PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: SEPTEMBER 30, 2021

Investment Performance Review for

Imperial County Employees' Retirement System

Table of Contents

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4TH QUARTER 2021

Investment Landscape

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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

Table of contents

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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

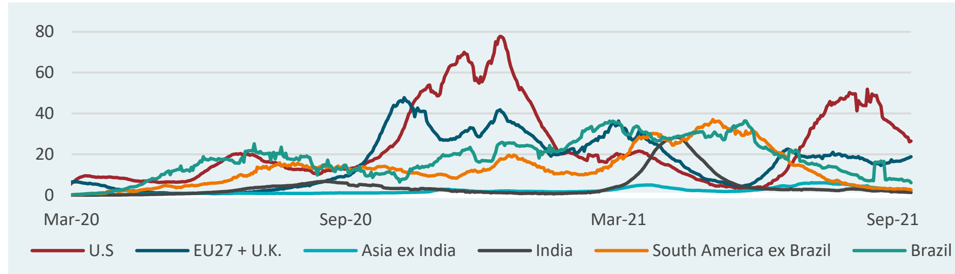
"Commodities surge again; spot price index hits decade high"

BLOOMBERG COMMODITY SPOT INDEX

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

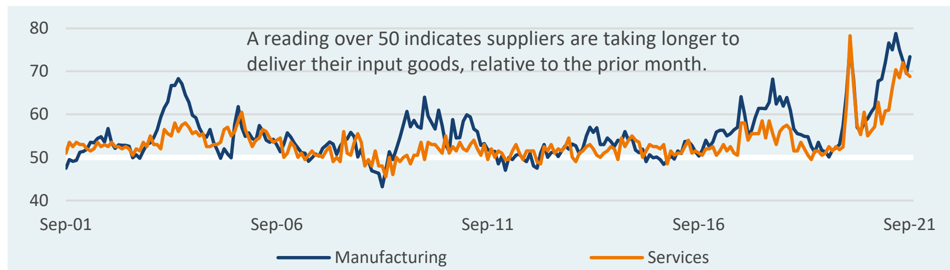
Article Source: BNN Bloomberg, September 13th, 2021

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.

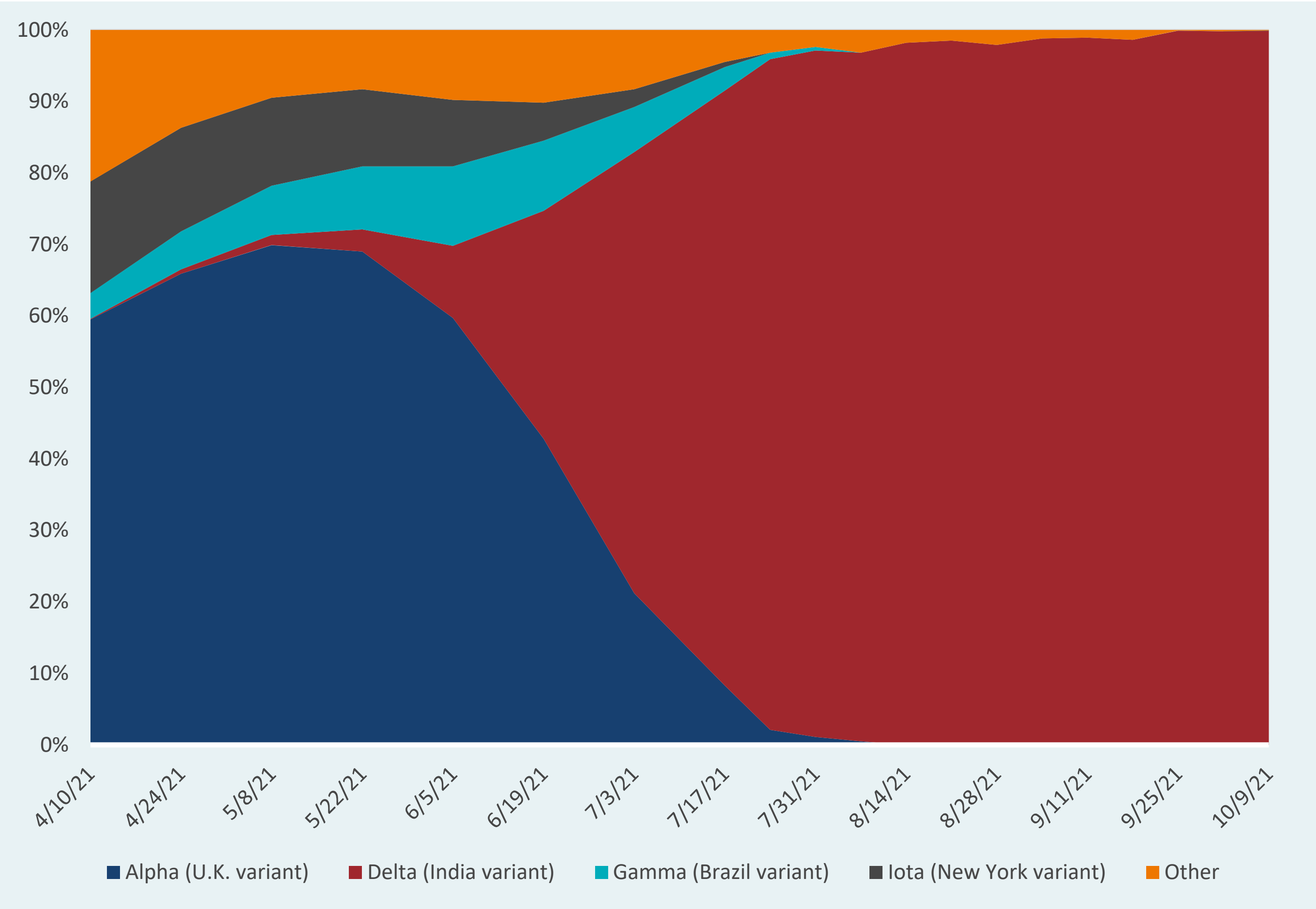
— U.S. home prices have rocketed higher, up 19.7% over the past year, according to the S&P/Case-Shiller U.S. National Home Price Index.

— 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% *6/30/21*	(9.1%) *6/30/20*
Inflation *(CPI YoY, Core)*	4.0% *9/30/21*	1.7% *9/30/20*
Expected Inflation *(5yr-5yr forward)*	2.2% *9/30/21*	1.7% *9/30/20*
Fed Funds Target Range	0% – 0.25% *9/30/21*	0% – 0.25% *9/30/20*
10-Year Rate	1.49% *9/30/21*	0.68% *9/30/20*
U-3 Unemployment	4.8% *9/30/21*	7.8% *9/30/20*
U-6 Unemployment	8.5% *9/30/21*	12.8% *9/30/20*

Delta-plus variant?

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



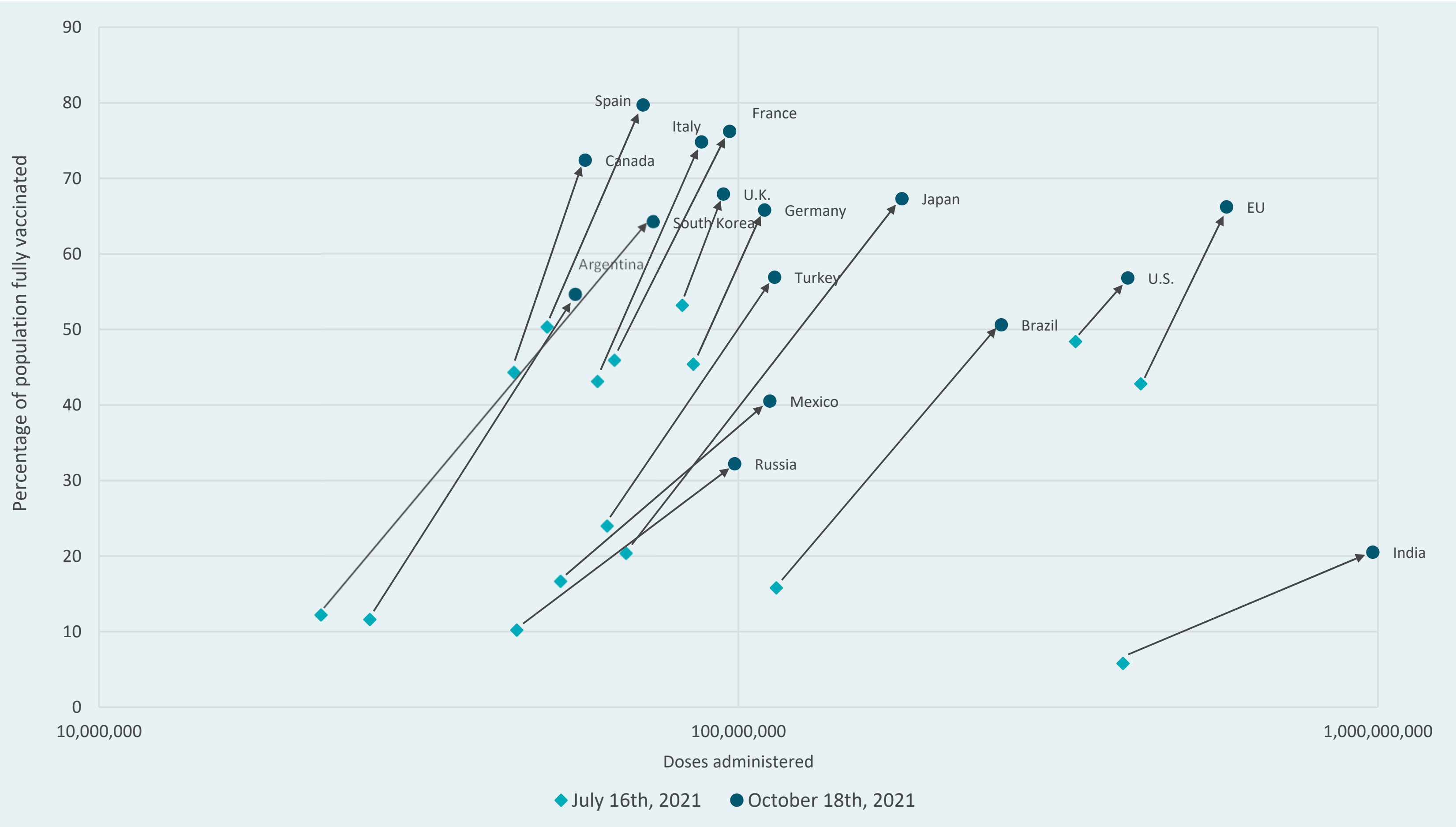
Source: Bloomberg, BBC, U.K. government, as of 10/9/21

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

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

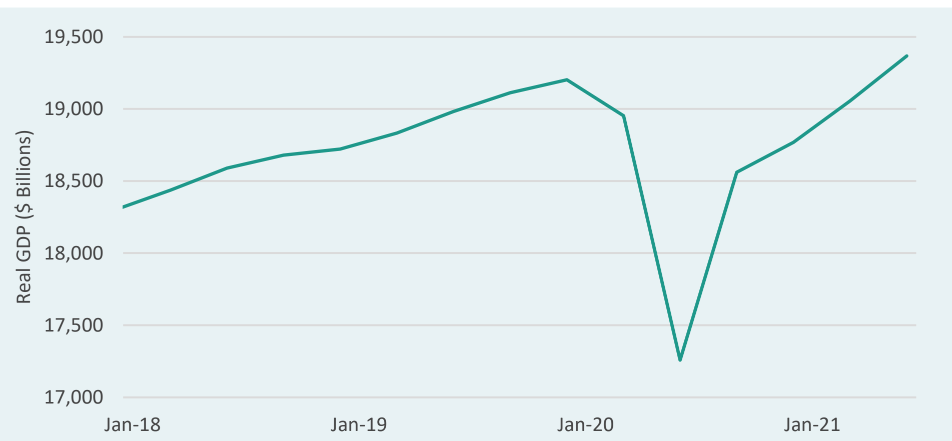
Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. However, it appears that recent strong economic activity may be slowing down. The Atlanta Fed GDPNow estimate, as of October 15th, suggests that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

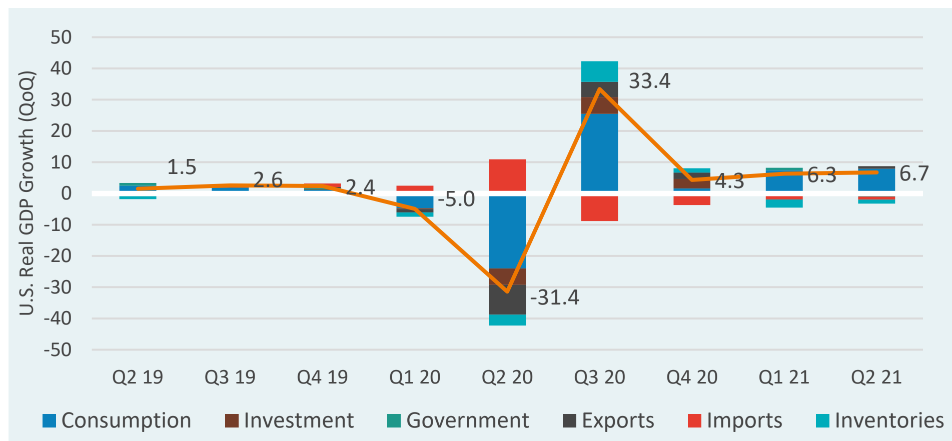
During Q2 2021 the U.S. economy fully recovered from the COVID-19 recession

U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 6/30/21

U.S. REAL GDP COMPONENTS (QOQ)



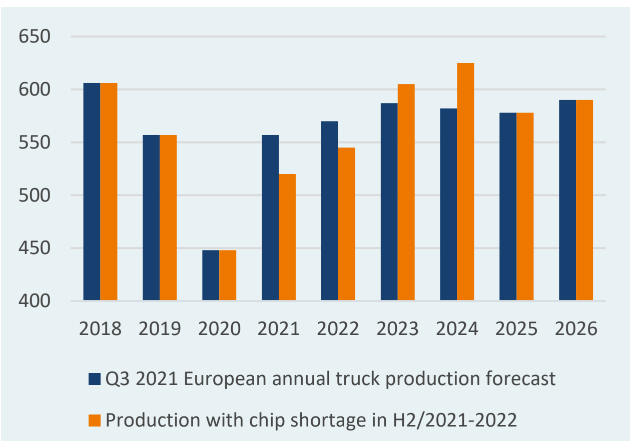
Source: FRED, as of 6/30/21

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.

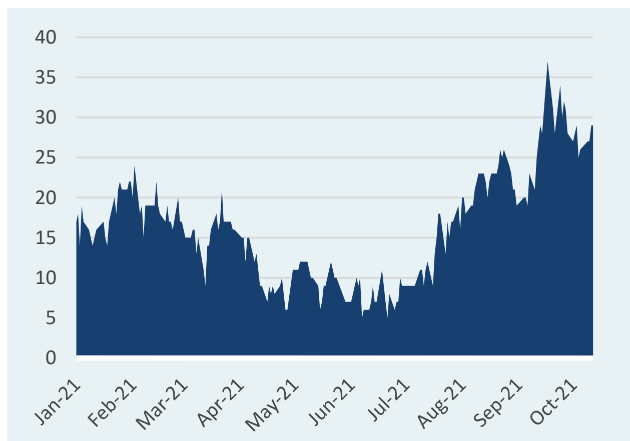
In September, key ports in Southern California hit several new cargo ship backlog records, forcing these ships to remain at anchor outside the ports for several weeks in some cases. Part of the problem has been the massive size of these ships, which require many workers to unload, a lot of trucks to 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)



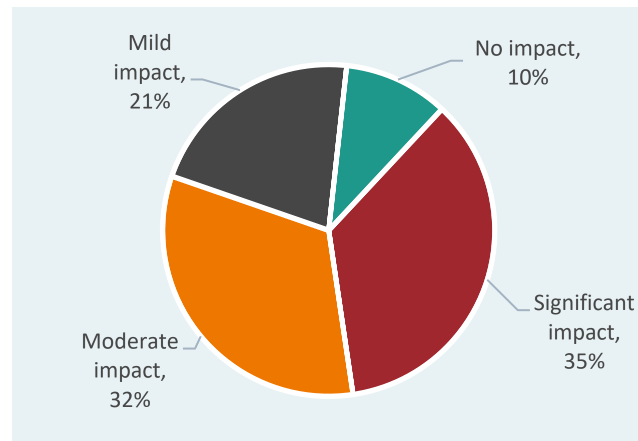
Source: IHS Markit, as of 9/28/21

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

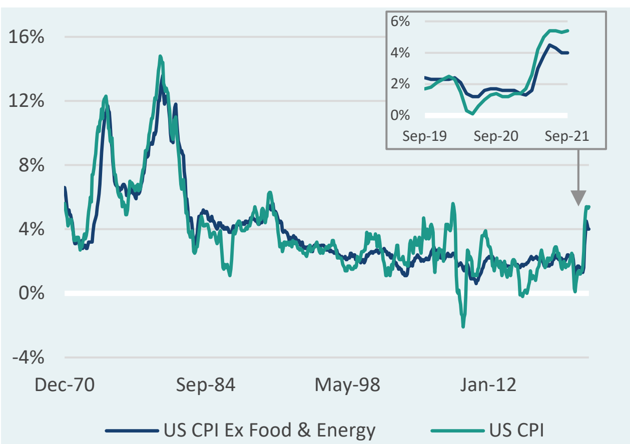
U.S. core CPI, which excludes food & energy prices, rose 4.0% YoY in September. U.S. headline inflation came in at 5.4%. Price changes moderated somewhat during Q3, relative to the larger price moves that occurred from March through June.

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.

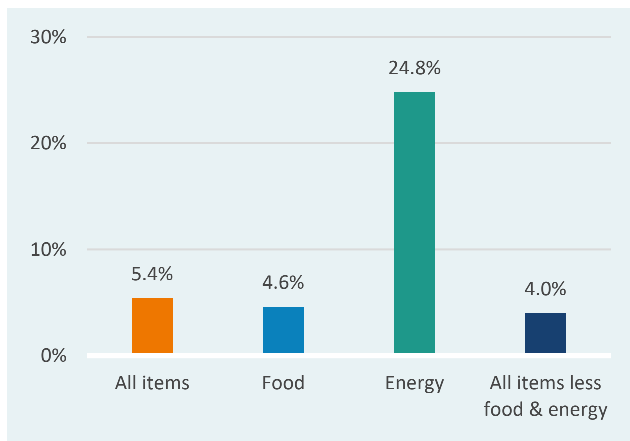
Recent moves suggest a moderation of prices, though we are watching closely for potential structural inflation

U.S. CPI (YOY)



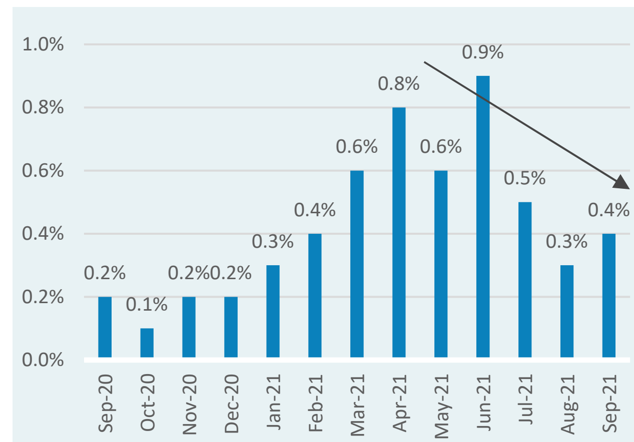
Source: BLS, as of 9/30/21

U.S. CPI (YOY)



Source: BLS, as of 9/30/21

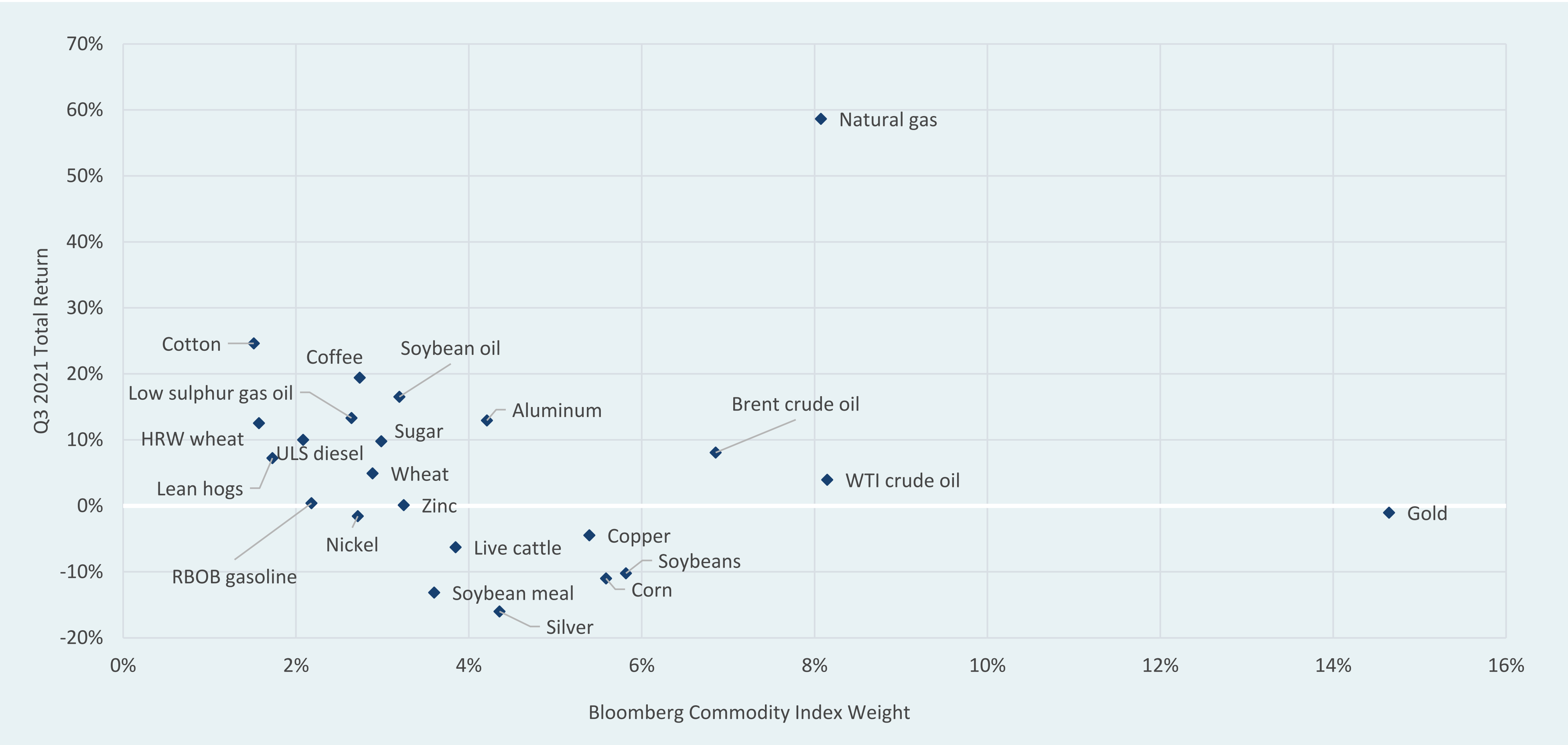
MONTHLY PRICE MOVEMENT



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%.

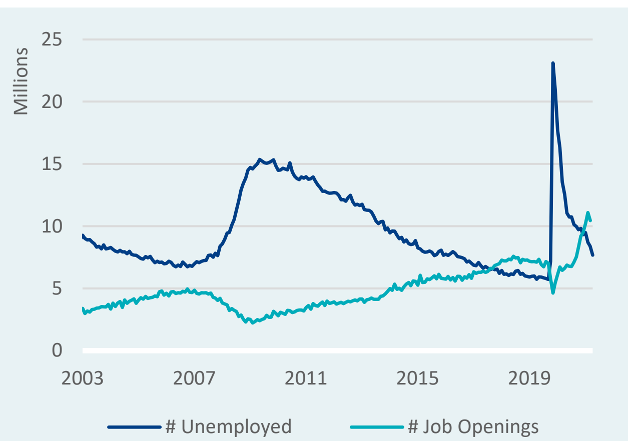
Two major themes can be observed in the U.S. labor market: 1) the unemployment rate has fallen as many workers who desired jobs have been successful in gaining employment, but 2) the overall U.S. laborforce participation rate has not improved, as millions of workers remain out of the laborforce and are 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

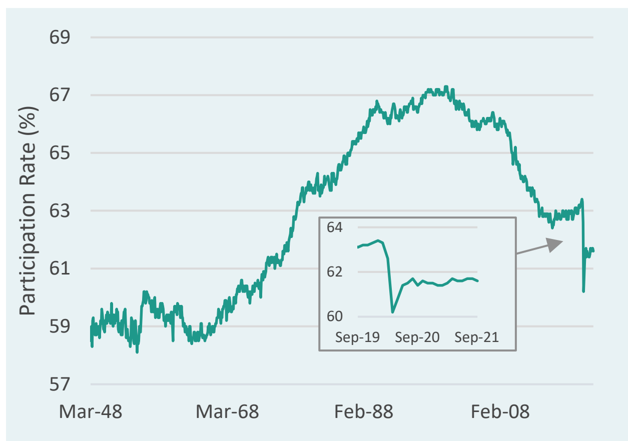
Much of this loss appears to be due to early retirements

UNEMPLOYMENT VS. JOB OPENINGS



Source: FRED, as of 9/30/21

LABOR PARTICIPATION RATE



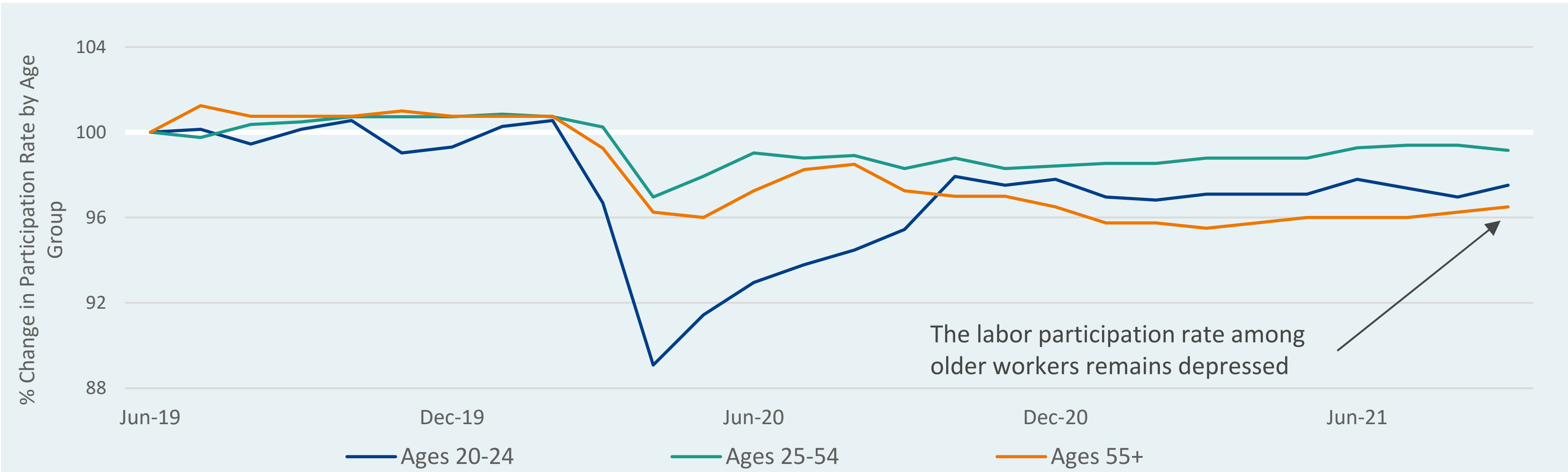
Source: FRED, as of 9/30/21

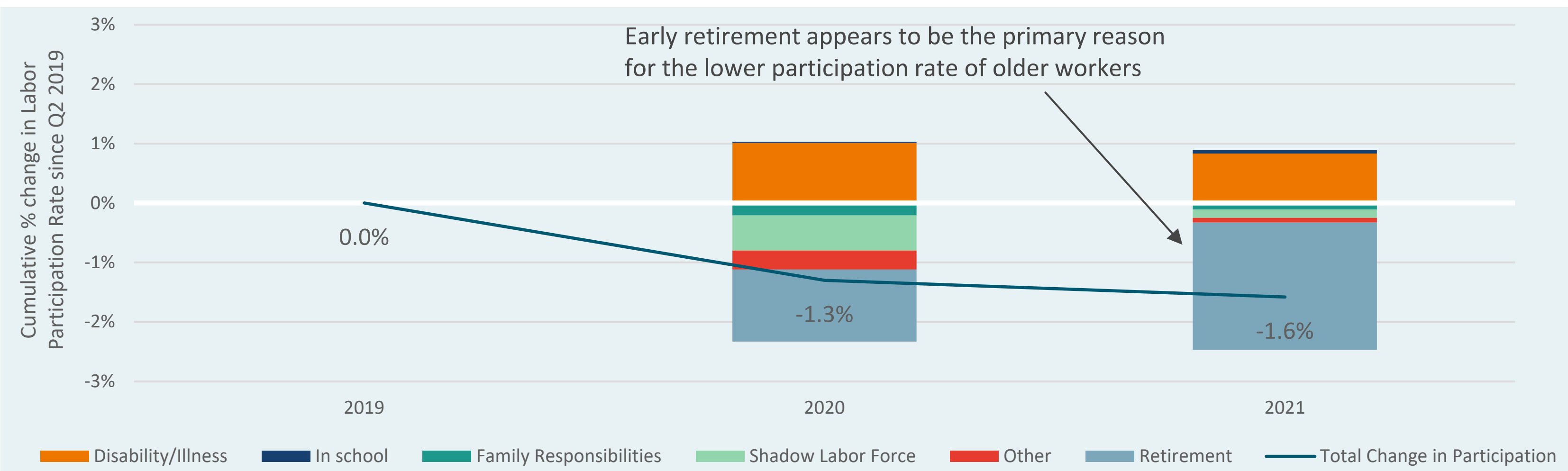
% OF AMERICANS RETIRED

	Women		Men	
Age cohort	**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

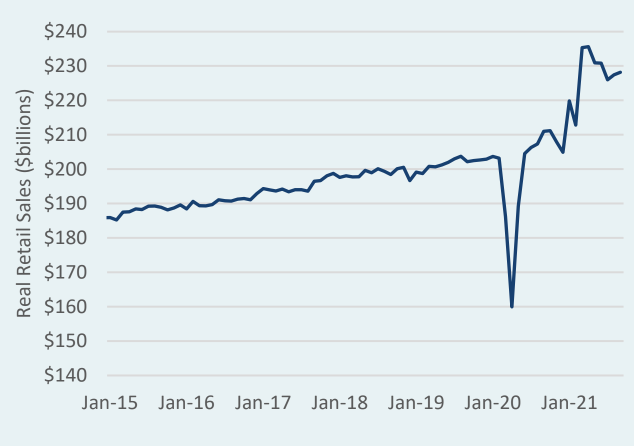
The consumer

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.

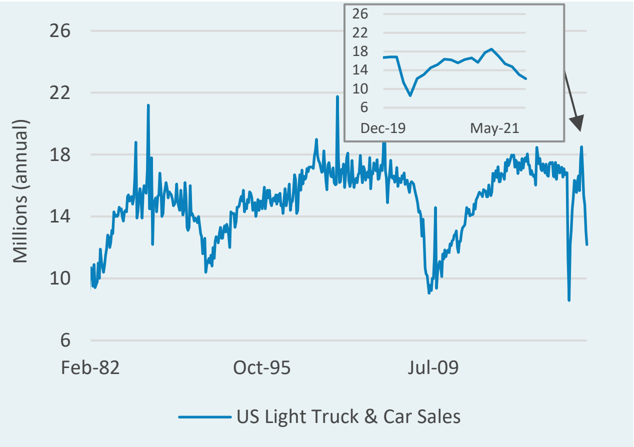
According to anonymized cellular phone data collected by Google for COVID-19 public health research, most economic activity seems to be back to normal for the most part. Public transportation and workplace travel remains the exception, though a recent uptick in workplace mobility might imply that some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

REAL RETAIL SALES



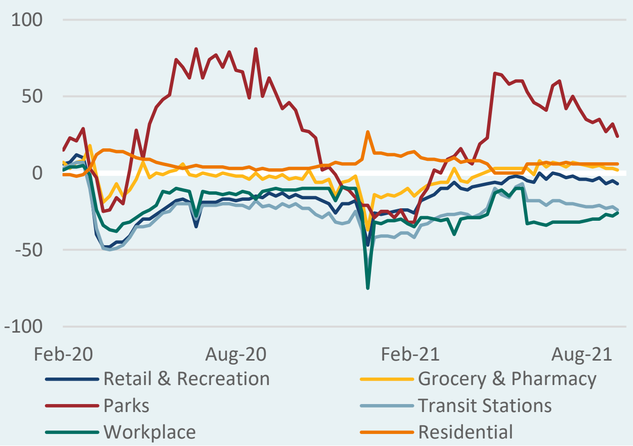
Source: FRED, as of 9/30/21

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

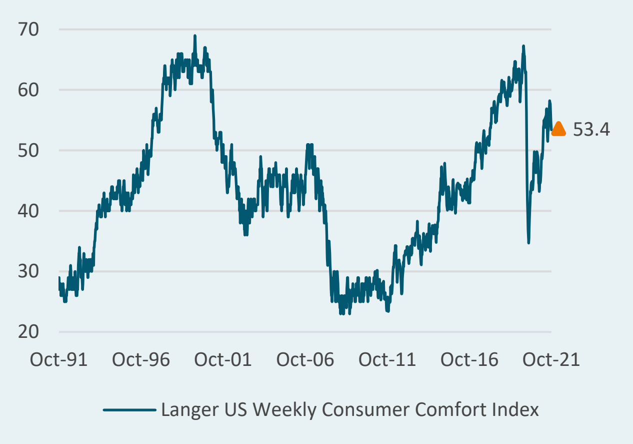
Sentiment

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.

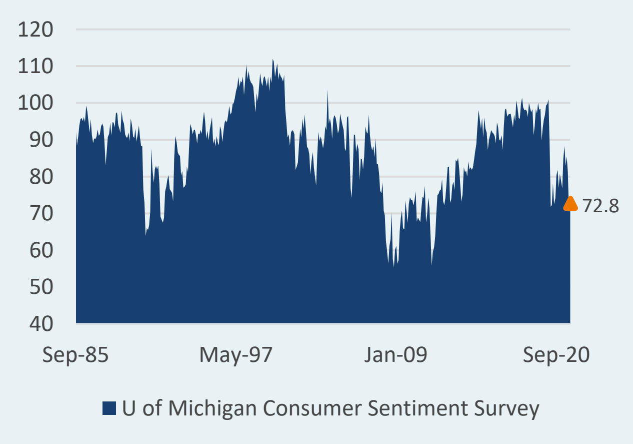
The NFIB Small Business Optimism index fell from 102.5 to 99.1 during the quarter. As reported, "Small business owners are doing their best to meet the needs of customers, but are unable to hire workers or receive the needed supplies and inventories," said NFIB Chief Economist Bill Dunkelberg. "The outlook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

CONSUMER COMFORT



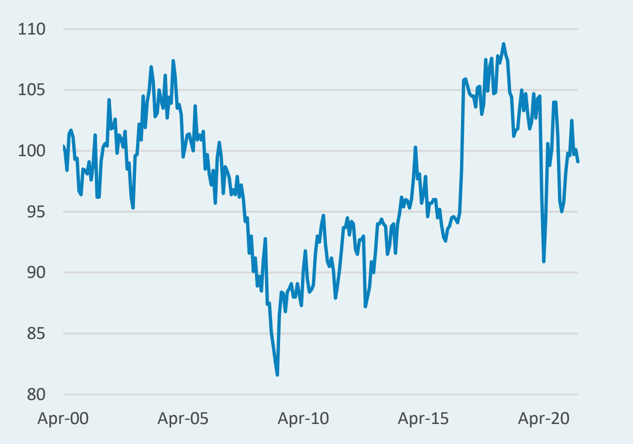
Source: Bloomberg, as of 9/30/21

CONSUMER SENTIMENT



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

SMALL BUSINESS OPTIMISM



Source: NFIB, as of 9/30/21

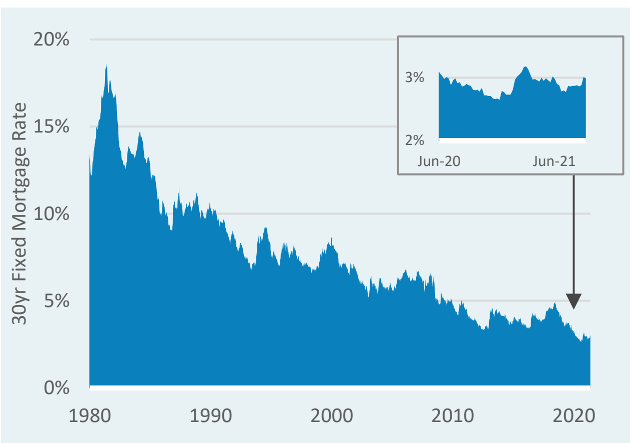
Housing

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.

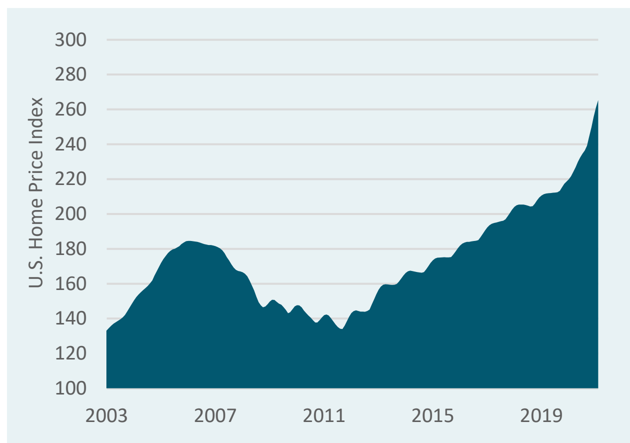
The cost of renting has seen a considerable rise throughout the pandemic, with rents up 9.2% year-over-year in September, according to Zillow. The rise in rent prices has differed quite a bit across the country, and it may be reasonable to assume that states with more outgoing net migration (ex: New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



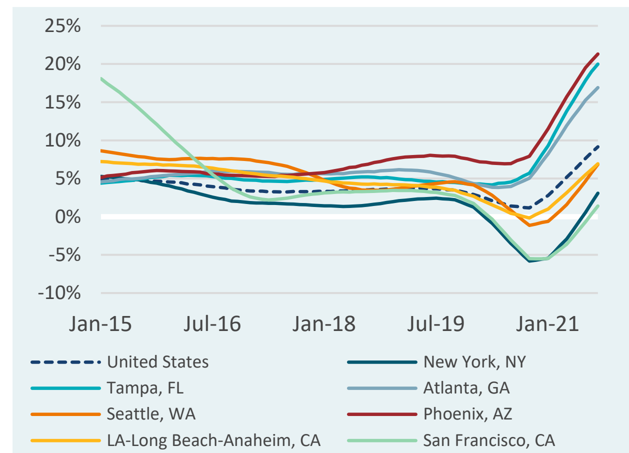
Source: U.S. Census Bureau, as of 9/30/21

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 reimplementation 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.

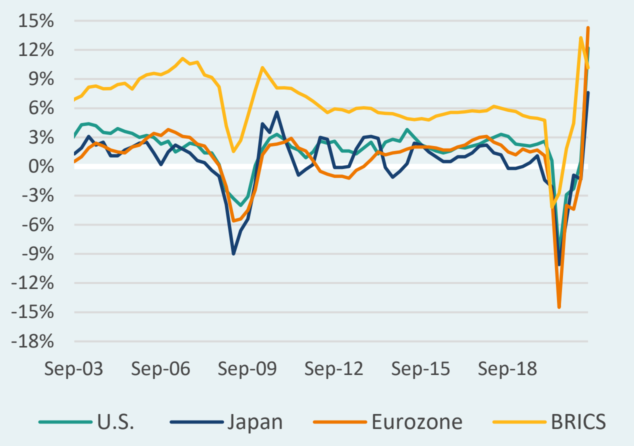
International economics

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.

