Meeting Date
02/24/2021
Agenda Item
#8a.

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: DECEMBER 31, 2020

Investment Performance Review for

Contra Costa County Employees' Retirement Association

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Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

1ST QUARTER 2021

Investment Landscape

Recent Verus research

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

Topics of interest

IS PAINLESS DIVERSIFICATION DEAD?
Interest rates have collapsed in developed economies in past years, and more recently at home in the United States, which has greatly dampened investors' performance outlook for diversified portfolios. These events have led many investors to question the traditional role of fixed income. In this Topic of Interest white paper, we outline some issues that investors must come to terms with, and we begin to unpick ways of thinking about diversification and preservation of capital in the new market environment.

QUANTIFYING ESG IN PORTFOLIO CONSTRUCTION
Environmental, social, and governance (ESG) investing is a wide-ranging field that encompasses many different approaches. Investors are integrating ESG into the creation of their policies, investment beliefs, strategic asset allocations, manager selection decisions, and much more. ESG ratings and scores allow investors to understand and compare the ESG profile of companies and managers. ESG screens can serve as an effective tool for investors to identify exposures that may conflict with their institutional values.

INTEGRATING ESG INTO ACTIVE PORTFOLIOS
In this paper, we address how environmental, social, and governance (ESG) considerations are integrated into our manager research process. We address Verus' approach to ESG issues when advising clients and link that to what ESG due diligence looks like in researching investment managers. Next, we consider the spectrum of ESG integration as defined by the primary objective of the product. Finally, we address the challenges that ESG considerations pose for hedge fund managers and private equity general partners.

AGREEING ON ESG
This paper sheds light on the difficulty institutional investors face as they embark on their journey toward implementing a thoughtful ESG policy that fits their specific organization and is designed to help them cut through the clutter by providing a detailed, practical "soup-to-nuts" methodology to determine the best policy for their organization.

Annual research

2021 CAPITAL MARKET ASSUMPTIONS

Learn about the 2020 market movements and how these shifts have affected our long-term outlook.

Sound thinking

FINDING COMFORT IN AN UNCOMFORTABLE WORLD

An outline of various topics that an investor might want to add to their agenda for the coming year.

Up and coming event

EMERGING & DIVERSE MANAGERS DILIGENCE DAYS

For the third consecutive year, Verus is inviting qualified managers to participate in one-on-one meetings with its senior staff during its 3rd Emerging and Diverse Manager Diligence Days.

- March 16-18
- March 22
- March 24
- March 26

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4th quarter summary

THE ECONOMIC CLIMATE

— Real GDP grew at a -2.8% rate year-over-year in the third quarter (+33.4% quarterly annualized rate) as the U.S. economy recovered much of the economic activity lost in the second quarter. ***p. 11***

— Joe Biden was elected President of the United States. The market seemed to interpret a Biden win as a mild positive for risk assets, on the expectation of larger economic stimulus. Democrats also took both seats in the Georgia run-off election, completing the party's "Blue Wave". ***p. 7***

— Several new, more-infectious strains of COVID-19 emerged and spread around the world, though experts remain confident in the efficacy of the currently-approved arsenal of vaccines. ***p. 7***

PORTFOLIO IMPACTS

— Emerging market equities (+19.7%) outperformed U.S. (+12.1%) and international developed equities (+16.0%) once again in Q4. Latin American equities showed significant outperformance (+34.8%), after years of lagging behind other emerging markets. ***p. 32***

— The U.S. 10-year TIPS breakeven inflation rate headed notably higher over the quarter, from 1.6% in September to 2.0% in December. Although U.S. inflation is lower than pre-pandemic levels, market pricing for inflation is the highest since 2018. ***p. 12***

THE INVESTMENT CLIMATE

— Congress passed an omnibus spending bill, including $900 billion earmarked for COVID-19 relief. Key features of the package included a re-up of the Paycheck Protection Program, $600 stimulus checks for most individuals, and $300 per week in additional unemployment benefits over a 10-week period. ***p. 11***

— According to FactSet, S&P 500 Q4 earnings are expected to be down -8.8%. This estimate improved from the -12.7% drop expected on September 30th. For full year 2020, analysts are expecting a -13.3% earnings decline. ***p. 26***

ASSET ALLOCATION ISSUES

— U.S. equities delivered +12.1% during the quarter, ending the year at an all-time-high. The S&P 500 was one of the strongest equity markets in 2020, up +18.4% despite an earnings recession and considerable uncertainty. ***p. 28***

— Weakness in the U.S. dollar remained a theme in Q4, and the Bloomberg Dollar Spot Index fell to a two and a half year low. Analysts attributed some of the weakness in the US dollar to lower relative real yields in the U.S. ***p. 37***

— Within the U.S. market, a sizable rotation occurred in Q4 as certain sectors that had been beaten-down during the pandemic performed strongly. Rising energy prices boosted the Energy sector, while higher interest rates improved the outlook for Financials. ***p. 28***

A more neutral risk positioning may be warranted in the current environment

There seems to be a high degree of uncertainty regarding the future market path

What drove the market in Q4?

"The Mass Distribution of Covid-19 Vaccines Is Under Way. 'Everything Has to Come Together.'"

COVID-19 U.S. HOSPITALIZATION RATE

7/25	8/29	9/26	10/31	11/28	12/26
7.6%	4.4%	4.1%	8.7%	16.6%	10.4%

Article Source: Wall Street Journal, December 13th, 2020

"Congress agrees to $900 billion Covid stimulus deal after months of failed negotiations"

U.S. TOTAL PUBLIC DEBT OUTSTANDING (TRILLIONS)

Jul	Aug	Sep	Oct	Nov	Dec
$26.5	$26.7	$26.9	$27.1	$27.4	$27.7

Article Source: CNBC, December 20th, 2020

"Powell says stock prices are not necessarily high considering the low level of interest rates"

TEN-YEAR U.S. REAL YIELD (NOMINAL YIELD MINUS BREAKEVEN INFLATION)

Jul	Aug	Sep	Oct	Nov	Dec
-1.03%	-1.10%	-0.95%	-0.83%	-0.95%	-1.07%

Article Source: CNBC, December 16th, 2020

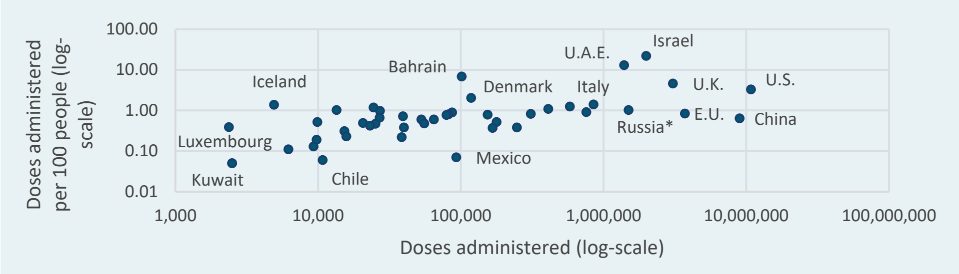
"Dollar's Slump Propels Global Peers Toward Multi-Year Peaks"

BLOOMBERG DOLLAR SPOT INDEX

Jul	Aug	Sep	Oct	Nov	Dec
1179	1161	1177	1172	1145	1120

Article Source: Bloomberg, November 29th, 2020

GLOBAL VACCINATION CAMPAIGN



Source: Bloomberg, as of 1/13/21, or most recent release

MOST RECENT FISCAL STIMULUS PACKAGE ALLOCATIONS (BILLIONS)

Source: U.S. House of Representatives, as of 12/21/20

S&P 500 INDEX

Source: Standard & Poor's, Bloomberg, as of 12/31/20

Economic environment

U.S. economics summary

— Real GDP grew at a -2.8% rate year-over-year in the third quarter (+33.4% quarterly annualized rate) as the U.S. economy recovered much of the economic activity lost in the second quarter.

— The Atlanta Fed's forecast for fourth quarter growth was 7.4% quarter-over-quarter, as of January 15th, suggesting further economy expansion.

— Joe Biden was elected President of the United States in November. Jon Ossoff and Raphael Warnock both won in the Georgia Senate runoff elections in January, which ensured democratic control of both the White House and the Senate with V.P.-elect Kamala Harris as the swing vote. The wins completed the democratic "Blue Wave" many have associated with extensive fiscal support. Slim democratic majorities in both chambers of Congress, however, may constrain Biden's policy scope.

— After impressive employment gains in Q3, the recovery appeared to be stalling in recent months. Unemployment fell from 7.8% in September to 6.7% in December.

— Consumer sentiment remained stubbornly low, despite broad recoveries in consumer spending, auto sales, and the housing market.

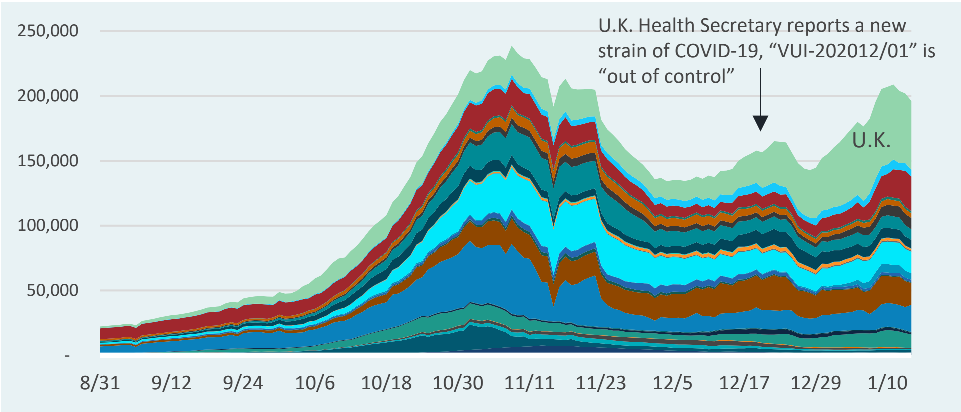
— Home sales activity continued to grow at an extremely fast pace in the fourth quarter, as record-low interest rates and the work-from-home environment fueled demand. Existing home sales were 25.8% higher than one-year prior.

— Several new, more-infectious strains of COVID-19 emerged and spread around the world, though experts remain confident in the efficacy of the currently-approved arsenal of vaccines. The global vaccination campaign began in December, and 44 million doses have been distributed so far.

	Most Recent	**12 Months Prior**
GDP *(YoY)*	(2.8%) *9/30/20*	2.1% *9/30/19*
Inflation *(CPI YoY, Core)*	1.6% *12/31/20*	2.3% *12/31/19*
Expected Inflation *(5yr-5yr forward)*	2.0% *12/31/20*	1.8% *12/31/19*
Fed Funds Target Range	0% – 0.25% *12/31/20*	1.50% – 1.75% *12/31/19*
10-Year Rate	0.9% *12/31/20*	1.9% *12/31/19*
U-3 Unemployment	6.7% *12/31/20*	3.5% *12/31/19*
U-6 Unemployment	11.7% *12/31/20*	6.7% *12/31/19*

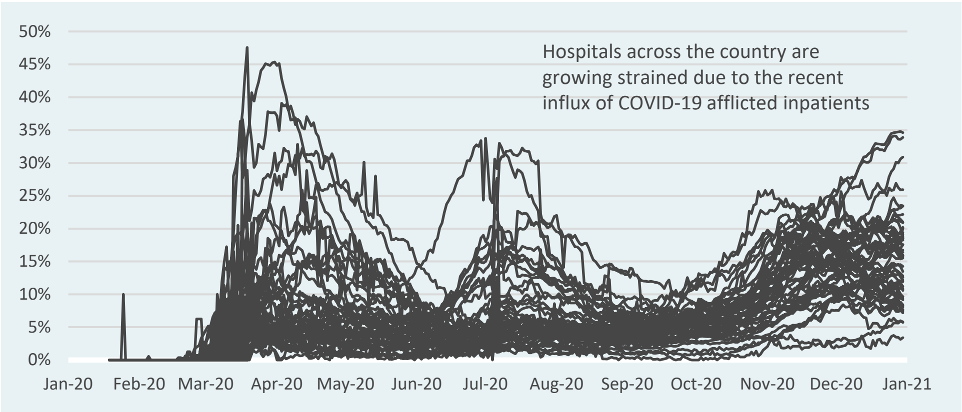
COVID-19 update

SEVEN-DAY AVERAGE DAILY CASE GROWTH – EUROPE AND THE U.K.



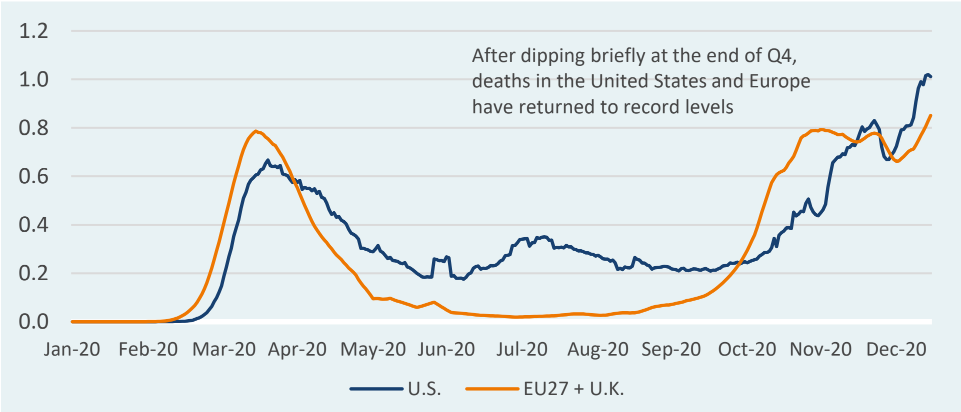
Source: Bloomberg, as of 1/14/21

COVID-19 INPATIENTS BY U.S. STATE (%)



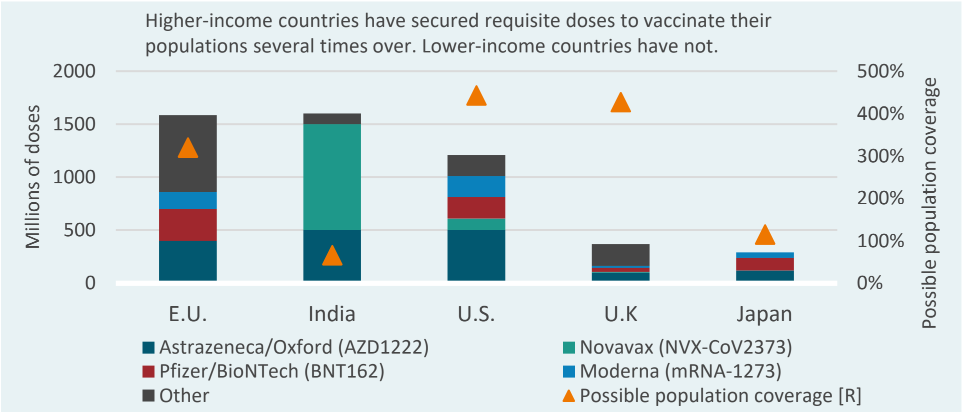
Source: Bloomberg, as of 1/9/21

SEVEN-DAY AVERAGE DAILY DEATHS PER 100,000 IN POPULATION



Source: Bloomberg, as of 1/14/21

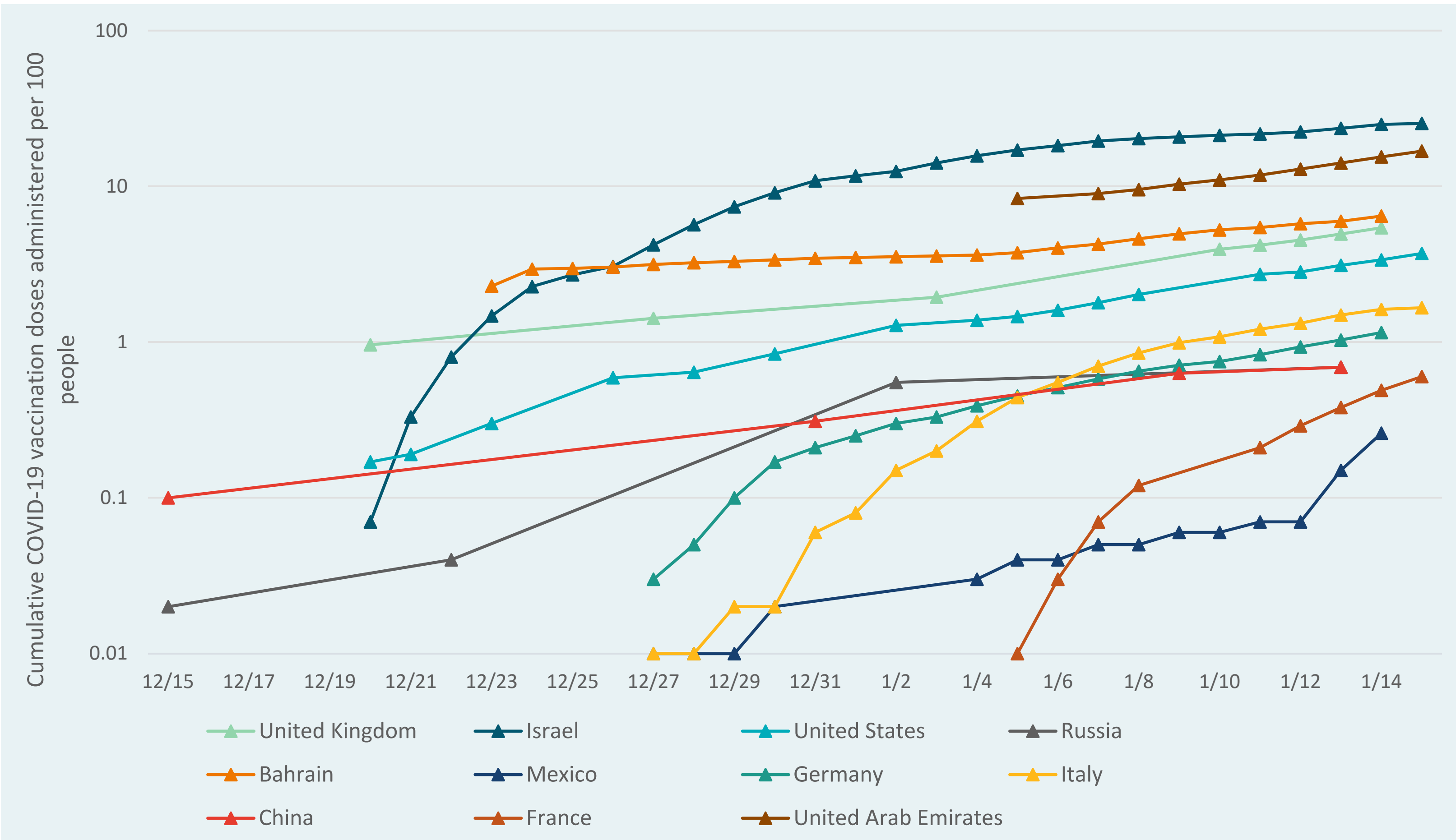
VACCINE COVERAGE BY COUNTRY



Source: Duke Global Health Innovation Center, as of 1/8/21; possible population coverage includes confirmed and potential doses committed to – it is possible not all vaccines will be approved.

Global vaccination campaign

CUMULATIVE COVID-19 VACCINE DOSES ADMINISTERED PER 100 PEOPLE

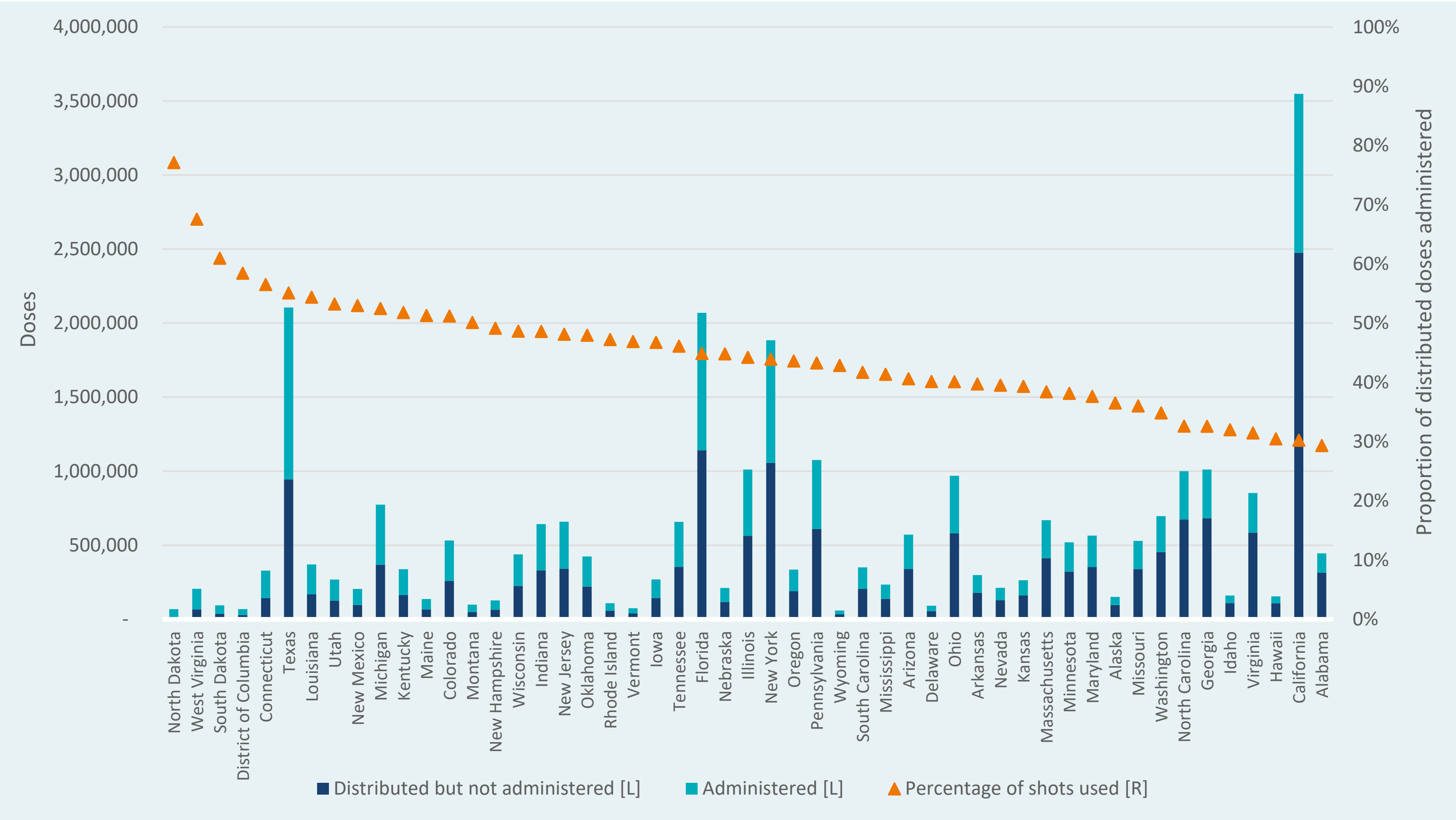


Israel has led the way so far, but it is a country with a size and population comparable to New Jersey

Source: Our World in Data, as of 1/15/21

Administration issues in the U.S.

THE GAP BETWEEN DISTRIBUTED AND ADMINISTERED VACCINE DOSES



As of January 15th, roughly 13 million doses had been administered nationwide, accounting for roughly 42% of all doses distributed

President Biden is aiming to achieve 100 million vaccine dose administrations in his first 100 days in office

Source: Bloomberg, as of 1/15/21

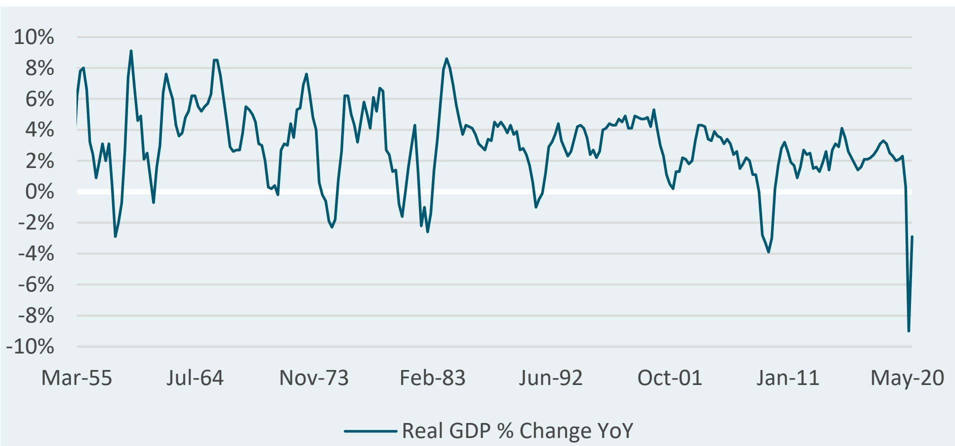
GDP growth

Real GDP grew at a -2.8% rate year-over-year in the third quarter (+33.4% quarterly annualized rate) as the U.S. economy recovered much of the economic activity lost during the depths of the pandemic. Personal consumption expenditures expanded at a quarterly annualized pace of -25.4%. Growth was broad-based, and included strong private investment, exports, and inventory builds.

Not only was this bounce-back a product of pent-up demand released by the economic reopening, it was also the result of a coordinated and historic stimulus effort by the U.S. government. After the Federal Reserve took interest rates to zero and flooded the markets with liquidity, Congress passed an omnibus spending bill, including $900 billion earmarked for COVID-19 relief. Key features of the package included a re-up of the Paycheck Protection Program, $600 stimulus checks for most individuals, and $300 per week in additional unemployment benefits over a 10-week period.

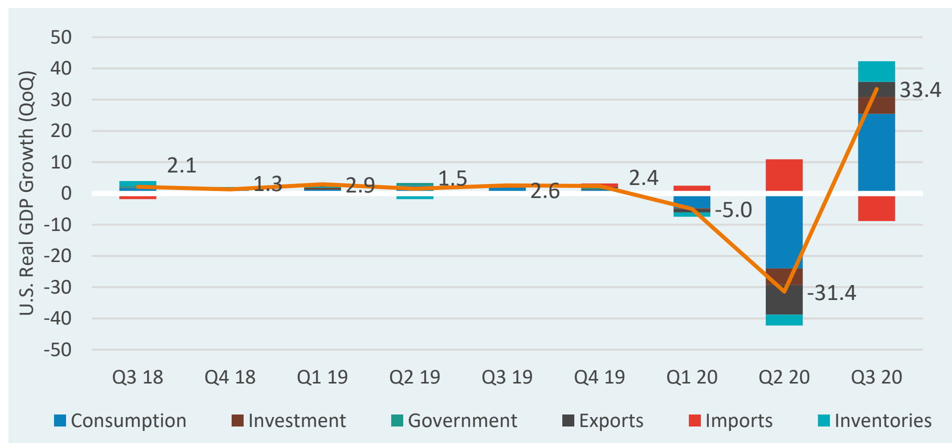
The Atlanta Fed's forecast for Q4 growth was 7.4% on a quarter-over-quarter annualized basis (-1.7% year-over-year) as of January 15th, suggesting further economic recovery.

U.S. REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 9/30/20

U.S. GDP GROWTH ATTRIBUTION



Source: BEA, annualized quarterly rate, as of 9/30/20

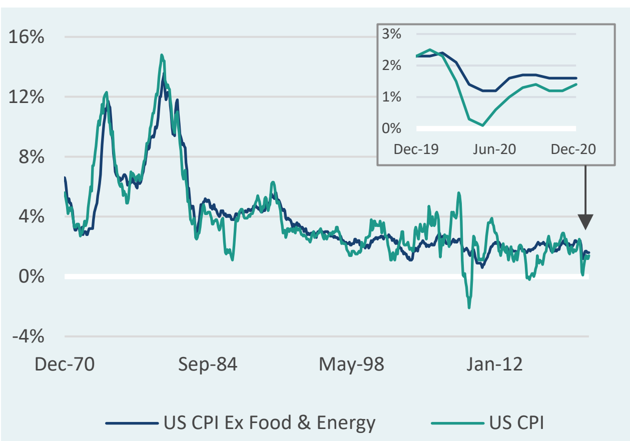
Inflation

Headline inflation stayed relatively stable during Q4, at 1.4% year-over-year in December. Energy prices have acted as a drag on inflation, with gasoline (-15.2%) and fuel oil (-20.0%) showing the largest moves. Food (+3.9%), as well as used cars & trucks (+10.0%), had a lifting effect on inflation during the year. Inflation excluding volatile food and energy prices increased 1.6%.

The U.S. 10-year TIPS breakeven inflation rate headed notably higher over the quarter, from 1.6% in September to 2.0% in December. Although U.S. inflation is lower than pre-pandemic levels, market pricing for inflation is the highest since 2018.

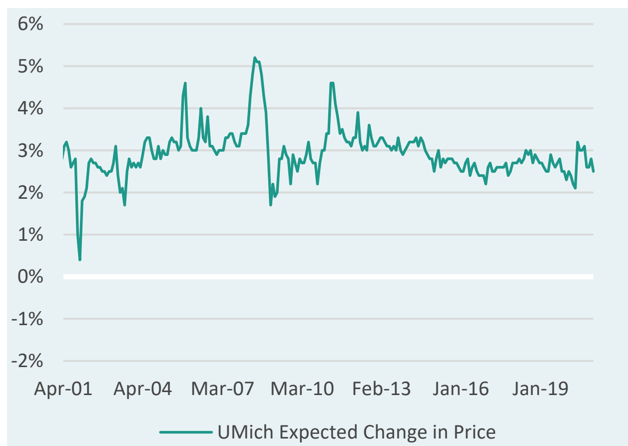
Consumer inflation expectations, as indicated by the University of Michigan survey, proved volatile throughout the year. After starting 2020 at an expected 2.3% rate of inflation, expectations fell to 2.1% in April before spiking to 3.2% in May. Expectations fell in the fourth quarter and settled at 2.5% in December.

U.S. CPI (YOY)



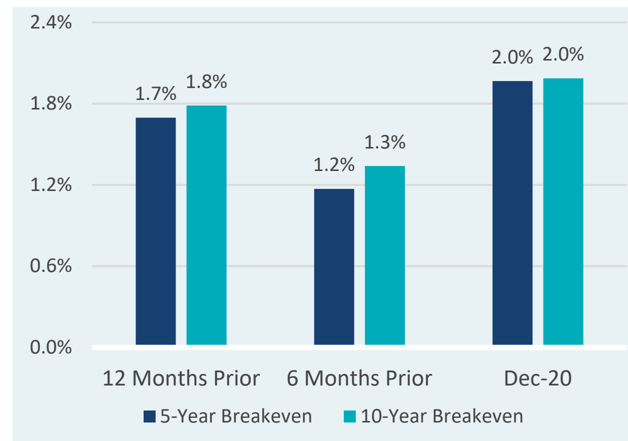
Source: Bloomberg, as of 12/31/20

CONSUMER INFLATION EXPECTATIONS



Source: University of Michigan, as of 12/31/20

BREAKEVEN INFLATION RATES



Source: Bloomberg, as of 12/31/20

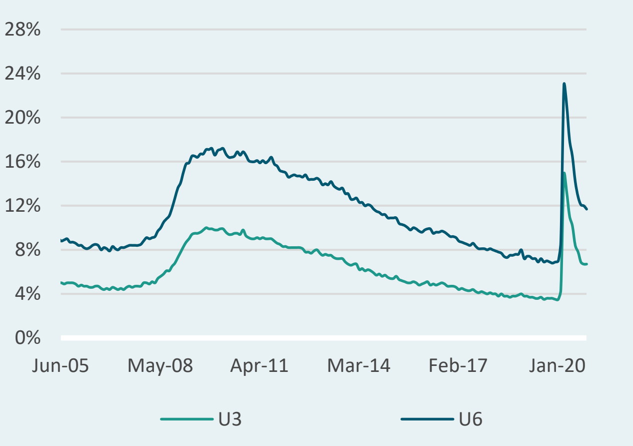
Labor market

After impressive employment gains in Q3, the recovery appeared to be stalling in recent months. Unemployment fell from 7.8% in September to 6.7% in December—a small improvement compared to previous months. Additionally, while the current unemployment rate does not seem exceptionally weak from a historical perspective, this metric masks the fact that the U.S. labor force participation rate also fell during COVID-19. In simpler terms, since the pandemic, roughly 3% of workers are now unemployed and seeking work, and an additional 2% of workers are now unemployed and *not* seeking work.

During an economic recession, it is important to understand the portion of newly unemployed workers who seek to quickly rejoin the workforce (cyclical unemployment), relative to the portion of workers who lose their jobs and end up more permanently out of work due to lack of opportunities or discouragement (structural unemployment). As shown in the chart below, a growing share of unemployed workers have remained out of work since the onset of the economic recession.

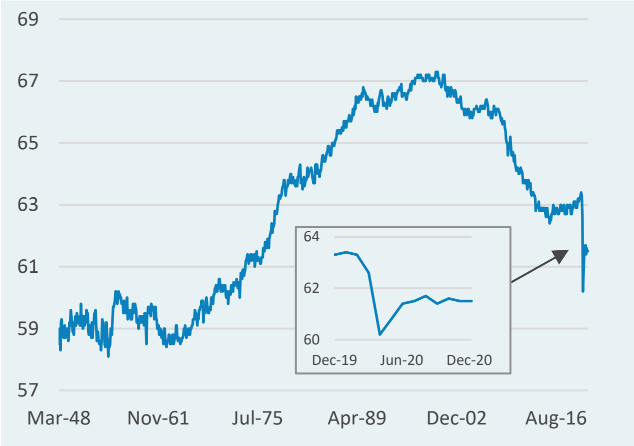
The U.S. employment recovery appears to be stalling

U.S. UNEMPLOYMENT



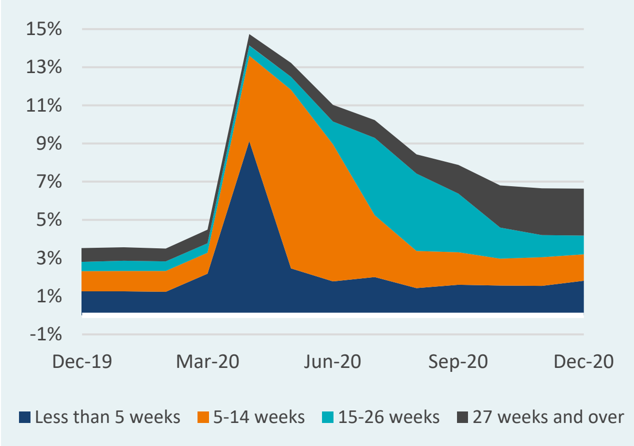
Source: FRED, as of 12/31/20

LABOR PARTICIPATION RATE



Source: FRED, as of 12/31/20

UNEMPLOYMENT DECOMPOSITION BY DURATION



Source: BLS, as of 12/31/20

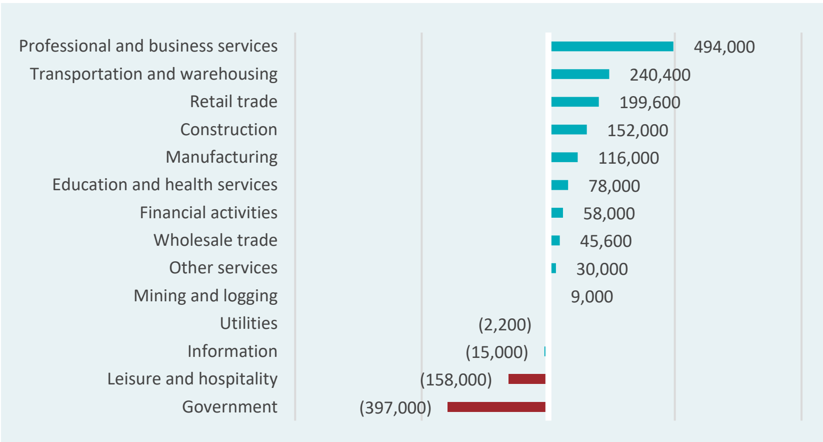
U-3 unemployment rates relative to peaks

The Covid-19 recession features a historically-abrupt loss and subsequent rebound in broad unemployment

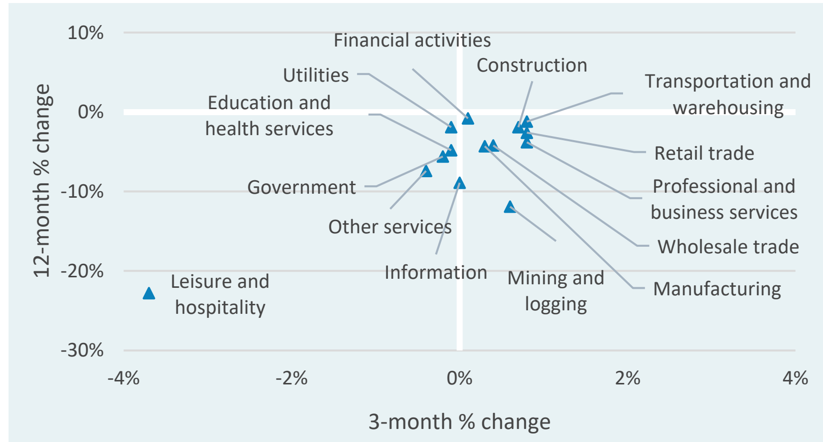
Source: Bloomberg, BLS, as of 12/31/20

Employment conditions

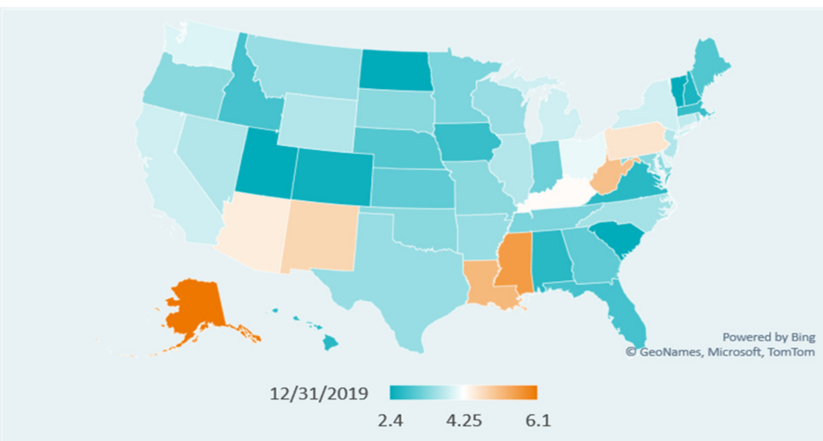
Q4 2020 NONFARM PAYROLLS CHANGES



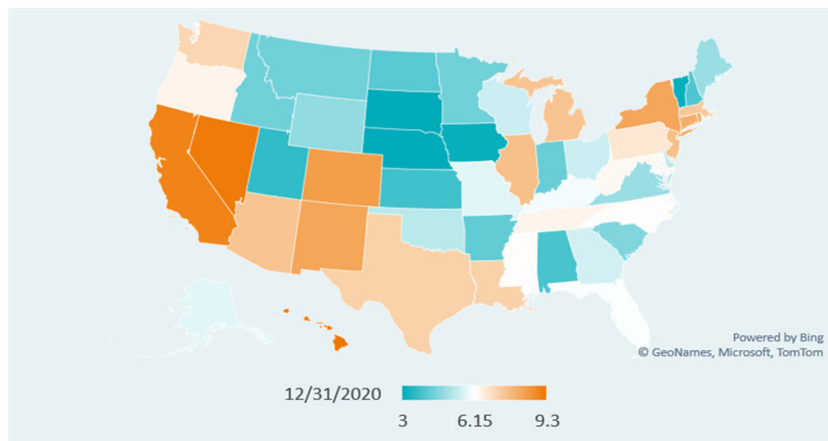
NONFARM PAYROLL GROWTH BY SECTOR



U-3 UNEMPLOYMENT (12/31/2019)



U-3 UNEMPLOYMENT (12/31/2020)



While employment in many sectors bounced back in Q4, jobs in the leisure and hospitality sector dipped as the impact of state lockdowns began to show up in the payrolls data

Despite the broad gains in the 4th quarter, nonfarm payrolls shrunk in every sector over the full calendar year

Source: BLS, as of 12/31/20 – or most recent release

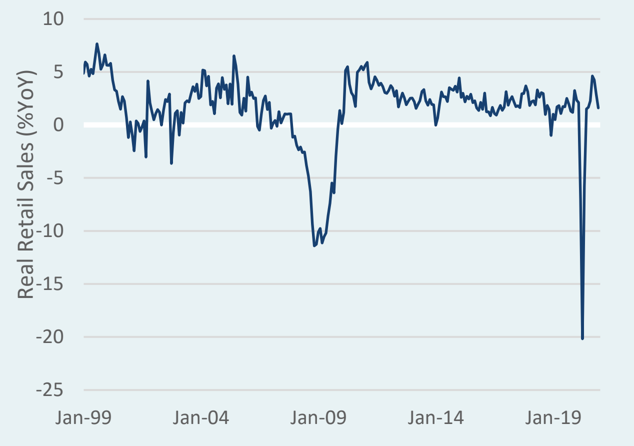
The consumer

U.S. retail sales have shown a surprising recovery after falling -20% year-over-year in April. Retail sales, after adjusting for inflation, increased 1.6% in December. Spending patterns have shown resiliency despite the economic slowdown. Automobile and home sale activity, for example, has recovered to previous levels.

