

Meeting Date
11/17/2021
Agenda Item
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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
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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

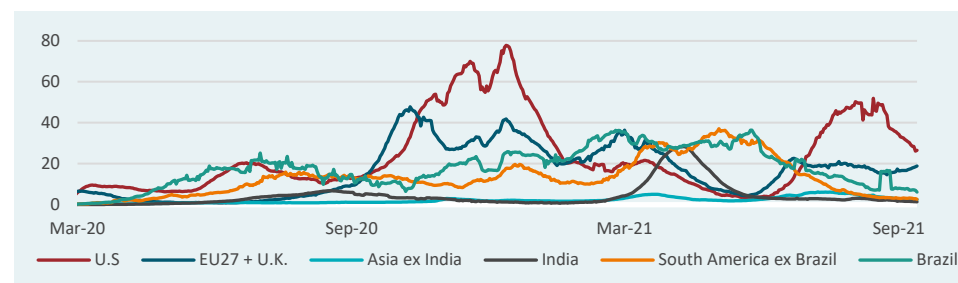
“Commodities surge again; spot price index hits decade high”

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

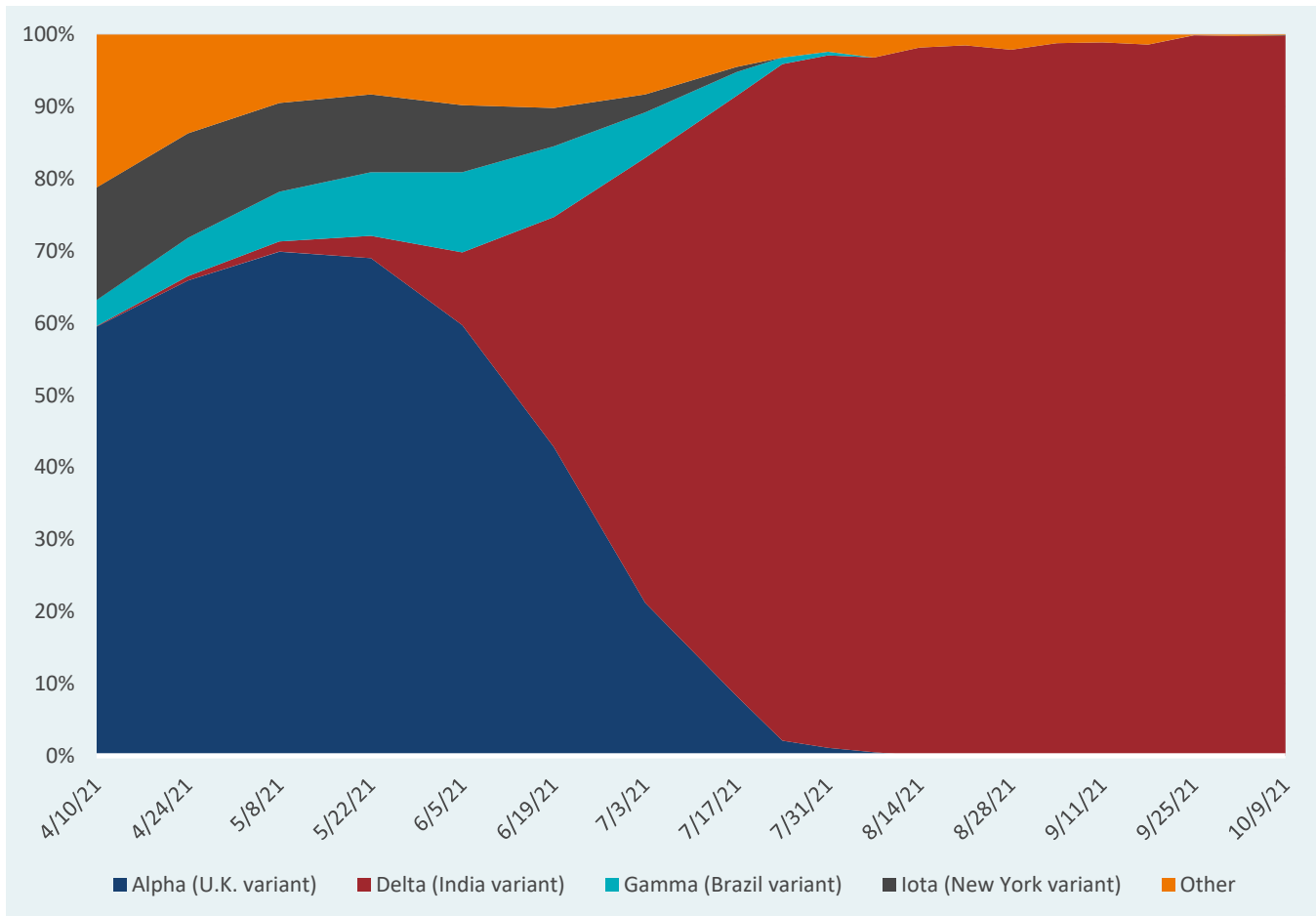
U.S. economics summary

- 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



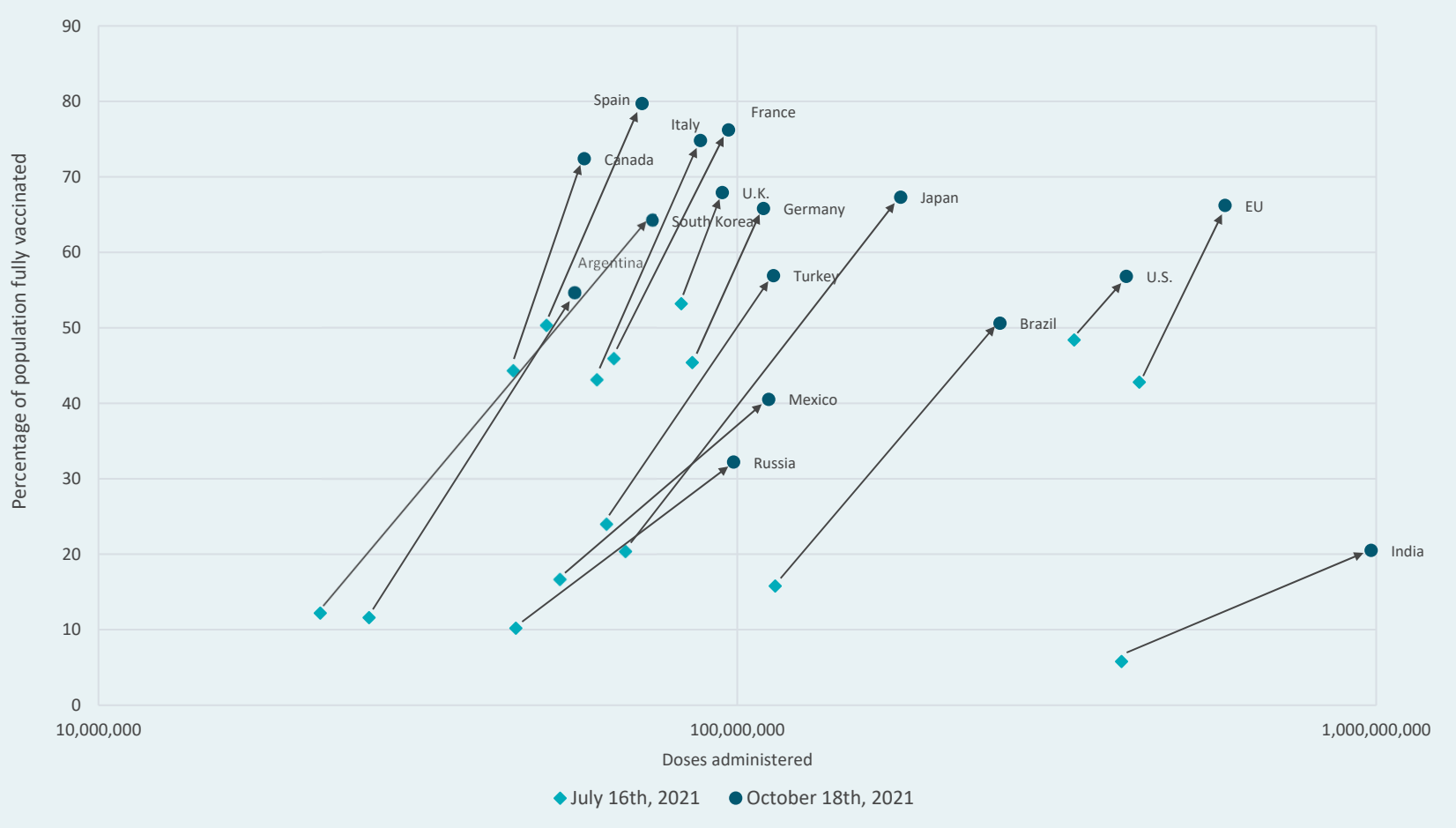
The delta variant of COVID-19 which surged through India in the second quarter took hold in the U.S., and by the end of the quarter, accounted for almost all new cases

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

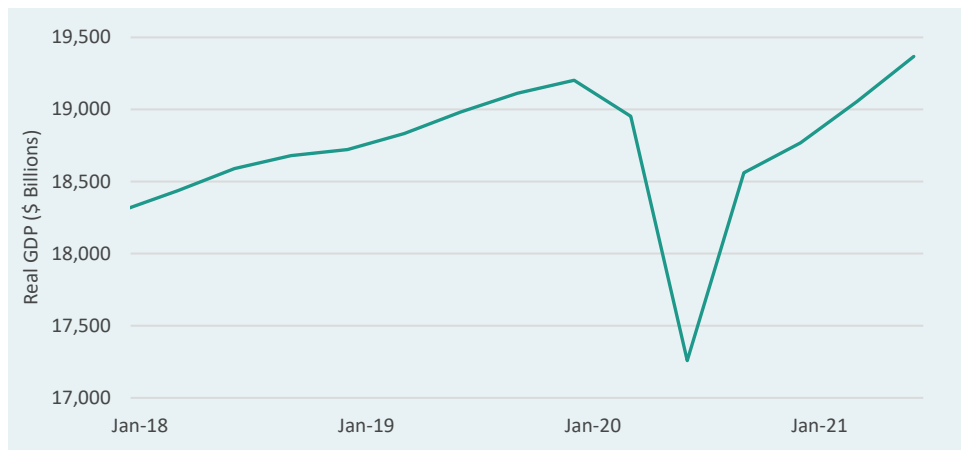
Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. However, it appears that recent strong economic activity may be slowing down. The Atlanta Fed GDPNow estimate, as of October 15th, suggests that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

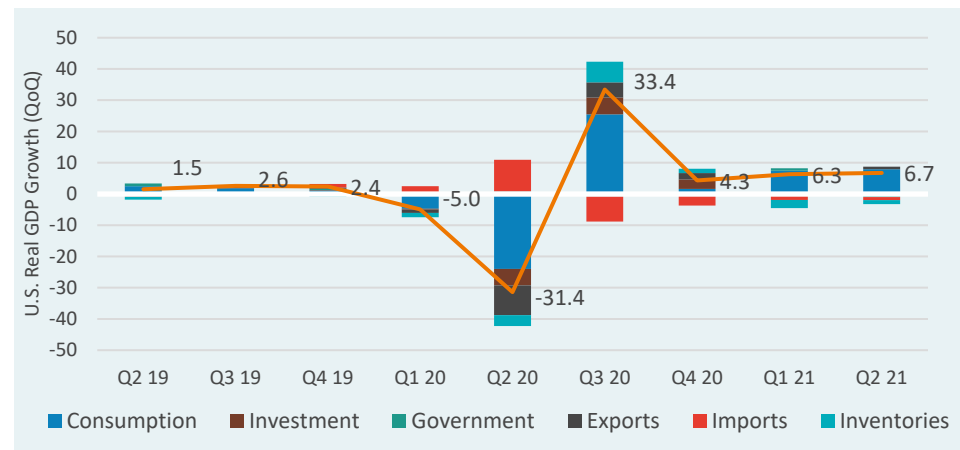
During Q2 2021 the U.S. economy fully recovered from the COVID-19 recession

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

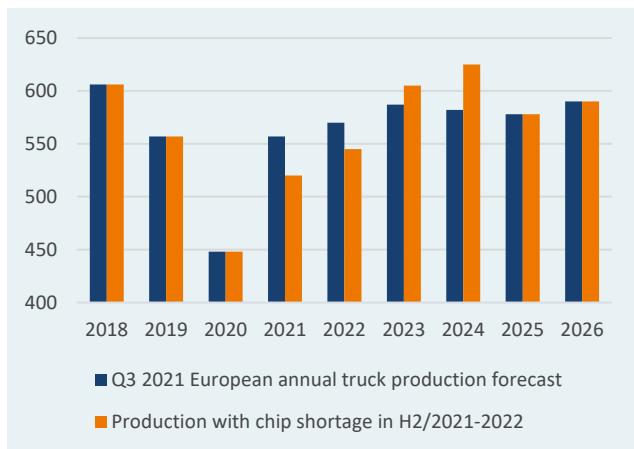
Supply chain disruptions

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

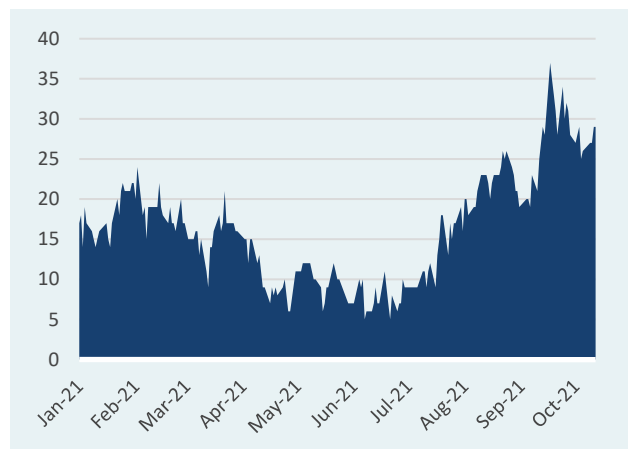
for several weeks in some cases. Part of the problem has been the massive size of these ships, which require many workers to unload, a lot of trucks to ship their cargo, and many warehouses to store that cargo. If there are not enough truckers to move the new cargo coming in, or there is not enough warehouse 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)



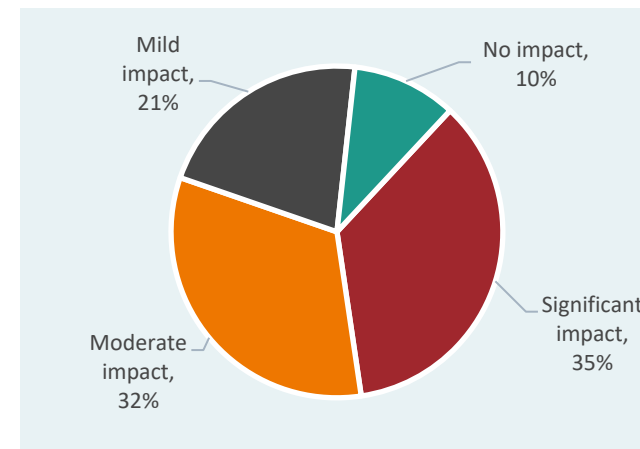
Source: IHS Markit, as of 9/28/21

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.

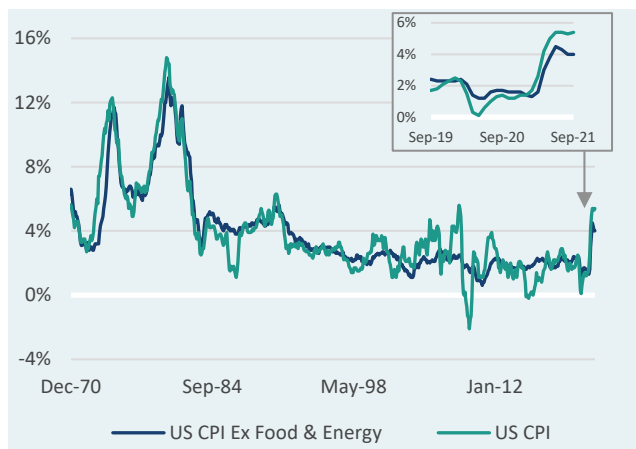
Energy and used automobile prices have had outsized impacts on inflation over the past year, increasing 24.8% and 24.4%, respectively. These two components have driven most of the rise in inflation experienced since 2019. If energy and used auto prices moderate, this will push inflation back down towards “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.

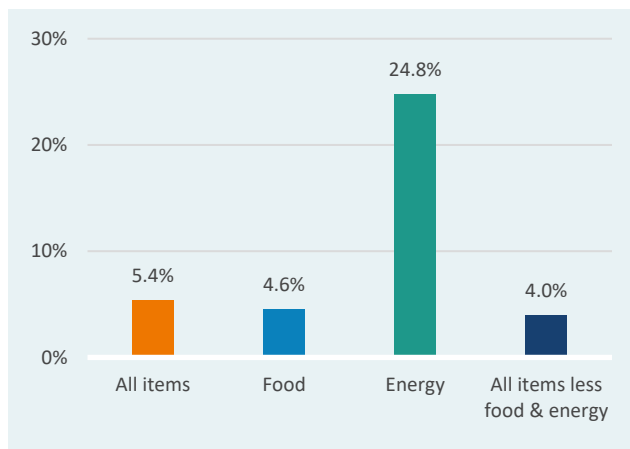
Recent moves suggest a moderation of prices, though we are watching closely for potential structural inflation

U.S. CPI (YOY)



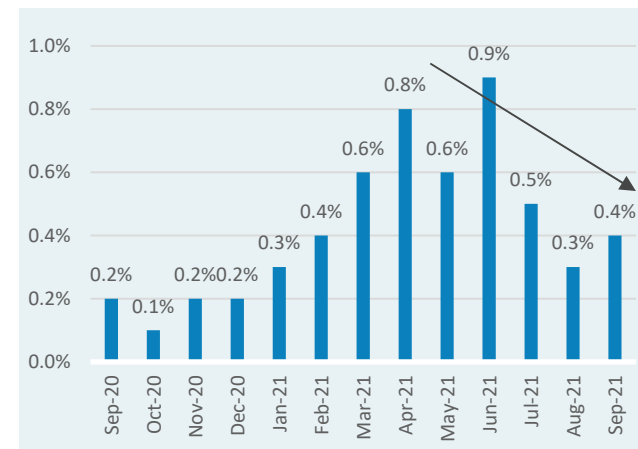
Source: BLS, as of 9/30/21

U.S. CPI (YOY)



Source: BLS, as of 9/30/21

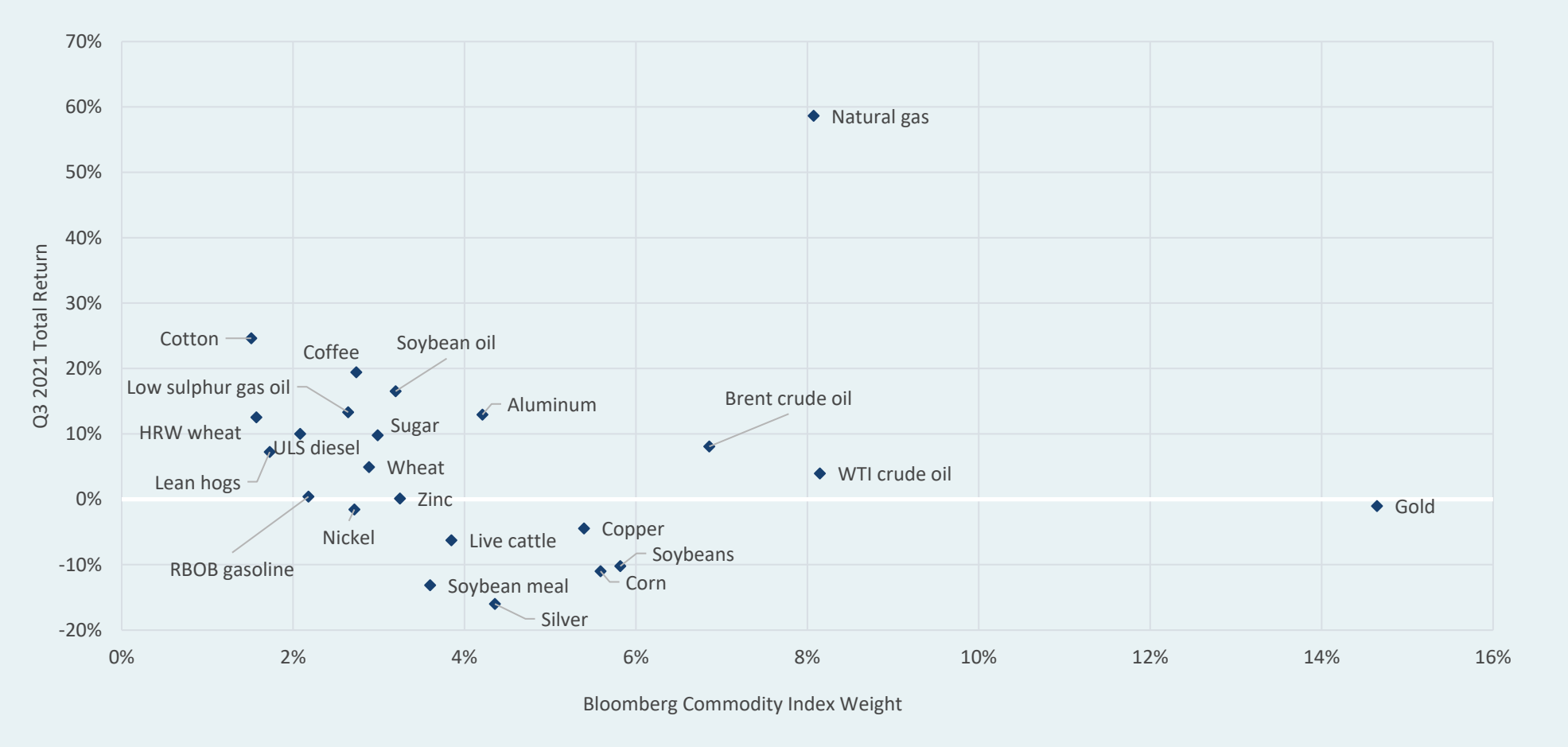
MONTHLY PRICE MOVEMENT



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

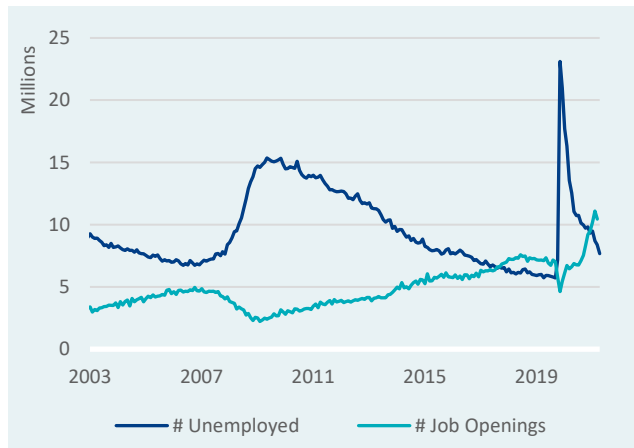
demonstrated below and on the next slide, the proportion of retired Americans per age group has increased markedly since 2019. It is difficult to know the main drivers behind the trend towards early retirement, but greater wealth (strong returns from markets and real estate), the need to take care of 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

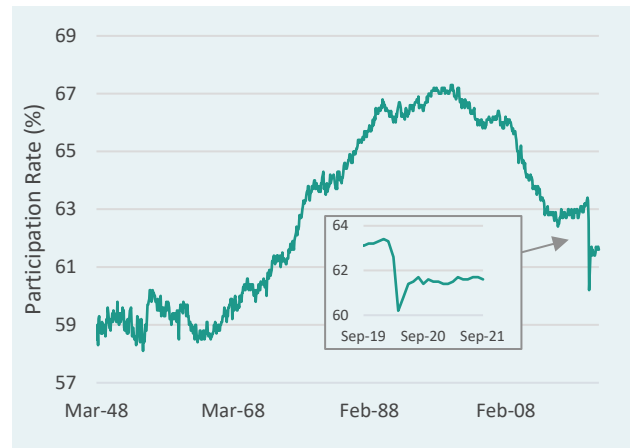
Much of this loss appears to be due to early retirements

UNEMPLOYMENT VS. JOB OPENINGS



Source: FRED, as of 9/30/21

LABOR PARTICIPATION RATE



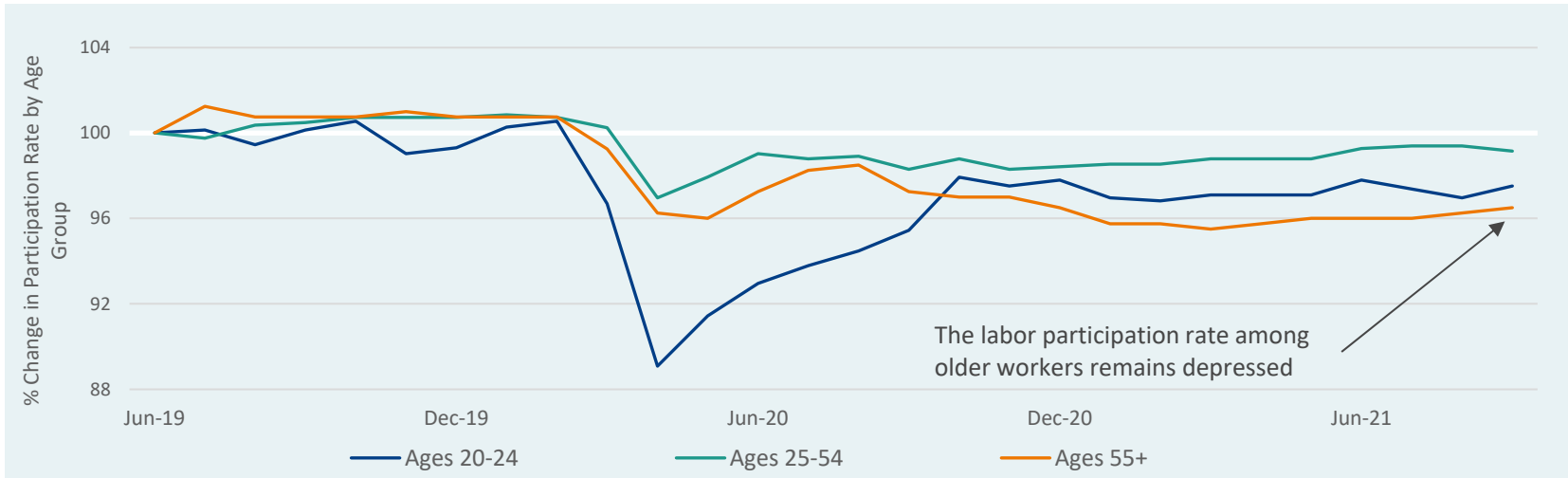
Source: FRED, as of 9/30/21

% OF AMERICANS RETIRED

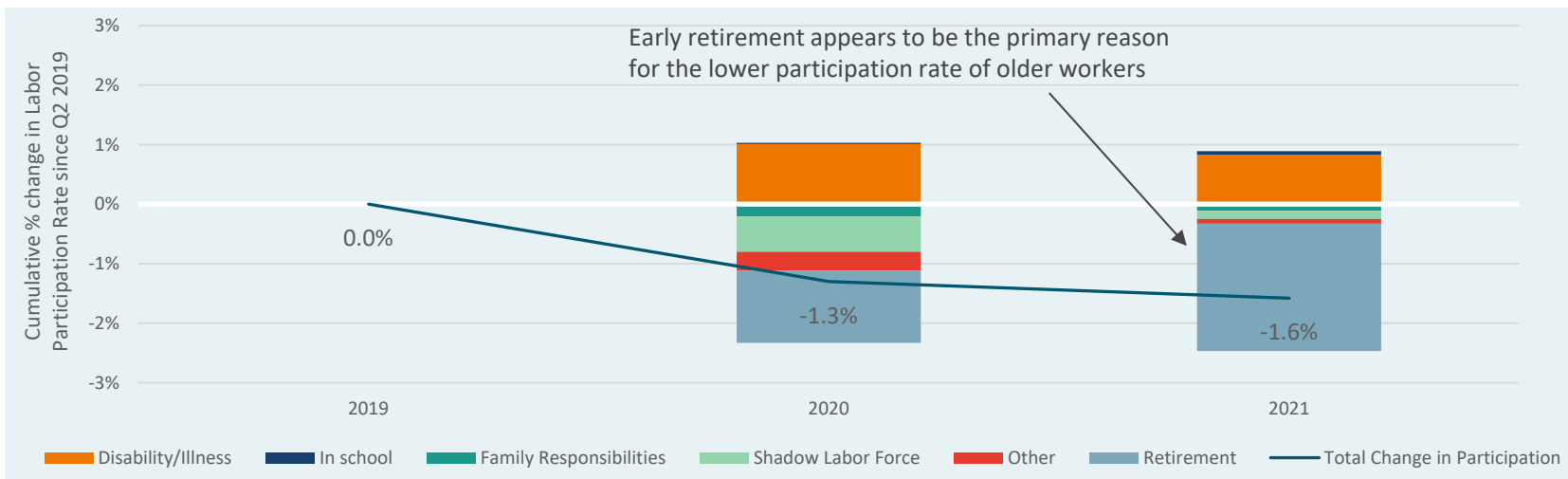
Age cohort	Women		Men	
	2019	2021	2019	2021
55+	52%	54%	44%	45%
55-59	11%	11%	7%	7%
60-64	28%	29%	21%	21%
65-69	59%	62%	52%	53%
70-74	78%	80%	71%	73%
75+	87%	88%	83%	85%

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

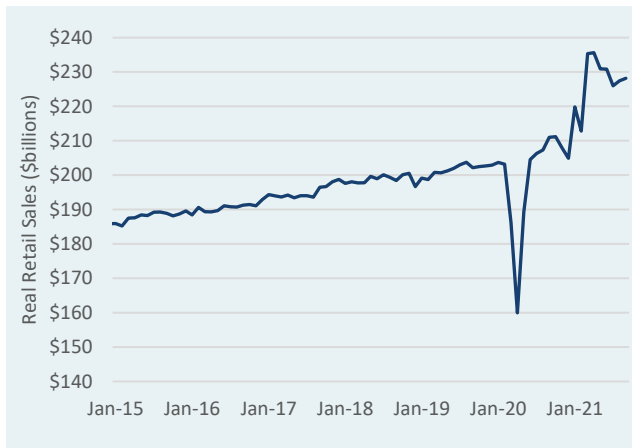
U.S. retail sales remain strong but have now slowed for two consecutive quarters, lower by -1.1% in Q3. The *reopening* spending surge appears to be slowing down, as retail sales, auto sales, and home sales have all declined in recent months. Fears around the COVID-19 Delta variant are also likely weighing 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.

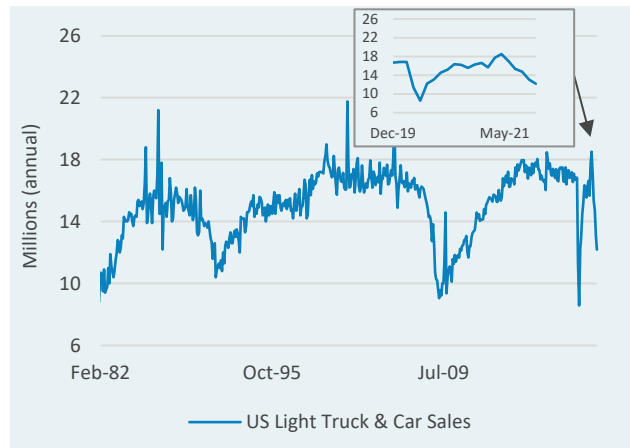
According to anonymized cellular phone data collected by Google for COVID-19 public health research, most economic activity seems to be back to normal for the most part. Public transportation and workplace travel remains the exception, though a recent uptick in workplace mobility might imply that some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

REAL RETAIL SALES



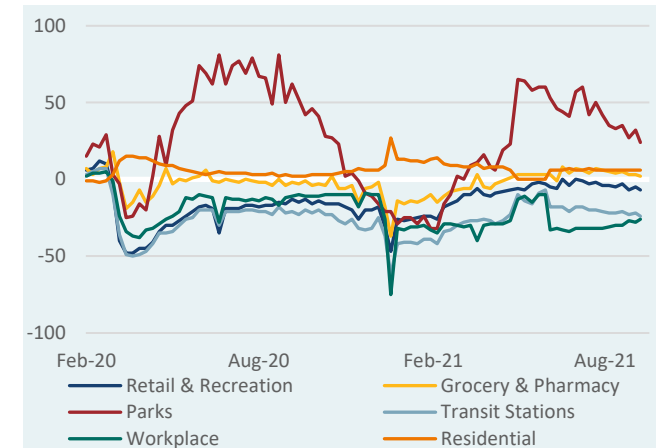
Source: FRED, as of 9/30/21

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

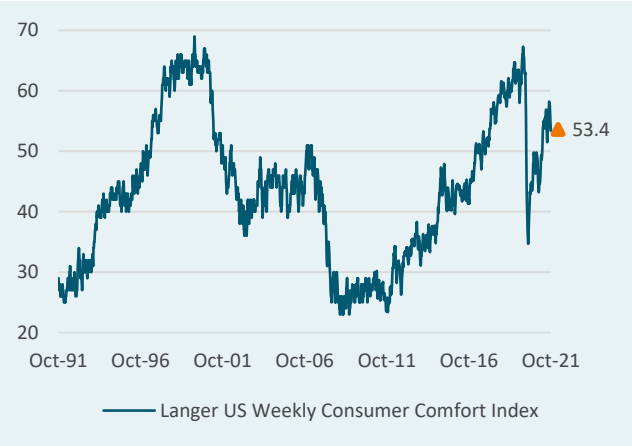
Consumer sentiment deteriorated during the third quarter, on reports of pessimism around COVID-19, inflation, and the economy. Small business optimism also fell as businesses face difficulty in hiring and are concerned about tax increases and more burdensome government regulations.

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.

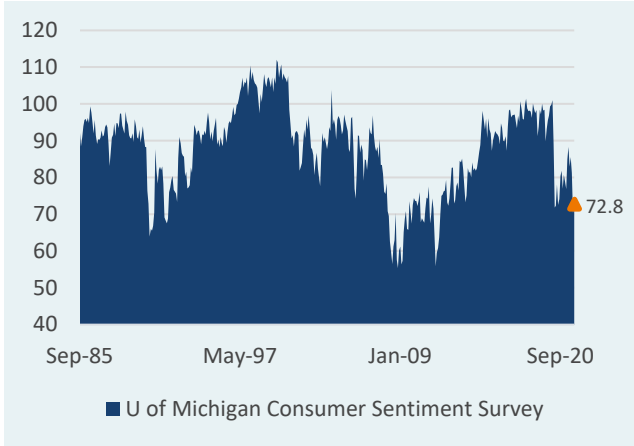
The NFIB Small Business Optimism index fell from 102.5 to 99.1 during the quarter. As reported, "Small business owners are doing their best to meet the needs of customers, but are unable to hire workers or receive the needed supplies and inventories," said NFIB Chief Economist Bill Dunkelberg. "The outlook 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

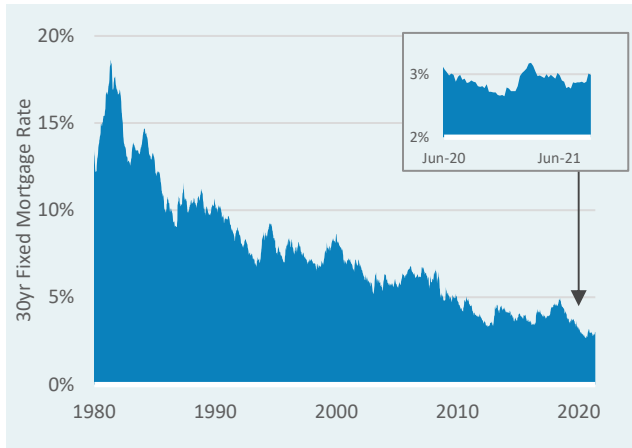
Housing

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.

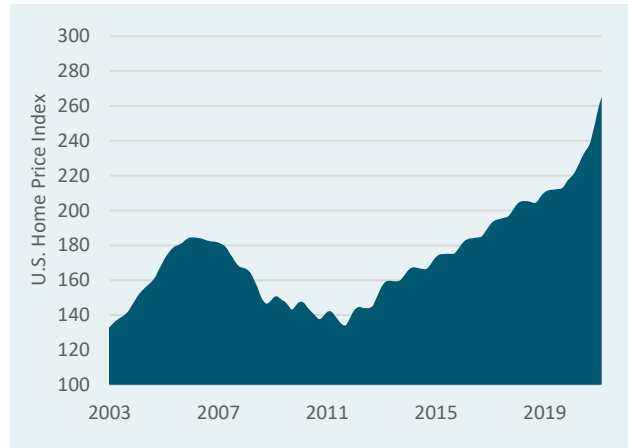
The cost of renting has seen a considerable rise throughout the pandemic, with rents up 9.2% year-over-year in September, according to Zillow. The rise in rent prices has differed quite a bit across the country, and it may be reasonable to assume that states with more outgoing net migration (ex: New 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)



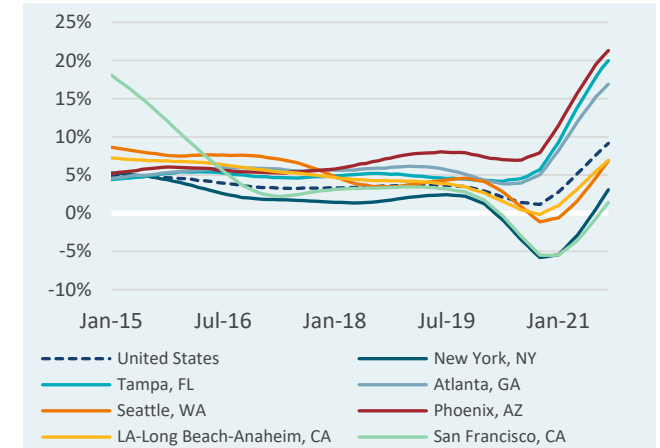
Source: U.S. Census Bureau, as of 9/30/21

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.

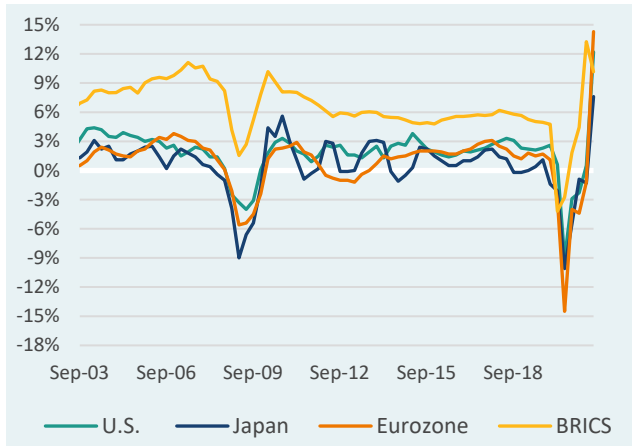
International economics

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.

