9% MSCI ACWI (Net), 2% Wilshire REIT, 8% Private Real Estate composite returns, 3% CPI + 4%, 11% Private Equity composite returns, 8% Private Credit composite returns, 2% ICE BofAML High Yield Master II, 18% Bloomberg 1-3 Yr Gov/Credit, 2.5% Bloomberg US Aggregate, 3% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate, 1.5% HFRI EH Equity Market Neutral.
Policy Index (1/1/2021 - present)	9% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 8% Private Real Estate composite returns, 1.5% CPI + 4%, 11% Private Equity composite returns, 7% Private Credit composite returns, 1.5% ICE BofAML High Yield Master II, 25% Bloomberg 1-3 Yr Gov/Credit, 3% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 2% HFRI EH Equity Market Neutral.
Policy Index (7/1/2020 - 12/31/2020)	9% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 1.5% CPI + 4%, 11% S&P 500 +4% (Lagged), 7% ICE BofAML High Yield Master II +2%, 1.5% ICE BofAML High Yield Master II, 25% Bloomberg 1-3 Yr Gov/Credit, 3% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 2% HFRI EH Equity Market Neutral.
Policy Index (7/1/2019 - 6/30/2020)	10% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 2% CPI + 4%, 11% S&P 500 +4% (Lagged), 5% ICE BofAML High Yield Master II +2%, 2% ICE BofAML High Yield Master II, 24% Bloomberg 1-3 Yr Gov/Credit, 3.5% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 2.5% HFRI EH Equity Market Neutral.
Policy Index (7/1/2018 - 6/30/2019)	11% Russell 3000, 19% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 1.8% NCREIF Property Index, 7.2% NCREIF ODCE Index, 2% CPI + 4%, 10% S&P 500 +4% (Lagged), 4% ICE BofAML High Yield Master II +2%, 2% ICE BofAML High Yield Master II, 23% Bloomberg 1-3 Yr Gov/Credit, 3.5% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 2.5% HFRI EH Equity Market Neutral.
Policy Index (10/1/2017 - 6/30/2018)	16.3% Russell 3000, 18.8% MSCI ACWI ex-US (Gross), 8.6% MSCI ACWI (Net), 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 2.5% CPI + 4%, 10.1% S&P 500 +4% (Lagged), 1.9% ICE BofAML High Yield Master II +2%, 4.3% ICE BofAML High Yield Master II, 25% Bloomberg 1-3 Yr Gov/Credit, 3.5% Bloomberg US Aggregate.
Policy Index (1/1/2017 - 9/30/2017)	22.9% Russell 3000, 11% MSCI ACWI ex-US (Gross), 10.9% MSCI ACWI (Net), 1% Wilshire REIT, 1.7% NCREIF Property Index, 6.8% NCREIF ODCE Index, 3.6% CPI + 4%, 8.1% S&P 500 +4% (Lagged), 1.7% ICE BofAML High Yield Master II +2%, 5.1% ICE BofAML High Yield Master II, 22.4% Bloomberg 1-3 Yr Gov/Credit, 3.2% Bloomberg US Aggregate, 1.6% 91-Day T-Bills.
Policy Index (4/1/2012-12/31/2016)	27.7% Russell 3000, 10.6% MSCI ACWI ex-US (Gross), 12.3% MSCI ACWI (Net), 19.6% Bloomberg U.S. Aggregate, 5% ICE BofAML High Yield Master II, 4% Bloomberg Global Aggregate, 13.5% Real Estate Benchmark, 6.8% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.

Policy & Custom Index Composition (continued)

Policy Index (4/1/2011-3/31/2012)	31% Russell 3000, 10.4% MSCI EAFE (Gross), 9.6% MSCI ACWI (Net), 25% Bloomberg U.S. Aggregate, 3% ICE BofAML High Yield Master II, 4% Bloomberg Global Aggregate, 8.4% DJ Wilshire REIT, 3.1% NCREIF, 5% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
Policy Index (4/1/2010-3/31/2011)	35.6% Russell 3000, 10.4% MSCI EAFE (Gross), 5% MSCI ACWI (Net), 25% Bloomberg U.S. Aggregate, 3% ICE BofAML High Yield Master II, 4% Bloomberg Global Aggregate, 8.4% DJ Wilshire REIT, 3.1% NCREIF, 5% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
Policy Index (7/1/2009-3/31/2010)	40.6% Russell 3000, 10.4% MSCI EAFE (Gross), 25% Bloomberg U.S. Aggregate, 3% ICE BofAML High Yield Master II, 4% Bloomberg Global Aggregate, 8.4% DJ Wilshire REIT, 3.1% NCREIF, 5% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
Custom Growth Benchmark (7/1/2021 - present)	21.33% Russell 3000, 21.33% MSCI ACWI ex-US (Gross), 12% MSCI ACWI (Net), 2.67% Wilshire REIT, 10.67% Private Real Estate composite returns, 14.67% Private Equity composite returns, 10.67% Private Credit composite returns, 2.67% ICE BofAML High Yield Master II, 4% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
Custom Growth Benchmark (1/1/2021 - 6/30/2021)	13.14% Russell 3000, 26.28% MSCI ACWI ex-US (Gross), 16.06% MSCI ACWI (Net), 1.46% Wilshire REIT, 11.68 Private Real Estate composite returns%, 16.06% Private Equity composite returns, 10.22% Private Credit composite returns, 2.19% ICE BofAML High Yield Master II, 2.92% Bloomberg Global Bond
Custom Growth Benchmark (7/1/2020 - 12/31/2020)	13.14% Russell 3000, 26.28% MSCI ACWI ex-US (Gross), 16.06% MSCI ACWI (Net), 1.46% Wilshire REIT, 2.34% NCREIF Property Index, 9.33% NCREIF ODCE Index, 16.06% S&P 500 +4% (Lagged), 10.22% ICE BofAML High Yield Master II +2%, 2.19% ICE BofAML High Yield Master II, 2.92% Bloomberg Global Bond
Custom Growth Benchmark (7/1/2019 - 6/30/20)	14.7% Russell 3000, 26.4% MSCI ACWI ex-US (Gross), 16.2% MSCI ACWI (Net), 1.5% Wilshire REIT, 2.4% NCREIF Property Index, 9.4% NCREIF ODCE Index, 16.2% S&P 500 +4% (Lagged), 7.4% ICE BofAML High Yield Master II +2%, 2.9% ICE BofAML High Yield Master II, 2.9% Bloomberg Global Bond
Custom Growth Benchmark (7/1/2018 - 6/30/2019)	16.0% Russell 3000, 27.5% MSCI ACWI ex-US (Gross), 15.9% MSCI ACWI (Net), 1.5% Wilshire REIT, 2.6% NCREIF Property Index, 10.4% NCREIF ODCE Index, 14.5% S&P 500 +4% (Lagged), 5.8% ICE BofAML High Yield Master II +2%, 2.9% ICE BofAML High Yield Master II, 2.9% Bloomberg Global Bond
Custom Growth Benchmark (9/30/2017- 6/30/2018)	23.6% Russell 3000, 27.2% MSCI ACWI ex-US (Gross), 12.5% MSCI ACWI (Net), 1.5% Wilshire REIT, 2.3% NCREIF Property Index, 9.3% NCREIF ODCE Index, 14.6% S&P 500 +4% (Lagged), 2.8% ICE BofAML High Yield Master II +2%, 6.2% ICE BofAML High Yield Master II
Custom Growth Benchmark (1/1/2017-9/30/2017)	32.6% Russell 3000, 15.7% MSCI ACWI ex-US (Gross), 15.5% MSCI ACWI (Net), 1.4% Wilshire REIT, 2.4% NCREIF Property Index, 9.6% NCREIF ODCE Index, 1.6% CPI +4%, 11.5% S&P 500 +4% (Lagged), 2.4% ICE BofAML High Yield Master II +2%, 7.3% ICE BofAML High Yield Master II
Custom Growth Benchmark (Prior to 1/1/2017)	Weighted-average of the benchmarks of the sub-composites that make up the composite.
Custom Diversifying Benchmark (7/1/2021-present)	35.71% Bloomberg US Aggregate, 21.43% FTSE 3-Month T-bill +4%, 21.43 FTSE 3-Month T-bill +5%, 21.43% Bloomberg Barclays US Aggregate +1%
Custom Diversifying Benchmark (8/1/2020 - 6/30/2021)	46.15% Bloomberg US Aggregate, 30.77 FTSE 3-Month T-bill +4%, 23.08 FTSE 3-Month T-bill +5%.
Custom Diversifying Benchmark (7/1/2018 - 7/31/2020)	43.75% Bloomberg US Aggregate, 25% CPI + 4%, 31.25% HFRI EH Equity Market Neutral.
Custom Diversifying Benchmark (10/1/2017 - 6/30/2018)	58.33% Bloomberg US Aggregate, 41.67% CPI + 4%.
Custom Diversifying Benchmark (1/1/2017 - 9/30/2017)	56.1% Bloomberg US Aggregate, 43.9% CPI + 4%.
Custom Diversifying Benchmark (Prior to 1/1/2017)	Weighted-average of the benchmarks of the sub-composites that make up the composite.
Custom Diversifying Multi-Asset Benchmark (current)	50% FTSE 3-Month T-bill +5%, 50% Bloomberg Barclays US Aggregate +1%
Real Estate Benchmark (current)	20% Wilshire REIT, 80% Private Real Estate composite returns.
Real Estate Benchmark (4/1/2012-11/30/2016)	40% Wilshire REIT, 50% NCREIF Property Index, 10% FTSE/EPRA NAREIT Developed ex-US.

Manager Line Up					
Manager	Inception Date	Data Source	Manager	Inception Date	Data Source
BlackRock Russell 1000 Index	4/20/2017	BlackRock	Invesco Real Estate III	6/30/2013	Invesco
Jackson Square Partners	5/1/2005	Northern Trust	Invesco Real Estate IV	6/30/2014	Invesco
Boston Partners	6/1/1995	Northern Trust	Invesco Real Estate V	2/20/2019	Invesco
Emerald Advisors	4/7/2003	Northern Trust	Oaktree REOF V	12/31/2011	Oaktree
Ceredex	11/6/2011	Northern Trust	Oaktree REOF VI	9/30/2013	Oaktree
Pyrford	4/25/2014	State Street	Oaktree REOF VII	4/1/2015	Oaktree
William Blair	10/29/2010	William Blair	Siguler Guff DREOF	1/25/2012	Siguler Guff
PIMCO RAE Emerging Markets	2/28/2017	State Street	Siguler Guff DREOF II	8/31/2013	Siguler Guff
TT Emerging Markets	7/27/2017	TT	Siguler Guff DREOF II Co-Inv	1/27/2016	Siguler Guff
Artisan Partners	10/1/2012	SEI Trust	Paulson Real Estate Fund II	11/10/2013	Paulson
First Eagle	1/18/2011	Northern Trust	AE Industrial Partners Fund II	4/8/2019	StepStone Group
Allianz Global Investors	4/25/2000	Northern Trust	Adams Street Partners	3/18/1996	StepStone Group
Adelante	9/30/2001	Northern Trust	Adams Street Partners II	1/16/2009	StepStone Group
AQR Global Risk Premium - EL	1/18/2019	AQR	Adams Street Partners Venture	4/28/2017	StepStone Group
Panagora Risk Parity Multi Asset	3/15/2019	Panagora	Adams Street Partners - BFP	1/18/1996	StepStone Group
AFL-CIO	6/30/1991	AFL-CIO	Adams Street Partners - Fund 5	9/21/2012	StepStone Group
Wellington Real Total Return (in Liquidation)	2/26/2013	Wellington	Aether Real Assets IV	3/16/2016	StepStone Group
Acadian Multi-Asset Absolute Return Fund	8/4/2020	Northern Trust	Aether Real Assets III	11/27/2013	StepStone Group
Sit LLCAR	4/15/2021	Northern Trust	Aether Real Assets III Surplus	11/30/2013	StepStone Group
Parametric Defensive Equity	7/23/2018	Northern Trust	Bay Area Equity Fund	6/14/2004	StepStone Group
Sit Short Duration	11/2/2016	Northern Trust	Bay Area Equity Fund II	12/7/2009	StepStone Group
DFA Short Credit	11/21/2016	Northern Trust	Commonfund	6/28/2013	StepStone Group
Insight Short Duration	11/18/2016	Northern Trust	EIF US Power Fund II	8/16/2005	StepStone Group
Parametric Overlay	3/29/2017	Northern Trust	EIF US Power Fund III	5/30/2007	StepStone Group
Cash	-	Northern Trust	EIF US Power Fund IV	11/28/2011	StepStone Group
Angelo Gordon Energy Credit Opp	9/24/2015	StepStone Group	EIF US Power Fund V	11/28/2016	StepStone Group
StepStone CC Opportunities Fund	2/1/2018	StepStone Group	Genstar Capital Partners IX, L.P.	2/21/2019	StepStone Group
Torchlight II	9/30/2006	StepStone Group	Oaktree PIF 2009	2/28/2010	StepStone Group
Torchlight IV	7/1/2012	StepStone Group	Paladin III	11/30/2007	StepStone Group
Torchlight V	7/1/2012	StepStone Group	Ocean Avenue Fund II	6/11/2014	StepStone Group
Angelo Gordon Realty Fund VIII	1/23/2012	Angelo Gordon	Ocean Avenue Fund III	4/15/2016	StepStone Group
Angelo Gordon Realty Fund IX	12/8/2014	Angelo Gordon	Pathway 6	5/24/2011	StepStone Group
DLJ RECP III	6/23/2005	DLJ	Pathway 7	2/7/2013	StepStone Group
DLJ RECP IV	2/11/2008	DLJ	Pathway 8	11/23/2015	StepStone Group
DLJ RECP V	7/1/2014	DLJ	Pathway	11/9/1998	StepStone Group
DLJ RECP VI	3/19/2019	DLJ	Pathway 2008	12/26/2008	StepStone Group
LaSalle Income & Growth VI	7/16/2013	LaSalle	Siguler Guff CCCERA Opps	6/3/2014	StepStone Group
LaSalle Income & Growth VII	2/28/2017	LaSalle	Siguler Guff Secondary Opps	11/30/2016	StepStone Group
Hearthstone II	6/17/1998	Hearthstone	Siris Partners IV	3/15/2019	StepStone Group
Long Wharf Fund IV	7/3/2013	Long Wharf	TPG Healthcare Partners, L.P.	6/28/2019	StepStone Group
Long Wharf Fund V	9/30/2016	Long Wharf	Trident VIII, L.P.	5/24/2019	StepStone Group
Long Wharf Fund VI	2/5/2020	Long Wharf	Wastewater Opp. Fund	12/8/2015	StepStone Group

Other Disclosures

All data prior to 12/31/2014 was provided by previous consultant.
 As of 7/1/2018 all Private Equity and Private Credit data is provided by StepStone Group.

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: $\text{Portfolio Return} - [\text{Risk-free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk-free Rate})]$.

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: $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$.

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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MEMORANDUM

Date: November 17, 2021
To: CCCERA Board of Retirement Trustees
From: Timothy Price, Chief Investment Officer
Subject: Investment Staff Report – Q3 2021

Overview

On a quarterly basis CCCERA’s Board receives a report which details critical elements of CCCERA’s Functionally Focused Portfolio’s sub-portfolios. The purpose of the report is to highlight elements of the sub-portfolios which are good indicators to the Board of the program’s efficient and effective operation.

Summary

CCCERA’s Total Fund is performing as expected, exhibiting returns above expectations for the amount of risk taken. This is measured by the Sharpe Ratio (risk-adjusted return), and a comparison to the Simple Target Index. The Simple Target Index is the most basic index which could replicate CCCERA’s Total Fund, and is made up of 75% MSCI ACWI, 18% Bloomberg 1-3 Year Gov/Credit, and 7% 3-Month Treasury Bills (please see the Total Fund pages in the appendix for additional details). CCCERA’s portfolio is much more complex, especially as it relates to allocations to private equity, private credit, and real estate.

CCCERA has been rewarded for implementing a more complex portfolio and has outperformed the Simple Target Index over the trailing ten years, while experiencing less risk (volatility). While the trailing year performance has been strong, the trailing three and five-year periods show a lower return and lower risk level than the Simple Target Index, but superior Sharpe ratios. Details on performance relative to this index are included in the appendix. It is worth noting that CCCERA’s Total Fund return is an aggregate of the performance of the Liquidity, Growth, and Risk Diversifying sub-portfolios.

1) Liquidity

The purpose of the liquidity program is to match three years of benefit payments with high credit quality, low duration assets. The liquidity sub-portfolio is made up of three fixed income managers, all of whom pursue a high quality, low duration investment approach. In the third quarter of 2021, all managers held high quality (as measured by credit ratings), low duration portfolios. The average credit quality for the entire liquidity program is AA- (AAA is the highest rating), and the duration is 1.7 years, which is considered short.

2) Growth

The Growth portfolio is designed to take advantage of capital appreciation and income opportunities globally. To achieve this, the Growth portfolio includes a variety of assets, from stocks and growth-oriented bonds to private equity, real estate, and private credit.

For the trailing five-year period ending September 30, 2021, the Growth portfolio returned 11.7% relative to the index return of 13.2%, for a relative underperformance of 1.5%. During the third quarter of 2021, the MSCI ACWI Index returned -1.1% relative to CCCERA's Growth sub-portfolio return of 2.9%. Over this period, the Growth program produced a superior Sharpe ratio relative to the index.

3) Risk Diversifying

The Risk Diversifying mandate holds assets that are expected to diversify the growth portfolio's volatility while offering moderate growth. The mandate as a whole seeks to be highly liquid, have a low beta to the growth market, and produce positive real returns. In the third quarter, the Risk Diversifying mandate fulfilled two of these goals. The entire mandate can be liquidated within 90 days, meeting the requirement of high liquidity. The correlation of the mandate to growth markets is 0.8, similar to that of June 2021. The trailing real (net of inflation) return over the past five years is -1.5%, remaining at a similar level as the previous several quarters, and remains below expectations. We continue to actively underwrite a number of strategies to further build out this allocation.

The Liquidity and Growth sub-portfolios are largely functioning well and within expectations. We continue to underwrite additional strategies to diversify the program away from its fixed income bias.

By and large, the product teams and asset managers across all managers are stable, and we have no significant organizational concerns with our investment managers. CCCERA's Total Fund in aggregate is performing in line with expectations, having a similar or higher risk-adjusted return but a lower level of volatility compared to the Simple Target Index. Enclosed are additional details on CCCERA's Total Fund, sub-portfolios, and individual investment strategies.

CCCERA Portfolio Report Card

Below we have itemized those elements of each of CCCERA’s sub-portfolios and Total Fund which we believe the Board should pay particular attention to. Additional details on each of the sub-portfolios are available in the appendix. All CCCERA performance is stated on a net of fees basis.

Liquidity

Objective	Measurement	Current Period Data	Status
High Quality	Credit Quality	AA-	Meeting Expectations
Low Risk	Duration	1.7 years	Meeting Expectations
Appropriately Sized	Months of Benefit Payments Invested	31 Months	Meeting Expectations

Growth

Objective	Measurement	Current Period Data	Status
Growth of Plan Assets	Absolute Returns	Trailing 5 yr return: 11.7%	Meeting Expectations
	Benchmark Relative Returns	-1.5% relative to ACWI over trailing 5 years	Below Expectations
Efficient Capital Deployment	Sharpe Ratio	CCCERA: 1.0 MSCI ACWI: 0.7 (over trailing 5 years)	Meeting Expectations

Risk Diversifying

Objective	Measurement	Current Period Data	Status
Offset Volatility in Growth Portfolio	Correlation	0.8 over trailing 5 years	Below Expectations
Positive Real Returns	Returns	Trailing 5 yr real return of -1.5%	Below Expectations
High Liquidity	% of Portfolio that can be liquidated within 90 days	100%	Meeting Expectations

Total Fund

Objective	Component/Measurement	Status
Store 4 Years of Benefit Payments	Liquidity Sub-portfolio	Meeting Expectations
Participate in Growth Opportunities	Growth Sub-portfolio	Meeting Expectations
Provide an offset to Growth volatility	Risk Diversifying Sub-portfolio	Below Expectations
Produce superior risk adjusted returns	Total Fund Sharpe Ratio	Meeting Expectations

Appendix – Liquidity Sub-Portfolio

Manager Reviews

Organizational Stability

	Portfolio Management Assessment	1 Year Product Asset Growth	1 Year Firm Asset Growth	Regulatory Action in Last Year?
Insight	Good	72%	19%	N
Sit	Good	20%	5%	N
DFA	Good	10%	24%	N

Performance

	Portfolio Average Credit Quality	Portfolio Average Duration	Portfolio Average Yield	1 Year Total Return
Insight	A	1.1	0.6	0.0%
Sit	AAA	1.9	1.5	0.6%
DFA	A+	2.9	1.0	0.8%

Manager Notes:

The liquidity sub-portfolio was allowed to run down to three years of benefit payments over the past several months and is now within its new target range.

Manager Theses:

The Liquidity Portfolio is a combination of three managers which work together to match three years of CCCERA’s liabilities. The portfolio is refreshed every year during the annual funding plan.

Insight: Insight plays a completion role in the liquidity program, matching out liabilities with short duration government and corporate fixed income securities.

DFA: Dimensional Fund Advisors runs a strategy that focuses on obtaining fixed income exposures via the most liquid securities available. DFA contributes to the Liquidity Program by selling securities at regular intervals to pay a portion of CCCERA’s monthly benefit payment.

Sit: Sit invests in high yielding government backed mortgages. The cash flow from these securities is harvested monthly to make up a portion of CCCERA’s monthly benefit payment.

Appendix – Growth Sub-Portfolio

Manager Reviews

Organizational Stability

	Portfolio Management Assessment	1 Year Product Asset Growth	1 Year Firm Asset Growth	Regulatory Action in Last Year?
Boston Partners	Good	21%	41%	N
Jackson Square	Good	-44%	-23%	N
BlackRock Index Fund	Good	15%	21%	N
Emerald Advisors	Good	20%	23%	N
Ceredex	Good	40%	0%	N
Pyrford (BMO)	Good	8%	5%	N
William Blair	Good	3%	25%	N
First Eagle	Good	10%	6%	N
Artisan Global	Good	10%	29%	N
PIMCO/RAE EM	Good	4%	9%	N
TT EM	Good	38%	35%	N
Adelante	Good	-1%	11%	N
Allianz	Good	9%	17%	N
AQR	Good	10%	-5%	N
PanAgora	Good	28%	17%	N
Private Equity	Good	--	--	N
Private Credit	Good	--	--	N
Real Estate	Good	--	--	N

Performance

	Trailing 1 Year Return	Trailing 5-yr Return	Trailing 10-yr Return	Performance in Line with Expectations?
MSCI ACWI-ND	27%	13%	12%	
Boston Partners	42%	12%	14%	Y
Jackson Square	25%	19%	17%	N
BlackRock Index Fund	31%	17%	17%	Y
Emerald Advisors	31%	17%	17%	Y
Ceredex	52%	9%	13%	N
Total Domestic Equity	36%	16%	16%	Y
Pyrford (BMO)	17%	6%	7%	Y
William Blair	26%	14%	11%	Y
PIMCO/RAE EM	46%	9%	6%	Y
TT EM	27%	12%	10%	Y
Total International Equity	27%	10%	9%	Y
First Eagle	20%	8%	9%	Y
Artisan Global	21%	19%	17%	Y
Total Global Equity	21%	14%	13%	Y
Adelante	40%	9%	12%	Y
Allianz	9%	5%	6%	N
AQR	15%	7%	6%	Y
PanAgora	15%	8%	9%	Y
Private Equity	61%	18%	13%	Y
Private Credit	10%	8%	10%	Y
Real Estate	15%	6%	10%	Y

Manager Notes:

The relative underperformance of small cap and value strategies that was prevalent during the second half of 2020 returned in the third quarter of 2021. The leadership in US securities returned in the third quarter, due both to the relative strength of the US economy, low rates and weakness in China based upon a more restrictive real estate environment.

Manager Theses:

The growth portfolio includes all managers in public and private equity, real estate, and private credit. These managers grow CCCERA's assets for future benefit payments (beyond the three years already covered by the Liquidity program).

Boston Partners: Large cap domestic equity which follows a value discipline. Boston Partners will buy out of favor companies and sell them when their intrinsic values are reflected in the market. Expected to outperform in flat to falling markets.

Jackson Square: Domestic equity large cap growth portfolio concentrated in companies with sustainable long-term growth characteristics. This portfolio should outperform in rapidly rising markets.

BlackRock Index Fund: Large cap domestic equity portfolio which should follow the Russell 1000 Index.

Emerald Advisors: Small cap growth equity seeking companies with high growth rates. Expected to produce strong returns in rising markets, and weak returns in falling markets.

Ceredex: Domestic equity small cap value portfolio of companies with dividend yields and low valuations. This portfolio should outperform flat markets.

Pyrford (BMO): International equity value portfolio of non-US companies with low valuations at the country and stock level. This portfolio should outperform in flat markets.

William Blair: International equity growth portfolio of non-US companies with high growth rates constructed from the security level. This portfolio should outperform in rapidly rising markets.

Third Eagle: Global equity portfolio that is benchmark agnostic comprised of companies with low valuations.

Artisan Global Opportunities: Global equity portfolio of companies that is benchmark agnostic with accelerating profit cycles and a focus on capital allocation.

