Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: JUNE 30, 2021

Investment Performance Review for

Tulare County Employees' Retirement Association

Table of Contents

Verus

VERUSINVESTMENTS.COM

SEATTLE 206-622-3700
LOS ANGELES 300-297-1777
SAN FRANCISCO 415-362-3484
PITTSBURGH 412-784-6678

Investment Landscape TAB I

Investment Performance Review TAB II

Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

3RD QUARTER 2021

Investment Landscape

Recent Verus research

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

Topics of interest

MEASURING & BUDGETING ACTIVE RISK

Active risk budgeting is valuable in the construction, monitoring, and overall governance of the investment portfolio. An active risk budget identifies how much risk an investor wants to take in the portfolio and where the investor plans to allocate that risk. In this paper we provide an introduction to active risk and demonstrate how to measure and budget that risk. We also discuss the individual sources that drive active risk and why they're important to identify. Last, we review a practical example of how active risk can inform portfolio construction and demonstrate how the Verus active management environment research can be used to inform active/passive allocations throughout the portfolio.

Sound thinking

THINKING SKEPTICALLY

Risk markets are currently trading at all-time highs, cryptocurrencies are soaring, and investment markets are looking forward to a broadly positive post-COVID future. At times like these it can be valuable to consider the role that skepticism plays in the investment process. This short paper is designed to help clarify the role that skepticism can play, and also to clarify how investors can use it as a tool without being captured by it, because excessive skepticism may lead to missed opportunities.

Annual research

2021 REAL ASSETS OUTLOOK

In last year's outlook, COVID-19 was front and center in our views and outlooks across all asset classes. A year later, we are beginning to return to a more normalized pre-COVID lifestyle and with that, a recovery in many of the sectors impacted in 2020. One of the topics being debated among investors is the potential for inflationary pressure, a portfolio risk that hasn't emerged in several decades. That discussion has reignited interest in real assets and capital flows into the asset class.

Table of contents

Economic environment 6

Fixed income rates & credit 22

Equity 27

Other assets 37

Appendix 39

Verus

VERUSINVESTMENTS.COM

SEATTLE 206.622.3700
PITTSBURGH 412.784.6678
LOS ANGELES 310.297.1777
SAN FRANCISCO 415.362.3484

2nd quarter summary

THE ECONOMIC CLIMATE

— Real GDP grew at a 0.4% rate year-over-year in the first quarter (+6.4% quarterly annualized rate) as the U.S. recovery continued at a quicker-than-expected pace. It appears that GDP will fully recover in Q2. ***p. 12***

— The U.S. unemployment rate has been slow to rebound, despite a full recovery in economic activity. This might suggest that government spending has had an outsized impact, and raises risks around a stimulus "hangover" when spending programs end. ***p. 14***

— Economies around the world continued to recover as life began moving back to normal. This description does not apply to all economies, as Brazil, Japan, and much of Africa and Southeast Asia still grapple with effects of COVID and new variants of the virus. ***p. 20***

PORTFOLIO IMPACTS

— Credit spreads grew even tighter during Q2, driven by investor demand and improvements in economic fundamentals. High yield spreads tightened to 2.68%—a new cycle low. Investment grade tightened 11 basis points to end the quarter at 0.80%. ***p. 25***

— Inflation surprised on the upside in Q2, adding to investor fears. U.S. core CPI rose 4.5% year-over-year, while headline came in at 5.4%. The jump in prices has been concentrated in a few areas, including energy (+24.5% YoY) and used car & truck prices (+45.2% YoY). ***p. 13***

THE INVESTMENT CLIMATE

— The Biden Administration's Infrastructure Plan continues to be up in the air in terms of size and composition. As of mid-July, Democrat legislators had reached an agreement for $4.1 trillion in spending, comprised of $3.5 trillion in "human infrastructure" and $600 billion towards "traditional infrastructure" It is unclear whether this proposal will gain sufficient support from Democrats. ***p. 12***

— It seems that investors have put the 2020 pandemic-induced recession behind them. Implied volatility, realized market volatility, and the risks reflected in asset prices are very low. This data suggests that investors perceive a strong economy, a healthy business environment, and very few threats on the horizon. ***p. 35***

ASSET ALLOCATION ISSUES

— U.S. equities were a top performer again in Q2 (S&P 500 +8.5%). International equities (+5.2% MSCI EAFE Index) were on par with emerging markets (+5.1% MSCI Emerging Markets Index) on an unhedged currency basis. ***p. 28***

— Factor performance suffered during Q2, reversing much of the gains from the prior quarter. Large capitalization stocks beat small (Russell 1000 +8.5%, Russell 2000 +4.3%) and growth stocks beat value (Russell 1000 Growth +11.9%, Russell 1000 Value +5.2%). ***p. 30***

Economic progress continues to exceed expectations, though strong optimism may already be reflected in asset prices

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

What drove the market in Q2?

"Delta Covid variant first found in India spreads to 62 countries, hot spots form in Asia and Africa, WHO says"

GLOBAL COVID-19 CASES (MILLIONS)

Jan	Feb	Mar	Apr	May	Jun
26.3	28.7	30.5	32.3	33.3	33.7

Article Source: CNBC, as of June 2nd, 2021

"Inflation: Is it transitory or not?"

CORE CPI GROWTH (YEAR-OVER-YEAR)

Jan	Feb	Mar	Apr	May	Jun
1.4%	1.3%	1.6%	3.0%	3.8%	4.5%

Article Source: Yahoo Finance, June 15th, 2021

"TREASURIES-U.S. Treasury yield curve flattens as Fed seen more proactive on inflation"

IMPLIED EFFECTIVE FED FUNDS RATE IN DECEMBER 2023

Jan	Feb	Mar	Apr	May	Jun
0.15%	0.30%	0.40%	0.47%	0.49%	0.80%

Article Source: Reuters, June 18th, 2021

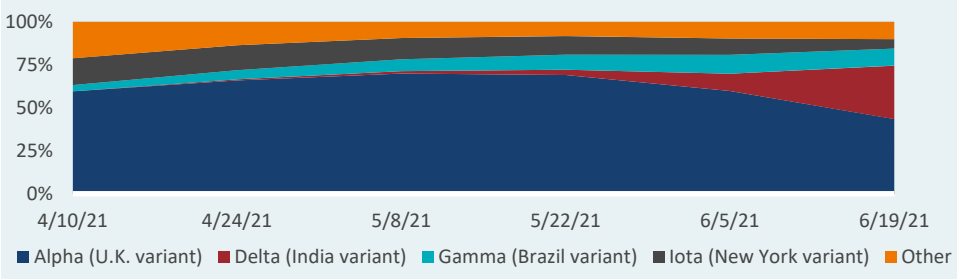
"Is the reflation trade over? What stock-market investors need to watch"

TEN-YEAR U.S. TREASURY YIELD

Jan	Feb	Mar	Apr	May	Jun
1.07%	1.40%	1.74%	1.63%	1.59%	1.47%

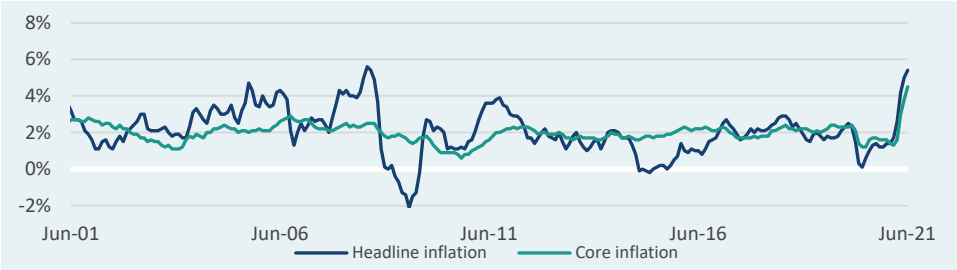
Article Source: MarketWatch, June 21st, 2021

SHARE OF U.S. COVID-19 CASE GROWTH BY VIRUS VARIANT



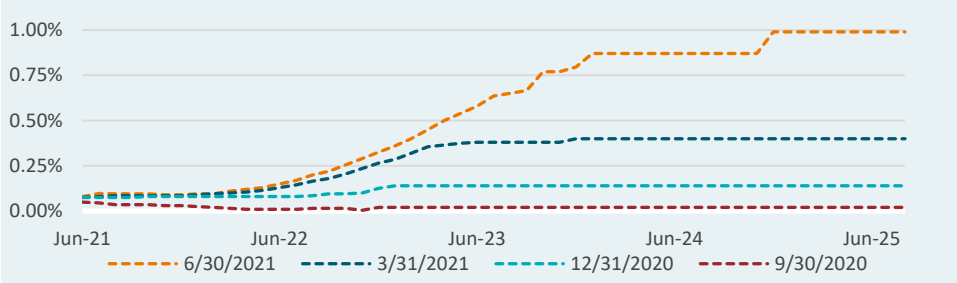
Source: U.S. Center for Disease Control, as of 6/19/21

U.S. INFLATION RATES (YEAR-OVER-YEAR)



Source: Bloomberg, as of 6/30/21

IMPLIED EFFECTIVE FED FUNDS RATE



Source: Bloomberg, as of 6/30/21

Economic environment

U.S. economics summary

— Real GDP grew at a 0.4% rate year-over-year in the first quarter (+6.4% quarterly annualized rate) as the U.S. recovery continued at a quicker-than-expected pace. It appears that gross domestic product (GDP) will fully recover in Q2.

— The U.S. unemployment rate has been slow to improve, falling very slightly from 6.0% in March to 5.9% in June. The labor market remains materially weaker relative to pre-pandemic conditions. This might suggest that a significant portion of the economic recovery has been fueled by government spending, and raises concerns about whether recent strength may prove fleeting when government intervention slows.

— The Biden Administration's Infrastructure Plan continues to be up in the air in terms of size and composition. As of mid-July, Democrat legislators had reached an agreement for $4.1 trillion in spending, comprised of $3.5 trillion in "human infrastructure" and $600 billion towards "traditional infrastructure" It is unclear whether this proposal will garner sufficient support from Democrats.

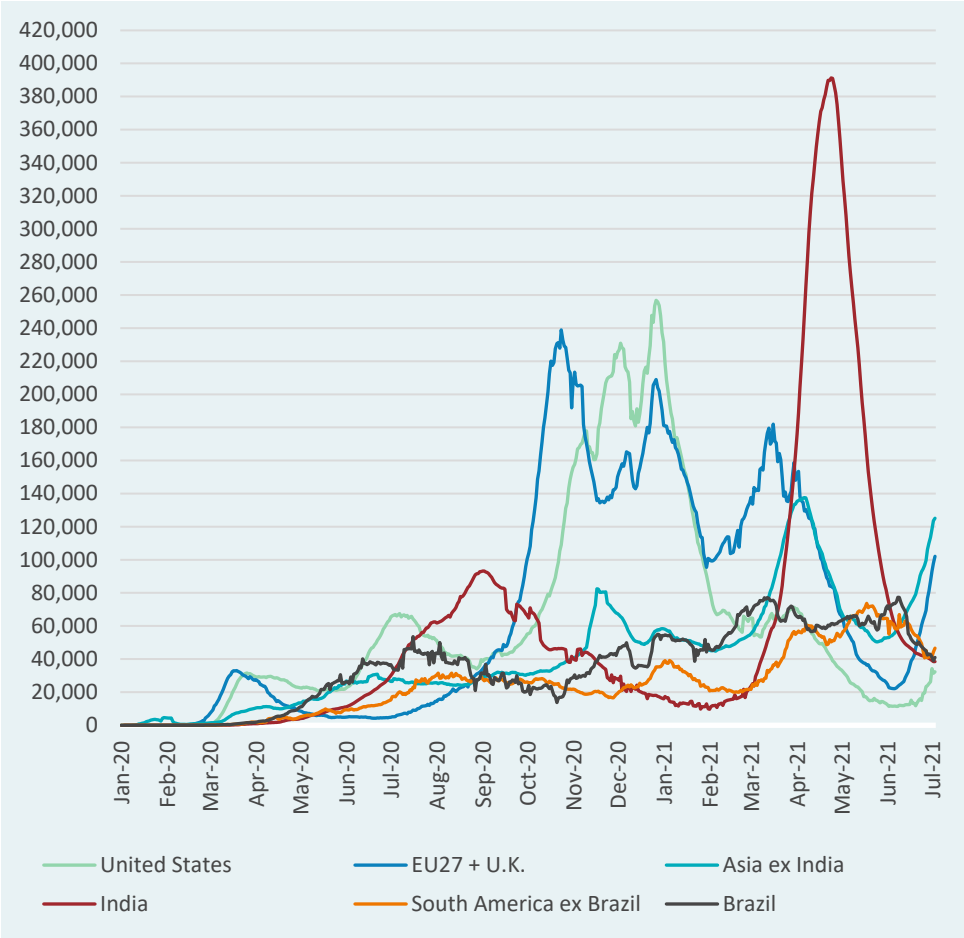
— Inflation surprised on the upside in Q2, adding to investor concerns around a potential sustained rise. U.S. core inflation, which excludes food & energy prices, rose 4.5% year-over-year in June. U.S. headline inflation came in at 5.4%. The rise in prices has so far been concentrated in a few specific areas, including energy (+24.5% YoY) and used car and truck prices (+45.2% YoY).

— Consumer sentiment further improved over the quarter, but has only regained roughly half of the deterioration post-pandemic.

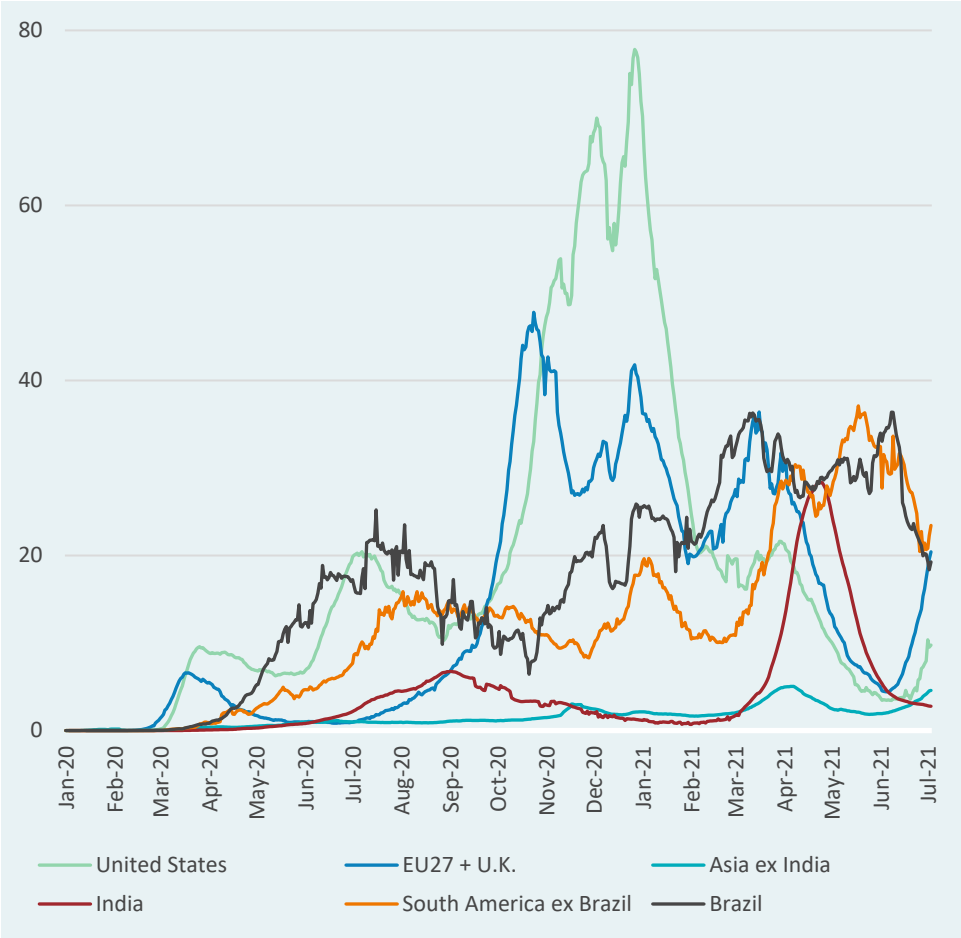
	Most Recent	**12 Months Prior**
GDP *(YoY)*	0.4% *3/31/21*	0.3% *3/31/20*
Inflation *(CPI YoY, Core)*	4.5% *6/30/21*	1.2% *6/30/20*
Expected Inflation *(5yr-5yr forward)*	2.20% *6/30/21*	1.5% *6/30/20*
Fed Funds Target Range	0% – 0.25% *6/30/21*	0% – 0.25% *6/30/20*
10-Year Rate	1.47% *6/30/21*	0.66% *6/30/20*
U-3 Unemployment	5.9% *6/30/21*	11.1% *6/30/20*
U-6 Unemployment	9.8% *6/30/21*	18.0% *6/30/20*

COVID-19 case growth

SEVEN-DAY AVERAGE DAILY CASE GROWTH



SEVEN-DAY AVERAGE DAILY CASE GROWTH – PER 100,000 RESIDENTS

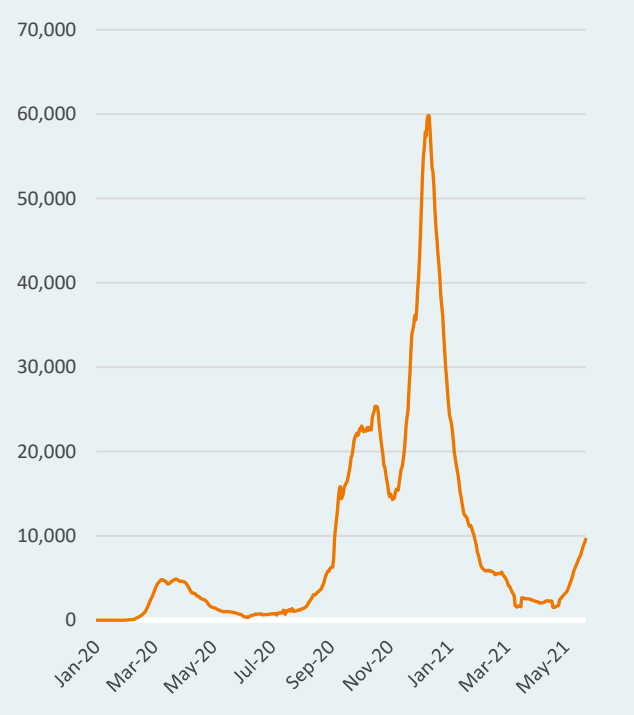


Source: Bloomberg, as of 7/18/21

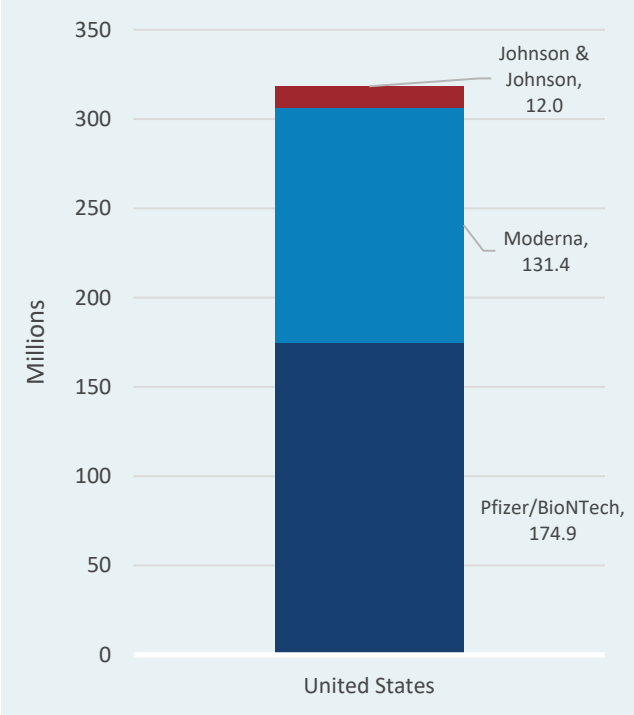
Delta variant

Spread of the more virulent delta variant (which originated in India) of the coronavirus within the U.K. led officials to push back the date for reopening from mid-June to mid-July, and has sparked concerns in recent months that material spread outside of the U.K. could lead to a reintroduction of social distancing controls.

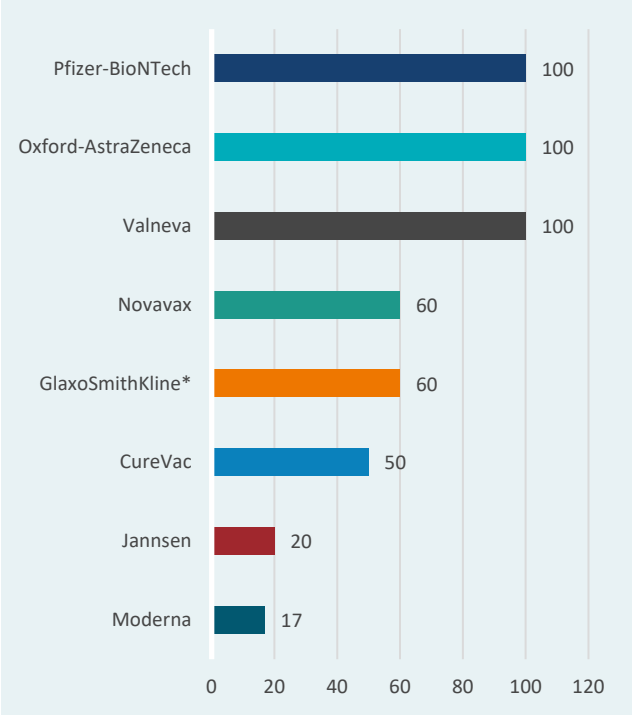
U.K. – SEVEN-DAY AVERAGE CASE GROWTH



U.S. –VACCINE DOSES ADMINISTERED BY TYPE



U.K. VACCINE DOSE ORDERS (MILLIONS)



Source: Bloomberg, BBC, U.K. government, as of 6/21/21

**Joint project with Sanofi Pasteur.*

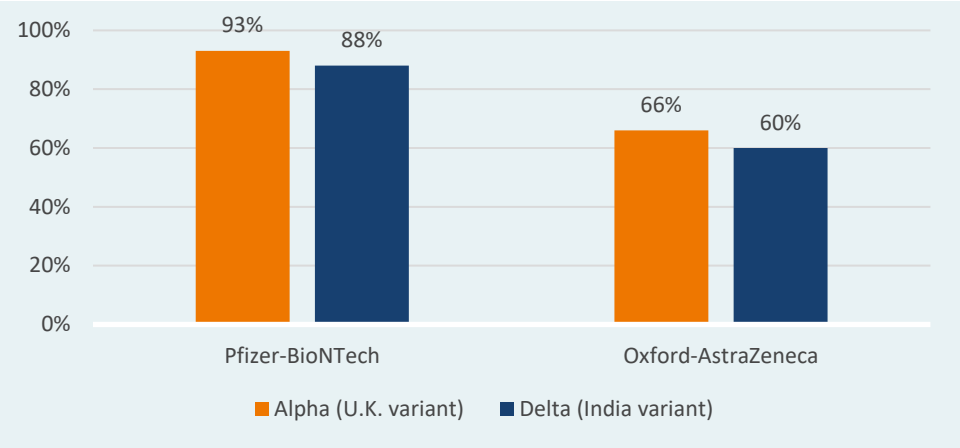
Public Health England (PHE) findings

While case growth has picked up from very low levels within the U.K., there are several factors in play which probably reduce the likelihood that delta case growth picks up materially in the U.S.

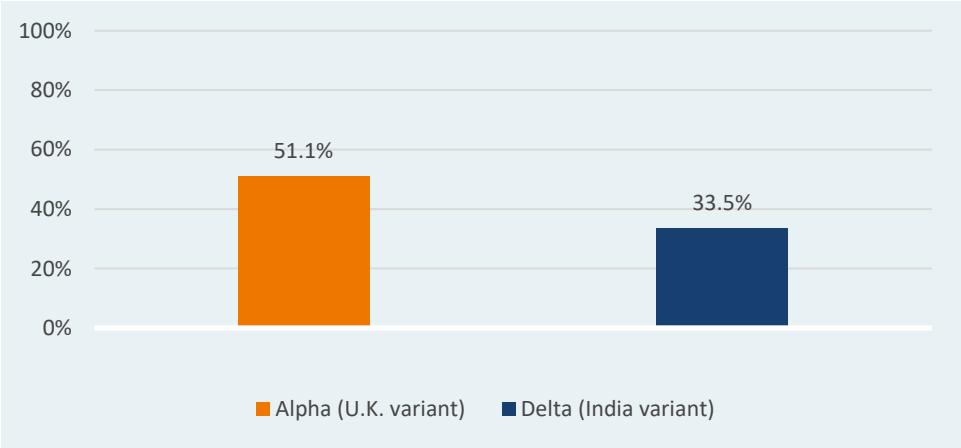
1. The U.K. has a much higher exposure to the Astra vaccine, which is significantly less effective at preventing symptomatic infection.

2. Early prioritization of the one-dose vaccine regimen in the U.K. resulted in lower levels of protection.

TWO-DOSE REGIMEN EFFECTIVENESS FOR PFIZER AND ASTRAZENECA



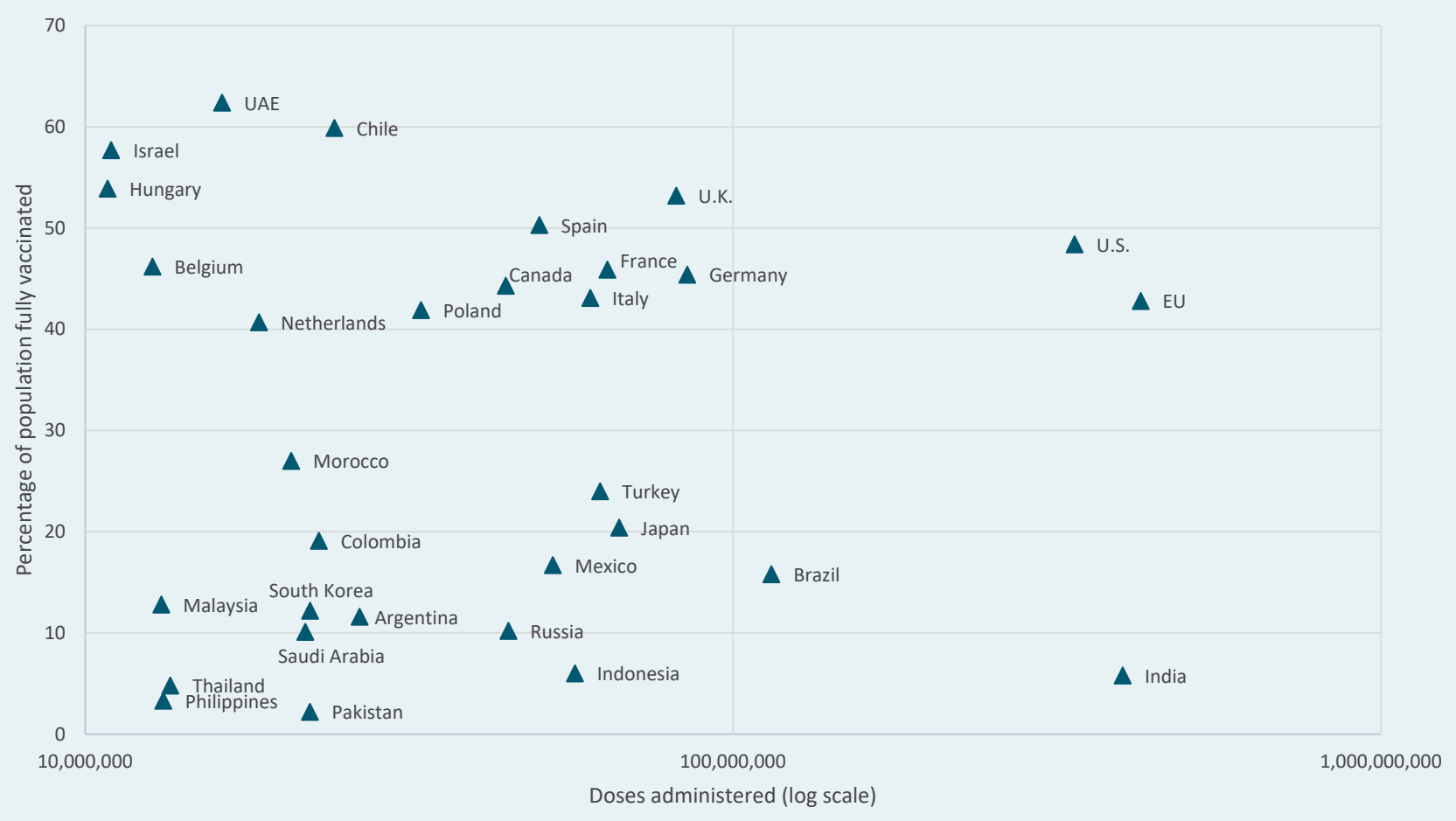
ONE-DOSE REGIMEN EFFECTIVENESS FOR PFIZER AND ASTRAZENECA



Source: https://www.medrxiv.org/content/10.1101/2021.05.22.21257658v1

Global vaccination campaign

DOSES ADMINISTERED RELATIVE TO PERCENTAGE OF POPULATION FULLY VACCINATED



The EU has closed the vaccine gap relative to the U.S. and the U.K., led by a pickup in administration in Germany

Source: Bloomberg, as of 7/16/21

GDP growth

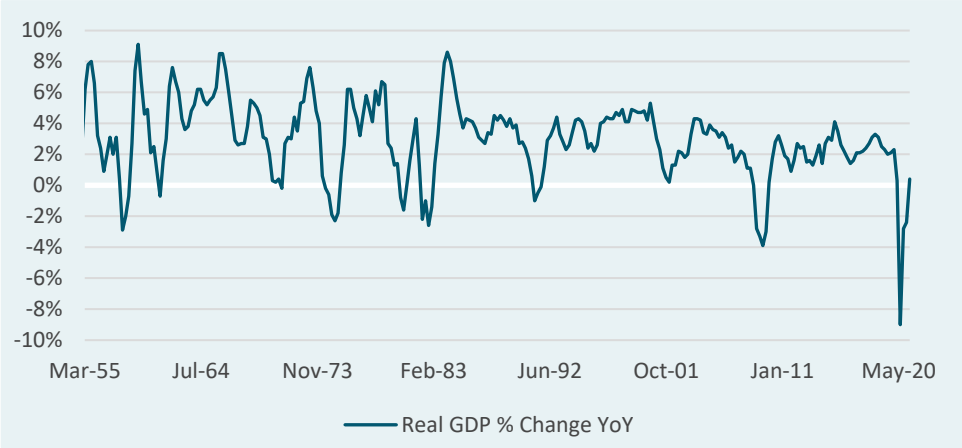
Real GDP grew at a 0.4% rate year-over-year in Q1 (+6.4% quarterly annualized rate) as the U.S. recovery continued at a quicker-than-expected pace. It appears that real gross domestic product (GDP) will once again reach its pre-pandemic level in Q2. The Atlanta Fed GDPNow estimate suggests a 7.9% Q2 growth rate as of July 9th (seasonally-adjusted quarterly annualized rate).

The Biden Administration's Infrastructure Plan continues to be up in the air in terms of size and composition. As of mid-July, Democrat legislators had reached an agreement for $4.1 trillion in spending, comprised of $3.5 trillion in "human infrastructure" (Medicare funding, childcare, government-funded college, and energy transition), and $600 billion towards "traditional infrastructure" (roads, bridges, power infrastructure, rail, broadband internet, and water infrastructure). It is unclear whether this proposal will garner adequate buy-in, and it is also unclear whether Republicans will withdraw support, now that Democrats appear ready to proceed with many of the more controversial spending items that the RNC negotiated against.

The Biden Administration has held strong in its push for further government spending, despite an arguably speedy economic recovery. These efforts have been met with opposition, as some view these proposals as excessive, given the stronger state of the economy. Additional government spending may increase the risk of economic overheating and inflation.

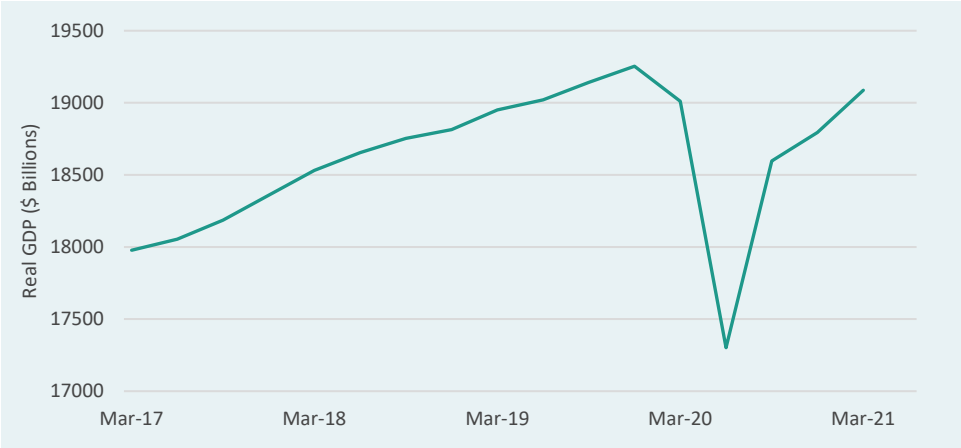
The U.S. economy likely fully recovered during Q2 2021

U.S. REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 3/31/21

U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 3/31/21

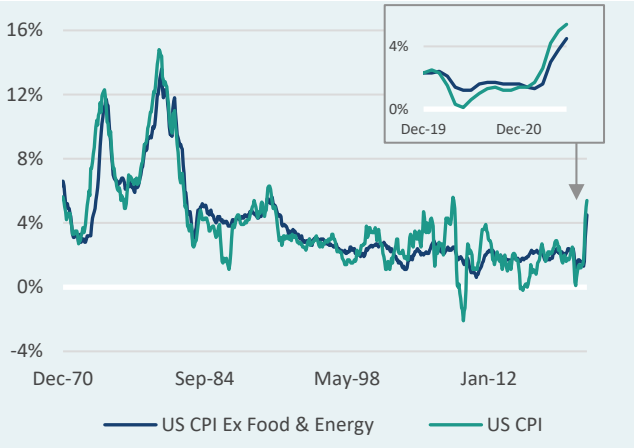
Inflation

Inflation surprised on the upside in Q2, adding to investor concerns around a sustained rise. U.S. core CPI, which excludes food & energy prices, rose 4.5% YoY in June. U.S. headline inflation came in at 5.4%. The rise in prices has so far been concentrated in a few areas. Energy prices (+24.5% YoY) have had the most significant impact, with extreme gasoline price rises (+45.1% YoY) being very noticeable at the pump. Used automobile prices (+45.2% YoY) have also seen large gains.

We maintain our belief that recent price rises will generally prove transitory as most increases can be explained either by base effects or one-time effects from pandemic supply and spending dynamics. Energy price growth is an example of 'base effects', where prices fell dramatically in spring 2020 and then recovered by spring 2021, creating the mirage of high inflation (inflation is a 12-month price change measurement). Higher used car prices is likely an example of 'one-time effects' from supply issues (chip shortages led to decreased supply of new cars) and also consumer spending habit changes during COVID (fear of public transportation led to auto purchases, and stimulus checks provided funds for purchases). As auto sales slow, we believe this will mitigate high prices. However, there are also some signs of more structural price rises, such as owner's equivalent rent (OER) which is much slower moving due to the impact of lease arrangements and the longer time it takes for home price increases to impact household budgets more broadly.

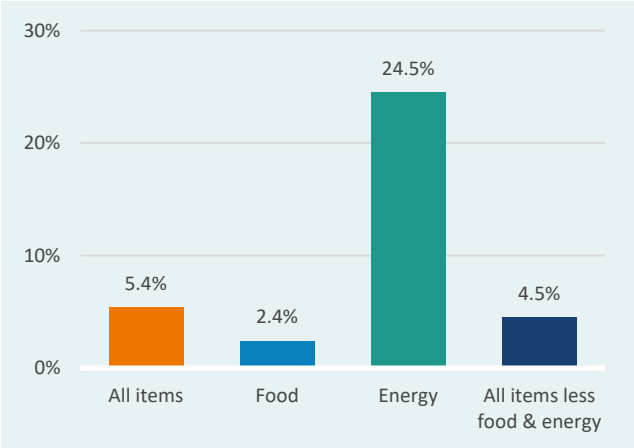
It is important to distinguish between *one-time* and *transitory* price rises in the current environment

U.S. CPI (YOY)



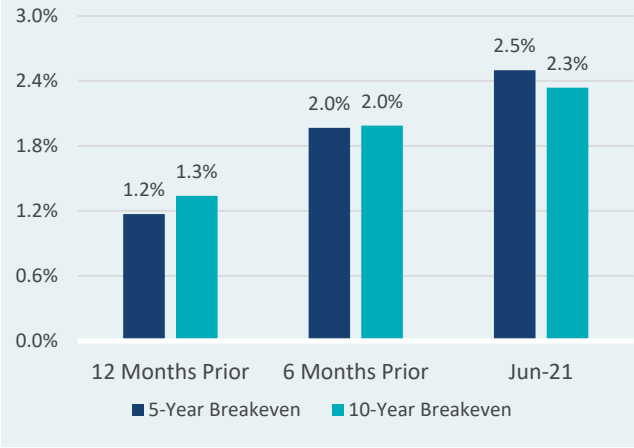
Source: Bloomberg, as of 6/30/21

U.S. CPI (YOY)



Source: BLS, as of 6/30/21

BREAKEVEN INFLATION RATES



Source: Bloomberg, as of 6/30/21

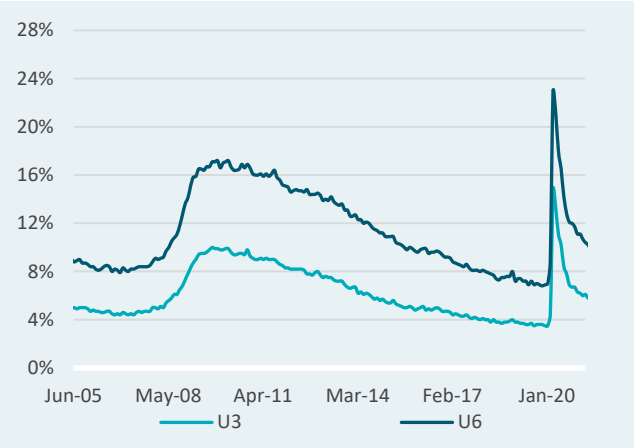
Labor market

The U.S. labor market rate has been slow to recover, as unemployment fell only slightly from 6.0% in March to 5.9% in June. Labor participation also paints a lukewarm picture, rising from 61.5% to 61.6% during the quarter. The labor market remains materially weaker relative to pre-pandemic conditions. This might suggest that a significant portion of the economic recovery has been fueled by government spending and raises concerns about whether recent strength may prove fleeting once government spending slows.

Beginning mid-June, a few U.S. states decided to stop accepting Federal emergency unemployment benefits. Among the benefits were a $300 weekly unemployment add-on, expanded eligibility, and an extension of the duration of benefits overall. Research regarding the impacts of these programs on joblessness are mixed. Based on one study from the Federal Reserve Bank of St. Louis, states that have stopped these programs have seen unemployment fall by 5% more than states that have continued offering expanded benefits (12% unemployment vs. 7%). This study suggests that many unemployed workers may come back into the workforce as government subsidies roll off. It is worth mentioning that other factors are in play regarding the timid labor market recovery, including parents declining work to care for children, fears of workplace safety, and early retirements. These labor dynamics are complex and it may be overly simplistic to attribute problems to a single cause.

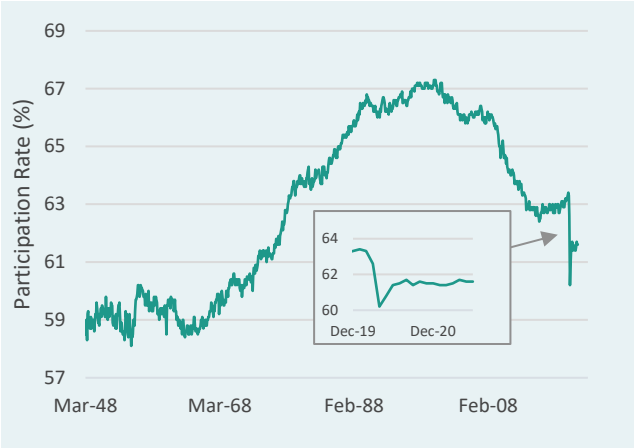
A large portion of the U.S. labor force remains neither employed nor seeking work

U.S. UNEMPLOYMENT



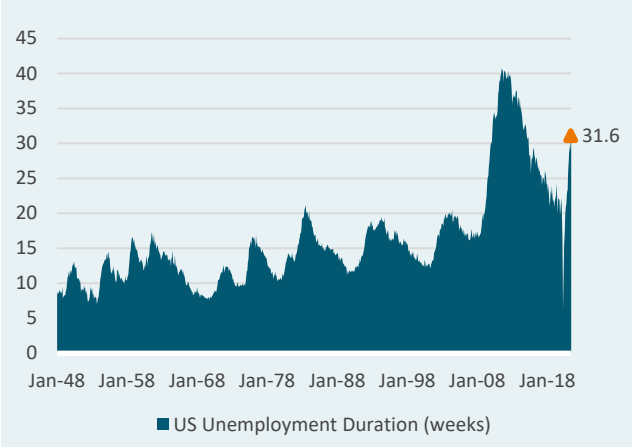
Source: FRED, as of 6/30/21

LABOR PARTICIPATION RATE



Source: FRED, as of 6/30/21

UNEMPLOYMENT DURATION



Source: FRED, as of 6/30/21

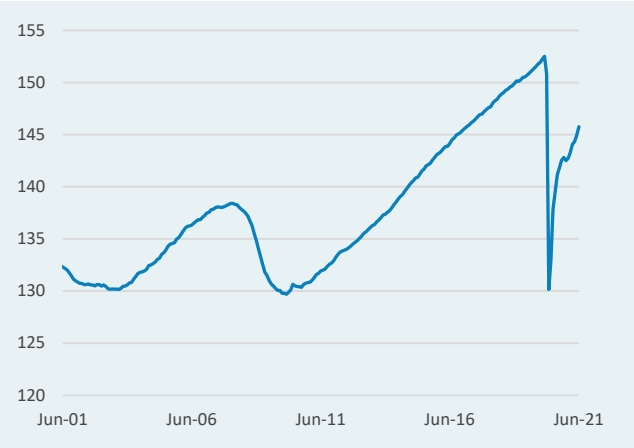
Employment conditions

Nonfarm payrolls expanded by 567,000 per month on average in the second quarter, reaching a total of 145.8 million by quarter-end. This number was 6.8 million below the pre-pandemic peak of February 2020. Labor market conditions have been improving overall, but the road has been bumpy, given the ebb and flow of virus cases and the impact on individual state and city policy decisions.

Job openings rose to a fresh record of 9.2 million in May, underscoring the fact that the recent bounce back in consumer demand has outpaced the ability of business owners to hire to meet that demand. In order to address that shortfall, many business owners have begun to raise wages, offer signing bonuses, offer more flexible work hours, and offer the ability to work from home. Said another way, the sellers have the upper hand in the labor market at present. The number of people who quit their jobs in May (3.6 million) remained near record levels, reflecting workers' confidence in their ability to find other employment.

While employers are struggling to find qualified employees in the current environment, the expiration of a litany of additional unemployment insurance programs through the end of the year could push up labor market supply. Whether the skills of the currently not-working contingent matches up with current labor demand remains to be seen.

U.S. EMPLOYEES ON NONFARM PAYROLLS

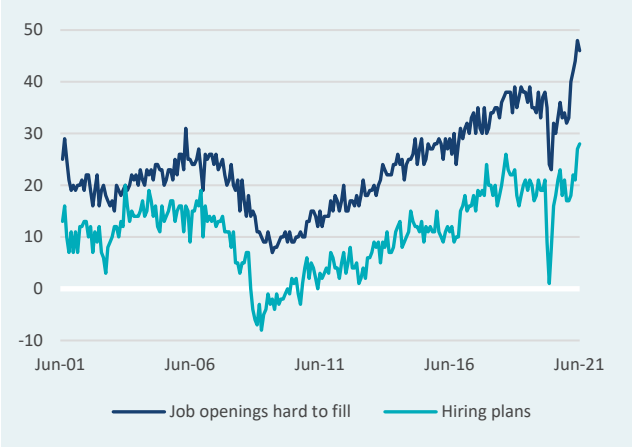


Source: BLS, as of 6/30/21

U.S. JOB OPENINGS (MILLIONS)

Source: BLS, as of 5/31/21

SMALL BUSINESS OWNERS' HIRING CONDITIONS



Source: NFIB, as of 6/30/21

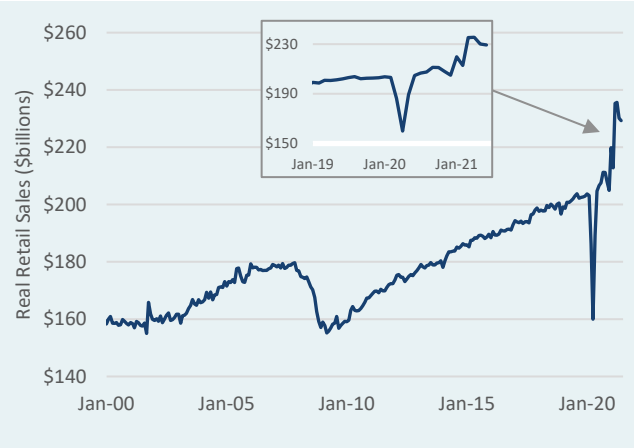
The consumer

U.S. retail sales would appear red hot if defined on a year-over-year growth basis (+12%). But, as we have mentioned during past quarters, year-over-year numbers are skewed due to the events of early-2020. In reality, retail sales fell -2.5% from Q1 to Q2.

As vast government stimulus translated to hot consumer spending, it might be reasonable to ask what will happen to recent trends as government spending slows and once stimulus money has been spent. This effect might in part explain the recent drop in U.S. auto sales, which have fallen to the lowest level since 2014. We remain cautious about assuming a clean economic turnaround, as much of the recent rebound has been due to government spending rather than a natural rebound in jobs, spending, and household economic/financial security. This effect may tie closely with the more muted improvement in consumer sentiment and comfort indicators, as illustrated on slide 18.

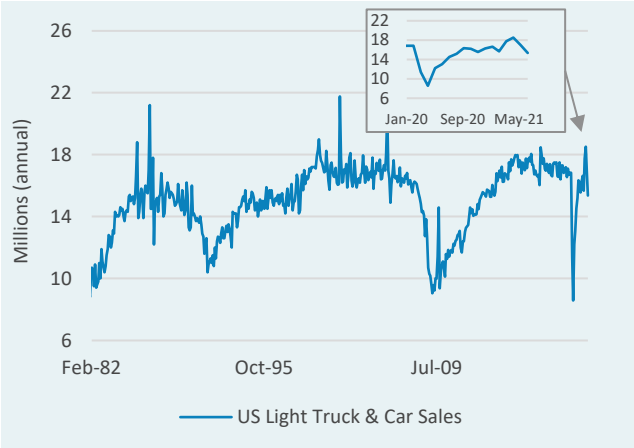
According to anonymized cellular phone data collected by Google for COVID-19 public health research, Americans appear to have returned to normal life in most respects. Travel to the workplace and transit usage, however, remain notably depressed relative to pre-COVID activity. If work-from-home policies are extended or even made permanent at many businesses, it is likely that this type of travel remains lower.

REAL RETAIL SALES



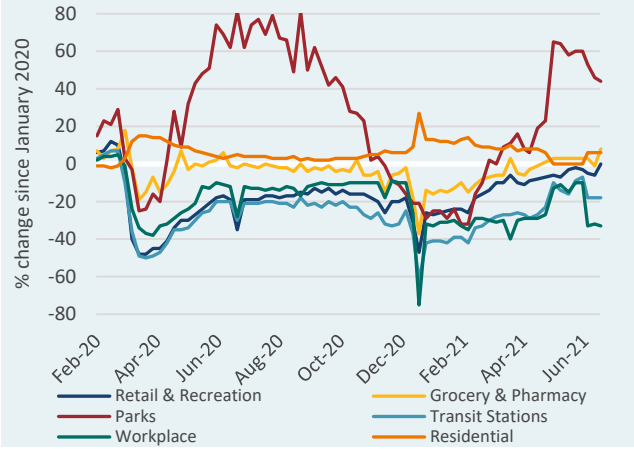
Source: FRED, as of 6/30/21

AUTO SALES



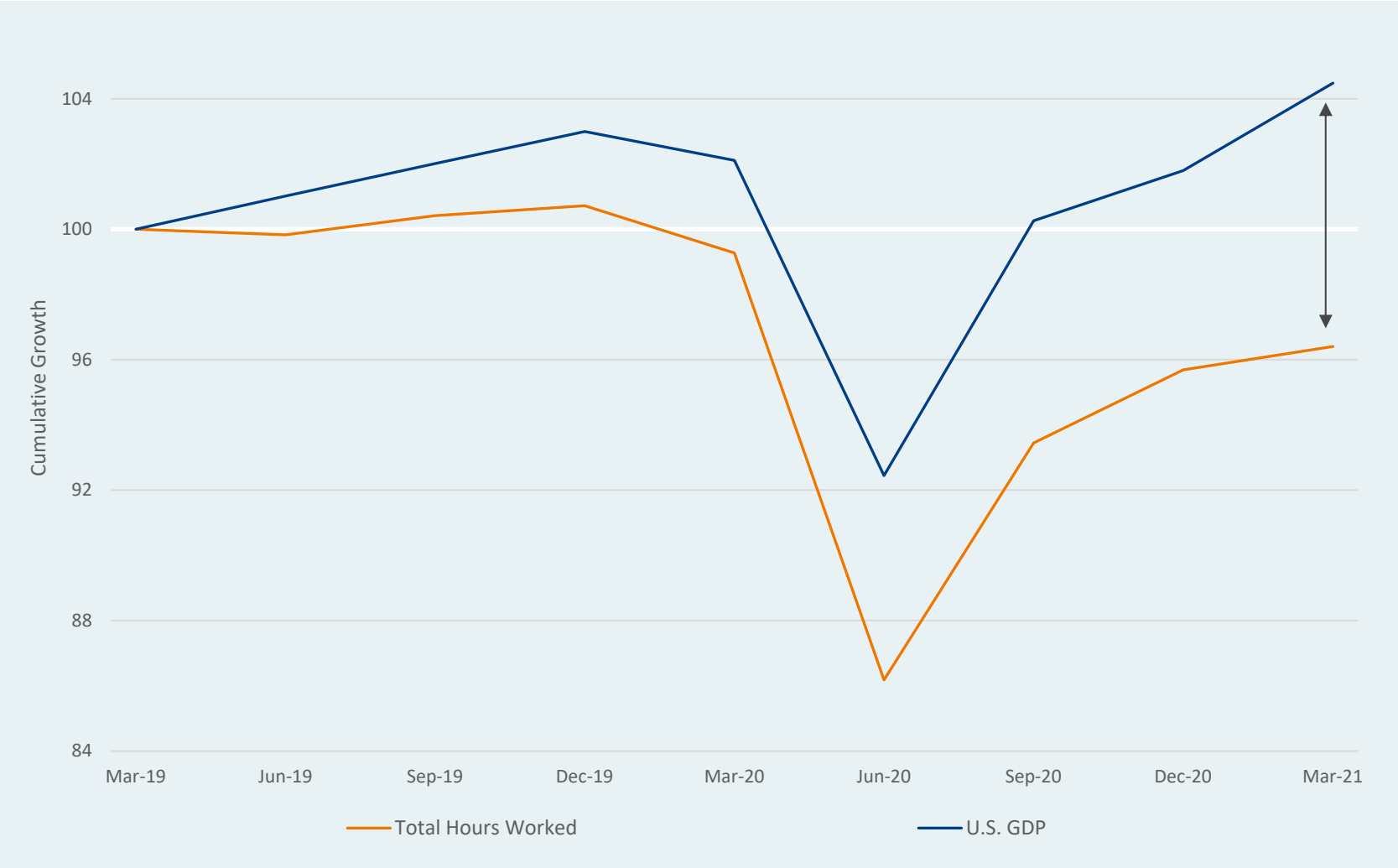
Source: Federal Reserve, as of 6/30/21

GOOGLE U.S. ACTIVITY TRACKER



Source: Google anonymized U.S. citizen mobility, as of 6/30/21

An unbalanced recovery



Despite the strong recovery in U.S. GDP, the labor market remains depressed

The stark contrast between GDP and the total number of hours worked by Americans illustrates this divide

Source: Fred, Verus, as of 3/31/21 – Nonfarm business sector total hours worked, nominal U.S. gross domestic product (GDP)

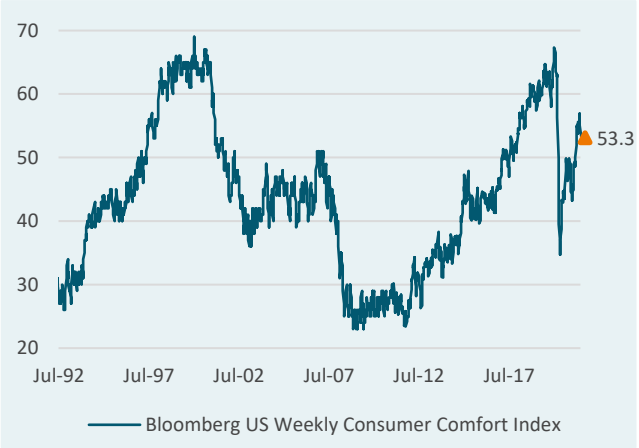
Sentiment

Consumer sentiment further improved over the quarter but has only recovered roughly half of the deterioration post-COVID, according to the indices below.

The Bloomberg Consumer Comfort Index attempts to gauge Americans' views on the economy, their personal financial situations, and buying conditions. The index rose from 50.0 to 53.3. The University of Michigan Consumer Sentiment Survey attempts to gauge attitudes about the business climate, personal finances, and spending conditions. The index jumped from 84.9 to 85.5. As reported by the university, "…consumers' complaints about rising prices on homes, vehicles, and household durables reached an all-time record." The survey surmised that Americans have accumulated significant savings, and a critical issue going forward will be whether these savings are held for safety or are spent.

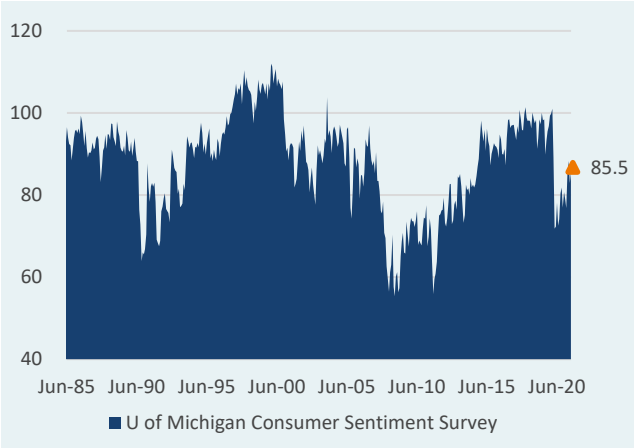
Small business optimism improved over the quarter but remained below pre-pandemic levels. Business owners are optimistic on the outlook, supported by expectations for gradual economic reopening, but continue to struggle to fill open positions due to a shortage of qualified employees in the labor pool.

CONSUMER COMFORT



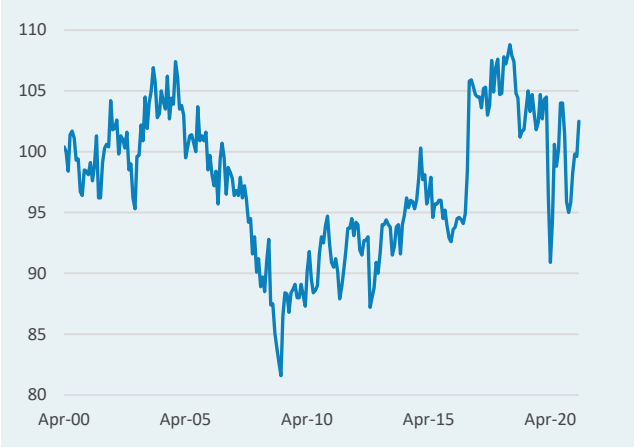
Source: Bloomberg, as of 6/30/21

CONSUMER SENTIMENT



Source: University of Michigan, as of 6/30/21

SMALL BUSINESS OPTIMISM



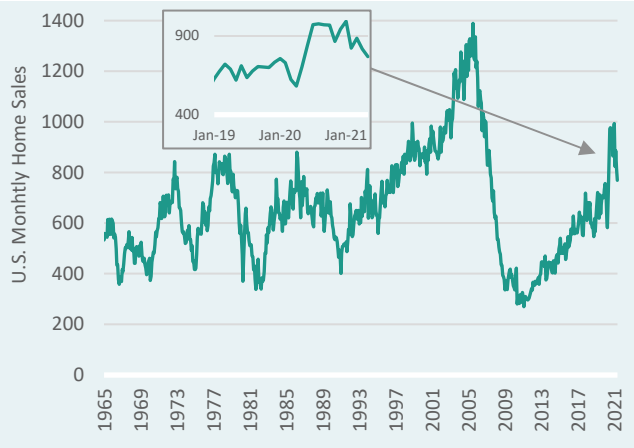
Source: NFIB, as of 6/30/21

Housing

Home sales activity surged considerably in late 2020, but has slowed year-to-date, closer to pre-COVID levels in May. The median home sales price in May was 23.6% higher than one year prior, pushed upward by very low inventory and very high demand. Recent price rises have been some of the strongest on record, generating wealth for many Americans, but also hurting affordability and diminishing the chance of homeownership for prospective future homeowners.

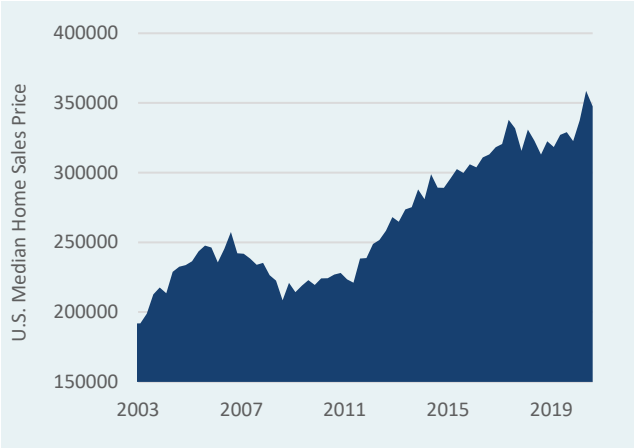
The strength of the recent housing boom has been surprising. It is not yet clear whether the current upward trend will persist. Housing inventory has improved, now standing at 5.1 months of supply, which is closer to pre-pandemic levels. This likely eases some price pressure. Earlier in the year it appeared that mortgage interest rates were rebounding towards prior levels, beginning the year at 2.67% and reaching 3.18% by the end of March. However, this trend reversed course during the second quarter, as rates fell back to 2.98%. An increasing volume of new home construction is likely easing tight inventories, as demonstrated below.

U.S. MONTHLY HOME SALES



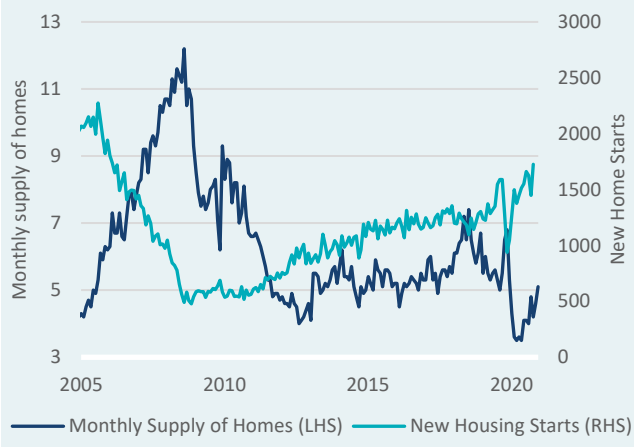
Source: U.S. Census Bureau, as of 5/31/21

U.S. MEDIAN HOME SALES PRICE



Source: FRED, as of 6/30/21

HOUSING SUPPLY VS NEW CONSTRUCTION



Source: FRED, as of 5/31/21

International economics summary

— Economies around the world continued to recover as COVID-19 fears eased, government shutdown orders were removed, and life began moving back to normal. This description of course does not apply to all economies, as Brazil, Japan, and much of Africa and Southeast Asia still grapple with effects of COVID and new variants of the virus.

— While expanding access to quality vaccines enabled mainland Europe to close the gap relative to the U.K. and the U.S. regarding vaccination rates, many countries in Asia, Africa, and Central Europe continued to face procurement issues, which has led public policymakers to respond more forcefully to pickups in case growth.

— Inflation has risen around the world, with the U.S. experiencing one of the largest rises. This will likely be a key theme for markets in the coming months.

— The U.S. trade balance of goods and services remained at a near all-time-low level of $75B per month, perhaps indicating that the relative strength of the U.S. consumer has pushed up domestic imports to levels above exports. The U.S. trade deficit might be primed to recede if the global recovery were to broaden.

— The pace of global manufacturing sector activity growth remained high, while services sector activity in many countries began to expand.

— Chinese GDP growth reportedly moderated from a year-over-year pace of 18.3% in Q1 to 7.9% in Q2—slightly missing expectations (+8.0%), but keeping the 6% annual target in range. Retail sales (+12.1%) and industrial production (+8.3%) both grew by more than forecast, but policymakers continue to worry that the economic recovery has been uneven in composition, which could weigh on future growth.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	0.4% *3/31/21*	5.4% *6/30/21*	5.9% *6/30/21*
Eurozone	(1.3%) 3/31/21	1.9% *6/30/21*	7.9% *5/31/21*
Japan	(1.6%) *3/31/21*	0.0% *6/30/21*	3.1% *5/31/21*
BRICS Nations	13.3% *3/31/21*	2.5% *6/30/21*	5.7% *12/31/20*
Brazil	1.0% *3/31/21*	8.4% *6/30/21*	14.7% *4/30/21*
Russia	(0.7%) *3/31/21*	6.5% *6/30/21*	4.9% *5/31/21*
India	1.6% *3/31/21*	6.3% *6/30/21*	9.2% *6/30/21*
China	7.9% *6/30/21*	1.1% *6/30/21*	5.0% *5/31/21*

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

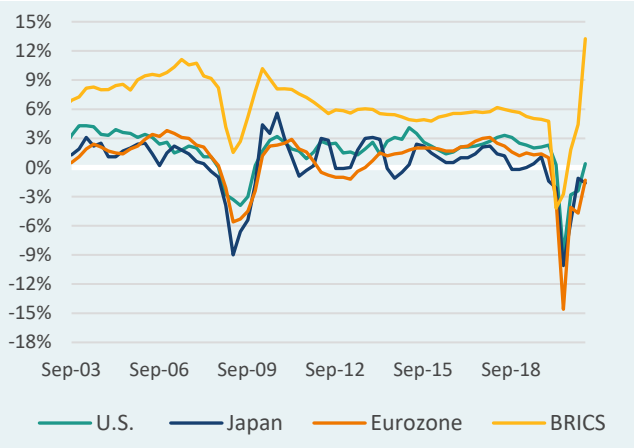
Economies around the world continued to recover, as COVID-19 fears eased, government shutdown orders were removed, and life began moving back to normal. This description of course does not apply to all economies, as Brazil, Japan, and much of Africa and Southeast Asia still grapple with effects of COVID and new variants of the virus.

A third wave of COVID has hit the Asia-Pacific region, as the Delta variant triggered economic restrictions in the area. Slower vaccination rollouts in many countries has resulted in greater vulnerability to new variants.

Inflation has jumped nearly everywhere across the globe, though the U.S. has seen one of the largest rises. This will likely be a key theme for markets and central banks in the coming months.

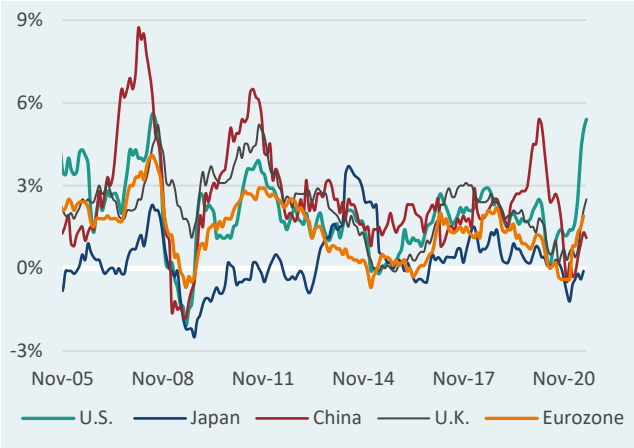
The rate of unemployment was mixed during the second quarter. The U.S. and Eurozone labor markets improved moderately over the quarter, while Japan saw a rise in joblessness. As we have described in prior quarters, governments have taken very different approaches to supporting workers, which has made global labor market trends difficult to compare.

REAL GDP GROWTH (YOY)



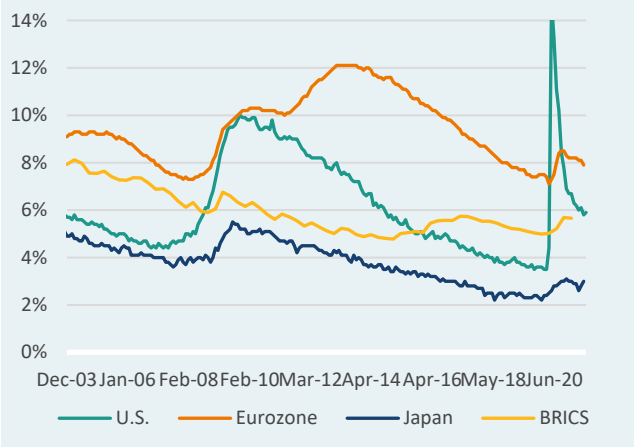
Source: Bloomberg, as of 3/31/21

INFLATION (CPI YOY)



Source: Bloomberg, as of 6/30/21 – or most recent release

UNEMPLOYMENT



Source: Bloomberg, as of 6/30/21 – or most recent release

Fixed income rates & credit

Fixed income environment

— The 10-year U.S. Treasury yield moved lower during Q2, from 1.75% to 1.44%. Many have attributed this trend to the Federal Reserve's recent indications that monetary policy will be kept very easy for the medium term. "Lower-for-longer" interest rates may act as a support to risk asset prices.

— Despite very dovish communication from central banks, derivative markets suggest investors are pricing between a 0-0.4% rise in interest rates over the next year in most developed countries.

— Headline Inflation in Brazil has risen to 8.4%, double the pre-pandemic level. Brazil has hiked their central bank rate from 2.00% to 4.25% to battle rising prices. Inflation in Russia has also jumped, now at 6.5%. Russia has hiked their key rate from 4.25 to 5.5%. This might suggest that central banks around the world have different views regarding how "transitory" the recent inflation rise will be.

— Risky credit outperformed over the quarter as spread levels compressed to decade-lows in the United States, and emerging markets debt bounced back. Hard-currency denominated emerging market debt returned 4.1% and high yield credit in the U.S. returned 2.7%.

— Policy shifts from the People's Bank of China resulted in a drawdown of liquidity across Asian markets over most of the quarter, which weighed on valuations for larger tech companies across the region. More recent concerns over the pace of the economic recovery in China may lead the government to withdraw liquidity more gradually.

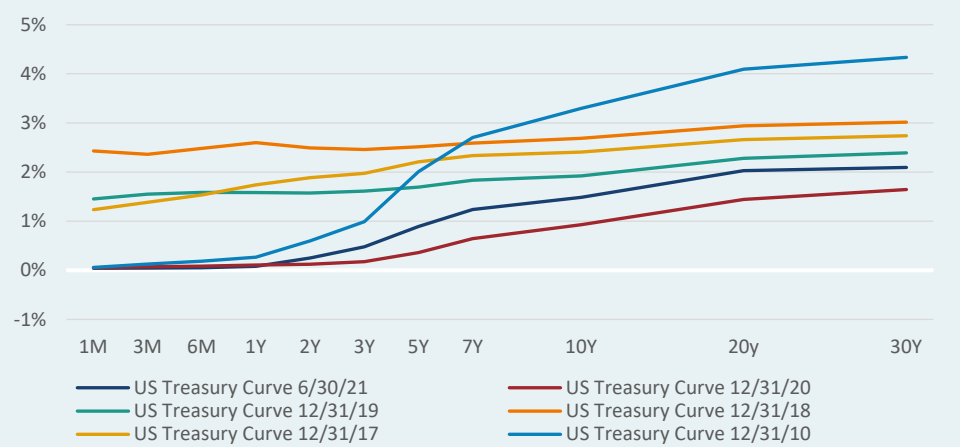
— While some developed market central banks (Bank of Canada, Bank of Korea, Norges Bank) have started to marginally tighten (or signal tighter) policy, the Federal Reserve and the European Central Bank are expected to keep policies accommodative for at least the next year to 18 months.