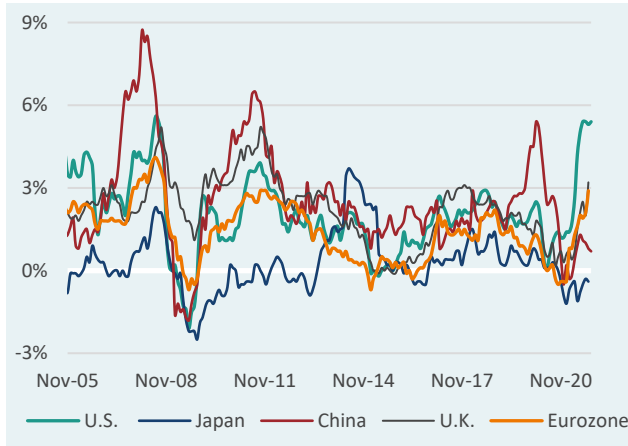
Unemployment around the world has improved as economies recover, government restrictions are loosened, and life moves back towards normalcy.

REAL GDP GROWTH (YOY)



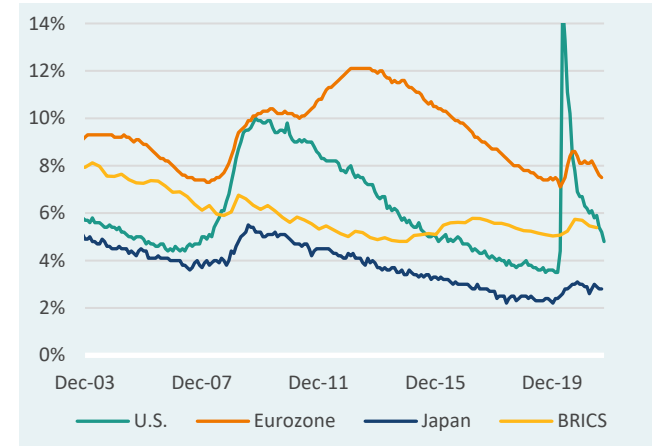
Source: Bloomberg, as of 6/30/21

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.

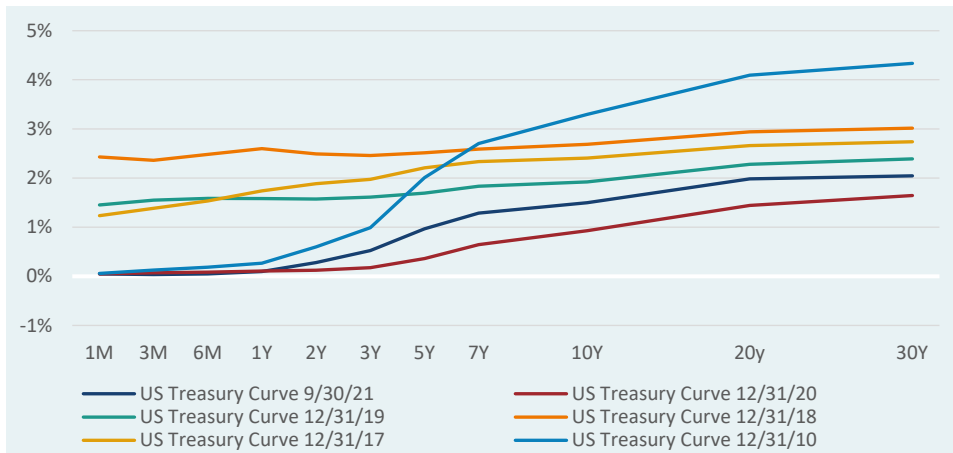
— The four-year discount margin, our preferred spread metric for bank loans, compressed slightly over the quarter from 4.32% to 4.28%.

	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%)

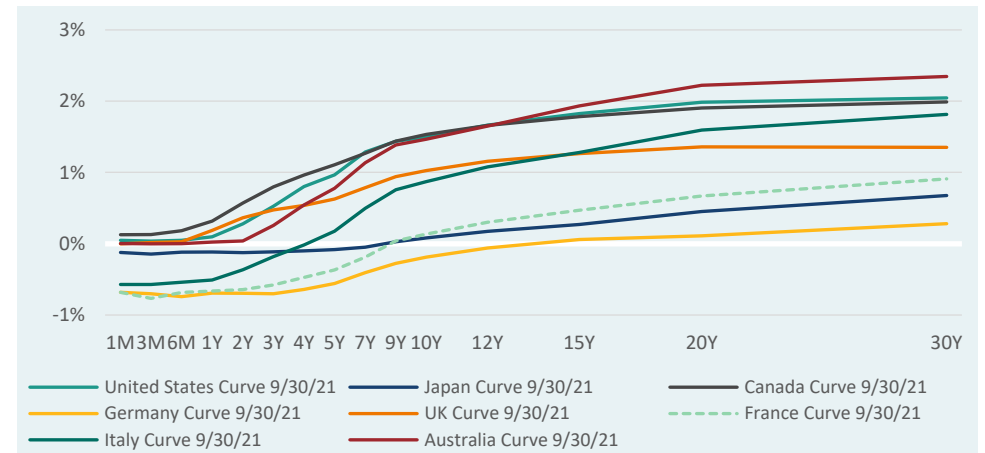
Source: Bloomberg, as of 9/30/21

Yield environment

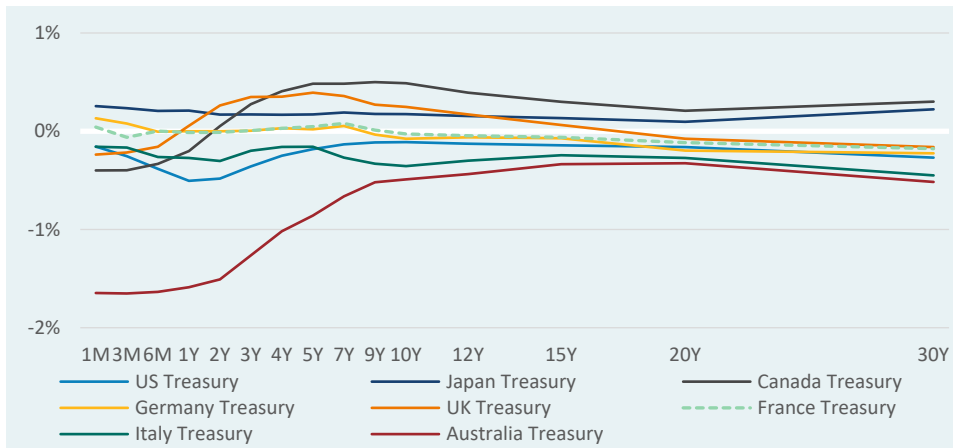
U.S. YIELD CURVE



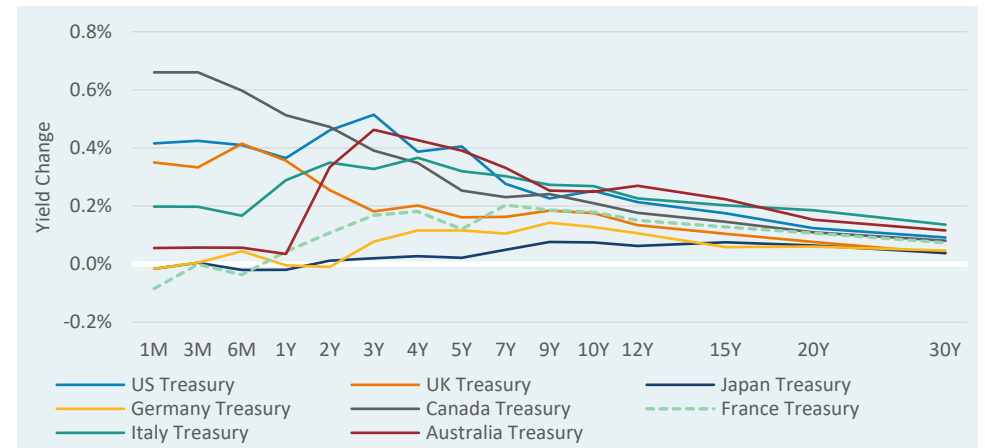
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 9/30/21

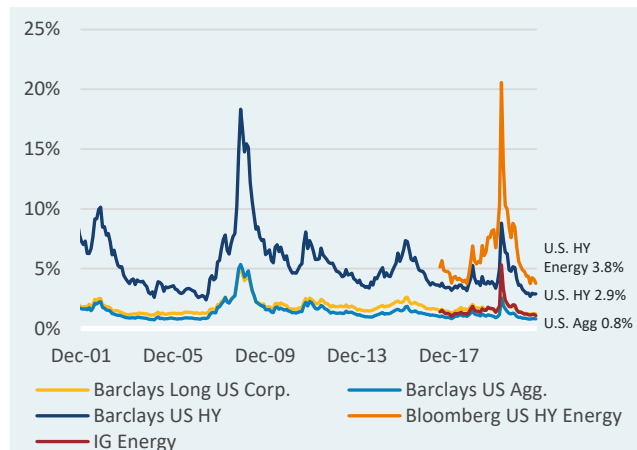
Credit environment

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

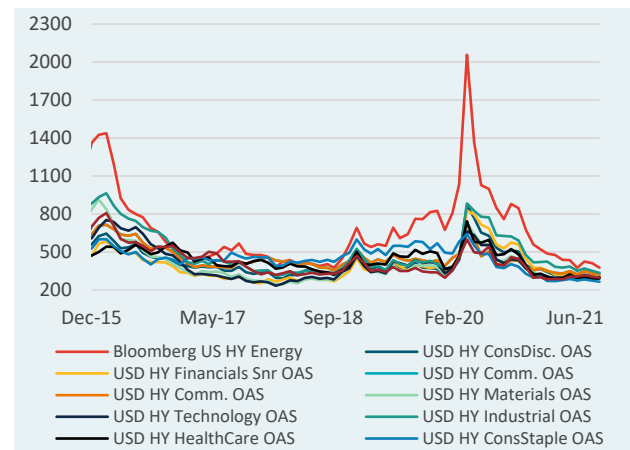
time, the sector has seen improvement in credit fundamentals as businesses repay some of last year's precautionary borrowing, reducing total debt levels. Strong demand and declining leverage, in conjunction with a potentially higher rate environment, are all supportive factors for credit (for example: 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

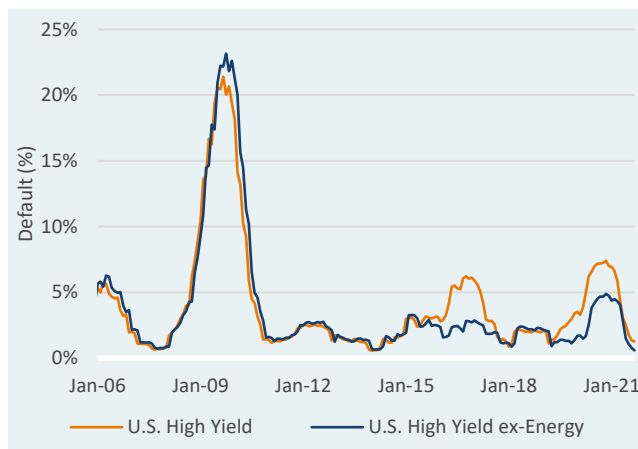
Default activity continued at a moderate pace in the third quarter with three defaults totaling \$1.3 billion across high yield bonds and bank loans. Over the first three quarters of the year, a total of nine companies defaulted on \$6.1 billion. As default activity continues to be light, the par-weighted 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).

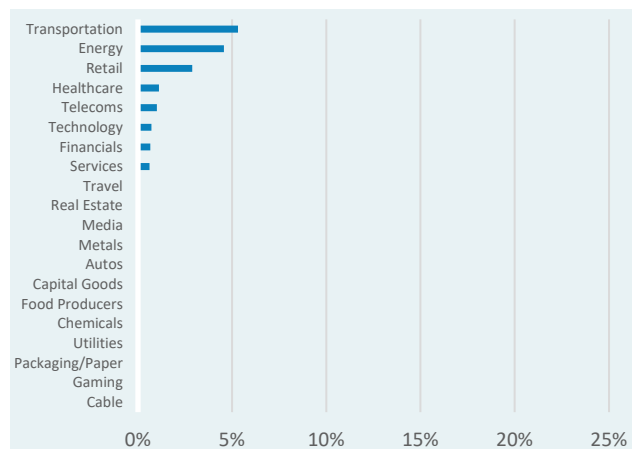
Investment grade issuance for the quarter totaled \$321 billion, below first (\$423 billion) and second quarter (\$350 billion) issuance but in-line with the 4-year average of \$323 billion. Of note, year-to-date Financial sector issuance has seen an uptick, accounting for 42% of issuance versus its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

HY DEFAULT RATE (ROLLING 1-YEAR)



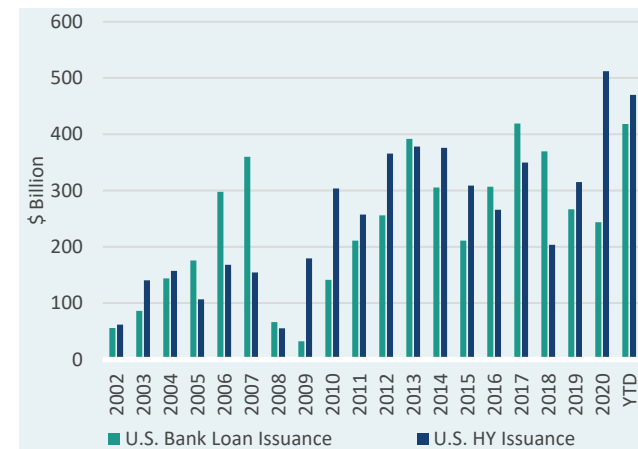
Source: BofA Merrill Lynch, as of 9/30/21

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.

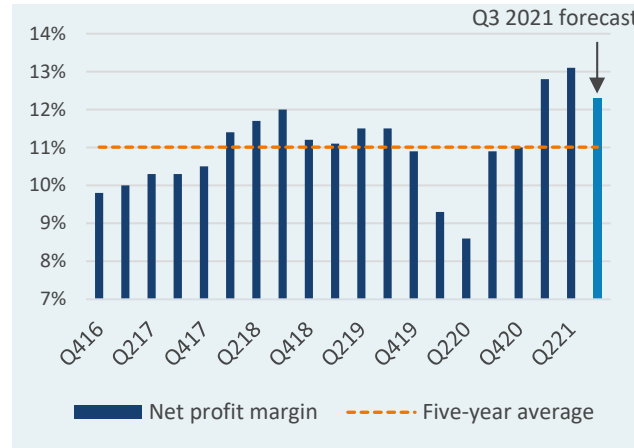
Recent price increases have raised questions around the defensibility of net profit margins, which are expected to moderate in Q3 but remain elevated well above recent averages. Some investors have begun to discuss positioning within sectors that have exhibited more pricing power.

S&P 500 INDEX



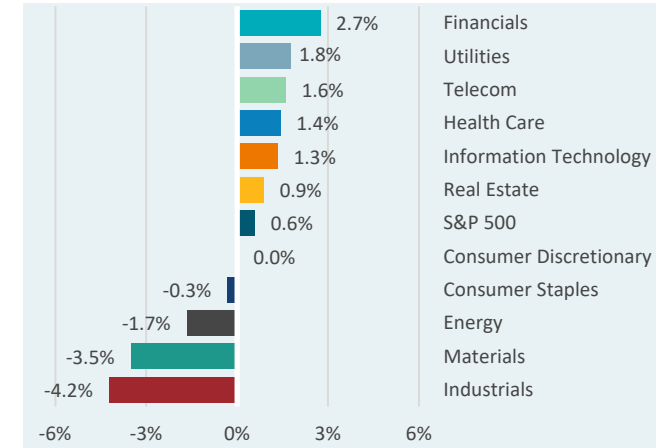
Source: Standard & Poor's, as of 9/30/21

S&P 500 NET PROFIT MARGINS



Source: FactSet, as of 10/18/21

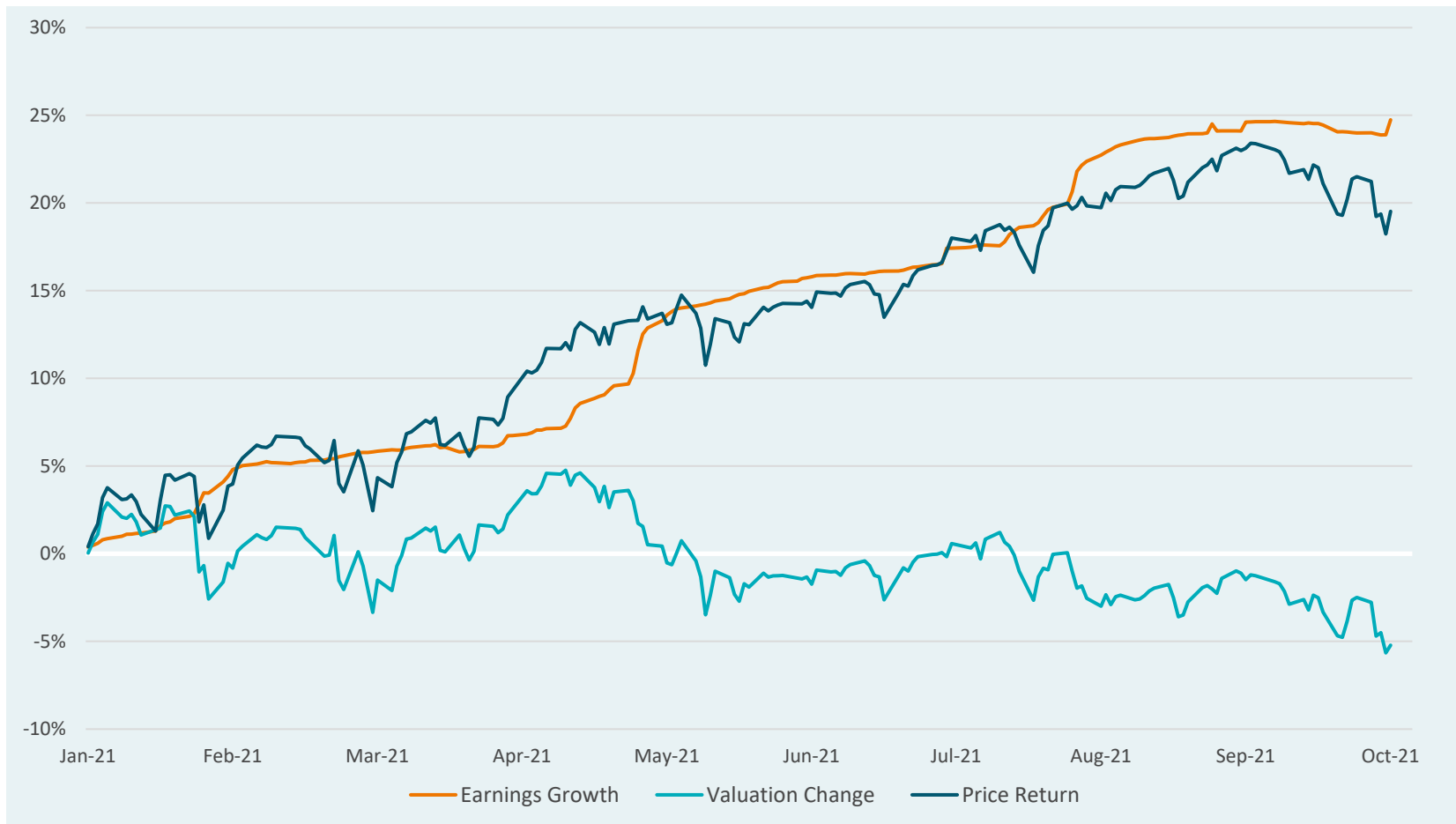
Q3 SECTOR PERFORMANCE



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

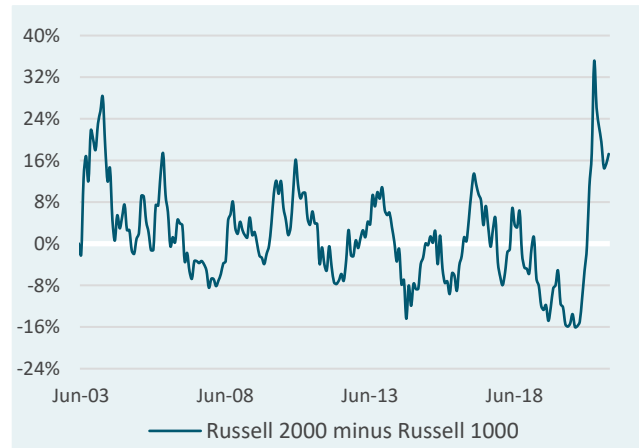
Large capitalization stocks outperformed small cap during the quarter by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%).

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.

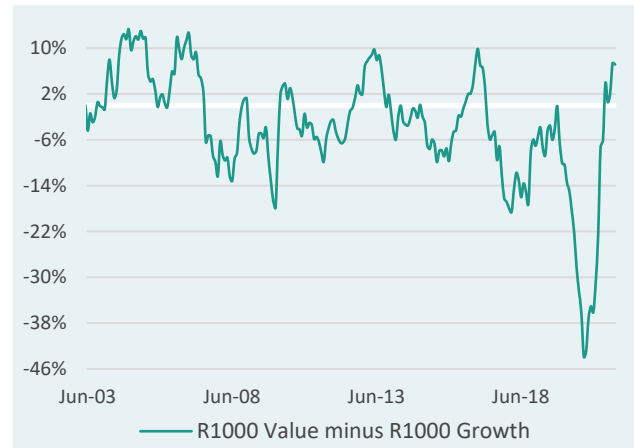
Large cap and growth stocks outperformed during Q3

SMALL CAP VS LARGE CAP (YOY)



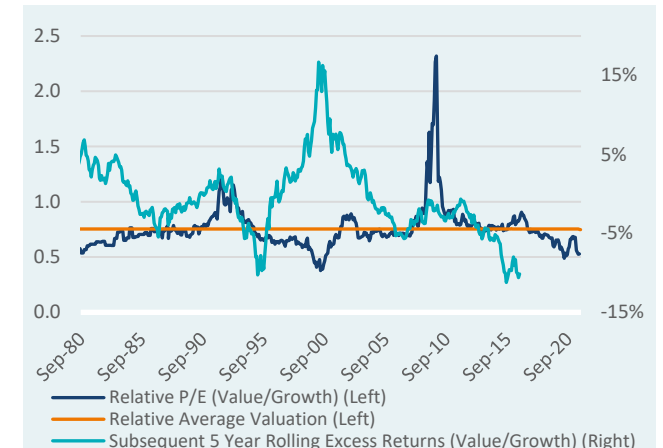
Source: FTSE, as of 9/30/21

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.

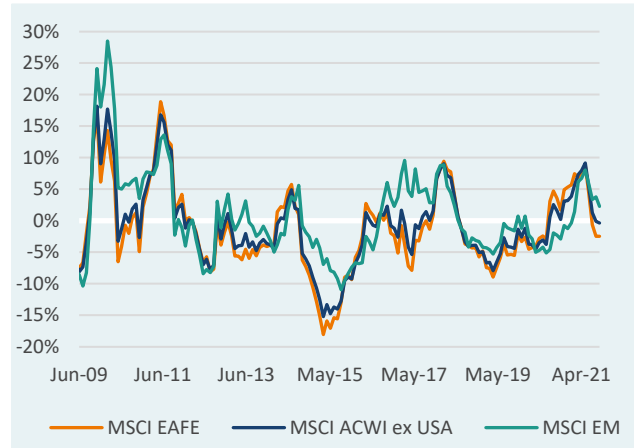
The strong performance of Japanese equities helped to offset for international developed equity investors the negative returns delivered by European equities (MSCI Europe -1.6%), which faced headwinds from a significant weakening in the pound sterling (-2.4%) and euro (-2.3%) relative to the U.S. dollar. 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



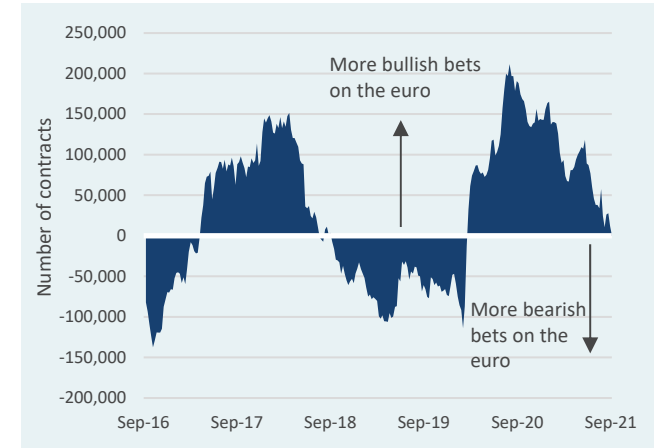
Source: MSCI, as of 9/30/21

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%)

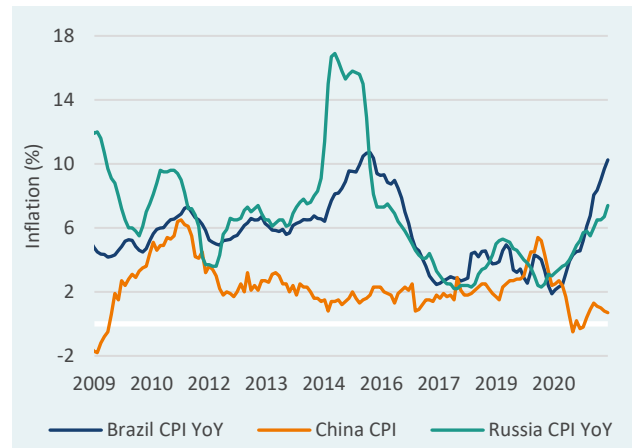
Inflation in Brazil has risen to 10.3%, and in Russia to 7.4%, which has generated responses from central banks. Brazil has hiked their central bank rate from 2.00% to 6.25% to battle rising prices, while Russia has hiked its rate from 4.25% to 6.75% year-to-date. While inflation rate in the U.S. is 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



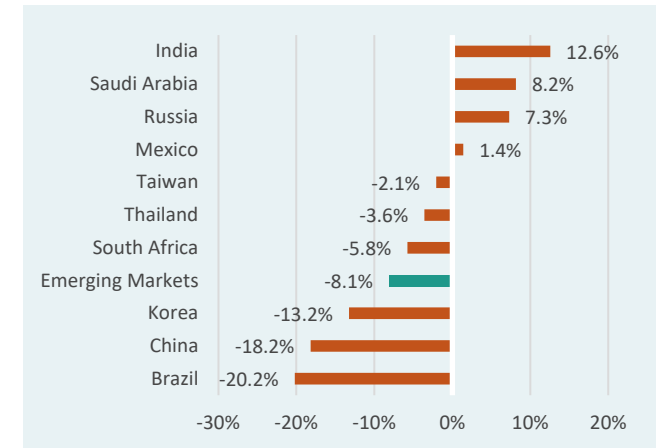
Source: MSCI, as of 9/30/21

INFLATION (YOY)



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

Q3 PERFORMANCE – TOP 10 EM CONSTITUENTS



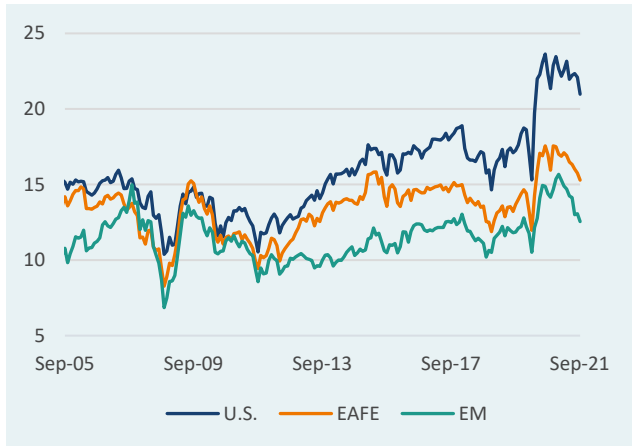
Source: Bloomberg, MSCI, as of 9/30/21, performance in USD terms

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.

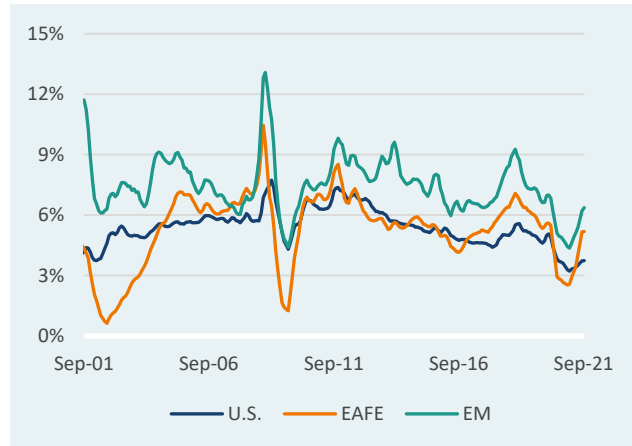
Global equity earnings yields improved considerably, as trailing 12-month earnings have rebounded from low levels. Price growth has moderated in the U.S. and has moved into negative territory across international developed and emerging market equities. The question moving ahead will be whether valuations (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



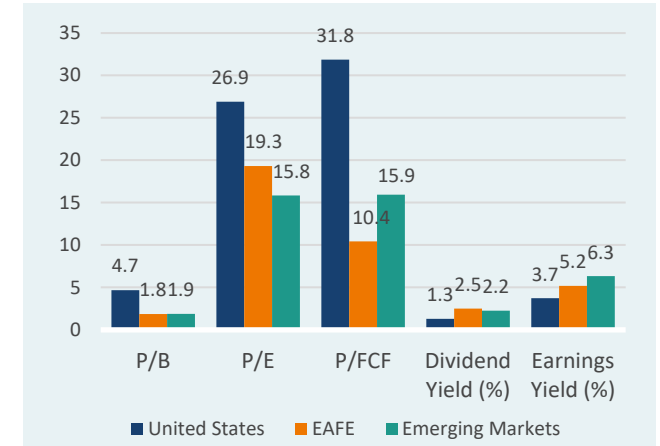
Source: MSCI, 12m forward P/E, as of 9/30/21

CURRENT EARNINGS YIELD (3-MONTH AVERAGE)



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

VALUATION METRICS (3-MONTH AVERAGE)



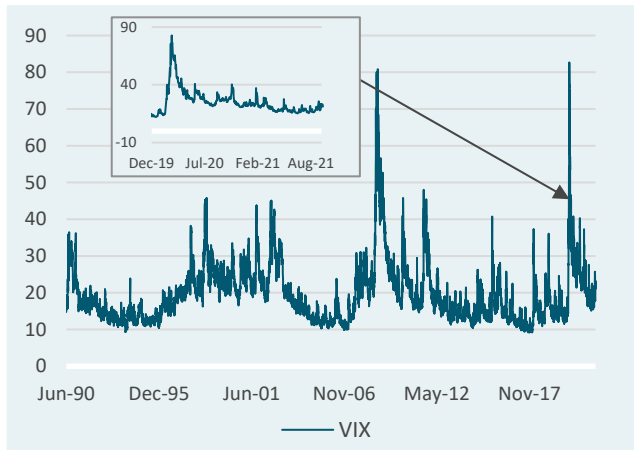
Source: Bloomberg, MSCI as of 9/30/21 - trailing P/E

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.

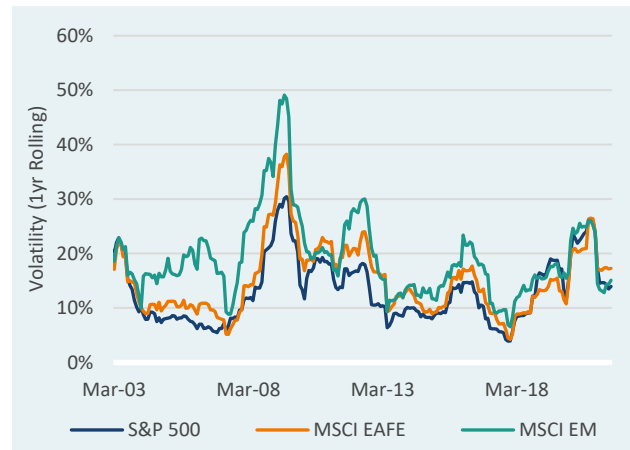
As we observed last quarter, it does seem that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high inflation could indeed persist, and most governments 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)



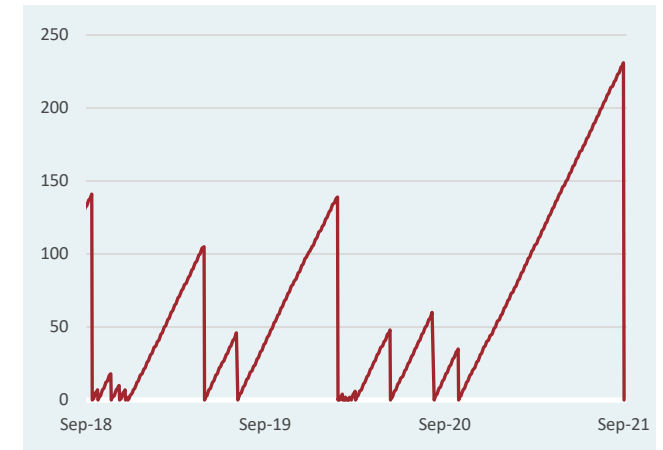
Source: Cboe, as of 9/30/21

REALIZED VOLATILITY



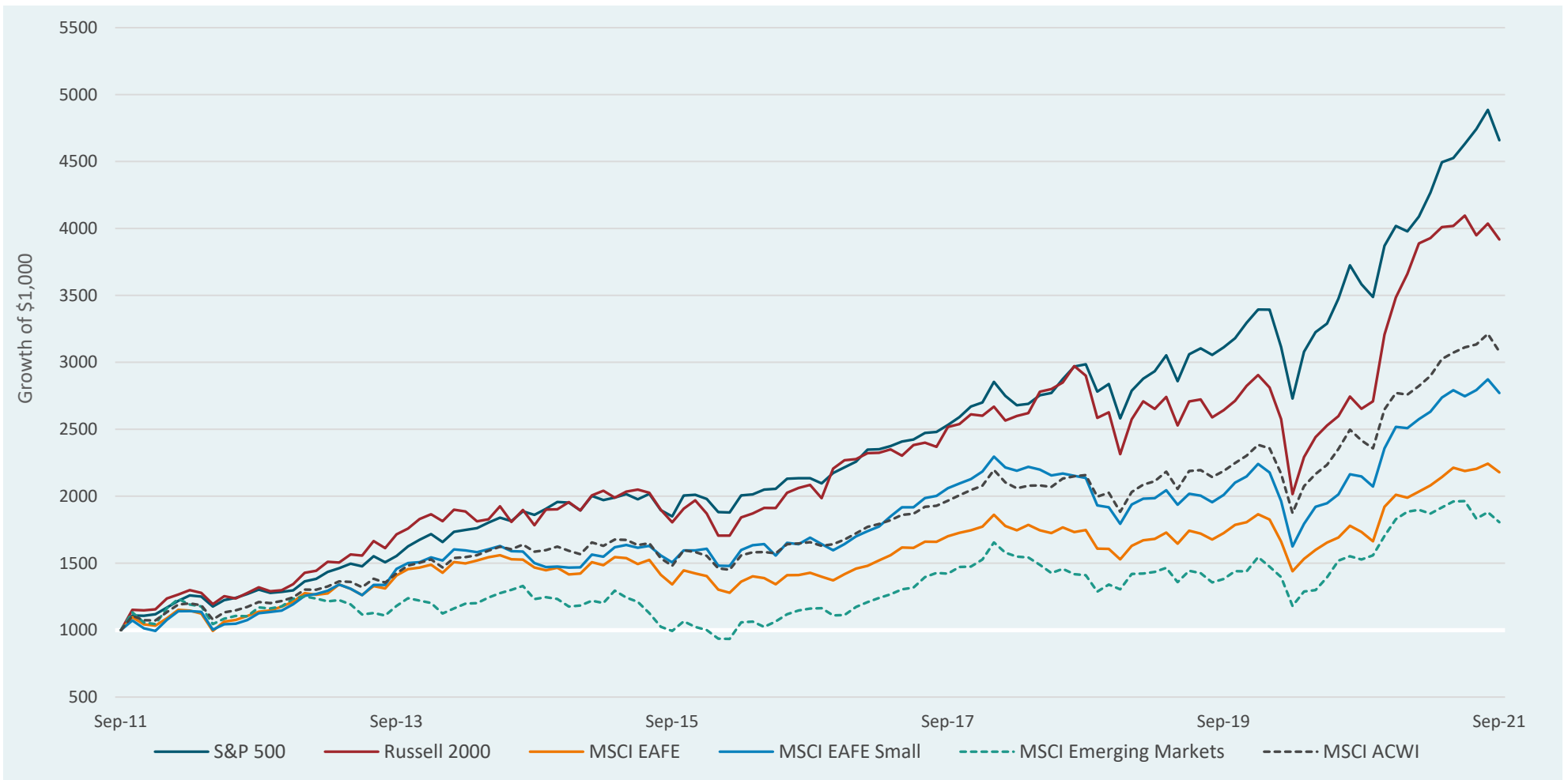
Source: Standard & Poor's, MSCI, as of 9/30/21

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.

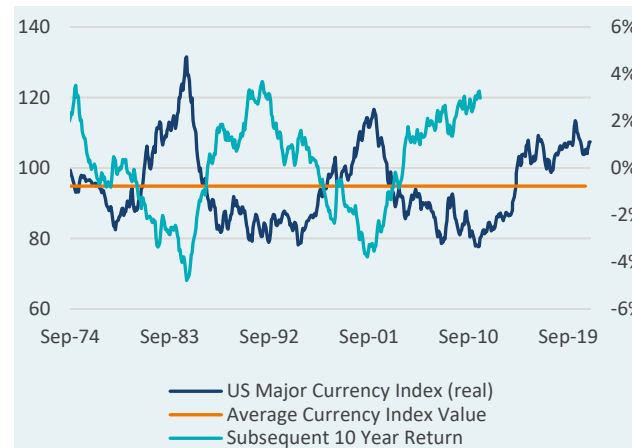
The MSCI Currency Factor Mix Index, Verus' preferred currency beta benchmark, outperformed the currency portfolio of the MSCI ACWI ex-US Index over the twelve months ending September 30th, while exhibiting 1.1% less volatility.