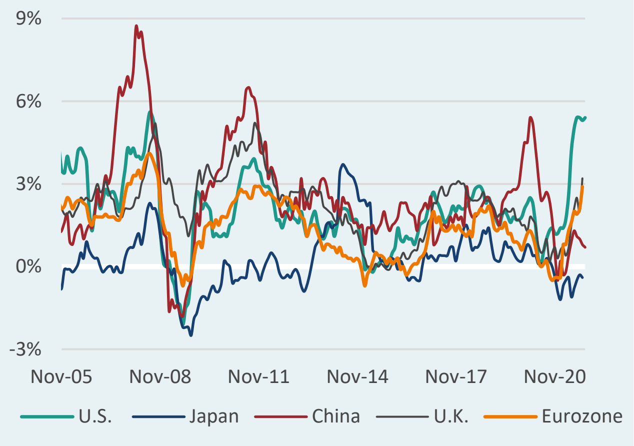
Unemployment around the world has improved as economies recover, government restrictions are loosened, and life moves back towards normalcy.

REAL GDP GROWTH (YOY)



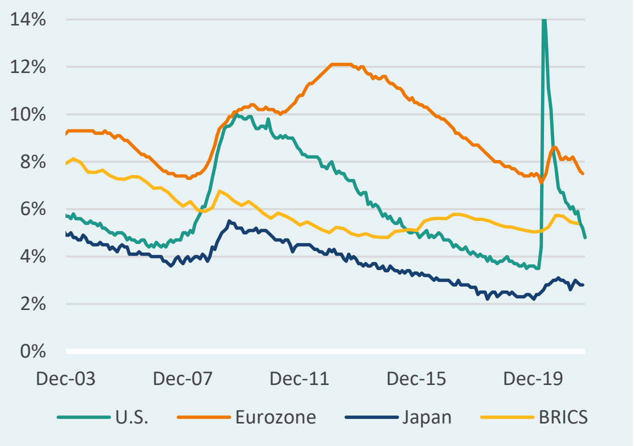
Source: Bloomberg, as of 6/30/21

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.

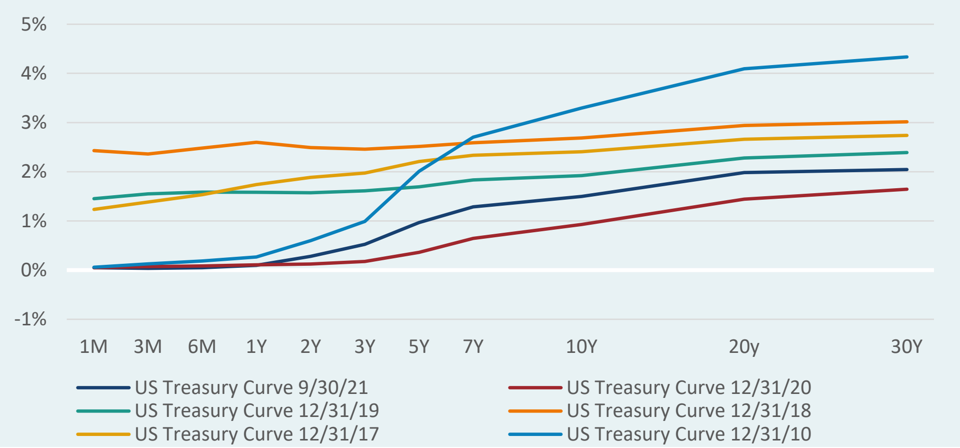
— The four-year discount margin, our preferred spread metric for bank loans, compressed slightly over the quarter from 4.32% to 4.28%.

	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%)

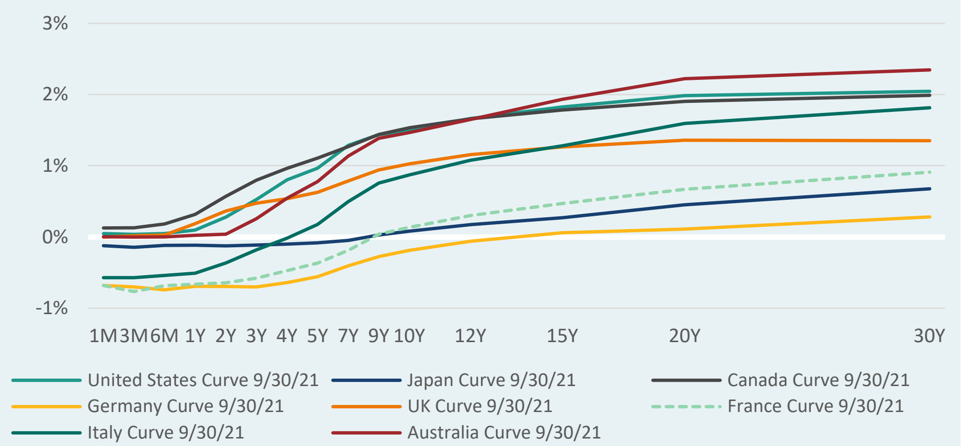
Source: Bloomberg, as of 9/30/21

Yield environment

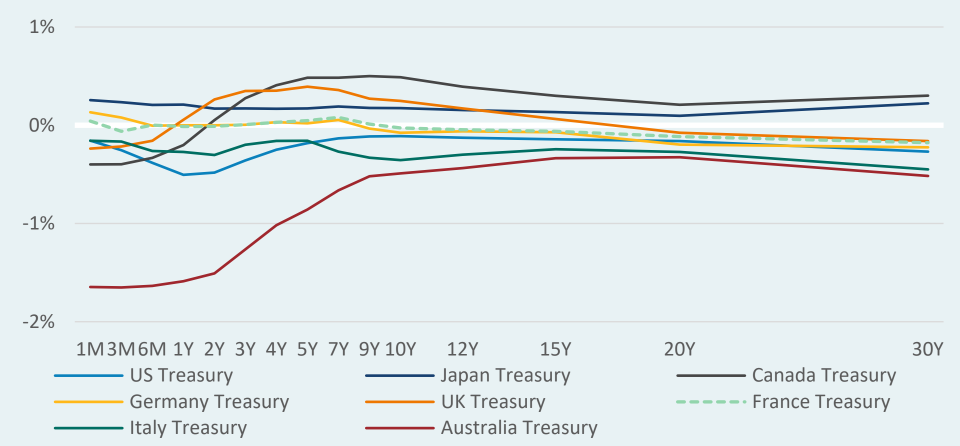
U.S. YIELD CURVE



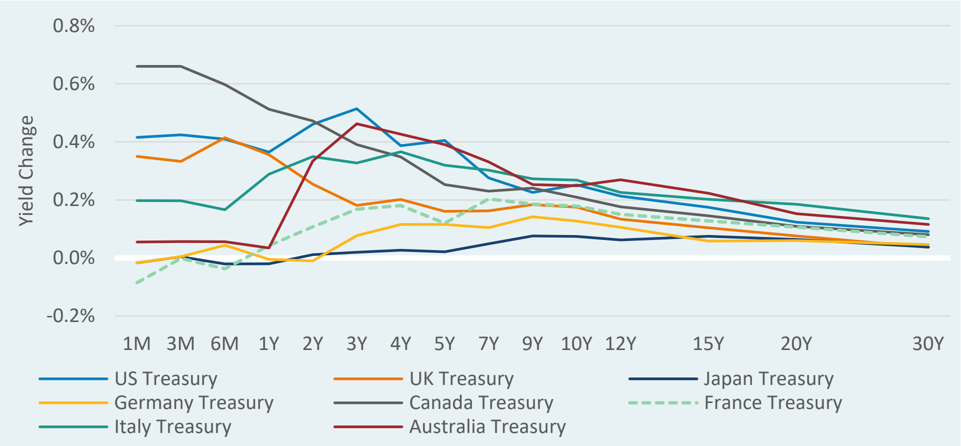
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



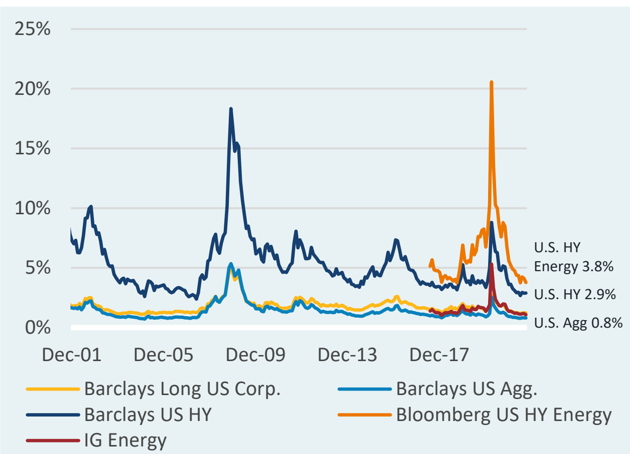
Source: Bloomberg, as of 9/30/21

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.

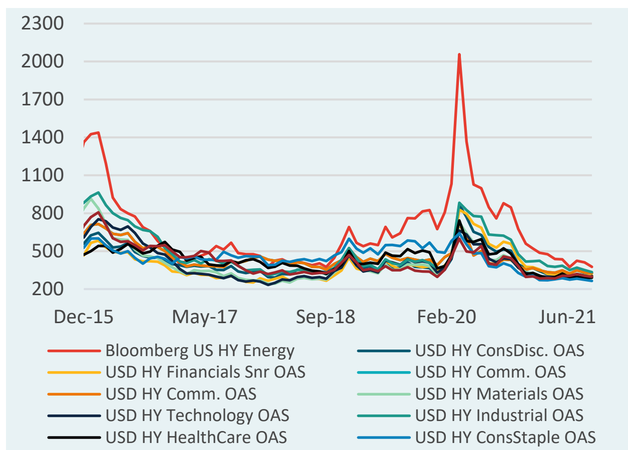
Demand for high quality credit has been strong this year with an estimated $80 billion flowing into corporate investment grade funds. At the same time, the sector has seen improvement in credit fundamentals as businesses repay some of last year's precautionary borrowing, reducing total debt levels. Strong 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

	Credit Spread (OAS)	
Market	**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)*

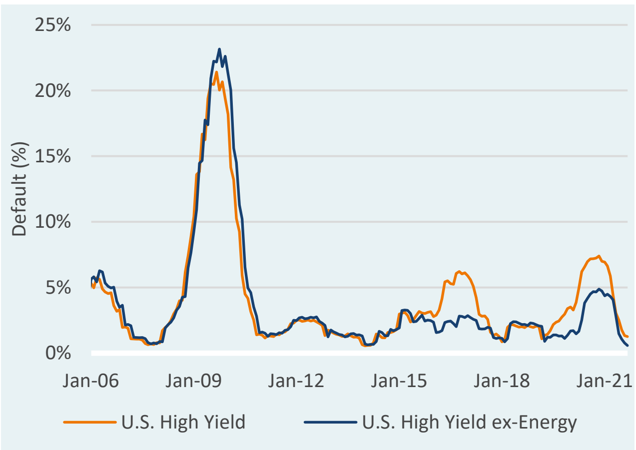
Default & issuance

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).

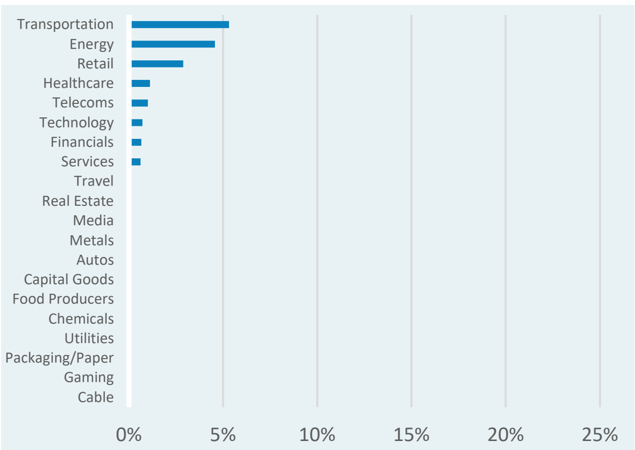
Investment grade issuance for the quarter totaled $321 billion, below first ($423 billion) and second quarter ($350 billion) issuance but in-line with the 4-year average of $323 billion. Of note, year-to-date Financial sector issuance has seen an uptick, accounting for 42% of issuance versus its four-year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

HY DEFAULT RATE (ROLLING 1-YEAR)



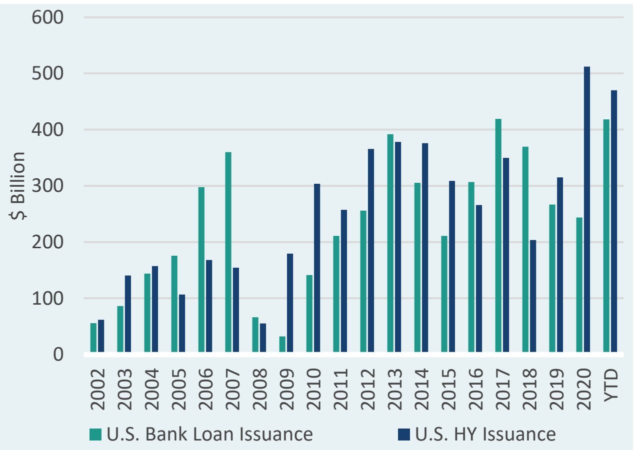
Source: BofA Merrill Lynch, as of 9/30/21

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%).

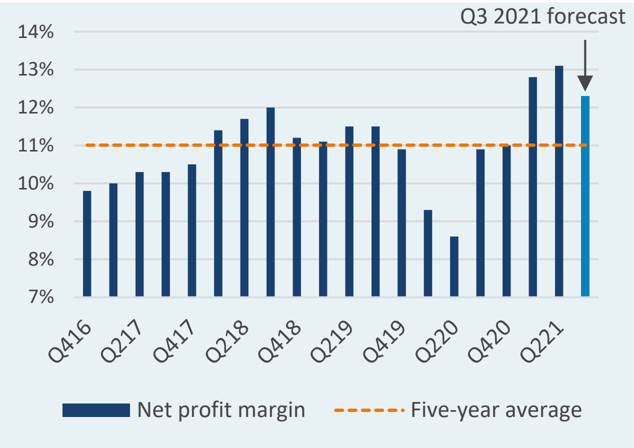
Performance over the near-term may be constrained by a degree of economic slowdown induced by the COVID-19 Delta variant, as well as moderating earnings growth expectations, although the analyst consensus price target for the S&P 500 over the next year is 5051, as of October 6th.

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

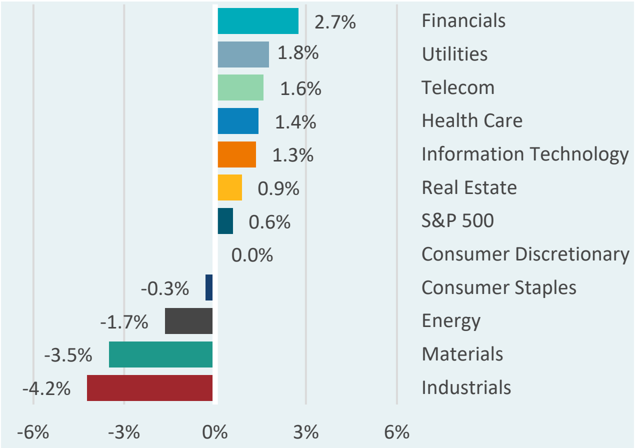
Source: Standard & Poor's, as of 9/30/21

S&P 500 NET PROFIT MARGINS



Source: FactSet, as of 10/18/21

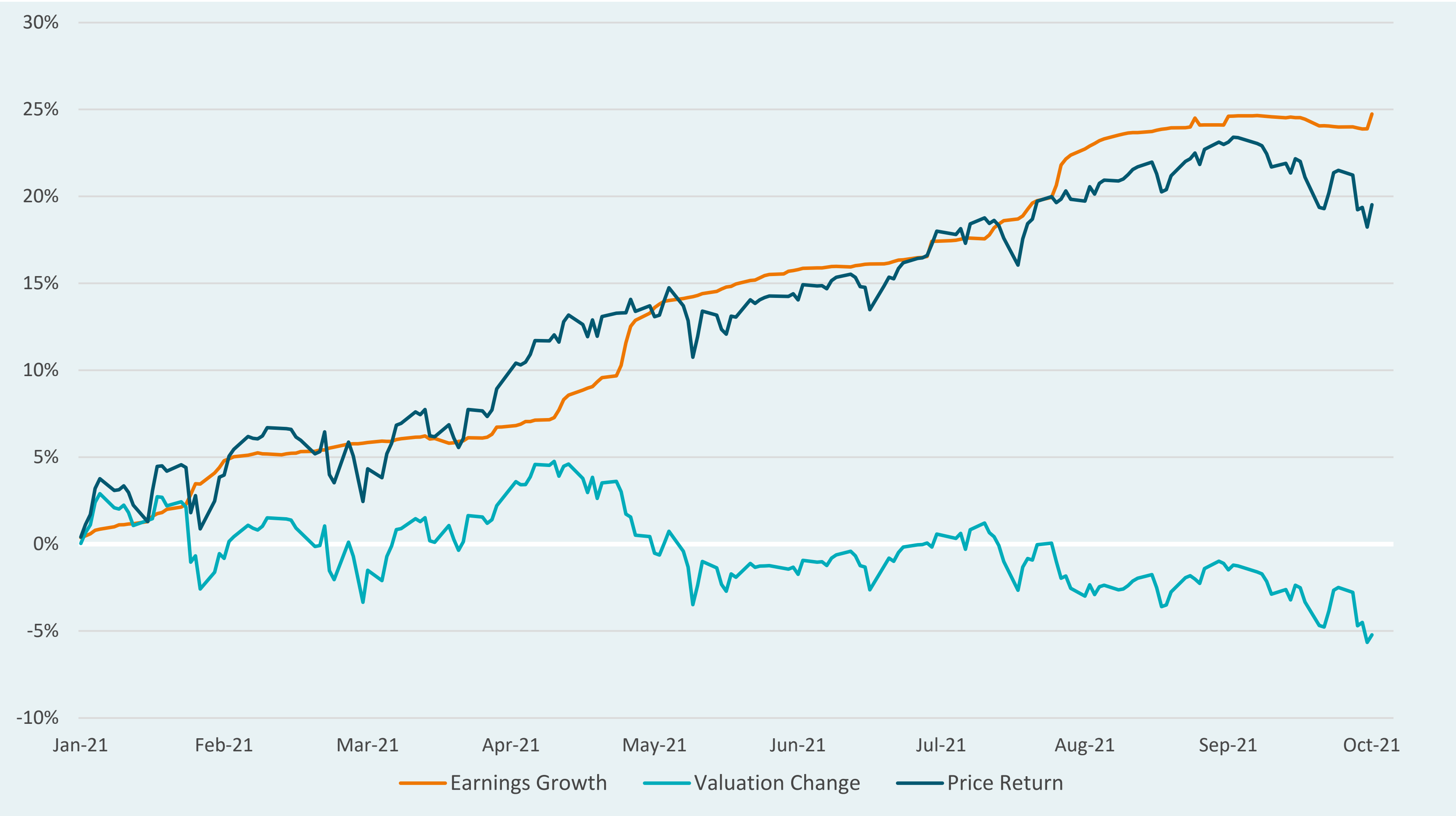
Q3 SECTOR PERFORMANCE



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

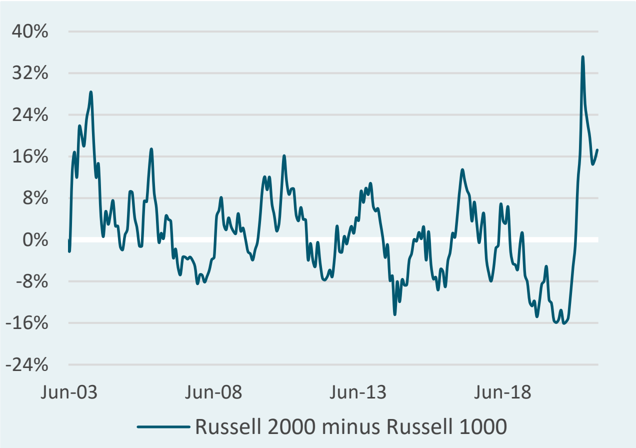
Domestic equity size & style

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.

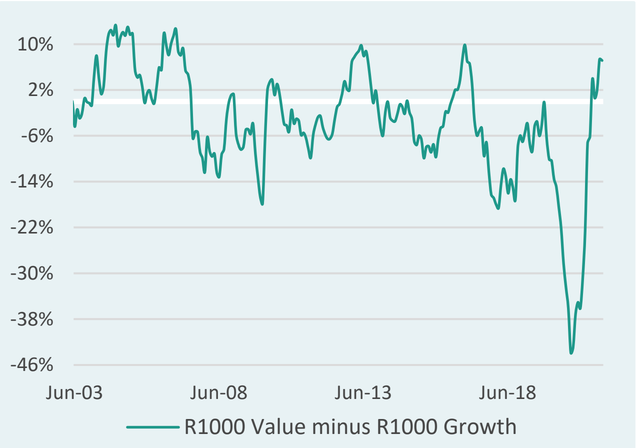
Large cap and growth stocks outperformed during Q3

SMALL CAP VS LARGE CAP (YOY)



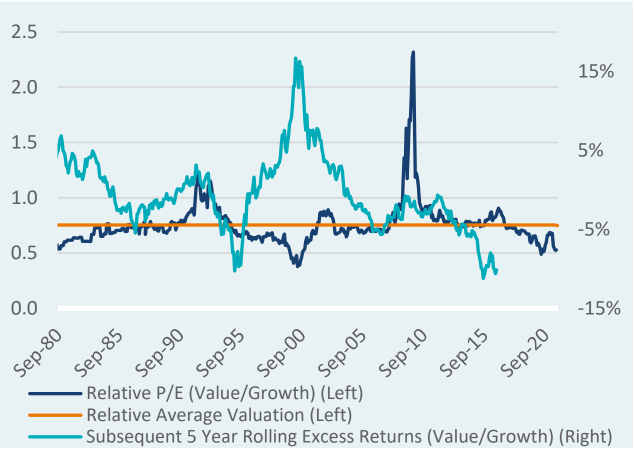
Source: FTSE, as of 9/30/21

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.

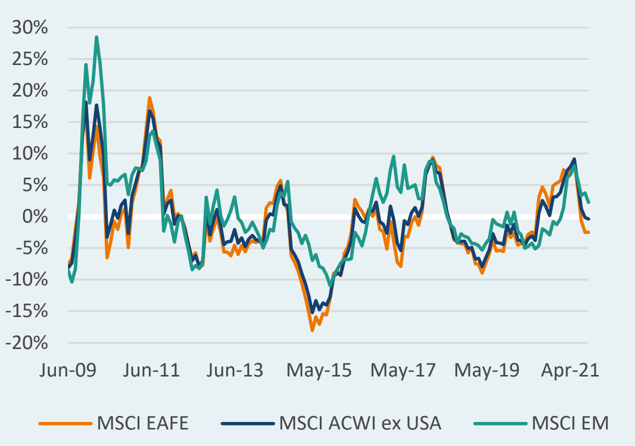
Japanese equities (MSCI Japan +4.6%) rallied on strong earnings, and on the news that Prime Minister Suga's successor, Fumio Kishida, would be less likely to pursue tax hikes on investment income. Japan's vaccination rate also improved considerably, and ended the quarter in line with major European countries,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

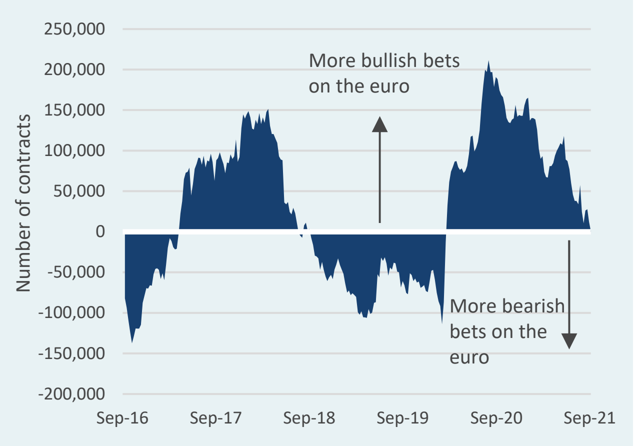
Source: MSCI, as of 9/30/21

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.

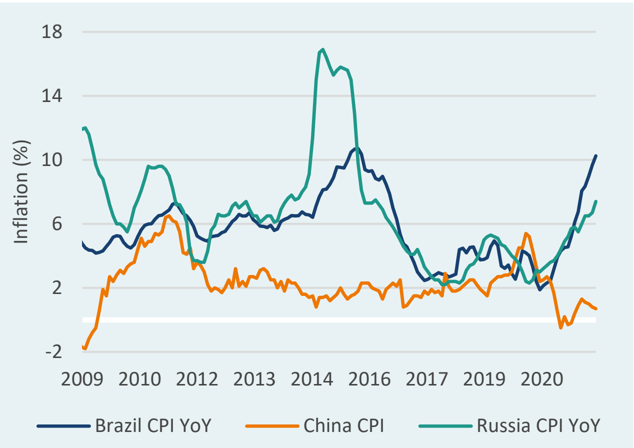
Latin American emerging markets have taken the lead over Asian emerging markets over the past year, a notable change from strong Asian leadership in recent years (MSCI EM Latin America +27.3%, MSCI EM Asia +13.9%)

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

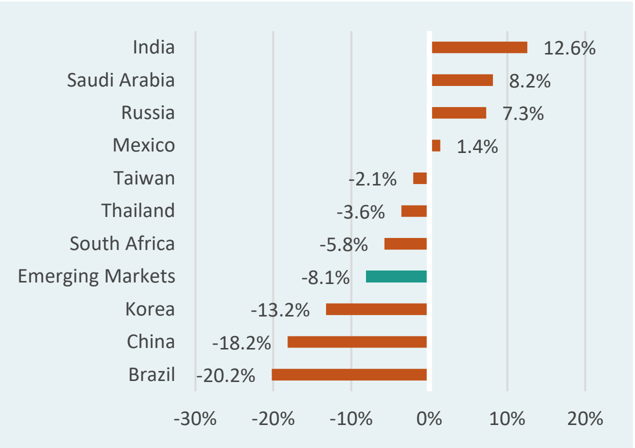
Source: MSCI, as of 9/30/21

INFLATION (YOY)



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

Q3 PERFORMANCE – TOP 10 EM CONSTITUENTS



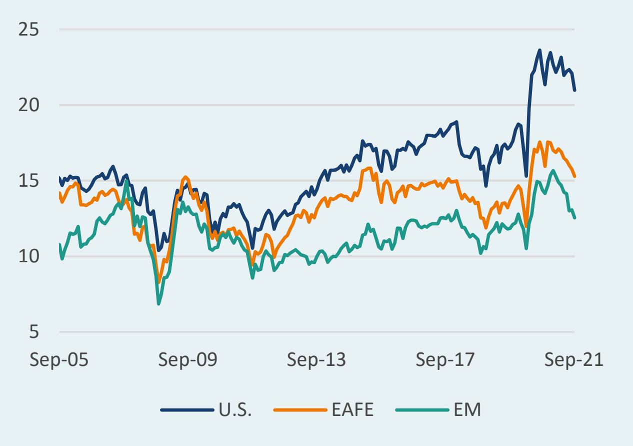
Source: Bloomberg, MSCI, as of 9/30/21, performance in USD terms

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.

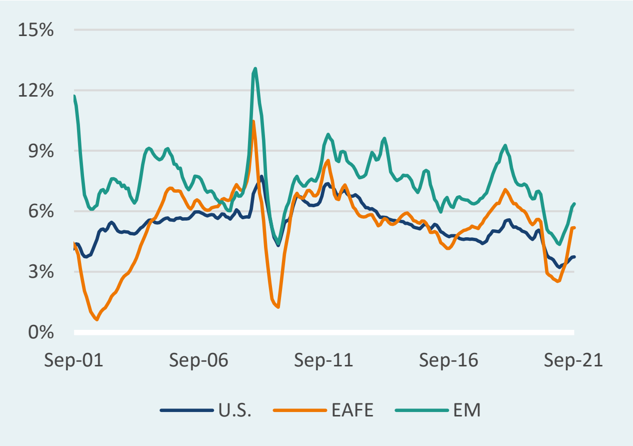
Global equity earnings yields improved considerably, as trailing 12-month earnings have rebounded from low levels. Price growth has moderated in the U.S. and has moved into negative territory across international developed and emerging market equities. The question moving ahead will be whether valuations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



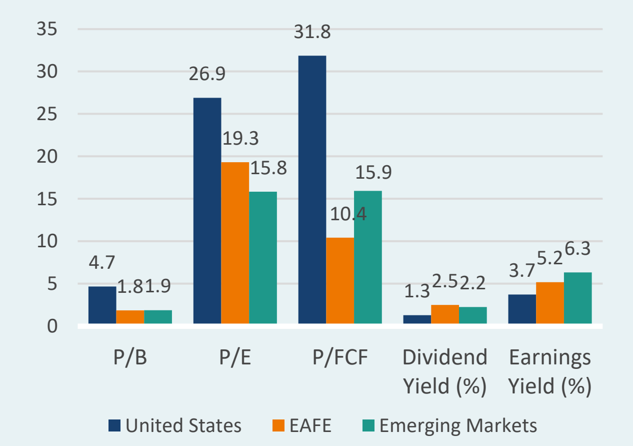
Source: MSCI, 12m forward P/E, as of 9/30/21

CURRENT EARNINGS YIELD (3-MONTH AVERAGE)



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

VALUATION METRICS (3-MONTH AVERAGE)



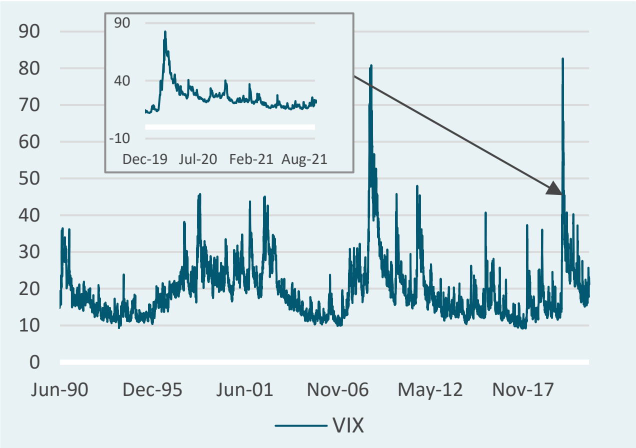
Source: Bloomberg, MSCI as of 9/30/21 - trailing P/E

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.

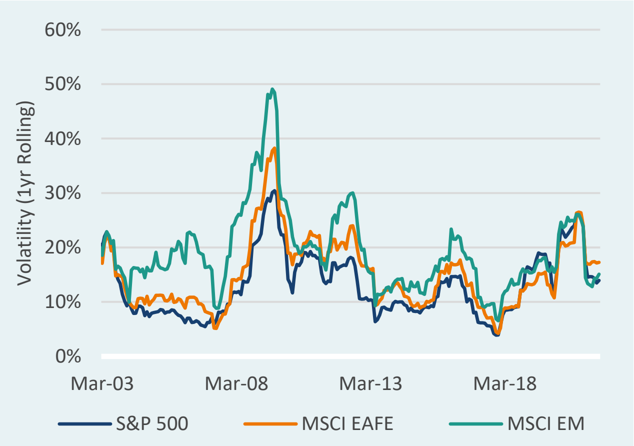
As we observed last quarter, it does seem that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high inflation could indeed persist, and most governments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



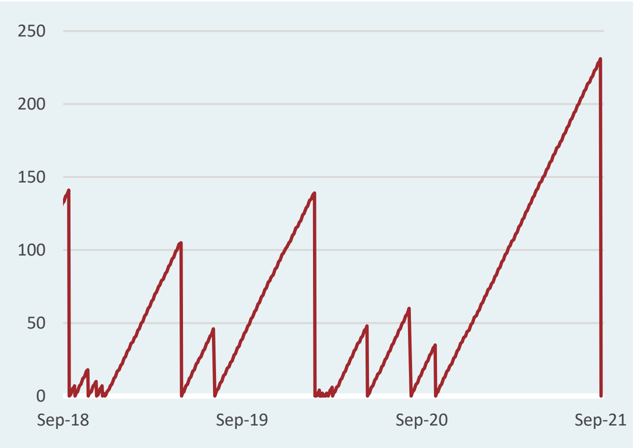
Source: Cboe, as of 9/30/21

REALIZED VOLATILITY



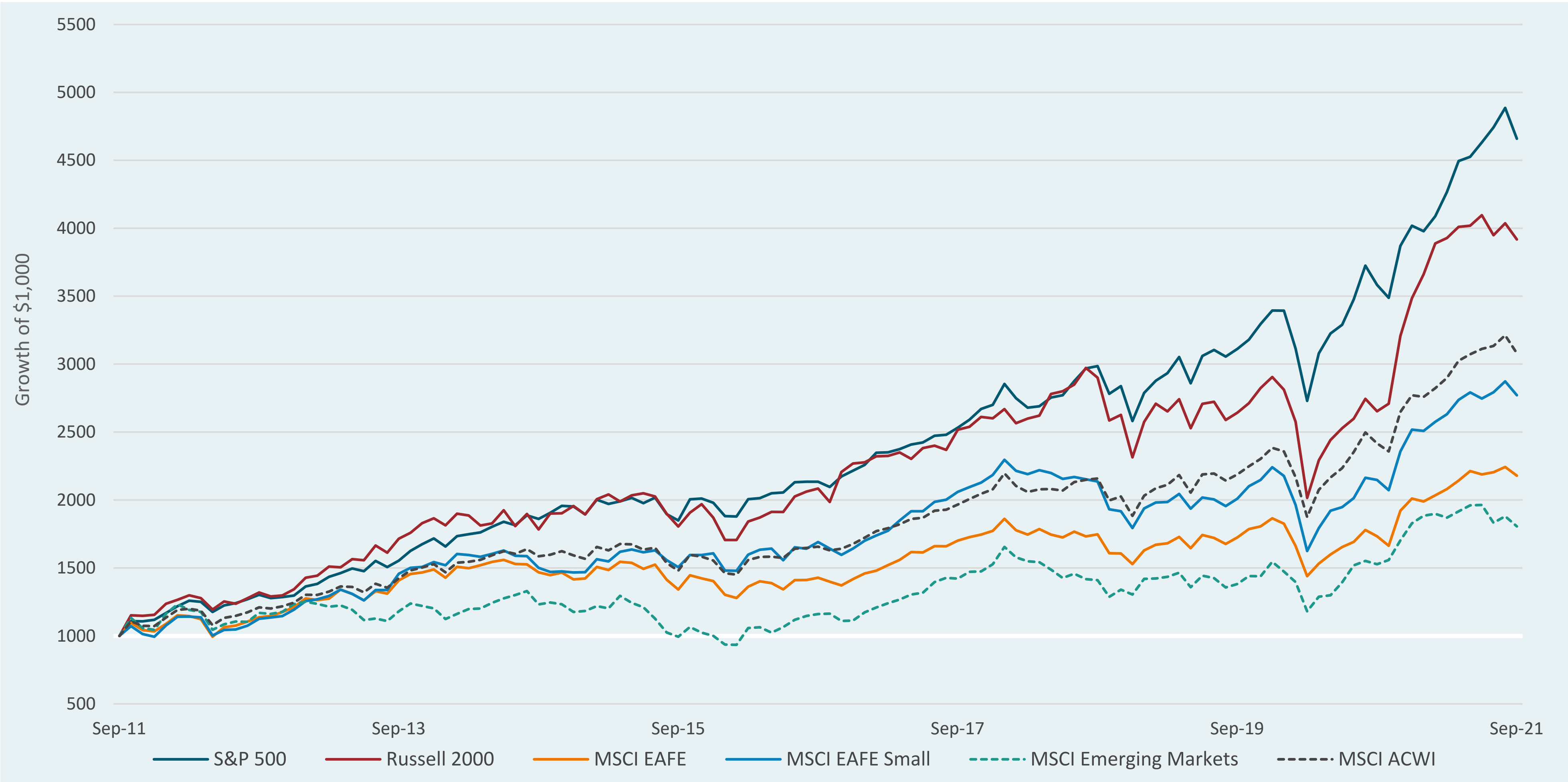
Source: Standard & Poor's, MSCI, as of 9/30/21

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.