	QTD Total Return	1 Year Total Return
Core Fixed Income (BBgBarc U.S. Aggregate)	1.8%	(0.3%)
Core Plus Fixed Income (BBgBarc U.S. Universal)	2.0%	1.1%
U.S. Treasuries (BBgBarc U.S. Treasury)	1.7%	(3.2%)
U.S. High Yield (BBgBarc U.S. Corporate HY)	2.7%	15.4%
Bank Loans (S&P/LSTA Leveraged Loan)	1.4%	11.7%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	3.5%	6.6%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	4.1%	7.5%
Mortgage-Backed Securities (BBgBarc MBS)	0.3%	(0.4%)

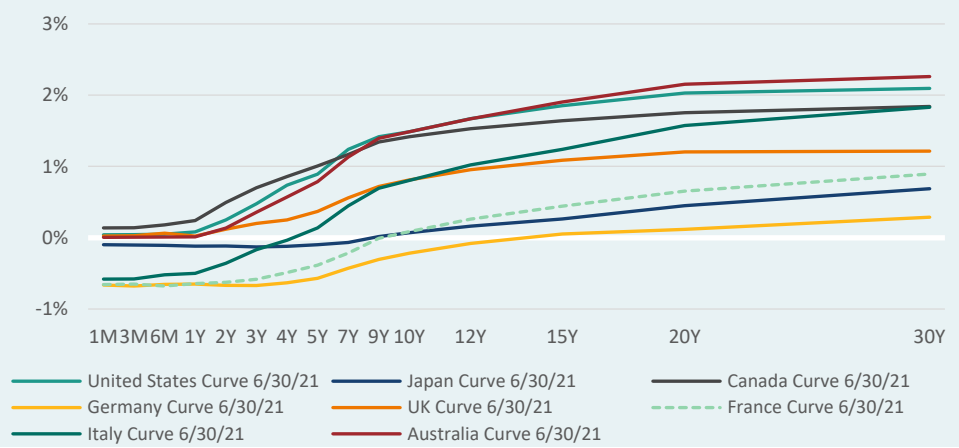
Source: Bloomberg, as of 6/30/21

Yield environment

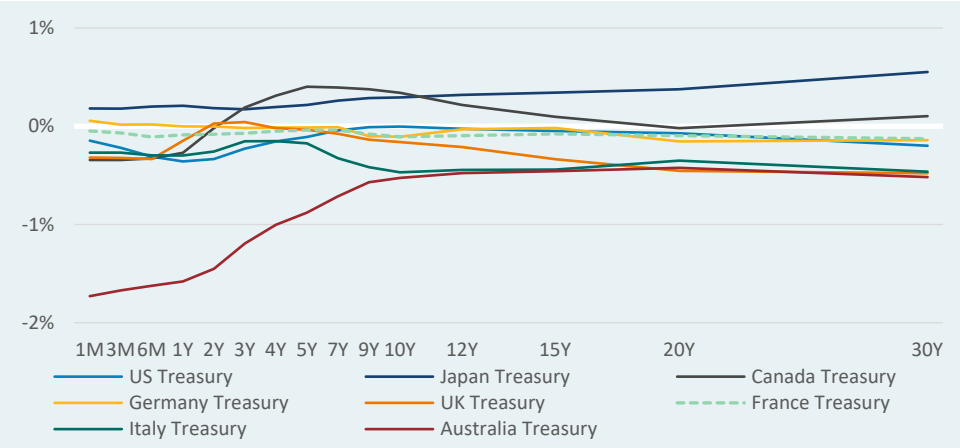
U.S. YIELD CURVE



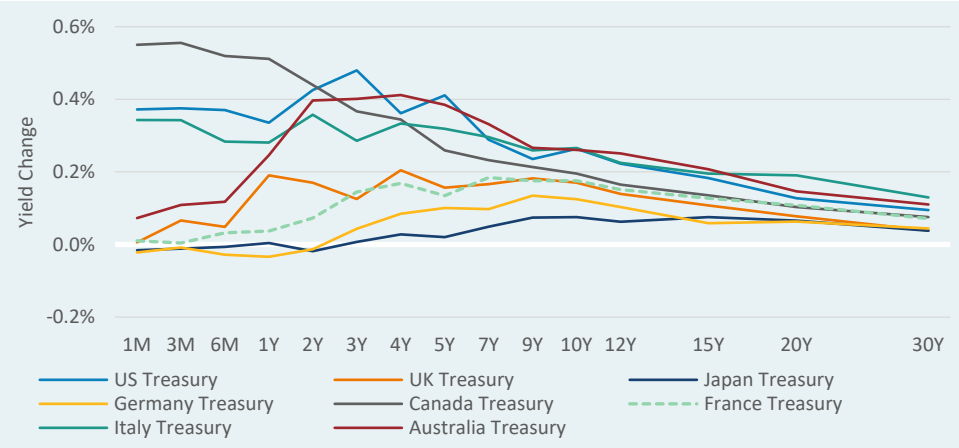
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/21

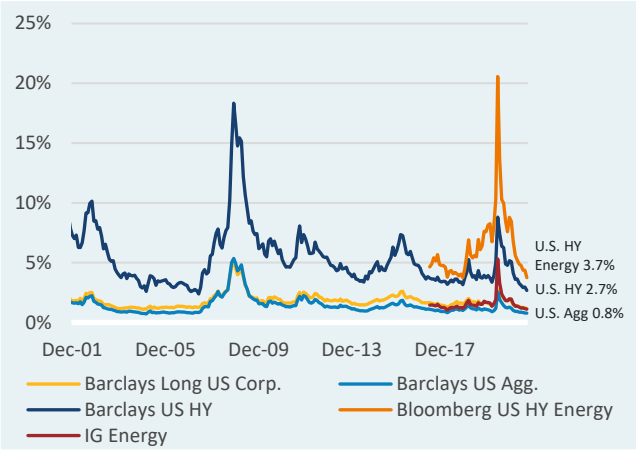
Credit environment

Credit markets performed positively in the second quarter, supported by strong corporate earnings, strong inflows and the expectation that supply will moderate in the second half of the year. Interest rates, specifically on the long-end of the curve, fell over the quarter, providing further duration tailwinds for fixed income securities. Corporate investment grade credit returned +3.6% over the quarter while high yield and leverage loans returned +2.7% and +1.4%, respectively.

Credit spreads grew tighter during the quarter, driven by strong investor demand and continued improvements in economic fundamentals. High yield spreads tightened 42 basis points to 268 basis points, a new cycle low. Investment grade tightened a more modest 11 basis points to end the quarter at 80 basis points.

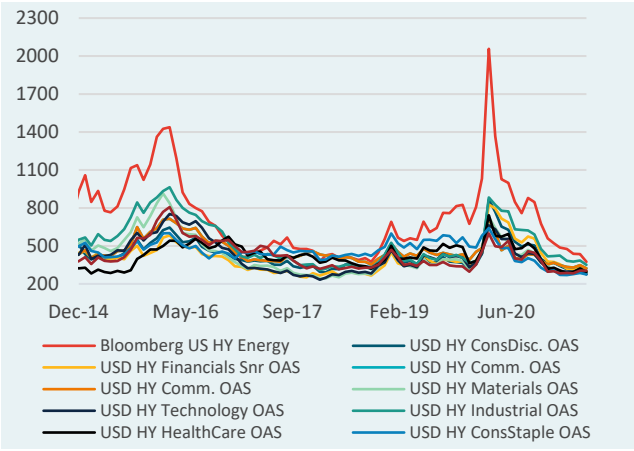
Lower quality bonds continue to outperform within both high yield and leverage loans. CCC bonds have now outperformed the broad high yield bond index in 10 of the past 11 months while split B/CCC loans have outperformed in 11 consecutive months.

SPREADS



Source: Barclays, Bloomberg, as of 6/30/21

HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 6/30/21

	Credit Spread (OAS)	
Market	**6/30/21**	**6/30/20**
Long U.S. Corp	1.2%	2.0%
U.S. Inv Grade Corp	0.8%	1.5%
U.S. High Yield	2.7%	6.3%
U.S. Bank Loans*	4.3%	6.2%

Source: Barclays, Credit Suisse, Bloomberg, as of 6/30/21
**Discount margin (4-year life)*

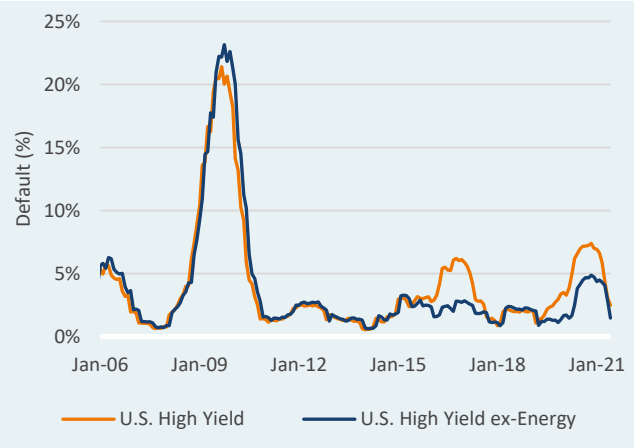
Default & issuance

Default activity remained modest over the quarter, with defaults totaling $3.5 billion on bonds and loans. Notably, fewer defaults occurred during the past two quarters than at any time in the past two years—an impressive development, given that the U.S. economy is still recovering from the pandemic. In addition, rolling twelve-month defaults have fallen as larger default volumes experienced last June exited the rolling window. This brought the par-weighted U.S. high yield default rate down 3.4% to end the quarter at 2.5%. Similarly, the loan par-weighted default rate ended the quarter at 1.9%, down 1.9% since March and down 2.5% year-to-date.

High yield bond issuance remains elevated, but has slowed from the record-setting levels experienced last quarter. Gross issuance for the quarter was $160.8 billion, bringing the year-to date total to $338.4 billion. This was notably greater than the $238.0 billion issued in the first half of 2020. Leveraged loan issuance also slowed to $119.3, down from $163.9 billion issued in the first quarter.

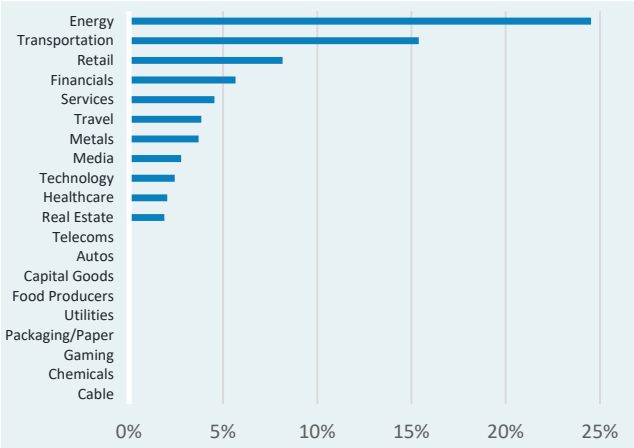
Investment grade issuance for the quarter totaled $350 billion, below the four-year average second quarter issuance of $401, and less than the $423 billion issued in Q1.

HY DEFAULT RATE (ROLLING 1-YEAR)



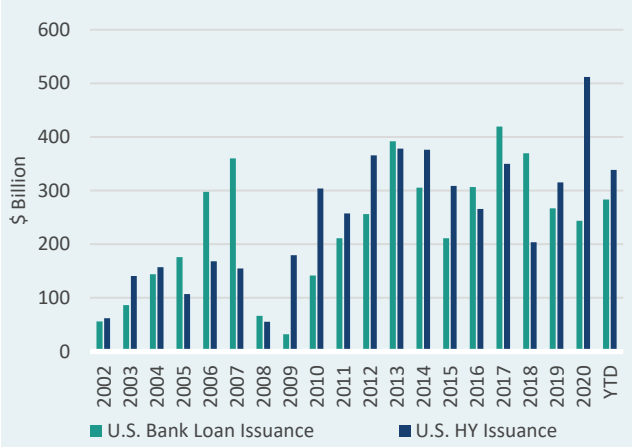
Source: BofA Merrill Lynch, as of 6/30/21

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



Source: BofA Merrill Lynch, as of 6/30/21 – par weighted

U.S. ISSUANCE ($ BILLIONS)



Source: BofA Merrill Lynch, as of 6/30/21

Equity

Equity environment

— U.S. equities were a top performer again in Q2, returning +8.5%. International equities (+5.2% MSCI EAFE Index) were on par with emerging markets (+5.0% MSCI Emerging Markets Index) on an unhedged currency basis.

— Following the notable turnaround in value stock performance during Q1, growth stocks once again took the lead in Q2. Growth stocks beat value by 6.7% during the quarter, dampening excitement for a value comeback.

— U.S. small-cap stocks (+4.3%) lagged large-cap stocks (+8.5%) as the reflation trade lost steam, but have still outperformed by 21.2% over the last year.

— It seems that investors have put the 2020 pandemic-induced recession behind them. Implied volatility, actual market volatility, and the risk reflected in asset prices is very low. This data suggests that investors perceive a strong economy, a healthy business environment, and very few risks on the horizon.

— Per FactSet, the estimated year-over-year earnings growth for the S&P 500 Index as of Q2 2021 is 64.0%. If that rate were to materialize, it would mark the highest year-over-year growth rate reported by the index since Q4 2009 (109.1%).

— Global equities have marched higher without many hiccups over the last six months. The MSCI ACWI Index has not closed more than 5% below its prior peak level since November 2nd, 2020. In the second quarter, the furthest the ACWI ever closed below its prior high-water-mark was 3.3%.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	8.5%		40.8%	
US Small Cap (Russell 2000)	4.3%		62.0%	
US Large Value (Russell 1000 Value)	5.2%		43.7%	
US Large Growth (Russell 1000 Growth)	11.9%		42.5%	
International Large (MSCI EAFE)	5.2%	4.9%	32.4%	28.0%
Eurozone (Euro Stoxx 50)	5.8%	5.1%	35.4%	29.7%
U.K. (FTSE 100)	5.8%	5.7%	31.9%	18.5%
Japan (NIKKEI 225)	(1.6%)	(1.0%)	27.0%	31.7%
Emerging Markets (MSCI Emerging Markets)	5.0%	3.5%	40.9%	35.1%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 6/30/21

Domestic equity

U.S. equities were a top performer again in Q2, returning +8.5%. Per FactSet, the estimated year-over-year earnings growth for the S&P 500 Index as of June 30th was 64.0%. If that rate were to materialize, it would mark the highest year-over-year rate reported by the index since Q4 2009 (109.1%).

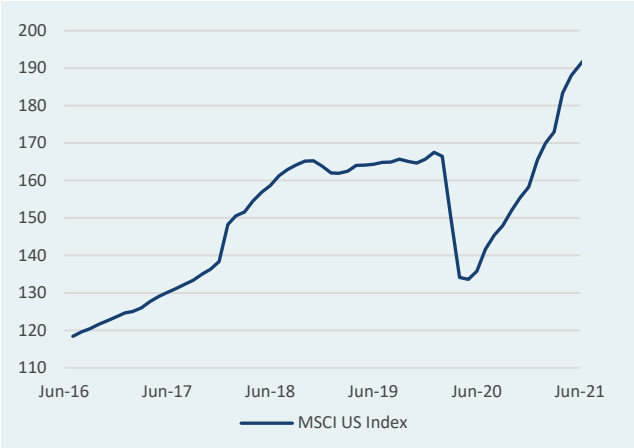
Concerns over the potential of the coronavirus delta variant to crimp the growth outlook helped to drive a rotation away from the more cyclical sectors that had driven the advance in U.S. equities since last August. Interest rates fell substantially, supporting outperformance of the Real Estate (+13.1%), IT (+11.6%), and Telecom (+10.7%) sectors. The shift in sentiment towards more cautious risk positioning led the quality factor (+10.6%) to outperform relative to MSCI's suite of long-only factor indices.

While it appears possible that equities could continue rallying into next year, the road could well become bumpier from here, given high valuations and the level of optimism baked into prices. We retain a cautiously optimistic view, given the uncertainty which shrouds the outlook.

S&P 500 INDEX

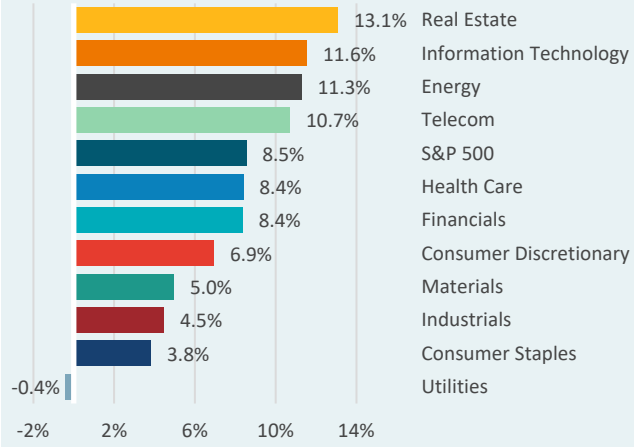
Source: Standard & Poor's, as of 6/30/21

FORWARD 12-MONTH EARNINGS PER SHARE



Source: MSCI, as of 6/30/21

Q2 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 6/30/21

Domestic equity size & style

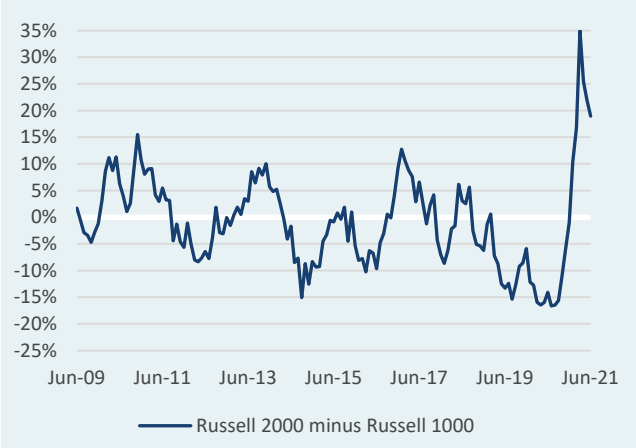
Large capitalization stocks beat small (Russell 1000 +8.5%, Russell 2000 +4.3%) and growth stocks beat value (Russell 1000 Growth +11.9%, Russell 1000 Value +5.2%), as investors rotated portfolios away from riskier exposures to larger, more quality names amid a more cautious risk outlook.

Following the notable turnaround in value stock performance during Q1, growth stocks once again took the lead in Q2, dampening excitement for a value comeback. As we have noted recently, sector trends can have large impacts on factor behavior. This may have been the case with value in the first quarter. Small capitalization stocks have exhibited a spectacular run over the past year, outperforming large cap stocks by 21.2% (Russell 2000 +62.0, Russell 1000 +43.1%).

In general, factor performance tends to be noisy and difficult to predict, which suggests that style investing should in most cases involve a longer-term focus.

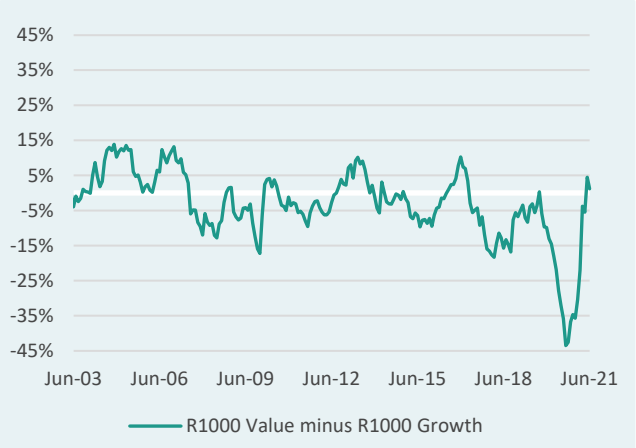
Small cap and value stocks delivered strong relative performance during Q1

SMALL CAP VS LARGE CAP (YOY)



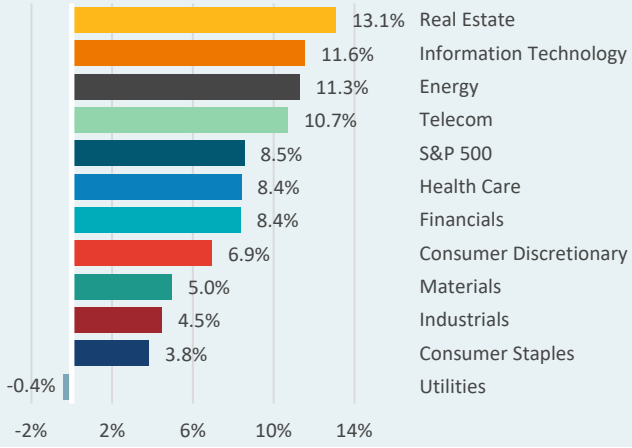
Source: FTSE, as of 6/30/21

VALUE VS GROWTH (YOY)



Source: FTSE, as of 6/30/21

Q2 SECTOR PERFORMANCE



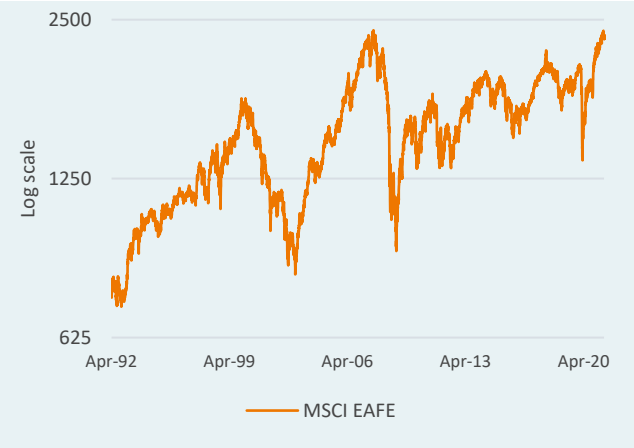
Source: Standard & Poor's, as of 6/30/21

International developed equity

International equities delivered +5.2% (MSCI EAFE Index) during the quarter on an unhedged currency basis, lagging U.S. equities but in line with emerging market equities (MSCI Emerging Markets +5.0%). Broad dollar weakness over most of the quarter boosted returns for unhedged investors in international developed equities by 0.3%, European equities by 0.7%, and emerging markets by 1.5%. The Japanese yen depreciated slightly relative to the U.S. dollar, which presented headwinds for unhedged investors in Japanese equities. Fading of risk-on sentiment in June helped to spur a turnaround in the U.S. dollar late in the quarter, though short covering dynamics also played a factor.

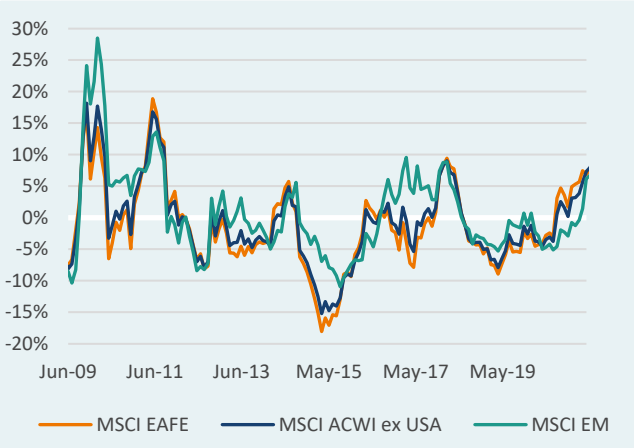
Fresh concerns over the growth outlook following the emergence of the new, more virulent delta strain of the coronavirus pushed ECB policymakers to accelerate the pace of weekly asset purchases within the Pandemic Emergency Purchase Programme slightly, with the goal being to preserve financial conditions supporting a strong recovery. The commitment to easier policy over the short-to-intermediate term helped to keep interest rates at relatively low levels, which buoyed the valuation of European equities.

INTERNATIONAL DEVELOPED EQUITIES



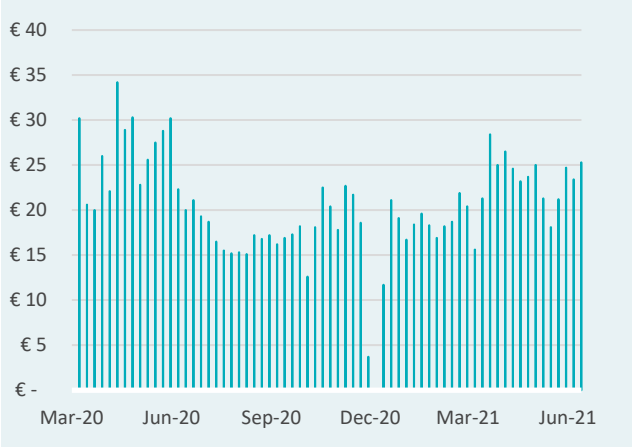
Source: MSCI, as of 6/30/21

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 6/30/21

ECB WEEKLY PEPP PURCHASES (BILLIONS)



Source: Bloomberg, ECB, as of 7/9/21

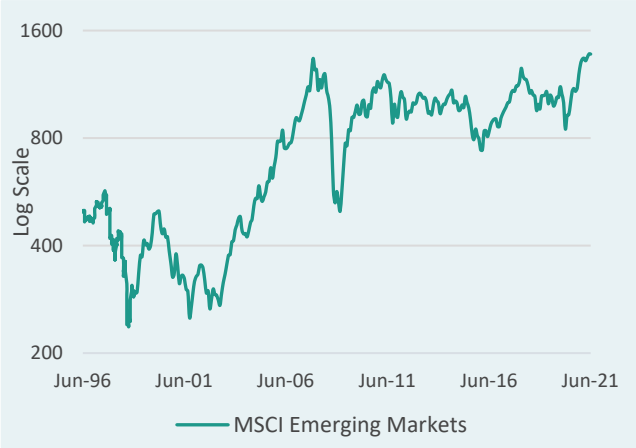
Emerging market equity

Emerging market equities (MSCI EM +5.0%) underperformed U.S. (S&P 500 +8.6%) and were in line with international developed equities (MSCI EAFE +5.2%) during the second quarter.

Latin American equities once again took the lead during the second quarter, outperforming the broader index by 10% (MSCI Latin America 15.0%, MSCI Emerging Markets +5.0%). Much of this performance was due to the notable underperformance of Chinese equities, which lagged the overall index by -2.8% during Q2 and -14.4% over the past year. Single countries in the emerging markets complex often display high volatility. In other words, large idiosyncratic moves such as the one witnessed recently by Chinese equities are not unusual.

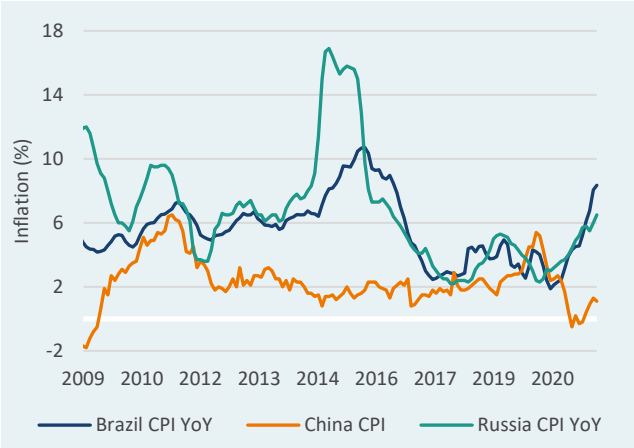
Headline Inflation in Brazil has risen to 8.4%, which is double the pre-pandemic level. Brazil has hiked their central bank rate from 2.00% to 4.25% to battle rising prices. Inflation in Russia has also jumped, now at 6.5%. Russia has hiked their key rate from 4.25% to 5.50%. This might suggest that central banks around the world have different views regarding how "transitory" the recent inflation rise will be, although volatile rates of inflation are common in the emerging markets.

EMERGING MARKET EQUITY



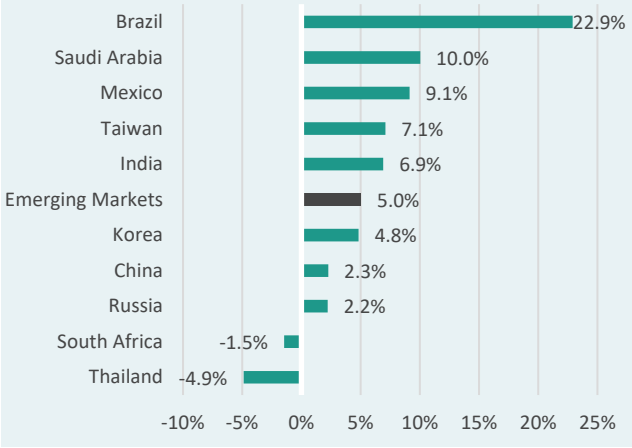
Source: MSCI, as of 6/30/21

INFLATION (YOY)



Source: Bloomberg, as of 6/30/21 or most recent data

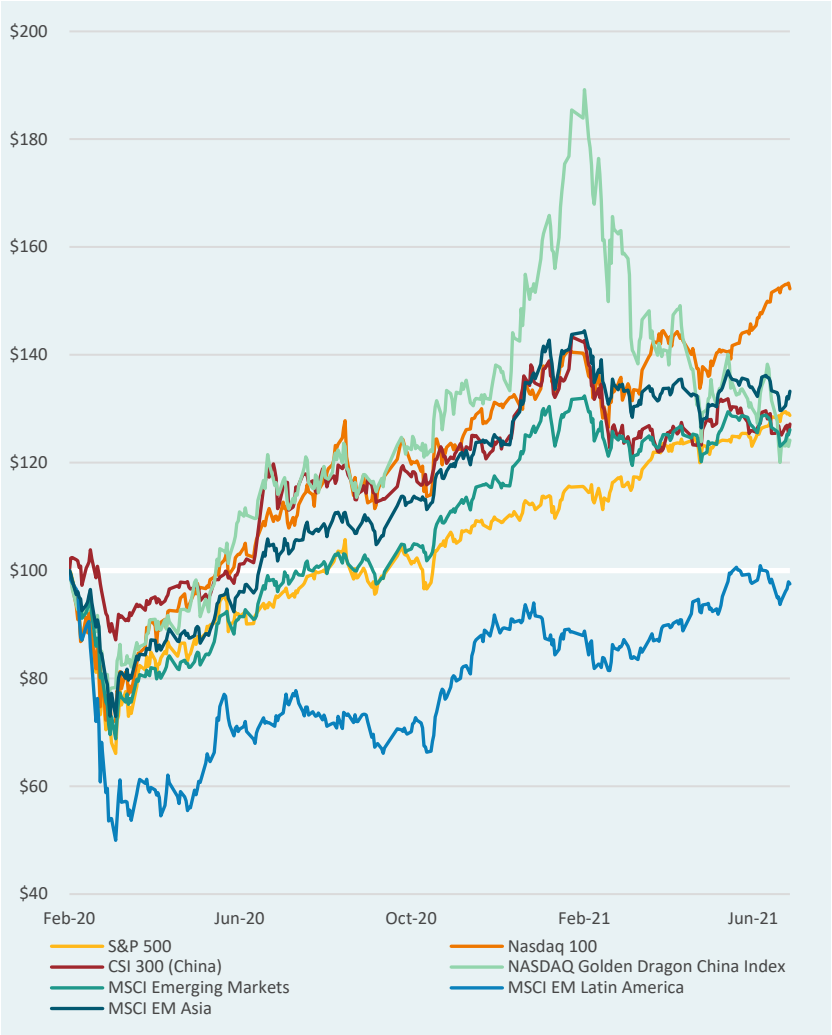
Q2 PERFORMANCE – TOP 10 EM CONSTITUENTS



Source: Bloomberg, MSCI, as of 6/30/21, performance in USD terms

Chinese markets

- The Chinese equity market has now lagged the broader emerging markets by -1.1% on a 3-year annualized basis, -13.8% on a 1-year basis, and -5.7% year-to-date (MSCI China, MSCI Emerging Markets).
- Chinese equities began to sell off in late February, with the initial catalyst appearing to be a decision by the People's Bank of China to shift its focus away from an accommodative financial stance towards tightening, with the aim of limiting the risks that excessive leverage within certain segments of the economy poses to the economy.
- This shift in focus from ensuring economic recovery to managing the risks of financial excesses came in the form of a marginal tightening of liquidity across the country, which sparked a sell-off in some of the high-flying tech companies that had driven outperformance in the early days of the pandemic. Losses in China accelerated in the second quarter of 2021 when regulators cracked down on some national champions in the IT industry, reportedly over concerns around the risks of the data gathered by those companies falling into the wrong hands, which could undermine the position of the Communist Party of China. While it appears that both general liquidity conditions have begun to improve and the tech crackdown has showed signs of easing, these issues remain front and center for the broader emerging market universe.
- Recent larger idiosyncratic moves in the Chinese market highlight the benefits of gaining diversified exposure to the asset class.



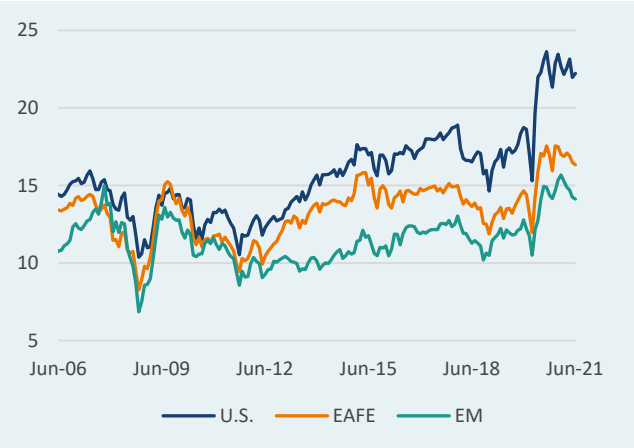
Chinese tech companies listed in the U.S. but whose business is primarily conducted in China have sold off significantly since late February 2021

Equity valuations

Industry analysts forecast a 11.2% gain over the next 12 months for the S&P 500, according to FactSet, despite record-high valuations.

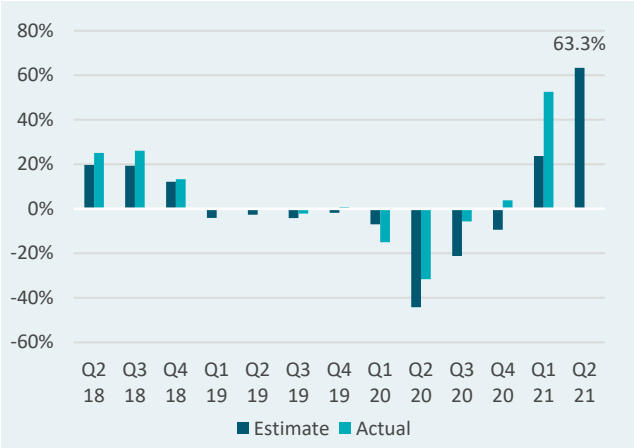
Valuations remain at very high levels relative to history, supported by extremely low interest rates, central bank accommodation, and unprecedented government spending. As is often the case when valuations rise, opinions differ regarding whether: a) valuations are supported by the environment and will stay elevated for the long-term, resulting in lower expected returns, or b) valuations are excessive and will come back down due to a market correction. Some investors might question the possibility of a third scenario – that future earnings growth will be strong enough to naturally bring down valuations. However, this third scenario is not currently supported by earnings forecasts. Our view on these conditions continues to be somewhat aligned with scenario "a"—that valuations are indeed high, but that unusual conditions and a potentially synchronized global economic comeback may support these high prices for the medium term. Nonetheless, with such optimism baked into risk asset prices, it will be important to watch closely for any disruptions to the market's optimistic outlook.

FORWARD P/E RATIOS



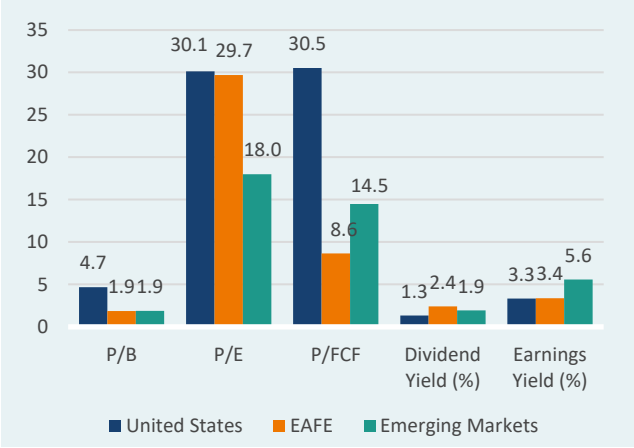
Source: MSCI, 12m forward P/E, as of 6/30/21

S&P 500 EARNINGS GROWTH VS. FORECASTS



Source: Bloomberg, as of 6/30/21

VALUATION METRICS (3-MONTH AVERAGE)



Source: Bloomberg, MSCI as of 6/30/21 - trailing P/E

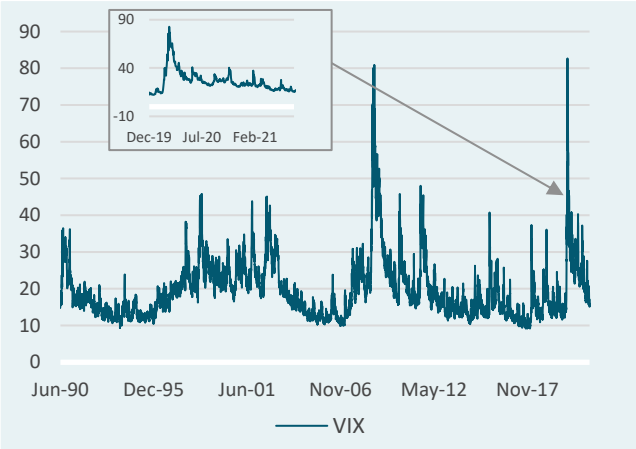
Equity volatility

The Cboe VIX Index has fallen further year-to-date, reaching 15 in June. This compares to the longer-term average of 19. One-year trailing realized volatility has now returned to pre-COVID levels.

It seems that investors have put the 2020 pandemic-induced recession behind them. Implied volatility, actual market volatility, and the risk reflected in asset prices is very low. This data suggests that investors perceive a strong economy, a healthy business environment, and very few risks on the horizon. However, it is reasonable to question the degree to which unprecedented government stimulus and easy money has influenced markets as of late.

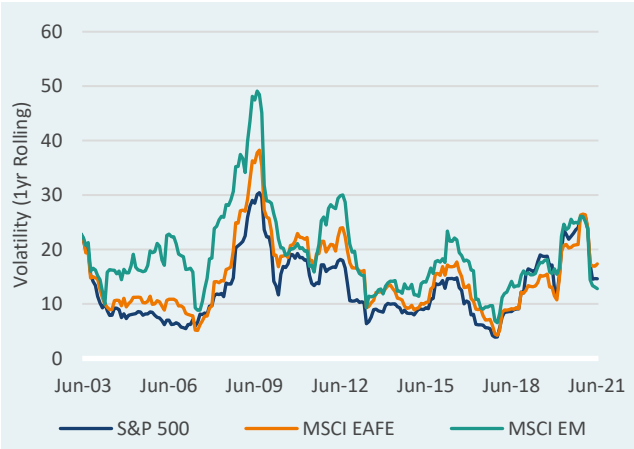
The Cboe Skew Index, which measures the perceived tail risk of the distribution of S&P 500 Index returns over a 30-day horizon, rose to 161.9, 35% above its average level since inception in 1990. The high level of the skew index indicates a steep implied volatility curve, which could be interpreted as more bearish bears, more bullish bulls, or both. In any case, disagreement among investors appears to be wide at present, which could allow for larger short-term price swings.

U.S. IMPLIED VOLATILITY (VIX)



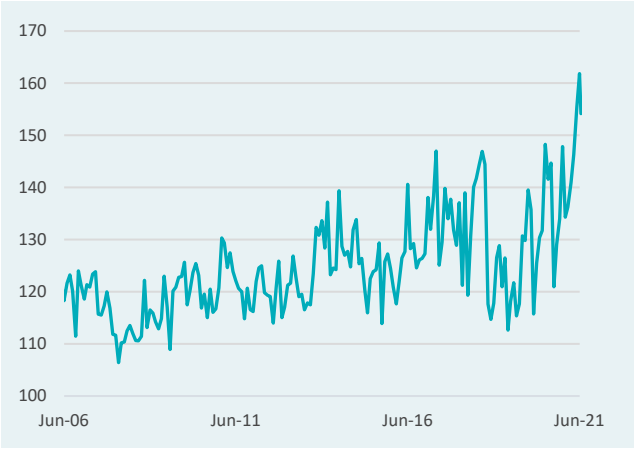
Source: Cboe, as of 6/30/21

REALIZED VOLATILITY



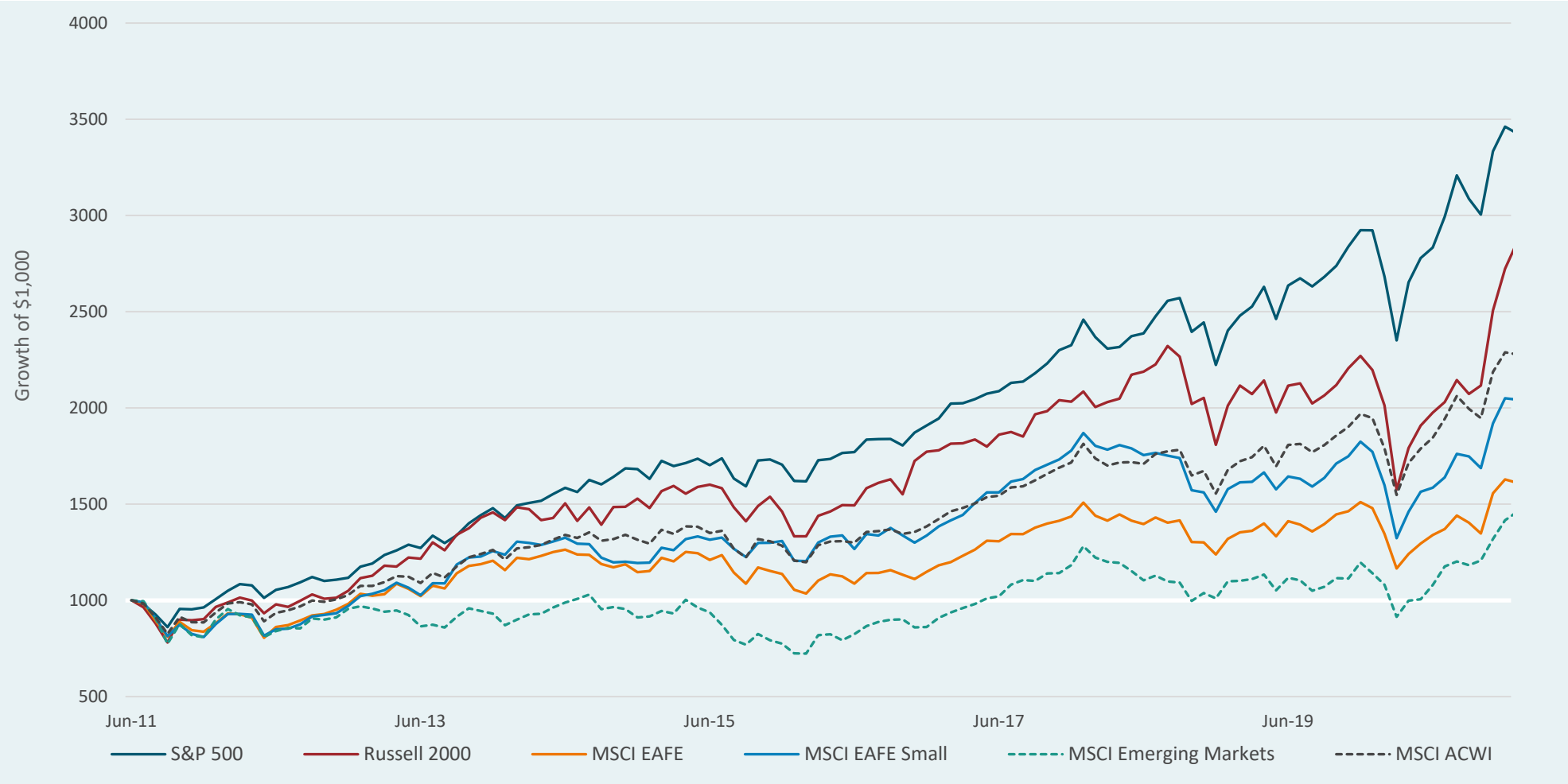
Source: Standard & Poor's, MSCI, as of 6/30/21

CBOE SKEW INDEX



Source: Cboe, Bloomberg, as of 6/30/21

Long-term equity performance



Source: Morningstar, as of 6/30/21

Other assets

Currency

The stabilization in the U.S. dollar that took place in the first quarter as Treasury yields rose began to fade as longer-term interest rates declined from pandemic-era high levels. The dollar sold off relative to major currencies in April and May, before finding a bid in June on the back of slightly more cautious sentiment. Investors remain quite polarized over the medium-to-long term path of the dollar, which might increase the probability of more volatility in the future.

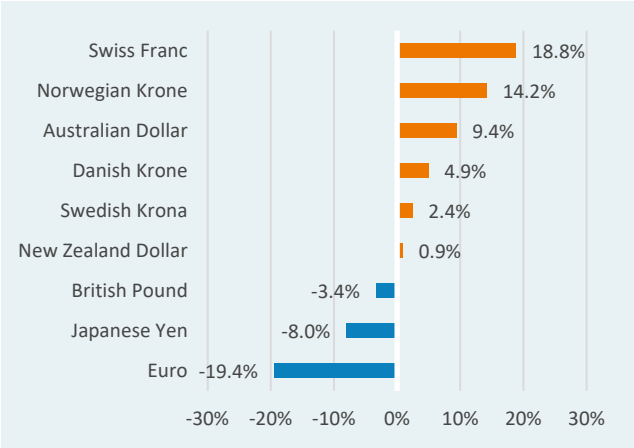
Despite U.S. dollar weakness relative to the euro and British pound over the quarter, those two European currencies remain relatively cheap on a purchasing power parity basis. The Japanese yen became even cheaper relative to the dollar over the period, while the Swiss franc and Norwegian Krone remained at relatively expensive valuations.

The embedded currency portfolio of the MSCI EAFE Index returned 0.3% over the quarter, but returned 4.4% over the trailing year on the back of a weakening U.S. dollar. Within Verus' preferred currency beta benchmark, the momentum factor (-6.8%) contributed significant headwinds to one-year trailing returns, as frequent shifts in market risk sentiment limited the capacity of risk-on and risk-off currencies from sustaining trends in one direction or the other.

BLOOMBERG DOLLAR SPOT INDEX

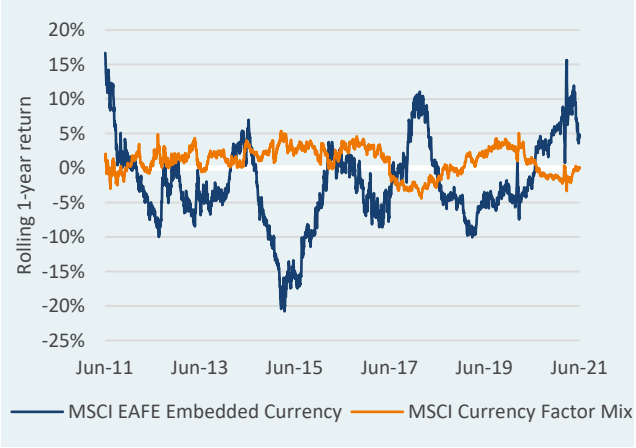
Source: Bloomberg, as of 6/30/21

PURCHASING POWER PARITY VALUATIONS VS. U.S. DOLLAR (OECD)



Source: Bloomberg, as of 6/30/21

CURRENCY BETA RELATIVE PERFORMANCE



Source: Bloomberg, MSCI, as of 6/30/21

Appendix

Periodic table of returns

BEST ↑ ↓ WORST

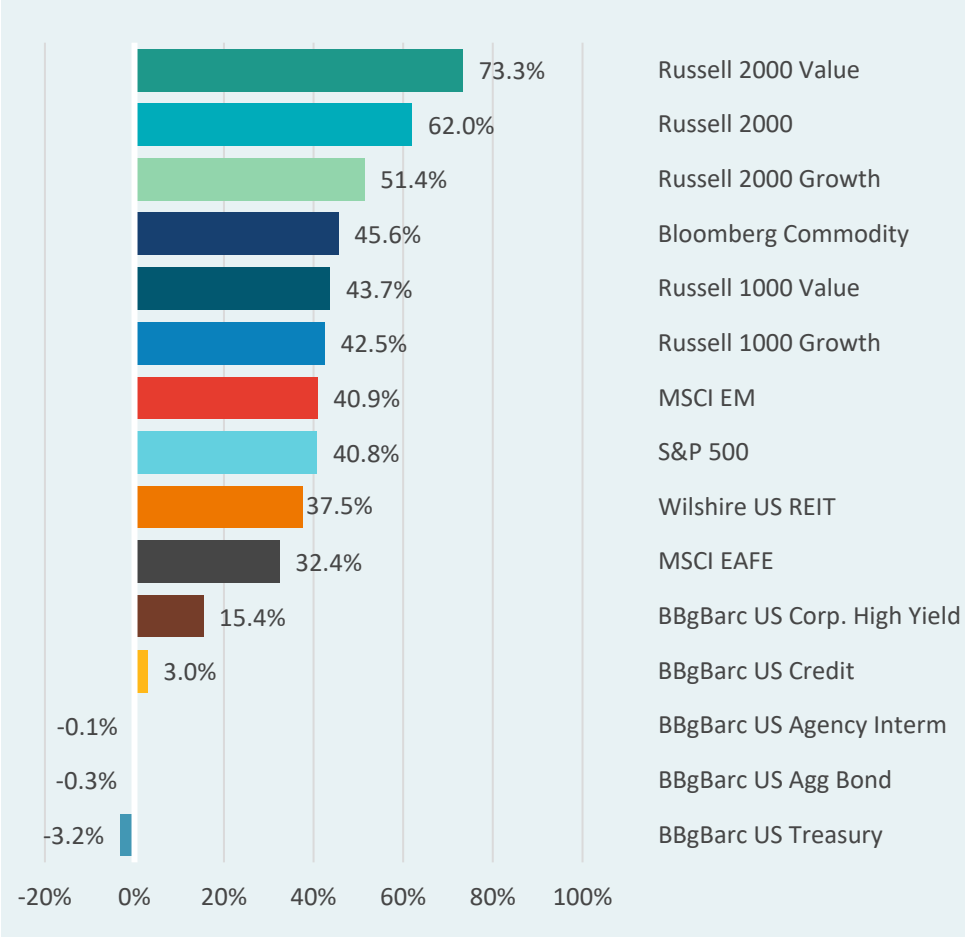
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	5-Year	10-Year
Small Cap Value	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	26.7	23.7	17.9
Commodities	43.1	22.8	8.4	10.3	48.5	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	21.1	18.8	14.9
Small Cap Equity	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	17.5	18.0	13.5
Large Cap Value	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	17.0	16.5	12.3
Large Cap Equity	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	15.0	13.6	11.6
Large Cap Growth	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	13.0	13.0	10.8
Small Cap Growth	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	9.0	11.9	8.8
International Equity	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	8.8	10.3	6.9
Emerging Markets Equity	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	7.4	9.8	5.9
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	6.0	6.1	4.3
Hedge Funds of Funds	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	4.7	5.8	3.8
Real Estate	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	1.7	3.0	3.4
Cash	-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	0.0	2.4	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	-4.4

- 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, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 3/31/21.

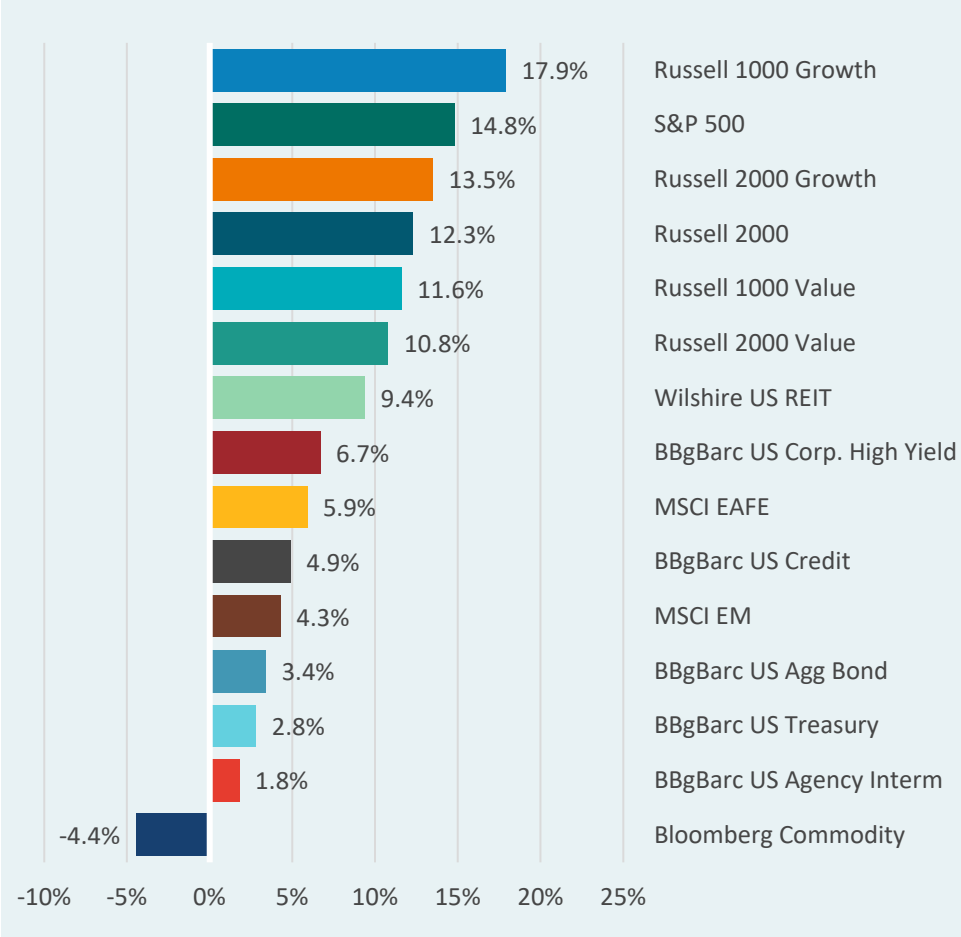
Major asset class returns

ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/21

TEN YEARS ENDING JUNE

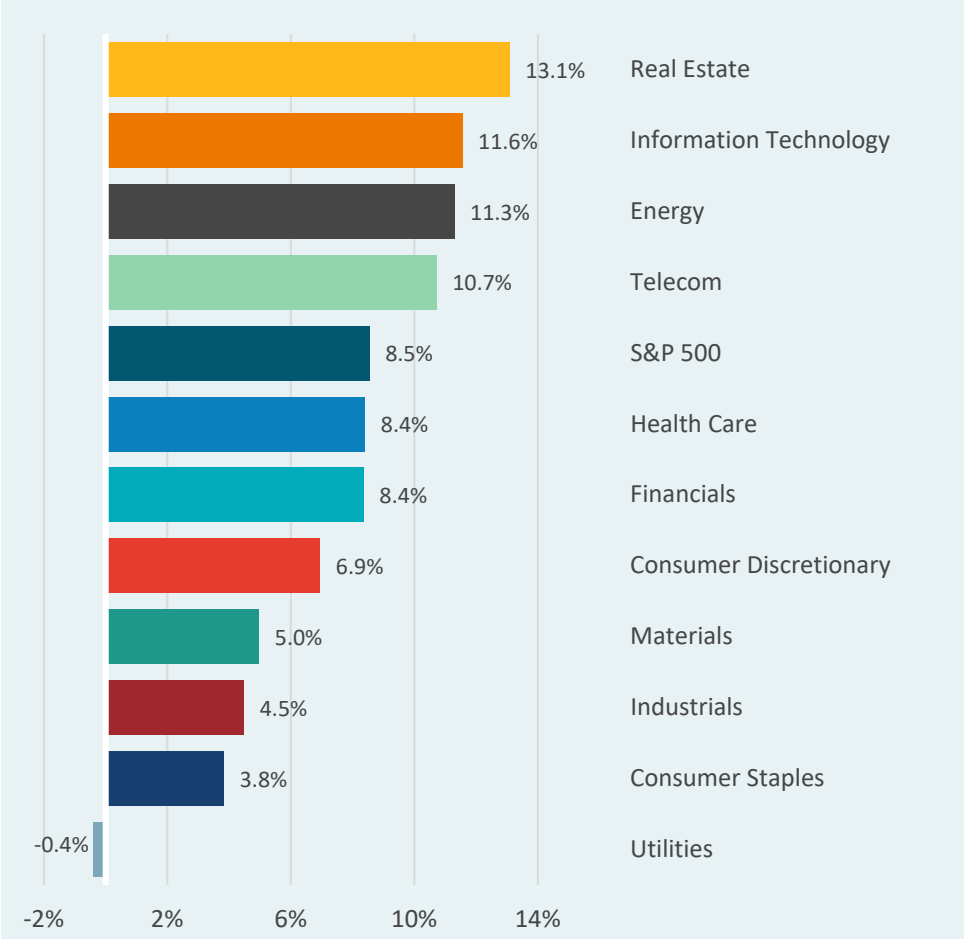


Source: Morningstar, as of 6/30/21

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

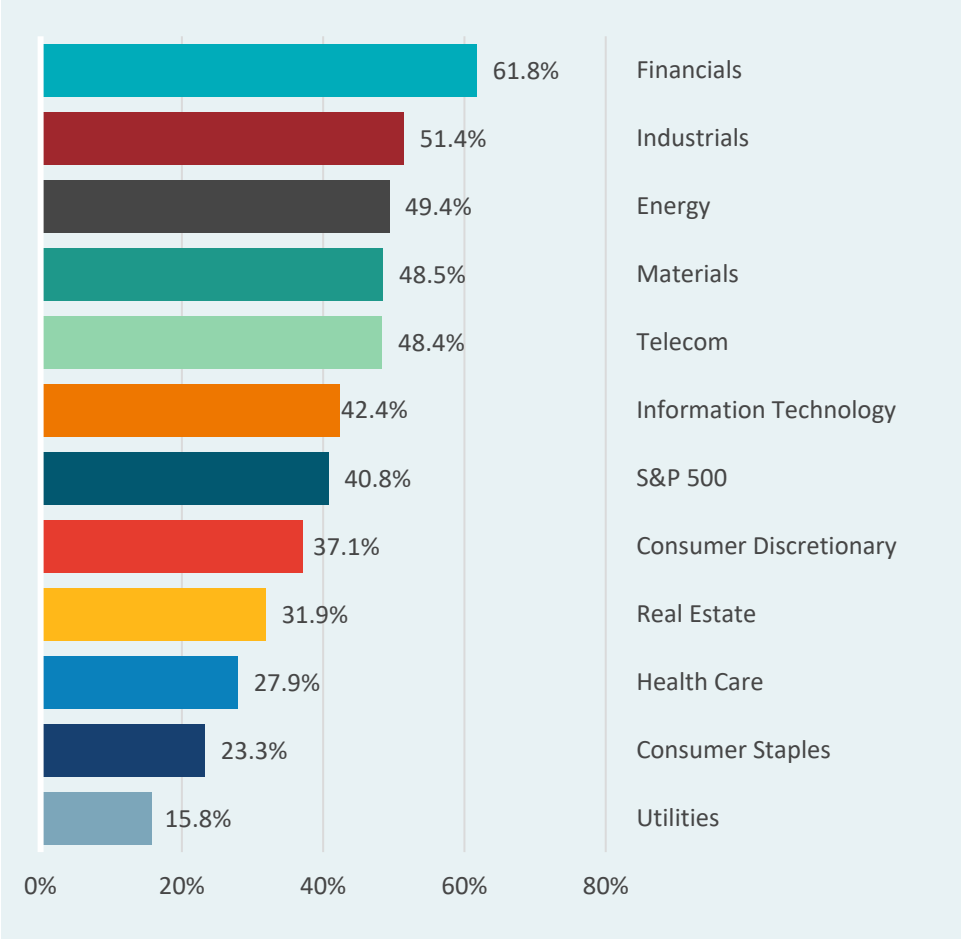
S&P 500 sector returns

Q2 2021



Source: Morningstar, as of 6/30/21

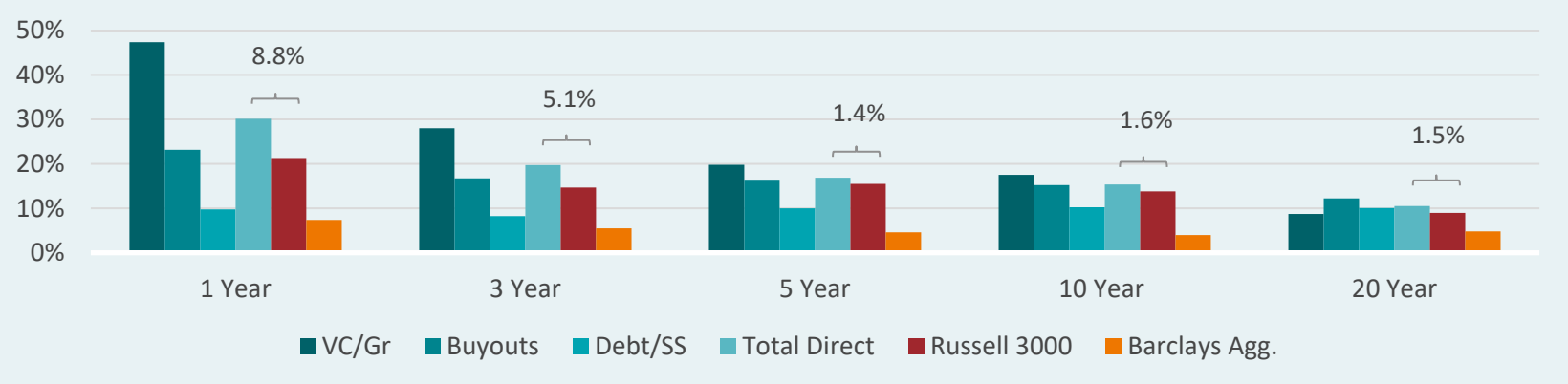
ONE YEAR ENDING JUNE



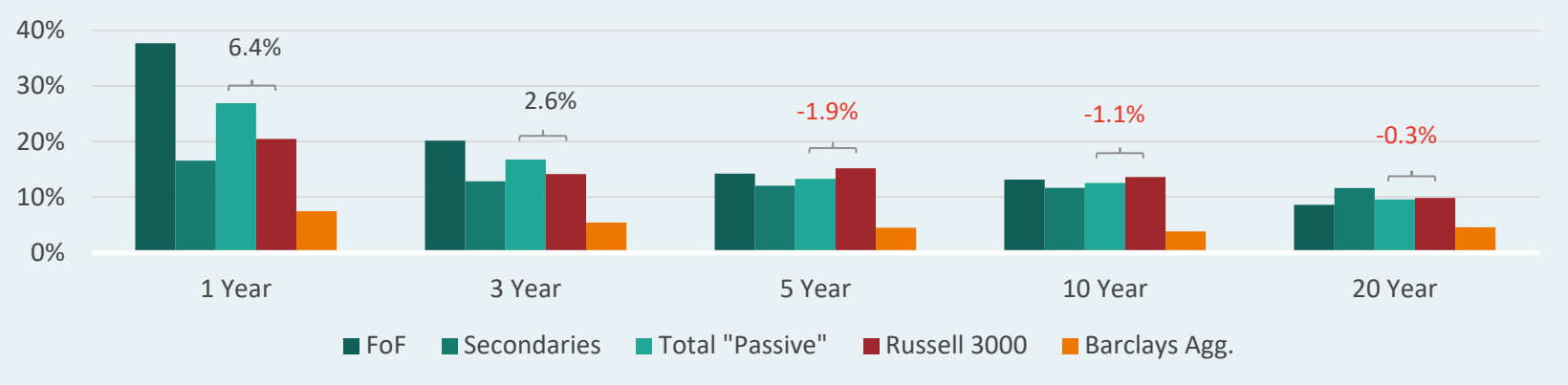
Source: Morningstar, as of 6/30/21

Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



"PASSIVE" STRATEGIES



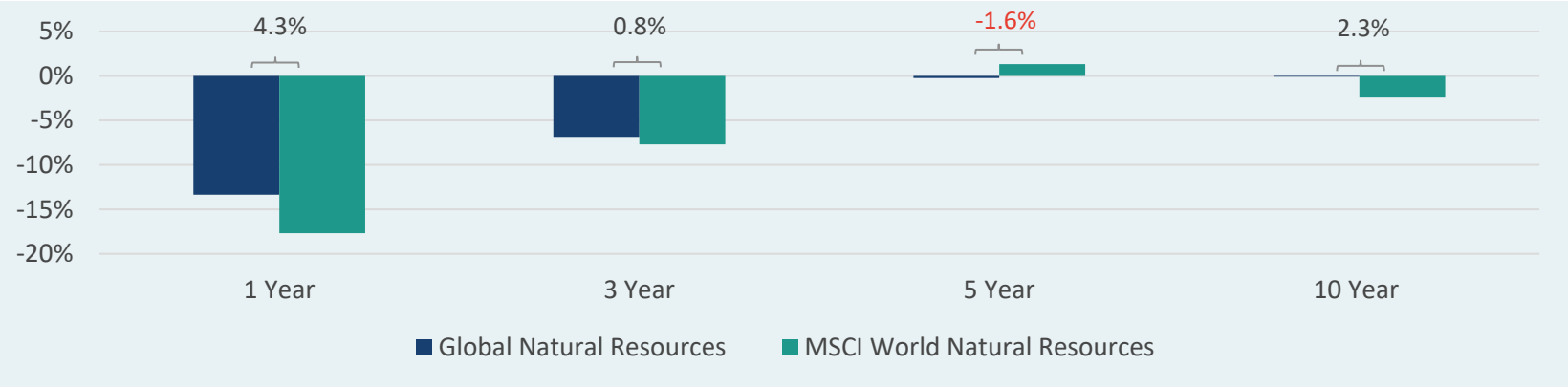
Direct P.E Fund Investments outperformed comparable public equites across all time periods.

"Passive" strategies underperformed comparable public equities across all time periods, aside from the 1 and 3-year basis.

Sources: Thomson Reuters Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of December 31, 2020. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.

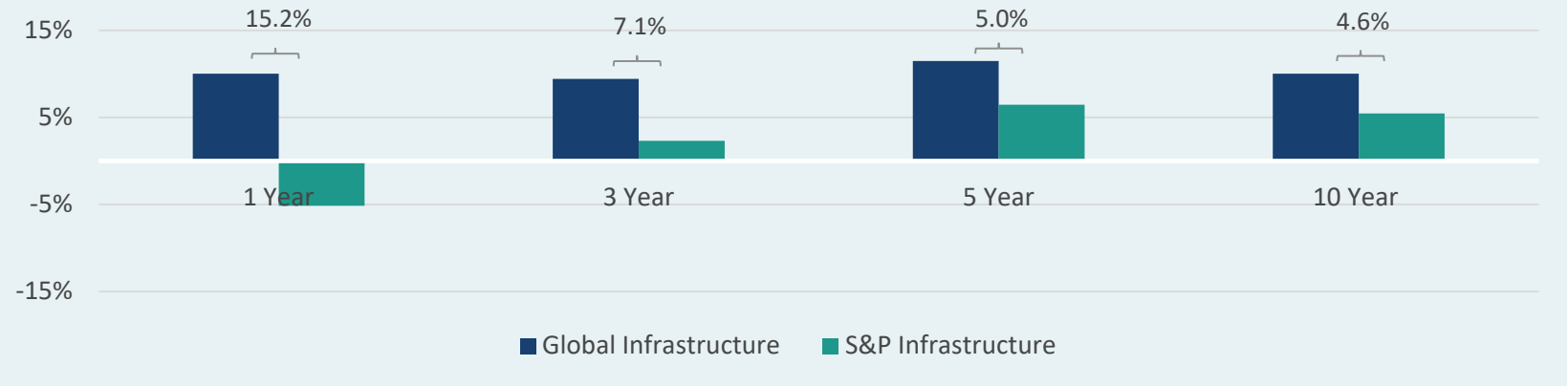
Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



N.R. funds outperformed the MSCI World Natural Resources benchmark across all time periods, aside on a 5-year basis.

GLOBAL INFRASTRUCTURE FUNDS

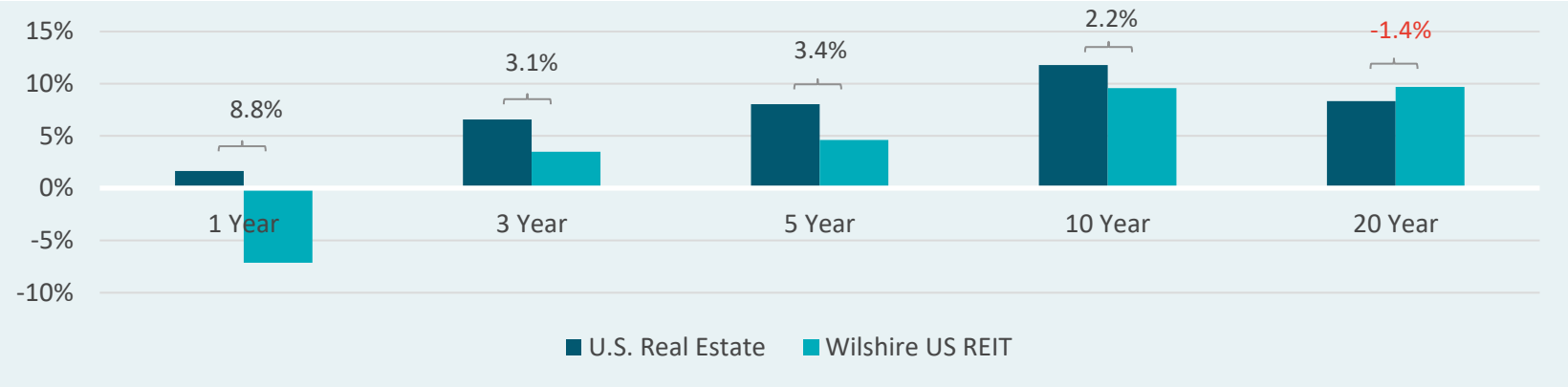


Infra. funds outperformed the S&P Infra. across all periods.

Sources: Thomson Reuters 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 December 31, 2020. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

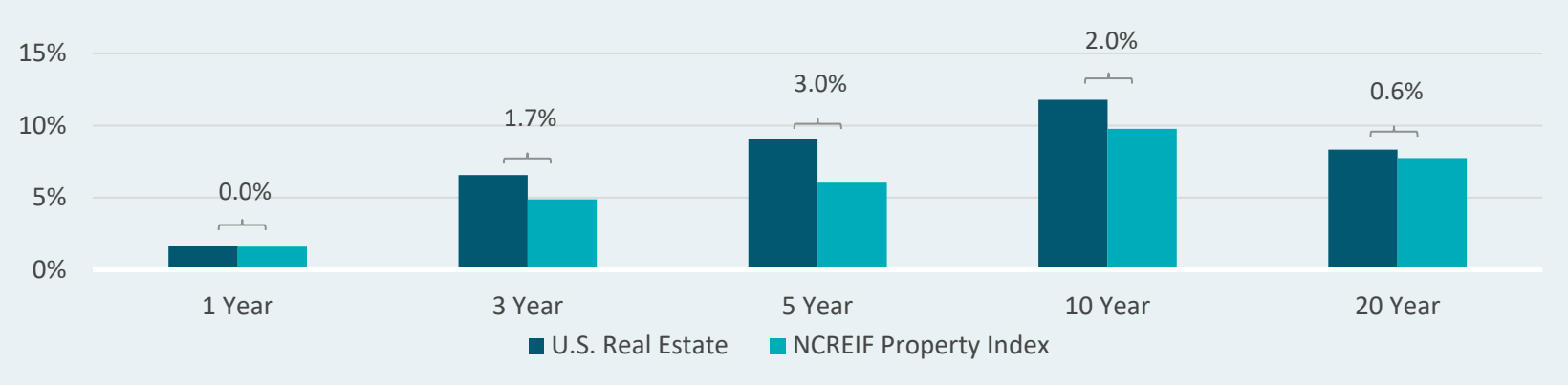
Private vs. liquid and core real estate performance

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



U.S. Private R.E. funds outperformed the Wilshire U.S. REIT Index over the past 10 years, but have lagged on a 20-year basis.