BLOOMBERG DOLLAR SPOT INDEX



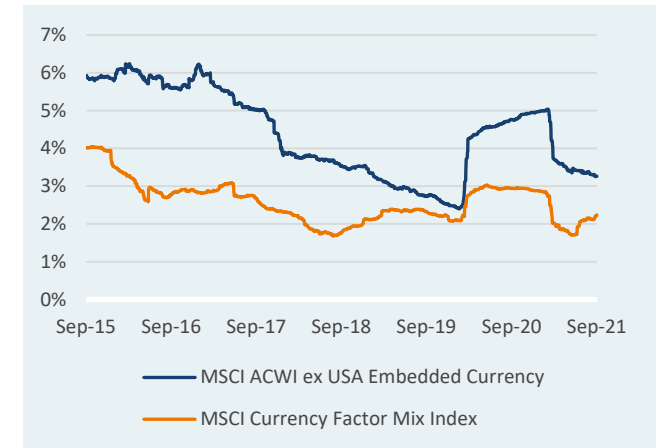
Source: Bloomberg, as of 9/30/21

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

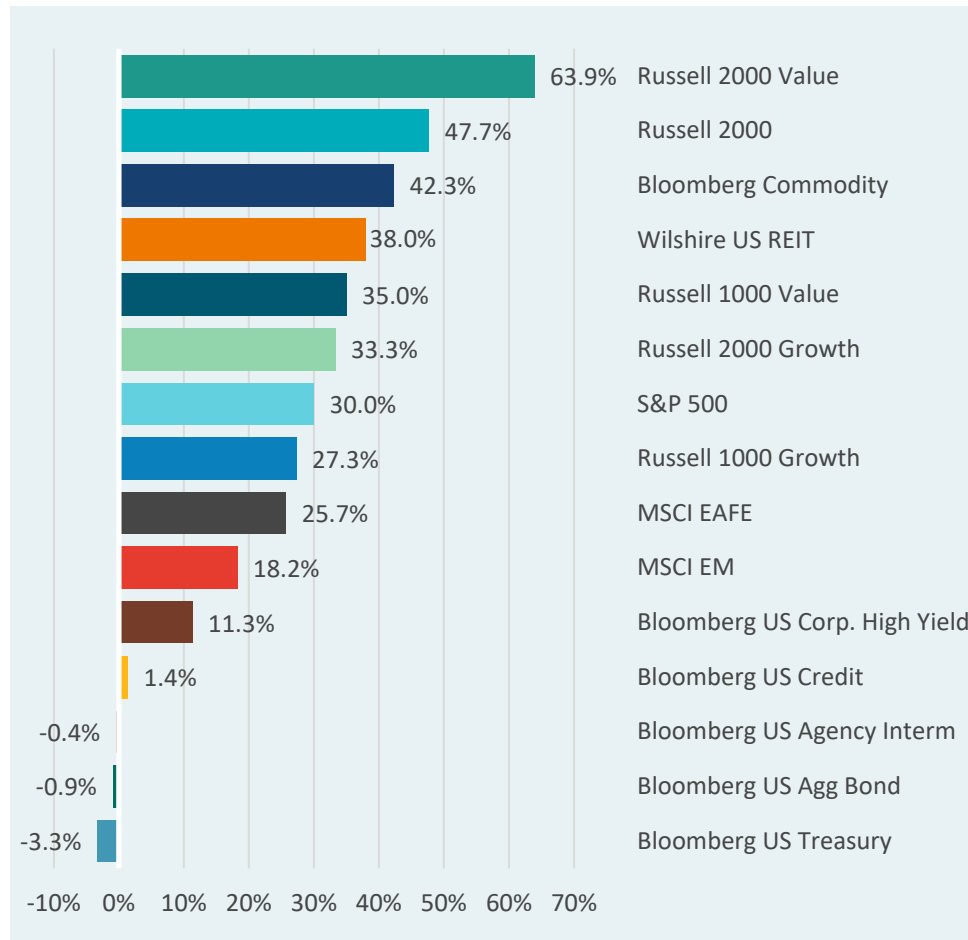
Periodic table of returns



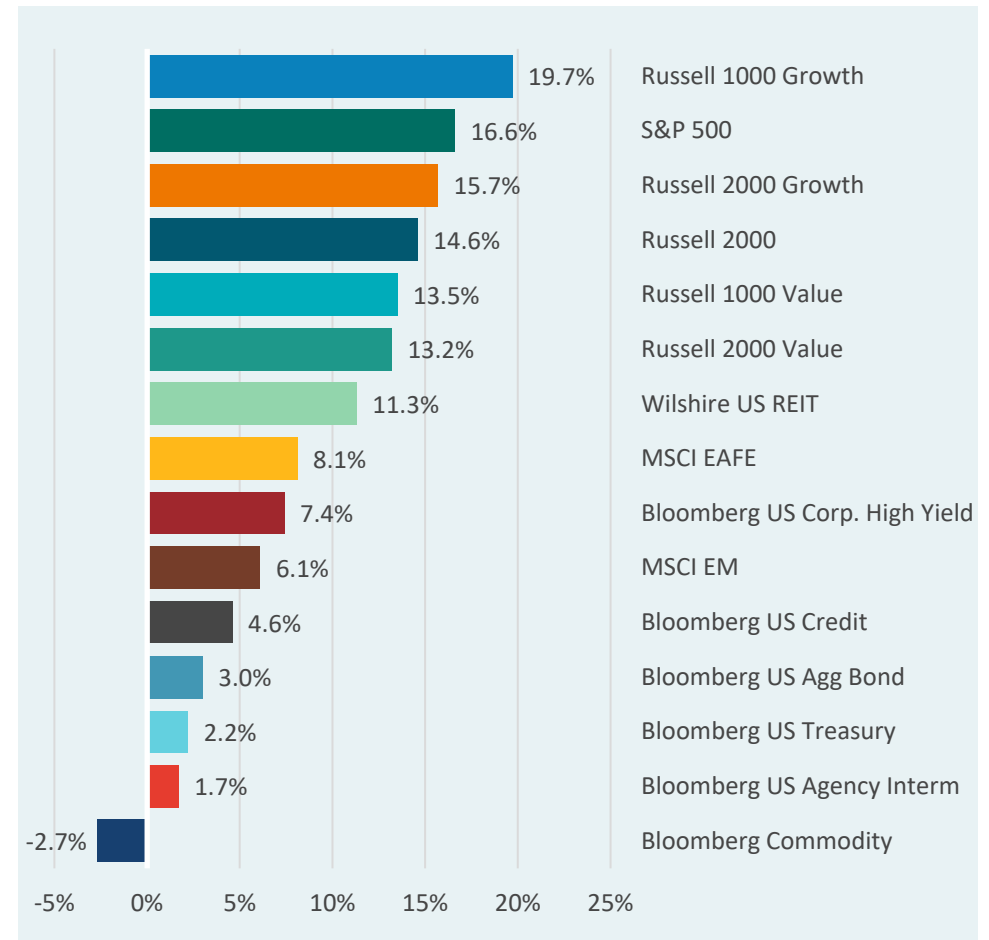
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 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



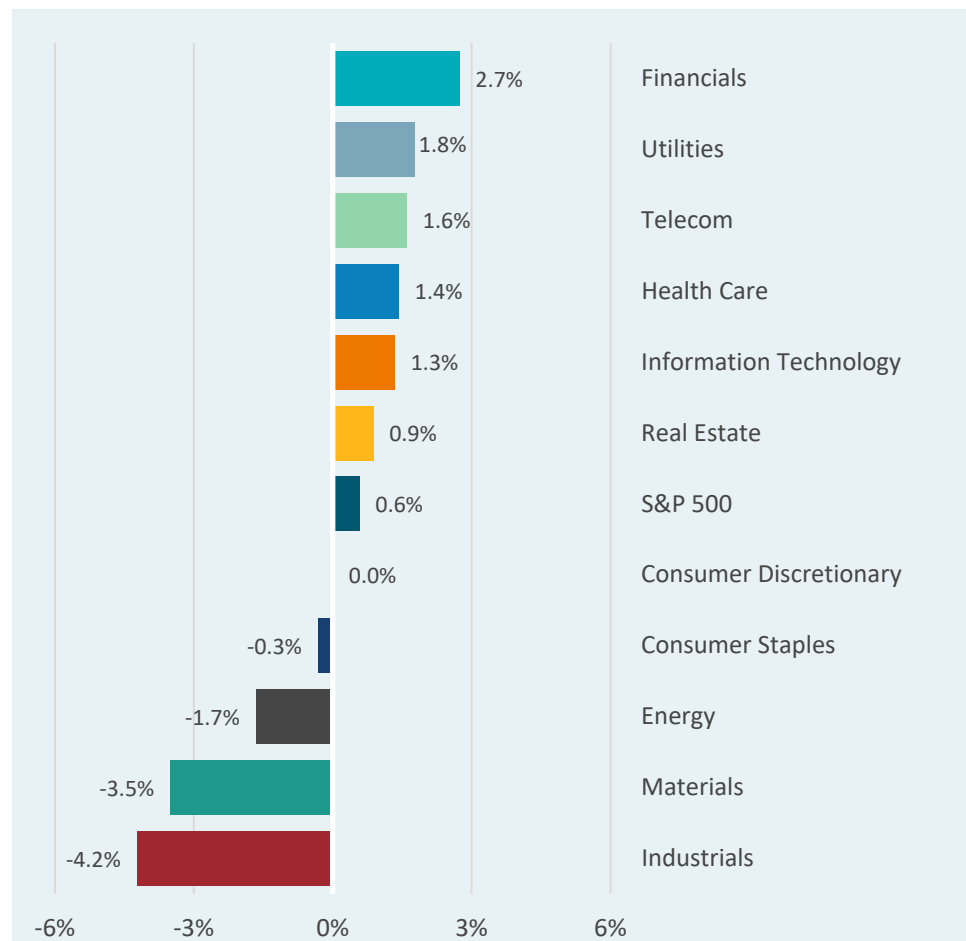
*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 9/30/21

Source: Morningstar, as of 9/30/21

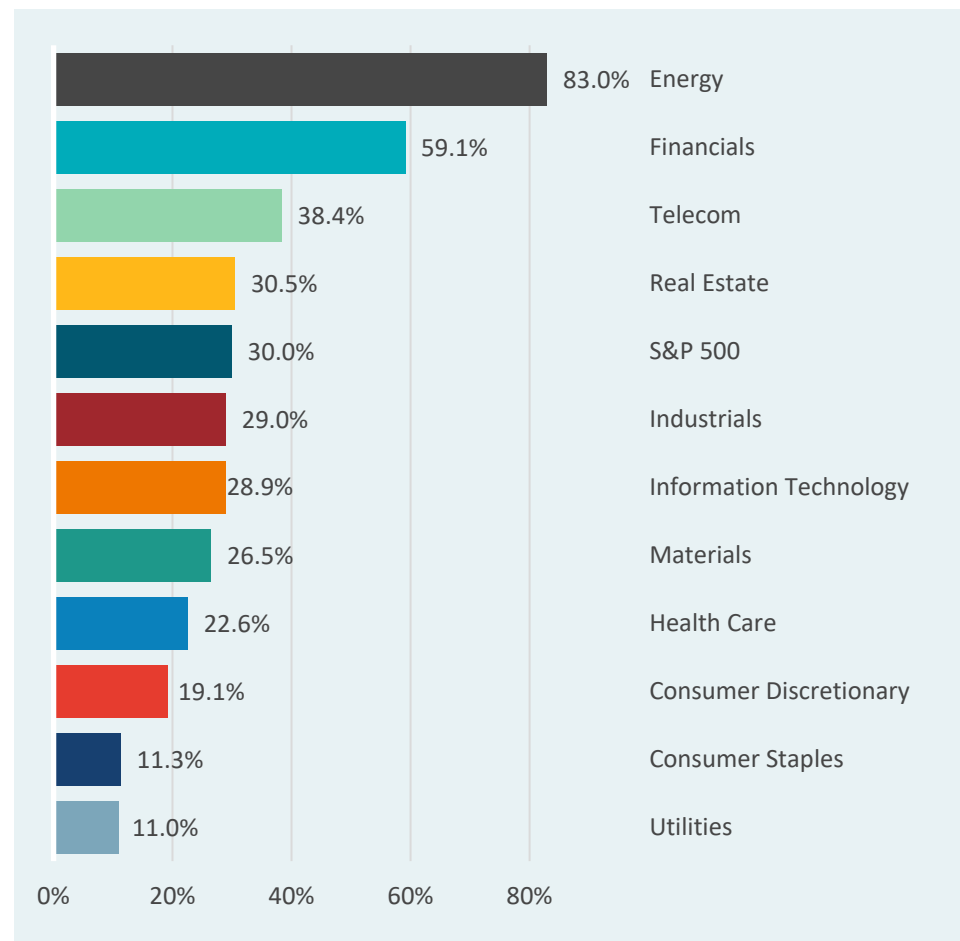
S&P 500 sector returns

Q3 2021



Source: Morningstar, as of 9/30/21

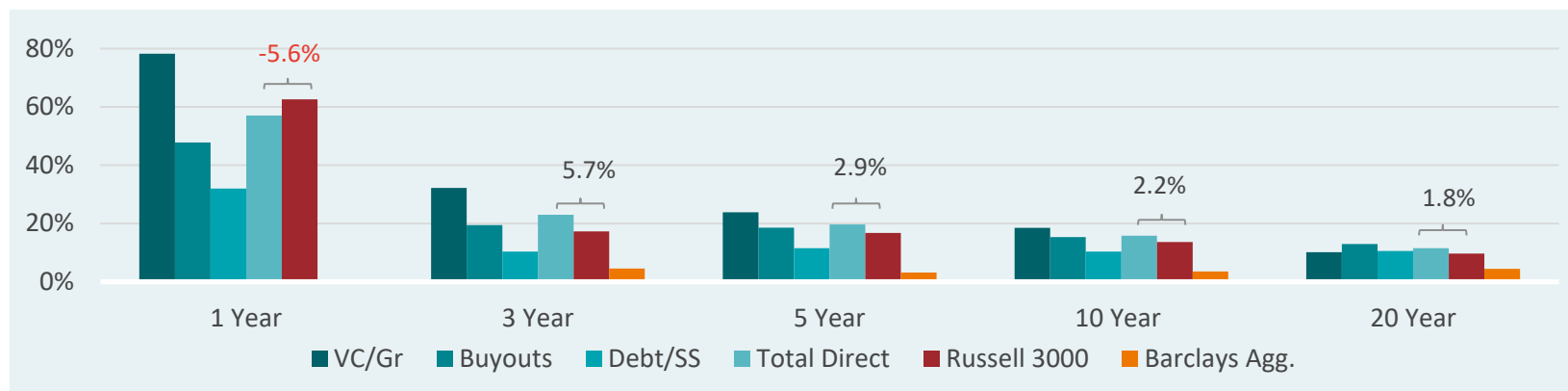
ONE YEAR ENDING SEPTEMBER



Source: Morningstar, as of 9/30/21

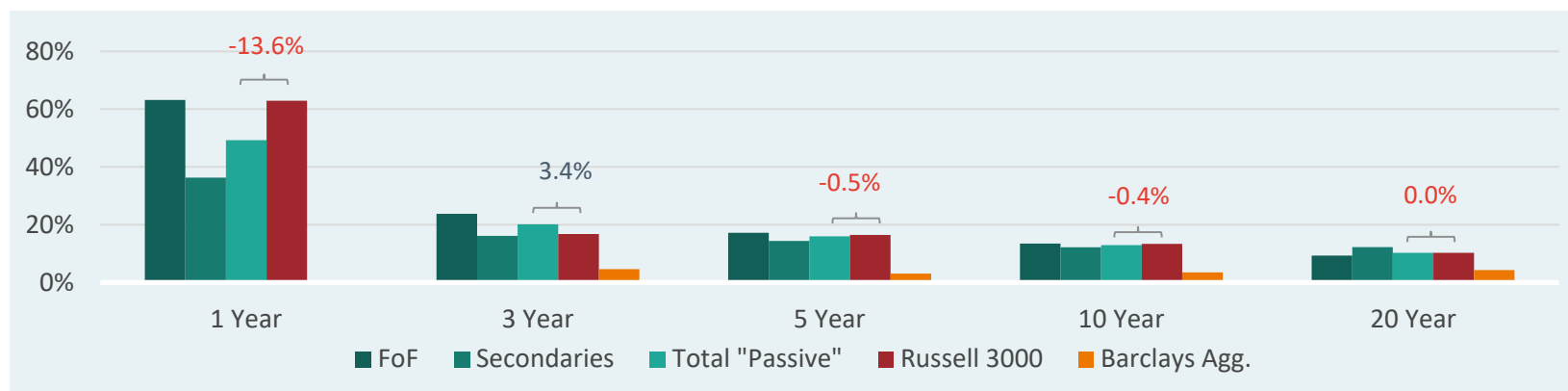
Private equity vs. traditional assets performance

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

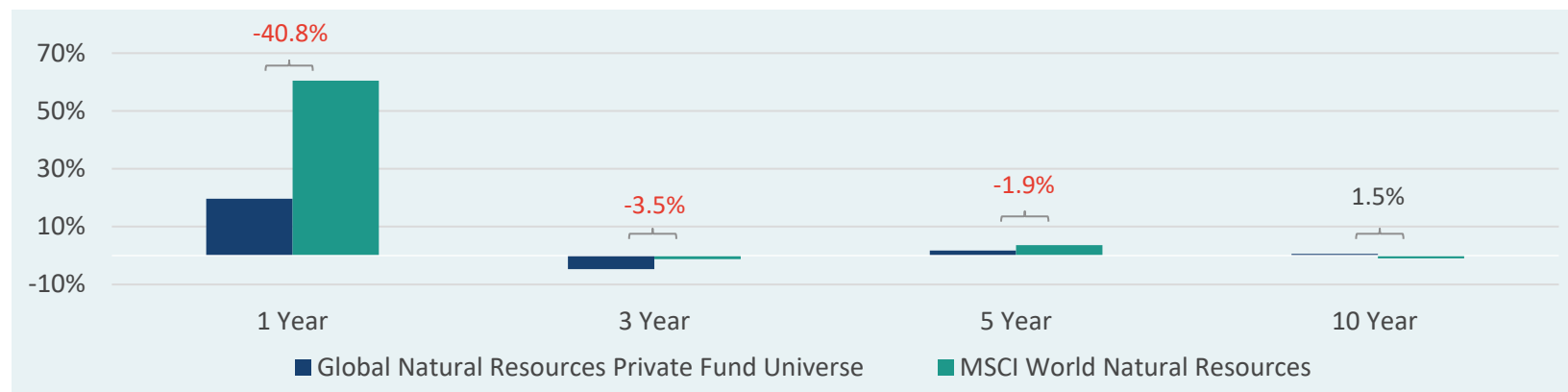


“Passive” strategies underperformed comparable public equities across all time periods, aside from the 3-year basis.

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.

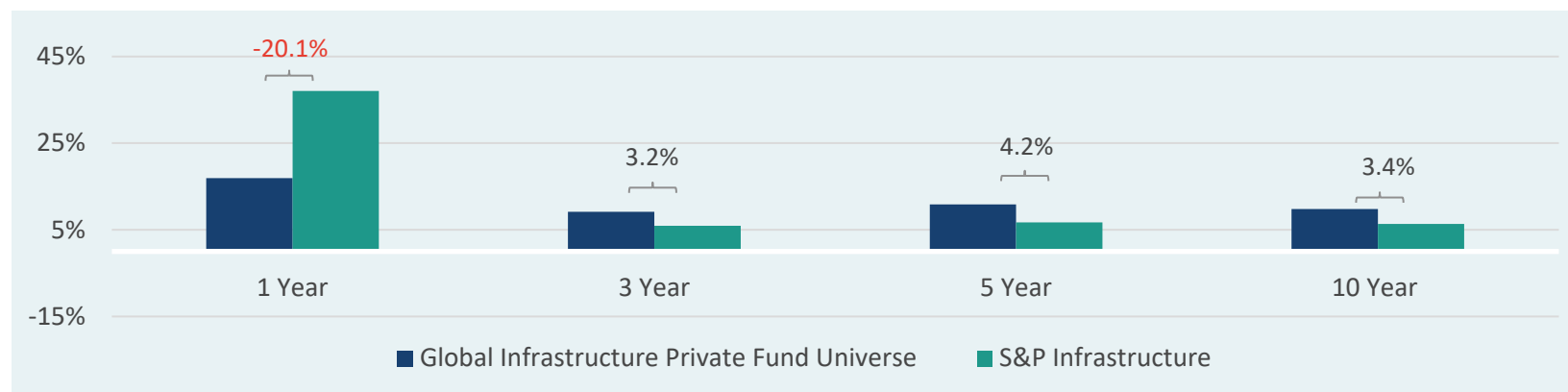
Private vs. liquid real assets performance

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

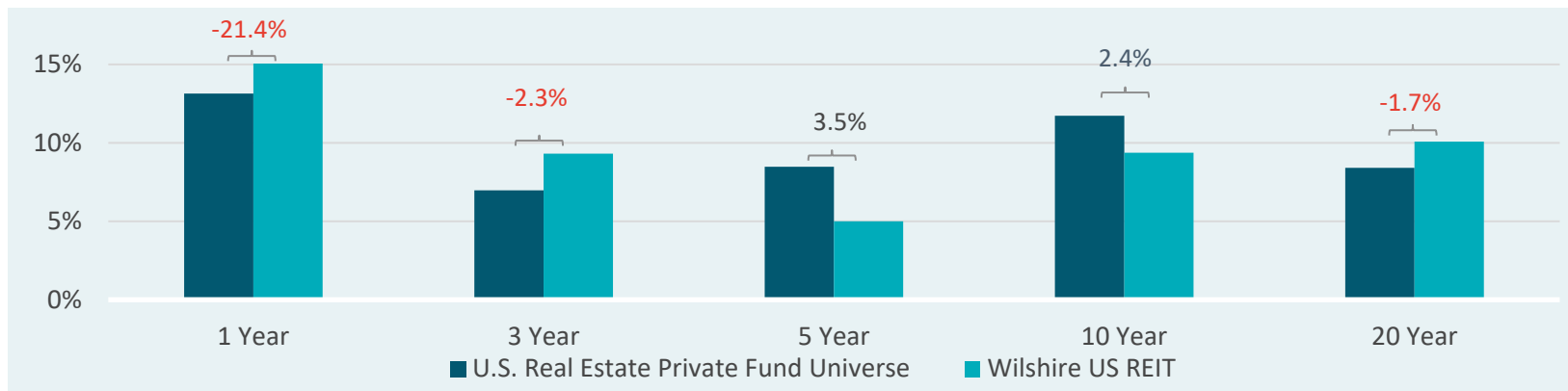


Infra. funds outperformed the S&P Infra. across all periods, aside from the 1-year.

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.

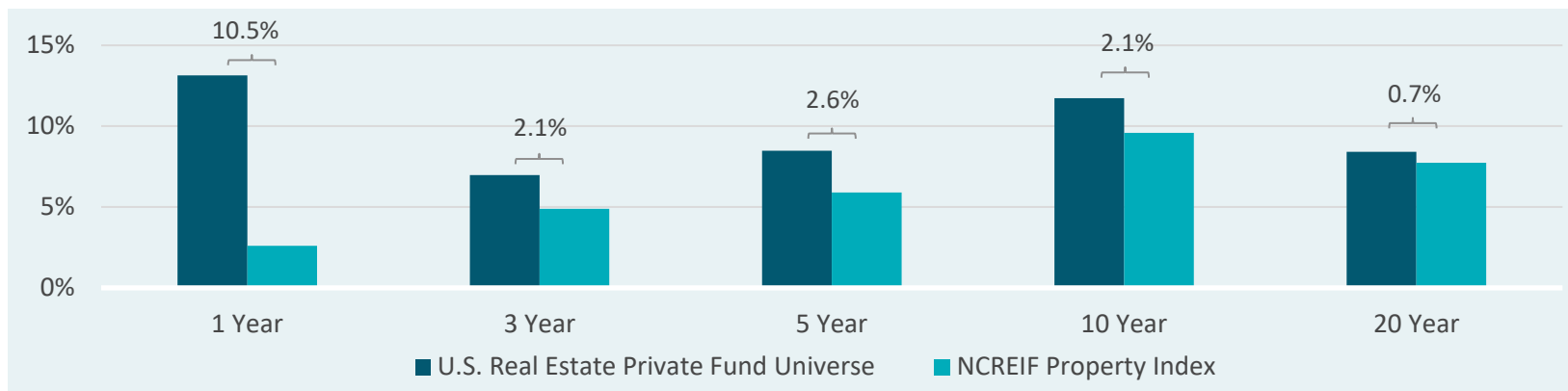
Private vs. liquid and core real estate performance

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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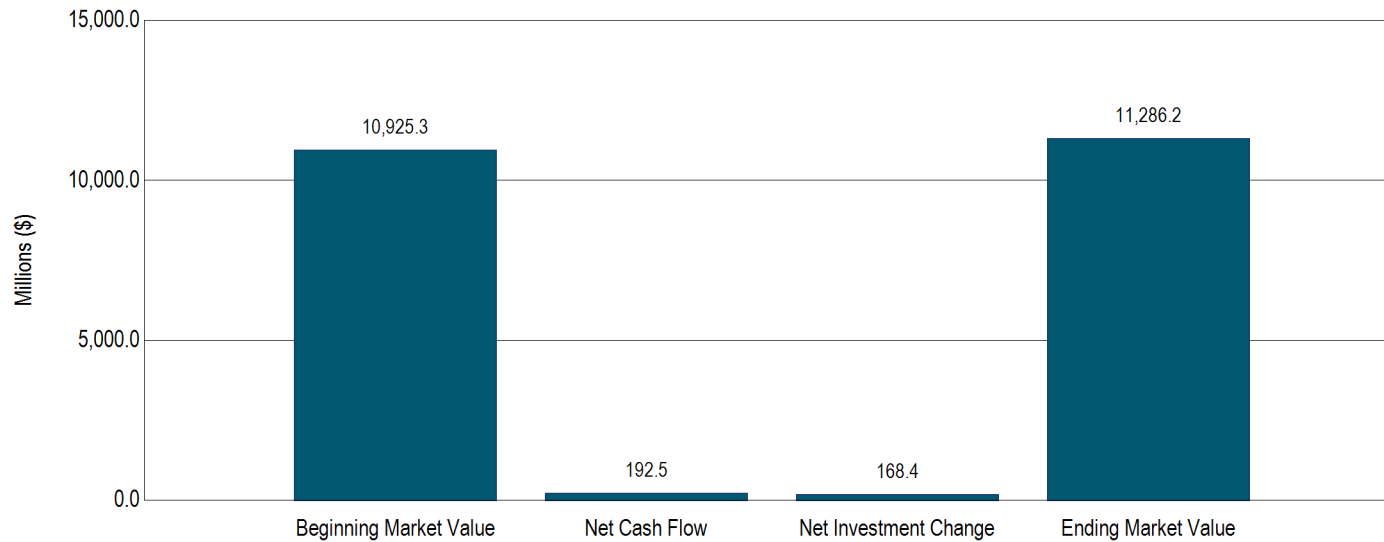
SAN FRANCISCO 415-362-3484

PITTSBURGH 412-784-6678

Portfolio Reconciliation

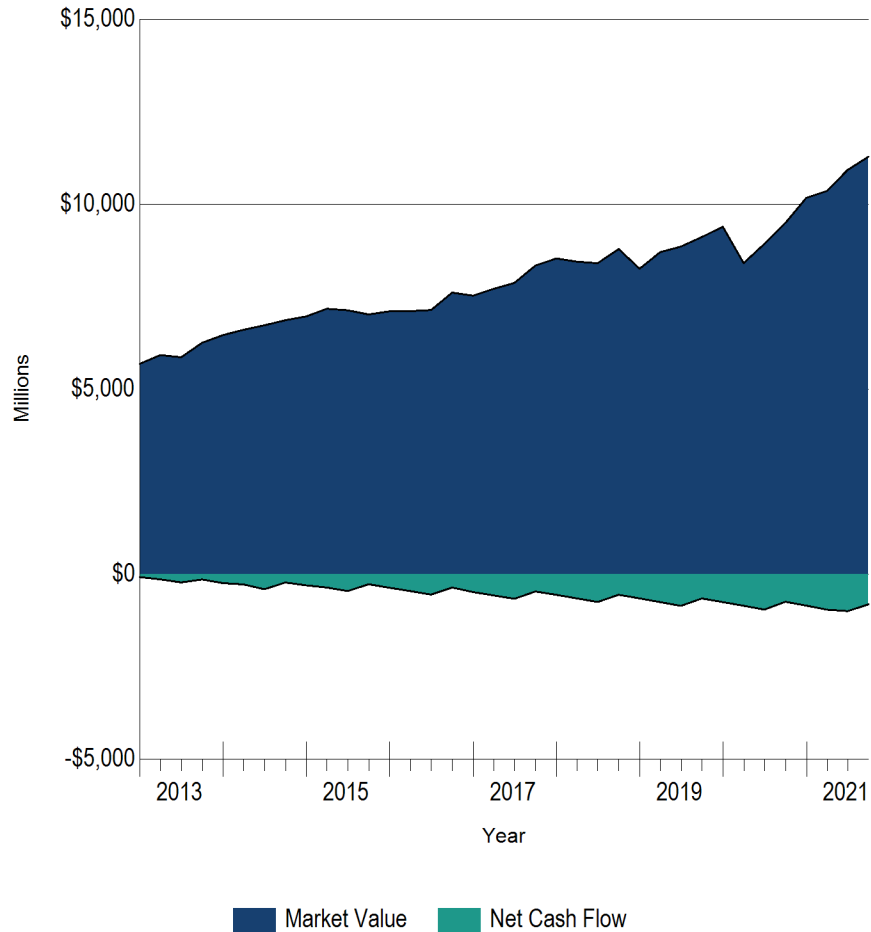
	Last Three Months	Year-To-Date
Beginning Market Value	\$10,925,330,384	\$10,171,802,463
Net Cash Flow	\$192,537,006	\$58,205,103
Net Investment Change	\$168,358,376	\$1,056,218,201
Ending Market Value	\$11,286,225,766	\$11,286,225,766

Change in Market Value
Last Three Months

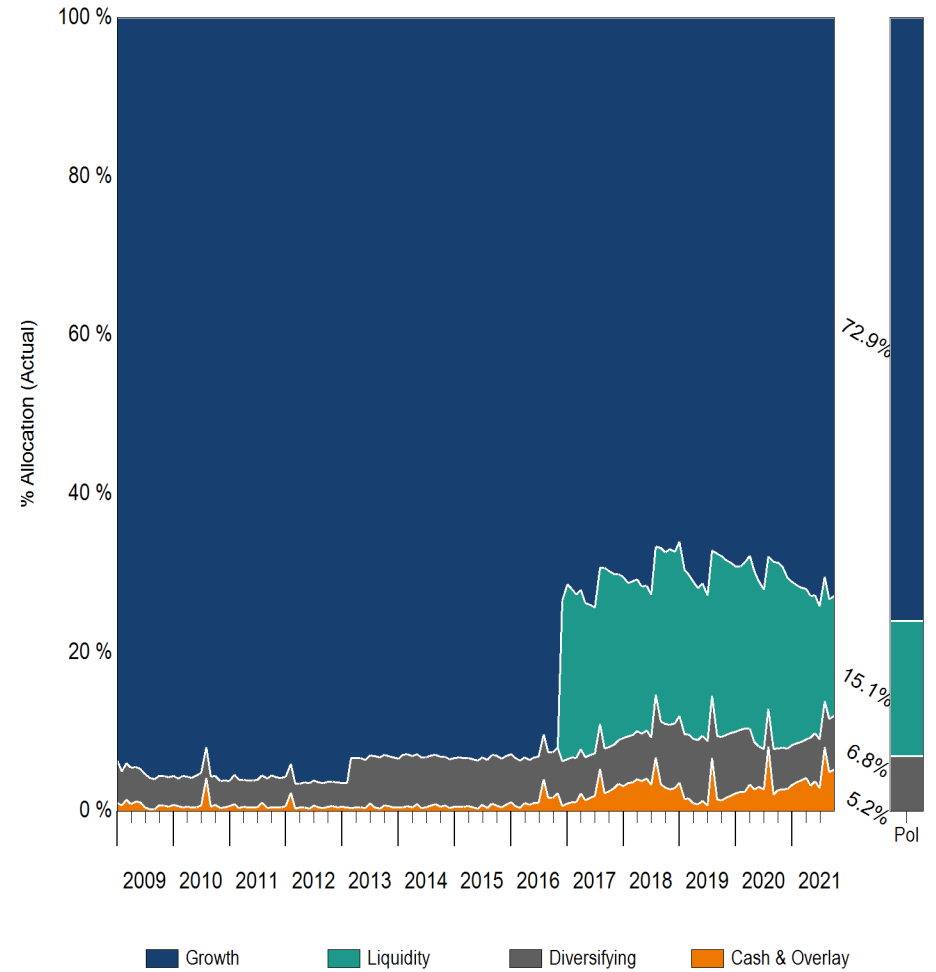


Contributions and withdrawals may include intra-account transfers between managers/funds.

Market Value History
Cumulative Cash Flows



Asset Allocation History

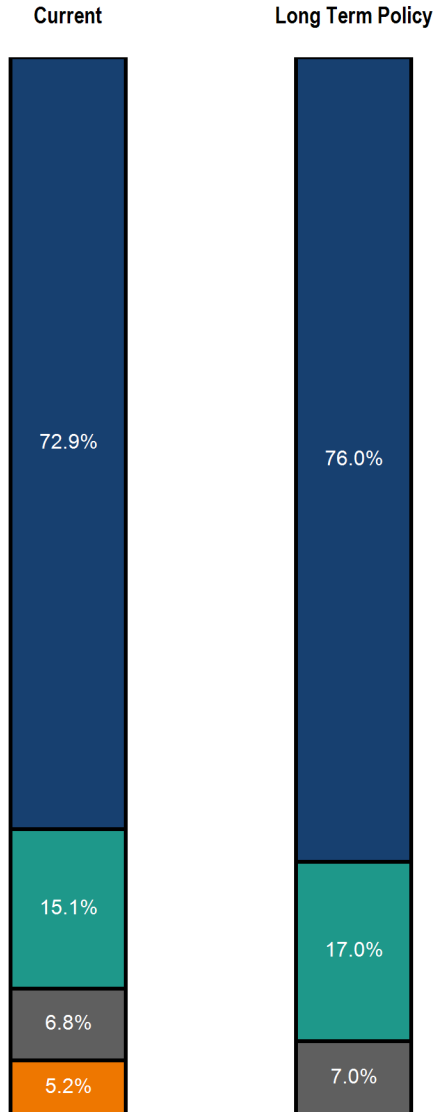


Policy reflects FFP 4-Yr allocations approved in June 2020.

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.

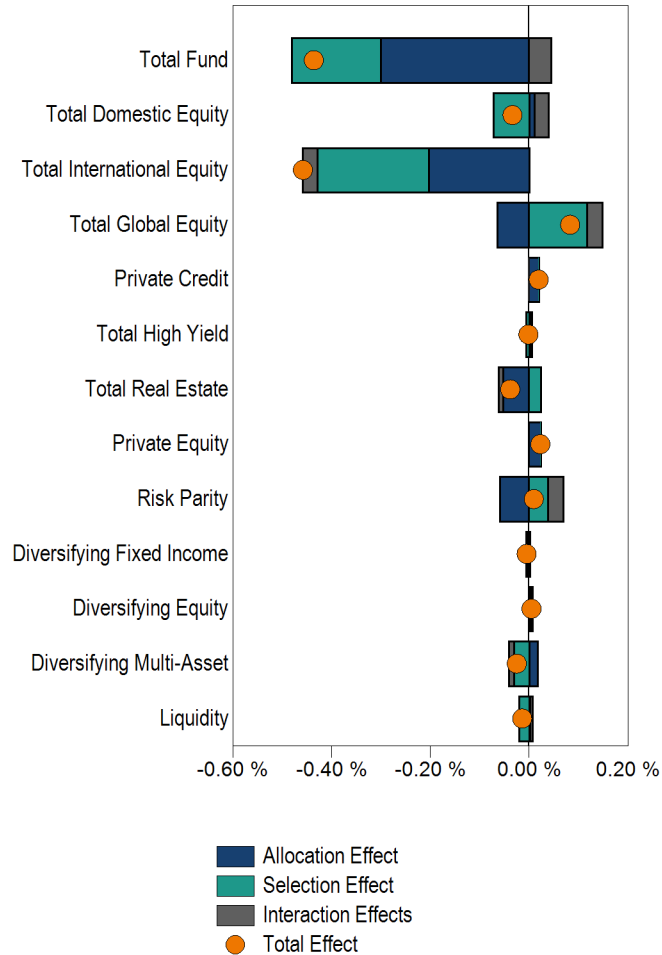
Policy Index (1/1/2021-Present): 9% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 25% Bloomberg 1-3 Yr Gov/Credit, 3% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 7% Private Credit composite returns, 1.5% ICE BofAML High Yield Master II, 1% Wilshire REIT, 8% Private Real Estate 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

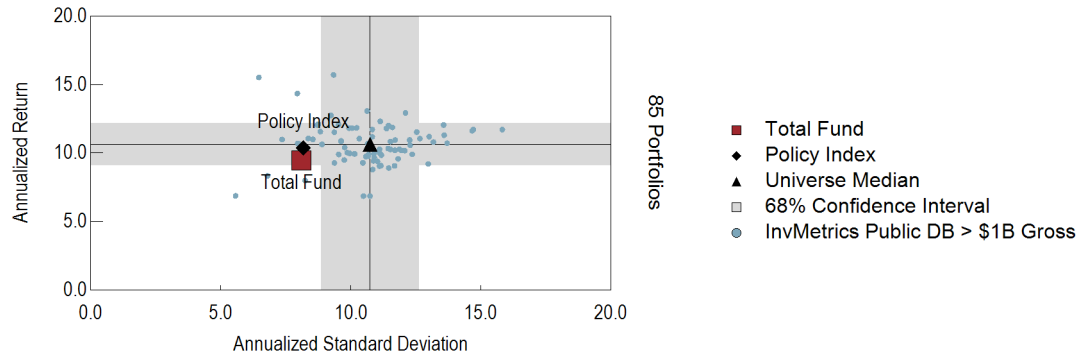
Executive Summary (Net of Fees)

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%

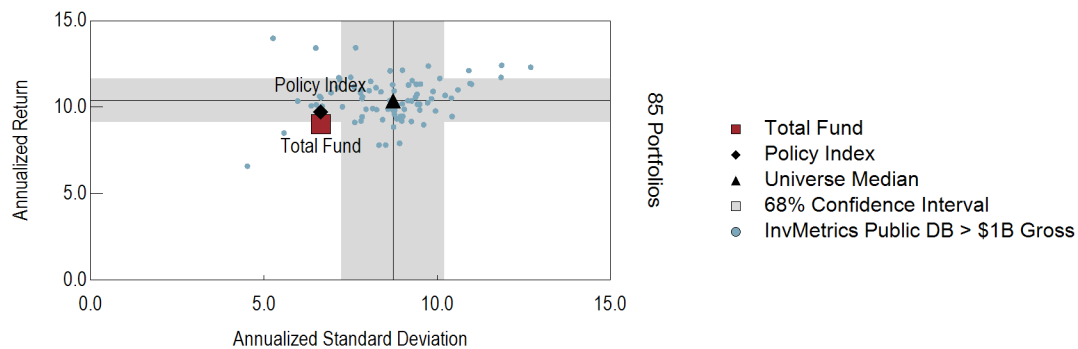
Risk vs. Return



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

¹ Manager has yet to report IRR figure.