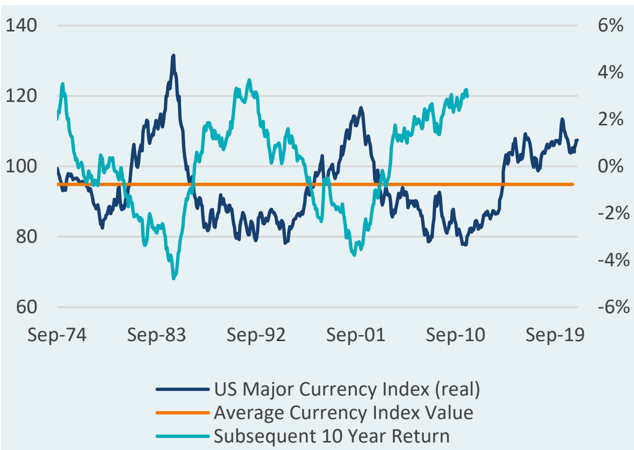
U.S. dollar sentiment reached its most optimistic level since late 2019, while sentiment surrounding the euro and pound turned from optimistic to pessimistic. Differences in monetary policy from country-to-country appear to be driving this shift in sentiment. While the U.S. Federal Reserve is expected 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

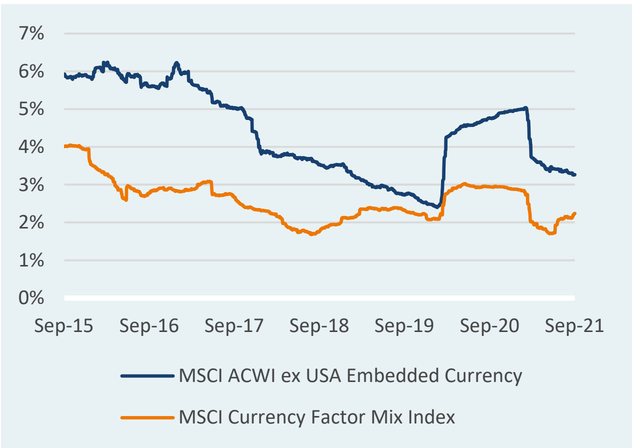
Source: Bloomberg, as of 9/30/21

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

BEST

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	5-Year	10-Year
Commodities	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	29.1	22.8	19.7
Small Cap Value	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	22.9	17.1	16.8
Large Cap Value	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	16.1	15.3	15.7
Large Cap Equity	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	15.2	13.5	14.6
Large Cap Growth	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	14.3	11.0	13.5
Small Cap Equity	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.4	14.0	12.4	10.9	13.2
International Equity	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.0	10.3	8.3	9.2	8.8
Hedge Funds of Funds	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	6.4	8.9	8.1
Real Estate	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	5.4	8.8	8.0
60/40 Global Portfolio	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	5.0	6.1	6.1
Small Cap Growth	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	5.9	4.5
Cash	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	4.5	3.0
Emerging Markets Equity	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.2	2.9	0.6
US Bonds	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-1.6	1.1	-2.7

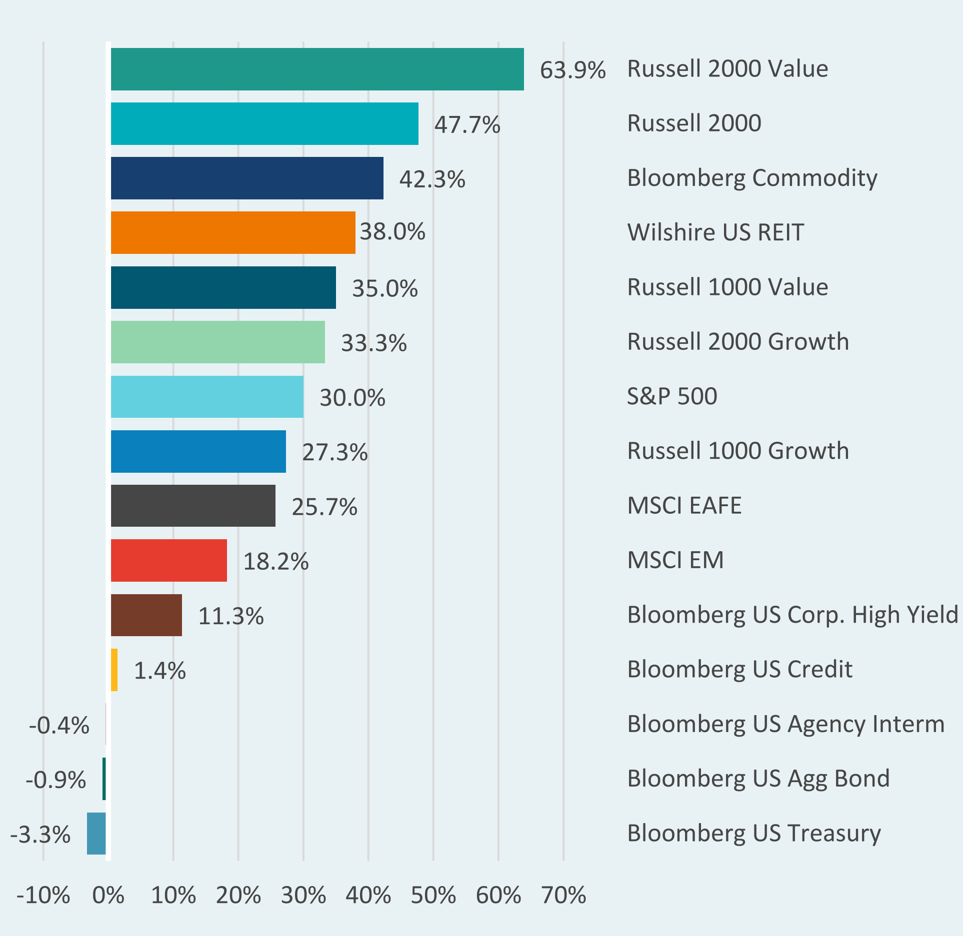
WORST

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

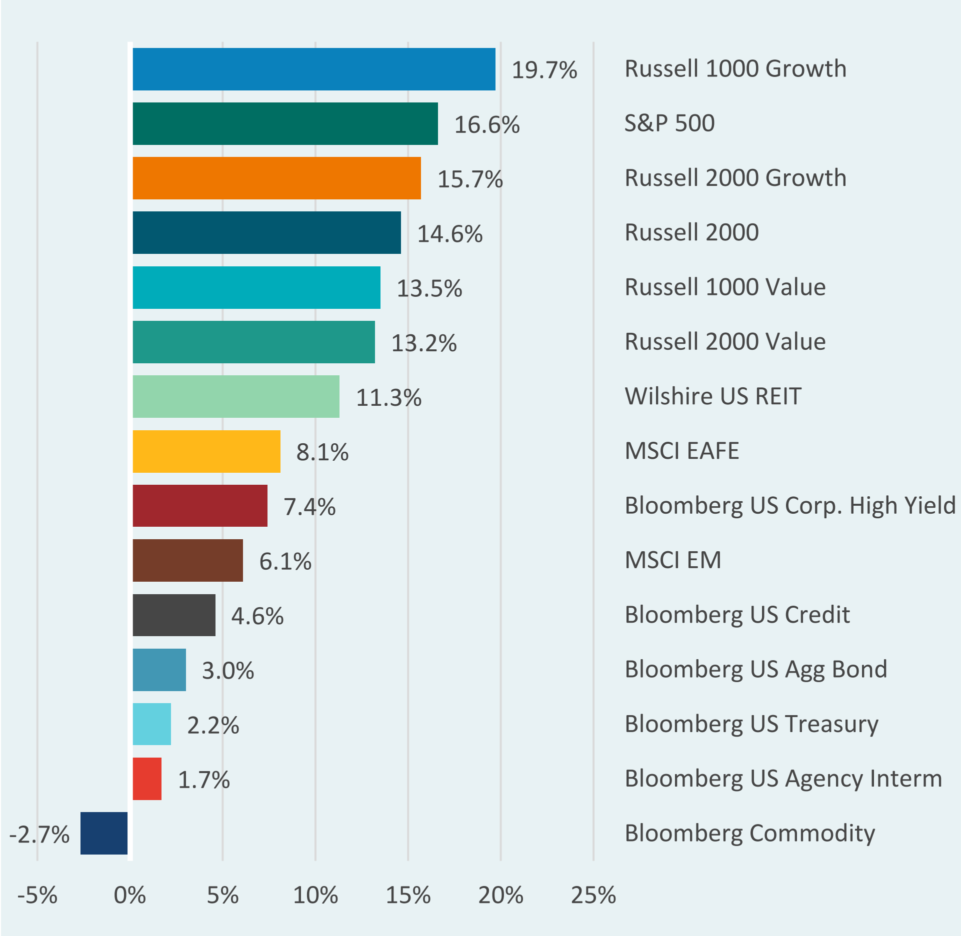
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill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

Major asset class returns

ONE YEAR ENDING SEPTEMBER



TEN YEARS ENDING SEPTEMBER



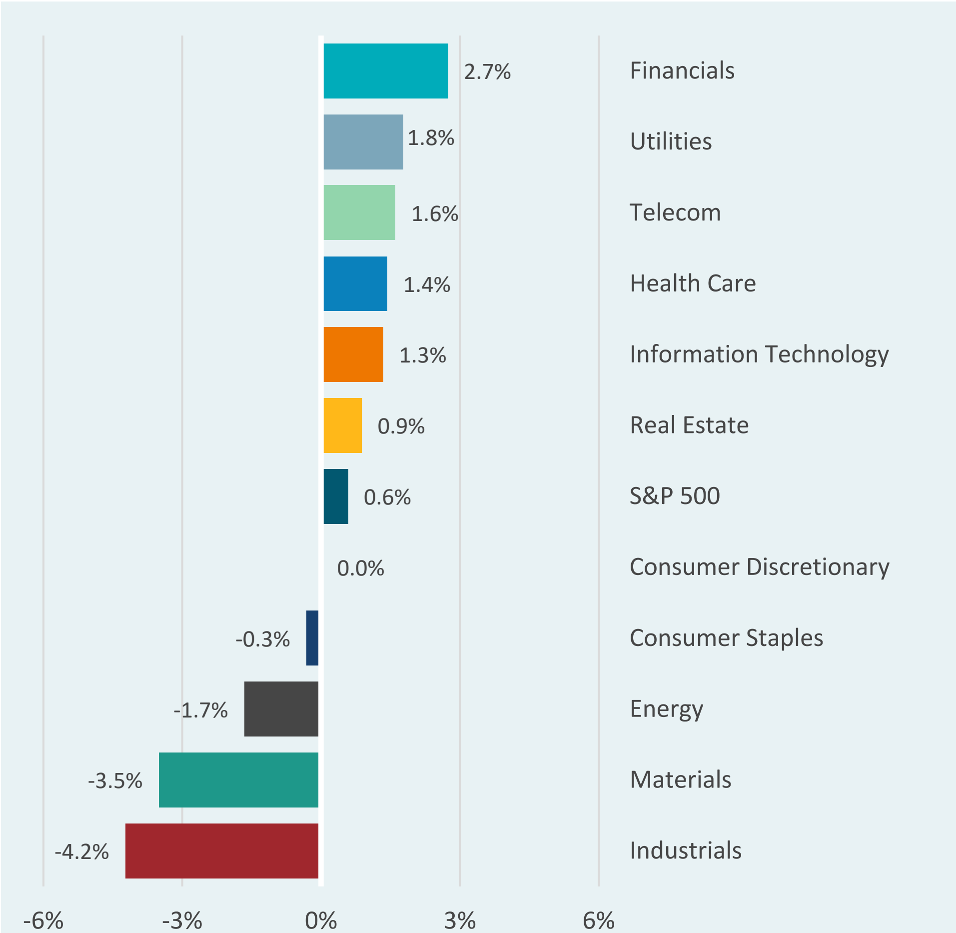
**Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.*

Source: Morningstar, as of 9/30/21

Source: Morningstar, as of 9/30/21

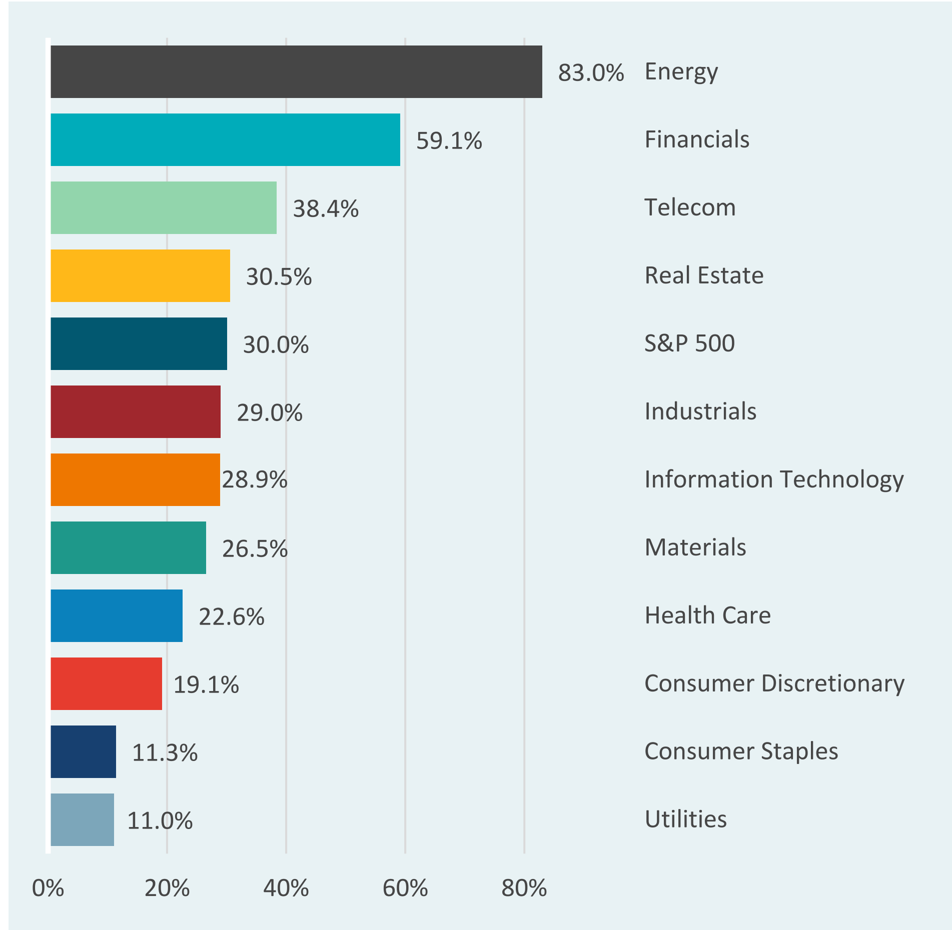
S&P 500 sector returns

Q3 2021



Source: Morningstar, as of 9/30/21

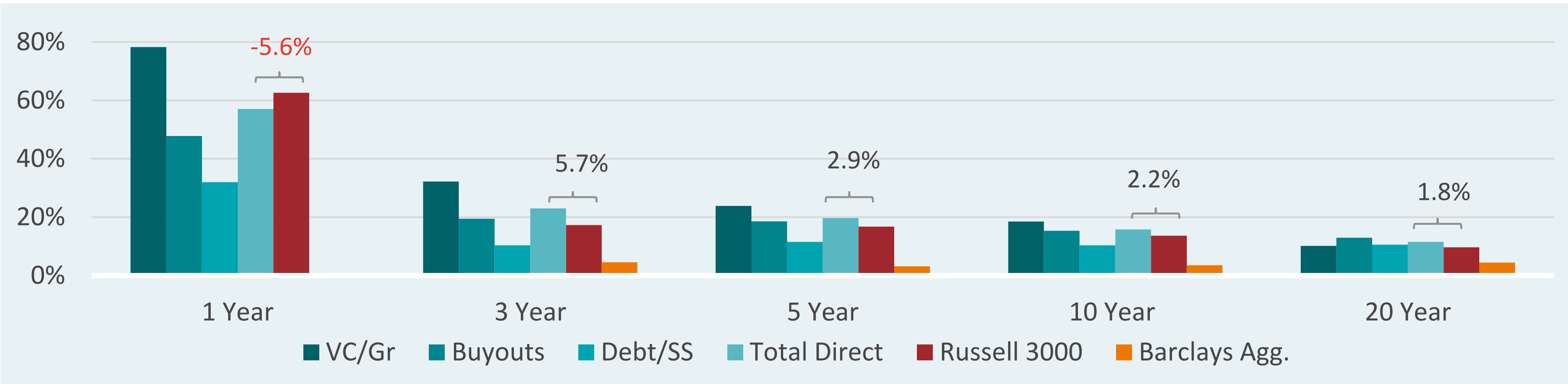
ONE YEAR ENDING SEPTEMBER



Source: Morningstar, as of 9/30/21

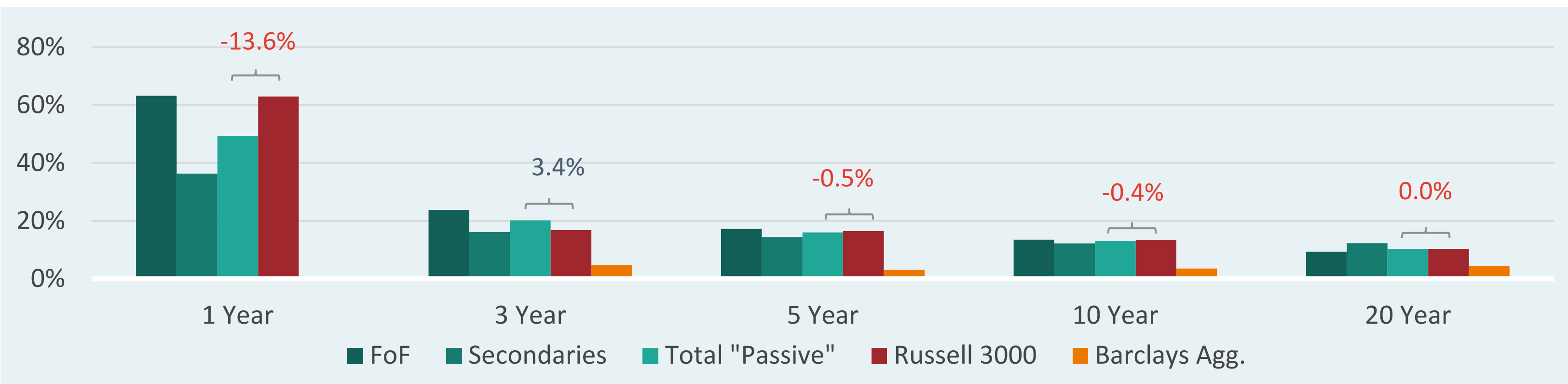
Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



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

"PASSIVE" STRATEGIES

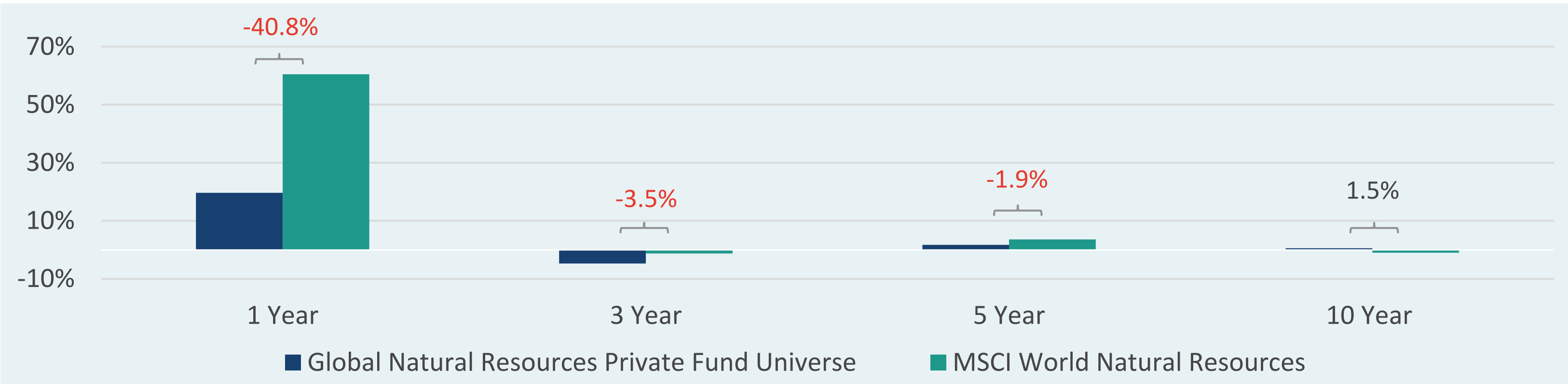


"Passive" strategies underperformed comparable public equities across all time periods, aside from the 3-year basis.

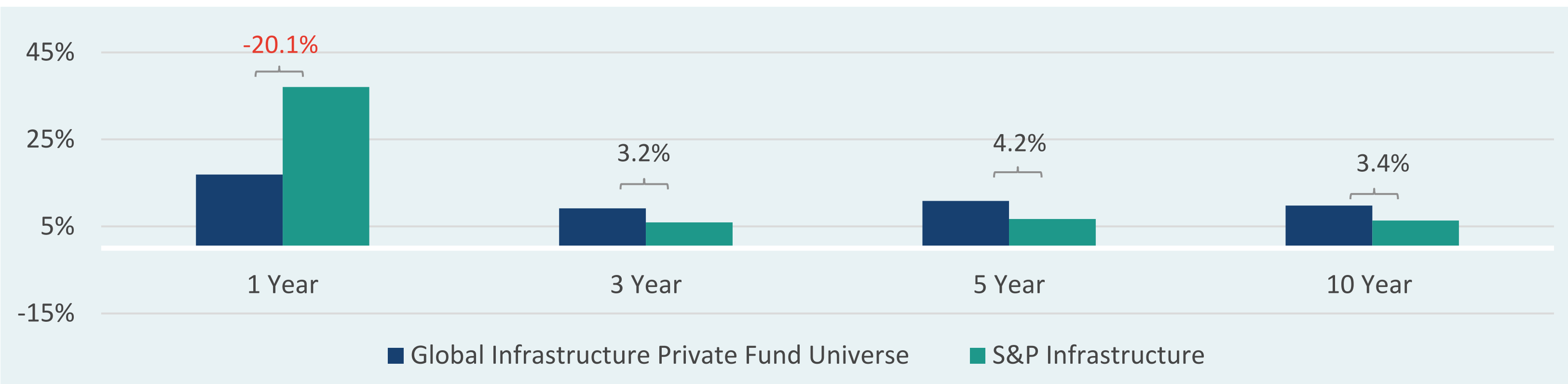
Sources: Refinitiv Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of March 31, 2021. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.

Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



GLOBAL INFRASTRUCTURE FUNDS



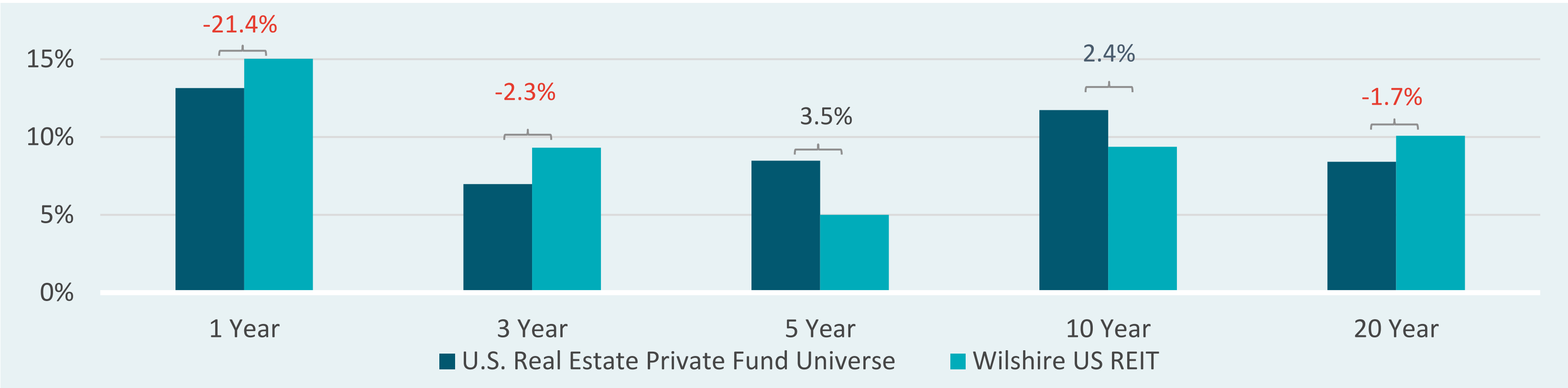
N.R. funds has lagged against the MSCI World Natural Resources benchmark across all time periods, aside from the 10-year.

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

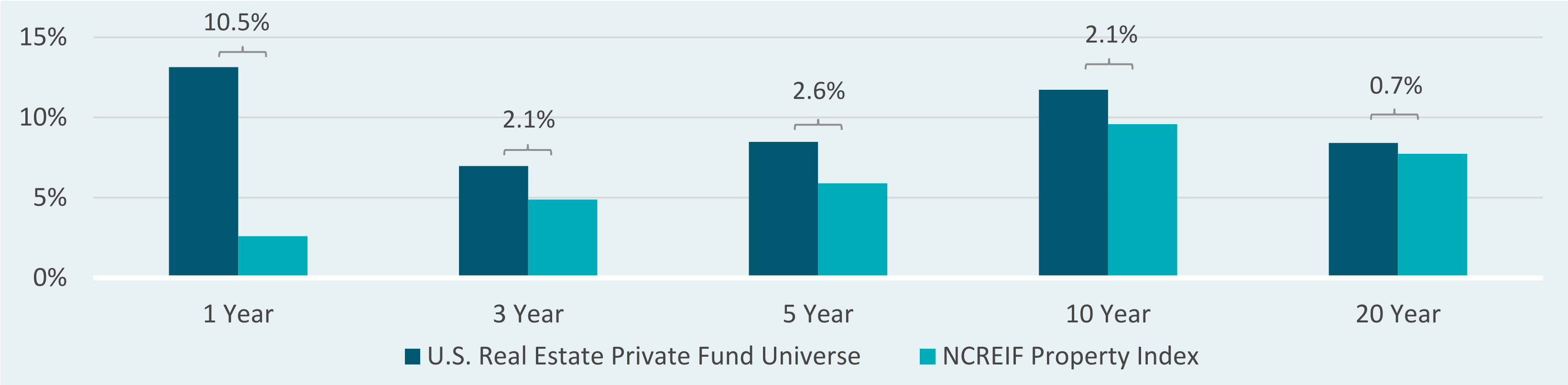
Sources: Refinitiv C|A PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of March 31, 2021. Public Market Equivalent returns resulted from 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 REAL ESTATE FUNDS VS. CORE FUNDS



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

Sources: Refinitiv C|A PME: Global and U.S. Real Estate universes as of 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

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
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

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
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.langerresearch.com)*

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

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

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

Notices & disclosures

Imperial County Employees' Retirement System

Investment Performance Review

Period Ending: September 30, 2021

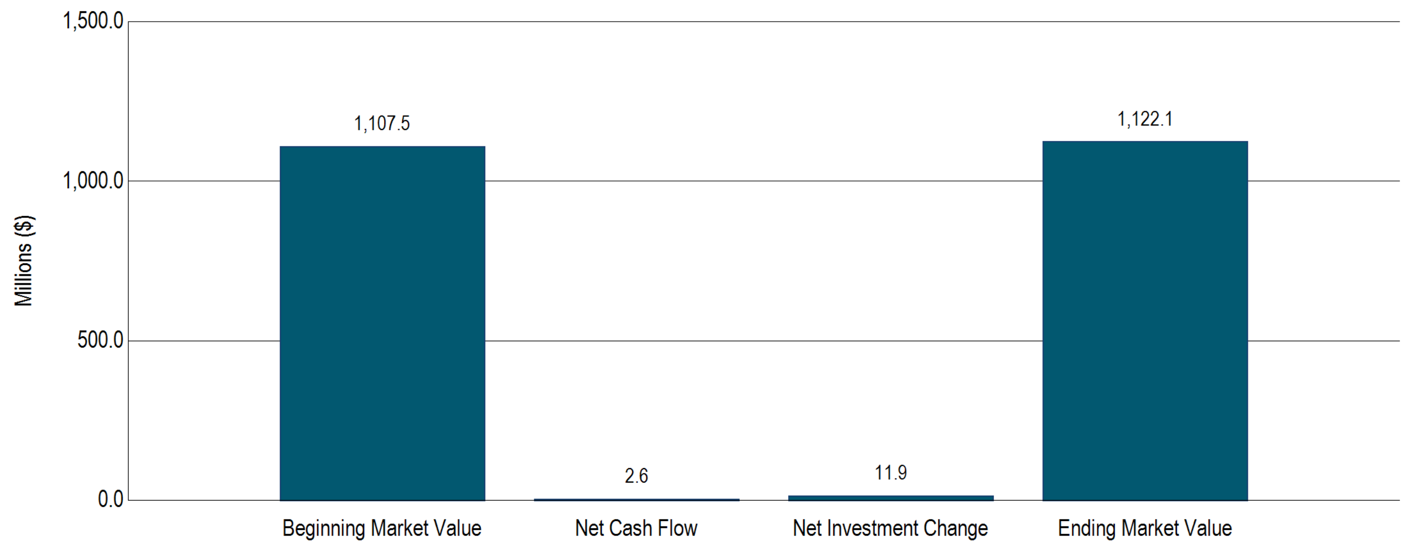
Verus

VERUSINVESTMENTS.COM

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

Portfolio Reconciliation

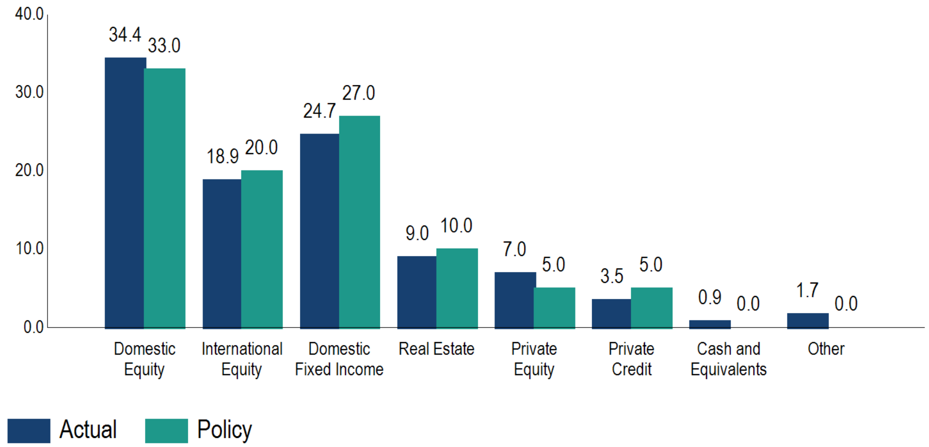
	Last Three Months	Fiscal Year-To-Date	One Year
Beginning Market Value	$1,107,543,546	$1,107,543,546	$926,931,626
Net Cash Flow	$2,627,881	$2,627,881	-$6,366,352
Net Investment Change	$11,902,884	$11,902,884	$201,509,037
Ending Market Value	$1,122,074,311	$1,122,074,311	$1,122,074,311



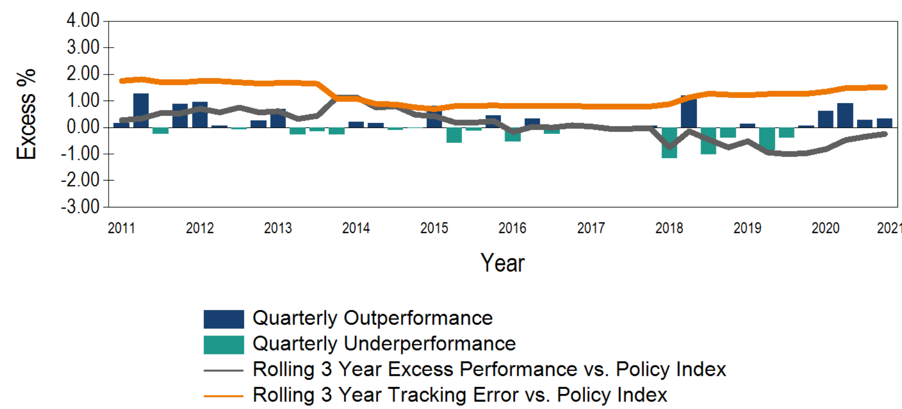
Contributions and withdrawals may include intra-account transfers between managers/funds. Fee transactions are excluded from Portfolio Reconciliation.

	QTD	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Fund	1.1	10.8	1.1	21.9	10.9	10.4	9.7
Policy Index	0.7	9.2	0.7	19.5	11.1	10.6	9.4
InvMetrics Public DB Net Rank	3	9	3	22	40	50	58
Total Domestic Equity	-0.1	15.0	-0.1	31.9	16.0	16.9	16.4
Russell 3000	-0.1	15.0	-0.1	31.9	16.0	16.9	16.6
eV US All Cap Core Equity Net Rank	56	64	56	50	40	31	24
Total International Equity	-1.8	8.2	-1.8	27.4	7.7	8.8	7.6
MSCI ACWI ex USA Gross	-2.9	6.3	-2.9	24.4	8.5	9.4	8.0
InvMetrics Public DB ex-US Eq Net Rank	22	13	22	15	80	67	81
Total Fixed Income	0.3	0.0	0.3	1.9	6.5	3.9	4.1
Bloomberg US Aggregate TR	0.1	-1.6	0.1	-0.9	5.4	2.9	3.0
InvMetrics Public DB Total Fix Inc Net Rank	12	33	12	46	11	40	48
Total Real Estate	3.1	9.6	3.1	11.0	6.3	6.3	8.8
NCREIF ODCE Net	6.4	12.4	6.4	13.7	6.1	6.6	8.9
Total Private Equity	13.7	44.7	13.7	65.2	27.9	24.6	16.9
Private Equity Benchmark	13.7	44.7	13.7	65.2	27.9	24.6	--
Total Private Credit	3.0	10.2	3.0	14.8	9.2	--	--
Private Credit Benchmark	3.0	10.2	3.0	14.8	9.2	--	--
Total Opportunistic	5.9	18.2	5.9	23.5	4.0	8.1	12.6
Assumption Rate + 1%	2.0	6.1	2.0	8.3	8.3	8.3	8.5

Actual vs Target Allocation (%)

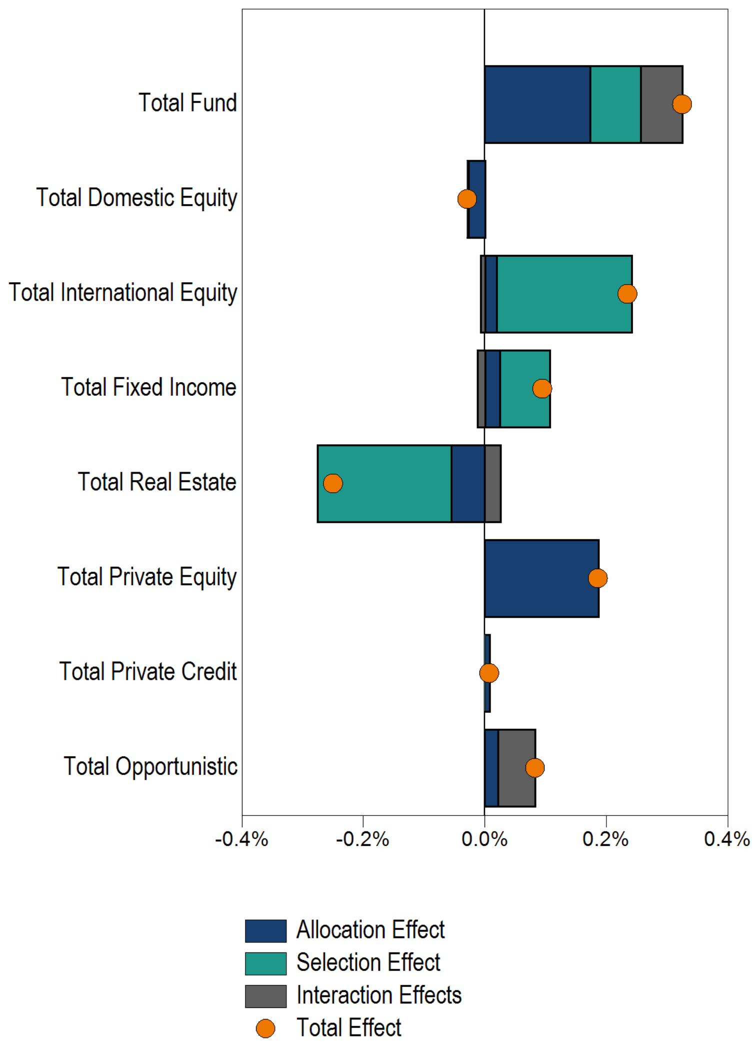


Rolling Annualized Excess Performance and Tracking Error
Total Fund vs. Policy Index



New Policy Index (as of 8/1/2020): 33% Russell 3000, 20% MSCI ACWI ex USA Gross, 27% Bloomberg Aggregate, 10% NCREIF Property, 2% Bloomberg Aggregate, 5% Private Equity Benchmark, 3% Private Credit Benchmark. Policy Index (1/1/2020-7/31/2020): 29% Russell 3000, 24% MSCI ACWI ex USA Gross, 27% Bloomberg Aggregate, 10% NCREIF Property,1% Russell 3000, 2% Bloomberg Aggregate, 4% Private Equity Benchmark, 3% Private Credit Benchmark. Prior Policy Index (10/1/2016 to 9/30/2018): 29% Russell 3000, 24% MSCI ACWI Ex USA Gross, 27% Bloomberg Aggregate, 5% NCREIF Property Index, 5% NCREIF Property Index +2%, 5% Russell 3000 +3% (Lagged), 5% Bloomberg High Yield +2% (Lagged). Prior quarter Private Equity returns, and index data are used. All returns are Net of fees. 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. As of 10/1/20 the SAA Target for equity changed to 33% Russell 3000 + 20% ACWI ex-US (see Exhibit B attached).

Attribution Effects



Performance Attribution

	Quarter	YTD
Wtd. Actual Return	1.05%	10.80%
Wtd. Index Return *	0.41%	8.79%
Excess Return	**0.64%**	**2.01%**
Selection Effect	0.21%	0.83%
Allocation Effect	0.48%	0.96%
Interaction Effect	-0.06%	0.04%

*Calculated from benchmark returns and weightings of each component.

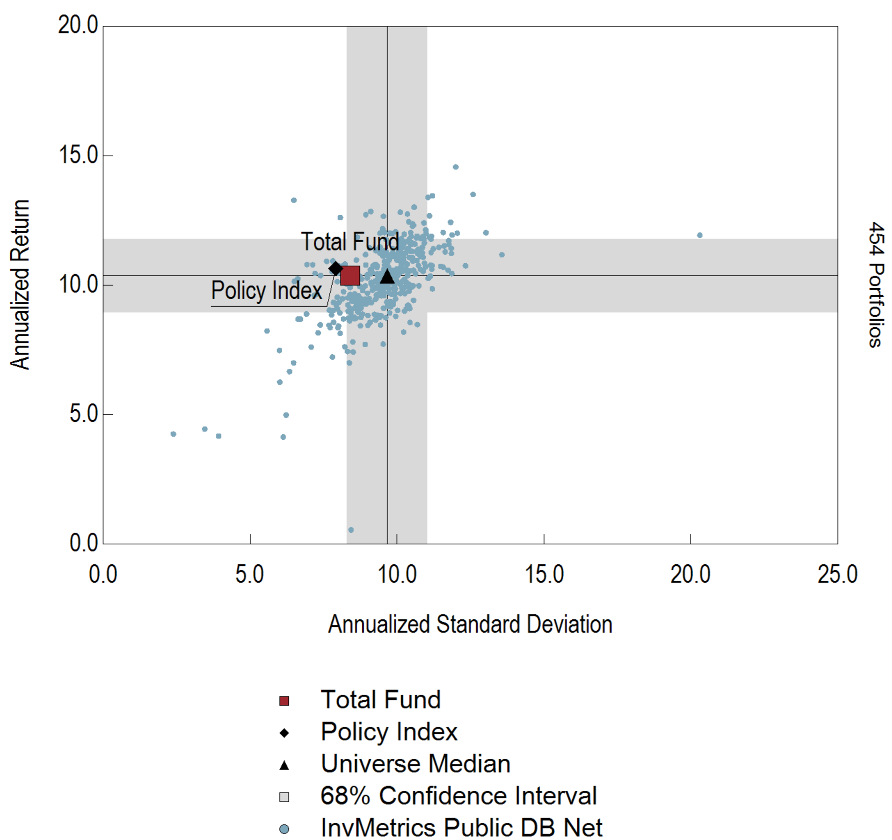
Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Domestic Equity	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Total International Equity	-1.8%	-2.9%	1.1%	0.2%	0.0%	0.0%	0.3%
Total Fixed Income	0.3%	0.1%	0.3%	0.1%	0.0%	0.0%	0.1%
Total Real Estate	3.1%	5.2%	-2.2%	-0.1%	0.2%	-0.1%	0.0%
Total Private Equity	13.7%	13.7%	0.0%	0.0%	0.2%	0.0%	0.2%
Total Private Credit	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Opportunistic	5.9%	2.0%	3.9%	0.0%	0.0%	0.1%	0.1%
Total	**1.1%**	**0.4%**	**0.6%**	**0.2%**	**0.5%**	**-0.1%**	**0.6%**

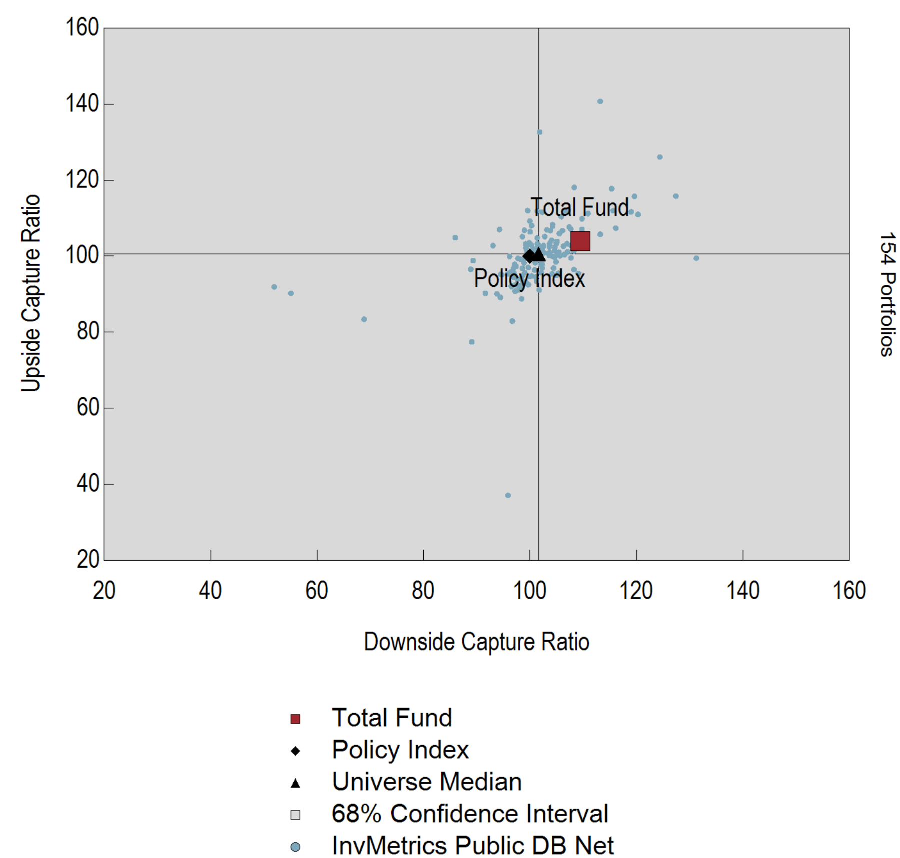
Weighted returns shown in attribution analysis may differ from actual returns.