However, recent spending patterns have been vastly affected by unprecedented government stimulus. Because this expansion was far from a "natural" recovery, it will be worth watching how consumption trends change as the various economic stimulus programs end. This effect may already be apparent as retail sales growth slowed from 4.6% in September to 1.6% in December.

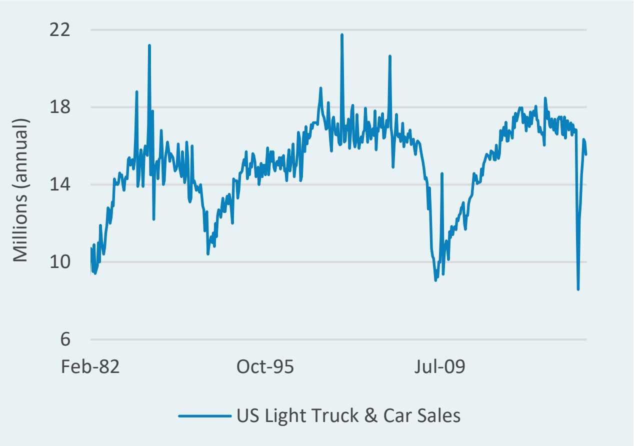
According to anonymized cellular phone data collected by Google for COVID-19 public health research, Americans began returning to their daily routines through late spring and summer, as activity began moving back to normalcy. However, these improvements plateaued across certain types of activities such as workplace travel, retail & recreation, and transit station usage, and this activity has slowed down once again. Continued weak activity, or even a further slowdown due to renewed government restrictions, could cast doubt on the U.S. economic recovery.

REAL RETAIL SALES GROWTH (YOY)



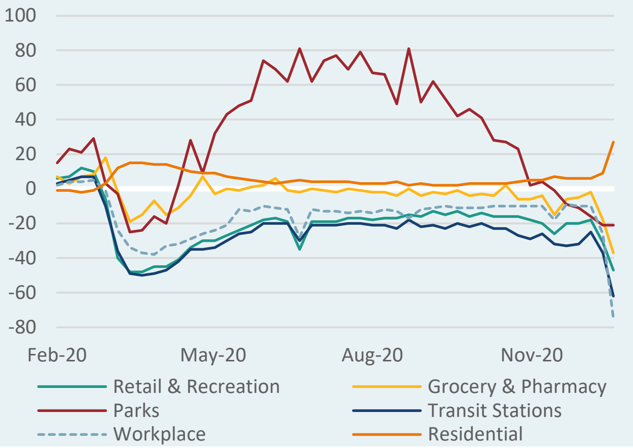
Source: FRED, as of 12/31/20

AUTO SALES



Source: Federal Reserve, as of 11/30/20

GOOGLE U.S. ACTIVITY TRACKER



Source: Google anonymized U.S. citizen mobility, as of 12/31/20

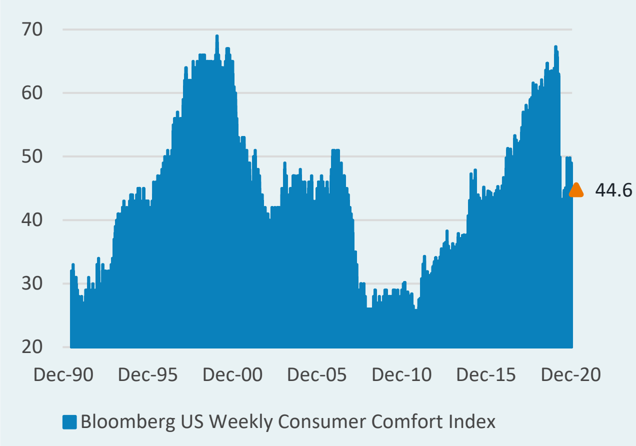
Sentiment

Consumer sentiment remained stubbornly low during the fourth quarter, despite broad recoveries in consumer spending, auto sales, and the housing market.

The Bloomberg Consumer Comfort Index attempts to gauge Americans' views on the economy, their personal financial situation, and buying conditions. The index fell from 49.3 to 44.6 during the quarter. The University of Michigan Consumer Sentiment Survey attempts to gauge attitudes about the business climate, personal finances, and spending conditions. The index was flat at 80.7 in Q4—down from a cycle high of 101.0 in February.

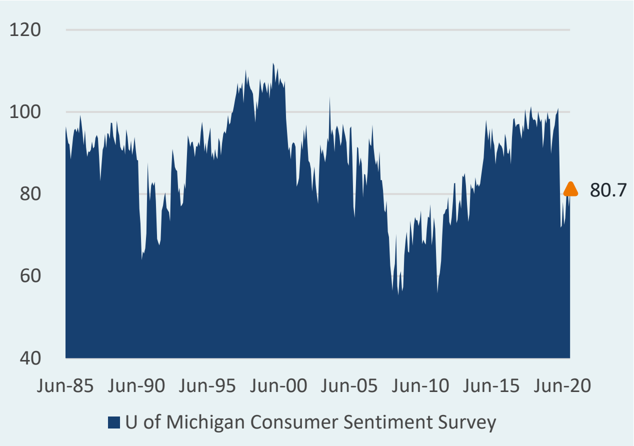
The NFIB Small Business Optimism Index exhibited a sharp decline to 95.9 in Q4, bringing the index back towards pandemic lows. The survey suggested that most business owners expect deteriorating conditions over the next six months. The survey also showed that concerns exist regarding government-mandated business closures due to COVID-19, and that the new U.S. administration may be less friendly toward the business community.

CONSUMER COMFORT



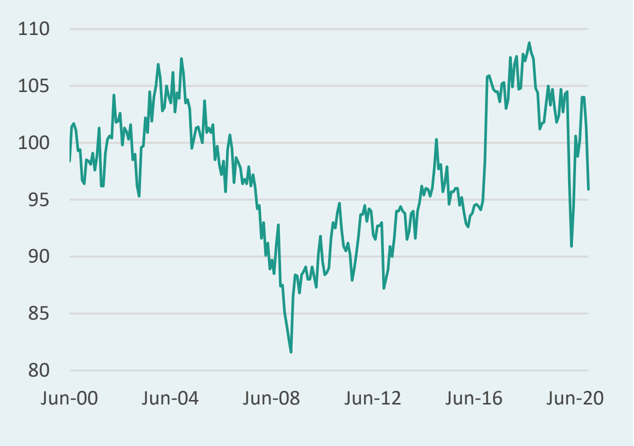
Source: Bloomberg, as of 12/31/20

CONSUMER SENTIMENT



Source: University of Michigan, as of 12/31/20

SMALL BUSINESS OPTIMISM



Source: NFIB, as of 12/31/20

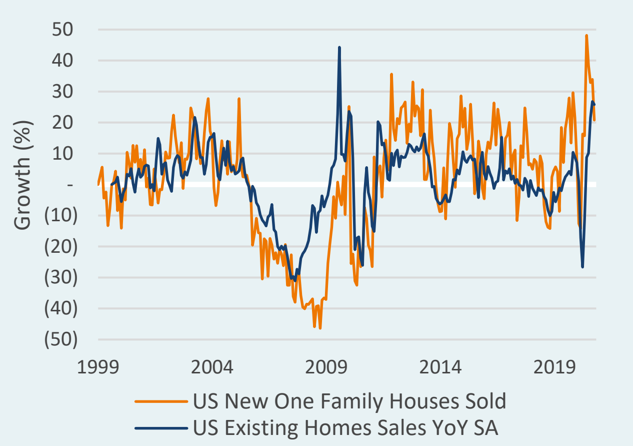
Housing

Home sales activity continued to grow at an extremely fast pace in the fourth quarter, as record-low interest rates and the work-from-home environment fueled demand. It remains to be seen the degree to which business work-from-home policies become permanent, post-pandemic. The direction of these trends may have a far-reaching impact on home sales as workers seek more space for home offices, and perhaps also feel greater freedom to move outside of major urban areas. Existing home sales were 25.8% higher than one-year prior, an overall rate of growth not experienced in over a decade.

Despite a gradual bounce-back of U.S. Treasury interest rates, the 30-year U.S. Fixed Mortgage Rate has continued to move lower. The direction of mortgage rates from here will likely have a material impact on home prices.

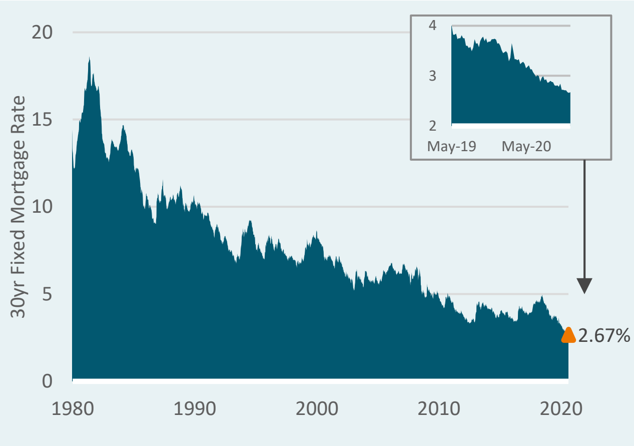
It is important to note that the overall cost of owning a home is a combination of home prices and borrowing rates (among many other variables, of course). While the price of a new home in the U.S. is, on average, higher than ever before, record-low interest rates have compensated for higher prices. As suggested by the Housing Affordability Index, the overall cost of owning a home today is below-average, historically speaking.

U.S. HOME SALES (YOY)



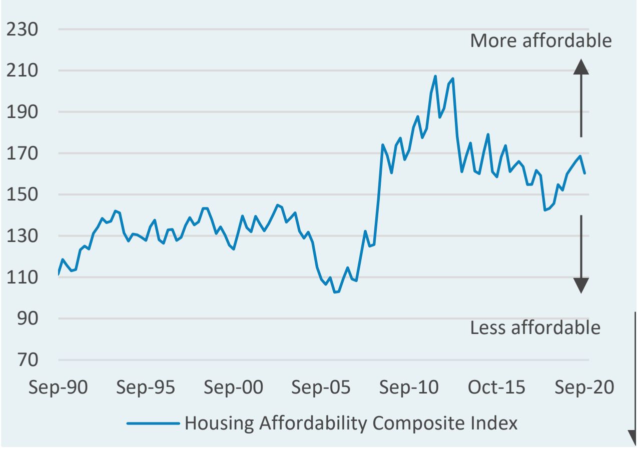
Source: FRED, as of 11/30/20

30-YEAR FIXED MORTGAGE RATE (AVERAGE)



Source: FRED, as of 12/31/20

HOUSING AFFORDABILITY INDEX



Source: National Association of Realtors, as of 9/30/20

International economics summary

— Economic growth in Q3, although negative on a year-over-year basis, painted an optimistic picture of the recovery. Consumers and businesses around the world have attempted to continue on, despite recent lockdowns, restrictions, and safety concerns. GDP growth figures have improved markedly from the depths of Q2. Most economies have recovered more than half of lost activity experienced during the prior quarter.

— European Union leaders agreed on a historic €1.8 trillion budget-and-recovery plan for 2021-2027, paving the way for a €750-billion pandemic relief package which will be financed by joint debt issuance.

— U.K. and E.U. officials reached an official trade deal at the 11th hour before the December 31st, 2020 conclusion of the transition period following Britain's official cutting of ties with the E.U. last January. The agreement marked the beginning of a new chapter in the history of British relations with Europe.

— Governments have taken different approaches to supporting workers, and while many approaches have had similar economic effects, they have often had drastically different impacts on official unemployment figures. We believe official unemployment figures are of limited value in this environment—more in-depth analysis is likely required.

— The pandemic placed downward pressure on inflation. Since then, inflation levels have generally remained muted in developed markets while recovering moderately in emerging economies. China appears to be an outlier, as inflation has recently dipped below zero. This move was fueled by falling pork prices, which had been moving higher in recent years and pushing up inflation.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	(2.8%) *9/30/20*	1.4% *12/31/20*	6.7% *12/31/20*
Eurozone	(4.3%) *9/30/20*	(0.3%) *12/31/20*	8.3% *11/30/20*
Japan	(5.7%) *9/30/20*	(1.3%) *12/31/20*	2.8% *11/30/20*
BRICS Nations	1.9% *9/30/20*	1.5% *12/31/20*	5.1% *12/31/20*
Brazil	(3.9%) *9/30/20*	4.5% *12/31/20*	14.3% *10/31/20*
Russia	(3.4%) *9/30/20*	4.9% *12/31/20*	6.1% *11/30/20*
India	(7.5%) *9/30/20*	4.6% *12/31/20*	9.1% *12/31/20*
China	2.3% *12/31/20*	0.2% *12/31/20*	4.2% *12/31/20*

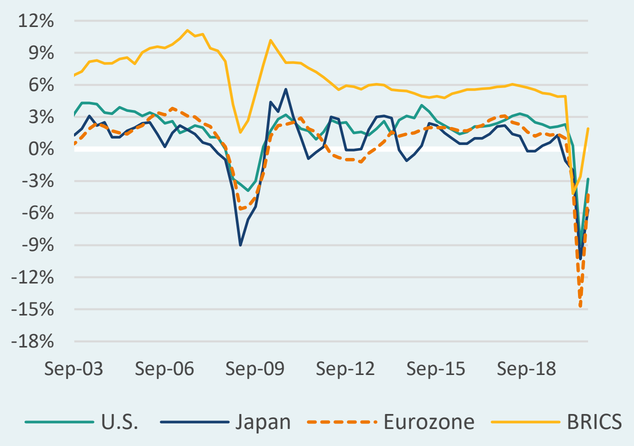
NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy

International economics

Economic growth in Q3, although negative on a year-over-year basis, painted an optimistic picture of the recovery. Consumers and businesses around the world have attempted to continue on, despite recent lockdowns, restrictions, and safety concerns. GDP growth figures have improved markedly from the depths of Q2. Most economies have recovered more than half of lost activity seen during the prior quarter. The direction of recovery was similar across the emerging markets, and these economies have maintained their growth "premium" over developed markets throughout the crisis.

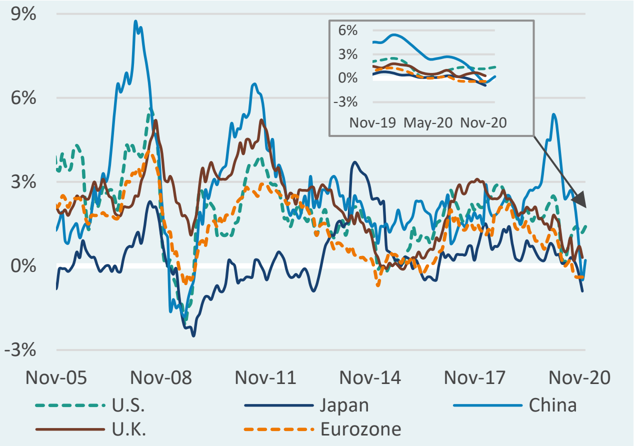
Unemployment in the Eurozone has fallen slightly to 8.3% from a high of 8.7% in July. Governments around the world have taken different approaches to supporting workers. One approach, as taken by the U.S., was to provide greater financial support to workers who had lost their jobs. Another approach, such as that taken by the UK, was for government to effectively pay workers' wages to keep them on payroll. These approaches, which may be very similar in overall economic effect, can appear drastically different in the official rate of unemployment statistics (shown below). In short, official unemployment figures may be of limited value in this environment—more in-depth analysis is required.

REAL GDP GROWTH (YOY)



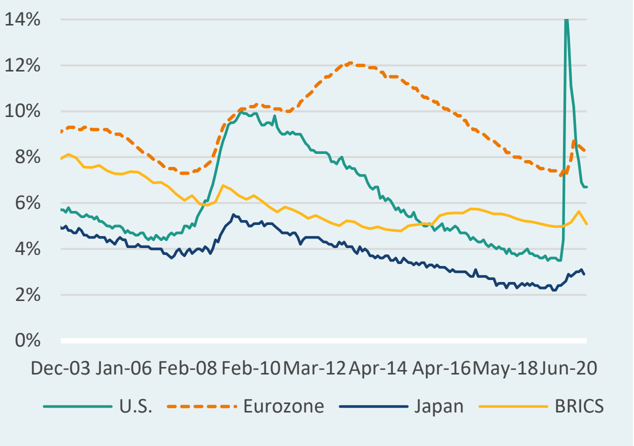
Source: Bloomberg, as of 9/30/20

INFLATION (CPI YOY)



Source: Bloomberg, as of 12/31/20 – or most recent release

UNEMPLOYMENT



Source: Bloomberg, as of 12/31/20 – or most recent release

Fixed income rates & credit

Interest rate environment

— Longer-dated U.S. Treasury yields moved upward in the fourth quarter, with the U.S. 10-year rising above 1.0% to begin 2021. Higher interest rates may place pressure on equity valuations if this trend continues. The yield of shorter-dated bonds and cash has not moved and is expected to stay near zero.

— Ten-year breakeven inflation rates rallied from 1.6% to 2.0% in Q4, likely propelled higher by expectations that Biden's fiscal approach paired with vaccine rollouts will result in higher longer-term growth and inflation. The rise in priced inflation outpaced the rise in nominal Treasury yields, leading the 10-year U.S. real yield to decline from -0.95% to -1.07%, near record lows.

— Officials at the Federal Reserve remained committed to a $120 billion monthly pace of bond purchases until there is "substantial progress" toward employment and inflation objectives. Fed Chair Powell left the door open to adjusting the pace of those purchases as necessary, and stated that the Fed would "let the world know…well in advance of active consideration of beginning a gradual taper of asset purchases."

— The European Central Bank expanded the size of its Pandemic Emergency Purchase Program (PEPP) by €500 billion, bringing the new total to €1.85 trillion. The ECB also extended the horizon for purchases under PEPP to March 2022, and the timeline for reinvestment of maturing PEPP assets to the end of 2023.

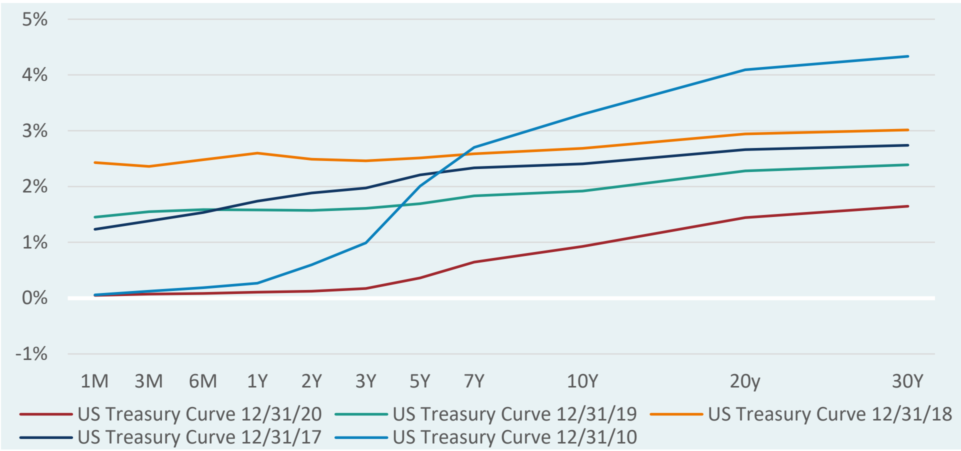
— Joe Biden nominated Janet Yellen, Jerome Powell's predecessor, as U.S. Treasury Secretary. Throughout the pandemic, central bankers have been calling for further coordination of fiscal and monetary action, and Yellen's nomination could represent the next step down that path.

Area	**Short Term (3M)**	**10-Year**
United States	0.06%	0.91%
Germany	(0.83%)	(0.57%)
France	(0.77%)	(0.34%)
Spain	(0.83%)	0.04%
Italy	(0.65%)	0.54%
Greece	(0.38%)	0.62%
U.K.	(0.06%)	0.20%
Japan	(0.12%)	0.02%
Australia	0.02%	0.97%
China	2.28%	3.14%
Brazil	2.00%	6.91%
Russia	3.54%	6.01%

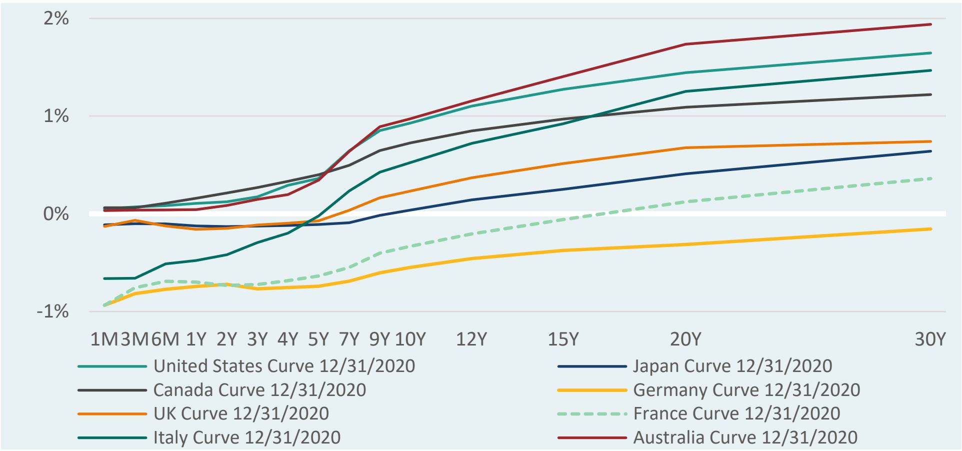
Source: Bloomberg, as of 12/31/20

Yield environment

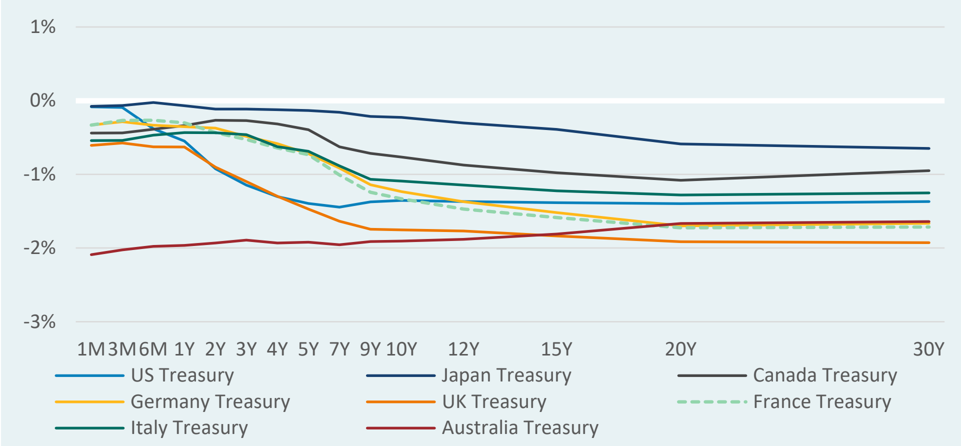
U.S. YIELD CURVE



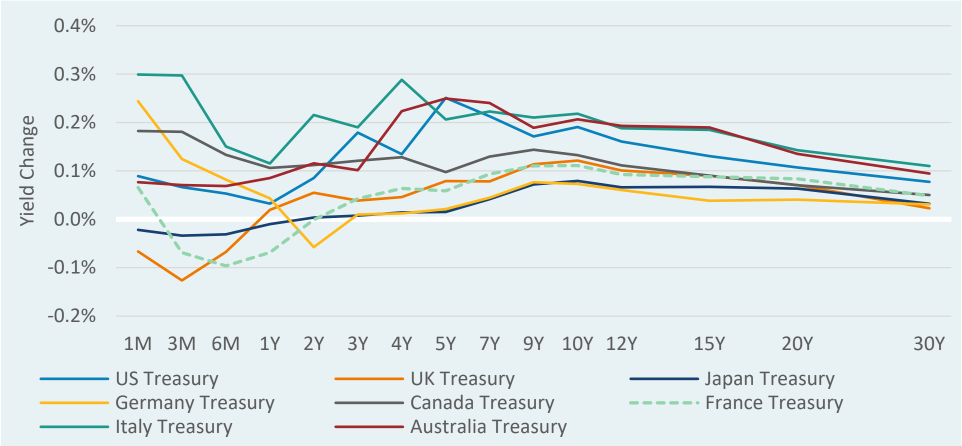
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



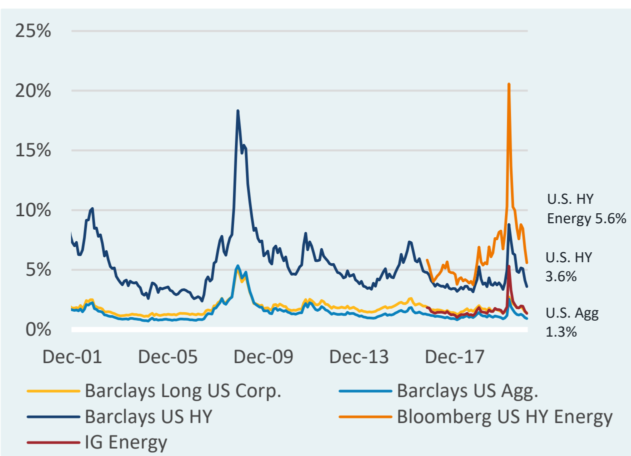
Source: Bloomberg, as of 12/31/20

Credit environment

After four quarters of exceptional volatility, credit market spreads ended 2020 roughly in line with where they started. Both investment grade and below investment grade assets experienced positive performance, driven in part by increased investor demand for yield but mainly by the unprecedented Fed action in March which led rates to all-time lows. For the calendar year, investment grade credit returned 9.4%, outperforming high yield (+7.1%), and banks loans (+2.8%). The effects of COVID market disruptions created wide dispersion among sectors as metals/mining, freight, and food/drug retail outperformed while energy and domestic telecom underperformed.

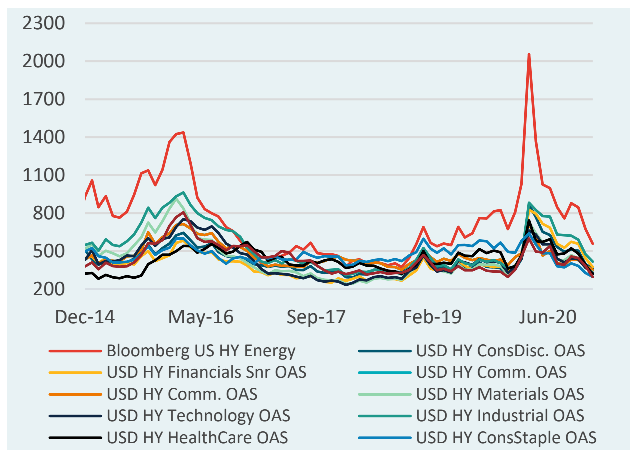
In the fourth quarter, high yield bonds returned 6.5%, outperforming bank loans (+3.6%) and investment grade credit (+2.8%). Positive vaccine news and conclusion of the presidential election led to strong risk-on sentiment during the quarter, driving longer duration and lower quality bonds to outperform within U.S. credit. In addition, credit spreads continued to tighten, with high yield spreads tightening 157 bps to 360 bps and investment grade spreads falling 40 bps to finish the year at 92 bps.

SPREADS



Source: Barclays, Bloomberg, as of 12/31/20

HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 12/31/20

	Credit Spread (OAS)	
Market	**12/31/20**	**12/31/19**
Long U.S. Corp	1.4%	1.4%
U.S. Inv Grade Corp	1.0%	0.9%
U.S. High Yield	3.6%	3.7%
U.S. Bank Loans*	4.6%	4.4%

Source: Barclays, Credit Suisse, Bloomberg, as of 12/31/20
**Discount margin (4-year life)*

Default & issuance

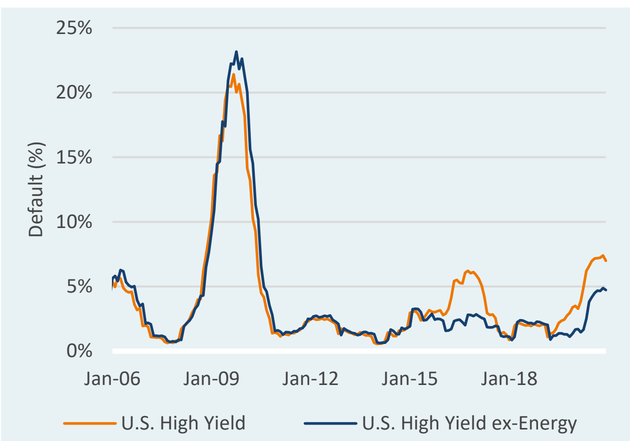
A total of 88 companies defaulted in 2020, representing $130 billion. This activity was led by the energy, telecom, and retail sectors. The $130 billion in defaults in 2020 ranked second only to the $185 billion experienced in 2009.

The par weighted U.S. high yield default rate increased 0.4% during the quarter to 6.2%—well above the long-term average of 3.0-3.5%. If the energy sector is excluded (which showed an annual default rate of 20.5%), the high yield default rate came in at a more modest 4.5%. During the fourth quarter, the leveraged loan default rate came in at 4.0%—moderately above the long-term average of 3.0%.

High yield bond issuance fell from the record levels posted in Q2 and Q3 but remained elevated in Q4. Total issuance for 2020 was the highest on record at $511 billion, outpacing 2013's historical peak of $378 billion.

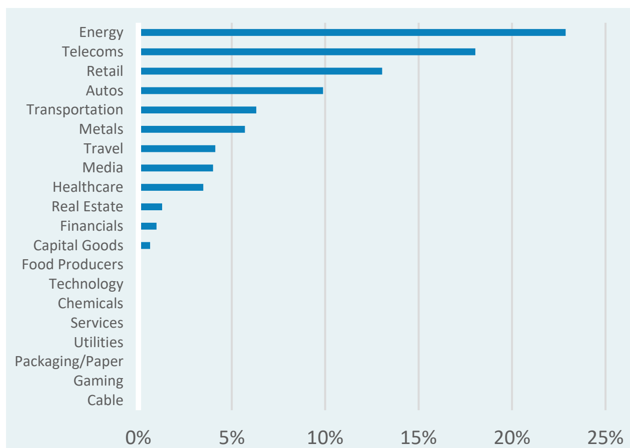
Investment grade issuance for 2020 totaled $1.8 trillion, which was 40% higher than the prior record achieved in 2017. The fourth quarter was the slowest of the year with $215 billion in new issues—a level that was in line with the four-year average

HY DEFAULT RATE (ROLLING 1-YEAR)



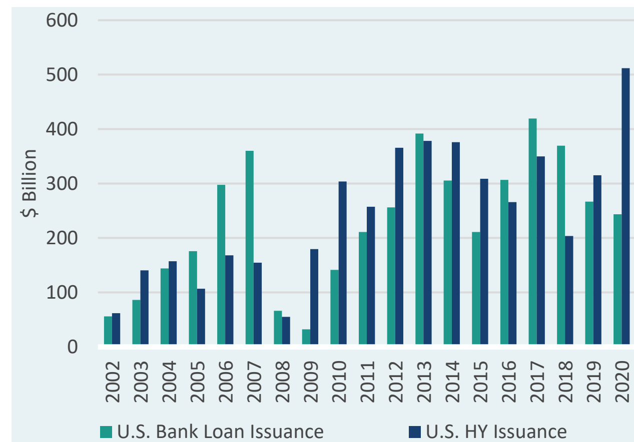
Source: BofA Merrill Lynch, as of 12/31/20

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



Source: BofA Merrill Lynch, as of 12/31/20 – par weighted

U.S. ISSUANCE ($ BILLIONS)



Source: BofA Merrill Lynch, as of 12/31/20

Equity

Equity environment

— U.S. equities delivered +12.1% during the quarter, ending the year at an all-time-high. The S&P 500 was one of the strongest equity markets in 2020, up +18.4% despite an earnings recession and considerable economic uncertainty.

— Emerging market equities (MSCI EM +19.7%) once again outperformed U.S. (S&P 500 +12.1%) and international developed equities (MSCI EAFE +16.0%) in Q4. Latin American equities showed significant outperformance during the quarter (MSCI Latin America +34.8%), after years of lagging behind other emerging markets.

— According to FactSet, S&P 500 Q4 earnings are expected to be down -8.8%. This estimate improved materially from the -12.7% drop expected on September 30th. Analysts are expecting a -13.3% earnings decline for full-year 2020.

— The Cboe VIX Index remained rangebound in the fourth quarter, ending the year at 22.8. Priced volatility is moderately elevated relative to the longer-term average of 19.

— Weakness in the U.S. dollar relative to both emerging market and developed market currencies remained a theme during the fourth quarter, as the Bloomberg Dollar Spot Index fell to a two and a half year low. Analysts attributed some of the weakness in the greenback to lower relative real yields in the United States, as nominal Treasury yields picked up.

— Within the index, a sizable rotation occurred in Q4 as certain sectors that had been beaten-down during the pandemic performed strongly. Rising energy prices boosted the Energy sector, while higher interest rates on the longer end of the yield curve improved the outlook for Financials.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	12.1%		18.4%	
US Small Cap (Russell 2000)	31.4%		20.0%	
US Large Value (Russell 1000 Value)	16.3%		2.8%	
US Large Growth (Russell 1000 Growth)	11.4%		38.5%	
International Large (MSCI EAFE)	16.0%	11.9%	7.8%	2.5%
Eurozone (Euro Stoxx 50)	16.2%	12.2%	5.5%	(1.2%)
U.K. (FTSE 100)	17.2%	11.4%	(8.9%)	(10.2%)
Japan (NIKKEI 225)	21.1%	18.8%	24.2%	19.4%
Emerging Markets (MSCI Emerging Markets)	19.7%	16.0%	18.3%	19.6%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 12/31/20

Domestic equity

U.S. equities delivered +12.1% during the quarter, ending the year at an all-time-high. The S&P 500 was one of the strongest equity markets in 2020, up +18.4% despite an earnings recession and considerable economic uncertainty.

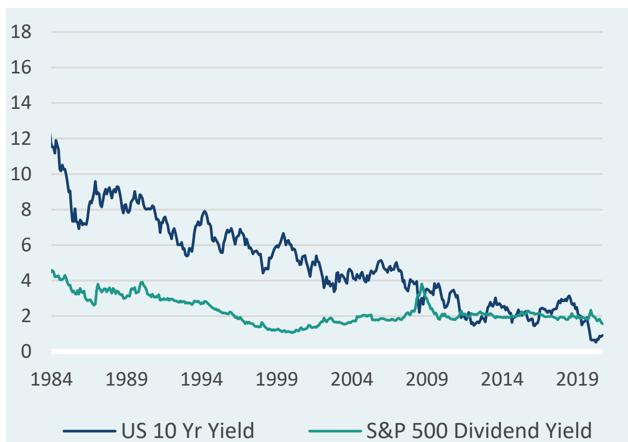
Within the index, a sizable rotation occurred in Q4 as certain sectors that had been beaten-down during the pandemic performed strongly. Rising energy prices boosted the Energy sector, while higher interest rates improved the outlook for Financials. It remains to be seen whether certain consumer habits displayed during the pandemic (online shopping and heightened social media usage, for example) begin reverting to previous levels as the world moves back to normalcy or if instead, these new habits become more permanent in nature. The answer to this question has important implications for future intra-sector performance.

As equities move higher, it is difficult not to notice a disconnect between the US. market and the economy. We believe this rally is the result of a confluence of forces. Ultra-low interest rates, extremely accommodative monetary and fiscal policy, plus the implicit guarantee that further economic weakness will be met with more support and stimulus, seems to be creating a new type of "Goldilocks market" that harkens back to the post-Global Financial Crisis market expansion.

S&P 500 INDEX

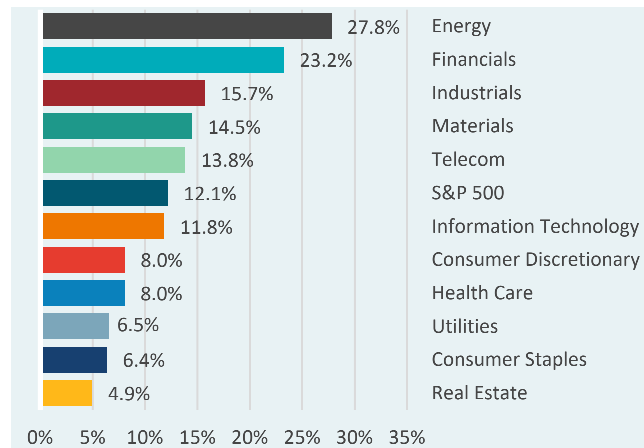
Source: Standard & Poor's, as of 12/31/20

DIVIDEND YIELD VS BOND YIELD



Source: Standard & Poor's, as of 12/31/20

Q4 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 12/31/20

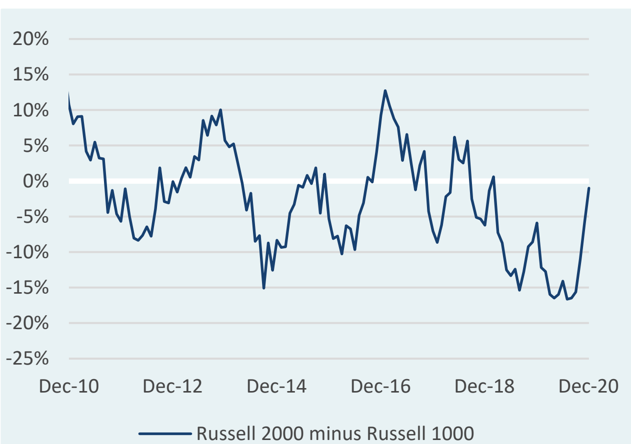
Domestic equity size & style

U.S. value stocks beat growth stocks during the fourth quarter (Russell 1000 Value +16.3%, Russell 1000 Growth +11.4%), reversing an extended run of value underperformance. The moderate bounce in value stock performance appeared to be partly driven by sector movements. Energy, Financials, and Materials sectors tend to contain an outsized number of value stocks. These sectors were among the top performers in Q4. Small cap stocks delivered sizable outperformance over large cap stocks (Russell 2000 +31.4%, Russell 1000 +13.7%).

A variety of risks seem to be boiling up around large U.S. technology companies. Given the significant market role that these businesses play, along with their *growth* rather than *value* characteristics, this regulatory risk could have implications for 2021. First, it is easy to argue that firms such as Google, Amazon, and Facebook have exercised some degree of monopoly power (the FTC recently sued Facebook for alleged illegal monopolistic conduct, and numerous other investigations abound). Further anti-trust actions are likely to come. Second, in recent years there has been a degree of bipartisan consensus that social media companies are doing a poor job of moderating content (though each political party has very different ideas as to the appropriate solution). These risks, which rest perhaps solely on the shoulders of "growth stocks", will be worth watching in 2021.

Sector performance has fueled dramatic negative performance of the value premium

SMALL CAP VS LARGE CAP (YOY)

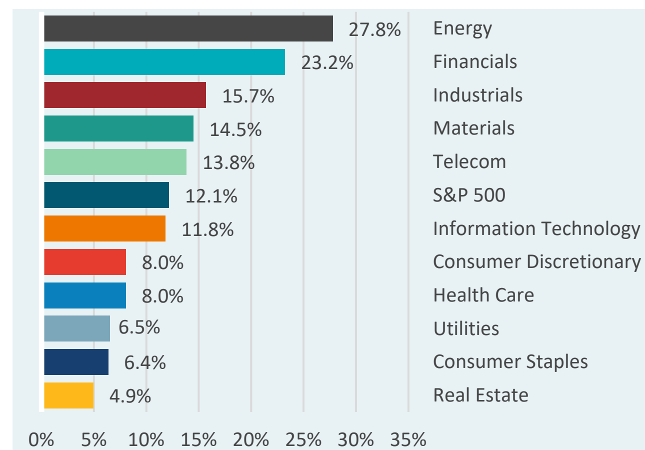


Source: FTSE, as of 12/31/20

VALUE VS GROWTH (YOY)

Source: FTSE, as of 12/31/20

Q4 SECTOR PERFORMANCE



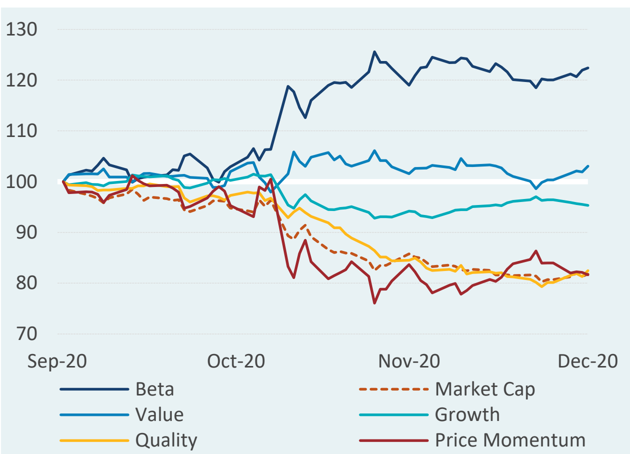
Source: Standard & Poor's, as of 12/31/20

Factor portfolios in 2020

After a quiet October, factor results significantly diverged in November as investors strongly reacted to positive COVID-19 vaccine news. Anticipating a path toward post-pandemic normalcy, investors rotated into stocks with higher betas and higher volatility (long/short, sector-neutral, S&P 500 Index quintiles). Small-cap stocks also performed well while the value factor modestly gained ground, mostly due to strong results from stocks with attractive price-to-book ratios. Investors funded this rotation by selling large-cap and high-quality positions. Poor price momentum results were further evidence of the strength of the move.