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



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

Sources: Thomson Reuters C|A PME: Global and U.S. Real Estate universes as of December 31, 2020. 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	2.3	8.5	15.3	40.8	18.7	17.6	14.8
S&P 500 Equal Weighted	0.1	6.9	19.2	50.7	16.4	15.7	13.8
DJ Industrial Average	0.0	5.1	13.8	36.3	15.0	16.7	13.5
Russell Top 200	2.9	8.9	14.5	40.8	20.2	18.9	15.6
Russell 1000	2.5	8.5	15.0	43.1	19.2	18.0	14.9
Russell 2000	1.9	4.3	17.5	62.0	13.5	16.5	12.3
Russell 3000	2.5	8.2	15.1	44.2	18.7	17.9	14.7
Russell Mid Cap	1.5	7.5	16.2	49.8	16.4	15.6	13.2
Style Index							
Russell 1000 Growth	6.3	11.9	13.0	42.5	25.1	23.7	17.9
Russell 1000 Value	(1.1)	5.2	17.0	43.7	12.4	11.9	11.6
Russell 2000 Growth	4.7	3.9	9.0	51.4	15.9	18.8	13.5
Russell 2000 Value	(0.6)	4.6	26.7	73.3	10.3	13.6	10.8

INTERNATIONAL EQUITY	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	1.3	7.4	12.3	39.3	14.6	14.6	9.9
MSCI ACWI ex US	(0.6)	5.5	9.2	35.7	9.4	11.1	5.4
MSCI EAFE	(1.1)	5.2	8.8	32.4	8.3	10.3	5.9
MSCI EM	0.2	5.0	7.4	40.9	11.3	13.0	4.3
MSCI EAFE Small Cap	(1.7)	4.3	9.0	41.0	8.4	12.0	8.4
Style Index							
MSCI EAFE Growth	0.0	7.4	6.8	31.0	12.5	12.5	7.8
MSCI EAFE Value	(2.3)	3.0	10.7	33.5	3.8	7.8	3.9
Regional Index							
MSCI UK	(2.4)	6.0	12.5	31.3	1.9	5.7	3.7
MSCI Japan	(0.3)	(0.3)	1.3	24.8	7.2	10.2	7.2
MSCI Europe	0.7	6.7	(1.1)	1.1	5.6	3.5	3.7
MSCI EM Asia	0.1	3.8	6.0	41.0	13.1	15.3	7.0
MSCI EM Latin American	2.7	15.0	8.9	44.9	5.1	5.9	(2.5)

FIXED INCOME	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	0.6	3.2	1.7	6.5	6.5	4.2	3.4
BBgBarc US Treasury Bills	(0.0)	0.0	0.0	0.1	1.4	1.2	0.7
BBgBarc US Agg Bond	0.7	1.8	(1.6)	(0.3)	5.3	3.0	3.4
BBgBarc US Universal	0.7	2.0	(1.1)	1.1	5.6	3.5	3.7
Duration							
BBgBarc US Treasury 1-3 Yr	(0.2)	(0.0)	(0.1)	0.1	2.7	1.6	1.2
BBgBarc US Treasury Long	3.6	6.5	(7.9)	(10.6)	8.0	3.1	6.7
BBgBarc US Treasury	0.6	1.7	(2.6)	(3.2)	4.7	2.2	2.8
Issuer							
BBgBarc US MBS	(0.0)	0.3	(0.8)	(0.4)	3.8	2.3	2.6
BBgBarc US Corp. High Yield	1.3	2.7	3.6	15.4	7.4	7.5	6.7
BBgBarc US Agency Interm	(0.1)	0.5	(0.6)	(0.1)	3.3	1.9	1.8
BBgBarc US Credit	1.5	3.3	(1.3)	3.0	7.4	4.6	4.9

OTHER	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	1.9	13.3	21.1	45.6	3.9	2.4	(4.4)
Wilshire US REIT	3.1	12.8	22.8	37.5	10.1	6.4	9.4
CS Leveraged Loans	0.4	1.4	3.5	11.7	4.4	5.0	4.5
Alerian MLP	5.2	21.2	47.8	64.0	(1.1)	(2.0)	1.3
Regional Index							
JPM EMBI Global Div	0.7	4.1	(0.7)	7.5	6.7	4.9	5.7
JPM GBI-EM Global Div	(1.2)	3.5	(3.4)	6.6	4.1	3.2	0.5
Hedge Funds							
HFRI Composite	0.4	4.0	10.0	27.4	8.7	7.9	5.1
HFRI FOF Composite	0.3	2.7	4.7	18.1	6.2	6.1	3.8
Currency (Spot)							
Euro	(3.0)	0.9	(3.1)	5.6	0.5	1.3	(2.0)
Pound Sterling	(2.8)	0.1	1.1	11.8	1.5	0.7	(1.5)
Yen	(1.4)	(0.4)	(7.0)	(2.8)	(0.1)	(1.6)	(3.1)

Source: Morningstar, HFRI, as of 6/30/21

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

Past performance is no guarantee of future results. *This report or presentation is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and should not be relied upon by retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. The opinions and information expressed are current as of the date provided or cited only and are subject to change without notice. This information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability. Verus Advisory Inc. expressly disclaim any and all implied warranties or originality, accuracy, completeness, non-infringement, merchantability and fitness for a particular purpose. This report or presentation cannot be used by the recipient for advertising or sales promotion purposes.*

The material may include estimates, outlooks, projections and other "forward-looking statements." Such statements can be identified by the use of terminology such as "believes," "expects," "may," "will," "should," "anticipates," or the negative of any of the foregoing or comparable terminology, or by discussion of strategy, or assumptions such as economic conditions underlying other statements. No assurance can be given that future results described or implied by any forward looking information will be achieved. Actual events may differ significantly from those presented. Investing entails risks, including possible loss of principal. Risk controls and models do not promise any level of performance or guarantee against loss of principal.

"VERUS ADVISORY™ and any associated designs are the respective trademarks of Verus Advisory, Inc. Additional information is available upon request.

Verus *is a registered trademark of Verus Advisory, Inc.*

Tulare County Employees' Retirement Association

Investment Performance Review

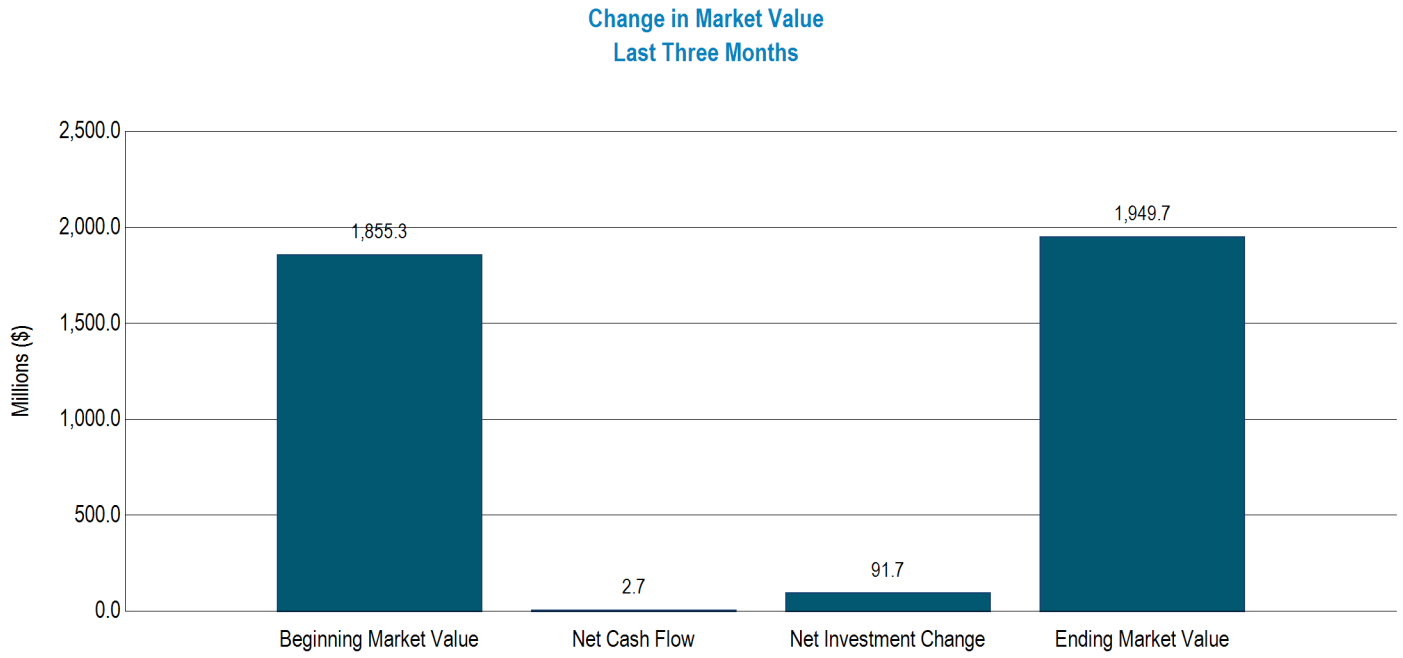
Period Ending: June 30, 2021

Verus

VERUSINVESTMENTS.COM

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

	Fiscal Year-To-Date
Beginning Market Value	$1,591,855,813
Net Cash Flow	-$18,170,474
Net Investment Change	$375,970,580
Ending Market Value	$1,949,655,918



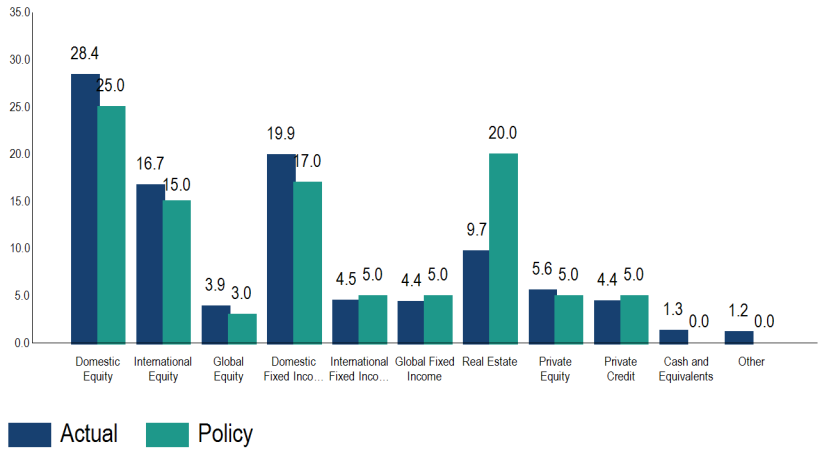
Contributions and withdrawals may include intra-account transfers between managers/funds.

Total Fund
Executive Summary (Net of Fees)

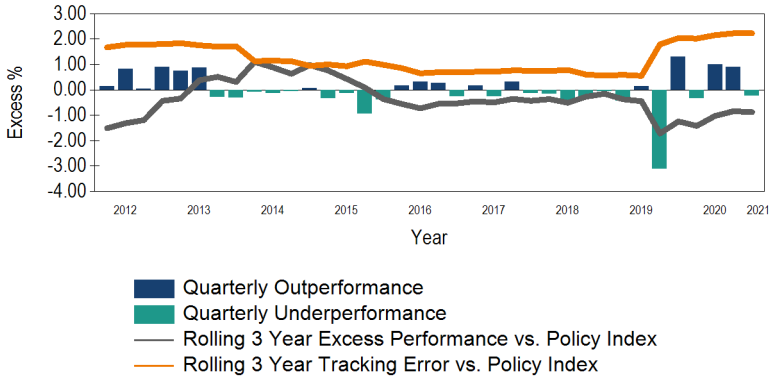
Period Ending: June 30, 2021

	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Fund	**4.9**	**8.6**	**23.6**	**23.6**	**9.6**	**9.6**	**7.3**	**5.9**	**6.4**
Policy Index	*5.1*	*7.9*	*22.1*	*22.1*	*10.5*	*10.0*	*7.6*	*6.8*	*7.1*
InvMetrics Public DB Net Rank	*70*	*56*	*83*	*83*	*91*	*89*	*92*	*94*	*71*
Total Domestic Equity	**7.8**	**16.3**	**44.5**	**44.5**	**17.4**	**17.7**	**14.4**	**10.5**	**9.2**
Russell 3000	*8.2*	*15.1*	*44.2*	*44.2*	*18.7*	*17.9*	*14.7*	*10.8*	*8.9*
InvMetrics Public DB US Eq Net Rank	*29*	*23*	*44*	*44*	*42*	*21*	*14*	*27*	*29*
Total International Equity	**5.7**	**10.6**	**38.3**	**38.3**	**11.2**	**12.0**	**5.7**	**3.9**	**6.0**
MSCI ACWI ex USA Gross	*5.6*	*9.4*	*36.3*	*36.3*	*9.9*	*11.6*	*5.9*	*5.3*	*6.9*
InvMetrics Public DB ex-US Eq Net Rank	*43*	*14*	*34*	*34*	*17*	*26*	*75*	*92*	*62*
Total Global Equity	**8.6**	**16.4**	**50.4**	**50.4**	**13.9**	**13.9**	**--**	**--**	**--**
MSCI ACWI Gross	*7.5*	*12.6*	*39.9*	*39.9*	*15.1*	*15.2*	*--*	*--*	*--*
InvMetrics Public DB Glbl Eq Net Rank	*4*	*4*	*4*	*4*	*46*	*41*	*--*	*--*	*--*
Total Fixed Income	**2.2**	**-1.3**	**2.8**	**2.8**	**4.3**	**3.1**	**3.5**	**4.6**	**4.7**
BBgBarc US Aggregate TR	*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*3.4*	*4.4*	*4.6*
InvMetrics Public DB US Fix Inc Net Rank	*17*	*80*	*32*	*32*	*98*	*48*	*51*	*25*	*30*

Actual vs Target Allocation (%)



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



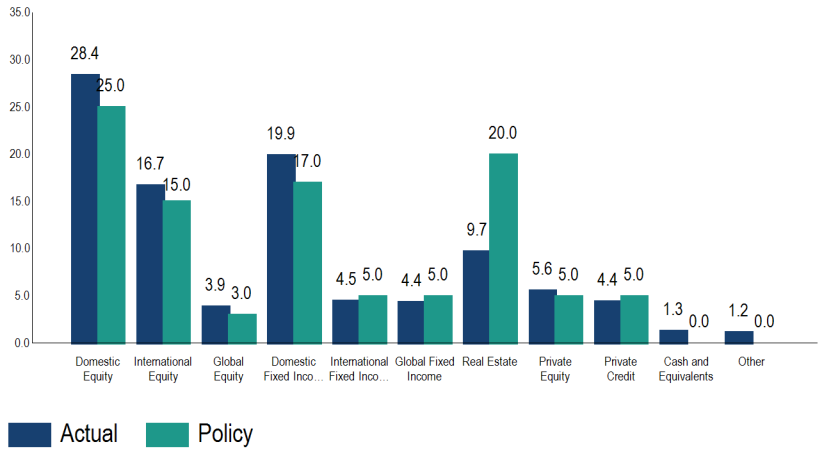
New Policy Index as of 10/1/2020: 25% Russell 3000, 15% MSCI ACWI ex US, 3% MSCI ACWI, 17% BBgBarc US Aggregate, 5% JPM GBI Global, 5% (50% JPM EMBI Global Div/50% JPM GBI EM Global Div), 20% NCREIF-ODCE, 5% Private Equity Returns, 5% Private Credit Returns. All return periods greater than 1-year are rolling annualized returns.

Total Fund
Executive Summary (Net of Fees)

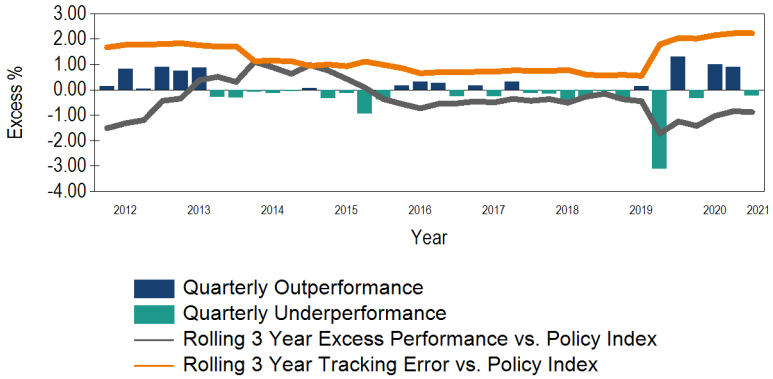
Period Ending: June 30, 2021

	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Domestic Fixed Income	**2.2**	**-0.8**	**2.3**	**2.3**	**5.7**	**3.8**	**3.9**	**--**	**--**
BBgBarc US Aggregate TR	*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*3.4*	--	--
Total Global Fixed Income	**0.4**	**-2.5**	**-2.2**	**-2.2**	**-1.5**	**0.4**	**--**	**--**	**--**
JPM GBI Global TR USD	*1.1*	*-4.6*	*0.0*	*0.0*	*3.6*	*1.6*	--	--	--
Total Emerging Markets Fixed Income	**4.2**	**-2.1**	**10.3**	**10.3**	**--**	**--**	**--**	**--**	**--**
50% JPM EMBI Global Div/50% JPM GBI EM Global Div	*3.8*	*-2.0*	*7.1*	*7.1*	--	--	--	--	--
Total Real Estate	**2.0**	**2.8**	**2.2**	**2.2**	**4.7**	**5.3**	**8.2**	**4.9**	**7.1**
NCREIF-ODCE	*3.9*	*6.1*	*8.0*	*8.0*	*5.5*	*6.6*	*9.6*	*6.3*	*7.6*
NCREIF Property Index	*3.6*	*5.4*	*7.4*	*7.4*	*5.5*	*6.1*	*8.8*	*7.0*	*8.2*
Total Private Equity	**8.7**	**26.6**	**42.4**	**42.4**	**20.9**	**17.0**	**15.2**	**--**	**--**
Private Equity Benchmark	*8.7*	*26.6*	*42.4*	*42.4*	*20.9*	*17.0*	*14.2*	--	--
Total Private Credit	**4.0**	**9.3**	**28.3**	**28.3**	**10.9**	**--**	**--**	**--**	**--**
Private Credit Benchmark	*4.0*	*9.3*	*28.3*	*28.3*	*10.9*	--	--	--	--
Total Opportunistic	**-1.7**	**11.7**	**15.0**	**15.0**	**0.4**	**6.4**	**11.8**	**--**	**--**

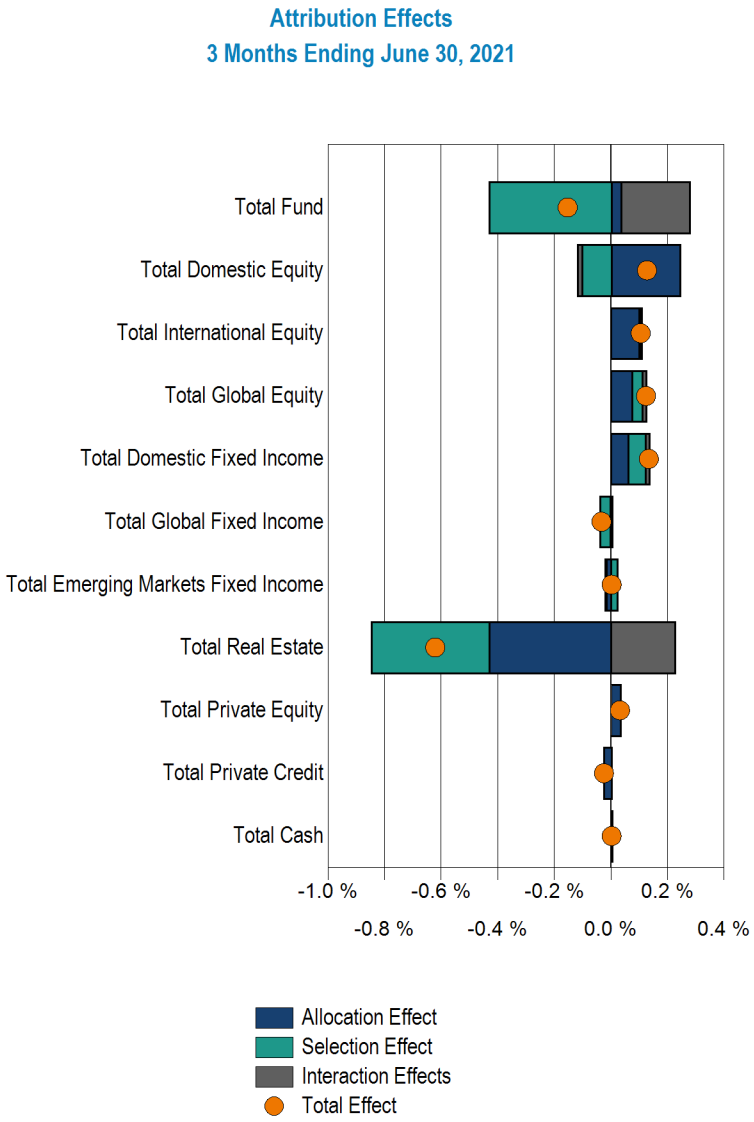
Actual vs Target Allocation (%)



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



New Policy Index as of 10/1/2020: 25% Russell 3000, 15% MSCI ACWI ex US, 3% MSCI ACWI, 17% BBgBarc US Aggregate, 5% JPM GBI Global, 5% (50% JPM EMBI Global Div/50% JPM GBI EM Global Div), 20% NCREIF-ODCE, 5% Private Equity Returns, 5% Private Credit Returns. All return periods greater than 1-year are rolling annualized returns.



Performance Attribution

	Last 3 Mo.
Wtd. Actual Return	5.0%
Wtd. Index Return *	5.1%
Excess Return	**-0.2%**
Selection Effect	-0.4%
Allocation Effect	0.0%
Interaction Effect	0.2%

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

Attribution Summary
3 Months Ending June 30, 2021

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Domestic Equity	7.8%	8.2%	-0.4%	-0.1%	0.2%	0.0%	0.1%
Total International Equity	5.7%	5.6%	0.0%	0.0%	0.1%	0.0%	0.1%
Total Global Equity	8.6%	7.5%	1.1%	0.0%	0.1%	0.0%	0.1%
Total Domestic Fixed Income	2.2%	1.8%	0.3%	0.1%	0.1%	0.0%	0.1%
Total Global Fixed Income	0.4%	1.1%	-0.6%	0.0%	0.0%	0.0%	0.0%
Total Emerging Markets Fixed Income	4.2%	3.8%	0.4%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	2.0%	3.9%	-2.0%	-0.4%	-0.4%	0.2%	-0.6%
Total Private Equity	8.7%	8.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Private Credit	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Cash	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Total	**5.0%**	**5.1%**	**-0.2%**	**-0.4%**	**0.0%**	**0.2%**	**-0.2%**

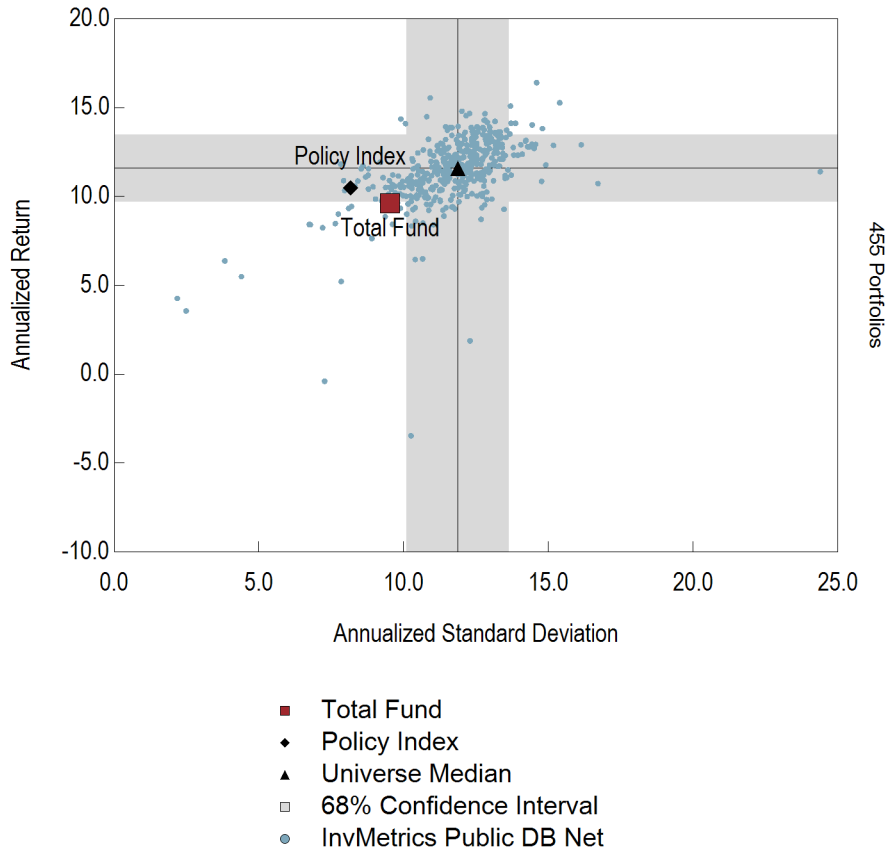
Weighted returns shown in attribution analysis may differ from actual returns. Wtd. Actual Return is the sum of the products of each group's return and its respective weight at the beginning of the period.

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

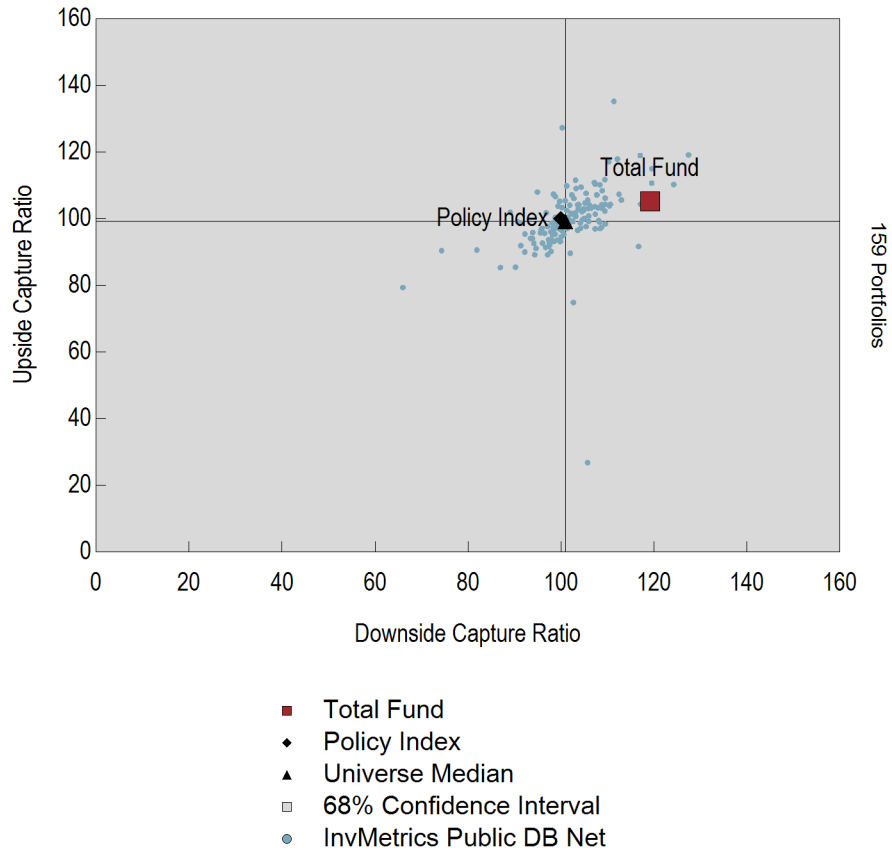
Period Ending: June 30, 2021

	Anlzd Ret	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	9.62%	9.53%	-2.48%	1.15	1.96%	0.97	0.87	-0.45	105.13%	119.14%

Risk vs. Return

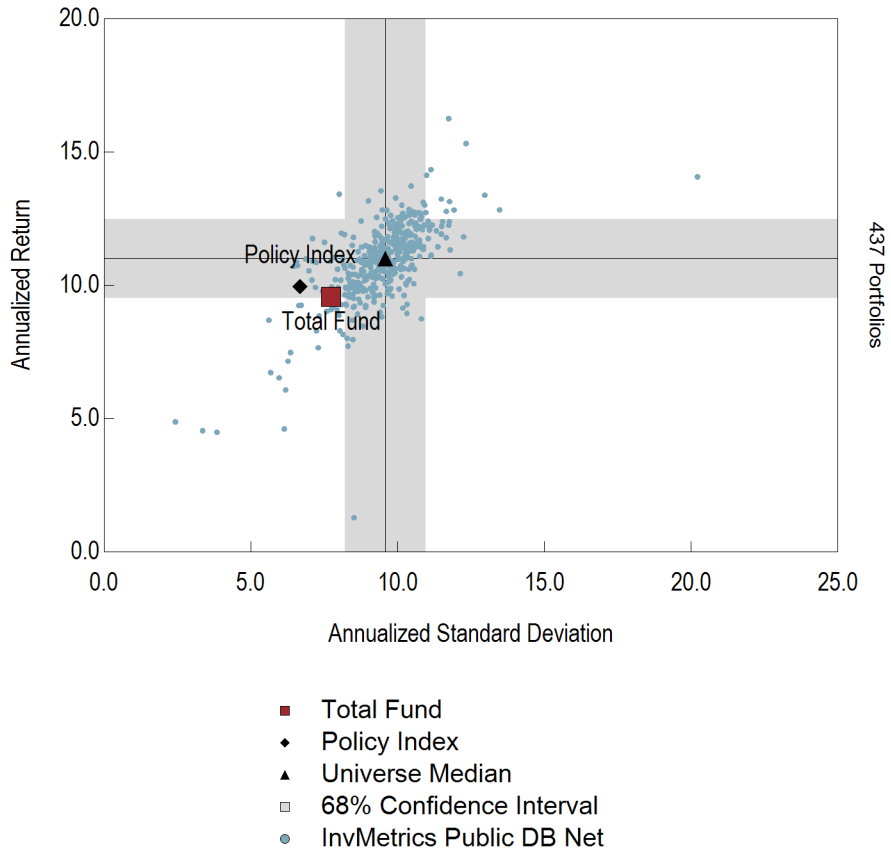


Up Markets vs. Down Markets

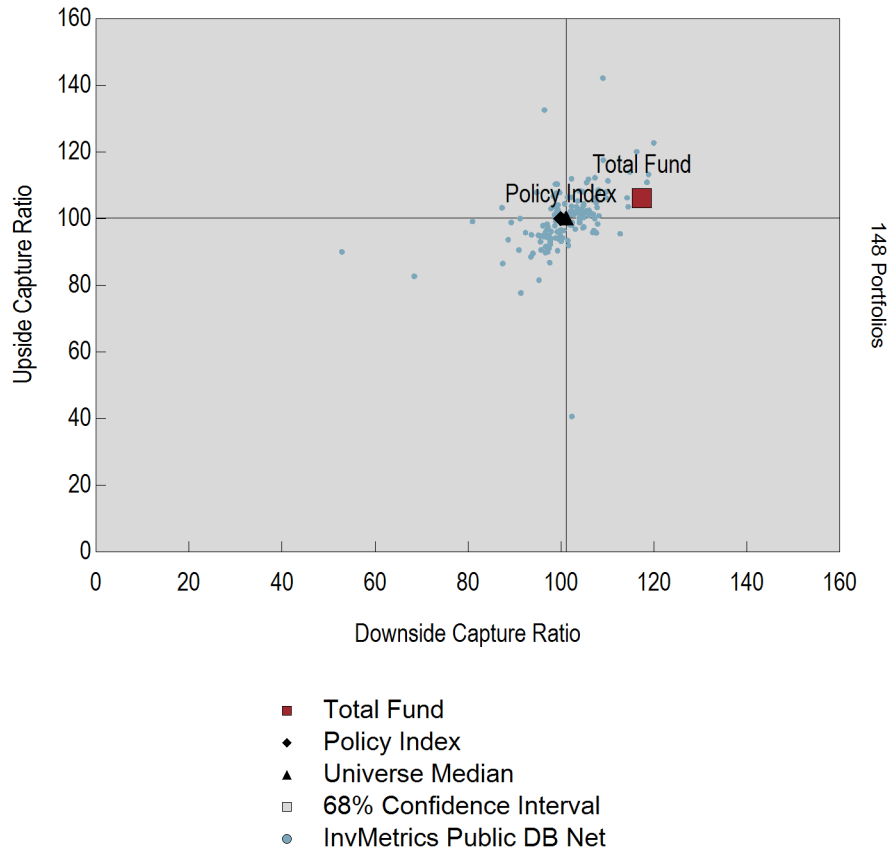


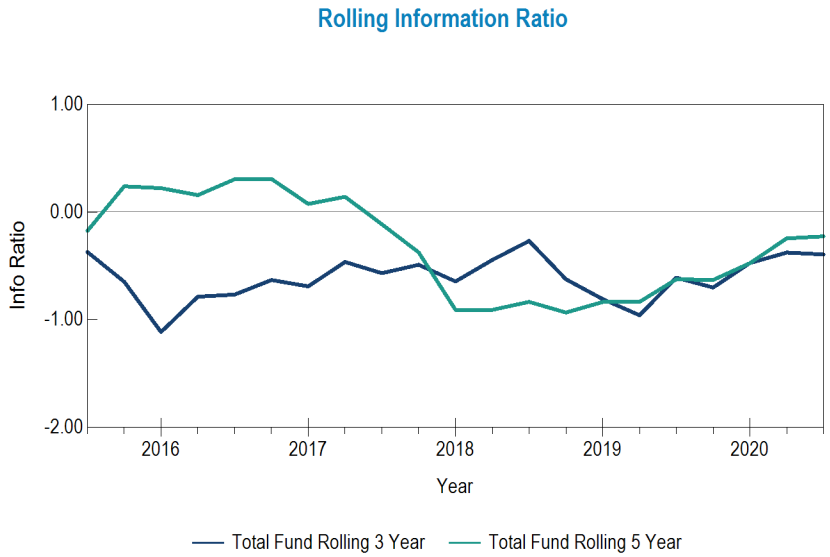
	Anlzd Ret	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	9.56%	7.73%	-1.81%	1.14	1.59%	0.97	1.09	-0.25	106.14%	117.36%

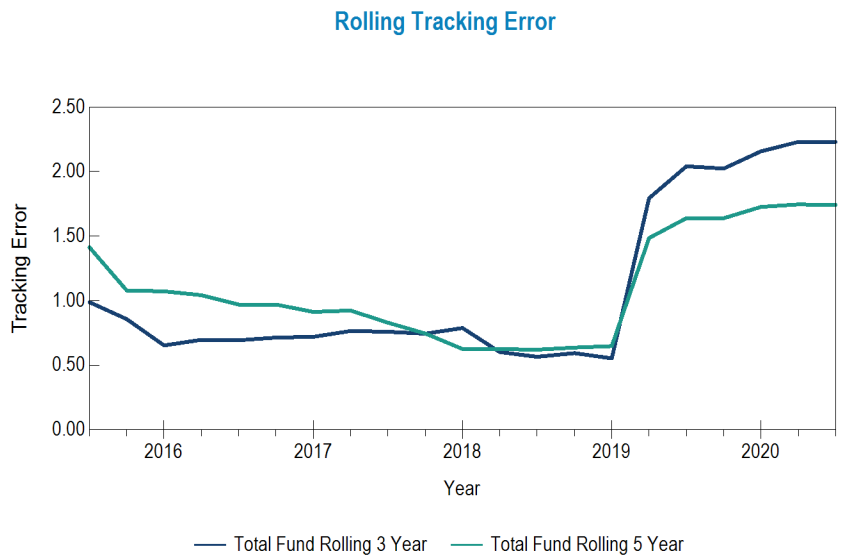
Risk vs. Return

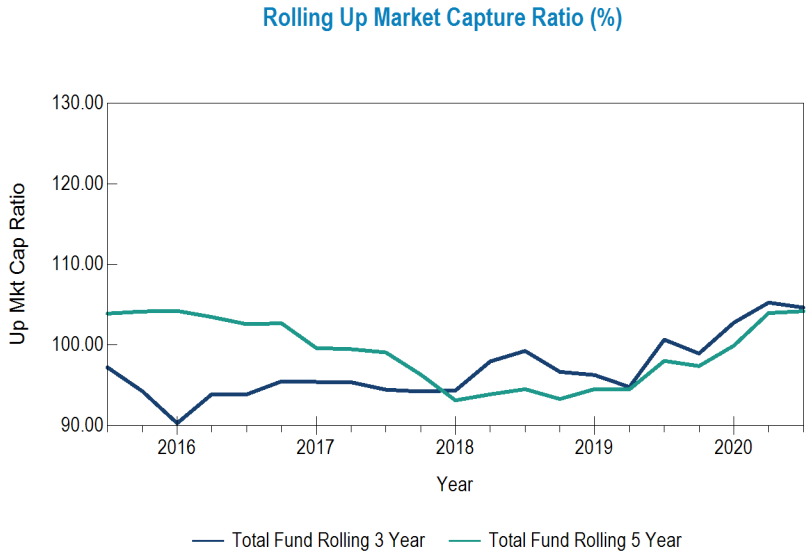


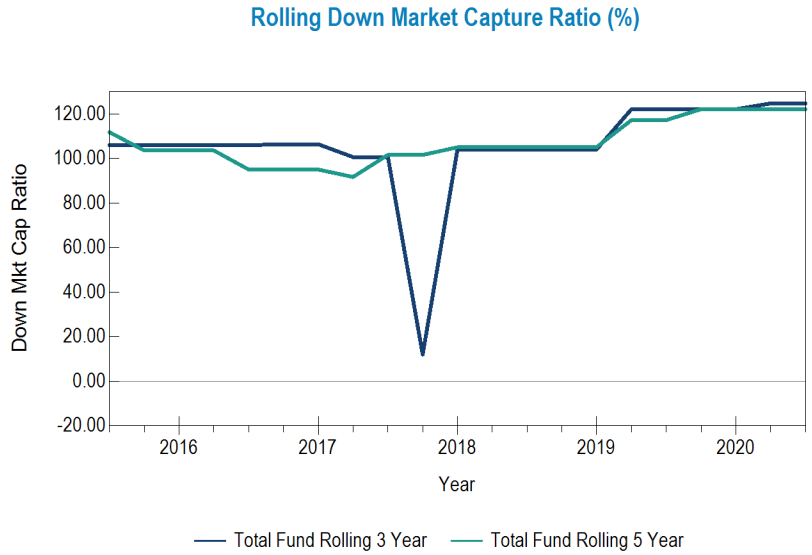
Up Markets vs. Down Markets




Rolling Information Ratio
1.00
0.00
-1.00
-2.00
Info Ratio
2016
2017
2018
2019
2020
Year
Total Fund Rolling 3 Year
Total Fund Rolling 5 Year


Rolling Tracking Error
2.50
2.00
1.50
1.00
0.50
0.00
Tracking Error
2016
2017
2018
2019
2020
Year
Total Fund Rolling 3 Year
Total Fund Rolling 5 Year


Rolling Up Market Capture Ratio (%)
130.00
120.00
110.00
100.00
90.00
Up Mkt Cap Ratio
2016
2017
2018
2019
2020
Year
Total Fund Rolling 3 Year
Total Fund Rolling 5 Year


Rolling Down Market Capture Ratio (%)
120.00
100.00
80.00
60.00
40.00
20.00
0.00
-20.00
Down Mkt Cap Ratio
2016
2017
2018
2019
2020
Year
Total Fund Rolling 3 Year
Total Fund Rolling 5 Year

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Fund	**1,949,655,918**	**100.0**	**4.9**	**8.6**	**23.6**	**23.6**	**9.6**	**9.6**	**7.3**	**8.9**	**15.4**	**-2.9**	**13.9**	**7.1**
Policy Index			*5.1*	*7.9*	*22.1*	*22.1*	*10.5*	*10.0*	*7.6*	*10.8*	*16.1*	*-2.4*	*14.0*	*8.0*
InvMetrics Public DB Net Rank			*70*	*56*	*83*	*83*	*91*	*89*	*92*	*92*	*94*	*14*	*69*	*59*
Total Domestic Equity	**553,997,131**	**28.4**	**7.8**	**16.3**	**44.5**	**44.5**	**17.4**	**17.7**	**14.4**	**18.2**	**29.8**	**-5.4**	**21.9**	**11.1**
Russell 3000			*8.2*	*15.1*	*44.2*	*44.2*	*18.7*	*17.9*	*14.7*	*20.9*	*31.0*	*-5.2*	*21.1*	*12.7*
InvMetrics Public DB US Eq Net Rank			*29*	*23*	*44*	*44*	*42*	*21*	*14*	*44*	*59*	*34*	*18*	*80*
SSGA S&P 500 Flagship Fund	129,026,944	6.6	8.5	15.2	40.8	40.8	18.6	17.6	--	18.3	31.5	-4.4	21.8	12.0
S&P 500			*8.5*	*15.3*	*40.8*	*40.8*	*18.7*	*17.6*	--	*18.4*	*31.5*	*-4.4*	*21.8*	*12.0*
eV US Large Cap Core Equity Net Rank			*27*	*44*	*40*	*40*	*27*	*20*	--	*29*	*29*	*32*	*46*	*20*
QMA Large Cap Core	96,655,067	5.0	7.8	17.6	39.5	39.5	15.6	16.1	14.3	12.0	28.6	-6.8	22.1	12.1
S&P 500			*8.5*	*15.3*	*40.8*	*40.8*	*18.7*	*17.6*	*14.8*	*18.4*	*31.5*	*-4.4*	*21.8*	*12.0*
eV US Large Cap Core Equity Net Rank			*50*	*18*	*51*	*51*	*67*	*51*	*26*	*66*	*56*	*62*	*43*	*19*
Ivy Large Cap Growth	101,169,275	5.2	13.2	14.9	38.0	38.0	24.1	23.6	17.4	30.9	36.6	2.7	29.5	1.6
Russell 1000 Growth			*11.9*	*13.0*	*42.5*	*42.5*	*25.1*	*23.7*	*17.9*	*38.5*	*36.4*	*-1.5*	*30.2*	*7.1*
eV US Large Cap Growth Equity Net Rank			*13*	*20*	*68*	*68*	*42*	*38*	*28*	*64*	*25*	*16*	*46*	*70*
Boston Partners Large Cap Value	96,920,476	5.0	5.4	21.3	49.5	49.5	12.5	13.6	12.2	2.4	23.8	-9.0	19.6	14.2
Russell 1000 Value			*5.2*	*17.0*	*43.7*	*43.7*	*12.4*	*11.9*	*11.6*	*2.8*	*26.5*	*-8.3*	*13.7*	*17.3*
eV US Large Cap Value Equity Net Rank			*56*	*19*	*26*	*26*	*51*	*37*	*33*	*57*	*75*	*51*	*26*	*47*
SSGA US Extended Market Index	46,421,704	2.4	--	--	--	--	--	--	--	--	--	--	--	--
Dow Jones U.S. Completion Total Stock Market			--	--	--	--	--	--	--	--	--	--	--	--
William Blair SMID Cap Growth	40,883,973	2.1	3.9	8.3	42.4	42.4	18.5	20.4	15.5	32.6	31.1	-1.7	29.3	7.2
Russell 2500 Growth			*6.0*	*8.7*	*49.6*	*49.6*	*20.1*	*20.7*	*14.8*	*40.5*	*32.7*	*-7.5*	*24.5*	*9.7*
eV US Mid Cap Growth Equity Net Rank			*99*	*71*	*51*	*51*	*90*	*55*	*36*	*64*	*78*	*30*	*14*	*28*
Lee Munder Small Value	42,919,692	2.2	4.9	22.2	61.1	61.1	9.3	11.4	9.9	3.0	26.3	-15.5	7.7	27.3
Russell 2000 Value			*4.6*	*26.7*	*73.3*	*73.3*	*10.3*	*13.6*	*10.8*	*4.6*	*22.4*	*-12.9*	*7.8*	*31.7*
eV US Small Cap Value Equity Net Rank			*36*	*62*	*64*	*64*	*59*	*70*	*72*	*56*	*25*	*56*	*71*	*38*
Total International Equity	**326,123,406**	**16.7**	**5.7**	**10.6**	**38.3**	**38.3**	**11.2**	**12.0**	**5.7**	**13.4**	**22.7**	**-14.5**	**26.5**	**5.9**
MSCI ACWI ex USA Gross			*5.6*	*9.4*	*36.3*	*36.3*	*9.9*	*11.6*	*5.9*	*11.1*	*22.1*	*-13.8*	*27.8*	*5.0*
InvMetrics Public DB ex-US Eq Net Rank			*43*	*14*	*34*	*34*	*17*	*26*	*75*	*41*	*54*	*42*	*77*	*19*

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

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2021

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
SSGA MSCI ACWI Ex US Index Fund	120,686,716	6.2	5.6	9.3	35.9	35.9	9.6	11.3	5.7	10.9	21.8	-14.0	27.5	4.7
MSCI ACWI ex USA			*5.5*	*9.2*	*35.7*	*35.7*	*9.4*	*11.1*	*5.4*	*10.7*	*21.5*	*-14.2*	*27.2*	*4.5*
eV All EAFE Equity Net Rank			*46*	*58*	*49*	*49*	*36*	*43*	*81*	*36*	*54*	*38*	*45*	*15*
PIMCO RAE Fundamental Global Ex US Fund	105,573,919	5.4	4.4	14.7	45.3	45.3	6.8	9.9	--	1.7	16.1	-15.1	26.0	13.0
MSCI ACWI ex USA Value			*4.3*	*11.7*	*37.6*	*37.6*	*5.2*	*8.5*	--	*-0.8*	*15.7*	*-14.0*	*22.7*	*8.9*
eV EAFE Value Equity Net Rank			*49*	*16*	*27*	*27*	*33*	*32*	--	*61*	*86*	*38*	*38*	*1*
SGA Global Growth	99,862,771	5.1	7.3	8.3	34.3	34.3	16.5	--	--	26.0	30.5	--	--	--
MSCI ACWI ex USA Growth			*6.6*	*6.5*	*33.7*	*33.7*	*13.2*	--	--	*22.2*	*27.3*	--	--	--
eV ACWI ex-US Growth Equity Net Rank			*54*	*32*	*71*	*71*	*26*	--	--	*50*	*42*	--	--	--
Total Global Equity	**75,520,089**	**3.9**	**8.6**	**16.4**	**50.4**	**50.4**	**13.9**	**13.9**	**--**	**14.3**	**24.2**	**-15.9**	**32.6**	**15.1**
MSCI ACWI Gross			*7.5*	*12.6*	*39.9*	*39.9*	*15.1*	*15.2*	--	*16.8*	*27.3*	*-8.9*	*24.6*	*8.5*
InvMetrics Public DB Glbl Eq Net Rank			*4*	*4*	*4*	*4*	*46*	*41*	--	*48*	*59*	*95*	*1*	*3*
Skellig Water Fund (aka KBI)	75,520,089	3.9	8.6	16.4	50.4	50.4	13.9	13.9	--	14.3	24.2	-15.9	32.6	15.1
MSCI ACWI			*7.4*	*12.3*	*39.3*	*39.3*	*14.6*	*14.6*	--	*16.3*	*26.6*	*-9.4*	*24.0*	*7.9*
eV Global All Cap Equity Net Rank			*28*	*18*	*20*	*20*	*62*	*59*	--	*59*	*65*	*91*	*12*	*6*
Total Fixed Income	**560,429,591**	**28.7**	**2.2**	**-1.3**	**2.8**	**2.8**	**4.3**	**3.1**	**3.5**	**4.7**	**8.1**	**0.1**	**3.9**	**5.1**
BBgBarc US Aggregate TR			*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*3.4*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
InvMetrics Public DB US Fix Inc Net Rank			*17*	*80*	*32*	*32*	*98*	*48*	*51*	*99*	*49*	*60*	*46*	*36*
Total Domestic Fixed Income	**388,195,797**	**19.9**	**2.2**	**-0.8**	**2.3**	**2.3**	**5.7**	**3.8**	**3.9**	**7.9**	**9.0**	**-0.2**	**4.1**	**4.8**
BBgBarc US Aggregate TR			*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*3.4*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
BlackRock Fixed Income	147,625,745	7.6	2.0	-1.4	0.5	0.5	5.8	3.3	3.7	8.4	8.7	0.1	3.6	2.9
BBgBarc US Aggregate TR			*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*3.4*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
eV All US Fixed Inc Net Rank			*39*	*87*	*78*	*78*	*39*	*53*	*51*	*26*	*44*	*53*	*56*	*54*
Doubleline Core Plus	117,437,464	6.0	1.9	-0.3	2.9	2.9	4.6	3.1	--	5.2	8.3	-0.3	3.9	4.6
BBgBarc US Aggregate TR			*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	--	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
eV US Core Plus Fixed Inc Net Rank			*82*	*31*	*56*	*56*	*96*	*99*	--	*98*	*90*	*34*	*87*	*53*
MacKay Shields Core Plus	123,132,588	6.3	2.6	-0.4	3.7	3.7	6.5	4.3	--	9.9	9.6	-1.0	4.5	4.7
BBgBarc US Aggregate TR			*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	--	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
eV US Core Plus Fixed Inc Net Rank			*13*	*42*	*37*	*37*	*35*	*43*	--	*22*	*56*	*74*	*62*	*47*
Total Global Fixed Income	**84,878,566**	**4.4**	**0.4**	**-2.5**	**-2.2**	**-2.2**	**-1.5**	**0.4**	**--**	**-5.7**	**0.9**	**1.9**	**2.4**	**6.4**
JPM GBI Global TR USD			*1.1*	*-4.6*	*0.0*	*0.0*	*3.6*	*1.6*	--	*9.7*	*6.0*	*-0.7*	*6.8*	*1.6*

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

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Franklin Templeton Global Bond Plus	84,878,566	4.4	0.4	-2.5	-2.2	-2.2	-1.5	0.4	--	-5.7	0.9	1.9	2.4	6.1
JPM GBI Global TR USD			*1.1*	*-4.6*	*0.0*	*0.0*	*3.6*	*1.6*	--	*9.7*	*6.0*	*-0.7*	*6.8*	*1.6*
eV Global Government Fixed Inc Net Rank			*91*	*23*	*90*	*90*	*99*	*94*	--	*99*	*99*	*11*	*93*	*6*
Total Emerging Markets Fixed Income	**87,355,228**	**4.5**	**4.2**	**-2.1**	**10.3**	**10.3**	**--**	**--**	**--**	**4.6**	**--**	**--**	**--**	**--**
50% JPM EMBI Global Div/50% JPM GBI EM Global Div			*3.8*	*-2.0*	*7.1*	*7.1*	--	--	--	*4.0*	--	--	--	--
PGIM Emerging Markets Debt	87,355,228	4.5	4.2	-2.1	10.3	10.3	--	--	--	4.6	--	--	--	--
50% JPM EMBI Global Div/50% JPM GBI EM Global Div			*3.8*	*-2.0*	*7.1*	*7.1*	--	--	--	*4.0*	--	--	--	--
eV Emg Mkts Fixed Inc - Blended Currency Net Rank			*29*	*90*	*30*	*30*	--	--	--	*67*	--	--	--	--
Total Real Estate	**190,048,362**	**9.7**	**2.0**	**2.8**	**2.2**	**2.2**	**4.7**	**5.3**	**8.2**	**1.8**	**5.2**	**8.8**	**4.3**	**8.0**
NCREIF-ODCE			*3.9*	*6.1*	*8.0*	*8.0*	*5.5*	*6.6*	*9.6*	*1.2*	*5.3*	*8.3*	*7.6*	*8.8*
NCREIF Property Index			*3.6*	*5.4*	*7.4*	*7.4*	*5.5*	*6.1*	*8.8*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*
RREEF America II	167,173,864	8.6	1.9	2.7	2.1	2.1	4.7	5.4	9.0	1.8	5.3	8.6	4.4	8.2
NCREIF-ODCE			*3.9*	*6.1*	*8.0*	*8.0*	*5.5*	*6.6*	*9.6*	*1.2*	*5.3*	*8.3*	*7.6*	*8.8*
NCREIF Property Index			*3.6*	*5.4*	*7.4*	*7.4*	*5.5*	*6.1*	*8.8*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*
American Realty	22,874,499	1.2	2.3	3.1	3.4	3.4	--	--	--	1.1	--	--	--	--
NCREIF-ODCE			*3.9*	*6.1*	*8.0*	*8.0*	--	--	--	*1.2*	--	--	--	--

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

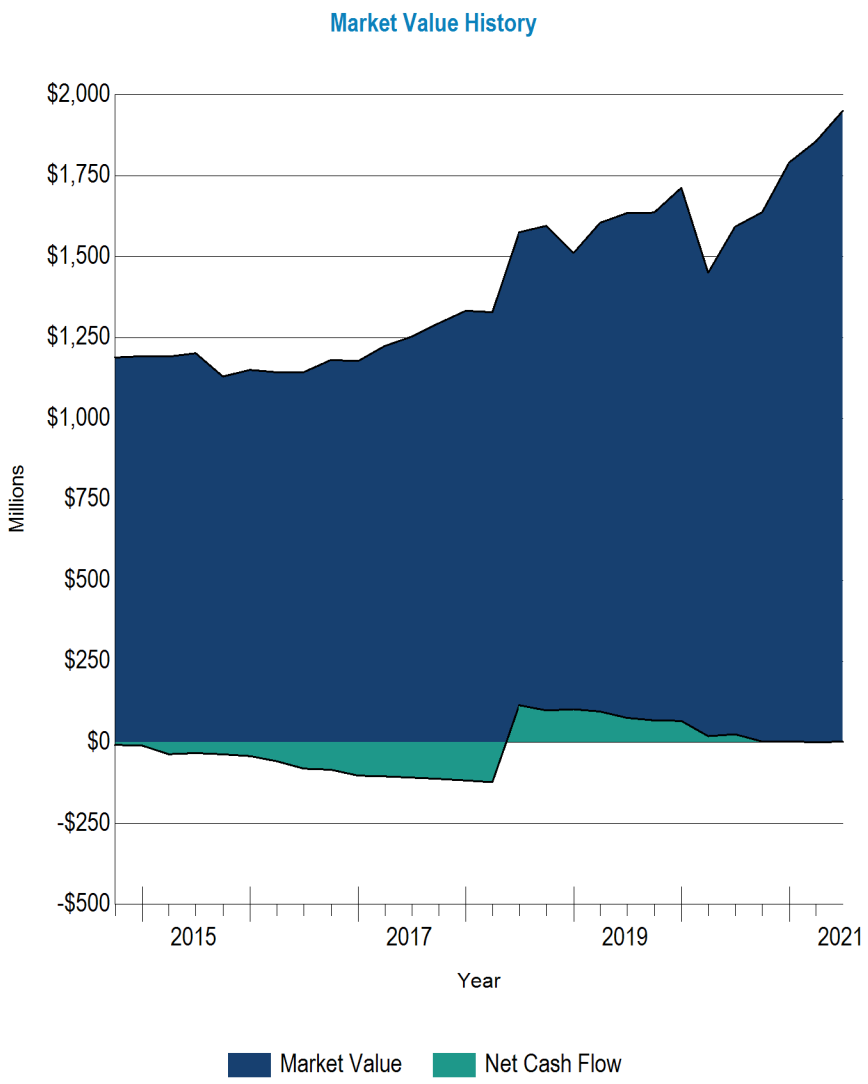
Performance Analysis - 5 Years (Net of Fees)

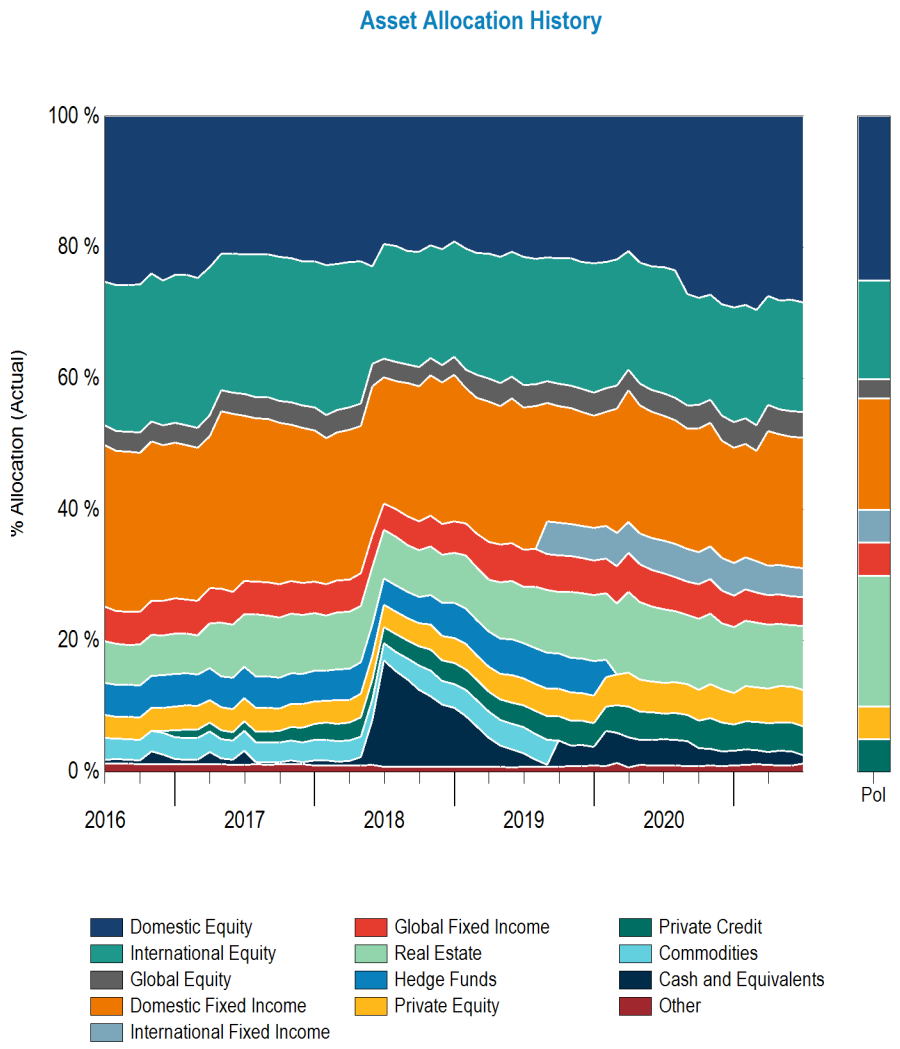
Period Ending: June 30, 2021

	Anlzd Ret	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
SSGA S&P 500 Flagship Fund	17.63%	14.99%	-0.02%	1.00	0.02%	1.00	1.10	-0.46	99.99%	100.04%
QMA Large Cap Core	16.07%	15.91%	-2.49%	1.05	2.25%	0.98	0.94	-0.70	100.63%	108.05%
Ivy Large Cap Growth	23.56%	15.00%	1.93%	0.91	3.16%	0.96	1.49	-0.03	91.76%	92.14%
Boston Partners Large Cap Value	13.56%	17.48%	0.90%	1.07	2.96%	0.98	0.71	0.57	113.70%	101.84%
William Blair SMID Cap Growth	20.39%	17.62%	2.37%	0.87	4.79%	0.95	1.09	-0.06	82.48%	87.47%
Lee Munder Small Value	11.36%	21.27%	-1.35%	0.93	4.53%	0.96	0.48	-0.50	81.37%	96.50%
SSGA MSCI ACWI Ex US Index Fund	11.30%	14.55%	0.25%	1.00	0.12%	1.00	0.70	1.88	100.86%	99.62%
PIMCO RAE Fundamental Global Ex US Fund	9.86%	17.20%	1.05%	1.03	2.51%	0.98	0.51	0.52	107.97%	99.63%
Skellig Water Fund (aka KBI)	13.94%	16.55%	-1.71%	1.07	5.79%	0.88	0.77	-0.12	101.92%	104.90%
BlackRock Fixed Income	3.31%	3.37%	0.25%	1.01	0.73%	0.95	0.64	0.38	106.53%	101.81%
Doubleline Core Plus	3.07%	3.89%	0.41%	0.88	2.65%	0.54	0.51	0.02	101.46%	100.89%
MacKay Shields Core Plus	4.25%	3.82%	1.08%	1.05	1.74%	0.79	0.82	0.70	124.49%	100.91%
Franklin Templeton Global Bond Plus	0.36%	5.75%	0.82%	-0.29	8.49%	0.06	-0.14	-0.14	-16.17%	-38.55%
RREEF America II	5.39%	2.69%	6.04%	-0.10	4.52%	0.02	1.58	-0.26	10.73%	--

Vintage Year	Manager Name/Fund Name	Estimated Market Value as of 6/30/2021 [3]	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI)[1]	Tot. Value/ Paid-In (TVPI)[2]	Net IRR Since Inception[5]	IRR Date
			IRR Analysis as of IRR date									
Private Equity												
2004	Pantheon USA Fund VI	$443,622	$15,000,000	$14,175,000	95%	$825,000	$21,515,924	$443,622	*151.8%*	*154.9%*	*6.8%*	03/31/21
2005	BlackRock Private Capital II[6]	$2,179,369	$15,000,000	$15,000,000	100%	$0	$22,281,661	$2,179,369	*148.5%*	*163.1%*	*6.8%*	03/31/21
2011	Stepstone Secondary Opportunities Fund II	$12,760,486	$27,500,000	$27,500,000	100%	$0	$25,257,895	$13,292,808	*91.8%*	*138.2%*	*12.0%*	03/31/21
2016	Ocean Avenue Fund III	$22,010,463	$20,000,000	$17,400,000	87%	$2,600,000	$8,400,000	$22,010,463	*48.3%*	*174.8%*	*24.6%*	03/31/21
2016	Pathway Private Equity Fund Investors 8	$29,953,152	$20,000,000	$14,273,407	71%	$5,726,593	$3,622,965	$31,291,048	*25.4%*	*235.2%*	*25.6%*	03/31/21
2017	Pathway Private Equity Fund Investors 9	$21,432,087	$20,000,000	$12,648,463	63%	$7,351,537	$936,955	$21,355,773	*7.4%*	*176.9%*	*29.8%*	03/31/21
2019	Ocean Avenue Fund IV	$17,041,596	$26,000,000	$15,371,964	59%	$10,628,036	$1,690,000	$14,701,596	*11.0%*	*121.9%*	*44.1%*	03/31/21
2020	Pathway Private Equity Fund Investors 10[4]	$2,451,998	$10,000,000	$2,324,038	23%	$7,675,962	$281,959	$0	*12.1%*	*117.6%*	*N/A*	N/A
Private Credit												
2016	Sixth Street DCP	$86,246,987	$140,000,000	$74,293,681	53%	$65,706,319	$8,876,817	$84,067,135	*11.9%*	*128.0%*	*10.9%*	03/31/21
Opportunistic												
2010	KKR Mezzanine Partners	$3,582,247	$15,000,000	$13,535,064	90%	$1,464,936	$18,019,805	$3,613,233	*133.1%*	*159.6%*	*6.6%*	03/31/21
2011	PIMCO Bravo	$10,727	$15,000,000	$15,000,000	100%	$0	$27,216,525	$148,451	*181.4%*	*181.5%*	*22.1%*	09/30/19
2020	Sixth Street TAO Contingent	$19,515,970	$50,000,000	$19,075,301	38%	$30,924,699	$2,444,515	$14,481,236	*12.8%*	*115.1%*	*11.0%*	03/31/21
	Total Private Markets	**$217,628,703**	$373,500,000	$240,596,919	64%	$132,903,081	$140,545,020	$207,584,733	*58.4%*	*148.9%*		
	% of Portfolio (Market Value)	***11.2%***										

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

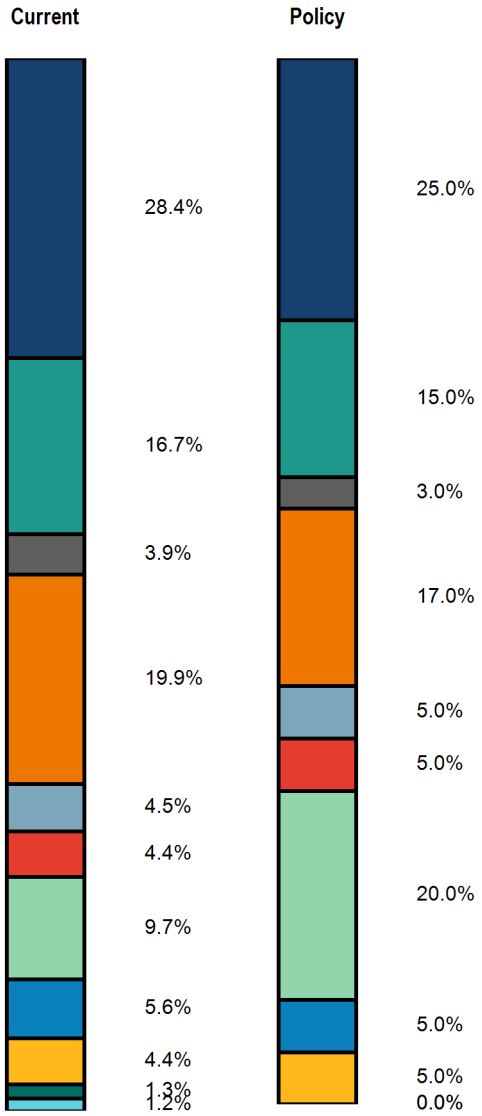




Net Cash flow history prior to 4Q 2010 is not available due to lack of data from previous consultant.