	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
Total Fund	10.36%	-0.27%	8.41%	-0.88%	1.06	0.99%	0.99	1.10	-0.28	103.94%	109.41%

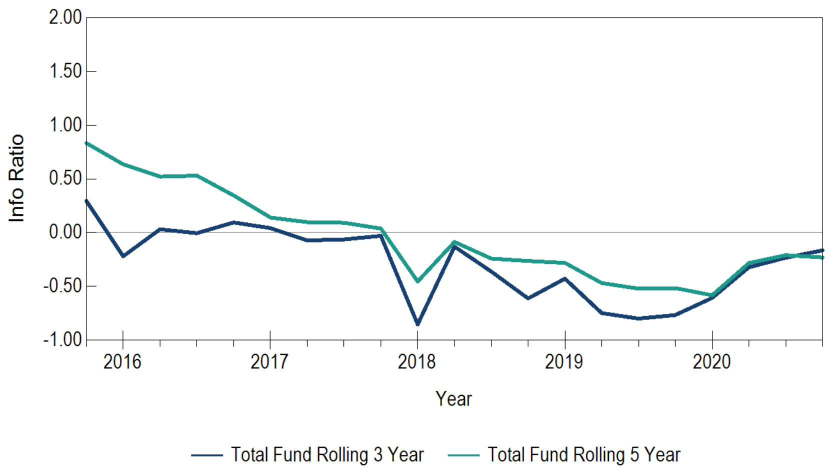
Risk vs. Return



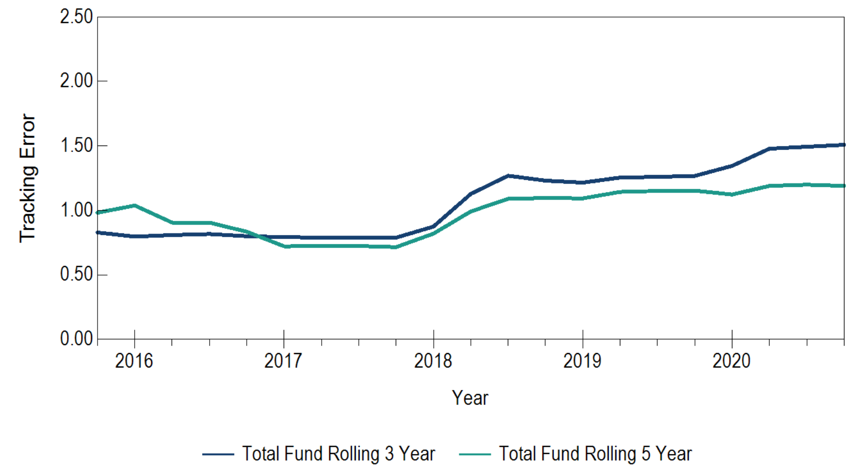
Up Markets vs. Down Markets



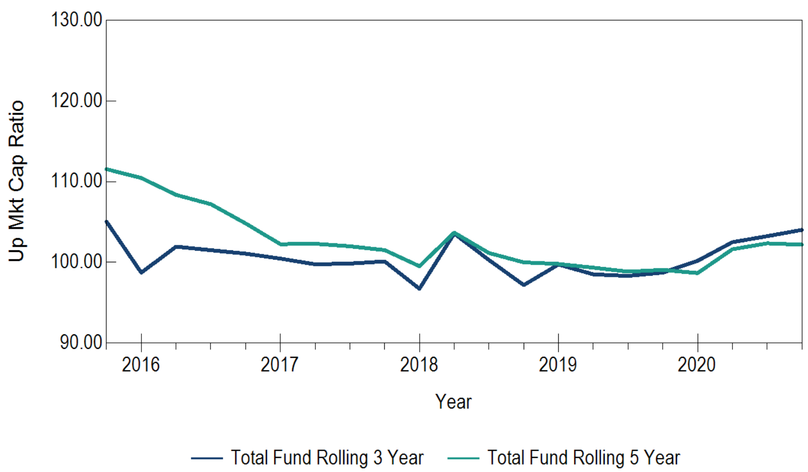
Rolling Information Ratio



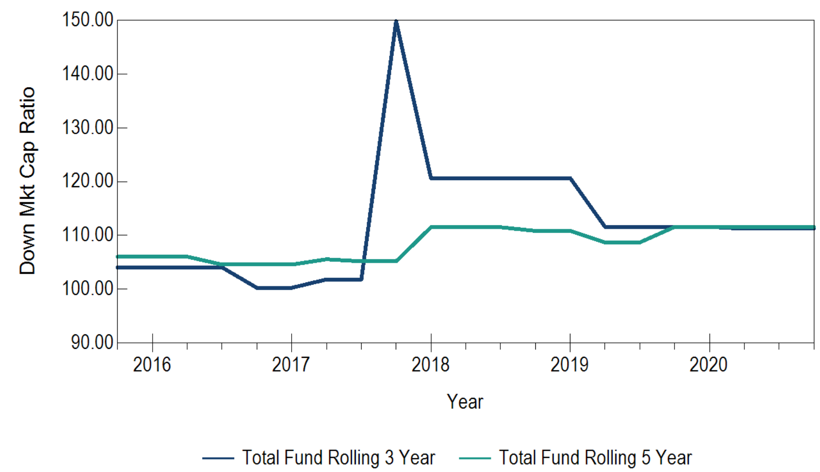
Rolling Tracking Error



Rolling Up Market Capture Ratio (%)



Rolling Down Market Capture Ratio (%)



Performance Summary (Net of Fees)

Period Ending: September 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Fund	**1,122,074,311**	**100.0**	**1.1**	**10.8**	**1.1**	**21.9**	**10.9**	**10.4**	**9.7**	**12.3**	**17.9**	**-4.1**	**16.0**	**7.4**	**9.1**	**Mar-89**
Policy Index			*0.7*	*9.2*	*0.7*	*19.5*	*11.1*	*10.6*	*9.4*	*13.2*	*18.0*	*-2.8*	*15.9*	*8.3*	*--*	*Mar-89*
InvMetrics Public DB Net Rank			*3*	*9*	*3*	*22*	*40*	*50*	*58*	*59*	*73*	*43*	*22*	*49*	*13*	*Mar-89*
Total Domestic Equity	**385,969,194**	**34.4**	**-0.1**	**15.0**	**-0.1**	**31.9**	**16.0**	**16.9**	**16.4**	**21.0**	**31.1**	**-5.2**	**21.2**	**12.8**	**--**	
Russell 3000			*-0.1*	*15.0*	*-0.1*	*31.9*	*16.0*	*16.9*	*16.6*	*20.9*	*31.0*	*-5.2*	*21.1*	*12.7*	*--*	
eV US All Cap Core Equity Net Rank			*56*	*64*	*56*	*50*	*40*	*31*	*24*	*43*	*42*	*40*	*42*	*20*	*--*	
BlackRock Russell 3000	385,969,194	34.4	-0.1	15.0	-0.1	31.9	16.0	16.9	--	21.0	31.1	-5.2	21.2	12.8	15.6	Dec-15
Russell 3000			*-0.1*	*15.0*	*-0.1*	*31.9*	*16.0*	*16.9*	*--*	*20.9*	*31.0*	*-5.2*	*21.1*	*12.7*	*15.4*	*Dec-15*
eV US All Cap Core Equity Net Rank			*56*	*64*	*56*	*50*	*40*	*31*	*--*	*43*	*42*	*40*	*42*	*20*	*38*	*Dec-15*
Total International Equity	**211,795,594**	**18.9**	**-1.8**	**8.2**	**-1.8**	**27.4**	**7.7**	**8.8**	**7.6**	**8.1**	**20.7**	**-14.3**	**27.9**	**4.4**	**--**	
MSCI ACWI ex USA Gross			*-2.9*	*6.3*	*-2.9*	*24.4*	*8.5*	*9.4*	*8.0*	*11.1*	*22.1*	*-13.8*	*27.8*	*5.0*	*--*	
InvMetrics Public DB ex-US Eq Net Rank			*22*	*13*	*22*	*15*	*80*	*67*	*81*	*93*	*84*	*29*	*55*	*48*	*--*	
BlackRock International Equity	158,878,920	14.2	-0.4	8.6	-0.4	26.2	7.9	9.1	8.4	8.1	22.4	-13.5	25.4	1.3	7.5	Jul-03
MSCI EAFE			*-0.4*	*8.3*	*-0.4*	*25.7*	*7.6*	*8.8*	*8.1*	*7.8*	*22.0*	*-13.8*	*25.0*	*1.0*	*7.3*	*Jul-03*
eV All EAFE Equity Net Rank			*38*	*56*	*38*	*49*	*50*	*50*	*69*	*49*	*47*	*33*	*60*	*37*	*56*	*Jul-03*
DFA Emerging Markets Value	26,707,664	2.4	-3.4	11.9	-3.4	35.4	5.4	8.0	5.1	2.8	9.6	-11.9	33.8	19.8	4.4	Jan-07
MSCI Emerging Markets Value NR			*-5.1*	*4.4*	*-5.1*	*28.4*	*4.8*	*6.9*	*3.8*	*5.5*	*12.0*	*-10.7*	*28.1*	*14.9*	*4.1*	*Jan-07*
eV Emg Mkts All Cap Value Equity Net Rank			*17*	*12*	*17*	*15*	*90*	*61*	*79*	*81*	*98*	*20*	*49*	*22*	*70*	*Jan-07*
Harding Loevner Emerging Markets	26,209,011	2.3	-8.0	-2.1	-8.0	19.7	6.9	6.9	--	12.4	24.0	-19.5	33.6	--	7.4	Jul-16
MSCI Emerging Markets Growth GR			*-10.9*	*-6.3*	*-10.9*	*9.5*	*12.4*	*11.6*	*--*	*31.6*	*25.4*	*-18.0*	*47.1*	*--*	*12.3*	*Jul-16*
eV Emg Mkts All Cap Growth Equity Net Rank			*66*	*53*	*66*	*43*	*97*	*92*	*--*	*99*	*61*	*73*	*89*	*--*	*92*	*Jul-16*
Total Fixed Income	**276,925,307**	**24.7**	**0.3**	**0.0**	**0.3**	**1.9**	**6.5**	**3.9**	**4.1**	**9.8**	**9.5**	**-0.8**	**4.3**	**4.8**	**--**	
Bloomberg US Aggregate TR			*0.1*	*-1.6*	*0.1*	*-0.9*	*5.4*	*2.9*	*3.0*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*	*--*	
InvMetrics Public DB Total Fix Inc Net Rank			*12*	*33*	*12*	*46*	*11*	*40*	*48*	*8*	*32*	*59*	*62*	*43*	*--*	
Ducenta Squared	112,332,231	10.0	-0.1	-1.0	-0.1	0.7	6.1	3.8	4.4	9.1	9.9	-0.1	4.3	4.8	6.1	Dec-92
Bloomberg US Aggregate TR			*0.1*	*-1.6*	*0.1*	*-0.9*	*5.4*	*2.9*	*3.0*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*	*5.3*	*Dec-92*
eV US Core Plus Fixed Inc Net Rank			*87*	*77*	*87*	*73*	*49*	*62*	*34*	*34*	*45*	*23*	*74*	*41*	*42*	*Dec-92*
MacKay Shields Core Plus Opportunities	111,841,897	10.0	0.1	-0.5	0.1	1.7	6.4	3.9	--	9.9	9.7	-1.0	4.5	4.7	3.5	Mar-15
Bloomberg US Aggregate TR			*0.1*	*-1.6*	*0.1*	*-0.9*	*5.4*	*2.9*	*--*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*	*3.0*	*Mar-15*
eV US Core Plus Fixed Inc Net Rank			*75*	*54*	*75*	*45*	*39*	*51*	*--*	*23*	*54*	*75*	*62*	*47*	*69*	*Mar-15*
BlackRock US TIPS	52,751,179	4.7	1.7	3.5	1.7	5.1	7.5	4.4	3.2	11.2	8.5	-1.2	3.2	4.8	4.6	Apr-07
Bloomberg US TIPS TR			*1.8*	*3.5*	*1.8*	*5.2*	*7.4*	*4.3*	*3.1*	*11.0*	*8.4*	*-1.3*	*3.0*	*4.7*	*4.5*	*Apr-07*
eV US TIPS / Inflation Fixed Inc Net Rank			*33*	*55*	*33*	*69*	*34*	*60*	*45*	*31*	*53*	*36*	*47*	*43*	*47*	*Apr-07*

Tortoise is now Ducenta Squared.

Total Fund

Performance Summary (Net of Fees)

Period Ending: September 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Real Estate	**100,935,267**	**9.0**	**3.1**	**9.6**	**3.1**	**11.0**	**6.3**	**6.3**	**8.8**	**2.1**	**5.7**	**7.5**	**5.8**	**6.5**	**--**	
NCREIF Property Index			*5.2*	*10.9*	*5.2*	*12.2*	*6.7*	*6.8*	*9.0*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*	*--*	
NCREIF ODCE Net			*6.4*	*12.4*	*6.4*	*13.7*	*6.1*	*6.6*	*8.9*	*0.3*	*4.4*	*7.4*	*6.7*	*7.8*	*--*	
ASB Real Estate	27,053,885	2.4	4.8	9.8	4.8	10.8	5.1	5.1	--	1.5	3.0	6.6	4.0	4.6	8.0	Dec-12
NCREIF Property Index			*5.2*	*10.9*	*5.2*	*12.2*	*6.7*	*6.8*	*--*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*	*8.7*	*Dec-12*
NCREIF ODCE Net			*6.4*	*12.4*	*6.4*	*13.7*	*6.1*	*6.6*	*--*	*0.3*	*4.4*	*7.4*	*6.7*	*7.8*	*8.8*	*Dec-12*
Clarion Lion	29,358,307	2.6	6.1	14.6	6.1	16.9	8.4	8.2	9.9	2.3	6.8	8.6	7.9	8.0	5.2	Dec-06
NCREIF Property Index			*5.2*	*10.9*	*5.2*	*12.2*	*6.7*	*6.8*	*9.0*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*	*6.9*	*Dec-06*
NCREIF ODCE Net			*6.4*	*12.4*	*6.4*	*13.7*	*6.1*	*6.6*	*8.9*	*0.3*	*4.4*	*7.4*	*6.7*	*7.8*	*5.4*	*Dec-06*
ARA American Strategic Value Realty	42,577,920	3.8	0.0	6.6	0.0	7.6	6.1	--	--	2.4	7.8	--	--	--	6.8	Jan-18
NCREIF Property Index +2%			*5.7*	*12.5*	*5.7*	*14.4*	*8.8*	*--*	*--*	*3.6*	*8.5*	*--*	*--*	*--*	*8.9*	*Jan-18*
NCREIF ODCE +2%			*7.1*	*14.8*	*7.1*	*16.9*	*9.2*	*--*	*--*	*3.2*	*7.4*	*--*	*--*	*--*	*9.1*	*Jan-18*
1221 State St. Corp	1,945,155	0.2	0.0	0.0	0.0	0.0	2.6	1.5	1.0	0.0	7.9	0.0	0.0	17.5	1.5	Sep-08
Total Private Equity	**78,283,598**	**7.0**	**13.7**	**44.7**	**13.7**	**65.2**	**27.9**	**24.6**	**16.9**	**23.0**	**13.3**	**21.3**	**18.8**	**10.6**	**--**	
Harbourvest Buyout IX	8,712,350	0.8	11.9	40.5	11.9	57.4	28.1	26.0	13.8	21.3	17.6	23.6	23.2	13.7	--	Sep-11
Harbourvest Credit Ops IX	1,185,463	0.1	8.6	24.5	8.6	27.6	11.5	13.4	14.5	0.3	8.0	14.4	17.5	8.5	--	Sep-11
Harbourvest International PE VI	3,257,806	0.3	0.0	35.6	0.0	50.4	19.9	19.3	12.6	17.2	6.0	14.8	19.4	12.2	--	Jun-10
Harbourvest Venture IX	7,026,703	0.6	14.6	67.4	14.6	114.4	50.0	34.9	24.3	52.4	24.6	25.9	9.4	5.3	--	Sep-11
Harbourvest 2017 Global Fund	28,066,112	2.5	15.1	51.7	15.1	74.9	26.1	--	--	18.8	8.8	20.9	--	--	26.4	Sep-17
Harbourvest 2018 Global Fund	16,869,945	1.5	13.7	35.6	13.7	45.4	--	--	--	16.0	14.3	--	--	--	23.0	Dec-18
Harbourvest 2019 Global Fund	13,165,219	1.2	15.8	34.6	15.8	62.2	--	--	--	34.6	--	--	--	--	38.3	Dec-19
Russell 3000 + 3%			*0.6*	*17.5*	*0.6*	*35.7*	*--*	*--*	*--*	*24.5*	*--*	*--*	*--*	*--*	*25.1*	*Dec-19*
Total Private Credit	**39,509,346**	**3.5**	**3.0**	**10.2**	**3.0**	**14.8**	**9.2**	**--**	**--**	**4.8**	**9.4**	**6.7**	**--**	**--**	**--**	
Portfolio Advisors Credit Strategies Fund	13,580,395	1.2	3.7	11.8	3.7	17.7	9.1	--	--	3.9	8.2	6.6	--	--	7.8	Oct-17
Bloomberg High Yield +2% (Lagged)			*3.2*	*11.9*	*3.2*	*17.6*	*9.6*	*--*	*--*	*5.3*	*8.5*	*5.1*	*--*	*--*	*8.2*	*Oct-17*
Crescent Direct Lending Levered Fund II	3,994,066	0.4	0.0	6.4	0.0	9.9	9.1	--	--	6.0	12.4	--	--	--	8.6	Mar-18
Bloomberg High Yield +2% (Lagged)			*3.2*	*11.9*	*3.2*	*17.6*	*9.6*	*--*	*--*	*5.3*	*8.5*	*--*	*--*	*--*	*8.4*	*Mar-18*
Audax Direct Lending Fund A	4,501,437	0.4	10.7	20.2	10.7	29.1	--	--	--	10.1	16.3	--	--	--	20.2	Oct-18
Bloomberg High Yield +2% (Lagged)			*3.2*	*11.9*	*3.2*	*17.6*	*--*	*--*	*--*	*5.3*	*8.5*	*--*	*--*	*--*	*9.6*	*Oct-18*
Ares Capital Europe IV	7,038,893	0.6	-2.3	3.2	-2.3	5.8	9.4	--	--	8.2	13.1	--	--	--	8.8	Aug-18
Bloomberg High Yield +2% (Lagged)			*3.2*	*11.9*	*3.2*	*17.6*	*9.6*	*--*	*--*	*5.3*	*8.5*	*--*	*--*	*--*	*9.0*	*Aug-18*
Lone Star XI	1,379,358	0.1	0.0	179.1	0.0	148.8	--	--	--	-62.8	--	--	--	--	-12.1	May-19
Bloomberg High Yield +2% (Lagged)			*3.2*	*11.9*	*3.2*	*17.6*	*--*	*--*	*--*	*5.3*	*--*	*--*	*--*	*--*	*10.0*	*May-19*

TSSP Adjacent funded 4/16/2020. ARA American Strategic Value Realty, Crescent DIrect Lending, and Lone Star market value as of 6/30/2021.

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Sixth Street Diversified Credit	9,028,410	0.8	4.1	6.0	4.1	10.3	--	--	--	--	--	--	--	--	3.1	May-20
Bloomberg High Yield +2% (Lagged)			*3.2*	*11.9*	*3.2*	*17.6*	--	--	--	--	--	--	--	--	*9.8*	*May-20*
Ascribe Opportunities Fund IV	-13,213	0.0	0.0	-41.6	0.0	-41.6	--	--	--	--	--	--	--	--	-41.6	Jul-20
Bloomberg High Yield +2% (Lagged)			*3.2*	*11.9*	*3.2*	*17.6*	--	--	--	--	--	--	--	--	*23.5*	*Jul-20*
Total Opportunistic	**19,087,646**	**1.7**	**5.9**	**18.2**	**5.9**	**23.5**	**4.0**	**8.1**	**12.6**	**0.9**	**-10.7**	**32.0**	**5.3**	**5.0**	**--**	
KKR Mezzanine Partners	2,467,356	0.2	3.3	4.8	3.3	9.8	-3.0	2.9	7.2	-15.2	-4.2	25.3	8.7	4.0	7.3	Apr-11
PIMCO BRAVO	13,736	0.0	-1.5	-21.5	-1.5	-28.3	-41.4	-19.8	-2.0	-48.2	-49.1	77.8	-12.4	11.2	-1.5	May-11
TSSP Adjacent Opportunities Partners	16,606,554	1.5	6.3	21.2	6.3	26.7	--	--	--	--	--	--	--	--	21.1	Apr-20
Total Cash																
Cash Account	9,568,359	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	
91 Day T-Bills			*0.0*	*0.0*	*0.0*	*0.0*	*1.0*	*1.1*	*0.6*	*0.5*	*2.1*	*1.9*	*0.9*	*0.3*	--	

Ascribe Opportunities Fund market value as of 6/30/2021.

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 3000	16.04%	0.04%	19.67%	0.05%	1.00	0.04%	1.00	0.76	1.20	100.12%	99.96%
BlackRock International Equity	7.92%	0.30%	17.84%	0.27%	1.00	0.33%	1.00	0.38	0.90	101.84%	100.25%
DFA Emerging Markets Value	5.41%	0.64%	21.55%	0.32%	1.07	4.62%	0.96	0.20	0.14	109.73%	103.46%
Harding Loevner Emerging Markets	6.95%	-5.45%	21.73%	-5.45%	1.00	7.43%	0.88	0.27	-0.73	83.45%	103.66%
Ducenta Squared	6.12%	0.77%	3.90%	0.65%	1.02	1.44%	0.86	1.28	0.54	113.34%	107.04%
MacKay Shields Core Plus Opportunities	6.44%	1.08%	4.43%	0.58%	1.09	2.17%	0.76	1.22	0.50	123.51%	121.17%
BlackRock US TIPS	7.49%	0.04%	4.11%	-0.04%	1.01	0.10%	1.00	1.54	0.43	100.90%	101.34%
ASB Real Estate	5.13%	-1.59%	3.63%	-0.40%	0.82	1.64%	0.83	1.10	-0.97	75.07%	77.87%
Clarion Lion	8.39%	1.67%	5.28%	-0.24%	1.28	1.55%	0.96	1.37	1.08	130.53%	185.14%
ARA American Strategic Value Realty	6.13%	-2.71%	3.44%	1.26%	0.55	3.20%	0.42	1.48	-0.85	66.39%	39.64%
Portfolio Advisors Credit Strategies Fund	9.08%	-0.50%	7.95%	5.19%	0.41	8.91%	0.23	1.01	-0.06	51.93%	4.89%

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
BlackRock International Equity	9.14%	0.33%	14.69%	0.29%	1.00	0.29%	1.00	0.55	1.11	102.36%	100.12%
DFA Emerging Markets Value	8.04%	1.17%	18.39%	0.75%	1.06	3.86%	0.96	0.38	0.30	111.13%	101.44%
Ducenta Squared	3.78%	0.84%	3.47%	0.88%	0.99	1.16%	0.89	0.77	0.72	112.97%	95.43%
MacKay Shields Core Plus Opportunities	3.88%	0.94%	3.86%	0.80%	1.05	1.70%	0.81	0.72	0.55	121.05%	104.48%
BlackRock US TIPS	4.42%	0.08%	3.73%	0.05%	1.01	0.08%	1.00	0.88	1.05	101.29%	100.06%
ASB Real Estate	5.06%	-1.79%	3.17%	-0.41%	0.80	1.53%	0.82	1.24	-1.17	71.78%	77.87%
Clarion Lion	8.21%	1.36%	4.58%	-0.33%	1.25	1.31%	0.96	1.55	1.04	126.44%	185.14%

Vintage	Manager & Fund Name	Estimated 9/30 Market Value[3]	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value for IRR	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[4]	IRR Date
2011	HarbourVest IX-Buyout	$8,712,350	$10,000,000	$8,525,000	85%	$1,475,000	$9,805,692	$9,354,009	*115.0%*	*217.2%*	*20.4%*	*6/30/21*
2011	HarbourVest IX-Credit	$1,185,463	$2,000,000	$1,600,000	80%	$400,000	$1,337,551	$1,185,463	*83.6%*	*157.7%*	*13.3%*	*6/30/21*
2008	HarbourVest Int'l VI[5]	$3,257,806	$3,712,930	$2,630,078	71%	$1,082,852	$2,765,306	$3,448,372	*105.1%*	*229.0%*	*16.4%*	*6/30/21*
2011	HarbourVest IX-Venture	$7,026,703	$4,000,000	$3,800,000	95%	$200,000	$5,912,198	$7,754,155	*155.6%*	*340.5%*	*25.4%*	*6/30/21*
2017	HarbourVest 2017 Global	$28,066,112	$30,000,000	$17,700,000	59%	$12,300,000	$5,662,329	$29,898,640	*32.0%*	*190.6%*	*30.5%*	*6/30/21*
2018	HarbourVest 2018 Global	$16,869,945	$20,000,000	$10,538,043	53%	$9,461,957	$376,435	$16,869,945	*3.6%*	*163.7%*	*36.6%*	*6/30/21*
2019	HarbourVest 2019 Global	$13,165,219	$20,000,000	$8,575,273	43%	$11,424,727	$0	$12,565,219	*0.0%*	*153.5%*	*73.3%*	*6/30/21*
	Total Illiquid Private Equity	**$78,283,598**	$89,712,930	$53,368,394	59%	$36,344,536	$25,859,511	$81,075,803	*151.9%*	*200.4%*		
	% of Portfolio (Market Value)	**7.0%**										

	Management Fee	Admin Fee	Interest Expense	Other Expense	Total Expense[6]
HarbourVest IX-Buyout	$24,911	$0	$13	$3,249	$28,173
HarbourVest IX-Credit	$4,976	$0	$1	$1,431	$6,408
HarbourVest Int'l VI	$6,303	$0	$39	$171	$6,513
HarbourVest IX-Venture	$9,981	$0	$18	$231	$10,230
HarbourVest 2017 Global	$66,000	$0	$0	$49,318	$115,318
HarbourVest 2018 Global	$43,695	$0	$18	$16,716	$60,429
HarbourVest 2019 Global	$39,471	$0	$2,102	$10,926	$52,499
	$195,337	$0	$2,191	$82,042	**$279,570**

[1](DPI) is equal to (capital returned / capital called)
[2](TVPI) is equal to (market value + capital returned) / capital called
[3]Last known market value + capital calls - distributions (preliminary MV's as of 9/30/2021)
[4]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR figure is provided by its respective manager.
[5]HarbourVest International Private Equity Partners VI-Partnership Fund L.P. values are originally presented in euros and are calculated to dollars using XE™.
[6]All fees and expenses are for 2Q 2021

HarbourVest 2017 Global Fund first capital call issued 9/21/2017. Portfolio Advisors first capital call issued 10/5/2017. HarbourVest 2018 Global Fund first capital call issued 12/13/2018.

Vintage	Manager & Fund Name	Estimated 9/30 Market Value[3]	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value for IRR	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[4]	IRR Date
2013	Portfolio Advisors Credit Strategies Fund	$13,580,395	$11,250,000	$11,250,000	100%	$0	$1,356,134	$12,341,077	*12.1%*	*132.8%*	*7.4%*	*12/31/20*
2017	Crescent Direct Lending Levered Fund II	$3,994,066	$7,000,000	$5,707,507	82%	$1,292,493	$2,702,804	$5,756,697	*47.4%*	*117.3%*	*8.7%*	*12/31/20*
2017	Audax Direct Lending Fund A	$4,501,437	$7,000,000	$4,247,494	61%	$2,752,506	$838,302	*NA*	*19.7%*	*125.7%*	*NM*[6]	*NM*[6]
2018	Ares Capital Europe IV	$7,038,893	$8,000,000	$6,750,173	84%	$1,249,827	$638,111	*NA*	*9.5%*	*113.7%*	*NM*[7]	*NM*[7]
2019	Lone Star Fund XI	$1,379,358	$5,750,000	$1,443,637	25%	$4,306,363	$103,177	*NA*	*7.1%*	*102.7%*	*NA*	*NA*
2019	Ascribe Opportunities IV	-$13,213	$6,000,000	$0	0%	$6,000,000	$0	*NA*	*NA*	*NA*	*NA*	*NA*
2020	Sixth Street Diversified Credit	$9,028,410	$20,000,000	$9,905,478	50%	$10,094,522	$1,371,850	*NA*	*13.8%*	*105.0%*	*NA*	*NA*
	Total Illiquid Private Credit	**$39,509,346**	$65,000,000	$39,304,288	60%	$25,695,712	$7,010,378	$18,097,774	*46.0%*	*63.9%*		
	% of Portfolio (Market Value)	**3.5%**										

	Management Fee	Accrued Carried Interest	Admin Fee	Interest Expense	Other Expense	Total Expense[5]
Portfolio Advisors CSF	$0	$0	$0	$0	$0	$0
Crescent Direct Lending II	$46,963	$16,542	$3,469	$0	$0	$66,974
Audax Direct Lending A	$24,011	$0	$0	$0	$44,297	$68,308
Ares Capital Europe IV	$24,201	$31,322	$9,236	$25,609	$0	$90,368
Ascribe Opportunities IV	$0	$0	$0	$0	$0	$0
Lone Star Fund XI	$0	$0	$0	$0	$0	$0
Sixth Street Diversified Credit	$0	$0	$0	$0	$0	$0
	$95,175	$47,864	$12,705	$25,609	$44,297	**$225,650**

[1](DPI) is equal to (capital returned / capital called)
[2](TVPI) is equal to (market value + capital returned) / capital called
[3]Last known market value + capital calls - distributions (preliminary MV's as of 9/30/2021)
[4]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR figure is provided by its respective manager.
[5]All fees and expenses except Audax Direct Lending are for 2Q 2021
[6]The Fund issued its first capital call on October 26, 2018. As such it does not consider the IRR to be meaningful.
[7]Given the nature of the ACE IV strategy, Ares will begin reporting fund-level IRR metrics beginning in Q3 2019, one year after the fund's first investment.

Portfolio Advisors first capital call issued 10/5/2017. Crescent Direct Lending first called 3/13/2018. Ares IV first called 8/13/2018. Audax Direct Lending first called 10/26/2018.

Vintage	Manager & Fund Name	Estimated 9/30 Market Value[3]	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value for IRR	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[5]	IRR Date
2010	KKR Mezzanine[6]	$2,467,356	$10,000,000	$10,000,000	100%	$0	$13,493,513	$2,467,356	*134.9%*	*159.6%*	*6.7%*	*6/30/21*
2011	PIMCO BRAVO [4]	$13,736	$10,000,000	$10,000,000	100%	$0	$18,133,166	$69,502	*181.3%*	*181.5%*	*22.2%*	*3/31/21*
2020	TSSP Adjacent Opportunities Partners	$16,606,554	$40,000,000	$13,598,283	34%	$26,401,717	$1,898,648	*NA*	*14.0%*	*136.1%*	*NA*	*NA*
	Total Illiquid Opportunistic	**$19,087,646**	$60,000,000	$33,598,283	56%	$26,401,717	$33,525,327	$2,536,858	*7.6%*	*107.3%*		
	% of Portfolio (Market Value)	**1.7%**										

	Management Fee	Accrued Carried Interest	Admin Fee	Interest Expense	Other Expense	Total Expense[7]
KKR Mezzanine	$3,708	$0	$0	$0	$0	$3,708
PIMCO BRAVO	$0	$0	$0	$0	$210	$210
TSSP Adjacent Opportunities	$0	$0	$0	$0	$0	$0
	$3,708	$0	$0	$0	$210	**$3,918**

[1](DPI) is equal to (capital returned / capital called)
[2](TVPI) is equal to (market value + capital returned) / capital called
[3]Last known market value + capital calls - distributions (preliminary MV's as of 9/30/2021)
[4]Investment period ended, no further capital to be called.
[5]Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR figure is provided by its respective manager.
[6]KKR: Total capital called is $12,686,373, which includes recycled distributions. Unused capital commitment is $839,888 after including distribution proceeds available for reinvestment
[7]All fees and expenses are for 2Q 2021

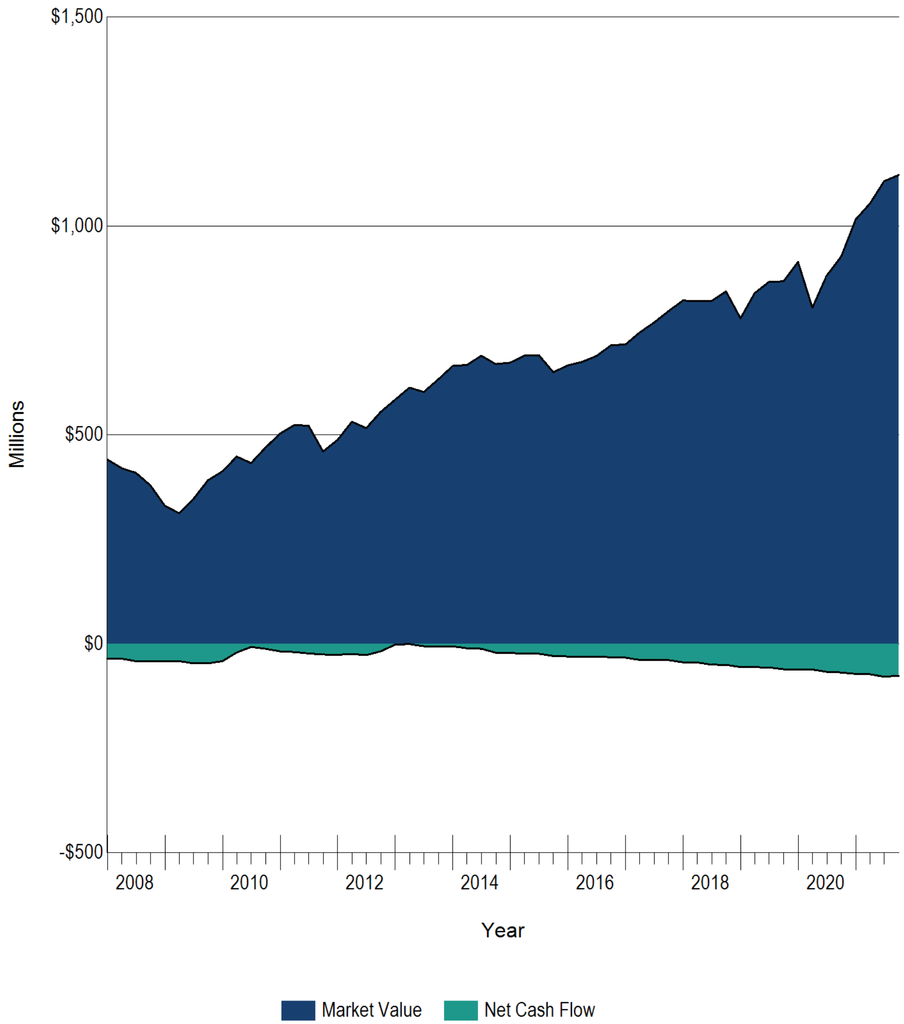
Total Fund
Cash Flow by Manager (Last Three Months)

Period Ending: September 30, 2021

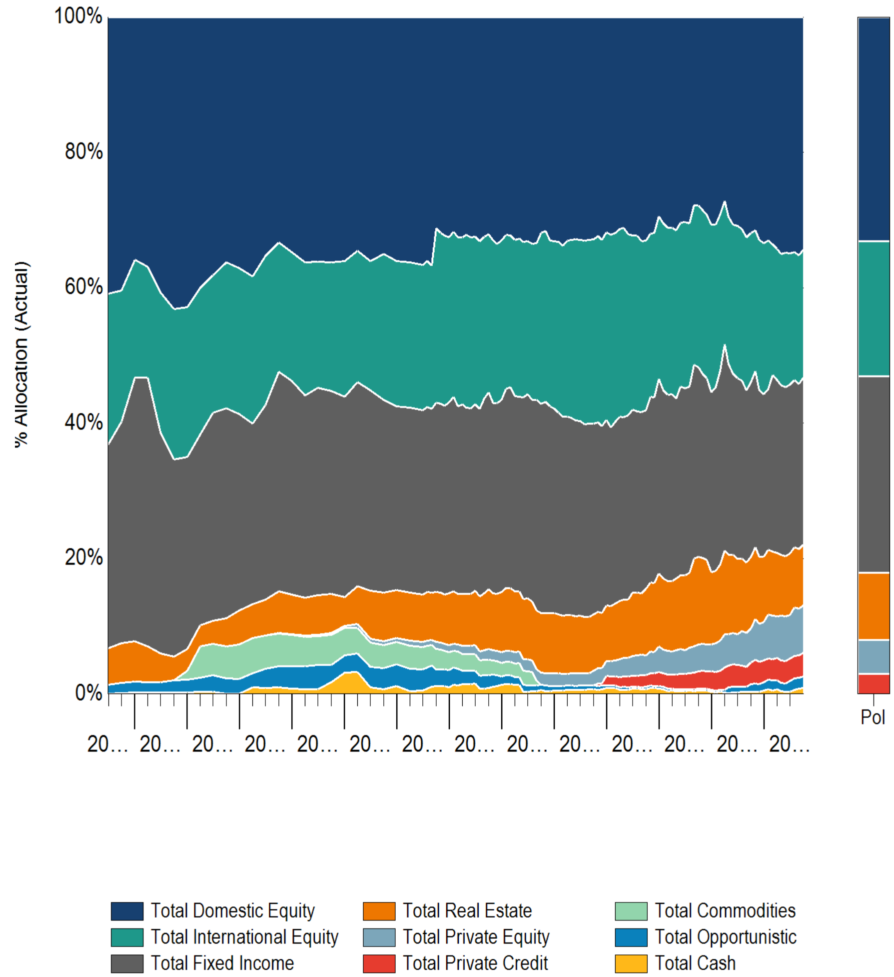
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Capital Appreciation	Income	Ending Market Value
BlackRock Russell 3000	$386,341,584	$0	$0	$0	-$372,390	$0	$385,969,194
BlackRock International Equity	$159,463,386	$0	$0	$0	-$584,466	$0	$158,878,920
DFA Emerging Markets Value	$27,633,674	$0	$0	$0	-$926,011	$0	$26,707,664
Harding Loevner Emerging Markets	$28,416,643	$0	$0	$0	-$2,207,632	$0	$26,209,011
Ducenta Squared	$112,328,104	$0	$0	$0	$4,126	$0	$112,332,231
MacKay Shields Core Plus Opportunities	$111,753,694	$0	$0	$0	$88,203	$0	$111,841,897
BlackRock US TIPS	$51,839,109	$0	$0	$0	$912,070	$0	$52,751,179
ASB Real Estate	$28,285,341	$0	-$2,571,988	-$2,571,988	$1,340,532	$0	$27,053,885
Clarion Lion	$28,928,431	$198,419	-$1,540,058	-$1,341,639	$1,771,515	$0	$29,358,307
ARA American Strategic Value Realty	$41,765,920	$812,000	$0	$812,000	$0	$0	$42,577,920
1221 State St. Corp	$1,945,192	$12,417	-$12,458	-$41	$4	$0	$1,945,155
Harbourvest Buyout IX	$8,356,112	$0	-$641,659	-$641,659	$997,897	$0	$8,712,350
Harbourvest Credit Ops IX	$1,091,628	$0	$0	$0	$93,835	$0	$1,185,463
Harbourvest International PE VI	$3,257,806	$0	$0	$0	$0	$0	$3,257,806
Harbourvest Venture IX	$6,764,602	$0	-$727,452	-$727,452	$989,553	$0	$7,026,703
Harbourvest 2017 Global Fund	$25,987,040	$0	-$1,832,528	-$1,832,528	$3,911,600	$0	$28,066,112
Harbourvest 2018 Global Fund	$14,835,895	$0	$0	$0	$2,034,050	$0	$16,869,945
Harbourvest 2019 Global Fund	$10,854,379	$600,000	$0	$600,000	$1,710,840	$0	$13,165,219
Portfolio Advisors Credit Strategies Fund	$13,323,750	$0	-$238,008	-$238,008	$494,653	$0	$13,580,395
Crescent Direct Lending Levered Fund II	$4,331,403	$0	-$337,337	-$337,337	$0	$0	$3,994,066
Audax Direct Lending Fund A	$4,122,588	$0	-$62,327	-$62,327	$441,176	$0	$4,501,437
Ares Capital Europe IV	$6,861,476	$342,200	$0	$342,200	-$164,783	$0	$7,038,893
Lone Star XI	$484,365	$894,993	$0	$894,993	$0	$0	$1,379,358
Sixth Street Diversified Credit	$7,524,781	$1,191,867	$0	$1,191,867	$311,762	$0	$9,028,410
Ascribe Opportunities Fund IV	-$13,213	$0	$0	$0	$0	$0	-$13,213
KKR Mezzanine Partners	$2,388,164	$0	$0	$0	$79,192	$0	$2,467,356
PIMCO BRAVO	$13,942	$0	$0	$0	-$206	$0	$13,736
TSSP Adjacent Opportunities Partners	$15,629,190	$0	$0	$0	$977,364	$0	$16,606,554
Cash Account	$3,028,559	$6,539,799	$0	$6,539,799	$0	$0	$9,568,359
Total	**$1,107,543,546**	**$10,591,696**	**-$7,963,815**	**$2,627,881**	**$11,902,884**	**$0**	**$1,122,074,311**

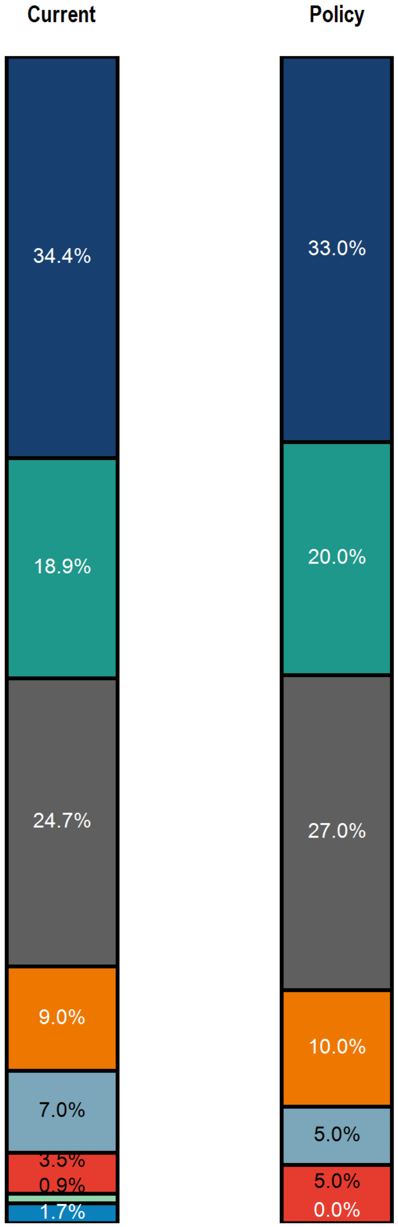
Harbourvest, Portfolio Advisors, Ares, Audax, PIMCO Bravo, KKR Mezzanine, Sixth Street, and TSSP Adjacent Opportunities market values as of 6/30/2021 +/- 3Q21 calls/distributions.