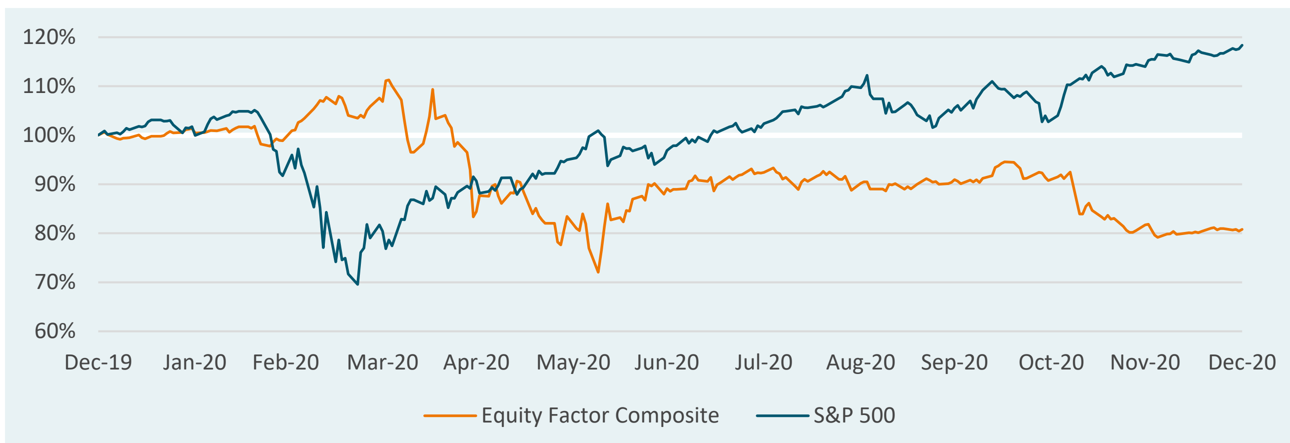
Equity factors had a very difficult year in 2020 and subsequently trailed the equity market by a very wide margin. Quality factors provided some protection during the periods of market turmoil. However other market neutral risk premia strategies did not enjoy consistent recoveries, particularly as market preferences quickly reversed back and forth during the pandemic.

Q4 2020 PERFORMANCE



Source: J.P. Morgan, as of 12/31/20

CUMULATIVE RETURN (INDEXED 12/31/19=100%)



Source: J.P. Morgan, as of 12/31/20; Equity Factor Composite represents the performance of a 10-factor model designed as a simple proxy for quant performance. The factors are combined so that the long and short portfolios contain the most- and least-attractive quant stocks.

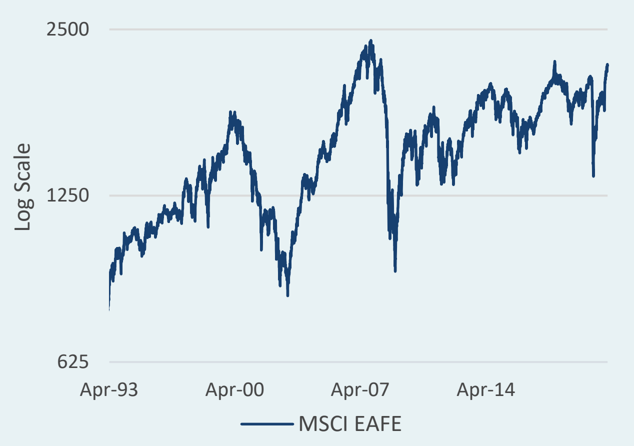
International developed equity

International equities delivered exceptional performance in the fourth quarter, as most global markets have now fully recovered from the March drawdown. The MSCI EAFE Index (+16.0%) outperformed the S&P 500 Index (+12.1%) while lagging the MSCI Emerging Markets Index (+19.7). Continuing U.S. dollar weakness was a notable theme, boosting international equity performance by 5% over the past year.

The recent depreciation of the U.S. dollar has acted as a tailwind to many unhedged international investments. The MSCI EAFE Index unhedged returned 16.0% in Q4, compared to 11.9% if currency had been hedged. The three largest currency exposures embedded in the MSCI EAFE Index—the euro (32%), the yen (26%), and the pound sterling (13%)—appreciated +4.3%, +2.2%, and +5.7% relative to the U.S. dollar during the quarter, respectively.

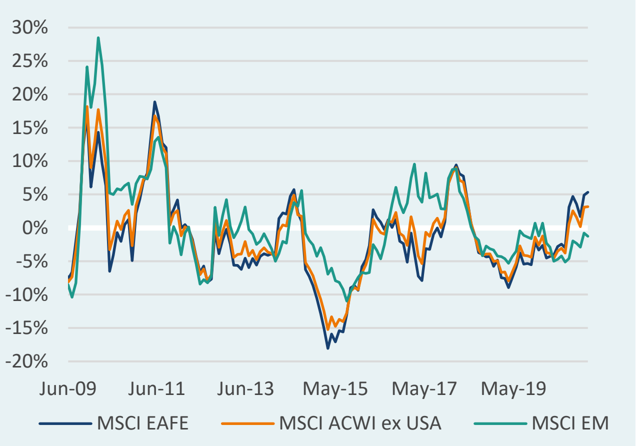
European equities (+17.2%) outperformed Hong Kong (+15.5%) and Japanese (+15.3%) equities in Q4, supported by strong performance in Austria (+47.3%) and Spain (+27.7%). In Oceania, Australia posted solid returns (+22.9%), which were bolstered by a firmer Australian dollar.

INTERNATIONAL DEVELOPED EQUITIES



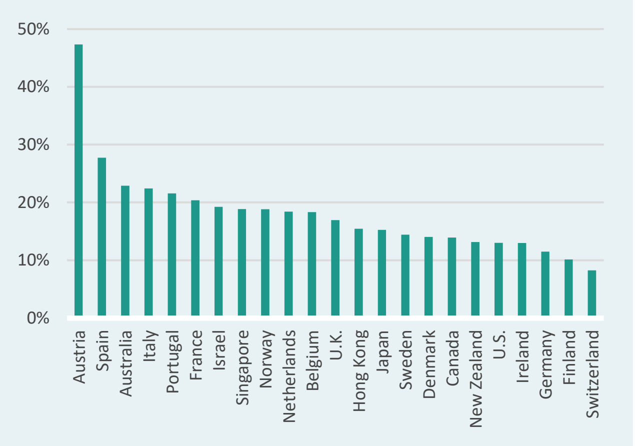
Source: MSCI, as of 12/31/20

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 12/31/20

Q4 2020 PERFORMANCE (ALL IN USD)



Source: MSCI, Bloomberg, as of 12/31/20

Emerging market equity

Emerging market equities (MSCI EM +19.7%) outperformed U.S. (S&P 500 +12.1%) and international developed equities (MSCI EAFE +16.0%) once again in Q4. Latin American equities showed significant outperformance during the quarter (MSCI Latin America +34.8%), after years of lagging behind other emerging markets.

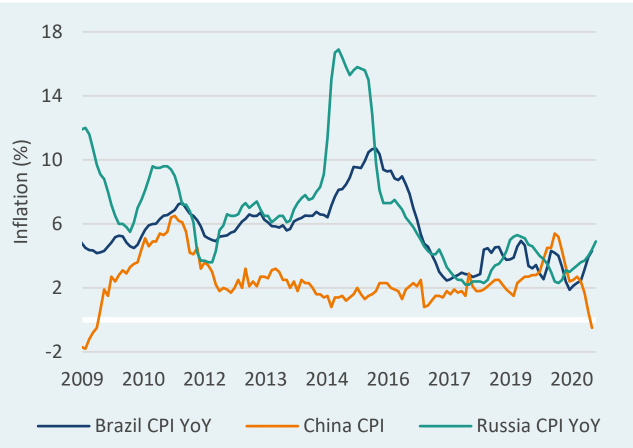
The pandemic placed downward pressure on inflation earlier in 2020. Since then, the rate of price movement has recovered in many markets. China appears to be an outlier, as inflation recently dipped below zero. This move was fueled by falling pork prices, which had been moving higher in recent years and causing above-average levels of inflation.

Emerging market currencies sold off significantly during the beginning of the year as investors bid up safe-haven currencies, including the U.S. dollar, amid unprecedented economic and market uncertainty. Since March, however, the embedded currency portfolio of the MSCI Emerging Markets Index began to recover significantly and ended the year nearly on par with where it had started. Continued appreciation of emerging market currencies could provide tailwinds for unhedged U.S. investors in the asset class.

EMERGING MARKET EQUITY

Source: MSCI, as of 12/31/20

INFLATION (YOY)



Source: Bloomberg, as of 12/31/20 or most recent data

MSCI EM INDEX EMBEDDED CURRENCY

Source: Bloomberg, as of 12/31/20

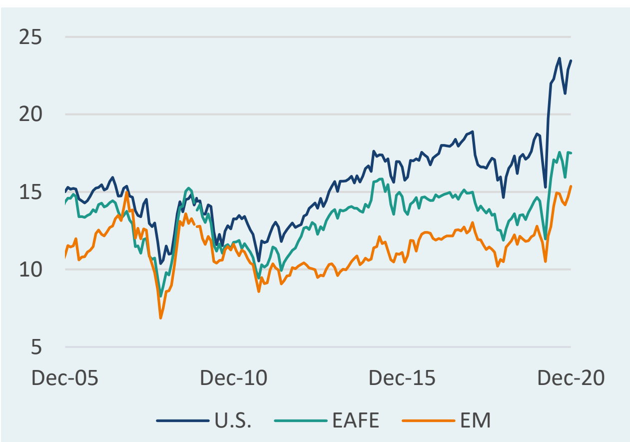
Equity valuations

Particularly during the last two months of the year, valuations shot higher alongside equity prices as markets digested news that several COVID-19 vaccine candidates proved more effective than anticipated. Today, price-to-earnings multiples appear stretched relative to long-term averages.

Markets have shown a remarkable ability to look past the pandemic-related disruptions and focus on the light at the end of the tunnel. Some in the industry have viewed the exceptional performance of U.S. equities in 2020 as the “check” that fundamentals will need to “cash” next year, and that if sales and earnings do not recover at the strong pace they are expected (+8.2%/+22.6%), there could be room for a correction.

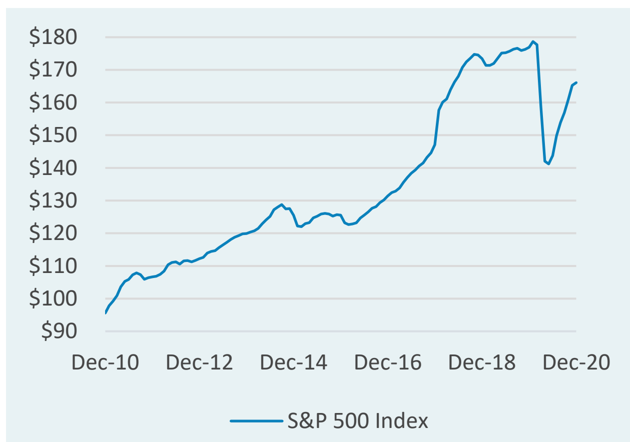
On a trailing-earnings basis, international developed equities appear most expensive as the second series of lockdowns which swept over the continent toward the end of the year have severely impacted earnings. The question in Europe, however, is largely the same one we are grappling with in the U.S.: are earnings temporarily depressed and ripe for a quick rebound next year, or are the earnings streams impaired and equity prices less justified?

FORWARD P/E RATIOS



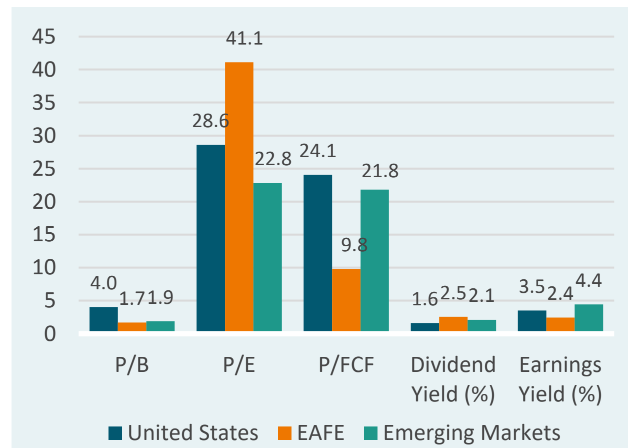
Source: MSCI, 12m forward P/E, as of 12/31/20

BLENDED 12-MONTH EARNINGS EXPECTATIONS



Source: Bloomberg, as of 12/31/20

VALUATION METRICS (3-MONTH AVERAGE)



Source: Bloomberg, MSCI as of 12/31/20 - trailing P/E

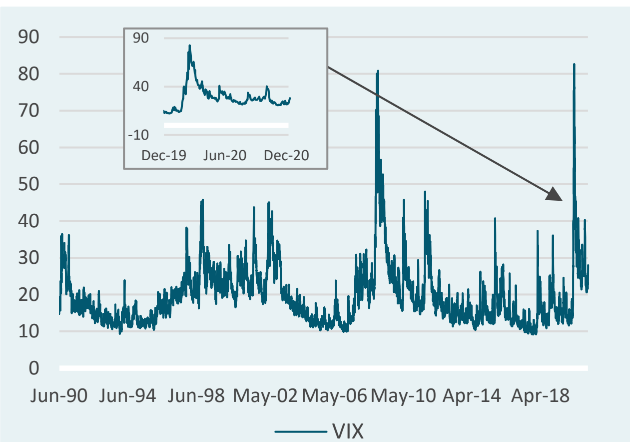
Equity volatility

The Cboe VIX Index remained rangebound in the fourth quarter, ending the year at 22.8. Priced volatility is moderately elevated relative to the longer-term average of 19.

The U.S. equity market exhibited surprisingly high volatility in 2020 relative to other global markets. The domestic market has typically been a lowest risk market. In recent years, this relationship has flipped, with U.S. stocks showing higher volatility than developed market stocks, and nearly on par with emerging market equities.

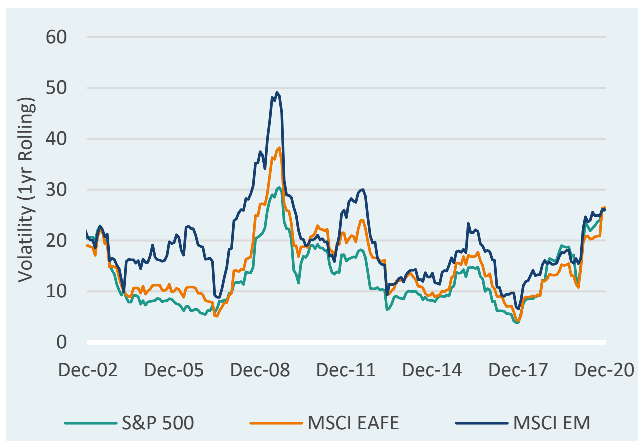
Since implied and realized volatility spiked in the first quarter, options-implied volatility has receded significantly, back toward more normal levels. As equity markets climbed to new highs in the final few months of the year, the U.S. implied volatility curve began to steepen. During the fourth quarter, the implied volatility of deeply out-of-the-money puts was little changed, while the implied volatility of deeply out-of-the-money call options declined to more-average levels. The steepening of the implied volatility curve likely demonstrates the market's marginal preference for downside protection over upside participation at current price levels.

U.S. IMPLIED VOLATILITY (VIX)



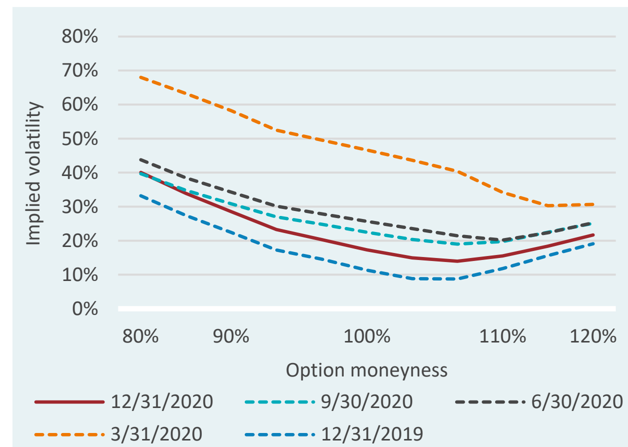
Source: Cboe, as of 12/31/20

REALIZED VOLATILITY



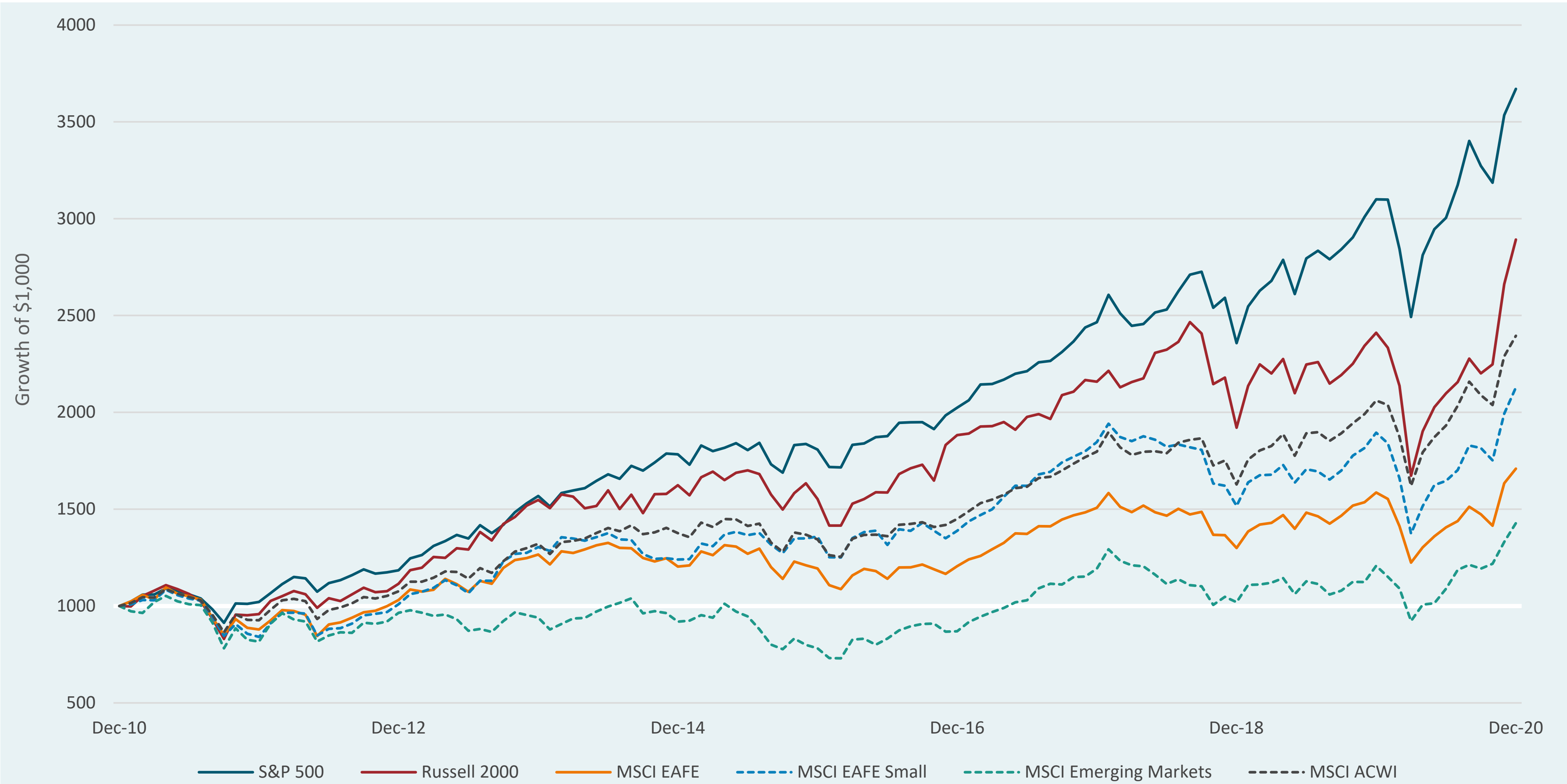
Source: Standard & Poor's, MSCI, as of 12/31/20

1-MONTH U.S. IMPLIED VOLATILITY CURVE



Source: Bloomberg, as of 12/31/20

Long-term equity performance



Source: Morningstar, as of 12/31/20

Other assets

Currency

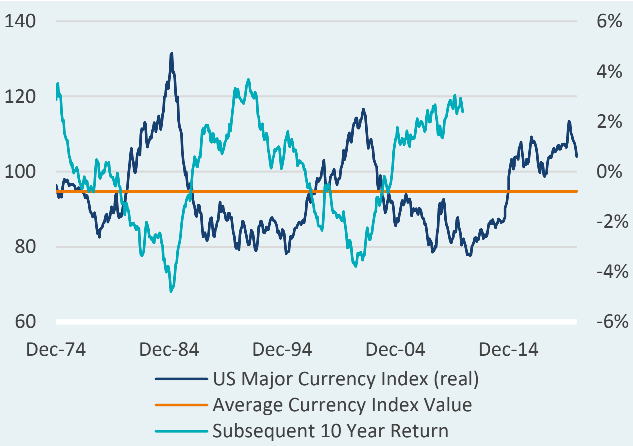
Weakness in the U.S. dollar relative to both emerging market and developed market currencies remained a theme in the fourth quarter, as the Bloomberg Dollar Spot Index fell to a two and a half year low. Analysts attributed some of the weakness of the greenback to lower relative real yields in the United States, as nominal Treasury yields rose less than inflation expectations. Many in the industry have made calls for a continuation of dollar weakness into 2021. If that weakness were to materialize, it would supply significant tailwinds for unhedged U.S. investors in non-U.S. equities. We continue to believe that unhedged currency exposure results in uncompensated risk, which is a suboptimal approach for many investors.

The onshore Chinese renminbi rallied significantly over the fourth quarter. The strength has been primarily credited to the apparently-blistering pace of China's recovery from pandemic-related disruptions, which has fueled capital inflows from offshore investors. Looking ahead, the election of Joe Biden has been viewed largely as constructive for the yuan, as the expectation remains that Biden's stance on China will be less confrontational than his predecessor's, reducing trade tensions. On the other hand, the rising value of the yuan may make China's exports less-affordable for Europeans still recovering from the pandemic. This dynamic has stoked speculation that the People's Bank of China might soon step in to cool the rally.

BLOOMBERG DOLLAR SPOT INDEX

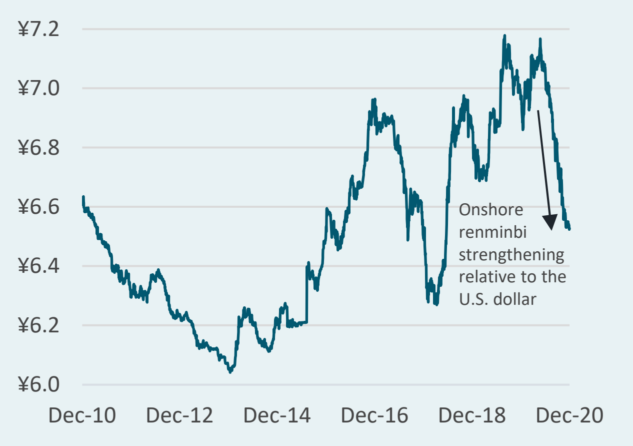
Source: Bloomberg, as of 12/31/20

USD CURRENCY LEVEL & SUBSEQUENT RETURN



Source: Federal Reserve, as of 12/31/20

USD/CNY CROSS RATE



Source: Bloomberg, as of 12/31/20

Appendix

Periodic table of returns

BEST

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	5-Year	10-Year
Large Cap Growth	38.7	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	21.0	17.2
Small Cap Growth	27.0	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	16.4	14.0
Large Cap Equity	20.3	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	15.6	13.5
Small Cap Equity	19.3	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	13.3	11.2
Emerging Markets Equity	16.2	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	12.8	10.5
60/40 Global Portfolio	8.7	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	9.7	8.9
Hedge Funds of Funds	15.6	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	9.7	8.7
International Equity	4.9	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	9.5	6.8
US Bonds	1.2	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	5.5
Small Cap Value	-2.5	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	5.7	3.8
Large Cap Value	-5.1	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	4.4	3.6
Real Estate	-6.5	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	4.4	3.3
Cash	-25.3	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	1.1	0.6
Commodities	-27.0	-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	1.0	-6.5

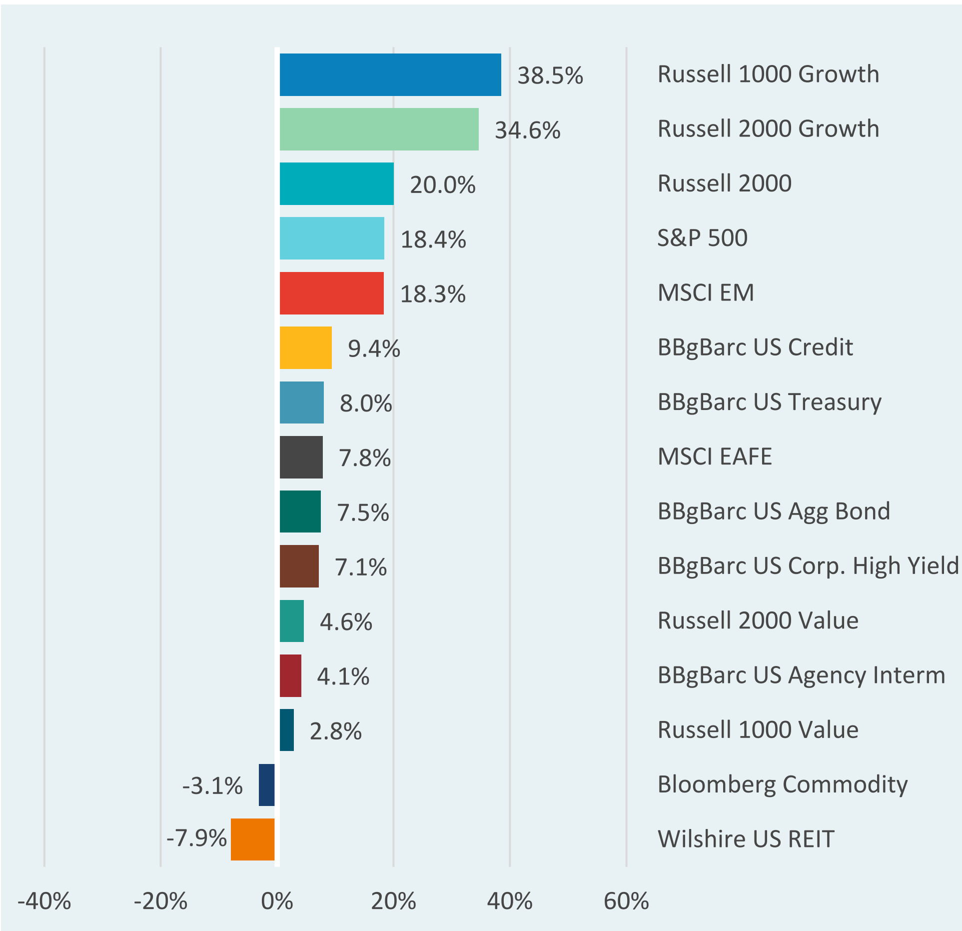
WORST

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

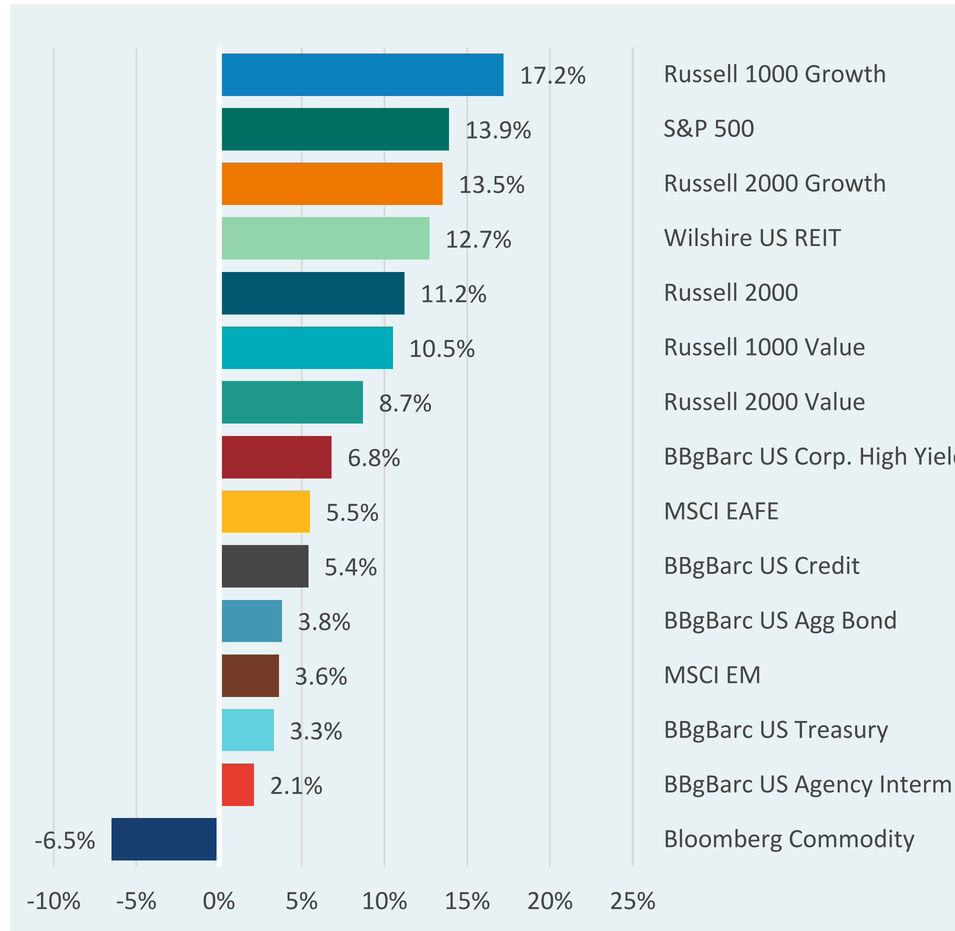
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 9/30/20.

Major asset class returns

ONE YEAR ENDING DECEMBER



TEN YEARS ENDING DECEMBER



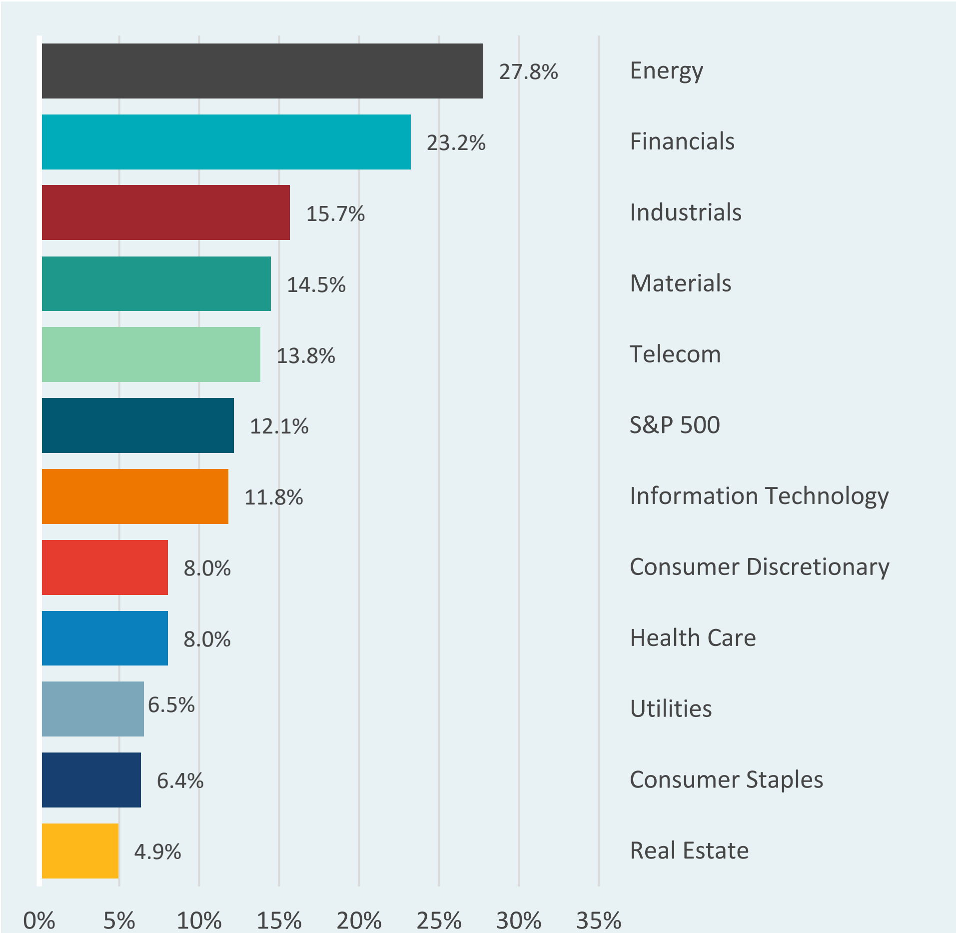
**Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.*

Source: Morningstar, as of 12/31/20

Source: Morningstar, as of 12/31/20

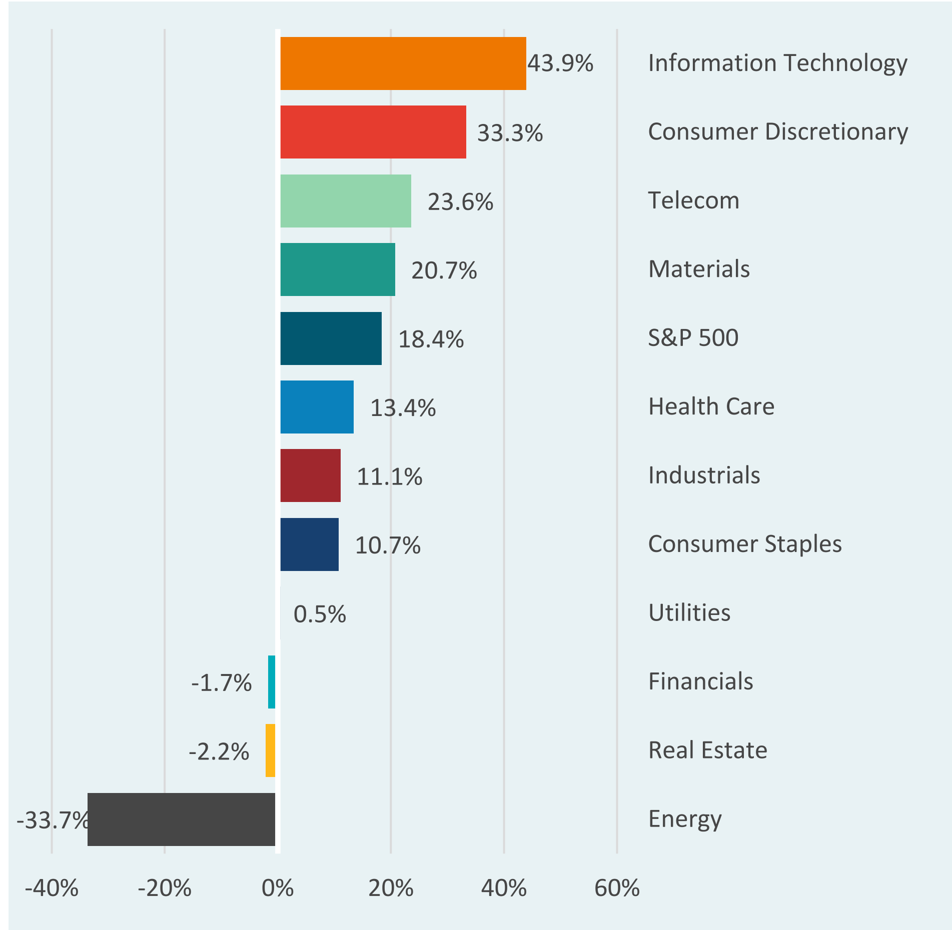
S&P 500 sector returns

Q4 2020



Source: Morningstar, as of 12/31/20

ONE YEAR ENDING DECEMBER

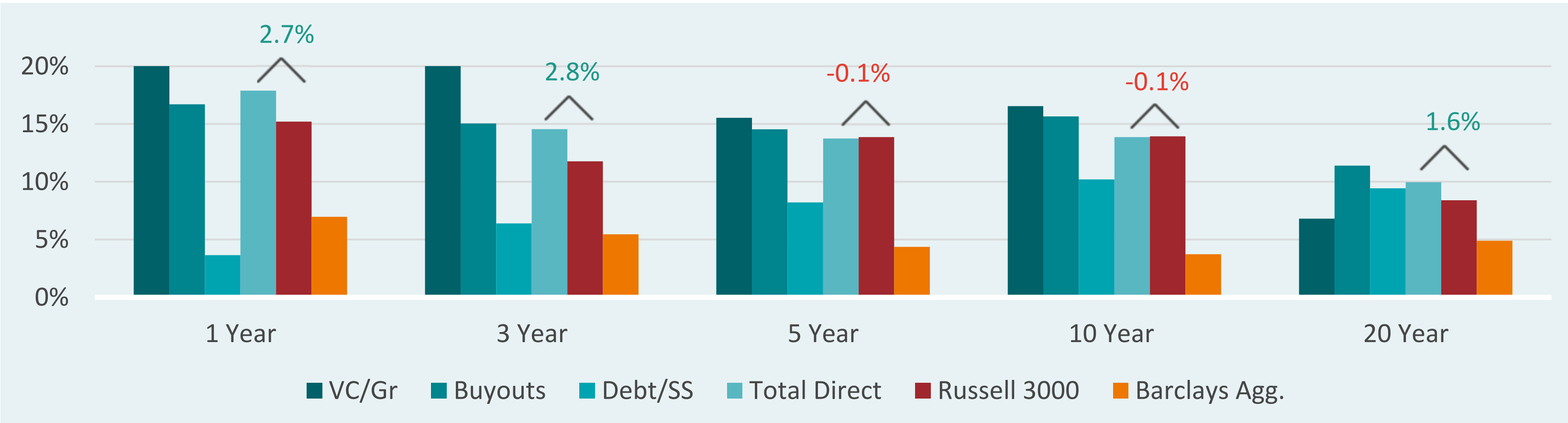


Source: Morningstar, as of 12/31/20

Private equity vs. public performance

As of 9/30/2020

DIRECT PRIVATE EQUITY FUND INVESTMENTS



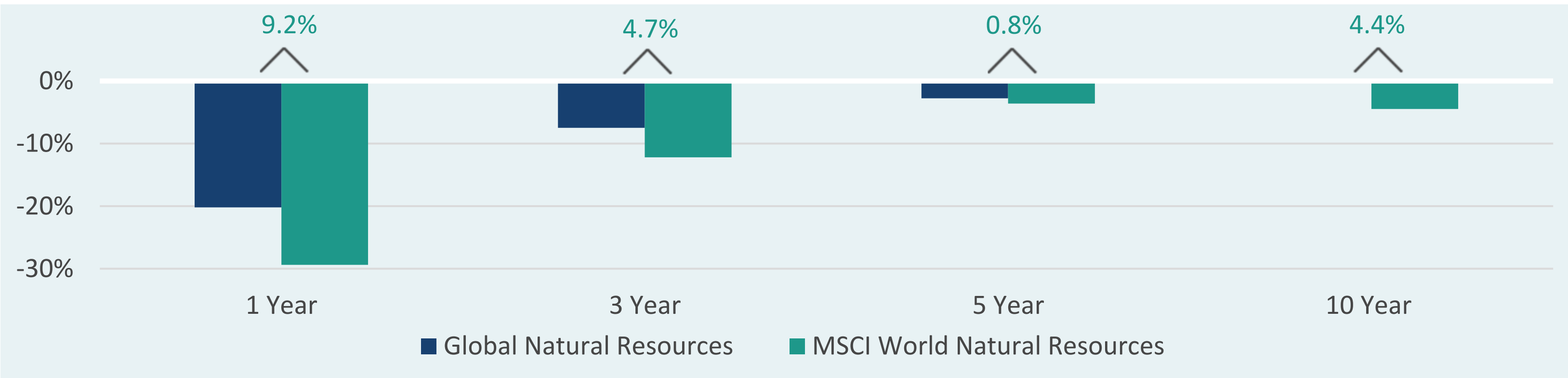
Direct private equity fund investments outperformed comparable public equites across most time periods

Sources: Thomson Reuters Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of September 30, 2020. Public Market Equivalent returns resulted from "Total Direct's" identical cash flows invested into and distributed from respective traditional asset comparable.