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

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

⁴ Capital 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

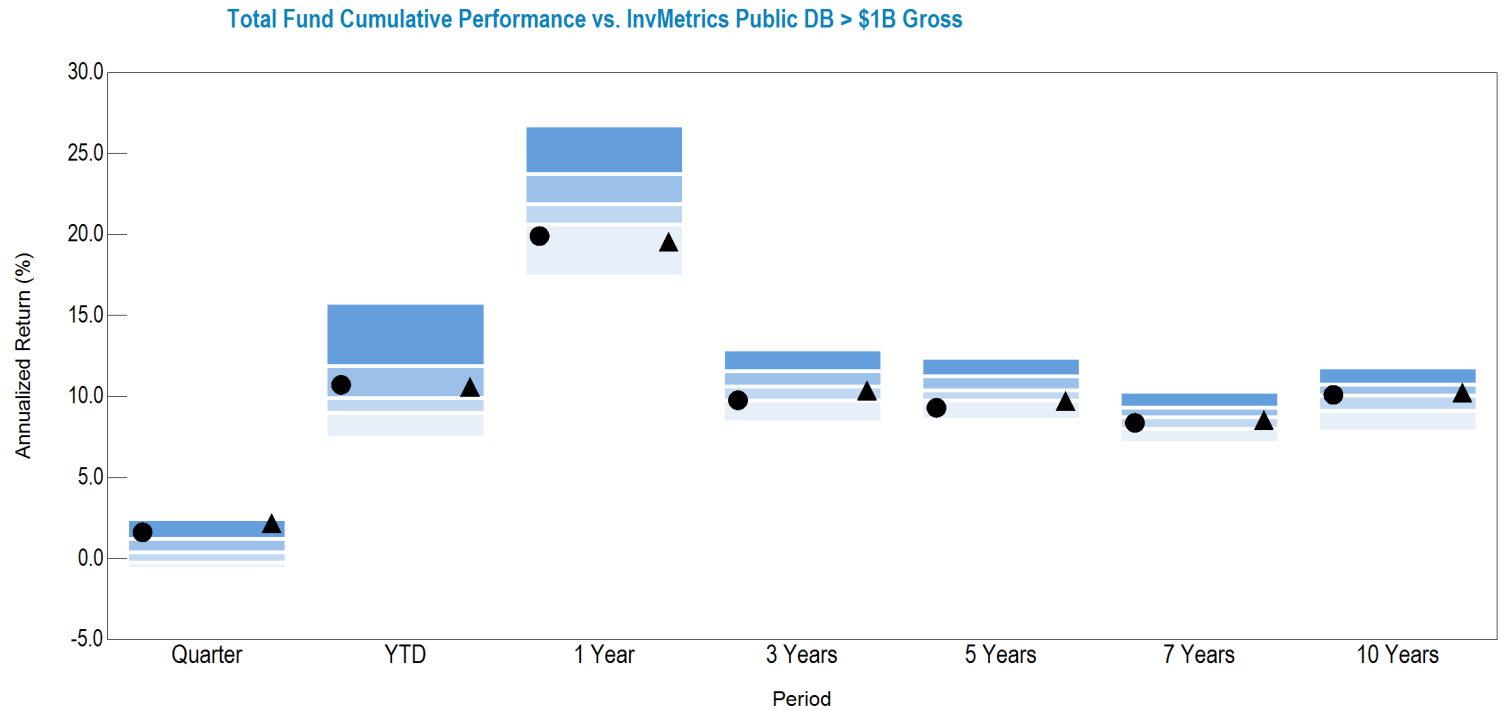
Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
AFL-CIO	Diversifying	0.32% of Assets	\$263,109,664	\$841,951	0.32%
Parametric Defensive Equity	Diversifying	0.42% of First 200.0 Mil, 0.39% Thereafter	\$115,246,287	\$484,034	0.42%
Acadian Multi-Asset Absolute Return Fund	Diversifying	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



	Return (Rank)													
	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)

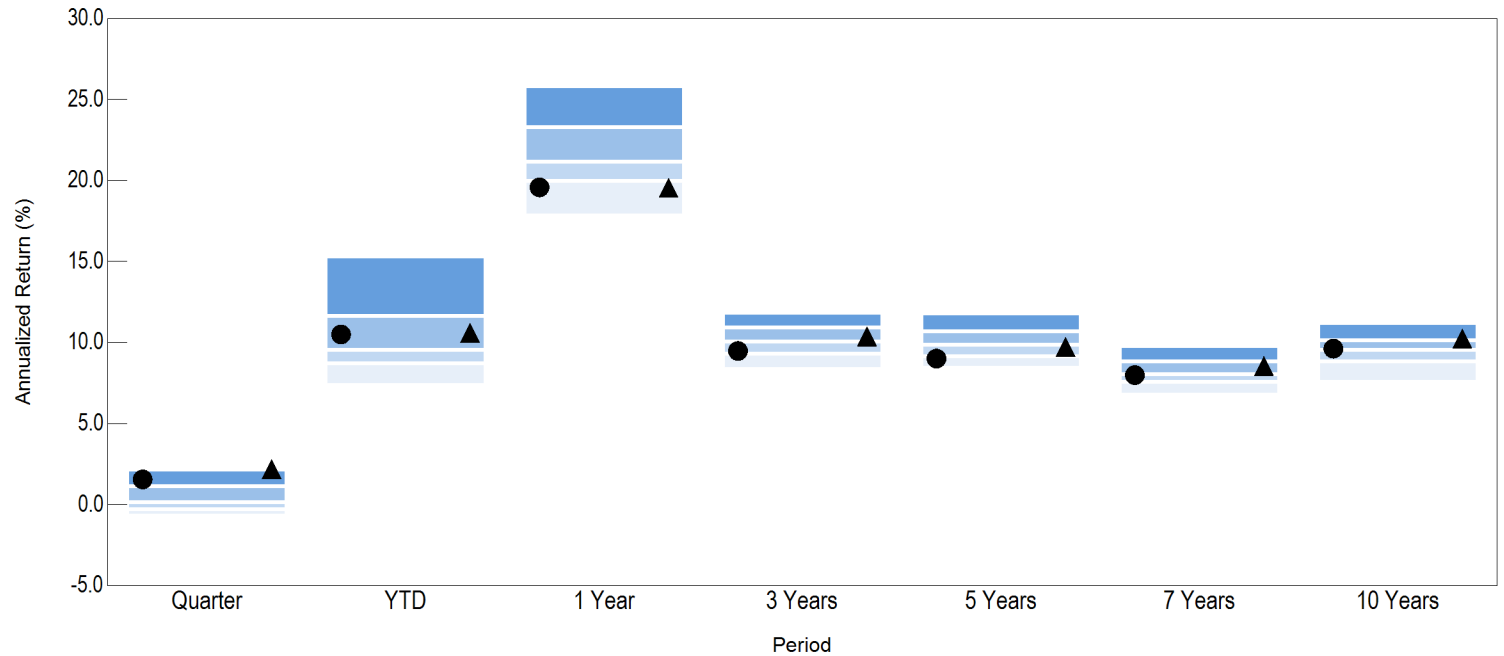
Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

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

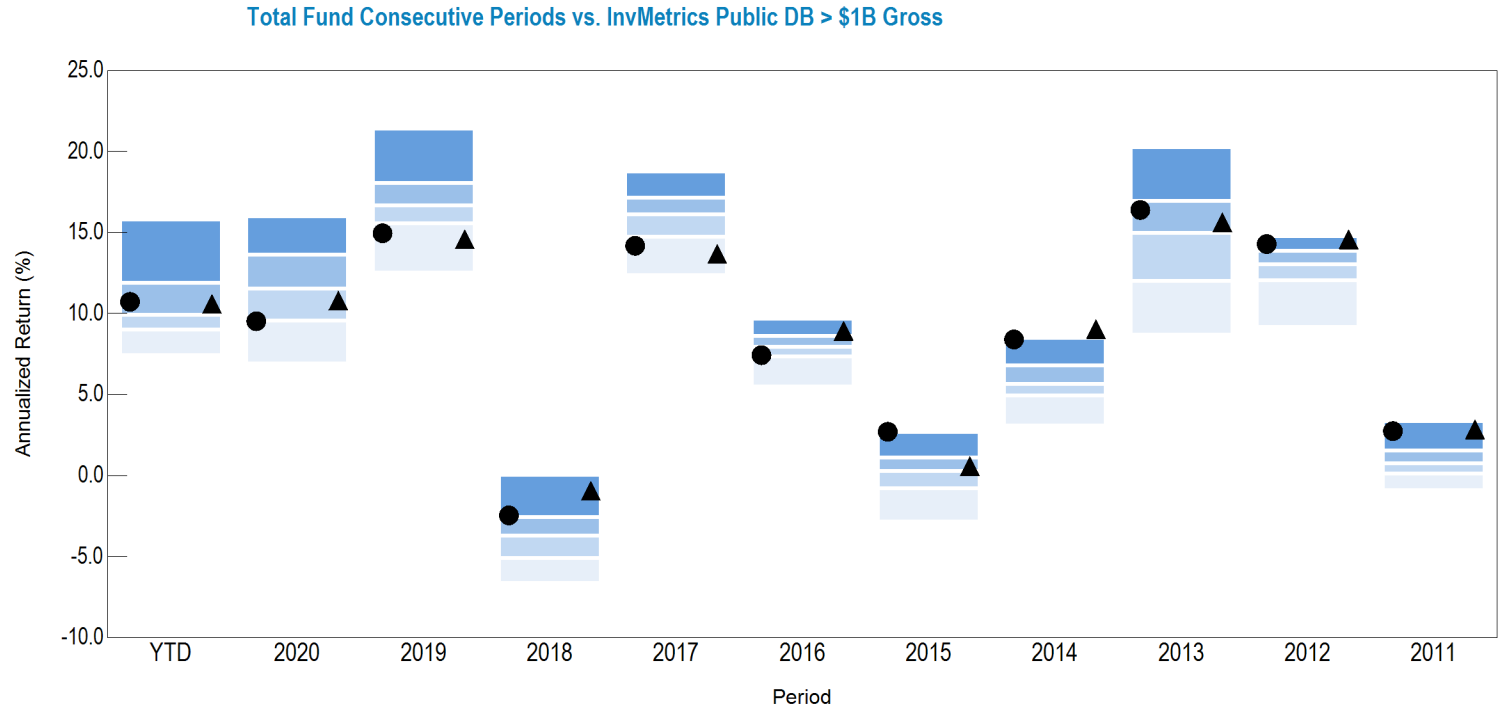


	Return (Rank)													
	Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	2.2	15.3	25.8	11.8	11.8	9.8	11.2							
25th Percentile	1.1	11.7	23.3	10.9	10.7	8.8	10.2							
Median	0.2	9.6	21.2	10.1	9.9	8.1	9.6							
75th Percentile	-0.3	8.7	20.0	9.3	9.2	7.6	8.9							
95th Percentile	-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



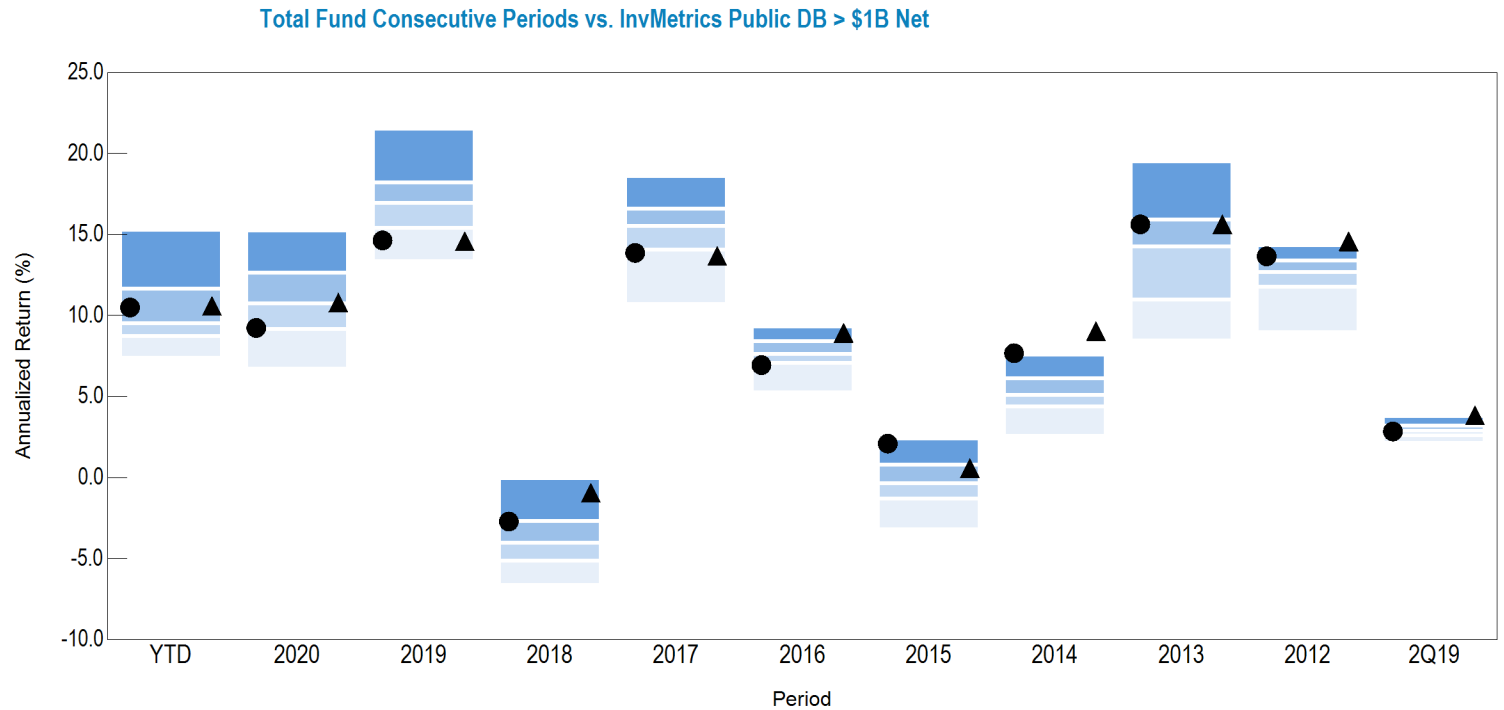
	Return (Rank)										
	YTD	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
5th Percentile	15.8	16.0	21.4	0.0	18.8	9.7	2.7	8.5	20.2	14.7	3.3
25th Percentile	11.9	13.6	18.1	-2.6	17.2	8.6	1.1	6.8	17.0	13.9	1.6
Median	9.9	11.5	16.7	-3.7	16.2	8.0	0.3	5.7	15.0	13.0	0.8
75th Percentile	9.0	9.6	15.6	-5.1	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

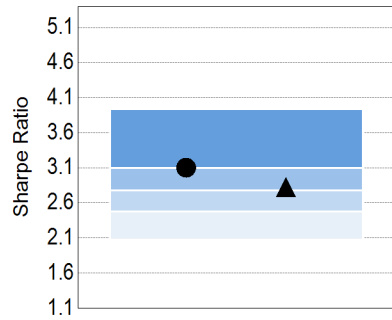


	YTD	2020	2019	2018	2017	2016	2015	2014	2013	2012	2Q19
Return (Rank)											
5th Percentile	15.3	15.2	21.5	-0.1	18.6	9.3	2.4	7.6	19.5	14.3	3.8
25th Percentile	11.7	12.7	18.2	-2.7	16.6	8.4	0.8	6.1	16.0	13.4	3.2
Median	9.6	10.8	17.0	-4.0	15.6	7.7	-0.4	5.1	14.3	12.7	2.9
75th Percentile	8.7	9.2	15.4	-5.1	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)

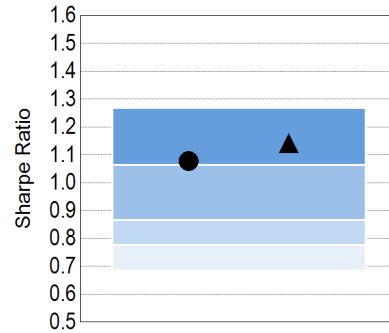
Period Ending: September 30, 2021

Sharpe Ratio
1 Year



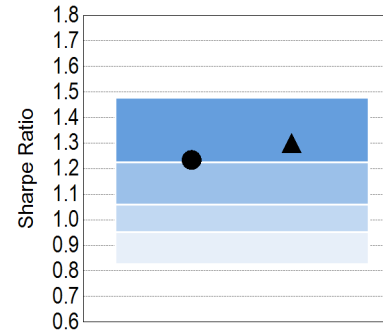
● Total Fund	
Value	3.1
Rank	26
▲ Policy Index	
Value	2.8
Rank	47
Universe	
5th %tile	3.9
25th %tile	3.1
Median	2.8
75th %tile	2.5
95th %tile	2.1

Sharpe Ratio
3 Year



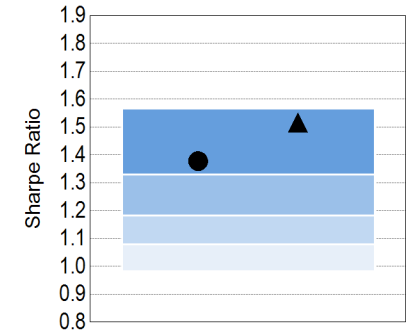
● Total Fund	
Value	1.1
Rank	21
▲ Policy Index	
Value	1.1
Rank	16
Universe	
5th %tile	1.3
25th %tile	1.1
Median	0.9
75th %tile	0.8
95th %tile	0.7

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

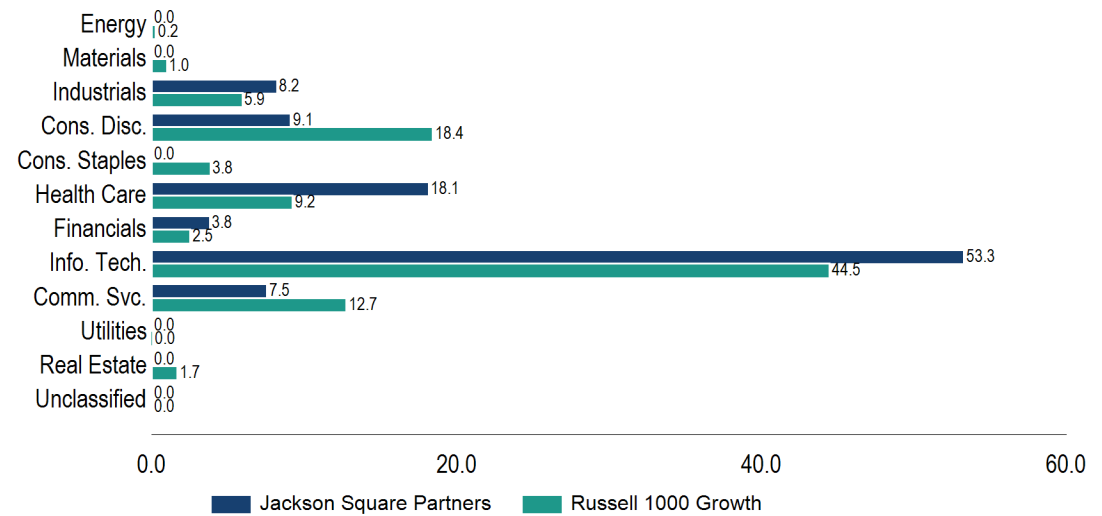
Period Ending: September 30, 2021

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

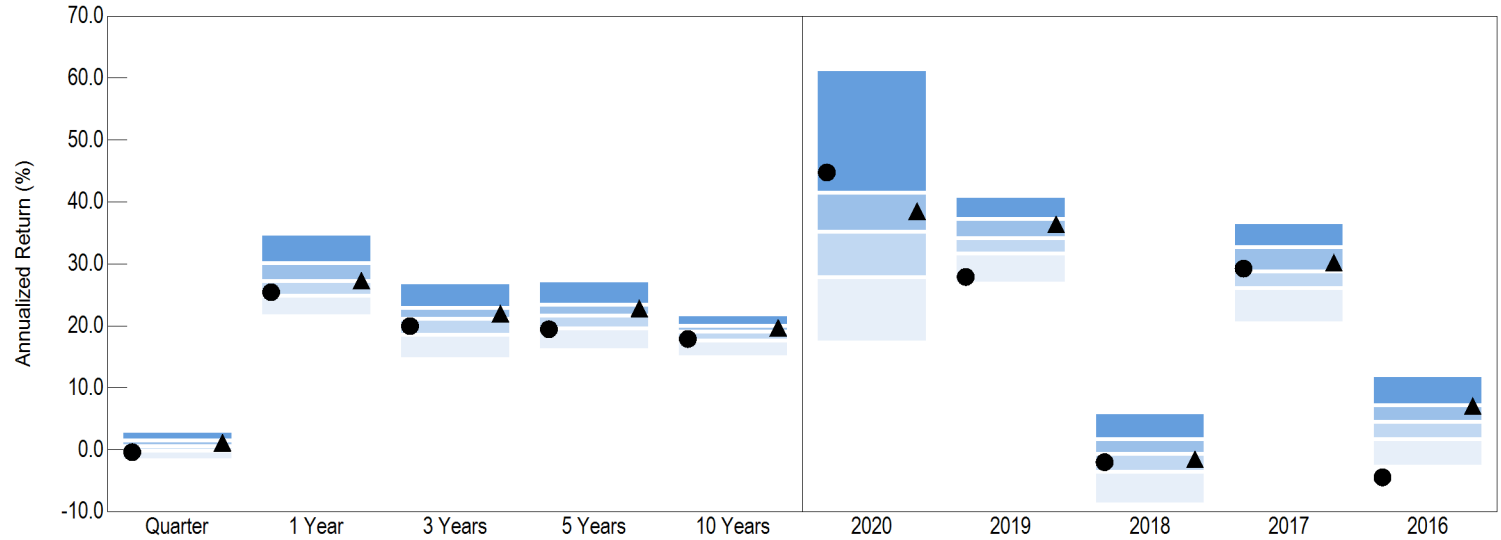
	Avg Wgt	Return	Contribution
DATADOG INC	0.99	35.81	0.35
PAYCOM SOFTWARE INC	0.93	36.39	0.34
SERVICENOW INC	1.34	13.23	0.18
NETFLIX INC	0.92	15.55	0.14
MICROSOFT CORP	3.06	4.27	0.13
EDWARDS LIFESCIENCES CORP	1.32	9.31	0.12
INTUITIVE SURGICAL INC	1.17	8.10	0.09
ALIGN TECHNOLOGY INC	0.97	8.91	0.09
WASTE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

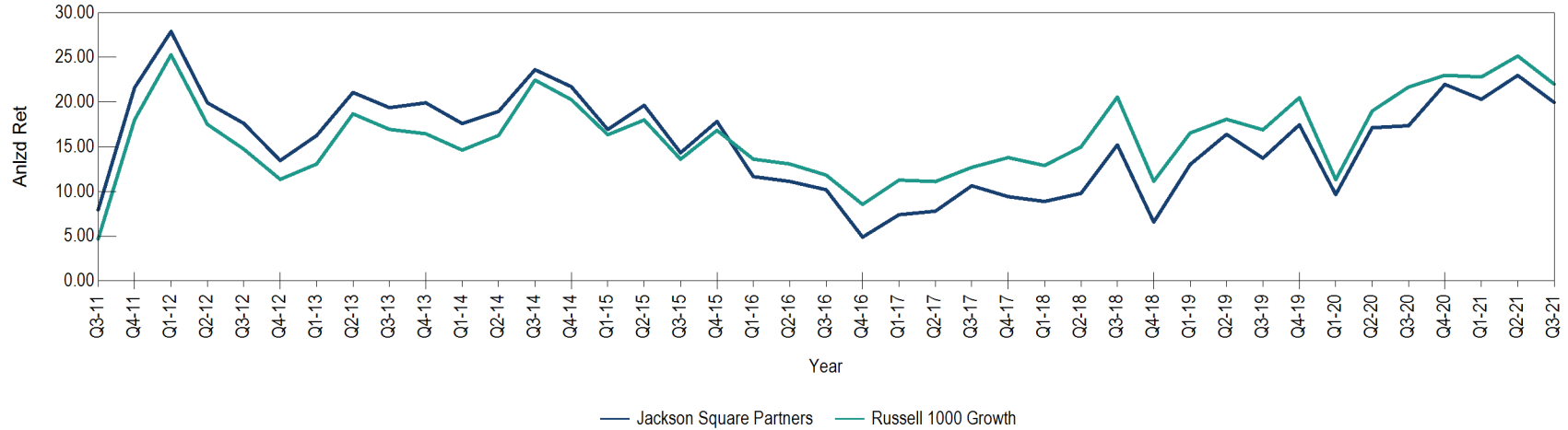
Unclassified sector allocation includes cash allocations.

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

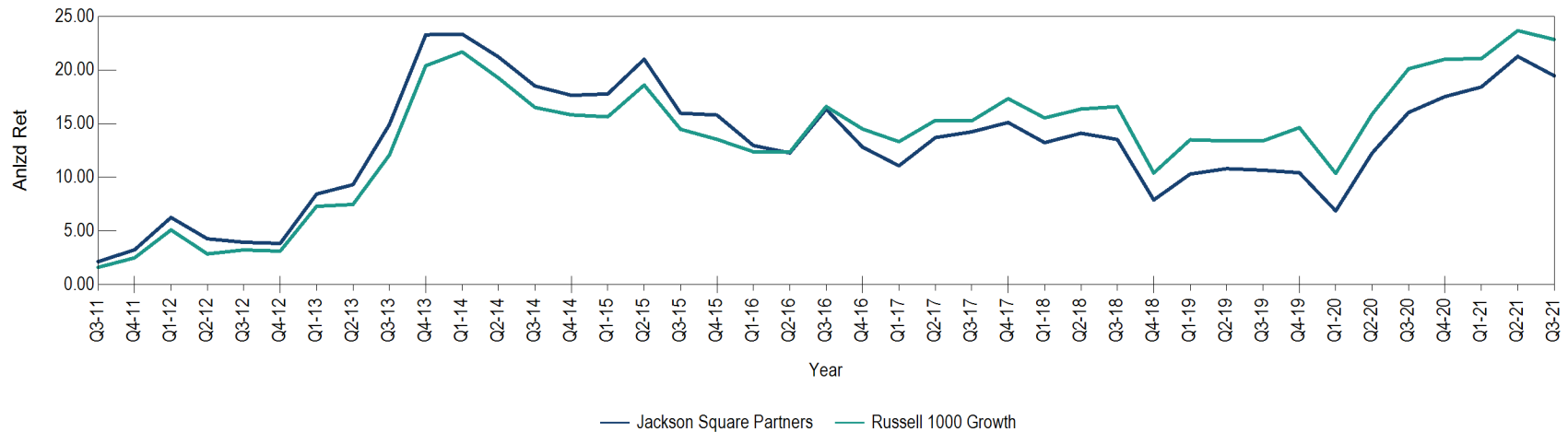


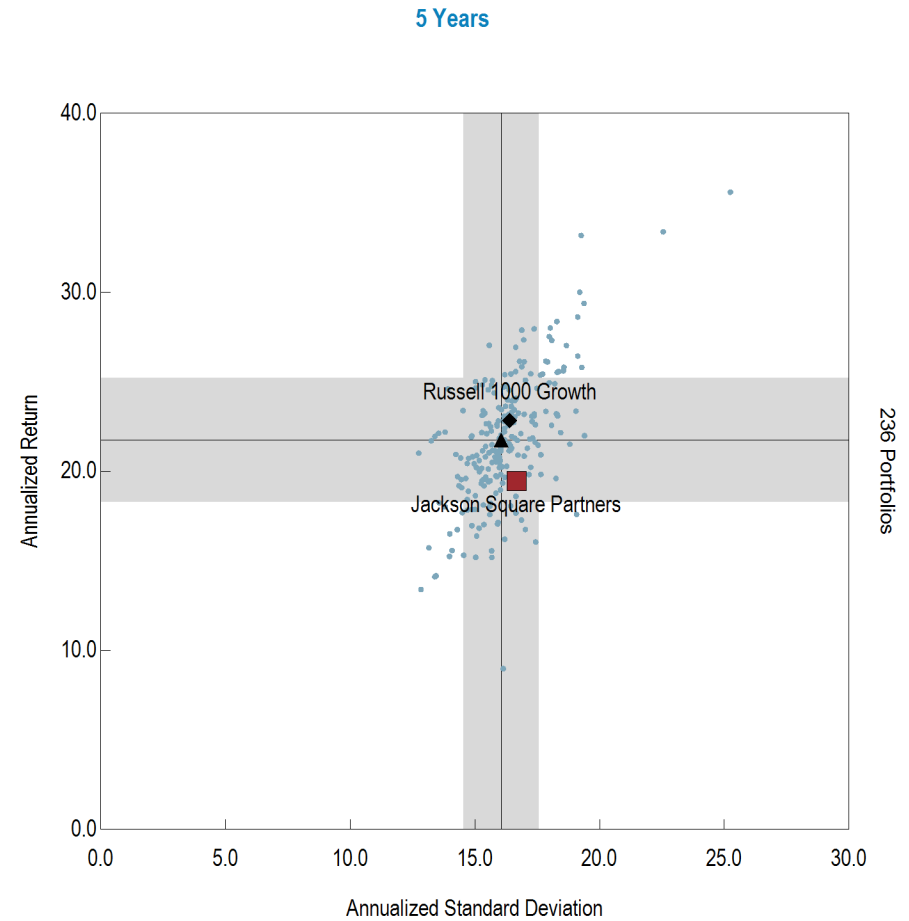
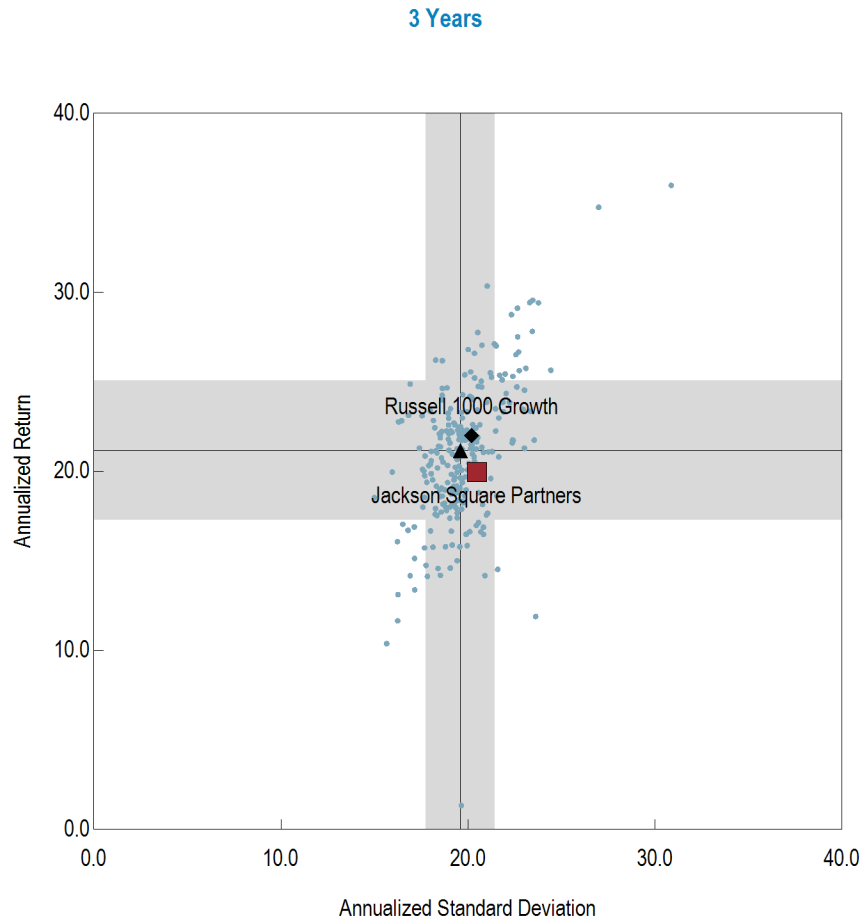
	Return (Rank)										
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	
5th Percentile	3.0	34.8	27.0	27.3	21.8	61.4	41.0	6.1	36.7	12.0	
25th Percentile	1.5	30.2	23.0	23.4	20.1	41.6	37.3	1.7	32.7	7.3	
Median	0.7	27.3	21.2	21.7	19.1	35.2	34.2	-0.6	28.8	4.6	
75th Percentile	-0.1	24.9	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			
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	
Jackson Square Partners	20.0%	20.5%	0.9	Jackson Square Partners	19.5%	16.7%	1.1
Russell 1000 Growth	22.0%	20.2%	1.0	Russell 1000 Growth	22.8%	16.4%	1.3
eV US Large Cap Growth Equity Gross Median	21.2%	19.6%	1.0	eV US Large Cap Growth Equity Gross Median	21.7%	16.1%	1.3

Boston Partners Manager Portfolio Overview

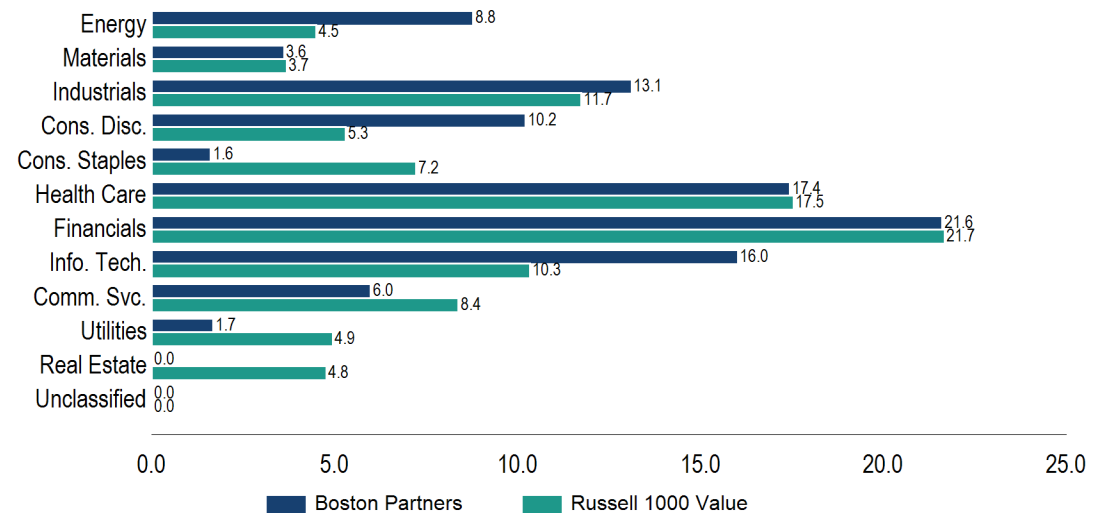
Period Ending: September 30, 2021

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

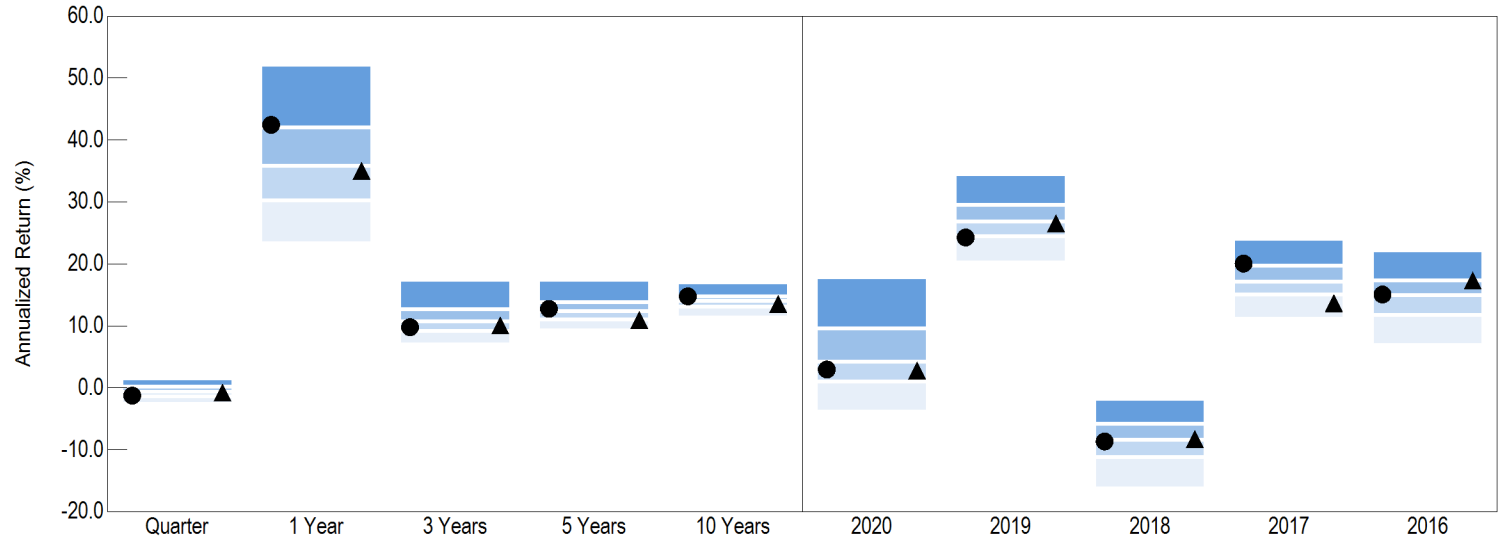
	Avg Wgt	Return	Contribution
AUTOZONE INC	0.69	13.79	0.10
CONOCOPHILLIPS	0.73	12.15	0.09
ALPHABET INC	0.70	9.49	0.07
AVANTOR INC	0.43	15.18	0.06
JPMORGAN CHASE & CO	1.03	5.85	0.06
CHUBB LTD	0.53	9.63	0.05
SONY GROUP CORPORATION	0.35	13.74	0.05
ORACLE CORP	0.37	12.34	0.05
PFIZER INC	0.38	10.83	0.04
AMERICAN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

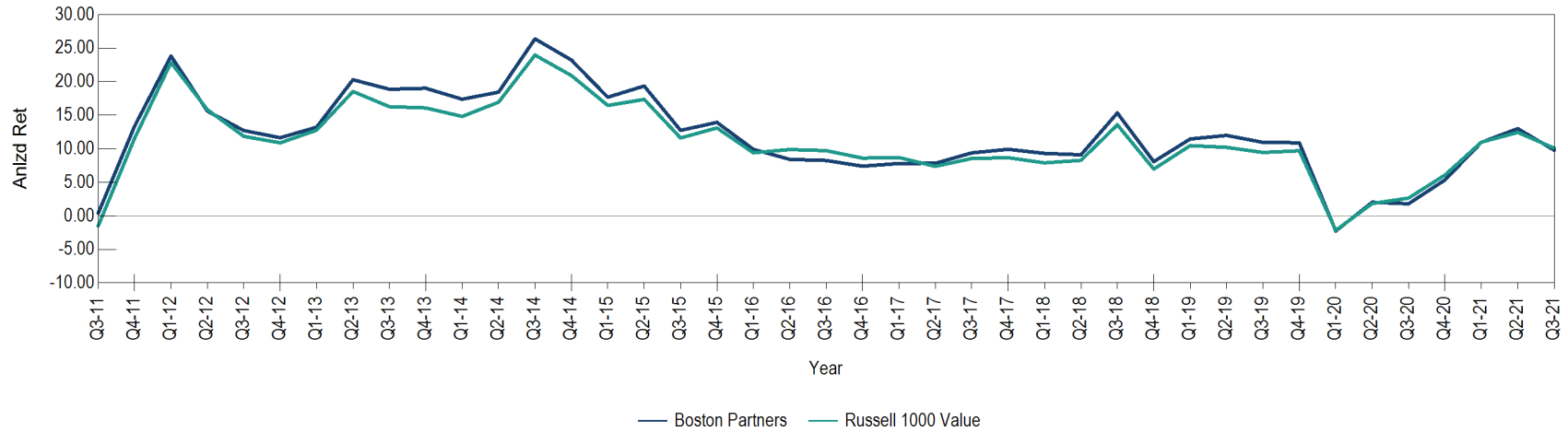


	Return (Rank)										
5th Percentile	1.5	52.1	17.4	17.4	17.0	17.8	34.4	-1.8	24.0	22.1	
25th Percentile	0.2	42.1	12.8	13.9	14.9	9.6	29.6	-5.8	19.8	17.4	
Median	-0.5	35.9	10.7	12.4	14.1	4.2	26.9	-8.3	17.2	15.0	
75th Percentile	-1.3	30.3	9.2	11.0	13.2	1.1	24.5	-11.1	15.1	11.8	
95th Percentile	-2.6	23.3	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)	