Market Value History



Asset Allocation History



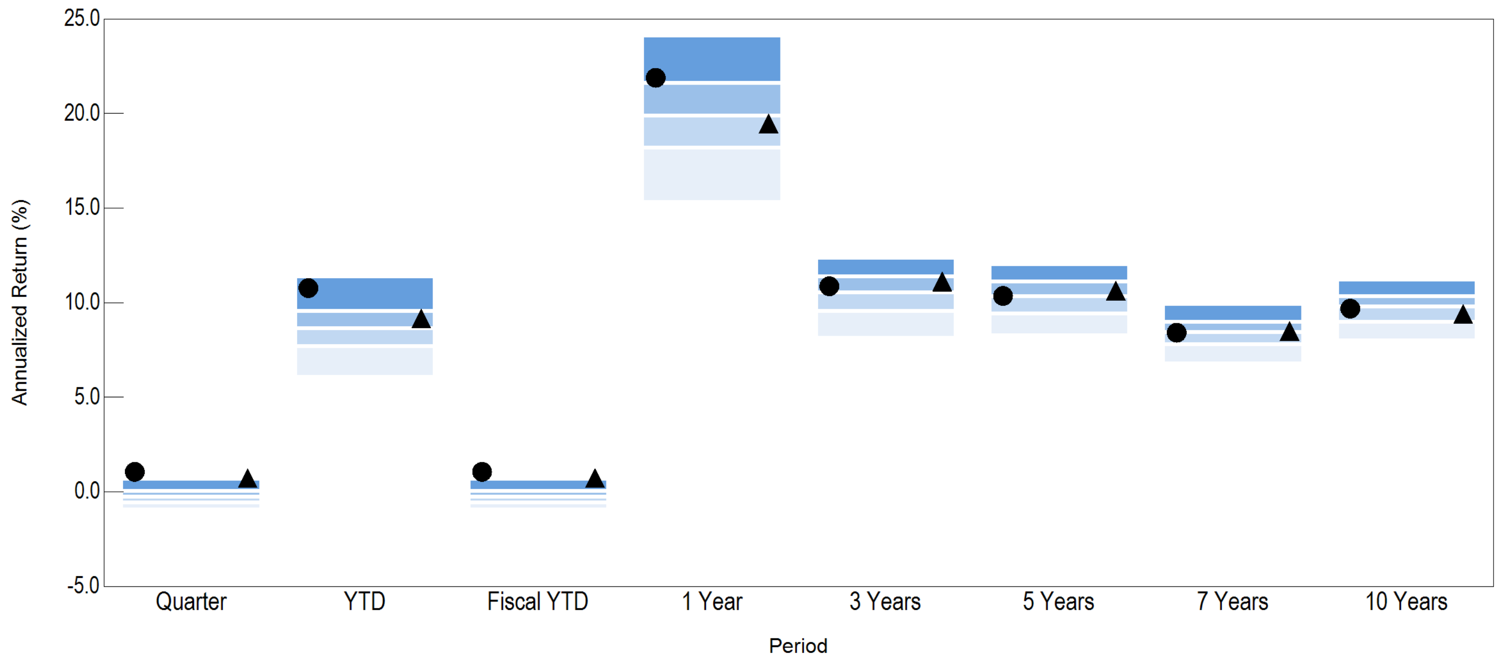


	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
Domestic Equity	$385,969,194	34.4%	33.0%	$15,684,671	23.0% - 43.0%	Yes
International Equity	$211,795,594	18.9%	20.0%	-$12,619,268	10.0% - 30.0%	Yes
Domestic Fixed Income	$276,925,307	24.7%	27.0%	-$26,034,757	17.0% - 40.0%	Yes
Real Estate	$100,935,267	9.0%	10.0%	-$11,272,164	5.0% - 15.0%	Yes
Private Equity	$78,283,598	7.0%	5.0%	$22,179,882	0.0% - 10.0%	Yes
Private Credit	$39,509,346	3.5%	5.0%	-$16,594,369	0.0% - 10.0%	Yes
Cash and Equivalents	$9,568,359	0.9%	0.0%	$9,568,359	0.0% - 0.0%	No
Other	$19,087,646	1.7%	0.0%	$19,087,646	0.0% - 10.0%	Yes
Total	**$1,122,074,311**	**100.0%**	**100.0%**			

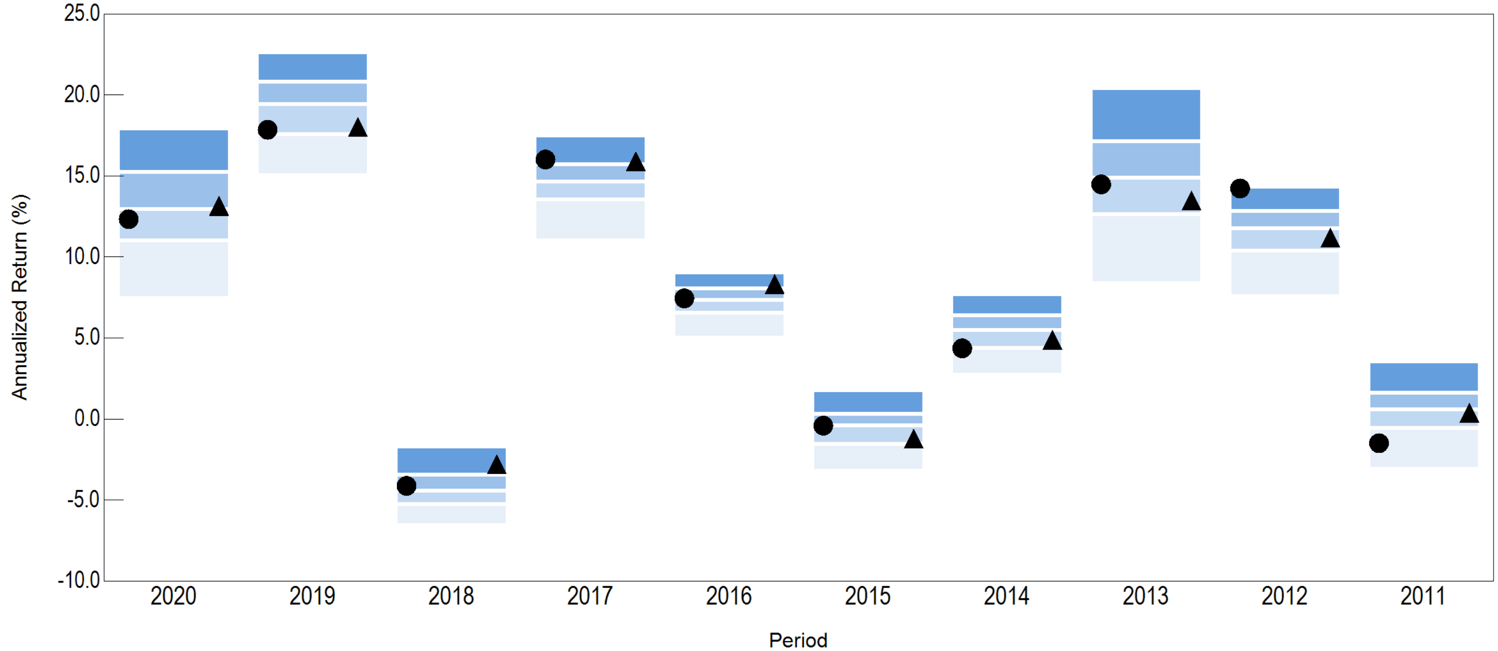
Account	Fee Schedule	Market Value As of 9/30/2021	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
1221 State St. Corp	No Fee	$1,945,155	0.2%	--	--
ARA American Strategic Value Realty	1.25% of First 10.0 Mil, 1.20% of Next 15.0 Mil, 1.10% of Next 25.0 Mil, 1.00% Thereafter	$42,577,920	3.8%	$498,357	1.17%
Ares Capital Europe IV	No Fee	$7,038,893	0.6%	--	--
ASB Real Estate	1.25% of First 5.0 Mil, 1.00% of Next 10.0 Mil, 0.75% Thereafter	$27,053,885	2.4%	$252,904	0.93%
Ascribe Opportunities Fund IV	No Fee	-$13,213	0.0%	--	--
Audax Direct Lending Fund A	No Fee	$4,501,437	0.4%	--	--
BlackRock International Equity	0.15% of First 50.0 Mil, 0.10% of Next 50.0 Mil	$158,878,920	14.2%	$125,000	0.08%
BlackRock Russell 3000	0.03% of Assets	$385,969,194	34.4%	$115,791	0.03%
BlackRock US TIPS	0.07% of Assets	$52,751,179	4.7%	$36,926	0.07%
Cash Account	No Fee	$9,568,359	0.9%	--	--
Clarion Lion	No Fee	$29,358,307	2.6%	--	--
Crescent Direct Lending Levered Fund II	No Fee	$3,994,066	0.4%	--	--
DFA Emerging Markets Value	0.41% of Assets	$26,707,664	2.4%	$109,501	0.41%
Ducenta Squared	0.29% of First 100.0 Mil, 0.25% of Next 100.0 Mil	$112,332,231	10.0%	$315,831	0.28%
Harbourvest 2017 Global Fund	262,500 Annually	$28,066,112	2.5%	$262,500	0.94%
Harbourvest 2018 Global Fund	138,000 Annually	$16,869,945	1.5%	$138,000	0.82%
Harbourvest 2019 Global Fund	0.45% of Assets	$13,165,219	1.2%	$59,243	0.45%
Harbourvest Buyout IX	100,000 Annually	$8,712,350	0.8%	$100,000	1.15%
Harbourvest Credit Ops IX	20,000 Annually	$1,185,463	0.1%	$20,000	1.69%
Harbourvest International PE VI	35,000 Annually	$3,257,806	0.3%	$35,000	1.07%
Harbourvest Venture IX	40,000 Annually	$7,026,703	0.6%	$40,000	0.57%
Harding Loevner Emerging Markets	1.05% of Assets	$26,209,011	2.3%	$275,195	1.05%
KKR Mezzanine Partners	150,000 Annually	$2,467,356	0.2%	$150,000	6.08%
Lone Star XI	No Fee	$1,379,358	0.1%	--	--
MacKay Shields Core Plus Opportunities	0.35% of Assets	$111,841,897	10.0%	$391,447	0.35%
PIMCO BRAVO	1.90% of Assets	$13,736	0.0%	$261	1.90%
Portfolio Advisors Credit Strategies Fund	180,000 Annually	$13,580,395	1.2%	$180,000	1.33%
Sixth Street Diversified Credit	No Fee	$9,028,410	0.8%	--	--
TSSP Adjacent Opportunities Partners	No Fee	$16,606,554	1.5%	--	--
Investment Management Fee		**$1,122,074,311**	**100.0%**	**$3,105,956**	**0.28%**

**HarbourVest, KKR and PIMCO BRAVO fees are estimated gross management fees only and do not include incentive allocations or offsetting cash flows received by the fund.*
**HarbourVest International Private Equity VI fees are based on committed Euros, actual US Dollar amount will fluctuate based on exchange rates.*
**Verus advisory fee shown for disclosure purposes only and is not included in total investment management fee calculations.*
**Portfolio Advisors fee is 0.20% on committed capital and 1.00% on invested capital.*
**Total fund market value excludes other investments managed by Portfolio Advisors.*
**HarbourVest funds annual fee amounts calculated by applying the average annual fee charged to each fund over its expected lifecycle by its respective capital commitment.*

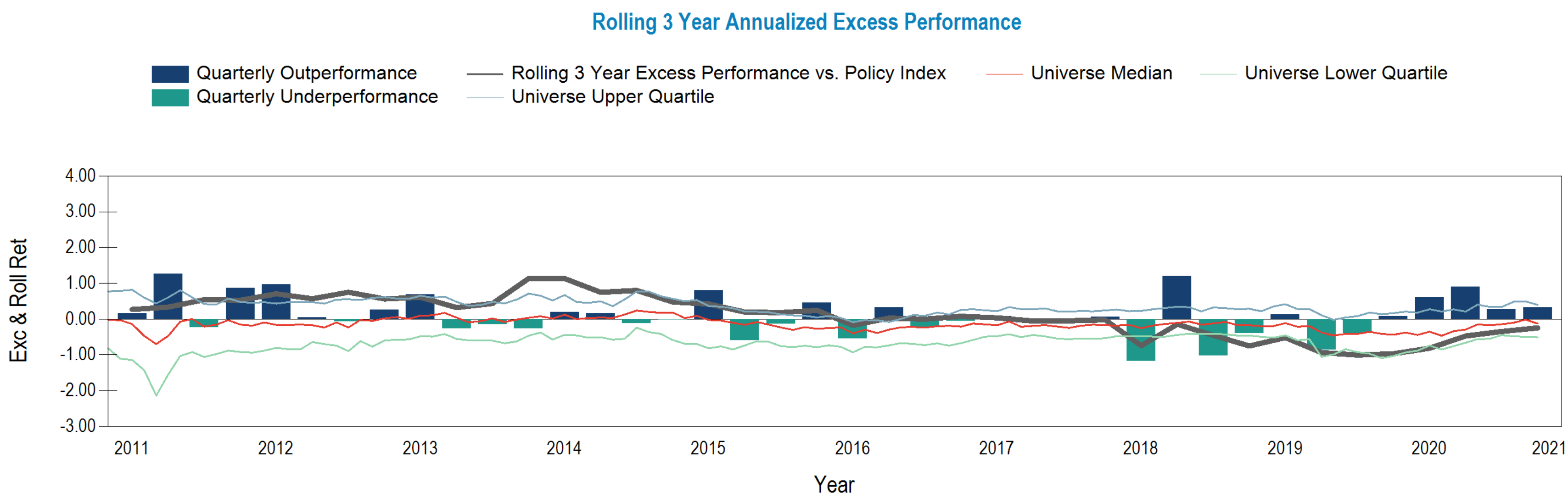
Total Fund Cumulative Performance vs. InvMetrics Public DB Net

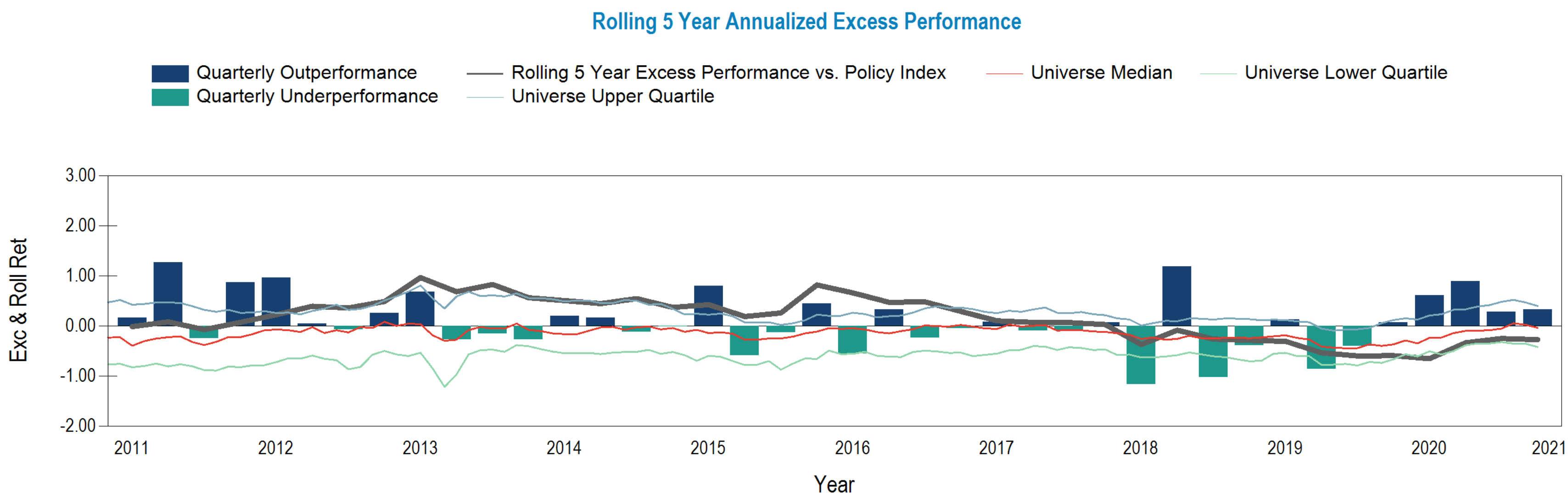


Return (Rank)	Quarter		YTD		Fiscal YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	0.7		11.4		0.7		24.1		12.4		12.0		9.9		11.2	
25th Percentile	0.1		9.6		0.1		21.6		11.4		11.1		9.0		10.4	
Median	-0.2		8.7		-0.2		19.9		10.6		10.4		8.5		9.8	
75th Percentile	-0.5		7.7		-0.5		18.2		9.6		9.5		7.8		9.0	
95th Percentile	-0.9		6.1		-0.9		15.4		8.2		8.3		6.8		8.0	
# of Portfolios	488		484		488		483		471		454		422		381	
● Total Fund	1.1	(3)	10.8	(9)	1.1	(3)	21.9	(22)	10.9	(40)	10.4	(50)	8.4	(52)	9.7	(58)
▲ Policy Index	0.7	(5)	9.2	(35)	0.7	(5)	19.5	(60)	11.1	(33)	10.6	(39)	8.5	(49)	9.4	(64)



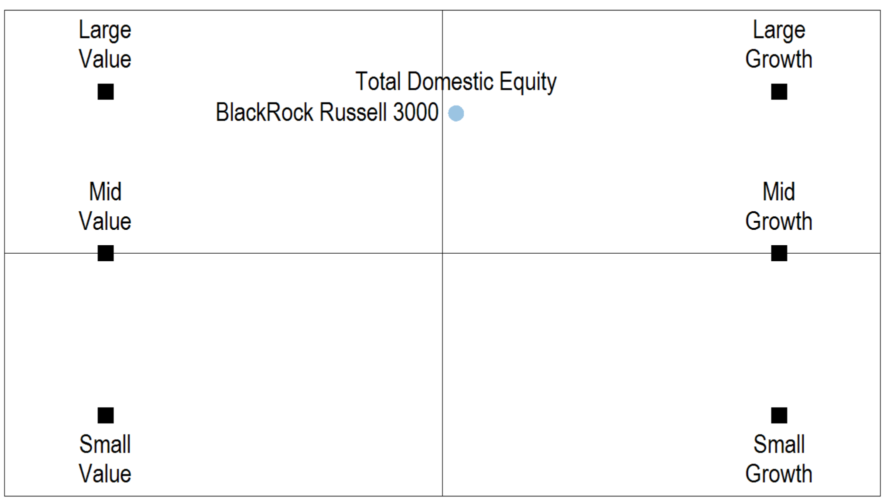
Return (Rank)	2020		2019		2018		2017		2016		2015		2014		2013		2012		2011	
5th Percentile	17.9		22.6		-1.7		17.5		9.0		1.7		7.7		20.4		14.3		3.6	
25th Percentile	15.3		20.8		-3.4		15.8		8.1		0.4		6.4		17.2		12.9		1.6	
Median	13.0		19.5		-4.4		14.7		7.4		-0.4		5.5		14.9		11.8		0.6	
75th Percentile	11.0		17.6		-5.2		13.6		6.6		-1.5		4.4		12.7		10.4		-0.5	
95th Percentile	7.5		15.1		-6.5		11.1		5.0		-3.2		2.7		8.4		7.6		-3.1	
# of Portfolios	596		550		496		269		269		262		210		191		159		137	
● Total Fund	12.3	(59)	17.9	(73)	-4.1	(43)	16.0	(22)	7.4	(49)	-0.4	(51)	4.4	(77)	14.5	(55)	14.2	(6)	-1.5	(86)
▲ Policy Index	13.2	(49)	18.0	(70)	-2.8	(14)	15.9	(24)	8.3	(22)	-1.2	(72)	4.9	(64)	13.5	(69)	11.2	(63)	0.4	(57)


Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Policy Index
Universe Upper Quartile
Universe Median
Universe Lower Quartile
Exc & Roll Ret
4.00
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

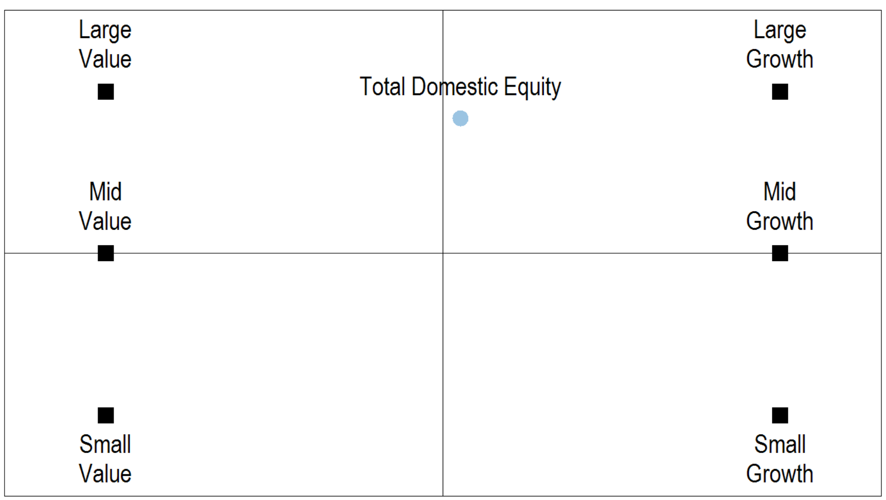

Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. Policy Index
Universe Upper Quartile
Universe Median
Universe Lower Quartile
Exc & Roll Ret
3.00
2.00
1.00
0.00
-1.00
-2.00
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Domestic Equity	**385,969,194**	**-0.1**	**15.0**	**-0.1**	**31.9**	**16.0**	**16.9**	**16.4**	**21.0**	**31.1**	**-5.2**	**21.2**	**12.8**
Russell 3000		*-0.1*	*15.0*	*-0.1*	*31.9*	*16.0*	*16.9*	*16.6*	*20.9*	*31.0*	*-5.2*	*21.1*	*12.7*
eV US All Cap Core Equity Net Rank		*56*	*64*	*56*	*50*	*40*	*31*	*24*	*43*	*42*	*40*	*42*	*20*
BlackRock Russell 3000	385,969,194	-0.1	15.0	-0.1	31.9	16.0	16.9	--	21.0	31.1	-5.2	21.2	12.8
Russell 3000		*-0.1*	*15.0*	*-0.1*	*31.9*	*16.0*	*16.9*	*--*	*20.9*	*31.0*	*-5.2*	*21.1*	*12.7*
eV US All Cap Core Equity Net Rank		*56*	*64*	*56*	*50*	*40*	*31*	*--*	*43*	*42*	*40*	*42*	*20*

U.S. Effective Style Map
3 Years Ending September 30, 2021



U.S. Effective Style Map
5 Years Ending September 30, 2021

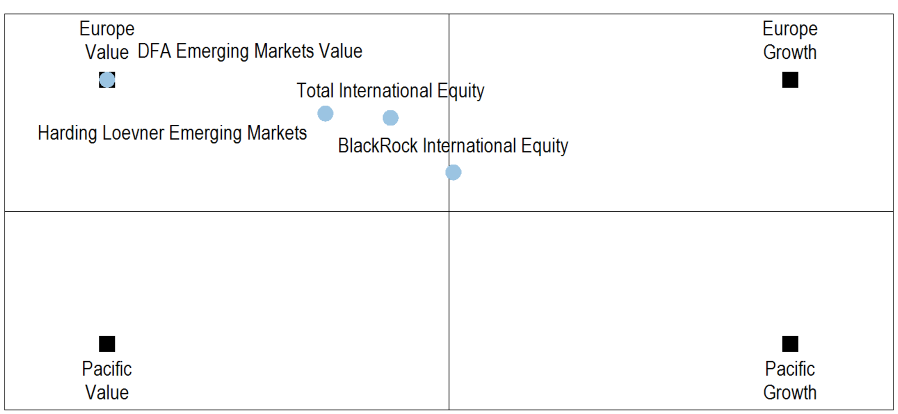


Total International Equity
Asset Class Overview (Net of Fees)

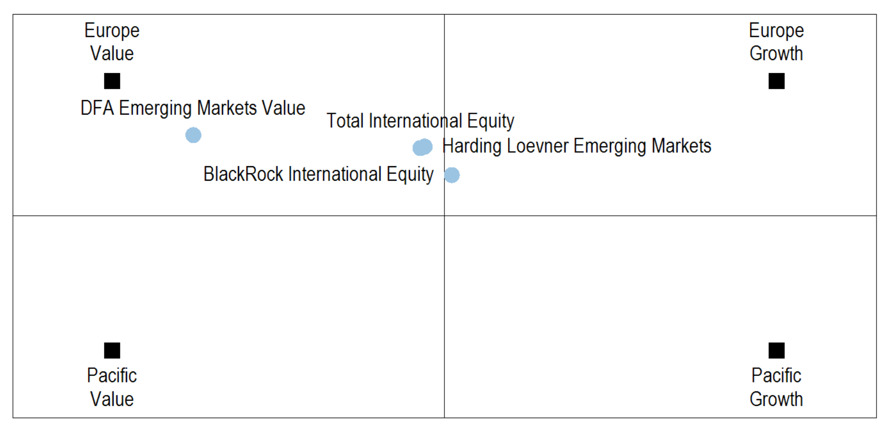
Period Ending: September 30, 2021

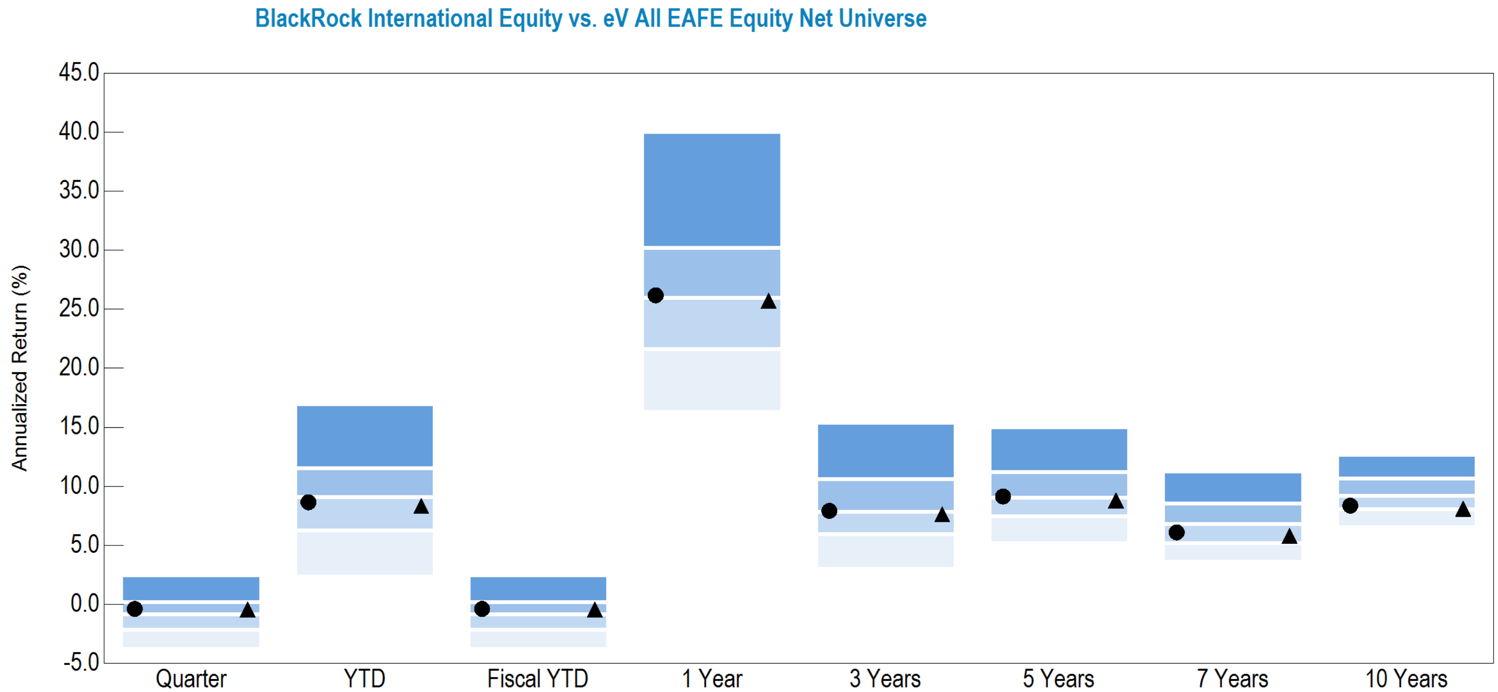
	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total International Equity	**211,795,594**	**-1.8**	**8.2**	**-1.8**	**27.4**	**7.7**	**8.8**	**7.6**	**8.1**	**20.7**	**-14.3**	**27.9**	**4.4**
MSCI ACWI ex USA Gross		*-2.9*	*6.3*	*-2.9*	*24.4*	*8.5*	*9.4*	*8.0*	*11.1*	*22.1*	*-13.8*	*27.8*	*5.0*
InvMetrics Public DB ex-US Eq Net Rank		*22*	*13*	*22*	*15*	*80*	*67*	*81*	*93*	*84*	*29*	*55*	*48*
BlackRock International Equity	158,878,920	-0.4	8.6	-0.4	26.2	7.9	9.1	8.4	8.1	22.4	-13.5	25.4	1.3
MSCI EAFE		*-0.4*	*8.3*	*-0.4*	*25.7*	*7.6*	*8.8*	*8.1*	*7.8*	*22.0*	*-13.8*	*25.0*	*1.0*
eV All EAFE Equity Net Rank		*38*	*56*	*38*	*49*	*50*	*50*	*69*	*49*	*47*	*33*	*60*	*37*
DFA Emerging Markets Value	26,707,664	-3.4	11.9	-3.4	35.4	5.4	8.0	5.1	2.8	9.6	-11.9	33.8	19.8
MSCI Emerging Markets Value NR		*-5.1*	*4.4*	*-5.1*	*28.4*	*4.8*	*6.9*	*3.8*	*5.5*	*12.0*	*-10.7*	*28.1*	*14.9*
eV Emg Mkts All Cap Value Equity Net Rank		*17*	*12*	*17*	*15*	*90*	*61*	*79*	*81*	*98*	*20*	*49*	*22*
Harding Loevner Emerging Markets	26,209,011	-8.0	-2.1	-8.0	19.7	6.9	6.9	--	12.4	24.0	-19.5	33.6	--
MSCI Emerging Markets Growth GR		*-10.9*	*-6.3*	*-10.9*	*9.5*	*12.4*	*11.6*	--	*31.6*	*25.4*	*-18.0*	*47.1*	--
eV Emg Mkts All Cap Growth Equity Net Rank		*66*	*53*	*66*	*43*	*97*	*92*	--	*99*	*61*	*73*	*89*	--

MSCI Effective Style Map
3 Years Ending Sep 30, 2021

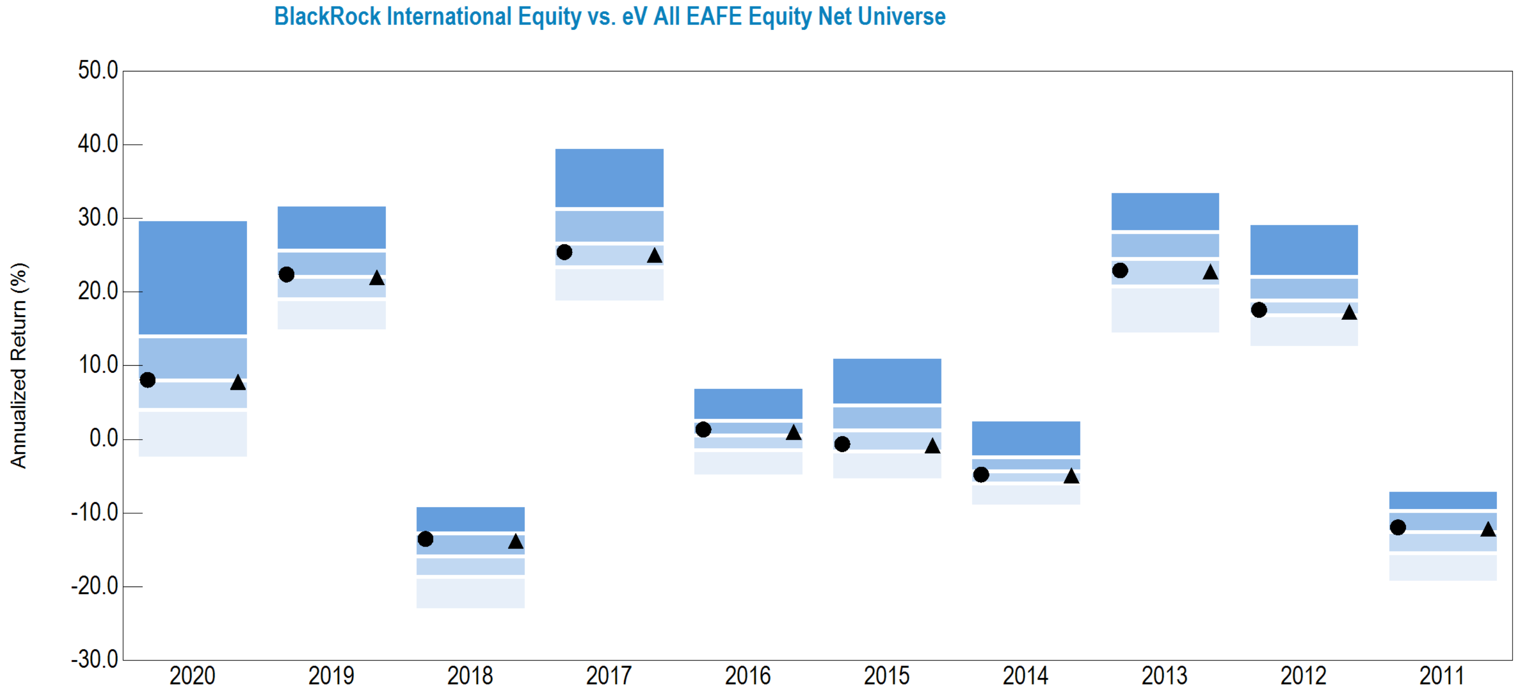


MSCI Effective Style Map
5 Years Ending Sep 30, 2021

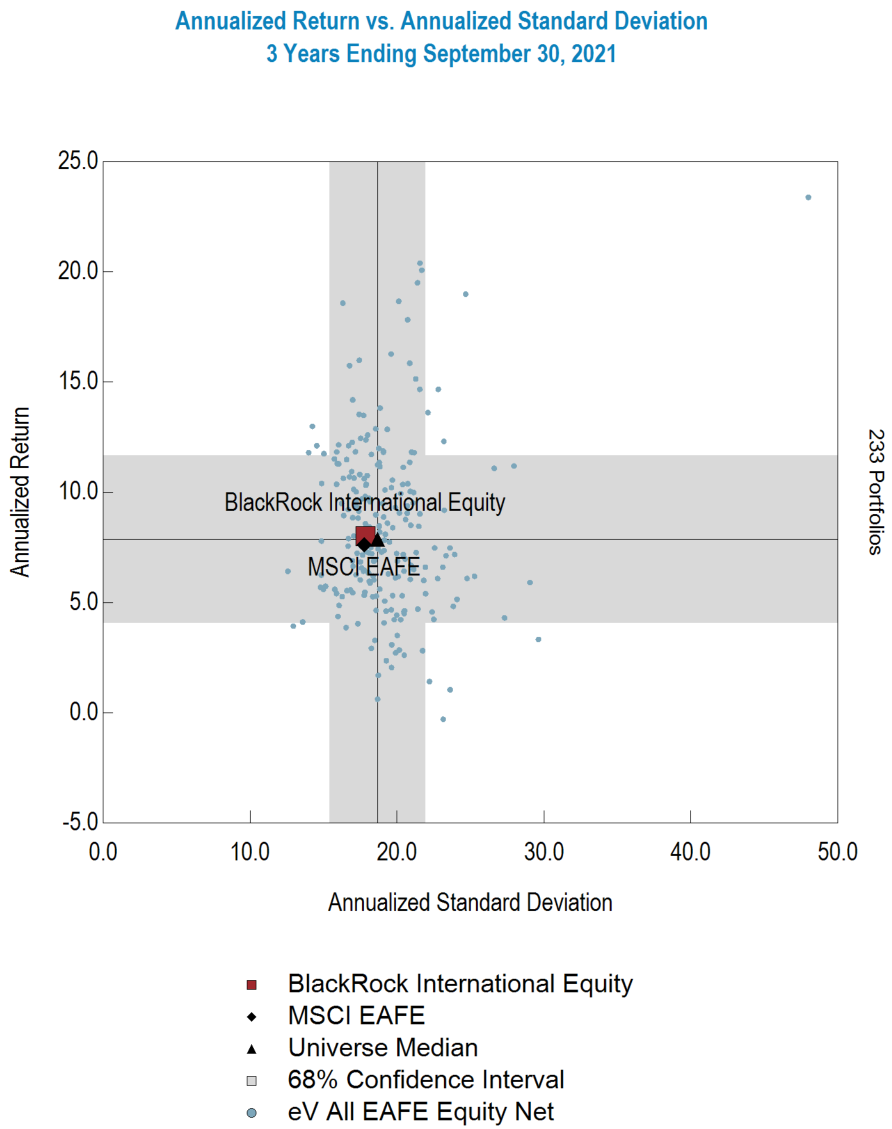


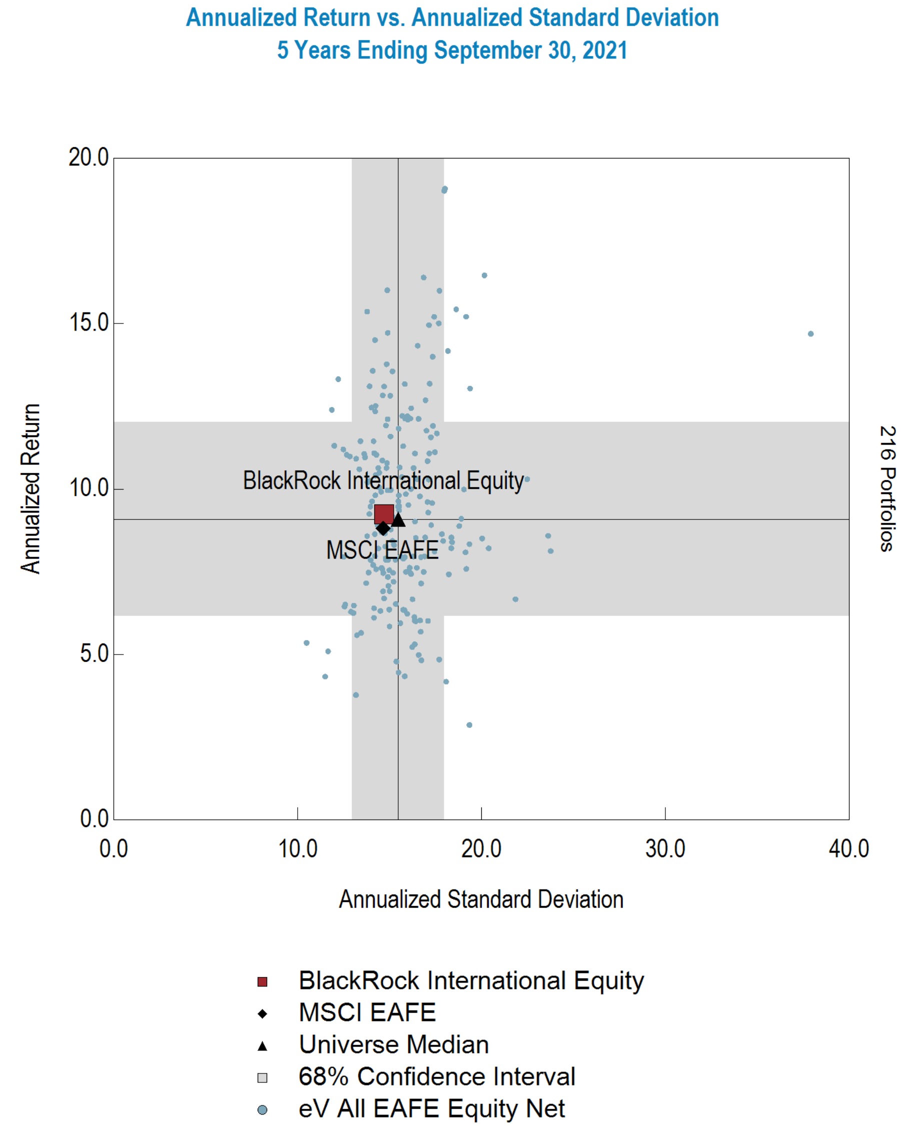


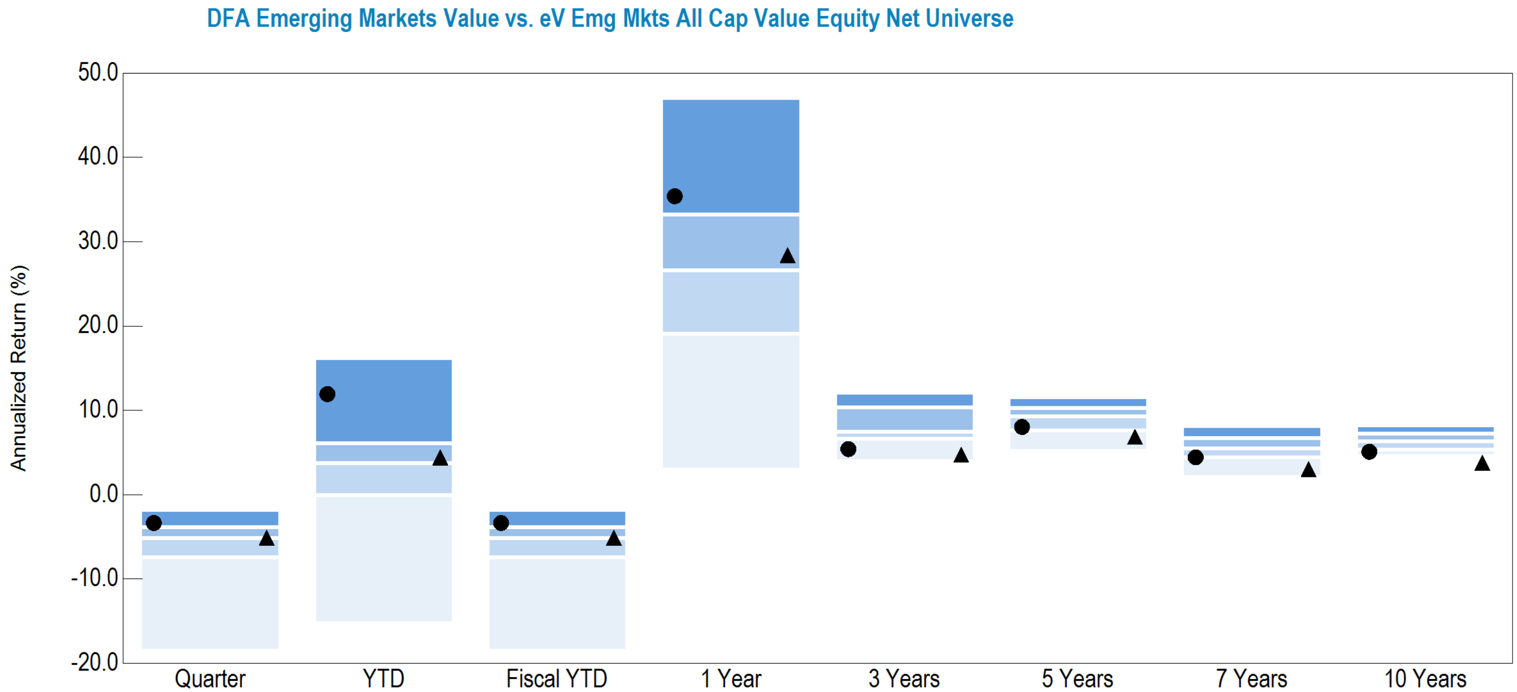
	Return (Rank)															
5th Percentile	2.4		16.9		2.4		40.0		15.4		15.0		11.2		12.6	
25th Percentile	0.2		11.6		0.2		30.2		10.6		11.2		8.6		10.7	
Median	-0.8		9.1		-0.8		26.0		7.9		9.1		6.8		9.2	
75th Percentile	-2.1		6.3		-2.1		21.6		6.0		7.5		5.2		8.1	
95th Percentile	-3.7		2.4		-3.7		16.3		3.0		5.2		3.6		6.6	
# of Portfolios	243		243		243		243		233		216		183		149	
● **BlackRock International Equity**	-0.4	(38)	8.6	(56)	-0.4	(38)	26.2	(49)	7.9	(50)	9.1	(50)	6.1	(60)	8.4	(69)
▲ **MSCI EAFE**	-0.4	(41)	8.3	(58)	-0.4	(41)	25.7	(53)	7.6	(53)	8.8	(54)	5.8	(67)	8.1	(75)