Private equity vs. liquid real assets performance

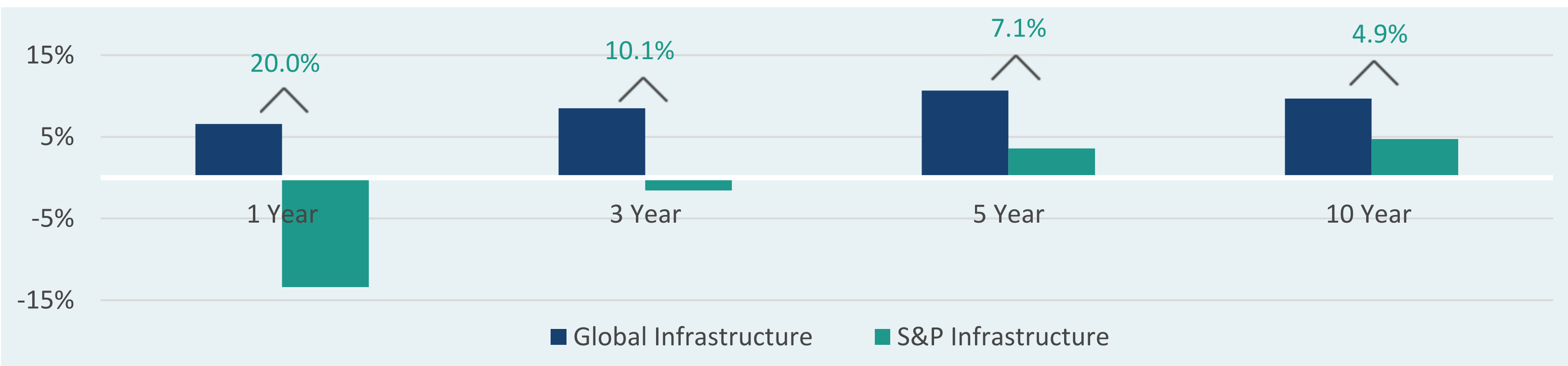
As of 9/30/2020

GLOBAL NATURAL RESOURCES FUNDS



Natural resource funds outperformed the MSCI World Natural Resources benchmark across all time periods

GLOBAL INFRASTRUCTURE FUNDS



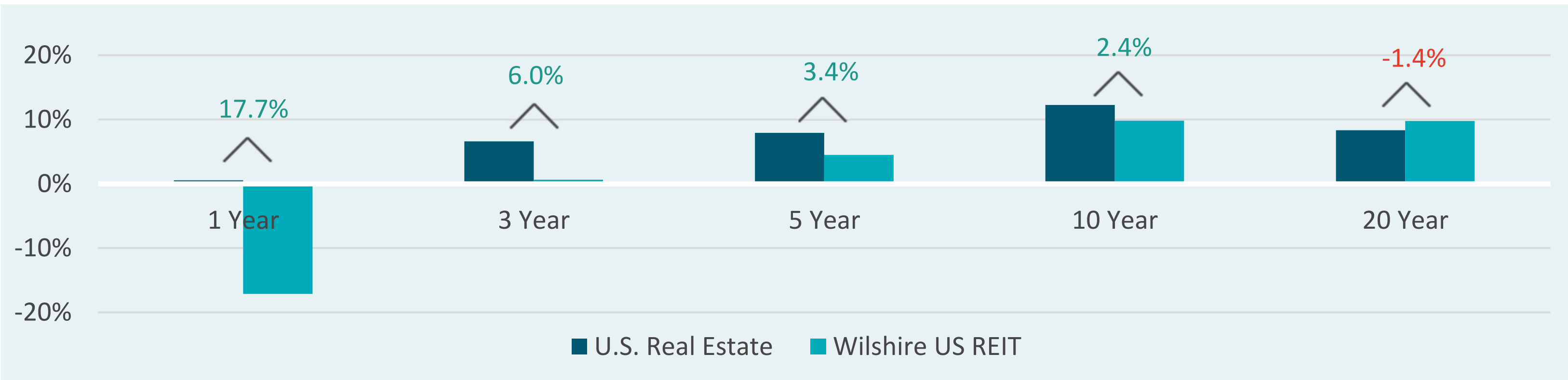
Infrastructure funds outperformed the S&P Infra. Index across all periods

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 September 30, 2020. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

Private vs. liquid & core real estate performance

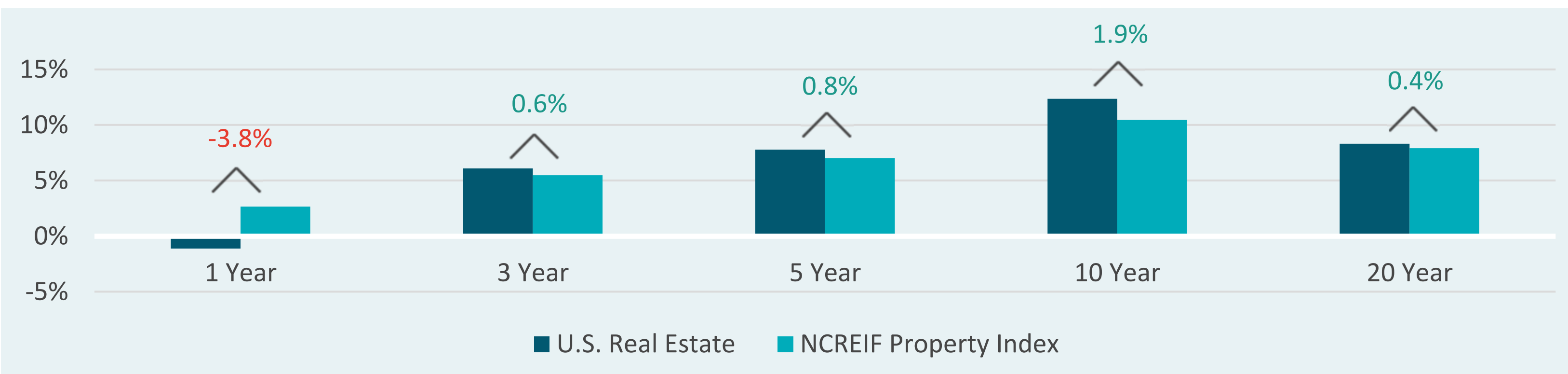
As of 9/30/2020

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



U.S. private real estate funds outperformed the Wilshire U.S. REIT Index across most time periods

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



U.S. private real estate funds outperformed the NCREIF Property Index over all time periods, aside from the past year

Sources: Thomson Reuters C|A PME: U.S. Real Estate universes as of September 30, 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	3.8	12.1	18.4	18.4	14.2	15.2	13.9
S&P 500 Equal Weighted	4.3	18.5	12.8	12.8	10.4	13.0	12.7
DJ Industrial Average	3.4	10.7	9.7	9.7	9.9	14.7	13.0
Russell Top 200	4.1	11.6	22.4	22.4	16.0	16.4	14.6
Russell 1000	4.2	13.7	21.0	21.0	14.8	15.6	14.0
Russell 2000	8.7	31.4	20.0	20.0	10.2	13.3	11.2
Russell 3000	4.5	14.7	20.9	20.9	14.5	15.4	13.8
Russell Mid Cap	4.7	19.9	17.1	17.1	11.6	13.4	12.4
Style Index							
Russell 1000 Growth	4.6	11.4	38.5	38.5	23.0	21.0	17.2
Russell 1000 Value	3.8	16.3	2.8	2.8	6.1	9.7	10.5
Russell 2000 Growth	9.3	29.6	34.6	34.6	16.2	16.4	13.5
Russell 2000 Value	7.9	33.4	4.6	4.6	3.7	9.7	8.7

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	4.6	14.7	16.3	16.3	10.1	12.3	9.1
MSCI ACWI ex US	5.4	17.0	10.7	10.7	4.9	8.9	4.9
MSCI EAFE	4.6	16.0	7.8	7.8	4.3	7.4	5.5
MSCI EM	7.4	19.7	18.3	18.3	6.2	12.8	3.6
MSCI EAFE Small Cap	6.8	17.3	12.3	12.3	4.9	9.4	7.8
Style Index							
MSCI EAFE Growth	4.9	13.1	18.3	18.3	9.7	10.5	7.5
MSCI EAFE Value	4.4	19.2	(2.6)	(2.6)	(1.2)	4.2	3.4
Regional Index							
MSCI UK	5.5	16.9	(10.5)	(10.5)	(2.4)	2.6	3.0
MSCI Japan	4.1	15.3	14.5	14.5	6.1	8.7	6.5
MSCI Euro	4.0	17.2	6.6	6.6	3.1	7.0	5.0
MSCI EM Asia	7.1	18.9	28.4	28.4	9.0	14.4	6.6
MSCI EM Latin American	11.9	34.8	(13.8)	(13.8)	(1.8)	8.9	(3.4)

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	1.1	1.6	11.0	11.0	5.9	5.1	3.8
BBgBarc US Treasury Bills	0.0	0.0	0.7	0.7	1.6	1.2	0.7
BBgBarc US Agg Bond	0.1	0.7	7.5	7.5	5.3	4.4	3.8
Duration							
BBgBarc US Treasury 1-3 Yr	0.1	0.0	3.2	3.2	2.8	1.9	1.3
BBgBarc US Treasury Long	(1.2)	(3.0)	17.7	17.7	9.9	7.8	7.8
BBgBarc US Treasury	(0.2)	(0.8)	8.0	8.0	5.2	3.8	3.3
Issuer							
BBgBarc US MBS	0.2	0.2	3.9	3.9	3.7	3.1	3.0
BBgBarc US Corp. High Yield	1.9	6.5	7.1	7.1	6.2	8.6	6.8
BBgBarc US Agency Interm	0.1	0.1	4.1	4.1	3.4	2.5	2.1
BBgBarc US Credit	0.5	2.8	9.4	9.4	6.8	6.4	5.4

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	5.0	10.2	(3.1)	(3.1)	(2.5)	1.0	(6.5)
Wilshire US REIT	2.8	10.6	(7.9)	(7.9)	3.3	4.3	8.3
CS Leveraged Loans	1.3	3.6	2.8	2.8	4.0	5.2	4.5
Alerian MLP	2.5	32.4	(31.6)	(31.6)	(13.7)	(7.0)	(2.1)
Regional Index							
JPM EMBI Global Div	1.9	5.8	5.3	5.3	5.0	7.1	6.2
JPM GBI-EM Global Div	3.5	9.6	2.7	2.7	3.0	6.7	1.5
Hedge Funds							
HFRI Composite	4.5	10.7	11.6	11.6	5.5	6.1	4.2
HFRI FOF Composite	3.1	7.5	10.3	10.3	4.7	4.4	3.3
Currency (Spot)							
Euro	2.3	4.3	9.0	9.0	0.6	2.4	(0.9)
Pound Sterling	2.4	5.7	3.2	3.2	0.3	(1.5)	(1.3)
Yen	1.0	2.2	5.3	5.3	2.9	3.1	(2.4)

Source: Morningstar, HFRI, as of 12/31/20

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

Contra Costa County Employees' Retirement Association

Investment Performance Review

Period Ending: December 31, 2020

Verus

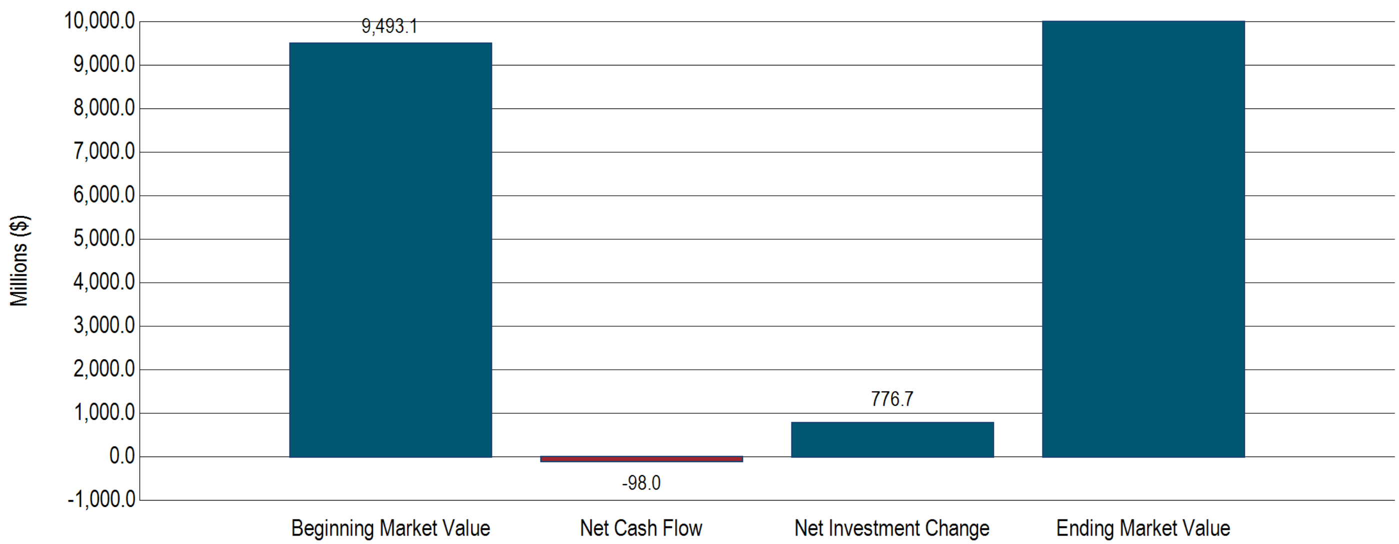
VERUSINVESTMENTS.COM

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

Portfolio Reconciliation

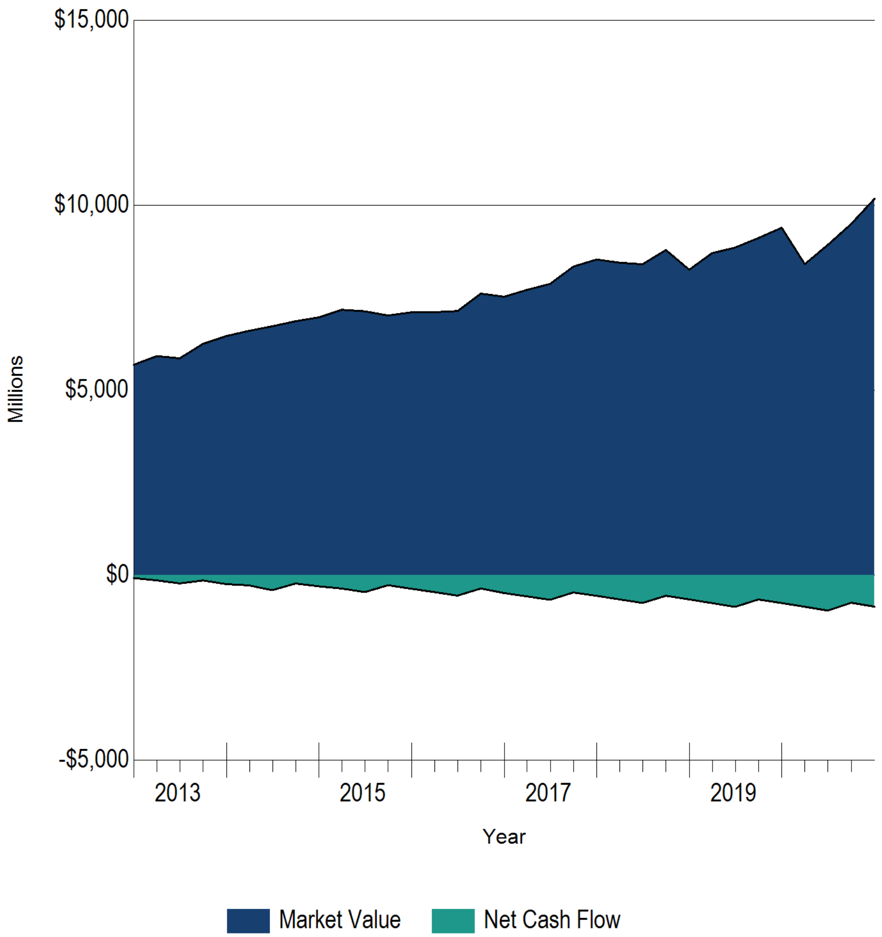
	Last Three Months	Year-To-Date
Beginning Market Value	$9,493,124,547	$9,390,188,036
Net Cash Flow	-$98,017,356	-$70,896,254
Net Investment Change	$776,695,271	$852,510,681
Ending Market Value	$10,171,802,463	$10,171,802,463

Change in Market Value
Last Three Months

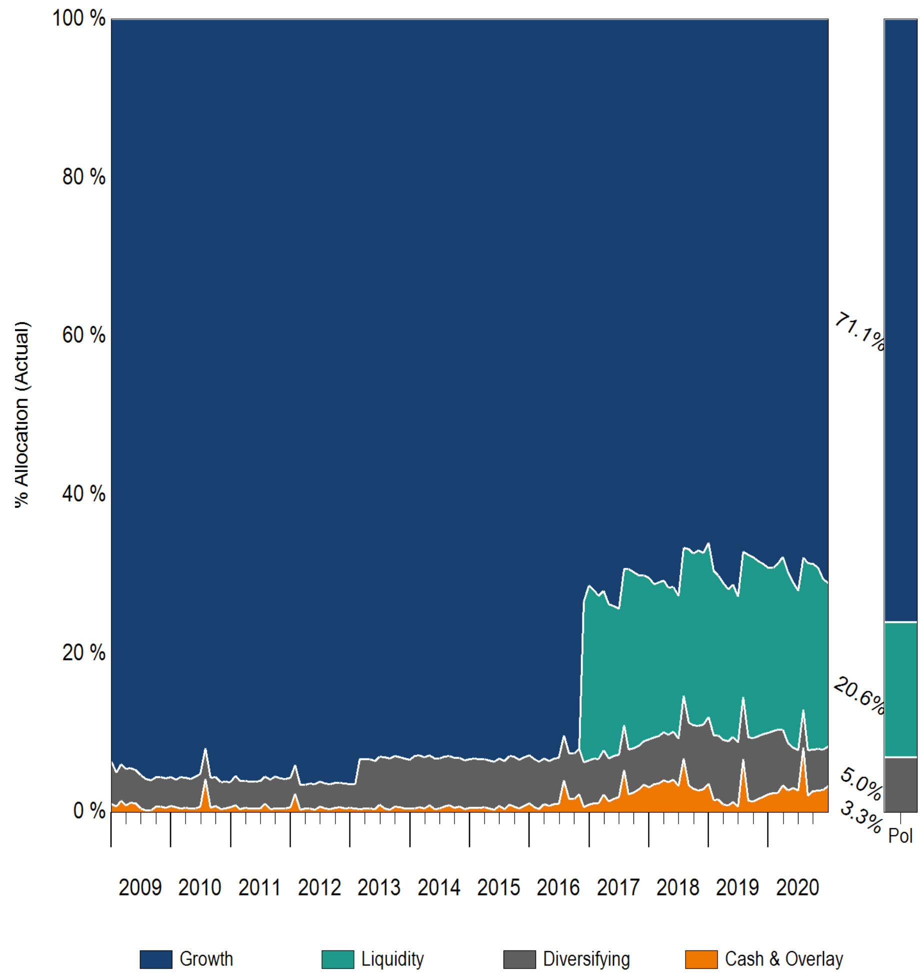


Contributions and withdrawals may include intra-account transfers between managers/funds.

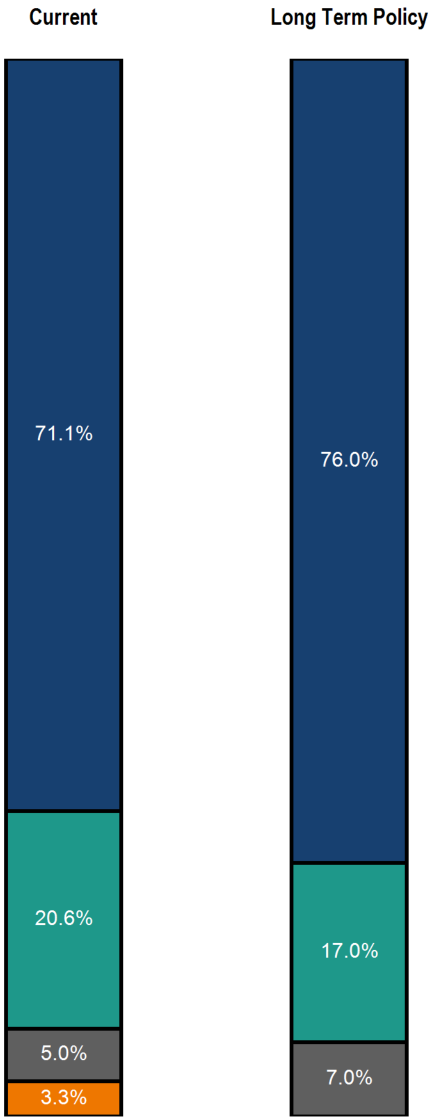
Market Value History
Cumulative Cash Flows



Asset Allocation History



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



Allocation vs. Long Term Target

	Current Balance	Current Allocation	Long Term Target	Difference
Growth	$7,232,247,227	71.1%	76.0%	-$498,322,645
Liquidity	$2,095,075,389	20.6%	17.0%	$365,868,970
Diversifying	$507,514,285	5.0%	7.0%	-$204,511,887
Cash & Overlay	$336,965,562	3.3%	--	$336,965,562
Total	**$10,171,802,463**	**100.0%**	**100.0%**	

Allocation vs. Current Targets

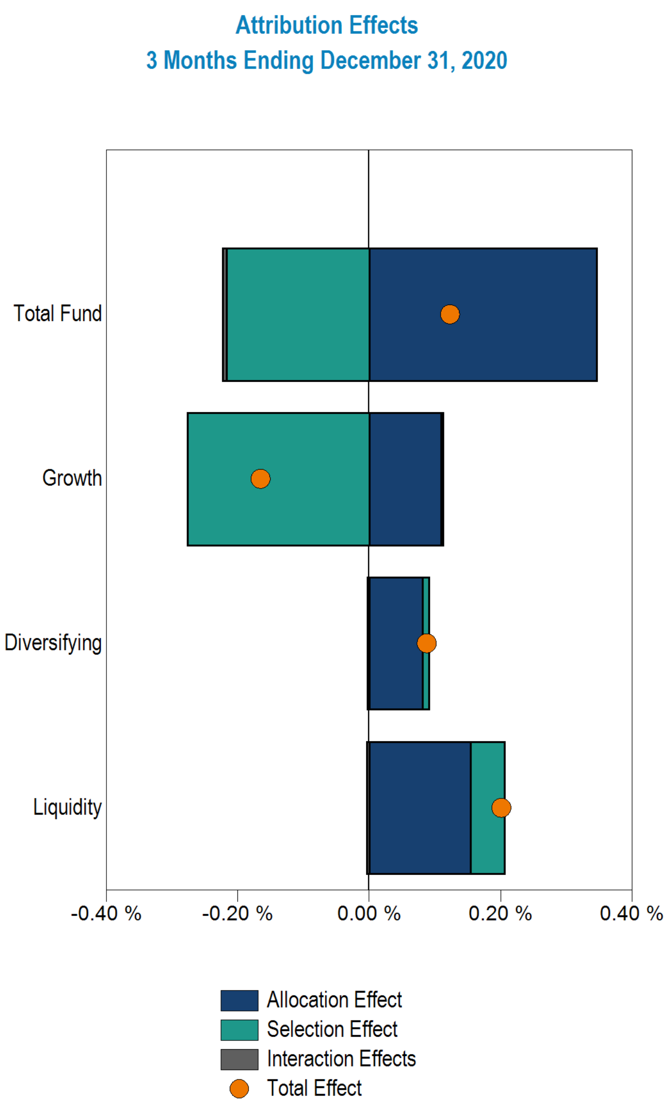
	Current Balance	Current Allocation	Current Target	Difference
Growth	$7,232,247,227	71.1%	68.5%	$264,562,540
Liquidity	$2,095,075,389	20.6%	25.0%	-$447,875,227
Diversifying	$507,514,285	5.0%	6.5%	-$153,652,875
Cash & Overlay	$336,965,562	3.3%	--	$336,965,562
Total	**$10,171,802,463**	**100.0%**	**100.0%**	

Long Term Targets reflect FFP 4-Yr allocations approved in June 2020.
Current Targets reflect targets approved in June 2020.

	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
Total Fund	100.0	8.2	9.2	6.8	8.2	8.1	9.2	14.6	-2.7	13.9	6.9
Policy Index		8.1	10.8	7.9	9.3	8.8	10.8	14.6	-0.9	13.7	8.9
Growth	71.1	11.3	12.0	8.4	10.2	--	12.0	18.4	-3.9	18.7	7.6
Custom Growth Benchmark		11.7	13.8	9.9	11.8	--	13.8	19.3	-2.1	19.3	10.1
Diversifying	5.0	1.1	-1.7	0.9	1.2	1.6	-1.7	6.8	-2.3	2.6	0.8
Custom Diversifying Benchmark		0.9	4.7	4.0	4.2	3.9	4.7	6.1	1.4	4.7	4.1
Liquidity	20.6	0.4	3.4	3.3	--	--	3.4	4.8	1.7	1.4	--
BBgBarc US Govt/Credit 1-3 Yr. TR		0.2	3.3	3.0	--	--	3.3	4.0	1.6	0.8	--

**Correlation between the Growth and Diversifying composites is .85, .61 and .49 over the previous 1, 3 and 5 year periods respectively.*

Policy Index (7/1/2020-Present): 9% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 25% BBgBarc 1-3 Yr Gov/Credit, 3% BBgBarc US Aggregate, 2% BBgBarc Global Aggregate, 7% ICE BofAML High Yield Master II +2%, 1.5% ICE BofAML High Yield Master II, 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 1.5% CPI +4%, 11% S&P 500 +4%(Lagged), 2% HFRI EH Equity Market Neutral. Policy Index (7/1/2019-6/30/2020): 10% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 24% BBgBarc 1-3 Yr Gov/Credit, 3.5% BBgBarc US Aggregate, 2% BBgBarc Global Aggregate, 5% ICE BofAML High Yield Master II +2%, 2% ICE BofAML High Yield Master II, 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 2.0% CPI +4%, 11% S&P 500 +4%(Lagged), 2.5% HFRI EH Equity Market Neutral.



Performance Attribution

	Quarter
Wtd. Actual Return	8.22%
Wtd. Index Return *	8.09%
Excess Return	**0.12%**
Selection Effect	-0.22%
Allocation Effect	0.35%
Interaction Effect	0.00%

*Calculated from benchmark returns and weightings of each component.

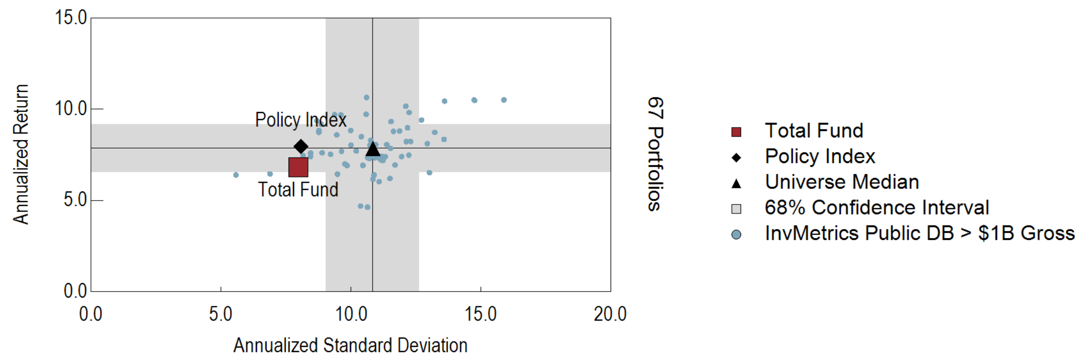
Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth	11.3%	11.7%	-0.4%	-0.3%	0.1%	0.0%	-0.2%
Diversifying	1.1%	1.0%	0.1%	0.0%	0.1%	0.0%	0.1%
Liquidity	0.4%	0.2%	0.2%	0.1%	0.2%	0.0%	0.2%
Total	**8.2%**	**8.1%**	**0.1%**	**-0.2%**	**0.3%**	**0.0%**	**0.1%**

3 Years

	Anlzd Return	Ann Excess BM Return	Anlzd Standard Deviation	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Total Fund	6.80%	-1.14%	7.98%	-0.72%	0.95	2.36%	0.92	0.67	-0.49	94.42%	105.04%

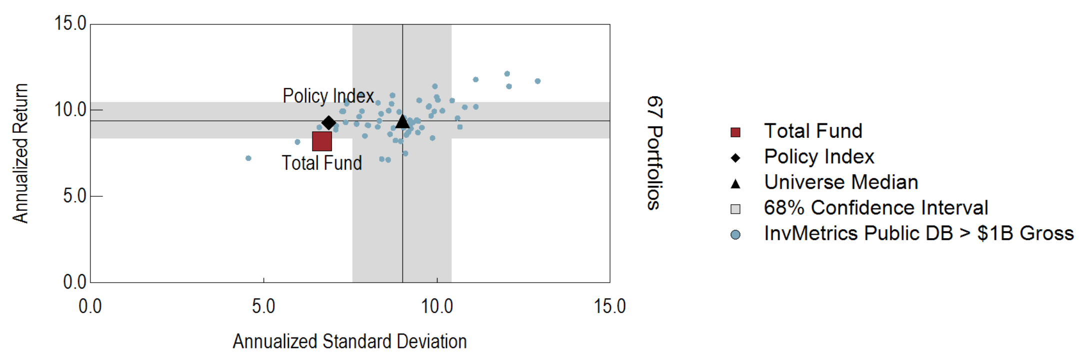
Risk vs. Return



5 Years

	Anlzd Return	Ann Excess BM Return	Anlzd Standard Deviation	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Total Fund	8.20%	-1.06%	6.68%	-0.39%	0.93	2.07%	0.91	1.06	-0.51	92.25%	103.32%

Risk vs. Return



	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Fund	**10,171,802,463**	**100.0**	**8.3**	**9.5**	**7.1**	**8.5**	**8.6**	**9.5**	**15.0**	**-2.5**	**14.2**	**7.4**		
Policy Index			*8.1*	*10.8*	*7.9*	*9.3*	*8.8*	*10.8*	*14.6*	*-0.9*	*13.7*	*8.9*		
InvMetrics Public DB > $1B Gross Rank			*89*	*79*	*80*	*88*	*33*	*79*	*83*	*25*	*83*	*74*		
Total Fund ex Overlay & Cash	**9,834,836,901**	**96.7**	**8.3**	**9.7**	**7.2**	**8.6**	**8.7**	**9.7**	**14.7**	**-2.1**	**14.1**	**7.4**		
Policy Index			*8.1*	*10.8*	*7.9*	*9.3*	*8.8*	*10.8*	*14.6*	*-0.9*	*13.7*	*8.9*		
InvMetrics Public DB > $1B Gross Rank			*89*	*72*	*78*	*86*	*32*	*72*	*84*	*20*	*84*	*74*		
Growth	**7,232,247,227**	**71.1**	**11.4**	**12.4**	**8.8**	**10.6**	**--**	**12.4**	**18.8**	**-3.6**	**19.1**	**8.1**		
Custom Growth Benchmark			*11.7*	*13.8*	*9.9*	*11.8*	*--*	*13.8*	*19.3*	*-2.1*	*19.3*	*10.1*		
Total Domestic Equity	**1,067,112,641**	**10.5**	**19.5**	**22.2**	**12.8**	**14.7**	**13.8**	**22.2**	**26.7**	**-7.2**	**23.9**	**11.5**		
Russell 3000			*14.7*	*20.9*	*14.5*	*15.4*	*13.8*	*20.9*	*31.0*	*-5.2*	*21.1*	*12.7*		
InvMetrics Public DB US Eq Gross Rank			*4*	*7*	*54*	*41*	*26*	*7*	*87*	*78*	*6*	*77*		
BlackRock Russell 1000 Index	229,775,562	2.3	13.7	21.0	14.8	--	--	21.0	31.4	-4.8	--	--	15.9	Apr-17
Russell 1000			*13.7*	*21.0*	*14.8*	*--*	*--*	*21.0*	*31.4*	*-4.8*	*--*	*--*	*15.9*	*Apr-17*
eV US Large Cap Equity Gross Rank			*40*	*36*	*39*	*--*	*--*	*36*	*39*	*47*	*--*	*--*		
Jackson Square Partners	243,346,164	2.4	16.1	44.8	22.0	17.5	16.7	44.8	27.9	-2.0	29.3	-4.4	12.5	May-05
Russell 1000 Growth			*11.4*	*38.5*	*23.0*	*21.0*	*17.2*	*38.5*	*36.4*	*-1.5*	*30.2*	*7.1*	*12.8*	*May-05*
eV US Large Cap Growth Equity Gross Rank			*9*	*19*	*50*	*74*	*41*	*19*	*93*	*59*	*47*	*98*		
Boston Partners	234,795,447	2.3	18.8	3.0	5.3	10.1	11.3	3.0	24.3	-8.7	20.1	15.1	10.4	Jun-95
Russell 1000 Value			*16.3*	*2.8*	*6.1*	*9.7*	*10.5*	*2.8*	*26.5*	*-8.3*	*13.7*	*17.3*	*9.2*	*Jun-95*
eV US Large Cap Value Equity Gross Rank			*25*	*61*	*70*	*60*	*45*	*61*	*77*	*55*	*23*	*50*		
Emerald Advisers	194,942,957	1.9	26.2	39.0	17.6	18.2	16.4	39.0	30.3	-10.1	28.8	10.1	14.9	Apr-03
Russell 2000 Growth			*29.6*	*34.6*	*16.2*	*16.4*	*13.5*	*34.6*	*28.5*	*-9.3*	*22.2*	*11.3*	*12.8*	*Apr-03*
eV US Small Cap Growth Equity Gross Rank			*61*	*56*	*68*	*64*	*41*	*56*	*45*	*85*	*26*	*54*		
Ceredex	164,252,512	1.6	27.2	2.3	2.4	9.2	--	2.3	18.4	-11.3	11.4	29.8	10.3	Nov-11
Russell 2000 Value			*33.4*	*4.6*	*3.7*	*9.7*	*--*	*4.6*	*22.4*	*-12.9*	*7.8*	*31.7*	*10.3*	*Nov-11*
eV US Small Cap Value Equity Gross Rank			*74*	*69*	*70*	*58*	*--*	*69*	*87*	*25*	*48*	*32*		

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

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total International Equity	**1,940,796,466**	**19.1**	**18.5**	**15.8**	**7.1**	**9.3**	**6.7**	**15.8**	**23.7**	**-14.3**	**25.5**	**1.2**		
MSCI ACWI ex USA Gross			*17.1*	*11.1*	*5.4*	*9.4*	*5.4*	*11.1*	*22.1*	*-13.8*	*27.8*	*5.0*		
MSCI EAFE Gross			*16.1*	*8.3*	*4.8*	*8.0*	*6.0*	*8.3*	*22.7*	*-13.4*	*25.6*	*1.5*		
InvMetrics Public DB ex-US Eq Gross Rank			*24*	*22*	*22*	*64*	*30*	*22*	*28*	*44*	*90*	*89*		
International Equity	**1,132,617,535**	**11.1**	**14.2**	**19.0**	**9.3**	**10.6**	**7.3**	**19.0**	**27.0**	**-13.6**	**25.3**	**1.2**		
MSCI ACWI ex USA Gross			*17.1*	*11.1*	*5.4*	*9.4*	*5.4*	*11.1*	*22.1*	*-13.8*	*27.8*	*5.0*		
InvMetrics Public DB ex-US Eq Gross Rank			*96*	*12*	*9*	*27*	*15*	*12*	*7*	*21*	*93*	*89*		
Pyrford	508,279,141	5.0	11.3	4.7	4.7	7.3	--	4.7	22.1	-10.1	19.8	3.4	4.5	May-14
MSCI ACWI ex USA Value			*20.4*	*-0.8*	*-0.4*	*5.7*	*--*	*-0.8*	*15.7*	*-14.0*	*22.7*	*8.9*	*1.4*	*May-14*
eV ACWI ex-US Value Equity Gross Rank			*97*	*33*	*16*	*48*	*--*	*33*	*35*	*5*	*84*	*74*		
William Blair	624,338,394	6.1	16.6	33.3	13.5	13.6	9.4	33.3	32.0	-16.8	30.9	-1.4	9.5	Oct-10
MSCI ACWI ex USA Growth			*13.9*	*22.2*	*10.0*	*12.0*	*6.9*	*22.2*	*27.3*	*-14.4*	*32.0*	*0.1*	*7.3*	*Oct-10*
eV ACWI ex-US Growth Equity Gross Rank			*39*	*30*	*36*	*57*	*50*	*30*	*39*	*69*	*81*	*55*		
Emerging Markets Equity	**808,178,931**	**7.9**	**25.2**	**11.4**	**4.0**	**--**	**--**	**11.4**	**19.4**	**-15.3**	**--**	**--**		
MSCI Emerging Markets			*19.7*	*18.3*	*6.2*	*--*	*--*	*18.3*	*18.4*	*-14.6*	*--*	*--*		
InvMetrics Public DB Emg Mkt Eq Gross Rank			*8*	*81*	*64*	*--*	*--*	*81*	*31*	*51*	*--*	*--*		
PIMCO RAE Emerging Markets	375,063,168	3.7	26.5	2.1	0.9	--	--	2.1	14.6	-12.3	--	--	4.9	Feb-17
MSCI Emerging Markets Value NR			*23.0*	*5.5*	*1.8*	*--*	*--*	*5.5*	*12.0*	*-10.7*	*--*	*--*	*5.9*	*Feb-17*
eV Emg Mkts All Cap Value Equity Gross Rank			*29*	*85*	*79*	*--*	*--*	*85*	*72*	*44*	*--*	*--*		
TT Emerging Markets	433,115,763	4.3	24.1	20.8	7.1	--	--	20.8	24.8	-18.4	--	--	9.9	Jul-17
MSCI Emerging Markets			*19.7*	*18.3*	*6.2*	*--*	*--*	*18.3*	*18.4*	*-14.6*	*--*	*--*	*8.2*	*Jul-17*
eV Emg Mkts Equity Gross Rank			*18*	*39*	*42*	*--*	*--*	*39*	*24*	*83*	*--*	*--*		
Total Global Equity	**1,084,011,804**	**10.7**	**10.8**	**25.3**	**14.2**	**14.7**	**10.7**	**25.3**	**28.9**	**-7.8**	**23.7**	**7.6**		
MSCI ACWI			*14.7*	*16.3*	*10.1*	*12.3*	*9.1*	*16.3*	*26.6*	*-9.4*	*24.0*	*7.9*		
InvMetrics Public DB Glbl Eq Gross Rank			*90*	*3*	*1*	*1*	*3*	*3*	*3*	*60*	*79*	*40*		
Artisan Partners	598,791,259	5.9	10.8	41.7	21.3	20.2	--	41.7	37.0	-7.9	32.9	5.6	16.9	Oct-12
MSCI ACWI			*14.7*	*16.3*	*10.1*	*12.3*	*--*	*16.3*	*26.6*	*-9.4*	*24.0*	*7.9*	*10.6*	*Oct-12*
eV All Global Equity Gross Rank			*82*	*8*	*7*	*6*	*--*	*8*	*7*	*40*	*11*	*61*		
First Eagle	485,083,633	4.8	10.9	8.5	6.6	9.3	--	8.5	21.0	-7.6	15.1	11.7	8.4	Jan-11
MSCI ACWI			*14.7*	*16.3*	*10.1*	*12.3*	*--*	*16.3*	*26.6*	*-9.4*	*24.0*	*7.9*	*9.1*	*Jan-11*
eV All Global Equity Gross Rank			*81*	*70*	*69*	*74*	*--*	*70*	*82*	*38*	*89*	*19*		

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

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Private Credit	**744,654,491**	**7.3**	**2.7**	**4.0**	**6.6**	**7.7**	**11.5**	**4.0**	**7.7**	**8.3**	**10.4**	**8.2**		
ICE BofAML High Yield Master II+2%			*7.0*	*8.3*	*8.0*	*10.6*	*8.8*	*8.3*	*16.7*	*-0.3*	*9.6*	*19.8*		
Total High Yield	**177,037,759**	**1.7**	**5.4**	**5.1**	**5.7**	**7.5**	**6.4**	**5.1**	**16.0**	**-3.2**	**6.5**	**14.3**		
ICE BofAML High Yield Master II			*6.5*	*6.2*	*5.9*	*8.4*	*6.6*	*6.2*	*14.4*	*-2.3*	*7.5*	*17.5*		
eV US High Yield Fixed Inc Gross Rank			*65*	*75*	*69*	*64*	*76*	*75*	*15*	*88*	*74*	*47*		
Allianz Global Investors	177,037,759	1.7	5.4	5.1	5.7	7.5	6.4	5.1	16.0	-3.2	6.5	14.3	7.0	Apr-00
ICE BofAML High Yield Master II			*6.5*	*6.2*	*5.9*	*8.4*	*6.6*	*6.2*	*14.4*	*-2.3*	*7.5*	*17.5*	*7.1*	*Apr-00*
eV US High Yield Fixed Inc Gross Rank			*65*	*75*	*69*	*64*	*76*	*75*	*15*	*88*	*74*	*47*		
Total Real Estate	**674,212,459**	**6.6**	**2.4**	**-5.9**	**3.0**	**5.1**	**9.6**	**-5.9**	**8.1**	**7.4**	**11.1**	**5.5**		
Real Estate Benchmark			*2.3*	*0.6*	*4.9*	*5.7*	*8.9*	*0.6*	*7.5*	*6.8*	*7.1*	*6.7*		
NCREIF-ODCE			*1.3*	*1.2*	*4.9*	*6.2*	*9.9*	*1.2*	*5.3*	*8.3*	*7.6*	*8.8*		
NCREIF Property Index			*1.2*	*1.6*	*4.9*	*5.9*	*9.0*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*		
Adelante	76,519,958	0.8	11.0	-4.6	5.1	5.4	9.3	-4.6	28.2	-5.0	7.8	4.1	9.9	Sep-01
Wilshire REIT			*10.6*	*-7.9*	*3.3*	*4.3*	*8.3*	*-7.9*	*25.8*	*-4.8*	*4.2*	*7.2*	*9.4*	*Sep-01*
Private Equity	**1,040,644,401**	**10.2**	**7.6**	**8.7**	**9.7**	**10.1**	**11.8**	**8.7**	**8.4**	**12.1**	**11.9**	**9.4**		
S&P 500 Index +4% (Lagged)			*10.0*	*19.7*	*16.7*	*18.7*	*18.2*	*19.7*	*8.4*	*22.6*	*23.3*	*20.0*		
Risk Parity	**503,777,206**	**5.0**	**8.6**	**10.0**	**--**	**--**	**--**	**10.0**	**--**	**--**	**--**	**--**		
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			*10.1*	*14.0*	*--*	*--*	*--*	*14.0*	*--*	*--*	*--*	*--*		
AQR Global Risk Premium-EL	250,241,057	2.5	7.5	6.2	--	--	--	6.2	--	--	--	--	12.3	Jan-19
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			*10.1*	*14.0*	*--*	*--*	*--*	*14.0*	*--*	*--*	*--*	*--*	*16.3*	*Jan-19*
PanAgora Risk Parity Multi Asset	253,536,149	2.5	9.7	14.0	--	--	--	14.0	--	--	--	--	15.1	Feb-19
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			*10.1*	*14.0*	*--*	*--*	*--*	*14.0*	*--*	*--*	*--*	*--*	*13.7*	*Feb-19*