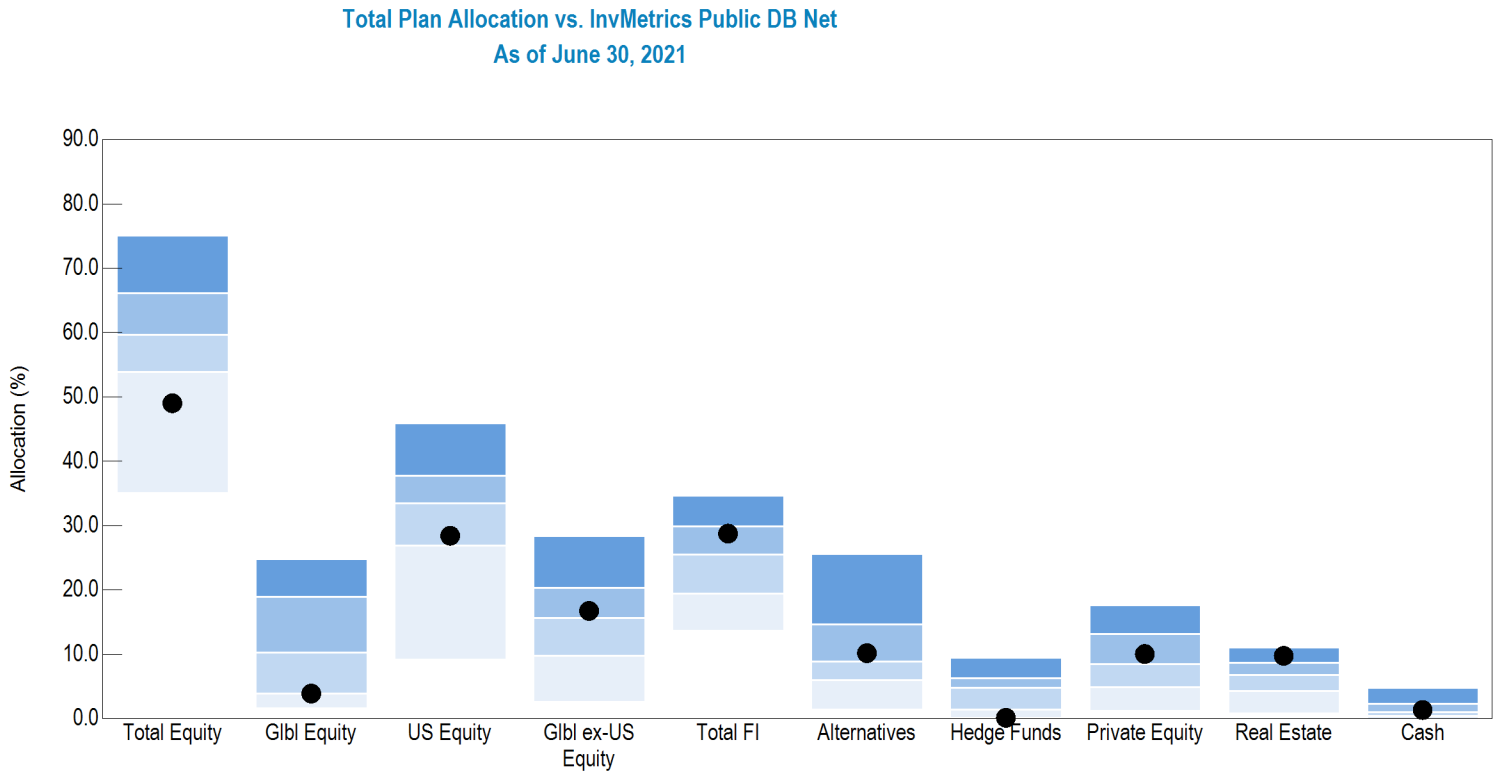
Total Fund
Asset Allocation vs. Policy

Period Ending: June 30, 2021



	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
Domestic Equity	$553,997,131	28.4%	25.0%	$66,583,151	10.0% - 30.0%	Yes
International Equity	$326,123,406	16.7%	15.0%	$33,675,018	10.0% - 30.0%	Yes
Global Equity	$75,520,089	3.9%	3.0%	$17,030,411	0.0% - 5.0%	Yes
Domestic Fixed Income	$388,195,797	19.9%	17.0%	$56,754,291	10.0% - 30.0%	Yes
International Fixed Income	$87,355,228	4.5%	5.0%	-$10,127,568	0.0% - 10.0%	Yes
Global Fixed Income	$84,878,566	4.4%	5.0%	-$12,604,230	0.0% - 10.0%	Yes
Real Estate	$190,048,362	9.7%	20.0%	-$199,882,821	10.0% - 30.0%	No
Private Equity	$108,272,772	5.6%	5.0%	$10,789,976	0.0% - 10.0%	Yes
Private Credit	$86,246,987	4.4%	5.0%	-$11,235,809	0.0% - 10.0%	Yes
Cash and Equivalents	$25,908,636	1.3%	--	$25,908,636	--	No
Other	$23,108,944	1.2%	--	$23,108,944	--	No
Total	**$1,949,655,918**	**100.0%**	**100.0%**			

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



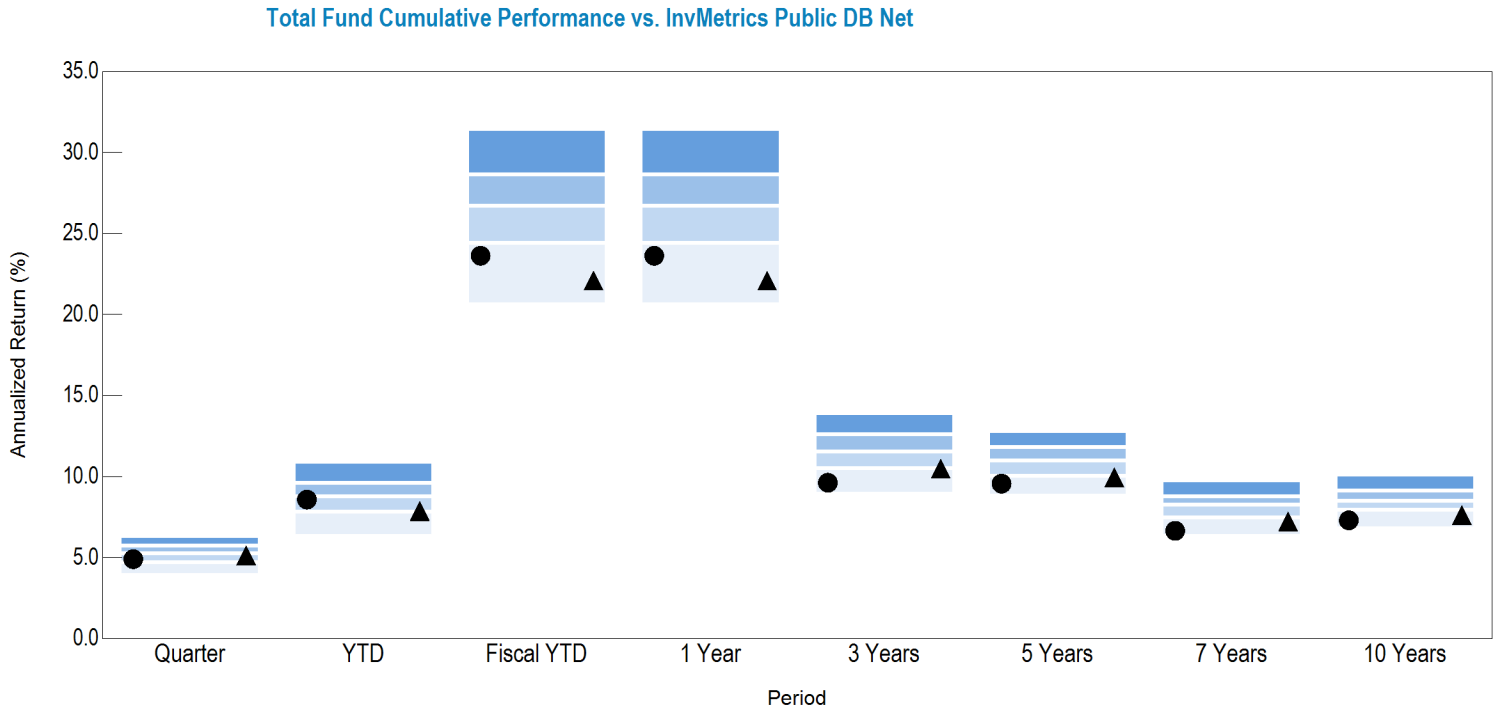
	Total Equity		Glbl Equity		US Equity		Glbl ex-US Equity		Total FI		Alternatives		Hedge Funds		Private Equity		Real Estate		Cash		
	Allocation (Rank)																				
5th Percentile	75.1		24.8		45.9		28.4		34.6		25.6		9.5		17.6		11.1		4.7		-
25th Percentile	66.2		19.0		37.9		20.4		29.9		14.8		6.4		13.2		8.7		2.4		-
Median	59.7		10.3		33.6		15.8		25.6		9.0		4.9		8.6		6.9		1.1		-
75th Percentile	54.0		4.0		26.9		9.9		19.5		6.1		1.5		4.9		4.4		0.5		-
95th Percentile	35.1		1.7		9.3		2.7		13.8		1.5		0.1		1.3		0.9		0.0		-
# of Portfolios	192		72		108		149		190		117		50		78		121		181		-
● **Total Fund**	49.0	(86)	3.9	(78)	28.4	(68)	16.7	(48)	28.7	(33)	10.2	(43)	0.1	(96)	10.0	(40)	9.7	(15)	1.3	(45)	-

Account	Fee Schedule	Market Value As of 6/30/2021	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
American Realty	1.25% of First 10.0 Mil, 1.20% of Next 15.0 Mil, 1.10% of Next 25.0 Mil, 1.00% Thereafter	$22,874,499	1.2%	$279,494	1.22%
BlackRock Alternative Advisors	120,000 Annually	$2,179,369	0.1%	$120,000	5.51%
BlackRock Fixed Income	0.25% of First 100.0 Mil, 0.25% of Next 100.0 Mil	$147,625,745	7.6%	$369,064	0.25%
Boston Partners Large Cap Value	0.45% of First 50.0 Mil, 0.35% of Next 50.0 Mil, 0.30% Thereafter	$96,920,476	5.0%	$389,222	0.40%
Doubleline Core Plus	0.28% of First 100.0 Mil, 0.25% Thereafter	$117,437,464	6.0%	$323,594	0.28%
Franklin Templeton Global Bond Plus	0.40% of First 50.0 Mil, 0.30% of Next 50.0 Mil, 0.25% Thereafter	$84,878,566	4.4%	$304,636	0.36%
Ivy Large Cap Growth	0.60% of First 25.0 Mil, 0.50% of Next 25.0 Mil, 0.40% Thereafter	$101,169,275	5.2%	$479,677	0.47%
KKR Mezzanine Partners I	0.38% of Assets	$3,582,247	0.2%	$13,433	0.38%
Lee Munder Small Value	0.70% of Assets	$42,919,692	2.2%	$300,438	0.70%
MacKay Shields Core Plus	0.30% of Assets	$123,132,588	6.3%	$369,398	0.30%
Mellon Capital Cash Account	No Fee	$25,908,636	1.3%	--	--
Ocean Avenue Fund III	0.85% of Assets	$22,010,463	1.1%	$187,089	0.85%
Ocean Avenue Fund IV	1.25% of Assets	$17,041,596	0.9%	$213,020	1.25%
Pantheon Ventures	0.47% of Assets	$443,622	0.0%	$2,103	0.47%
Pathway Private Equity Fund Investors 10	0.58% of Assets	$2,451,998	0.1%	$14,222	0.58%
Pathway Private Equity Fund Investors 8	0.61% of Assets	$29,953,152	1.5%	$182,714	0.61%
Pathway Private Equity Fund Investors 9	0.58% of Assets	$21,432,087	1.1%	$124,306	0.58%
PGIM Emerging Markets Debt	0.55% of First 75.0 Mil, 0.45% of Next 100.0 Mil, 0.35% Thereafter	$87,355,228	4.5%	$468,099	0.54%
PIMCO Bravo	1.60% of Assets	$10,727	0.0%	$687	6.40%
PIMCO RAE Fundamental Global Ex US Fund	0.78% of First 25.0 Mil, 0.43% of Next 75.0 Mil, 0.38% Thereafter	$105,573,919	5.4%	$538,681	0.51%

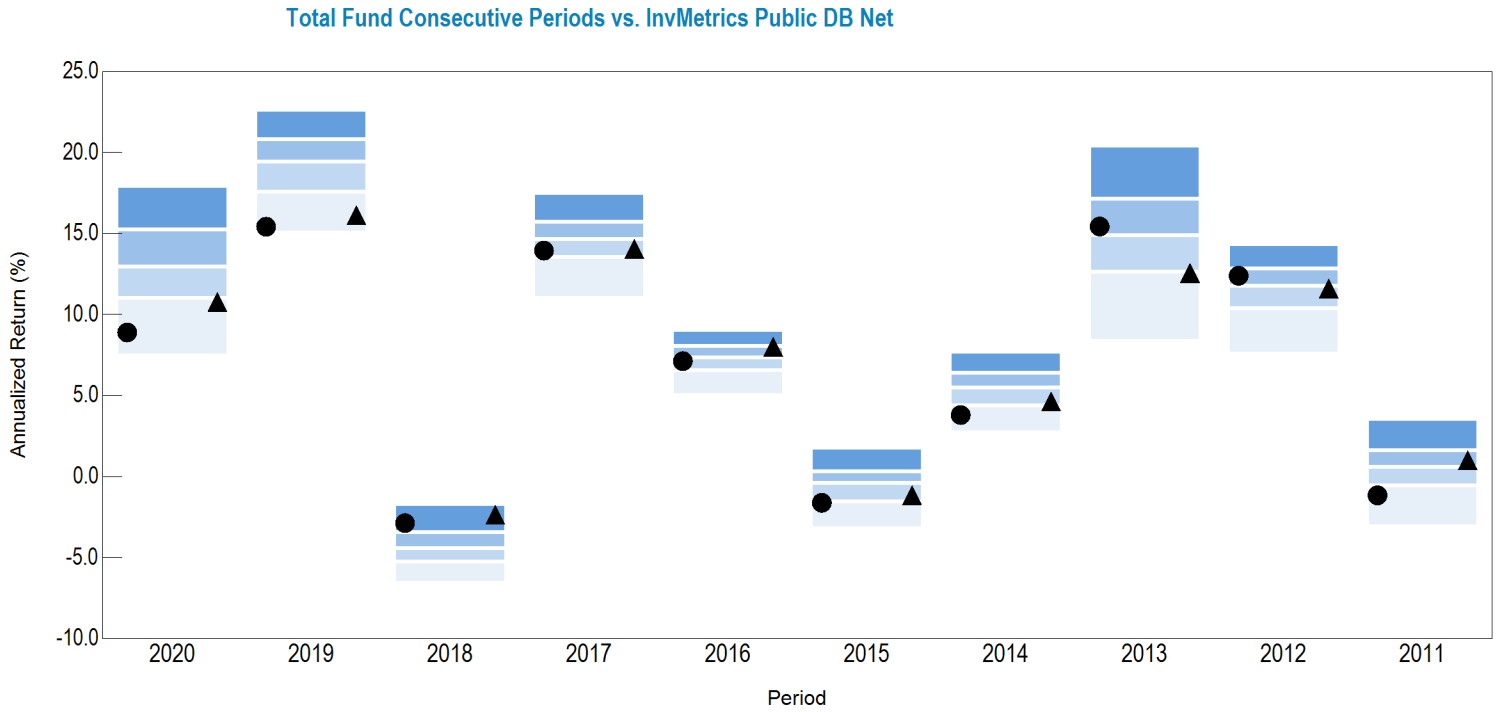
Fees shown for Pathway are estimated effective average fees over 15-year fund lifespan.

Account	Fee Schedule	Market Value As of 6/30/2021	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
QMA Large Cap Core	Performance-based 0.00 and 25.00	$96,655,067	5.0%	$0	0.00%
RREEF America II	0.95% of Assets	$167,173,864	8.6%	$1,588,152	0.95%
SGA Global Growth	0.45% of Assets	$99,862,771	5.1%	$449,382	0.45%
Sixth Street DCP (frmrly TSSP DCP)	No Fee	$86,246,987	4.4%	--	--
Sixth Street TAO Contingent (frmrly TSSP TAO Contingent)	No Fee	$19,515,970	1.0%	--	--
Skellig Water Fund (aka KBI)	0.77% of Assets	$75,520,089	3.9%	$577,729	0.76%
SSGA MSCI ACWI Ex US Index Fund	0.08% of First 25.0 Mil, 0.07% of Next 25.0 Mil, 0.06% Thereafter	$120,686,716	6.2%	$79,912	0.07%
SSGA S&P 500 Flagship Fund	0.03% of Assets	$129,026,944	6.6%	$38,708	0.03%
SSGA US Extended Market Index	0.03% of First 50.0 Mil, 0.03% of Next 50.0 Mil, 0.02% Thereafter	$46,421,704	2.4%	$13,927	0.03%
Stepstone Secondary Opportunities Fund II	343,750 Annually	$12,760,486	0.7%	$343,750	2.69%
William Blair SMID Cap Growth	0.95% of First 10.0 Mil, 0.80% of Next 20.0 Mil, 0.75% of Next 20.0 Mil, 0.70% of Next 50.0 Mil, 0.65% of Next 100.0 Mil, 0.60% Thereafter	$40,883,973	2.1%	$336,630	0.82%
Investment Management Fee		**$1,949,655,918**	**100.0%**	**$8,108,064**	**0.42%**

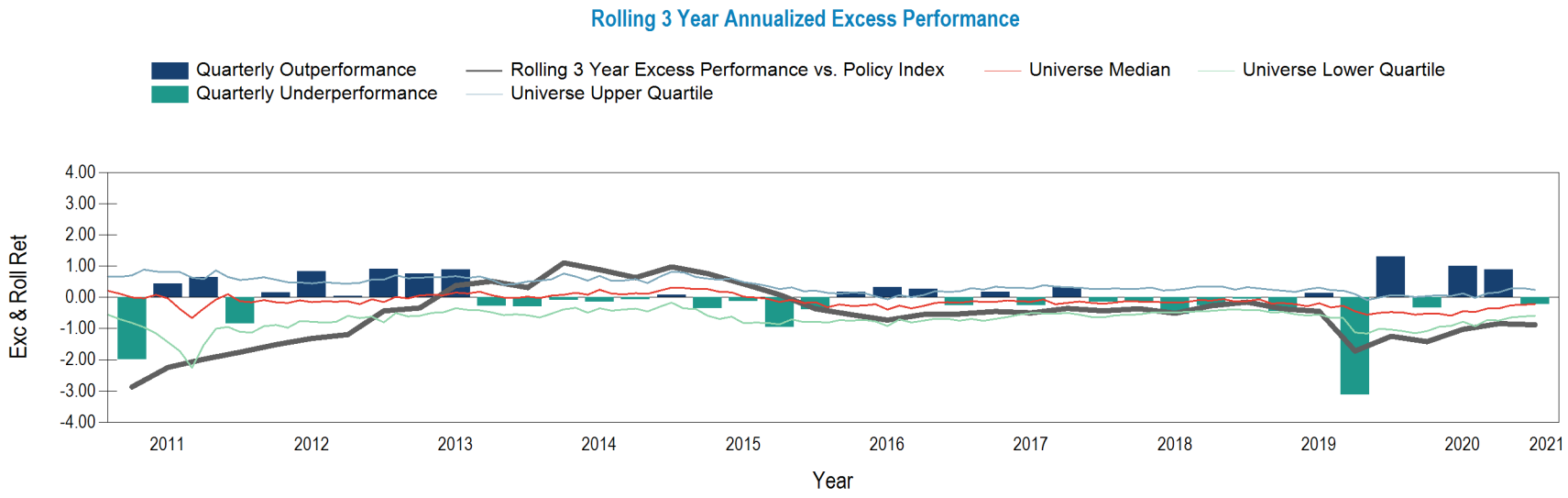
**Sixth Streett Partners fee schedule is as follows: No management fee at SMA level. Subject to the annual fees of each of the underlying TSSP funds. (1) TAO 65bps on unfunded commitments and 1.35% on remaining capital contributions (long-term investor designation) (2) TSLE 1.5% on commitments, 1.25%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

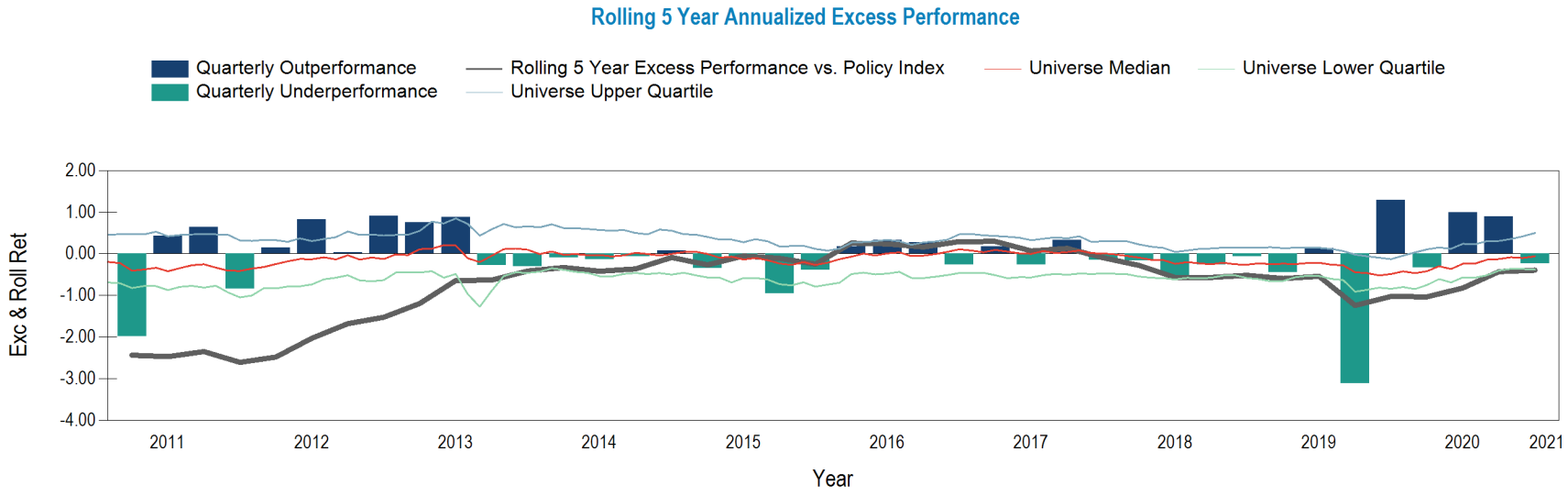


	Return (Rank)															
5th Percentile	6.3		10.9		31.4		31.4		13.9		12.8		9.7		10.1	
25th Percentile	5.8		9.6		28.7		28.7		12.6		11.8		8.8		9.1	
Median	5.3		8.8		26.7		26.7		11.6		11.0		8.3		8.5	
75th Percentile	4.7		7.9		24.4		24.4		10.5		10.1		7.5		8.0	
95th Percentile	3.9		6.4		20.7		20.7		9.0		8.8		6.3		6.8	
# of Portfolios	473		471		468		468		455		437		395		350	
● Total Fund	4.9	(70)	8.6	(56)	23.6	(83)	23.6	(83)	9.6	(91)	9.6	(89)	6.6	(93)	7.3	(92)
▲ Policy Index	5.1	(58)	7.9	(75)	22.1	(92)	22.1	(92)	10.5	(77)	10.0	(78)	7.2	(83)	7.6	(87)



	Return (Rank)																					
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**	8.9	(92)	15.4	(94)	-2.9	(14)	13.9	(69)	7.1	(59)	-1.6	(78)	3.8	(85)	15.4	(45)	12.4	(39)	-1.2	(82)
▲ **Policy Index**	10.8	(78)	16.1	(90)	-2.4	(9)	14.0	(67)	8.0	(29)	-1.1	(70)	4.6	(71)	12.6	(76)	11.6	(54)	1.0	(39)


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
-4.00
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

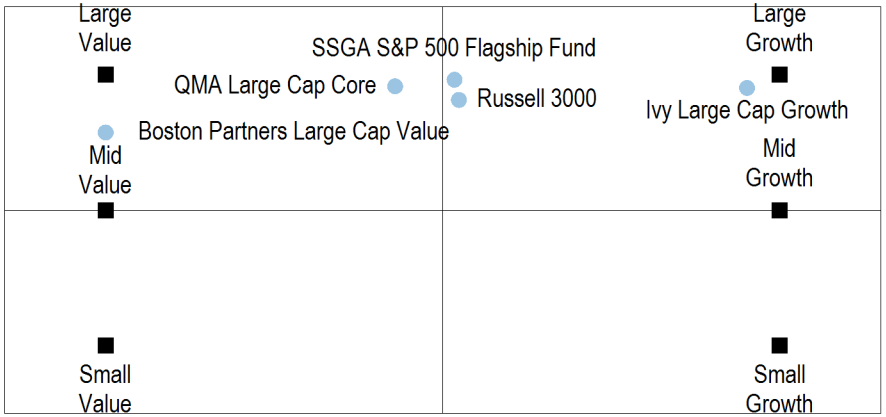

Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. Policy Index
Universe Upper Quartile
Universe Median
Universe Lower Quartile
Exc & Roll Ret
2.00
1.00
0.00
-1.00
-2.00
-3.00
-4.00
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

Total Domestic Equity
Asset Class Overview (Net of Fees)

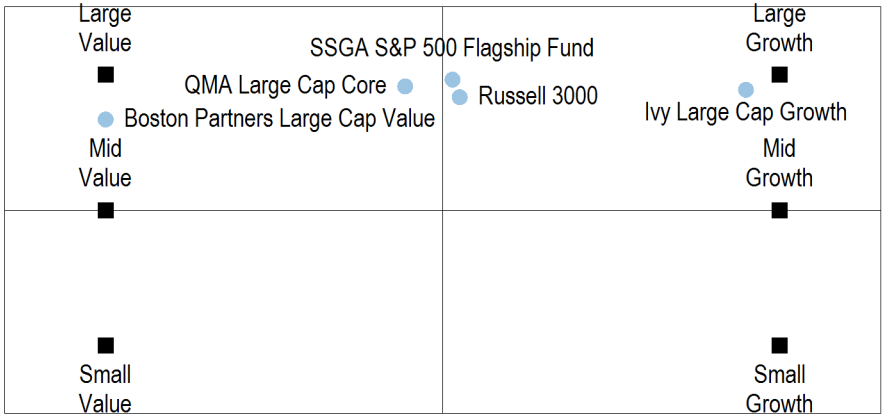
Period Ending: June 30, 2021

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Domestic Equity	**553,997,131**	**7.8**	**16.3**	**44.5**	**44.5**	**17.4**	**17.7**	**14.4**	**18.2**	**29.8**	**-5.4**	**21.9**	**11.1**
Russell 3000		*8.2*	*15.1*	*44.2*	*44.2*	*18.7*	*17.9*	*14.7*	*20.9*	*31.0*	*-5.2*	*21.1*	*12.7*
InvMetrics Public DB US Eq Net Rank		*29*	*23*	*44*	*44*	*42*	*21*	*14*	*44*	*59*	*34*	*18*	*80*
SSGA S&P 500 Flagship Fund	129,026,944	8.5	15.2	40.8	40.8	18.6	17.6	--	18.3	31.5	-4.4	21.8	12.0
S&P 500		*8.5*	*15.3*	*40.8*	*40.8*	*18.7*	*17.6*	--	*18.4*	*31.5*	*-4.4*	*21.8*	*12.0*
eV US Large Cap Core Equity Net Rank		*27*	*44*	*40*	*40*	*27*	*20*	--	*29*	*29*	*32*	*46*	*20*
QMA Large Cap Core	96,655,067	7.8	17.6	39.5	39.5	15.6	16.1	14.3	12.0	28.6	-6.8	22.1	12.1
S&P 500		*8.5*	*15.3*	*40.8*	*40.8*	*18.7*	*17.6*	*14.8*	*18.4*	*31.5*	*-4.4*	*21.8*	*12.0*
eV US Large Cap Core Equity Net Rank		*50*	*18*	*51*	*51*	*67*	*51*	*26*	*66*	*56*	*62*	*43*	*19*
Ivy Large Cap Growth	101,169,275	13.2	14.9	38.0	38.0	24.1	23.6	17.4	30.9	36.6	2.7	29.5	1.6
Russell 1000 Growth		*11.9*	*13.0*	*42.5*	*42.5*	*25.1*	*23.7*	*17.9*	*38.5*	*36.4*	*-1.5*	*30.2*	*7.1*
eV US Large Cap Growth Equity Net Rank		*13*	*20*	*68*	*68*	*42*	*38*	*28*	*64*	*25*	*16*	*46*	*70*
Boston Partners Large Cap Value	96,920,476	5.4	21.3	49.5	49.5	12.5	13.6	12.2	2.4	23.8	-9.0	19.6	14.2
Russell 1000 Value		*5.2*	*17.0*	*43.7*	*43.7*	*12.4*	*11.9*	*11.6*	*2.8*	*26.5*	*-8.3*	*13.7*	*17.3*
eV US Large Cap Value Equity Net Rank		*56*	*19*	*26*	*26*	*51*	*37*	*33*	*57*	*75*	*51*	*26*	*47*

U.S. Effective Style Map
3 Years



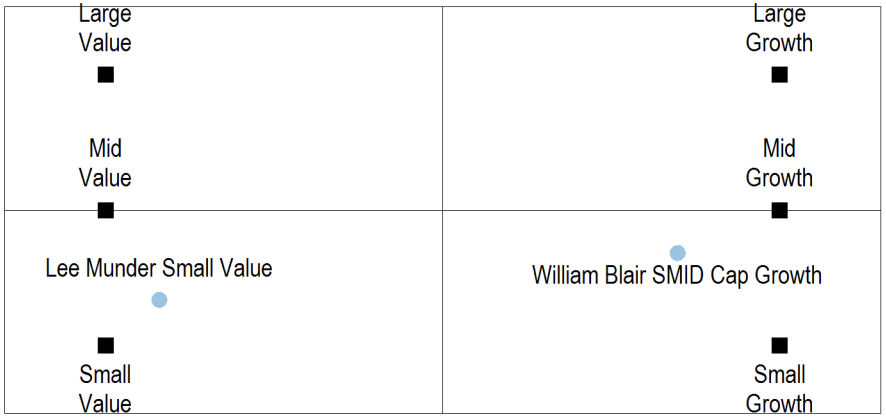
U.S. Effective Style Map
5 Years



	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
SSGA US Extended Market Index	46,421,704	--	--	--	--	--	--	--	--	--	--	--	--
Dow Jones U.S. Completion Total Stock Market		--	--	--	--	--	--	--	--	--	--	--	--
William Blair SMID Cap Growth	40,883,973	3.9	8.3	42.4	42.4	18.5	20.4	15.5	32.6	31.1	-1.7	29.3	7.2
Russell 2500 Growth		*6.0*	*8.7*	*49.6*	*49.6*	*20.1*	*20.7*	*14.8*	*40.5*	*32.7*	*-7.5*	*24.5*	*9.7*
eV US Mid Cap Growth Equity Net Rank		*99*	*71*	*51*	*51*	*90*	*55*	*36*	*64*	*78*	*30*	*14*	*28*
Lee Munder Small Value	42,919,692	4.9	22.2	61.1	61.1	9.3	11.4	9.9	3.0	26.3	-15.5	7.7	27.3
Russell 2000 Value		*4.6*	*26.7*	*73.3*	*73.3*	*10.3*	*13.6*	*10.8*	*4.6*	*22.4*	*-12.9*	*7.8*	*31.7*
eV US Small Cap Value Equity Net Rank		*36*	*62*	*64*	*64*	*59*	*70*	*72*	*56*	*25*	*56*	*71*	*38*

U.S. Effective Style Map
3 Years

U.S. Effective Style Map
5 Years



	SSGA S&P 500 Flagship Fund		QMA Large Cap Core		Ivy Large Cap Growth		Boston Partners Large Cap Value		William Blair SMID Cap Growth		Lee Munder Small Value		SSGA Russell Small Cap Completeness Index	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
SSGA S&P 500 Flagship Fund	--	--	140	90.2	36	93.7	72	85.7	6	10.0	0	0.0	0	--
QMA Large Cap Core	140	61.1	--	--	18	63.0	35	49.6	0	0.0	4	3.4	0	--
Ivy Large Cap Growth	36	33.5	18	30.2	--	--	4	5.9	0	0.0	0	0.0	0	--
Boston Partners Large Cap Value	72	22.9	35	26.4	4	12.9	--	--	0	0.0	0	0.0	0	--
William Blair SMID Cap Growth	6	0.3	0	0.0	0	0.0	0	0.0	--	--	2	3.2	0	--
Lee Munder Small Value	0	0.0	4	0.6	0	0.0	0	0.0	2	3.3	--	--	0	--
SSGA Russell Small Cap Completeness Index	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	--	--

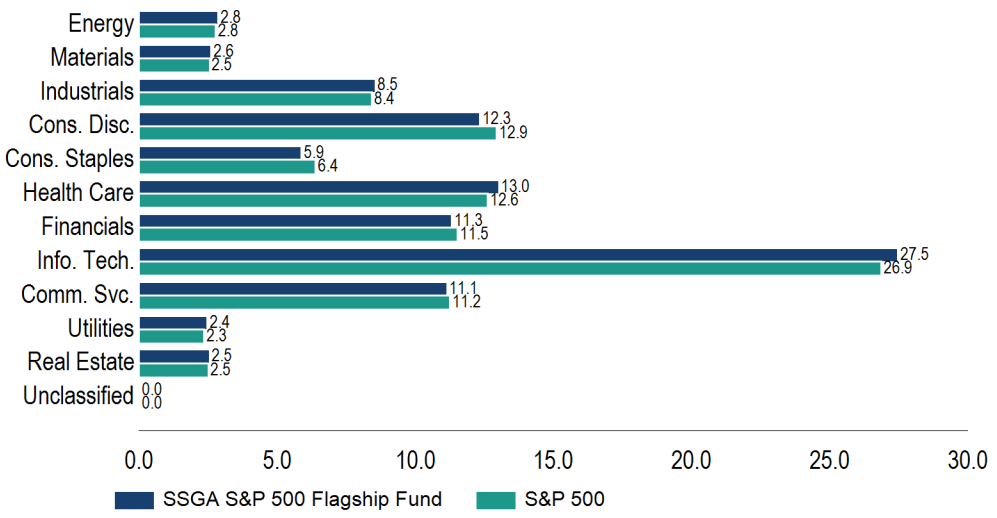
Correlation Matrix
6 Months Ending June 30, 2021

	SSGA S&P 500 Flagship Fund	QMA Large Cap Core	Ivy Large Cap Growth	Boston Partners Large Cap Value	William Blair SMID Cap Growth	Lee Munder Small Value	SSGA Russell Small Cap Completeness Index	S&P 500
SSGA S&P 500 Flagship Fund	1.00	--	--	--	--	--	--	--
QMA Large Cap Core	0.90	1.00	--	--	--	--	--	--
Ivy Large Cap Growth	0.85	0.59	1.00	--	--	--	--	--
Boston Partners Large Cap Value	0.53	0.67	0.05	1.00	--	--	--	--
William Blair SMID Cap Growth	0.35	0.07	0.50	-0.12	1.00	--	--	--
Lee Munder Small Value	0.46	0.49	0.03	0.91	0.21	1.00	--	--
SSGA Russell Small Cap Completeness Index	--	--	--	--	--	--	--	--
S&P 500	1.00	0.90	0.85	0.53	0.35	0.45	--	1.00

Characteristics

	Portfolio	S&P 500
Number of Holdings	505	504
Weighted Avg. Market Cap. ($B)	535.72	540.31
Median Market Cap. ($B)	30.35	30.35
Price To Earnings	27.91	27.99
Price To Book	4.69	4.70
Price To Sales	3.51	3.44
Return on Equity (%)	28.60	28.70
Yield (%)	1.38	1.36
Beta	1.00	1.00

Sector Allocation (%) vs S&P 500



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

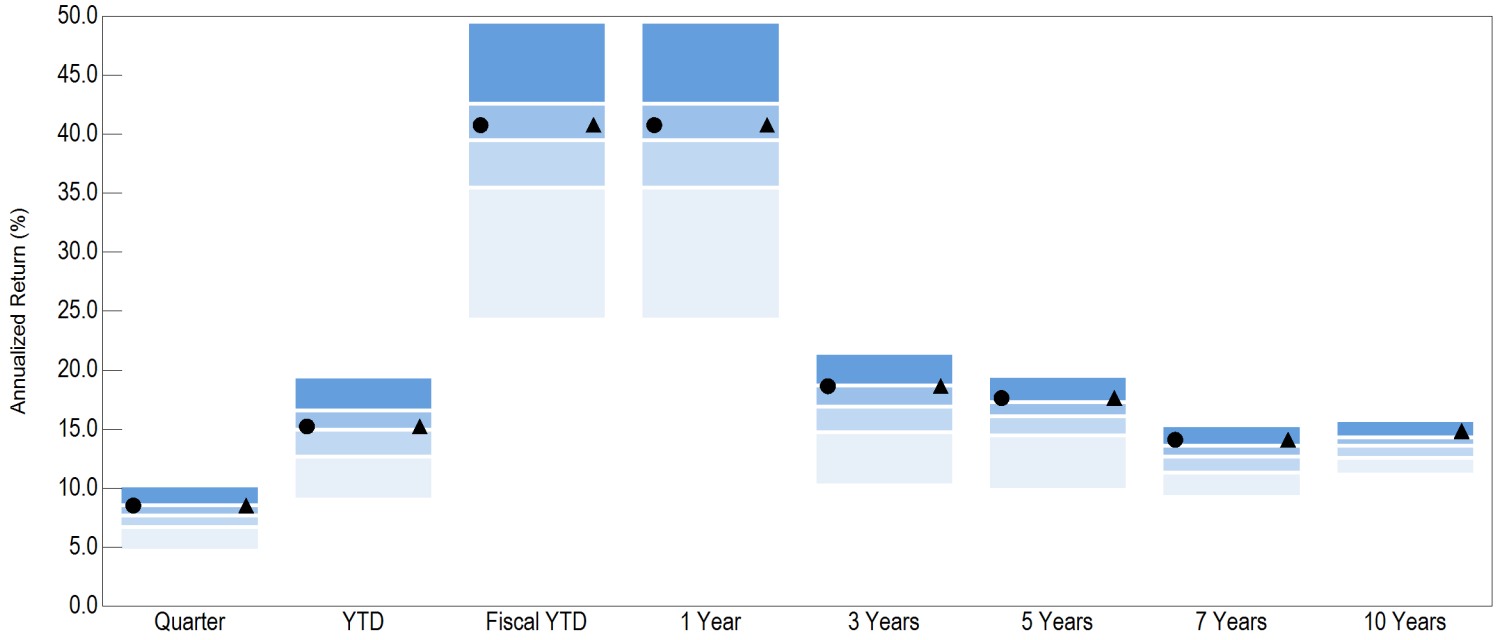
APPLE INC	5.93%
MICROSOFT CORP	5.63%
AMAZON.COM INC	4.07%
FACEBOOK INC	2.30%
ALPHABET INC	2.03%
ALPHABET INC	1.97%
BERKSHIRE HATHAWAY INC	1.45%
TESLA INC	1.44%
NVIDIA CORPORATION	1.38%
JPMORGAN CHASE & CO	1.30%
Total	**27.49%**

Top Contributors

	Avg Wgt	Return	Contribution
MICROSOFT CORP	5.29	15.17	0.80
APPLE INC	5.73	12.31	0.71
NVIDIA CORPORATION	0.98	49.88	0.49
AMAZON.COM INC	3.94	11.19	0.44
FACEBOOK INC	2.11	18.06	0.38
ALPHABET INC	1.77	21.16	0.38
ALPHABET INC	1.85	18.39	0.34
PAYPAL HOLDINGS INC	0.85	20.03	0.17
ADOBE INC	0.68	23.20	0.16
BERKSHIRE HATHAWAY INC	1.45	8.79	0.13

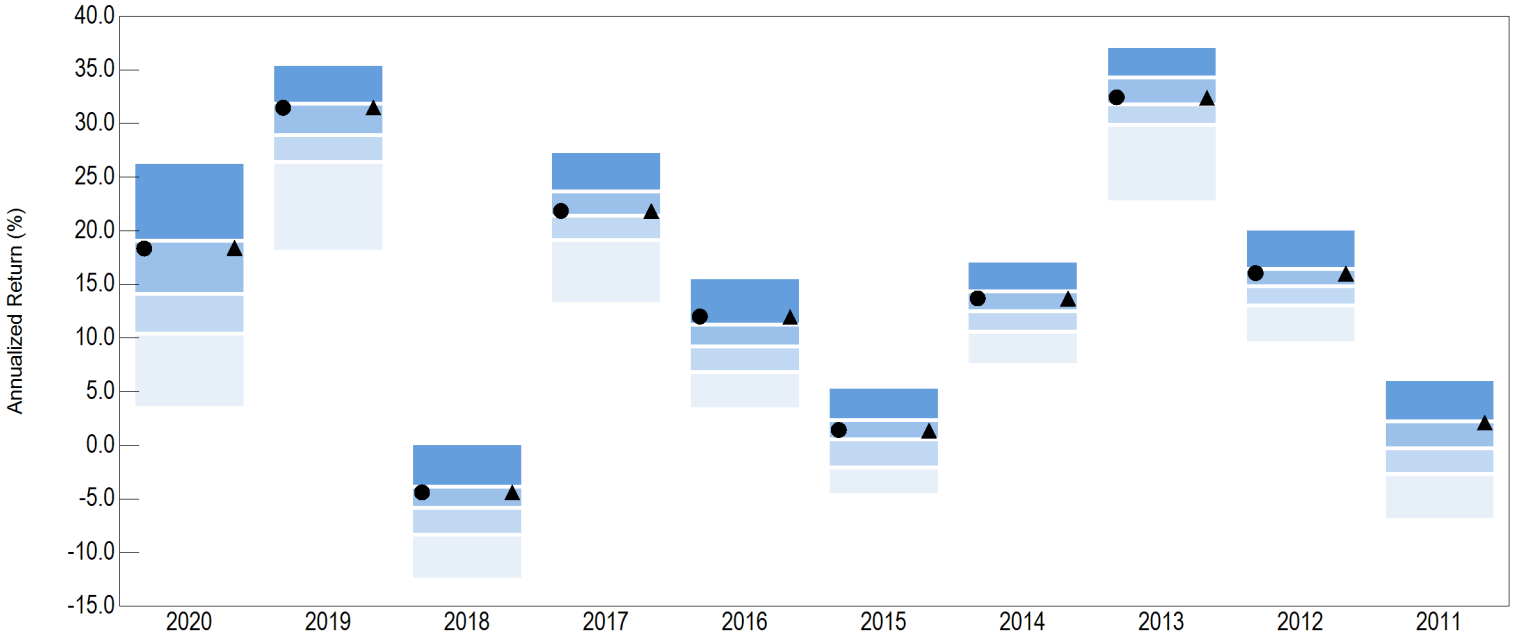
Bottom Contributors

	Avg Wgt	Return	Contribution
INTEL CORP	0.77	-11.75	-0.09
WALT DISNEY CO (THE)	1.00	-4.74	-0.05
BOEING CO	0.42	-5.95	-0.02
CATERPILLAR INC	0.38	-5.72	-0.02
AT&T INC	0.64	-3.27	-0.02
FISERV INC.	0.20	-10.21	-0.02
DEERE & CO	0.35	-5.48	-0.02
VERIZON COMMUNICATIONS INC	0.72	-2.60	-0.02
ABBOTT LABORATORIES	0.63	-2.90	-0.02
BOOKING HOLDINGS INC	0.28	-6.08	-0.02

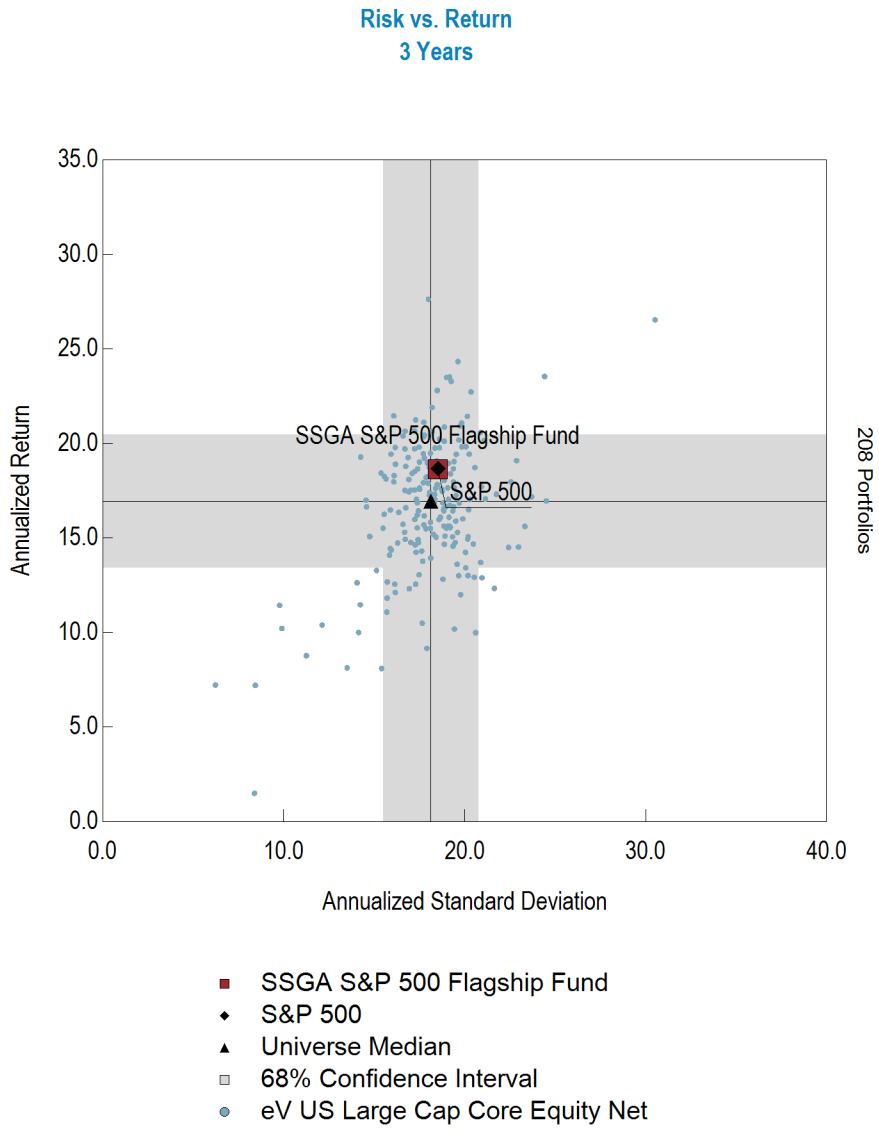


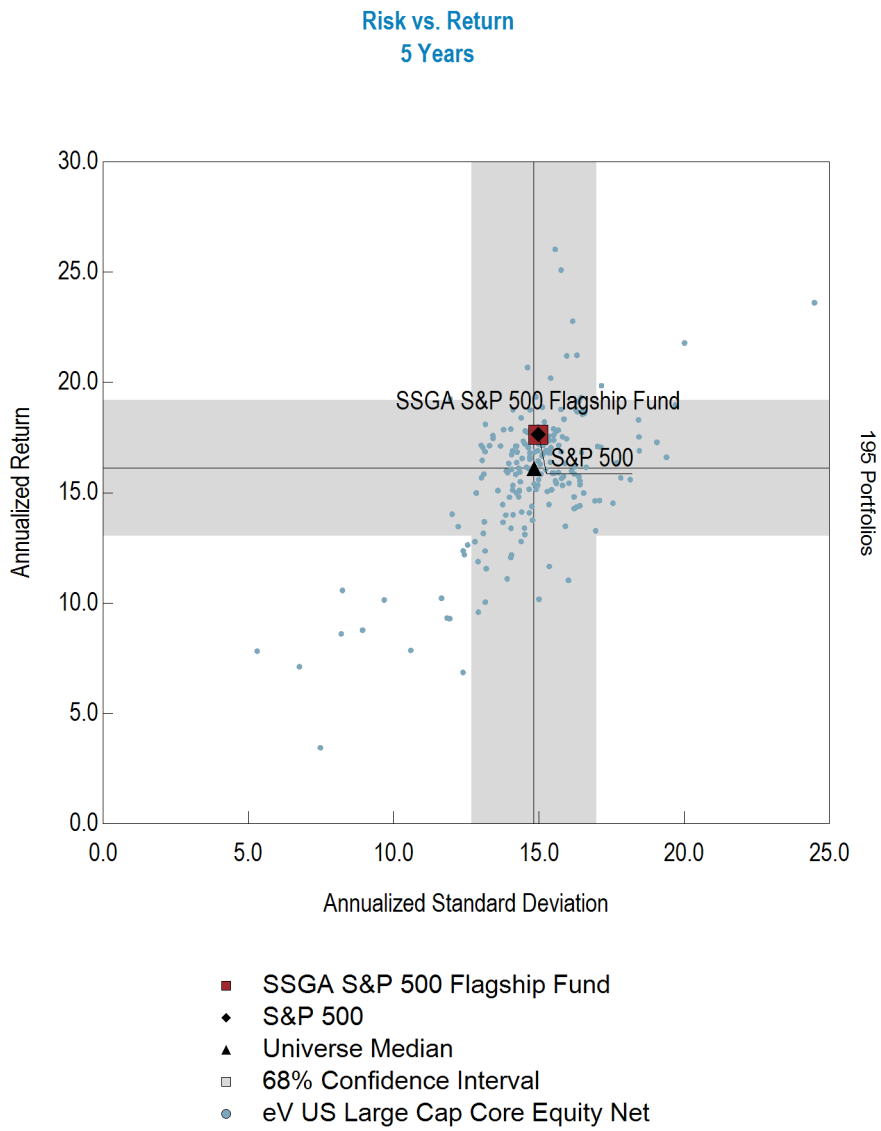
	Return (Rank)															
5th Percentile	10.2		19.4		49.5		49.5		21.5		19.5		15.3		15.8	
25th Percentile	8.6		16.6		42.6		42.6		18.7		17.3		13.6		14.4	
Median	7.7		15.0		39.5		39.5		16.9		16.1		12.7		13.6	
75th Percentile	6.7		12.7		35.5		35.5		14.8		14.5		11.4		12.6	
95th Percentile	4.7		9.1		24.3		24.3		10.3		9.9		9.3		11.2	
# of Portfolios	219		219		217		217		208		195		178		145	
● **SSGA S&P 500 Flagship Fund**	8.5	(27)	15.2	(44)	40.8	(40)	40.8	(40)	18.6	(27)	17.6	(20)	14.1	(16)	--	(--)
▲ **S&P 500**	8.5	(26)	15.3	(44)	40.8	(39)	40.8	(39)	18.7	(26)	17.6	(20)	14.1	(16)	14.8	(13)

SSGA S&P 500 Flagship Fund vs. eV US Large Cap Core Equity Net Universe



	Return (Rank)																			
5th Percentile	26.4		35.5		0.1		27.4		15.6		5.4		17.2		37.2		20.2		6.1	
25th Percentile	19.1		31.9		-3.8		23.7		11.3		2.4		14.4		34.3		16.5		2.2	
Median	14.1		28.9		-5.8		21.4		9.3		0.6		12.5		31.8		14.8		-0.3	
75th Percentile	10.4		26.5		-8.3		19.2		6.9		-2.0		10.6		29.9		13.0		-2.7	
95th Percentile	3.5		18.1		-12.5		13.2		3.4		-4.6		7.5		22.7		9.5		-6.9	
# of Portfolios	216		203		189		188		177		142		140		125		111		97	
● SSGA S&P 500 Flagship Fund	18.3	(29)	31.5	(29)	-4.4	(32)	21.8	(46)	12.0	(20)	1.4	(36)	13.7	(33)	32.4	(42)	16.0	(30)	--	(--)
▲ S&P 500	18.4	(29)	31.5	(28)	-4.4	(32)	21.8	(46)	12.0	(21)	1.4	(37)	13.7	(33)	32.4	(43)	16.0	(30)	2.1	(26)

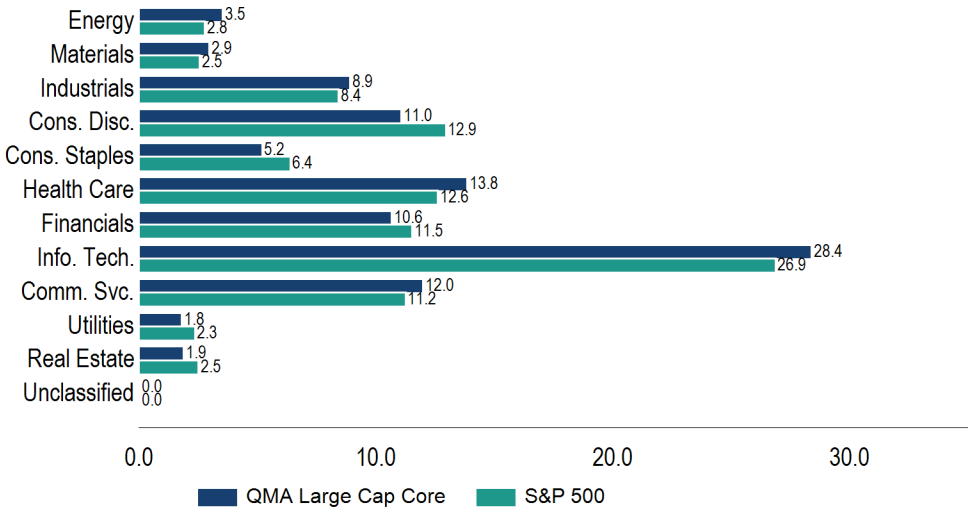

Risk vs. Return
3 Years
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Annualized Return
SSGA S&P 500 Flagship Fund
S&P 500
208 Portfolios
0.0
10.0
20.0
30.0
40.0
Annualized Standard Deviation
SSGA S&P 500 Flagship Fund
S&P 500
Universe Median
68% Confidence Interval
eV US Large Cap Core Equity Net


Risk vs. Return
5 Years
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Annualized Return
SSGA S&P 500 Flagship Fund
S&P 500
195 Portfolios
0.0
5.0
10.0
15.0
20.0
25.0
Annualized Standard Deviation
SSGA S&P 500 Flagship Fund
S&P 500
Universe Median
68% Confidence Interval
eV US Large Cap Core Equity Net

Characteristics

	Portfolio	S&P 500
Number of Holdings	199	504
Weighted Avg. Market Cap. ($B)	513.54	540.31
Median Market Cap. ($B)	36.53	30.35
Price To Earnings	23.49	27.99
Price To Book	4.24	4.70
Price To Sales	2.67	3.44
Return on Equity (%)	29.35	28.70
Yield (%)	1.49	1.36
Beta	1.07	1.00

Sector Allocation (%) vs S&P 500



*Unclassified includes Cash

Top Holdings
Ending Period Weight

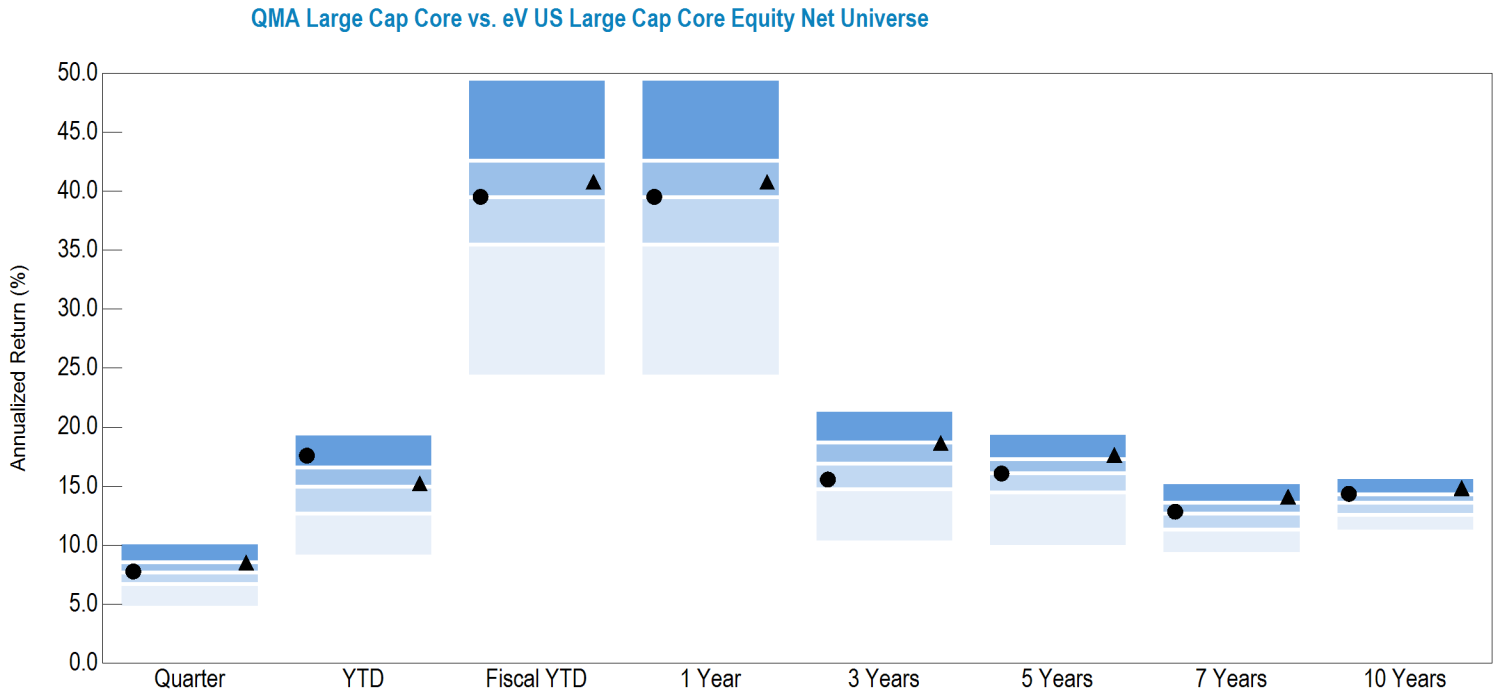
MICROSOFT CORP	6.20%
APPLE INC	4.83%
AMAZON.COM INC	4.24%
FACEBOOK INC	2.75%
ALPHABET INC	2.24%
ALPHABET INC	2.21%
JOHNSON & JOHNSON	1.71%
JPMORGAN CHASE & CO	1.59%
UNITEDHEALTH GROUP INC	1.54%
ADOBE INC	1.34%
Total	**28.66%**

Top Contributors

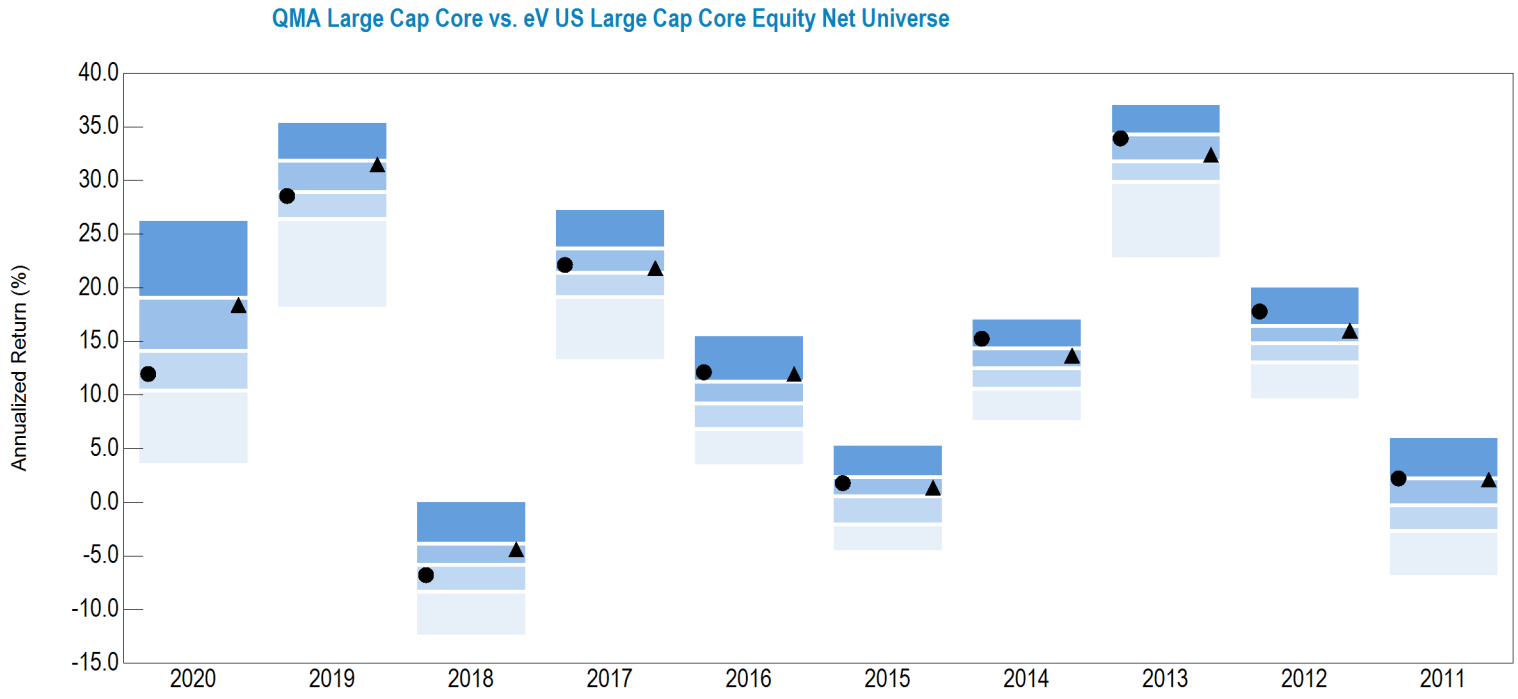
	Avg Wgt	Return	Contribution
MICROSOFT CORP	5.89	15.17	0.89
APPLE INC	4.82	12.31	0.59
FACEBOOK INC	2.74	18.06	0.49
AMAZON.COM INC	4.20	11.19	0.47
ALPHABET INC	1.86	21.16	0.39
ALPHABET INC	1.99	18.39	0.37
ADOBE INC	1.19	23.20	0.28
WELLS FARGO & CO	1.21	16.17	0.20
DANAHER CORP	0.88	19.32	0.17
GOLDMAN SACHS GROUP INC (THE)	1.00	16.45	0.16

Bottom Contributors

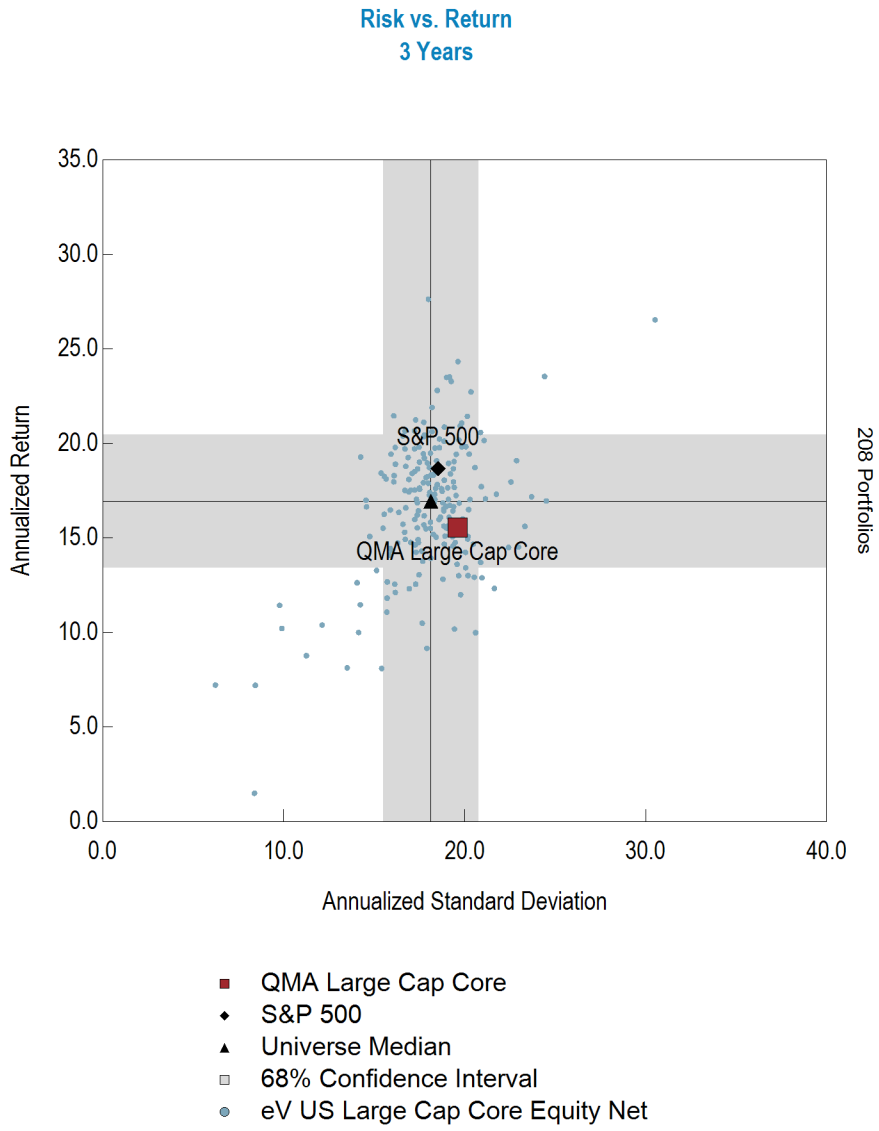
	Avg Wgt	Return	Contribution
INTEL CORP	1.37	-11.75	-0.16
COGNIZANT TECHNOLOGY SOLUTIONS CORP	0.68	-11.04	-0.08
DOLLAR TREE INC	0.34	-13.07	-0.04
ALTRIA GROUP INC	0.86	-5.13	-0.04
CUMMINS INC.	0.64	-5.41	-0.03
AT&T INC	1.01	-3.27	-0.03
ABBOTT LABORATORIES	1.13	-2.90	-0.03
AGCO CORP	0.44	-6.75	-0.03
VERIZON COMMUNICATIONS INC	1.13	-2.60	-0.03
HP INC	0.65	-4.31	-0.03

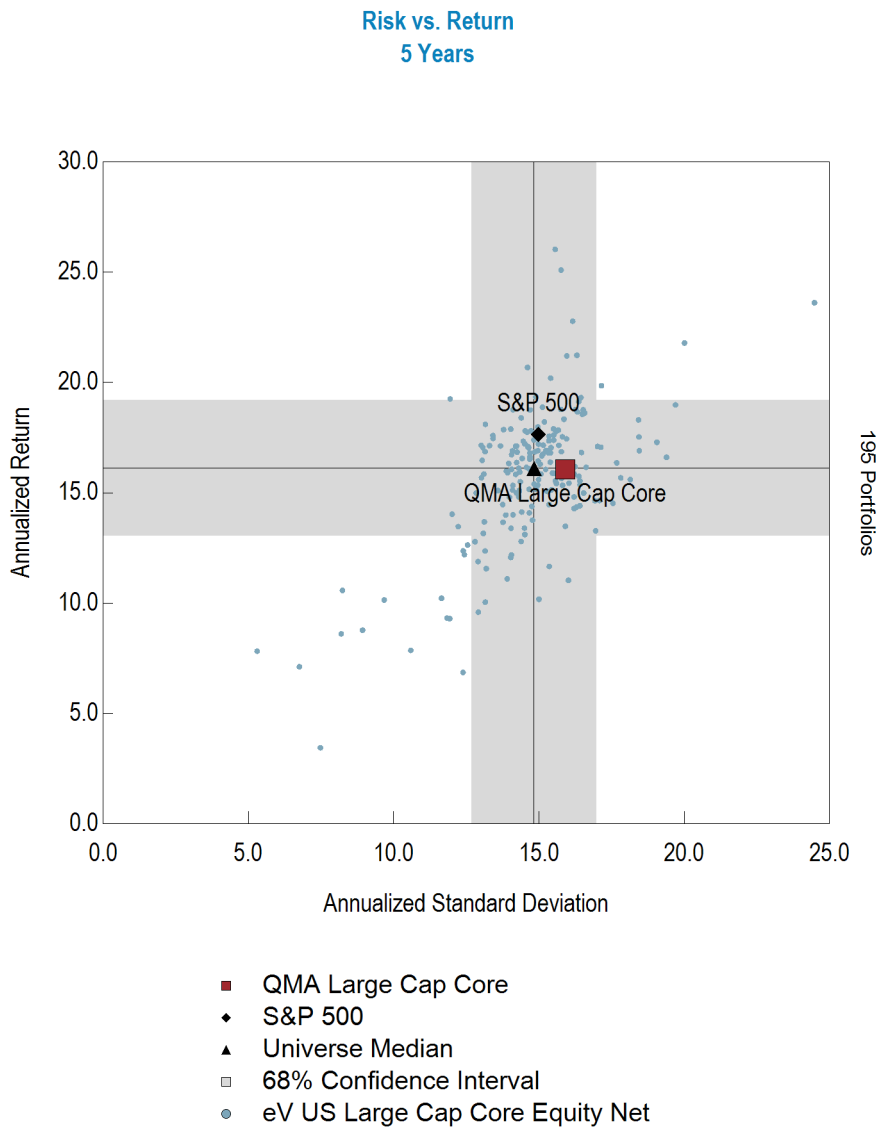


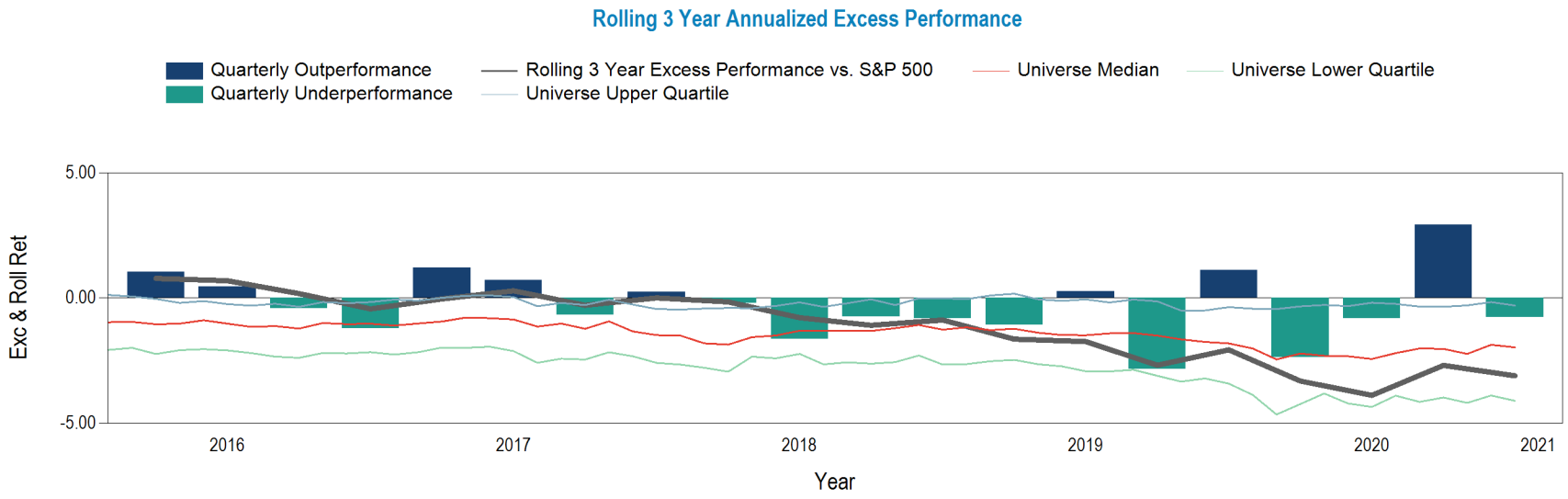
	Return (Rank)															
5th Percentile	10.2		19.4		49.5		49.5		21.5		19.5		15.3		15.8	
25th Percentile	8.6		16.6		42.6		42.6		18.7		17.3		13.6		14.4	
Median	7.7		15.0		39.5		39.5		16.9		16.1		12.7		13.6	
75th Percentile	6.7		12.7		35.5		35.5		14.8		14.5		11.4		12.6	
95th Percentile	4.7		9.1		24.3		24.3		10.3		9.9		9.3		11.2	
# of Portfolios	219		219		217		217		208		195		178		145	
● **QMA Large Cap Core**	7.8	(50)	17.6	(18)	39.5	(51)	39.5	(51)	15.6	(67)	16.1	(51)	12.8	(49)	14.3	(26)
▲ **S&P 500**	8.5	(26)	15.3	(44)	40.8	(39)	40.8	(39)	18.7	(26)	17.6	(20)	14.1	(16)	14.8	(13)

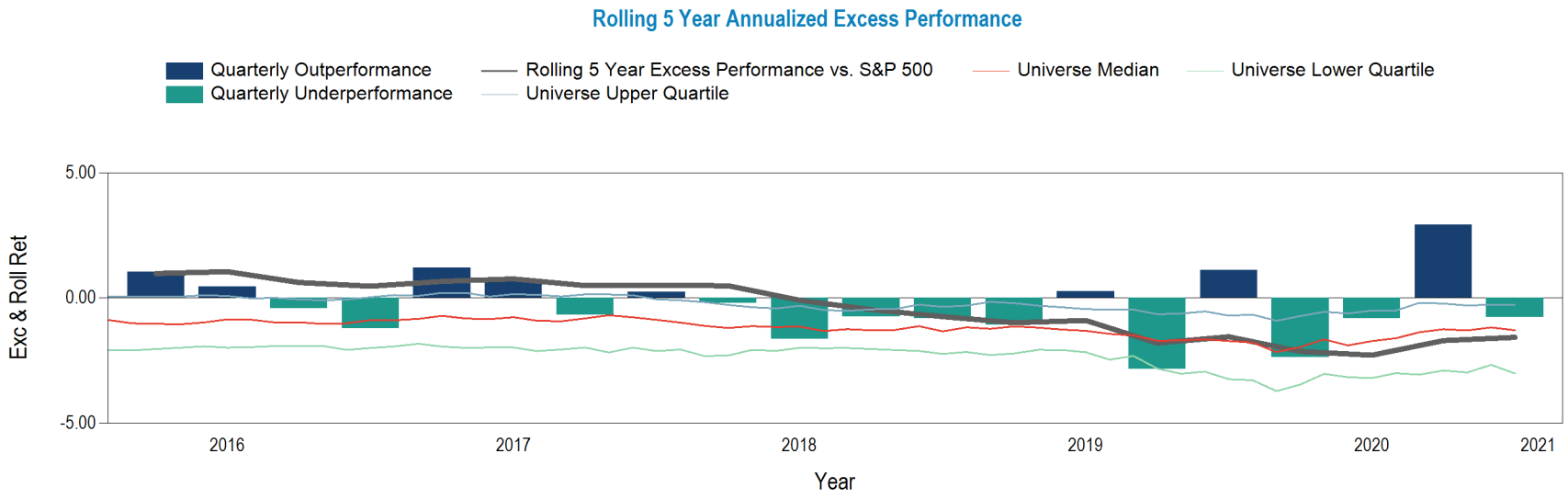


	Return (Rank)																			
5th Percentile	26.4		35.5		0.1		27.4		15.6		5.4		17.2		37.2		20.2		6.1	
25th Percentile	19.1		31.9		-3.8		23.7		11.3		2.4		14.4		34.3		16.5		2.2	
Median	14.1		28.9		-5.8		21.4		9.3		0.6		12.5		31.8		14.8		-0.3	
75th Percentile	10.4		26.5		-8.3		19.2		6.9		-2.0		10.6		29.9		13.0		-2.7	
95th Percentile	3.5		18.1		-12.5		13.2		3.4		-4.6		7.5		22.7		9.5		-6.9	
# of Portfolios	216		203		189		188		177		142		140		125		111		97	
● QMA Large Cap Core	12.0	(66)	28.6	(56)	-6.8	(62)	22.1	(43)	12.1	(19)	1.8	(30)	15.2	(18)	33.9	(29)	17.8	(13)	2.2	(26)
▲ S&P 500	18.4	(29)	31.5	(28)	-4.4	(32)	21.8	(46)	12.0	(21)	1.4	(37)	13.7	(33)	32.4	(43)	16.0	(30)	2.1	(26)


Risk vs. Return
3 Years
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Annualized Return
S&P 500
QMA Large Cap Core
208 Portfolios
0.0
10.0
20.0
30.0
40.0
Annualized Standard Deviation
QMA Large Cap Core
S&P 500
Universe Median
68% Confidence Interval
eV US Large Cap Core Equity Net


Risk vs. Return
5 Years
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Annualized Return
S&P 500
QMA Large Cap Core
195 Portfolios
0.0
5.0
10.0
15.0
20.0
25.0
Annualized Standard Deviation
QMA Large Cap Core
S&P 500
Universe Median
68% Confidence Interval
eV US Large Cap Core Equity Net

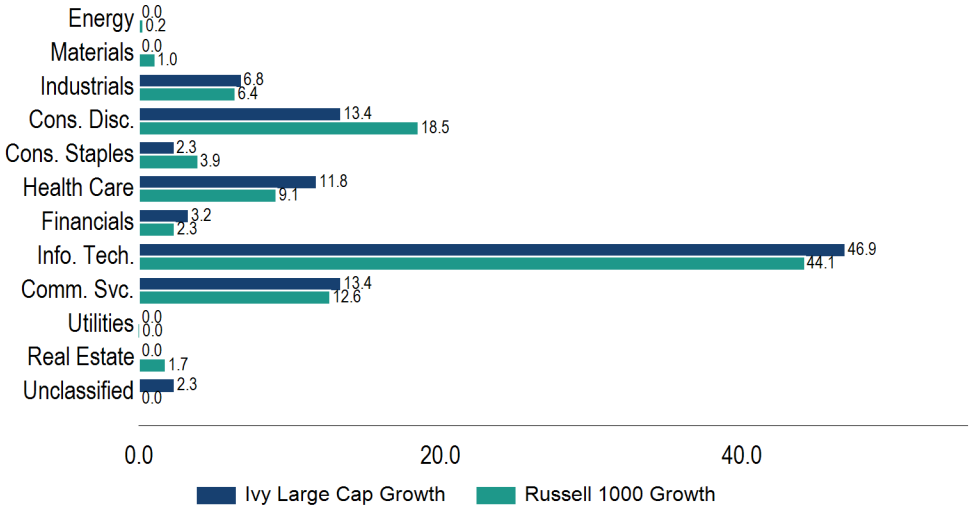

Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. S&P 500
Universe Upper Quartile
Universe Median
Universe Lower Quartile
5.00
0.00
-5.00
Exc & Roll Ret
2016
2017
2018
2019
2020
2021
Year


Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. S&P 500
Universe Upper Quartile
Universe Median
Universe Lower Quartile
5.00
0.00
-5.00
Exc & Roll Ret
2016
2017
2018
2019
2020
2021
Year

Characteristics

	Portfolio	Russell 1000 Growth
Number of Holdings	40	486
Weighted Avg. Market Cap. ($B)	742.42	787.79
Median Market Cap. ($B)	98.88	19.39
Price To Earnings	38.67	38.31
Price To Book	10.24	13.49
Price To Sales	6.90	6.12
Return on Equity (%)	42.25	41.37
Yield (%)	0.56	0.72
Beta	0.90	1.00

Sector Allocation (%) vs Russell 1000 Growth



*Unclassified includes Cash

Top Holdings
Ending Period Weight

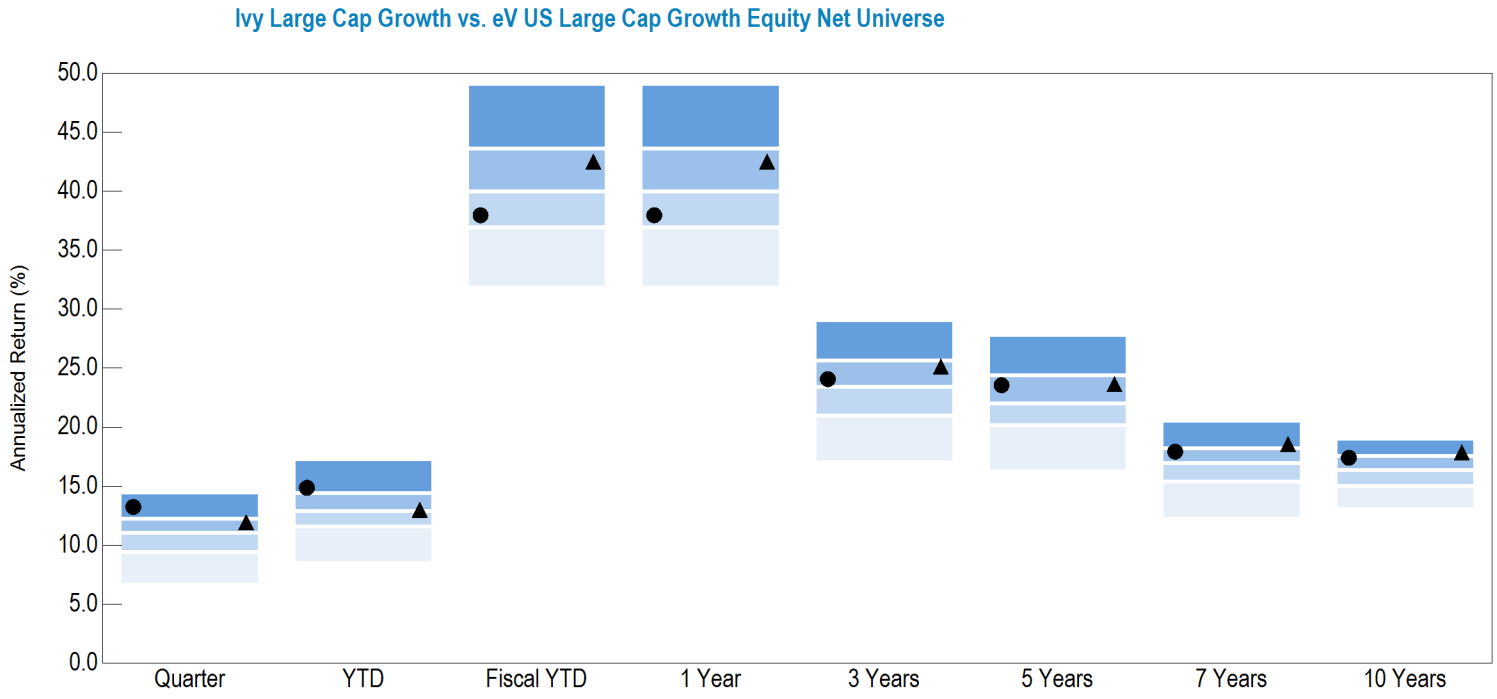
MICROSOFT CORP	9.78%
APPLE INC	7.78%
AMAZON.COM INC	6.77%
ALPHABET INC	5.16%
VISA INC	4.66%
FACEBOOK INC	3.86%
MOTOROLA SOLUTIONS INC	3.58%
NVIDIA CORPORATION	3.45%
INTUIT INC.	3.37%
PAYPAL HOLDINGS INC	3.01%
Total	**51.41%**

Top Contributors

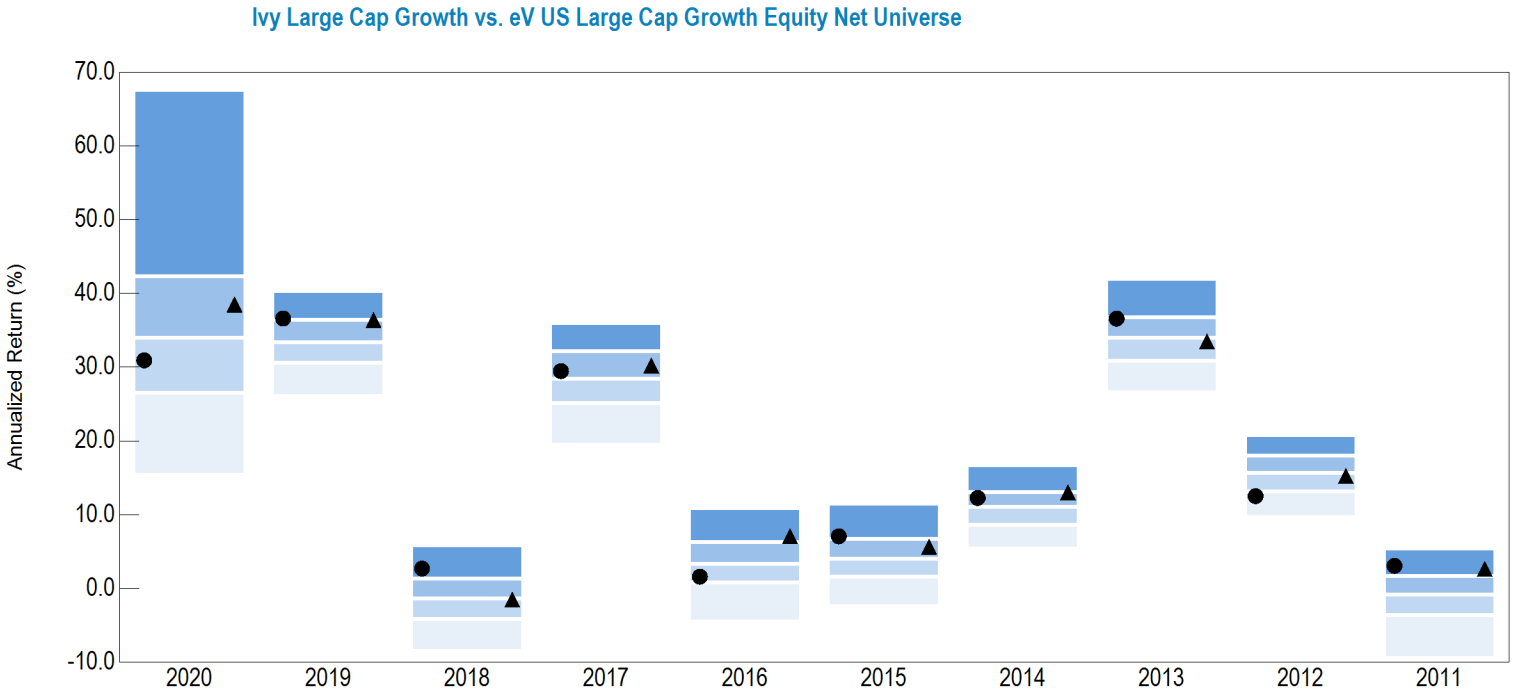
	Avg Wgt	Return	Contribution
MICROSOFT CORP	9.64	15.17	1.46
NVIDIA CORPORATION	2.60	49.88	1.30
APPLE INC	7.86	12.31	0.97
ALPHABET INC	4.94	18.39	0.91
INTUIT INC.	2.98	28.14	0.84
AMAZON.COM INC	6.90	11.19	0.77
FACEBOOK INC	3.67	18.06	0.66
GARTNER INC	1.96	32.68	0.64
ADOBE INC	2.74	23.20	0.64
PAYPAL HOLDINGS INC	2.84	20.03	0.57

Bottom Contributors

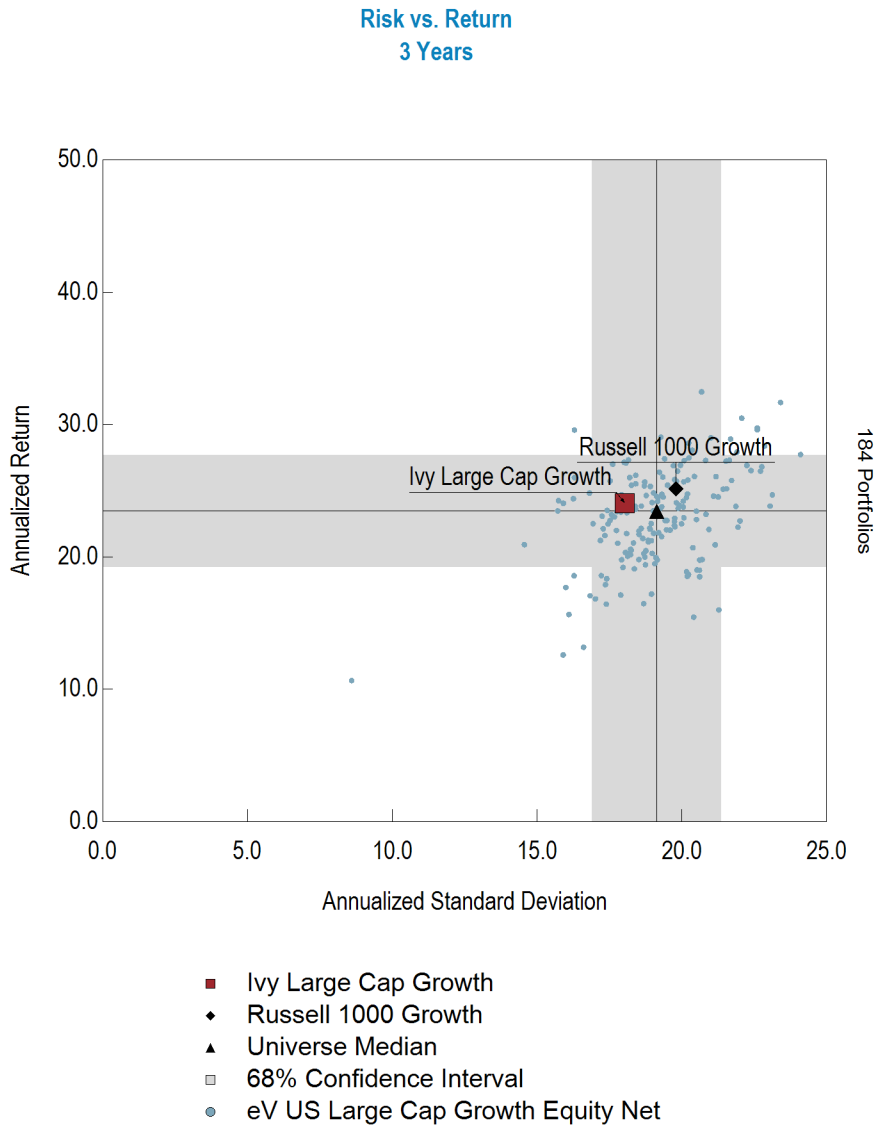
	Avg Wgt	Return	Contribution
BOOKING HOLDINGS INC	1.64	-6.08	-0.10
J.B. HUNT TRANSPORT SERVICES INC.	1.74	-2.88	-0.05
FERRARI NV	1.85	-1.54	-0.03
VERISK ANALYTICS INC	1.20	-0.95	-0.01
UNION PACIFIC CORP	1.21	0.26	0.00
ZEBRA TECHNOLOGIES CORP.	0.36	9.13	0.03
DEXCOM INC	0.30	18.81	0.06
ESTEE LAUDER COS INC (THE)	0.61	9.55	0.06
METTLER-TOLEDO INTERNATIONAL INC	0.31	19.87	0.06
PINTEREST INC	0.97	6.65	0.06

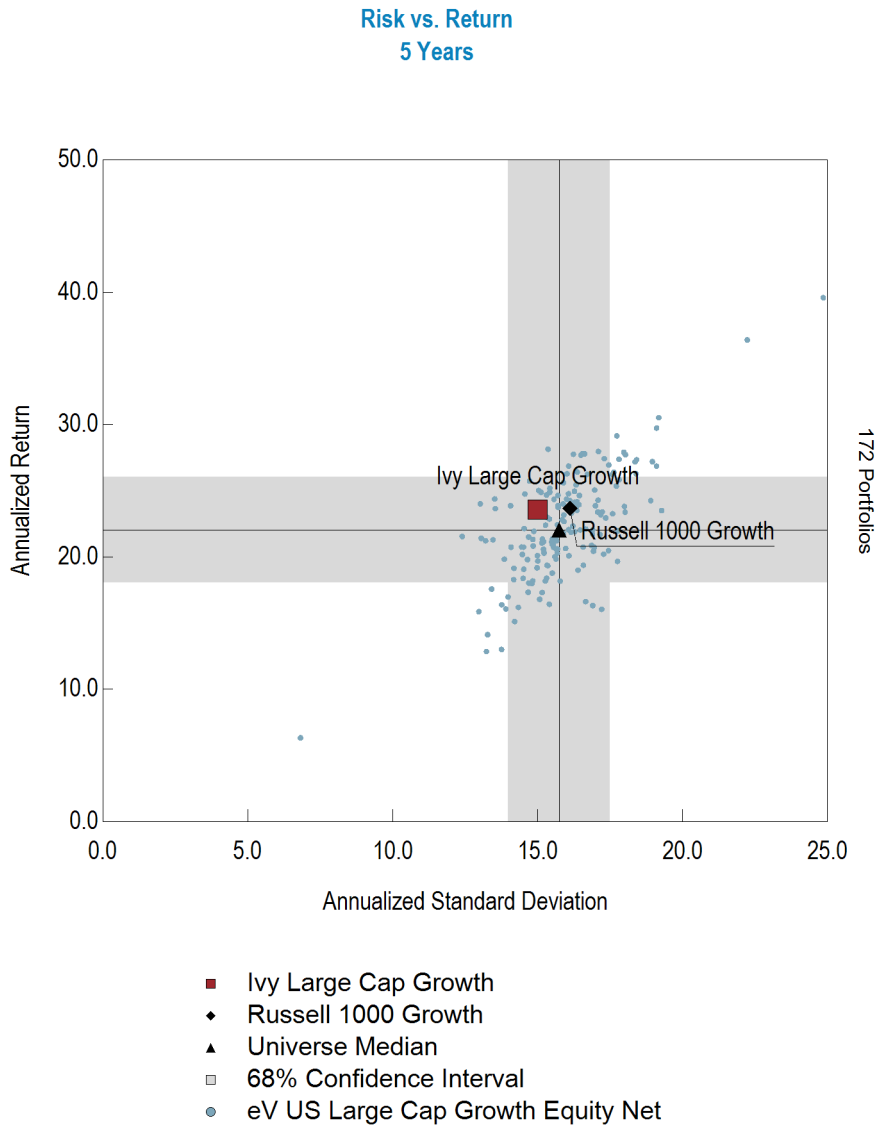


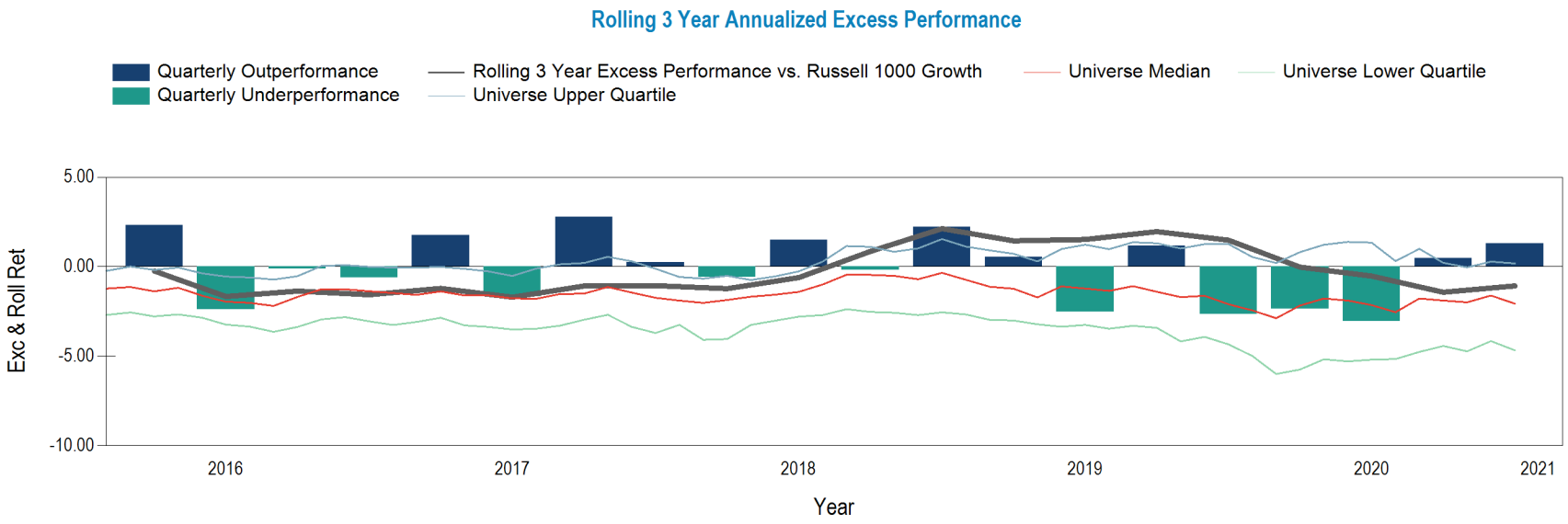
	Return (Rank)															
5th Percentile	14.5		17.3		49.1		49.1		29.0		27.8		20.5		19.0	
25th Percentile	12.3		14.5		43.6		43.6		25.7		24.4		18.3		17.6	
Median	11.1		12.9		40.0		40.0		23.5		22.0		17.0		16.4	
75th Percentile	9.4		11.6		37.0		37.0		21.0		20.2		15.4		15.0	
95th Percentile	6.7		8.5		31.8		31.8		17.1		16.3		12.3		13.1	
# of Portfolios	193		193		192		192		184		172		160		145	
● Ivy Large Cap Growth	13.2	(13)	14.9	(20)	38.0	(68)	38.0	(68)	24.1	(42)	23.6	(38)	17.9	(35)	17.4	(28)
▲ Russell 1000 Growth	11.9	(33)	13.0	(48)	42.5	(32)	42.5	(32)	25.1	(30)	23.7	(37)	18.6	(21)	17.9	(18)

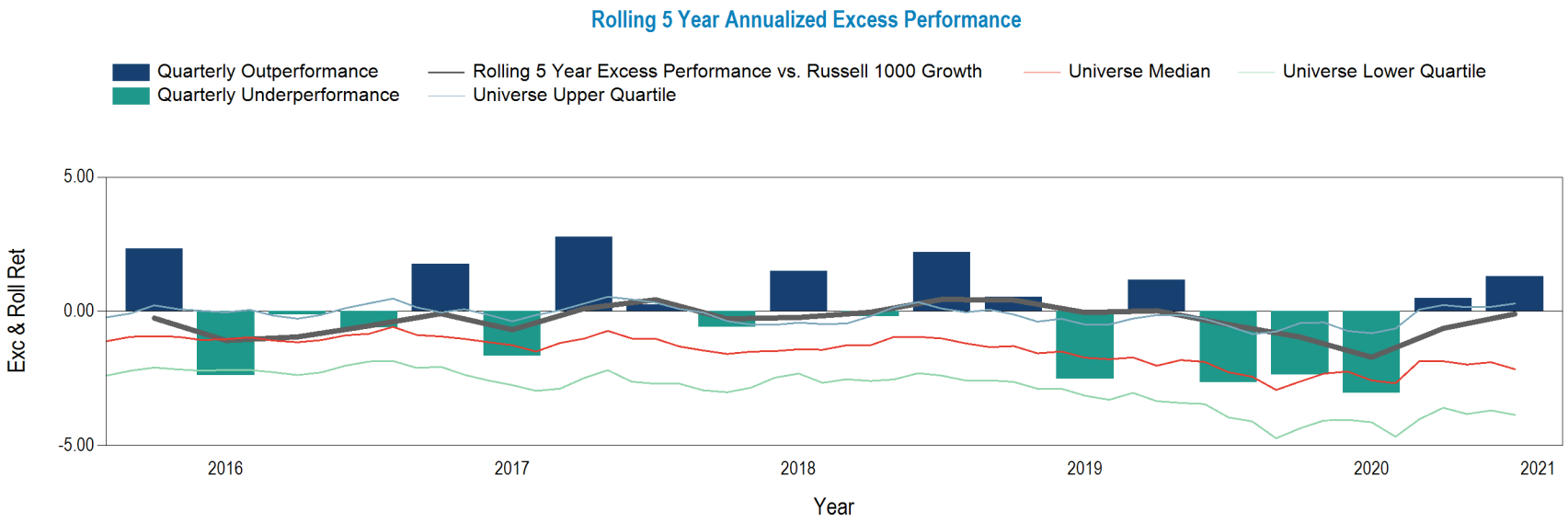


	Return (Rank)									
5th Percentile	67.5	40.3	5.8	36.0	10.8	11.4	16.7	41.9	20.7	5.4
25th Percentile	42.4	36.5	1.4	32.2	6.3	6.8	13.1	36.8	18.1	1.7
Median	34.1	33.4	-1.3	28.5	3.4	4.1	11.1	34.0	15.7	-0.8
75th Percentile	26.6	30.6	-4.1	25.2	0.8	1.6	8.7	30.9	13.2	-3.5
95th Percentile	15.5	26.1	-8.4	19.5	-4.5	-2.3	5.5	26.6	9.7	-9.4
# of Portfolios	198	186	179	182	182	175	180	158	140	133
● Ivy Large Cap Growth	30.9 (64)	36.6 (25)	2.7 (16)	29.5 (46)	1.6 (70)	7.1 (23)	12.3 (36)	36.6 (28)	12.5 (80)	3.1 (17)
▲ Russell 1000 Growth	38.5 (33)	36.4 (27)	-1.5 (52)	30.2 (38)	7.1 (20)	5.7 (35)	13.0 (28)	33.5 (54)	15.3 (58)	2.6 (20)


Risk vs. Return
3 Years
Annualized Return
Annualized Standard Deviation
Russell 1000 Growth
Ivy Large Cap Growth
184 Portfolios
Ivy Large Cap Growth
Russell 1000 Growth
Universe Median
68% Confidence Interval
eV US Large Cap Growth Equity Net


Risk vs. Return
5 Years
Annualized Return
Annualized Standard Deviation
Ivy Large Cap Growth
Russell 1000 Growth
172 Portfolios
Ivy Large Cap Growth
Russell 1000 Growth
Universe Median
68% Confidence Interval
eV US Large Cap Growth Equity Net

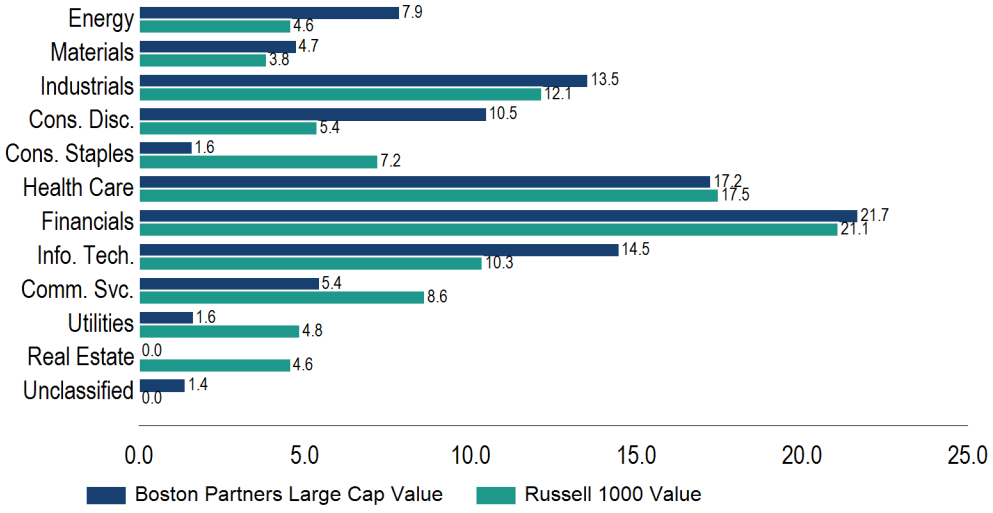

Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Russell 1000 Growth
Universe Upper Quartile
Universe Median
Universe Lower Quartile
5.00
0.00
-5.00
-10.00
Exc & Roll Ret
2016
2017
2018
2019
2020
2021
Year


Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. Russell 1000 Growth
Universe Upper Quartile
Universe Median
Universe Lower Quartile
5.00
0.00
-5.00
Exc & Roll Ret
2016
2017
2018
2019
2020
2021
Year

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	93	832
Weighted Avg. Market Cap. ($B)	172.61	153.08
Median Market Cap. ($B)	49.20	14.25
Price To Earnings	19.53	20.81
Price To Book	2.58	2.73
Price To Sales	1.81	2.40
Return on Equity (%)	15.87	13.27
Yield (%)	1.53	1.94
Beta	1.11	1.00

Sector Allocation (%) vs Russell 1000 Value



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

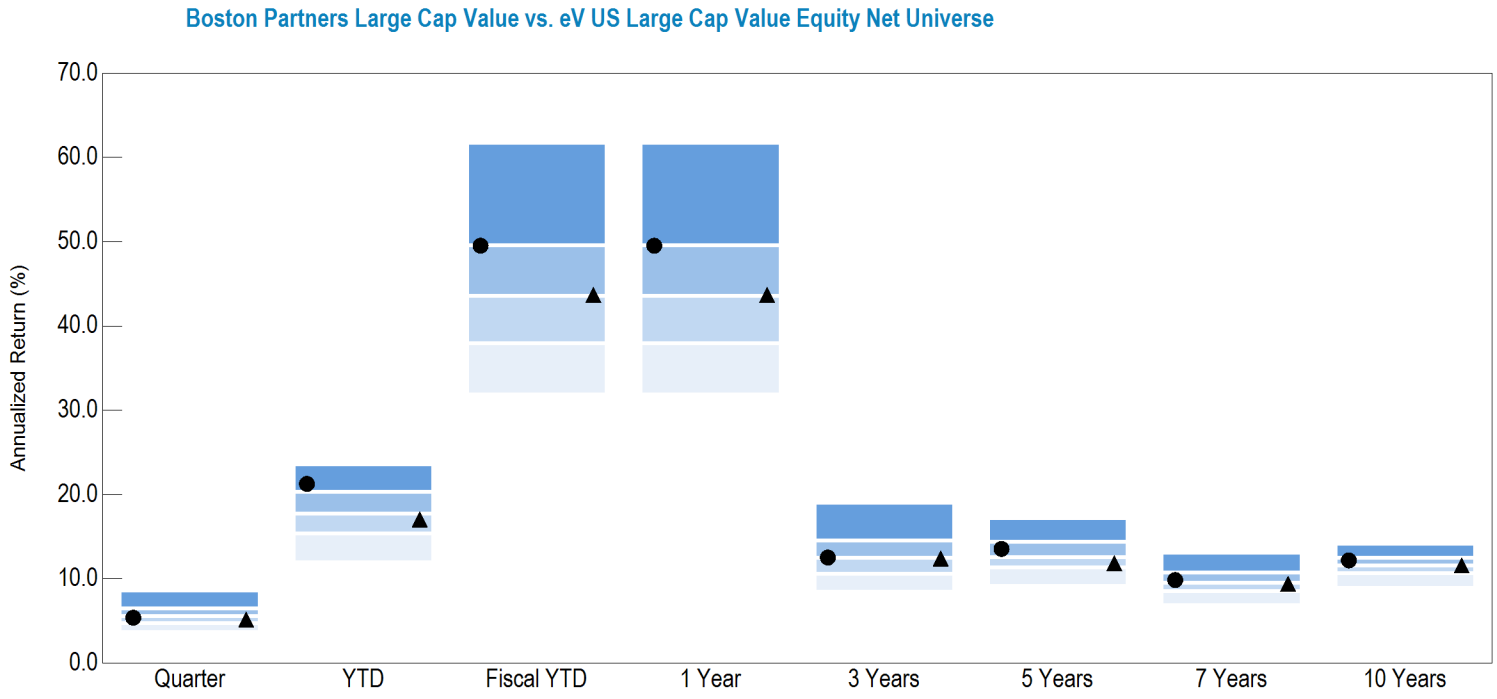
JPMORGAN CHASE & CO	3.06%
JOHNSON & JOHNSON	3.05%
BERKSHIRE HATHAWAY INC	2.86%
CISCO SYSTEMS INC	2.68%
CONOCOPHILLIPS	2.16%
ALPHABET INC	2.10%
BANK OF AMERICA CORP	2.06%
AUTOZONE INC	2.05%
CIGNA CORP	1.92%
APPLIED MATERIALS INC.	1.90%
Total	**23.83%**

Top Contributors

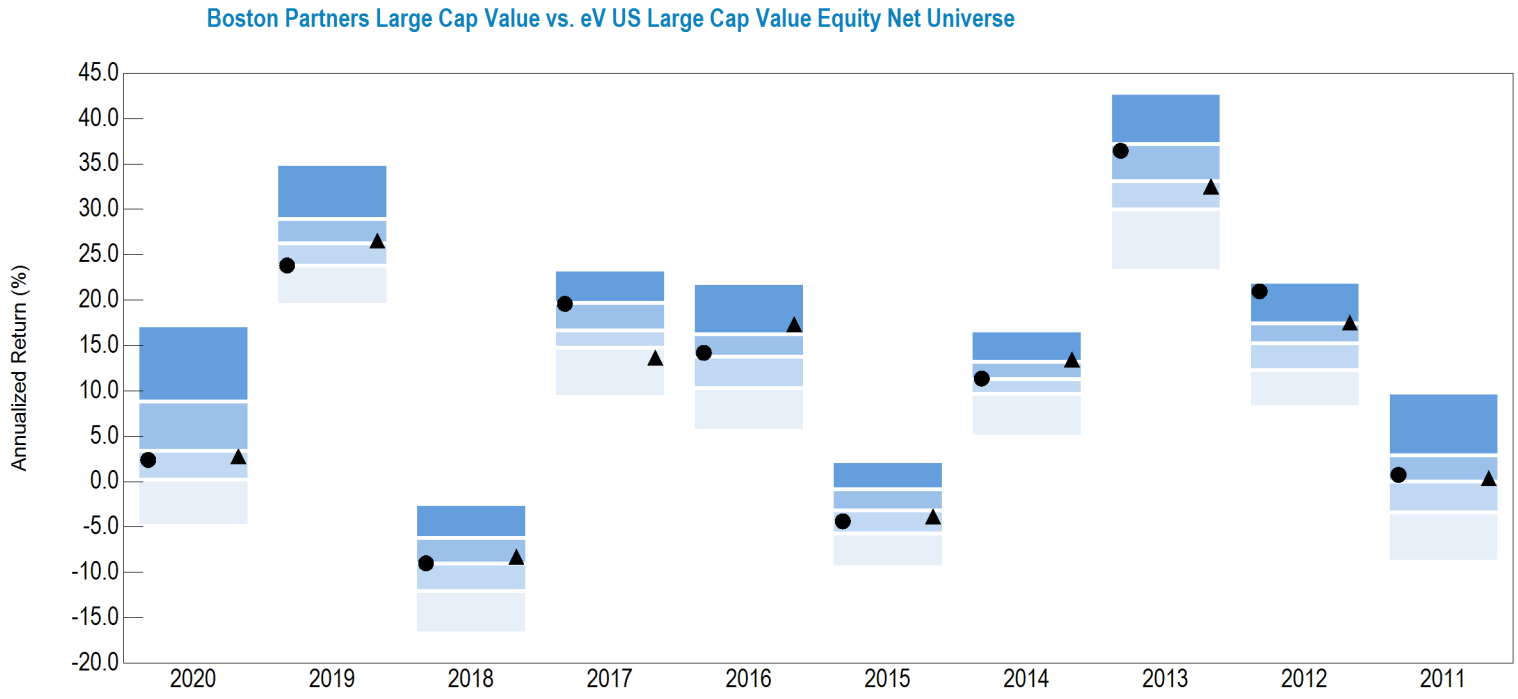
	Avg Wgt	Return	Contribution
ALPHABET INC	1.87	18.39	0.34
CONOCOPHILLIPS	1.98	15.88	0.31
T-MOBILE US INC	1.65	15.60	0.26
BERKSHIRE HATHAWAY INC	2.77	8.79	0.24
CAPITAL ONE FINANCIAL CORP.	1.02	21.89	0.22
BANK OF AMERICA CORP	2.98	7.01	0.21
GOLDMAN SACHS GROUP INC (THE)	1.25	16.45	0.21
MARATHON PETROLEUM CORP	1.39	14.04	0.20
AVANTOR INC	0.75	22.74	0.17
OTIS WORLDWIDE CORP	0.84	19.83	0.17

Bottom Contributors

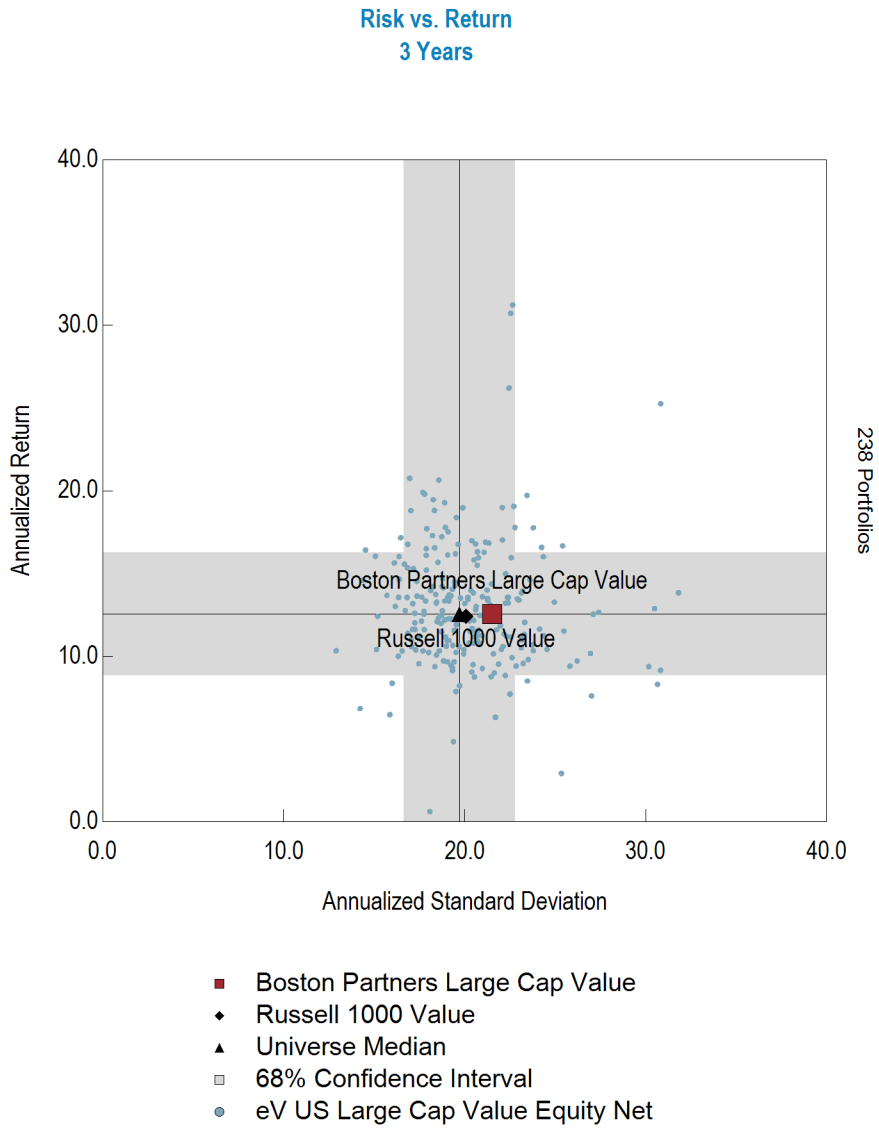
	Avg Wgt	Return	Contribution
DEERE & CO	1.96	-5.48	-0.11
LAS VEGAS SANDS CORP	0.70	-13.28	-0.09
CATERPILLAR INC	1.50	-5.72	-0.09
TRUIST FINANCIAL CORP	1.91	-4.13	-0.08
BOEING CO	1.27	-5.95	-0.08
MICRON TECHNOLOGY INC.	1.68	-3.66	-0.06
AERCAP HOLDINGS NV	0.35	-12.82	-0.04
HOLLYFRONTIER CORP	0.53	-8.05	-0.04
KOHL'S CORP	0.59	-7.13	-0.04
WILLIAMS-SONOMA INC.	0.37	-10.60	-0.04

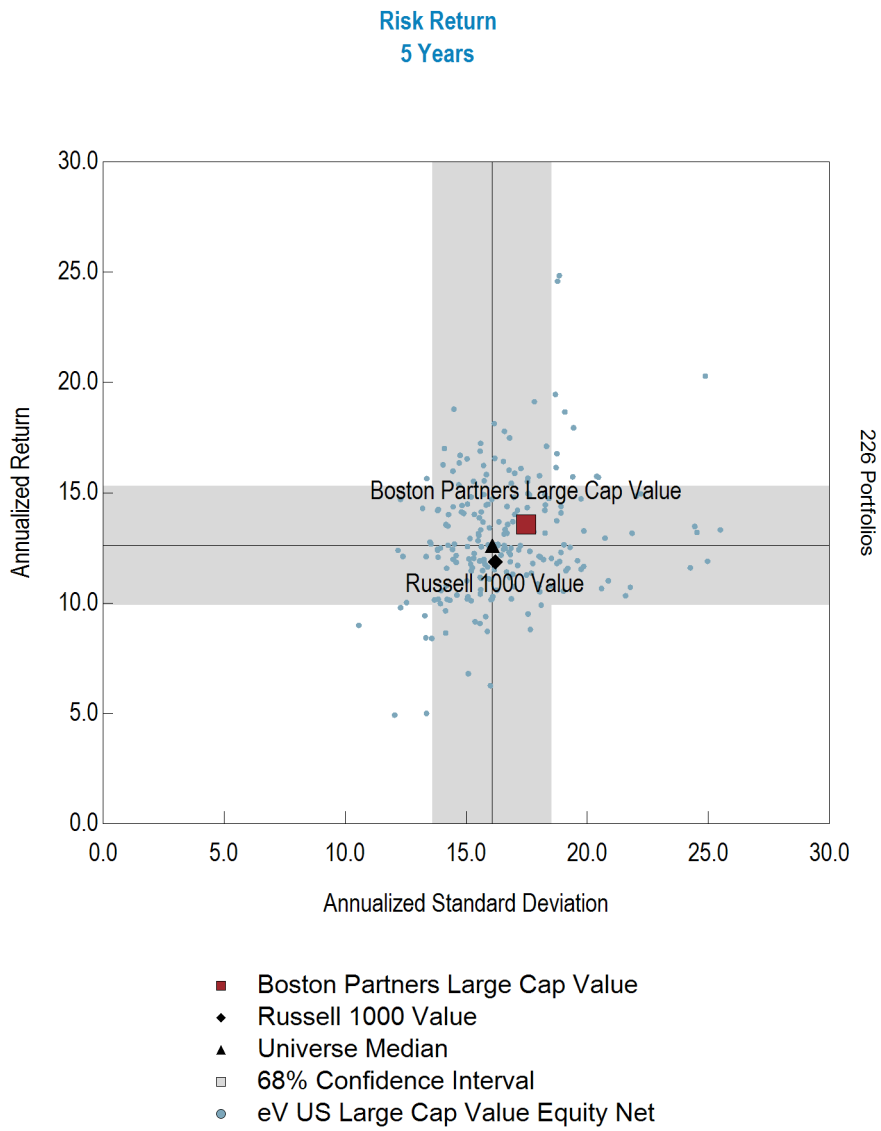


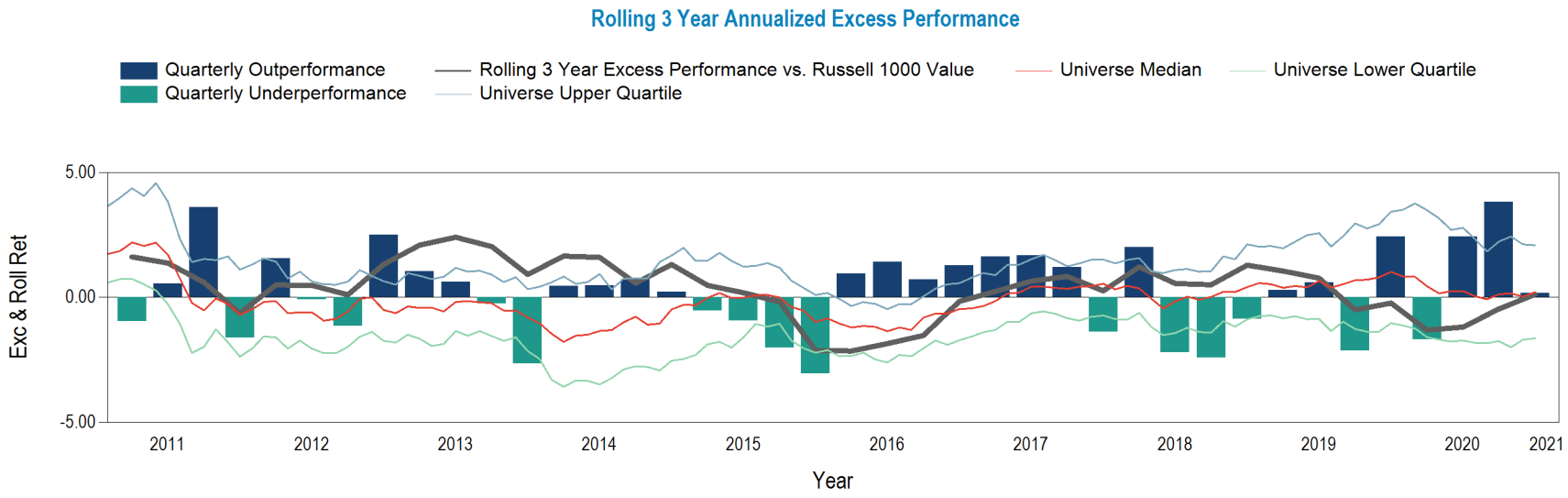
	Return (Rank)															
5th Percentile	8.6		23.5		61.7		61.7		19.0		17.2		13.1		14.2	
25th Percentile	6.6		20.4		49.6		49.6		14.6		14.4		10.8		12.6	
Median	5.6		17.8		43.6		43.6		12.5		12.6		9.6		11.6	
75th Percentile	4.8		15.5		38.0		38.0		10.6		11.4		8.6		10.7	
95th Percentile	3.7		12.0		31.9		31.9		8.5		9.2		6.9		8.9	
# of Portfolios	245		245		245		245		238		226		214		188	
● **Boston Partners Large Cap Value**	5.4	(56)	21.3	(19)	49.5	(26)	49.5	(26)	12.5	(51)	13.6	(37)	9.9	(44)	12.2	(33)
▲ **Russell 1000 Value**	5.2	(63)	17.0	(61)	43.7	(50)	43.7	(50)	12.4	(52)	11.9	(67)	9.4	(54)	11.6	(50)

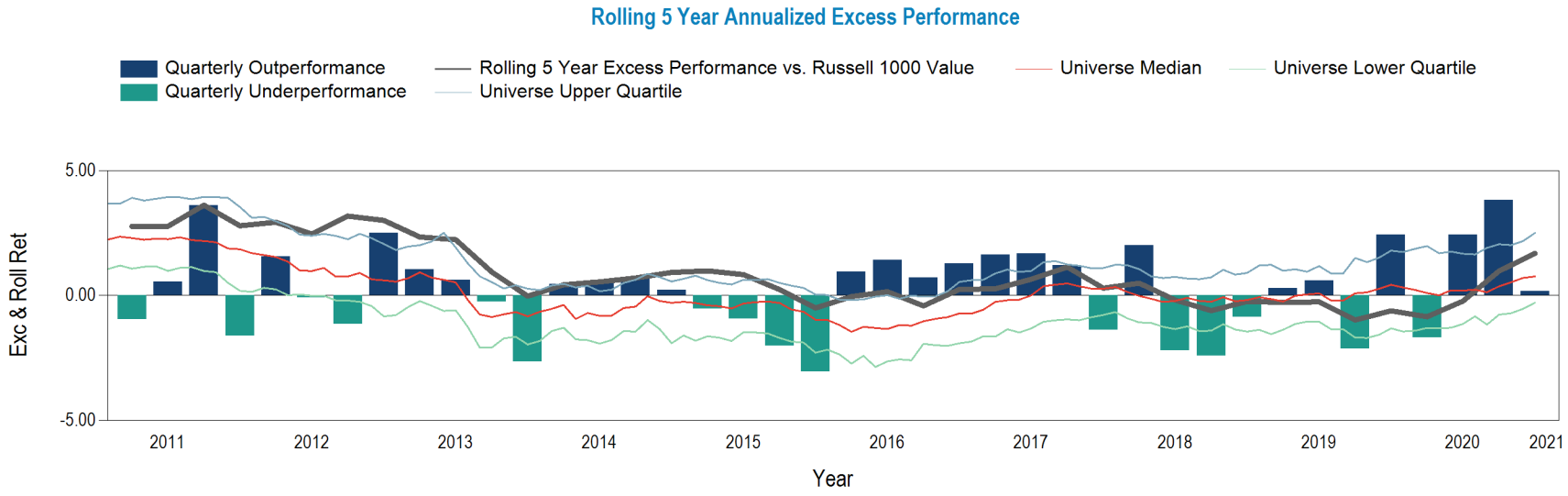


	Return (Rank)																			
5th Percentile	17.2		34.9		-2.5		23.3		21.8		2.2		16.6		42.8		22.0		9.8	
25th Percentile	8.9		28.9		-6.1		19.7		16.3		-0.8		13.3		37.3		17.5		2.9	
Median	3.4		26.3		-9.0		16.7		13.8		-3.1		11.3		33.1		15.3		0.0	
75th Percentile	0.2		23.8		-12.0		14.8		10.4		-5.7		9.7		30.0		12.3		-3.4	
95th Percentile	-4.8		19.5		-16.7		9.4		5.6		-9.4		5.0		23.2		8.2		-8.8	
# of Portfolios	239		249		239		231		225		195		197		184		164		149	
● **Boston Partners Large Cap Value**	2.4	(57)	23.8	(75)	-9.0	(51)	19.6	(26)	14.2	(47)	-4.4	(63)	11.4	(50)	36.4	(30)	21.0	(7)	0.7	(44)
▲ **Russell 1000 Value**	2.8	(54)	26.5	(49)	-8.3	(43)	13.7	(86)	17.3	(19)	-3.8	(59)	13.5	(24)	32.5	(54)	17.5	(25)	0.4	(48)


Risk vs. Return
3 Years
Annualized Return
Annualized Standard Deviation
Boston Partners Large Cap Value
Russell 1000 Value
238 Portfolios
0.0
10.0
20.0
30.0
40.0
Boston Partners Large Cap Value
Russell 1000 Value
Universe Median
68% Confidence Interval
eV US Large Cap Value Equity Net


Risk Return
5 Years
Annualized Return
Annualized Standard Deviation
Boston Partners Large Cap Value
Russell 1000 Value
226 Portfolios
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Boston Partners Large Cap Value
Russell 1000 Value
Universe Median
68% Confidence Interval
eV US Large Cap Value Equity Net

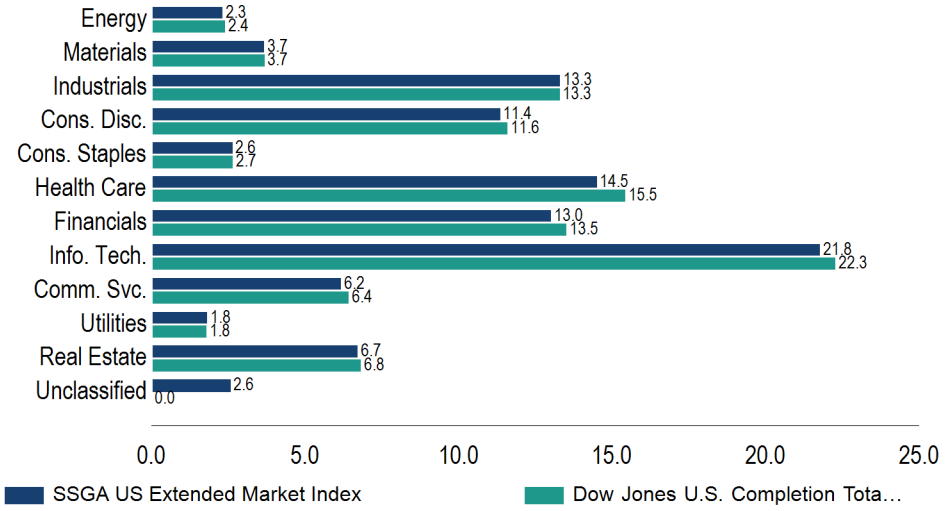

Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Russell 1000 Value
Universe Upper Quartile
Universe Median
Universe Lower Quartile
5.00
0.00
-5.00
Exc & Roll Ret
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year


Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. Russell 1000 Value
Universe Upper Quartile
Universe Median
Universe Lower Quartile
5.00
0.00
-5.00
Exc & Roll Ret
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

Characteristics

	Portfolio	Dow Jones U.S. Completion Total Stock Market
Number of Holdings	2,021	3,370
Weighted Avg. Market Cap. ($B)	16.71	16.58
Median Market Cap. ($B)	0.99	0.90
Price To Earnings	23.03	22.85
Price To Book	3.63	3.60
Price To Sales	2.52	2.53
Return on Equity (%)	-0.84	-1.46
Yield (%)	0.88	0.87
Beta		1.00

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



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

SQUARE INC	1.21%
ZOOM VIDEO COMMUNICATIONS INC	1.05%
UBER TECHNOLOGIES INC	0.93%
MODERNA INC	0.90%
BLACKSTONE GROUP INC	0.84%
SNAP INC	0.81%
TWILIO INC	0.81%
DOCUSIGN INC.	0.69%
ROKU INC	0.67%
CROWDSTRIKE HOLDINGS INC	0.64%
Total	**8.55%**

Top Contributors

	End Weight	Return	Contribution
AMC ENTERTAINMENT HOLDINGS INC	0.36	455.14	1.62
MODERNA INC	0.89	79.44	0.71
ROKU INC	0.66	40.97	0.27
BLACKSTONE GROUP INC	0.83	31.53	0.26
DOCUSIGN INC.	0.68	38.09	0.26
SNAP INC	0.80	30.31	0.24
CROWDSTRIKE HOLDINGS INC	0.63	37.70	0.24
ZOOM VIDEO COMMUNICATIONS INC	1.04	20.46	0.21
NOVOCURE LTD	0.23	67.82	0.16
CLOUDFLARE INC	0.25	50.64	0.13

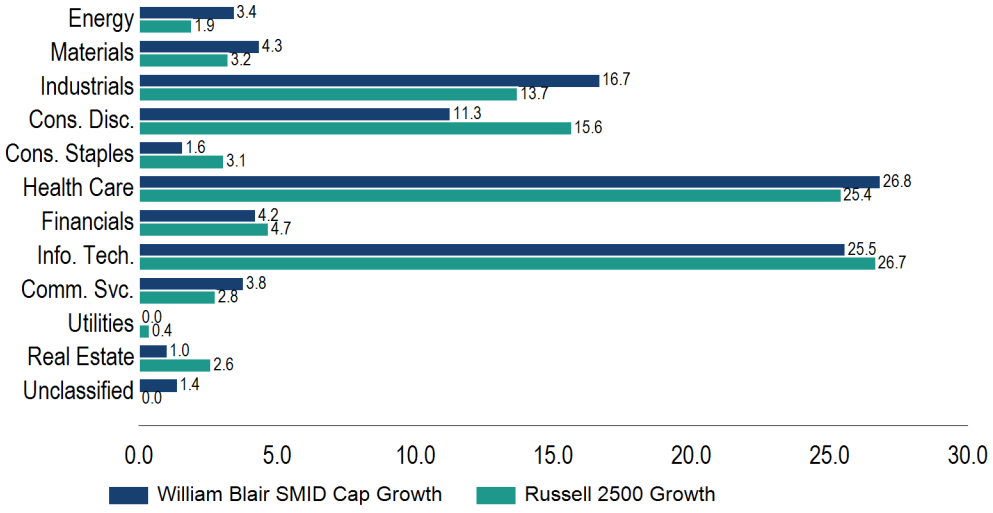
Bottom Contributors

	End Weight	Return	Contribution
UBER TECHNOLOGIES INC	0.93	-8.05	-0.07
AIRBNB INC	0.28	-18.52	-0.05
DRAFTKINGS INC	0.21	-14.94	-0.03
GUARDANT HEALTH INC	0.13	-18.64	-0.02
PG&E CORP	0.18	-13.15	-0.02
TELADOC HEALTH INC	0.27	-8.51	-0.02
WORKDAY INC	0.57	-3.90	-0.02
SCOTTS MIRACLE-GRO CO (THE)	0.10	-21.43	-0.02
QUANTUMSCAPE CORP	0.06	-34.61	-0.02
BOSTON BEER CO INC. (THE)	0.12	-15.38	-0.02

Characteristics

	Portfolio	Russell 2500 Growth
Number of Holdings	76	1,322
Weighted Avg. Market Cap. ($B)	10.36	7.46
Median Market Cap. ($B)	7.63	2.08
Price To Earnings	42.15	34.61
Price To Book	6.13	6.88
Price To Sales	4.40	3.37
Return on Equity (%)	7.34	-2.89
Yield (%)	0.34	0.42
Beta	0.83	1.00

Sector Allocation (%) vs Russell 2500 Growth



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

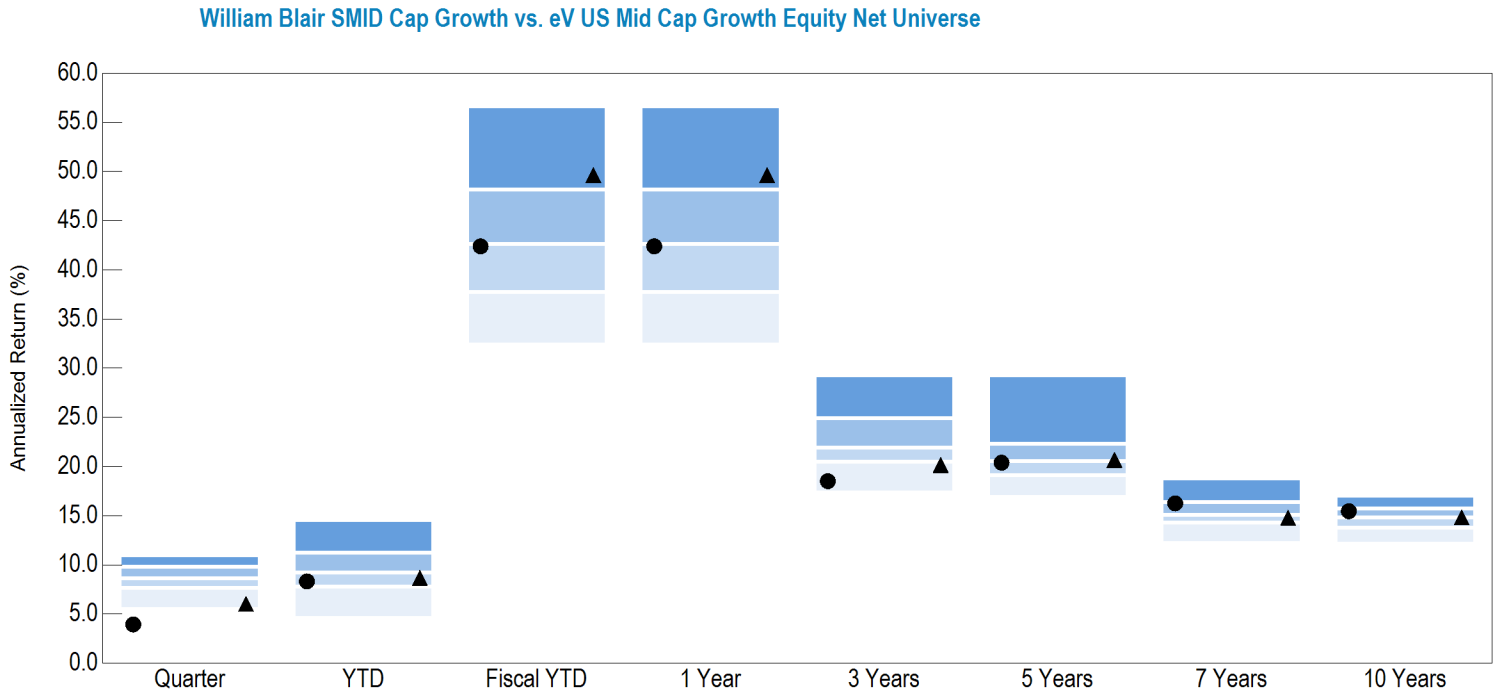
HORIZON THERAPEUTICS PUBLIC LTD CO	2.35%
BWX TECHNOLOGIES INC	2.26%
MARTIN MARIETTA MATERIALS INC.	2.21%
CROWN HOLDINGS INC	2.19%
GENERAC HOLDINGS INC	2.17%
DYNATRACE INC	2.11%
BRINK'S CO (THE)	2.09%
AXON ENTERPRISE INC	2.04%
TREX CO INC	2.02%
BIO-TECHNE CORP	2.00%
Total	**21.44%**

Top Contributors

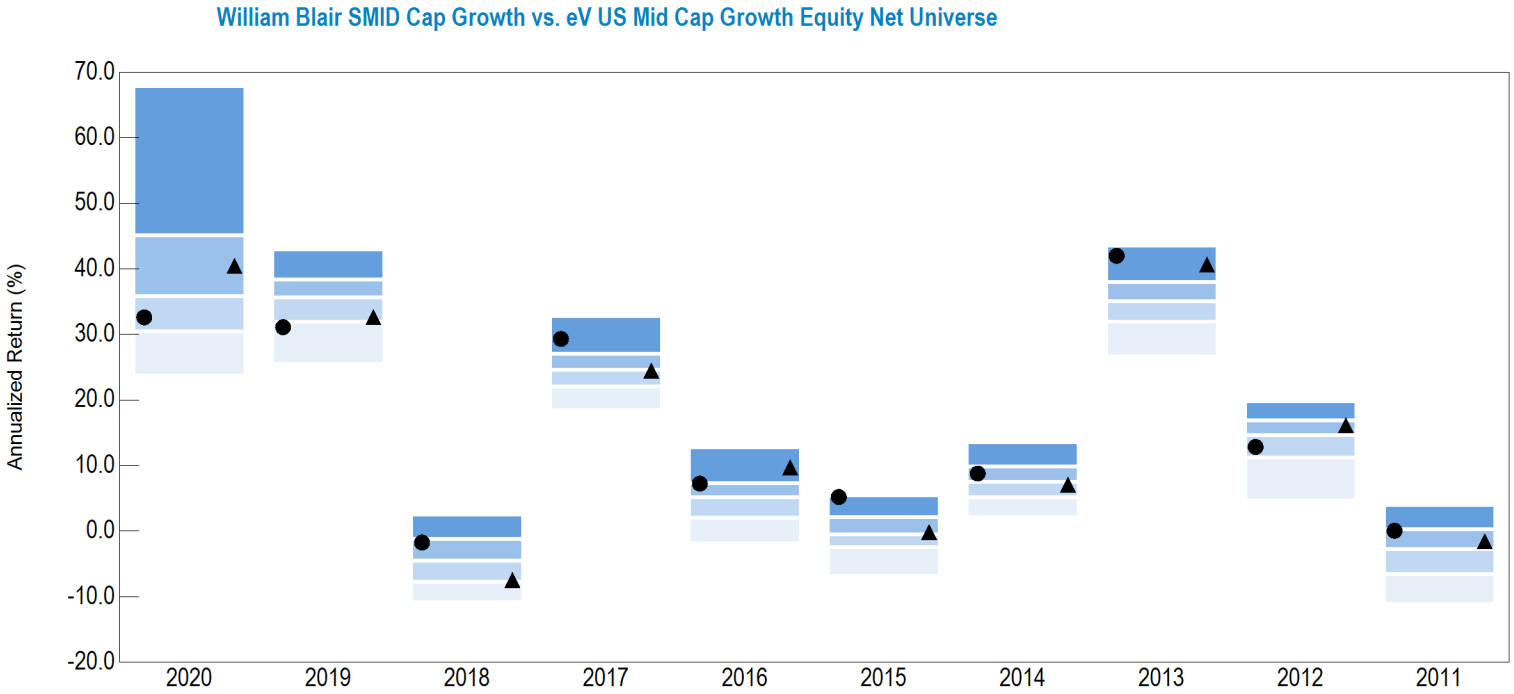
	Avg Wgt	Return	Contribution
GENERAC HOLDINGS INC	1.76	26.78	0.47
CHARLES RIVER LABORATORIES INTERNATIONAL INC	1.60	27.63	0.44
AXON ENTERPRISE INC	1.68	24.14	0.41
BIO-TECHNE CORP	2.08	17.98	0.37
CELSIUS HOLDINGS INC	0.53	58.36	0.31
PROOFPOINT INC	0.81	38.14	0.31
BROOKS AUTOMATION INC	1.76	16.81	0.30
HEALTHEQUITY INC	1.55	18.35	0.28
DYNATRACE INC	1.24	21.10	0.26
AVALARA INC	1.18	21.26	0.25

Bottom Contributors

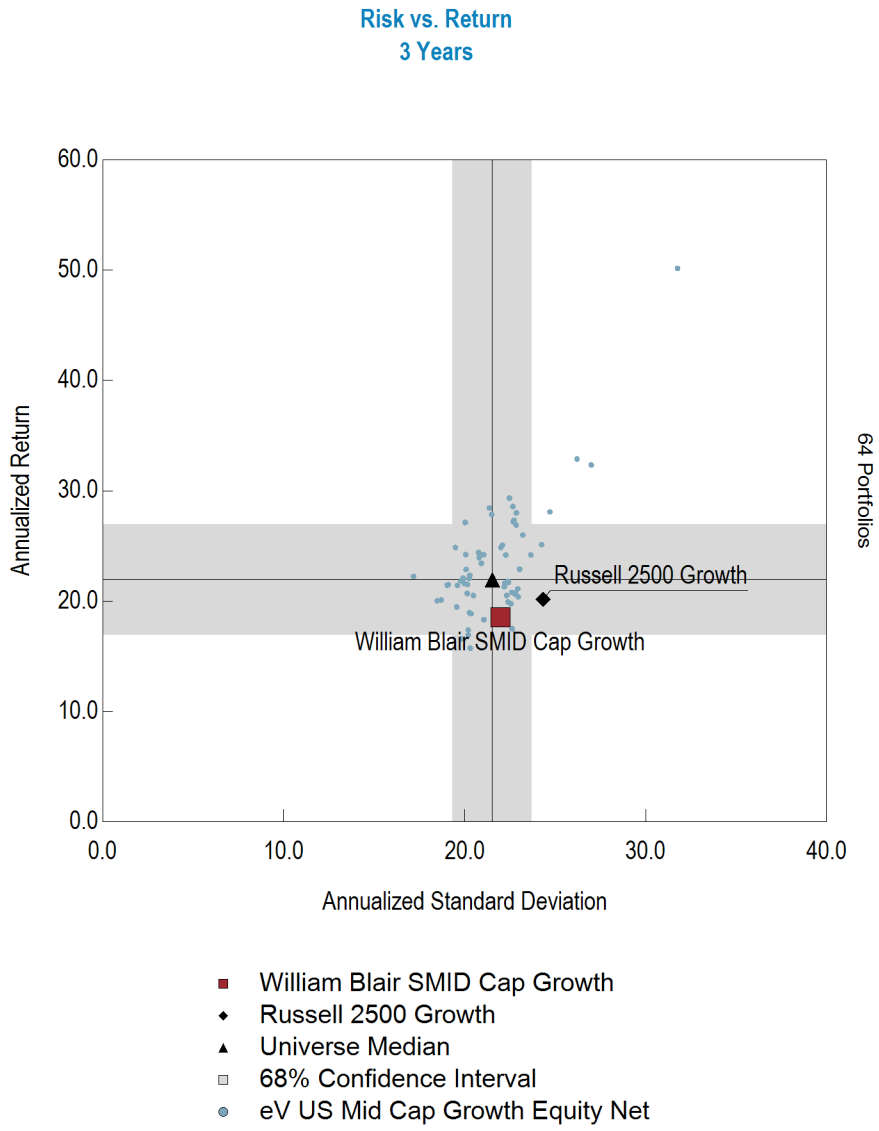
	Avg Wgt	Return	Contribution
GRAND CANYON EDUCATION INC	2.54	-16.00	-0.41
VERACYTE INC	1.49	-25.62	-0.38
BWX TECHNOLOGIES INC	2.63	-11.56	-0.30
BRIGHT HORIZONS FAMILY SOLUTIONS INC	1.58	-14.20	-0.22
PURE STORAGE INC	1.77	-9.33	-0.16
NEW FORTRESS ENERGY INC	0.88	-17.30	-0.15
LIGAND PHARMACEUTICALS INC	1.06	-13.95	-0.15
VIRTU FINANCIAL INC	1.39	-10.31	-0.14
BUILDERS FIRSTSOURCE INC	1.44	-8.00	-0.12

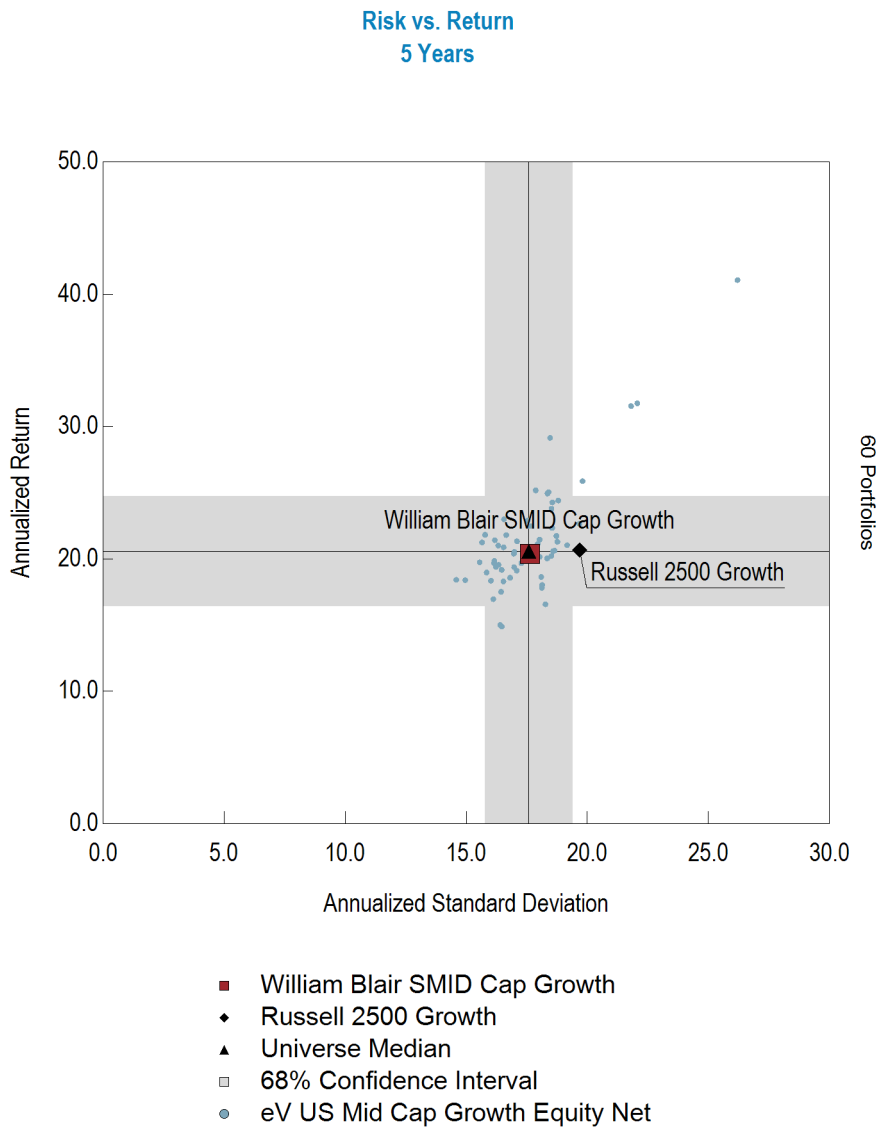


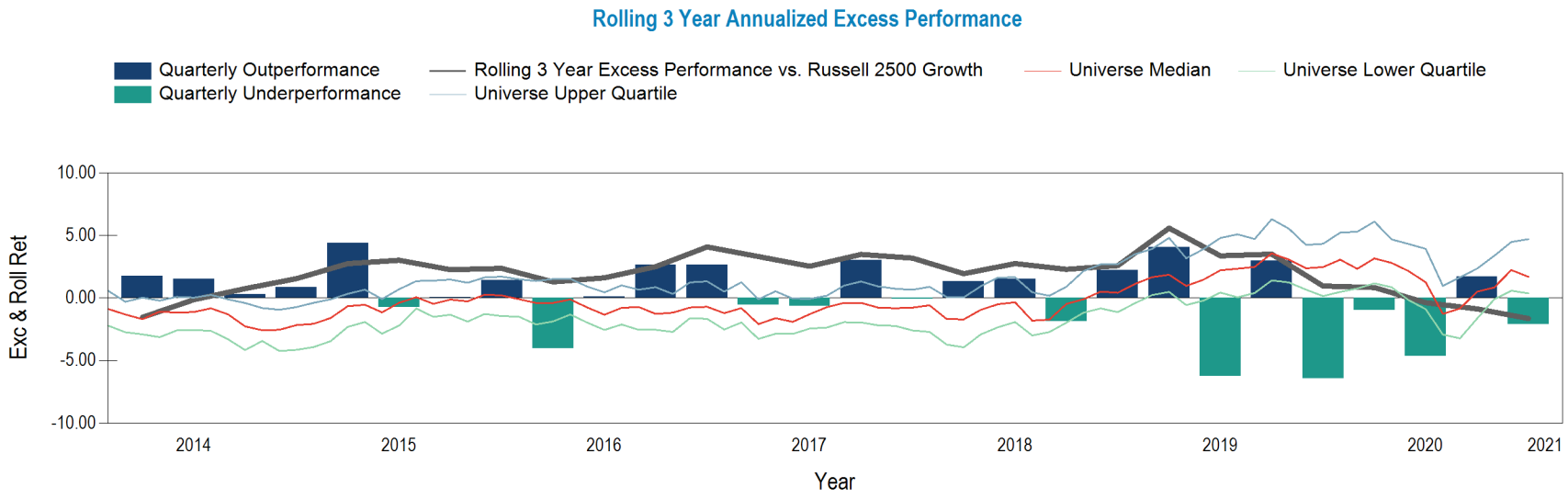
	Return (Rank)															
5th Percentile	10.9		14.6		56.6		56.6		29.2		29.3		18.7		17.0	
25th Percentile	9.8		11.3		48.2		48.2		24.9		22.4		16.4		15.7	
Median	8.7		9.3		42.7		42.7		21.9		20.6		15.1		14.9	
75th Percentile	7.7		7.8		37.7		37.7		20.5		19.2		14.3		13.8	
95th Percentile	5.5		4.6		32.4		32.4		17.4		16.9		12.3		12.2	
# of Portfolios	68		68		68		68		64		60		58		53	
● **William Blair SMID Cap Growth**	3.9	(99)	8.3	(71)	42.4	(51)	42.4	(51)	18.5	(90)	20.4	(55)	16.3	(28)	15.5	(36)
▲ **Russell 2500 Growth**	6.0	(89)	8.7	(62)	49.6	(21)	49.6	(21)	20.1	(80)	20.7	(48)	14.8	(66)	14.8	(53)