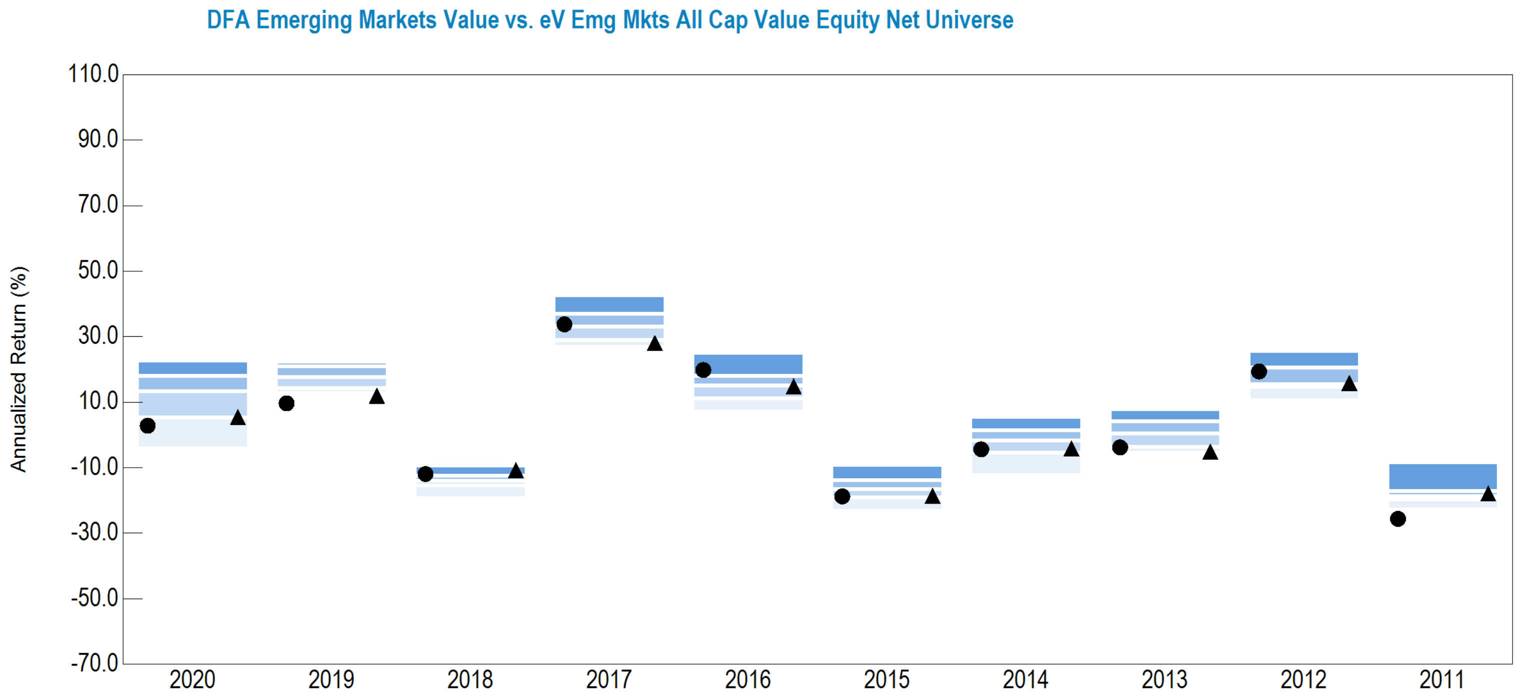
	Return (Rank)																			
5th Percentile	29.8		31.9		-9.0		39.6		7.1		11.2		2.6		33.6		29.3		-6.9	
25th Percentile	14.0		25.7		-12.7		31.3		2.6		4.7		-2.4		28.2		22.1		-9.7	
Median	8.0		22.1		-15.8		26.6		0.6		1.2		-4.3		24.5		18.9		-12.6	
75th Percentile	4.0		19.1		-18.6		23.4		-1.5		-1.6		-6.0		20.8		16.9		-15.4	
95th Percentile	-2.6		14.7		-23.1		18.6		-5.0		-5.5		-9.1		14.3		12.5		-19.4	
# of Portfolios	255		255		243		232		215		188		164		151		144		129	
● BlackRock International Equity	8.1	(49)	22.4	(47)	-13.5	(33)	25.4	(60)	1.3	(37)	-0.6	(65)	-4.8	(58)	22.9	(63)	17.6	(69)	-11.9	(43)
▲ MSCI EAFE	7.8	(53)	22.0	(52)	-13.8	(37)	25.0	(64)	1.0	(44)	-0.8	(67)	-4.9	(60)	22.8	(64)	17.3	(72)	-12.1	(45)


Annualized Return vs. Annualized Standard Deviation
3 Years Ending September 30, 2021
25.0
20.0
15.0
10.0
5.0
0.0
-5.0
Annualized Return
0.0
10.0
20.0
30.0
40.0
50.0
Annualized Standard Deviation
BlackRock International Equity
MSCI EAFE
233 Portfolios
BlackRock International Equity
MSCI EAFE
Universe Median
68% Confidence Interval
eV All EAFE Equity Net


Annualized Return vs. Annualized Standard Deviation
5 Years Ending September 30, 2021
20.0
15.0
10.0
5.0
0.0
Annualized Return
0.0
10.0
20.0
30.0
40.0
Annualized Standard Deviation
BlackRock International Equity
MSCI EAFE
216 Portfolios
BlackRock International Equity
MSCI EAFE
Universe Median
68% Confidence Interval
eV All EAFE Equity Net

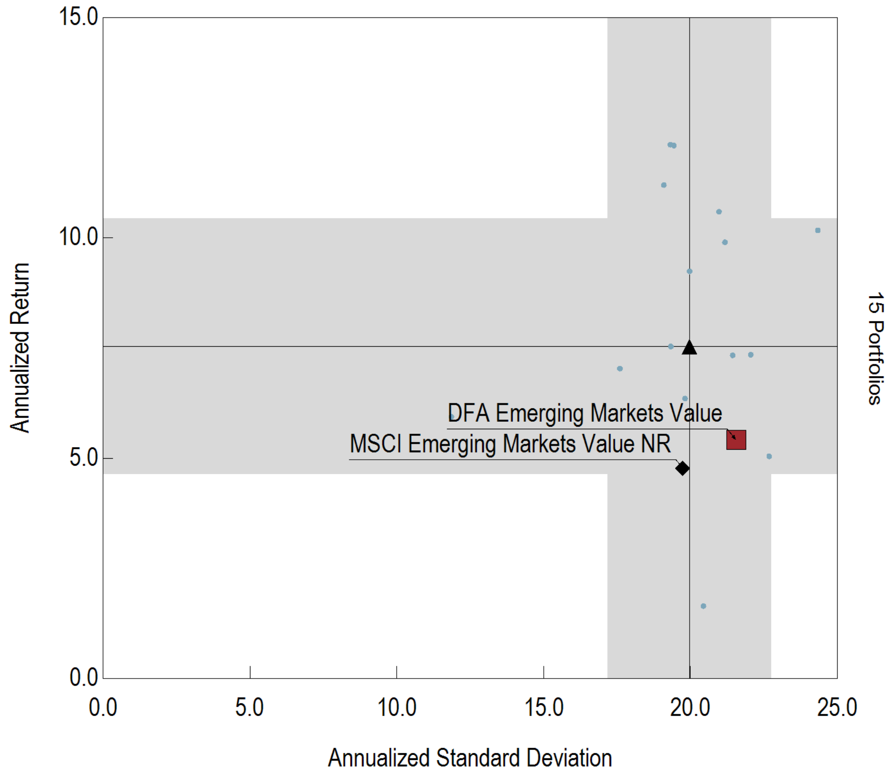


	Return (Rank)															
5th Percentile	-1.8		16.1		-1.8		47.0		12.1		11.6		8.1		8.2	
25th Percentile	-3.8		6.1		-3.8		33.3		10.4		10.3		6.8		7.3	
Median	-5.1		3.8		-5.1		26.7		7.5		9.3		5.5		6.4	
75th Percentile	-7.4		0.0		-7.4		19.1		6.7		7.7		4.5		5.4	
95th Percentile	-18.5		-15.2		-18.5		3.0		4.0		5.3		2.1		4.6	
# of Portfolios	19		19		19		19		15		14		11		8	
● DFA Emerging Markets Value	-3.4	(17)	11.9	(12)	-3.4	(17)	35.4	(15)	5.4	(90)	8.0	(61)	4.4	(76)	5.1	(79)
▲ MSCI Emerging Markets Value NR	-5.1	(45)	4.4	(47)	-5.1	(45)	28.4	(41)	4.8	(94)	6.9	(80)	3.1	(86)	3.8	(99)



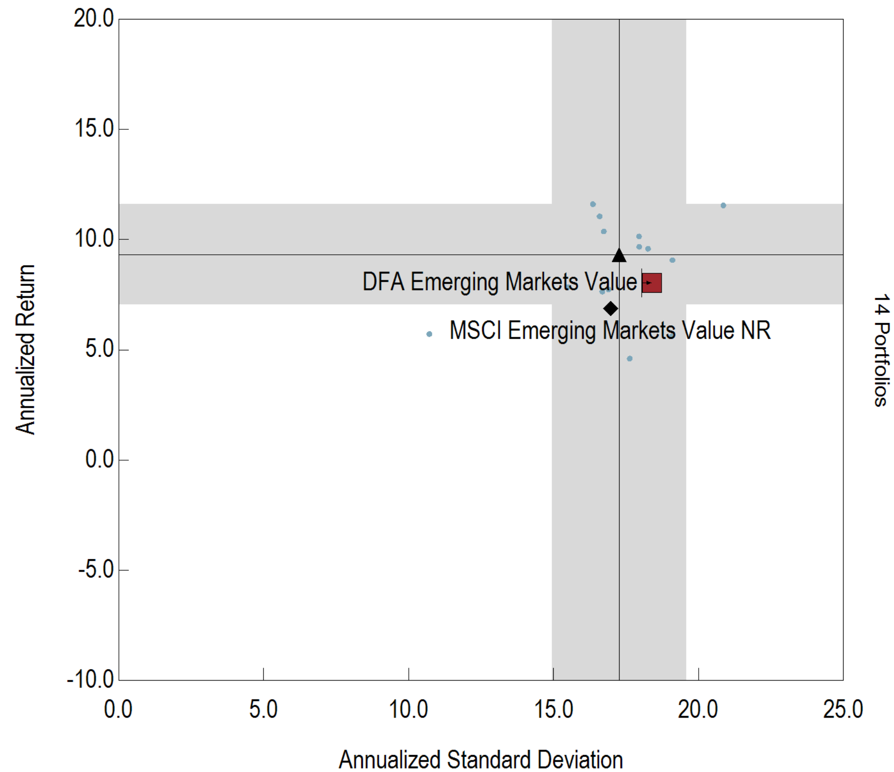
Return (Rank)	2020		2019		2018		2017		2016		2015		2014		2013		2012		2011	
5th Percentile	22.6		22.2		-9.4		42.6		25.1		-9.1		5.5		7.7		25.5		-8.5	
25th Percentile	18.1		21.0		-12.3		37.2		18.2		-13.8		1.6		4.3		20.7		-17.0	
Median	13.4		17.7		-14.0		33.1		15.1		-16.4		-1.6		0.6		15.6		-18.6	
75th Percentile	5.4		14.4		-15.3		29.1		11.4		-19.0		-5.3		-3.6		14.8		-19.7	
95th Percentile	-4.0		12.9		-19.2		26.9		7.2		-23.1		-12.1		-5.3		10.8		-22.7	
# of Portfolios	24		22		25		22		22		20		18		16		11		11	
● **DFA Emerging Markets Value**	2.8	(81)	9.6	(98)	-11.9	(20)	33.8	(49)	19.8	(22)	-18.8	(74)	-4.4	(73)	-3.8	(78)	19.4	(31)	-25.6	(99)
▲ **MSCI Emerging Markets Value NR**	5.5	(74)	12.0	(97)	-10.7	(15)	28.1	(87)	14.9	(52)	-18.6	(72)	-4.1	(72)	-5.1	(93)	15.9	(40)	-17.9	(38)

Annalized Return vs. Annualized Standard Deviation
3 Years Ending September 30, 2021

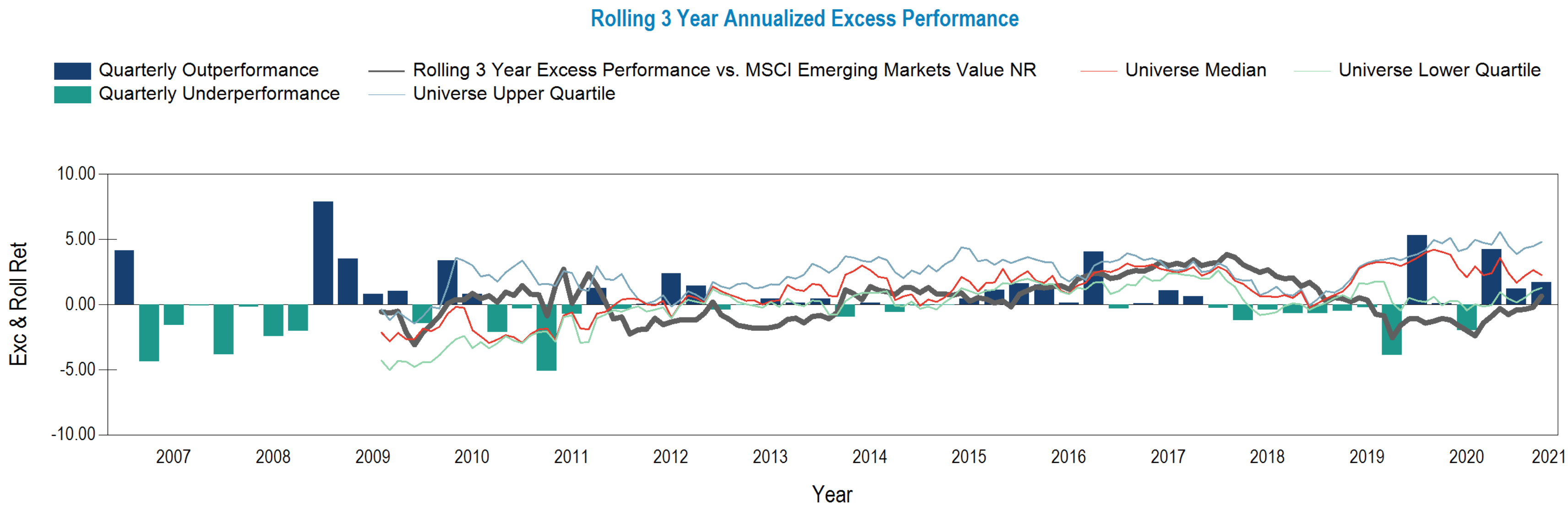


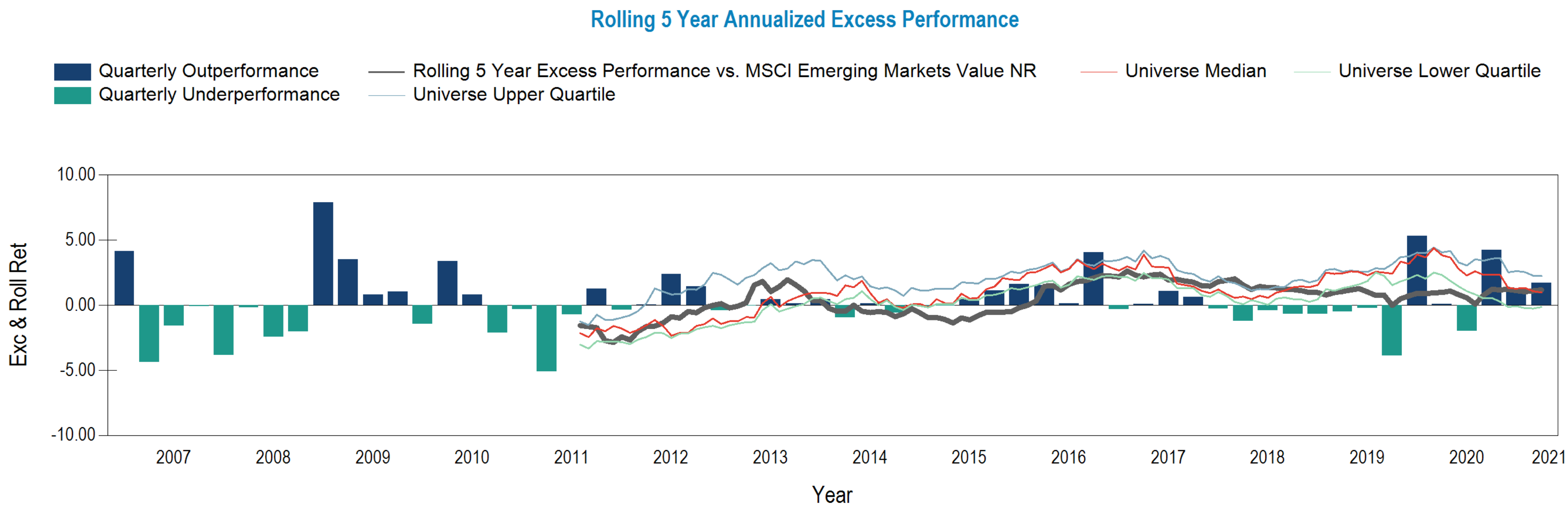
- DFA Emerging Markets Value
- MSCI Emerging Markets Value NR
- Universe Median
- 68% Confidence Interval
- eV Emg Mkts All Cap Value Equity Net

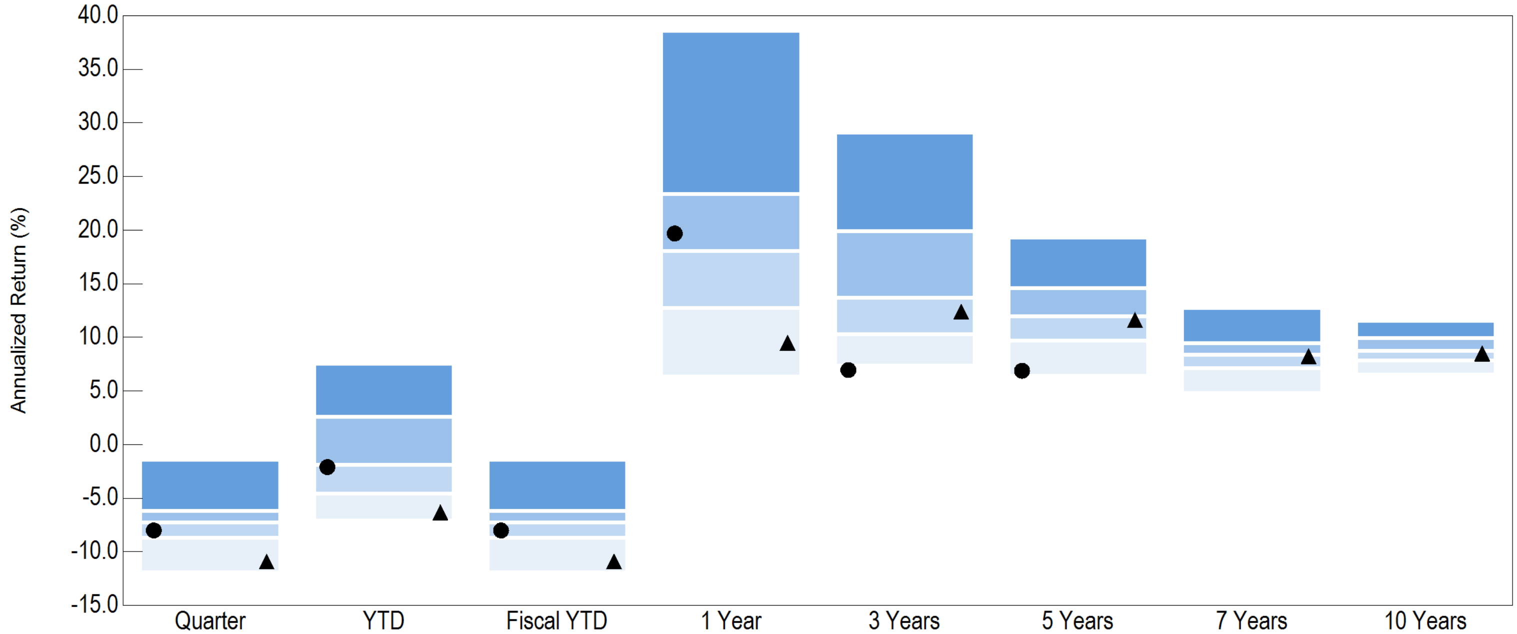
Annualized Return vs. Annualized Standard Deviation
5 Years Ending September 30, 2021



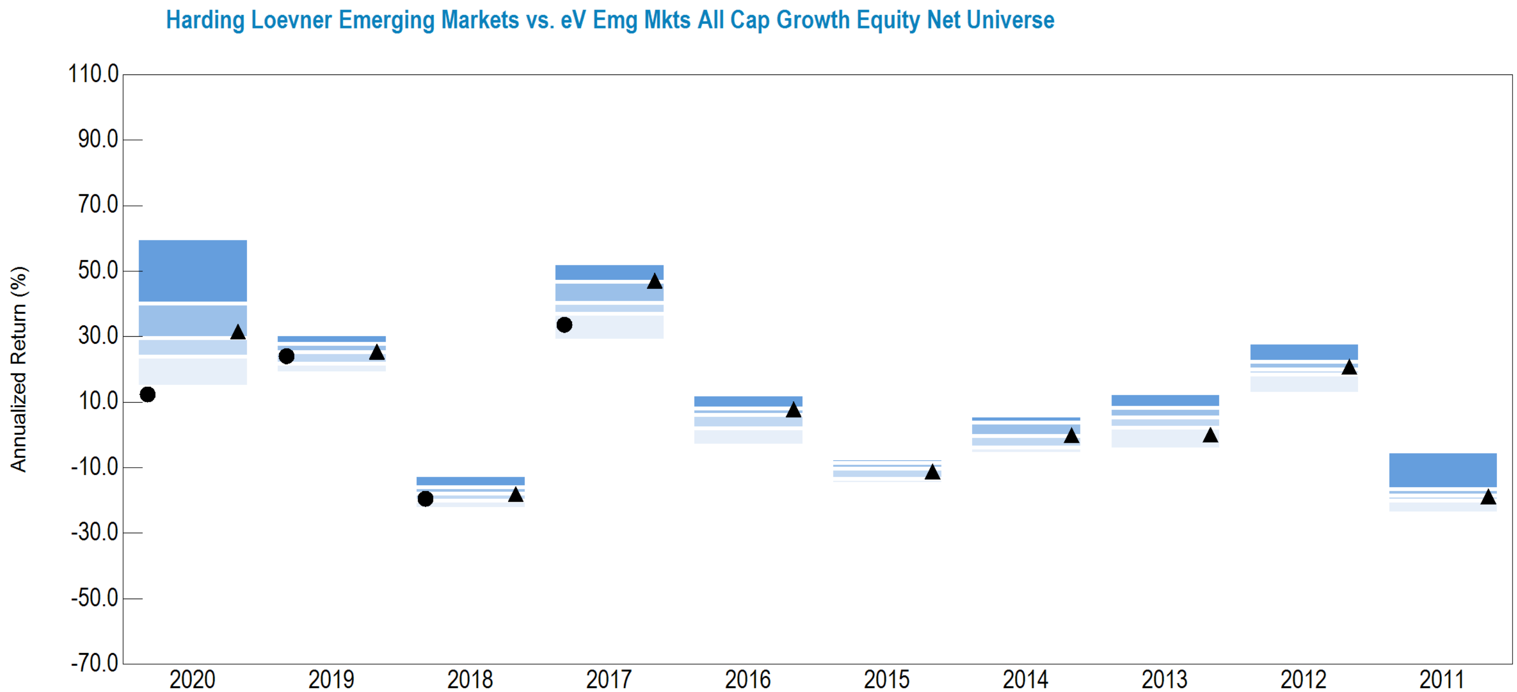
- DFA Emerging Markets Value
- MSCI Emerging Markets Value NR
- Universe Median
- 68% Confidence Interval
- eV Emg Mkts All Cap Value Equity Net


Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. MSCI Emerging Markets Value NR
Universe Upper Quartile
Universe Median
Universe Lower Quartile
10.00
5.00
0.00
-5.00
-10.00
Exc & Roll Ret
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

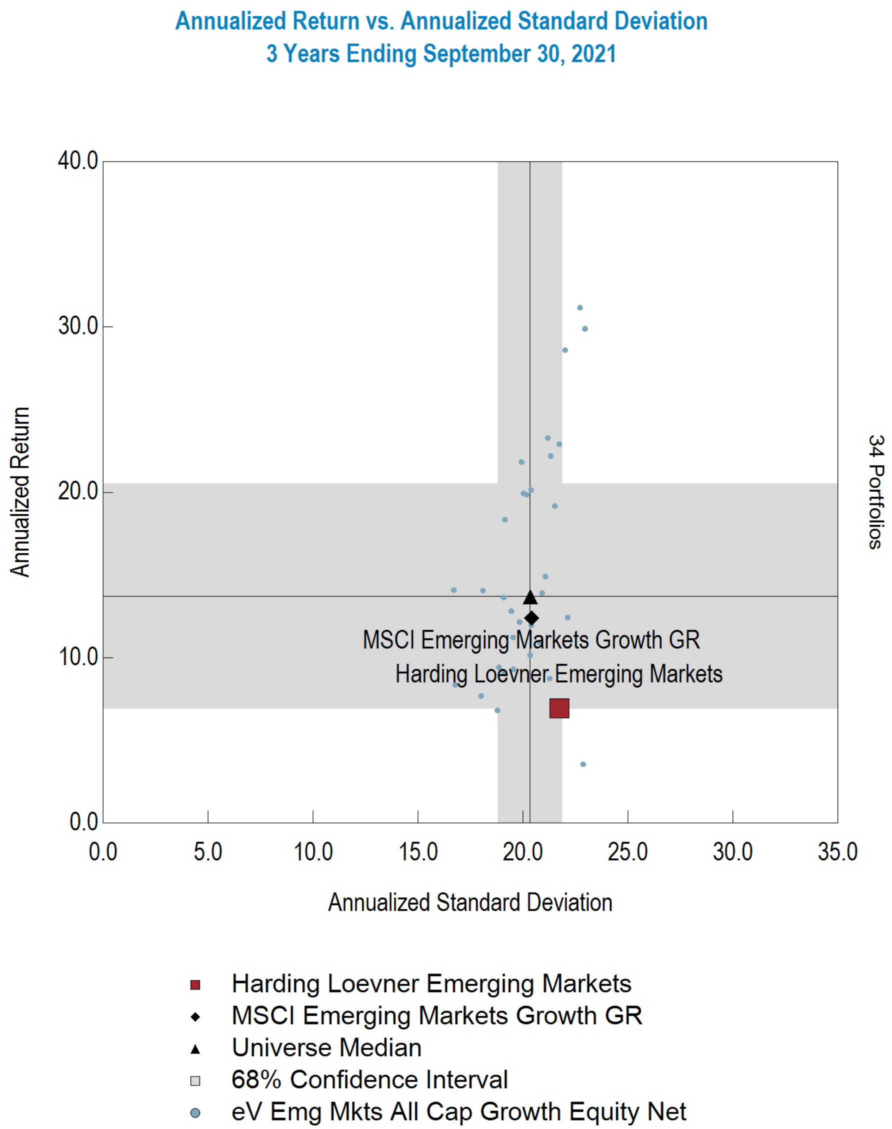

Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. MSCI Emerging Markets Value NR
Universe Upper Quartile
Universe Median
Universe Lower Quartile
10.00
5.00
0.00
-5.00
-10.00
Exc & Roll Ret
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

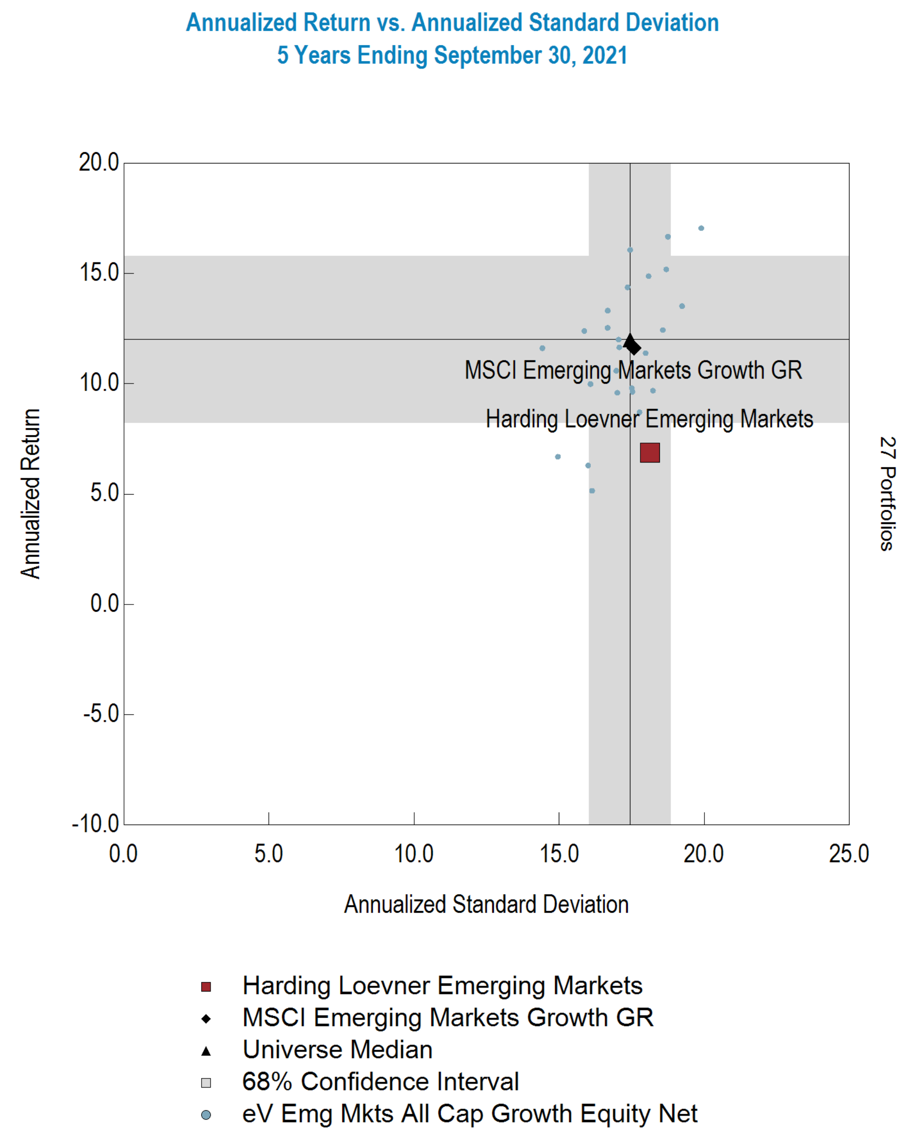


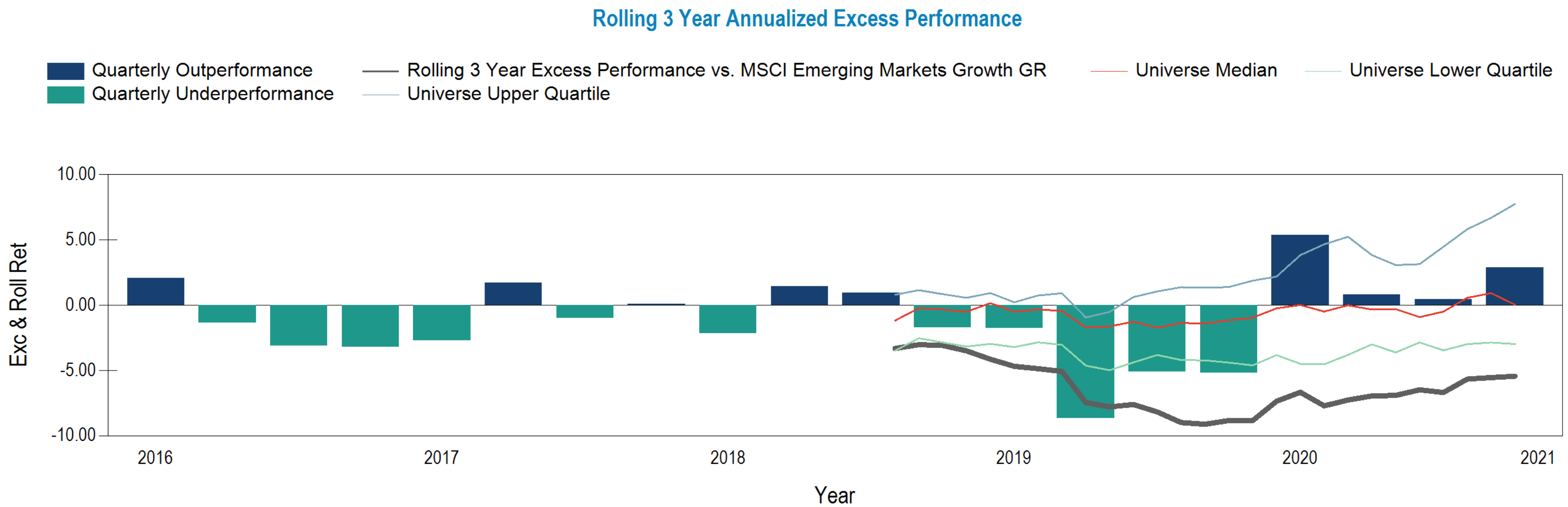
	Return (Rank)															
5th Percentile	-1.4		7.5		-1.4		38.6		29.1		19.3		12.7		11.5	
25th Percentile	-6.2		2.6		-6.2		23.4		19.9		14.6		9.5		10.0	
Median	-7.2		-1.8		-7.2		18.1		13.7		12.0		8.4		8.8	
75th Percentile	-8.7		-4.6		-8.7		12.8		10.3		9.7		7.1		7.9	
95th Percentile	-11.9		-7.1		-11.9		6.4		7.4		6.4		4.8		6.6	
# of Portfolios	40		40		40		40		34		27		25		17	
● Harding Loevner Emerging Markets	-8.0	(66)	-2.1	(53)	-8.0	(66)	19.7	(43)	6.9	(97)	6.9	(92)	--	(--)	--	(--)
▲ MSCI Emerging Markets Growth GR	-10.9	(94)	-6.3	(90)	-10.9	(94)	9.5	(90)	12.4	(61)	11.6	(58)	8.2	(54)	8.5	(57)