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

Performance Summary (Gross of Fees)

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Diversifying	**507,514,285**	**5.0**	**1.3**	**-1.3**	**1.2**	**1.5**	**1.9**	**-1.3**	**7.1**	**-2.0**	**2.8**	**1.3**		
Custom Diversifying Benchmark			*0.9*	*4.7*	*4.0*	*4.2*	*3.9*	*4.7*	*6.1*	*1.4*	*4.7*	*4.1*		
Diversifying Fixed Income	**271,646,014**	**2.7**	**0.2**	**1.6**	**2.8**	**2.8**	**3.2**	**1.6**	**8.6**	**-1.7**	**2.8**	**2.8**		
eV US Core Fixed Inc Gross Rank			*97*	*99*	*99*	*99*	*99*	*99*	*80*	*99*	*96*	*72*		
AFL-CIO	271,523,975	2.7	0.2	6.6	5.1	4.3	4.0	6.6	8.2	0.6	3.6	2.4	6.2	Jun-91
BBgBarc US Aggregate TR			*0.7*	*7.5*	*5.3*	*4.4*	*3.8*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*	*5.8*	*Jun-91*
eV US Core Fixed Inc Gross Rank			*97*	*96*	*95*	*93*	*86*	*96*	*88*	*16*	*76*	*87*		
Diversifying Equity	**108,277,204**	**1.1**	**2.7**	**-8.9**	**--**	**--**	**--**	**-8.9**	**3.3**	**--**	**--**	**--**		
Parametric Defensive Equity	108,277,204	1.1	2.7	-8.9	--	--	--	-8.9	3.3	--	--	--	-3.4	Jul-18
91 Day T-Bill +4%			*1.0*	*4.5*	*--*	*--*	*--*	*4.5*	*6.1*	*--*	*--*	*--*	*5.4*	*Jul-18*
Diversifying Multi-Asset	**127,591,067**	**1.3**	**2.5**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**		
FTSE 3-Month T-bill +5%			*1.3*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*		
Acadian Multi-Asset Absolute Return Fund	127,591,067	1.3	2.5	--	--	--	--	--	--	--	--	--	1.8	Aug-20
FTSE 3-Month T-bill +5%			*1.3*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*2.1*	*Aug-20*
Liquidity	**2,095,075,389**	**20.6**	**0.4**	**3.5**	**3.4**	**--**	**--**	**3.5**	**4.9**	**1.8**	**1.5**	**--**		
BBgBarc US Govt/Credit 1-3 Yr. TR			*0.2*	*3.3*	*3.0*	*--*	*--*	*3.3*	*4.0*	*1.6*	*0.8*	*--*		
eV US Short Duration Fixed Inc Gross Rank			*54*	*77*	*51*	*--*	*--*	*77*	*34*	*24*	*50*	*--*		
DFA Short Credit	426,576,384	4.2	0.5	2.9	3.1	--	--	2.9	5.2	1.2	1.9	--	2.8	Nov-16
ICE BofA 1-5 Yrs US Corp & Govt TR			*0.4*	*4.6*	*3.7*	*--*	*--*	*4.6*	*5.1*	*1.4*	*1.3*	*--*	*3.0*	*Nov-16*
eV US Short Duration Fixed Inc Gross Rank			*45*	*90*	*78*	*--*	*--*	*90*	*21*	*93*	*26*	*--*		
Insight Short Duration	1,069,317,369	10.5	0.6	3.2	3.2	--	--	3.2	4.7	1.7	1.5	--	2.7	Nov-16
BBgBarc US Govt/Credit 1-3 Yr. TR			*0.2*	*3.3*	*3.0*	*--*	*--*	*3.3*	*4.0*	*1.6*	*0.8*	*--*	*2.4*	*Nov-16*
eV US Short Duration Fixed Inc Gross Rank			*35*	*86*	*72*	*--*	*--*	*86*	*45*	*38*	*50*	*--*		
Sit Short Duration	599,181,635	5.9	0.0	4.6	4.0	--	--	4.6	4.9	2.5	1.3	--	3.2	Nov-16
BBgBarc US Govt 1-3 Yr TR			*0.1*	*3.1*	*2.8*	*--*	*--*	*3.1*	*3.6*	*1.6*	*0.4*	*--*	*2.1*	*Nov-16*
eV US Short Duration Fixed Inc Gross Rank			*99*	*25*	*16*	*--*	*--*	*25*	*35*	*1*	*68*	*--*		
Total Cash	**208,094,687**	**2.0**	**0.2**	**1.3**	**2.1**	**1.6**	**3.1**	**1.3**	**3.3**	**1.7**	**0.9**	**0.9**		
91 Day T-Bills			*0.0*	*0.5*	*1.5*	*1.1*	*0.6*	*0.5*	*2.1*	*1.9*	*0.9*	*0.3*		
Cash	208,073,614	2.0	0.2	1.3	2.1	1.6	3.2	1.3	3.4	1.7	0.9	0.9		
Northern Trust Transition	21,073	0.0	3.8	104.1	--	--	--	104.1	--	--	--	--		

Individual closed end funds are not shown in performance summary table. Effective 3/1/2019 the custodian of record switched from State Street to Northern Trust. Wellington Real Total Return was liquidated 4/30/2020. $122,039.04 in residual value is reflected in the Diversifying Fixed Income composite. State Street Cash/Tax Reclaims balance of $-28,918 in cash and $223,127 in potential tax reclaims at State Street after assets were transferred to Northern Trust.

Total Fund
Performance Summary (Net of Fees)

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Fund	**10,171,802,463**	**100.0**	**8.2**	**9.2**	**6.8**	**8.2**	**8.1**	**9.2**	**14.6**	**-2.7**	**13.9**	**6.9**		
Policy Index			*8.1*	*10.8*	*7.9*	*9.3*	*8.8*	*10.8*	*14.6*	*-0.9*	*13.7*	*8.9*		
Total Fund ex Overlay & Cash	**9,834,836,901**	**96.7**	**8.2**	**9.4**	**6.9**	**8.3**	**8.2**	**9.4**	**14.4**	**-2.4**	**13.8**	**6.9**		
Policy Index			*8.1*	*10.8*	*7.9*	*9.3*	*8.8*	*10.8*	*14.6*	*-0.9*	*13.7*	*8.9*		
Growth	**7,232,247,227**	**71.1**	**11.3**	**12.0**	**8.4**	**10.2**	**--**	**12.0**	**18.4**	**-3.9**	**18.7**	**7.6**		
Custom Growth Benchmark			*11.7*	*13.8*	*9.9*	*11.8*	*--*	*13.8*	*19.3*	*-2.1*	*19.3*	*10.1*		
Total Domestic Equity	**1,067,112,641**	**10.5**	**19.4**	**21.8**	**12.4**	**14.2**	**13.3**	**21.8**	**26.1**	**-7.6**	**23.5**	**11.1**		
Russell 3000			*14.7*	*20.9*	*14.5*	*15.4*	*13.8*	*20.9*	*31.0*	*-5.2*	*21.1*	*12.7*		
BlackRock Russell 1000 Index	229,775,562	2.3	13.7	20.9	14.8	--	--	20.9	31.4	-4.8	--	--	15.9	Apr-17
Russell 1000			*13.7*	*21.0*	*14.8*	*--*	*--*	*21.0*	*31.4*	*-4.8*	*--*	*--*	*15.9*	*Apr-17*
Jackson Square Partners	243,346,164	2.4	15.9	44.1	21.4	17.0	16.2	44.1	27.3	-2.4	28.7	-4.8	12.1	May-05
Russell 1000 Growth			*11.4*	*38.5*	*23.0*	*21.0*	*17.2*	*38.5*	*36.4*	*-1.5*	*30.2*	*7.1*	*12.8*	*May-05*
Boston Partners	234,795,447	2.3	18.7	2.6	5.0	9.7	11.0	2.6	23.8	-8.9	19.7	14.7	10.1	Jun-95
Russell 1000 Value			*16.3*	*2.8*	*6.1*	*9.7*	*10.5*	*2.8*	*26.5*	*-8.3*	*13.7*	*17.3*	*9.2*	*Jun-95*
Emerald Advisers	194,942,957	1.9	26.0	38.2	16.9	17.5	15.7	38.2	29.4	-10.7	28.0	9.4	14.2	Apr-03
Russell 2000 Growth			*29.6*	*34.6*	*16.2*	*16.4*	*13.5*	*34.6*	*28.5*	*-9.3*	*22.2*	*11.3*	*12.8*	*Apr-03*
Ceredex	164,252,512	1.6	27.0	1.7	1.8	8.6	--	1.7	17.7	-11.8	10.7	29.1	9.7	Nov-11
Russell 2000 Value			*33.4*	*4.6*	*3.7*	*9.7*	*--*	*4.6*	*22.4*	*-12.9*	*7.8*	*31.7*	*10.3*	*Nov-11*
Total International Equity	**1,940,796,466**	**19.1**	**18.4**	**15.2**	**6.6**	**8.8**	**6.2**	**15.2**	**23.2**	**-14.7**	**25.0**	**0.8**		
MSCI ACWI ex USA Gross			*17.1*	*11.1*	*5.4*	*9.4*	*5.4*	*11.1*	*22.1*	*-13.8*	*27.8*	*5.0*		
MSCI EAFE Gross			*16.1*	*8.3*	*4.8*	*8.0*	*6.0*	*8.3*	*22.7*	*-13.4*	*25.6*	*1.5*		
International Equity	**1,132,617,535**	**11.1**	**14.1**	**18.5**	**8.9**	**10.2**	**6.9**	**18.5**	**26.5**	**-13.9**	**24.8**	**0.8**		
MSCI ACWI ex USA Gross			*17.1*	*11.1*	*5.4*	*9.4*	*5.4*	*11.1*	*22.1*	*-13.8*	*27.8*	*5.0*		
Pyrford	508,279,141	5.0	11.2	4.2	4.3	6.9	--	4.2	21.6	-10.5	19.3	3.0	4.1	May-14
MSCI ACWI ex USA Value			*20.4*	*-0.8*	*-0.4*	*5.7*	*--*	*-0.8*	*15.7*	*-14.0*	*22.7*	*8.9*	*1.4*	*May-14*
William Blair	624,338,394	6.1	16.5	32.8	13.1	13.1	8.9	32.8	31.5	-17.1	30.4	-1.8	9.1	Oct-10
MSCI ACWI ex USA Growth			*13.9*	*22.2*	*10.0*	*12.0*	*6.9*	*22.2*	*27.3*	*-14.4*	*32.0*	*0.1*	*7.3*	*Oct-10*
Emerging Markets Equity	**808,178,931**	**7.9**	**25.0**	**10.7**	**3.5**	**--**	**--**	**10.7**	**18.7**	**-15.7**	**--**	**--**		
MSCI Emerging Markets			*19.7*	*18.3*	*6.2*	*--*	*--*	*18.3*	*18.4*	*-14.6*	*--*	*--*		
PIMCO RAE Emerging Markets	375,063,168	3.7	26.3	1.6	0.4	--	--	1.6	14.0	-12.6	--	--	4.3	Feb-17
MSCI Emerging Markets Value NR			*23.0*	*5.5*	*1.8*	*--*	*--*	*5.5*	*12.0*	*-10.7*	*--*	*--*	*5.9*	*Feb-17*
TT Emerging Markets	433,115,763	4.3	23.9	20.0	6.5	--	--	20.0	24.0	-18.9	--	--	9.2	Jul-17
MSCI Emerging Markets			*19.7*	*18.3*	*6.2*	*--*	*--*	*18.3*	*18.4*	*-14.6*	*--*	*--*	*8.2*	*Jul-17*

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

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Global Equity	**1,084,011,804**	**10.7**	**10.6**	**24.4**	**13.3**	**13.8**	**10.0**	**24.4**	**27.9**	**-8.5**	**22.8**	**6.9**		
MSCI ACWI			*14.7*	*16.3*	*10.1*	*12.3*	*9.1*	*16.3*	*26.6*	*-9.4*	*24.0*	*7.9*		
Artisan Partners	598,791,259	5.9	10.6	40.6	20.4	19.3	--	40.6	36.0	-8.6	31.9	4.8	16.0	Oct-12
MSCI ACWI			*14.7*	*16.3*	*10.1*	*12.3*	*--*	*16.3*	*26.6*	*-9.4*	*24.0*	*7.9*	*10.6*	*Oct-12*
First Eagle	485,083,633	4.8	10.7	7.7	5.8	8.5	--	7.7	20.1	-8.3	14.3	10.9	7.6	Jan-11
MSCI ACWI			*14.7*	*16.3*	*10.1*	*12.3*	*--*	*16.3*	*26.6*	*-9.4*	*24.0*	*7.9*	*9.1*	*Jan-11*
Private Credit	**744,654,491**	**7.3**	**2.7**	**4.0**	**6.6**	**7.4**	**10.4**	**4.0**	**7.7**	**8.3**	**10.4**	**6.9**		
ICE BofAML High Yield Master II+2%			*7.0*	*8.3*	*8.0*	*10.6*	*8.8*	*8.3*	*16.7*	*-0.3*	*9.6*	*19.8*		
Total High Yield	**177,037,759**	**1.7**	**5.3**	**4.7**	**5.2**	**7.1**	**6.0**	**4.7**	**15.4**	**-3.6**	**6.1**	**13.9**		
ICE BofAML High Yield Master II			*6.5*	*6.2*	*5.9*	*8.4*	*6.6*	*6.2*	*14.4*	*-2.3*	*7.5*	*17.5*		
Allianz Global Investors	177,037,759	1.7	5.3	4.7	5.2	7.1	5.9	4.7	15.4	-3.6	6.1	13.9	6.6	Apr-00
ICE BofAML High Yield Master II			*6.5*	*6.2*	*5.9*	*8.4*	*6.6*	*6.2*	*14.4*	*-2.3*	*7.5*	*17.5*	*7.1*	*Apr-00*
Total Real Estate	**674,212,459**	**6.6**	**2.4**	**-6.0**	**2.9**	**4.9**	**8.9**	**-6.0**	**8.1**	**7.4**	**11.0**	**4.8**		
Real Estate Benchmark			*2.3*	*0.6*	*4.9*	*5.7*	*8.9*	*0.6*	*7.5*	*6.8*	*7.1*	*6.7*		
NCREIF-ODCE			*1.3*	*1.2*	*4.9*	*6.2*	*9.9*	*1.2*	*5.3*	*8.3*	*7.6*	*8.8*		
NCREIF Property Index			*1.2*	*1.6*	*4.9*	*5.9*	*9.0*	*1.6*	*6.4*	*6.7*	*7.0*	*8.0*		
Adelante	76,519,958	0.8	10.9	-5.2	4.6	4.9	8.7	-5.2	27.5	-5.5	7.2	3.6	9.3	Sep-01
Wilshire REIT			*10.6*	*-7.9*	*3.3*	*4.3*	*8.3*	*-7.9*	*25.8*	*-4.8*	*4.2*	*7.2*	*9.4*	*Sep-01*
Private Equity	**1,040,644,401**	**10.2**	**7.6**	**8.7**	**9.7**	**10.0**	**10.6**	**8.7**	**8.4**	**12.1**	**11.9**	**8.9**		
S&P 500 Index +4% (Lagged)			*10.0*	*19.7*	*16.7*	*18.7*	*18.2*	*19.7*	*8.4*	*22.6*	*23.3*	*20.0*		
Risk Parity	**503,777,206**	**5.0**	**8.5**	**9.6**	**--**	**--**	**--**	**9.6**	**--**	**--**	**--**	**--**		
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			*10.1*	*14.0*	*--*	*--*	*--*	*14.0*	*--*	*--*	*--*	*--*		
AQR Global Risk Premium-EL	250,241,057	2.5	7.4	5.8	--	--	--	5.8	--	--	--	--	11.9	Jan-19
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			*10.1*	*14.0*	*--*	*--*	*--*	*14.0*	*--*	*--*	*--*	*--*	*16.3*	*Jan-19*
PanAgora Risk Parity Multi Asset	253,536,149	2.5	9.6	13.6	--	--	--	13.6	--	--	--	--	14.7	Feb-19
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			*10.1*	*14.0*	*--*	*--*	*--*	*14.0*	*--*	*--*	*--*	*--*	*13.7*	*Feb-19*

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

Performance Summary (Net of Fees)

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Diversifying	**507,514,285**	**5.0**	**1.1**	**-1.7**	**0.9**	**1.2**	**1.6**	**-1.7**	**6.8**	**-2.3**	**2.6**	**0.8**		
Custom Diversifying Benchmark			*0.9*	*4.7*	*4.0*	*4.2*	*3.9*	*4.7*	*6.1*	*1.4*	*4.7*	*4.1*		
Diversifying Fixed Income	**271,646,014**	**2.7**	**0.0**	**1.2**	**2.4**	**2.4**	**2.9**	**1.2**	**8.3**	**-2.0**	**2.6**	**2.3**		
AFL-CIO	271,523,975	2.7	0.0	6.2	4.7	3.8	3.6	6.2	7.8	0.2	3.2	1.9	5.8	Jun-91
BBgBarc US Aggregate TR			*0.7*	*7.5*	*5.3*	*4.4*	*3.8*	*7.5*	*8.7*	*0.0*	*3.5*	*2.6*	*5.8*	*Jun-91*
Diversifying Equity	**108,277,204**	**1.1**	**2.3**	**-9.4**	**--**	**--**	**--**	**-9.4**	**3.0**	**--**	**--**	**--**		
Parametric Defensive Equity	108,277,204	1.1	2.3	-9.4	--	--	--	-9.4	3.0	--	--	--	-3.8	Jul-18
91 Day T-Bill +4%			*1.0*	*4.5*	*--*	*--*	*--*	*4.5*	*6.1*	*--*	*--*	*--*	*5.4*	*Jul-18*
Diversifying Multi-Asset	**127,591,067**	**1.3**	**2.4**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**		
FTSE 3-Month T-bill +5%			*1.3*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*		
Acadian Multi-Asset Absolute Return Fund	127,591,067	1.3	2.4	--	--	--	--	--	--	--	--	--	1.6	Aug-20
FTSE 3-Month T-bill +5%			*1.3*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*2.1*	*Aug-20*
Liquidity	**2,095,075,389**	**20.6**	**0.4**	**3.4**	**3.3**	**--**	**--**	**3.4**	**4.8**	**1.7**	**1.4**	**--**		
BBgBarc US Govt/Credit 1-3 Yr. TR			*0.2*	*3.3*	*3.0*	*--*	*--*	*3.3*	*4.0*	*1.6*	*0.8*	*--*		
DFA Short Credit	426,576,384	4.2	0.5	2.8	3.0	--	--	2.8	5.2	1.1	1.8	--	2.7	Nov-16
ICE BofA 1-5 Yrs US Corp & Govt TR			*0.4*	*4.6*	*3.7*	*--*	*--*	*4.6*	*5.1*	*1.4*	*1.3*	*--*	*3.0*	*Nov-16*
Insight Short Duration	1,069,317,369	10.5	0.6	3.1	3.1	--	--	3.1	4.6	1.7	1.5	--	2.7	Nov-16
BBgBarc US Govt/Credit 1-3 Yr. TR			*0.2*	*3.3*	*3.0*	*--*	*--*	*3.3*	*4.0*	*1.6*	*0.8*	*--*	*2.4*	*Nov-16*
Sit Short Duration	599,181,635	5.9	-0.1	4.4	3.8	--	--	4.4	4.7	2.3	1.1	--	3.1	Nov-16
BBgBarc US Govt 1-3 Yr TR			*0.1*	*3.1*	*2.8*	*--*	*--*	*3.1*	*3.6*	*1.6*	*0.4*	*--*	*2.1*	*Nov-16*
Total Cash	**208,094,687**	**2.0**	**0.2**	**1.3**	**2.1**	**1.6**	**3.1**	**1.3**	**3.3**	**1.7**	**0.9**	**0.9**		
91 Day T-Bills			*0.0*	*0.5*	*1.5*	*1.1*	*0.6*	*0.5*	*2.1*	*1.9*	*0.9*	*0.3*		
Cash	208,073,614	2.0	0.2	1.3	2.1	1.6	3.1	1.3	3.4	1.7	0.9	0.9		
Northern Trust Transition	21,073	0.0	3.8	104.1	--	--	--	104.1	--	--	--	--		

Individual closed end funds are not shown in performance summary table. Effective 3/1/2019 the custodian of record switched from State Street to Northern Trust. Wellington Real Total Return was liquidated 4/30/2020. $122,039.04 in residual value is reflected in the Diversifying Fixed Income composite.

Closing Date	Manager Name/Fund Name	Estimated Market Value as of 12/31/20[1]	Total Commitment	% Called	Contributed Capital	Current Qtr. Change in Contributed Capital	Current Qtr. Change in Distributed Capital	Total Distributions	Remaining Commitment	Distrib./ Paid-In (DPI)[2]	Tot. Value/ Paid-In (TVPI)[3]	Latest Valuation
			StepStone Group Analysis (*)									
Private Credit												
8/31/2015	Angelo Gordon Energy Credit Opp.[4]	$2,465,615	$16,500,000	114%	$18,750,000	$0	$0	$18,829,566	$2,319,783	1.00	1.14	9/30/2020
12/18/2017	Stepstone CC Opportunities Fund	$711,825,537	$1,020,000,000	68%	$690,599,992	$46,557,162	$66	$41,561,970	$370,864,909	0.06	1.09	9/30/2020
7/1/2006	Torchlight II	-$59,952	$128,000,000	171%	$218,263,562	$0	$59,952	$208,623,727	$0	0.96	0.96	9/30/2020
12/12/2008	Torchlight III	-$13,696	$75,000,000	112%	$83,825,058	$0	$13,696	$124,848,870	$0	1.49	1.49	9/30/2020
8/1/2012	Torchlight IV	$9,690,248	$60,000,000	141%	$84,866,971	$0	$0	$104,809,507	$0	1.23	1.35	9/30/2020
3/12/2015	Torchlight V	$20,746,739	$75,000,000	80%	$60,000,000	$0	$0	$55,039,262	$15,000,000	0.92	1.26	9/30/2020
	Total Private Credit	**$744,654,491**										
	% of Portfolio (Market Value)	7.3%										

*All Data provided by StepStone Group
[1]Latest valuation + capital calls - distributions
[2](DPI) is equal to (capital returned / capital called)
[3](TVPI) is equal to (market value + capital returned) / capital called
[4]Capital has been fully called and fund is in redemption.

			Verus Internal Analysis									
Inception Date	Manager Name/Fund Name	Estimated Market Value as of 12/31/2020[1]	Total Commitment	Total % Called	Capital Called	Current Qtr. Capital Called	Current Qtr. Distributions	Total Distributions[8]	Remaining Commitment	Distrib./ Paid-In (DPI)[2]	Tot. Value/ Paid-In (TVPI)[3]	Latest Valuation
Real Estate												
1/23/2012	Angelo Gordon Realty Fund VIII[7]	$19,602,199	$80,000,000	94%	$75,401,855	$0	$0	$98,433,174	$12,334,302	*1.31*	*1.57*	*9/30/2020*
12/8/2014	Angelo Gordon Realty Fund IX	$62,555,495	$65,000,000	93%	$60,125,000	$0	$0	$15,275,000	$7,572,500	*0.25*	*1.29*	*9/30/2020*
6/23/2005	DLJ RECP III	$16,536,501	$75,000,000	134%	$100,709,313 [4]	$0	$0	$69,364,915	$4,031,338	*0.69*	*0.85*	*9/30/2020*
2/11/2008	DLJ RECP IV	$58,577,974	$100,000,000	130%	$129,892,605 [5]	$0	$1,175,942	$90,463,629	$3,162,610	*0.70*	*1.15*	*9/30/2020*
7/1/2014	DLJ RECP V	$41,415,456	$75,000,000	114%	$85,612,038 [6]	$0	$0	$58,913,882	$20,556,753	*0.69*	*1.17*	*9/30/2020*
3/19/2019	DLJ RECP VI	$16,254,417	$50,000,000	51%	$25,335,866	$0	$0	$220,742	$25,050,462	*0.01*	*0.65*	*9/30/2020*
6/17/1998	Hearthstone II[7]	-$48	$25,000,000	80%	$19,932,386	$0	$0	$27,473,662	$0	*1.38*	*1.38*	*9/30/2020*
6/30/2013	Invesco Real Estate III[7]	$167,336	$35,000,000	93%	$32,386,423	$0	$4,920,257	$47,423,062	$2,613,577	*1.46*	*1.47*	*12/31/2020*
6/30/2014	Invesco Real Estate IV[7]	$17,651,734	$35,000,000	87%	$30,546,401	$0	$493,449	$22,353,948	$4,453,599	*0.73*	*1.31*	*9/30/2020*
6/30/2013	Invesco Real Estate V	$43,740,919	$75,000,000	65%	$48,997,669	$4,583,185	$0	$4,723,439	$29,743,834 [9]	*0.10*	*0.99*	*9/30/2020*
7/16/2013	LaSalle Income & Growth VI[7]	$24,364,448	$75,000,000	95%	$71,428,571	$0	$0	$81,401,001	$3,571,429	*1.14*	*1.48*	*9/30/2020*
2/28/2017	LaSalle Income & Growth VII	$54,013,864	$75,000,000	100%	$74,650,531	$2,496,216	$1,706,521	$33,471,843	$349,469	*0.45*	*1.17*	*9/30/2020*
7/3/2013	Long Wharf Fund IV[7]	$1,979,959	$25,000,000	100%	$25,000,000	$0	$735,225	$34,528,873	$0	*1.38*	*1.46*	*12/31/2020*
9/30/2016	Long Wharf Fund V[7]	$36,414,512	$50,000,000	100%	$50,000,000	$0	$3,427,396	$25,476,979	$0	*0.51*	*1.24*	*12/31/2020*
6/27/2019	Long Wharf Fund VI	$10,133,879	$50,000,000	19%	$9,276,511	$2,507,433	$0	$0	$40,723,489	*0.00*	*1.09*	*12/31/2020*
12/31/2011	Oaktree REOF V[7]	$3,474,839	$50,000,000	100%	$50,065,841	$12,113	$320,000	$75,692,733	$5,000,000 [9]	*1.51*	*1.58*	*9/30/2020*
9/30/2013	Oaktree REOF VI[7]	$27,795,386	$80,000,000	100%	$80,000,000	$0	$0	$84,010,175	$18,400,000 [9]	*1.05*	*1.40*	*9/30/2020*
4/1/2015	Oaktree REOF VII	$50,293,904	$65,000,000	96%	$62,400,000	$1,300,000	$2,925,000	$27,040,000	$21,515,000 [9]	*0.43*	*1.24*	*9/30/2020*
11/10/2013	Paulson Real Estate Fund II[7]	$22,310,720	$20,000,000	97%	$19,345,623	$0	$2,902,227	$9,698,417	$654,377	*0.50*	*1.65*	*9/30/2020*
1/25/2012	Siguler Guff DREOF	$27,637,392	$75,000,000	93%	$69,375,000	$0	$15,155	$94,133,401	$5,625,000	*1.36*	*1.76*	*9/30/2020*
8/31/2013	Siguler Guff DREOF II	$45,857,311	$70,000,000	89%	$61,985,000	$0	$25,600	$38,550,019	$8,015,000	*0.62*	*1.36*	*9/30/2020*
1/27/2016	Siguler Guff DREOF II Co-Inv	$16,914,305	$25,000,000	82%	$20,537,862	$0	$0	$10,273,350	$4,462,138	*0.50*	*1.32*	*9/30/2020*
	Total Closed End Real Estate	**$597,692,501**	$1,275,000,000	94%	$1,203,004,496	$10,898,946	$18,646,773	$948,922,245	$217,834,876	*0.79*	*1.29*	
	% of Portfolio (Market Value)	*5.9%*										

[1]Latest valuation + capital calls - distributions
[2](DPI) is equal to (capital returned / capital called)
[3](TVPI) is equal to (market value + capital returned) / capital called
[4]Includes $7,360,987 in management fees charged outside the fund.
[5]Includes $11,322,966 in management fees charged outside the fund.
[6]Includes $986,559 in management fees charged outside the fund.
[7]Capital has been fully called and fund is in redemption.
[8]Total distributions may include recallable distributions
[9]Remianing commitment includes recallable distributions

Closing Date	Manager Name/Fund Name	Estimated Market Value as of 12/31/20[1]	StepStone Group Analysis (*) Total Commitment	Total % Called	Contributed Capital	Current Qtr. Change in Contributed Capital	Current Qtr. Change in Distributed Capital	Total Distributions	Remaining Commitment	Distrib./ Paid-In (DPI)[2]	Tot. Value/ Paid-In (TVPI)[3]	Latest Valuation
Private Equity & Venture Capital												
2/11/2004	Adams Street Partners	$150,088,795	$210,000,000	89%	$187,400,625	$550,000	$9,538,216	$178,958,575	$22,599,375	0.95	1.76	9/30/2020
1/15/2009	Adams Street Partners II	$5,475,271	$30,000,000	95%	$28,365,000	$0	$510,331	$42,951,012	$1,635,000	1.51	1.71	9/30/2020
9/21/2012	Adams Street Partners - Fund 5	$18,754,327	$40,000,000	77%	$30,845,875	$0	$947,372	$19,013,512	$9,154,125	0.62	1.22	9/30/2020
1/18/1996	Adams Street Partners - BPF	$1,764,025	$59,565,614	97%	$57,517,409	$0	$0	$102,731,103	$2,048,205	1.79	1.82	6/30/2020
3/31/2016	Adams Street Venture Innovation	$81,413,636	$75,000,000	74%	$55,537,500	$0	$0	$0	$19,462,500	0.00	1.47	9/30/2020
5/18/2018	AE Industrial Partners Fund II, LP	$17,071,102	$35,000,000	47%	$16,554,769	$1,701,072	$804,335	$804,335	$19,249,566	0.05	1.08	9/30/2020
11/27/2013	Aether Real Assets III	$18,557,689	$25,000,000	98%	$24,407,721	$86,726	$0	$3,913,883	$2,817,919	0.16	0.92	9/30/2020
11/30/2013	Aether Real Assets III Surplus	$45,451,358	$50,000,000	103%	$51,339,959	$148,066	$0	$8,973,151	$1,925,536	0.17	1.06	9/30/2020
1/30/2016	Aether Real Assets IV	$40,124,306	$50,000,000	84%	$42,219,774	$1,117,485	$23,646	$3,474,286	$10,382,683	0.08	1.03	9/30/2020
4/30/2004	Bay Area Equity Fund I[4]	$2,395,696	$10,000,000	100%	$10,000,000	$0	$0	$37,018,019	$0	3.70	3.94	9/30/2020
6/29/2009	Bay Area Equity Fund II[4]	$11,587,512	$10,000,000	100%	$10,000,000	$0	$0	$3,684,910	$0	0.37	1.53	9/30/2020
6/30/2013	Commonfund	$32,957,423	$50,000,000	92%	$45,899,994	$874,999	$187,499	$12,693,451	$4,100,006	0.28	0.99	9/30/2020
7/15/2005	EIF US Power Fund II[4]	$5,148,477	$50,000,000	130%	$65,029,556	$0	$0	$74,001,371	$0	1.14	1.22	9/30/2020
5/31/2007	EIF US Power Fund III[4]	$13,258,474	$65,000,000	110%	$71,409,097	$0	$144,063	$73,782,321	$0	1.03	1.22	9/30/2020
11/28/2011	EIF US Power Fund IV	$37,667,558	$50,000,000	128%	$64,155,474	$0	$0	$31,740,306	$4	0.49	1.08	9/30/2020
11/28/2016	EIF US Power Fund V	$40,749,622	$50,000,000	106%	$52,779,673	$3,122,408	$8,416,062	$23,278,430	$11,444,146	0.44	1.21	9/30/2020
2/21/2019	Genstar Capital Partners IX, L.P.	$22,514,824	$50,000,000	39%	$19,628,275	$558,083	$186,508	$1,166,668	$31,525,882	0.06	1.21	9/30/2020
11/18/2009	Oaktree PIF 2009	$1,186,622	$40,000,000	87%	$34,816,729	$0	$0	$45,799,610	$6,308,961	1.32	1.35	9/30/2020
5/2/2013	Ocean Avenue Fund II	$18,608,390	$30,000,000	90%	$27,000,000	$0	$6,600,000	$22,639,096	$3,000,000	0.84	1.53	6/30/2020
4/15/2016	Ocean Avenue Fund III	$45,724,819	$50,000,000	87%	$43,500,000	$0	$7,500,000	$17,500,000	$6,500,000	0.40	1.45	6/30/2020
11/30/2007	Paladin III	$25,153,606	$25,000,000	137%	$34,331,097	$102,049	$11,116,686	$60,680,169	$374,831	1.77	2.50	9/30/2020
8/22/2011	Pathway 6	$33,732,606	$40,000,000	97%	$38,675,323	$72,000	$2,793,709	$32,744,755	$3,780,282	0.85	1.72	6/30/2020
7/10/2013	Pathway 7	$72,285,121	$70,000,000	96%	$67,322,688	$157,500	$3,088,001	$36,304,737	$6,301,668	0.54	1.61	6/30/2020
11/23/2015	Pathway 8	$54,953,098	$50,000,000	85%	$42,514,381	$98,610	$1,048,086	$8,415,627	$10,132,486	0.20	1.49	6/30/2020
1/19/1999	Pathway	$10,767,061	$125,000,000	100%	$125,399,172	$57,500	$240,071	$178,339,748	$10,660,424	1.42	1.51	6/30/2020
7/31/2009	Pathway 2008	$16,550,490	$30,000,000	98%	$29,488,908	$119,159	$1,625,333	$33,623,568	$3,030,562	1.14	1.70	6/30/2020
6/3/2014	Siguler Guff CCCERA Opportunities	$160,994,198	$200,000,000	85%	$170,583,208	$5,000,000	$41,739,180	$108,170,177	$33,097,500	0.63	1.58	12/31/2020
11/30/2016	Siguler Guff Secondary Opportunities[4]	$13,758	$50,000,000	60%	$29,999,802	$0	$48,207	$42,773,166	$20,000,198	1.43	1.43	6/30/2020
5/18/2018	Siris Partners IV, L.P.	$18,459,239	$35,000,000	56%	$19,483,500	$641,090	$198,938	$198,938	$15,715,438	0.01	0.96	9/30/2020
6/28/2019	TPG Healthcare Partners, L.P.	$4,806,338	$24,000,000	28%	$6,796,104	$2,514,452	$1,088,292	$1,088,292	$18,197,468	-	-	9/30/2020
5/24/2019	Trident VIII, L.P.	$13,213,772	$40,000,000	34%	$13,549,528	$6,554,659	$0	$565,951	$26,912,492	-	-	-
12/8/2015	Wastewater Opportunity Fund	$19,378,947	$25,000,000	100%	$25,022,227	$0	$0	$2,031,922	$0	0.08	0.86	9/30/2020
	Total Private Equity and Venture Capital	**$1,040,788,463**	$1,743,565,614	88%	$1,541,573,367	$23,475,858	$97,844,536	$1,209,061,091	$300,357,256	0.78	1.46	
	% of Portfolio (Market Value)	10.2%										

* All Data provided by StepStone Group
[1]Latest valuation + capital calls - distributions
[2](DPI) is equal to (capital returned / capital called)
[3](TVPI) is equal to (market value + capital returned) / capital called
[4]Capital has been fully called and fund is in redemption.

Private Credit	Inception	Fund Level (G)[2]	CCCERA (G)	Fund Level (N)[2 3]	CCCERA (N)[3]	IRR Date
Angelo Gordon Energy Cred Opp.[4]	09/24/2015	-	-	-	5.9%	09/30/2020
Stepstone CC Opportunities Fund	02/02/2018	-	8.8%	-	7.4%	09/30/2020
Torchlight IV	08/01/2012	12.2%	12.7%	9.8%	10.5%	09/30/2020
Torchlight V	03/12/2015	14.9%	15.0%	10.4%	10.3%	09/30/2020

Real Estate	Inception	Fund Level (G)[2]	CCCERA (G)	Fund Level (N)[2 3]	CCCERA (N)[3]	IRR Date
Angelo Gordon VIII[4]	01/23/2012	-	-	-	13.9%	09/30/2020
Angelo Gordon IX	12/08/2014	-	-	-	8.7%	09/30/2020
DLJ RECP III	06/23/2005	-1.0%	-1.0%	-4.0%	-3.0%	09/30/2020
DLJ RECP IV	02/11/2008	4.0%	4.0%	2.0%	2.0%	09/30/2020
DLJ RECP V	07/01/2014	14.0%	14.0%	7.0%	7.0%	09/30/2020
DLJ RECP VI[1]	03/19/2019	-	-	-	-	-
Hearthstone II[4]	06/17/1998	-	30.1%	-	30.1%	03/31/2020
Invesco Fund III[4]	06/30/2013	16.9%	-	12.9%	-	09/30/2020
Invesco Fund IV[4]	06/30/2014	15.5%	-	11.9%	-	09/30/2020
Invesco Fund V	02/20/2019	7.9%	-	1.1%	-	09/30/2020
LaSalle Income & Growth VI[4]	07/16/2013	13.8%	13.8%	11.4%	11.5%	09/30/2020
LaSalle Income & Growth VII	02/28/2017	9.4%	9.4%	7.5%	7.5%	09/30/2020
Long Wharf IV[4]	07/03/2013	16.6%	16.7%	12.2%	12.2%	09/30/2020
Long Wharf V[4]	09/30/2016	11.2%	11.9%	8.1%	8.6%	09/30/2020
Long Wharf VI	06/27/2019	-0.8%	-0.2%	-19.2%	-4.8%	09/30/2020
Oaktree REOF V[4]	12/31/2011	16.7%	-	12.3%	-	09/30/2020
Oaktree REOF VI[4]	09/30/2013	12.9%	-	8.7%	-	09/30/2020
Oaktree REOF VII	04/01/2015	27.5%	-	16.6%	-	09/30/2020
Paulson[4]	11/10/2013	-	-	13.8%	-	12/31/2019
Siguler Guff I	01/25/2012	13.3%	16.0%	11.7%	12.9%	09/30/2020
Siguler Guff II	08/31/2013	10.7%	10.7%	9.3%	8.5%	09/30/2020
Siguler Guff DREOF II Co-Inv	01/27/2016	9.4%	9.8%	8.4%	7.8%	09/30/2020

[1]Manager has yet to report IRR figure.
[2]Fund level data includes CCCERA and all other fund investors.
[3]Net IRR calculated after deductions of management fees and carried interest to the General Partner.
[4]Capital has been fully called and fund is in redemption.