PIMCO/RAE Emerging Markets: Quantitative equity with a value orientation. This portfolio follows the fundamental indexing approach (ranking companies by metrics other than market capitalization), resulting in a diversified, low turnover portfolio. This portfolio underperforms in momentum driven markets.

TT International Emerging Markets: Concentrated, growth oriented manager which invests in small and mid-cap emerging market companies. TT employs both a top-down and a bottom-up research approach, and seeks to outperform by identifying companies that have a catalyst to drive future growth.

Adelante: Diversified portfolio of U.S. REITs with a focus on the underlying real estate assets. Adelante is a public market proxy of the core real estate market.

Allianz High Yield Fixed Income: Domestic high yield fixed income portfolio with a focus on security selection. Allianz will focus on the higher quality segment of the high yield universe. Allianz should provide a steady income stream, and provide downside protection in falling markets.

Private Equity: CCCERA invests in private equity to generate returns above those available in the public equity markets.

Private Credit: CCCERA invests in private credit to generate cash flow streams above those available in the public debt markets.

Real Estate: CCCERA invests in value-add, distressed, and opportunistic real estate to generate returns from the capital appreciation and cash flow associated with commercial real estate investment.

Risk Parity: Multi-asset approach that strives for balanced contributions to total portfolio risk from multiple asset classes.

Appendix – Risk Diversifying Sub-Portfolio

Organizational Stability

	Portfolio Management Assessment	1 Year Product Asset Growth	1 Year Firm Asset Growth	Regulatory Action in Last Year?
AFL-CIO	Good	5%	5%	N
Parametric	Good	9%	28%	N
Acadian	Good	193%	19%	N
Sit	---	---	---	---

Performance

	Trailing 1 Year Correlation to Growth	Trailing 3 Year Correlation to Growth	1 Year Return	5 Year Return	% of Portfolio Liquid in 90 Days
AFL-CIO	0.2	-0.3	-1%	3%	100%
Parametric	0.2	0.8	9%	N/A	100%
Acadian	0.6	-0.5	6%	N/A	100%
Sit	---	---	---	---	100%

Manager Notes:

The Sit LLCAR was funded in the second quarter of 2021. As it is a custom strategy, we will not be able to show one year of data until mid 2022.

Manager Theses:

Managers in the risk diversifying allocation seek to have a low correlation with the growth portfolio, positive returns in flat and falling equity markets, and a high degree of liquidity. These managers work together to offset some of the risks in the growth portfolio.

AFL-CIO: Portfolio of domestic, high quality fixed income securities which are backed by commercial and residential mortgages.

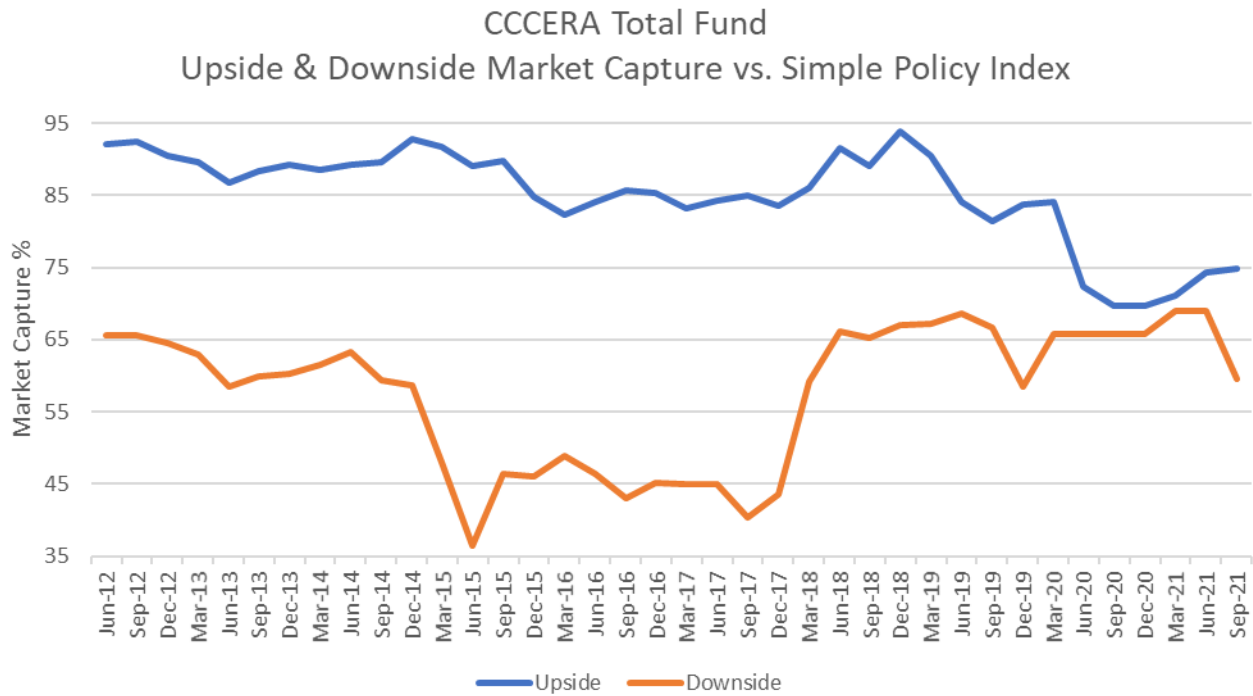
Parametric: Portfolio of paired options selling intended to collect insurance premiums by selling puts and calls on the S&P 500 with collateral invested in US Treasury portfolio.

Acadian: Quantitatively managed multi-asset absolute return strategy that uses various models to capture pricing dislocations.

Sit LLCAR: Multiple fixed income strategies (closed end funds, mortgages, Treasuries) actively managed to target a modest positive return in most market environments

Appendix Data – Total Fund

Rolling 3-Year Total Fund Upside/Downside Market Capture



*The composition of the Simple Target Index has mirrored changes in CCCERA’s asset allocation over time: from 2008 to 2012 the benchmark was 73% MSCI ACWI, 23% Bloomberg 1-3 Year Gov/Credit, and 4% 3-Month Treasury Bills. From 2012 to 2016 the composition was 74% MSCI ACWI, 18% Bloomberg 1-3 Year Gov/Credit, and 9% 3-Month Treasury Bills. From 2016 to 2017 the composition was 63% MSCI ACWI, 25% Bloomberg 1-3 Year Gov/Credit, and 12% 3-Month Treasury Bills, from 2017 to September 2018 the composition was 61% MSCI ACWI, 27% Bloomberg 1-3 Year Gov/Credit, and 12% 3-Month Treasury Bills, from July 2018 to September 2019 the composition is 69% MSCI ACWI, 23% Bloomberg 1-3 Year Gov/Credit, and 8% 3-Month Treasury Bills, from July 2019 to September 2020 the composition is 68% MSCI ACWI, 24% Bloomberg 1-3 Year Gov/Credit, and 8% 3-Month Treasury Bills, from July 2020 to the May 2021 the composition is 68.5% MSCI ACWI, 25% Bloomberg 1-3 Year Gov/Credit, and 6.5% 3-Month Treasury Bills; from July 2021 to the present the composition is 75% MSCI ACWI, 18% Bloomberg 1-3 Year Gov/Credit, and 7% 3-Month Treasury Bills.

Total Fund Quarterly Attribution

	CCCERA Total Fund			Simple Target Index			Analysis		
	Allocation	Return	Return Contribution	Allocation	Return	Return Contribution	Allocation Difference	Return Difference	Total Effect
Liquidity	19.7%	0.0%	0.0%	18.0%	0.1%	0.0%	1.7%	-0.1%	0.0%
Growth	74.2%	2.3%	1.7%	75.0%	-1.1%	-0.8%	-0.8%	3.3%	2.5%
Risk Diversifying	6.1%	0.6%	0.0%	7.0%	0.0%	0.0%	-0.9%	0.6%	0.0%
Total Fund	100%		1.7%	100%		-0.8%	-0.1%		2.5%

CCCERA Total Fund Performance vs. Simple Target Index

	One Year		Three Years		Five Years		Ten Years	
	CCCERA	STI	CCCERA	STI	CCCERA	STI	CCCERA	STI
Return	19.6	18.5	9.5	9.9	9.0	9.5	9.6	8.7
Volatility	6.0	9.0	10.4	15.4	8.1	12.0	6.9	9.8
Sharpe	3.2	2.0	0.8	0.6	1.0	0.7	1.3	0.8

The Simple Target Index is made up of 75% MSCI ACWI, 18% Bloomberg 1-3 Year Gov/Credit, and 7% 3-Month Treasury Bill. This purpose of this index is to examine whether CCCERA is being rewarded for pursuing a more nuanced portfolio versus a very simple representative portfolio.

CCCERA's Total Fund has produced strong risk adjusted and absolute returns over the trailing five and ten-year periods. Additionally, the CCCERA Portfolio has exceeded the STI over the trailing ten-year period, though it has lagged in more recent periods. This would indicate that CCCERA has been rewarded over time for engaging in more complex investments which target outperformance versus investing passively in the publicly traded market even though these more complex structures have lagged the public markets sharply in the past year which is a drag on medium-term performance.

The Sharpe ratio is a measure of risk adjusted returns which shows the amount of return a portfolio earns above the risk free rate per unit of volatility. The Total Fund has exceeded the Sharpe ratio relative to the Simple Target Index over all trailing time periods, indicating that CCCERA is being favorably rewarded for the level of risk taken in the portfolio.

Meeting Date
11/17/2021
Agenda Item
#6a.



Rishi Garbharran
Investment Officer

Private Equity Review

November 17, 2021

Overview

- CCCERA Private Equity Program
- CCCERA Private Equity Strategy
- Projected Investment Pace
- Private Equity Portfolio Sub-categories
- Key Takeaways

CCCERA Private Equity Program

Role of Private Equity in CCCERA Portfolio

CCCERA Long-Term Asset Allocation Targets

Growth
(76%)
Range = 65-85%

Liquidity
(17%)
Range = 11-22%

Risk Diversifying
(7%)
Range = 0-10%

Public Equity (32%)

Public Debt (17%)

Low Beta Strategies
(7%)

Private Equity (15%)

Private Credit (13%)

Real Estate (10%)

Real Assets (3%)

Risk Parity (3%)



CCCERA Private Equity Program – Key Participants

CCCERA

Manages the Private Equity Program – including top-down strategy selection, bottom-up investment manager evaluation, and monitoring of investment managers

Investment Managers

Source, evaluate, execute, and monitor private equity investments primarily within commingled drawdown funds

Stepstone

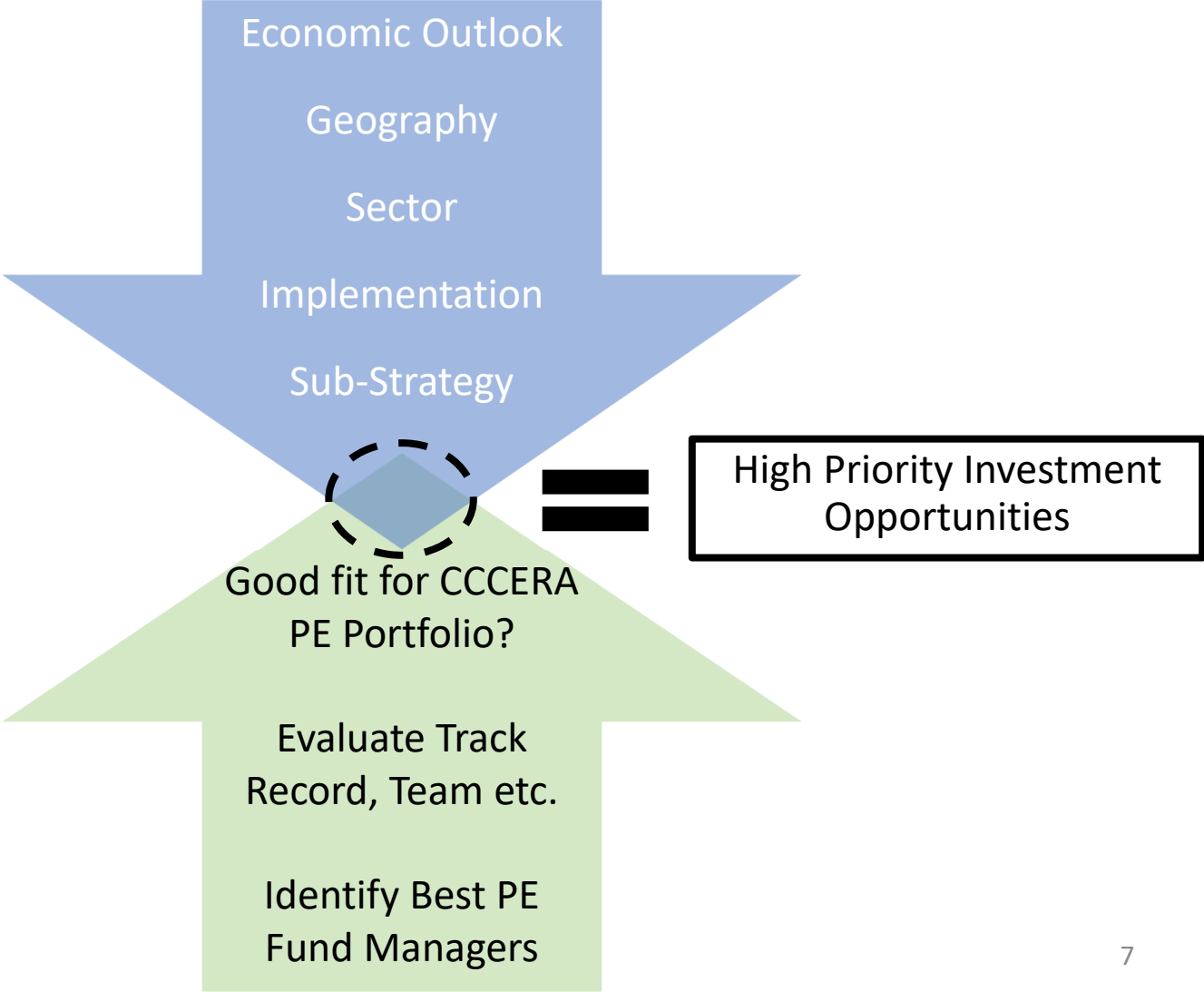
Provides advice to CCCERA and is also responsible for pacing analysis, portfolio monitoring, and reporting



CCCERA Private Equity Strategy

CCCERA Approach to Private Equity Investing

Investment Pacing Plan



Top-Down Considerations

Geography	North America	Europe	Asia	Rest of World
Sector	IT	Healthcare	Financial Services	
	Industrials	Business Services	Consumer etc.	
Implementation	Fund of Funds	Primary Funds	Secondaries	
	Co-investments	Direct Investments		
Sub-Strategy	Buyouts	Growth Equity	Venture	Other



Represents current areas of focus for CCCERA's Private Equity Program

Bottom-Up Considerations

	Established PE Fund Manager
Length of Track Record	15-40 years
Institutional Resources	Robust / fully scaled
Stability of Team	15 years+ working together
Historical Performance	Predominantly first and second quartile PE returns
Diversification	Typically 15-30 mature companies across several sectors
Range of Outcomes	1.5x / 10% - 2.5x / 20% net returns

- ~\$380 million committed to core primary funds since beginning of 2019
- 8 commitments to 6 new PE managers

Projected Investment Pace

Projected Investment Pace

- Investment pace projected to increase significantly over the next five years
 - From ~\$200-\$300+MM / year to ~\$450MM / year
- Key drivers of increased investment pace
 - Larger total plan size than projected
 - Higher PE cash distributions than projected
- Implementation considerations
 - Multi-year sourcing and relationship building
 - Disciplined portfolio construction
 - Relatively young primary fund PE program

Private Equity Portfolio Sub-categories

PE Portfolio Sub-categories (as of 6/30/21)

(USD in Millions)

Portfolio Sub-Category	Vintage	# of	\$	% Total	\$	% Total	Net Returns		
	Years	Investments	Committed	Committed	Contributed	Contributed	IRR	TVPI	DPI
Legacy Fund-of-Fund Portfolio	1996-2016	38	\$ 1,100	54%	\$ 990	58%	14%	2.0x	1.0x
Core Primary Fund Portfolio	2019-2021	7	332	16%	64	4%	70%	1.5x	0.1x
Legacy Primary Fund Portfolio	2004-2018	7	160	8%	140	8%	12%	1.9x	1.2x
Total (excl. Real Assets)	1996-2021	52	\$ 1,591	78%	\$ 1,193	70%	14%	1.9x	1.0x
Legacy Real Asset Portfolio	1996-2016	11	460	22%	503	30%	5%	1.2x	0.7x
Total (incl. Real Assets)	1996-2021	63	\$ 2,051	100%	\$ 1,697	100%	12%	1.7x	0.9x

- Total PE portfolio performance does not isolate performance of CCCERA's new core primary fund investment strategy
- Segregating the portfolio in to sub-categories should provide more useful information to evaluate CCCERA's PE performance

Early performance of core primary fund portfolio

- ~\$380 million committed since 2019 (8 commitments to 6 new managers)
- Vintage years = 2019-2021
- Still very early but starting to see signs of attractive investment performance (as of 6/30/21)
 - Each active fund is a first or second quartile performer
 - Top performing fund is in the 95th+ percentile
 - 0% loss ratio across the core primary fund portfolio

Key Takeaways

- Consistent and disciplined PE investment strategy
- Proactive, multi-year approach to relationship-building and sourcing
- Significant increase projected in investment pace to reach 15% long-term asset allocation target
- Important to segregate PE portfolio when evaluating performance
- Promising early performance of core primary fund portfolio

Meeting Date
11/17/2021
Agenda Item
#6b.



CCCERA Board Presentation

Private Equity Update

NOVEMBER 2021



Disclosure



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On September 20, 2021, StepStone Group Inc. acquired Greenspring Associates, Inc. (“Greenspring”). Upon the completion of this acquisition, the management agreement of each Greenspring vehicle was assigned to StepStone Group LP

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TOM KECK, PARTNER, HEAD OF RESEARCH, LA JOLLA

Mr. Keck leads StepStone's global research activities and the development of SPI. He is also involved in the Firm's ESG and risk management initiatives.

Prior to co-founding StepStone, Mr. Keck was a managing director at Pacific Corporate Group, a private equity investment firm that oversaw over US\$15 billion of private equity commitments for institutional investors. Before that he was a principal with Blue Capital, a middle-market buyout firm.

Mr. Keck graduated cum laude with a BA from the George Washington University and received his MBA with high honors from the University of Chicago Booth School of Business. He served in the US Navy as a Naval Flight Officer, receiving numerous decorations flying EA-6Bs off the USS Nimitz (CVN-68).



JOSE FERNANDEZ, PARTNER, CO-COO, LA JOLLA

Mr. Fernandez is the Co-COO of StepStone Group and a member of the private equity team where he focuses on US-based small-market managers and Latin American investments. He is also involved in the Firm's ESG and diversity initiatives, as well as various investment activities.

Prior to co-founding StepStone, Mr. Fernandez was a managing director of Pacific Corporate Group, a private equity investment firm for institutional investors. Mr. Fernandez previously worked with Latham and Watkins LLP's private equity/investment fund group, a practice focused on joint ventures and the structuring, negotiation and operation of pooled investment vehicles such as private equity funds.

Mr. Fernandez received his BA from the University of Michigan, Ann Arbor and JD from Stanford Law School.



NATALIE WALKER, PARTNER, LA JOLLA

Ms. Walker is a member of the private equity team, focusing on US-based small-market managers and secondary investments.

Prior to StepStone, Ms. Walker was a research analyst at Oppenheimer & Co., a leading national investment bank and full-service investment firm offering investment banking, financial advisory services, capital markets services, asset management, wealth management, and related products and services worldwide. Ms. Walker was a member of Oppenheimer's private equity team, where she conducted due diligence and research on private equity funds, secondary investments and co-investments. Before that she worked for a private equity backed start-up and Women-owned Business Enterprise, Sundance Energy.

Ms. Walker received her BA from Georgetown University McDonough School of Business.

Agenda



- I. Private Equity Market Update
- II. Private Equity Pacing Analysis
- III. Private Equity Portfolio Performance

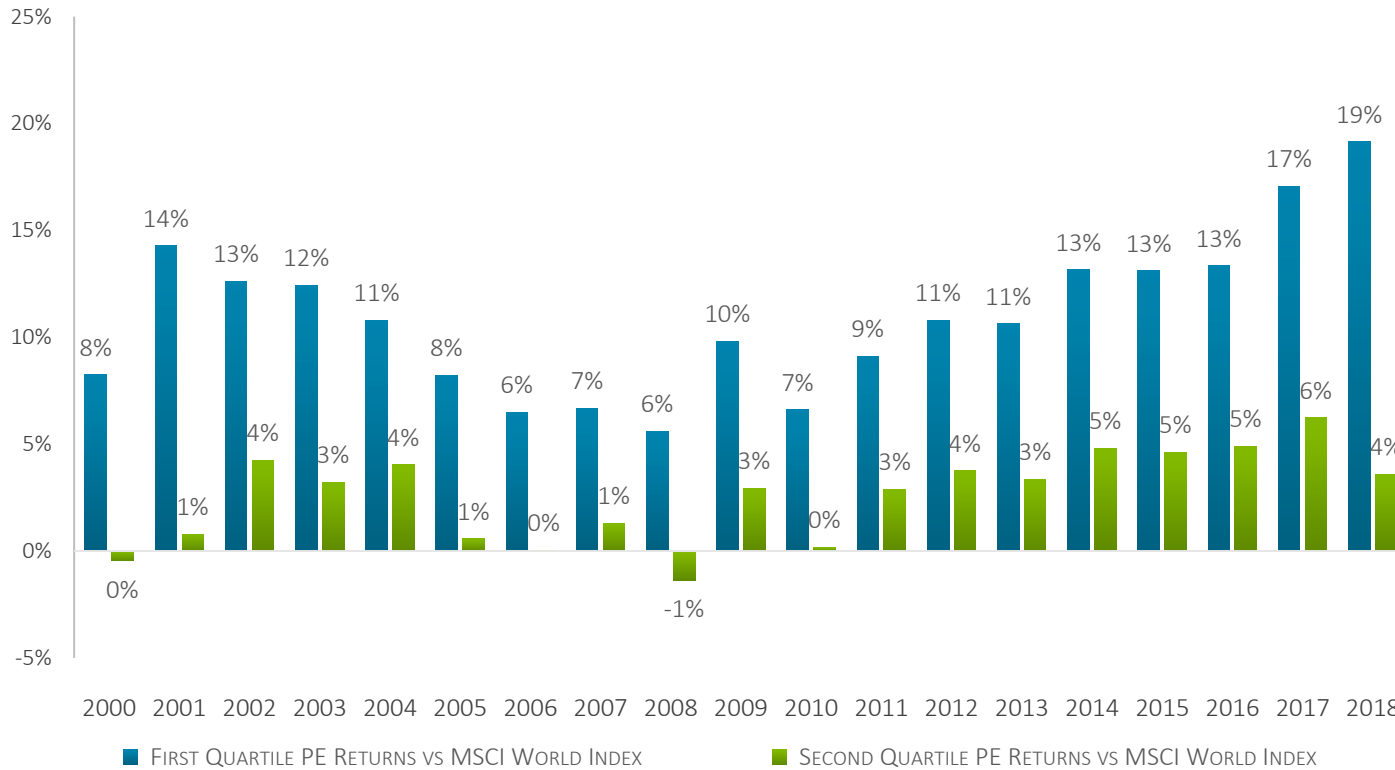
I. PRIVATE EQUITY MARKET UPDATE

- According to StepStone's Daily Valuation Engine, Private Equity was up an estimated 0.5% in the third quarter of 2021, about the same as public markets
- While public market performance has been dramatic since 1Q20, Private Markets Direct Alpha has increased in the past year for both median and top quartile
- Deal volume has been strong across strategies in 2021; we expect 2021 to see record levels of deployment
- Buyout capital structures continue to be very robust, with record high equity contributions and interest coverage
- Strong valuations and favorable debt, IPO, and SPAC markets have led to heightened levels of exit activity through the first half of 2021

Market Overview

PRIVATE MARKET ALPHA HAS IMPROVED SINCE THE SECOND QUARTER OF 2020

PRIVATE EQUITY DIRECT ALPHA



2010-18 ARITHMETIC AVERAGE

AS OF	TOP Q	MEDIAN Q
2Q21	12.6%	3.8%
2Q20	10.9%	3.2%
Change in bps:	161 bps	56 bps