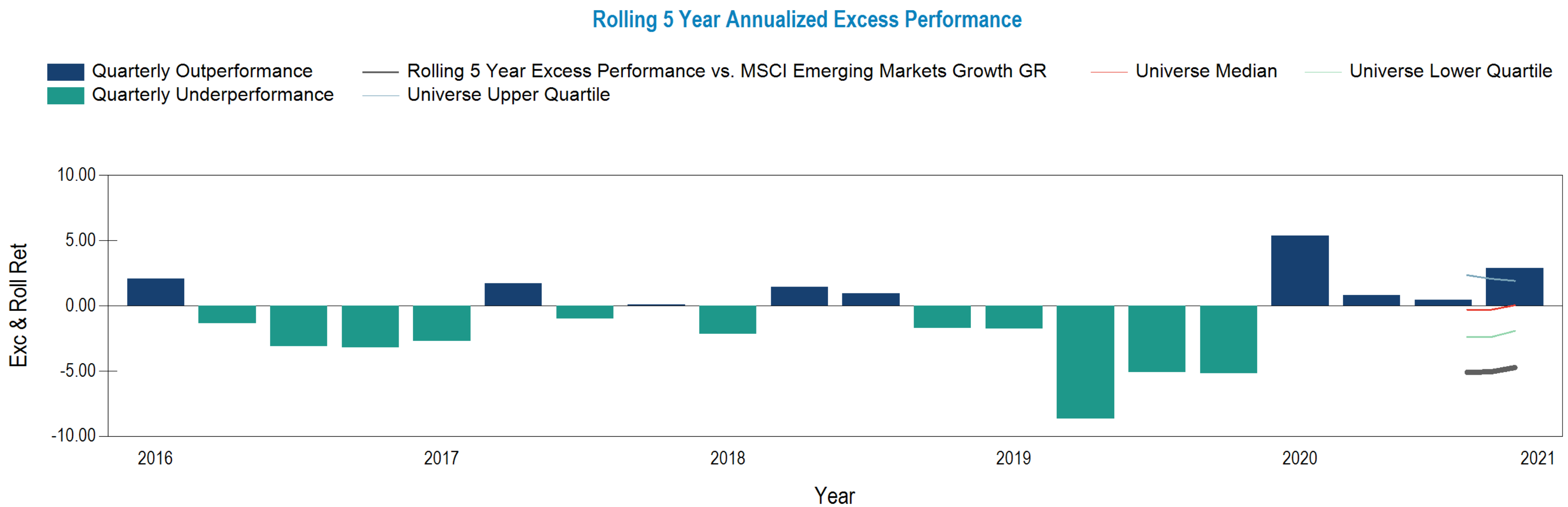


	Return (Rank)																			
5th Percentile	59.9		30.7		-12.4		52.3		12.2		-7.2		5.7		12.6		28.1		-5.2	
25th Percentile	40.2		27.8		-15.9		46.9		8.2		-8.4		3.9		8.4		22.4		-16.4	
Median	29.7		25.3		-17.9		40.4		6.1		-10.2		-0.2		5.4		20.1		-18.4	
75th Percentile	24.0		21.8		-19.9		37.1		2.1		-13.3		-3.7		2.2		18.5		-20.0	
95th Percentile	14.9		19.0		-22.5		28.9		-3.2		-14.9		-5.7		-4.4		12.6		-23.9	
# of Portfolios	38		32		30		29		30		29		26		24		22		17	
● Harding Loevner Emerging Markets	12.4	(99)	24.0	(61)	-19.5	(73)	33.6	(89)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)
▲ MSCI Emerging Markets Growth GR	31.6	(43)	25.4	(49)	-18.0	(56)	47.1	(20)	7.9	(27)	-11.1	(57)	-0.1	(46)	0.1	(80)	20.9	(39)	-18.8	(60)


Annualized Return vs. Annualized Standard Deviation
3 Years Ending September 30, 2021
40.0
30.0
20.0
10.0
0.0
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
Annualized Return
Annualized Standard Deviation
34 Portfolios
MSCI Emerging Markets Growth GR
Harding Loevner Emerging Markets
Harding Loevner Emerging Markets
MSCI Emerging Markets Growth GR
Universe Median
68% Confidence Interval
eV Emg Mkts All Cap Growth Equity Net


Annualized Return vs. Annualized Standard Deviation
5 Years Ending September 30, 2021
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
0.0
5.0
10.0
15.0
20.0
25.0
Annualized Return
Annualized Standard Deviation
27 Portfolios
MSCI Emerging Markets Growth GR
Harding Loevner Emerging Markets
Harding Loevner Emerging Markets
MSCI Emerging Markets Growth GR
Universe Median
68% Confidence Interval
eV Emg Mkts All Cap Growth Equity Net


Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. MSCI Emerging Markets Growth GR
Universe Upper Quartile
Universe Median
Universe Lower Quartile
10.00
5.00
0.00
-5.00
-10.00
Exc & Roll Ret
2016
2017
2018
2019
2020
2021
Year

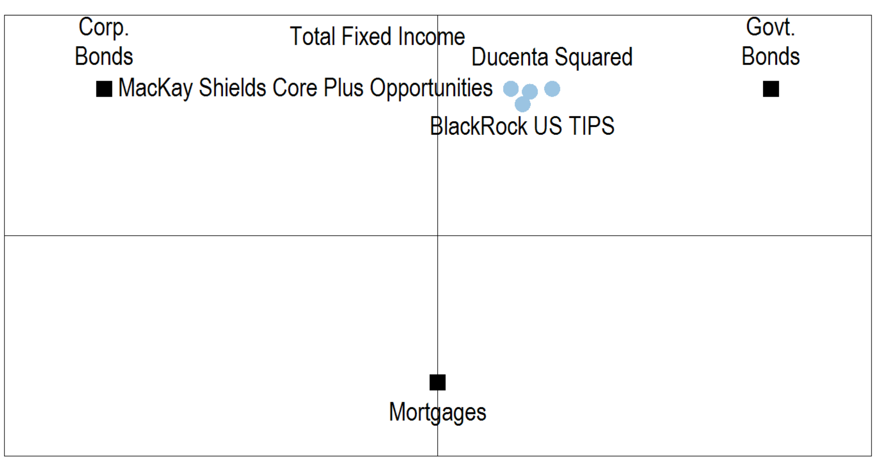

Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. MSCI Emerging Markets Growth GR
Universe Upper Quartile
Universe Median
Universe Lower Quartile
10.00
5.00
0.00
-5.00
-10.00
Exc & Roll Ret
2016
2017
2018
2019
2020
2021
Year

Asset Class Overview (Net of Fees)

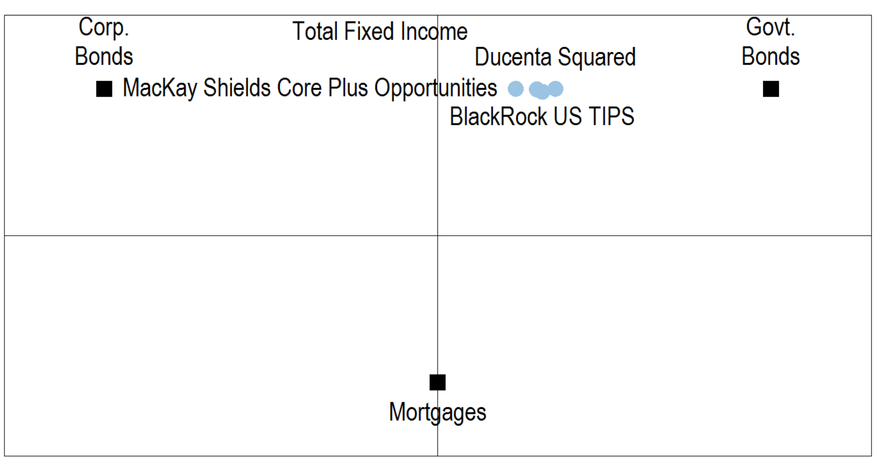
Period Ending: September 30, 2021

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Fixed Income	**276,925,307**	**0.3**	**0.0**	**0.3**	**1.9**	**6.5**	**3.9**	**4.1**	**9.8**	**9.5**	**-0.8**	**4.3**	**4.8**
Bloomberg US Aggregate TR		*0.1*	*-1.6*	*0.1*	*-0.9*	*5.4*	*2.9*	*3.0*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
InvMetrics Public DB Total Fix Inc Net Rank		*12*	*33*	*12*	*46*	*11*	*40*	*48*	*8*	*32*	*59*	*62*	*43*
Ducenta Squared	112,332,231	-0.1	-1.0	-0.1	0.7	6.1	3.8	4.4	9.1	9.9	-0.1	4.3	4.8
Bloomberg US Aggregate TR		*0.1*	*-1.6*	*0.1*	*-0.9*	*5.4*	*2.9*	*3.0*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
eV US Core Plus Fixed Inc Net Rank		*87*	*77*	*87*	*73*	*49*	*62*	*34*	*34*	*45*	*23*	*74*	*41*
MacKay Shields Core Plus Opportunities	111,841,897	0.1	-0.5	0.1	1.7	6.4	3.9	--	9.9	9.7	-1.0	4.5	4.7
Bloomberg US Aggregate TR		*0.1*	*-1.6*	*0.1*	*-0.9*	*5.4*	*2.9*	*--*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
eV US Core Plus Fixed Inc Net Rank		*75*	*54*	*75*	*45*	*39*	*51*	*--*	*23*	*54*	*75*	*62*	*47*
BlackRock US TIPS	52,751,179	1.7	3.5	1.7	5.1	7.5	4.4	3.2	11.2	8.5	-1.2	3.2	4.8
Bloomberg US TIPS TR		*1.8*	*3.5*	*1.8*	*5.2*	*7.4*	*4.3*	*3.1*	*11.0*	*8.4*	*-1.3*	*3.0*	*4.7*
eV US TIPS / Inflation Fixed Inc Net Rank		*33*	*55*	*33*	*69*	*34*	*60*	*45*	*31*	*53*	*36*	*47*	*43*

Fixed Income Style Map
3 Years Ending September 30, 2021



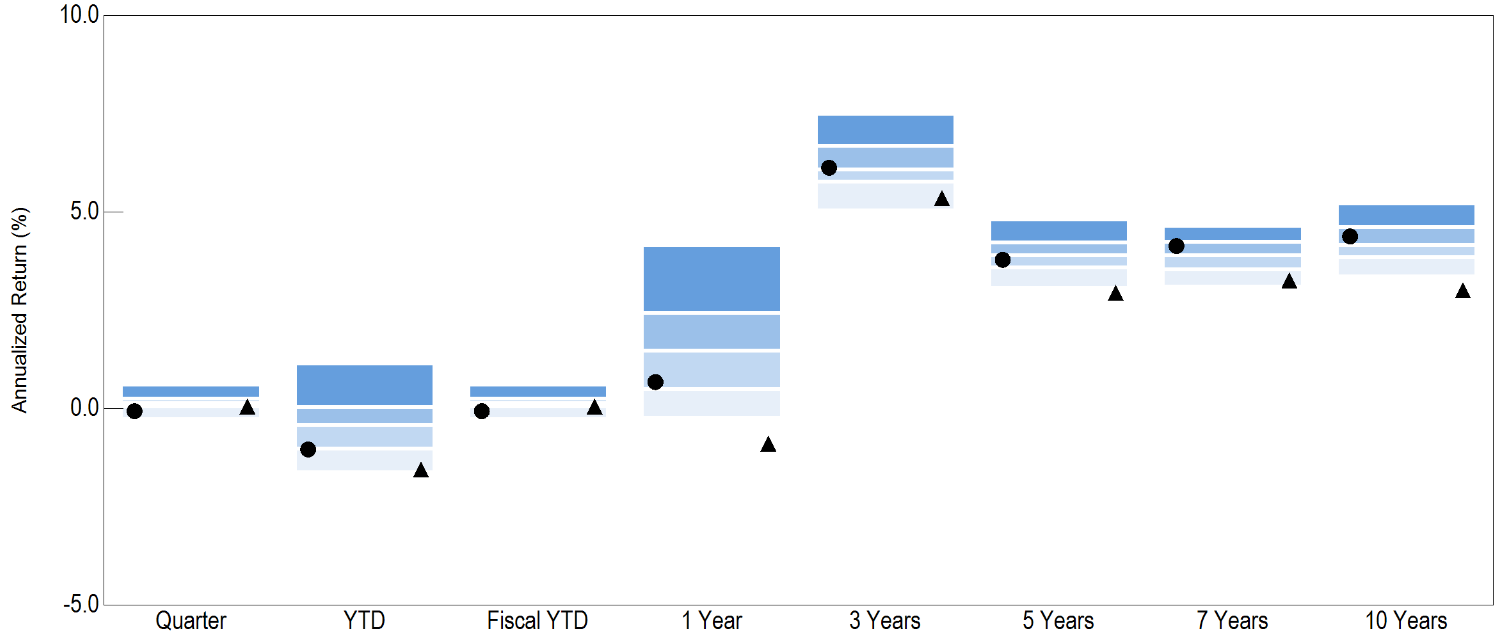
Fixed Income Style Map
5 Years Ending September 30, 2021



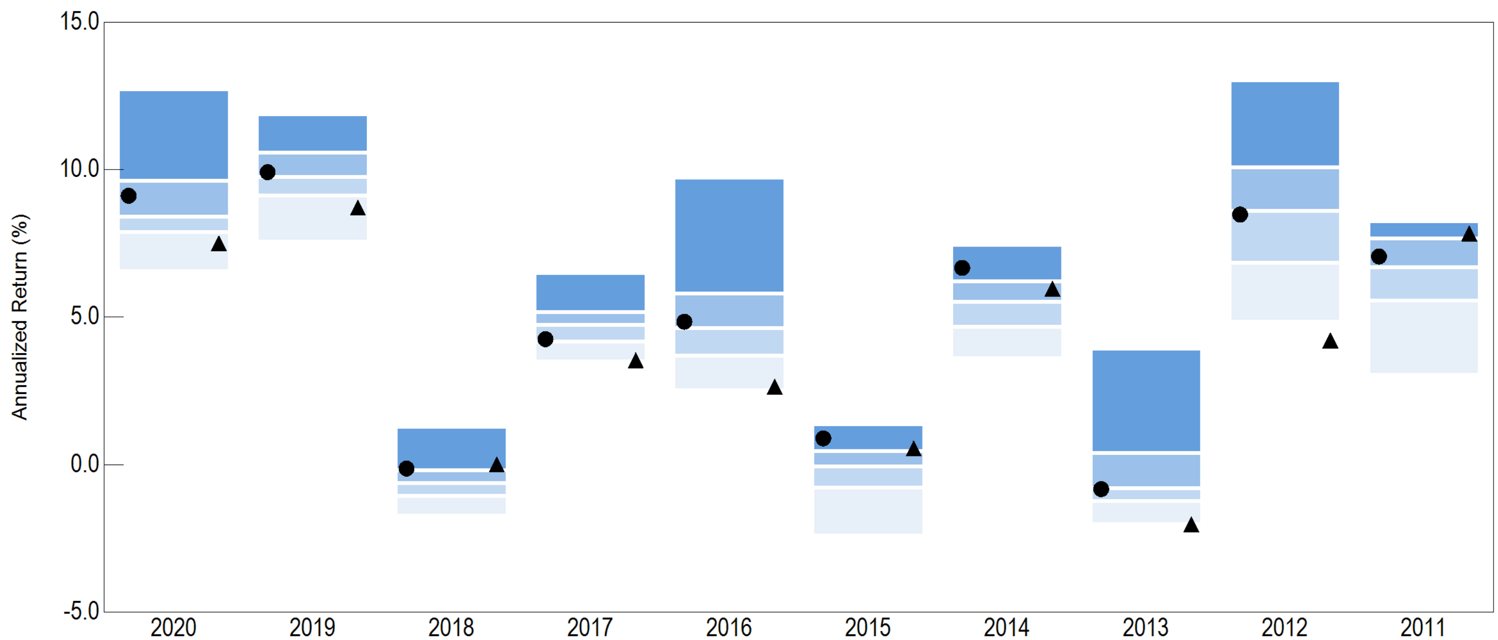
	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Fixed Income	**276,925,307**	**0.3**	**0.0**	**0.3**	**1.9**	**6.5**	**3.9**	**4.1**	**9.8**	**9.5**	**-0.8**	**4.3**	**4.8**
Bloomberg US Aggregate TR		*0.1*	*-1.6*	*0.1*	*-0.9*	*5.4*	*2.9*	*3.0*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
Ducenta Squared	112,332,231	-0.1	-1.0	-0.1	0.7	6.1	3.8	4.4	9.1	9.9	-0.1	4.3	4.8
Bloomberg US Aggregate TR		*0.1*	*-1.6*	*0.1*	*-0.9*	*5.4*	*2.9*	*3.0*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
MacKay Shields Core Plus Opportunities	111,841,897	0.1	-0.5	0.1	1.7	6.4	3.9	--	9.9	9.7	-1.0	4.5	4.7
Bloomberg US Aggregate TR		*0.1*	*-1.6*	*0.1*	*-0.9*	*5.4*	*2.9*	*--*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
BlackRock US TIPS	52,751,179	1.7	3.5	1.7	5.1	7.5	4.4	3.2	11.2	8.5	-1.2	3.2	4.8
Bloomberg US TIPS TR		*1.8*	*3.5*	*1.8*	*5.2*	*7.4*	*4.3*	*3.1*	*11.0*	*8.4*	*-1.3*	*3.0*	*4.7*

Correlation Matrix
Last 5 Years

	Total Fixed Income	Ducenta Squared	MacKay Shields Core Plus Opportunities	BlackRock US TIPS	Bloomberg US Aggregate TR
Total Fixed Income	1.00	--	--	--	--
Ducenta Squared	0.99	1.00	--	--	--
MacKay Shields Core Plus Opportunities	0.99	0.98	1.00	--	--
BlackRock US TIPS	0.89	0.85	0.85	1.00	--
Bloomberg US Aggregate TR	0.88	0.93	0.84	0.76	1.00

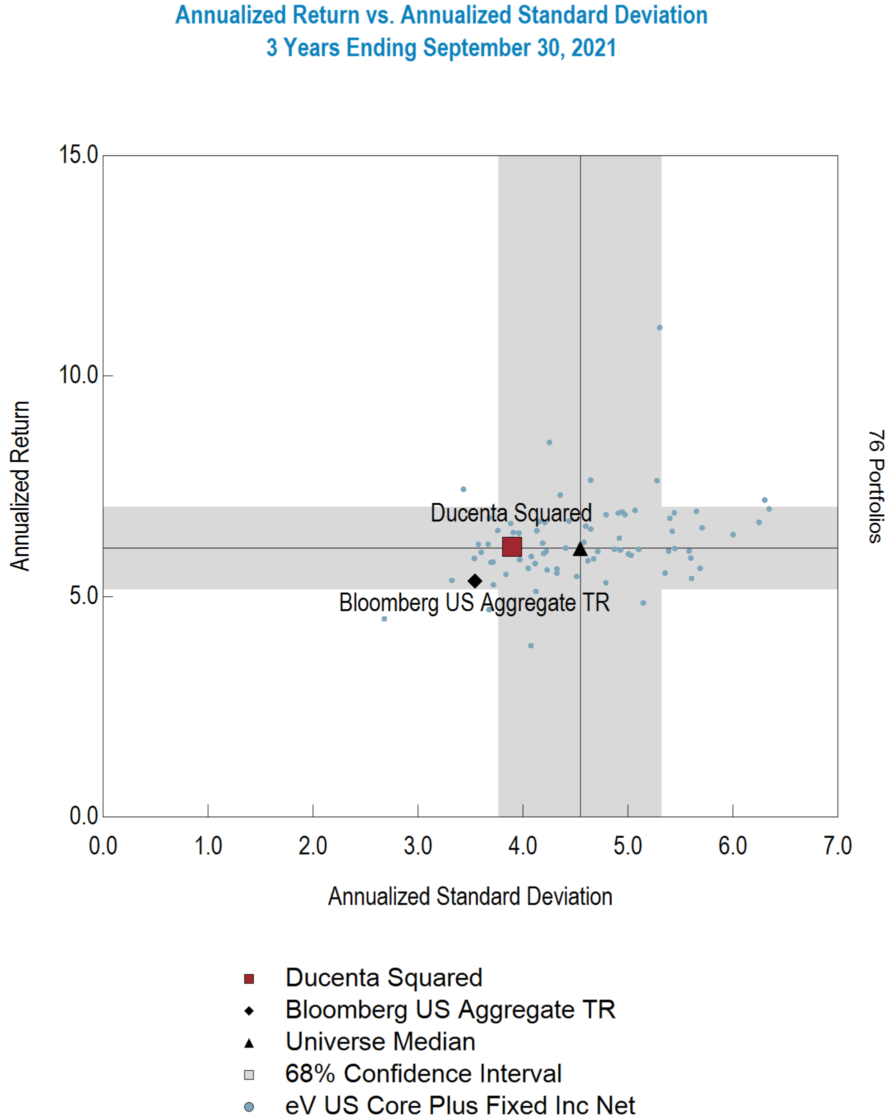


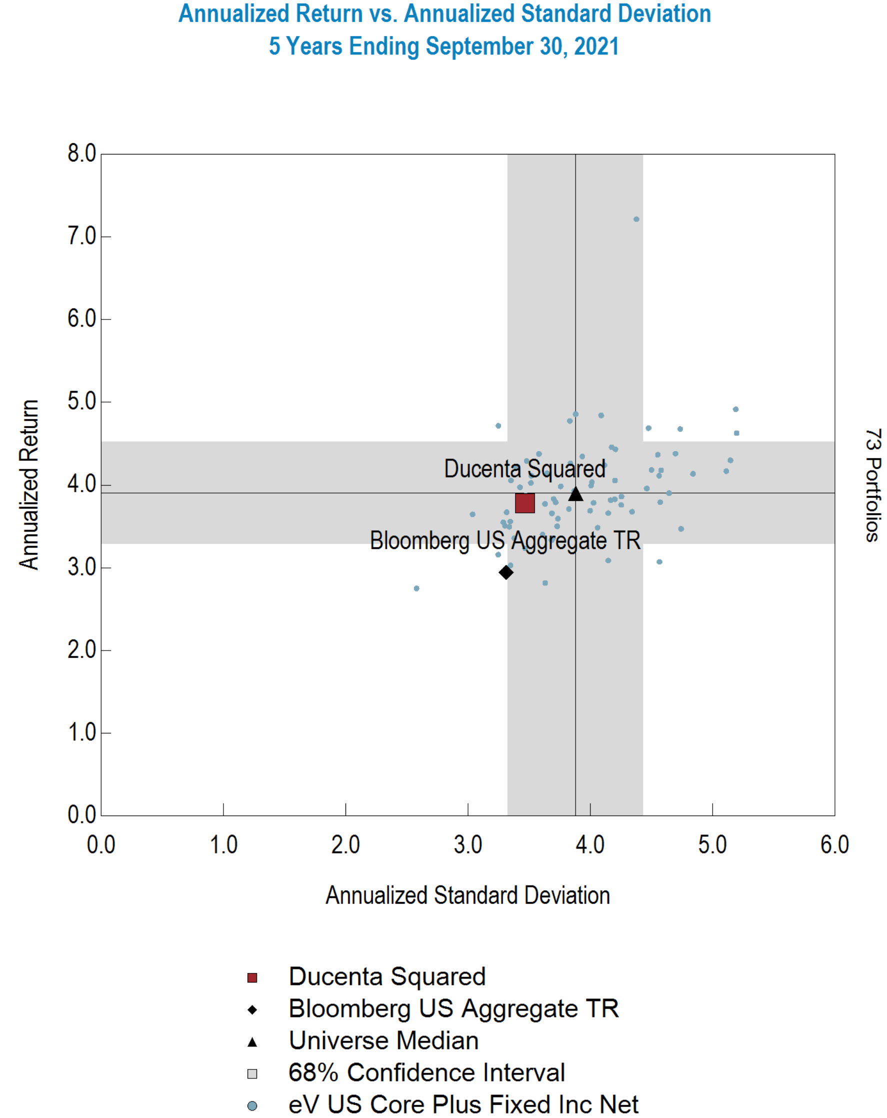
	Return (Rank)															
5th Percentile	0.6		1.1		0.6		4.2		7.5		4.8		4.6		5.2	
25th Percentile	0.3		0.0		0.3		2.4		6.7		4.2		4.2		4.6	
Median	0.1		-0.4		0.1		1.5		6.1		3.9		3.9		4.2	
75th Percentile	0.1		-1.0		0.1		0.5		5.8		3.6		3.5		3.9	
95th Percentile	-0.3		-1.6		-0.3		-0.2		5.1		3.1		3.1		3.4	
# of Portfolios	80		80		80		80		76		73		71		65	
● Ducenta Squared	-0.1	(87)	-1.0	(77)	-0.1	(87)	0.7	(73)	6.1	(49)	3.8	(62)	4.1	(34)	4.4	(34)
▲ Bloomberg US Aggregate TR	0.1	(78)	-1.6	(95)	0.1	(78)	-0.9	(99)	5.4	(91)	2.9	(98)	3.3	(91)	3.0	(99)



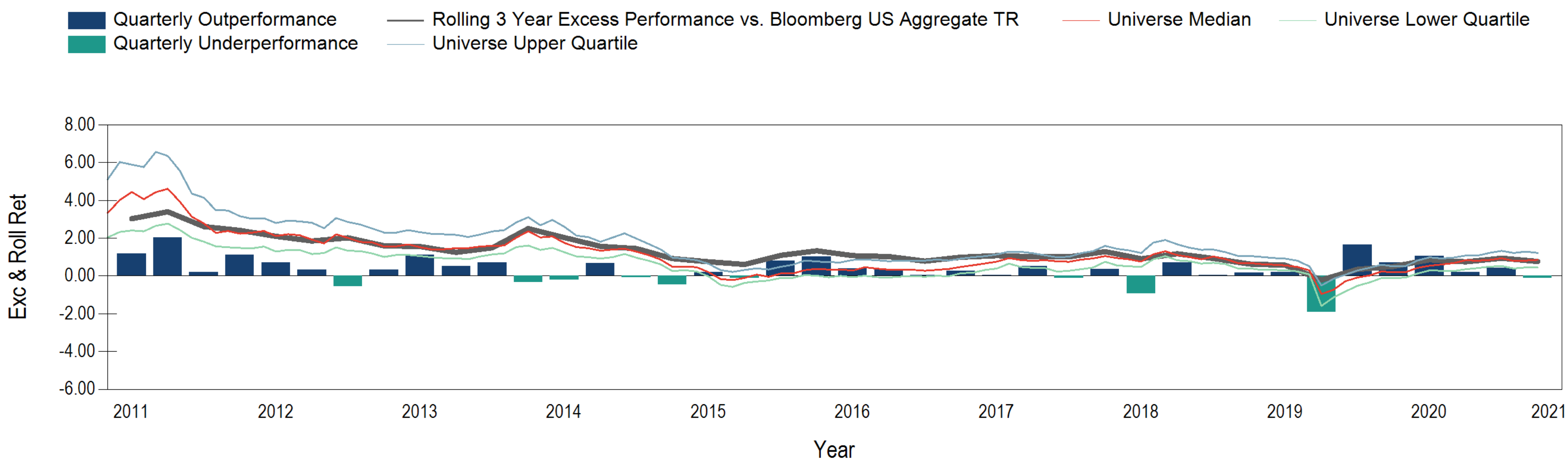
Return (Rank)

	2020		2019		2018		2017		2016		2015		2014		2013		2012		2011	
5th Percentile	12.7		11.9		1.3		6.5		9.7		1.4		7.4		3.9		13.0		8.2	
25th Percentile	9.6		10.6		-0.2		5.2		5.8		0.5		6.2		0.4		10.1		7.7	
Median	8.4		9.8		-0.6		4.7		4.6		-0.1		5.5		-0.8		8.6		6.7	
75th Percentile	7.9		9.1		-1.0		4.2		3.7		-0.8		4.7		-1.2		6.9		5.6	
95th Percentile	6.6		7.6		-1.7		3.5		2.5		-2.4		3.6		-2.0		4.9		3.0	
# of Portfolios	89		86		77		80		84		71		71		65		64		54	
● Ducenta Squared	9.1	(34)	9.9	(45)	-0.1	(23)	4.3	(74)	4.8	(41)	0.9	(12)	6.7	(17)	-0.8	(53)	8.5	(54)	7.1	(40)
▲ Bloomberg US Aggregate TR	7.5	(84)	8.7	(85)	0.0	(21)	3.5	(95)	2.6	(93)	0.6	(22)	6.0	(35)	-2.0	(96)	4.2	(96)	7.8	(17)

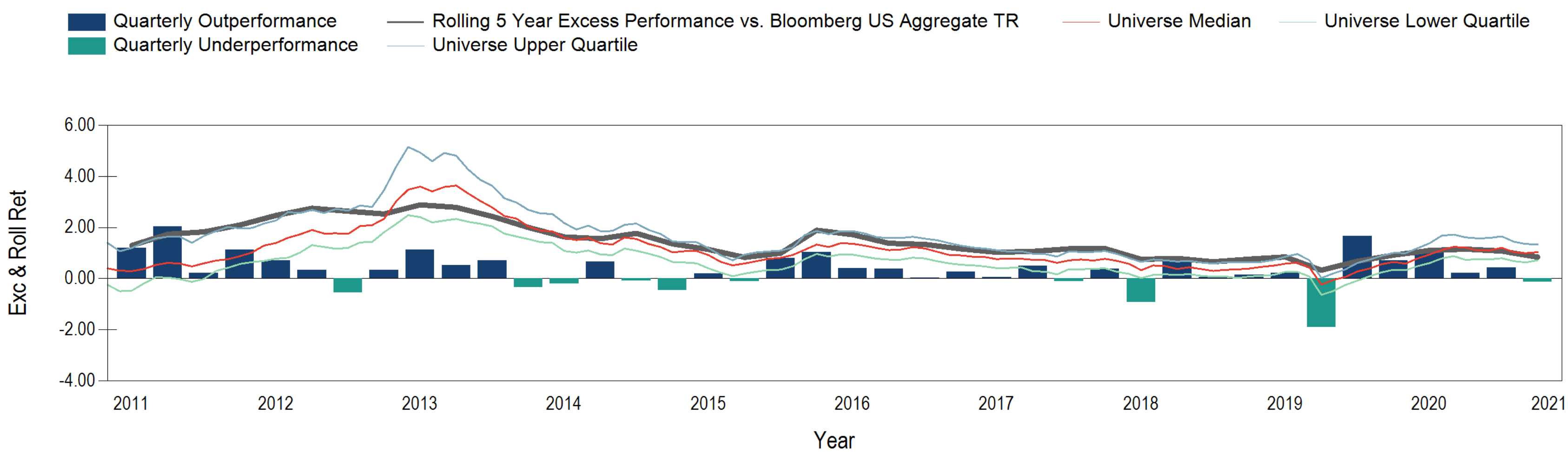

Annualized Return vs. Annualized Standard Deviation
3 Years Ending September 30, 2021
15.0
10.0
5.0
0.0
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
Annualized Return
Annualized Standard Deviation
Ducenta Squared
Bloomberg US Aggregate TR
76 Portfolios
Ducenta Squared
Bloomberg US Aggregate TR
Universe Median
68% Confidence Interval
eV US Core Plus Fixed Inc Net

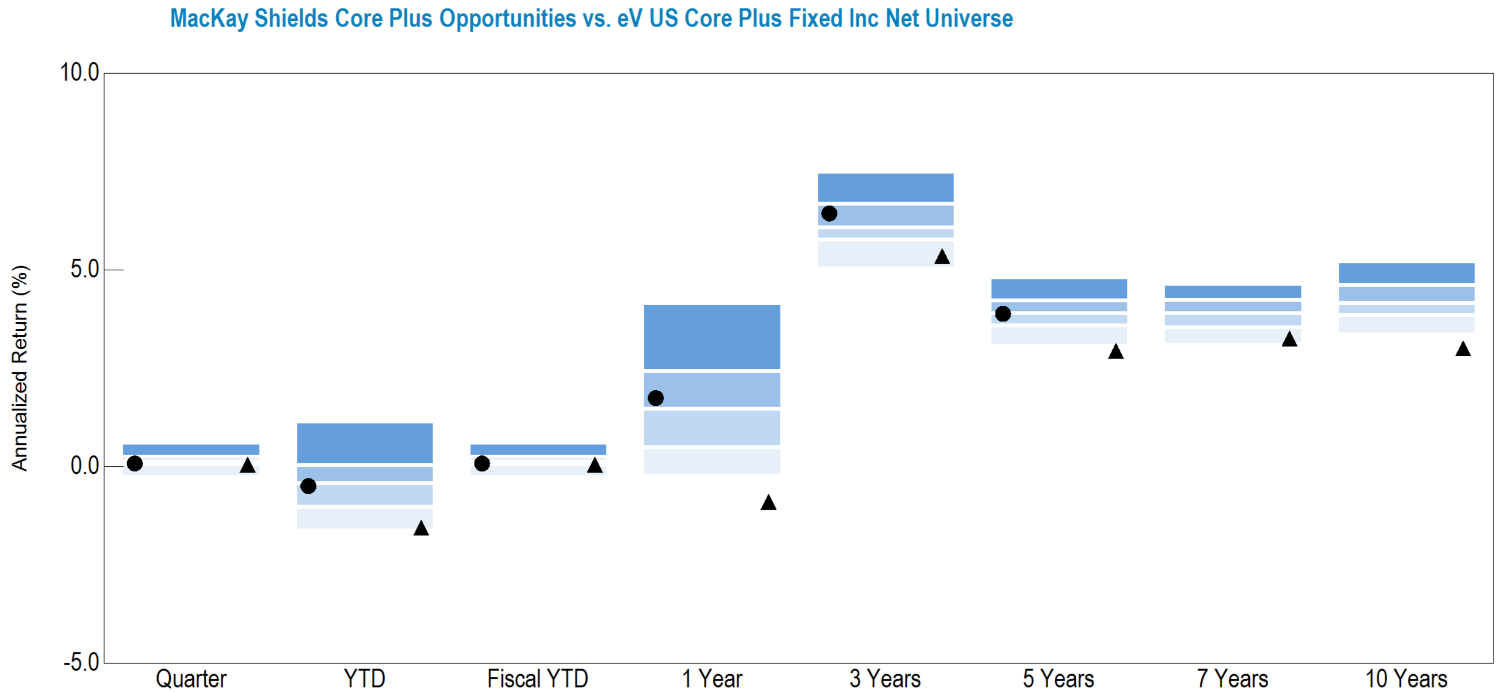

Annualized Return vs. Annualized Standard Deviation
5 Years Ending September 30, 2021
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
1.0
2.0
3.0
4.0
5.0
6.0
Annualized Return
Annualized Standard Deviation
Ducenta Squared
Bloomberg US Aggregate TR
73 Portfolios
Ducenta Squared
Bloomberg US Aggregate TR
Universe Median
68% Confidence Interval
eV US Core Plus Fixed Inc Net

Rolling 3 Year Annualized Excess Performance



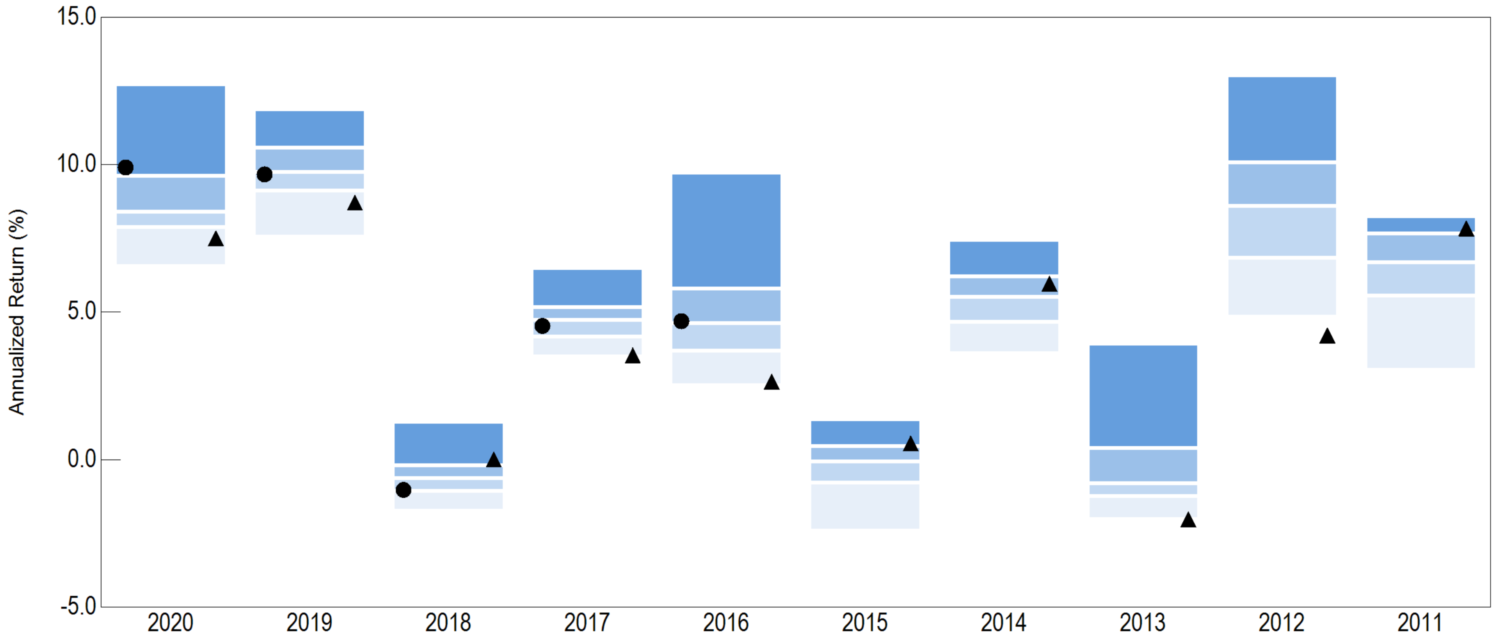
Rolling 5 Year Annualized Excess Performance