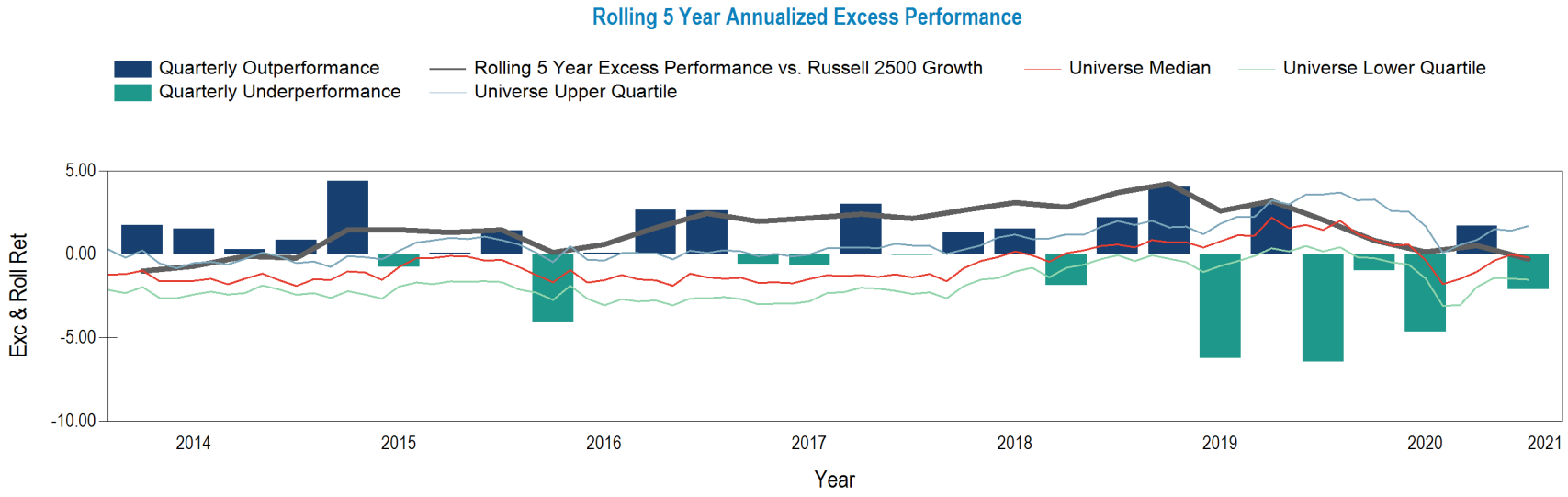


	Return (Rank)									
5th Percentile	67.8	42.9	2.5	32.8	12.7	5.4	13.5	43.5	19.8	3.9
25th Percentile	45.2	38.4	-1.2	27.1	7.3	2.2	9.9	38.0	16.9	0.4
Median	35.9	35.7	-4.4	24.7	5.2	-0.5	7.6	35.1	14.7	-2.7
75th Percentile	30.5	32.0	-7.7	22.1	2.1	-2.4	5.2	32.0	11.3	-6.5
95th Percentile	23.8	25.6	-10.8	18.5	-1.8	-6.8	2.2	26.7	4.7	-11.1
# of Portfolios	71	65	70	73	72	63	75	68	64	58
● **William Blair SMID Cap Growth**	32.6 (64)	31.1 (78)	-1.7 (30)	29.3 (14)	7.2 (28)	5.2 (6)	8.8 (36)	42.0 (9)	12.8 (69)	0.1 (27)
▲ **Russell 2500 Growth**	40.5 (40)	32.7 (70)	-7.5 (74)	24.5 (52)	9.7 (12)	-0.2 (48)	7.1 (59)	40.7 (14)	16.1 (33)	-1.6 (40)


Risk vs. Return
3 Years
Annualized Return
Annualized Standard Deviation
64 Portfolios
Russell 2500 Growth
William Blair SMID Cap Growth
William Blair SMID Cap Growth
Russell 2500 Growth
Universe Median
68% Confidence Interval
eV US Mid Cap Growth Equity Net


Risk vs. Return
5 Years
Annualized Return
Annualized Standard Deviation
60 Portfolios
William Blair SMID Cap Growth
Russell 2500 Growth
William Blair SMID Cap Growth
Russell 2500 Growth
Universe Median
68% Confidence Interval
eV US Mid Cap Growth Equity Net

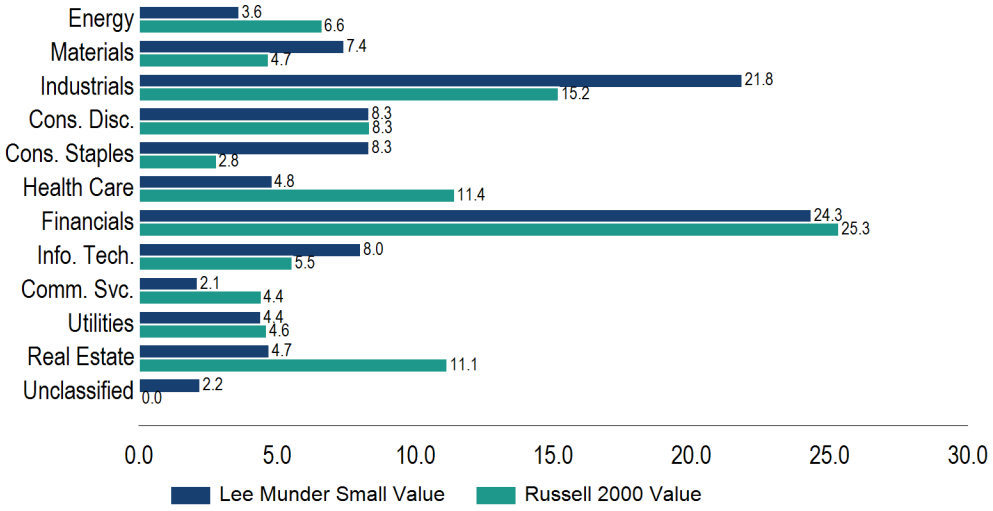

Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Russell 2500 Growth
Universe Upper Quartile
Universe Median
Universe Lower Quartile
10.00
5.00
0.00
-5.00
-10.00
Exc & Roll Ret
2014
2015
2016
2017
2018
2019
2020
2021
Year


Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. Russell 2500 Growth
Universe Upper Quartile
Universe Median
Universe Lower Quartile
5.00
0.00
-5.00
-10.00
Exc & Roll Ret
2014
2015
2016
2017
2018
2019
2020
2021
Year

Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	92	1,337
Weighted Avg. Market Cap. ($B)	4.04	3.07
Median Market Cap. ($B)	3.76	1.16
Price To Earnings	19.26	15.26
Price To Book	2.24	1.83
Price To Sales	1.75	1.45
Return on Equity (%)	8.87	1.68
Yield (%)	1.58	1.63
Beta	0.93	1.00

Sector Allocation (%) vs Russell 2000 Value



**Unclassified includes Cash*

Top Holdings
Ending Period Weight

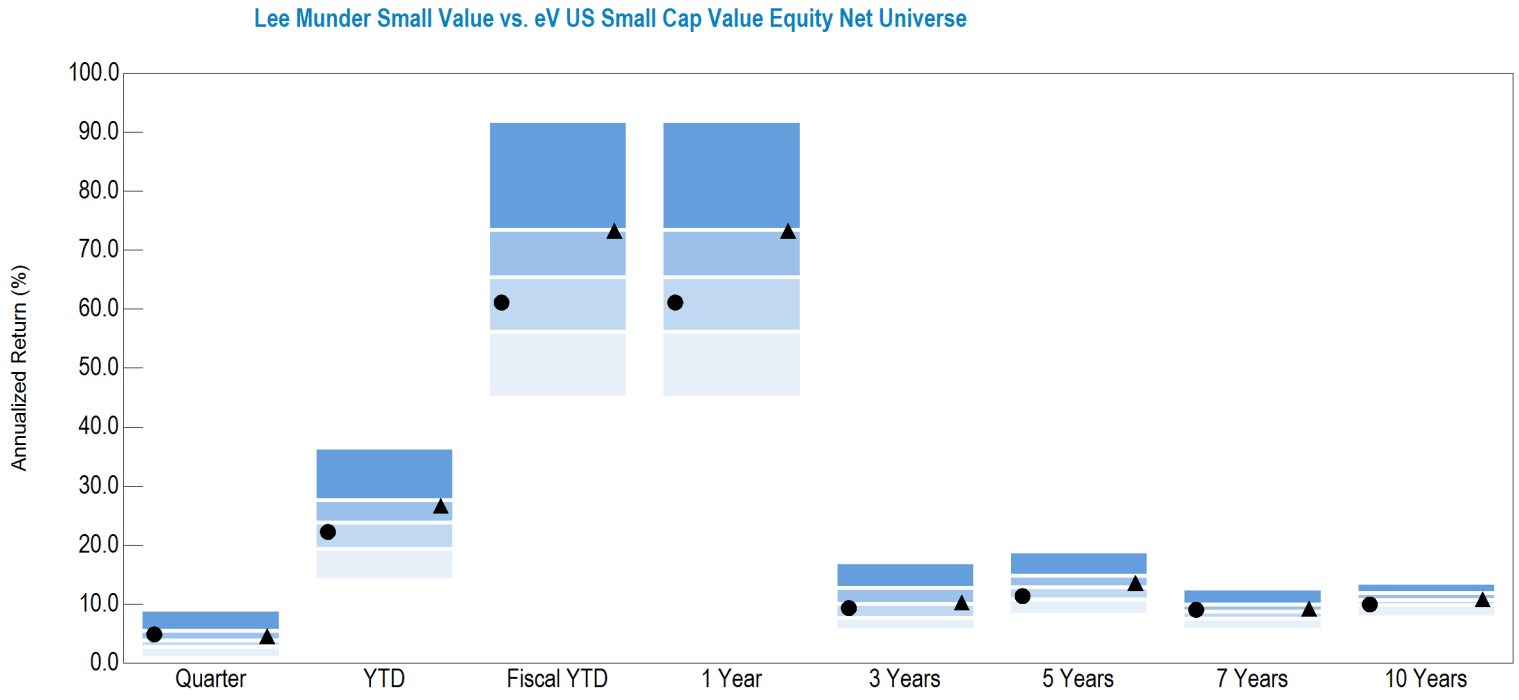
PINNACLE FINANCIAL PARTNERS INC	2.46%
STERLING BANCORP	2.35%
BANKUNITED INC	2.25%
WESTERN ALLIANCE BANCORPORATION	2.15%
F.N.B. CORP	1.84%
REGAL BELOIT CORP	1.84%
CHIMERA INVESTMENT CORP	1.74%
ITT INC	1.74%
MGIC INVESTMENT CORP	1.74%
UMPQUA HOLDINGS CORP	1.74%
Total	**19.86%**

Top Contributors

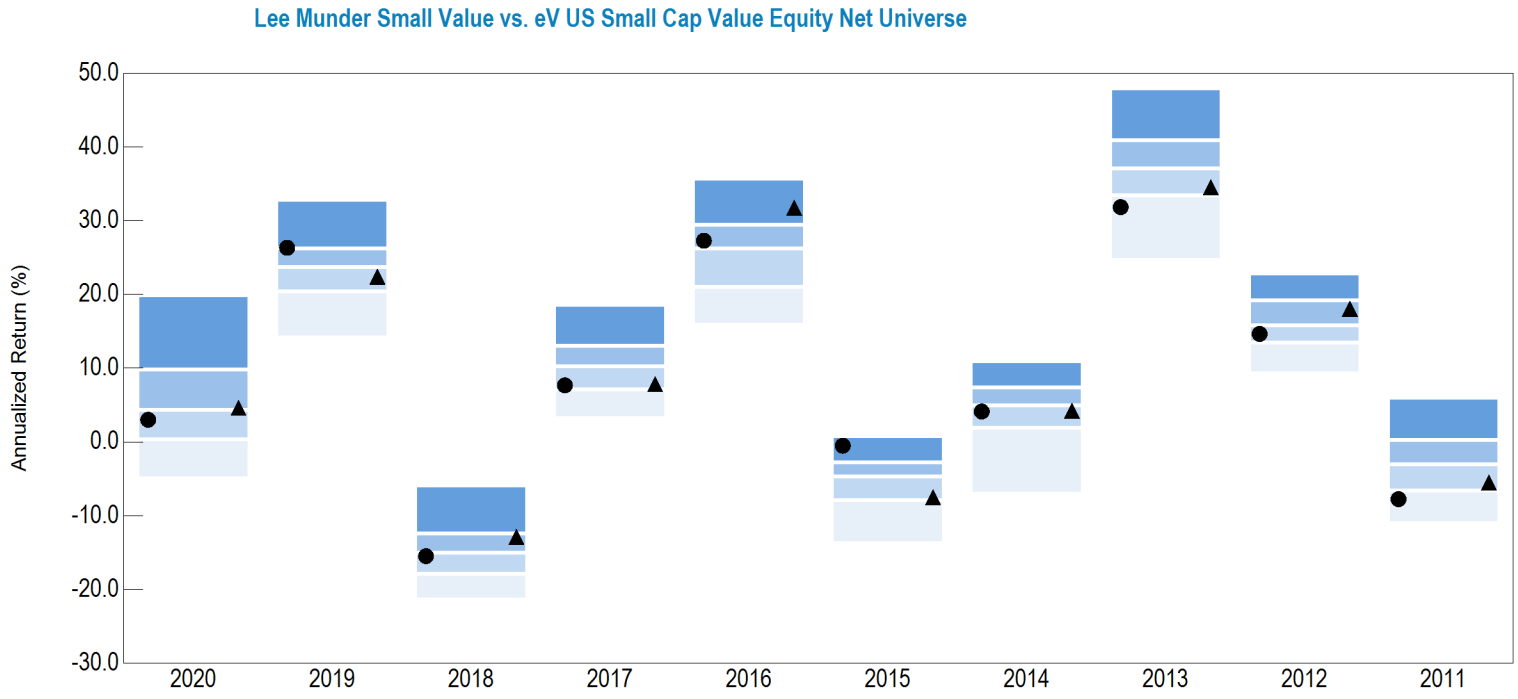
	Avg Wgt	Return	Contribution
AMERICAN EAGLE OUTFITTERS INC.	1.10	28.91	0.32
VISTA OUTDOOR INC	0.70	44.31	0.31
PDC ENERGY INC	0.80	33.46	0.27
NEWMARK GROUP INC	1.30	20.13	0.26
KORN FERRY	1.60	16.32	0.26
VALVOLINE INC	1.00	24.99	0.25
ALTRA INDUSTRIAL MOTION CORP	1.40	17.68	0.25
CACTUS INC	1.10	20.23	0.22
PRESTIGE CONSUMER HEALTHCARE INC	1.20	18.19	0.22
SANDERSON FARMS INC	0.90	20.98	0.19

Bottom Contributors

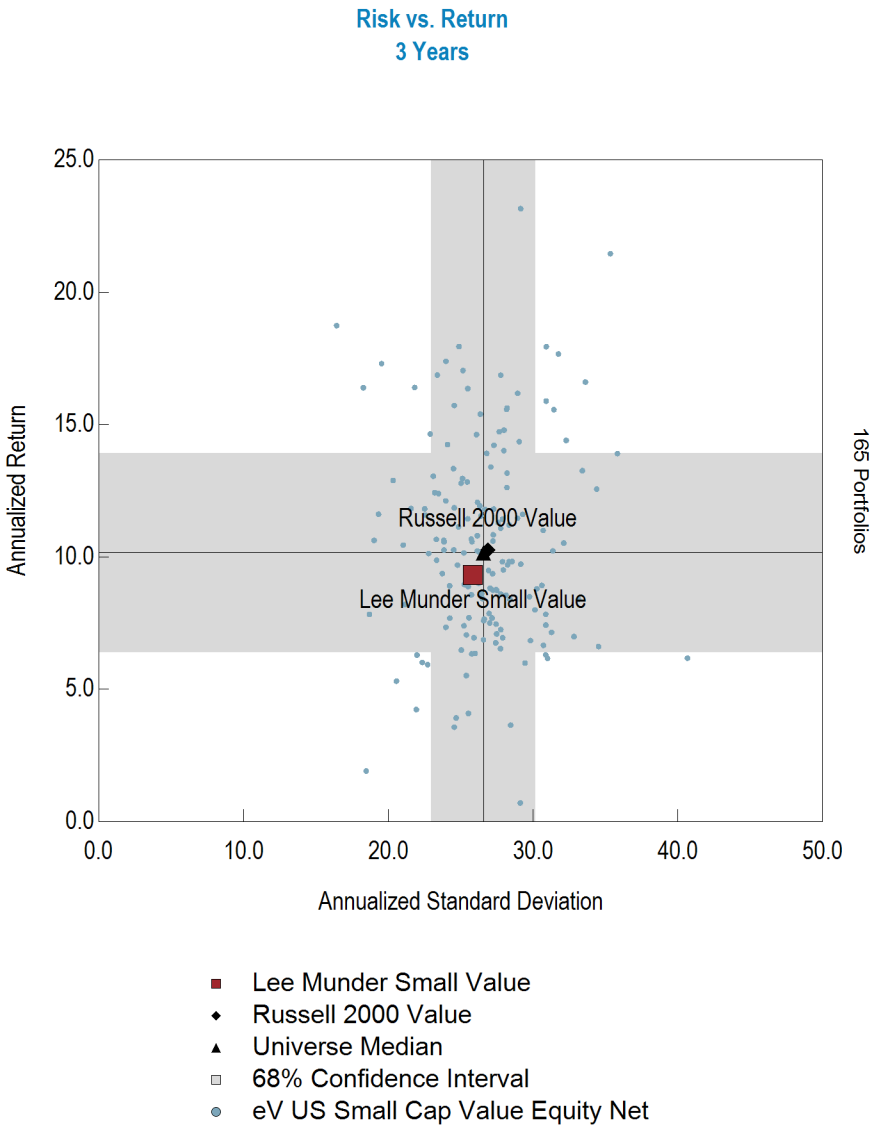
	Avg Wgt	Return	Contribution
TREEHOUSE FOODS INC	2.00	-14.78	-0.30
TEAM INC	0.70	-41.89	-0.29
RACKSPACE TECHNOLOGY INC	1.10	-17.54	-0.19
BWX TECHNOLOGIES INC	1.30	-11.56	-0.15
MURPHY USA INC	1.80	-7.58	-0.14
REGAL BELOIT CORP	2.00	-6.43	-0.13
BANK BUTTERFIELD & SON LTD	1.80	-6.20	-0.11
INNOSPEC INC	0.80	-11.27	-0.09
UNIVEST FINANCIAL CORP	1.00	-7.11	-0.07
KEMPER CORP	0.90	-6.93	-0.06

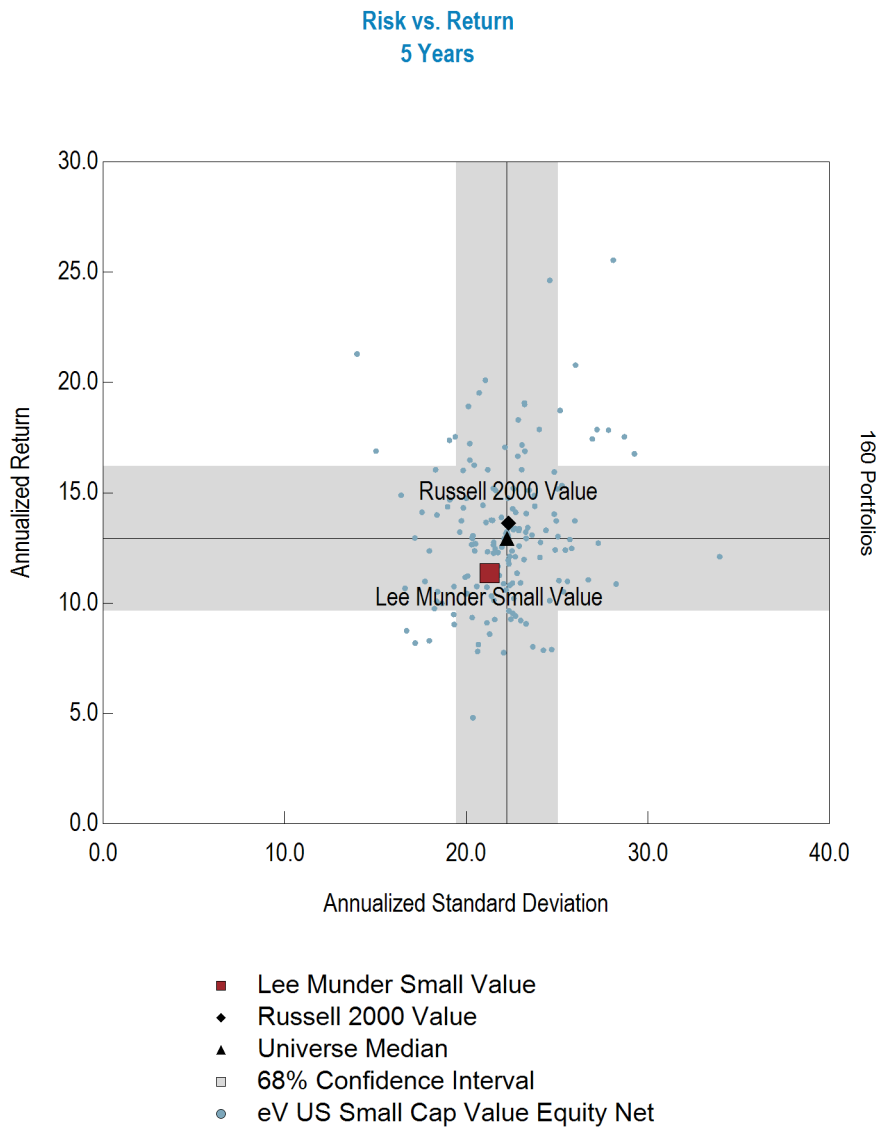


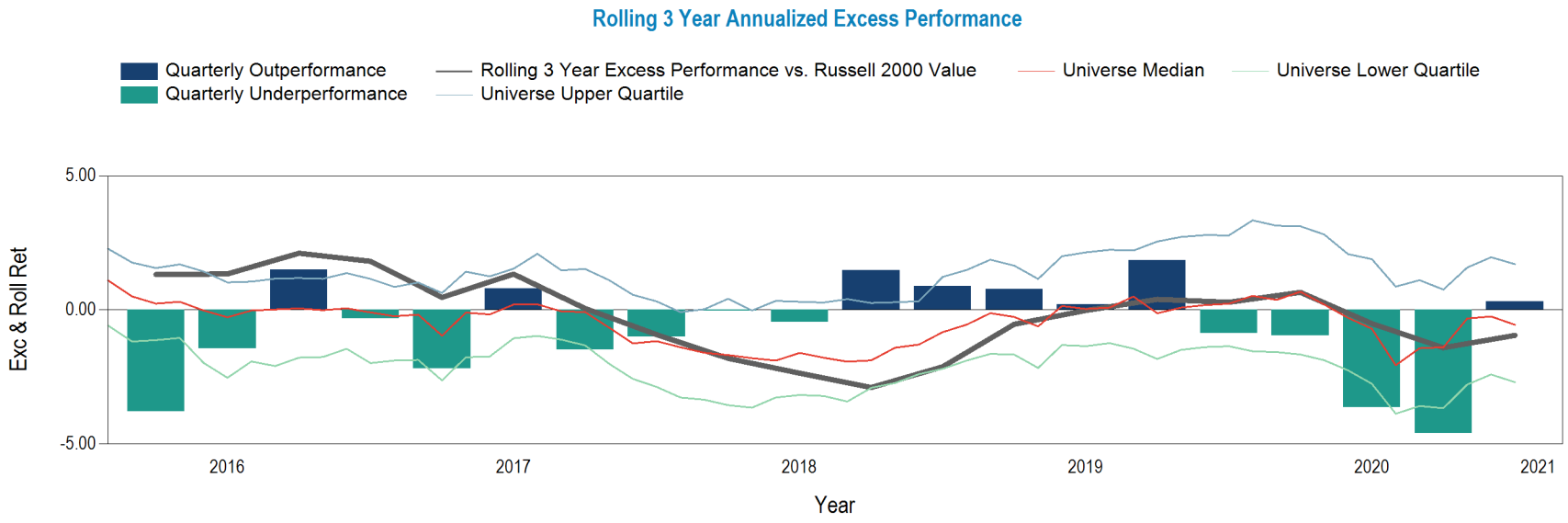
	Return (Rank)															
5th Percentile	9.1		36.5		91.9		91.9		17.0		18.9		12.6		13.6	
25th Percentile	5.5		27.7		73.4		73.4		12.8		14.9		10.0		11.9	
Median	3.9		23.9		65.5		65.5		10.2		12.9		8.8		10.7	
75th Percentile	2.8		19.5		56.2		56.2		7.7		10.9		7.6		9.8	
95th Percentile	1.0		14.1		45.0		45.0		5.6		8.3		5.8		7.8	
# of Portfolios	174		174		173		173		165		160		148		137	
● **Lee Munder Small Value**	4.9	(36)	22.2	(62)	61.1	(64)	61.1	(64)	9.3	(59)	11.4	(70)	9.1	(46)	9.9	(72)
▲ **Russell 2000 Value**	4.6	(39)	26.7	(33)	73.3	(26)	73.3	(26)	10.3	(47)	13.6	(38)	9.3	(41)	10.8	(48)

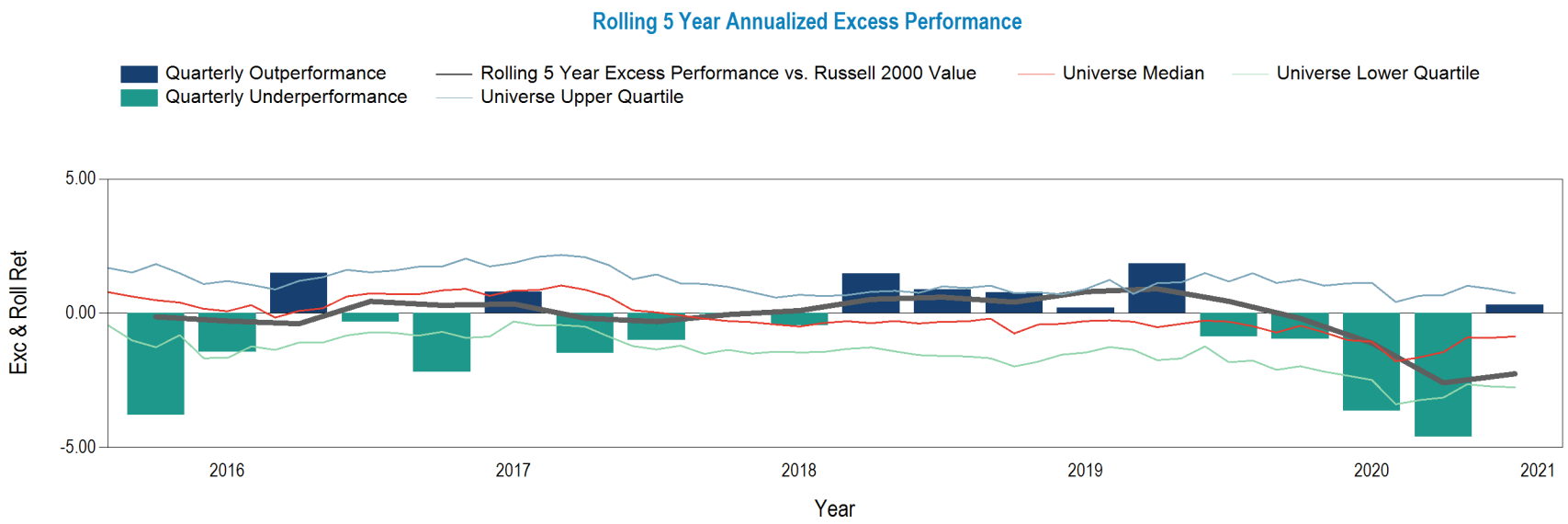


	Return (Rank)																			
5th Percentile	19.9		32.8		-6.0		18.6		35.7		0.8		10.9		47.9		22.8		6.0	
25th Percentile	9.9		26.3		-12.4		13.1		29.5		-2.7		7.4		41.0		19.2		0.3	
Median	4.4		23.8		-15.0		10.3		26.2		-4.6		5.0		37.1		15.9		-3.0	
75th Percentile	0.4		20.4		-17.8		7.2		21.1		-7.8		2.0		33.4		13.5		-6.5	
95th Percentile	-4.9		14.2		-21.3		3.3		15.9		-13.7		-7.0		24.7		9.4		-11.0	
# of Portfolios	178		176		168		170		151		137		135		125		104		85	
● Lee Munder Small Value	3.0	(56)	26.3	(25)	-15.5	(56)	7.7	(71)	27.3	(38)	-0.5	(10)	4.1	(59)	31.8	(86)	14.6	(59)	-7.8	(85)
▲ Russell 2000 Value	4.6	(50)	22.4	(60)	-12.9	(31)	7.8	(70)	31.7	(15)	-7.5	(73)	4.2	(58)	34.5	(70)	18.1	(34)	-5.5	(70)


Risk vs. Return
3 Years
Annualized Return
Annualized Standard Deviation
Russell 2000 Value
Lee Munder Small Value
165 Portfolios
25.0
20.0
15.0
10.0
5.0
0.0
0.0
10.0
20.0
30.0
40.0
50.0
Lee Munder Small Value
Russell 2000 Value
Universe Median
68% Confidence Interval
eV US Small Cap Value Equity Net


Risk vs. Return
5 Years
Annualized Return
Annualized Standard Deviation
Russell 2000 Value
Lee Munder Small Value
160 Portfolios
30.0
25.0
20.0
15.0
10.0
5.0
0.0
0.0
10.0
20.0
30.0
40.0
Lee Munder Small Value
Russell 2000 Value
Universe Median
68% Confidence Interval
eV US Small Cap Value Equity Net


Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. Russell 2000 Value
Universe Upper Quartile
Universe Median
Universe Lower Quartile
5.00
0.00
-5.00
Exc & Roll Ret
2016
2017
2018
2019
2020
2021
Year

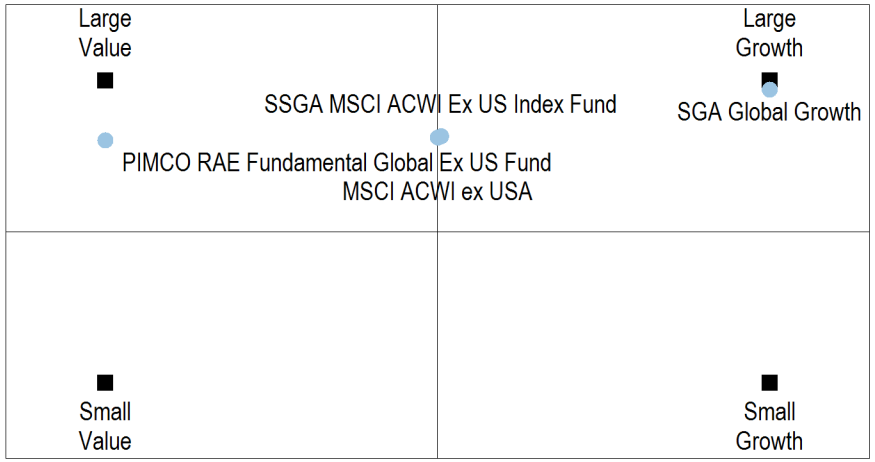

Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. Russell 2000 Value
Universe Upper Quartile
Universe Median
Universe Lower Quartile
5.00
0.00
-5.00
Exc & Roll Ret
2016
2017
2018
2019
2020
2021
Year

Total International Equity
Asset Class Overview (Net of Fees)

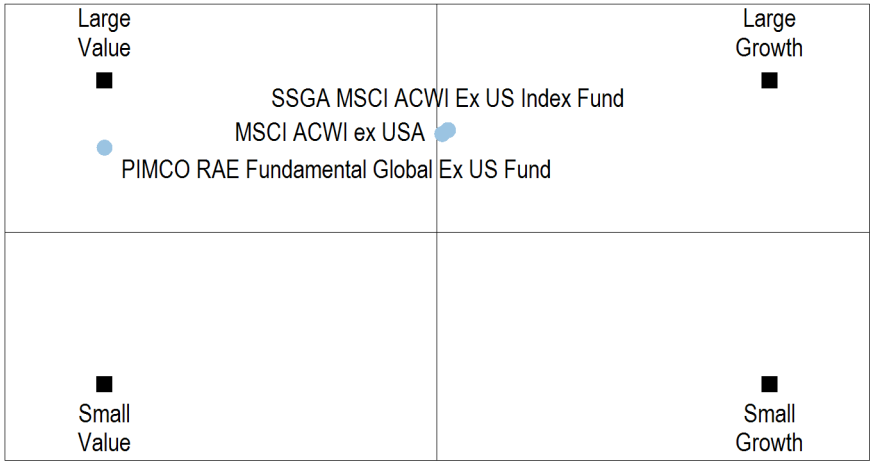
Period Ending: June 30, 2021

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total International Equity	**326,123,406**	**5.7**	**10.6**	**38.3**	**38.3**	**11.2**	**12.0**	**5.7**	**13.4**	**22.7**	**-14.5**	**26.5**	**5.9**
MSCI ACWI ex USA Gross		*5.6*	*9.4*	*36.3*	*36.3*	*9.9*	*11.6*	*5.9*	*11.1*	*22.1*	*-13.8*	*27.8*	*5.0*
InvMetrics Public DB ex-US Eq Net Rank		*43*	*14*	*34*	*34*	*17*	*26*	*75*	*41*	*54*	*42*	*77*	*19*
SSGA MSCI ACWI Ex US Index Fund	120,686,716	5.6	9.3	35.9	35.9	9.6	11.3	5.7	10.9	21.8	-14.0	27.5	4.7
MSCI ACWI ex USA		*5.5*	*9.2*	*35.7*	*35.7*	*9.4*	*11.1*	*5.4*	*10.7*	*21.5*	*-14.2*	*27.2*	*4.5*
eV All EAFE Equity Net Rank		*46*	*58*	*49*	*49*	*36*	*43*	*81*	*36*	*54*	*38*	*45*	*15*
PIMCO RAE Fundamental Global Ex US Fund	105,573,919	4.4	14.7	45.3	45.3	6.8	9.9	--	1.7	16.1	-15.1	26.0	13.0
MSCI ACWI ex USA Value		*4.3*	*11.7*	*37.6*	*37.6*	*5.2*	*8.5*	--	*-0.8*	*15.7*	*-14.0*	*22.7*	*8.9*
eV EAFE Value Equity Net Rank		*49*	*16*	*27*	*27*	*33*	*32*	--	*61*	*86*	*38*	*38*	*1*
SGA Global Growth	99,862,771	7.3	8.3	34.3	34.3	16.5	--	--	26.0	30.5	--	--	--
MSCI ACWI ex USA Growth		*6.6*	*6.5*	*33.7*	*33.7*	*13.2*	--	--	*22.2*	*27.3*	--	--	--
eV ACWI ex-US Growth Equity Net Rank		*54*	*32*	*71*	*71*	*26*	--	--	*50*	*42*	--	--	--

EAFE Effective Style Map
3 Years

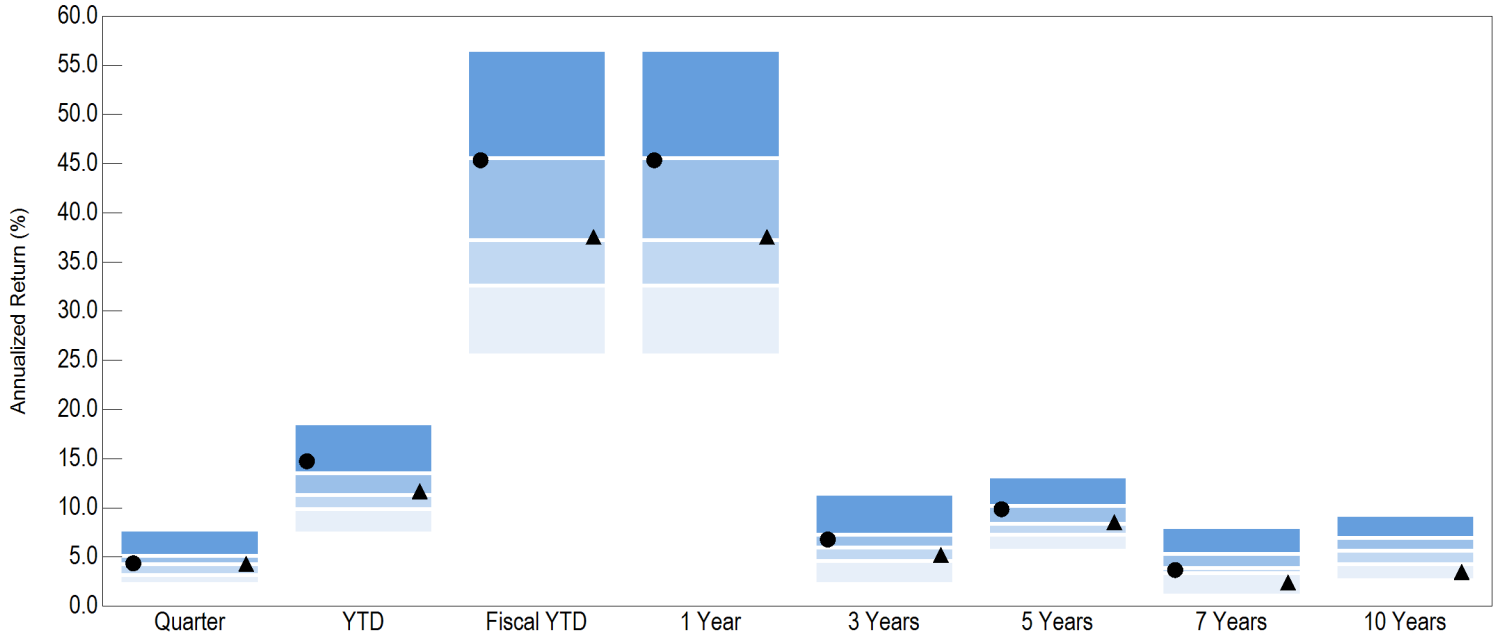


EAFE Effective Style Map
5 Years



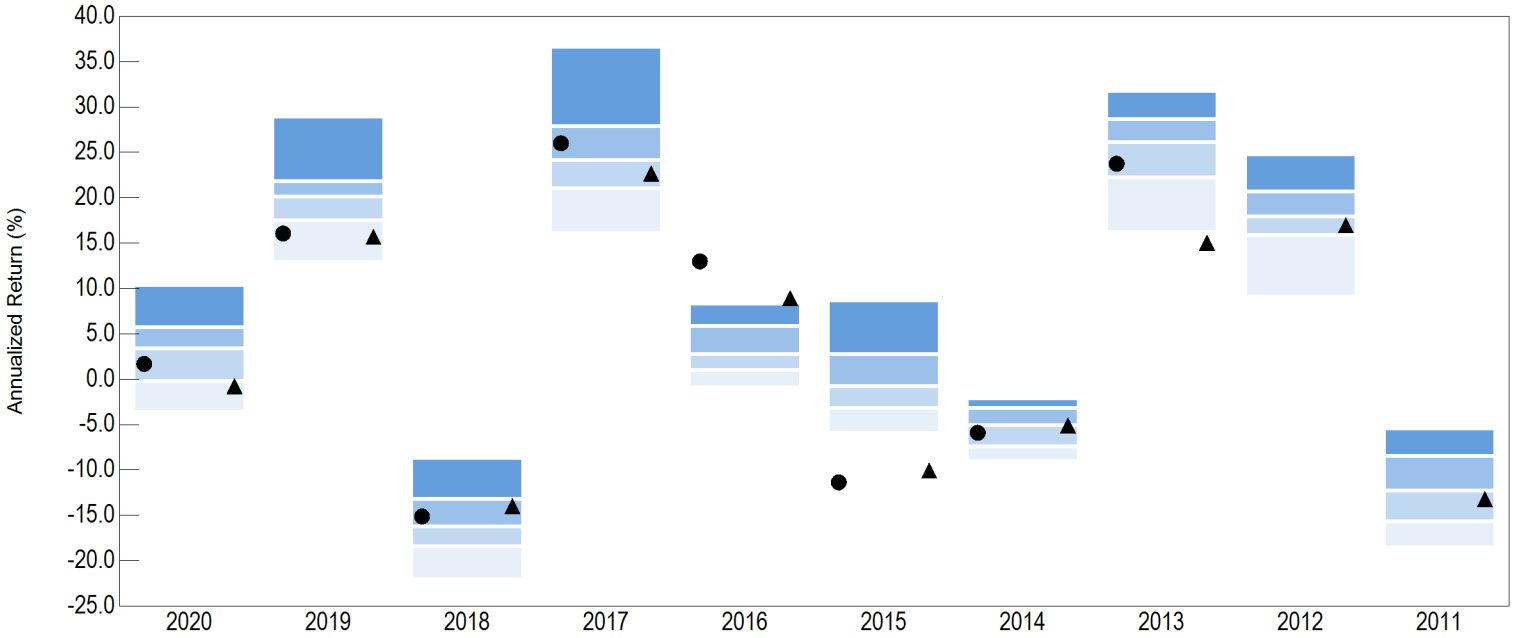
Research Affiliates converted to PIMCO RAE Fundamental Global Ex US Fund on 6/5/15 (performance prior to this date represents previously held Enhanced RAFI Global ex US).

PIMCO RAE Fundamental Global Ex US Fund vs. eV EAFE Value Equity Net Universe

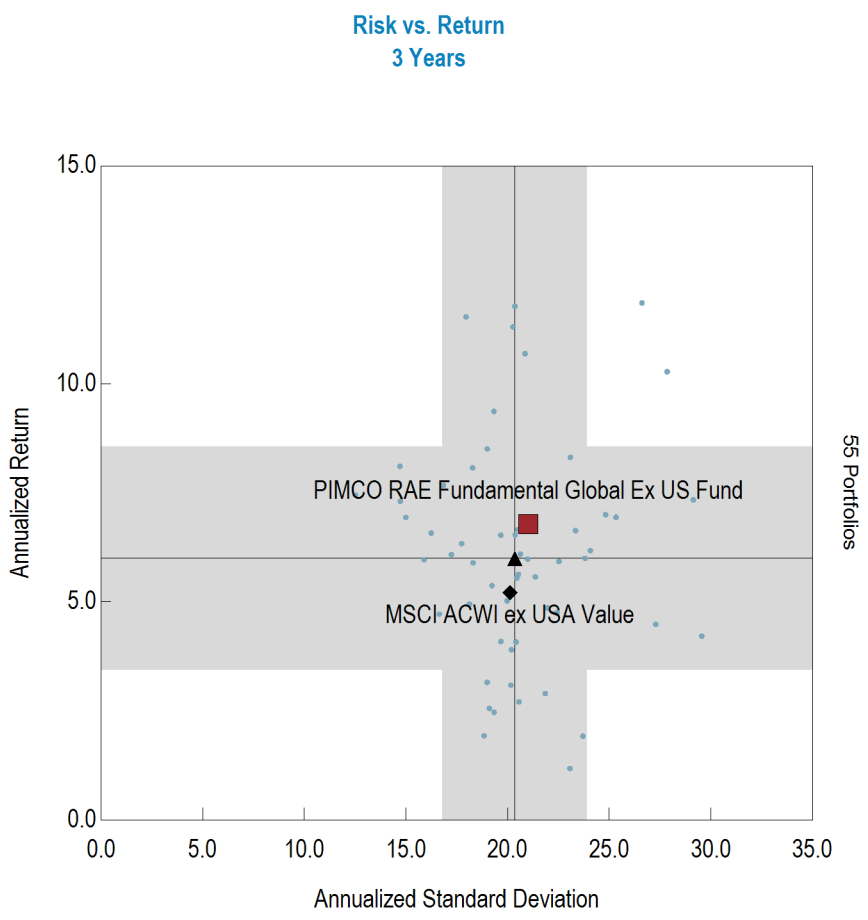


	Return (Rank)															
5th Percentile	7.8		18.6		56.5		56.5		11.4		13.1		8.0		9.3	
25th Percentile	5.2		13.5		45.6		45.6		7.3		10.2		5.3		7.0	
Median	4.3		11.3		37.3		37.3		6.0		8.4		3.9		5.7	
75th Percentile	3.2		9.9		32.6		32.6		4.6		7.3		3.4		4.3	
95th Percentile	2.3		7.5		25.5		25.5		2.3		5.7		1.1		2.7	
# of Portfolios	63		63		63		63		55		48		45		40	
● **PIMCO RAE Fundamental Global Ex US Fund**	4.4	(49)	14.7	(16)	45.3	(27)	45.3	(27)	6.8	(33)	9.9	(32)	3.7	(55)	--	(--)
▲ **MSCI ACWI ex USA Value**	4.3	(51)	11.7	(43)	37.6	(50)	37.6	(50)	5.2	(66)	8.5	(48)	2.4	(85)	3.5	(87)

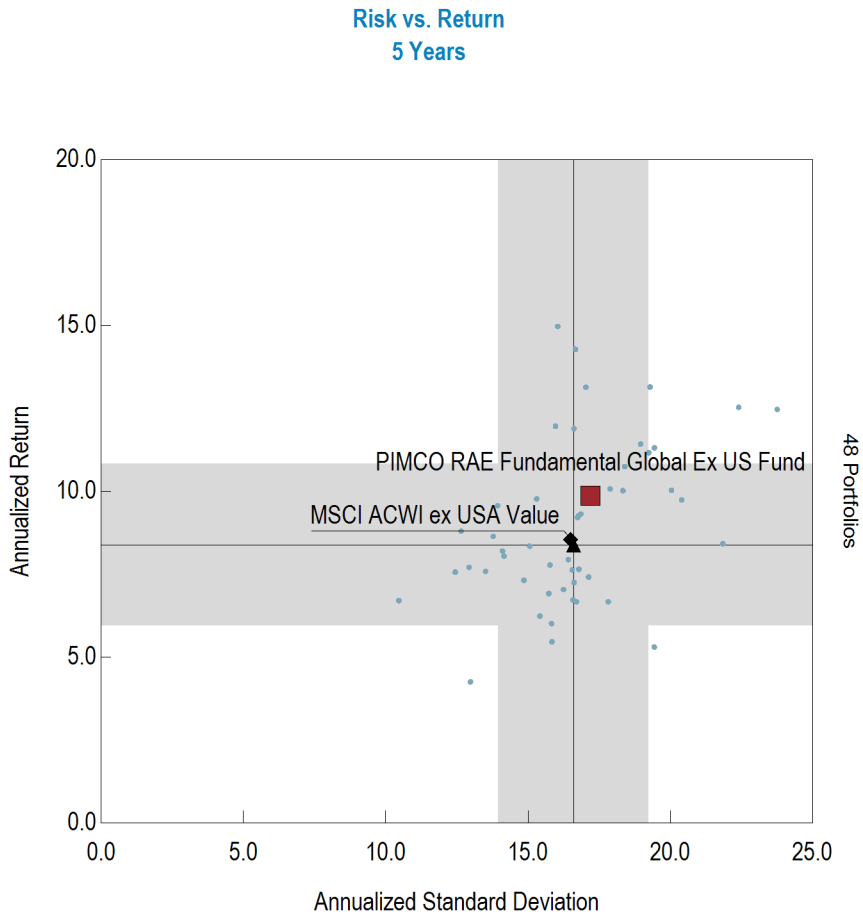
PIMCO RAE Fundamental Global Ex US Fund vs. eV EAFE Value Equity Net Universe



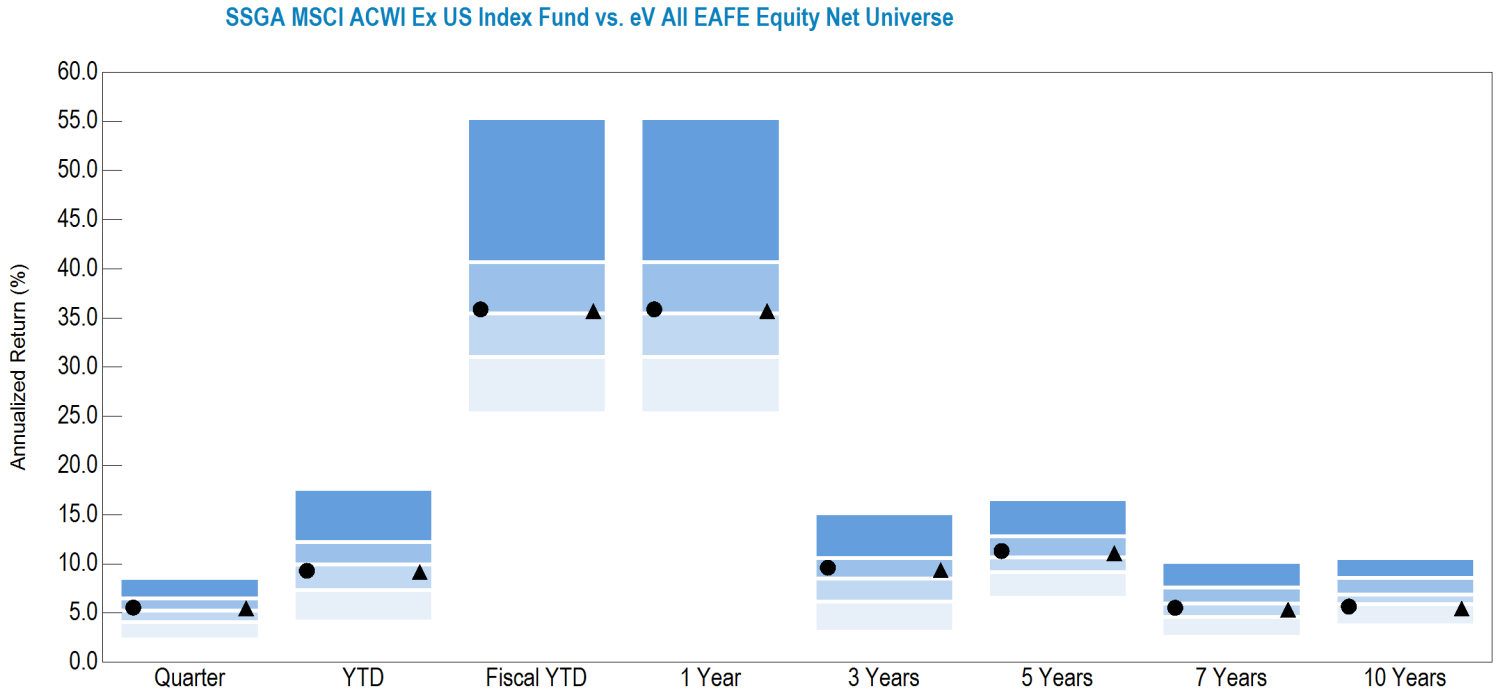
	Return (Rank)																					
5th Percentile	10.3		28.9		-8.7		36.6		8.3		8.7		-2.1		31.8		24.7		-5.4	
25th Percentile	5.7		21.9		-13.2		27.9		5.9		2.8		-3.1		28.7		20.8		-8.4	
Median	3.5		20.2		-16.2		24.2		2.8		-0.7		-5.0		26.1		18.0		-12.2	
75th Percentile	-0.1		17.5		-18.3		21.1		1.0		-3.1		-7.3		22.3		15.9		-15.6	
95th Percentile	-3.6		13.0		-22.0		16.1		-0.9		-5.9		-9.0		16.3		9.2		-18.5	
# of Portfolios	59		56		53		53		58		55		52		49		47		48	
● PIMCO RAE Fundamental Global Ex US Fund	1.7	(61)	16.1	(86)	-15.1	(38)	26.0	(38)	13.0	(1)	-11.4	(99)	-5.9	(65)	23.7	(64)	--	(--)	--	(--)
▲ MSCI ACWI ex USA Value	-0.8	(80)	15.7	(88)	-14.0	(34)	22.7	(58)	8.9	(4)	-10.1	(99)	-5.1	(53)	15.0	(97)	17.0	(64)	-13.2	(56)



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

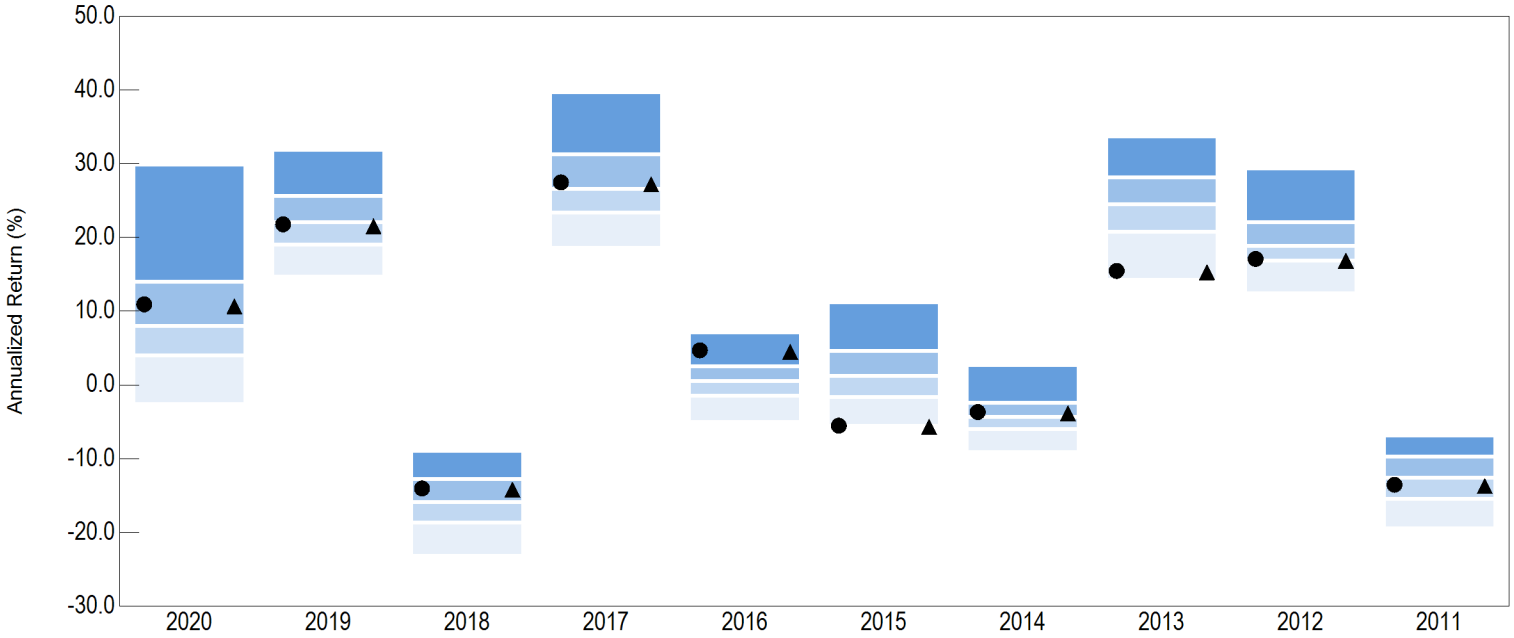


- PIMCO RAE Fundamental Global Ex US Fund
- MSCI ACWI ex USA Value
- Universe Median
- 68% Confidence Interval
- eV EAFE Value Equity Net

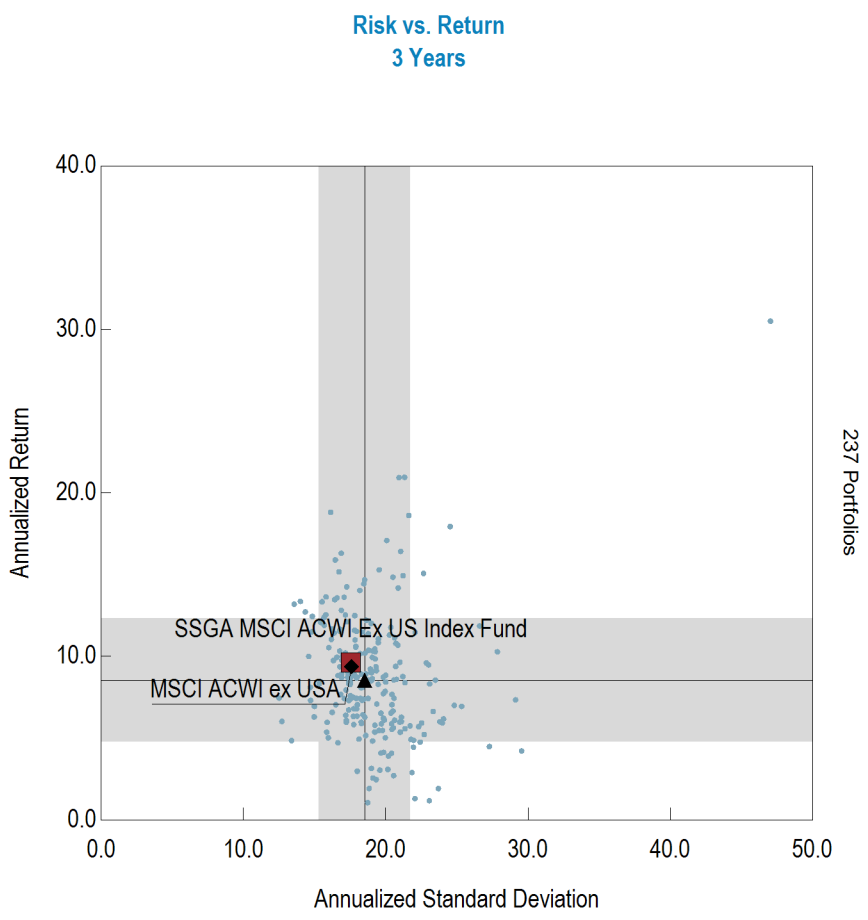


	Return (Rank)															
5th Percentile	8.6		17.6		55.3		55.3		15.1		16.5		10.2		10.6	
25th Percentile	6.5		12.2		40.7		40.7		10.6		12.8		7.6		8.6	
Median	5.3		10.0		35.5		35.5		8.5		10.7		6.0		6.9	
75th Percentile	4.1		7.4		31.1		31.1		6.2		9.2		4.6		6.0	
95th Percentile	2.4		4.2		25.4		25.4		3.1		6.6		2.6		3.8	
# of Portfolios	247		247		247		247		237		218		187		153	
● **SSGA MSCI ACWI Ex US Index Fund**	5.6	(46)	9.3	(58)	35.9	(49)	35.9	(49)	9.6	(36)	11.3	(43)	5.5	(55)	5.7	(81)
▲ **MSCI ACWI ex USA**	5.5	(47)	9.2	(59)	35.7	(49)	35.7	(49)	9.4	(38)	11.1	(44)	5.3	(59)	5.4	(85)

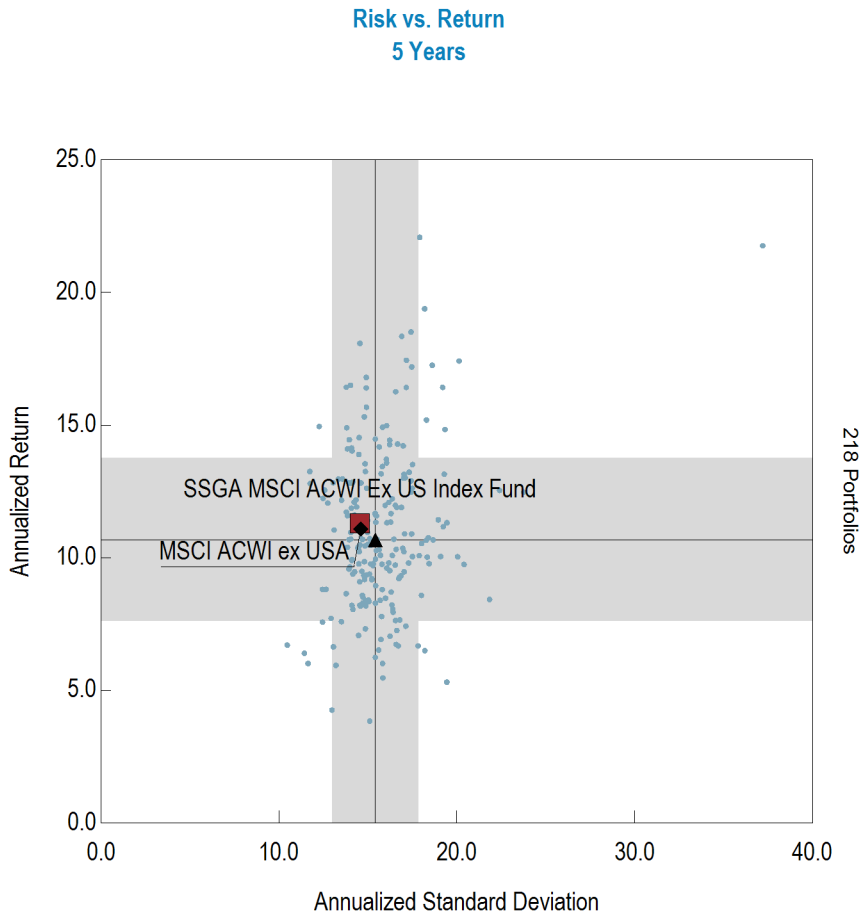
SSGA MSCI ACWI Ex US Index Fund vs. eV All EAFE Equity Net Universe



	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	
● SSGA MSCI ACWI Ex US Index Fund	10.9	(36)	21.8	(54)	-14.0	(38)	27.5	(45)	4.7	(15)	-5.5	(96)	-3.7	(42)	15.5	(92)	17.1	(74)	-13.5	(57)
▲ MSCI ACWI ex USA	10.7	(37)	21.5	(58)	-14.2	(39)	27.2	(46)	4.5	(16)	-5.7	(96)	-3.9	(45)	15.3	(92)	16.8	(77)	-13.7	(60)



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



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

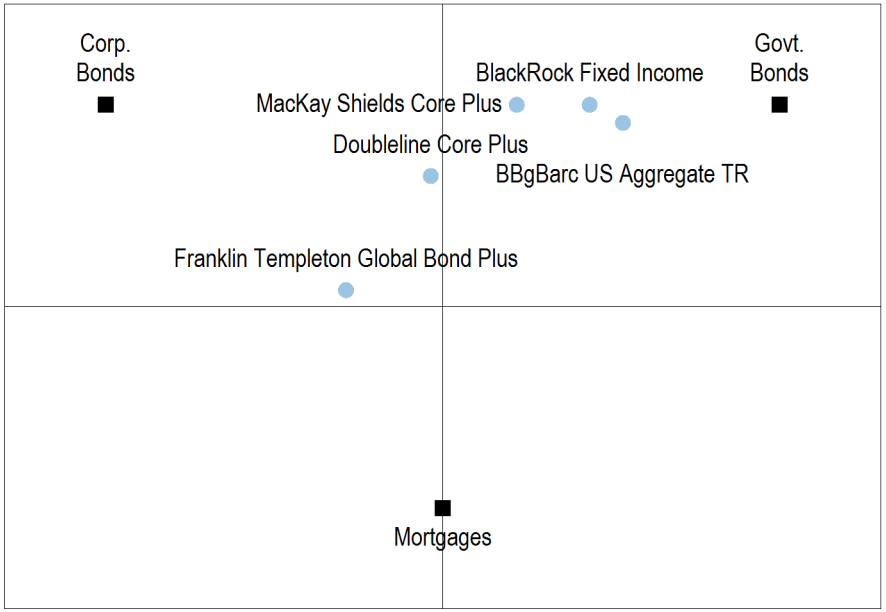
Total Fixed Income
Asset Class Overview (Net of Fees)

Period Ending: June 30, 2021

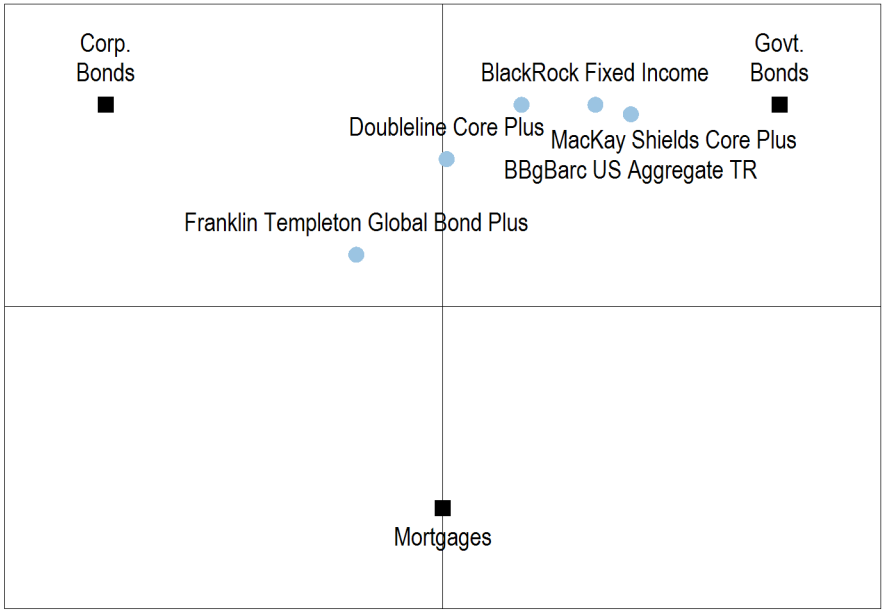
	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Fixed Income	**560,429,591**	**2.2**	**-1.3**	**2.8**	**2.8**	**4.3**	**3.1**	**3.5**	**4.7**	**8.1**	**0.1**	**3.9**	**5.1**
BBgBarc US Aggregate TR		*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*3.4*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
InvMetrics Public DB US Fix Inc Net Rank		*17*	*80*	*32*	*32*	*98*	*48*	*51*	*99*	*49*	*60*	*46*	*36*
Total Domestic Fixed Income	**388,195,797**	**2.2**	**-0.8**	**2.3**	**2.3**	**5.7**	**3.8**	**3.9**	**7.9**	**9.0**	**-0.2**	**4.1**	**4.8**
BBgBarc US Aggregate TR		*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*3.4*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
BlackRock Fixed Income	147,625,745	2.0	-1.4	0.5	0.5	5.8	3.3	3.7	8.4	8.7	0.1	3.6	2.9
BBgBarc US Aggregate TR		*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*3.4*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
eV All US Fixed Inc Net Rank		*39*	*87*	*78*	*78*	*39*	*53*	*51*	*26*	*44*	*53*	*56*	*54*
Doubleline Core Plus	117,437,464	1.9	-0.3	2.9	2.9	4.6	3.1	--	5.2	8.3	-0.3	3.9	4.6
BBgBarc US Aggregate TR		*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*--*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
eV US Core Plus Fixed Inc Net Rank		*82*	*31*	*56*	*56*	*96*	*99*	*--*	*98*	*90*	*34*	*87*	*53*
MacKay Shields Core Plus	123,132,588	2.6	-0.4	3.7	3.7	6.5	4.3	--	9.9	9.6	-1.0	4.5	4.7
BBgBarc US Aggregate TR		*1.8*	*-1.6*	*-0.3*	*-0.3*	*5.3*	*3.0*	*--*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*
eV US Core Plus Fixed Inc Net Rank		*13*	*42*	*37*	*37*	*35*	*43*	*--*	*22*	*56*	*74*	*62*	*47*
Total Global Fixed Income	**84,878,566**	**0.4**	**-2.5**	**-2.2**	**-2.2**	**-1.5**	**0.4**	**--**	**-5.7**	**0.9**	**1.9**	**2.4**	**6.4**
JPM GBI Global TR USD		*1.1*	*-4.6*	*0.0*	*0.0*	*3.6*	*1.6*	*--*	*9.7*	*6.0*	*-0.7*	*6.8*	*1.6*
Franklin Templeton Global Bond Plus	84,878,566	0.4	-2.5	-2.2	-2.2	-1.5	0.4	--	-5.7	0.9	1.9	2.4	6.1
JPM GBI Global TR USD		*1.1*	*-4.6*	*0.0*	*0.0*	*3.6*	*1.6*	*--*	*9.7*	*6.0*	*-0.7*	*6.8*	*1.6*
eV Global Government Fixed Inc Net Rank		*91*	*23*	*90*	*90*	*99*	*94*	*--*	*99*	*99*	*11*	*93*	*6*
Total Emerging Markets Fixed Income	**87,355,228**	**4.2**	**-2.1**	**10.3**	**10.3**	**--**	**--**	**--**	**4.6**	**--**	**--**	**--**	**--**
50% JPM EMBI Global Div/50% JPM GBI EM Global Div		*3.8*	*-2.0*	*7.1*	*7.1*	*--*	*--*	*--*	*4.0*	*--*	*--*	*--*	*--*
PGIM Emerging Markets Debt	87,355,228	4.2	-2.1	10.3	10.3	--	--	--	4.6	--	--	--	--
50% JPM EMBI Global Div/50% JPM GBI EM Global Div		*3.8*	*-2.0*	*7.1*	*7.1*	*--*	*--*	*--*	*4.0*	*--*	*--*	*--*	*--*
eV Emg Mkts Fixed Inc - Blended Currency Net Rank		*29*	*90*	*30*	*30*	*--*	*--*	*--*	*67*	*--*	*--*	*--*	*--*

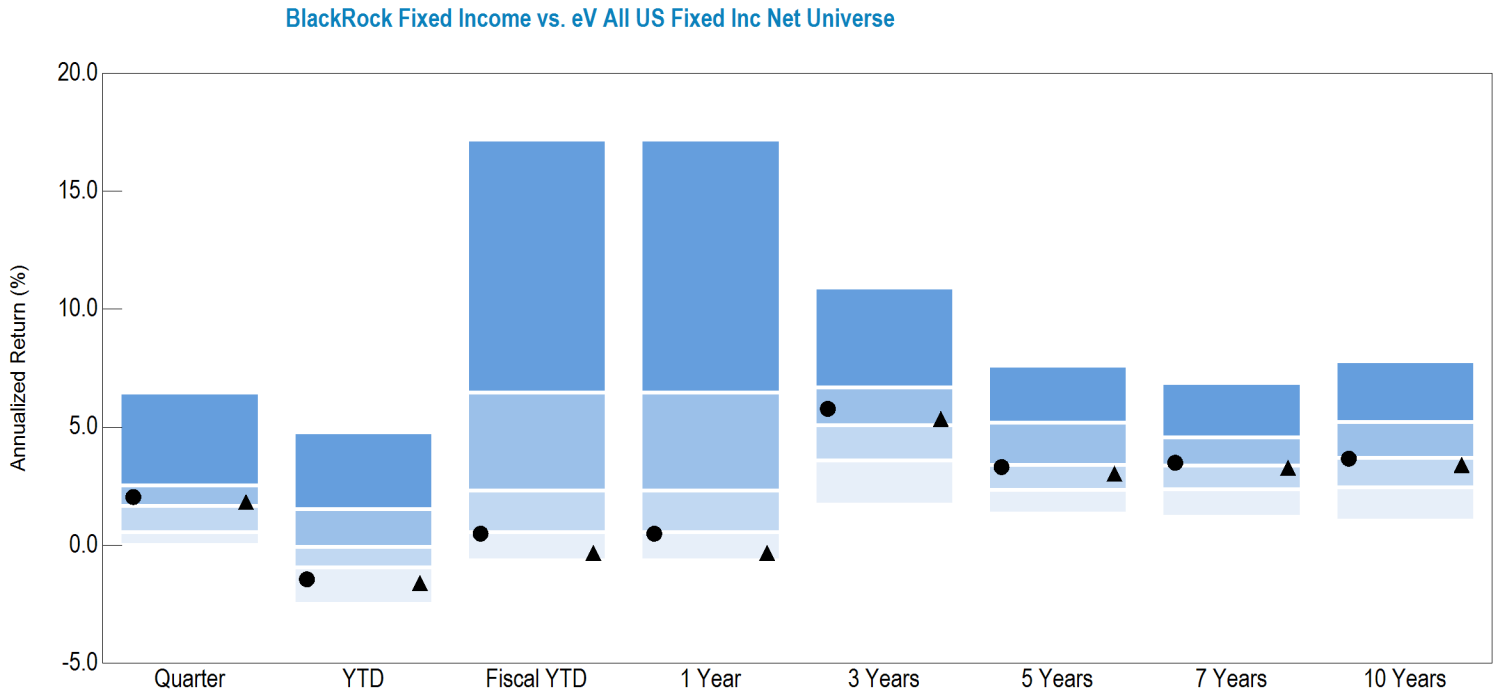
SSGA TIPS liquidated in 12/28/18. Shenkman HY liquidated 3/11/19. PGIM EMD funded 8/26/19.