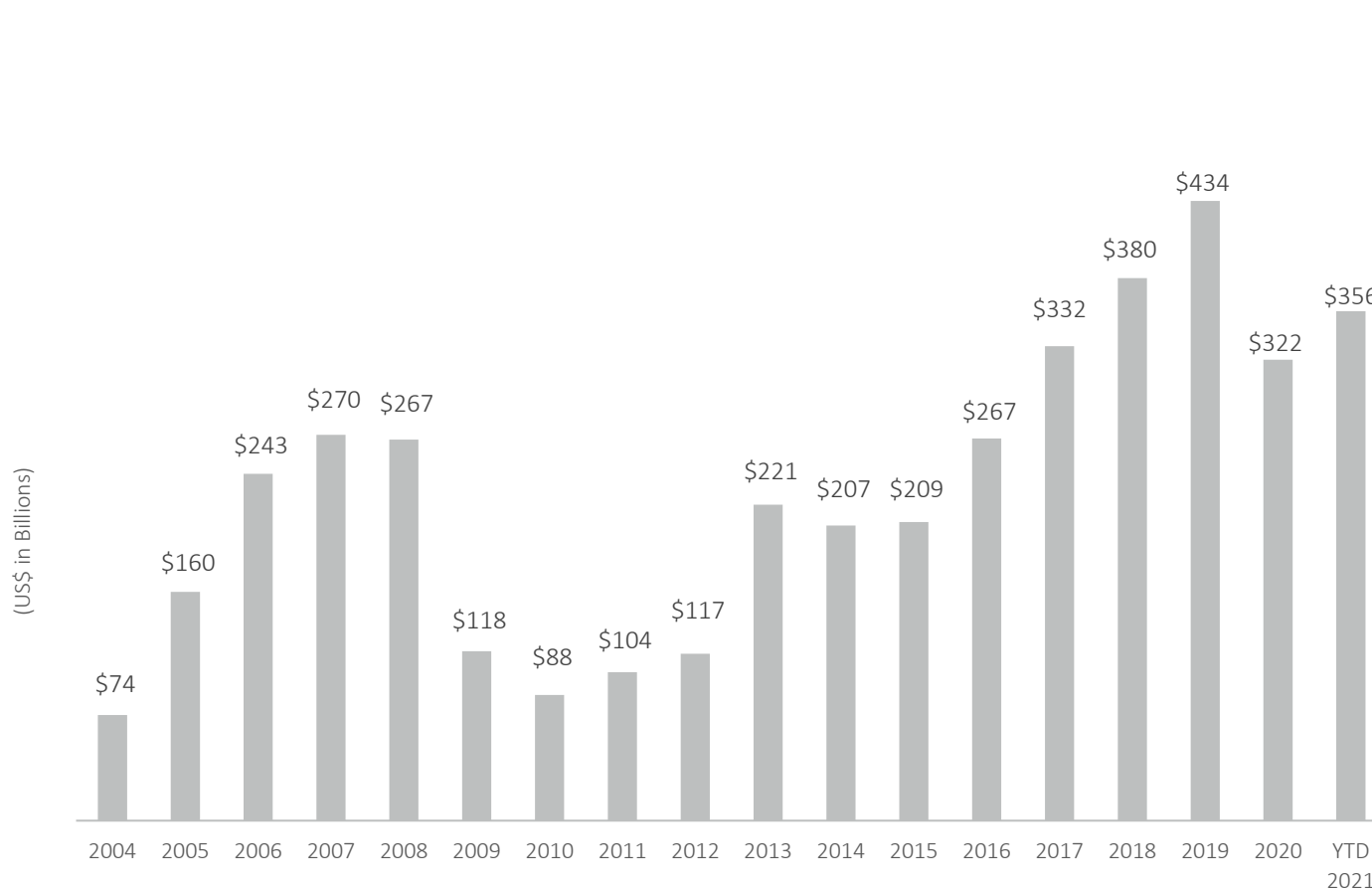
- Historically, Top Quartile private equity has outperformed public equities in each of the past 19 vintage years for which returns are meaningful
- Median private equity returns from 2010-2018 have out-performed public markets by 3.8%

Private IQ, as of 6/30/21; PE Returns includes Generalists, Equity, and Distressed Funds. The Direct Alpha method formalizes the calculation of the exact alpha (in a continuous time log-return sense) that a PE portfolio has generated relative to the chosen reference benchmark; Data for 2019-2020 not considered relevant given early nature of those vintage years; The referenced indices are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

Market Overview

PE BUYOUT FUNDRAISING WILL TOP \$300 BILLION FOR THE FIFTH STRAIGHT YEAR

GLOBAL PRIVATE EQUITY BUYOUT FUNDRAISING

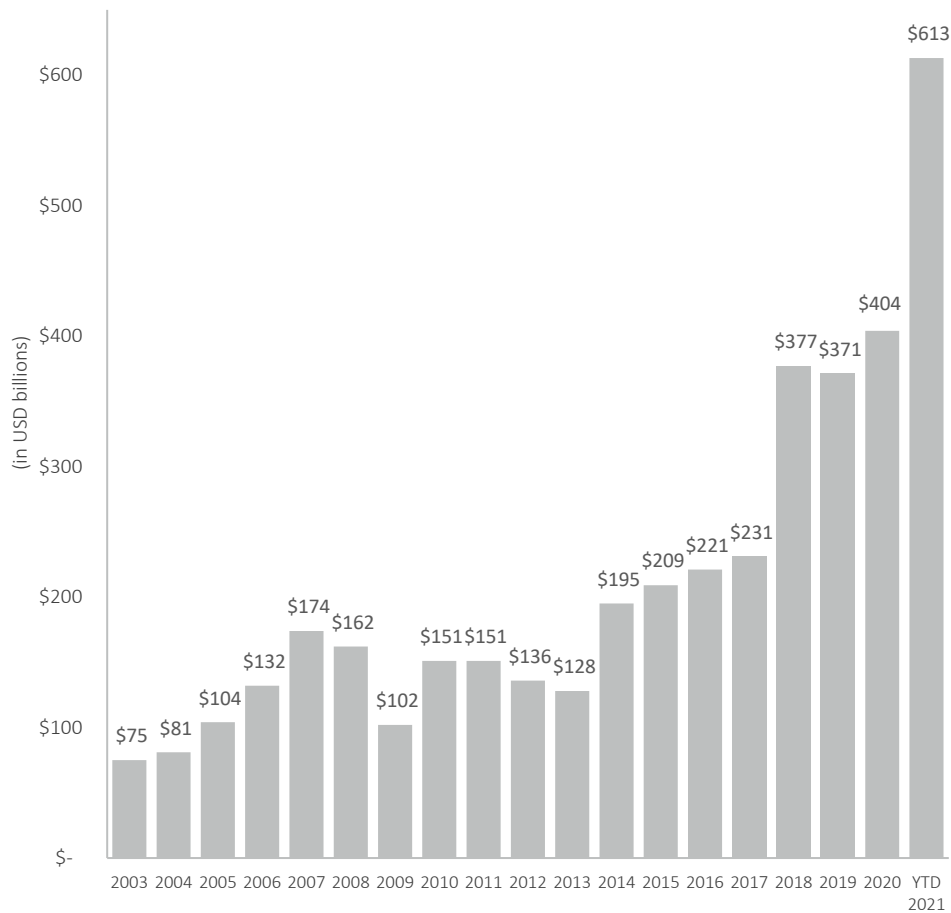


- Global PE Buyout has raised \$356 billion through the beginning of November
- Fundraising across other private market sub-sectors has also increased substantially

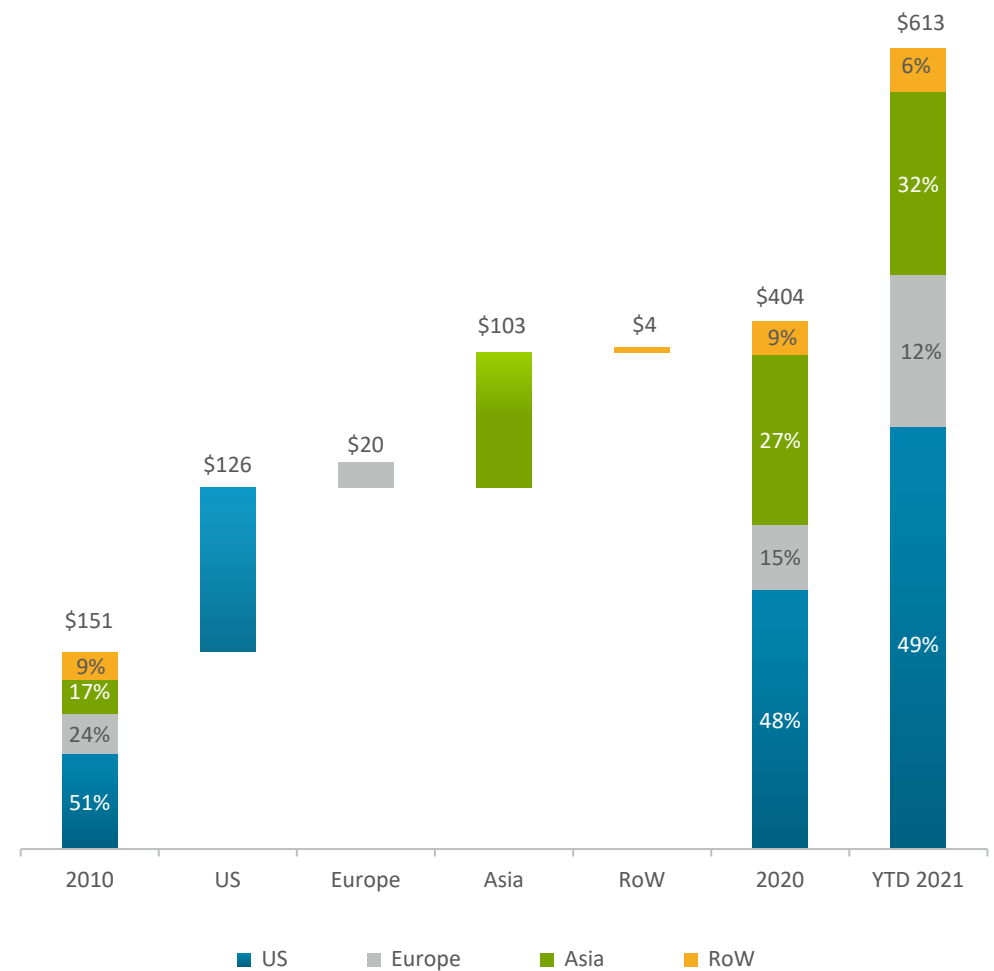
Market Overview

THE PACE OF DEPLOYMENT HAS INCREASED DRAMATICALLY IN THE PAST 3 YEARS, BUT 2021 WILL BE A RECORD YEAR

GLOBAL EQUITY INVESTED BY YEAR



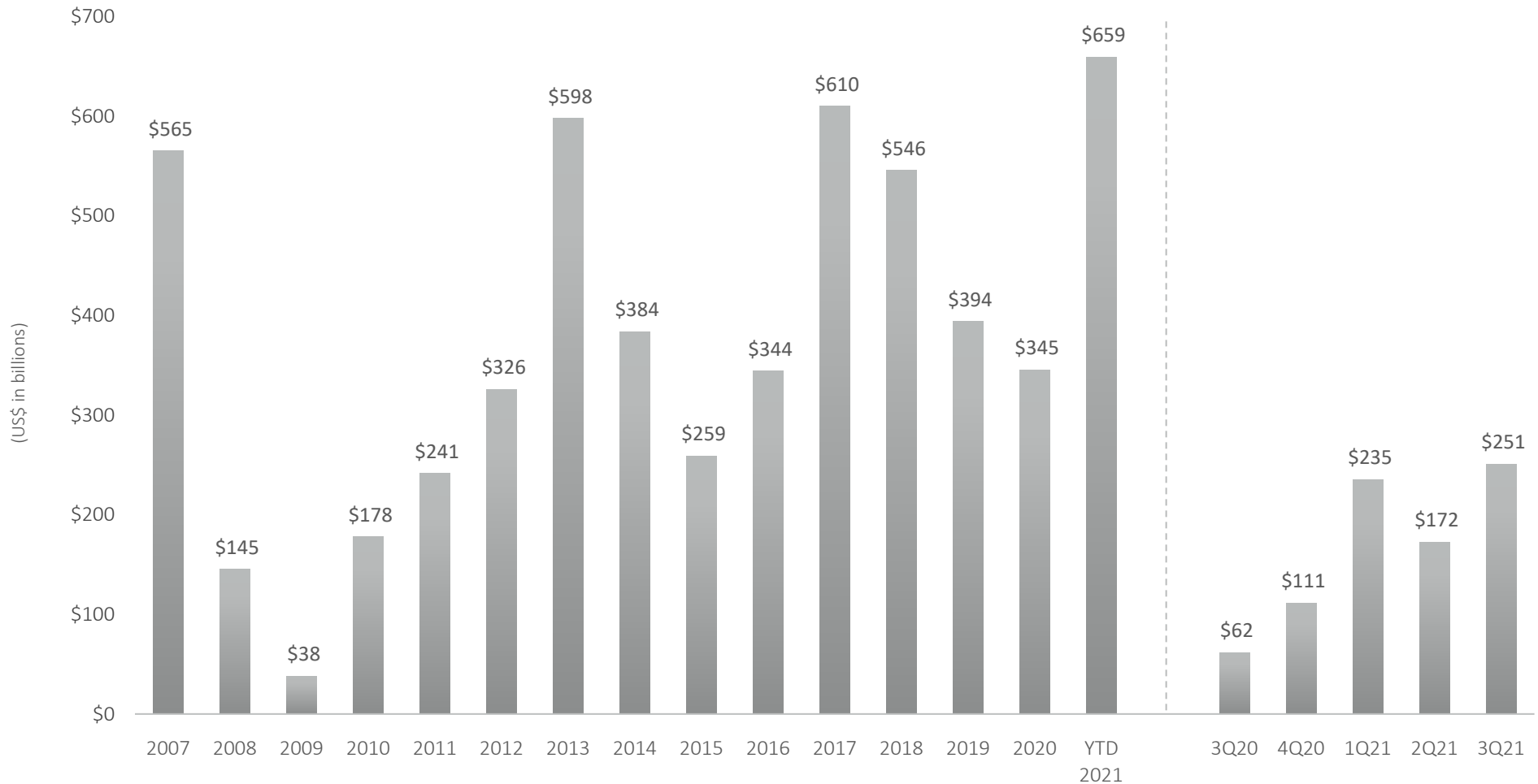
EQUITY INVESTED BY REGION BRIDGE



Transaction Volume

U.S. TRANSACTION VOLUME IS AT RECORD LEVELS IN 2021

U.S. SPONSORED TRANSACTION VOLUME BY YEAR

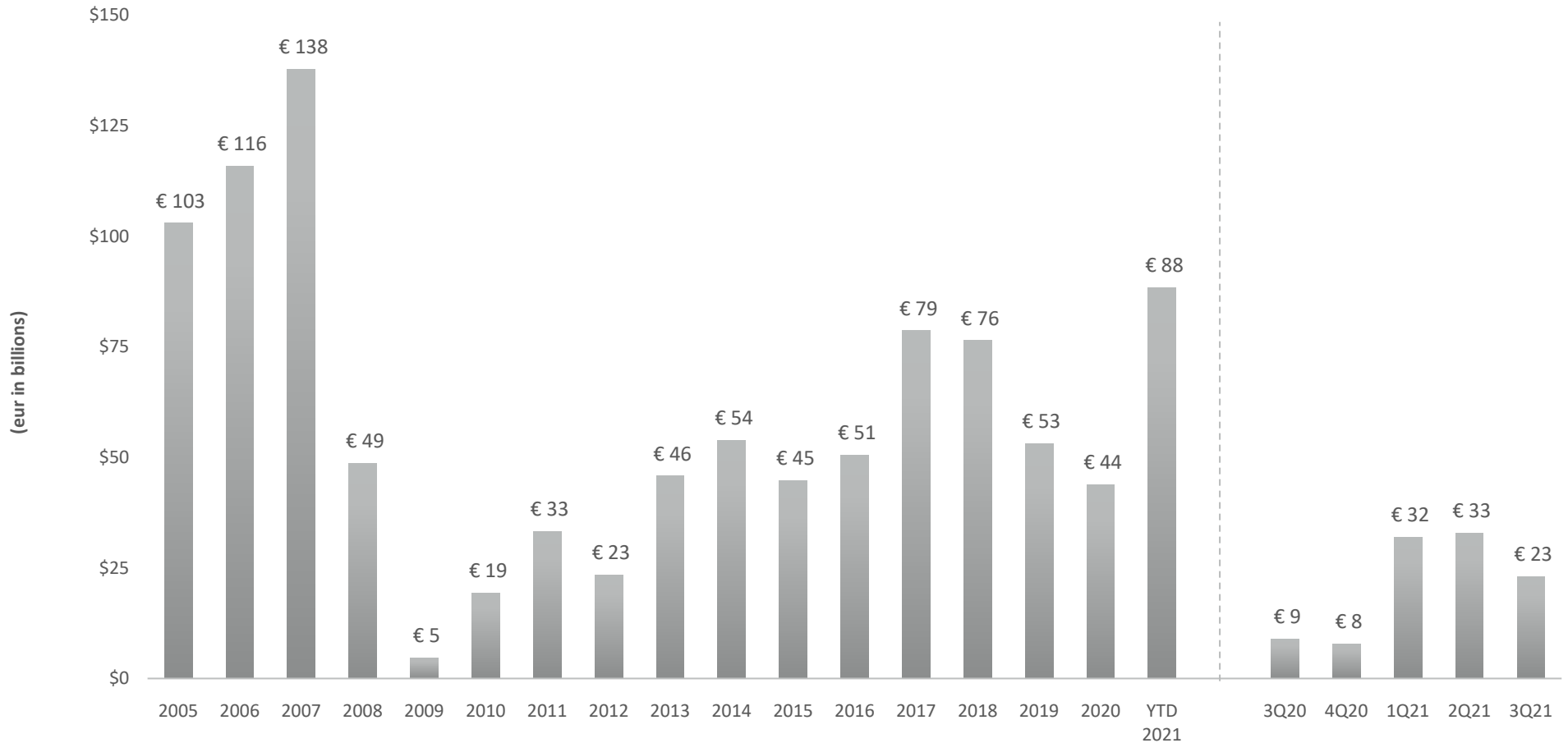


- Some of the data from S&P conflicts with Thomson data; StepStone has not been able to reconcile the different figures

Transaction Volume

EUROPEAN TRANSACTION VOLUME IS THE HIGHEST IN OVER A DECADE, BUT IS STILL BELOW THE PEAKS OF 2006-2007

EUROPEAN SPONSORED TRANSACTION VOLUME BY YEAR

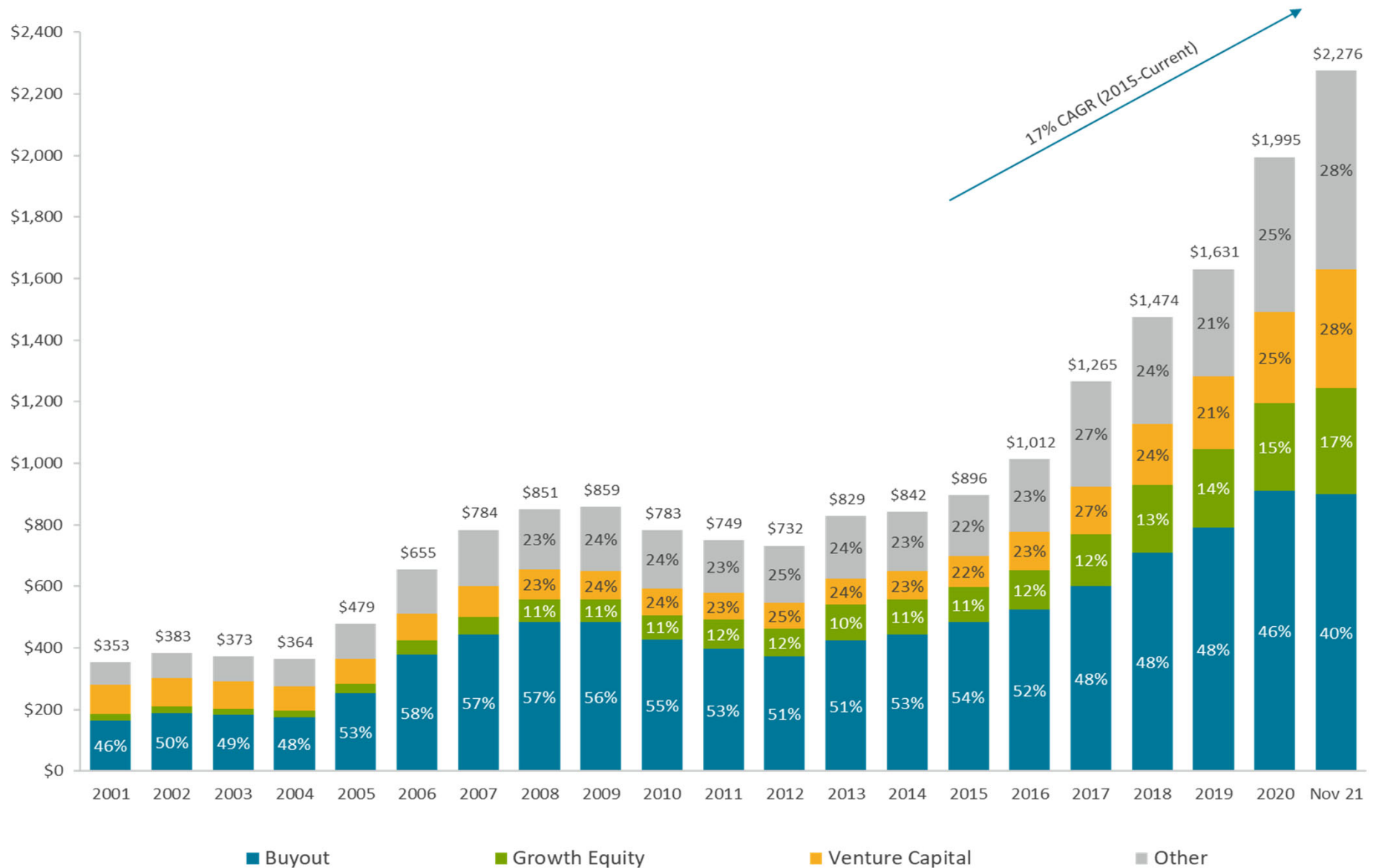


- Some of the data from S&P conflicts with the Thomson data; StepStone has not been able to reconcile the different figures