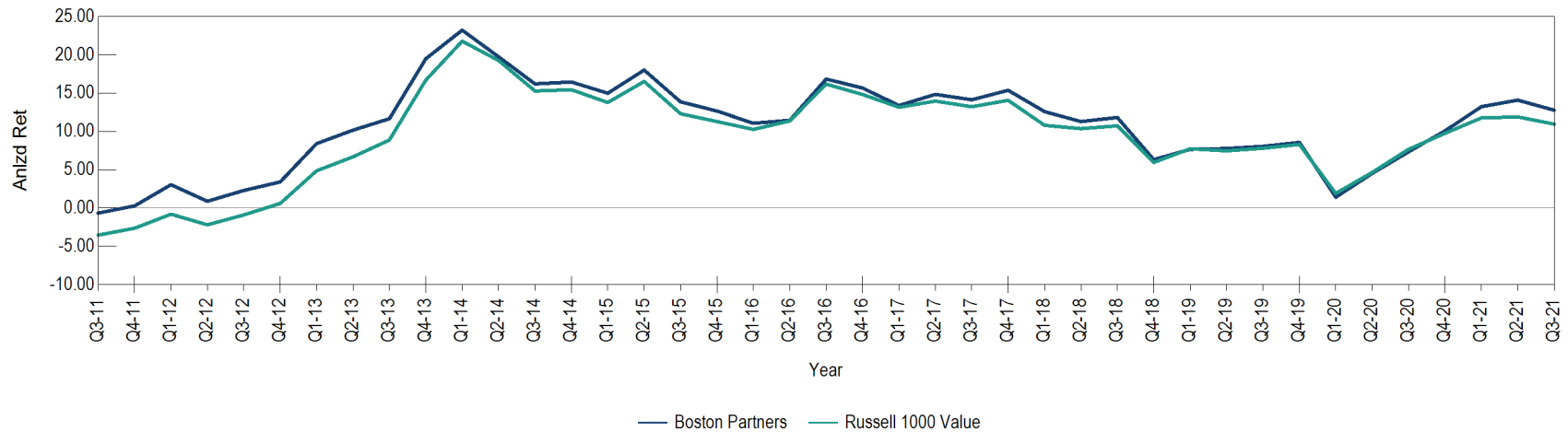
Boston Partners
 Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2021

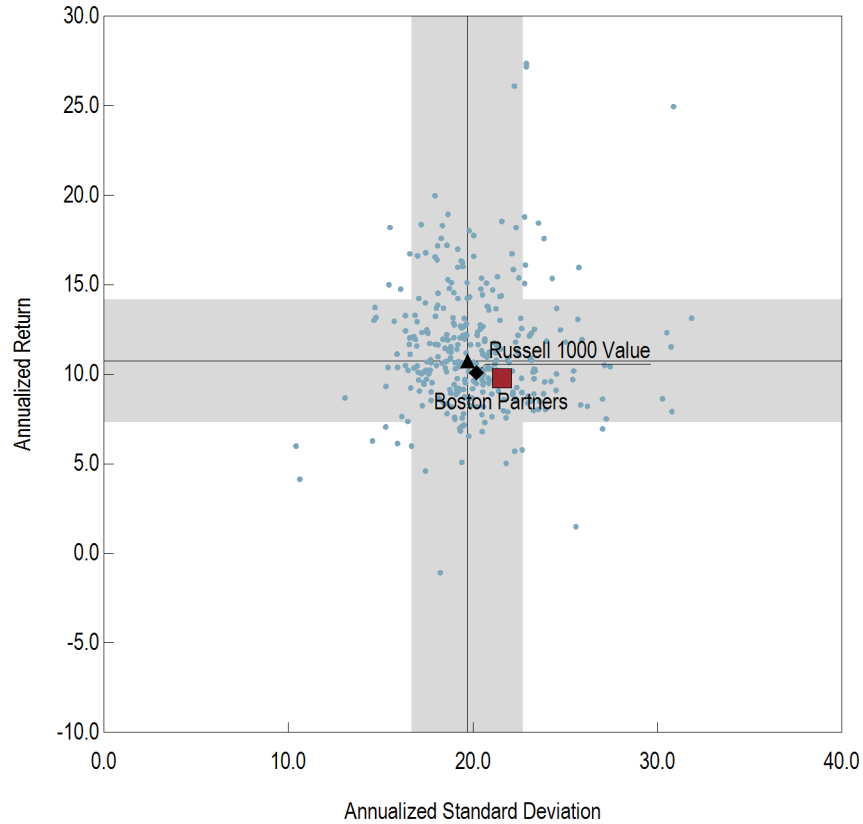
Rolling 3 Year Annualized Return (%)



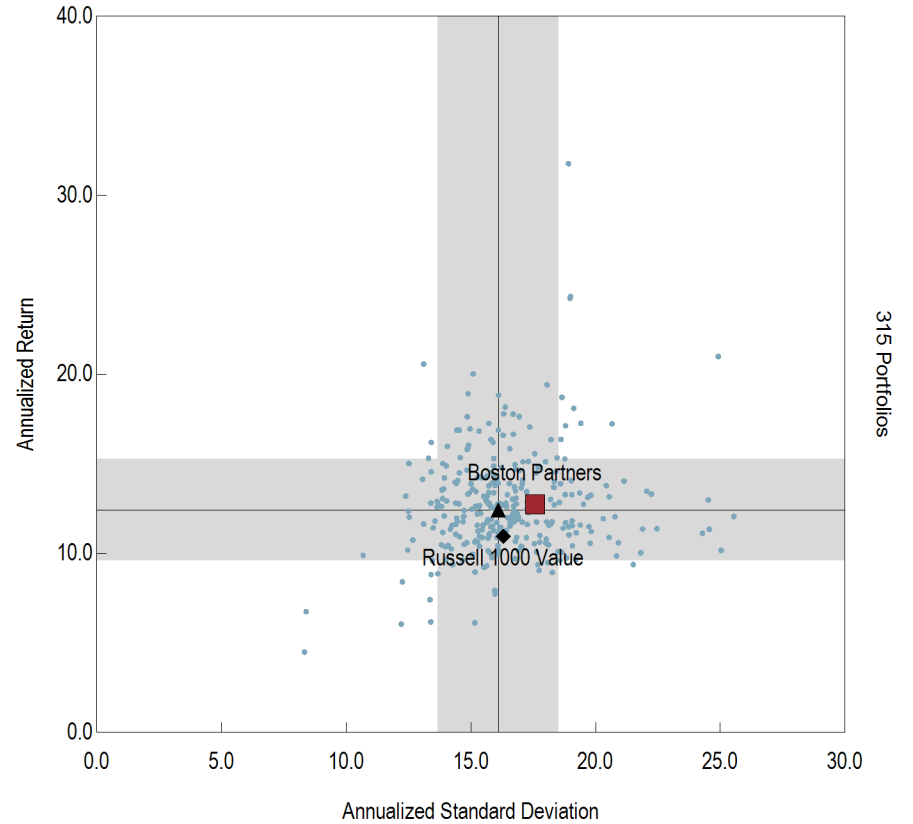
Rolling 5 Year Annualized Return (%)



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

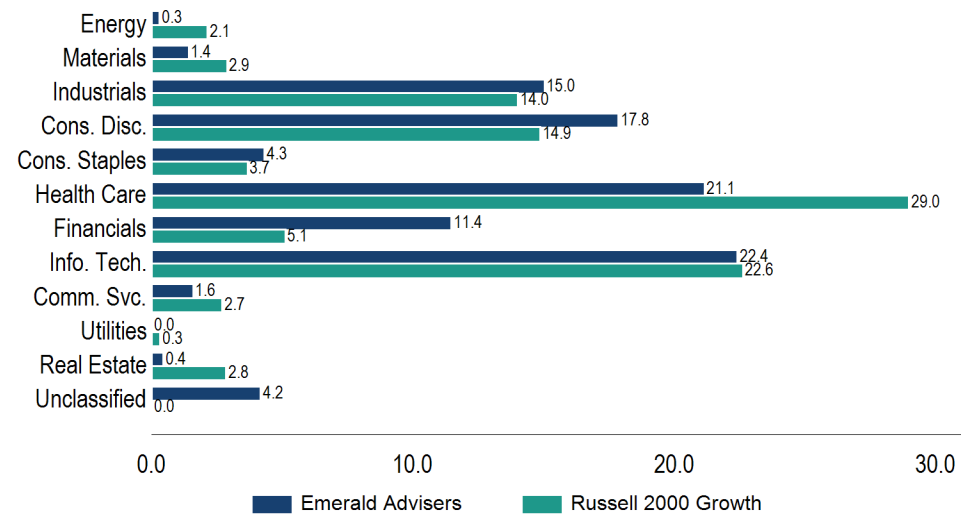
Period Ending: September 30, 2021

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

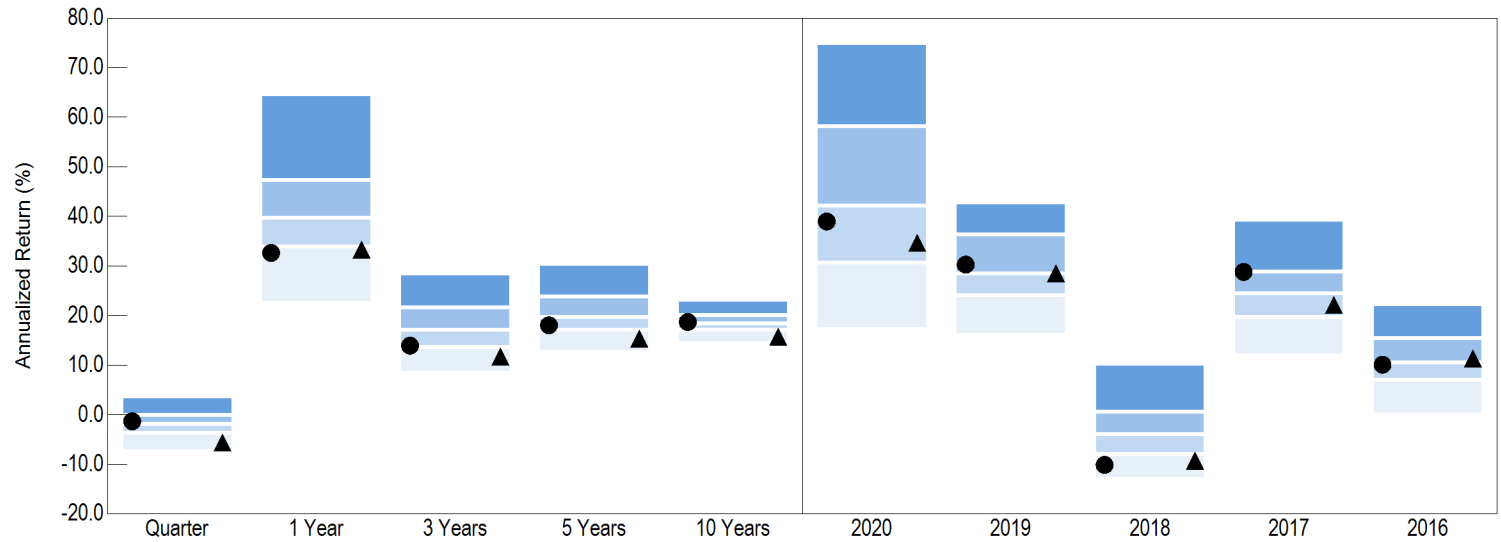
	Avg Wgt	Return	Contribution
CHART INDUSTRIES INC	0.67	30.61	0.21
PERFICIENT INC	0.46	43.87	0.20
RAPID7 INC	0.73	19.43	0.14
ECHO GLOBAL LOGISTICS INC	0.23	55.21	0.13
CHURCHILL DOWNS INC	0.52	21.09	0.11
TETRA TECH INC	0.49	22.55	0.11
TRINET GROUP INC	0.34	30.49	0.10
BRP GROUP INC	0.40	24.92	0.10
DICK'S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

Unclassified sector allocation includes cash allocations.

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

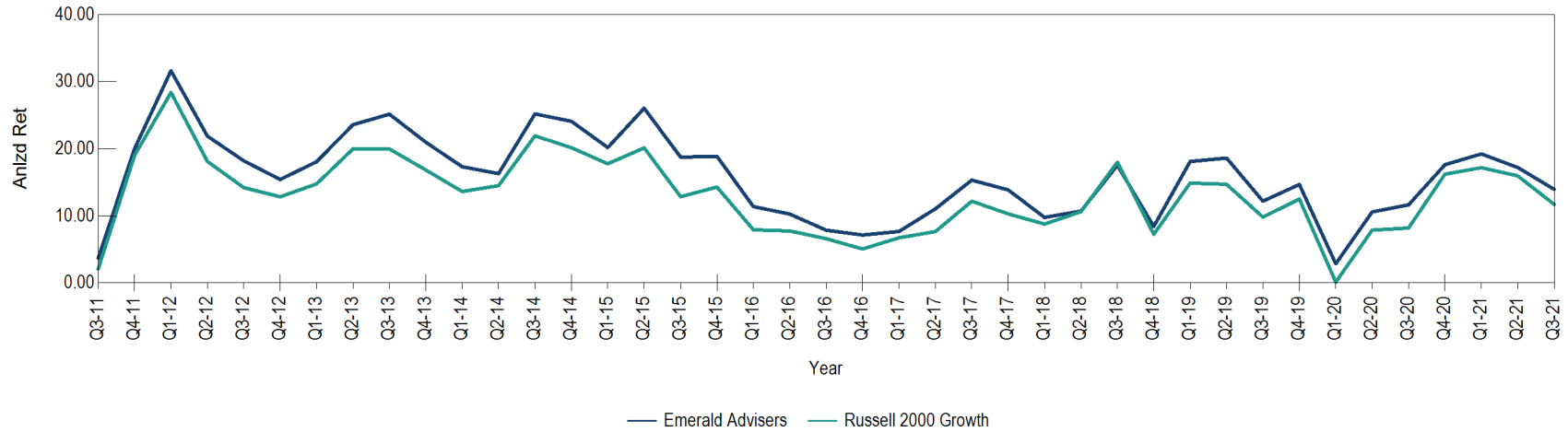


	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	3.7	64.6	28.4	30.3	23.1	75.0	42.8	10.2	39.2	22.2
25th Percentile	0.0	47.4	21.7	23.9	20.2	58.3	36.4	0.7	28.9	15.5
Median	-1.7	39.8	17.2	19.7	18.5	42.2	28.5	-3.9	24.6	10.6
75th Percentile	-3.6	34.0	13.8	17.2	17.2	30.8	24.2	-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)

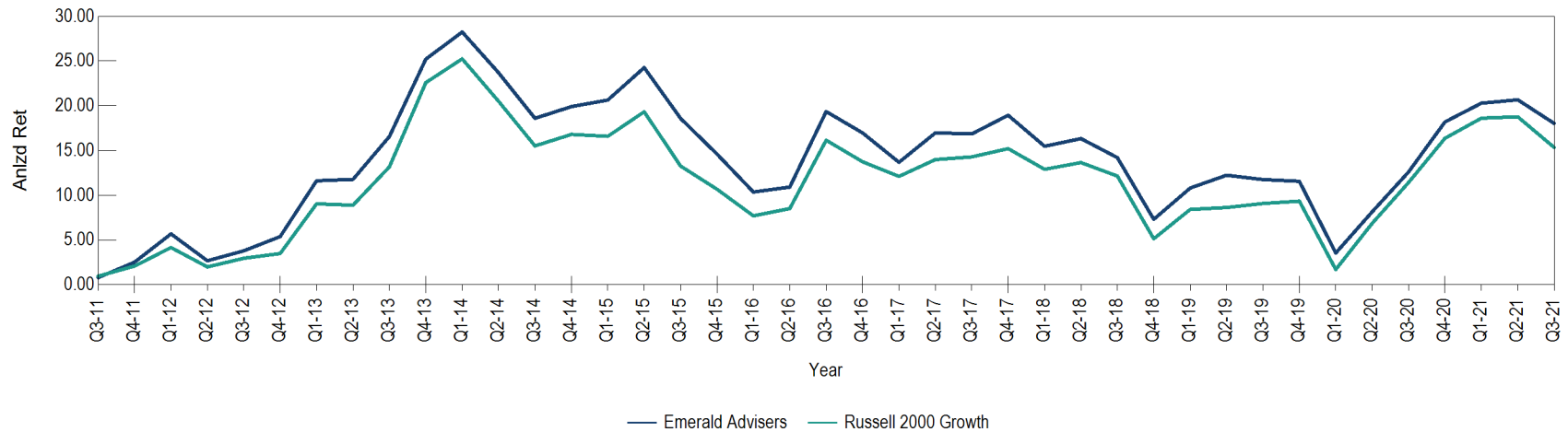
Emerald Advisers
Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

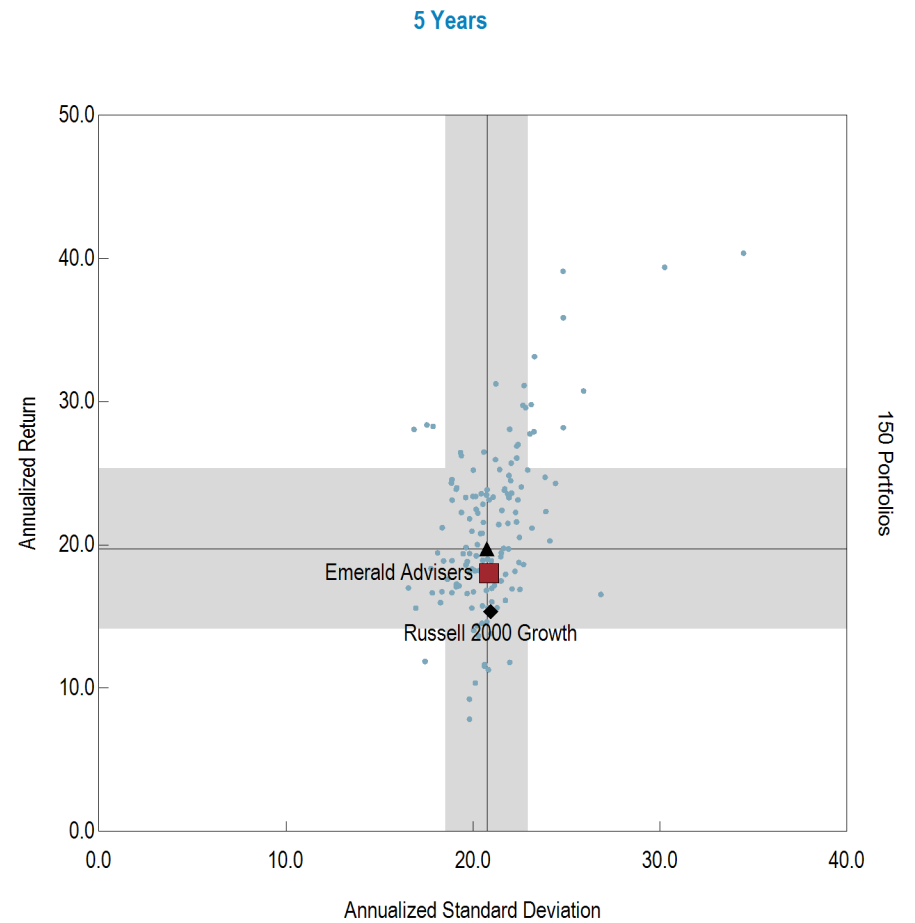
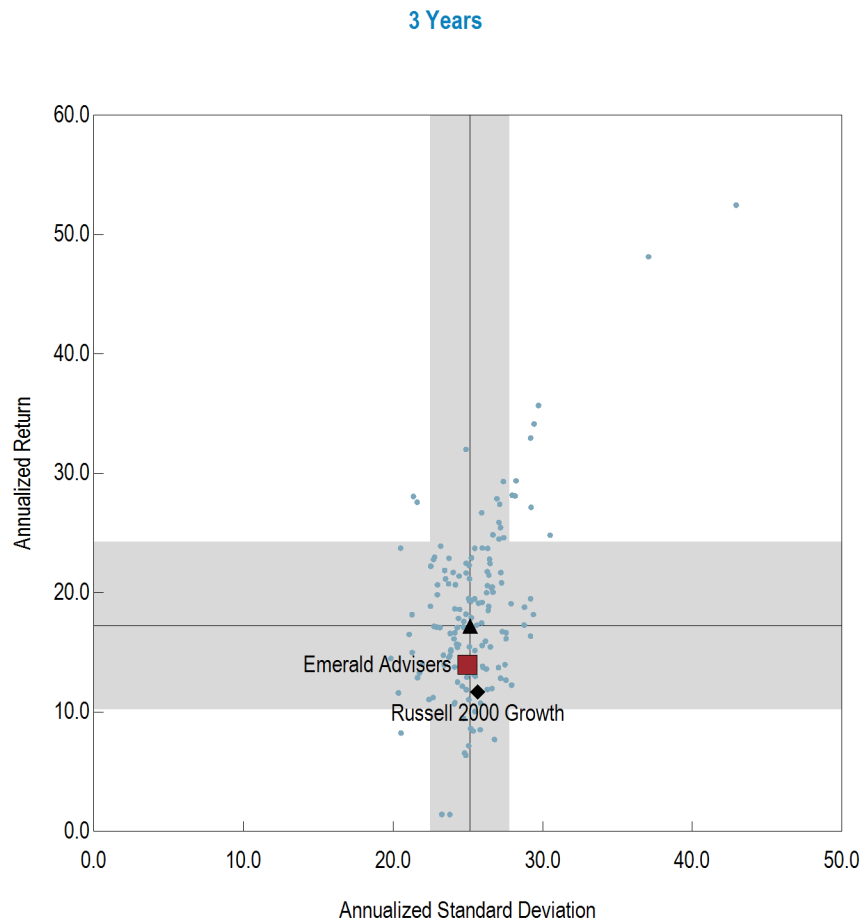
Period Ending: September 30, 2021

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)





3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Emerald Advisers	13.9%	25.0%	0.5
Russell 2000 Growth	11.7%	25.7%	0.4
eV US Small Cap Growth Equity Gross Median	17.2%	25.1%	0.7

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Emerald Advisers	18.0%	20.9%	0.8
Russell 2000 Growth	15.3%	21.0%	0.7
eV US Small Cap Growth Equity Gross Median	19.7%	20.8%	0.9

Ceredex Manager Portfolio Overview

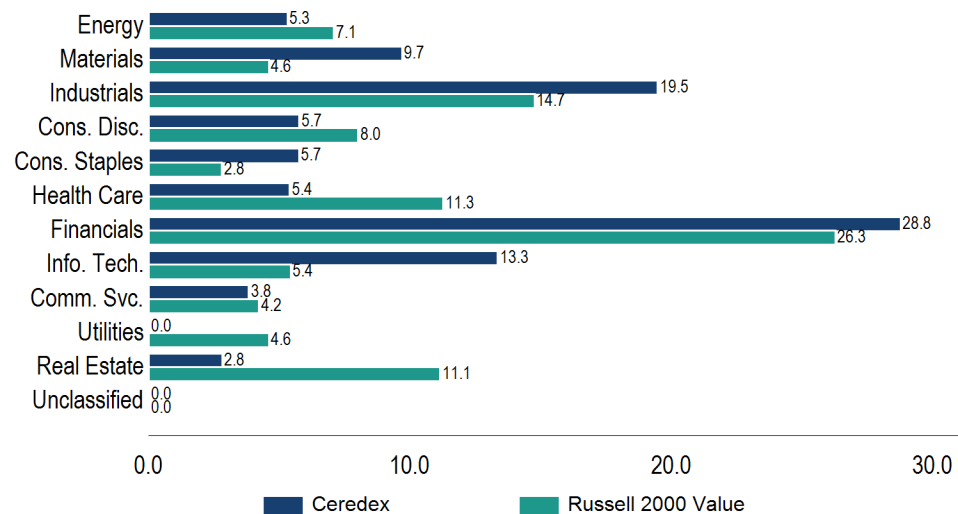
Period Ending: September 30, 2021

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

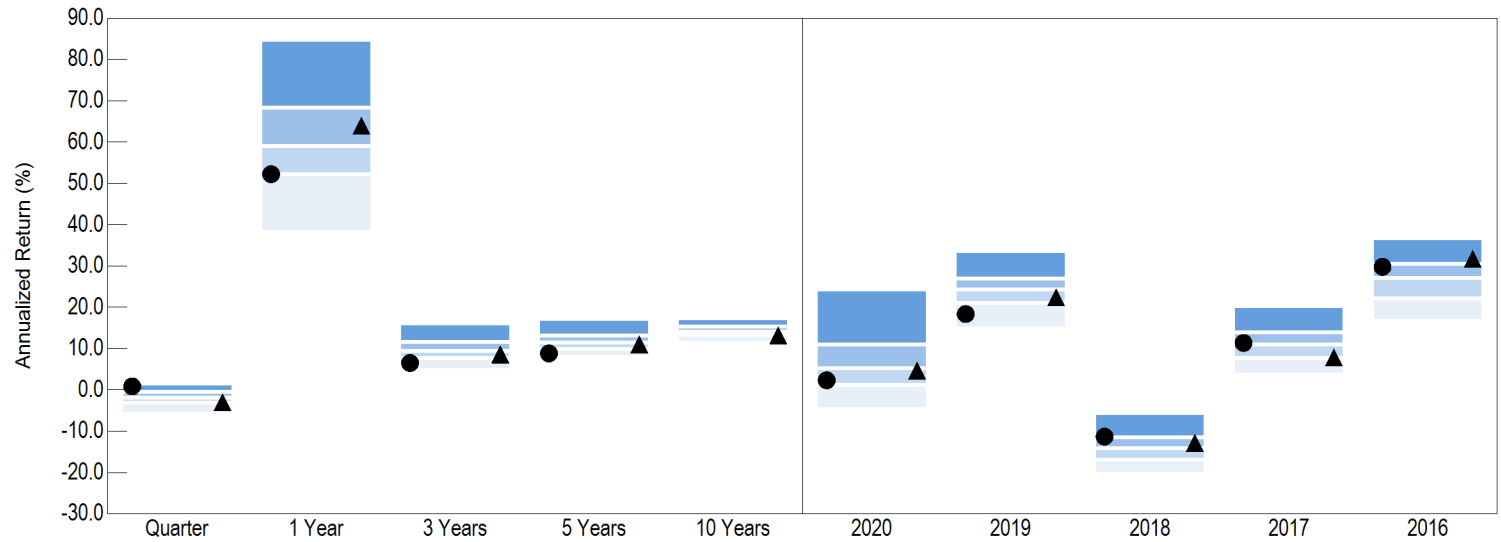
	Avg Wgt	Return	Contribution
ALEXANDER & BALDWIN INC	0.47	28.98	0.14
HILL-ROM HOLDINGS INC	0.35	32.26	0.11
POWER INTEGRATIONS INC	0.47	20.77	0.10
INTERPUBLIC GROUP OF COS INC (THE)	0.63	13.70	0.09
ZIONS BANCORPORATION NA	0.48	17.88	0.09
PENSKE AUTOMOTIVE GROUP INC	0.24	33.95	0.08
LITTELFUSE INC	0.98	7.46	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

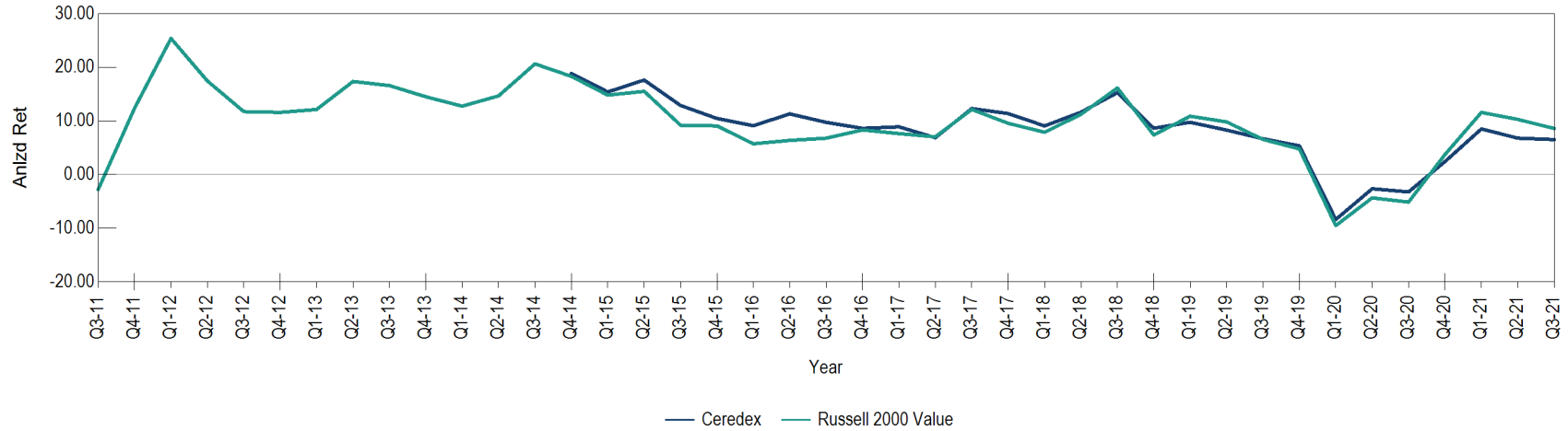
Unclassified sector allocation includes cash allocations.

Ceredex vs. eV US Small Cap Value Equity Gross Universe

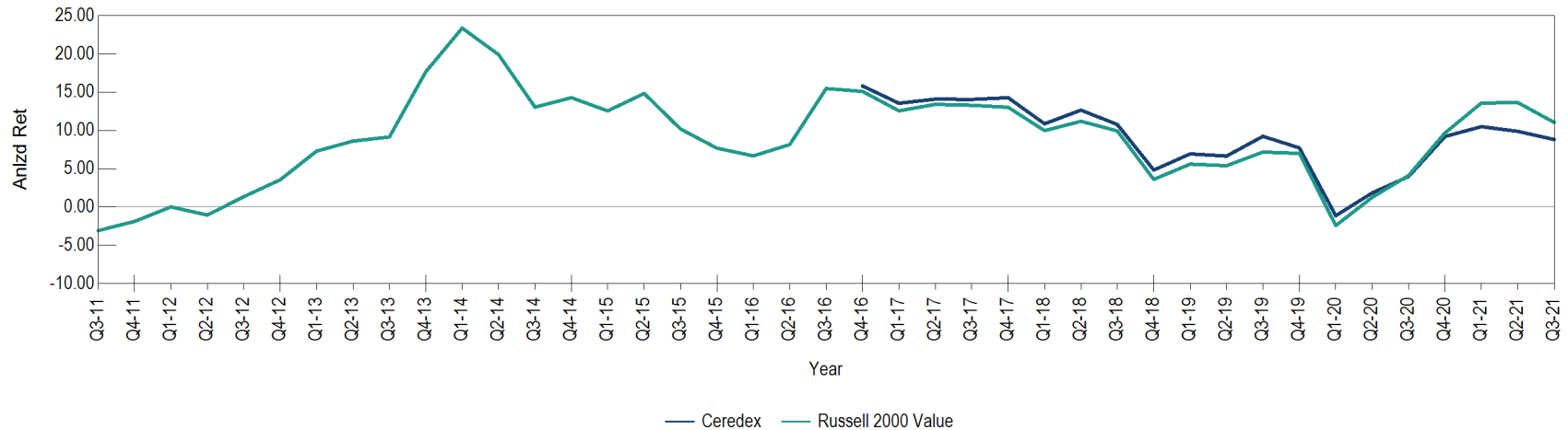


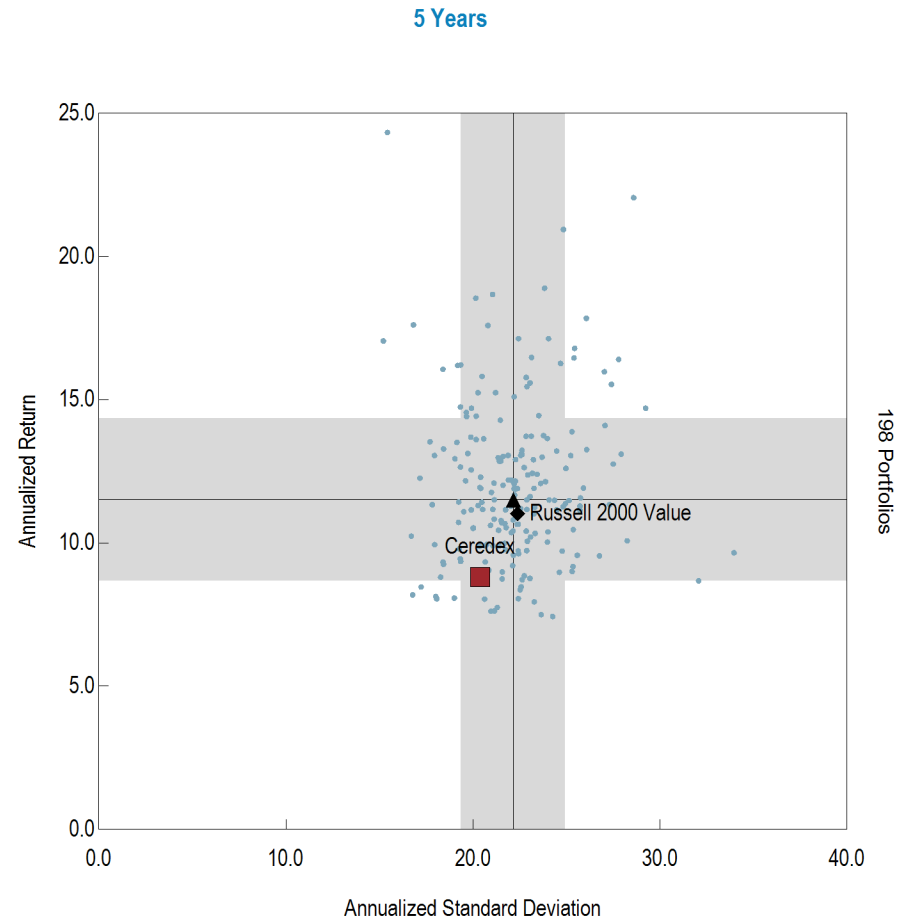
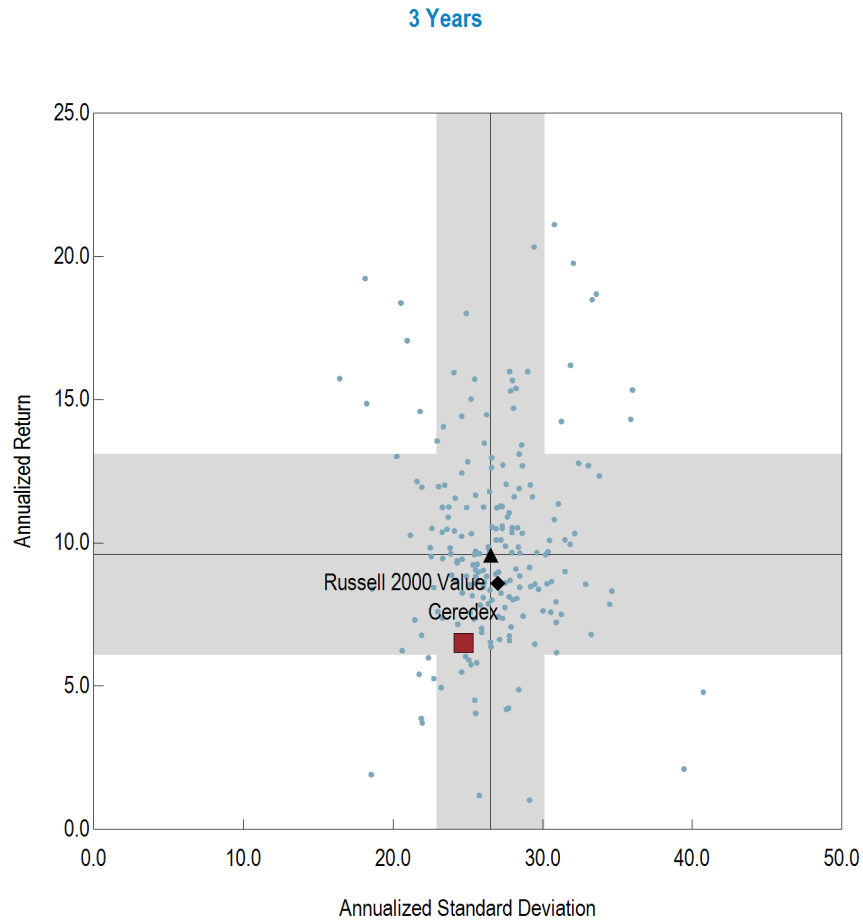
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	1.5	84.6	16.0	17.1	17.2	24.2	33.6	-5.7	20.2	36.7
25th Percentile	-0.4	68.3	11.6	13.2	15.4	11.1	27.0	-11.4	14.1	30.7
Median	-1.7	59.1	9.6	11.5	14.2	5.3	24.4	-14.0	11.1	27.2
75th Percentile	-3.0	52.3	7.9	10.0	13.3	1.3	21.2	-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		
	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.