Private Equity & Venture Capital	Closing Date	Fund Level (G)[2]	CCCERA (G)	Fund Level (N)[2 3]	CCCERA (N)[3]	IRR Date
Adams Street Partners	2/11/2004	-	13.2%	-	10.9%	*9/30/2020*
Adams Street Partners II	12/31/2008	-	17.9%	-	14.2%	*9/30/2020*
Adams Street Partners - Fund 5	12/31/2008	-	8.0%	-	5.4%	*9/30/2020*
Adams Street Partners Venture	1/18/1996	-	28.9%	-	25.3%	*9/30/2020*
Adams Street Partners - BPF	3/31/2016	-	14.3%	-	11.6%	*9/30/2020*
AE Industrial Partners Fund II, LP	5/18/2018	13.9%	-	9.0%	-	*9/30/2020*
Aether Real Assets III	11/27/2013	1.1%	1.1%	-2.2%	-2.2%	*9/30/2020*
Aether Real Assets III Surplus	11/30/2013	3.4%	3.4%	1.5%	1.5%	*9/30/2020*
Aether Real Assets IV	1/30/2016	6.0%	6.0%	1.5%	1.5%	*9/30/2020*
Bay Area Equity Fund I[9]	11/26/2003	31.4%	31.4%	23.1%	23.1%	*9/30/2020*
Bay Area Equity Fund II[9]	11/26/2003	10.7%	10.7%	5.9%	5.9%	*9/30/2020*
CommonFund	6/30/2013	-	-	-	1.5%	*9/30/2020*
Energy Investor Fund II[9]	7/15/2005	6.2%	5.8%	3.5%	3.1%	*9/30/2020*
Energy Investor Fund III[9]	5/31/2007	5.8%	5.9%	3.3%	3.3%	*9/30/2020*
Energy Investor Fund IV	8/31/2010	5.7%	5.8%	2.3%	2.1%	*9/30/2020*
Energy Investor Fund V	11/28/2016	17.7%	14.6%	13.5%	10.6%	*9/30/2020*
Genstar Capital Partners IX, L.P.[1]	2/21/2019	26.4%	-	-	-	-
Oaktree PIF 2009	2/28/2010	6.7%	-	6.5%	-	*9/30/2020*
Ocean Avenue II	8/15/2013	-	-	14.5%	-	*9/30/2020*
Ocean Avenue III	4/15/2016	-	-	20.1%	-	*9/30/2020*
Paladin III	11/30/2007	22.2%	-	15.0%	-	*9/30/2020*
Pathway 6	8/22/2011	17.7%	17.7%	15.4%	15.4%	*9/30/2020*
Benchmark[4]		14.0%	-	-	-	*9/30/2020*
Pathway 7	7/10/2013	18.4%	18.4%	16.2%	16.2%	*9/30/2020*
Benchmark[5]		14.1%	-	-	-	*9/30/2020*
Pathway 8	11/23/2015	21.5%	21.8%	19.8%	20.3%	*9/30/2020*
Benchmark[6]		14.2%	-	-	-	*9/30/2020*
Pathway Private Equity Fund	1/19/1999	10.2%	10.2%	8.4%	8.4%	*9/30/2020*
Benchmark[7]		10.2%	-	-	-	*9/30/2020*
Pathway Private Equity Fund 2008	7/31/2009	15.1%	15.1%	12.7%	12.7%	*9/30/2020*
Benchmark[8]		12.9%	-	-	-	*9/30/2020*
Siguler Guff CCCERA Opportunities	6/3/2014	17.6%	18.2%	17.0%	15.5%	*9/30/2020*
Siguler Guff Secondary Opportunities[9]	8/31/2013	55.3%	118.4%	49.5%	69.0%	*9/30/2020*
Siris Partners IV, L.P.[1]	5/18/2018	-	-	-	-	-
TPG Healthcare Partners, L.P.[1]	6/28/2019	-	-	-	-	-
Trident VIII, L.P.[1]	5/24/2019	-	-	-	-	-
Wastewater Opportunity Fund	12/8/2015	-2.3%	-	-7.7%	-	*9/30/2020*

[1]Manager has yet to report IRR figure.
[2]Fund level data includes CCCERA and all other fund investors.
[3]Net IRR calculated after deductions of management fees and carried interest to the General Partner.
[4]Private iQ global all private equity median pooled return for vintage years 2011-2014, as of June 30, 2020.
[5]Private iQ global all private equity median pooled return for vintage years 2012-2016, as of June 30, 2020.
[6]Private iQ global all private equity median pooled return for vintage years 2015-2018, as of June 30, 2020.
[7]Private iQ global all private equity median pooled return for vintage years 1999-2011, as of June 30, 2020.
[8]Private iQ global all private equity median pooled return for vintage years 2008-2014, as of June 30, 2020.
[9]Capital has been fully called and fund is in redemption.

	3 Years										
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
BlackRock Russell 1000 Index	14.79%	-0.03%	19.36%	-0.03%	1.00	0.02%	1.00	0.69	-2.00	99.87%	100.00%
Jackson Square Partners	21.44%	-1.54%	19.80%	-0.74%	0.96	4.81%	0.94	1.01	-0.32	91.08%	96.53%
Boston Partners	4.99%	-1.07%	21.09%	-1.39%	1.05	2.78%	0.99	0.17	-0.39	101.67%	104.09%
Emerald Advisers	16.87%	0.68%	25.26%	1.20%	0.97	5.66%	0.95	0.61	0.12	99.68%	98.30%
Ceredex	1.83%	-1.89%	24.57%	-1.54%	0.91	5.82%	0.95	0.01	-0.33	83.55%	96.22%
Pyrford	4.28%	4.69%	15.21%	4.57%	0.71	7.43%	0.92	0.18	0.63	75.95%	74.48%
William Blair	13.11%	3.09%	18.32%	2.30%	1.08	3.51%	0.97	0.63	0.88	117.10%	101.25%
PIMCO RAE Emerging Markets	0.41%	-1.36%	23.26%	-1.56%	1.11	4.02%	0.98	-0.05	-0.34	103.71%	104.87%
Artisan Partners	20.44%	10.38%	17.52%	11.44%	0.89	6.33%	0.88	1.08	1.64	122.33%	80.94%
First Eagle	5.83%	-4.23%	14.11%	-1.76%	0.75	5.19%	0.97	0.31	-0.82	60.73%	81.04%
Allianz Global Investors	5.22%	-0.66%	8.39%	0.13%	0.86	2.09%	0.96	0.45	-0.32	88.93%	92.81%
Adelante	4.55%	1.25%	18.23%	1.46%	0.94	1.91%	0.99	0.17	0.66	96.52%	93.89%
AFL-CIO	4.66%	-0.68%	3.08%	0.03%	0.87	0.98%	0.92	1.03	-0.69	83.16%	78.84%

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

	5 Years										
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Jackson Square Partners	17.02%	-3.98%	16.47%	-3.01%	0.95	5.48%	0.89	0.96	-0.73	83.72%	102.83%
Boston Partners	9.70%	-0.04%	17.40%	-0.58%	1.06	2.96%	0.97	0.49	-0.01	103.28%	102.11%
Emerald Advisers	17.46%	1.10%	21.37%	1.59%	0.97	4.92%	0.95	0.76	0.22	99.66%	96.92%
Ceredex	8.58%	-1.07%	20.39%	0.11%	0.88	6.19%	0.93	0.37	-0.17	79.86%	93.71%
Pyrford	6.86%	1.16%	12.88%	2.89%	0.70	6.98%	0.87	0.44	0.17	64.31%	74.64%
William Blair	13.13%	1.15%	15.57%	0.44%	1.06	3.28%	0.96	0.77	0.35	110.53%	102.09%
Total Global Equity	13.83%	1.57%	13.09%	3.47%	0.85	3.78%	0.95	0.97	0.42	90.19%	84.75%
Artisan Partners	19.29%	7.03%	15.34%	7.89%	0.93	6.30%	0.84	1.18	1.12	132.13%	90.03%
First Eagle	8.47%	-3.79%	11.48%	-0.60%	0.74	4.80%	0.94	0.64	-0.79	55.26%	75.88%
Allianz Global Investors	7.08%	-1.36%	7.02%	-0.22%	0.87	1.84%	0.95	0.85	-0.73	84.59%	95.00%
Adelante	4.89%	0.64%	15.91%	0.89%	0.94	1.89%	0.99	0.24	0.34	92.92%	94.44%
AFL-CIO	3.81%	-0.63%	2.84%	-0.01%	0.86	0.94%	0.91	0.94	-0.67	81.07%	79.06%

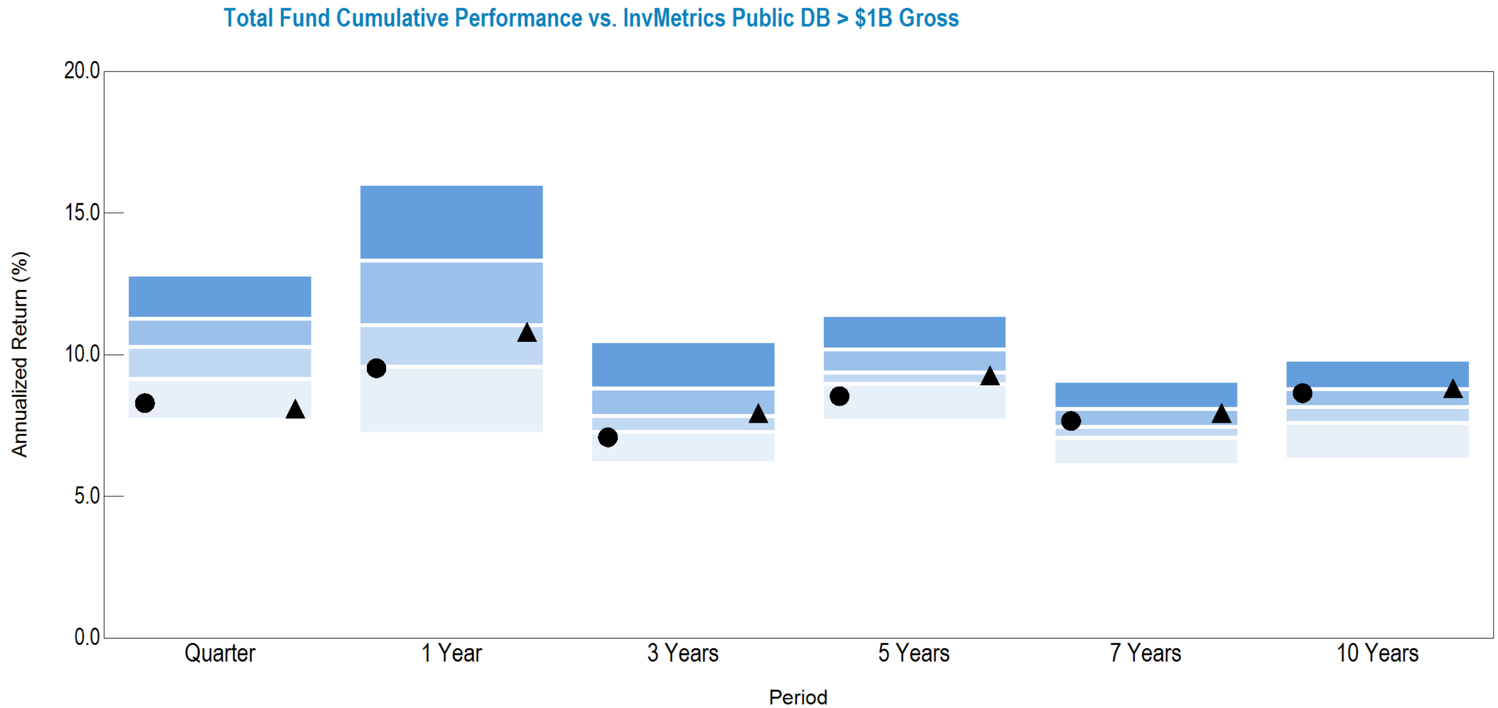
Performance Analysis excludes closed end funds and those funds without 5 years of performance.

Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
BlackRock Russell 1000 Index	Growth	0.03% of Assets	$229,775,562	$68,933	0.03%
Jackson Square Partners	Growth	0.50% of First 100.0 Mil, 0.40% of Next 150.0 Mil, 0.35% Thereafter	$243,346,164	$1,073,385	0.44%
Boston Partners	Growth	0.50% of First 25.0 Mil, 0.30% Thereafter	$234,795,447	$754,386	0.32%
Emerald Advisers	Growth	0.75% of First 10.0 Mil, 0.60% Thereafter	$194,942,957	$1,184,658	0.61%
Ceredex	Growth	0.85% of First 10.0 Mil, 0.68% of Next 40.0 Mil, 0.51% Thereafter	$164,252,512	$939,688	0.57%
Pyrford	Growth	0.70% of First 50.0 Mil, 0.50% of Next 50.0 Mil, 0.35% Thereafter	$508,279,141	$2,028,977	0.40%
William Blair	Growth	0.80% of First 20.0 Mil, 0.60% of Next 30.0 Mil, 0.50% of Next 50.0 Mil, 0.45% of Next 50.0 Mil, 0.40% of Next 50.0 Mil, 0.30% Thereafter	$624,338,394	$2,288,015	0.37%
PIMCO RAE Emerging Markets	Growth	0.75% of First 50.0 Mil, 0.68% of Next 50.0 Mil, 0.50% of Next 100.0 Mil, 0.45% Thereafter	$375,063,168	$2,000,284	0.53%
TT Emerging Markets	Growth	0.70% of First 100.0 Mil, 0.65% of Next 100.0 Mil, 0.60% Thereafter	$433,115,763	$2,748,695	0.63%
Artisan Partners	Growth	0.75% of Assets	$598,791,259	$4,490,934	0.75%
First Eagle	Growth	0.75% of Assets	$485,083,633	$3,638,127	0.75%
Allianz Global Investors	Growth	0.50% of First 50.0 Mil, 0.40% of Next 50.0 Mil, 0.35% Thereafter	$177,037,759	$719,632	0.41%
AQR Global Risk Premium-EL	Growth	0.38% of Assets	$250,241,057	$950,916	0.38%

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

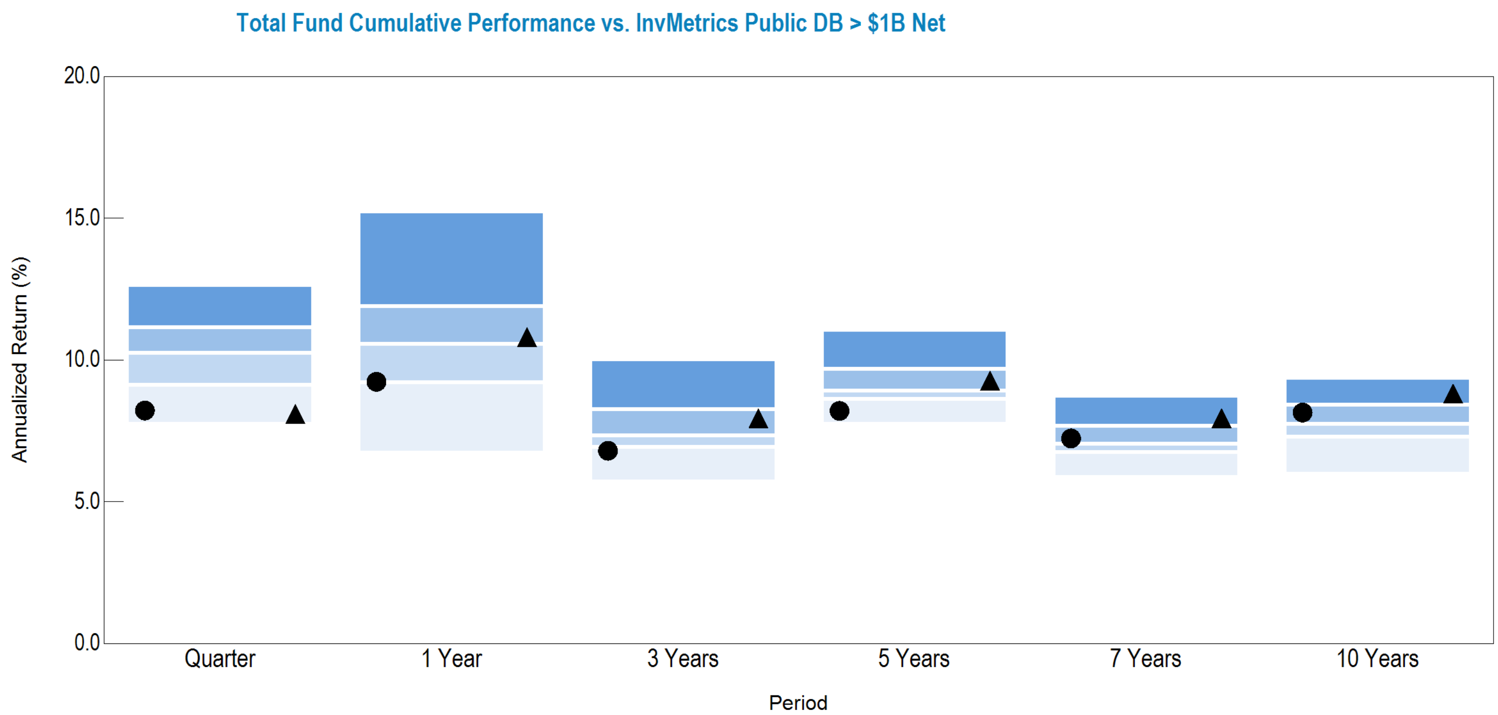
Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
PanAgora Risk Parity Multi Asset	Growth	0.35% of Assets	$253,536,149	$887,377	0.35%
AFL-CIO	Diversifying	0.43% of Assets	$271,523,975	$1,167,553	0.43%
Parametric Defensive Equity	Diversifying	0.42% of First 200.0 Mil, 0.39% Thereafter	$108,277,204	$454,764	0.42%
Acadian Multi-Asset Absolute Return Fund	Diversifying	0.50% of Assets	$127,591,067	$637,955	0.50%
DFA Short Credit	Liquidity	0.20% of First 25.0 Mil, 0.10% Thereafter	$426,576,384	$451,576	0.11%
Insight Short Duration	Liquidity	0.06% of First 500.0 Mil, 0.05% of Next 500.0 Mil, 0.04% Thereafter	$1,069,317,369	$577,727	0.05%

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

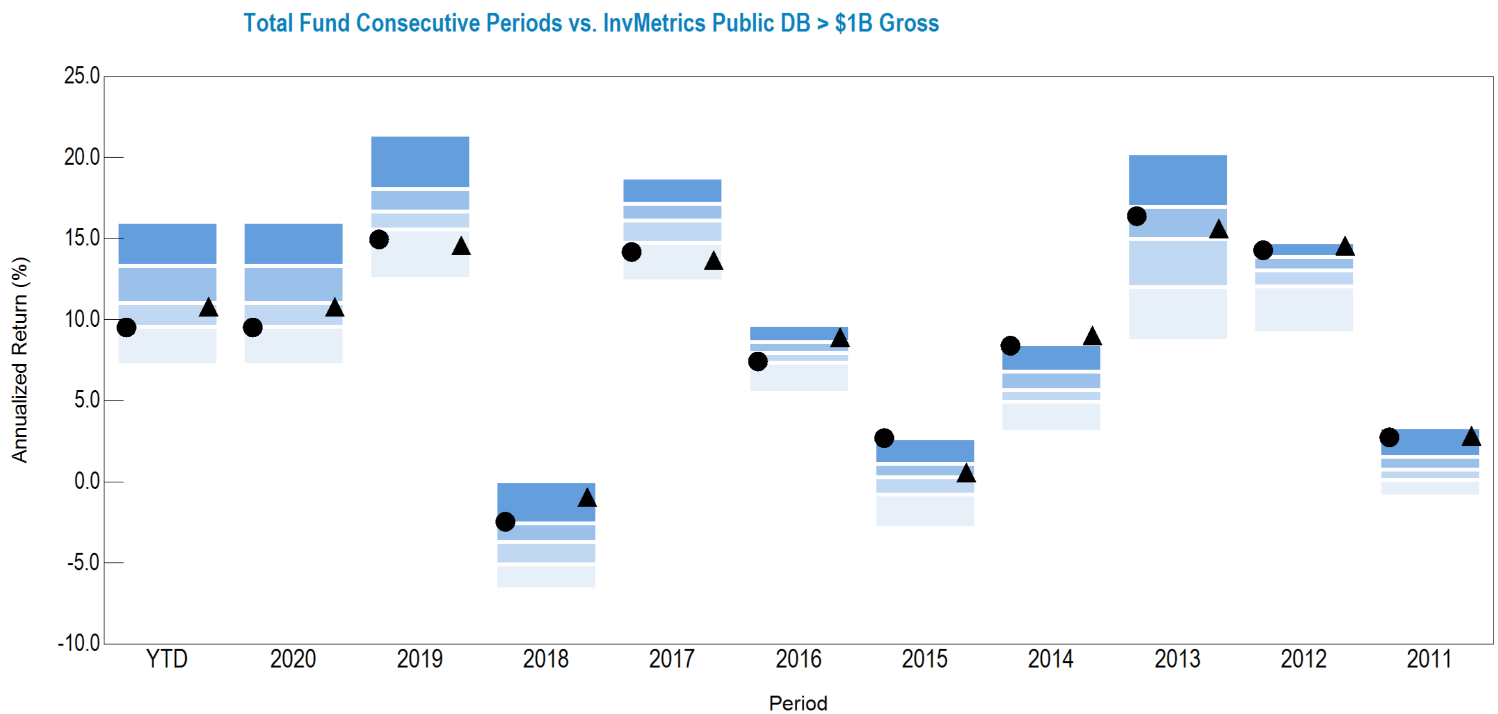


Return (Rank)	Quarter		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	12.8		16.0		10.5		11.4		9.1		9.8	
25th Percentile	11.3		13.3		8.8		10.2		8.1		8.8	
Median	10.3		11.1		7.8		9.4		7.5		8.2	
75th Percentile	9.2		9.6		7.3		9.0		7.1		7.6	
95th Percentile	7.7		7.2		6.2		7.7		6.1		6.3	
# of Portfolios	67		67		67		67		65		63	
● Total Fund	8.3	(89)	9.5	(79)	7.1	(80)	8.5	(88)	7.7	(41)	8.6	(33)
▲ Policy Index	8.1	(93)	10.8	(56)	7.9	(49)	9.3	(56)	7.9	(34)	8.8	(24)

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

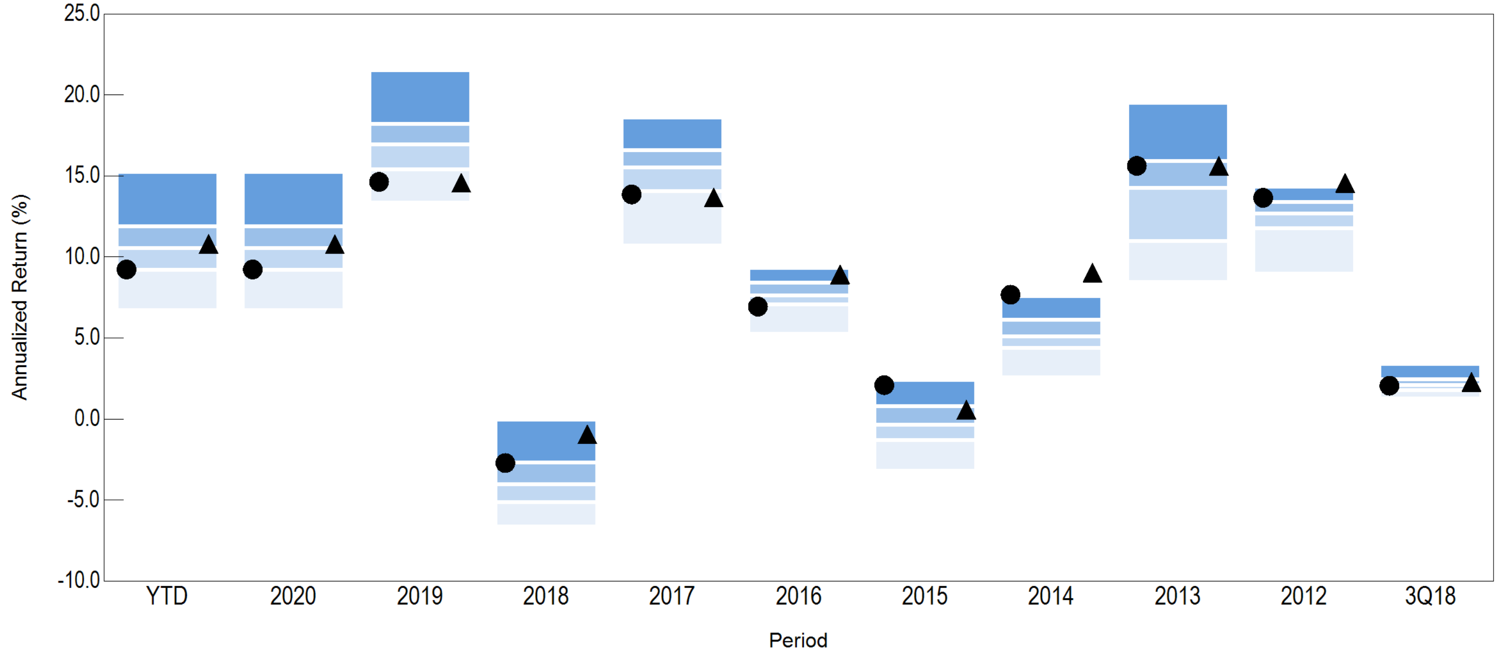


	Return (Rank)											
5th Percentile	12.6		15.2		10.0		11.1		8.7		9.4	
25th Percentile	11.2		11.9		8.3		9.7		7.7		8.4	
Median	10.3		10.6		7.4		8.9		7.1		7.8	
75th Percentile	9.1		9.2		6.9		8.6		6.8		7.3	
95th Percentile	7.8		6.8		5.7		7.8		5.9		6.0	
# of Portfolios	61		61		61		61		58		55	
● Total Fund	8.2	(89)	9.2	(76)	6.8	(80)	8.2	(89)	7.2	(40)	8.1	(32)
▲ Policy Index	8.1	(92)	10.8	(45)	7.9	(34)	9.3	(38)	7.9	(17)	8.8	(14)



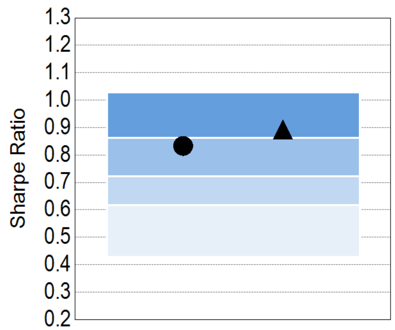
Return (Rank)	YTD		2020		2019		2018		2017		2016		2015		2014		2013		2012		2011	
5th Percentile	16.0		16.0		21.4		0.0		18.8		9.7		2.7		8.5		20.2		14.7		3.3	
25th Percentile	13.3		13.3		18.1		-2.6		17.2		8.6		1.1		6.8		17.0		13.9		1.6	
Median	11.1		11.1		16.7		-3.7		16.2		8.0		0.3		5.7		15.0		13.0		0.8	
75th Percentile	9.6		9.6		15.6		-5.1		14.8		7.4		-0.7		4.9		12.0		12.1		0.1	
95th Percentile	7.2		7.2		12.5		-6.6		12.4		5.5		-2.8		3.1		8.7		9.2		-0.9	
# of Portfolios	67		67		81		71		98		92		98		79		67		74		68	
● Total Fund	9.5	(79)	9.5	(79)	15.0	(83)	-2.5	(25)	14.2	(83)	7.4	(74)	2.7	(5)	8.4	(6)	16.4	(33)	14.3	(13)	2.7	(9)
▲ Policy Index	10.8	(56)	10.8	(56)	14.6	(87)	-0.9	(8)	13.7	(89)	8.9	(15)	0.6	(40)	9.0	(2)	15.6	(43)	14.6	(8)	2.8	(9)

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



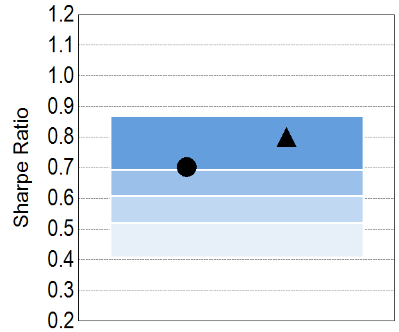
Return (Rank)	YTD		2020		2019		2018		2017		2016		2015		2014		2013		2012		3Q18	
5th Percentile	15.2		15.2		21.5		-0.1		18.6		9.3		2.4		7.6		19.5		14.3		3.4	
25th Percentile	11.9		11.9		18.2		-2.7		16.6		8.4		0.8		6.1		16.0		13.4		2.5	
Median	10.6		10.6		17.0		-4.0		15.6		7.7		-0.4		5.1		14.3		12.7		2.1	
75th Percentile	9.2		9.2		15.4		-5.1		14.1		7.1		-1.3		4.4		11.0		11.8		1.8	
95th Percentile	6.8		6.8		13.4		-6.6		10.7		5.3		-3.2		2.6		8.5		9.0		1.3	
# of Portfolios	61		61		69		63		61		62		57		55		48		44		63	
● Total Fund	9.2	(76)	9.2	(76)	14.6	(92)	-2.7	(27)	13.9	(81)	6.9	(78)	2.1	(12)	7.7	(5)	15.6	(33)	13.6	(21)	2.1	(54)
▲ Policy Index	10.8	(45)	10.8	(45)	14.6	(92)	-0.9	(8)	13.7	(85)	8.9	(13)	0.6	(29)	9.0	(2)	15.6	(33)	14.6	(1)	2.3	(39)

Sharpe Ratio 1 Year



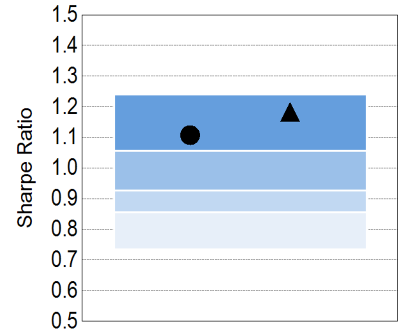
● Total Fund	
Value	0.8
Rank	32
▲ Policy Index	
Value	0.9
Rank	17
Universe	
5th %tile	1.0
25th %tile	0.9
Median	0.7
75th %tile	0.6
95th %tile	0.4

Sharpe Ratio 3 Year



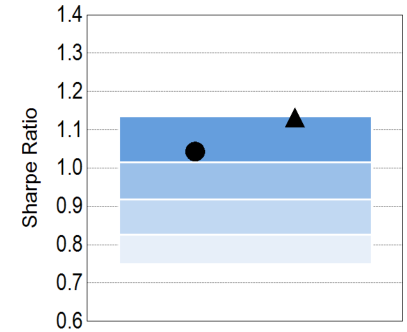
● Total Fund	
Value	0.7
Rank	25
▲ Policy Index	
Value	0.8
Rank	12
Universe	
5th %tile	0.9
25th %tile	0.7
Median	0.6
75th %tile	0.5
95th %tile	0.4

Sharpe Ratio 5 Year



● Total Fund	
Value	1.1
Rank	20
▲ Policy Index	
Value	1.2
Rank	11
Universe	
5th %tile	1.2
25th %tile	1.1
Median	0.9
75th %tile	0.9
95th %tile	0.7

Sharpe Ratio 10 Year



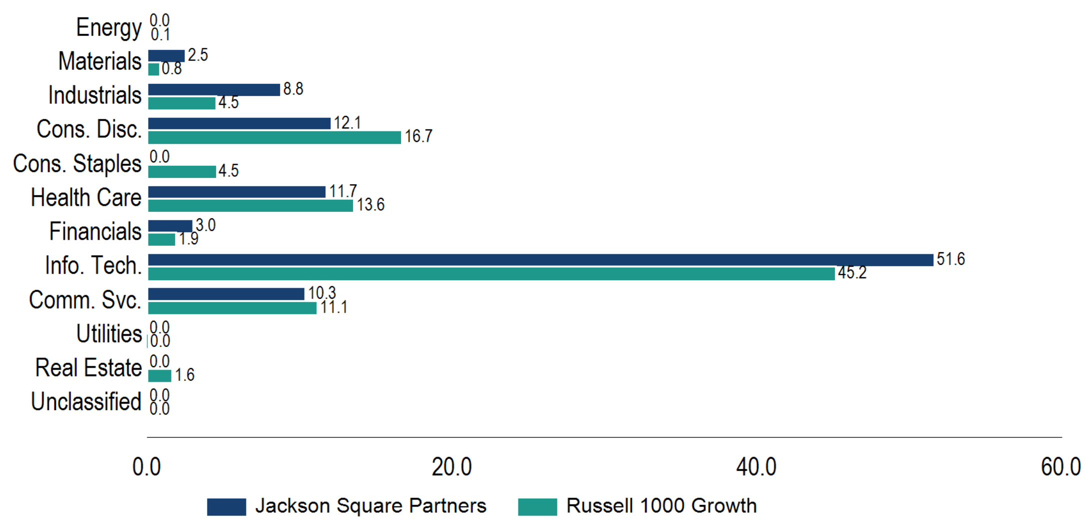
● Total Fund	
Value	1.0
Rank	20
▲ Policy Index	
Value	1.1
Rank	6
Universe	
5th %tile	1.1
25th %tile	1.0
Median	0.9
75th %tile	0.8
95th %tile	0.8

Domestic Equity Managers

Domestic equity large cap growth portfolio concentrated in companies with sustainable long-term growth characteristics. Primary personnel include Jeffrey Van Harte, Christopher Bonavico, Christopher Ericksen, and Daniel Prislin.

	Portfolio	1000 Growth
Number of Holdings	28	453
Weighted Avg. Market Cap. ($B)	380.37	713.18
Median Market Cap. ($B)	94.25	16.70
Price To Earnings	59.31	40.02
Price To Book	11.67	12.08
Price To Sales	8.60	5.88
Return on Equity (%)	17.87	36.33
Yield (%)	0.33	0.79
Beta	0.94	1.00

Sector Allocation (%) vs Russell 1000 Growth



Largest Holdings

	End Weight	Return
MICROSOFT CORP	7.87	6.03
AMAZON.COM INC	5.87	3.44
UBER TECHNOLOGIES INC	5.81	39.80
VISA INC	5.61	9.55
TWILIO INC	5.12	37.00
PAYPAL HOLDINGS INC	4.60	18.87
CHARTER COMMUNICATIONS INC	4.40	5.96
MASTERCARD INC	4.35	5.67
SERVICENOW INC	4.33	13.49
PAYCOM SOFTWARE INC	3.75	45.28

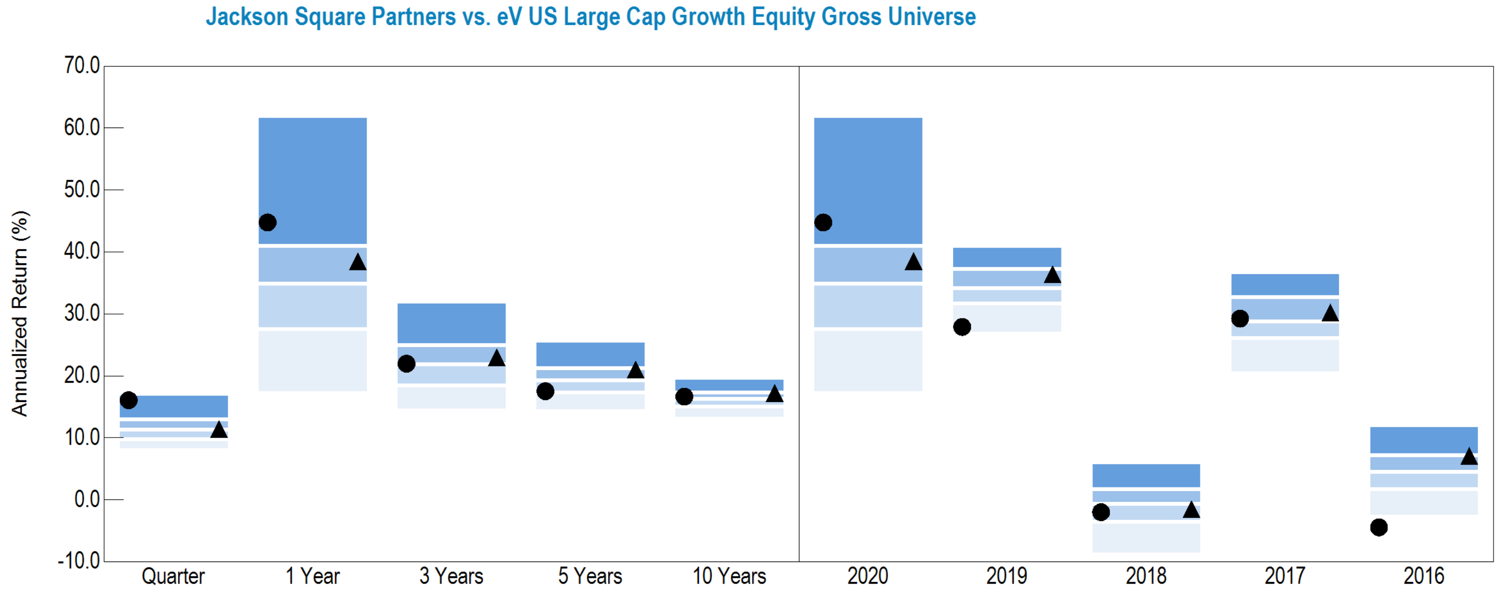
Top Contributors

	Avg Wgt	Return	Contribution
UBER TECHNOLOGIES INC	1.59	39.80	0.63
TWILIO INC	1.47	37.00	0.54
PAYCOM SOFTWARE INC	1.06	45.28	0.48
AUTODESK INC.	1.05	32.18	0.34
PAYPAL HOLDINGS INC	1.48	18.87	0.28
COUPA SOFTWARE INC	0.97	23.58	0.23
SERVICENOW INC	1.54	13.49	0.21
ALPHABET INC	1.03	19.59	0.20
STARBUCKS CORP	0.79	25.11	0.20
KKR & CO INC	1.03	18.33	0.19

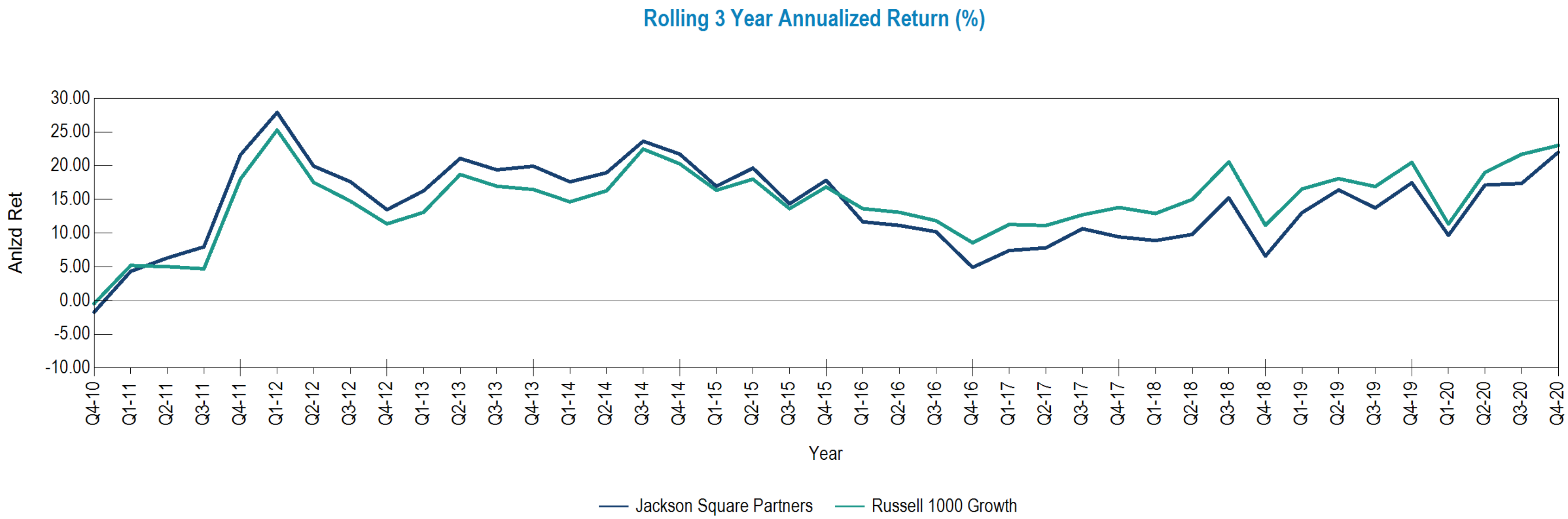
Bottom Contributors

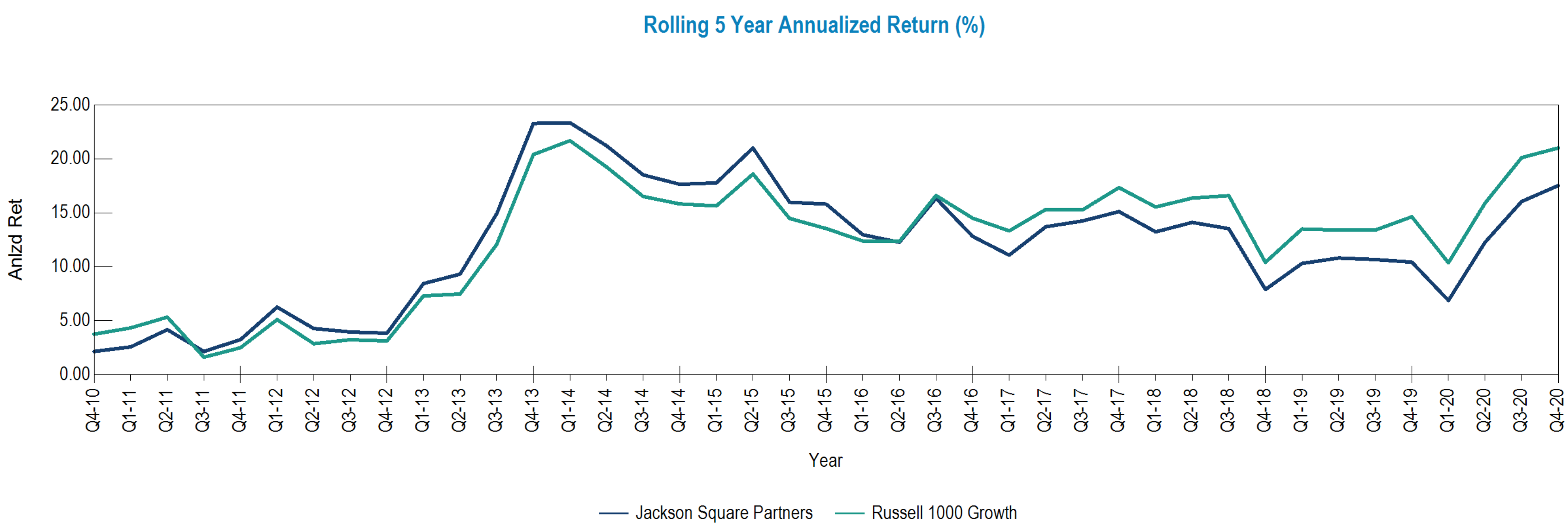
	Avg Wgt	Return	Contribution
WIX.COM LTD	0.65	-1.92	-0.01
ADOBE INC	0.81	1.98	0.02
WASTE MANAGEMENT INC.	1.09	4.69	0.05
AMAZON.COM INC	2.19	3.44	0.08
NETFLIX INC	1.05	8.14	0.09
MASTERCARD INC	1.58	5.67	0.09
CHARTER COMMUNICATIONS INC	1.60	5.96	0.10
BALL CORP	0.97	12.28	0.12
META FINANCIAL GRP INC	0.13	90.49	0.12
IQVIA HOLDINGS INC	1.02	13.67	0.14

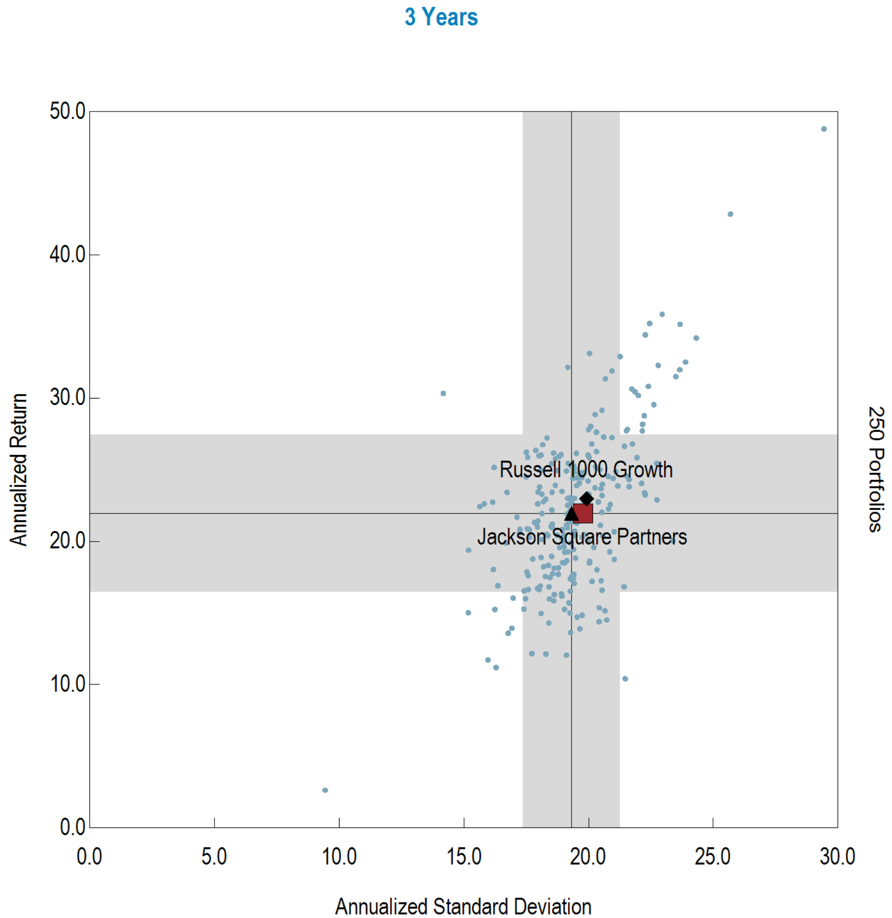
Unclassified sector allocation includes cash allocations.