Dry Powder

DRY POWDER INCREASED OVER 39% SINCE YEAR-END 2019, MAINLY IN SECTORS OTHER THAN BUYOUTS

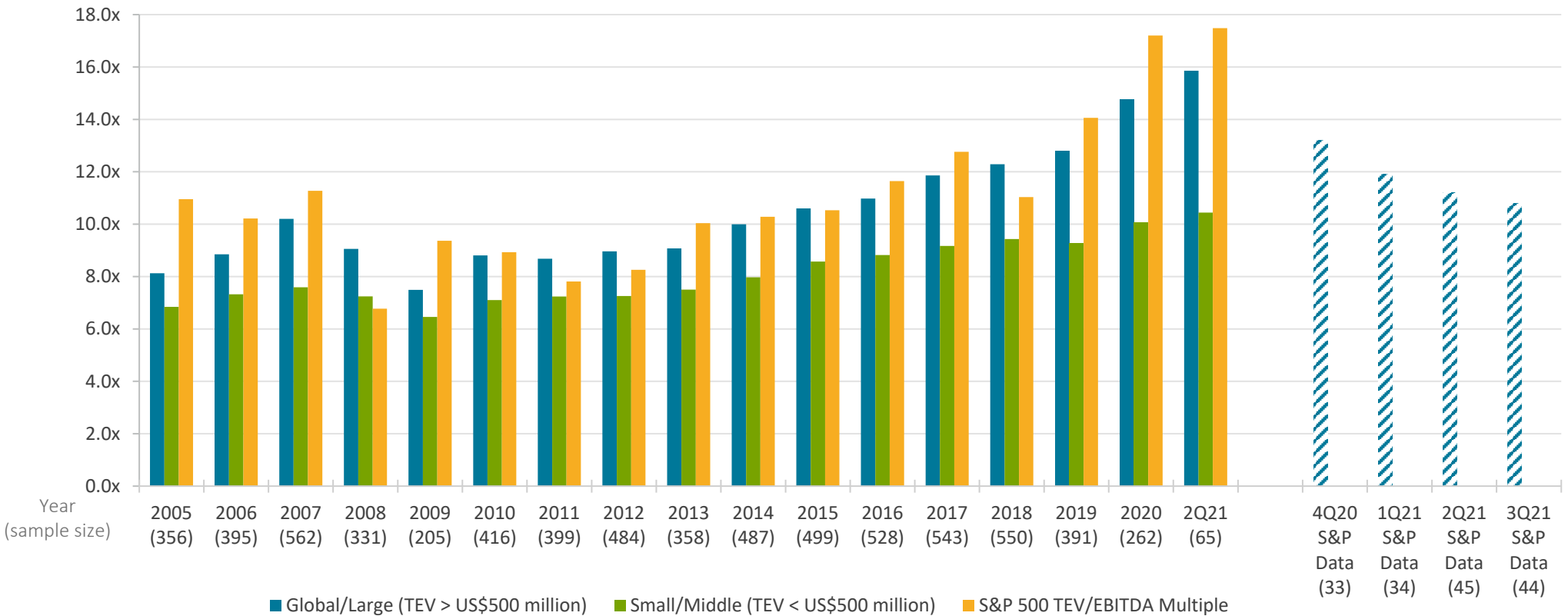
PRIVATE EQUITY DRY POWDER – BY STRATEGY



Purchase Price Multiples

U.S. PRICES REMAIN AT HISTORICALLY HIGH LEVELS; S&P DATA SHOWS Q3 2021 MULTIPLES HAVE DECREASED SINCE Q4 2020

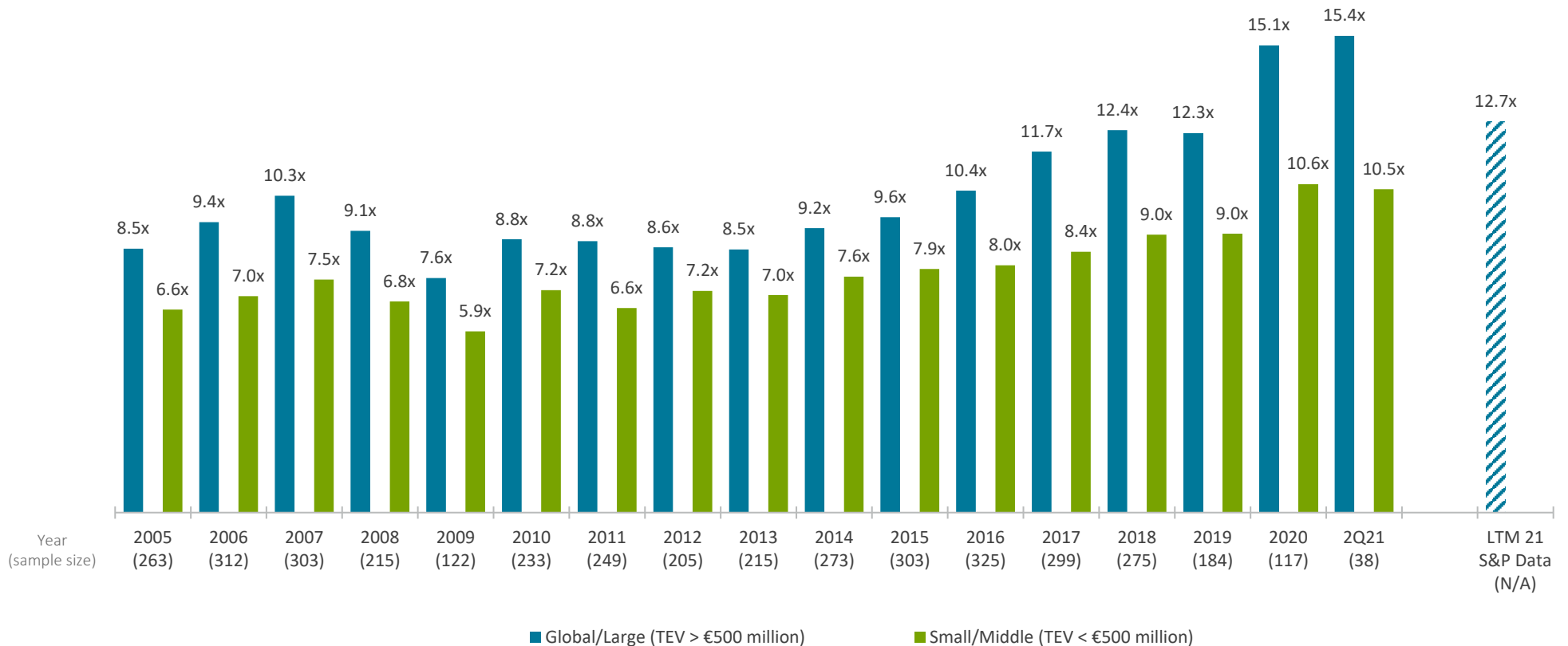
U.S. PURCHASE PRICE MULTIPLES



Purchase Price Multiples

PURCHASE PRICES IN EUROPE HAVE EXHIBITED THE SAME BEHAVIOR AS IN NORTH AMERICA

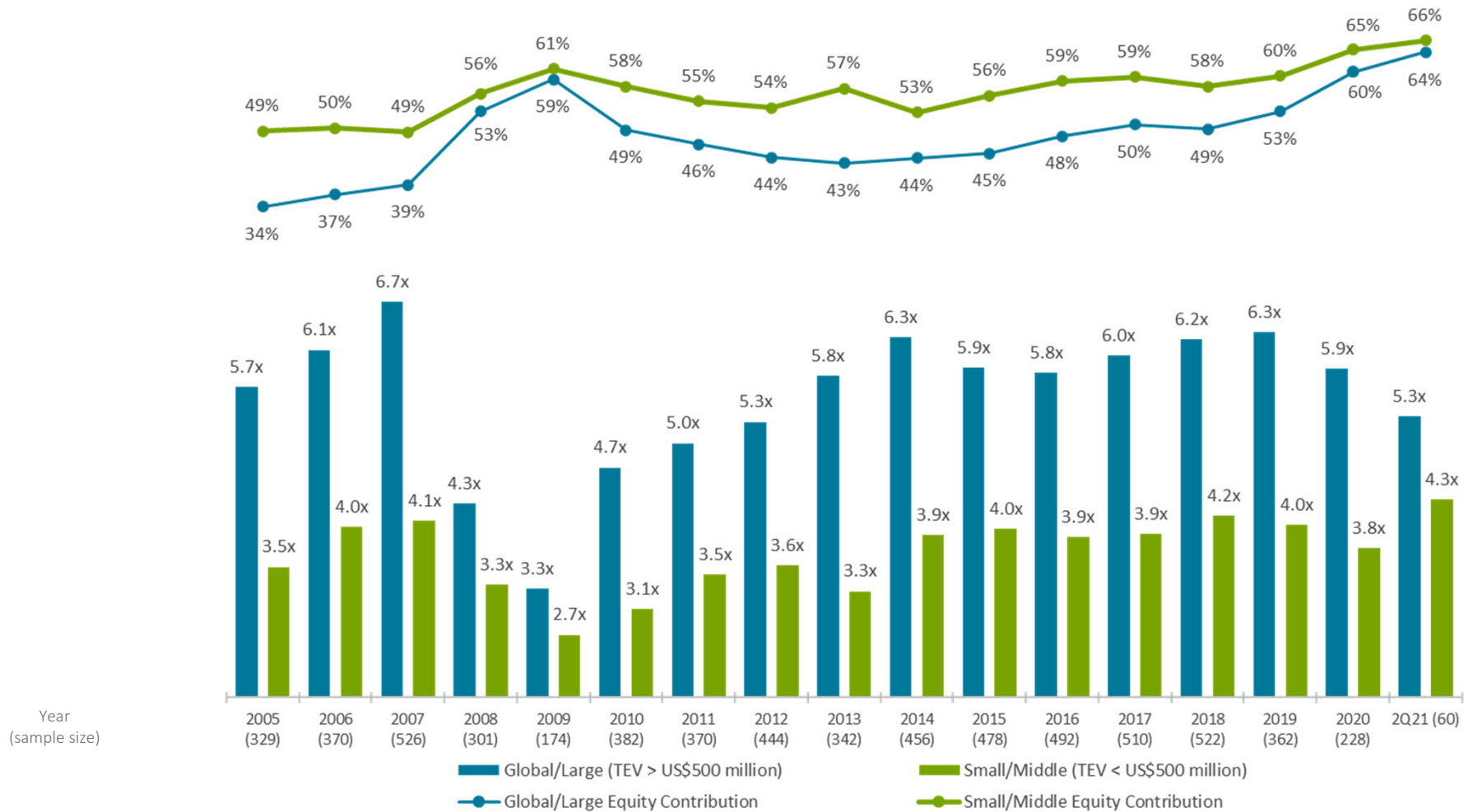
EUROPEAN PURCHASE PRICE MULTIPLES



Leverage Multiples

EQUITY CONTRIBUTIONS HAVE REMAINED WELL ABOVE PRE-GFC LEVELS AS PRICES HAVE INCREASED

U.S. LEVERAGE MULTIPLES

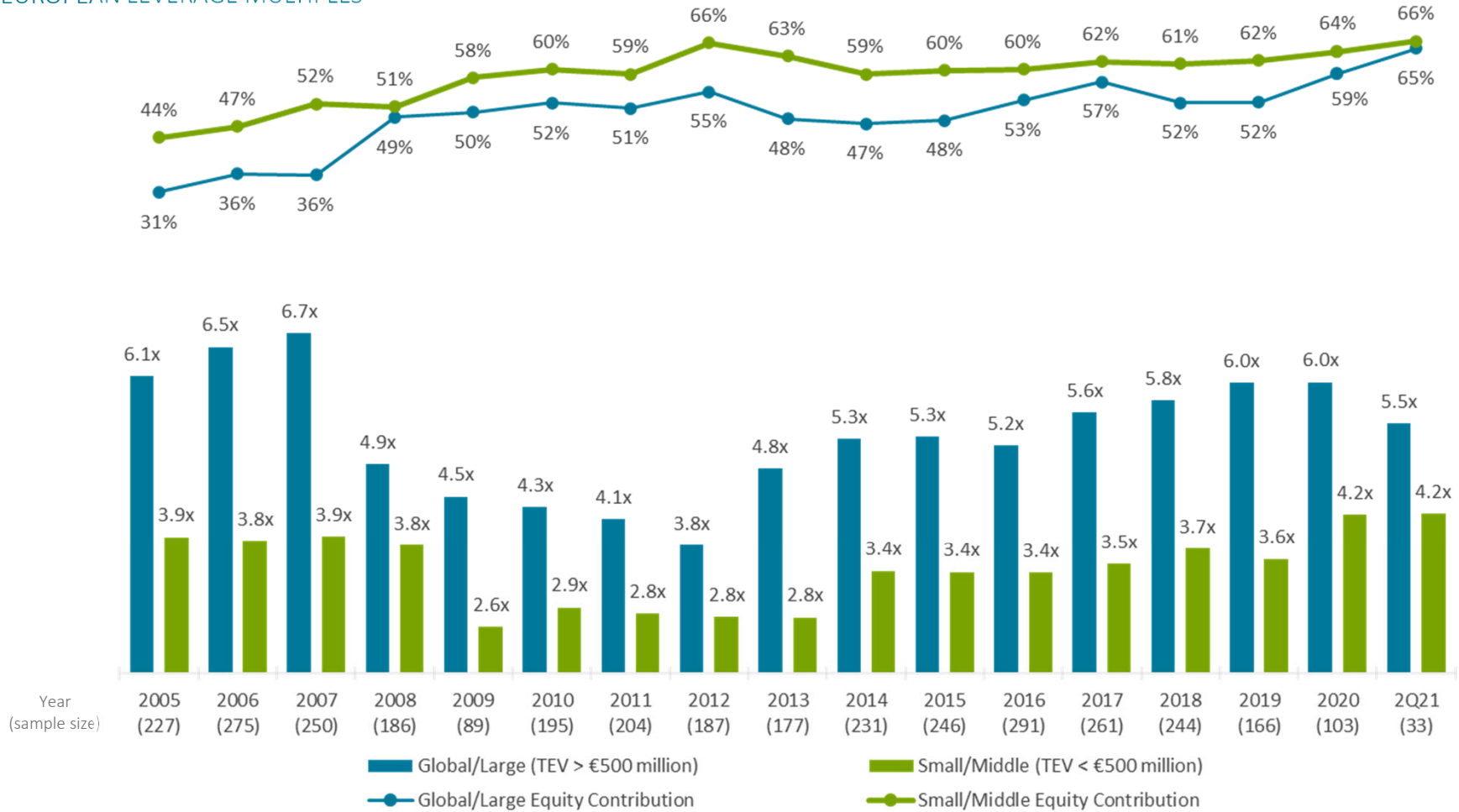


- Prices are high, but capital structures should be more durable as the equity contributions continue to remain at healthier levels than pre-GFC

Leverage Multiples

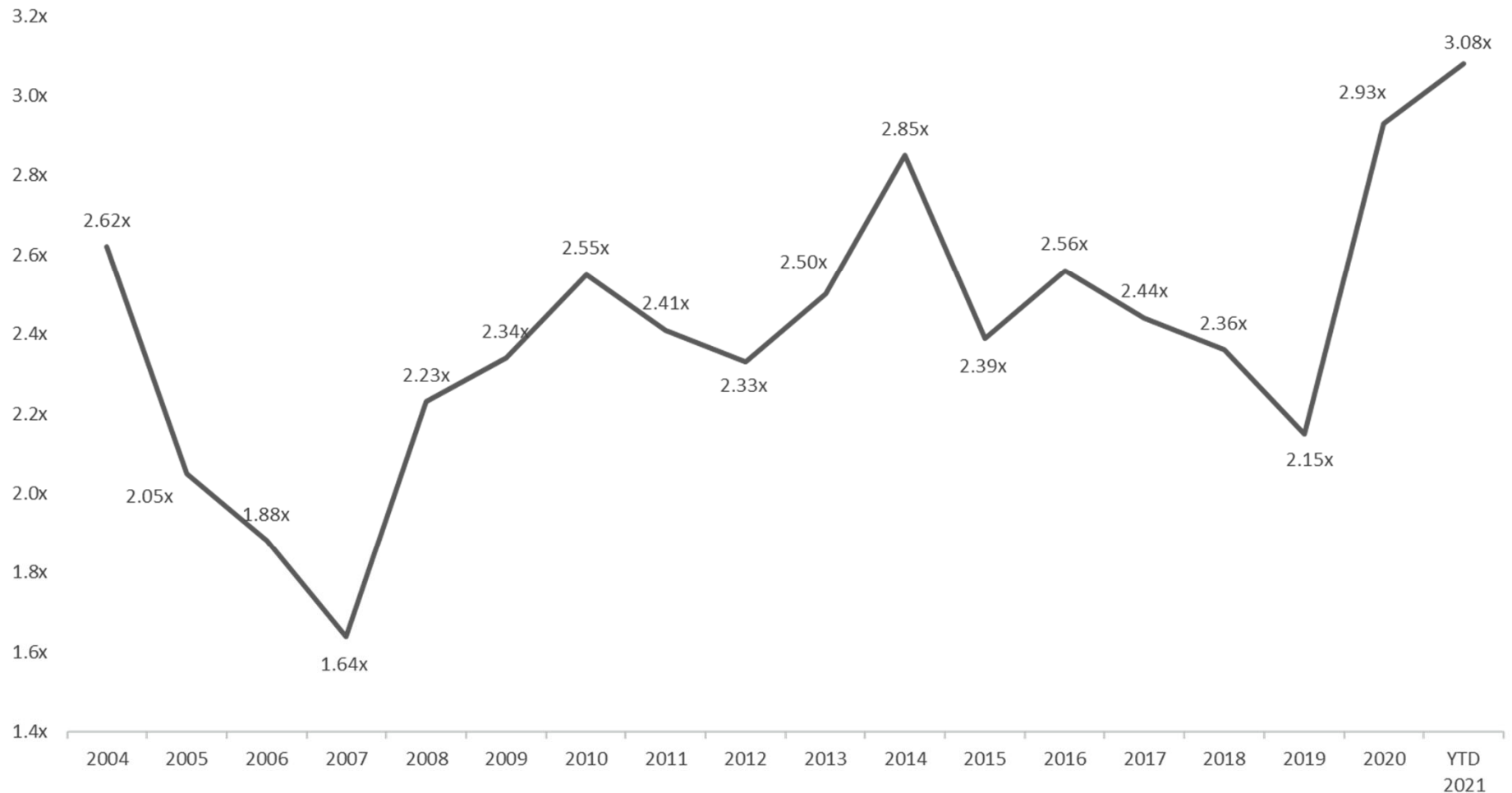
IN EUROPE, LEVERAGE MULTIPLES REMAINED BELOW 2005-2007 LEVELS; EQUITY CONTRIBUTIONS HAVE STEADILY INCREASED

EUROPEAN LEVERAGE MULTIPLES



INTEREST COVERAGE DIPPED TO A 10+ YEAR LOW IN 2019; SINCE THEN, CAPITAL STRUCTURES HAVE BEEN MUCH MORE CONSERVATIVE

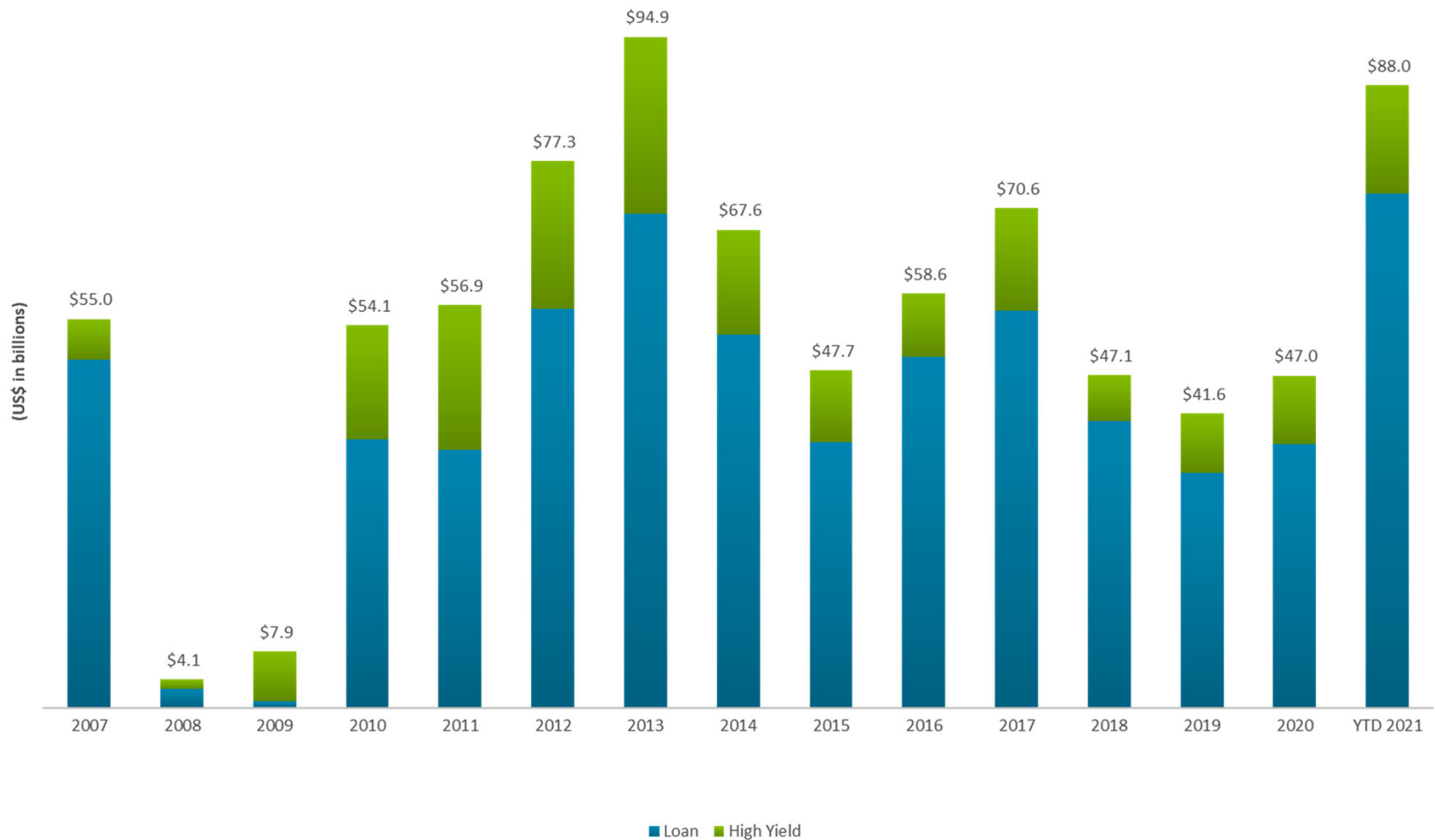
INTEREST COVERAGE RATIO FOR U.S. LARGE CORPORATE LBOs



- There has been a pullback in credit markets, with smaller sample sizes and higher quality deals getting done

DIVIDEND ACTIVITY WAS MUTED THE PAST FEW YEARS BUT PICKED UP SUBSTANTIALLY WITH \$88 BILLION IN YTD 2021 VOLUME

DIVIDEND/STOCK REPURCHASE VOLUME

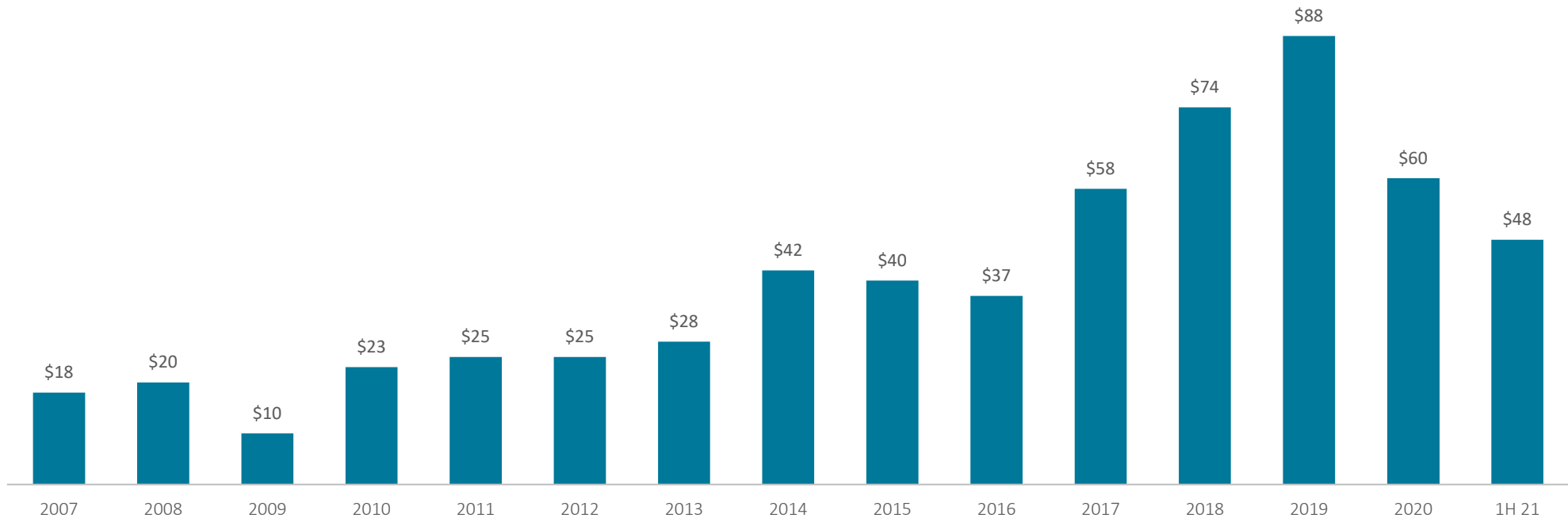


Secondary Market Overview

CURRENT INVESTMENT ENVIROMENT

- Global secondary volume was \$48 billion, setting a first-half record. GP-led transactions accounted for 60% of volume, solidifying a new “normal” of consistent prominence
- Greenhill is projecting \$90-\$100 billion volume in 2021, exceeding 2019’s record volume
- Transaction volume in the first half of 2021 represented a 167% increase from 1H 2020

MARKET TRANSACTION VOLUME



II. PRIVATE EQUITY PACING ANALYSIS

Private Equity Pacing Analysis

- StepStone updated its pacing analysis for CCCERA’s private equity portfolio based on a starting total portfolio FMV of \$11.3 billion and a private equity FMV of \$1.1 billion, as of September 30, 2021¹
- CCCERA increased its target private equity allocation from 11.0% to 15.0% in 2021
 - To achieve a target allocation of 15.0% over 10 years, StepStone recommends committing \$450 million (+/- 20%) per annum based on market opportunities and conditions
 - The increase in annual commitments reflects i) strong growth of total portfolio FMV; and ii) sizeable private equity distributions to CCCERA in 2H 2020 and 2021

CCCERA PE Annual Pacing Plan - 15% Target (Base Case)



¹ Private equity FMV reflects June 30, 2021 valuations cash flow adjusted for contributions and distributions through September 30, 2021.

While Stepstone currently believes that the assumptions on which the analysis are based are reasonable under the circumstances, there is no guarantee that the conditions on which such assumptions are based will materialize or otherwise be applicable. Plan level projections provided by CCCERA.

Target returns are hypothetical and are neither guarantees nor predictions or projections of future performance. Future performance indications and financial market scenarios are no guarantee of current or future performance. There can be no assurance that such target net IRRs will be achieved or that the investment will be able to implement its investment strategy, achieve its investment objectives or avoid substantial losses. Further information regarding target net IRR calculations is available upon request.

III. PRIVATE EQUITY PORTFOLIO PERFORMANCE

Private Equity Performance Summary



- CCCERA private equity portfolio (the “PE Portfolio”) includes \$1.6 billion in commitments to 52 primary and fund-of-funds investments
 - The market value of the PE Portfolio was \$1.2 billion as of June 30, 2021
- Over the twelve-month period ended June 30, 2021, the PE Portfolio drew \$81.0 million and received \$228.5 million in distributions
- The PE Portfolio generated a net gain of \$503.8 million year-over-year, leading to a 1-year IRR of 66.9%
- The PE Portfolio generated a since-inception¹ IRR of 13.8% as of June 30, 2021

US\$ in millions

	INCEPTION TO JUNE 30, 2021	INCEPTION TO MARCH 31, 2021	INCEPTION TO JUNE 30, 2020	QUARTERLY CHANGE	ANNUAL CHANGE
Number of Managers	17	15	15	2	2
Number of Investments	52	49	48	3	4
Committed Capital	\$1,591.1	\$1,423.6	\$1,373.6	\$167.5	\$217.5
Contributed Capital ²	1,193.4	1,155.6	1,112.4	37.8	81.0
Distributed Capital	1,156.2	1,084.4	927.7	71.8	228.5
Market Value	1,158.4	1,056.7	802.2	101.7	356.2
Total Value	\$2,314.6	\$2,141.1	\$1,729.8	\$173.4	\$584.7
Total Gain/(Loss)	1,121.2	985.5	617.4	135.7	503.8
Unfunded Commitment	430.2	299.8	307.5	130.4	122.7
Total Exposure	1,588.6	1,356.5	1,109.7	232.0	478.9
DPI ³	0.97x	0.94x	0.83x	0.03x	0.13x
TVPI ⁴	1.94x	1.85x	1.56x	0.09x	0.38x
NET IRR ⁵	13.8%	13.2%	11.1%	+57 bps	+272 bps

1. Inception represents date of first capital call on 3/18/1996.

2. Total Gross Contributed represents total contributions to underlying investments including capitalized legal and other transaction fees and expenses.