Fixed Income Style Map
3 Years

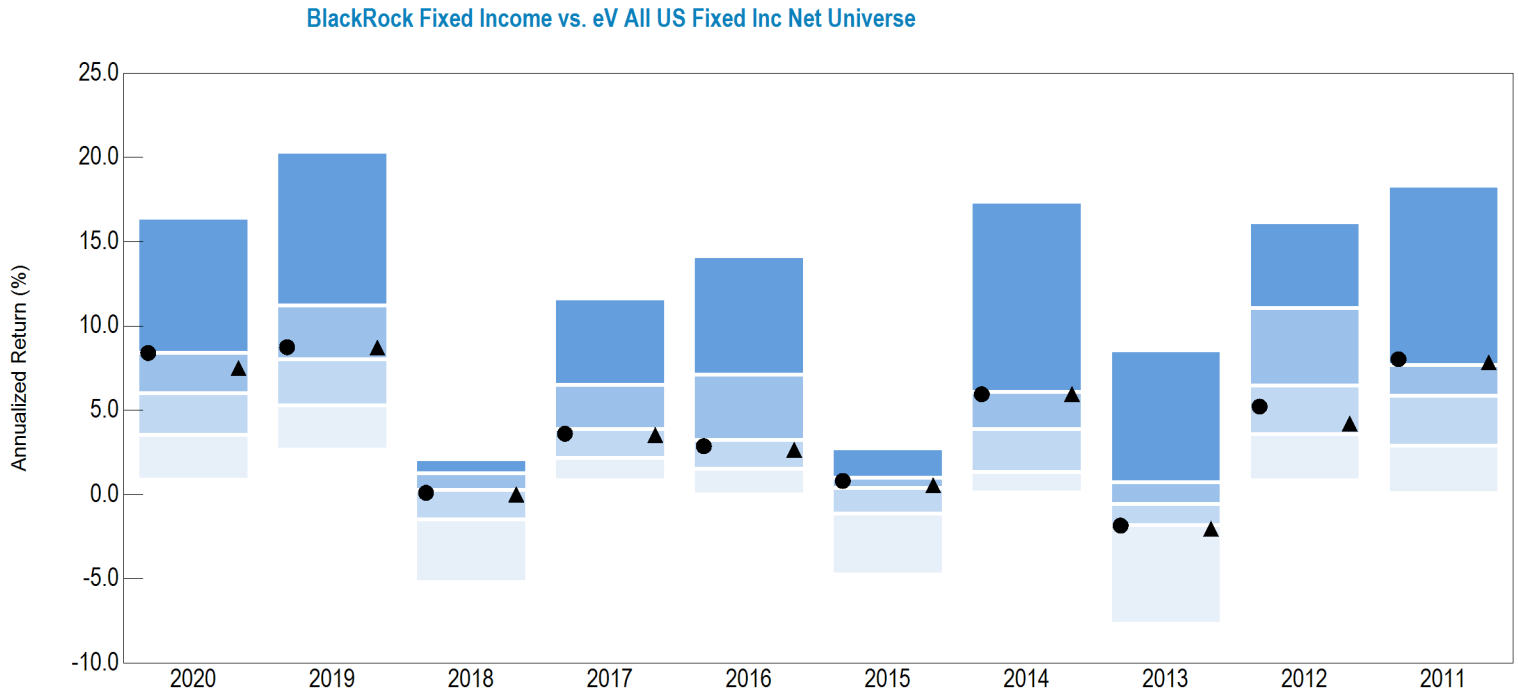


Fixed Income Style Map
5 Years

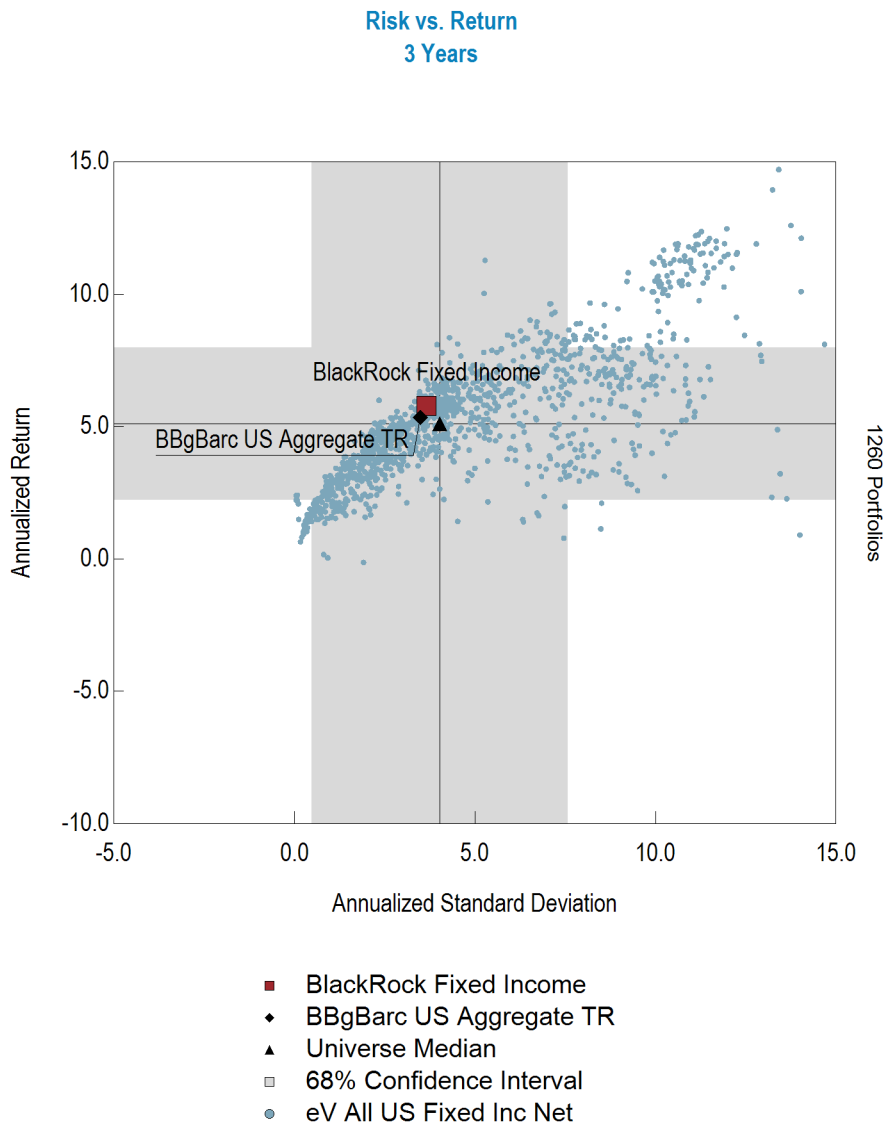


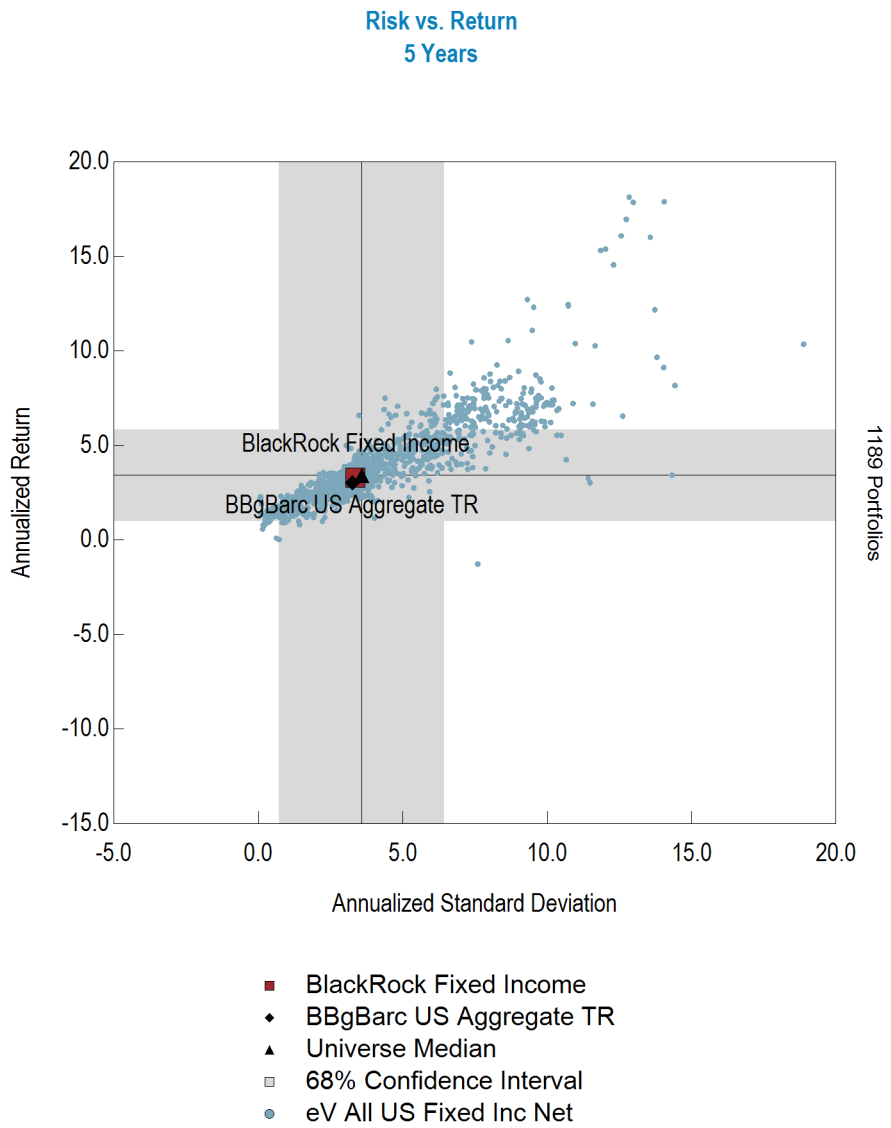


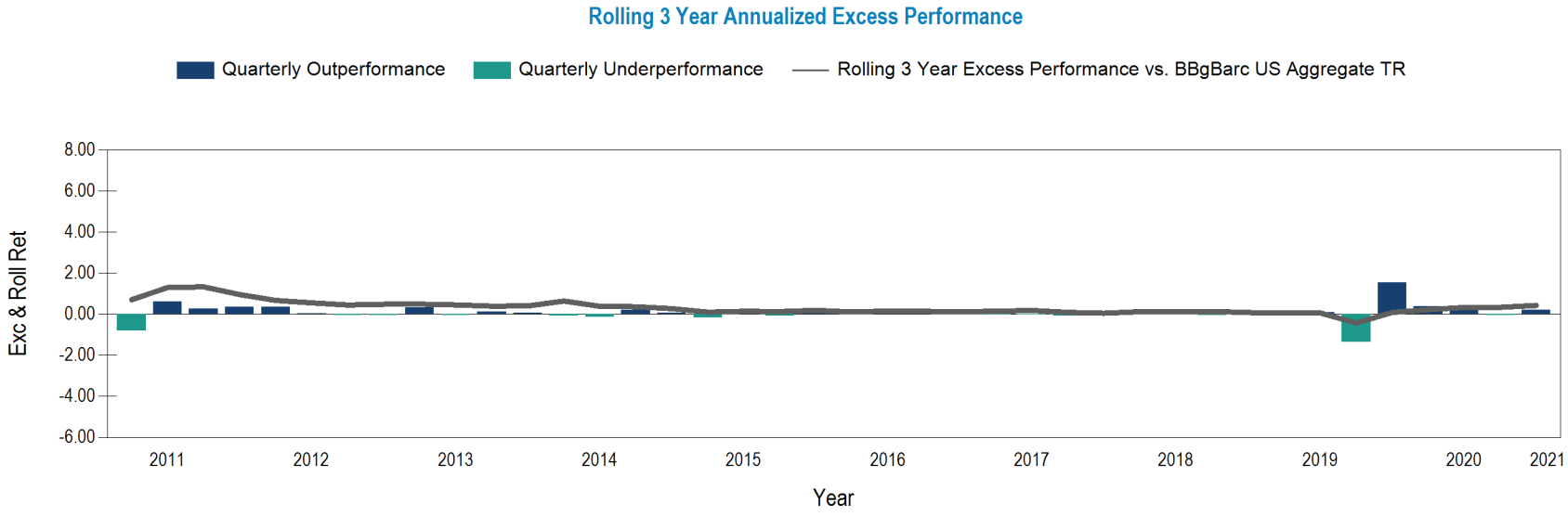
	Return (Rank)															
5th Percentile	6.4		4.8		17.2		17.2		10.9		7.6		6.9		7.8	
25th Percentile	2.6		1.5		6.5		6.5		6.7		5.2		4.6		5.2	
Median	1.7		0.0		2.3		2.3		5.1		3.4		3.4		3.7	
75th Percentile	0.6		-0.9		0.6		0.6		3.6		2.4		2.4		2.5	
95th Percentile	0.0		-2.5		-0.6		-0.6		1.7		1.4		1.2		1.1	
# of Portfolios	1,323		1,319		1,313		1,313		1,260		1,189		1,114		965	
● **BlackRock Fixed Income**	2.0	(39)	-1.4	(87)	0.5	(78)	0.5	(78)	5.8	(39)	3.3	(53)	3.5	(47)	3.7	(51)
▲ **BBgBarc US Aggregate TR**	1.8	(47)	-1.6	(89)	-0.3	(94)	-0.3	(94)	5.3	(47)	3.0	(60)	3.3	(54)	3.4	(58)

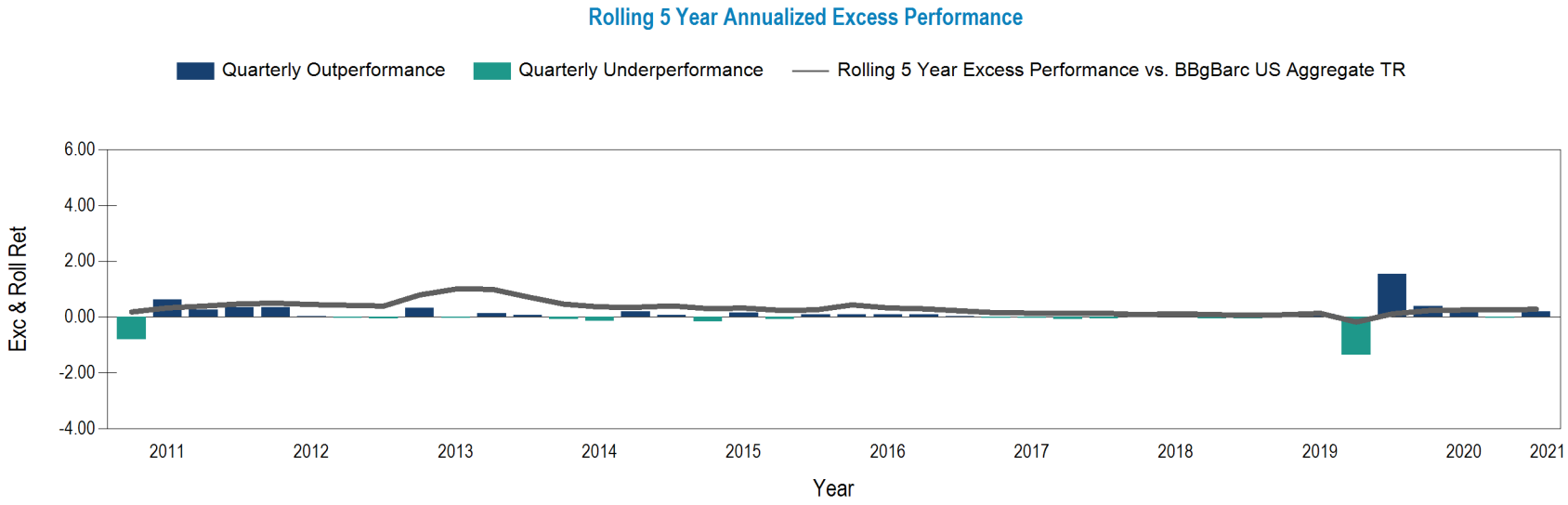


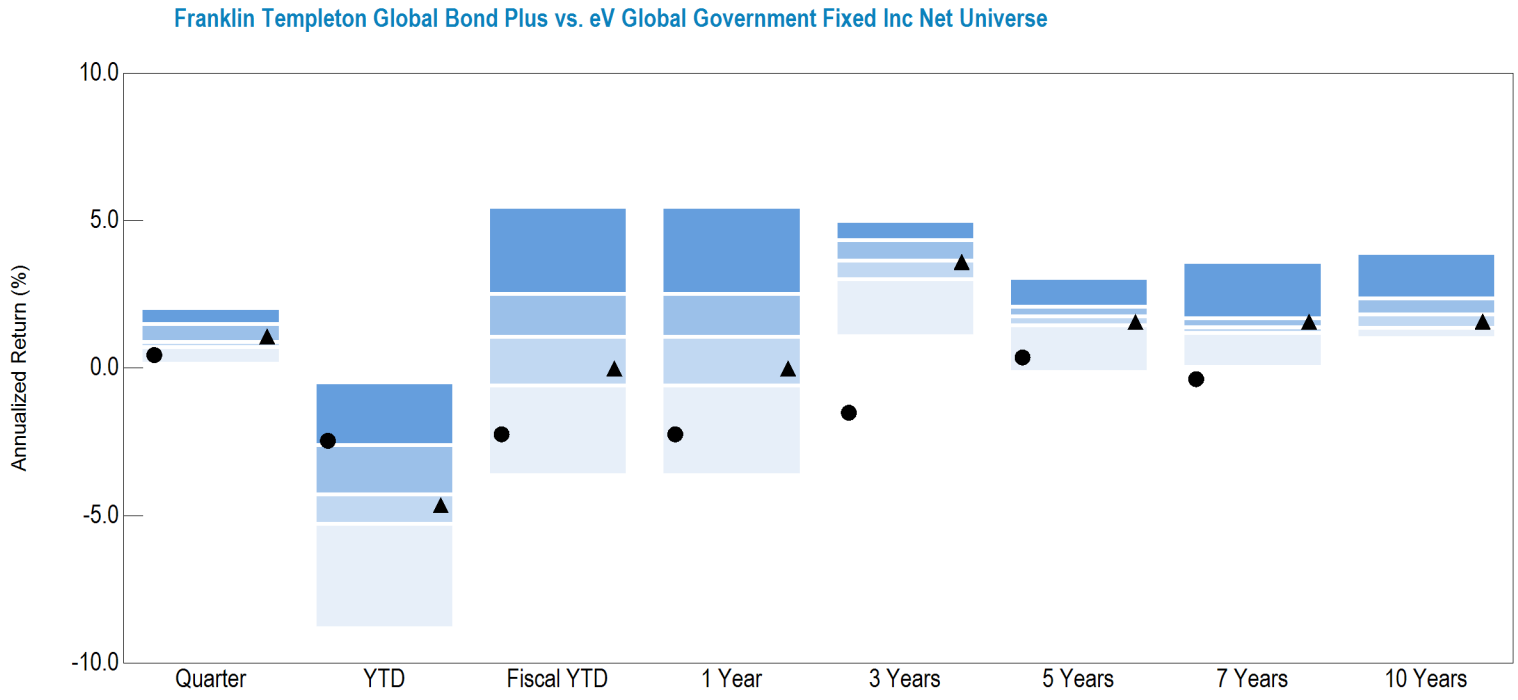
	Return (Rank)									
5th Percentile	16.4	20.3	2.1	11.6	14.1	2.7	17.4	8.5	16.1	18.3
25th Percentile	8.4	11.2	1.3	6.5	7.1	1.0	6.1	0.8	11.1	7.7
Median	6.0	8.1	0.3	3.9	3.3	0.4	3.9	-0.5	6.5	5.9
75th Percentile	3.6	5.3	-1.5	2.2	1.6	-1.1	1.4	-1.8	3.6	2.9
95th Percentile	0.9	2.7	-5.2	0.9	0.0	-4.7	0.2	-7.6	0.9	0.1
# of Portfolios	1,295	1,248	1,173	1,135	1,033	827	758	662	555	483
● BlackRock Fixed Income	8.4 (26)	8.7 (44)	0.1 (53)	3.6 (56)	2.9 (54)	0.8 (35)	6.0 (28)	-1.8 (76)	5.2 (60)	8.0 (20)
▲ BBgBarc US Aggregate TR	7.5 (36)	8.7 (45)	0.0 (55)	3.5 (57)	2.6 (57)	0.6 (45)	6.0 (28)	-2.0 (80)	4.2 (70)	7.8 (24)


Risk vs. Return
3 Years
15.0
10.0
5.0
0.0
-5.0
-10.0
-5.0
0.0
5.0
10.0
15.0
Annualized Return
Annualized Standard Deviation
BlackRock Fixed Income
BBgBarc US Aggregate TR
1260 Portfolios
BlackRock Fixed Income
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
eV All US Fixed Inc Net


Risk vs. Return
5 Years
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
-15.0
-5.0
0.0
5.0
10.0
15.0
20.0
Annualized Return
Annualized Standard Deviation
BlackRock Fixed Income
BBgBarc US Aggregate TR
1189 Portfolios
BlackRock Fixed Income
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
eV All US Fixed Inc Net

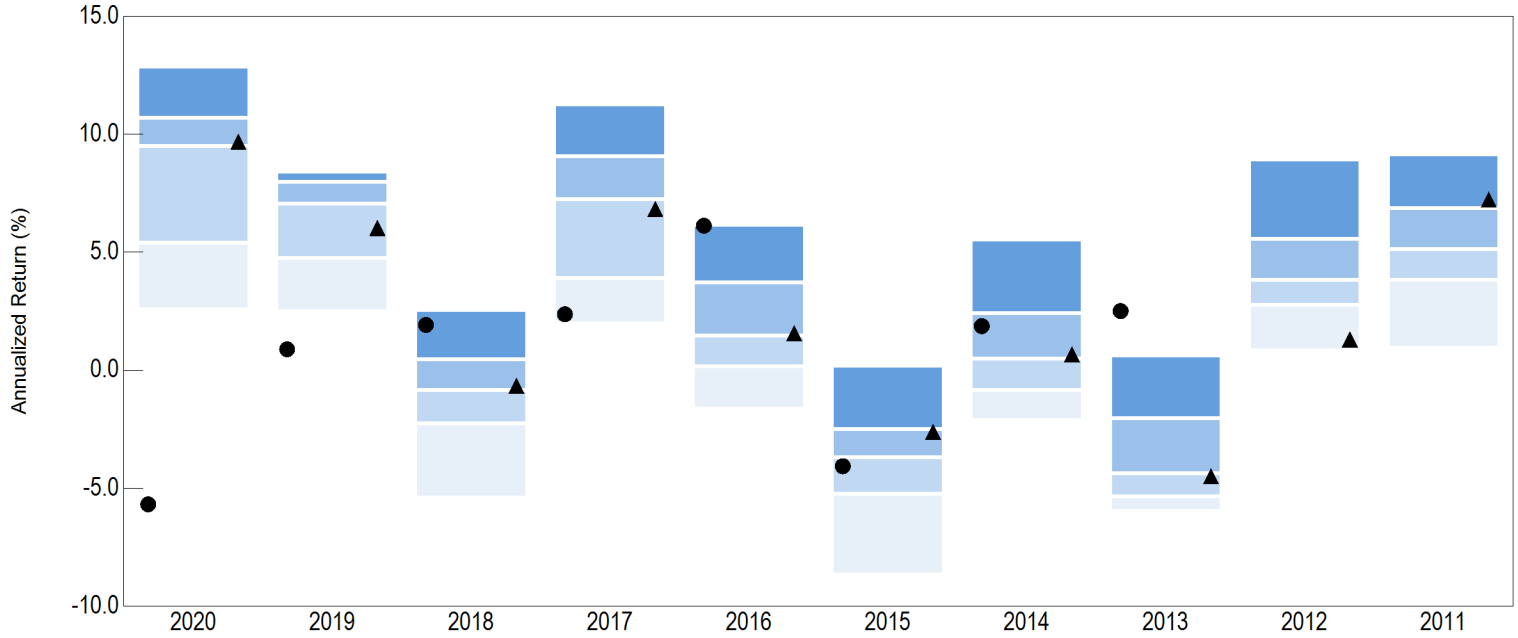

Rolling 3 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 3 Year Excess Performance vs. BBgBarc US Aggregate TR
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
Exc & Roll Ret
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year


Rolling 5 Year Annualized Excess Performance
Quarterly Outperformance
Quarterly Underperformance
Rolling 5 Year Excess Performance vs. BBgBarc US Aggregate TR
6.00
4.00
2.00
0.00
-2.00
-4.00
Exc & Roll Ret
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Year

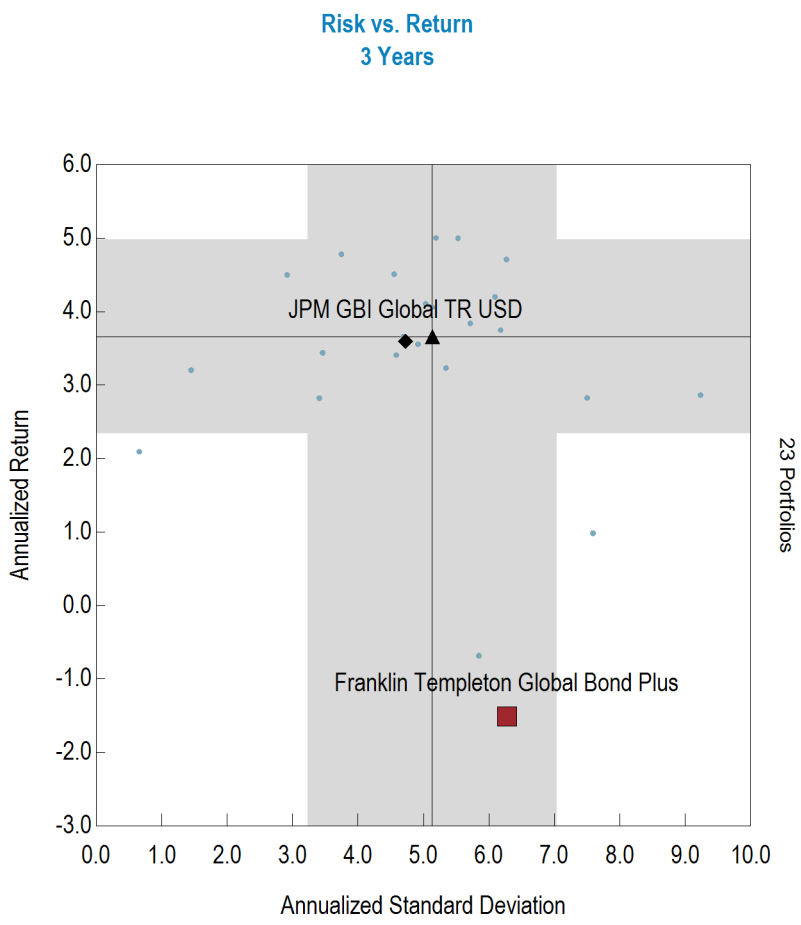


	Return (Rank)															
5th Percentile	2.0		-0.5		5.5		5.5		5.0		3.0		3.6		3.9	
25th Percentile	1.5		-2.6		2.5		2.5		4.4		2.1		1.7		2.4	
Median	0.9		-4.3		1.1		1.1		3.7		1.8		1.4		1.8	
75th Percentile	0.7		-5.3		-0.6		-0.6		3.0		1.5		1.2		1.4	
95th Percentile	0.2		-8.8		-3.6		-3.6		1.1		-0.1		0.0		1.0	
# of Portfolios	24		24		24		24		23		22		20		19	
● **Franklin Templeton Global Bond Plus**	0.4	(91)	-2.5	(23)	-2.2	(90)	-2.2	(90)	-1.5	(99)	0.4	(94)	-0.4	(99)	--	(--)
▲ **JPM GBI Global TR USD**	1.1	(44)	-4.6	(58)	0.0	(72)	0.0	(72)	3.6	(53)	1.6	(63)	1.6	(31)	1.6	(68)

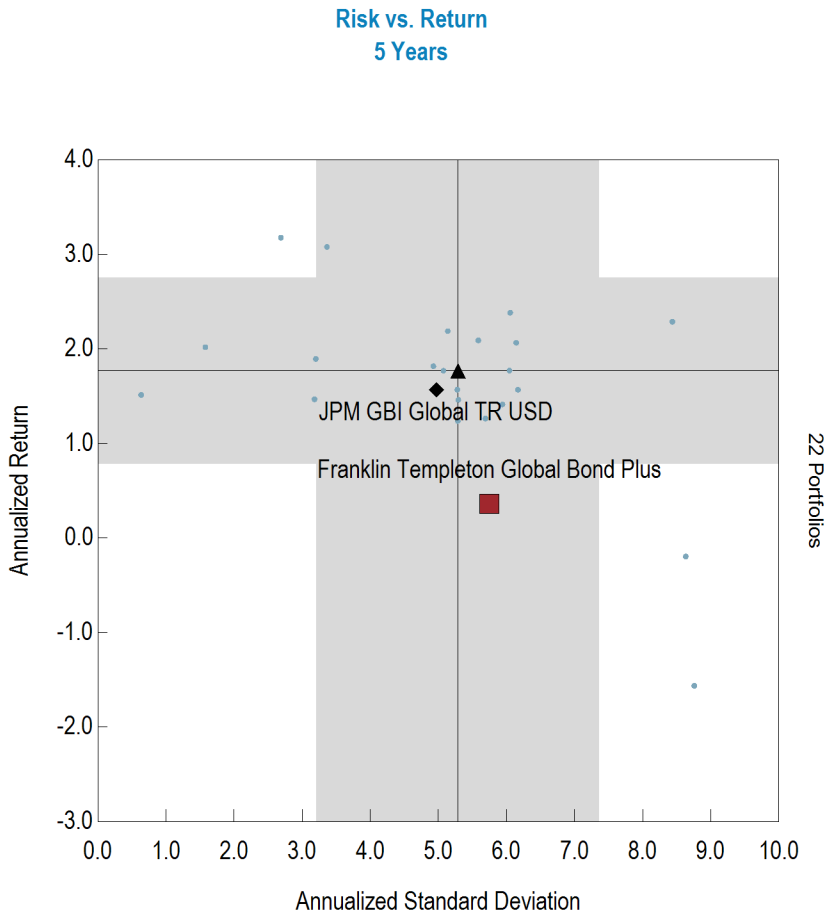
Franklin Templeton Global Bond Plus vs. eV Global Government Fixed Inc Net Universe



	Return (Rank)																			
5th Percentile	12.8		8.4		2.5		11.2		6.1		0.2		5.5		0.6		8.9		9.1	
25th Percentile	10.7		8.0		0.5		9.1		3.7		-2.5		2.4		-2.0		5.6		6.9	
Median	9.5		7.1		-0.8		7.3		1.5		-3.7		0.5		-4.3		3.8		5.2	
75th Percentile	5.4		4.8		-2.2		3.9		0.2		-5.2		-0.8		-5.3		2.8		3.9	
95th Percentile	2.6		2.5		-5.4		2.0		-1.6		-8.6		-2.1		-6.0		0.9		1.0	
# of Portfolios	22		19		21		22		23		19		16		11		14		13	
● Franklin Templeton Global Bond Plus	-5.7	(99)	0.9	(99)	1.9	(11)	2.4	(93)	6.1	(6)	-4.1	(68)	1.9	(30)	2.5	(1)	--	(--)	--	(--)
▲ JPM GBI Global TR USD	9.7	(43)	6.0	(67)	-0.7	(43)	6.8	(60)	1.6	(50)	-2.6	(26)	0.7	(45)	-4.5	(55)	1.3	(92)	7.2	(16)



- Franklin Templeton Global Bond Plus
- JPM GBI Global TR USD
- Universe Median
- 68% Confidence Interval
- eV Global Government Fixed Inc Net



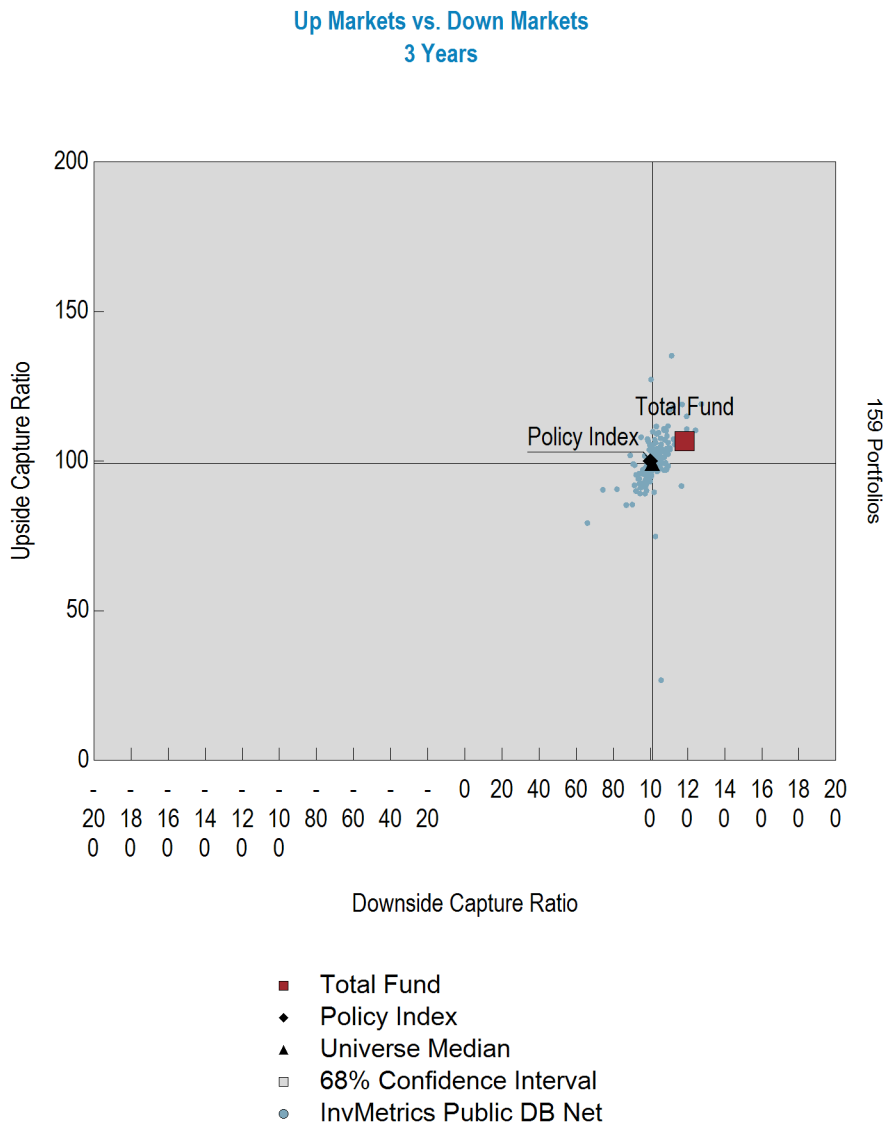
- Franklin Templeton Global Bond Plus
- JPM GBI Global TR USD
- Universe Median
- 68% Confidence Interval
- eV Global Government Fixed Inc Net

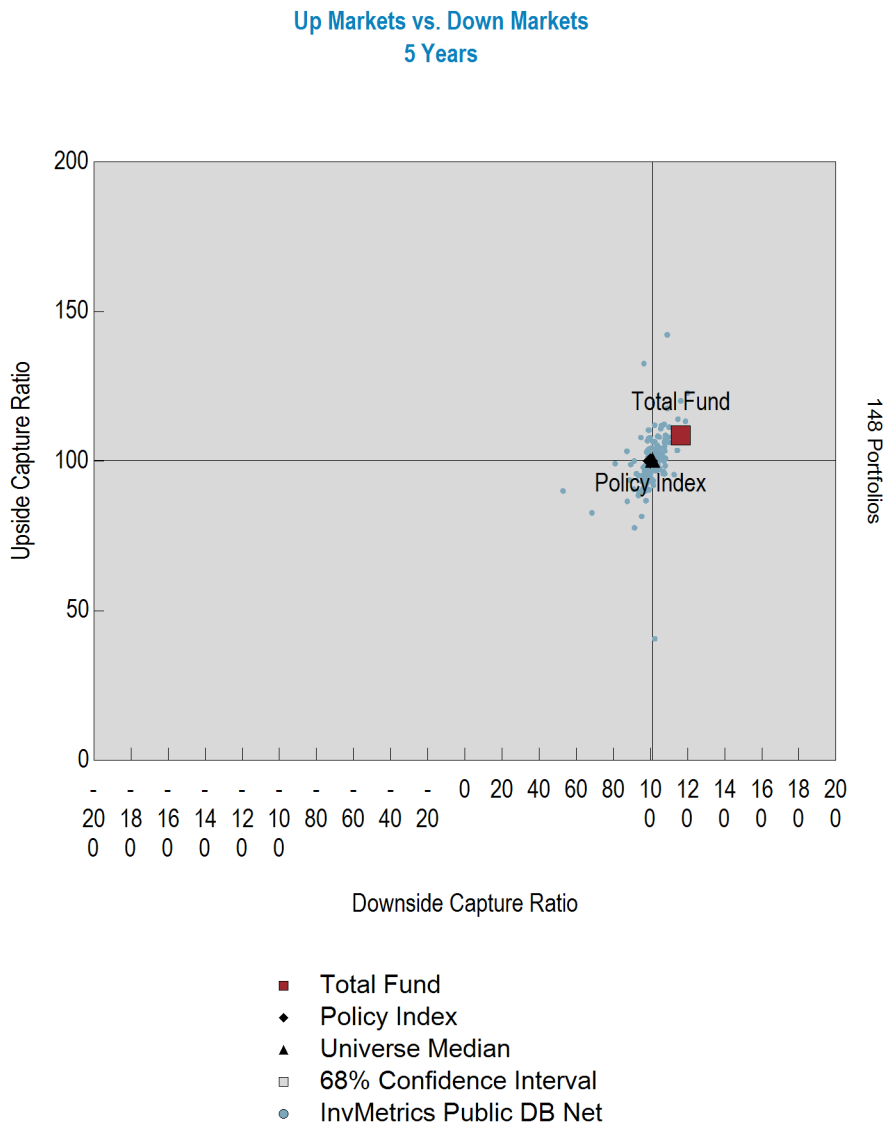
Total Real Estate
Asset Class Overview (Net of Fees)

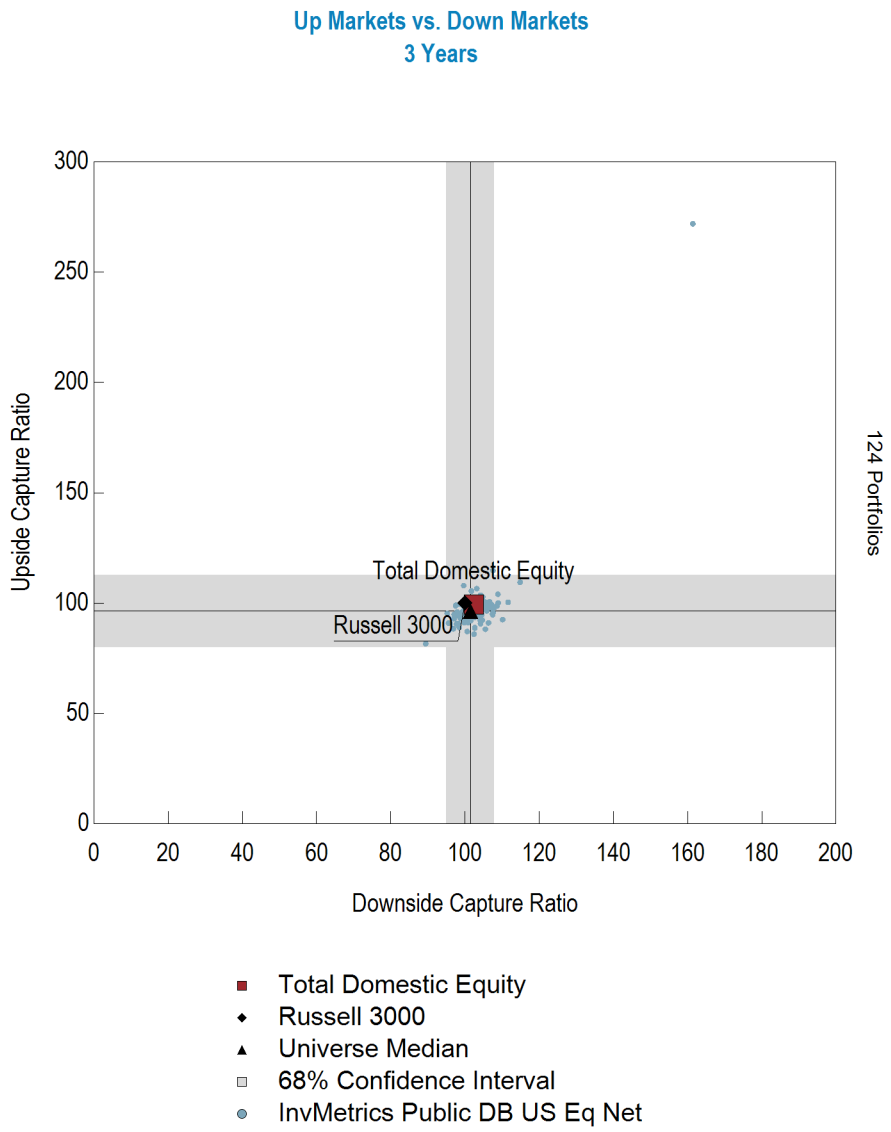
Period Ending: June 30, 2021

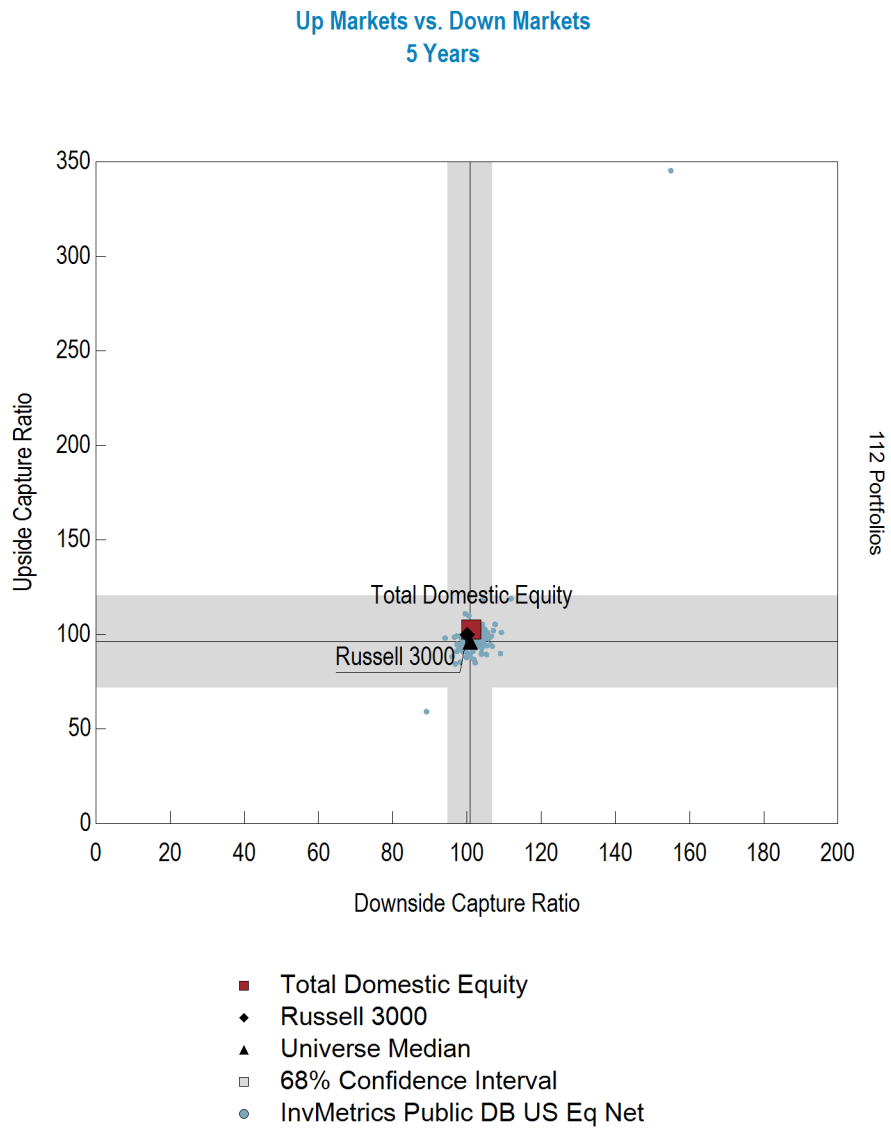
	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Real Estate	**190,048,362**	**2.0**	**2.8**	**2.2**	**2.2**	**4.7**	**5.3**	**8.2**	**1.8**	**5.2**	**8.8**	**4.3**	**8.0**
NCREIF-ODCE		*3.9*	*6.1*	*8.0*	*8.0*	*5.5*	*6.6*	*9.6*	*1.2*	*5.3*	*8.3*	*7.6*	*8.8*
NCREIF Property Index		*3.6*	*5.4*	*7.4*	*7.4*	*5.5*	*6.1*	*8.8*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*
RREEF America II	167,173,864	1.9	2.7	2.1	2.1	4.7	5.4	9.0	1.8	5.3	8.6	4.4	8.2
NCREIF-ODCE		*3.9*	*6.1*	*8.0*	*8.0*	*5.5*	*6.6*	*9.6*	*1.2*	*5.3*	*8.3*	*7.6*	*8.8*
NCREIF Property Index		*3.6*	*5.4*	*7.4*	*7.4*	*5.5*	*6.1*	*8.8*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*
American Realty	22,874,499	2.3	3.1	3.4	3.4	--	--	--	1.1	--	--	--	--
NCREIF-ODCE		*3.9*	*6.1*	*8.0*	*8.0*	--	--	--	*1.2*	--	--	--	--
NCREIF Property Index		*3.6*	*5.4*	*7.4*	*7.4*	--	--	--	*1.6*	--	--	--	--

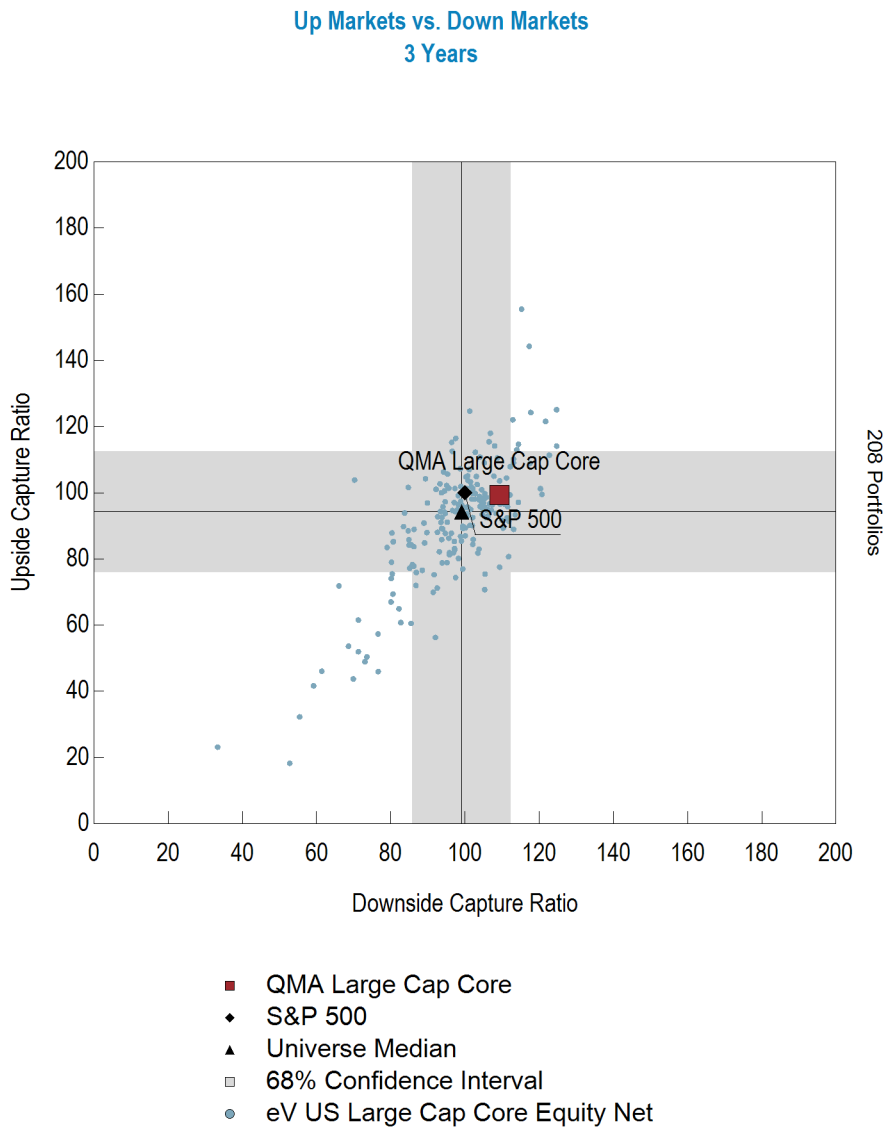
RREEF liquidated in 1Q 2018. American Realty funded 4Q 2019.

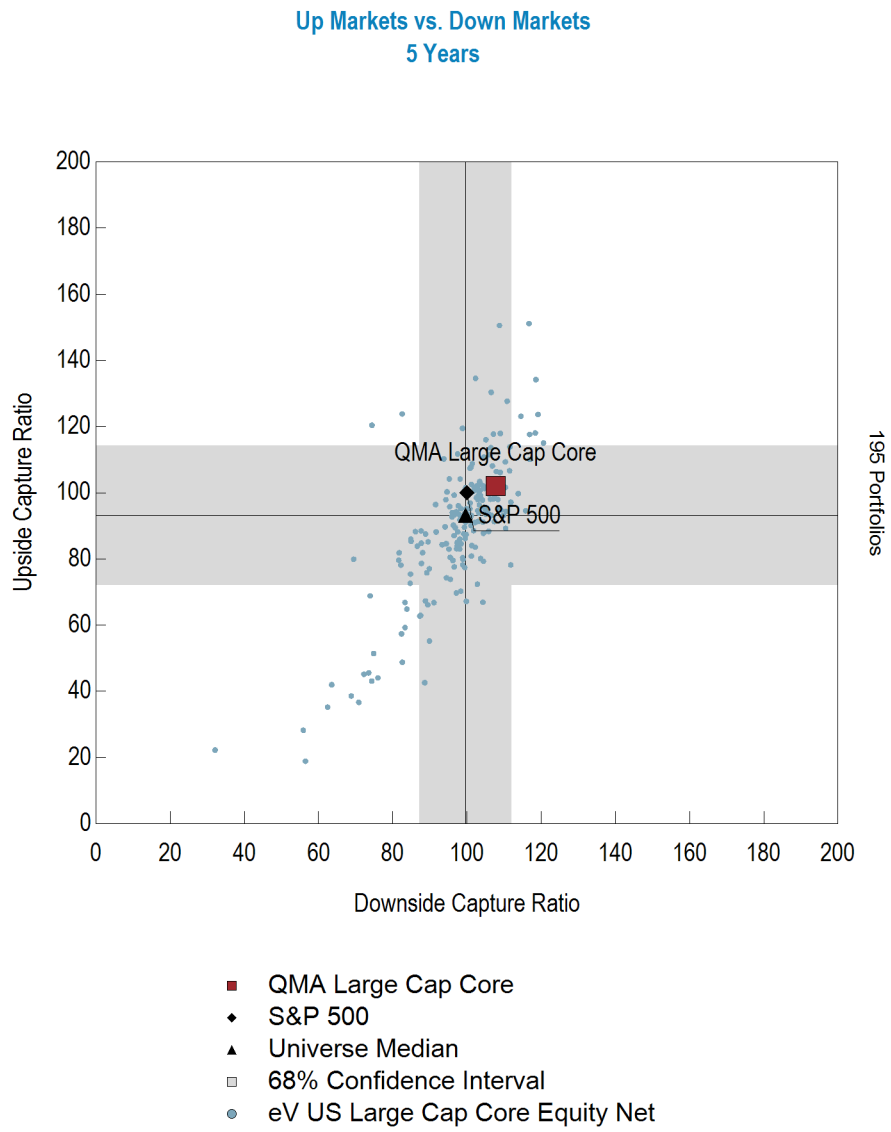

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
Total Fund
Policy Index
159 Portfolios
Total Fund
Policy Index
Universe Median
68% Confidence Interval
InvMetrics Public DB Net


Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
Total Fund
Policy Index
148 Portfolios
Total Fund
Policy Index
Universe Median
68% Confidence Interval
InvMetrics Public DB Net

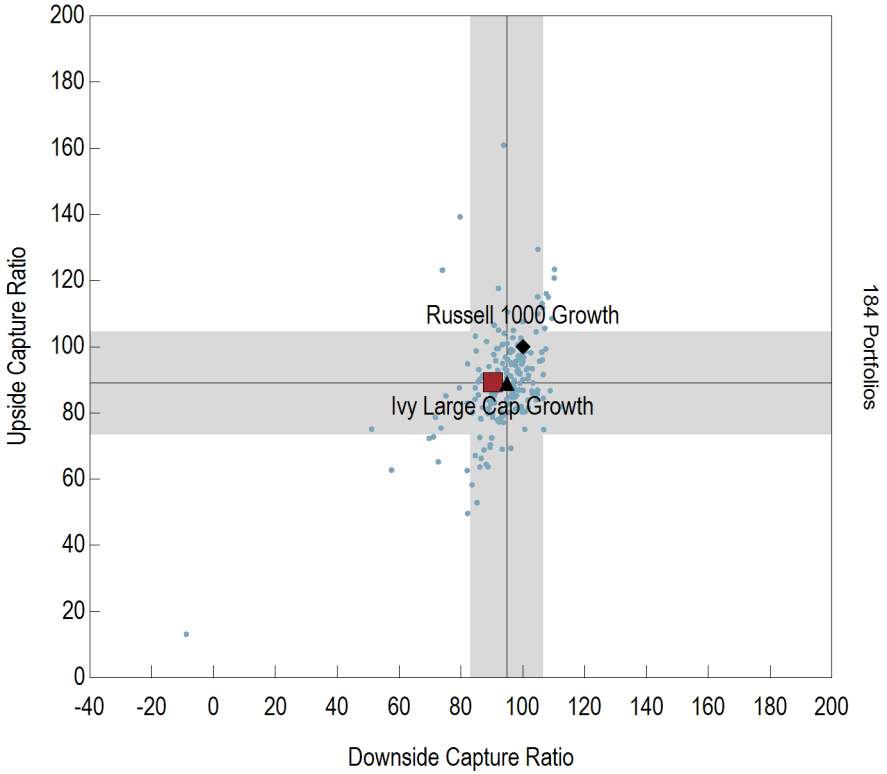

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
Total Domestic Equity
Russell 3000
124 Portfolios
Total Domestic Equity
Russell 3000
Universe Median
68% Confidence Interval
InvMetrics Public DB US Eq Net


Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
Total Domestic Equity
Russell 3000
112 Portfolios
Total Domestic Equity
Russell 3000
Universe Median
68% Confidence Interval
InvMetrics Public DB US Eq Net


Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
QMA Large Cap Core
S&P 500
208 Portfolios
0
20
40
60
80
100
120
140
160
180
200
QMA Large Cap Core
S&P 500
Universe Median
68% Confidence Interval
eV US Large Cap Core Equity Net

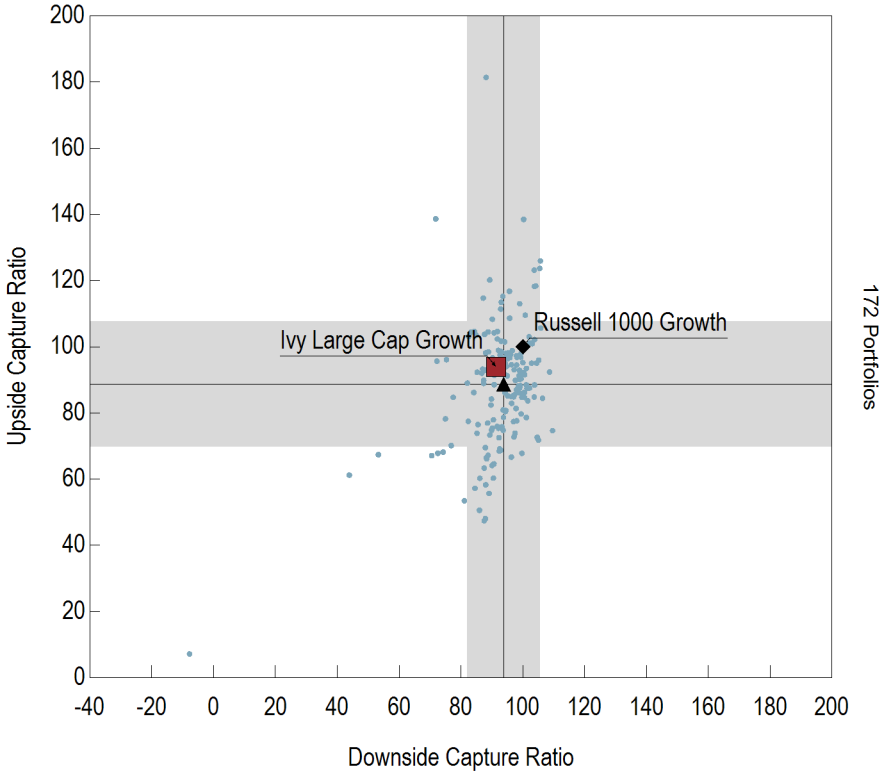

Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
QMA Large Cap Core
S&P 500
195 Portfolios
0
20
40
60
80
100
120
140
160
180
200
QMA Large Cap Core
S&P 500
Universe Median
68% Confidence Interval
eV US Large Cap Core Equity Net

Up Markets vs. Down Markets
3 Years

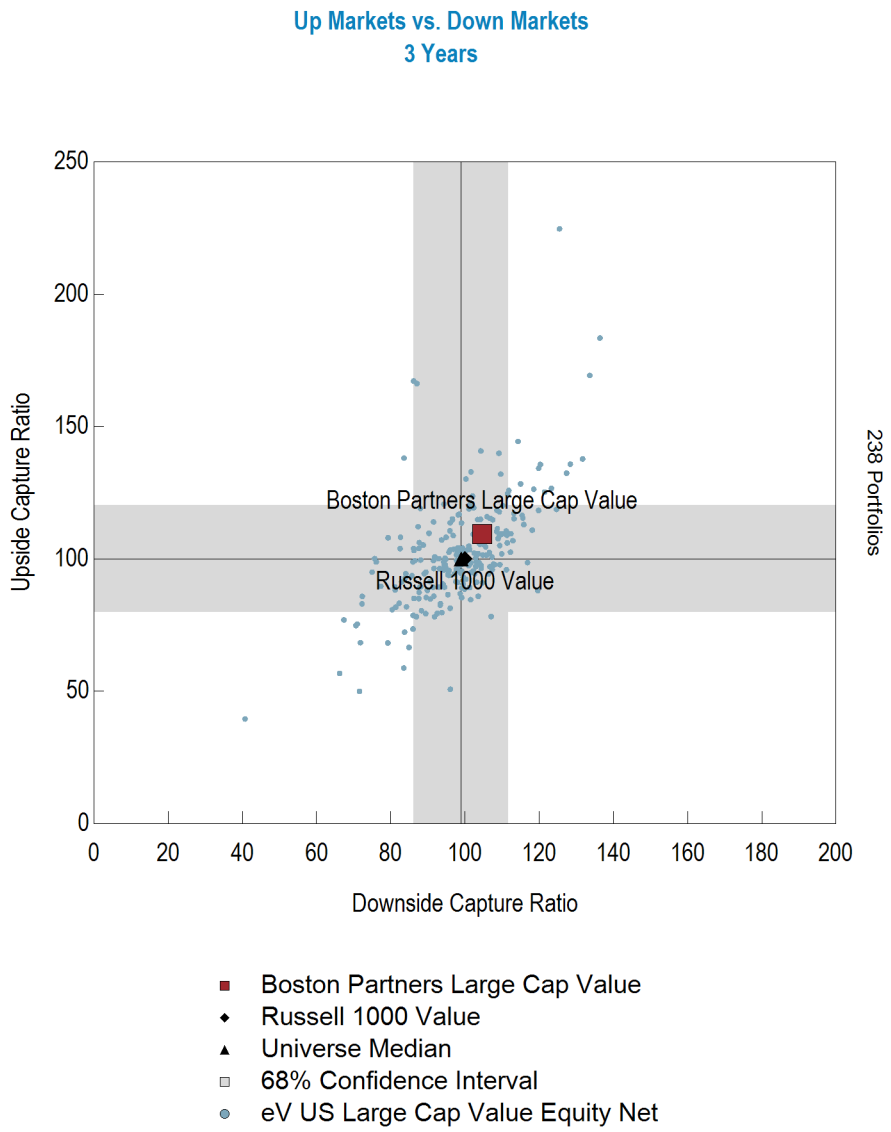


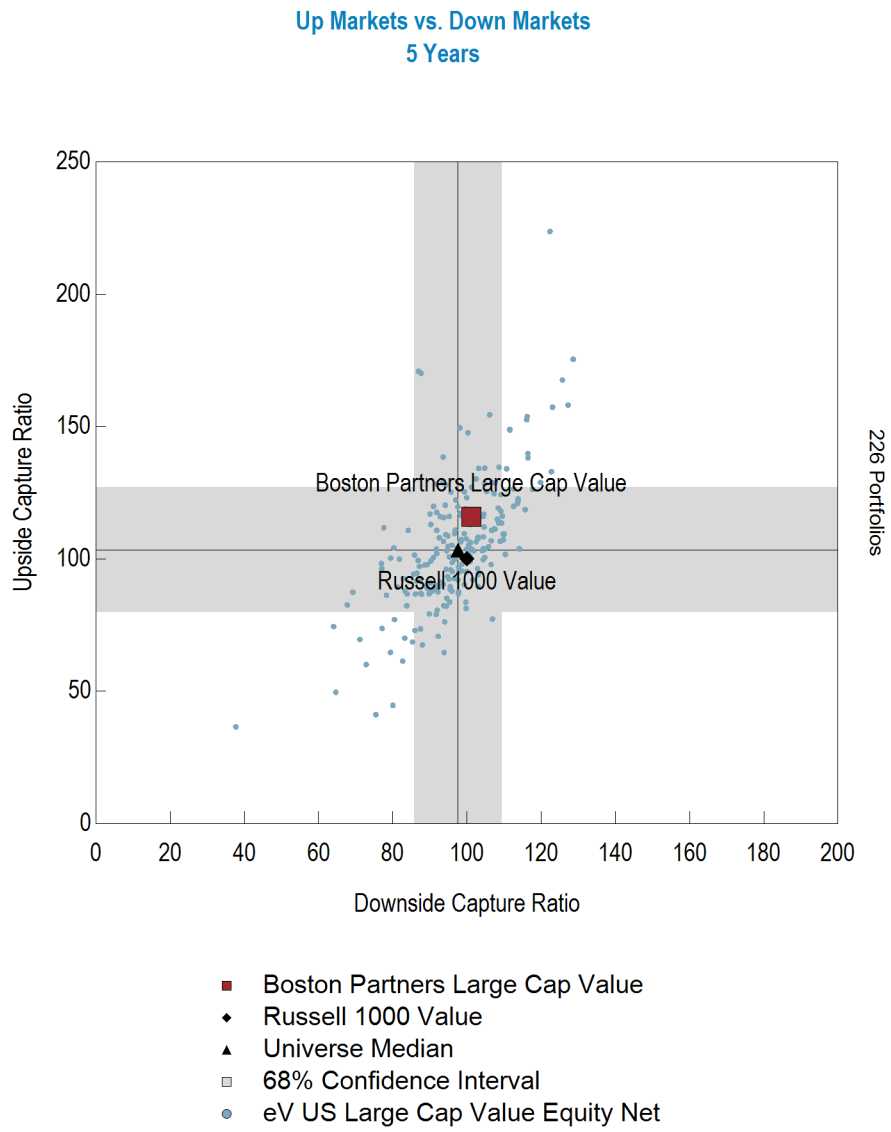
- Ivy Large Cap Growth
- Russell 1000 Growth
- Universe Median
- 68% Confidence Interval
- eV US Large Cap Growth Equity Net