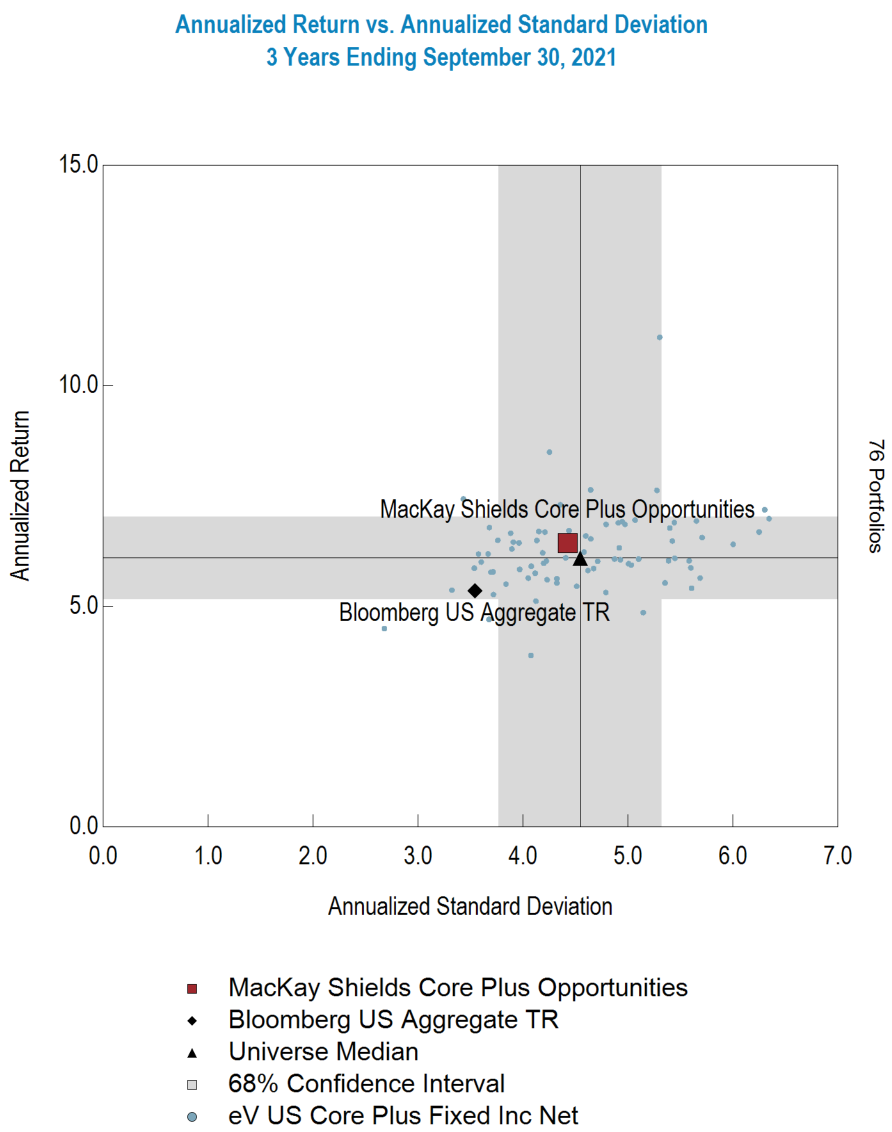


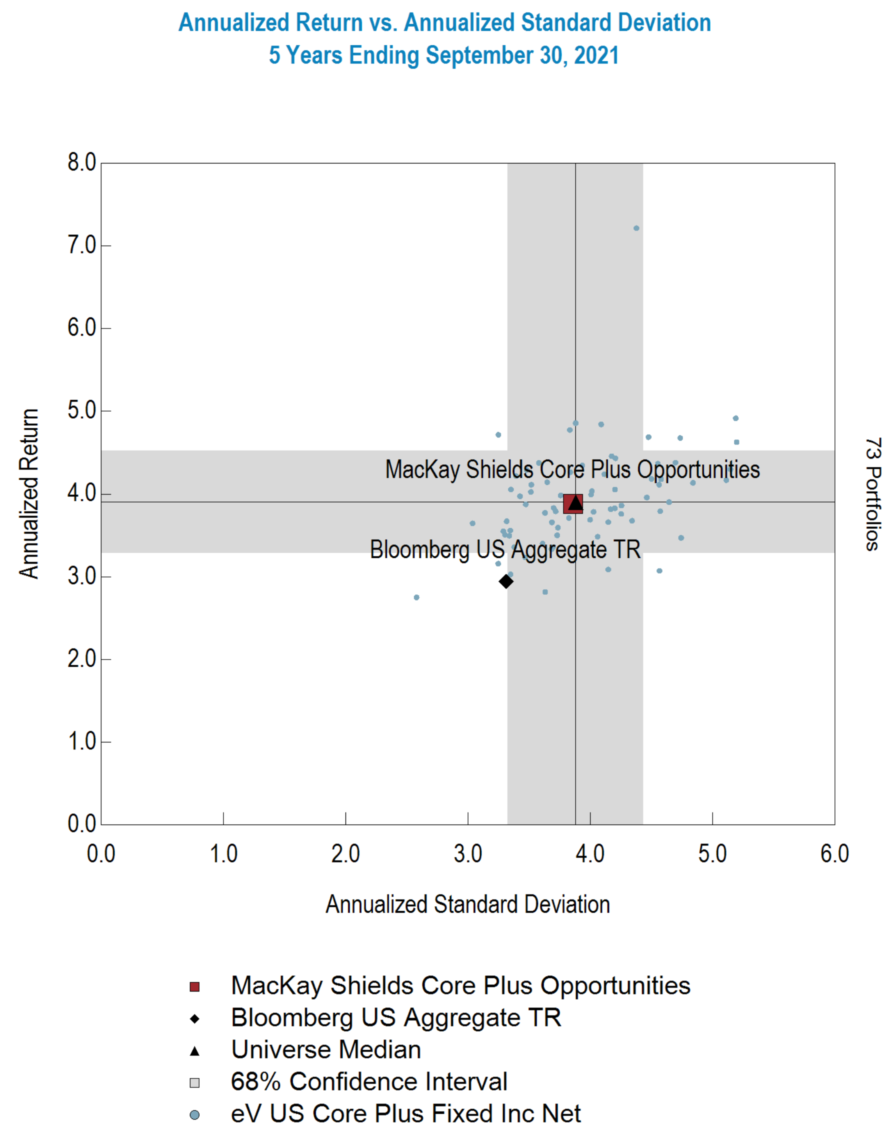
	Return (Rank)															
5th Percentile	0.6		1.1		0.6		4.2		7.5		4.8		4.6		5.2	
25th Percentile	0.3		0.0		0.3		2.4		6.7		4.2		4.2		4.6	
Median	0.1		-0.4		0.1		1.5		6.1		3.9		3.9		4.2	
75th Percentile	0.1		-1.0		0.1		0.5		5.8		3.6		3.5		3.9	
95th Percentile	-0.3		-1.6		-0.3		-0.2		5.1		3.1		3.1		3.4	
# of Portfolios	80		80		80		80		76		73		71		65	
● MacKay Shields Core Plus Opportunities	0.1	(75)	-0.5	(54)	0.1	(75)	1.7	(45)	6.4	(39)	3.9	(51)	--	(--)	--	(--)
▲ Bloomberg US Aggregate TR	0.1	(78)	-1.6	(95)	0.1	(78)	-0.9	(99)	5.4	(91)	2.9	(98)	3.3	(91)	3.0	(99)

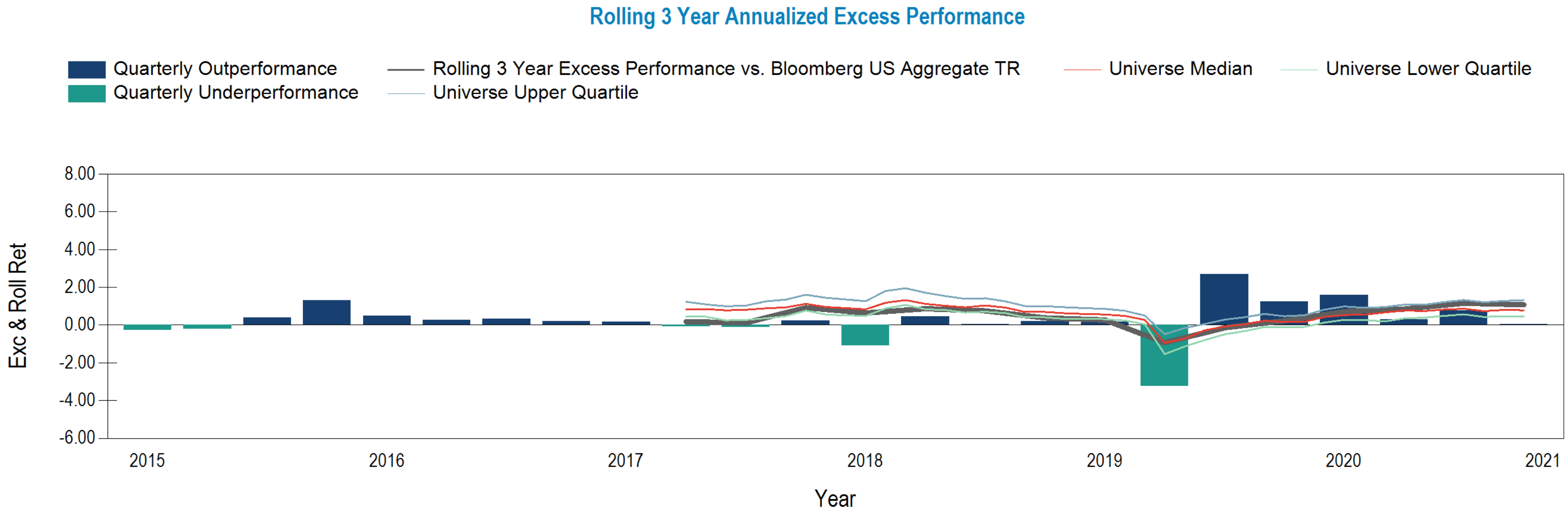
MacKay Shields Core Plus Opportunities vs. eV US Core Plus Fixed Inc Net Universe

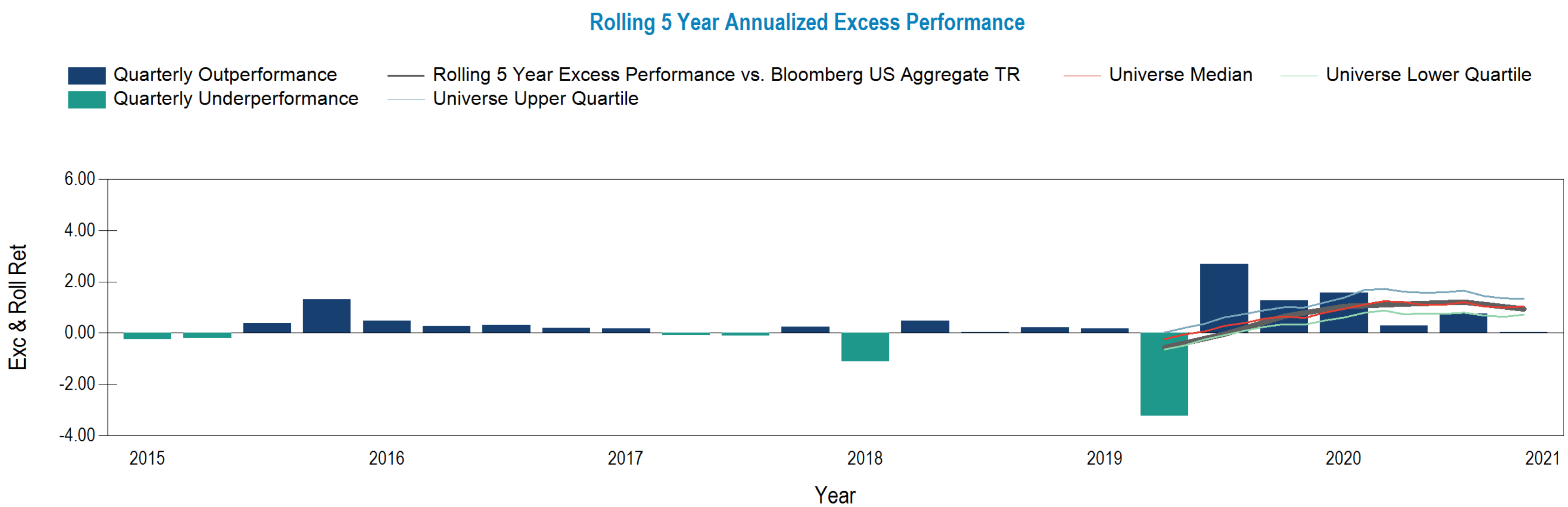


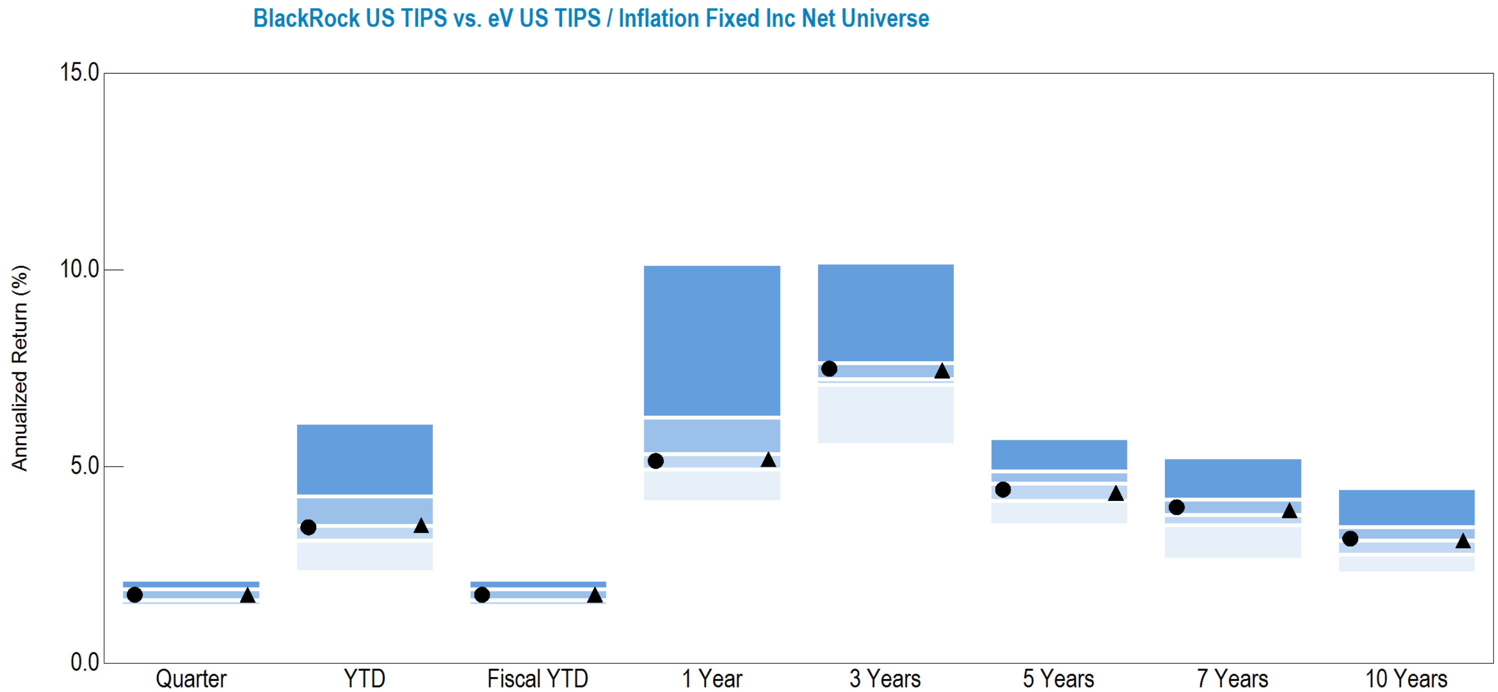
	Return (Rank)																			
5th Percentile	12.7		11.9		1.3		6.5		9.7		1.4		7.4		3.9		13.0		8.2	
25th Percentile	9.6		10.6		-0.2		5.2		5.8		0.5		6.2		0.4		10.1		7.7	
Median	8.4		9.8		-0.6		4.7		4.6		-0.1		5.5		-0.8		8.6		6.7	
75th Percentile	7.9		9.1		-1.0		4.2		3.7		-0.8		4.7		-1.2		6.9		5.6	
95th Percentile	6.6		7.6		-1.7		3.5		2.5		-2.4		3.6		-2.0		4.9		3.0	
# of Portfolios	89		86		77		80		84		71		71		65		64		54	
● MacKay Shields Core Plus Opportunities	9.9	(23)	9.7	(54)	-1.0	(75)	4.5	(62)	4.7	(47)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)
▲ Bloomberg US Aggregate TR	7.5	(84)	8.7	(85)	0.0	(21)	3.5	(95)	2.6	(93)	0.6	(22)	6.0	(35)	-2.0	(96)	4.2	(96)	7.8	(17)


Annualized Return vs. Annualized Standard Deviation
3 Years Ending September 30, 2021
15.0
10.0
5.0
0.0
Annualized Return
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
Annualized Standard Deviation
76 Portfolios
MacKay Shields Core Plus Opportunities
Bloomberg US Aggregate TR
MacKay Shields Core Plus Opportunities
Bloomberg US Aggregate TR
Universe Median
68% Confidence Interval
eV US Core Plus Fixed Inc Net

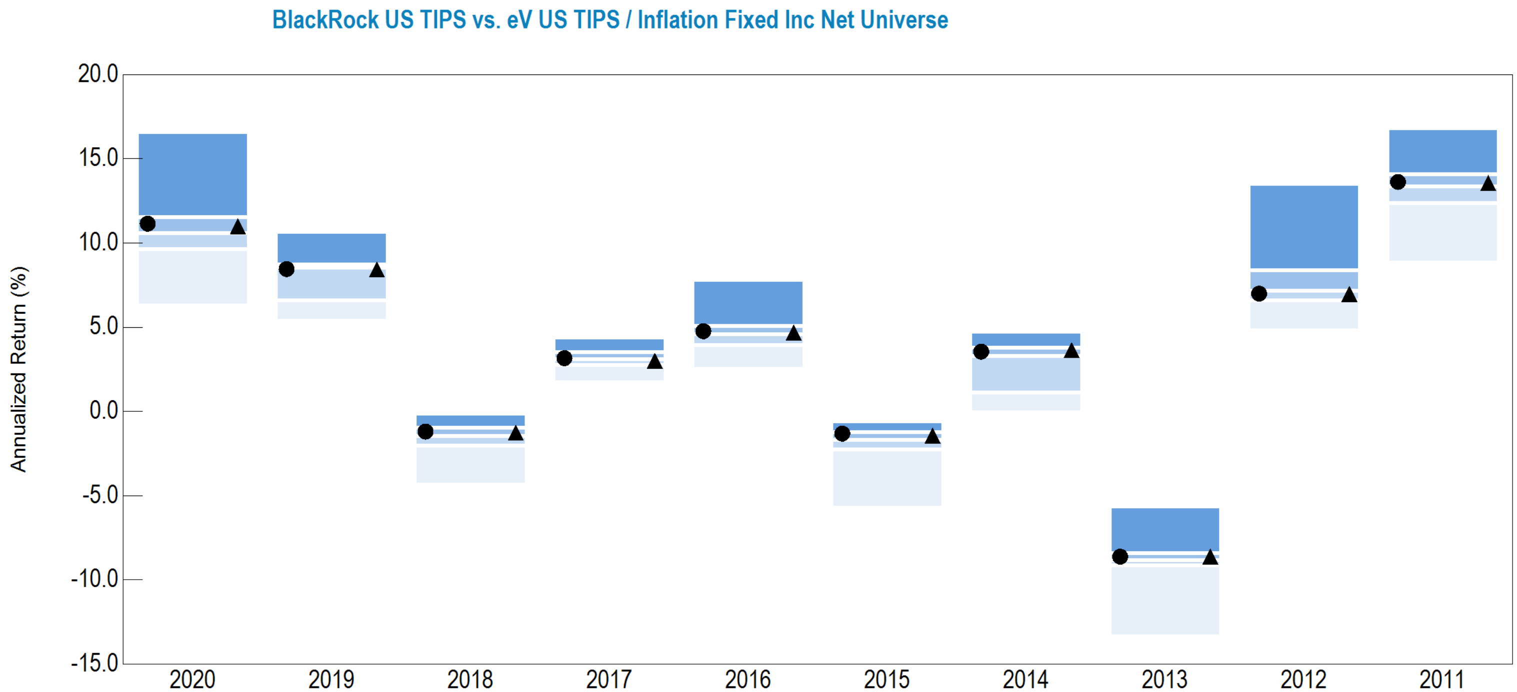

Annualized Return vs. Annualized Standard Deviation
5 Years Ending September 30, 2021
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Annualized Return
0.0
1.0
2.0
3.0
4.0
5.0
6.0
Annualized Standard Deviation
73 Portfolios
MacKay Shields Core Plus Opportunities
Bloomberg US Aggregate TR
MacKay Shields Core Plus Opportunities
Bloomberg US Aggregate TR
Universe Median
68% Confidence Interval
eV US Core Plus Fixed Inc Net


Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Bloomberg US Aggregate TR
Universe Upper Quartile
Universe Median
Universe Lower Quartile
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
Exc & Roll Ret
2015
2016
2017
2018
2019
2020
2021
Year

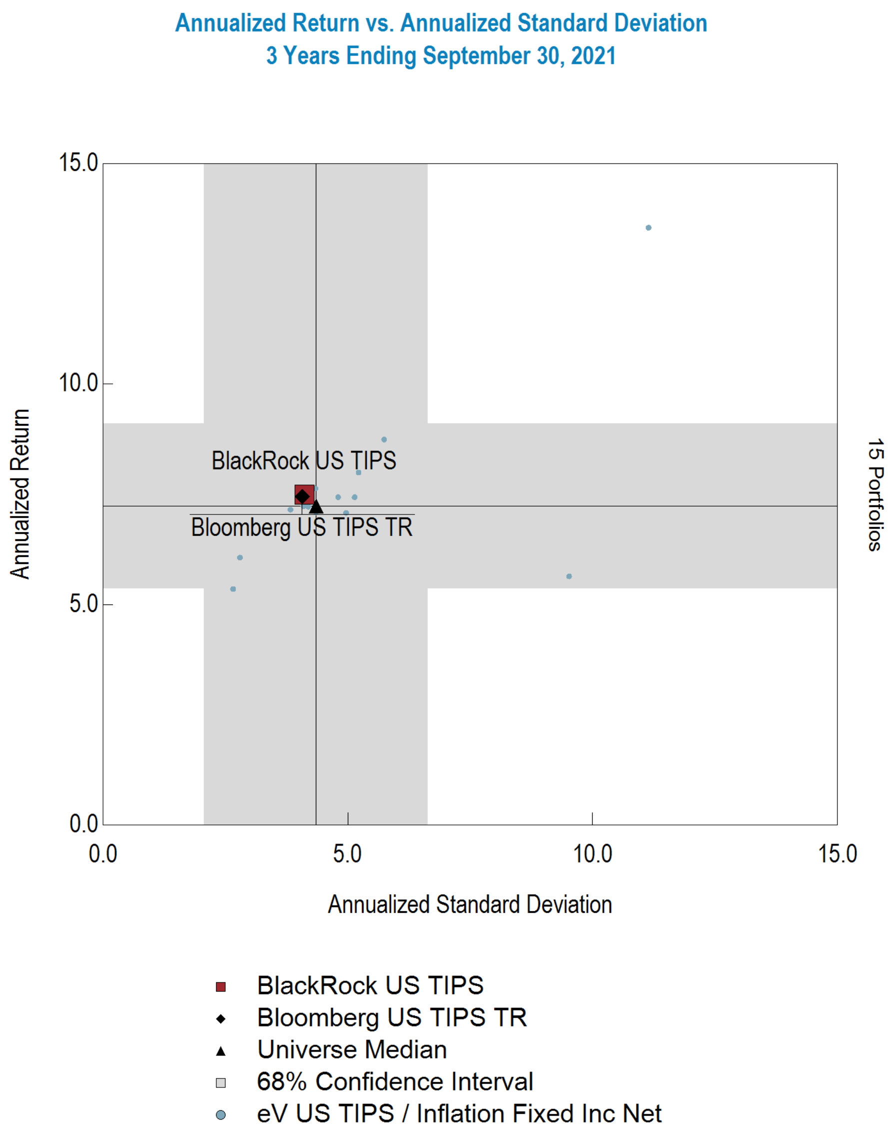

Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. Bloomberg US Aggregate TR
Universe Upper Quartile
Universe Median
Universe Lower Quartile
6.00
4.00
2.00
0.00
-2.00
-4.00
Exc & Roll Ret
2015
2016
2017
2018
2019
2020
2021
Year

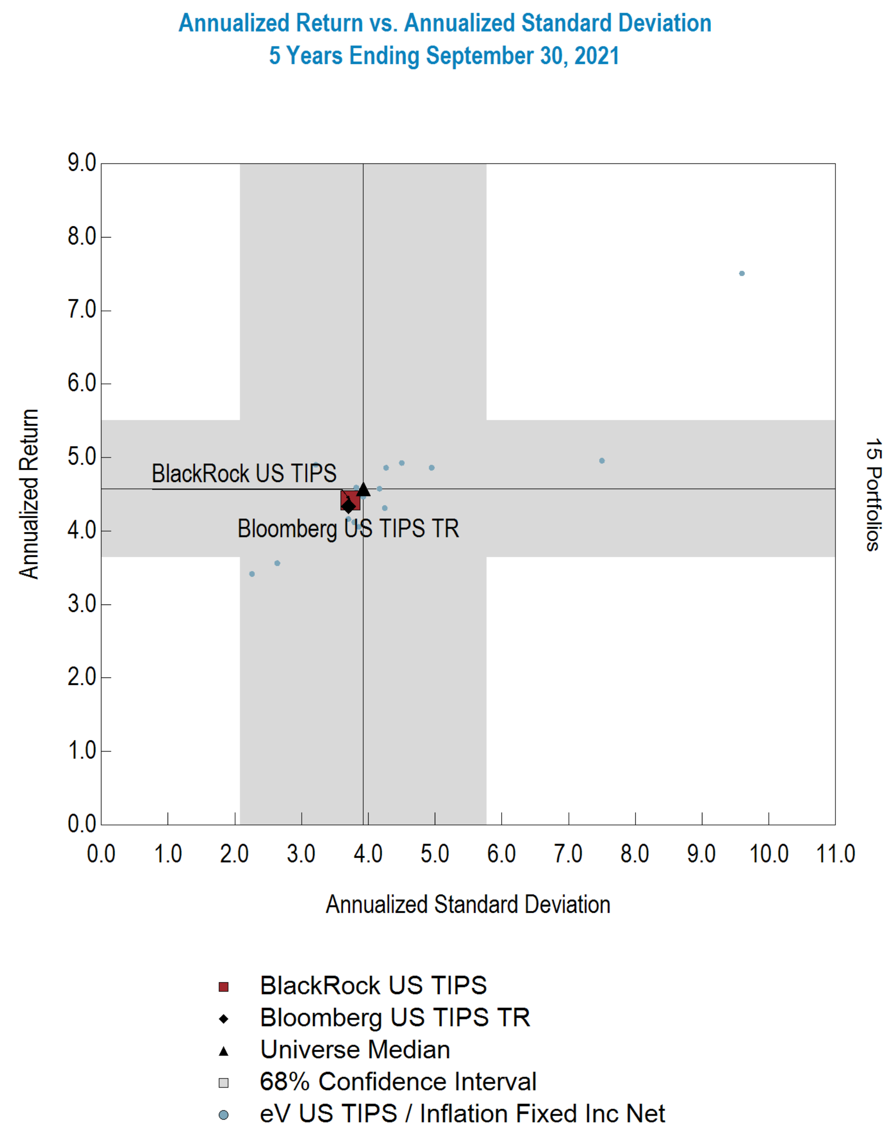


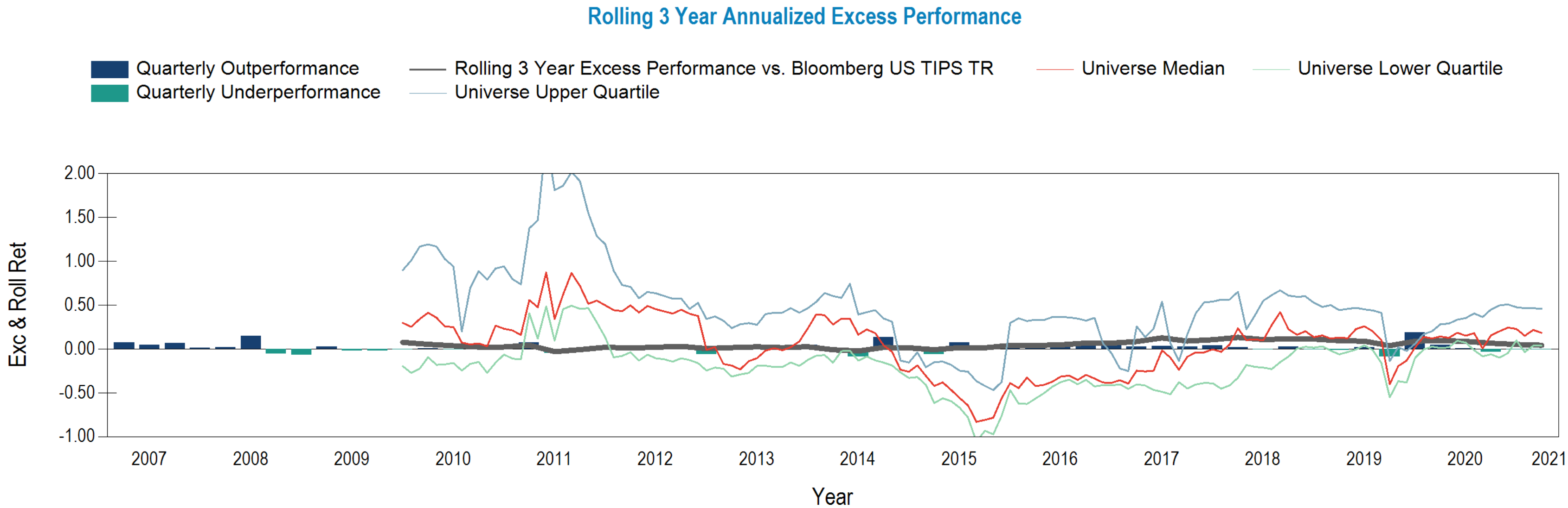
Return (Rank)	Quarter		YTD		Fiscal YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	2.1		6.1		2.1		10.1		10.2		5.7		5.2		4.5	
25th Percentile	1.9		4.2		1.9		6.3		7.6		4.9		4.2		3.5	
Median	1.6		3.5		1.6		5.3		7.2		4.6		3.8		3.1	
75th Percentile	1.5		3.1		1.5		4.9		7.1		4.1		3.5		2.8	
95th Percentile	1.4		2.3		1.4		4.1		5.6		3.5		2.6		2.3	
# of Portfolios	15		15		15		15		15		15		14		12	
● **BlackRock US TIPS**	1.7	(33)	3.5	(55)	1.7	(33)	5.1	(69)	7.5	(34)	4.4	(60)	4.0	(30)	3.2	(45)
▲ **Bloomberg US TIPS TR**	1.8	(33)	3.5	(50)	1.8	(33)	5.2	(67)	7.4	(36)	4.3	(64)	3.9	(31)	3.1	(50)

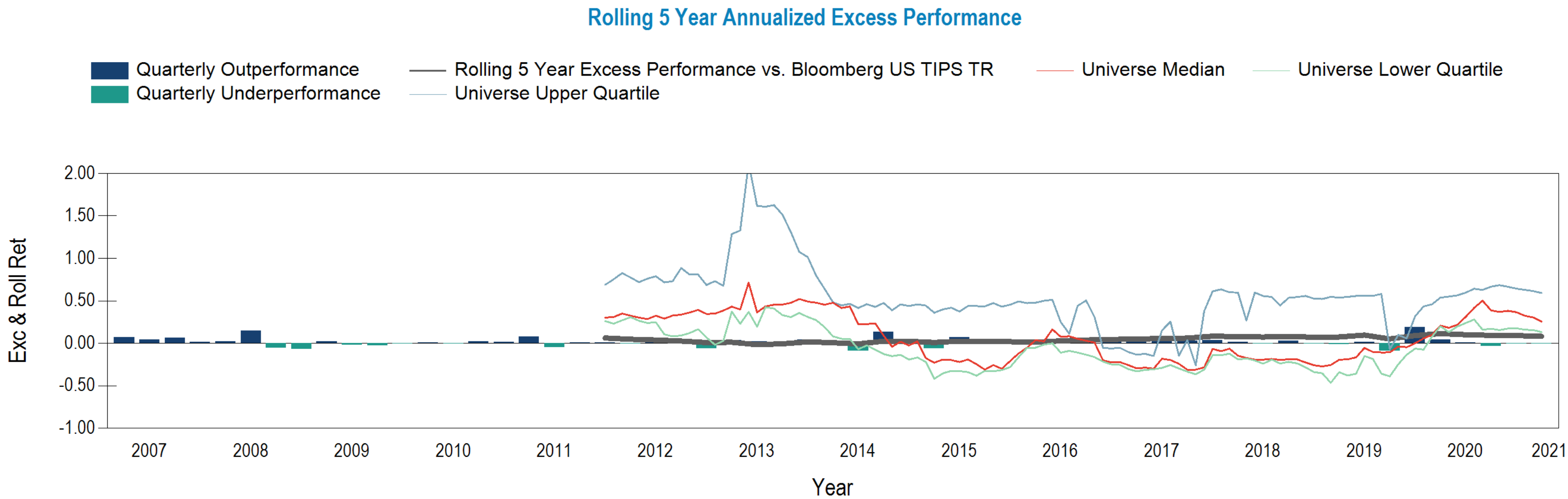


Return (Rank)	2020		2019		2018		2017		2016		2015		2014		2013		2012		2011	
5th Percentile	16.6		10.7		-0.1		4.4		7.8		-0.6		4.7		-5.6		13.5		16.8	
25th Percentile	11.6		8.7		-0.9		3.5		5.1		-1.2		3.8		-8.4		8.4		14.1	
Median	10.6		8.5		-1.4		3.1		4.6		-1.6		3.3		-8.8		7.2		13.4	
75th Percentile	9.7		6.6		-2.0		2.8		3.9		-2.2		1.2		-9.1		6.6		12.4	
95th Percentile	6.3		5.4		-4.3		1.7		2.5		-5.7		0.0		-13.3		4.8		8.9	
# of Portfolios	17		19		21		20		22		22		24		19		17		16	
● BlackRock US TIPS	11.2	(31)	8.5	(53)	-1.2	(36)	3.2	(47)	4.8	(43)	-1.3	(30)	3.6	(39)	-8.6	(44)	7.0	(61)	13.6	(38)
▲ Bloomberg US TIPS TR	11.0	(37)	8.4	(54)	-1.3	(39)	3.0	(57)	4.7	(49)	-1.4	(33)	3.6	(37)	-8.6	(44)	7.0	(62)	13.6	(40)


Annualized Return vs. Annualized Standard Deviation
3 Years Ending September 30, 2021
15.0
10.0
5.0
0.0
Annualized Return
BlackRock US TIPS
Bloomberg US TIPS TR
15 Portfolios
0.0
5.0
10.0
15.0
Annualized Standard Deviation
BlackRock US TIPS
Bloomberg US TIPS TR
Universe Median
68% Confidence Interval
eV US TIPS / Inflation Fixed Inc Net

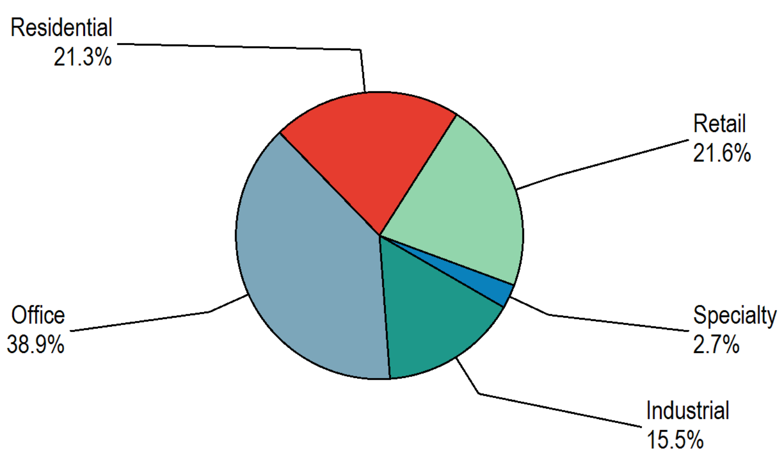

Annualized Return vs. Annualized Standard Deviation
5 Years Ending September 30, 2021
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Annualized Return
BlackRock US TIPS
Bloomberg US TIPS TR
15 Portfolios
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
11.0
Annualized Standard Deviation
BlackRock US TIPS
Bloomberg US TIPS TR
Universe Median
68% Confidence Interval
eV US TIPS / Inflation Fixed Inc Net


Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Bloomberg US TIPS TR
Universe Upper Quartile
Universe Median
Universe Lower Quartile
Exc & Roll Ret
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

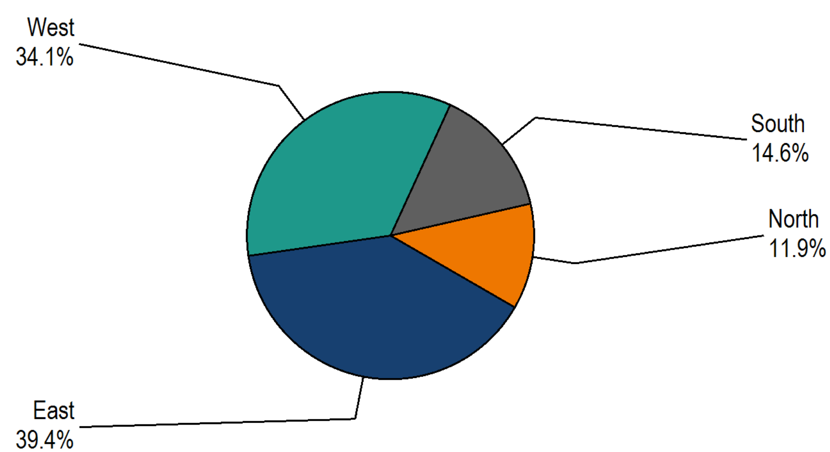

Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. Bloomberg US TIPS TR
Universe Upper Quartile
Universe Median
Universe Lower Quartile
Exc & Roll Ret
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Real Estate	**100,935,267**	**3.1**	**9.6**	**3.1**	**11.0**	**6.3**	**6.3**	**8.8**	**2.1**	**5.7**	**7.5**	**5.8**	**6.5**
NCREIF Property Index		*5.2*	*10.9*	*5.2*	*12.2*	*6.7*	*6.8*	*9.0*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*
NCREIF ODCE Net		*6.4*	*12.4*	*6.4*	*13.7*	*6.1*	*6.6*	*8.9*	*0.3*	*4.4*	*7.4*	*6.7*	*7.8*
ASB Real Estate	27,053,885	4.8	9.8	4.8	10.8	5.1	5.1	--	1.5	3.0	6.6	4.0	4.6
NCREIF Property Index		*5.2*	*10.9*	*5.2*	*12.2*	*6.7*	*6.8*	*--*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*
NCREIF ODCE Net		*6.4*	*12.4*	*6.4*	*13.7*	*6.1*	*6.6*	*--*	*0.3*	*4.4*	*7.4*	*6.7*	*7.8*
Clarion Lion	29,358,307	6.1	14.6	6.1	16.9	8.4	8.2	9.9	2.3	6.8	8.6	7.9	8.0
NCREIF Property Index		*5.2*	*10.9*	*5.2*	*12.2*	*6.7*	*6.8*	*9.0*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*
NCREIF ODCE Net		*6.4*	*12.4*	*6.4*	*13.7*	*6.1*	*6.6*	*8.9*	*0.3*	*4.4*	*7.4*	*6.7*	*7.8*
ARA American Strategic Value Realty	42,577,920	0.0	6.6	0.0	7.6	6.1	--	--	2.4	7.8	--	--	--
NCREIF Property Index +2%		*5.7*	*12.5*	*5.7*	*14.4*	*8.8*	*--*	*--*	*3.6*	*8.5*	*--*	*--*	*--*
NCREIF ODCE +2%		*7.1*	*14.8*	*7.1*	*16.9*	*9.2*	*--*	*--*	*3.2*	*7.4*	*--*	*--*	*--*
1221 State St. Corp	1,945,155	0.0	0.0	0.0	0.0	2.6	1.5	1.0	0.0	7.9	0.0	0.0	17.5

Property Type Allocation
Allocation as of September 30, 2021



Geographic Diversification
Allocation as of September 30, 2021



ARA American Strategic Value Realty funded 1/4/2018.

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.

Manager Line Up

Manager	Inception Date	Data Source	Manager	Inception Date	Data Source
BlackRock Russell 3000	12/10/2015	J.P. Morgan	1221 State Street Corp	9/30/2008	ICERS/Union Bank
BlackRock International Equity	7/3/2003	J.P. Morgan	Cash	-	J.P. Morgan
DFA Emerging Markets Value	1/11/2007	J.P. Morgan	HarbourVest IX-Buyout	2011[1]	HarbourVest
Harding Loevner	7/5/2016	Harding Loevner	HarbourVest IX-Credit	2011[1]	HarbourVest
Bradford & Marzec Fixed (Tortoise Capital)	12/1/1992	J.P. Morgan	HarbourVest International VI	2008[1]	HarbourVest
MacKay Shields Core Plus Ops	3/2/2015	CITCO	Harbourvest IX-Venture	2011[1]	HarbourVest
BlackRock US TIPS	4/11/2007	J.P. Morgan	Harbourvest 2017 Global	2017[1]	HarbourVest
ASB Real Estate	12/31/2012	ASB Real Estate	Harbourvest 2018 Global	2018[1]	HarbourVest
Clarion Lion	12/31/2006	Clarion Lion	Harbourvest 2019 Global	2019[1]	HarbourVest
Portfolio Advisors	10/31/2017	Portfolio Advisors	KKR Mezzanine	2010[1]	KKR
TSSP Adjacent Opportunities Partners	4/16/2020	Sixth Street	PIMCO BRAVO	2011[1]	PIMCO
Sixth Street Diversified Credit	5/29/2020	Sixth Street	ARA American Strategic Value Realty	01/04/2018	ARA

[1]Represents fund vintage year.

Policy & Custom Index Composition

Policy Index (8/1/2020- Current)	33% Russell 3000, 20% MSCI ACWI ex USA Gross, 27% Bloomberg Aggregate, 10% NCREIF Property, 2% Bloomberg Aggregate, 5% Private Equity Benchmark, 3% Private Credit Benchmark.
Policy Index (1/1/2020-7/31/2020)	29% Russell 3000, 24% MSCI ACWI ex USA Gross, 27% Bloomberg Aggregate, 10% NCREIF Property,1% Russell 3000, 2% Bloomberg Aggregate, 4% Private Equity Benchmark, 3% Private Credit Benchmark.
Policy Index (10/1/2018-12/31/2019)	29% Russell 3000, 24% MSCI ACWI ex USA Gross, 27% Bloomberg Aggregate, 10% NCREIF Property, 5% Russell 3000 +3% (Lagged), 5% Bloomberg High Yield +2% (Lagged).
Policy Index (10/1/2016-9/30/2018)	29% Russell 3000, 24% MSCI ACWI ex USA Gross, 27% Bloomberg Aggregate, 5% NCREIF Property, 5% NCREIF Property +2%, 5% Russell 3000 +3% (Lagged), 5% Bloomberg High Yield +2% (Lagged).
Policy Index (7/1/2014-9/30/2016)	29% Russell 3000, 25% MSCI ACWI ex-US (Gross), 30% Barclays U.S. Aggregate, 6% NCREIF Property Index, 5% Bloomberg Commodity Index, 5% Russell 3000 +3% (Lagged).

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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