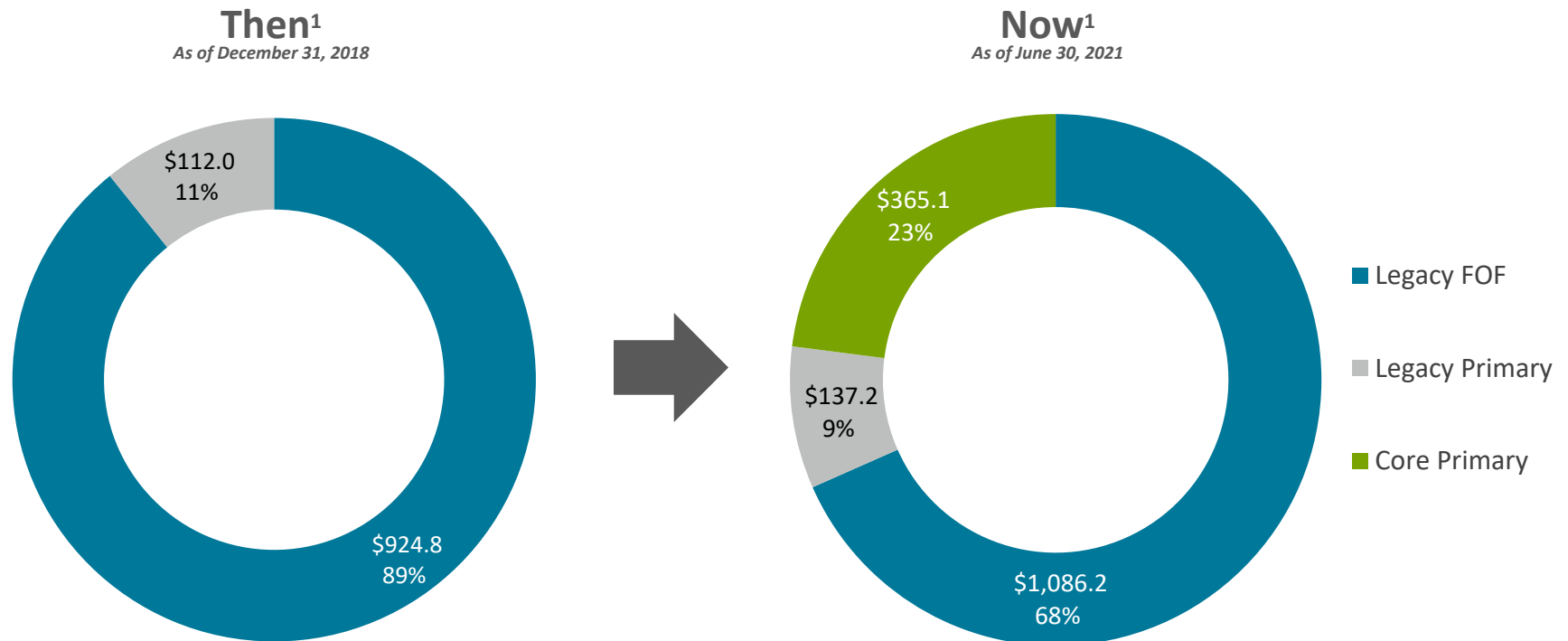
3. Distributions to Paid-in Capital (DPI) represents total gross distributions received by the Fund from underlying investments (including distributions used to offset drawdowns for investments) divided by total gross contributions.

4. Total Value to Paid in Multiple (TVPI) is net of management fees and expenses related to the underlying investments, and represent the aggregate net asset value of underlying investments plus gross distributions received by the Fund from those investments, divided by total gross contributions.

5. Internal Rate of Return (IRR) is calculated based on the Portfolio's daily cash flows and market value as of quarter-end. IRR is net of manager's fees, expenses and carried interest, but not net of StepStone Advisory fees. IRR net of StepStone fees is 13.8% since inception.

Private Equity Exposure by Sub-Portfolio

- Since 2017, CCCERA has pursued direct primary commitments to private equity funds (the “Core Primary Fund Portfolio”)
- Historical private equity investments include legacy fund-of-funds (the “Legacy FOF Portfolio”) and legacy primary funds (the “Legacy Primary Fund Portfolio”)



1. Breakdown based on exposure, calculated as market value plus unfunded commitment.

Private Equity Performance by Sub-Portfolio



- Although early in the Core Primary Fund Portfolio development, performance has been strong, generating a since-inception¹ IRR of 70.4%⁵. Over time, anticipate the Core Primary Fund Portfolio's IRR to moderate and the Total Value to Paid in Multiple ("TVPI") and the Distributions to Paid-In Capital ("DPI") to increase
- As the size of the Core Primary Fund Portfolio increases, the Legacy FOF and Legacy Primary Fund Portfolios should be less meaningful drivers of CCCERA's total PE Portfolio performance

As of June 30, 2021 (US\$ in millions)

	NO. OF FUNDS	COMMITTED CAPITAL	CONTRIBUTED CAPITAL	DISTRIBUTED CAPITAL	UNFUNDED COMMITMENT	MARKET VALUE	TOTAL EXPOSURE	TOTAL VALUE	TVPI	DPI	NET IRR
CCCERA PE Portfolio											
Legacy FOF Portfolio	38	1,099.6	989.6	984.5	124.3	961.9	1,086.2	1,946.4	1.97x	0.99x	13.9%
Legacy Primary Fund Portfolio	7	160.0	139.9	168.1	35.1	102.1	137.2	270.2	1.93x	1.20x	11.9%
Core Primary Fund Portfolio	7	331.5	63.9	3.7	270.8	94.3	365.1	98.0	1.53x	0.06x	70.4%
Total	52	1,591.1	1,193.4	1,156.2	430.2	1,158.4	1,588.6	2,314.6	1.94x	0.97x	13.8%

1. Inception represents date of first capital call on 2/21/2019.

2. Total Gross Contributed represents total contributions to underlying investments including capitalized legal and other transaction fees and expenses.

3. Distributions to Paid-in Capital (DPI) represents total gross distributions received by the Fund from underlying investments (including distributions used to offset drawdowns for investments) divided by total gross contributions.

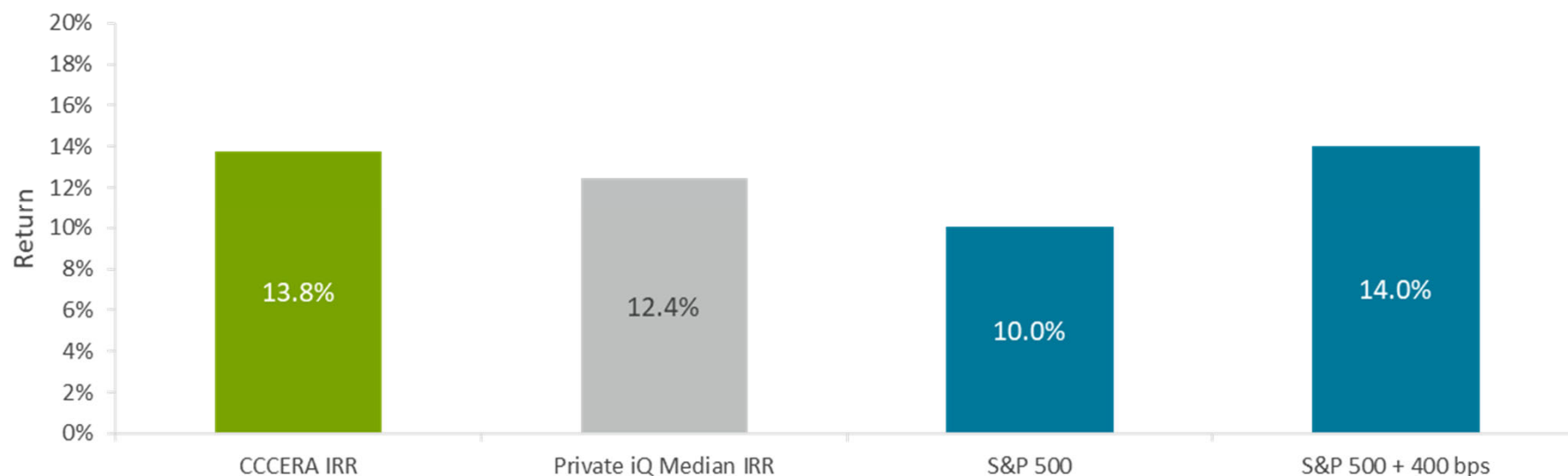
4. Total Value to Paid in Multiple (TVPI) is net of management fees and expenses related to the underlying investments, and represent the aggregate net asset value of underlying investments plus gross distributions received by the Fund from those investments, divided by total gross contributions.

5. Internal Rate of Return (IRR) is calculated based on the Portfolio's daily cash flows and market value as of quarter-end. IRR is net of manager's fees, expenses and carried interest, but not net of StepStone Advisory fees. IRR net of StepStone fees is 13.8% since inception.

Private Equity Performance versus Benchmarks

- PE Portfolio performance is measured against three benchmarks: (i) Burgiss Private iQ, (ii) the S&P 500 index, and (iii) the S&P 500 index + 400 basis points (“bps”) as a liquidity premium
- The PE Portfolio’s overall since inception IRR of 13.8% outperformed the median private market benchmark and the S&P 500 index by 134 bps and 373 bps, respectively

Since Inception Returns¹



Period ending June 30, 2021	QTD	1-Year	3-Year	5-Year	10-Year	Since Inception
CCCERA PE Portfolio IRR ²	13.0%	66.9%	27.9%	23.5%	16.6%	13.8%
Private iQ Median IRR Benchmark ^{1,3}	5.6%	27.2%	13.4%	13.7%	12.6%	12.4%
S&P 500 Index ⁴	8.5%	22.5%	17.3%	14.6%	14.6%	10.0%
S&P 500 Index + 400 bps ⁴	9.5%	26.5%	21.3%	18.6%	18.6%	14.0%

1. Primary fund benchmark data includes CCCERA specific vintage years and strategies. Please note that CCCERA’s Fund-of-Funds include a double layer of fees and compose a majority of commitments CCCERA has made to date.

2. IRR Performance is net of underlying partnership fees, but not net of StepStone Advisory fees. IRR and TVPI for certain vehicles may have been impacted by Stepstone’s or the underlying GPs’ use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.

3. Published by Burgiss Private iQ, All Private Equity Median IRRs, for Vintages 1996 - 2005, 2007- 2009, & 2011-2021, as of June 30, 2021. This benchmark data is continuously updated and therefore subject to change.

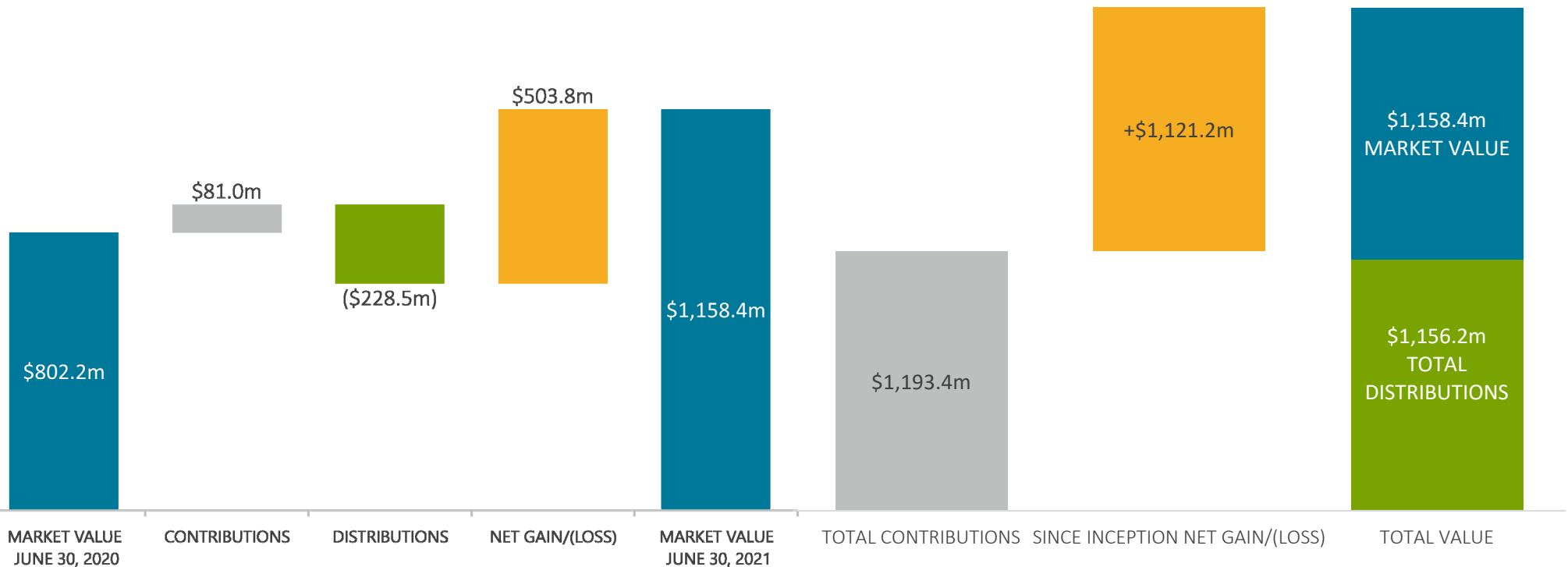
4. S&P 500 Total Return (TR) index is shown for general market comparison and is not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented. Returns under one year are unannualized. QTD includes +100 bps premium (400 bps / 4).

Private Equity Valuation Bridge

- For the twelve months ended June 30, 2021, the PE Portfolio recorded a gain of \$503.8 million, representing 44.9% of since-inception gains
- Since-inception net gain through June 30, 2021 was \$1.1 billion

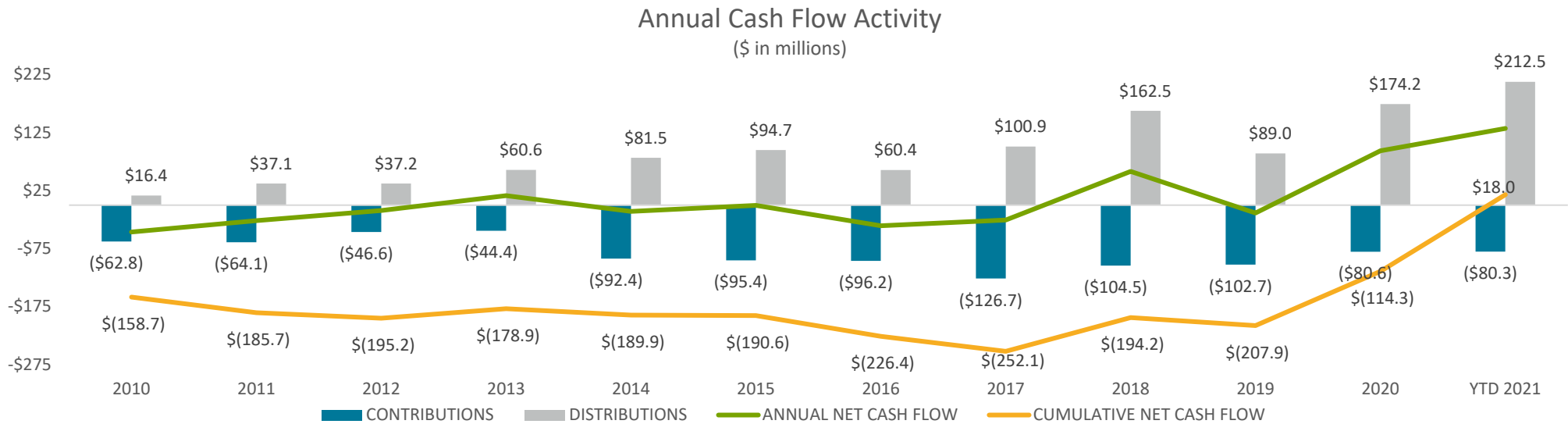
ANNUAL CHANGE IN MARKET VALUE

TOTAL FUNDED TO TOTAL VALUE



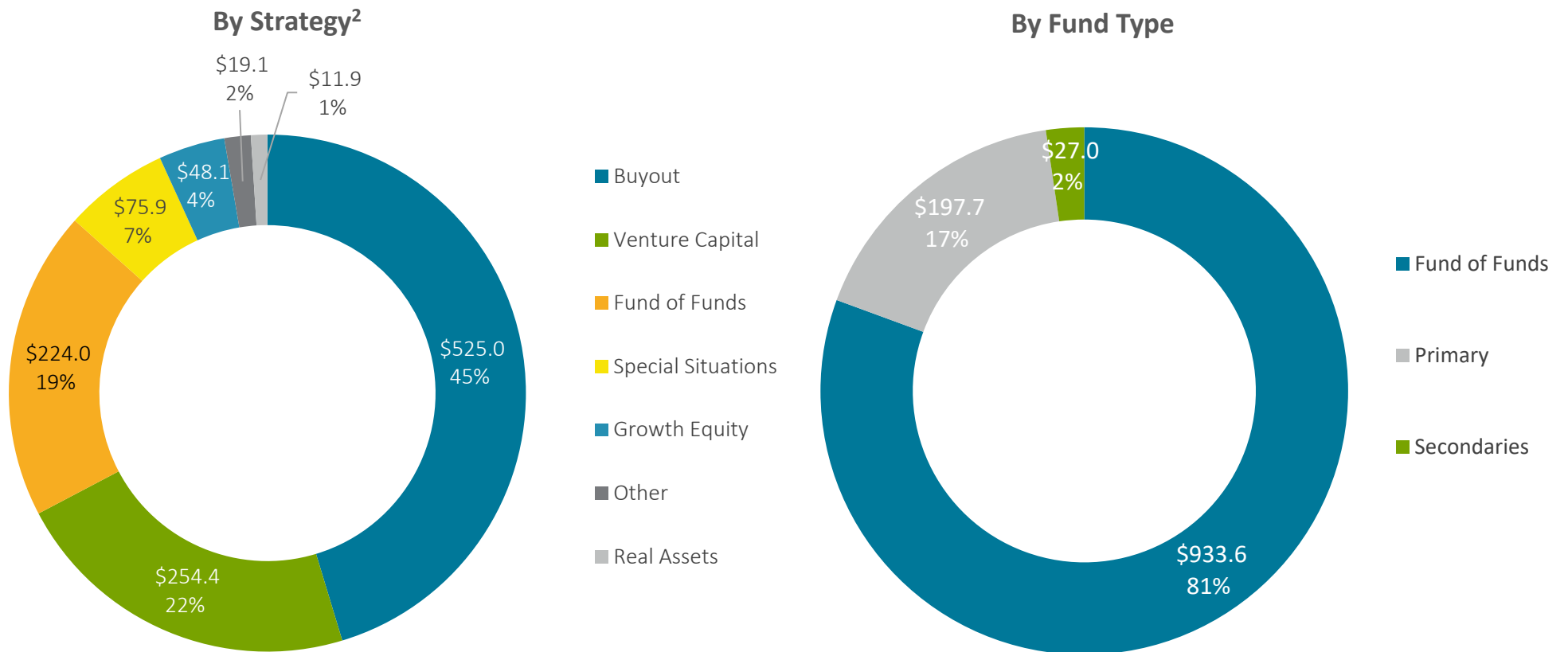
Private Equity Cash Flow Analysis

- Year-to-date, the PE portfolio is cash flow positive, receiving \$212.5 million in distributions compared to \$80.3 million in contributions as of September 30, 2021
- The PE Portfolio has received record annual distributions through September 30, 2021, marking the first time in the PE Portfolio's history that cumulative distributions have outpaced cumulative contributions



Private Equity Diversification¹

- The PE portfolio has broad exposure by strategy with the largest exposures to Buyout (45%) and Venture Capital (22%)
- The PE Portfolio is highly concentrated in fund-of-funds, but is expected to be weighted towards primary commitments on a go-forward basis

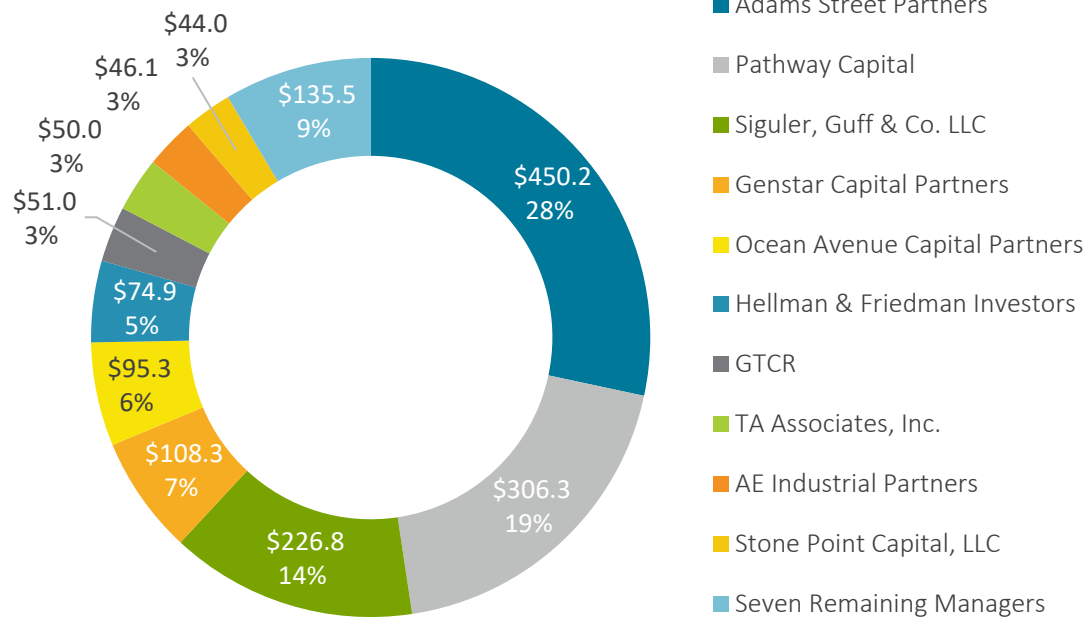


1. Breakdown calculated off market value.
 2. Strategy includes look through of Fund of Funds to underlying strategies. Other includes Co-investment, Private Debt and Real Estate strategies.

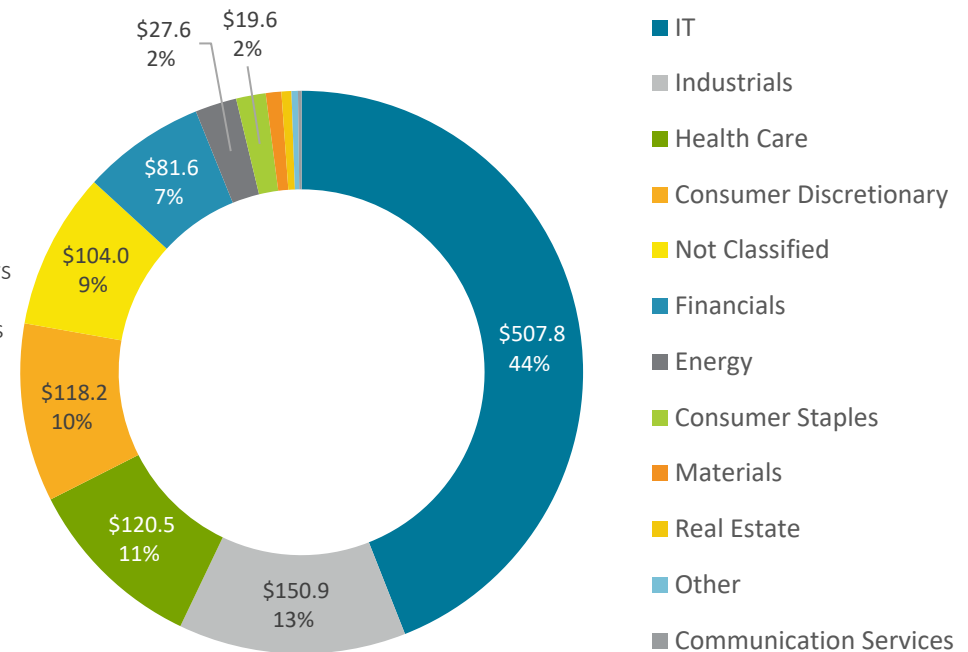
Private Equity Diversification (cont.)

- By Investment Manager, over 60% of the PE Portfolio’s exposure resides with three fund-of-funds managers
- By Industry, the PE Portfolio is balanced with the largest exposures to IT (44%), Industrials (13%) and Health Care (11%)

By Investment Manager¹



By Industry^{2,3}



1. Breakdown based on exposure, calculated as market value plus unfunded commitment.
 2. Not Classified includes Siguler Guff CCCERA Opportunities Fund and Siguler Guff Secondary Opportunities Fund. Other includes undisclosed industry designation by the managers.
 3. Industry graph represents CCCERA’s exposed market value to underlying asset level holdings.