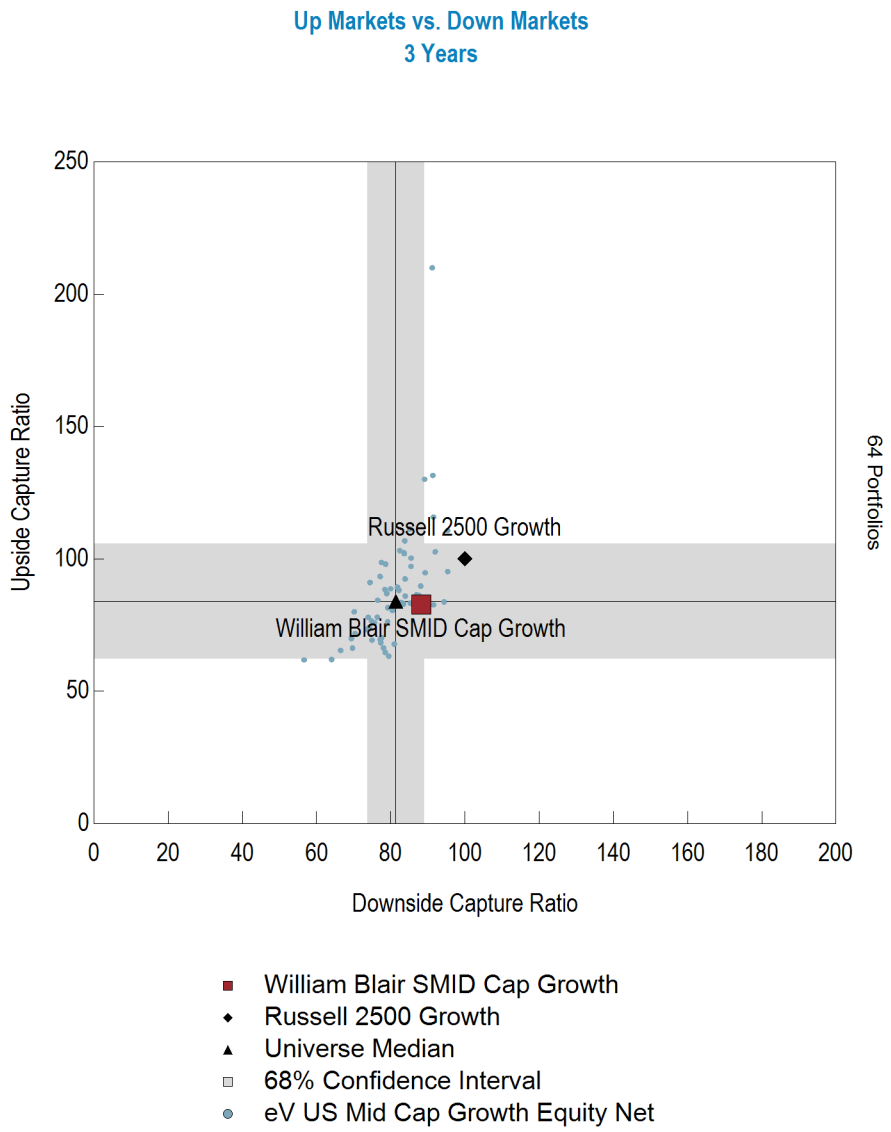
Up Markets vs. Down Markets
5 Years

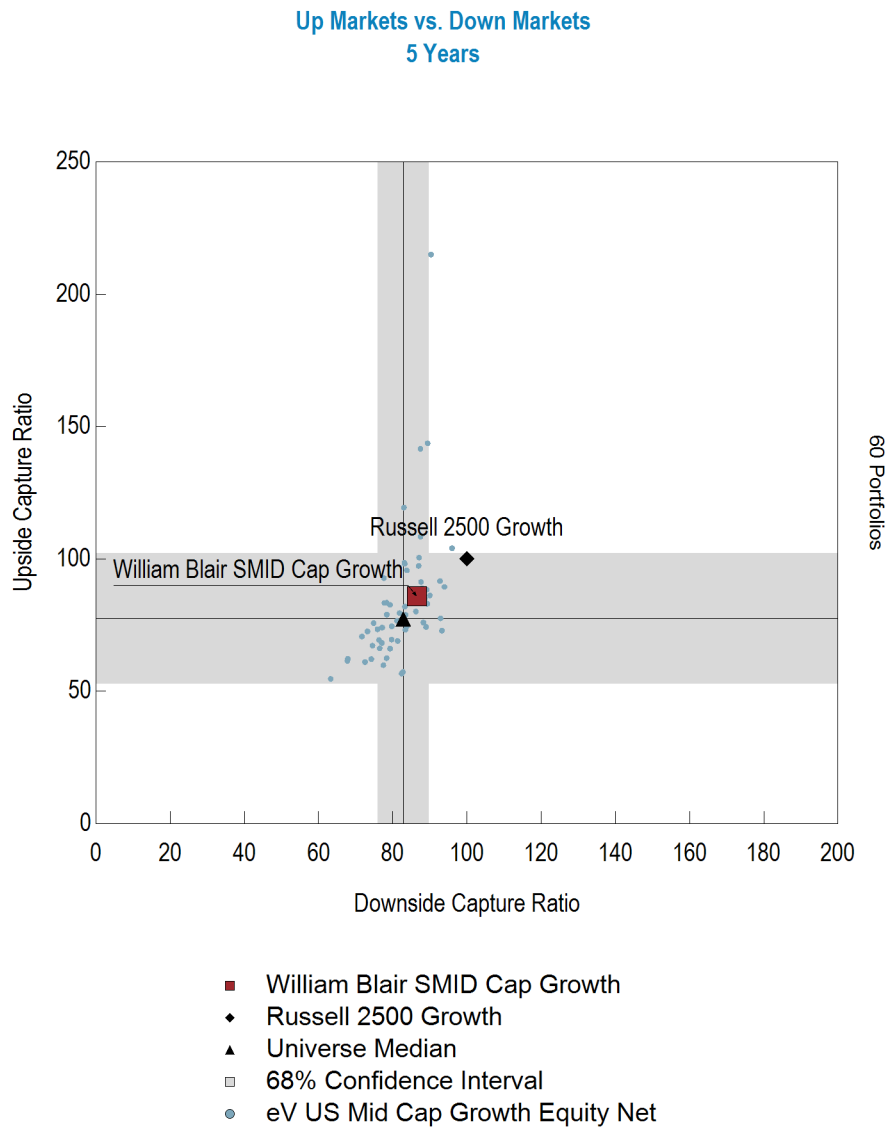


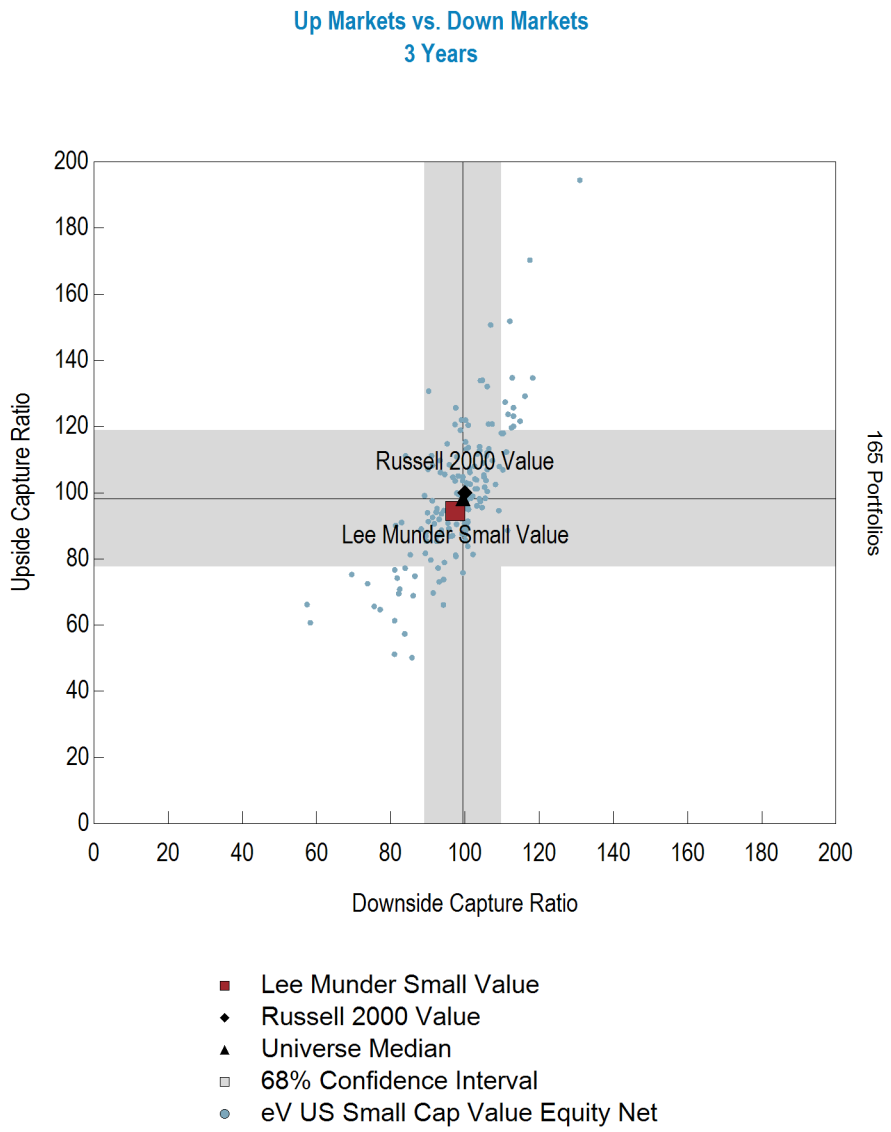
- Ivy Large Cap Growth
- Russell 1000 Growth
- Universe Median
- 68% Confidence Interval
- eV US Large Cap Growth Equity Net

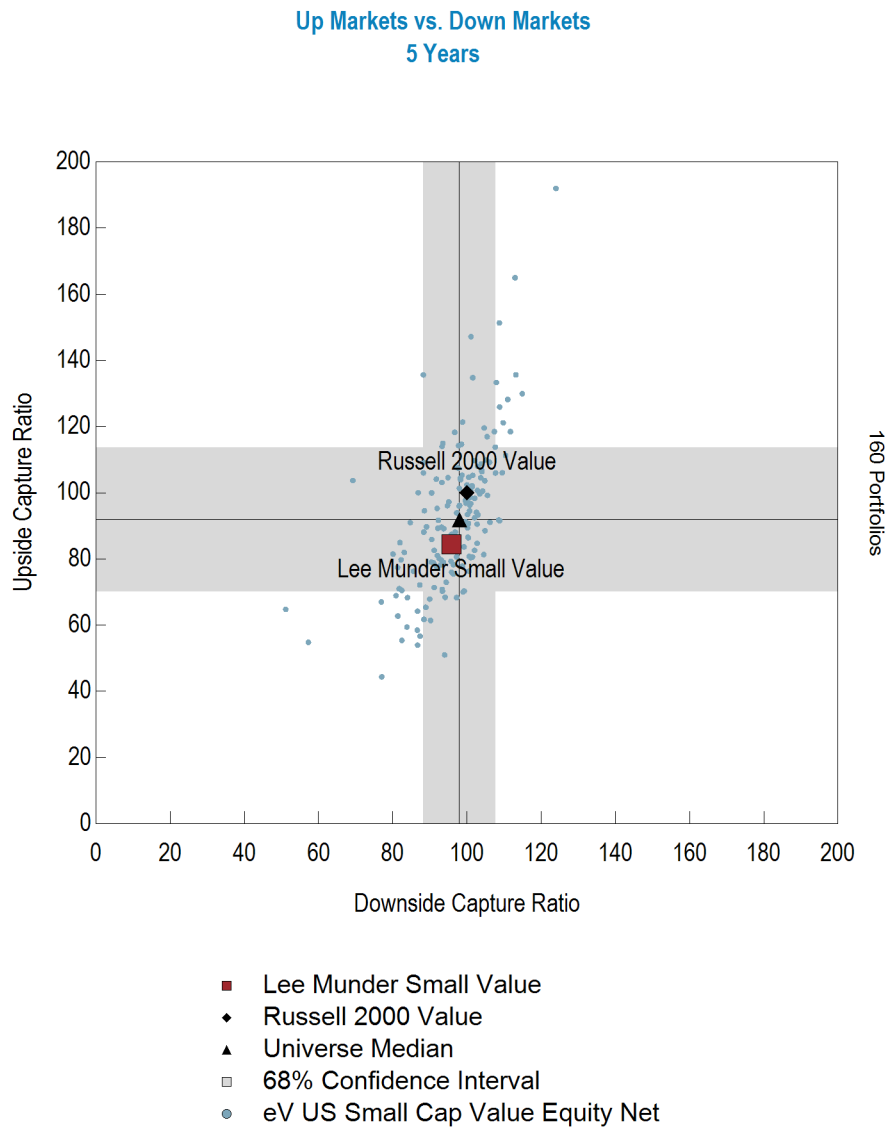

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
Boston Partners Large Cap Value
Russell 1000 Value
238 Portfolios
0
50
100
150
200
250
0
20
40
60
80
100
120
140
160
180
200
Boston Partners Large Cap Value
Russell 1000 Value
Universe Median
68% Confidence Interval
eV US Large Cap Value Equity Net

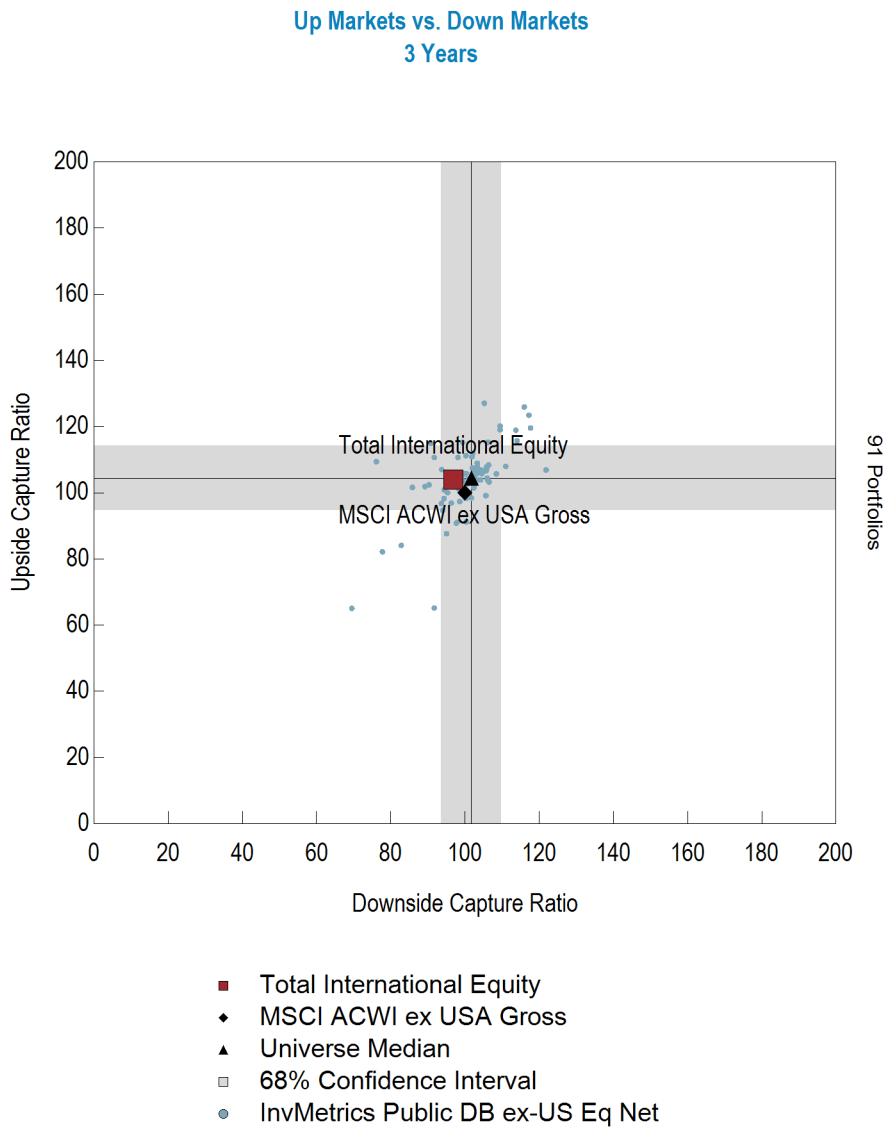

Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
Boston Partners Large Cap Value
Russell 1000 Value
226 Portfolios
0
50
100
150
200
250
0
20
40
60
80
100
120
140
160
180
200
Boston Partners Large Cap Value
Russell 1000 Value
Universe Median
68% Confidence Interval
eV US Large Cap Value Equity Net

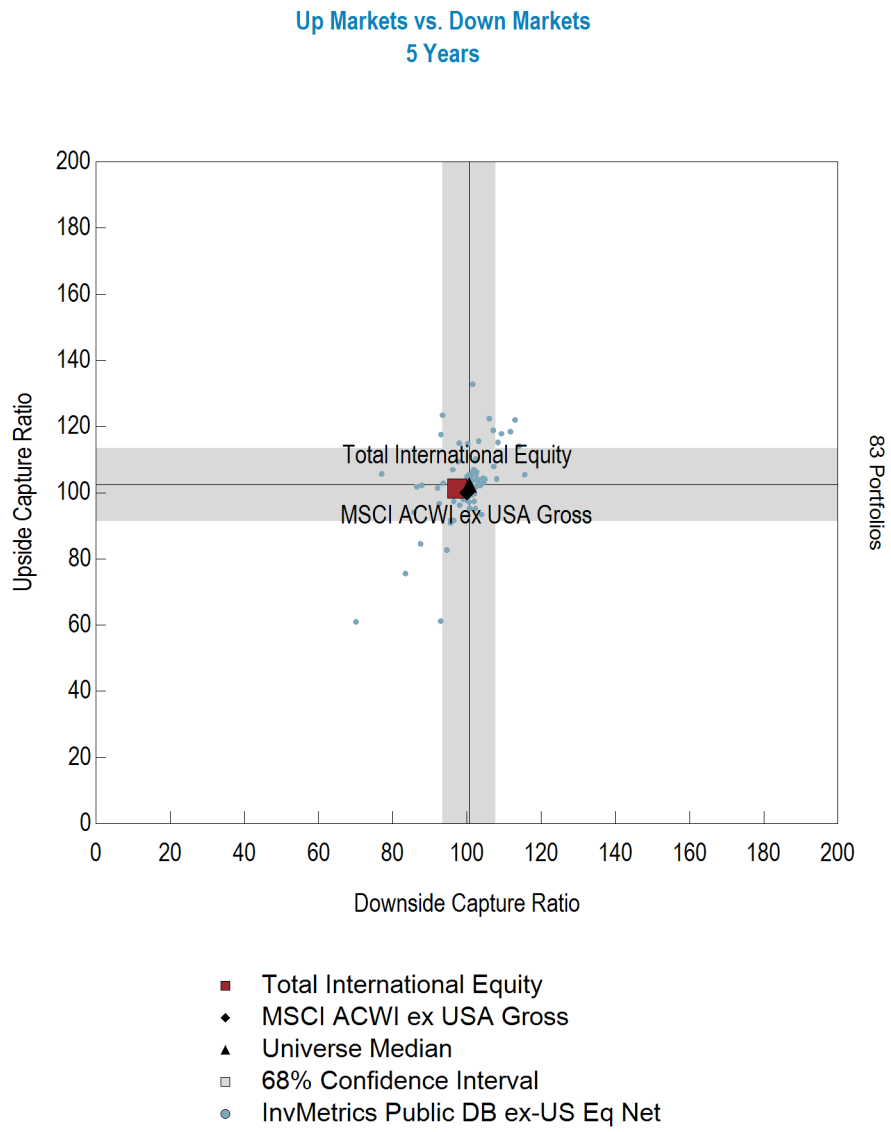

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
Russell 2500 Growth
William Blair SMID Cap Growth
64 Portfolios
0
50
100
150
200
250
0
20
40
60
80
100
120
140
160
180
200
William Blair SMID Cap Growth
Russell 2500 Growth
Universe Median
68% Confidence Interval
eV US Mid Cap Growth Equity Net

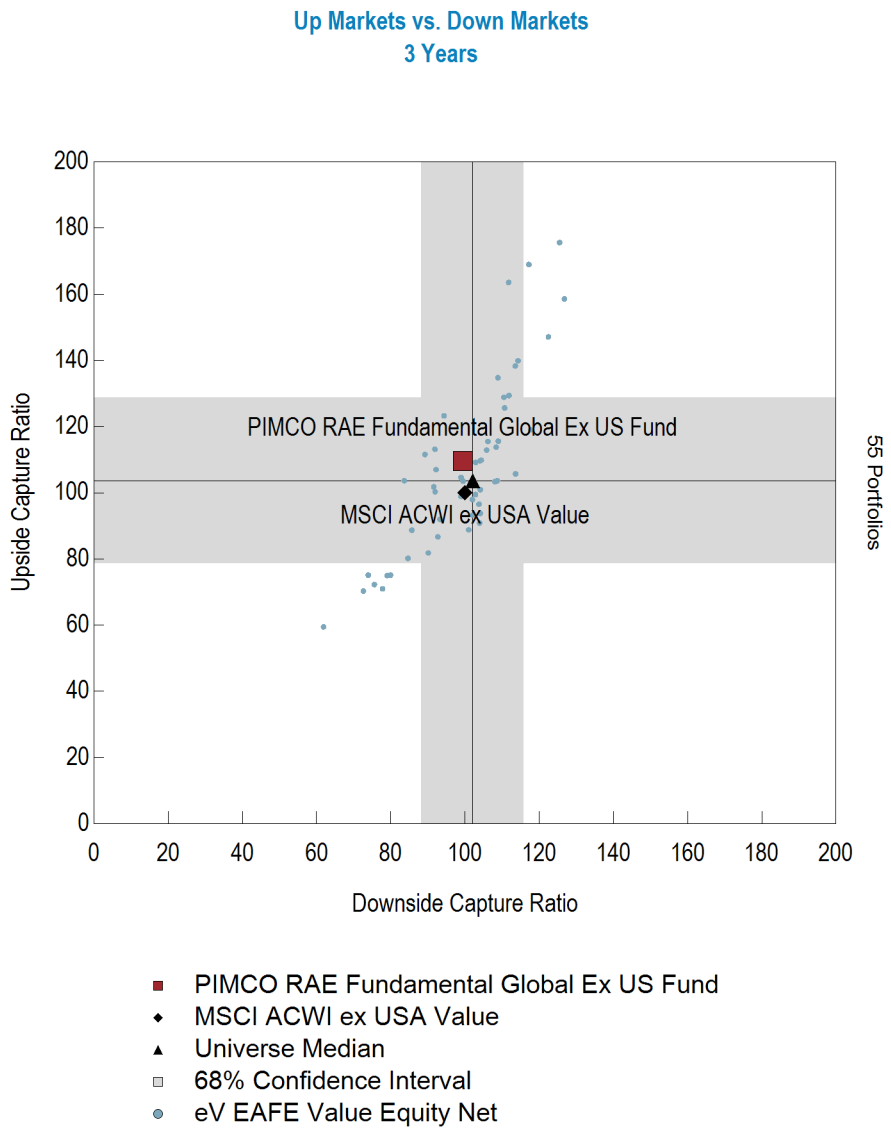

Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
Russell 2500 Growth
William Blair SMID Cap Growth
60 Portfolios
0
50
100
150
200
250
0
20
40
60
80
100
120
140
160
180
200
William Blair SMID Cap Growth
Russell 2500 Growth
Universe Median
68% Confidence Interval
eV US Mid Cap Growth Equity Net

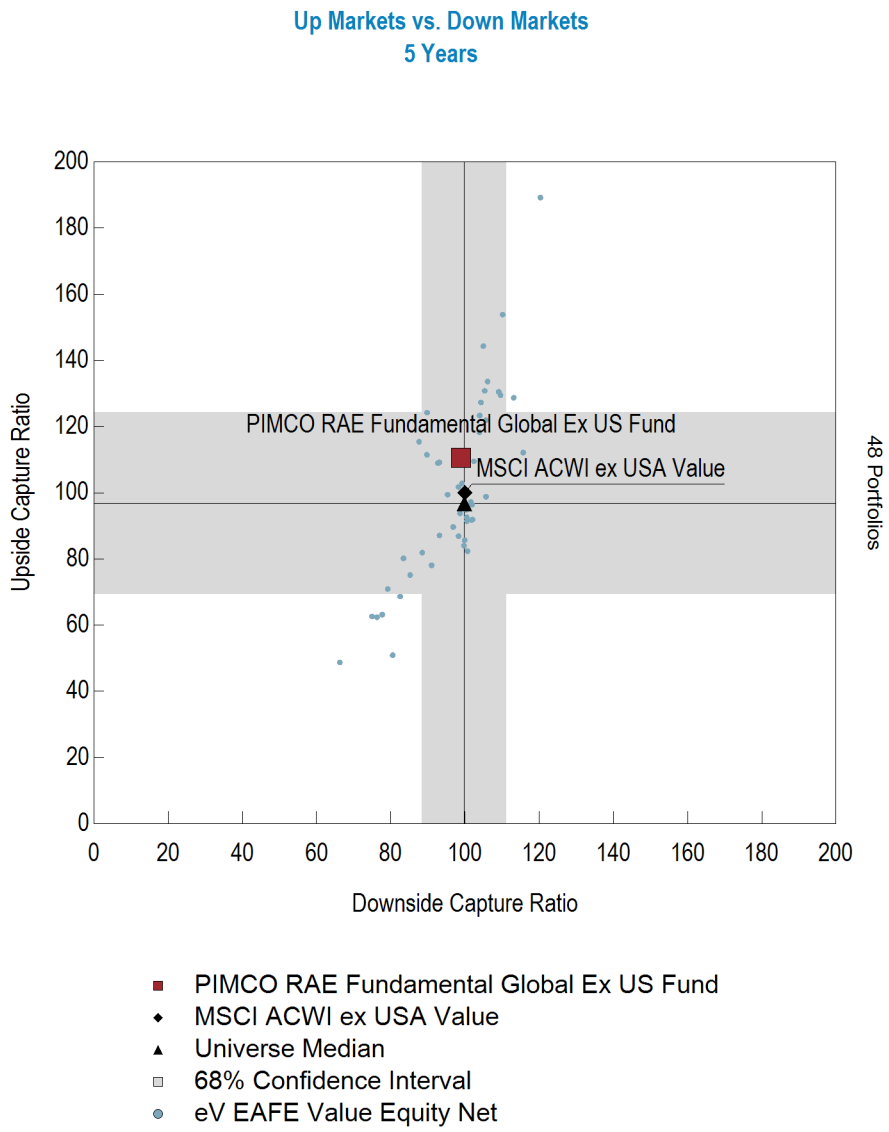

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
Russell 2000 Value
Lee Munder Small Value
165 Portfolios
0
20
40
60
80
100
120
140
160
180
200
Lee Munder Small Value
Russell 2000 Value
Universe Median
68% Confidence Interval
eV US Small Cap Value Equity Net

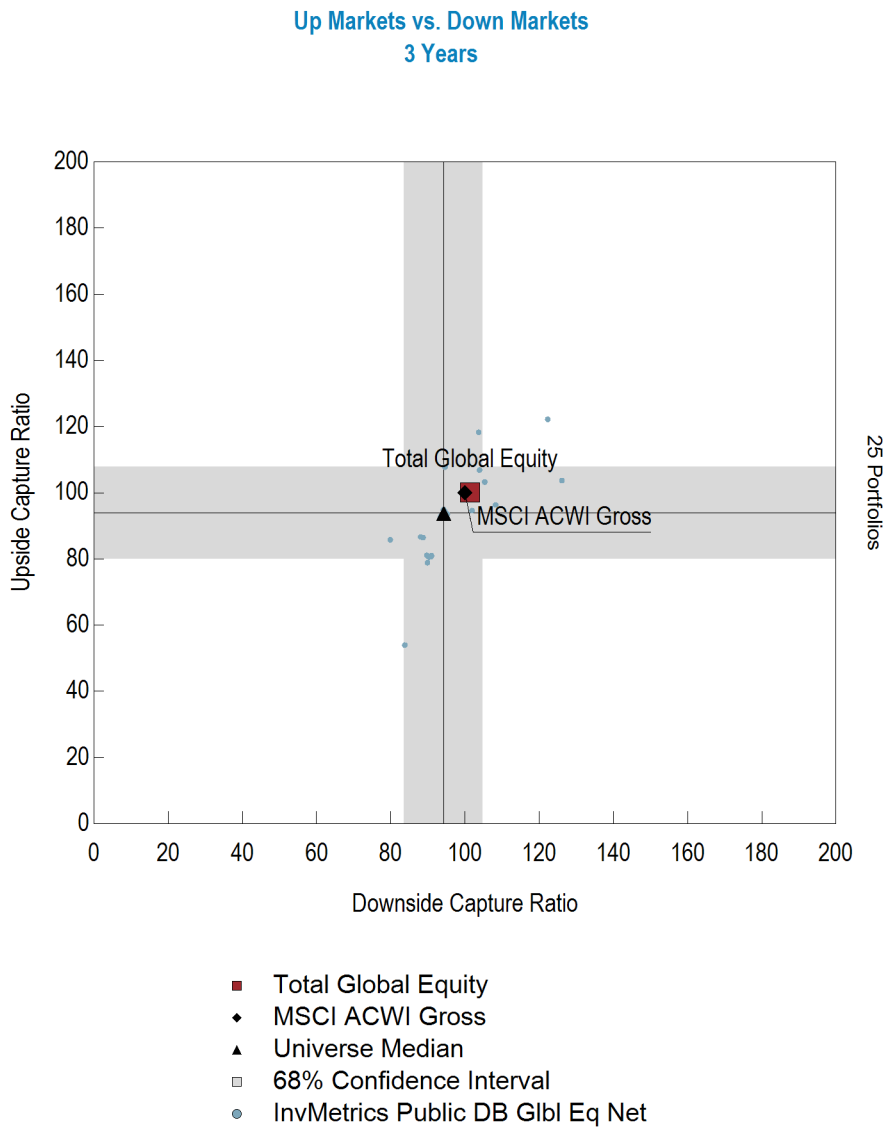

Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
Russell 2000 Value
Lee Munder Small Value
160 Portfolios
0
20
40
60
80
100
120
140
160
180
200
Lee Munder Small Value
Russell 2000 Value
Universe Median
68% Confidence Interval
eV US Small Cap Value Equity Net

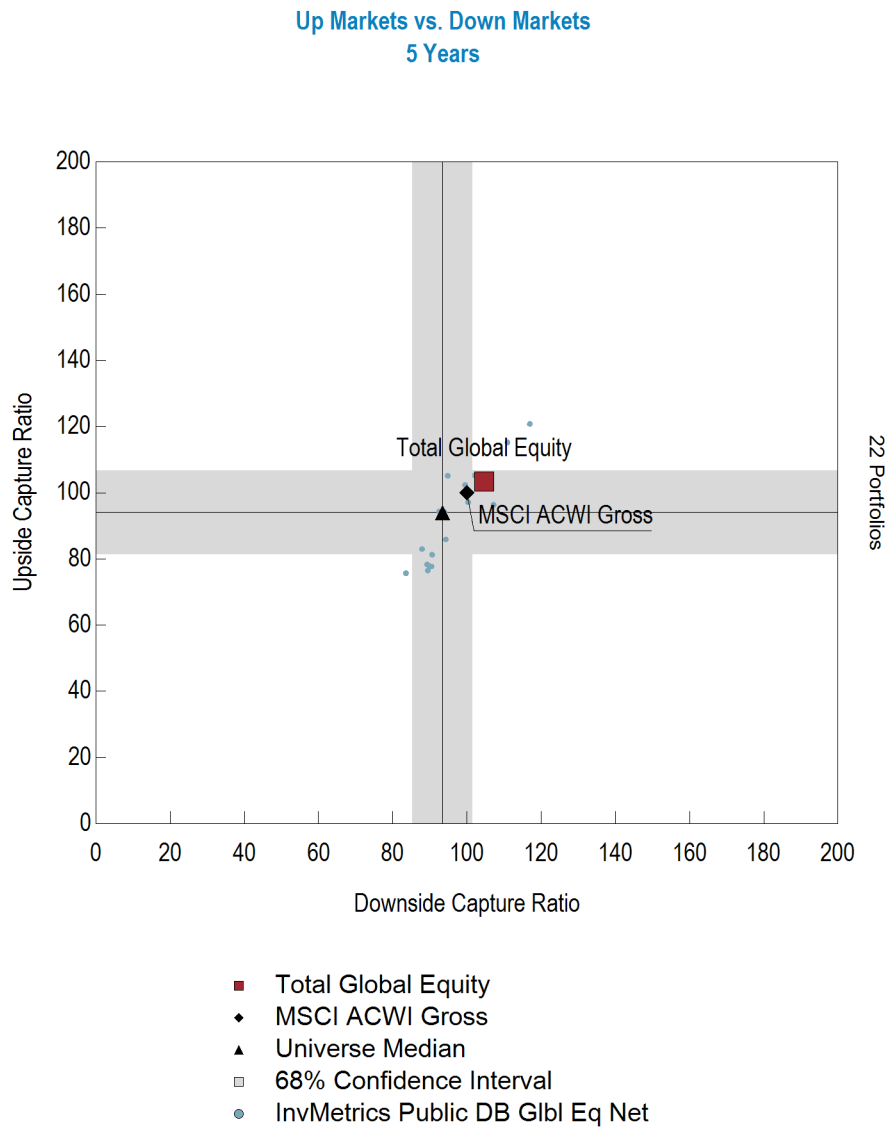

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
Total International Equity
MSCI ACWI ex USA Gross
91 Portfolios
0
20
40
60
80
100
120
140
160
180
200
Total International Equity
MSCI ACWI ex USA Gross
Universe Median
68% Confidence Interval
InvMetrics Public DB ex-US Eq Net

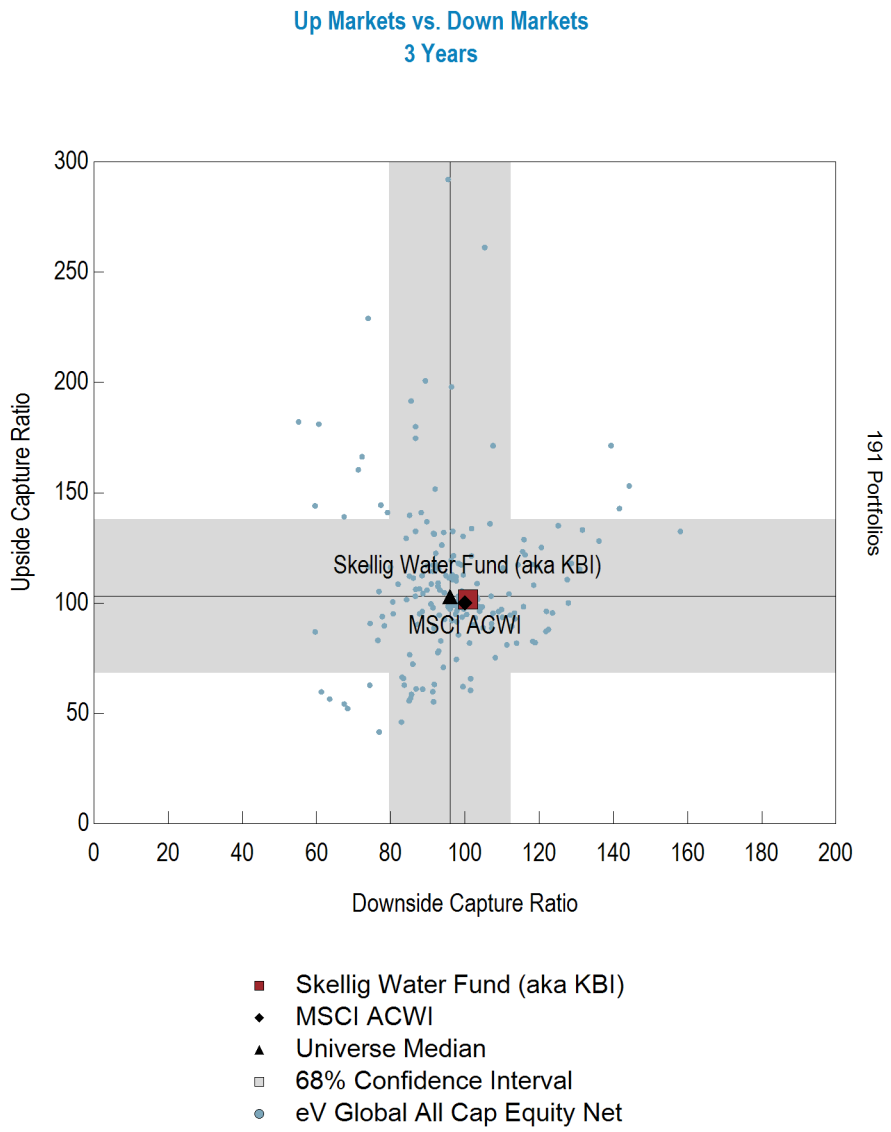

Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
Total International Equity
MSCI ACWI ex USA Gross
83 Portfolios
0
20
40
60
80
100
120
140
160
180
200
Total International Equity
MSCI ACWI ex USA Gross
Universe Median
68% Confidence Interval
InvMetrics Public DB ex-US Eq Net

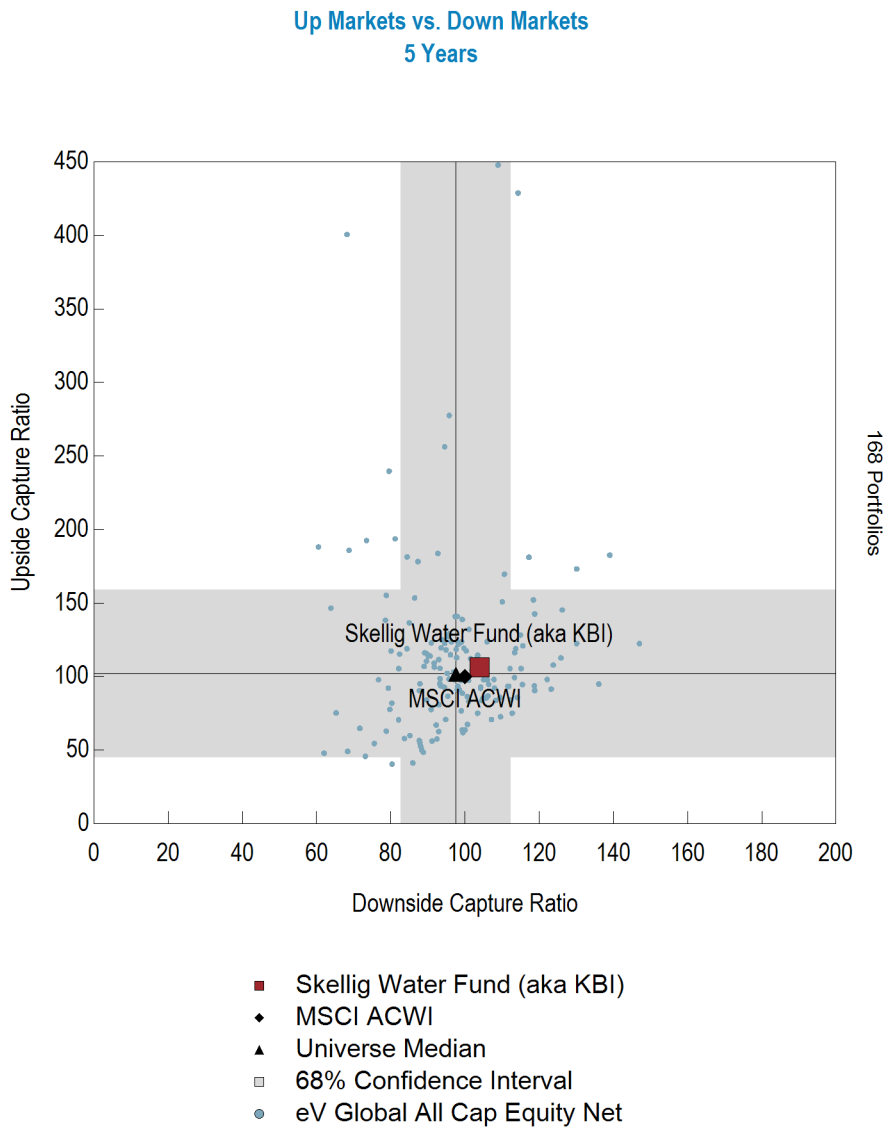

Up Markets vs. Down Markets
3 Years
PIMCO RAE Fundamental Global Ex US Fund
MSCI ACWI ex USA Value
Upside Capture Ratio
Downside Capture Ratio
55 Portfolios
0
20
40
60
80
100
120
140
160
180
200
PIMCO RAE Fundamental Global Ex US Fund
MSCI ACWI ex USA Value
Universe Median
68% Confidence Interval
eV EAFE Value Equity Net

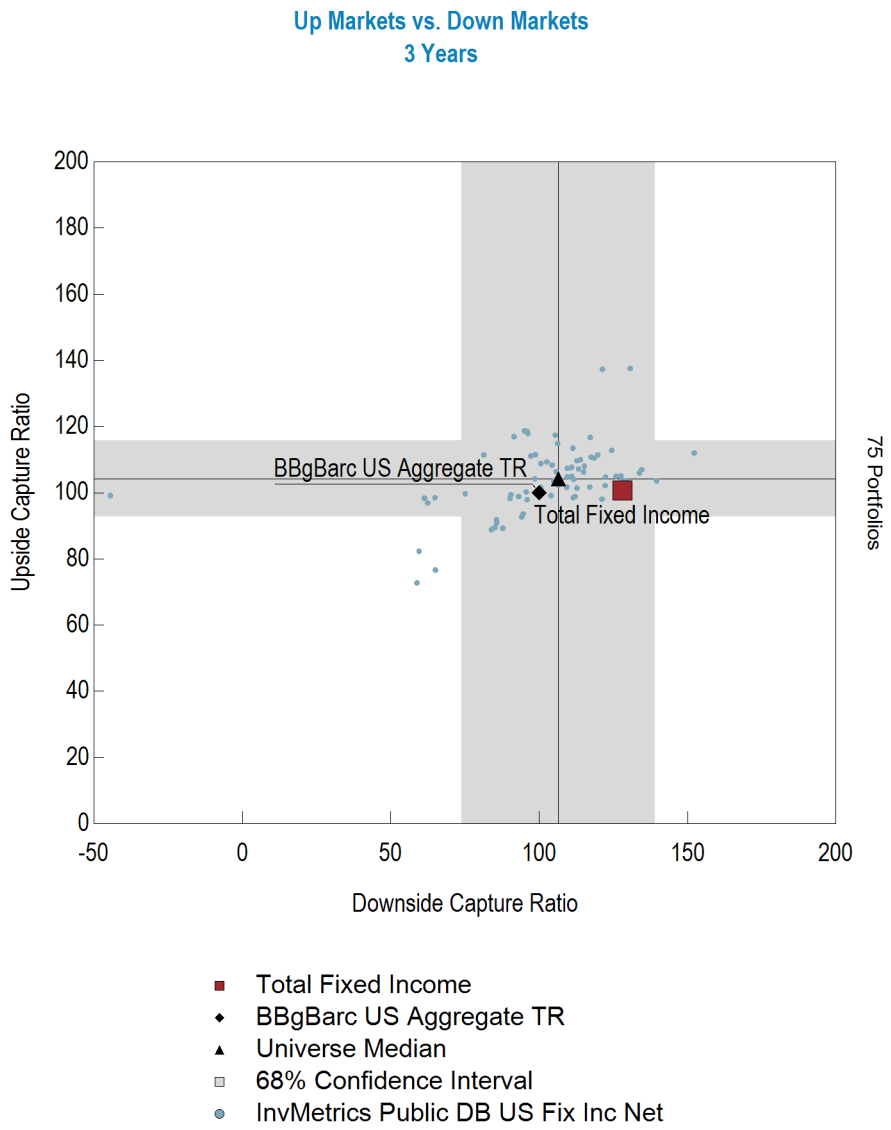

Up Markets vs. Down Markets
5 Years
PIMCO RAE Fundamental Global Ex US Fund
MSCI ACWI ex USA Value
Upside Capture Ratio
Downside Capture Ratio
48 Portfolios
0
20
40
60
80
100
120
140
160
180
200
PIMCO RAE Fundamental Global Ex US Fund
MSCI ACWI ex USA Value
Universe Median
68% Confidence Interval
eV EAFE Value Equity Net

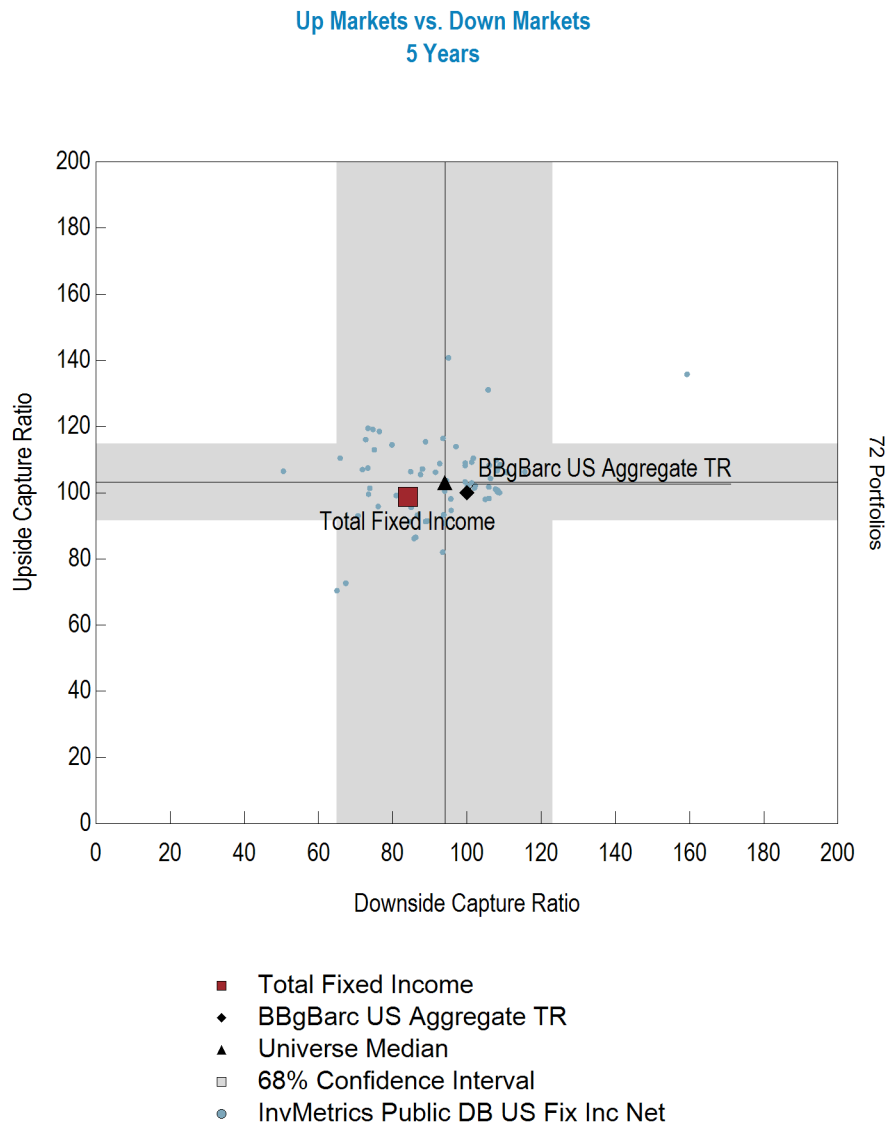

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
Total Global Equity
MSCI ACWI Gross
25 Portfolios
Total Global Equity
MSCI ACWI Gross
Universe Median
68% Confidence Interval
InvMetrics Public DB Glbl Eq Net

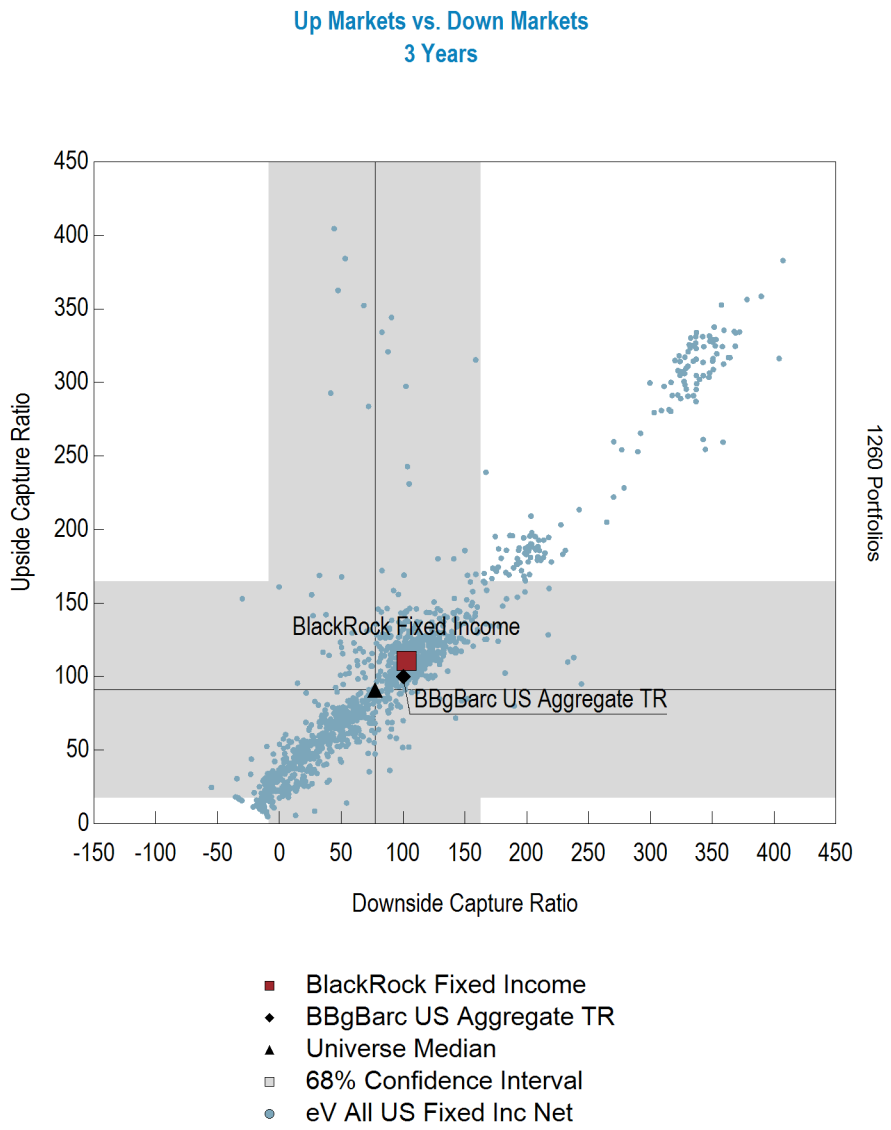

Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
Total Global Equity
MSCI ACWI Gross
22 Portfolios
Total Global Equity
MSCI ACWI Gross
Universe Median
68% Confidence Interval
InvMetrics Public DB Glbl Eq Net

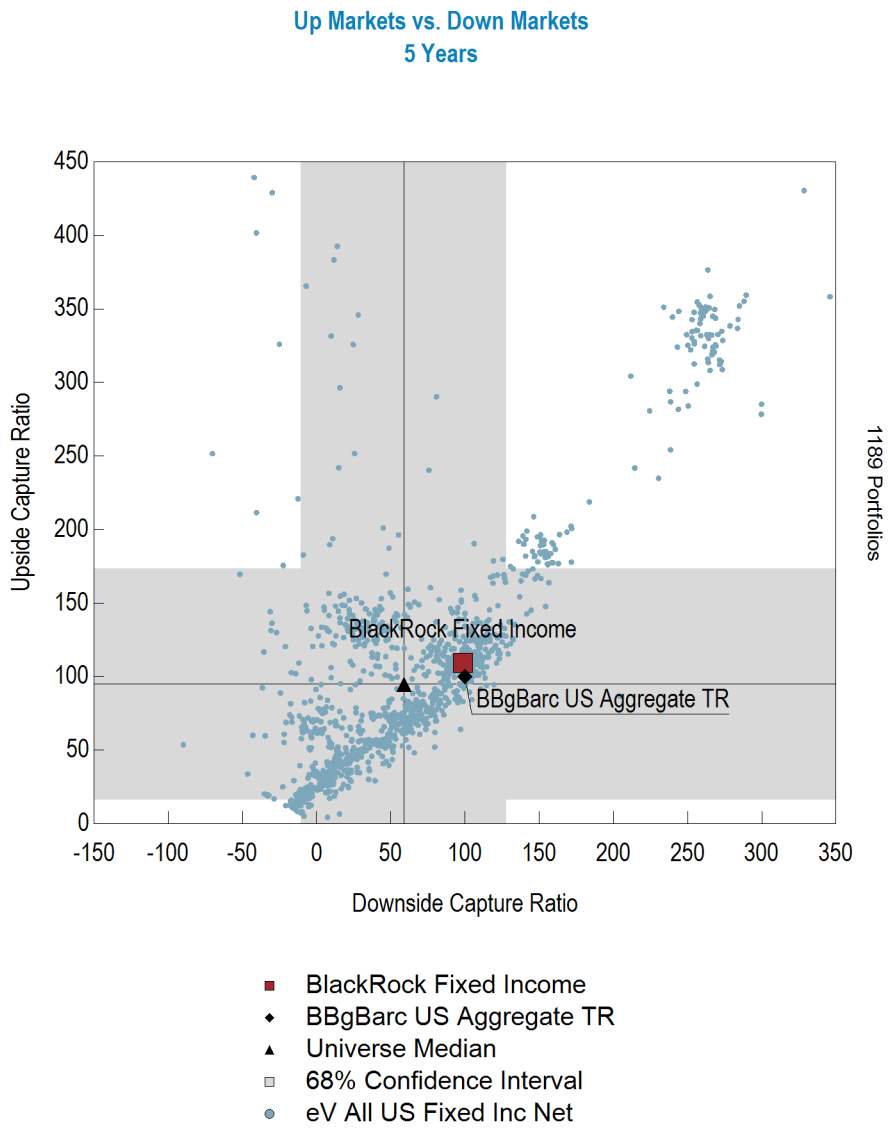

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
Skellig Water Fund (aka KBI)
MSCI ACWI
191 Portfolios
Skellig Water Fund (aka KBI)
MSCI ACWI
Universe Median
68% Confidence Interval
eV Global All Cap Equity Net

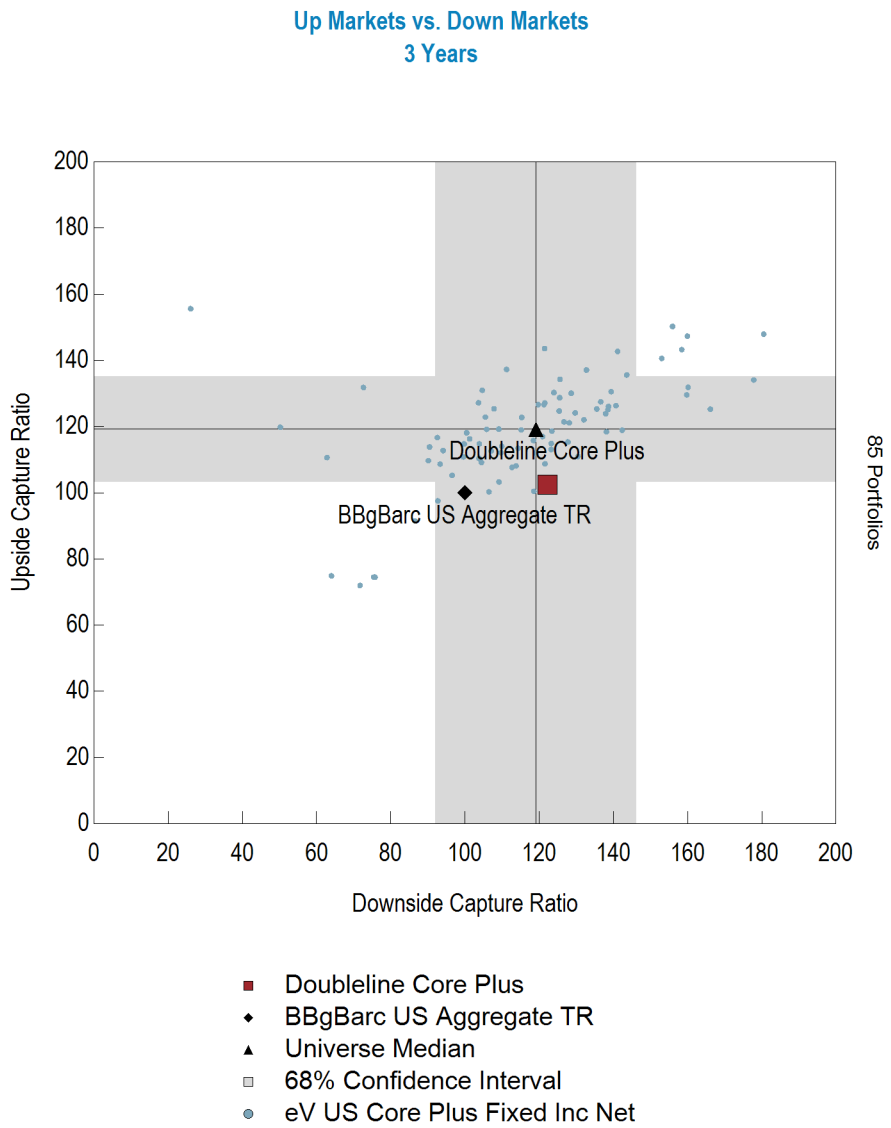

Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
Skellig Water Fund (aka KBI)
MSCI ACWI
168 Portfolios
Skellig Water Fund (aka KBI)
MSCI ACWI
Universe Median
68% Confidence Interval
eV Global All Cap Equity Net

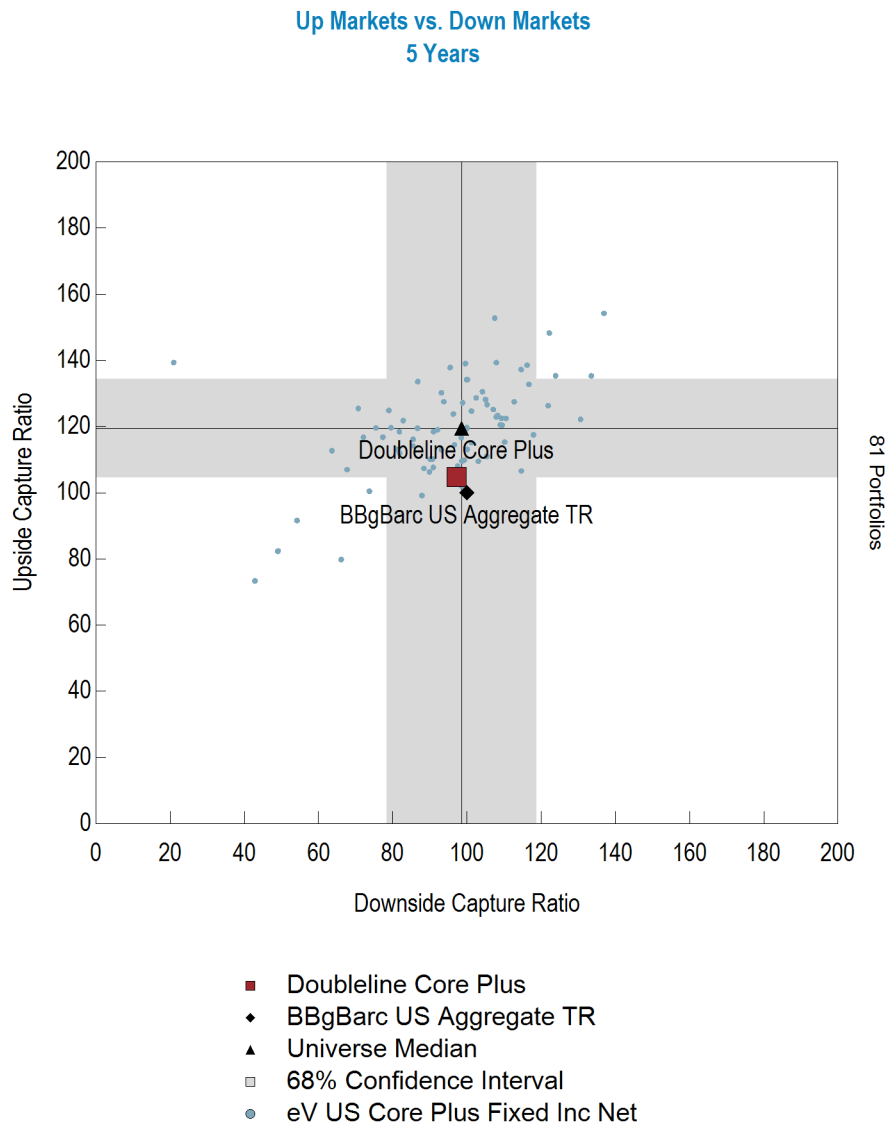

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
BBgBarc US Aggregate TR
Total Fixed Income
75 Portfolios
Total Fixed Income
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
InvMetrics Public DB US Fix Inc Net

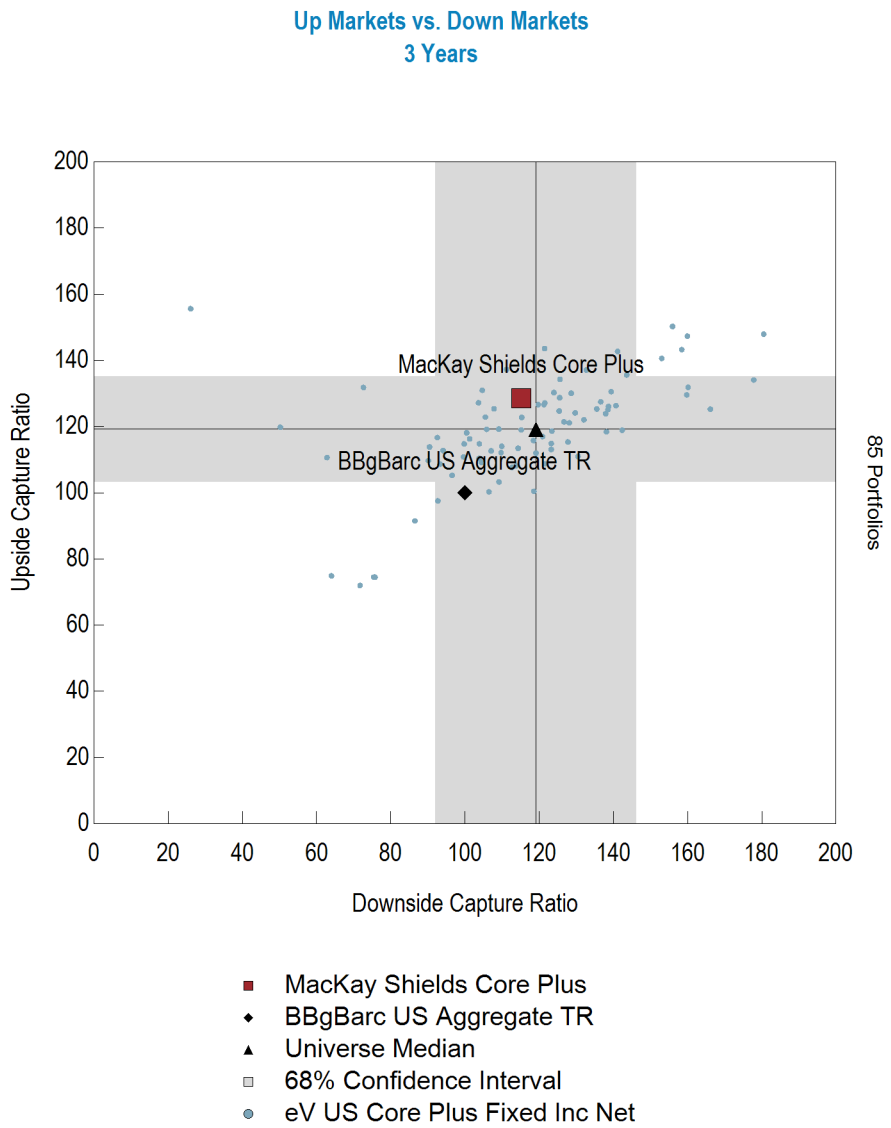

Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
BBgBarc US Aggregate TR
Total Fixed Income
72 Portfolios
Total Fixed Income
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
InvMetrics Public DB US Fix Inc Net

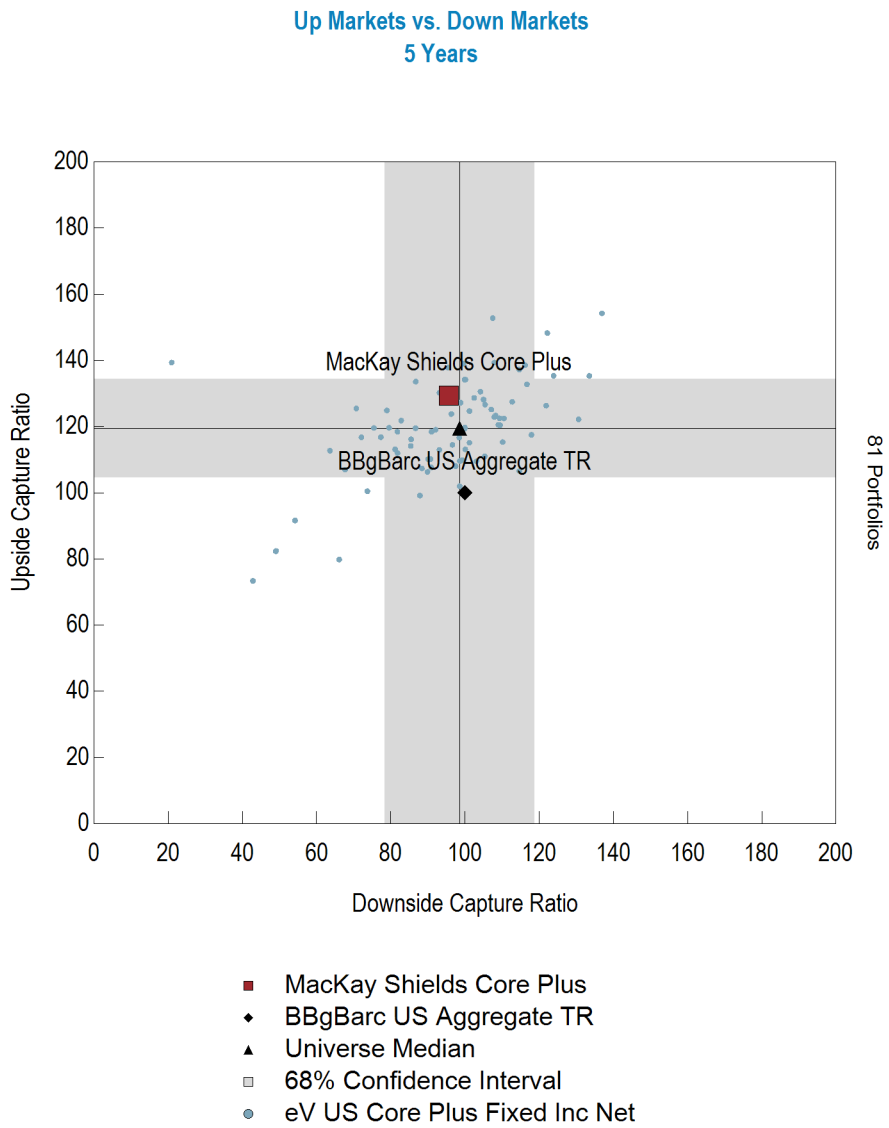

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
1260 Portfolios
BlackRock Fixed Income
BBgBarc US Aggregate TR
BlackRock Fixed Income
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
eV All US Fixed Inc Net


Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
1189 Portfolios
BlackRock Fixed Income
BBgBarc US Aggregate TR
BlackRock Fixed Income
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
eV All US Fixed Inc Net

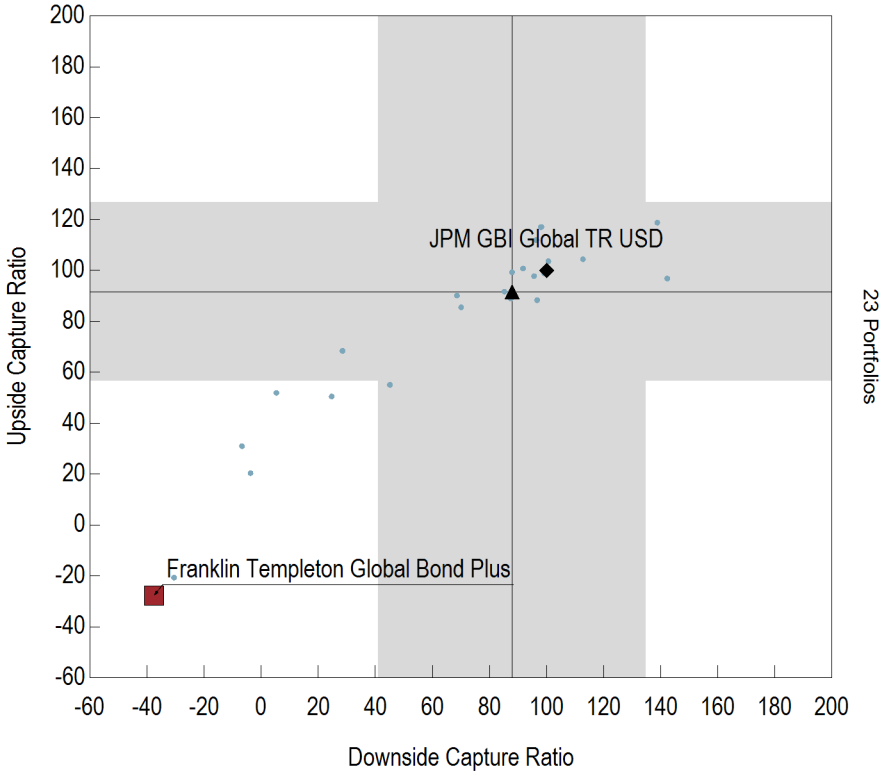

Up Markets vs. Down Markets
3 Years
Upside Capture Ratio
Downside Capture Ratio
Doubleline Core Plus
BBgBarc US Aggregate TR
85 Portfolios
Doubleline Core Plus
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
eV US Core Plus Fixed Inc Net


Up Markets vs. Down Markets
5 Years
Upside Capture Ratio
Downside Capture Ratio
Doubleline Core Plus
BBgBarc US Aggregate TR
81 Portfolios
Doubleline Core Plus
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
eV US Core Plus Fixed Inc Net


Up Markets vs. Down Markets
3 Years
MacKay Shields Core Plus
BBgBarc US Aggregate TR
Upside Capture Ratio
Downside Capture Ratio
85 Portfolios
MacKay Shields Core Plus
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
eV US Core Plus Fixed Inc Net

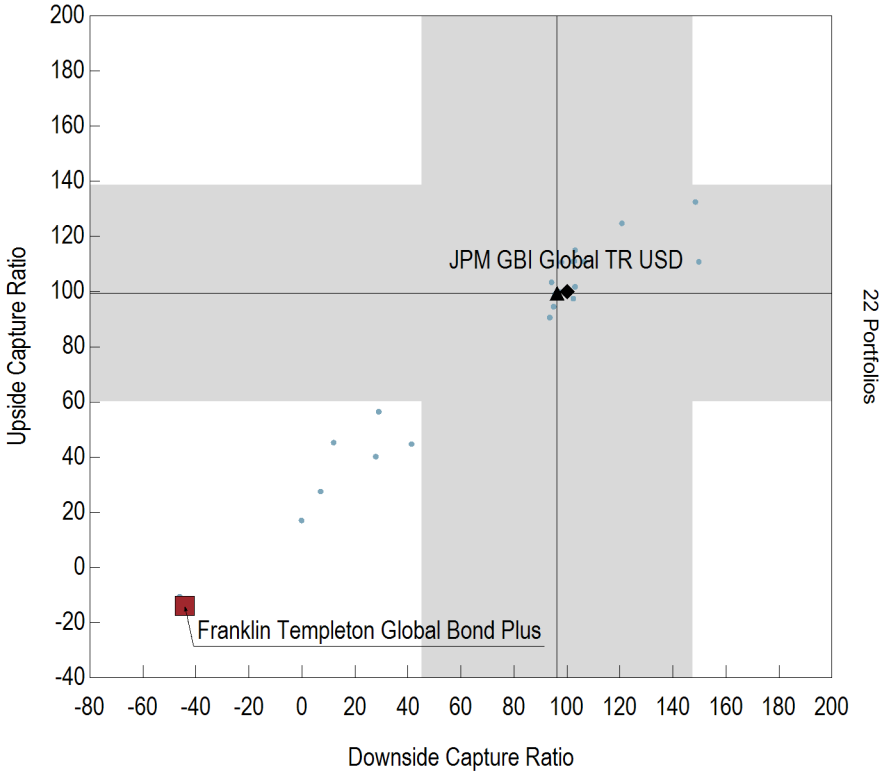

Up Markets vs. Down Markets
5 Years
MacKay Shields Core Plus
BBgBarc US Aggregate TR
Upside Capture Ratio
Downside Capture Ratio
81 Portfolios
MacKay Shields Core Plus
BBgBarc US Aggregate TR
Universe Median
68% Confidence Interval
eV US Core Plus Fixed Inc Net

Up Markets vs. Down Markets
3 Years



- Franklin Templeton Global Bond Plus
- JPM GBI Global TR USD
- Universe Median
- 68% Confidence Interval
- eV Global Government Fixed Inc Net

Up Markets vs. Down Markets
5 Years



- Franklin Templeton Global Bond Plus
- JPM GBI Global TR USD
- Universe Median
- 68% Confidence Interval
- eV Global Government Fixed Inc Net

Performance Return Calculations

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

Data Source

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

Illiquid Alternatives

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

Manager Line Up

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

Policy & Custom Index Composition

Policy Index: 25% Russell 3000, 15% MSCI ACWI ex US, 3% MSCI ACWI, 17% BBgBarc US Aggregate, 5% JPM GBI Global, 5% (50% JPM EMBI Global Div/50% JPM GBI EM Global Div), 20% NCREIF-ODCE, 5% Private Equity Returns, 5% Private Credit Returns.

Other Disclosures

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Disclaimer

This report contains confidential and proprietary information and is subject to the terms and conditions of the Consulting Agreement. It is being provided for use solely by the customer. The report may not be sold or otherwise provided, in whole or in part, to any other person or entity without written permission from Verus Advisory, Inc., (hereinafter Verus) or as required by law or any regulatory authority. The information presented does not constitute a recommendation by Verus and cannot be used for advertising or sales promotion purposes. This does not constitute an offer or a solicitation of an offer to buy or sell securities, commodities or any other financial instruments or products.

The information presented has been prepared using data from third party sources that Verus believes to be reliable. While Verus exercised reasonable professional care in preparing the report, it cannot guarantee the accuracy of the information provided by third party sources. Therefore, Verus makes no representations or warranties as to the accuracy of the information presented. Verus takes no responsibility or liability (including damages) for any error, omission, or inaccuracy in the data supplied by any third party. Nothing contained herein is, or should be relied on as a promise, representation, or guarantee as to future performance or a particular outcome. Even with portfolio diversification, asset allocation, and a long-term approach, investing involves risk of loss that the investor should be prepared to bear.

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

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

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