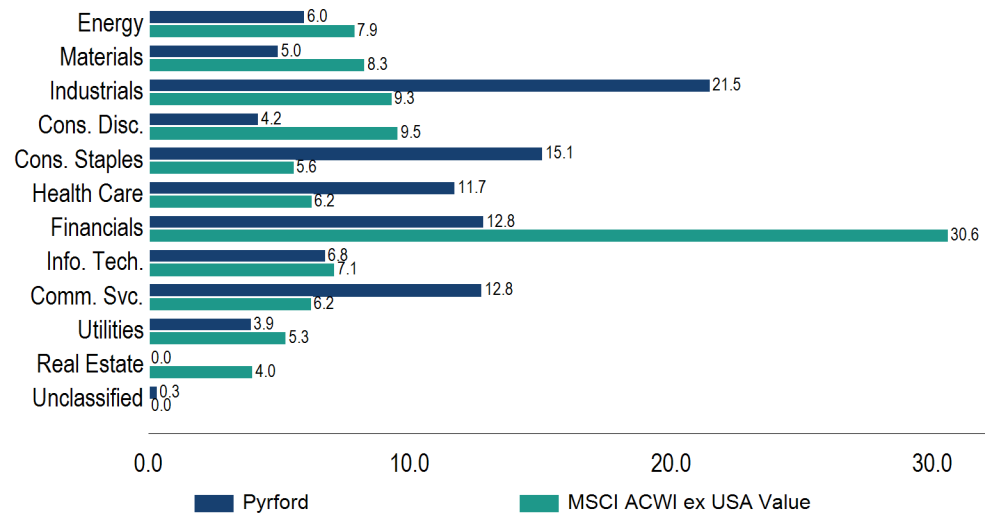
Characteristics

	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



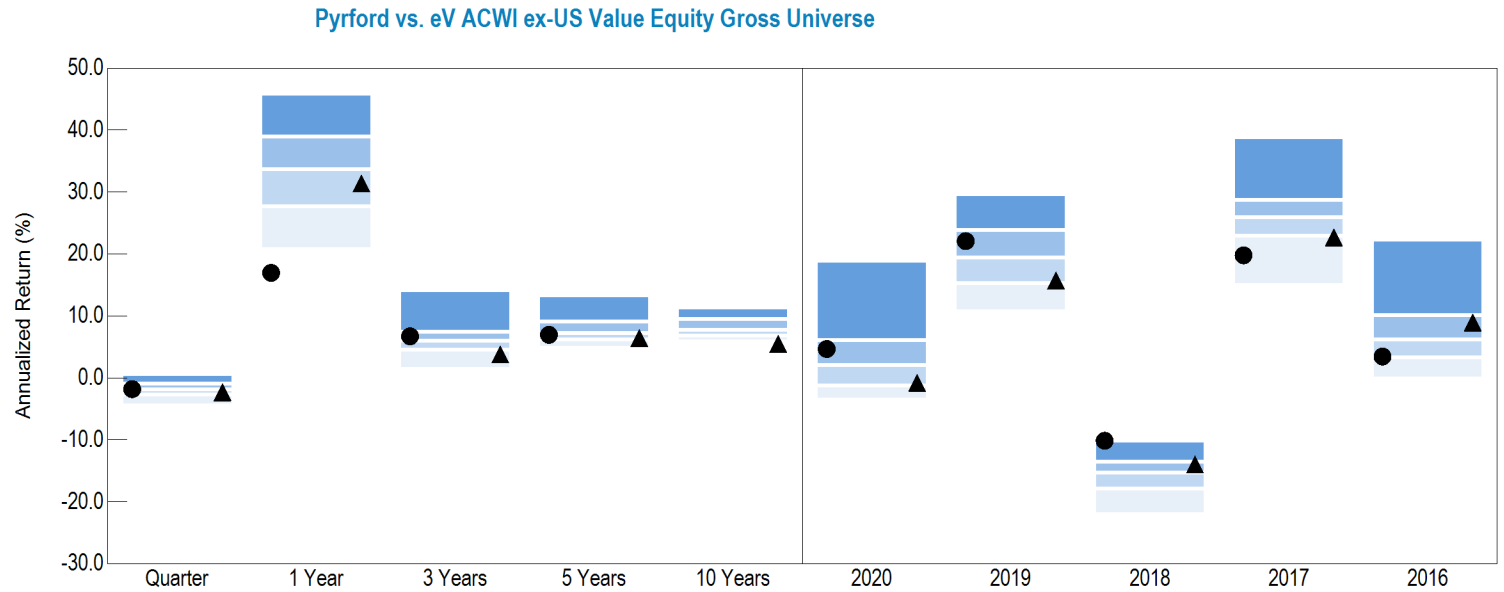
Top Contributors

	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

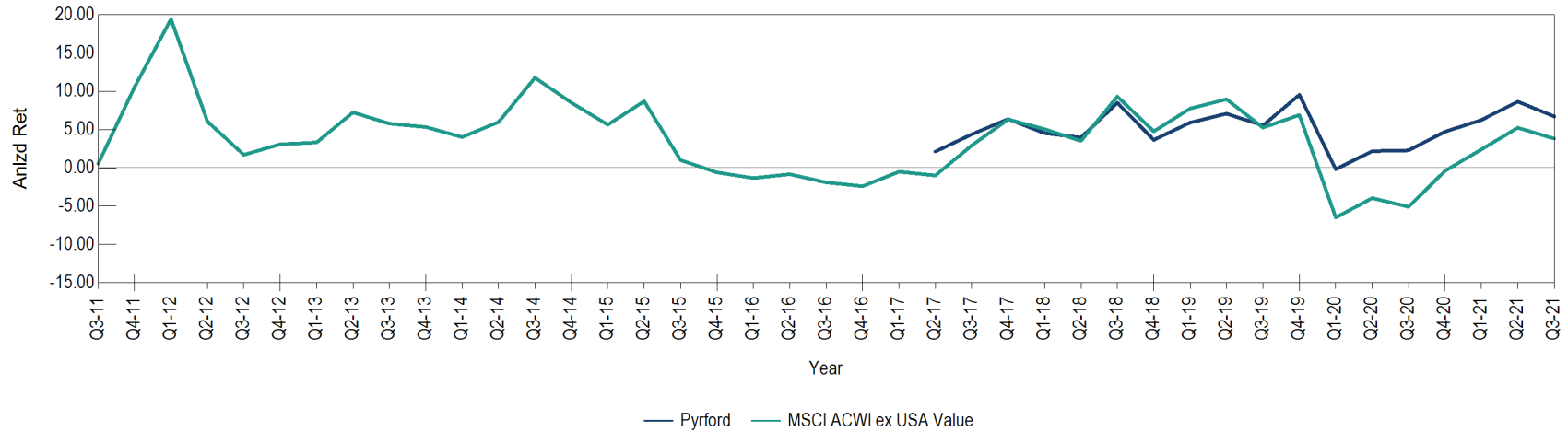
	Avg Wgt	Return	Contribution
VTECH HOLDINGS LTD	1.14	-25.34	-0.29
RUBIS SA, PARIS	1.09	-22.06	-0.24
NOVARTIS AG	2.25	-9.72	-0.22
RIO TINTO GROUP	1.01	-18.74	-0.19
BRAMBLES LTD	2.20	-7.99	-0.18
KONINKLIJKE VOPAK NV	1.28	-13.22	-0.17
DEUTSCHE POST AG	2.16	-7.15	-0.15
L'AIR LIQUIDE SA	1.85	-8.26	-0.15
SANOFI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

Unclassified sector allocation includes cash allocations.

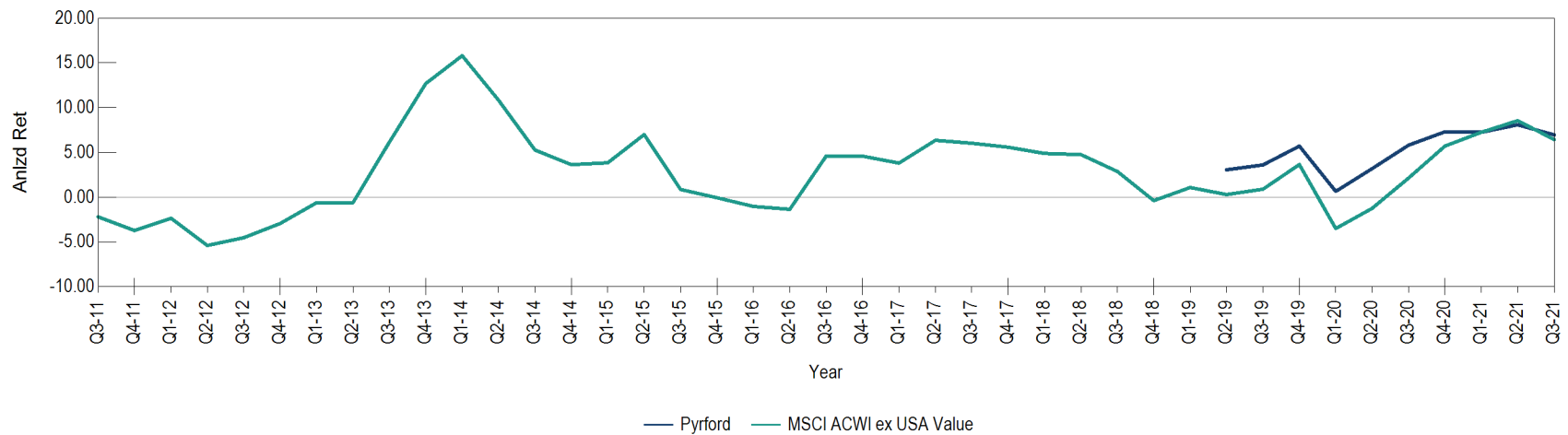


	Return (Rank)									
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	0.6	45.8	14.1	13.3	11.3	18.8	29.6	-10.2	38.8	22.3
25th Percentile	-0.9	39.0	7.5	9.1	9.6	6.2	24.0	-13.4	28.8	10.2
Median	-1.8	33.7	6.0	7.3	7.8	2.1	19.5	-15.2	26.0	6.2
75th Percentile	-2.7	27.7	4.6	6.3	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)

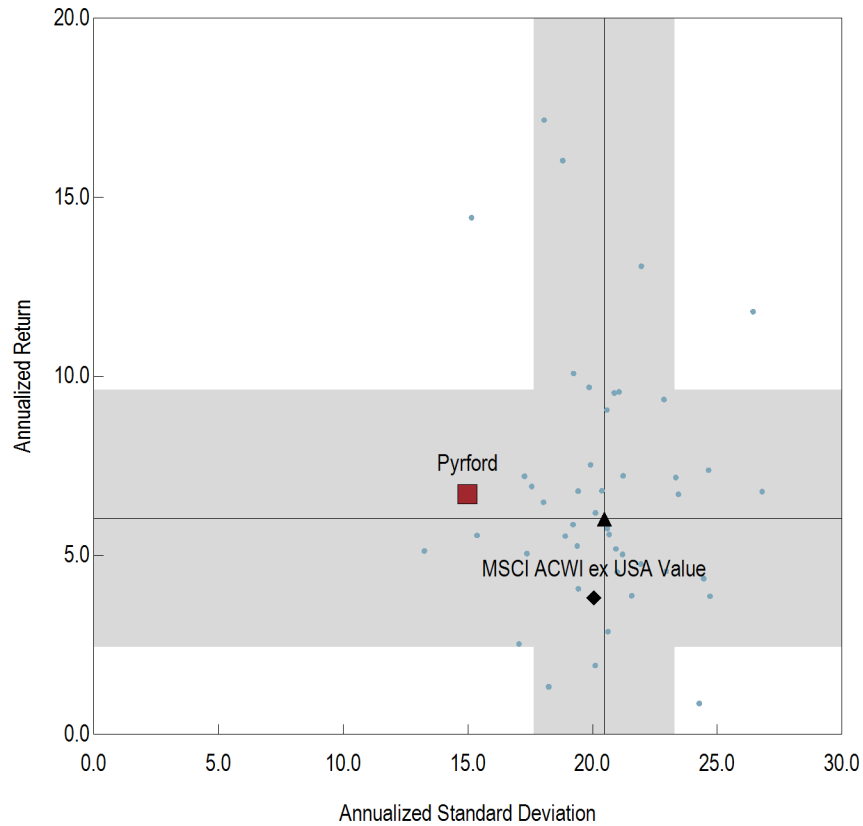
Rolling 3 Year Annualized Return (%)



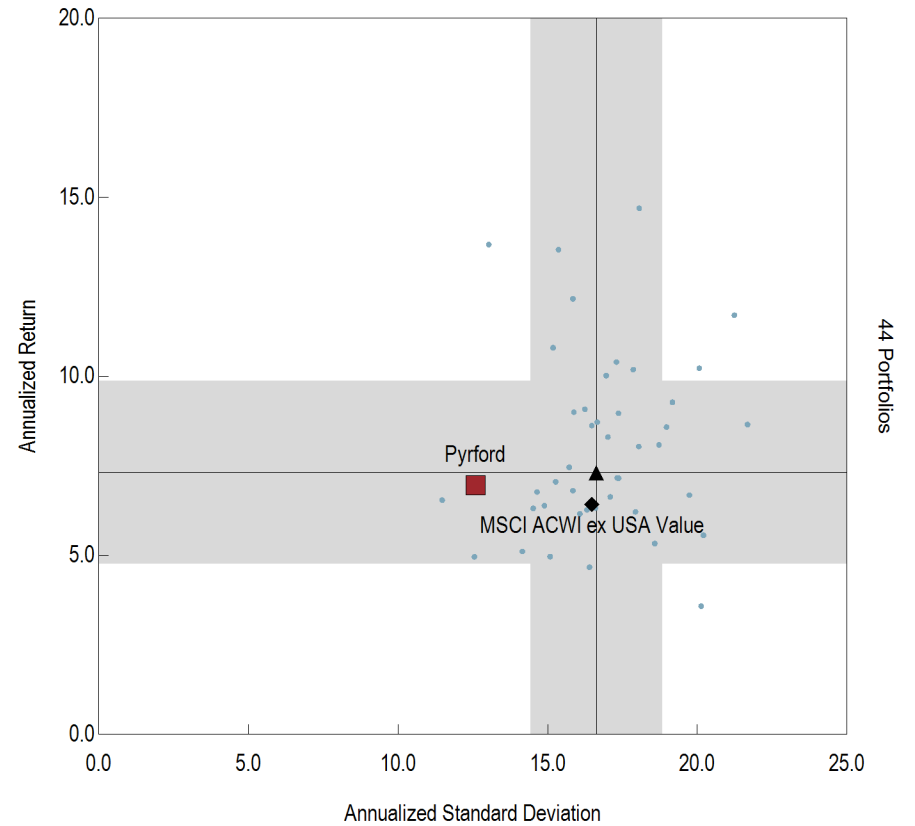
Rolling 5 Year Annualized Return (%)



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.

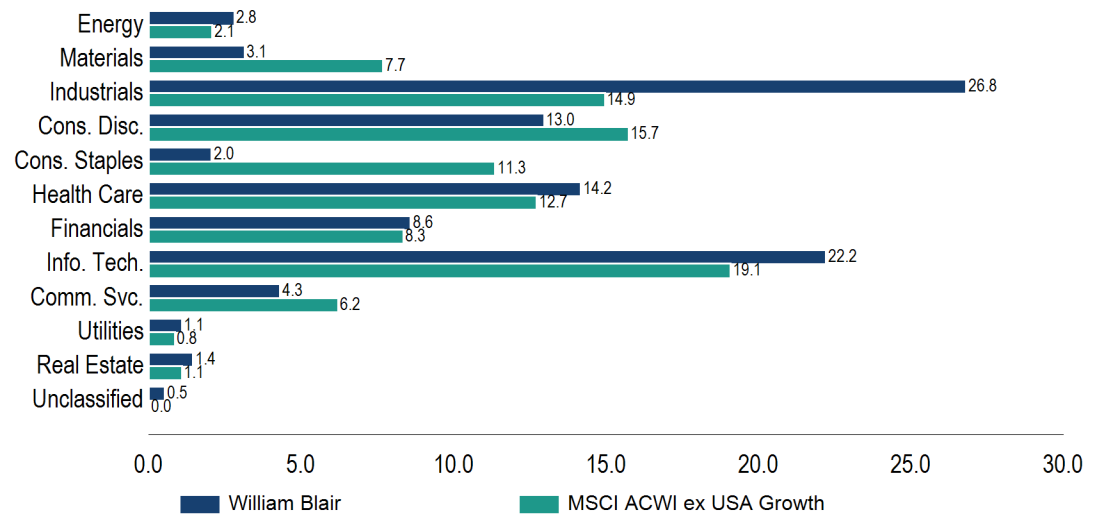
Characteristics

	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

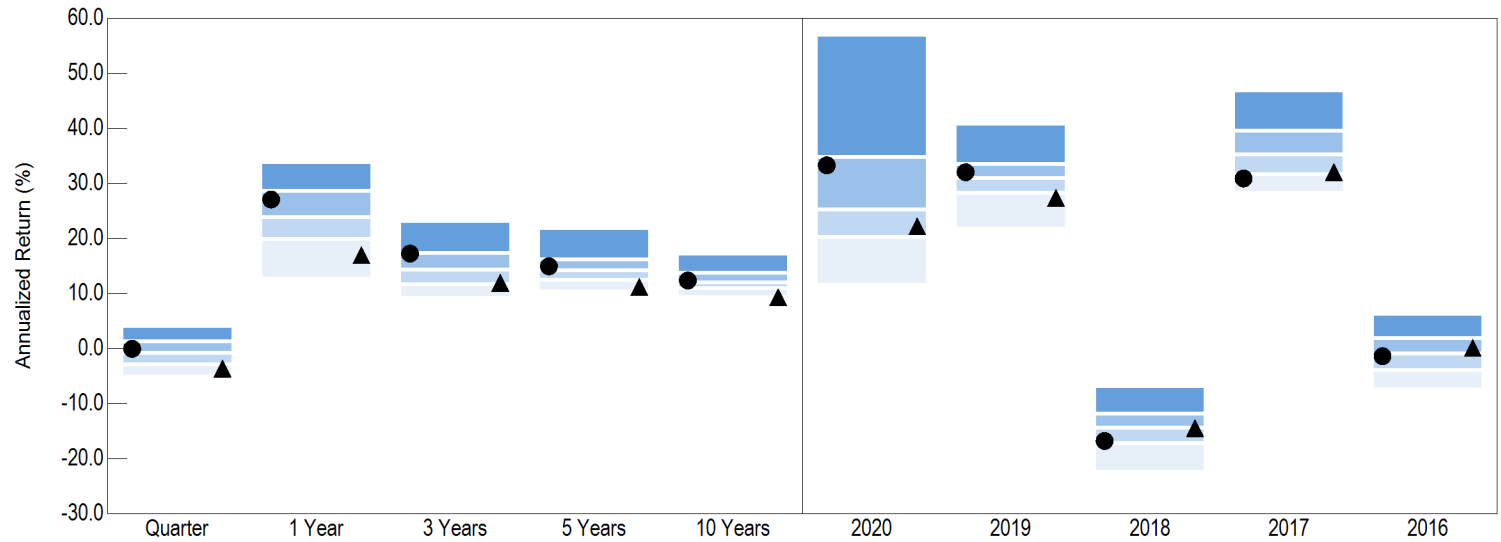
	Avg Wgt	Return	Contribution
ATLISSIAN CORP PLC	0.64	52.39	0.33
RELIANCE INDUSTRIES LTD	1.40	19.62	0.28
KEYENCE CORP	1.03	19.05	0.20
ICON PLC	0.71	26.76	0.19
PT BANK CENTRAL ASIA TBK	1.03	18.20	0.19
OMRON CORP	0.70	25.83	0.18
ASML HOLDING NV	1.98	8.97	0.18
DAIKIN INDUSTRIES LTD	0.88	18.06	0.16
ADYEN N.V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

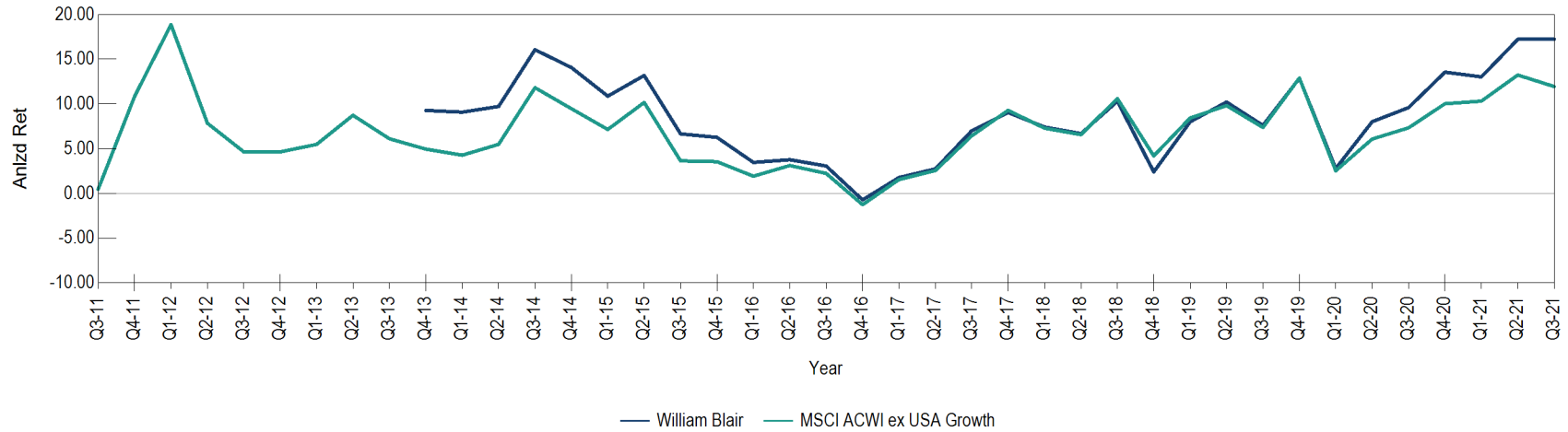


	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	4.1	33.8	23.1	21.9	17.2	57.0	40.8	-6.8	46.8	6.3
25th Percentile	1.4	28.7	17.4	16.3	13.8	34.8	33.6	-11.7	39.6	2.0
Median	-0.7	23.9	14.4	14.3	12.1	25.4	31.0	-14.3	35.3	-0.9
75th Percentile	-2.8	19.9	11.8	12.5	11.0	20.3	28.3	-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)

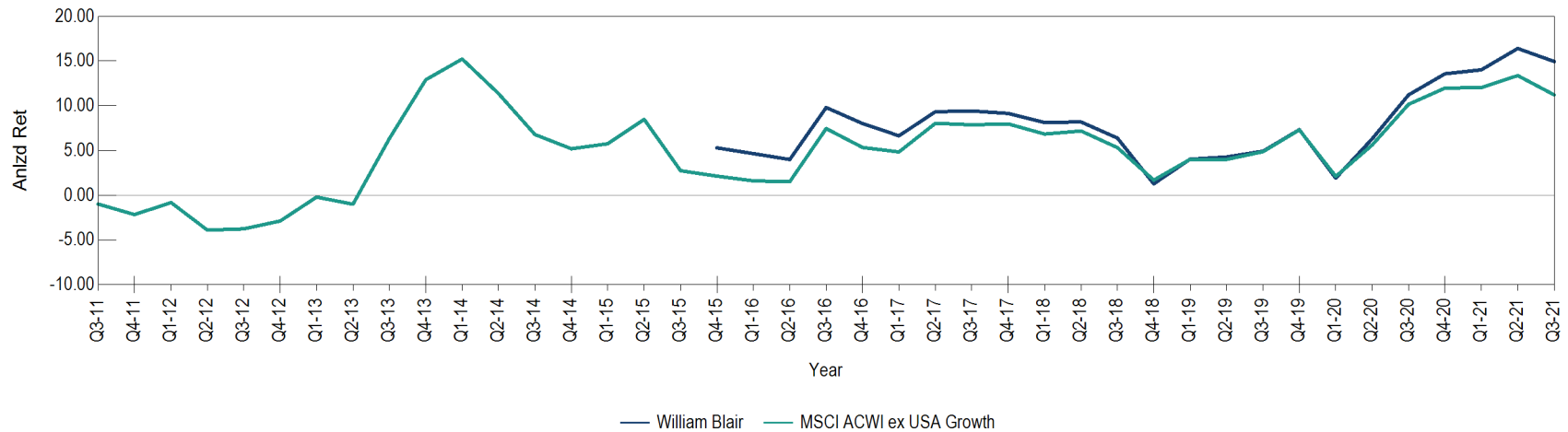
William Blair
 Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2021

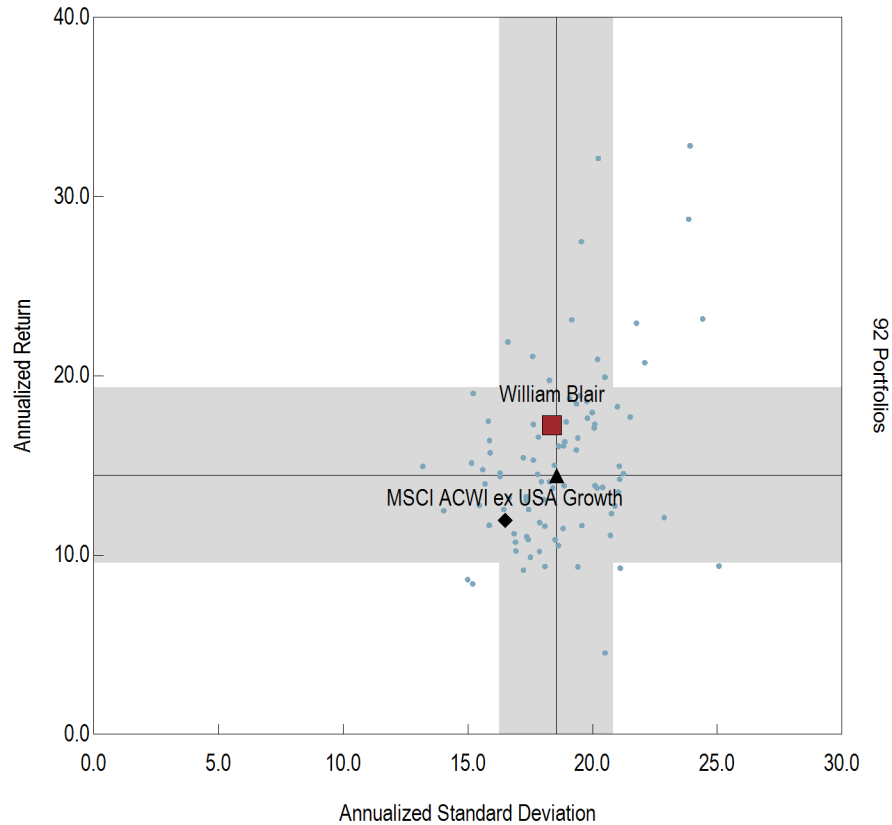
Rolling 3 Year Annualized Return (%)



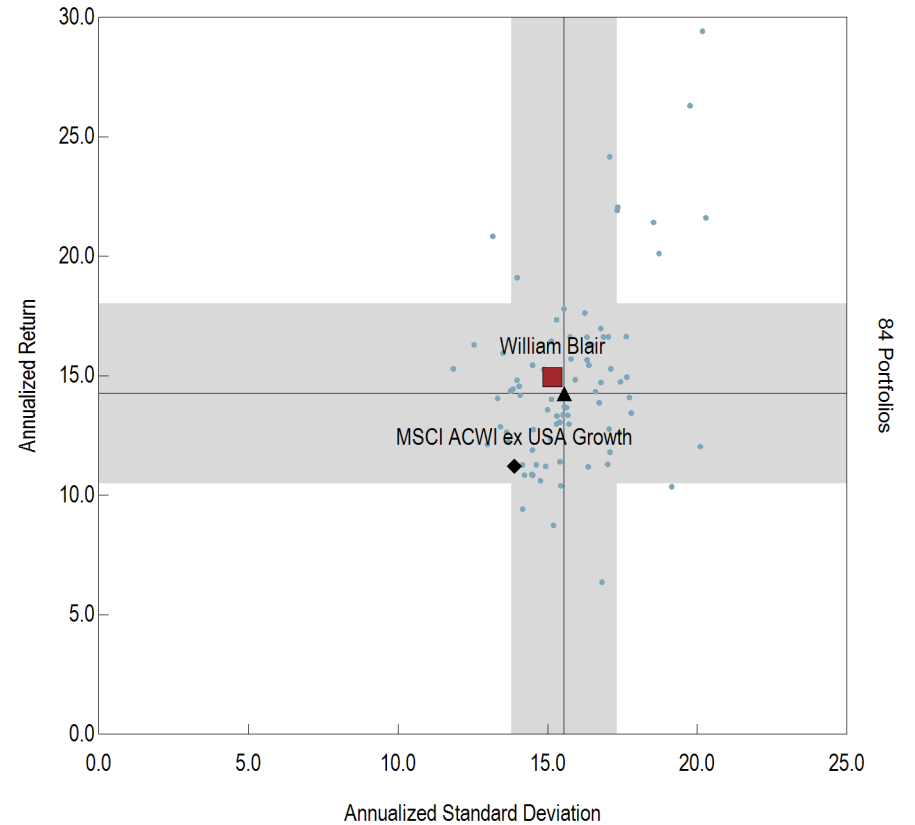
Rolling 5 Year Annualized Return (%)



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.

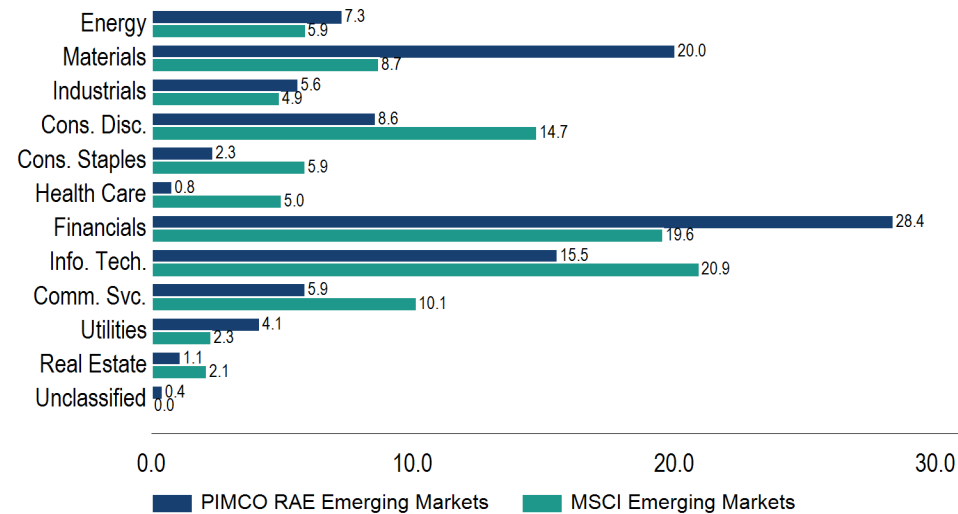
Characteristics

	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

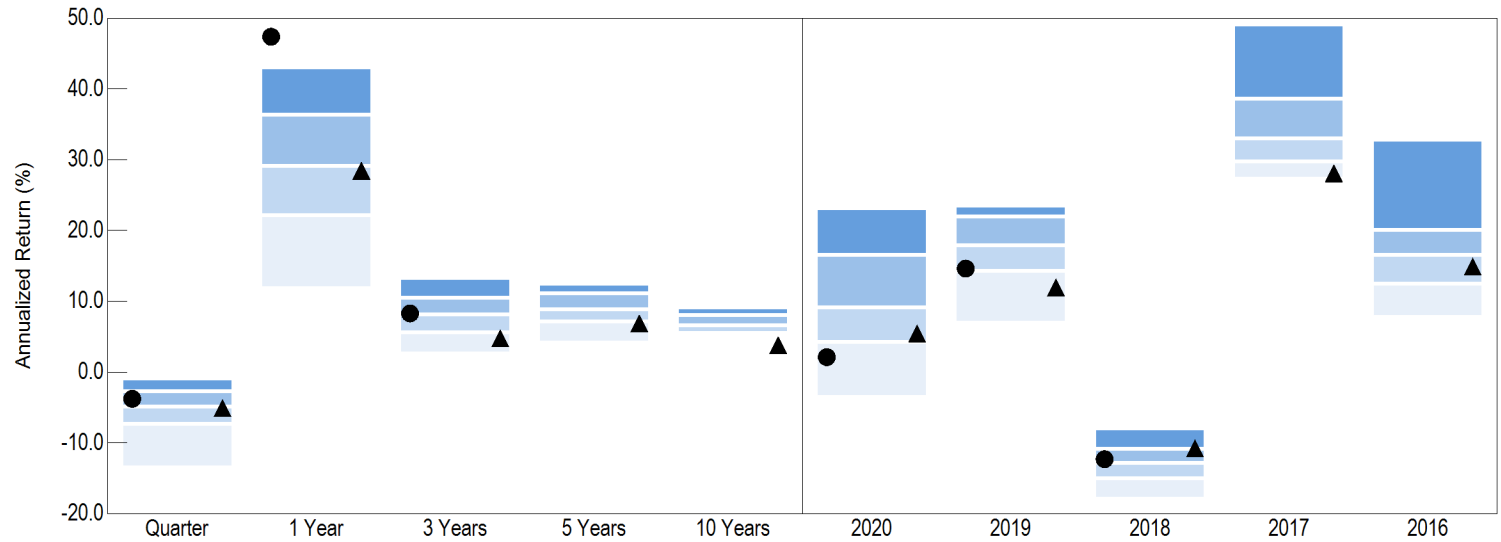
	End Weight	Return	Contribution
BANCO BRADESCO SA BRAD	2.00	-23.31	-0.47
BANCO DO BRASIL ON	2.33	-15.31	-0.36
LG ELECTRONICS INC	1.13	-25.41	-0.29
CEMEX SAB DE CV	1.86	-13.98	-0.26
ITAU UNIBANCO HOLDING PN	2.66	-9.75	-0.26
KIA CORPORATION	1.66	-13.31	-0.22
VALE SA	0.63	-31.25	-0.20
AU OPTRONICS	0.90	-21.87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

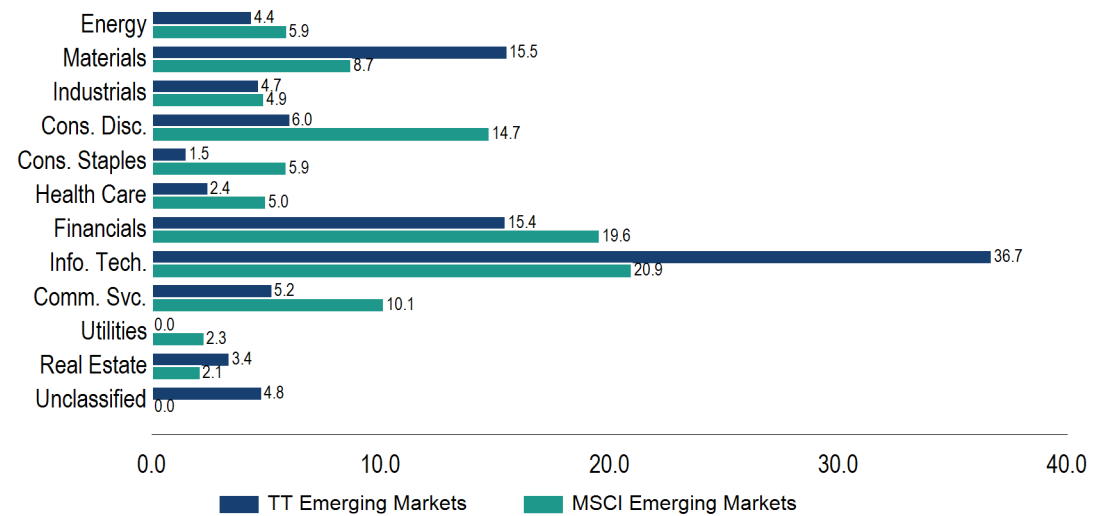
Characteristics

	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

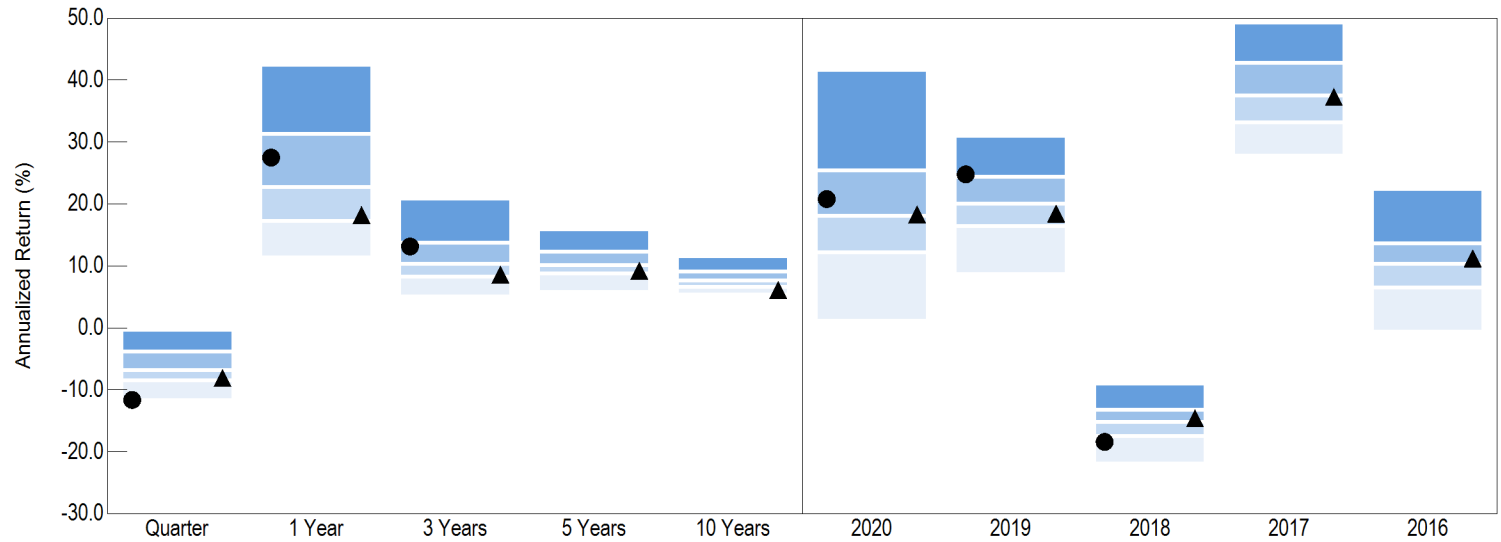
	End Weight	Return	Contribution
BEIJING JINGYUNTONG TECHNOLOGY CO LTD	1.72	22.85	0.39
OCI NV	1.63	21.57	0.35
GAZPROM	0.99	35.11	0.35
GAZPROM PJSC	0.86	34.85	0.30
ICICI BANK	2.43	11.65	0.28
SINOMA SCIENCE & TECHNOLOGY CO LTD	0.70	35.54	0.25
OIL & NATURAL GAS CORP LTD	0.95	24.95	0.24
HANSOL CHEMICAL	0.68	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

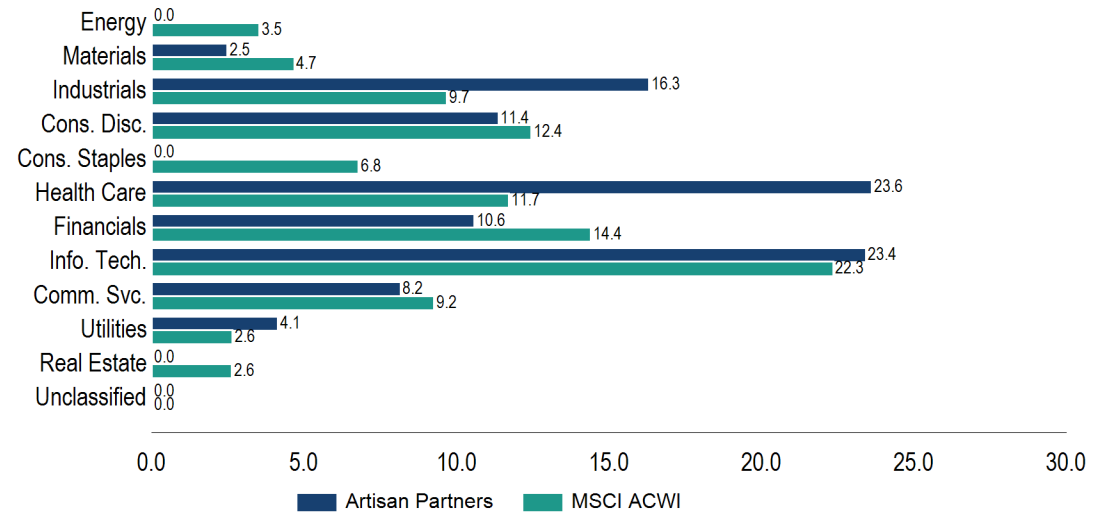
Period Ending: September 30, 2021

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%

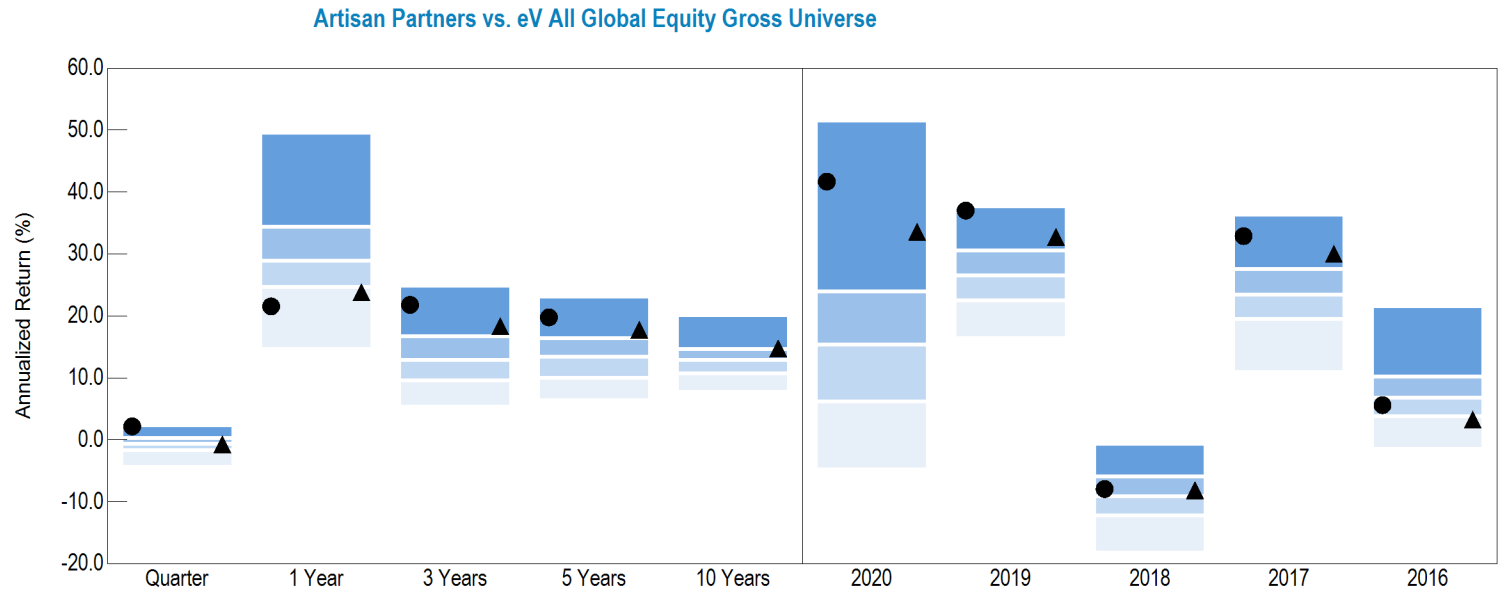
Top Contributors

	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

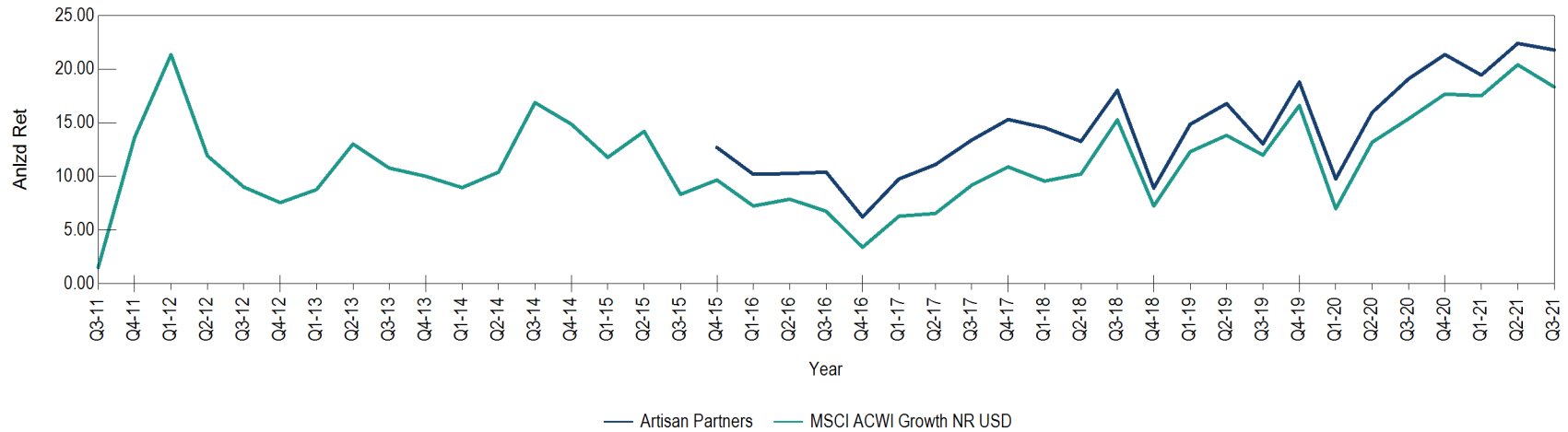
	Avg Wgt	Return	Contribution
ACTIVISION BLIZZARD INC	3.49	-18.91	-0.66
FIDELITY NATIONAL INFORMATION SERVICES INC	3.14	-13.85	-0.43
MAGAZINE LUIZA S/A	1.07	-37.23	-0.40
ZOOM VIDEO COMMUNICATIONS INC	1.08	-32.43	-0.35
IBERDROLA SA, BILBAO	1.76	-15.37	-0.27
VEEVA SYSTEMS INC	3.66	-7.33	-0.27
TELEFONAKTIEBOLAGET 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.