Real Assets Performance Summary



- CCCERA's real assets portfolio ("RA Portfolio") includes \$460.0 million in commitments to 11 primary and fund-of-funds investments
 - The market value of CCCERA's RA Portfolio was \$257.4 million as of June 30, 2021
- Over the twelve-month period ended June 30, 2021, the RA Portfolio drew \$17.3 million and received \$54.7 million in distributions
- The RA Portfolio generated a net gain of \$36.6 million year-over-year, leading to a 1-year IRR of 14.7%
- The RA Portfolio generated a since-inception¹ IRR of 4.9% as of June 30, 2021

US\$ in millions

	INCEPTION TO JUNE 30, 2021	INCEPTION TO MARCH 31, 2021	INCEPTION TO JUNE 30, 2020	QUARTERLY CHANGE	ANNUAL CHANGE
Number of Managers	5	5	5	-	-
Number of Investments	11	11	11	-	-
Committed Capital	\$460.0	\$460.0	\$460.0	\$0.0	\$0.0
Contributed Capital ²	503.4	501.7	486.1	1.7	17.3
Distributed Capital	357.7	336.1	303.0	21.7	54.7
Market Value	257.4	262.0	258.2	(4.6)	(0.8)
Total Value	\$615.1	\$598.1	\$561.3	\$17.1	\$53.9
Total Gain/(Loss)	111.8	96.4	75.2	15.4	36.6
Unfunded Commitment	41.0	34.1	32.9	6.9	8.1
Total Exposure	298.4	296.1	291.1	2.3	7.3
DPI ³	0.71x	0.67x	0.62x	0.04x	0.09x
TVPI ⁴	1.22x	1.19x	1.15x	0.03x	0.07x
NET IRR ⁵	4.9%	4.5%	4.0%	+42 bps	+91 bps

1. Inception represents date of first capital call on 1/25/1996.

2. Total Gross Contributed represents total contributions to underlying investments including capitalized legal and other transaction fees and expenses.

3. Distributions to Paid-in Capital (DPI) represents total gross distributions received by the Fund from underlying investments (including distributions used to offset drawdowns for investments) divided by total gross contributions.

4. Total Value to Paid in Multiple (TVPI) is net of management fees and expenses related to the underlying investments, and represent the aggregate net asset value of underlying investments plus gross distributions received by the Fund from those investments, divided by total gross contributions.

5. Internal Rate of Return (IRR) is calculated based on the Portfolio's daily cash flows and market value as of quarter-end. IRR is net of manager's fees, expenses and carried interest, but not net of StepStone Advisory fees.

Risks and Other Considerations



Risks Associated with Investments. Identifying attractive investment opportunities and the right underlying fund managers is difficult and involves a high degree of uncertainty. There is no assurance that the investments will be profitable and there is a substantial risk that losses and expenses will exceed income and gains.

Restrictions on Transfer and Withdrawal; Illiquidity of Interests; Interests Not Registered. The investment is highly illiquid and subject to transfer restrictions and should only be acquired by an investor able to commit its funds for a significant period of time and to bear the risk inherent in such investment, with no certainty of return. Interests in the investment have not been and will not be registered under the laws of any jurisdiction. Investment has not been recommended by any securities commission or regulatory authority. Furthermore, the aforementioned authorities have not confirmed the accuracy or determined the adequacy of this document.

Limited Diversification of Investments. The investment opportunity does not have fixed guidelines for diversification and may make a limited number of investments.

Reliance on Third Parties. StepStone will require, and rely upon, the services of a variety of third parties, including but not limited to attorneys, accountants, brokers, custodians, consultants and other agents and failure by any of these third parties to perform their duties could have a material adverse effect on the investment.

Reliance on Managers. The investment will be highly dependent on the capabilities of the managers.

Risk Associated with Portfolio Companies. The environment in which the investors directly or indirectly invests will sometimes involve a high degree of business and financial risk. StepStone generally will not seek control over the management of the portfolio companies in which investments are made, and the success of each investment generally will depend on the ability and success of the management of the portfolio company.

Uncertainty Due to Public Health Crisis. A public health crisis, such as the recent outbreak of the COVID-19 global pandemic, can have unpredictable and adverse impacts on global, national and local economies, which can, in turn, negatively impact StepStone and its investment performance. Disruptions to commercial activity (such as the imposition of quarantines or travel restrictions) or, more generally, a failure to contain or effectively manage a public health crisis, have the ability to adversely impact the businesses of StepStone's investments. In addition, such disruptions can negatively impact the ability of StepStone's personnel to effectively identify, monitor, operate and dispose of investments. Finally, the outbreak of COVID-19 has contributed to, and could continue to contribute to, extreme volatility in financial markets. Such volatility could adversely affect StepStone's ability to raise funds, find financing or identify potential purchasers of its investments, all of which could have material and adverse impact on StepStone's performance. The impact of a public health crisis such as COVID-19 (or any future pandemic, epidemic or outbreak of a contagious disease) is difficult to predict and presents material uncertainty and risk with respect to StepStone's performance.

Taxation. An investment involves numerous tax risks. Please consult with your independent tax advisor.

Conflicts of Interest. Conflicts of interest may arise between StepStone and investors. Certain potential conflicts of interest are described below; however, they are by no means exhaustive. There can be no assurance that any particular conflict of interest will be resolved in favor of an investor.

Allocation of Investment Opportunities. StepStone currently makes investments, and in the future will make investments, for separate accounts having overlapping investment objectives. In making investments for separate accounts, these accounts may be in competition for investment opportunities.

Existing Relationships. StepStone and its principals have long-term relationships with many private equity managers. StepStone clients may seek to invest in the pooled investment vehicles and/or the portfolio companies managed by those managers.

Carried Interest. In those instances where StepStone and/or the underlying portfolio fund managers receive carried interest over and above their basic management fees, receipt of carried interest could create an incentive for StepStone and the portfolio fund managers to make investments that are riskier or more speculative than would otherwise be the case. StepStone does not receive any carried interest with respect to advice provided to, or investments made on behalf, of its advisory clients.

Other Activities. Employees of StepStone are not required to devote all of their time to the investment and may spend a substantial portion of their time on matters other than the investment.

Material, Non-Public Information. From time to time, StepStone may come into possession of material, non-public information that would limit their ability to buy and sell investments.



MEMORANDUM

Date: November 17, 2021
To: CCCERA Board of Retirement
From: Rishi Garbharran, Investment Officer; Chih-chi Chu, Investment Analyst;
Greg Ter-Zakhariants, Investment Analyst
Subject: Alternative Investment Fees and Expense Report

Overview

California public pension plans are required by law to obtain and publicly disclose certain fee and expense data and information on an annual basis in a public meeting (Government Code Section 7514.7, effective January 1, 2017). The law applies to any private fund that is an alternative investment vehicle whose contract with the pension plan was entered into on or after January 1, 2017, and for any existing contract as of December 31, 2016 for which an additional capital commitment is made on or after January 1, 2017. The law also requires the pension plan to use best efforts to obtain this information from funds entered into prior to January 2017. The intent of the legislation was to increase transparency of the cost of private investment vehicles that are used by public funds.

Code Section 7514.7 Disclosure Requirements

1. The fees and expenses that the California plan pays directly to the alternative investment vehicle, the fund manager, or related parties.
(See Columns E, G, H on the following pages)

2. The California plan's pro rata share of fees and expenses not included in paragraph (1) that are paid from the alternative investment vehicle to the fund manager or related parties. The California plan may independently calculate this information based on information contractually required to be provided by the alternative investment vehicle to the public investment fund. If the California plan independently calculates this information, then the alternative investment vehicle shall not be required to provide the information identified in this paragraph.
(Column I)

3. The California plan's pro rata share of carried interest distributed to the fund manager or related parties.

(Column F)

4. The California plan's pro rata share of aggregate fees and expenses paid by all of the portfolio companies held within the alternative investment vehicle to the fund manager or related parties.

(Column J)

5. Any additional information described in subdivision (b) of Section 6254.26 of the Code.

(Columns K-V)

Methodology

Beginning in early 2017, we asked all Alternative Investment Managers to use the Institutional Limited Partners Association (ILPA) template to report fees and expenses to CCCERA on a quarterly basis. Though not required for funds where a contract was entered into prior to January 1, 2017, most managers voluntarily provided information using the ILPA template.

This report displays the available data for alternative investment vehicles in which CCCERA was invested as of December 31, 2020. CCCERA Investment Staff will issue a similar report in 2022 when complete data for 2021 is available.

**Contra Costa County Employees' Retirement Association
Government Code Section 7514.7 Disclosure: Private Equity
Calendar Year 2020**

A	B	C	D	E	F	G	H	I	J
Private Equity Fund	Address	Funding Commitment	Remaining Value as of 12/31/2020	Management Fees	Carried Interest Paid	Partnership Expenses	2020 Offsets	Other Expenses	Fees Paid by Portfolio Companies
Adams Street Partners (CCCERA)	Chicago, IL	\$ 210,000,000	\$183,638,936	\$ 1,117,810	\$ 288,720	\$ 113,261	\$ 415	\$ 252	N/A
Adams Street Partners - Brinson Partnership Fund	Chicago, IL	\$ 59,565,614	\$ 1,898,169	\$ -	\$ -	\$ 5,143	\$ -	\$ -	N/A
Adams Street Global Opportunities Secondary Fund II, L.P.	Chicago, IL	\$ 30,000,000	\$ 5,917,328	\$ 150,000	\$ 187,059	\$ 12,793	\$ -	\$ -	N/A
Adams Street Global Opportunities Secondary Fund V LP	Chicago, IL	\$ 40,000,000	\$ 20,263,011	\$ 241,500	\$ -	\$ 11,847	\$ -	\$ -	N/A
Adams Street Venture Innovation Fund LP	Chicago, IL	\$ 75,000,000	\$109,832,564	\$ 742,500	\$ -	\$ 34,070	\$ -	\$ 158,283	N/A
AE Industrial Partners Fund II, LP	Boca Raton, FL	\$ 35,000,000	\$ 17,306,235	\$ 665,000	\$ -	\$ 38,714	\$ 521,404	\$ 131,237	N/A
Bay Area Equity Fund	San Francisco, CA	\$ 10,000,000	\$ 2,392,861	\$ -	\$ -	\$ -	\$ -	\$ 10,952	N/A
Bay Area Equity Fund II	San Francisco, CA	\$ 10,000,000	\$ 11,210,395	\$ 123,600	\$ -	\$ -	\$ -	\$ 9,746	N/A
Genstar Capital Partners IX, L.P.	San Francisco, CA	\$ 50,000,000	\$ 24,722,151	\$ 875,000	\$ -	\$ 41,314	\$ 25,686	\$ 248,754	N/A
GTCR Fund XIII, L.P.	Chicago, IL	\$ 50,000,000	\$ (33,033)	\$ 24,965	\$ -	\$ 34,226	\$ -	\$ 12,839	N/A
Oaktree Private Investment Fund 2009, L.P.	Los Angeles, CA	\$ 40,000,000	\$ 1,267,789	\$ -	\$ -	\$ 30,596	\$ -	\$ -	N/A
Ocean Avenue Fund II	Santa Monica, CA	\$ 30,000,000	\$ 30,641,976	\$ 235,840	\$ -	\$ 35,940	\$ -	\$ 43,975	N/A
Ocean Avenue Fund III	Santa Monica, CA	\$ 50,000,000	\$ 53,593,391	\$ 375,000	\$ -	\$ 76,439	\$ -	\$ 34,575	N/A
Paladin III, L.P.	Washington, DC	\$ 25,000,000	\$ 27,924,818	\$ 383,245	\$ -	\$ 47,742	\$ -	\$ -	N/A
Pathway Private Equity Fund, LLC	Irvine, CA	\$ 125,000,000	\$ 12,399,693	\$ 239,217	\$ -	\$ 95,102	\$ -	\$ -	N/A
Pathway Private Equity Fund 2008	Irvine, CA	\$ 30,000,000	\$ 23,645,320	\$ 161,560	\$ -	\$ 9,446	\$ -	\$ -	N/A
Pathway Private Equity Fund 6	Irvine, CA	\$ 40,000,000	\$ 45,533,783	\$ 302,242	\$ -	\$ 15,820	\$ -	\$ -	N/A
Pathway Private Equity Fund 7	Irvine, CA	\$ 70,000,000	\$ 95,447,990	\$ 630,000	\$ -	\$ 15,610	\$ -	\$ -	N/A
Pathway Private Equity Fund 8	Irvine, CA	\$ 50,000,000	\$ 71,937,268	\$ 394,440	\$ -	\$ 18,533	\$ -	\$ 27,598	N/A
Siguler Guff CCCERA Opportunities Fund, LP	New York, NY	\$ 200,000,000	\$176,788,447	\$ 860,366	\$ -	\$ -	\$ 49,956	\$ -	N/A
Siguler Guff Secondary Opportunities Fund	New York, NY	\$ 50,000,000	\$ -	\$ -	\$ 38,155	\$ 19,748	\$ -	\$ 16,618	N/A
Siris Partners IV, L.P.	New York, NY	\$ 35,000,000	\$ 21,623,648	\$ 599,504	\$ -	\$ -	\$ -	\$ 593	N/A
TPG Healthcare Partners, L.P.	San Francisco, CA	\$ 24,000,000	\$ 6,867,022	\$ 360,000	\$ 22,495	\$ 225,449	\$ -	\$ -	N/A
Trident VIII, L.P.	Greenwich, CT	\$ 40,000,000	\$ 14,068,898	\$ 450,000	\$ -	\$ 30,291	\$ 4,722	\$ -	N/A
USPF II Institutional Fund, L.P.	Los Angeles, CA	\$ 50,000,000	\$ 4,901,362	\$ 94,925	\$ -	\$ 22,467	\$ -	\$ 8	N/A
United States Power Fund III, L.P.	Los Angeles, CA	\$ 65,000,000	\$ 15,356,917	\$ 179,769	\$ -	\$ 6,759	\$ -	\$ -	N/A
Energy Investor Funds USPF IV	Los Angeles, CA	\$ 50,000,000	\$ 34,604,907	\$ 581,834	\$ -	\$ 41,627	\$ -	\$ 1,447,472	N/A
Ares EIF V	Los Angeles, CA	\$ 50,000,000	\$ 43,942,133	\$ 697,558	\$ -	\$ 582,688	\$ -	\$ 131,199	N/A
Real Assets									
Aether III	Denver, CO	\$ 25,000,000	\$ 18,381,295	\$ 151,363	\$ -	\$ 26,618	\$ -	\$ 2,650	N/A
Aether III Surplus	Denver, CO	\$ 50,000,000	\$ 44,092,538	\$ 213,690	\$ -	\$ 51,124	\$ -	\$ 1,842	N/A
Aether IV	Denver, CO	\$ 50,000,000	\$ 41,879,887	\$ 425,001	\$ -	\$ 58,685	\$ -	\$ 14,479	N/A
Commonfund Capital Natural Resources IX	Wilton, CT	\$ 50,000,000	\$ 33,988,797	\$ 265,279	\$ -	\$ 59,412	\$ -	\$ -	N/A
Wastewater Opportunity Fund	Portland, OR	\$ 25,000,000	\$ 22,357,111	\$ 402,612	\$ -	\$ 173,589	\$ -	\$ 20,339	N/A

N/A: This information was not available or not provided by the manager.

**Contra Costa County Employees' Retirement Association
Government Code Section 7514.7 Disclosure: Private Equity
Calendar Year 2020**

K	L	M	N	O	P	Q	R	S	T	U	V
Private Equity Fund	Address	Inception Date	Funding Commitment	Since Inception Contributions	Since Inception Distributions	Remaining Value as of 12/31/2020	Total Value as of 12/31/2020	Distributed/ Paid in	Total Value/ Paid in	Since Inception Gross IRR	Since Inception Net IRR
Adams Street Partners (CCCERA)	Chicago, IL	12/22/1995	\$ 210,000,000	\$187,400,625	\$178,958,575	\$183,638,936	\$362,597,511	0.95x	1.93x	14.3%	12.1%
Adams Street Partners - Brinson Partnership Fund	Chicago, IL	1/18/1996	\$ 59,565,614	\$ 57,517,409	\$102,731,103	\$ 1,898,169	\$104,629,272	1.79x	1.82x	14.3%	11.6%
Adams Street Global Opportunities Secondary Fund II, L.P.	Chicago, IL	1/15/2009	\$ 30,000,000	\$ 28,365,000	\$ 42,951,012	\$ 5,917,328	\$ 48,868,340	1.51x	1.72x	17.9%	14.2%
Adams Street Global Opportunities Secondary Fund V LP	Chicago, IL	9/21/2012	\$ 40,000,000	\$ 30,845,875	\$ 19,649,219	\$ 20,263,011	\$ 39,912,230	0.64x	1.29x	9.2%	6.6%
Adams Street Venture Innovation Fund LP	Chicago, IL	3/31/2016	\$ 75,000,000	\$ 55,537,500	\$ -	\$109,832,564	\$109,832,564	0.00x	1.98x	44.5%	40.9%
AE Industrial Partners Fund II, LP	Boca Raton, FL	5/18/2018	\$ 35,000,000	\$ 16,554,769	\$ 804,335	\$ 17,306,235	\$ 18,110,570	0.05x	1.09x	20.1%	11.1%
Bay Area Equity Fund	San Francisco, CA	4/30/2004	\$ 10,000,000	\$ 10,000,000	\$ 37,018,019	\$ 2,392,861	\$ 39,410,880	3.70x	3.94x	31.4%	23.3%
Bay Area Equity Fund II	San Francisco, CA	6/29/2009	\$ 10,000,000	\$ 10,000,000	\$ 3,684,910	\$ 11,210,395	\$ 14,895,305	0.37x	1.49x	10.1%	5.3%
Genstar Capital Partners IX, L.P.	San Francisco, CA	2/21/2019	\$ 50,000,000	\$ 19,628,275	\$ 1,166,668	\$ 24,722,151	\$ 25,888,819	0.06x	1.32x	29.6%	19.8%
GTCR Fund XIII, L.P.	Chicago, IL	10/27/2020	\$ 50,000,000	\$ -	\$ -	\$ (33,033)	\$ (33,033)	0.00x	NM	NM	NM
Oaktree Private Investment Fund 2009, L.P.	Los Angeles, CA	11/18/2009	\$ 40,000,000	\$ 34,816,729	\$ 45,799,610	\$ 1,267,789	\$ 47,067,399	1.32x	1.35x	6.7%	6.5%
Ocean Avenue Fund II	Santa Monica, CA	5/2/2013	\$ 30,000,000	\$ 27,000,000	\$ 22,639,096	\$ 30,641,976	\$ 53,281,071	0.84x	1.97x	21.8%	17.3%
Ocean Avenue Fund III	Santa Monica, CA	4/15/2016	\$ 50,000,000	\$ 44,000,000	\$ 18,500,000	\$ 53,593,391	\$ 72,093,391	0.42x	1.64x	30.7%	22.3%
Paladin III, L.P.	Washington, DC	11/30/2007	\$ 25,000,000	\$ 34,331,097	\$ 60,680,169	\$ 27,924,818	\$ 88,604,987	1.77x	2.58x	22.6%	15.3%
Pathway Private Equity Fund, LLC	Irvine, CA	1/19/1999	\$ 125,000,000	\$125,399,172	\$178,339,748	\$ 12,399,693	\$190,739,441	1.42x	1.52x	10.2%	8.4%
Pathway Private Equity Fund 2008	Irvine, CA	7/31/2009	\$ 30,000,000	\$ 29,488,908	\$ 33,623,568	\$ 23,645,320	\$ 57,268,888	1.14x	1.94x	16.3%	13.9%
Pathway Private Equity Fund 6	Irvine, CA	8/22/2011	\$ 40,000,000	\$ 38,675,323	\$ 32,744,755	\$ 45,533,783	\$ 78,278,538	0.85x	2.02x	18.9%	16.6%
Pathway Private Equity Fund 7	Irvine, CA	7/10/2013	\$ 70,000,000	\$ 67,322,688	\$ 36,304,737	\$ 95,447,990	\$131,752,727	0.54x	1.96x	20.8%	18.5%
Pathway Private Equity Fund 8	Irvine, CA	11/23/2015	\$ 50,000,000	\$ 42,514,381	\$ 8,415,627	\$ 71,937,268	\$ 80,352,895	0.20x	1.89x	25.8%	24.3%
Siguler Guff CCCERA Opportunities Fund, LP	New York, NY	6/3/2014	\$ 200,000,000	\$170,583,208	\$108,170,177	\$176,788,447	\$284,958,624	0.63x	1.67x	20.5%	17.0%
Siguler Guff Secondary Opportunities Fund	New York, NY	11/30/2016	\$ 50,000,000	\$ 29,999,802	\$ 42,773,166	\$ -	\$ 42,773,166	1.43x	1.43x	118.5%	74.8%
Siris Partners IV, L.P.	New York, NY	5/18/2018	\$ 35,000,000	\$ 19,483,500	\$ 198,938	\$ 21,623,648	\$ 21,822,586	0.01x	1.12x	14.8%	9.3%
TPG Healthcare Partners, L.P.	San Francisco, CA	6/28/2019	\$ 24,000,000	\$ 6,796,104	\$ 1,088,292	\$ 6,867,022	\$ 7,955,314	0.16x	1.17x	43.0%	39.5%
Trident VIII, L.P.	Greenwich, CT	5/24/2019	\$ 40,000,000	\$ 13,549,528	\$ 565,951	\$ 14,068,898	\$ 14,634,849	0.04x	1.08x	35.4%	26.8%
USPF II Institutional Fund, L.P.	Los Angeles, CA	7/15/2005	\$ 50,000,000	\$ 65,029,556	\$ 74,001,371	\$ 4,901,362	\$ 78,902,733	1.14x	1.21x	5.7%	3.1%
United States Power Fund III, L.P.	Los Angeles, CA	5/31/2007	\$ 65,000,000	\$ 71,409,097	\$ 73,782,321	\$ 15,356,917	\$ 89,139,238	1.03x	1.25x	6.1%	3.6%
Energy Investor Funds USPF IV	Los Angeles, CA	11/28/2011	\$ 50,000,000	\$ 64,155,474	\$ 31,740,306	\$ 34,604,907	\$ 66,345,213	0.49x	1.03x	4.5%	0.9%
Ares EIF V	Los Angeles, CA	11/28/2016	\$ 50,000,000	\$ 52,779,673	\$ 23,278,430	\$ 43,942,133	\$ 67,220,563	0.44x	1.27x	16.1%	12.2%
Real Assets											
Aether III	Denver, CO	11/27/2013	\$ 25,000,000	\$ 24,407,721	\$ 3,913,883	\$ 18,381,295	\$ 22,295,178	0.16x	0.91x	0.8%	-2.4%
Aether III Surplus	Denver, CO	11/30/2013	\$ 50,000,000	\$ 51,339,959	\$ 8,973,151	\$ 44,092,538	\$ 53,065,689	0.17x	1.03x	2.6%	0.8%
Aether IV	Denver, CO	1/30/2016	\$ 50,000,000	\$ 42,187,917	\$ 3,442,429	\$ 41,879,887	\$ 45,322,316	0.08x	1.07x	7.1%	3.0%
Commonfund Capital Natural Resources IX	Wilton, CT	6/30/2013	\$ 50,000,000	\$ 45,899,994	\$ 12,693,451	\$ 33,988,797	\$ 46,682,248	0.28x	1.02x	2.1%	0.4%
Wastewater Opportunity Fund	Portland, OR	12/8/2015	\$ 25,000,000	\$ 25,022,227	\$ 2,031,922	\$ 22,357,111	\$ 24,389,033	0.08x	0.97x	3.7%	-1.1%

NM: This data is not yet meaningful.

**Contra Costa County Employees' Retirement Association
Government Code Section 7514.7 Disclosure: Private Credit
Calendar Year 2020**

A	B	C	D	E	F	G	H	I	J
Private Credit Fund	Address	Funding Commitment	Remaining Value as of 12/31/2020	Management Fees	Carried Interest Paid	Partnership Expenses	2020 Offsets	Other Expenses	Fees Paid by Portfolio Companies
Angelo Gordon Energy Credit Opportunities Fund	New York, NY	\$ 16,500,000	\$ 2,347,372	\$ 103,261	\$ -	\$ 46,404	\$ -	\$ -	N/A
StepStone CC Opportunities Fund, LLC - All Series	La Jolla, CA	\$ 1,020,000,000	\$ 737,037,016	\$ 1,500,000	\$ -	\$ 638,297	\$ -	\$ -	N/A
Torchlight Debt Opportunity Fund IV	New York, NY	\$ 60,000,000	\$ 9,678,825	\$ 119,975	\$ -	\$ 105,840	\$ -	\$ -	N/A
Torchlight Debt Opportunity Fund V	New York, NY	\$ 75,000,000	\$ 21,396,264	\$ 268,893	\$ -	\$ 144,592	\$ -	\$ -	N/A

N/A: This information was not available or not provided by the manager.