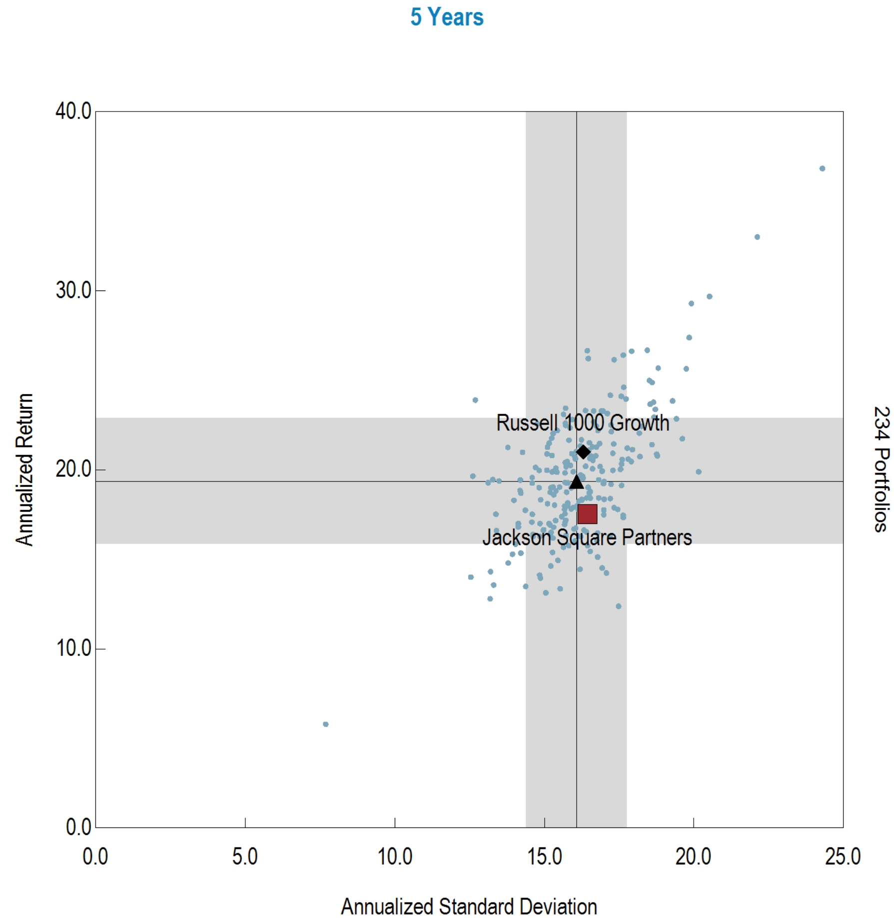


	Return (Rank)																			
5th Percentile	17.1		61.9		32.0		25.7		19.6		61.9		41.0		6.1		36.7		12.0	
25th Percentile	13.0		41.1		25.0		21.3		17.3		41.1		37.3		1.7		32.7		7.3	
Median	11.4		34.9		22.0		19.4		16.3		34.9		34.2		-0.6		28.8		4.6	
75th Percentile	9.8		27.6		18.5		17.4		15.1		27.6		31.7		-3.5		26.2		1.8	
95th Percentile	8.1		17.3		14.4		14.4		13.1		17.3		26.9		-8.8		20.5		-2.7	
# of Portfolios	257		256		250		234		211		256		253		255		265		282	
● Jackson Square Partners	16.1	(9)	44.8	(19)	22.0	(50)	17.5	(74)	16.7	(41)	44.8	(19)	27.9	(93)	-2.0	(59)	29.3	(47)	-4.4	(98)
▲ Russell 1000 Growth	11.4	(50)	38.5	(34)	23.0	(41)	21.0	(28)	17.2	(27)	38.5	(34)	36.4	(32)	-1.5	(57)	30.2	(42)	7.1	(26)


Rolling 3 Year Annualized Return (%)
Anlzd Ret
30.00
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
Jackson Square Partners
Russell 1000 Growth


Rolling 5 Year Annualized Return (%)
Anlzd Ret
25.00
20.00
15.00
10.00
5.00
0.00
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
Jackson Square Partners
Russell 1000 Growth





3 Years

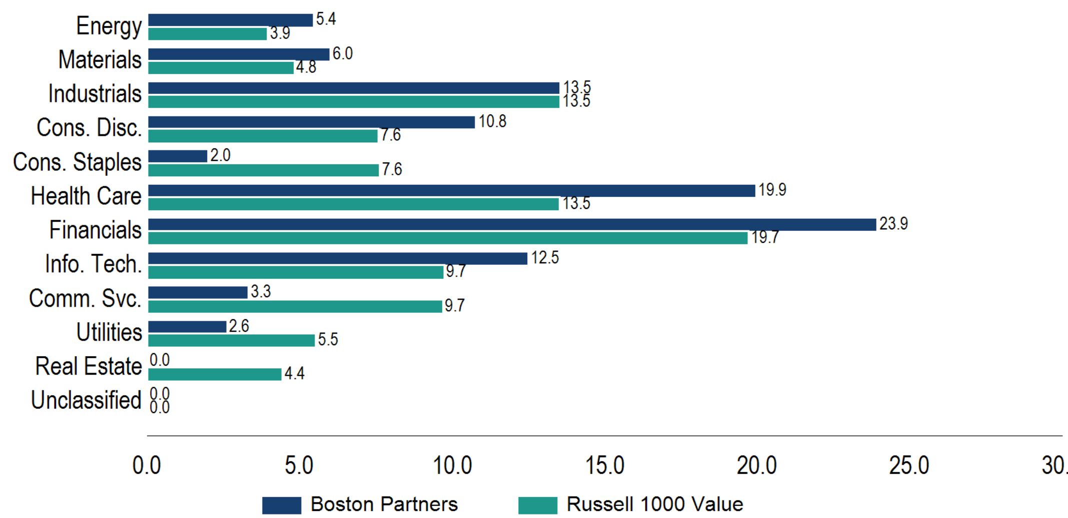
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Jackson Square Partners	22.0%	19.8%	1.0
Russell 1000 Growth	23.0%	19.9%	1.1
eV US Large Cap Growth Equity Gross Median	22.0%	19.3%	1.1

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Jackson Square Partners	17.5%	16.4%	1.0
Russell 1000 Growth	21.0%	16.3%	1.2
eV US Large Cap Growth Equity Gross Median	19.4%	16.1%	1.1

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

		1000 Value
Number of Holdings	93	854
Weighted Avg. Market Cap. ($B)	133.04	133.86
Median Market Cap. ($B)	33.18	11.55
Price To Earnings	19.72	22.81
Price To Book	2.37	2.66
Price To Sales	1.42	1.91
Return on Equity (%)	13.00	12.04
Yield (%)	1.91	2.17
Beta	1.08	1.00



Largest Holdings

	End Weight	Return
BERKSHIRE HATHAWAY INC	3.46	8.89
JOHNSON & JOHNSON	3.40	6.45
JPMORGAN CHASE & CO	3.27	33.19
BANK OF AMERICA CORP	2.72	26.60
CIGNA CORP	2.43	22.89
CISCO SYSTEMS INC	2.37	14.66
CHUBB LTD	2.09	33.23
ANTHEM INC	1.95	19.90
AUTOZONE INC	1.90	0.66
LAM RESEARCH CORP	1.89	42.72

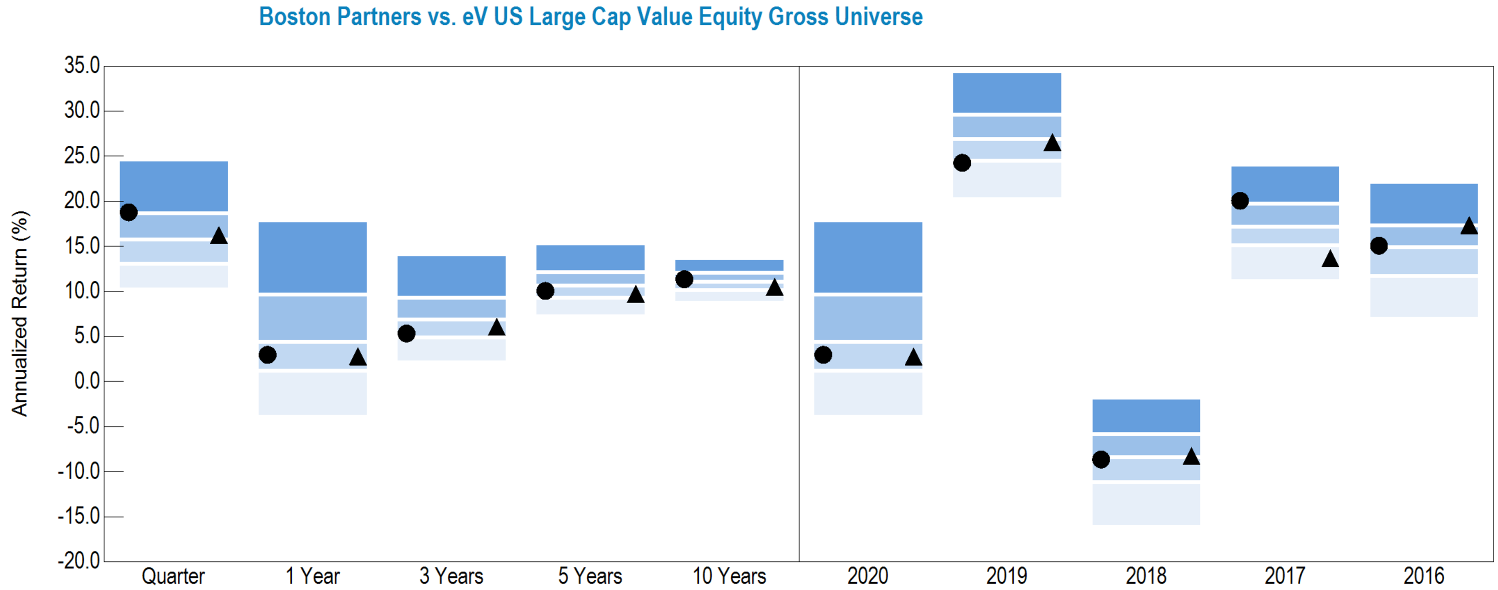
Top Contributors

	Avg Wgt	Return	Contribution
JPMORGAN CHASE & CO	1.29	33.19	0.43
MICRON TECHNOLOGY INC.	0.45	60.09	0.27
BANK OF AMERICA CORP	0.85	26.60	0.23
LAM RESEARCH CORP	0.52	42.72	0.22
CHUBB LTD	0.62	33.23	0.21
TAPESTRY INC	0.19	98.85	0.19
APPLIED MATERIALS INC.	0.41	45.58	0.19
CIGNA CORP	0.78	22.89	0.18
AMERICAN INTERNATIONAL GROUP INC	0.44	38.66	0.17
MARATHON PETROLEUM CORP	0.35	42.98	0.15

Bottom Contributors

	Avg Wgt	Return	Contribution
BARRICK GOLD CORP	0.37	-18.64	-0.07
BEST BUY CO INC	0.60	-9.85	-0.06
KROGER CO. (THE)	0.51	-5.81	-0.03
KIMBERLY-CLARK CORP	0.33	-7.98	-0.03
KINROSS GOLD CORP	0.16	-16.20	-0.03
LENNAR CORP	0.32	-6.40	-0.02
NEWMONT CORPORATION	0.23	-4.97	-0.01
LOWE'S COS INC	0.33	-2.90	-0.01
NORTHROP GRUMMAN CORP	0.19	-2.96	-0.01
RENAISSANCERE HOLDINGS LTD	0.16	-2.10	0.00

Unclassified sector allocation includes cash allocations.

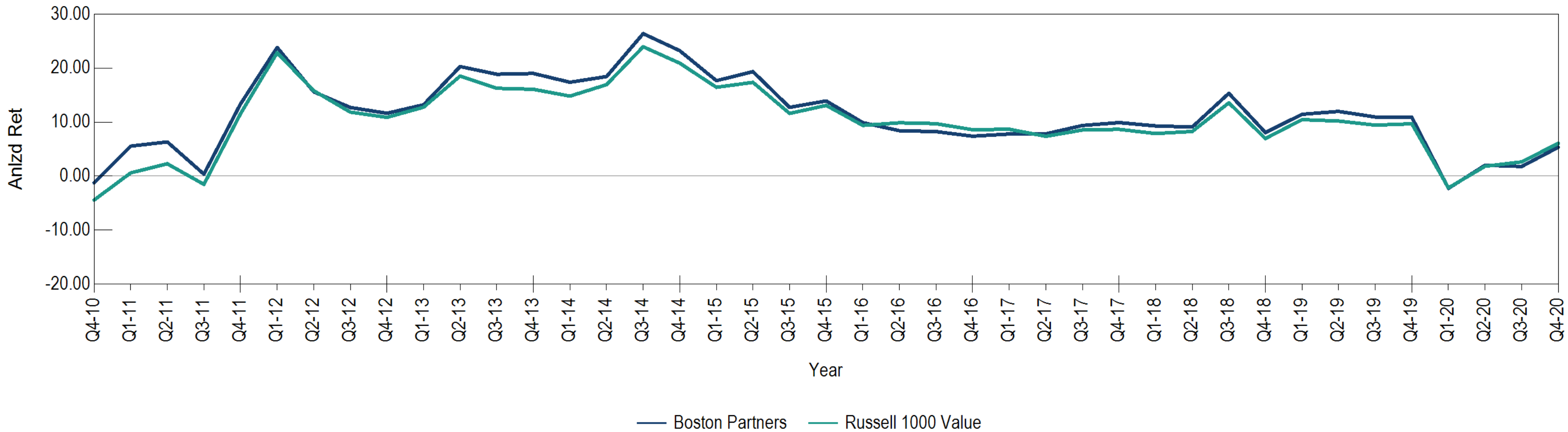


Return (Rank)	Quarter		1 Year		3 Years		5 Years		10 Years		2020		2019		2018		2017		2016	
5th Percentile	24.6		17.9		14.1		15.3		13.6		17.9		34.4		-1.8		24.0		22.1	
25th Percentile	18.7		9.7		9.3		12.2		12.1		9.7		29.6		-5.8		19.8		17.4	
Median	15.8		4.4		6.9		10.6		11.1		4.4		26.9		-8.3		17.2		15.0	
75th Percentile	13.1		1.2		4.9		9.3		10.2		1.2		24.5		-11.1		15.1		11.8	
95th Percentile	10.2		-3.9		2.2		7.3		8.8		-3.9		20.3		-16.1		11.2		7.0	
# of Portfolios	315		315		312		298		259		315		331		336		342		346	
● Boston Partners	18.8	(25)	3.0	(61)	5.3	(70)	10.1	(60)	11.3	(45)	3.0	(61)	24.3	(77)	-8.7	(55)	20.1	(23)	15.1	(50)
▲ Russell 1000 Value	16.3	(42)	2.8	(62)	6.1	(60)	9.7	(66)	10.5	(67)	2.8	(62)	26.5	(54)	-8.3	(50)	13.7	(87)	17.3	(26)

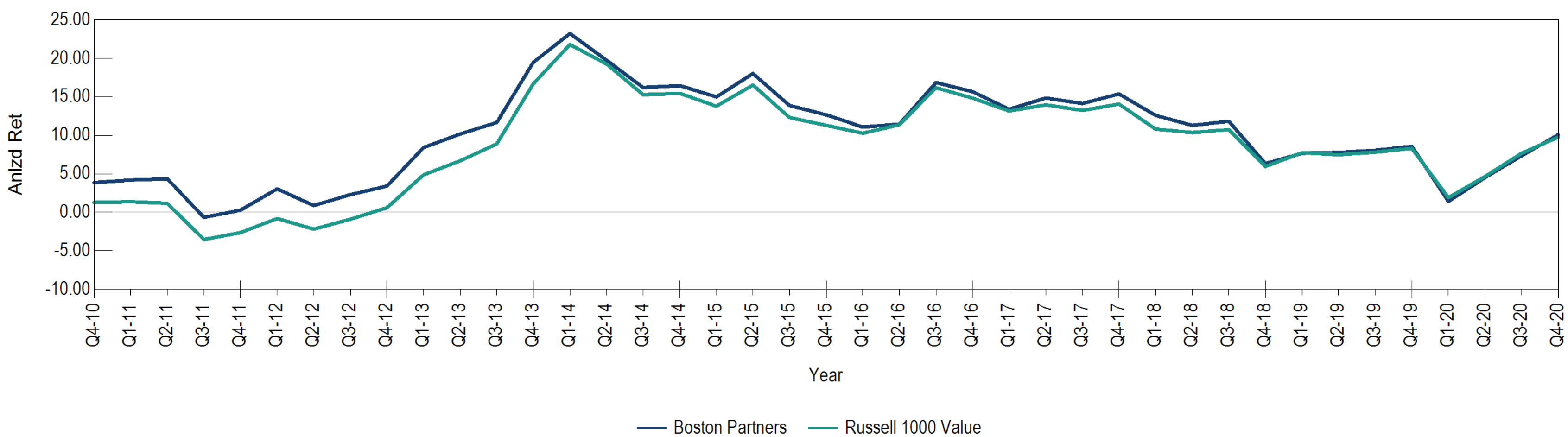
Boston Partners

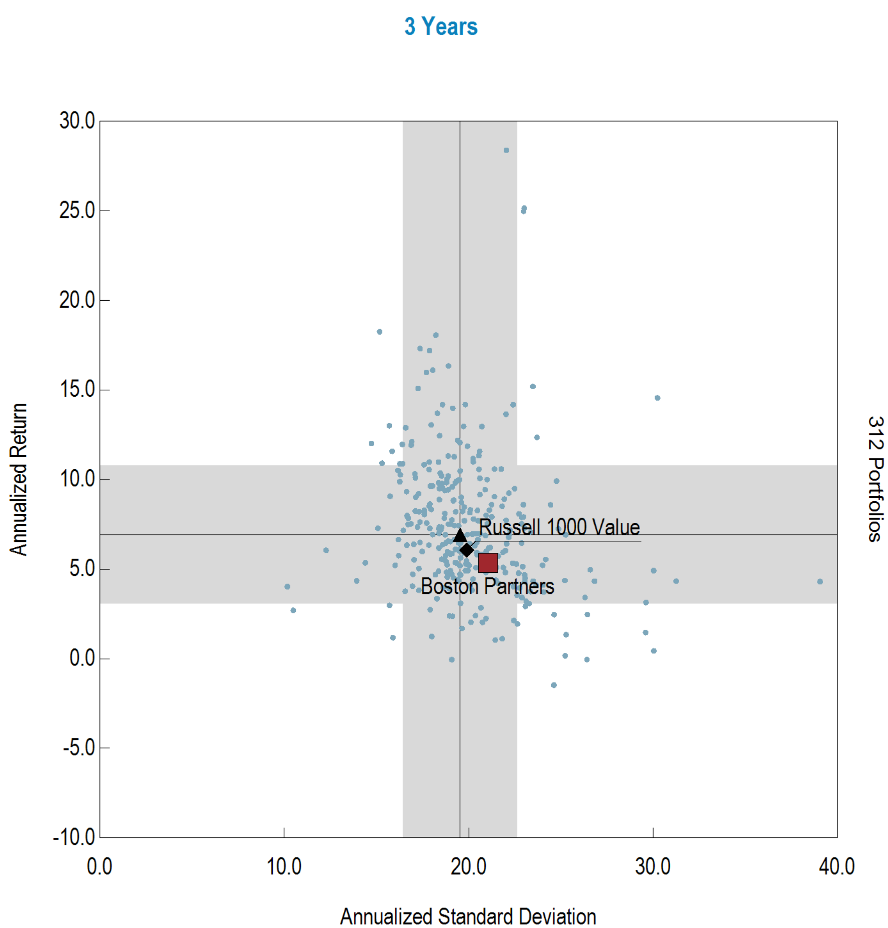
Manager Performance - Rolling 3 & 5 Year (Gross of Fees) | Period Ending: December 31, 2020

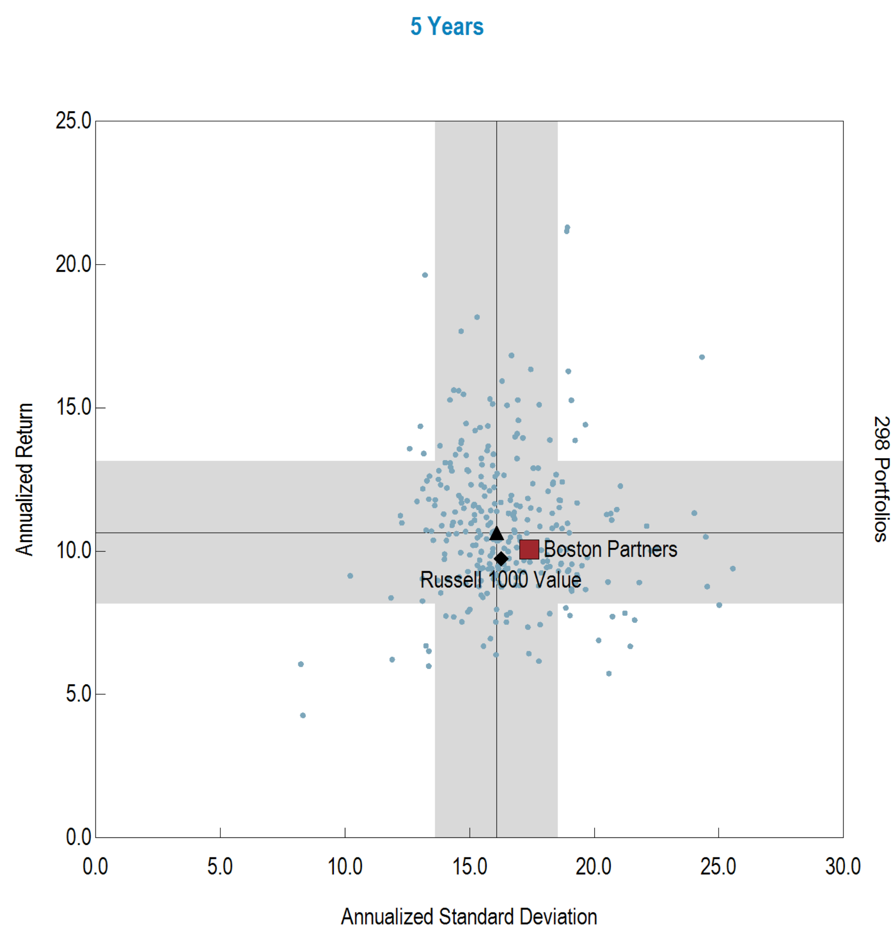
Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)







3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Boston Partners	5.3%	21.1%	0.2
Russell 1000 Value	6.1%	19.9%	0.2
eV US Large Cap Value Equity Gross Median	6.9%	19.5%	0.3

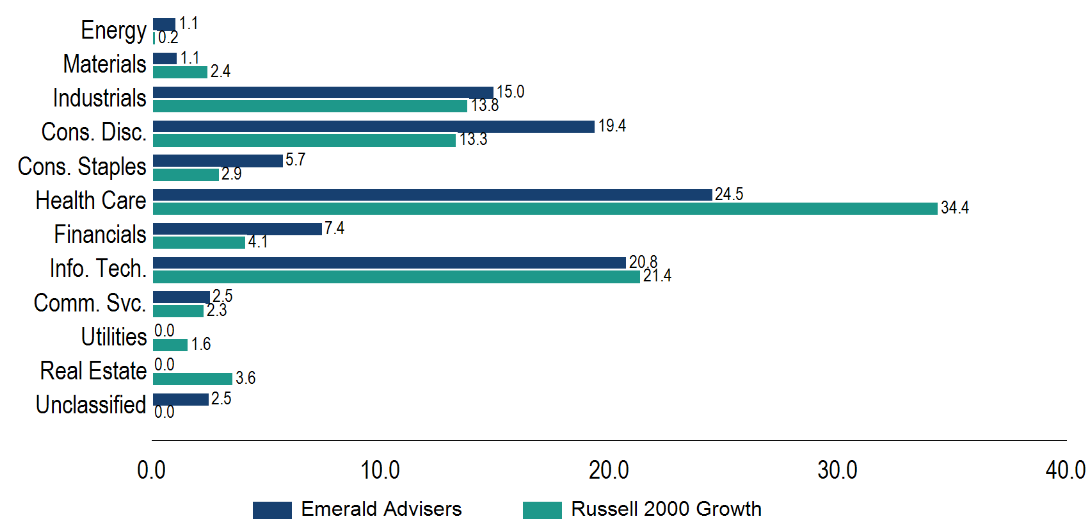
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Boston Partners	10.1%	17.4%	0.5
Russell 1000 Value	9.7%	16.3%	0.5
eV US Large Cap Value Equity Gross Median	10.6%	16.1%	0.6

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

	Portfolio	2000 Growth
Number of Holdings	120	1,128
Weighted Avg. Market Cap. ($B)	4.17	3.99
Median Market Cap. ($B)	3.06	1.18
Price To Earnings	43.53	34.04
Price To Book	4.83	5.44
Price To Sales	3.35	2.94
Return on Equity (%)	-11.62	-12.06
Yield (%)	0.32	0.39
Beta	1.01	1.00

Sector Allocation (%) vs Russell 2000 Growth



Largest Holdings

	End Weight	Return
CHEGG INC	2.44	26.44
FRESHPET INC	2.41	27.17
NEOGENOMICS INC	2.40	45.95
RAPID7 INC	2.21	47.23
VARONIS SYSTEMS INC	2.01	41.75
MACOM TECHNOLOGY SOLUTIONS HOLDINGS INC	1.79	61.83
KRATOS DEFENSE & SECURITY SOLUTIONS INC	1.74	42.27
CHART INDUSTRIES INC	1.73	67.62
CHURCHILL DOWNS INC	1.72	19.31
SIMPLY GOOD FOODS CO (THE)	1.69	42.22

Top Contributors

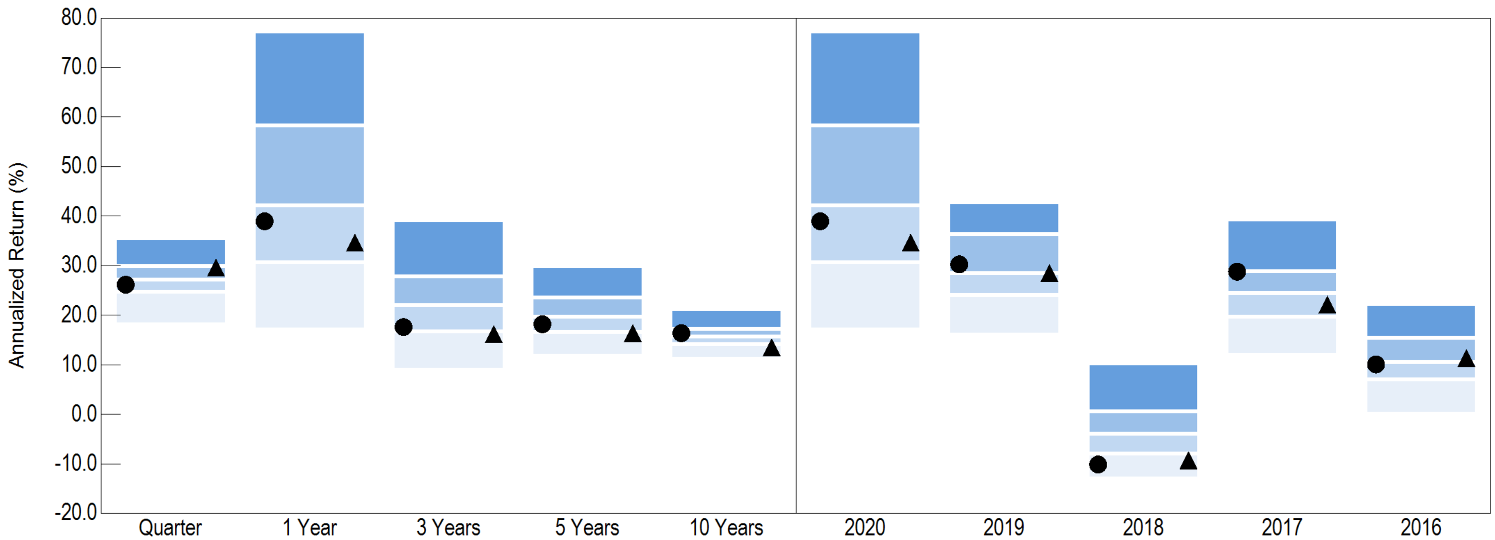
	Avg Wgt	Return	Contribution
NEOGENOMICS INC	0.72	45.95	0.33
VARONIS SYSTEMS INC	0.71	41.75	0.30
TWIST BIOSCIENCE CORP	0.34	85.98	0.29
RAPID7 INC	0.62	47.23	0.29
CHART INDUSTRIES INC	0.43	67.62	0.29
MACOM TECHNOLOGY SOLUTIONS HOLDINGS INC	0.46	61.83	0.28
FRESHPET INC	1.01	27.17	0.28
KRATOS DEFENSE & SECURITY SOLUTIONS INC	0.62	42.27	0.26

Bottom Contributors

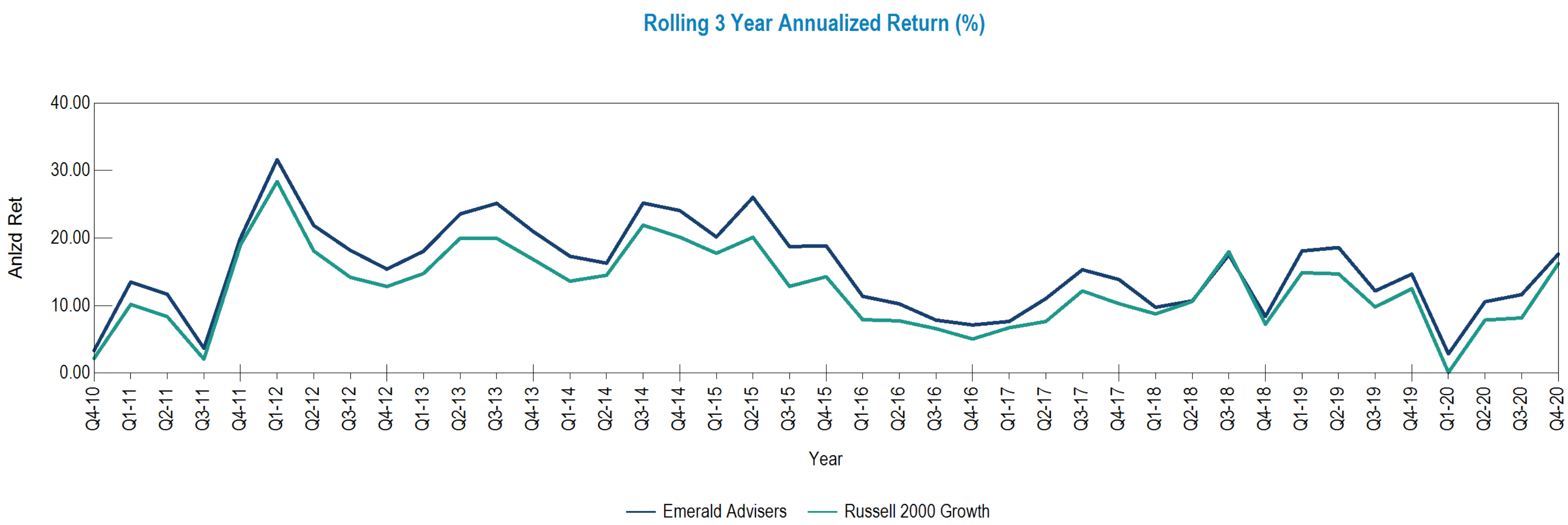
	Avg Wgt	Return	Contribution
MERITAGE HOMES CORP	0.64	-24.97	-0.16
PALOMAR HOLDINGS INC	0.65	-14.77	-0.10
ASSEMBLY BIOSCIENCES INC	0.08	-63.20	-0.05
STAMPS.COM INC	0.26	-18.58	-0.05
HORIZON THERAPEUTICS PUBLIC LTD CO	0.63	-5.83	-0.04
EHEALTH INC	0.20	-10.62	-0.02
PING IDENTITY HOLDING CORP	0.25	-8.23	-0.02
JAMF HOLDING CORP	0.07	-20.45	-0.01
OYSTER POINT PHARMA INC	0.10	-10.85	-0.01

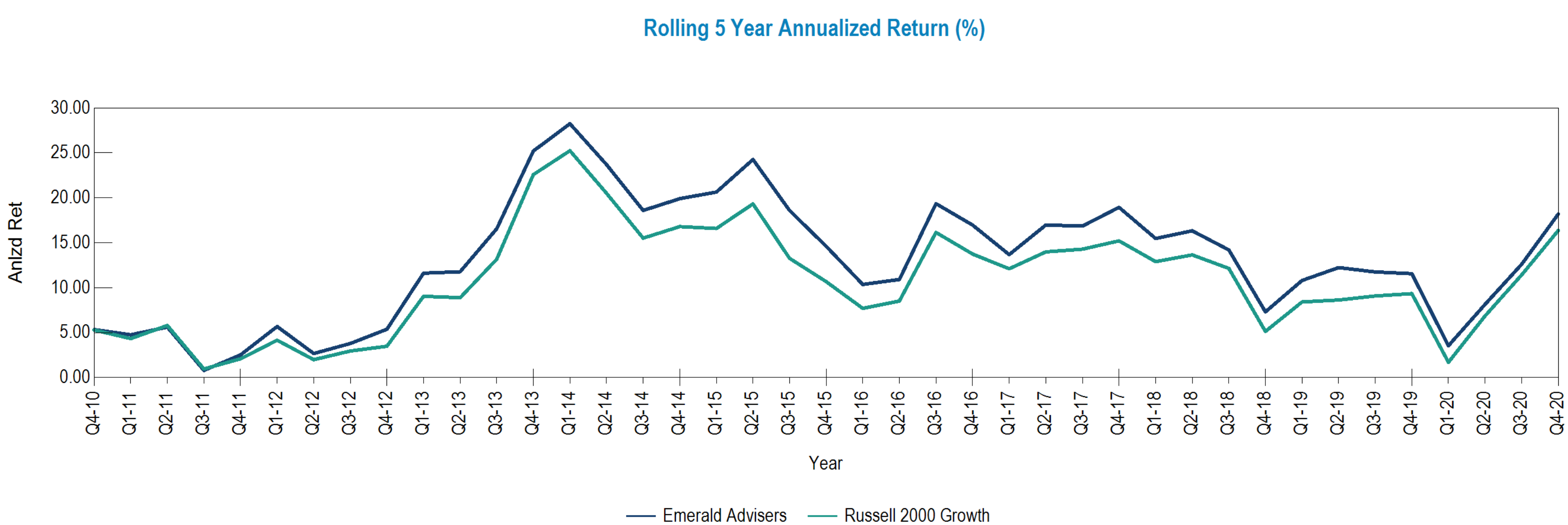
Unclassified sector allocation includes cash allocations.