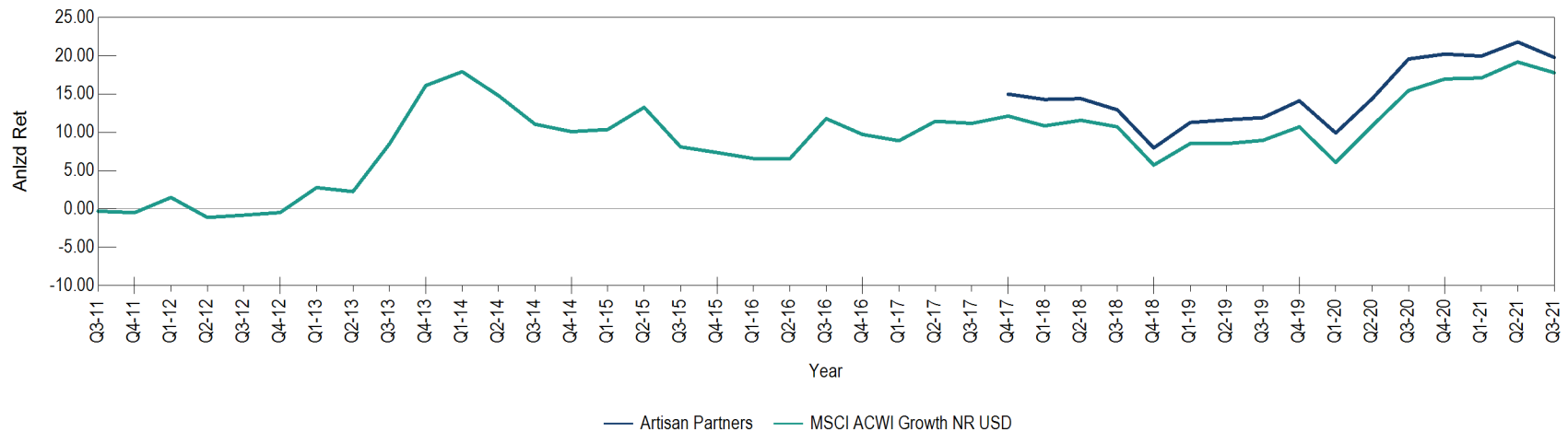


	Return (Rank)									
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	2.3	49.5	24.9	23.1	20.1	51.5	37.6	-0.7	36.3	21.5
25th Percentile	0.4	34.4	16.8	16.4	14.7	24.0	30.7	-5.8	27.6	10.3
Median	-0.6	29.0	12.9	13.5	12.9	15.4	26.6	-9.1	23.5	6.8
75th Percentile	-1.6	24.7	9.6	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)

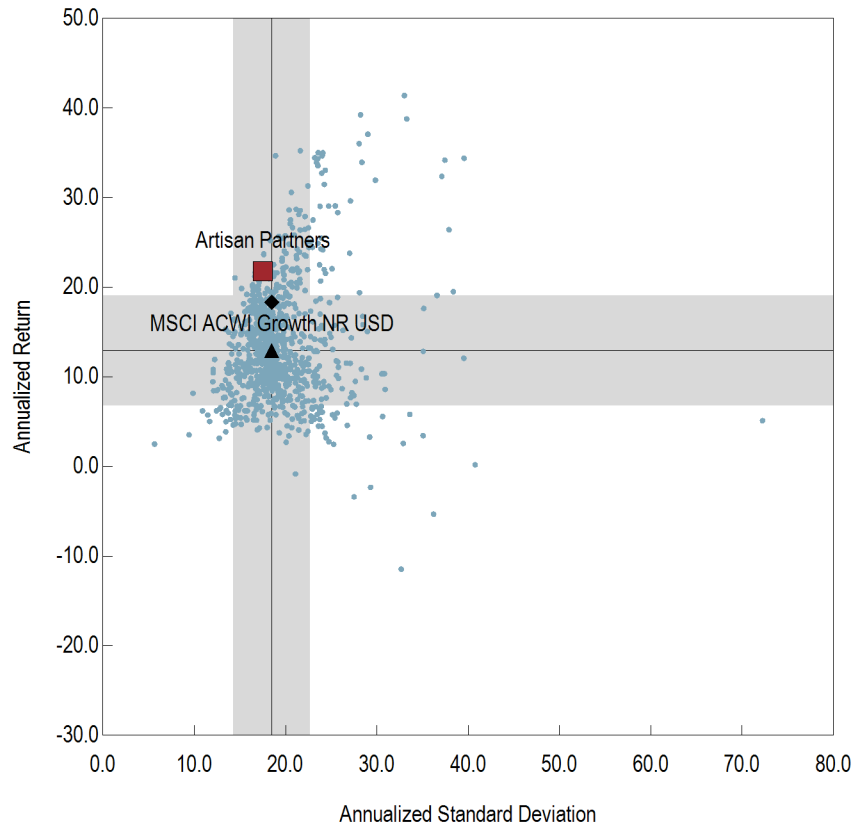
Rolling 3 Year Annualized Return (%)



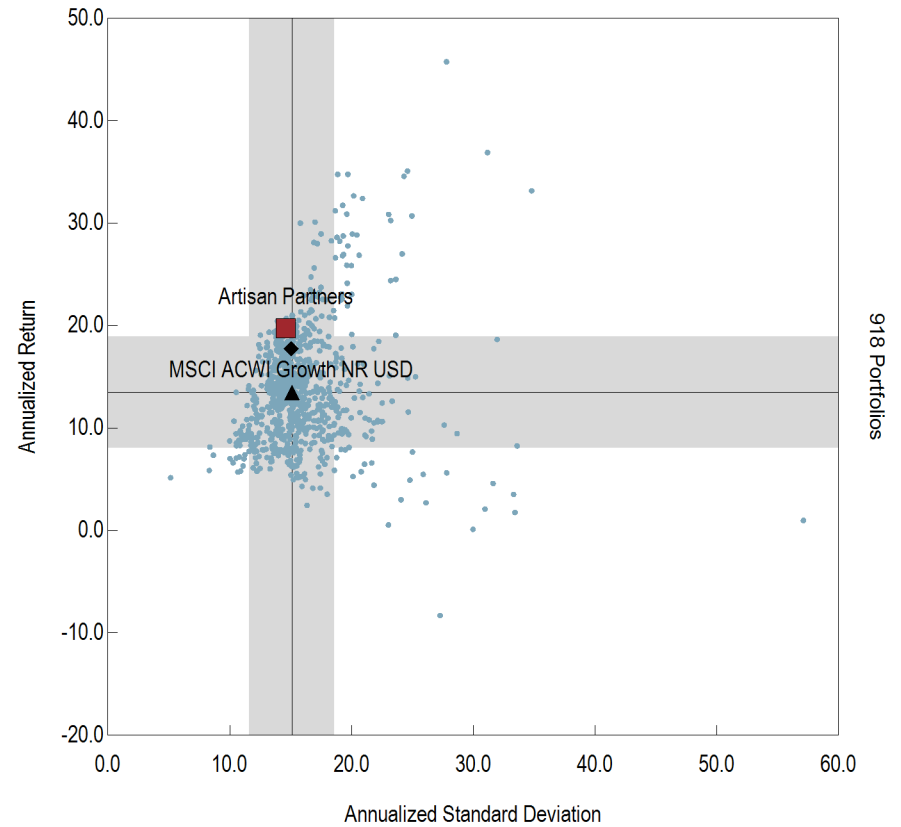
Rolling 5 Year Annualized Return (%)



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.

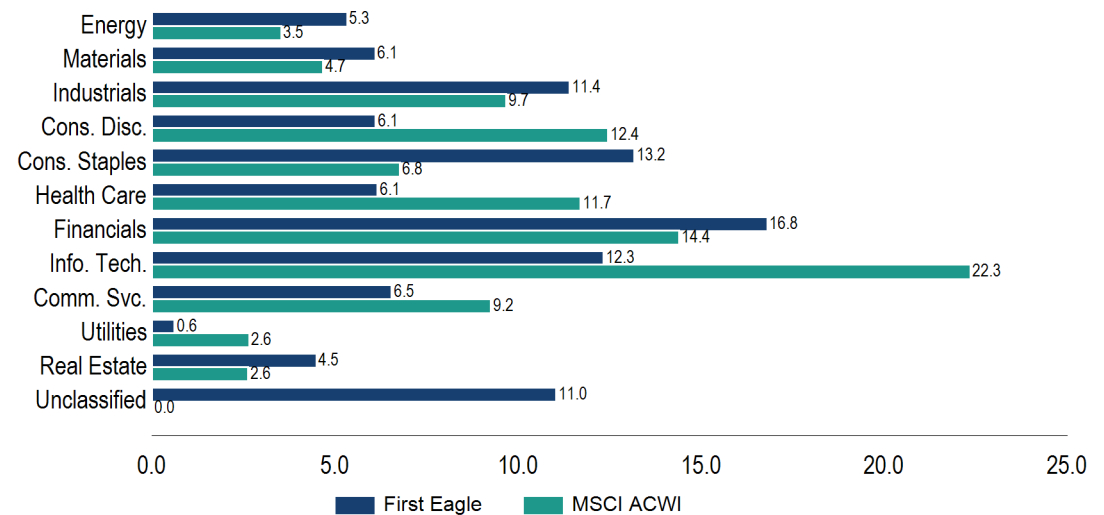
Characteristics

	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

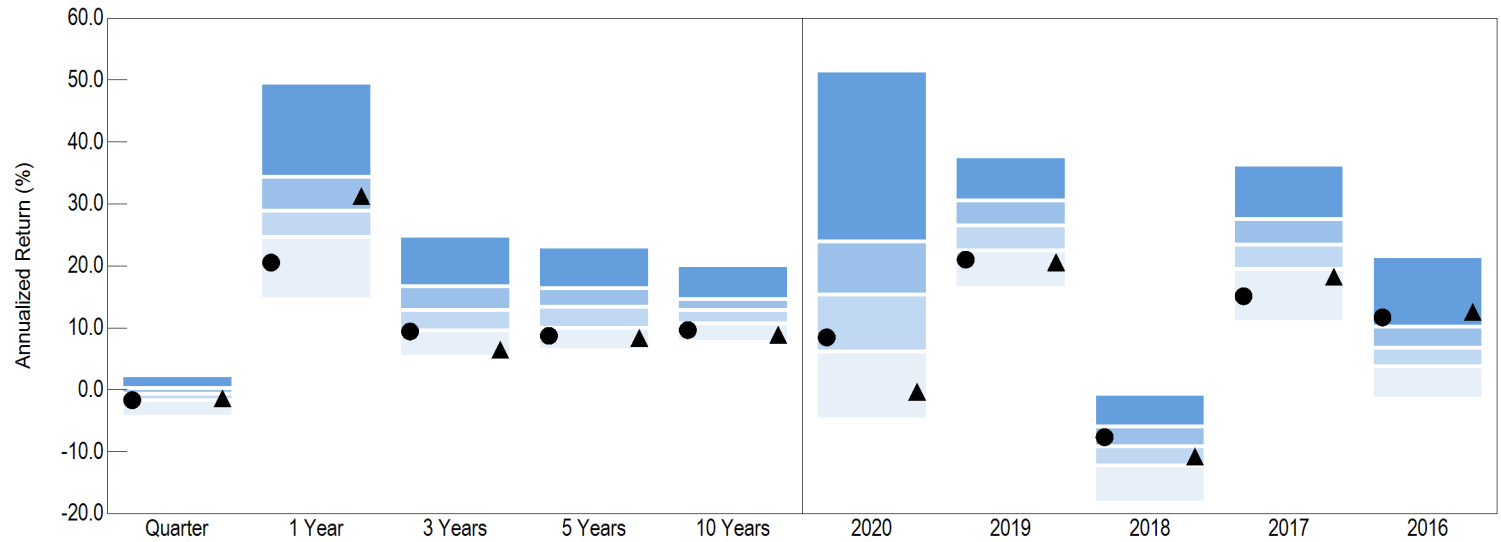
	End Weight	Return	Contribution
ORACLE CORP	3.80	12.34	0.47
SOMPO HOLDINGS INC	1.07	20.77	0.22
SHIMANO INC	0.89	24.23	0.22
HCA HEALTHCARE INC	0.88	17.62	0.16
TERADATA CORP	1.02	14.77	0.15
KEYENCE CORP	0.66	19.05	0.13
MS&AD INSURANCE GROUP HOLDINGS INC	0.54	18.96	0.10
SALESFORCE.COM INC	0.86	11.03	0.09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

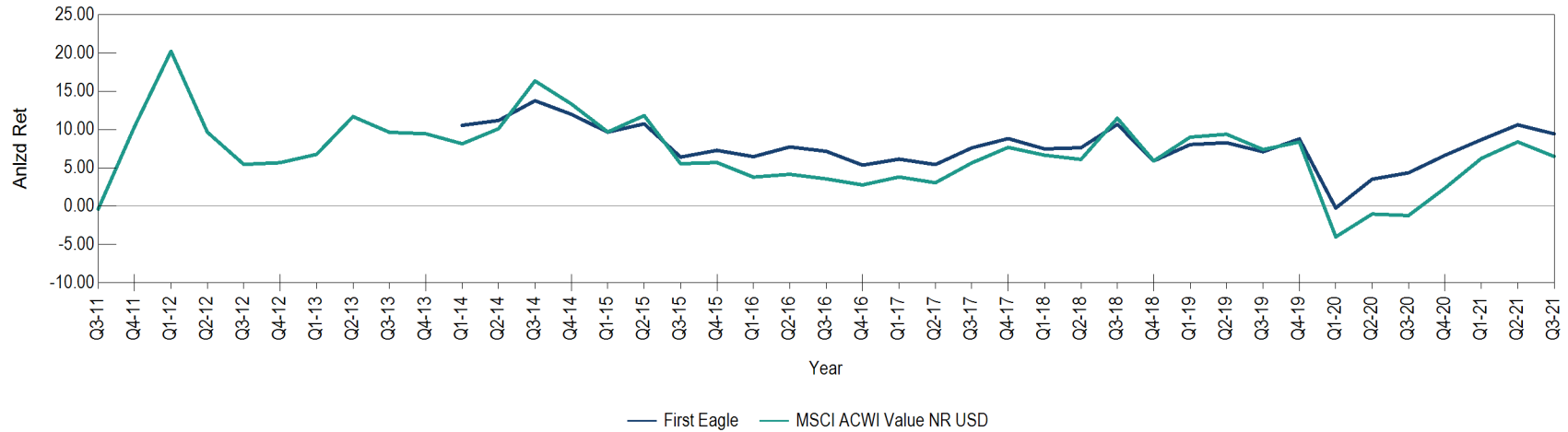


	Return (Rank)										
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	
5th Percentile	2.3	49.5	24.9	23.1	20.1	51.5	37.6	-0.7	36.3	21.5	
25th Percentile	0.4	34.4	16.8	16.4	14.7	24.0	30.7	-5.8	27.6	10.3	
Median	-0.6	29.0	12.9	13.5	12.9	15.4	26.6	-9.1	23.5	6.8	
75th Percentile	-1.6	24.7	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	
● 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)	

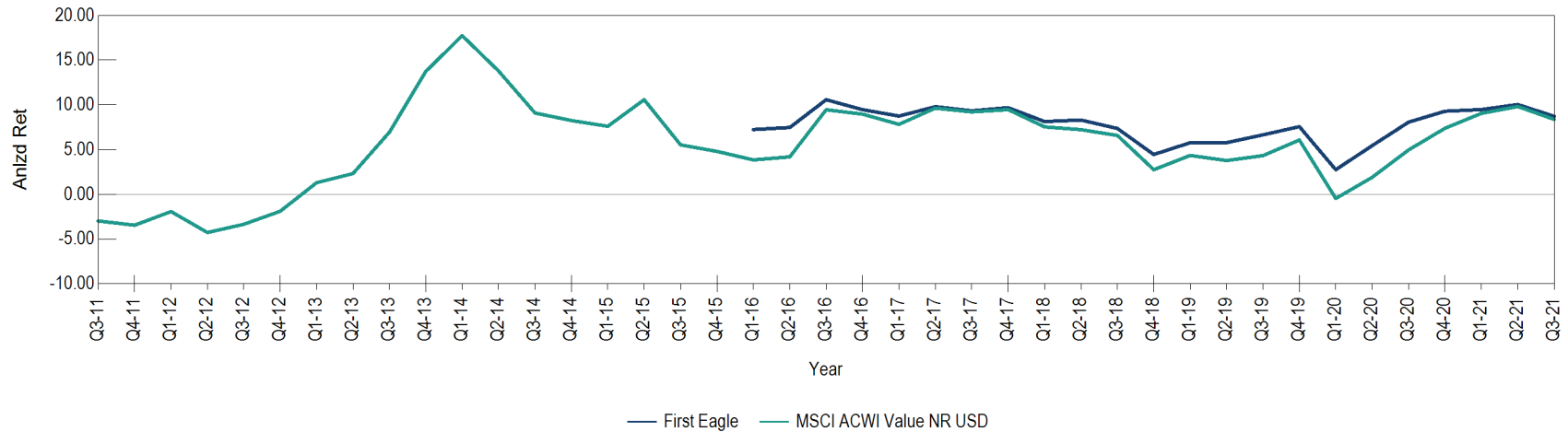
First Eagle
 Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2021

Rolling 3 Year Annualized Return (%)



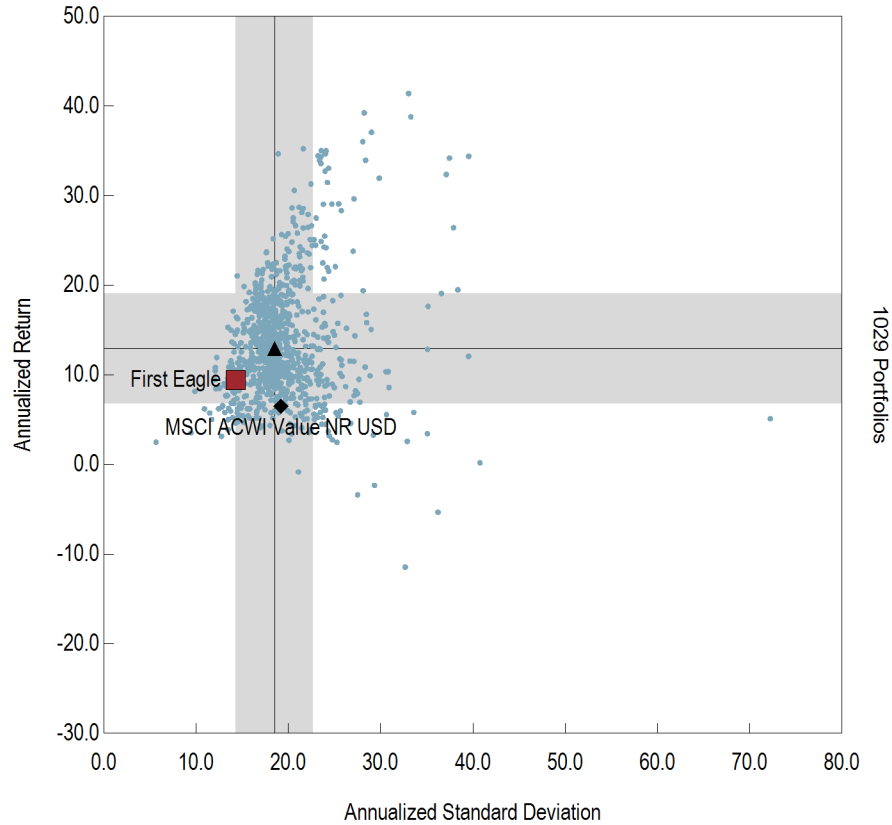
Rolling 5 Year Annualized Return (%)



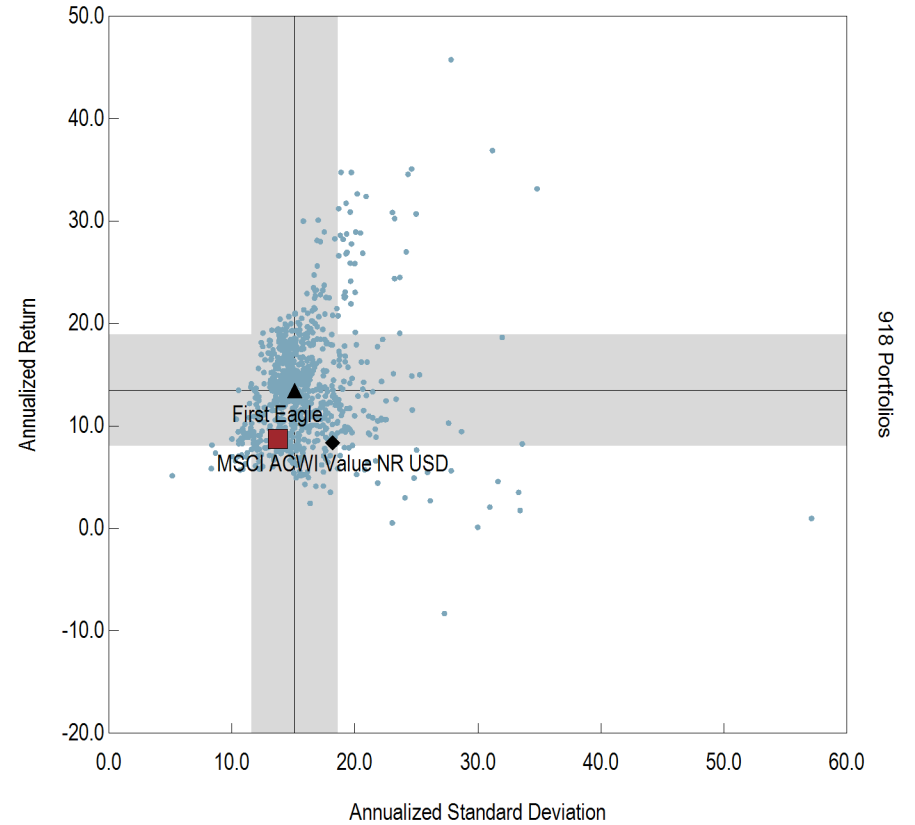
First Eagle
Risk vs. Return 3 & 5 Year (Gross of Fees)

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
v All Global Equity Gross Median	13.5%	15.1%	0.8

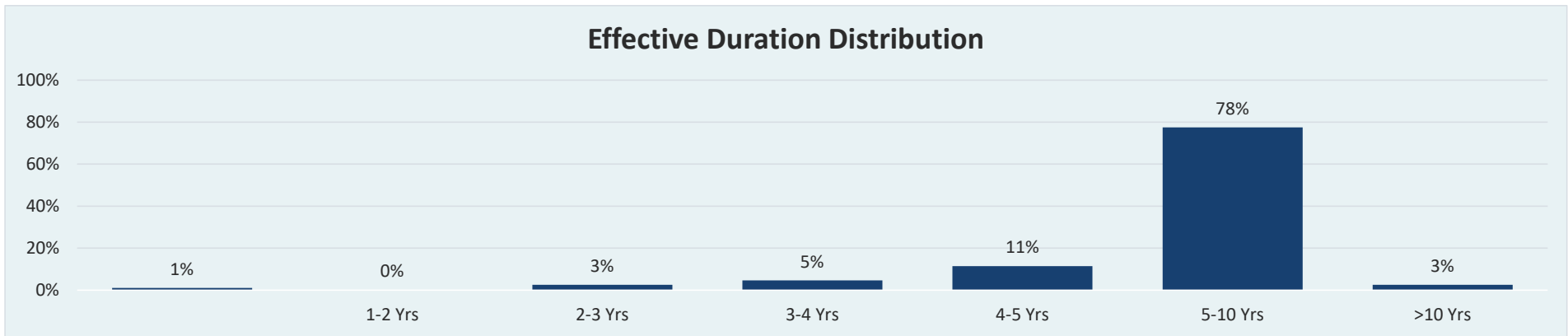
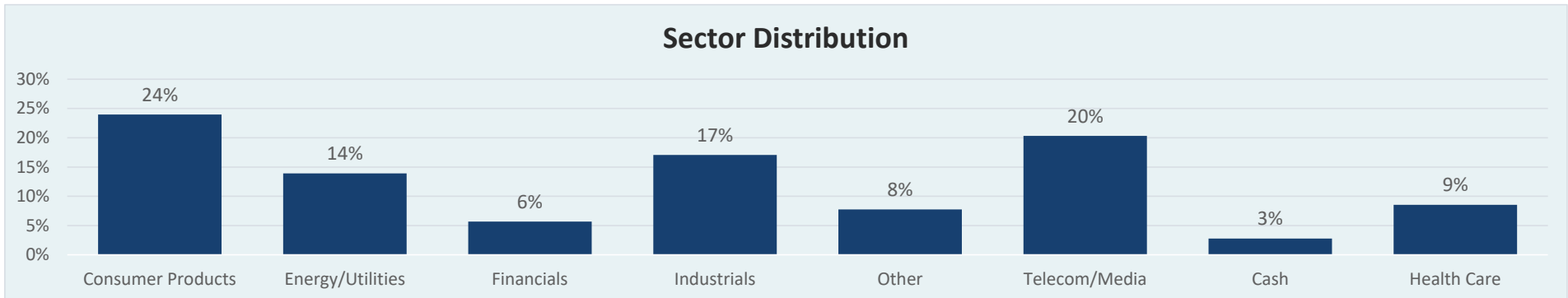
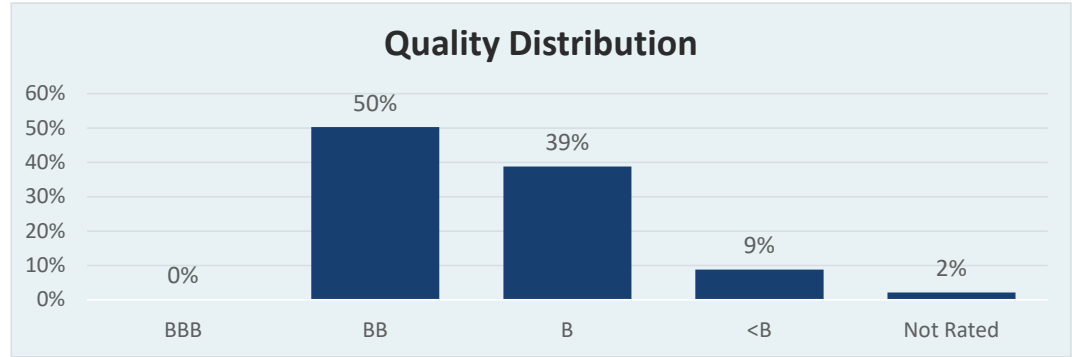
High Yield Managers

Allianz Global Investors Manager Portfolio Overview

Period Ending: September 30, 2021

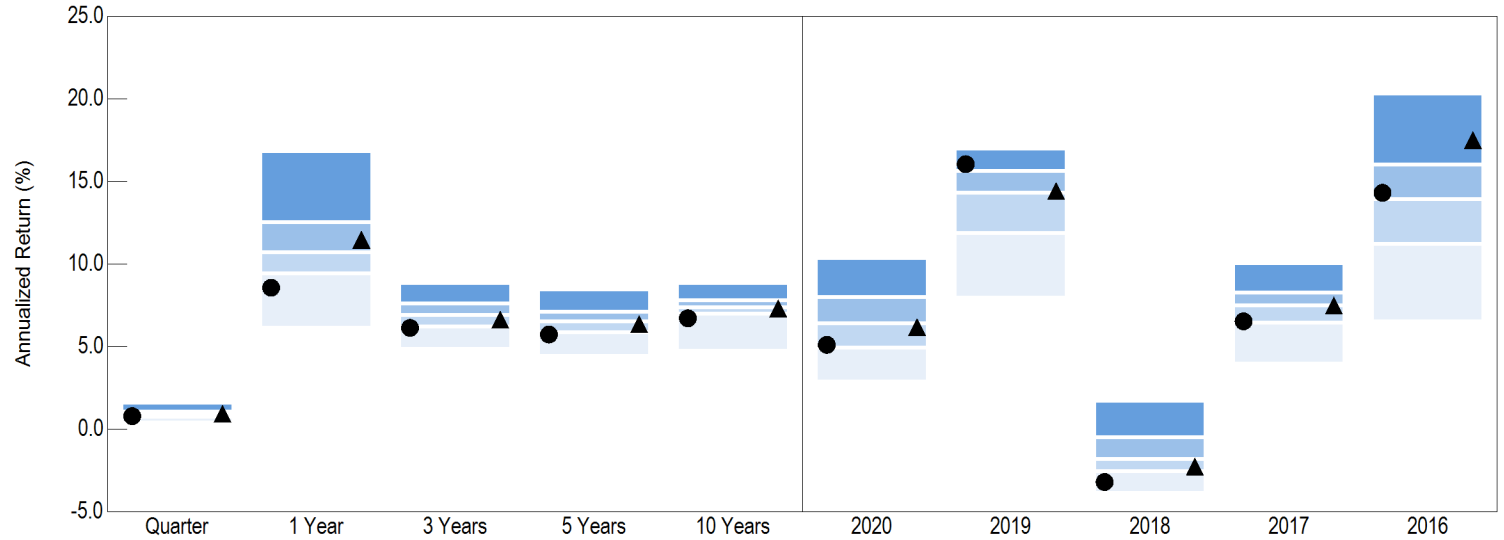
Domestic high yield fixed income portfolio with a focus on security selection. Primary personnel include Douglas Forsyth, Justin Kass, William Stickney, and Michael Yee.

	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%



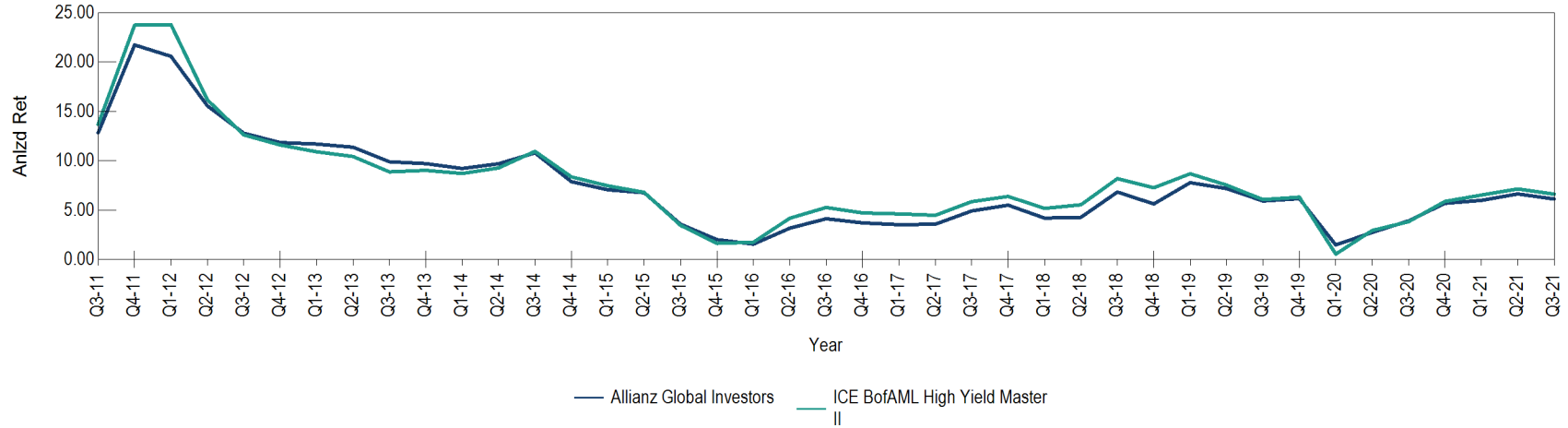
Quality distribution excludes cash.