**Contra Costa County Employees' Retirement Association
Government Code Section 7514.7 Disclosure: Private Credit
Calendar Year 2020**

K	L	M	N	O	P	Q	R	S	T	U	V
Private Credit Fund	Address	Inception Date	Funding Commitment	Since Inception Contributions	Since Inception Distributions	Remaining Value as of 12/31/2020	Total Value as of 12/31/2020	Distributed/ Paid in	Total Value/ Paid in	Since Inception Gross IRR	Since Inception Net IRR
Angelo Gordon Energy Credit Opportunities Fund	New York, NY	8/14/2015	\$ 16,500,000	\$ 18,750,000	\$ 18,829,566	\$ 2,347,372	\$ 21,176,938	1.00x	1.13x	10.0%	5.6%
StepStone CC Opportunities Fund, LLC - All Series	La Jolla, CA	12/18/2017	\$ 1,020,000,000	\$ 690,599,992	\$ 41,561,970	\$ 737,037,016	\$ 778,598,986	0.06x	1.13x	9.5%	8.6%
Torchlight Debt Opportunity Fund IV	New York, NY	8/1/2012	\$ 60,000,000	\$ 84,866,971	\$ 104,809,507	\$ 9,678,825	\$ 114,488,332	1.23x	1.35x	12.6%	10.5%
Torchlight Debt Opportunity Fund V	New York, NY	3/12/2015	\$ 75,000,000	\$ 60,000,000	\$ 55,039,262	\$ 21,396,264	\$ 76,435,526	0.92x	1.27x	15.0%	10.4%

**Contra Costa County Employees' Retirement Association
Government Code Section 7514.7 Disclosure: Real Estate
Calendar Year 2020**

A	B	C	D	E	F	G	H	I	J
Real Estate Fund	Address	Funding Commitment	Remaining Value as of 12/31/2020	Management Fees	Carried Interest Paid	Partnership Expenses	2020 Offsets	Other Expenses	Fees Paid by Portfolio Companies
AG Realty Fund VIII, L.P.	New York, NY	\$ 80,000,000	\$ 18,365,714	\$ 263,474	\$ -	\$ 90,861	\$ 2,460	\$ -	N/A
AG Realty Fund IX (A), L.P.	New York, NY	\$ 65,000,000	\$ 63,649,731	\$ 844,244	\$ -	\$ 201,716	\$ 11,655	\$ -	N/A
DLJ RECP Fund III, L.P.	New York, NY	\$ 75,000,000	\$ 16,436,436	\$ 258,216	\$ -	\$ 90,404	\$ -	\$ -	N/A
DLJ RECP Fund IV, L.P.	New York, NY	\$100,000,000	\$ 56,385,232	\$ 573,865	\$ -	\$ 1,565,218	\$ 21,733	\$ 7,607	N/A
DLJ RECP Fund V, L.P.	New York, NY	\$ 75,000,000	\$ 46,493,625	\$ 489,749	\$ -	\$ 413,064	\$ 101,414	\$ 78,179	N/A
DLJ RECP Fund VI, L.P.	New York, NY	\$ 50,000,000	\$ 24,597,661	\$ 550,765	\$ -	\$ 494,548	\$ 82,191	\$ 211,264	N/A
Invesco U.S. Value-Add Fund III	Dallas, TX	\$ 35,000,000	\$ 167,336	\$ 35,783	\$ -	\$ 27,627	\$ -	\$ -	N/A
Invesco U.S. Value-Add Fund IV	Dallas, TX	\$ 35,000,000	\$ 17,651,734	\$ 253,345	\$ -	\$ 91,276	\$ -	\$ -	N/A
Invesco U.S. Value-Add Fund V	Dallas, TX	\$ 75,000,000	\$ 43,740,918	\$ 519,255	\$ -	\$ 450,263	\$ -	\$ -	N/A
LaSalle Income & Growth Fund VI	Chicago, IL	\$ 75,000,000	\$ 22,466,462	\$ 209,536	\$ -	\$ 34,034	\$ -	\$ -	N/A
LaSalle Income & Growth Fund VII	Chicago, IL	\$ 75,000,000	\$ 54,629,346	\$ 599,780	\$ -	\$ 94,516	\$ -	\$ -	N/A
Long Wharf Real Estate Partners IV L.P.	Boston, MA	\$ 25,000,000	\$ 1,979,959	\$ 74,638	\$ 838,359	\$ 35,337	\$ -	\$ -	N/A
Long Wharf Real Estate Partners V L.P.	Boston, MA	\$ 50,000,000	\$ 36,414,512	\$ 532,691	\$ -	\$ 78,297	\$ -	\$ -	N/A
Long Wharf Real Estate Partners VI L.P.	Boston, MA	\$ 50,000,000	\$ 10,133,879	\$ 1,368,493	\$ -	\$ 287,721	\$ -	\$ -	N/A
Oaktree Real Estate Opportunities Fund V, LP	Los Angeles, CA	\$ 50,000,000	\$ 3,474,839	\$ 49,083	\$ 157,944	\$ 7,128	\$ 13,281	\$ -	N/A
Oaktree Real Estate Opportunities Fund VI, LP	Los Angeles, CA	\$ 80,000,000	\$ 27,795,386	\$ 420,492	\$ 24,743	\$ 36,487	\$ 8,760	\$ -	N/A
Oaktree Real Estate Opportunities Fund VII, LP	Los Angeles, CA	\$ 65,000,000	\$ 50,293,904	\$ 647,087	\$ 62,552	\$ 232,880	\$ -	\$ 17,563	N/A
Paulson Real Estate Fund II LP	New York, NY	\$ 20,000,000	\$ 25,464,239	\$ 218,883	\$ 142,095	\$ 69,729	\$ -	\$ -	N/A
Siguler Guff Distressed Real Estate Opportunities Fund, LP	New York, NY	\$ 75,000,000	\$ 27,148,622	\$ 211,929	\$ 784,871	\$ 58,622	\$ -	\$ -	N/A
Siguler Guff Distressed Real Estate Opportunities Fund II, LP	New York, NY	\$ 70,000,000	\$ 45,960,529	\$ 402,887	\$ 31,873	\$ 49,779	\$ -	\$ -	N/A
Siguler Guff DREOF II Co-Investment Fund	New York, NY	\$ 25,000,000	\$ 16,044,153	\$ 138,357	\$ 79,796	\$ 32,974	\$ -	\$ -	N/A

N/A: This information was not available or not provided by the manager.

**Contra Costa County Employees' Retirement Association
Government Code Section 7514.7 Disclosure: Real Estate
Calendar Year 2020**

K	L	M	N	O	P	Q	R	S	T	U	V
Real Estate Fund	Address	Inception Date	Funding Commitment	Since Inception Contributions	Since Inception Distributions	Remaining Value as of 12/31/2020	Total Value as of 12/31/2020	Distributed/ Paid in	Total Value/ Paid in	Since Inception Gross IRR	Since Inception Net IRR
AG Realty Fund VIII, L.P.	New York, NY	12/13/2010	\$ 80,000,000	\$ 75,401,855	\$ 98,433,174	\$ 18,365,714	\$ 116,798,888	1.31x	1.55x	18.6%	13.6%
AG Realty Fund IX (A), L.P.	New York, NY	12/8/2014	\$ 65,000,000	\$ 60,125,000	\$ 15,275,000	\$ 63,649,731	\$ 78,924,731	0.25x	1.31x	12.0%	8.6%
DLJ RECP Fund III, L.P.	New York, NY	6/6/2005	\$ 75,000,000	\$100,838,421	\$ 69,964,839	\$ 16,436,436	\$ 86,401,275	0.69x	0.86x	-0.9%	-2.9%
DLJ RECP Fund IV, L.P.	New York, NY	12/26/2007	\$100,000,000	\$128,406,521	\$ 89,586,214	\$ 56,385,232	\$145,971,446	0.70x	1.14x	4.2%	1.5%
DLJ RECP Fund V, L.P.	New York, NY	7/18/2013	\$ 75,000,000	\$ 85,659,750	\$ 58,913,882	\$ 46,493,625	\$105,407,507	0.69x	1.23x	15.8%	8.9%
DLJ RECP Fund VI, L.P.	New York, NY	11/20/2018	\$ 50,000,000	\$ 25,335,866	\$ -	\$ 24,597,661	\$ 24,597,661	0.00x	0.97x	4.8%	-1.6%
Invesco U.S. Value-Add Fund III	Dallas, TX	12/2/2011	\$ 35,000,000	\$ 32,386,424	\$ 47,423,063	\$ 167,336	\$ 47,590,399	1.46x	1.47x	17.6%	13.6%
Invesco U.S. Value-Add Fund IV	Dallas, TX	6/30/2014	\$ 35,000,000	\$ 30,546,401	\$ 22,847,397	\$ 17,651,734	\$ 40,499,131	0.75x	1.33x	16.3%	12.3%
Invesco U.S. Value-Add Fund V	Dallas, TX	7/28/2017	\$ 75,000,000	\$ 46,111,959	\$ 4,723,439	\$ 43,740,918	\$ 48,464,357	0.10x	1.05x	12.5%	6.5%
LaSalle Income & Growth Fund VI	Chicago, IL	1/20/2012	\$ 75,000,000	\$ 71,428,571	\$ 81,401,001	\$ 22,466,462	\$103,867,462	1.14x	1.45x	13.2%	10.9%
LaSalle Income & Growth Fund VII	Chicago, IL	10/30/2015	\$ 75,000,000	\$ 72,154,315	\$ 30,975,627	\$ 54,629,346	\$ 85,604,973	0.43x	1.19x	9.2%	7.3%
Long Wharf Real Estate Partners IV L.P.	Boston, MA	11/13/2012	\$ 25,000,000	\$ 25,000,000	\$ 34,528,873	\$ 1,979,959	\$ 36,508,832	1.38x	1.46x	16.8%	12.1%
Long Wharf Real Estate Partners V L.P.	Boston, MA	11/20/2015	\$ 50,000,000	\$ 50,000,000	\$ 25,476,979	\$ 36,414,512	\$ 61,891,492	0.51x	1.24x	11.3%	8.3%
Long Wharf Real Estate Partners VI L.P.	Boston, MA	6/27/2019	\$ 50,000,000	\$ 9,276,511	\$ -	\$ 10,133,879	\$ 10,133,879	0.00x	1.09x	31.4%	10.3%
Oaktree Real Estate Opportunities Fund V, LP	Los Angeles, CA	2/23/2011	\$ 50,000,000	\$ 50,000,000	\$ 76,012,733	\$ 3,474,839	\$ 79,487,572	1.52x	1.59x	16.7%	12.3%
Oaktree Real Estate Opportunities Fund VI, LP	Los Angeles, CA	9/20/2012	\$ 80,000,000	\$ 80,000,000	\$ 84,010,175	\$ 27,795,386	\$111,805,561	1.05x	1.40x	12.6%	8.6%
Oaktree Real Estate Opportunities Fund VII, LP	Los Angeles, CA	4/1/2015	\$ 65,000,000	\$ 65,000,000	\$ 29,965,000	\$50,293,904	\$ 80,258,904	0.46x	1.23x	25.2%	15.3%
Paulson Real Estate Fund II LP	New York, NY	12/31/2013	\$ 20,000,000	\$ 19,345,623	\$ 11,825,910	\$ 25,464,239	\$ 37,290,149	0.61x	1.93x	18.0%	13.0%
Siguler Guff Distressed Real Estate Opportunities Fund, LP	New York, NY	9/2/2010	\$ 75,000,000	\$ 69,375,000	\$ 94,618,695	\$ 27,148,622	\$121,767,317	1.36x	1.76x	16.4%	12.2%
Siguler Guff Distressed Real Estate Opportunities Fund II, LP	New York, NY	7/5/2013	\$ 70,000,000	\$ 61,985,000	\$ 40,440,443	\$ 45,960,529	\$ 86,400,972	0.65x	1.39x	11.3%	8.3%
Siguler Guff DREOF II Co-Investment Fund	New York, NY	7/7/2015	\$ 25,000,000	\$ 20,537,862	\$ 10,273,350	\$ 16,044,153	\$ 26,317,503	0.50x	1.28x	8.8%	7.1%



Meeting Date
11/17/2021
Agenda Item
#8

MEMORANDUM

Date: November 17, 2021
To: CCCERA Board of Retirement
From: Gail Strohl, Chief Executive Officer
Subject: Consider and take possible action to issue a Request for Proposal for a Member Service Analysis.

Background

CCCERA continues to seek ways to enhance the level of service provided to members. The current implementation of a new pension administration system, once deployed, will increase internal efficiencies and result in better member service. Another possible resource is a third party vendor that would assist with conducting a member survey, reviewing the current service model and providing any recommendations.

Recommendation

Consider and take possible action to issue a Request for Proposal for a Member Service Analysis.



MEMORANDUM

Date: November 17, 2021
To: CCCERA Board of Retirement
From: Gail Strohl, Chief Executive Officer
Subject: Consider and take possible action to add CCCERA staffing.

Background

After reviewing CCCERA's operations, it has been determined that there is a need for additional staff positions to be added beginning with the 2022 budget year. Two new Retirement Services Counselors would work on calculating retirement benefits, estimates and purchases, as well as interacting with active members and responding timely to their needs. As of January 1, 2022, the hourly rate for each of these positions ranges from \$30.26 to \$38.61.

In order to support the implementation of the private markets target allocations, it is recommended that the currently vacant Investment Officer position be cancelled, and Senior Investment Officer and Senior Investment Analyst classifications be created. The Senior Investment Officer would be a supervisory position with experience in managing general partner relationships, underwriting investment strategies and possess extensive experience in the assigned asset class(es). In reviewing the current classifications and salary levels, the recommended monthly salary range for this new classification is \$16,912 to \$20,557. The Senior Investment Analyst would support the Senior Investment Officer, have experience with investments and possess advanced technical skills. The recommended monthly salary range for this new classification is \$12,019 to \$14,609.

Recommendations

Consider and take possible action effective January 1, 2022 to add CCCERA staffing:

- a. Add two Retirement Services Counselors positions, cancel one Investment Officer position (currently vacant), establish classifications for Senior Investment Officer and Senior Investment Analyst, and add one Senior Investment Officer position and one Senior Investment Analyst position; and
- b. Amend Attachment A of Resolution 2021-3 providing salary and benefits for unrepresented employees of CCCERA.

Resolution of the Board of Retirement
Contra Costa County Employees' Retirement Association

CCCERA Resolution for Salary and Benefits for Unrepresented Employees
(BOR Reso. No. 2021-3)

Attachment A

Effective January 1, 2022

Revision Dates: 4/1/2021, 4/1/2020, 1/1/2020, 7/1/19, 4/1/19, 7/1/18, 7/1/17, 7/1/16, 2/1/16, 7/1/15, 1/1/15

	Step 1	Step 2	Step 3	Step 4	Step 5	Eligible for Differential*				
						10 year Longevity	15 year Longevity	20 year Longevity	CPA, CGFM, CIA, CMA	ASA
						2.50%	2.50%	2.00%	5%	5%
Hourly (Non-Exempt)										
Executive Assistant	\$37.67	\$39.55	\$41.53	\$43.61	\$45.79	Yes	Yes	No	No	Yes
Information Technology Coordinator	\$39.55	\$41.53	\$43.61	\$45.79	\$48.08	Yes	Yes	No	No	Yes
Member Services Supervisor	\$45.79	\$48.08	\$50.48	\$53.01	\$55.66	Yes	Yes	No	No	Yes
Retirement Services Supervisor	\$45.79	\$48.08	\$50.48	\$53.01	\$55.66	Yes	Yes	No	No	Yes
Monthly (Exempt)										
Accountant	\$6,219	\$6,529	\$6,856	\$7,199	\$7,559	Yes	Yes	No	Yes	Yes
Accounting Manager	\$10,636	\$11,168	\$11,726	\$12,312	\$12,928	Yes	Yes	No	Yes	Yes
Accounting Supervisor	\$7,937	\$8,333	\$8,750	\$9,188	\$9,647	Yes	Yes	No	Yes	Yes
Administrative/HR Manager	\$10,383	\$10,902	\$11,447	\$12,019	\$12,620	Yes	Yes	No	No	Yes
Administrative/HR Supervisor	\$7,937	\$8,333	\$8,750	\$9,188	\$9,647	Yes	Yes	No	No	Yes
Communications Coordinator	\$7,379	\$7,748	\$8,135	\$8,542	\$8,969	Yes	Yes	No	No	Yes
Compliance Business Analyst	\$8,135	\$8,542	\$8,969	\$9,417	\$9,888	Yes	Yes	No	No	Yes
Deputy General Counsel	\$14,966	\$15,714	\$16,500	\$17,325	\$18,191	Yes	Yes	No	No	Yes
Information System Programmer/Analyst	\$7,559	\$7,937	\$8,333	\$8,750	\$9,188	Yes	Yes	No	No	Yes
Information Technology Manager	\$12,620	\$13,251	\$13,914	\$14,609	\$15,340	Yes	Yes	No	No	Yes
Investment Analyst	\$10,902	\$11,447	\$12,019	\$12,620	\$13,251	Yes	Yes	No	No	Yes
Investment Officer	\$15,340	\$16,107	\$16,912	\$17,758	\$18,646	Yes	Yes	No	No	Yes
Member Services Manager	\$10,383	\$10,902	\$11,447	\$12,019	\$12,620	Yes	Yes	No	No	Yes
Retirement Services Manager	\$10,383	\$10,902	\$11,447	\$12,019	\$12,620	Yes	Yes	No	No	Yes
Senior Investment Analyst	\$12,019	\$12,620	\$13,251	\$13,914	\$14,609	Yes	Yes	No	No	Yes
Senior Investment Officer	\$16,912	\$17,758	\$18,646	\$19,578	\$20,557	Yes	Yes	No	No	Yes

Monthly Salary Range (Exempt)						
Chief Executive Officer	\$23,990.03	Yes	Yes	No	No	Yes
Chief Investment Officer	\$20,479 - \$26,623	Yes	Yes	No	No	Yes
Compliance Officer	\$10,585 - \$13,760	Yes	Yes	No	No	Yes
Deputy Chief Executive Officer	\$16,419 - \$21,344	Yes	Yes	No	No	Yes
General Counsel	\$18,101- \$23,531	Yes	Yes	Yes	No	Yes
Internal Auditor	\$10,585 - \$13,760	Yes	Yes	No	Yes	Yes

*NOTE: Certificate Differentials cannot be combined with other certificate differentials

2022

ANNUAL BUDGET

Meeting Date
11/17/2021
Agenda Item
#10



BUDGET SUMMARY

November 17, 2021

Dear Board Members,

It is with pleasure to present the 2022 Proposed Operating Budget for Contra Costa County Employees' Retirement Association (CCCERA).

Despite the shelter in place challenges, CCCERA strove towards efficient and effective administration of the plan, continuously safeguarded plan assets wherever possible, provided prompt delivery of earned benefits, and ensured that members can expect to receive the best customer service. The activities funded by this proposed budget support the strategic initiatives of CCCERA's strategic plan.

Included in the 2022 Proposed Budget are usual day-to-day operational and departmental expenses, but there are additional estimated expenses for the following:

- Addition of four new positions; senior investment officer and senior investment analyst; two additional retirement services counselors, combined with filling vacancies for a disability specialist and an internal auditor position
- Increased overtime and temporary costs necessary to support the pension administration system with data services work with ICON and design work with Sagitec
- Additional actuarial consulting services for a triennial experience study
- Anticipated Board trustee election related costs
- Improved website communication with customer service tutorials and videos

- Increases to liability insurance premiums
- Additional necessary support hours for CPAS legacy system combined with increases in system maintenance fees

The presentation format of the budget is summarized into major expense line items which match the same audit presentation in the Annual Comprehensive Financial Report (ACFR). In addition to a 2022 Proposed Operating Budget, also included is a FY2021 budget versus year-end estimate to help compare. The FY2021 estimate was based on actual expenses through third quarter September 30 rolled forward to December 31, 2021.

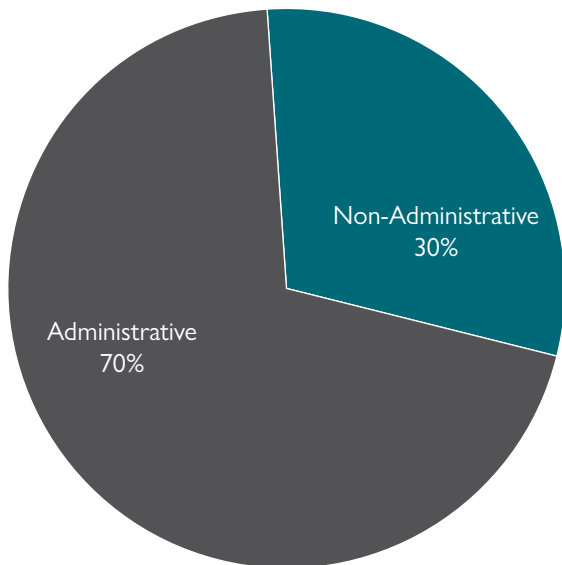
The 2022 Proposed Operating Budget is divided into three sections:

- *2022 Proposed Total Budget*—this section summarizes and combines all expenses from the *2022 Proposed Administrative* and *2022 Proposed Non-Administrative Budget*
- *2022 Proposed Administrative Budget*—this section is comprised of expenses from administrative departments including Executive, Administration/HR, Accounting, Information Technology, Retirement Services, and Member Services. Administrative expenses are capped by a statutory limit of 21 basis points against the latest Actuarial Accrued Liability prepared as of December 31, 2020.
- *2022 Proposed Non-Administrative Budget*—this section includes expenses for the Investment and Legal departments, and IT Disaster Recovery Program. These expenses are not subject to and excluded from the statutory limit on administrative expenses. Legal fees

relating to general and fiduciary counsel, tax, investments, employment, and disabilities are presented as Non-Administrative. Additionally, presented with the 2022 Non-Administrative budget are Investment Consulting and Actuarial Services fees.

The 2022 Proposed Administrative Budget is \$13.1 million, an increase of \$573 thousand or 5%, compared to the 2021 budget. Most of the increase in Administrative budget is for two new retirement counselors, anticipated overtime, and temporary staff costs as mentioned earlier. Anticipated overtime and increased temporary staff budgets in Retirement Services, Member Services, and Accounting departments are necessary to work closely with the design schedule and data clean-up of the new pension system; but also to ensure that during the new system design, the core retirement administration functions are maintained well for CCCERA members and employers.

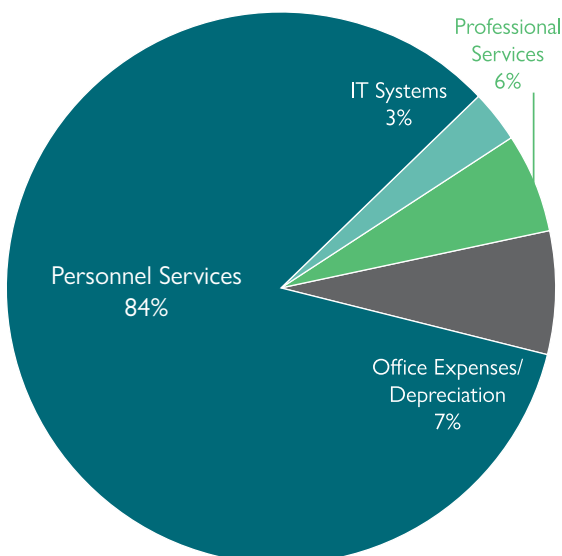
TOTAL 2022 PROPOSED BUDGET \$18.6M



Section 31580.2 of the California Government Code limits administrative expenses to 0.21% of the most current Actuarial Accrued Liability (AAL). As of December 31, 2020, the AAL is \$10.5 billion which results in a limit of approximately \$22.1 million. The proposed 2022 administrative expenses of \$13.1 million are 0.125% of the AAL and well under the capped amount.

The 2022 Proposed Total Budget is \$18.6 Million, an overall increase of \$1 million or 6%, compared to the 2021 budget. The chart below illustrates where the budget increases occur from.

The 2022 Proposed Non-Administrative Budget is \$5.5 million, an increase of \$428 thousand or 8%, as compared to the 2021 budget. The majority of the increase is related to personnel costs for a new senior investment officer and a new senior investment analyst position.



RECOMMENDATION

Consider and take possible action to adopt the 2022 Proposed Total Operating Budget.

Thank you for your consideration.