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

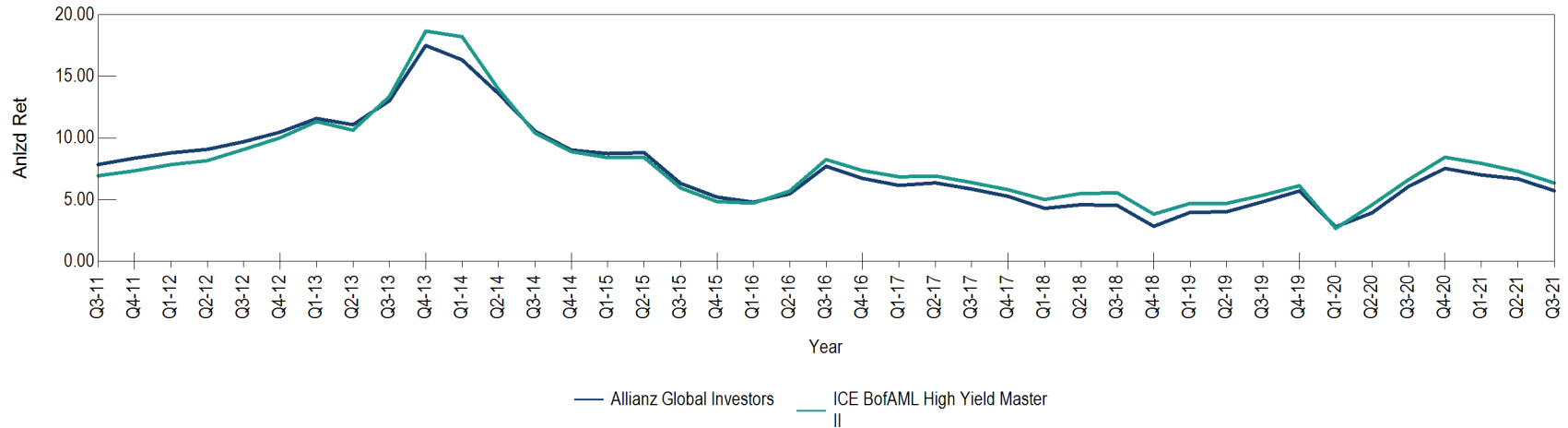


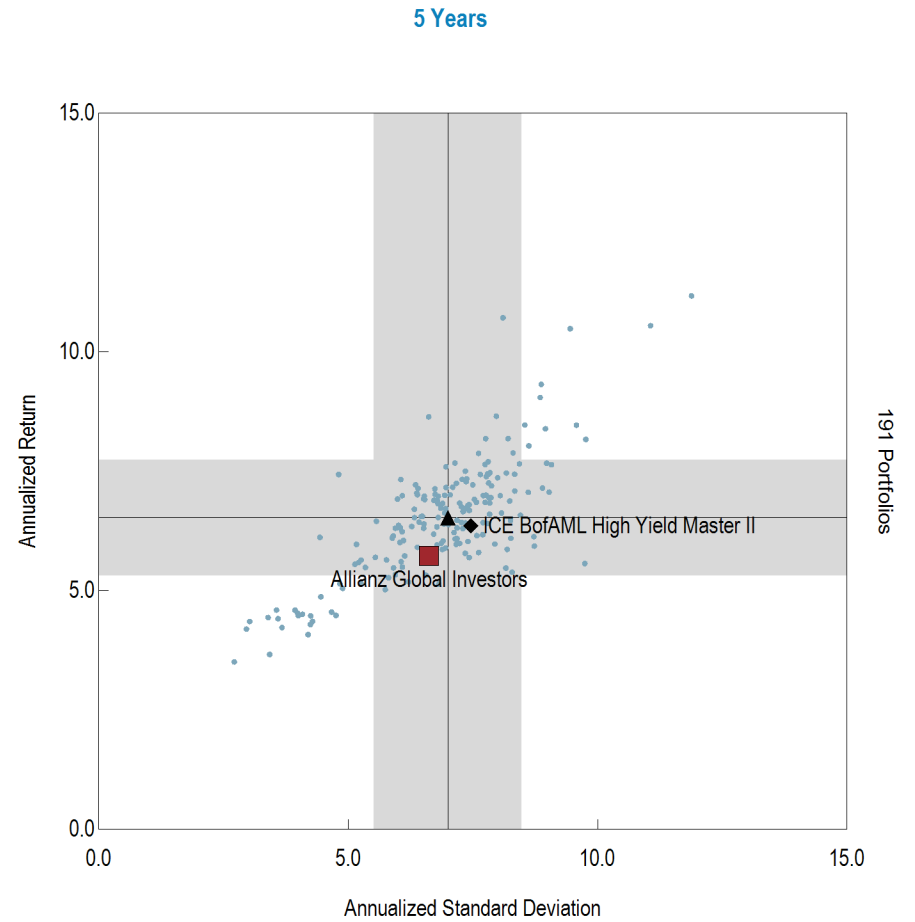
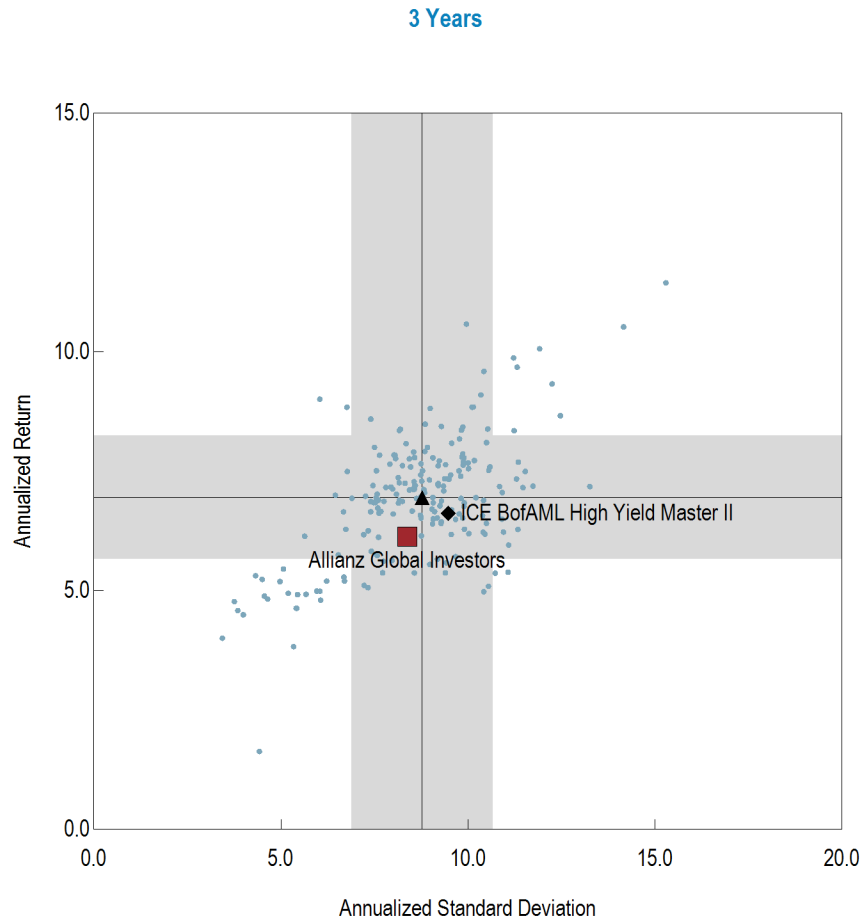
	Return (Rank)									
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	1.6	16.8	8.8	8.4	8.8	10.3	16.9	1.7	10.0	20.3
25th Percentile	1.1	12.6	7.6	7.1	7.8	8.0	15.6	-0.5	8.3	16.0
Median	0.9	10.7	7.0	6.5	7.4	6.4	14.3	-1.8	7.5	14.0
75th Percentile	0.8	9.4	6.2	5.9	7.0	5.0	11.9	-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

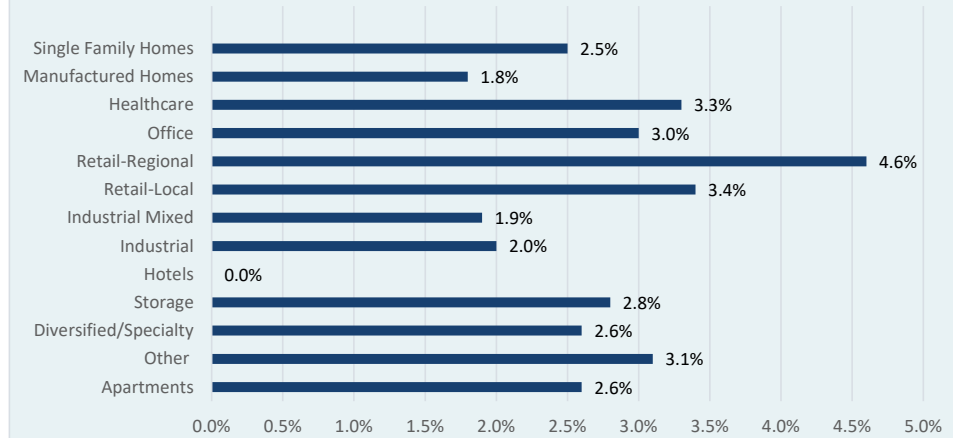
Period Ending: September 30, 2021

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

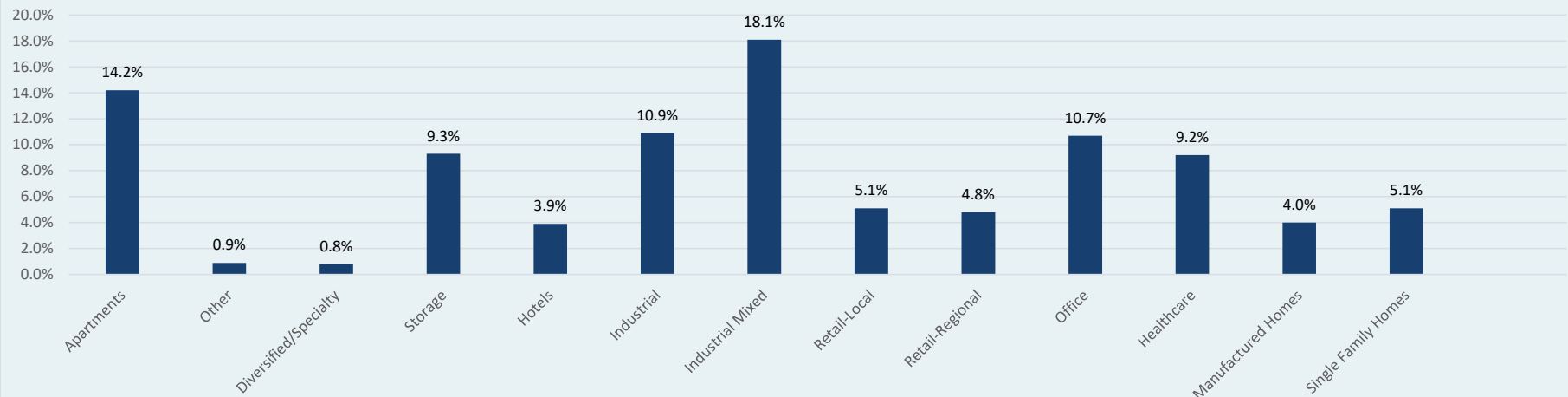
Top Five Holdings

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.

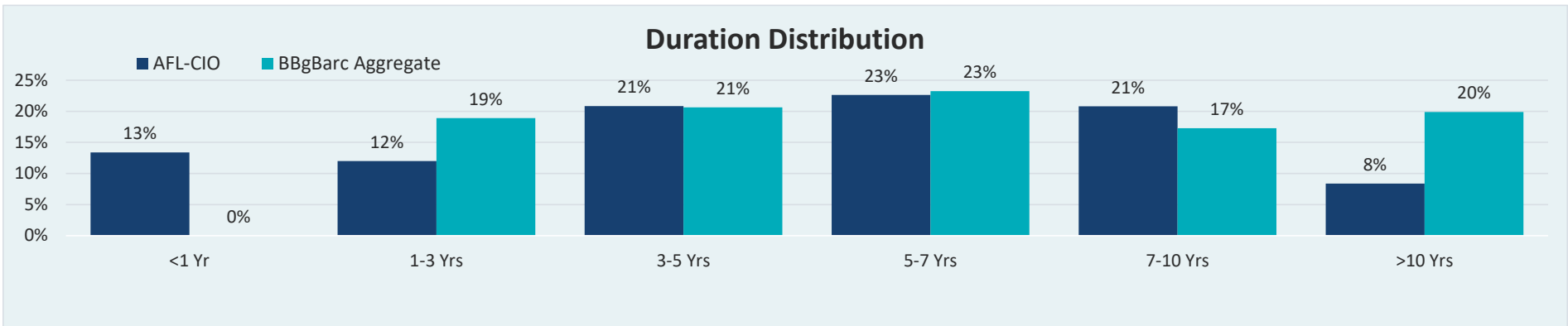
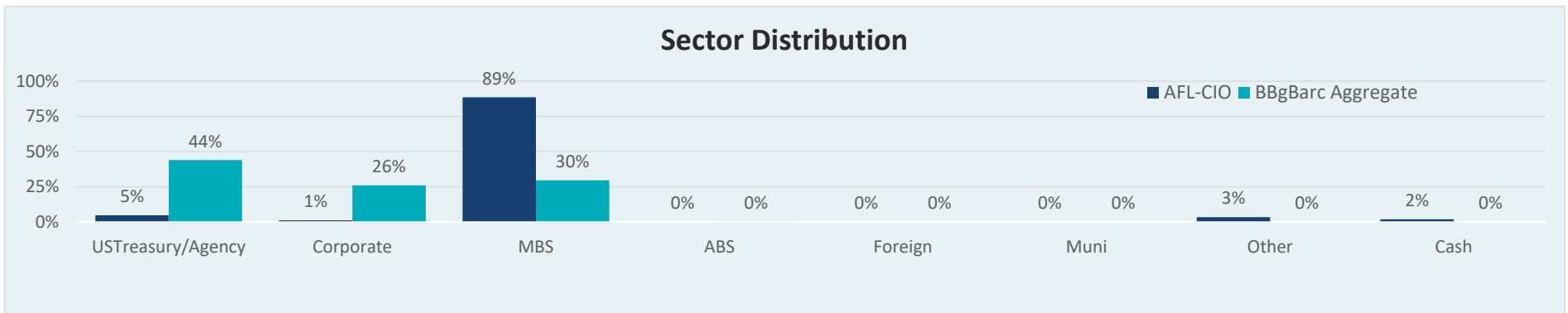
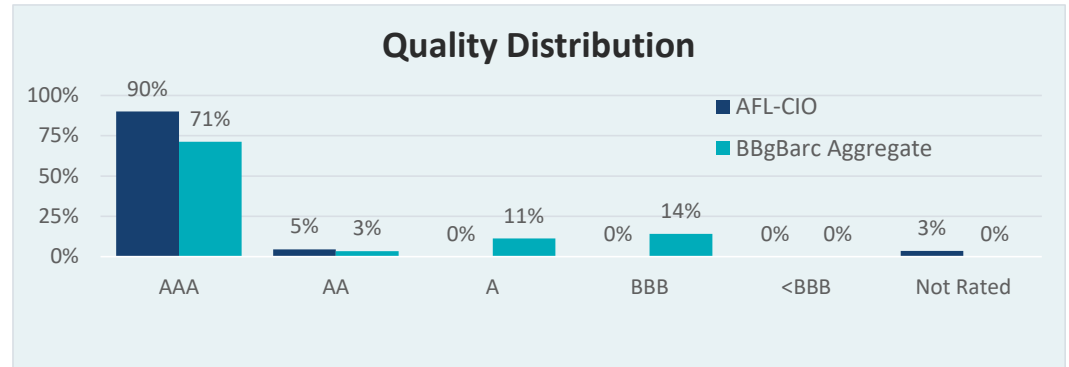
Diversifying Fixed Income Managers

AFL-CIO Manager Portfolio Overview

Period Ending: September 30, 2021

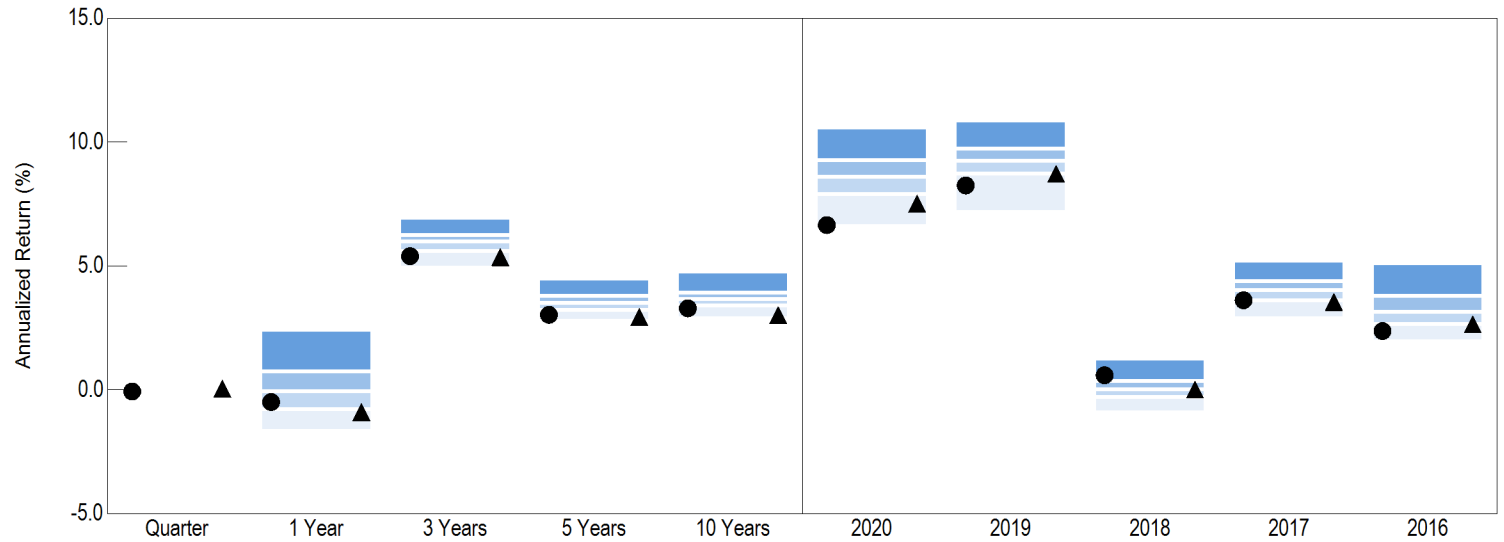
Domestic core fixed income portfolio with an exclusive focus on mortgage-related securities. Primary personnel include Stephen Coyle and Chang Su.

	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%



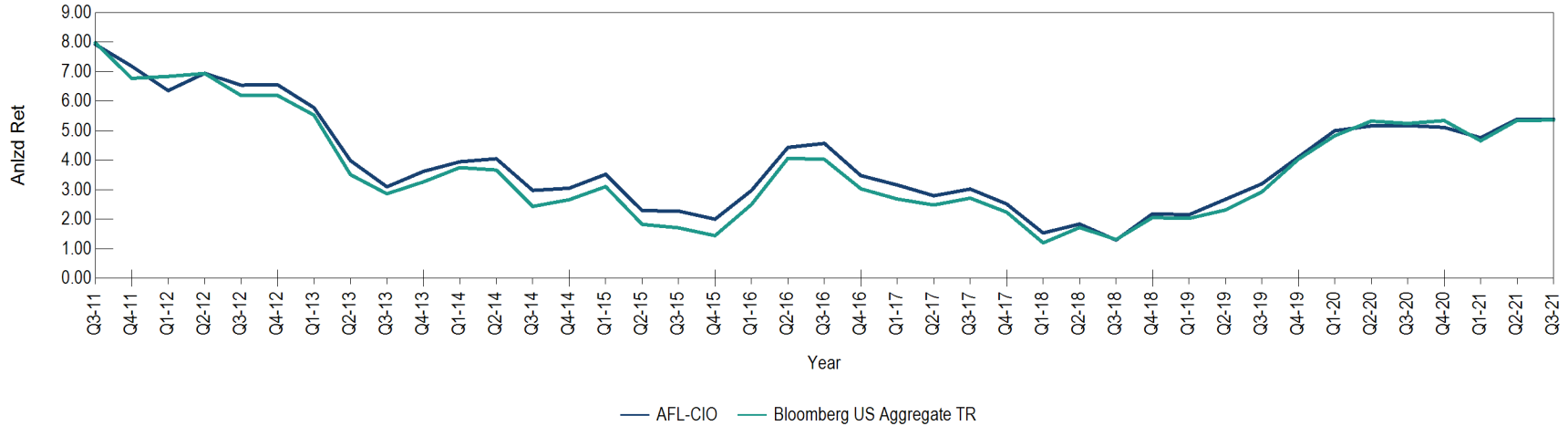
Duration and Quality distributions exclude cash.

AFL-CIO vs. eV US Core Fixed Inc Gross Universe

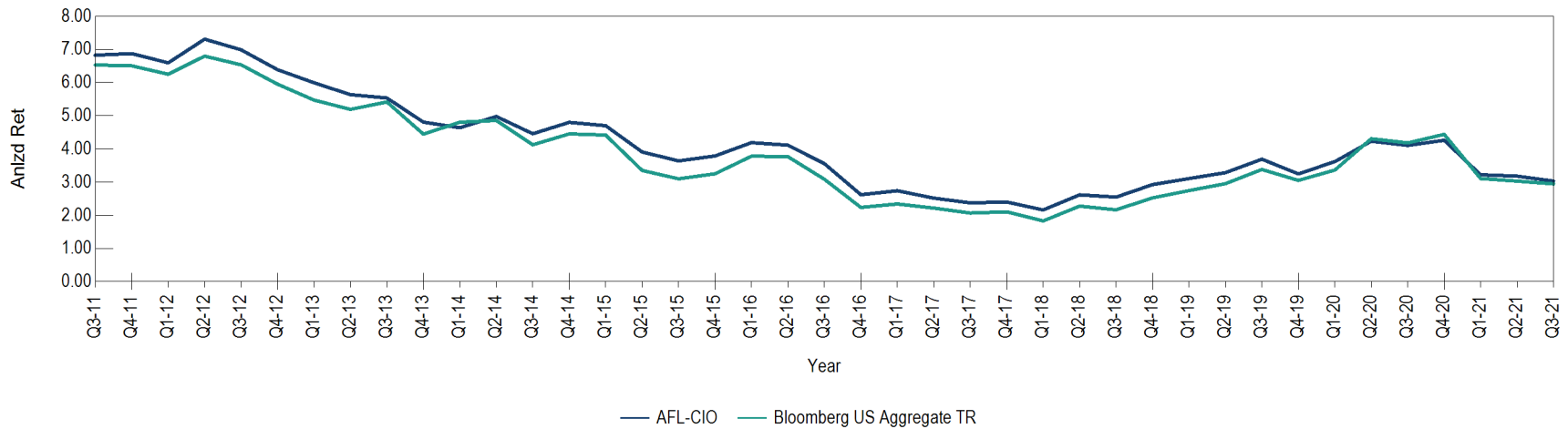


	Return (Rank)										
	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	
5th Percentile	0.3	2.4	6.9	4.5	4.8	10.6	10.9	1.2	5.2	5.1	
25th Percentile	0.2	0.8	6.3	3.8	3.9	9.3	9.8	0.4	4.4	3.8	
Median	0.1	0.0	6.0	3.5	3.7	8.6	9.3	0.0	4.0	3.2	
75th Percentile	0.0	-0.8	5.6	3.3	3.4	7.9	8.7	-0.3	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)	

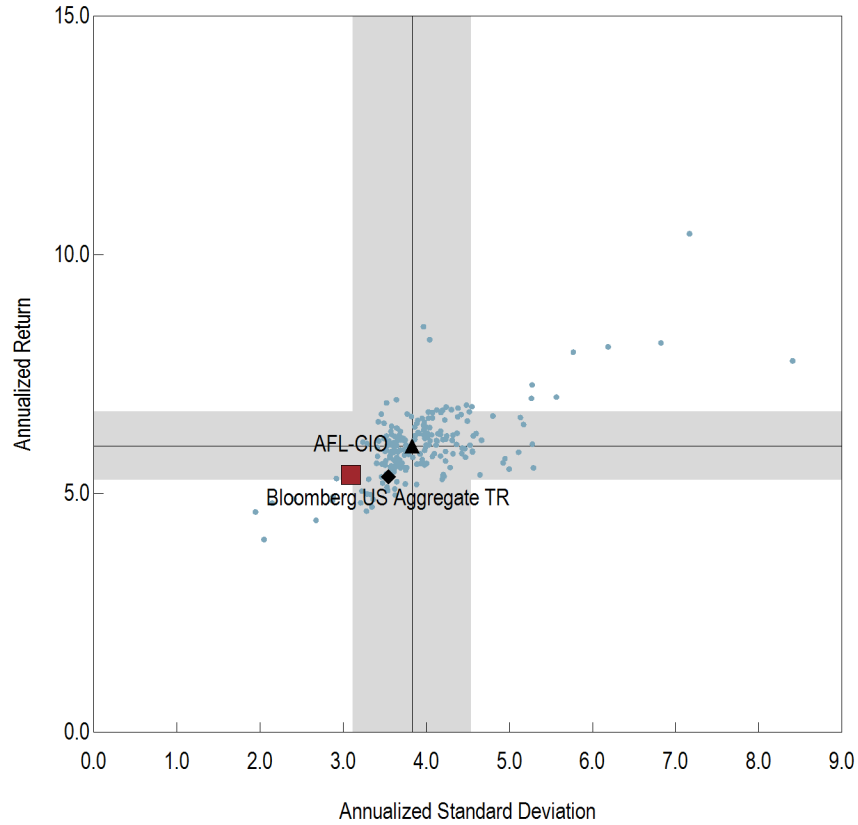
Rolling 3 Year Annualized Return (%)



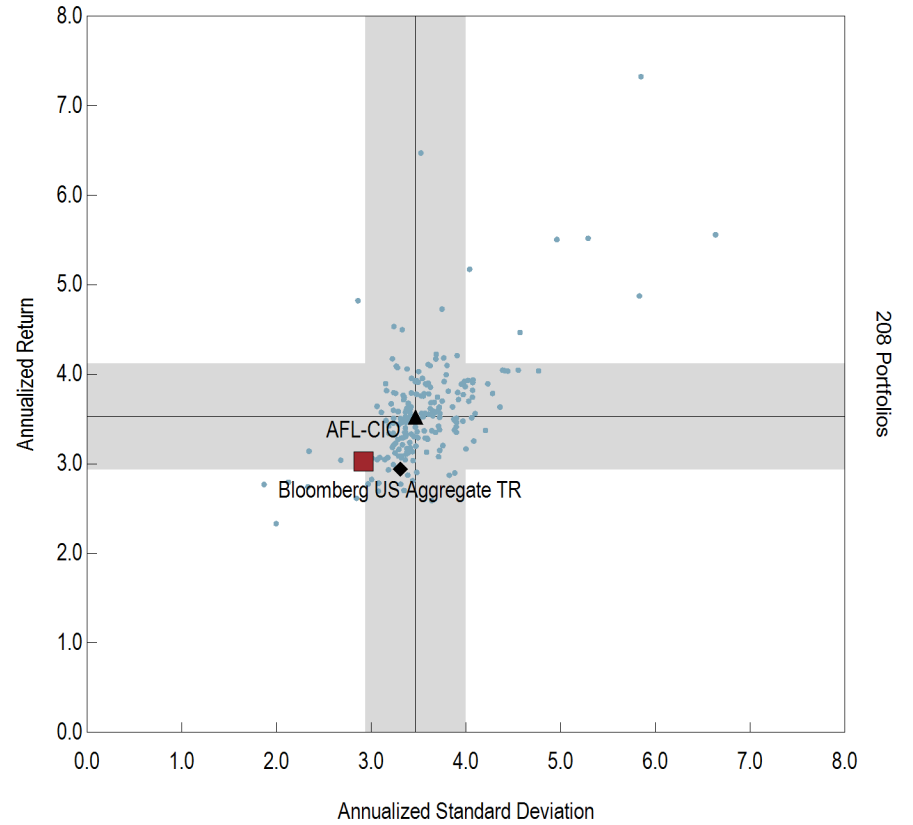
Rolling 5 Year Annualized Return (%)



3 Years



5 Years



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

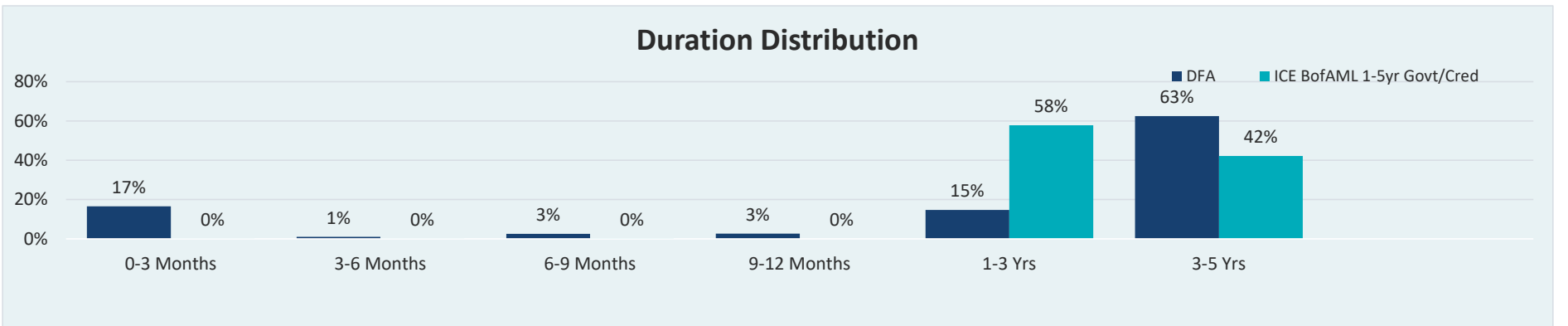
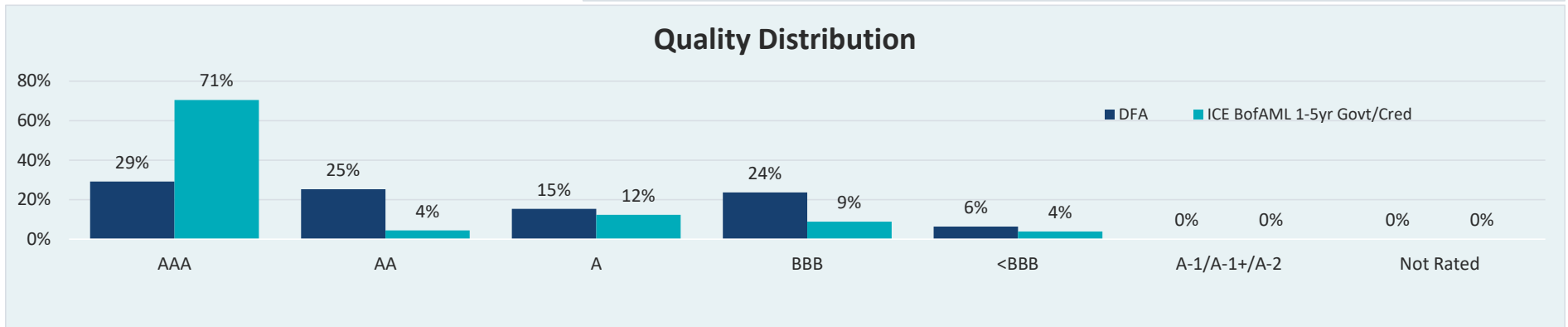
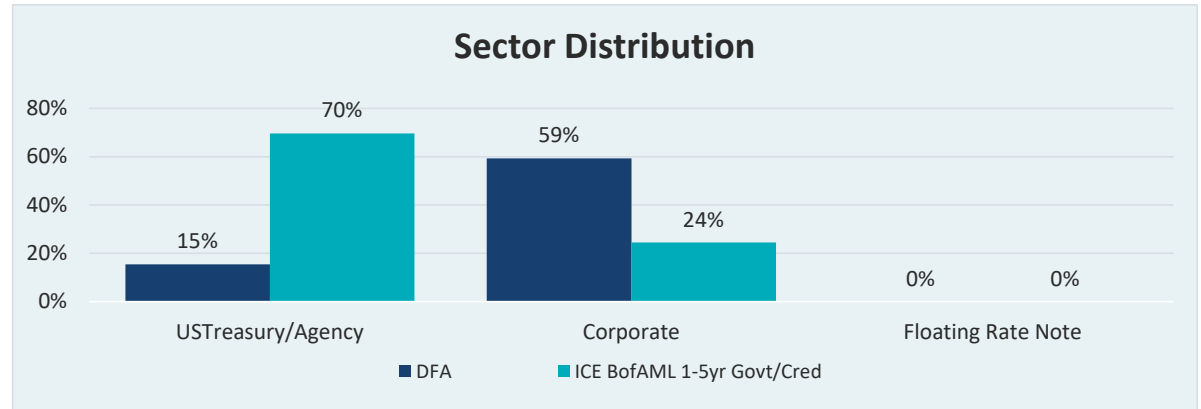
Liquidity Managers

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%

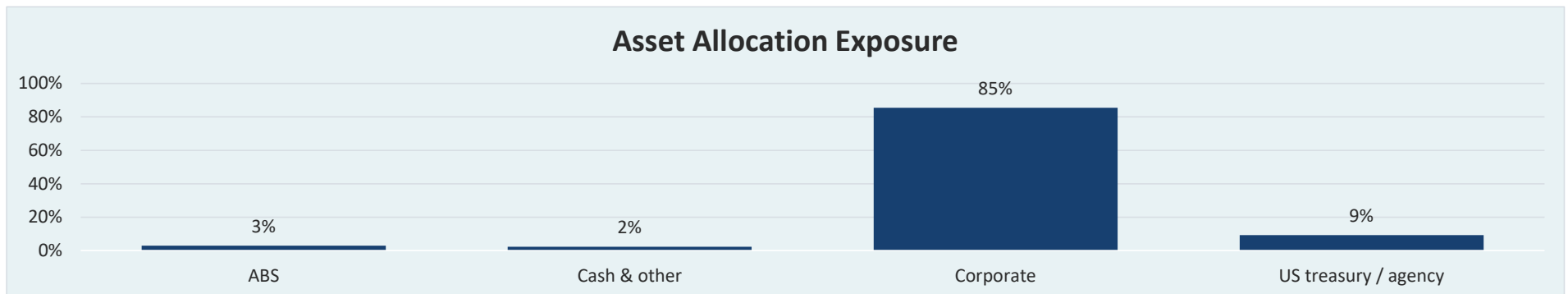
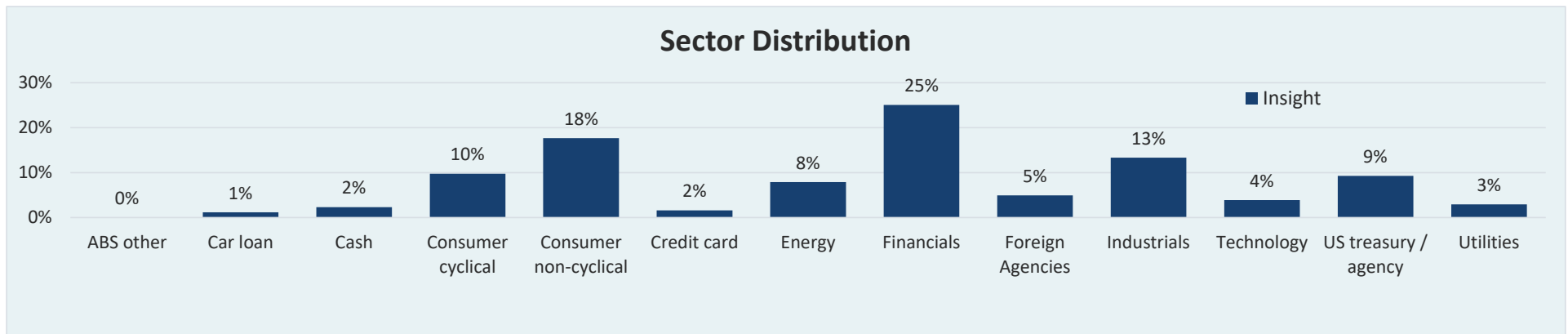
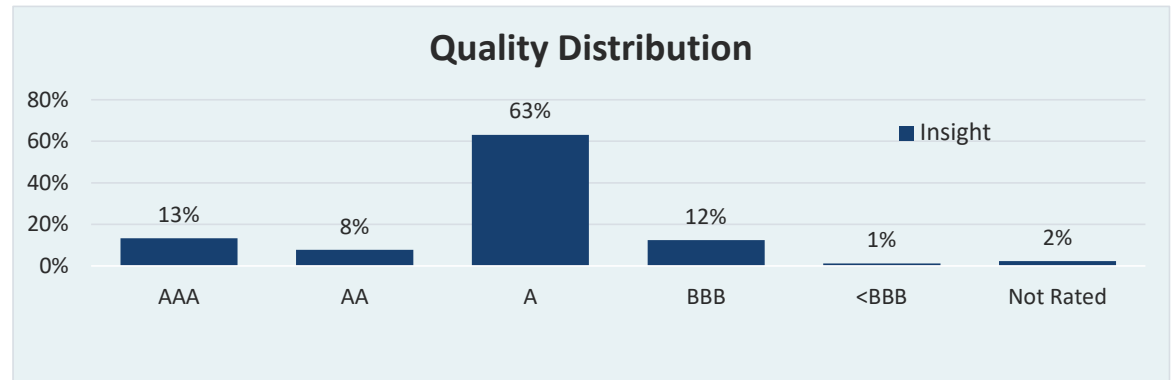


Insight Short Duration Manager Portfolio Overview

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%

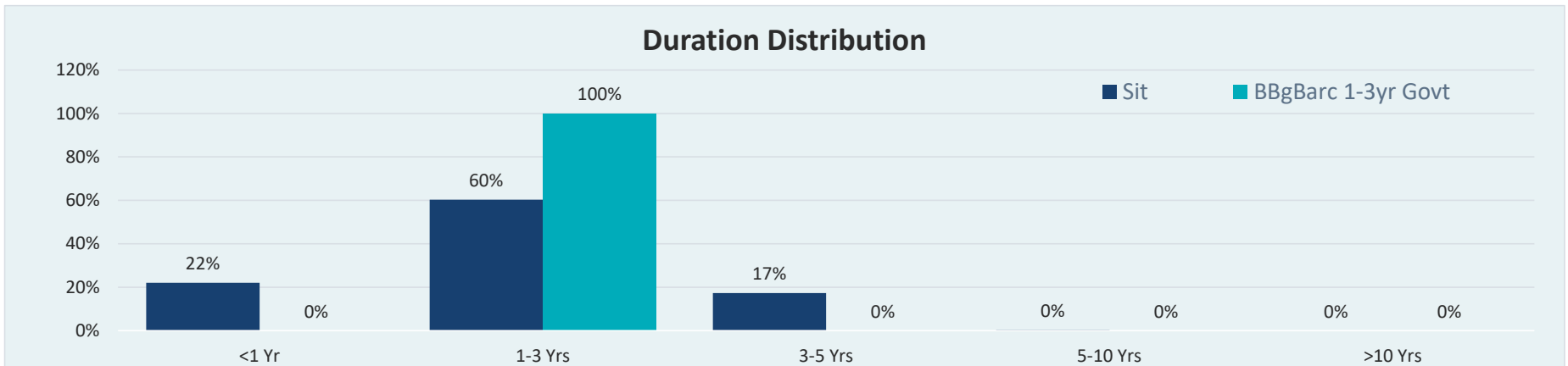
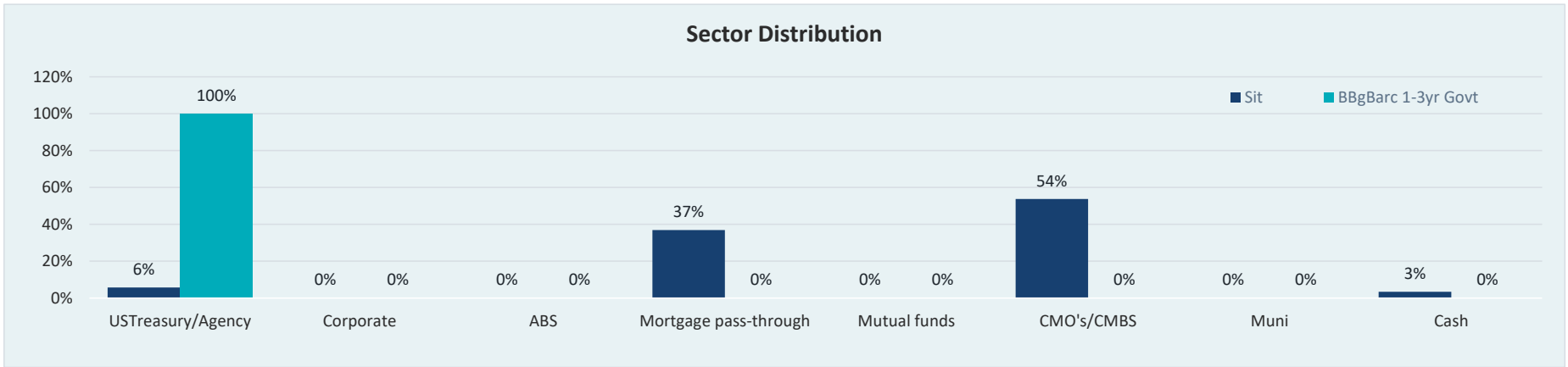
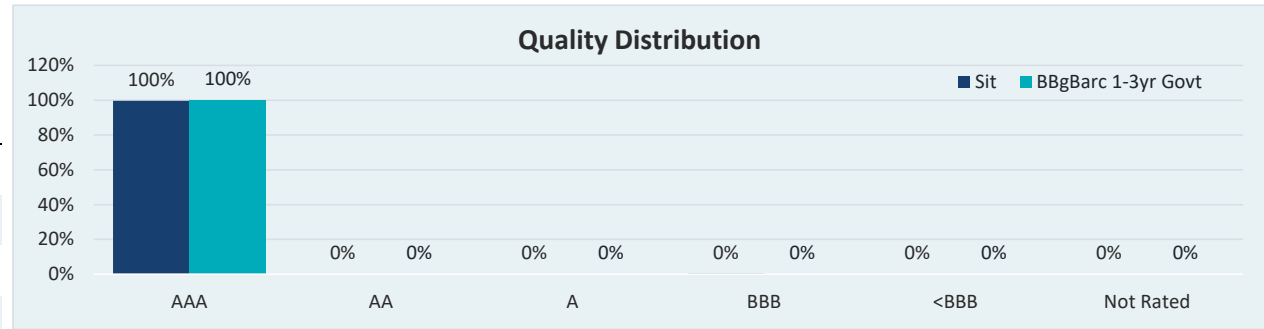


Sit Short Duration Manager Portfolio Overview

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.

Disclaimer

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