Respectfully submitted,

Henry Gudino, CPA
 Accounting Manager

2022

PROPOSED TOTAL BUDGET

2022 PROPOSED TOTAL BUDGET

2022 PROPOSED TOTAL BUDGET Including Administrative and Non-Administrative Departments

	2021 Budget	2021 Estimate	\$ Budget Remaining	% Budget Remaining	2022 Proposed Total Budget	\$ Change 2021 Budget	% Change 2021 Budget
Personnel Services:							
Salaries and Wages	\$7,269,800	\$6,863,711	\$406,089	6%	\$8,079,500	\$809,700	11%
Employee Benefits and Retirement	5,245,400	4,668,472	576,928	11%	5,272,400	27,000	1%
Total Personnel Services	12,515,200	11,532,183	983,017	8%	13,351,900	836,700	7%
Operational Expenses:							
Professional Services							
Investment Consulting	931,600	940,021	(8,421)	(1%)	954,000	22,400	2%
Actuarial Services	215,000	175,000	40,000	19%	298,700	83,700	39%
Outside Legal Counsel Services	495,000	374,004	120,996	24%	432,000	(63,000)	(13%)
Audit Services	55,000	35,143	19,857	36%	56,000	1,000	2%
Benefit Statements	80,000	71,567	8,433	11%	75,000	(5,000)	(6%)
Disability Hearing/ Medical Reviews	171,200	117,386	53,814	31%	160,000	(11,200)	(7%)
Other Professional Services	23,700	5,485	18,215	77%	61,100	37,400	158%
Total Professional Services	1,971,500	1,718,606	252,894	13%	2,036,800	65,300	3%
Office Expenses:							
Office Lease	559,700	548,052	11,648	2%	577,000	17,300	3%
Telephone & Internet Services	64,600	85,622	(21,022)	(33%)	116,300	51,700	80%
Equipment Lease & Maintenance	27,400	20,076	7,324	27%	22,500	(4,900)	(18%)
Furniture & Equipment	12,000	33	11,967	100%	7,000	(5,000)	(42%)
Office Supplies & Maintenance	157,400	94,623	62,777	40%	127,900	(29,500)	(19%)
Printing & Postage	143,100	137,983	5,117	4%	141,600	(1,500)	(1%)
Training & Education	163,800	49,074	114,726	70%	139,400	(24,400)	(15%)
Travel & Transportation	192,900	1,109	191,791	99%	190,000	(2,900)	(2%)
Insurance	304,900	299,375	5,525	2%	361,800	56,900	19%
Total Office Expenses	1,625,800	1,235,947	389,853	24%	1,683,500	57,700	4%
Information Technology Systems:							
Support Service & Software Contracts	639,900	564,160	75,740	12%	763,100	123,200	19%
Hardware & Equipment Maintenance	54,400	17,648	36,752	68%	48,300	(6,100)	(11%)
Project Consulting	525,000	345,640	179,360	34%	433,000	(92,000)	(18%)
Total IT Systems	1,219,300	927,448	291,852	24%	1,244,400	25,100	2%
Assets Depreciation	289,100	305,192	(16,092)	(6%)	305,200	16,100	6%
Total CCCERA Expenses	\$17,620,900	\$15,719,376	\$1,901,524	11%	\$18,621,800	\$1,000,900	6%

2022

**PROPOSED ADMINISTRATIVE
BUDGET**

2022 PROPOSED ADMINISTRATIVE BUDGET

2022 PROPOSED ADMINISTRATIVE BUDGET

	2021 Budget	2021 Estimate	\$ Budget Remaining	% Budget Remaining	2022 Proposed Total Budget	\$ Change 2021 Budget	% Change 2021 Budget
Personnel Services:							
Salaries and Wages	\$5,429,600	\$5,224,765	\$204,835	4%	\$5,874,000	\$444,400	8%
Employee Benefits and Retirement	4,212,400	3,777,506	434,894	10%	4,231,500	19,100	-
Total Personnel Services	9,642,000	9,002,271	639,729	7%	10,105,500	463,500	5%
Operational Expenses:							
Professional Services							
Audit Services	55,000	35,143	19,857	36%	56,000	1,000	2%
Benefit Statements	80,000	71,567	8,433	11%	75,000	(5,000)	(6%)
Disability Hearing/ Medical Reviews	171,200	117,386	53,814	31%	160,000	(11,200)	(7%)
Other Professional Services	22,700	5,485	17,215	76%	60,100	37,400	165%
Total Professional Services	328,900	229,581	99,319	30%	351,100	22,200	7%
Office Expenses:							
Office Lease	486,900	486,243	657	-	502,000	15,100	3%
Telephone & Internet Services	52,600	72,199	(19,599)	(37%)	102,000	49,400	94%
Equipment Lease & Maintenance	17,400	20,076	(2,676)	(15%)	22,500	5,100	29%
Furniture & Equipment	12,000	33	11,967	100%	7,000	(5,000)	(42%)
Office Supplies & Maintenance	146,400	90,289	56,111	38%	116,000	(30,400)	(21%)
Printing & Postage	141,900	137,737	4,163	3%	140,400	(1,500)	(1%)
Training & Education	138,300	40,341	97,959	71%	125,900	(12,400)	(9%)
Travel & Transportation	94,000	666	93,334	99%	90,000	(4,000)	(4%)
Insurance	304,900	299,375	5,525	2%	361,800	56,900	19%
Total Office Expenses	1,394,400	1,146,959	247,441	18%	1,467,600	73,200	5%
Information Technology Systems:							
Support Service & Software Contracts	337,000	339,379	(2,379)	(1%)	439,400	102,400	30%
Hardware & Equipment Maintenance	36,400	16,411	19,989	55%	36,400	-	-
Project Consulting	520,000	345,640	174,360	34%	428,000	(92,000)	(18%)
Total IT Systems	893,400	701,430	191,970	21%	903,800	10,400	1%
Assets Depreciation	245,500	257,741	(12,241)	(5%)	249,500	4,000	2%
Total Administrative Expenses	\$12,504,200	\$11,337,982	\$1,166,218	9%	\$13,077,500	\$573,300	5%

2022

**PROPOSED
NON-ADMINISTRATIVE
BUDGET**

Investments, Legal, and IT Disaster Recovery Program

2022 PROPOSED NON-ADMINISTRATIVE BUDGET

2022 PROPOSED NON-ADMINISTRATIVE BUDGET Investments, Legal, and Disaster Recovery Program

	2021 Budget	2021 Estimate	\$ Budget Remaining	% Budget Remaining	2022 Proposed Total Budget	\$ Change 2021 Budget	% Change 2021 Budget
Personnel Services							
Salaries and Wages	\$1,840,200	\$1,638,946	\$201,254	11%	\$2,205,500	\$365,300	20%
Employee Benefits and Retirement	1,033,000	890,966	142,034	14%	1,040,900	7,900	1%
Total Personnel Services	2,873,200	2,529,912	343,288	12%	3,246,400	373,200	13%
Operational Expenses:							
Professional Services							
Investment Consulting	931,600	940,021	(8,421)	(1%)	954,000	22,400	2%
Actuarial Services	215,000	175,000	40,000	19%	298,700	83,700	39%
General & Fiduciary Legal Counsel	320,000	269,172	50,828	16%	280,000	(40,000)	(13%)
Investment Legal Counsel	115,000	71,158	43,842	38%	110,000	(5,000)	(4%)
Disability Legal Services	60,000	33,674	26,326	44%	42,000	(18,000)	(30%)
Other Professional Services	1,000	-	1,000	100%	1,000	-	-
Total Professional Services	1,642,600	1,489,025	153,575	9%	1,685,700	43,100	3%
Office Expenses:							
Office Lease	72,800	61,809	10,991	15%	75,000	2,200	3%
Telephone & Internet Services	12,000	13,423	(1,423)	(12%)	14,300	2,300	19%
Equipment Lease & Maintenance	10,000	-	10,000	100%	-	(10,000)	(100%)
Furniture & Equipment	-	-	-	-	-	-	-
Office Supplies & Maintenance	11,000	4,334	6,666	61%	11,900	900	8%
Printing & Postage	1,200	246	954	80%	1,200	-	-
Training & Education	25,500	8,733	16,767	66%	13,500	(12,000)	(47%)
Travel & Transportation	98,900	443	98,457	100%	100,000	1,100	1%
Total Office Expenses	231,400	88,988	142,412	62%	215,900	(15,500)	(7%)
Information Technology Systems:							
Support Service & Software Contracts	302,900	224,781	78,119	26%	323,700	20,800	7%
Hardware & Equipment Maintenance	18,000	1,237	16,763	93%	11,900	(6,100)	(34%)
Project Consulting	5,000	-	5,000	100%	5,000	-	-
Total IT Systems	325,900	226,018	99,882	31%	340,600	14,700	5%
Assets Depreciation	43,600	47,451	(3,851)	(9%)	55,700	12,100	28%
Total Non-Administrative Expenses	\$5,116,700	\$4,381,394	\$735,306	14%	\$5,544,300	\$427,600	8%

2022

PROPOSED
CAPITAL BUDGET

2022 PROPOSED CAPITAL BUDGET

2022 PROPOSED CAPITAL BUDGET

	Contract	Estimated Incurred To Date 2021	Remaining Contract	Percent Remaining
Pension Administration System (PAS)				
Data Conditioning Project	\$ 2,115,000	\$ 499,896	\$ 1,615,104	76%
Pension Administration System	13,000,000	1,557,656	11,442,344	88%
Total Project Costs	\$15,115,000	\$2,057,552	\$13,057,448	86%

*PAS costs accumulate while in-progress. Depreciation begins at Project completion over 10-year useful life.

	Useful Life Remaining	Original Asset Cost	2022 Depreciation
Other Capital Assets & Depreciation			
Leasehold Improvements	8 years	\$ 139,938	\$ 14,000
Office Furniture/ Workstations	3 years	537,822	107,600
Communication & Network Equipment	3 years	107,918	21,600
Audio Visual Equipment	3 years	184,270	36,800
Security Equipment	3 years	101,947	20,400
IT Hardware & Software	3 years	485,305	104,800
Total Assets & Depreciation		\$1,557,199	\$305,200



MEMORANDUM

Date: November 17, 2021
To: CCCERA Board of Retirement
From: Karen Levy, General Counsel
Subject: Continuing teleconference meetings under Government Code section 54953 (e)

Background

All meetings of the Board of Retirement are open to the general public, as required by the Ralph M. Brown Act, California Government Code sections 54950 *et seq.* The legal authority to conduct public meetings via teleconferencing during a state of emergency was added under urgency legislation (Assembly Bill 361), which added section 54953, subsection (e) to the Brown Act.

On October 27, 2021, the Board adopted Resolution 2021-6, which authorized the Board and its committee(s) to conduct teleconferencing meetings under Section 54953, subsection (e). The Board found that in-person meetings of the Board are open to the general public and would risk the health or safety of the public, staff, outside consultants and trustees attending public meetings, in light of the COVID-19 pandemic and related state of emergency proclaimed by the Governor.

Under the law, if the Board wishes to continue using these special teleconferencing rules it must reconsider the circumstances of the state of emergency and make certain findings.

Proclaimed State of Emergency and Health and Safety Guidance

Currently, the COVID-19 state of emergency proclaimed by the Governor is in effect. (See Attachment A.) The Contra Costa County Health Officer has issued recommendations for safely holding public meetings that include recommended measures to promote social distancing. (See Attachment B.) The County Health Officer's recommendations state: "On-line meetings (teleconferencing meetings) are strongly recommended as those meetings present the lowest risk of transmission of SARS-CoV-2, the virus that causes COVID-19." The Center for Disease Control (CDC) also recommends physical distancing to slow the spread of COVID-19. (See Attachment C.)

Recommendation

Consider and take possible action to authorize the Board and its committee(s) to continue to conduct teleconference meetings for the next 30 days under Government Code section 54953 (e) and make the following findings:

1. The Board has reconsidered the circumstances of the statewide state of emergency proclaimed by the Governor on March 4, 2020 and the countywide local emergency proclaimed by the Governor on March 10, 2020.
2. The following circumstances currently exist:
 - a. The statewide state of emergency and the countywide local emergency continue to directly impact the ability of the Board and its committee(s) to meet safely in person at meetings that are open to the general public because of the COVID-19 pandemic.
 - b. The County Health Officer's recommendations for safely holding public meetings, which recommend virtual meetings and other measures to promote social distancing, are still in effect.

Attachment

A

**EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA**

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS in December 2019, an outbreak of respiratory illness due to a novel coronavirus (a disease now known as COVID-19), was first identified in Wuhan City, Hubei Province, China, and has spread outside of China, impacting more than 75 countries, including the United States; and

WHEREAS the State of California has been working in close collaboration with the national Centers for Disease Control and Prevention (CDC), with the United States Health and Human Services Agency, and with local health departments since December 2019 to monitor and plan for the potential spread of COVID-19 to the United States; and

WHEREAS on January 23, 2020, the CDC activated its Emergency Response System to provide ongoing support for the response to COVID-19 across the country; and

WHEREAS on January 24, 2020, the California Department of Public Health activated its Medical and Health Coordination Center and on March 2, 2020, the Office of Emergency Services activated the State Operations Center to support and guide state and local actions to preserve public health; and

WHEREAS the California Department of Public Health has been in regular communication with hospitals, clinics and other health providers and has provided guidance to health facilities and providers regarding COVID-19; and

WHEREAS as of March 4, 2020, across the globe, there are more than 94,000 confirmed cases of COVID-19, tragically resulting in more than 3,000 deaths worldwide; and

WHEREAS as of March 4, 2020, there are 129 confirmed cases of COVID-19 in the United States, including 53 in California, and more than 9,400 Californians across 49 counties are in home monitoring based on possible travel-based exposure to the virus, and officials expect the number of cases in California, the United States, and worldwide to increase; and

WHEREAS for more than a decade California has had a robust pandemic influenza plan, supported local governments in the development of local plans, and required that state and local plans be regularly updated and exercised; and

WHEREAS California has a strong federal, state and local public health and health care delivery system that has effectively responded to prior events including the H1N1 influenza virus in 2009, and most recently Ebola; and

WHEREAS experts anticipate that while a high percentage of individuals affected by COVID-19 will experience mild flu-like symptoms, some will have more serious symptoms and require hospitalization, particularly individuals who are elderly or already have underlying chronic health conditions; and

WHEREAS it is imperative to prepare for and respond to suspected or confirmed COVID-19 cases in California, to implement measures to mitigate the spread of COVID-19, and to prepare to respond to an increasing number of individuals requiring medical care and hospitalization; and

WHEREAS if COVID-19 spreads in California at a rate comparable to the rate of spread in other countries, the number of persons requiring medical care may exceed locally available resources, and controlling outbreaks minimizes the risk to the public, maintains the health and safety of the people of California, and limits the spread of infection in our communities and within the healthcare delivery system; and

WHEREAS personal protective equipment (PPE) is not necessary for use by the general population but appropriate PPE is one of the most effective ways to preserve and protect California's healthcare workforce at this critical time and to prevent the spread of COVID-19 broadly; and

WHEREAS state and local health departments must use all available preventative measures to combat the spread of COVID-19, which will require access to services, personnel, equipment, facilities, and other resources, potentially including resources beyond those currently available, to prepare for and respond to any potential cases and the spread of the virus; and

WHEREAS I find that conditions of Government Code section 8558(b), relating to the declaration of a State of Emergency, have been met; and

WHEREAS I find that the conditions caused by COVID-19 are likely to require the combined forces of a mutual aid region or regions to appropriately respond; and

WHEREAS under the provisions of Government Code section 8625(c), I find that local authority is inadequate to cope with the threat posed by COVID-19; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay appropriate actions to prevent and mitigate the effects of the COVID-19.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in California.

IT IS HEREBY ORDERED THAT:

1. In preparing for and responding to COVID-19, all agencies of the state government use and employ state personnel, equipment, and facilities or perform any and all activities consistent with the direction of the Office of Emergency Services and the State Emergency Plan, as well as the California Department of Public Health and the Emergency Medical Services Authority. Also, all residents are to heed the advice of emergency officials with regard to this emergency in order to protect their safety.
2. As necessary to assist local governments and for the protection of public health, state agencies shall enter into contracts to arrange for the procurement of materials, goods, and services needed to assist in preparing for, containing, responding to, mitigating the effects of, and recovering from the spread of COVID-19. Applicable provisions of the Government Code and the Public Contract Code, including but not limited to travel, advertising, and competitive bidding requirements, are suspended to the extent necessary to address the effects of COVID-19.
3. Any out-of-state personnel, including, but not limited to, medical personnel, entering California to assist in preparing for, responding to, mitigating the effects of, and recovering from COVID-19 shall be permitted to provide services in the same manner as prescribed in Government Code section 179.5, with respect to licensing and certification. Permission for any such individual rendering service is subject to the approval of the Director of the Emergency Medical Services Authority for medical personnel and the Director of the Office of Emergency Services for non-medical personnel and shall be in effect for a period of time not to exceed the duration of this emergency.
4. The time limitation set forth in Penal Code section 396, subdivision (b), prohibiting price gouging in time of emergency is hereby waived as it relates to emergency supplies and medical supplies. These price gouging protections shall be in effect through September 4, 2020.
5. Any state-owned properties that the Office of Emergency Services determines are suitable for use to assist in preparing for, responding to, mitigating the effects of, or recovering from COVID-19 shall be made available to the Office of Emergency Services for this purpose, notwithstanding any state or local law that would restrict, delay, or otherwise inhibit such use.
6. Any fairgrounds that the Office of Emergency Services determines are suitable to assist in preparing for, responding to, mitigating the effects of, or recovering from COVID-19 shall be made available to the Office of Emergency Services pursuant to the Emergency Services Act, Government Code section 8589. The Office of Emergency Services shall notify the fairgrounds of the intended use and can immediately use the fairgrounds without the fairground board of directors' approval, and

notwithstanding any state or local law that would restrict, delay, or otherwise inhibit such use.

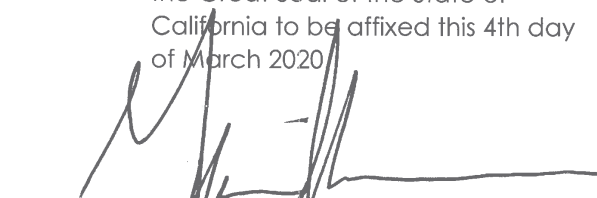
7. The 30-day time period in Health and Safety Code section 101080, within which a local governing authority must renew a local health emergency, is hereby waived for the duration of this statewide emergency. Any such local health emergency will remain in effect until each local governing authority terminates its respective local health emergency.
8. The 60-day time period in Government Code section 8630, within which local government authorities must renew a local emergency, is hereby waived for the duration of this statewide emergency. Any local emergency proclaimed will remain in effect until each local governing authority terminates its respective local emergency.
9. The Office of Emergency Services shall provide assistance to local governments that have demonstrated extraordinary or disproportionate impacts from COVID-19, if appropriate and necessary, under the authority of the California Disaster Assistance Act, Government Code section 8680 et seq., and California Code of Regulations, Title 19, section 2900 et seq.
10. To ensure hospitals and other health facilities are able to adequately treat patients legally isolated as a result of COVID-19, the Director of the California Department of Public Health may waive any of the licensing requirements of Chapter 2 of Division 2 of the Health and Safety Code and accompanying regulations with respect to any hospital or health facility identified in Health and Safety Code section 1250. Any waiver shall include alternative measures that, under the circumstances, will allow the facilities to treat legally isolated patients while protecting public health and safety. Any facilities being granted a waiver shall be established and operated in accordance with the facility's required disaster and mass casualty plan. Any waivers granted pursuant to this paragraph shall be posted on the Department's website.
11. To support consistent practices across California, state departments, in coordination with the Office of Emergency Services, shall provide updated and specific guidance relating to preventing and mitigating COVID-19 to schools, employers, employees, first responders and community care facilities by no later than March 10, 2020.
12. To promptly respond for the protection of public health, state entities are, notwithstanding any other state or local law, authorized to share relevant medical information, limited to the patient's underlying health conditions, age, current condition, date of exposure, and possible contact tracing, as necessary to address the effect of the COVID-19 outbreak with state, local, federal, and nongovernmental partners, with such information to be used for the limited purposes of monitoring, investigation and control, and treatment and coordination of care. The

notification requirement of Civil Code section 1798.24, subdivision (i), is suspended.

13. Notwithstanding Health and Safety Code sections 1797.52 and 1797.218, during the course of this emergency, any EMT-P licensees shall have the authority to transport patients to medical facilities other than acute care hospitals when approved by the California EMS Authority. In order to carry out this order, to the extent that the provisions of Health and Safety Code sections 1797.52 and 1797.218 may prohibit EMT-P licensees from transporting patients to facilities other than acute care hospitals, those statutes are hereby suspended until the termination of this State of Emergency.
14. The Department of Social Services may, to the extent the Department deems necessary to respond to the threat of COVID-19, waive any provisions of the Health and Safety Code or Welfare and Institutions Code, and accompanying regulations, interim licensing standards, or other written policies or procedures with respect to the use, licensing, or approval of facilities or homes within the Department's jurisdiction set forth in the California Community Care Facilities Act (Health and Safety Code section 1500 et seq.), the California Child Day Care Facilities Act (Health and Safety Code section 1596.70 et seq.), and the California Residential Care Facilities for the Elderly Act (Health and Safety Code section 1569 et seq.). Any waivers granted pursuant to this paragraph shall be posted on the Department's website.

I FURTHER DIRECT that as soon as hereafter possible, this proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 4th day of March 2020



GAVIN NEWSOM
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

Attachment

B



RECOMMENDATIONS FOR SAFELY HOLDING PUBLIC MEETINGS

Each local government agency is authorized to determine whether to hold public meetings in person, online (teleconferencing only), or via a combination of methods. The following are recommendations from Contra Costa County Health Services to minimize the risk of COVID-19 transmission during a public meeting:

1. Online meetings (teleconferencing meetings) are strongly recommended as those meetings present the lowest risk of transmission of SARS-CoV-2, the virus that causes COVID-19.
2. If a local agency determines to hold in-person meetings, offering the public the opportunity to attend via a call-in option or an internet-based service option is recommended, when possible, to give those at higher risk of and/or higher concern about COVID-19 an alternative to participating in person.
3. A written safety protocol should be developed and followed. It is recommended that the protocol require social distancing – i.e., six feet of separation between attendees – and face masking of all attendees.
4. Seating arrangements should allow for staff and members of the public to easily maintain at least six-foot distance from one another at all practicable times.
5. Consider holding public meetings outdoors. Increasing scientific consensus is that outdoor airflow reduces the risk of COVID-19 transmission compared to indoor spaces. Hosting events outdoors also may make it easier to space staff and members of the public at least six feet apart.
6. Current evidence is unclear as to the added benefit of temperature checks in addition to symptom checks. We encourage focus on symptom checks as they may screen out individuals with symptoms but no fever and help reinforce the message to not go out in public if you are not feeling well.
7. Consider a voluntary attendance sheet with names and contact information to assist in contact tracing of any cases linked to a public meeting.

Chris Farnitano, MD
Health Officer, Contra Costa County
Revised 9.20.2021



Attachment

C

How to Protect Yourself and Others

Accessible version: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

Know how it spreads



- **The best way to prevent COVID-19 is to avoid being exposed to this virus.**
- The virus is thought to spread mainly from person-to-person.
 - » Between people who are in close contact with one another (within about 6 feet).
 - » Through respiratory droplets produced when an infected person coughs, sneezes or talks.
 - » These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
 - » COVID-19 may be spread by people who are not showing symptoms.

Everyone should

Clean your hands often



- **Wash your hands** often with soap and water for at least 20 seconds especially after you have been in a public place, or after blowing your nose, coughing, or sneezing.
- If soap and water are not readily available, **use a hand sanitizer that contains at least 60% alcohol**. Cover all surfaces of your hands and rub them together until they feel dry.
- **Avoid touching your eyes, nose, and mouth** with unwashed hands.

Avoid close contact



- **Limit contact with people who don't live in your household as much as possible.**
- **Avoid close contact** with people who are sick.
- **Put distance between yourself and other people.**
 - » Remember that some people without symptoms may be able to spread virus.
 - » This is especially important for **people who are at increased risk for severe illness**. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/index.html>.



[cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)

Cover your mouth and nose with a mask when around others



- **You could spread COVID-19 to others** even if you do not feel sick.
- **Everyone should wear a mask in public settings** and when around people not living in their household, especially when social distancing is difficult to maintain.
 - » Masks should not be placed on young children under age 2, anyone who has trouble breathing, or is unconscious, incapacitated or otherwise unable to remove the mask without assistance.
- **A mask helps prevent a person who is sick** from spreading the virus to others, and offers some protection to the wearer as well.
- Do **NOT** use a facemask meant for a healthcare worker.
- Continue to **keep at least 6 feet between yourself and others**. The mask is not a substitute for social distancing.

Cover coughs and sneezes



- **Always cover your mouth and nose** with a tissue when you cough or sneeze or use the inside of your elbow.
- **Throw used tissues** in the trash.
- Immediately **wash your hands** with soap and water for at least 20 seconds. If soap and water are not readily available, clean your hands with a hand sanitizer that contains at least 60% alcohol.

Clean and disinfect



- **Clean AND disinfect frequently touched surfaces** daily. This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks. www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html
- **If surfaces are dirty, clean them:** Use detergent or soap and water prior to disinfection.
- **Then, use a household disinfectant.** You can see a list of [EPA-registered household disinfectants here](#).

BOARD MEETINGS 2022

Meeting Date
11/17/2021
Agenda Item
#12

JANUARY						
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	B	13	14	15
16	H	18	19	20	21	22
23	24	25	B	27	28	29
30	31					

1 - New Year's Day
17 - Martin Luther King Jr. Day

FEBRUARY						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	B	10	11	12
13	14	15	16	17	18	19
20	H	22	B	24	25	26
27	28					

21 - Presidents' Day

MARCH						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	C	C	B	10	11	12
13	14	15	16	17	18	19
20	21	22	B	24	25	26
27	28	29	30	31		

APRIL						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	B	14	15	16
17	18	19	20	21	22	23
24	25	26	B	28	29	30

MAY						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	B	5	6	7
8	9	S	S	S	S	14
15	16	17	18	19	20	21
22	23	24	B	26	27	28
29	H	31				

30 - Memorial Day

JUNE						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	B	9	10	11
12	13	14	15	16	17	18
19	20	21	B	23	24	25
26	27	28	29	30		

JULY						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	H	5	6	7	8	9
10	11	12	B	14	15	16
17	18	19	20	21	22	23
24	25	26	B	28	29	30
31						

4 - Independence Day Observed

AUGUST						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	B	11	12	13
14	15	16	17	18	19	20
21	22	23	B	25	26	27
28	29	30	31			

SEPTEMBER						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	H	6	7	8	9	10
11	12	13	B	15	16	17
18	19	20	21	22	23	24
25	26	27	B	29	30	

5 - Labor Day

OCTOBER						
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	B	13	14	15
16	17	18	19	20	21	22
23	24	25	B	27	28	29
30	31					

NOVEMBER						
Su	Mo	Tu	We	Th	Fr	Sa
		1	B	3	4	5
6	7	S	S	S	S	12
13	14	15	16	17	18	19
20	21	22	23	H	H	26
27	28	29	B			

11 - Veterans Day
24 and 25 - Thanksgiving

DECEMBER						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	B	15	16	17
18	19	20	21	22	23	24
25	H	27	28	29	30	31

26 - Christmas Day Observed

B Board Meeting

S SACRS

C CALAPRS - General Assembly