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

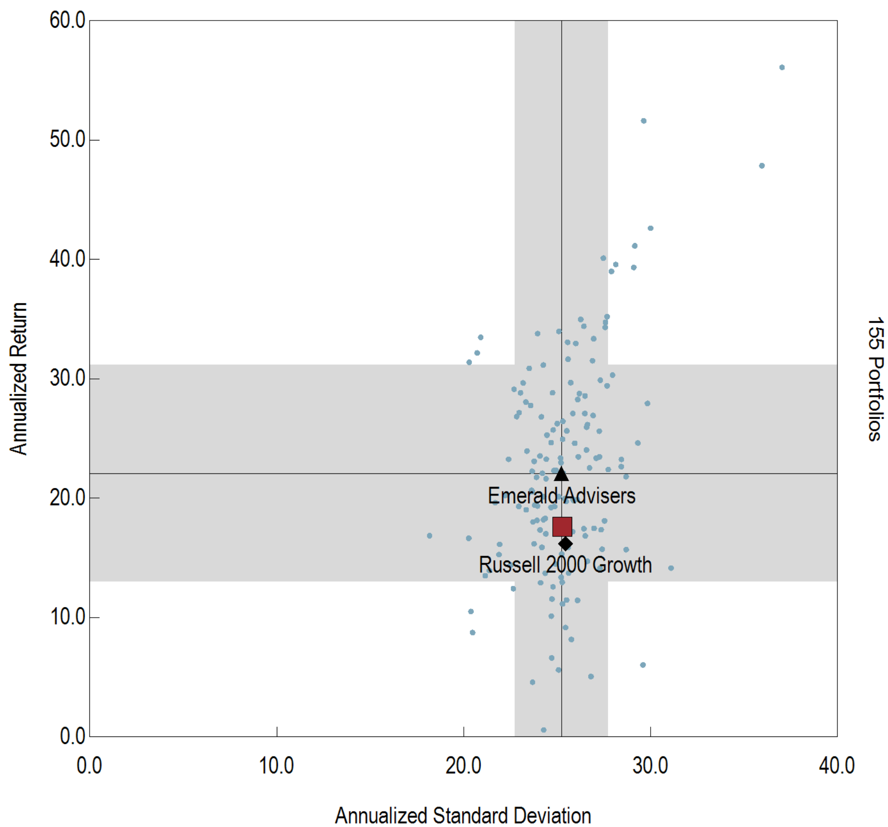


	Return (Rank)																			
5th Percentile	35.6		77.2		39.1		29.8		21.2		77.2		42.8		10.2		39.2		22.2	
25th Percentile	30.0		58.4		27.9		23.7		17.3		58.4		36.4		0.7		28.9		15.5	
Median	27.3		42.2		22.1		19.7		15.8		42.2		28.5		-3.9		24.6		10.6	
75th Percentile	24.8		30.7		16.9		16.6		14.2		30.7		24.2		-7.9		19.8		7.1	
95th Percentile	18.2		17.1		9.0		11.9		11.2		17.1		16.2		-12.8		12.1		0.2	
# of Portfolios	156		156		155		148		135		156		157		164		174		170	
● Emerald Advisers	26.2	(61)	39.0	(56)	17.6	(68)	18.2	(64)	16.4	(41)	39.0	(56)	30.3	(45)	-10.1	(85)	28.8	(26)	10.1	(54)
▲ Russell 2000 Growth	29.6	(28)	34.6	(66)	16.2	(77)	16.4	(77)	13.5	(86)	34.6	(66)	28.5	(51)	-9.3	(80)	22.2	(62)	11.3	(49)

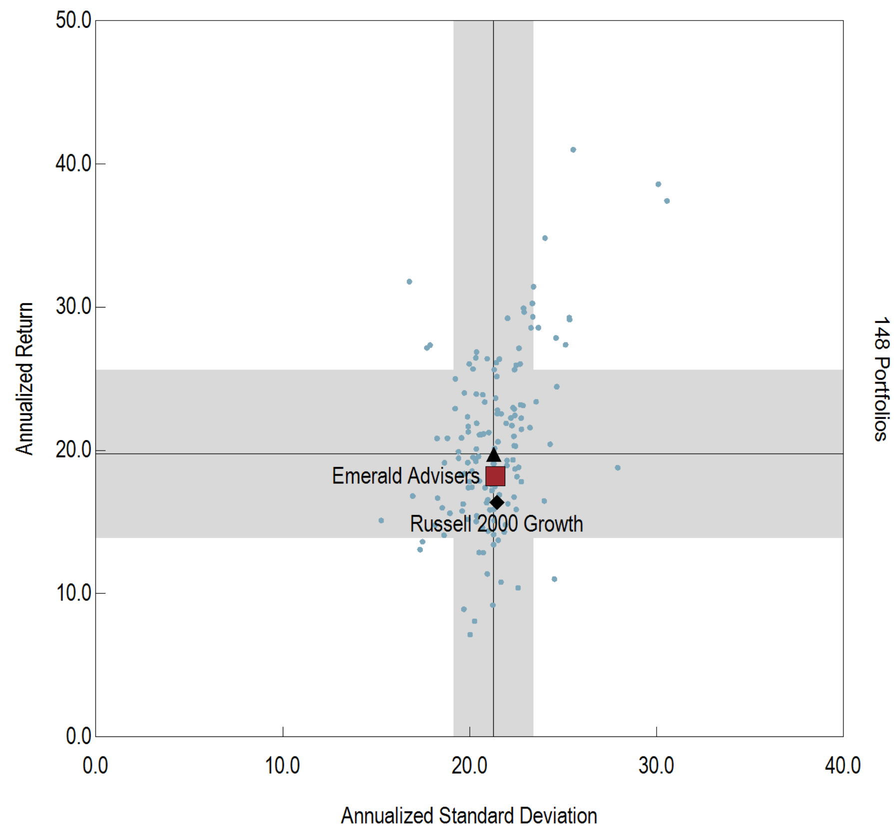

Rolling 3 Year Annualized Return (%)
Anlzd Ret
40.00
30.00
20.00
10.00
0.00
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
Emerald Advisers
Russell 2000 Growth


Rolling 5 Year Annualized Return (%)
Anlzd Ret
30.00
25.00
20.00
15.00
10.00
5.00
0.00
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
Emerald Advisers
Russell 2000 Growth

3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Emerald Advisers	17.6%	25.3%	0.6
Russell 2000 Growth	16.2%	25.5%	0.6
eV US Small Cap Growth Equity Gross Median	22.1%	25.2%	0.8

5 Years

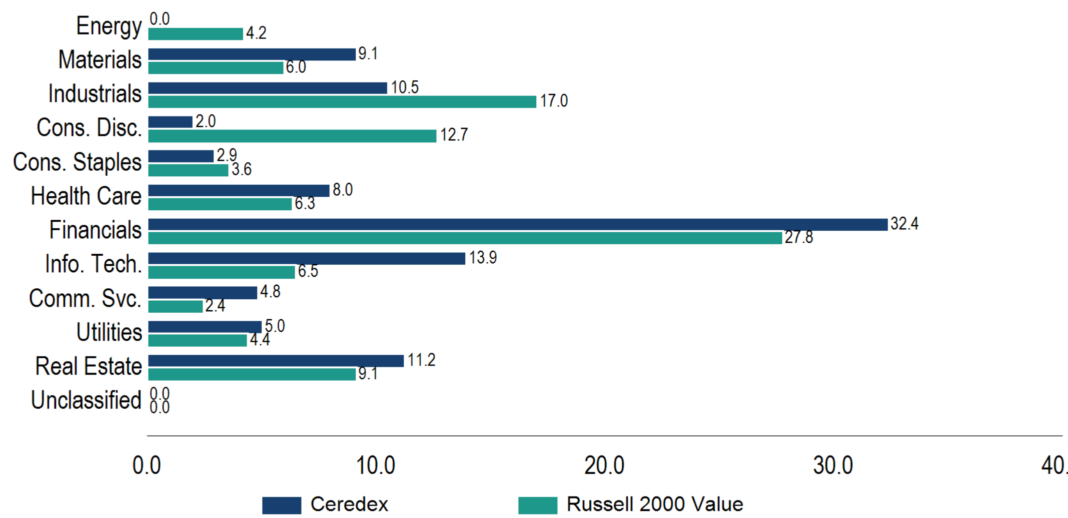
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Emerald Advisers	18.2%	21.4%	0.8
Russell 2000 Growth	16.4%	21.5%	0.7
eV US Small Cap Growth Equity Gross Median	19.7%	21.3%	0.9

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

Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	55	1,485
Weighted Avg. Market Cap. ($B)	5.52	2.49
Median Market Cap. ($B)	4.90	0.75
Price To Earnings	21.08	17.32
Price To Book	2.26	1.88
Price To Sales	1.93	0.98
Return on Equity (%)	10.34	-4.63
Yield (%)	2.27	1.71
Beta	0.88	1.00

Sector Allocation (%) vs Russell 2000 Value



Largest Holdings

	End Weight	Return
INTERPUBLIC GROUP OF COS INC (THE)	4.84	42.71
SLM CORP	4.53	53.55
APTARGROUP INC.	4.33	21.30
POWER INTEGRATIONS INC	4.32	47.99
KEMPER CORP	4.05	15.46
PHYSICIANS REALTY TRUST	3.83	0.66
HILL-ROM HOLDINGS INC	3.81	17.58
HEALTHCARE TRUST OF AMERICA INC	3.75	7.21
EVERCORE INC	3.53	68.60
FIRST AMERICAN FINANCIAL CORP	3.22	2.38

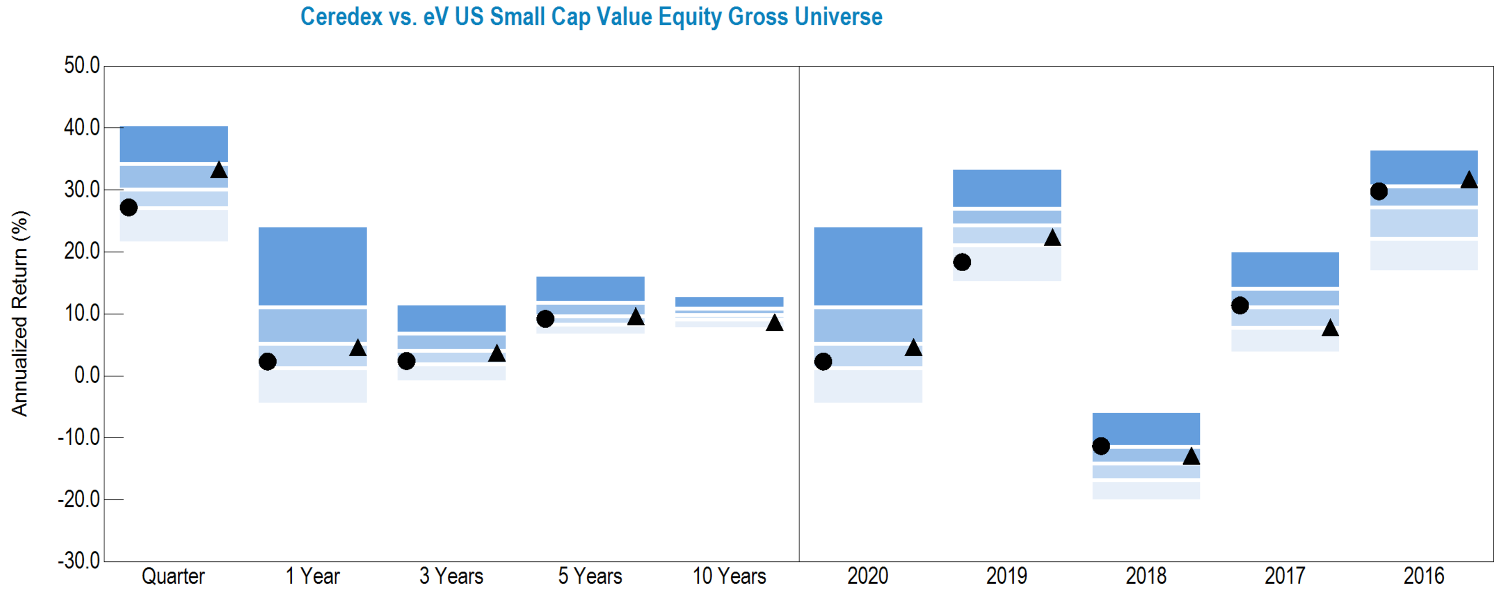
Top Contributors

	Avg Wgt	Return	Contribution
POWER INTEGRATIONS INC	1.45	47.99	0.69
SLM CORP	1.28	53.55	0.69
EVERCORE INC	0.96	68.60	0.66
QUANTA SERVICES INC.	1.71	36.36	0.62
FIRST HAWAIIAN INC	0.64	64.93	0.41
CONMED CORP	0.76	42.64	0.33
MONOLITHIC POWER SYSTEMS INC	1.02	31.16	0.32
APTARGROUP INC.	1.44	21.30	0.31
INTERPUBLIC GROUP OF COS INC (THE)	0.68	42.71	0.29
LITTELFUSE INC	0.62	43.90	0.27

Bottom Contributors

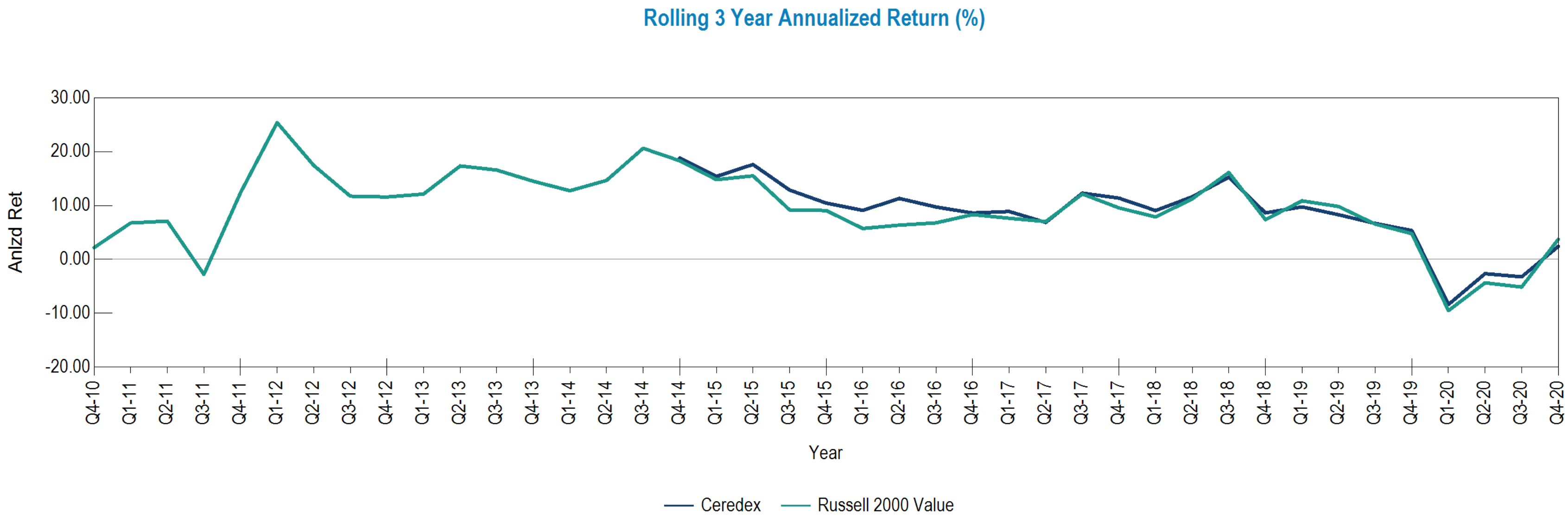
	Avg Wgt	Return	Contribution
HEALTHCARE REALTY TRUST INC	0.76	-0.81	-0.01
REYNOLDS CONSUMER PRODUCTS INC	0.38	-1.17	0.00
PHYSICIANS REALTY TRUST	1.56	0.66	0.01
AMERISAFE INC	0.24	6.66	0.02
ENERGIZER HOLDINGS INC	0.20	8.54	0.02
CUBESMART	0.38	5.08	0.02
TENNANT CO	0.15	16.64	0.02
IDACORP INC.	0.13	21.13	0.03
STANTEC INC	0.43	7.15	0.03
FIRST AMERICAN	1.39	2.38	0.03

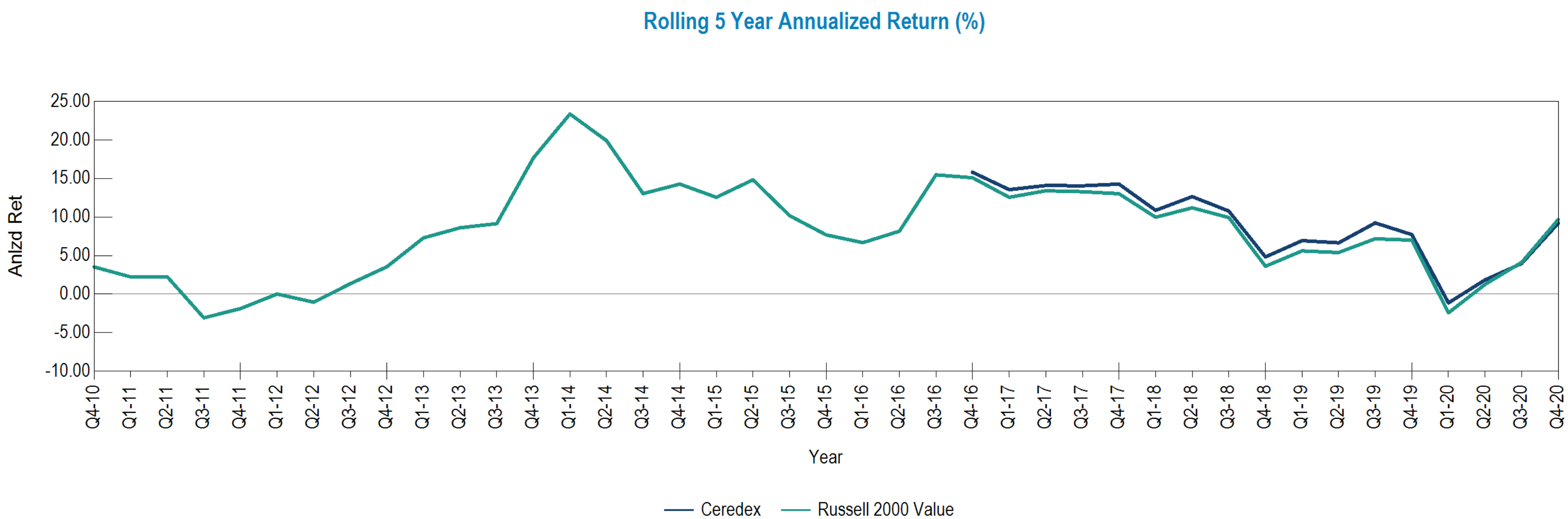
Unclassified sector allocation includes cash allocations.



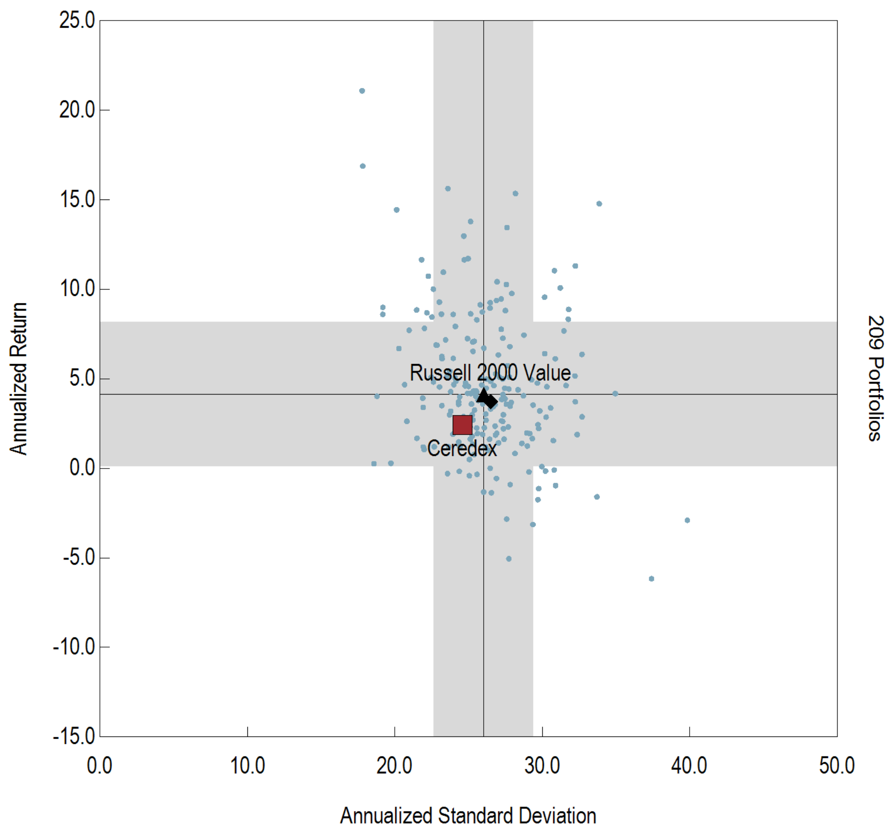
Return (Rank)

	Quarter		1 Year		3 Years		5 Years		10 Years		2020		2019		2018		2017		2016	
5th Percentile	40.6		24.2		11.7		16.3		13.0		24.2		33.6		-5.7		20.2		36.7	
25th Percentile	34.3		11.1		6.9		11.8		10.9		11.1		27.0		-11.4		14.1		30.7	
Median	30.1		5.3		4.1		9.6		9.9		5.3		24.4		-14.0		11.1		27.2	
75th Percentile	27.1		1.3		2.0		8.4		9.1		1.3		21.2		-16.7		7.8		22.2	
95th Percentile	21.4		-4.6		-0.9		6.6		7.6		-4.6		15.0		-20.2		3.7		16.8	
# of Portfolios	218		218		209		203		183		218		217		220		224		222	
● Ceredex	27.2	(74)	2.3	(69)	2.4	(70)	9.2	(58)	--	(--)	2.3	(69)	18.4	(87)	-11.3	(25)	11.4	(48)	29.8	(32)
▲ Russell 2000 Value	33.4	(29)	4.6	(53)	3.7	(55)	9.7	(50)	8.7	(83)	4.6	(53)	22.4	(69)	-12.9	(39)	7.8	(75)	31.7	(17)

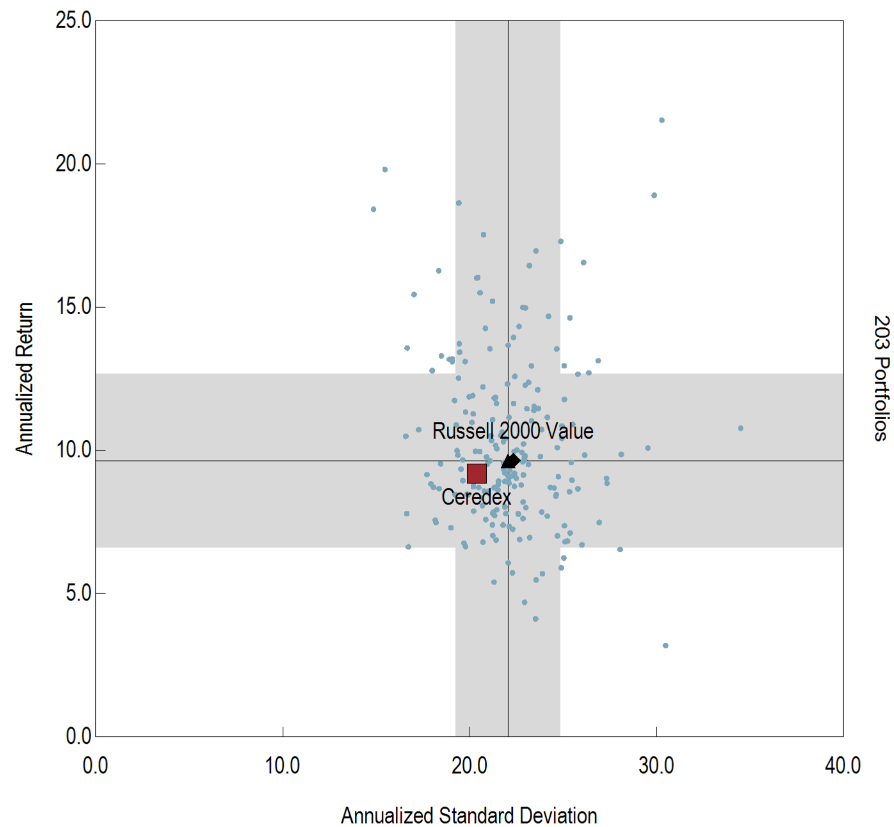

Rolling 3 Year Annualized Return (%)
30.00
20.00
10.00
0.00
-10.00
-20.00
Anlzd Ret
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
Ceredex
Russell 2000 Value


Rolling 5 Year Annualized Return (%)
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
Anlzd Ret
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
Ceredex
Russell 2000 Value

3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Ceredex	2.4%	24.6%	0.0
Russell 2000 Value	3.7%	26.5%	0.1
eV US Small Cap Value Equity Gross Median	4.1%	26.0%	0.1

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Ceredex	9.2%	20.4%	0.4
Russell 2000 Value	9.7%	22.3%	0.4
eV US Small Cap Value Equity Gross Median	9.6%	22.1%	0.4

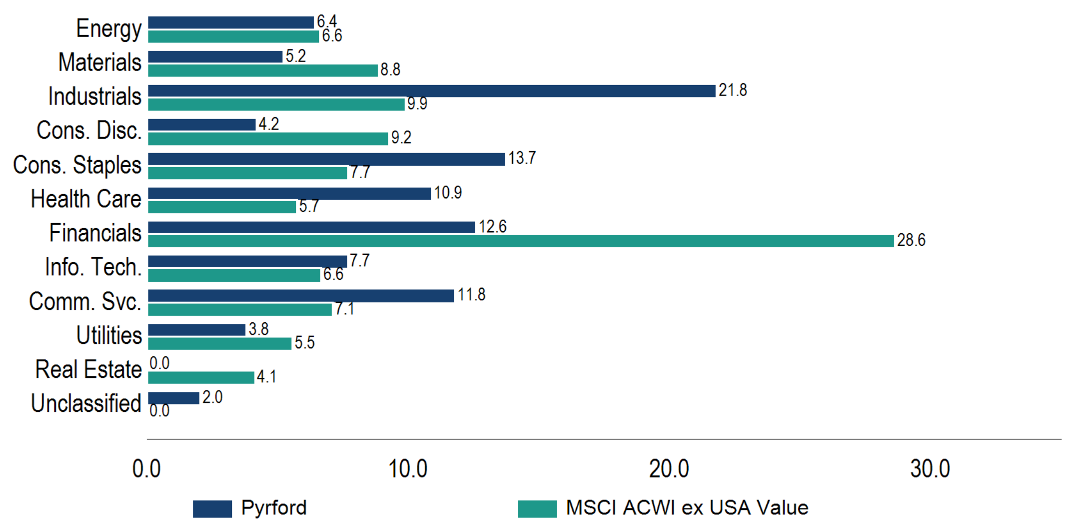
International Equity Managers

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

Characteristics

	Portfolio	MSCI ACWI ex USA Value
Number of Holdings	70	1,611
Weighted Avg. Market Cap. ($B)	67.19	60.22
Median Market Cap. ($B)	28.54	8.62
Price To Earnings	18.98	15.29
Price To Book	2.38	1.83
Price To Sales	1.64	0.82
Return on Equity (%)	13.11	7.14
Yield (%)	3.85	3.37
Beta	0.72	1.00

Sector Allocation (%) vs MSCI ACWI ex USA Value



Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	90.6%	69.5%
Emerging*	9.4%	30.5%
Top 10 Largest Countries		
United Kingdom	17.2%	11.7%
Japan	14.3%	15.2%
Switzerland	11.6%	4.1%
Australia	9.6%	4.8%
Germany	9.5%	7.1%
France	7.4%	7.3%
Singapore	5.3%	0.7%
Hong Kong	4.5%	2.0%
Taiwan*	4.3%	3.3%
Netherlands	3.2%	1.2%
Total-Top 10 Largest Countries	**86.9%**	**57.3%**

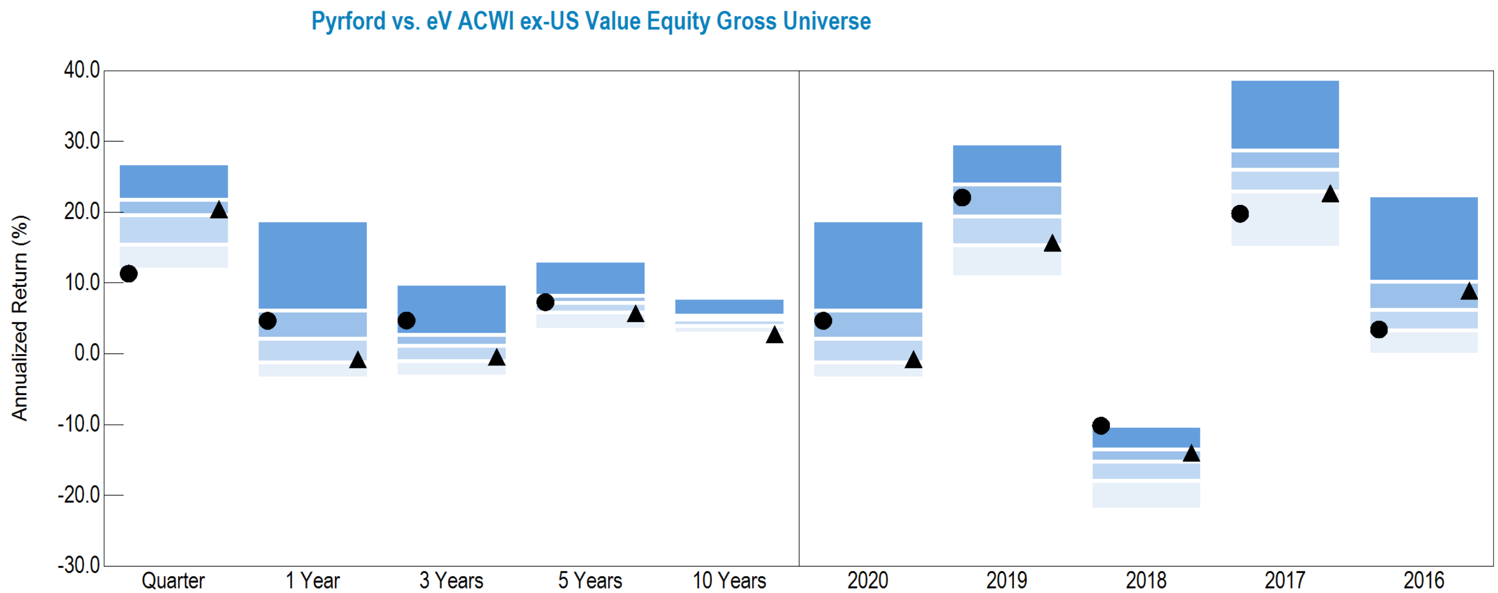
Top Contributors

	Avg Wgt	Return	Contribution
LEGAL & GENERAL GROUP PLC	1.85	49.21	0.91
WOODSIDE PETROLEUM LTD	1.82	39.21	0.72
JAPAN TOBACCO INC	3.24	16.00	0.52
COMPUTERSHARE LTD CPU	1.67	28.49	0.48
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.72	26.77	0.46
MALAYAN BANKING BHD MAYBANK	1.82	23.05	0.42
ROYAL DUTCH SHELL PLC	0.97	43.01	0.42

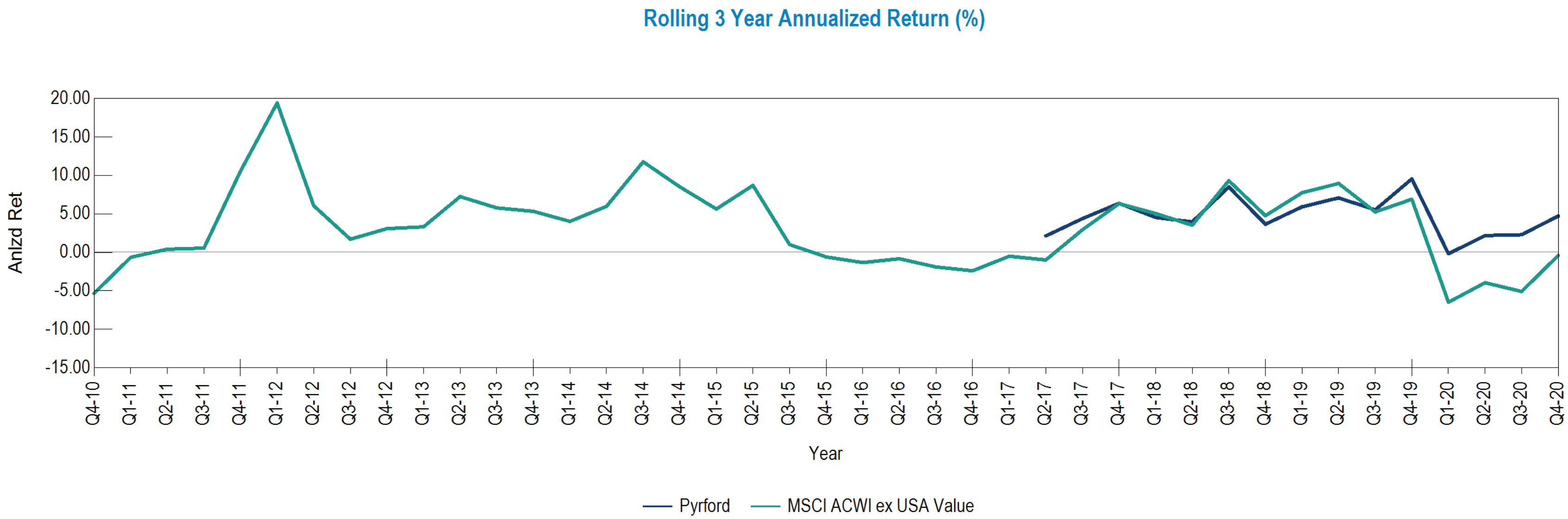
Bottom Contributors

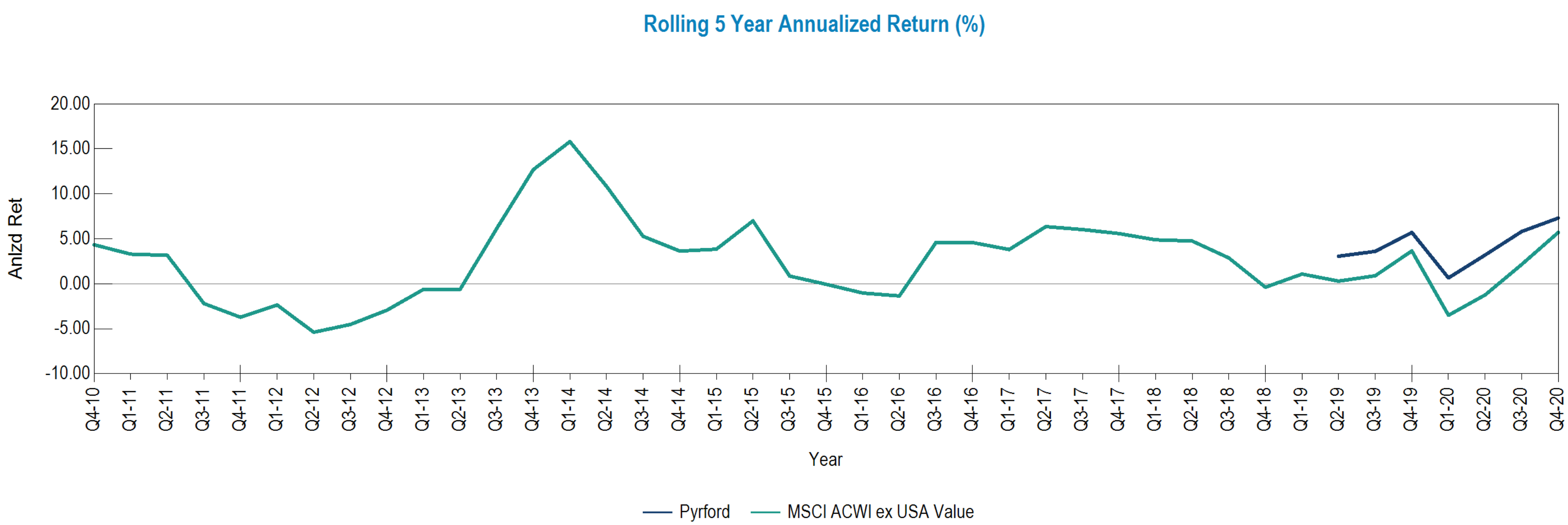
	Avg Wgt	Return	Contribution
SAP SE	2.02	-15.87	-0.32
CHINA MOBILE LTD	1.59	-10.66	-0.17
RECKITT BENCKISER GROUP PLC	1.84	-8.64	-0.16
KONE OYJ	1.71	-7.76	-0.13
NEWCREST MINING LTD	0.89	-11.19	-0.10
KONINKLIJKE VOPAK NV	1.42	-6.81	-0.10
SANOFI	1.85	-3.92	-0.07
SUMITOMO RUBBER INDUSTRIES LTD	1.47	-4.25	-0.06
NESTLE SA, CHAM UND VEVEY	3.12	-1.14	-0.04
GLAXOSMITHKLINE PLC	1.76	-1.14	-0.02

Unclassified sector allocation includes cash allocations.

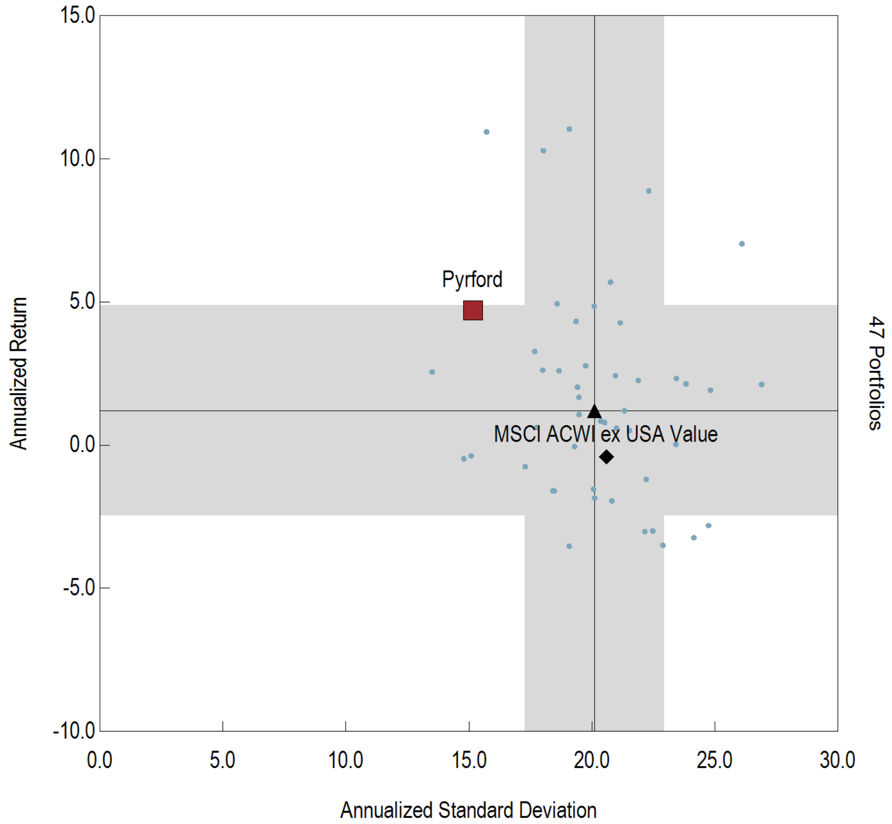


	Return (Rank)																			
5th Percentile	26.8		18.8		9.9		13.1		7.8		18.8		29.6		-10.2		38.8		22.3	
25th Percentile	21.8		6.2		2.7		8.2		5.4		6.2		24.0		-13.4		28.8		10.2	
Median	19.6		2.1		1.2		7.2		4.9		2.1		19.5		-15.2		26.0		6.2	
75th Percentile	15.4		-1.2		-1.0		5.9		4.0		-1.2		15.4		-17.9		23.0		3.3	
95th Percentile	11.9		-3.5		-3.2		3.5		2.9		-3.5		10.8		-21.9		15.0		-0.1	
# of Portfolios	49		49		47		46		29		49		52		54		56		55	
● Pyrford	11.3	(97)	4.7	(33)	4.7	(16)	7.3	(48)	--	(--)	4.7	(33)	22.1	(35)	-10.1	(5)	19.8	(84)	3.4	(74)
▲ MSCI ACWI ex USA Value	20.4	(39)	-0.8	(73)	-0.4	(71)	5.7	(77)	2.8	(96)	-0.8	(73)	15.7	(74)	-14.0	(32)	22.7	(77)	8.9	(35)

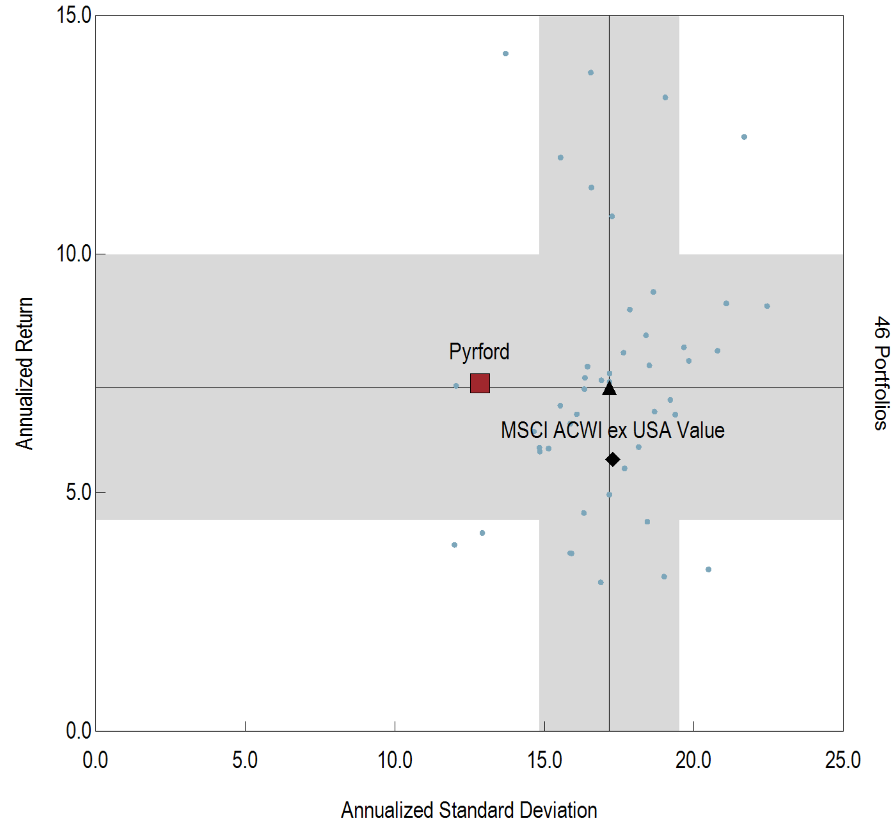

Rolling 3 Year Annualized Return (%)
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
Anlzd Ret
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
Pyrford
MSCI ACWI ex USA Value


Rolling 5 Year Annualized Return (%)
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
Anlzd Ret
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
Pyrford
MSCI ACWI ex USA Value

3 Years



5 Years



3 Years

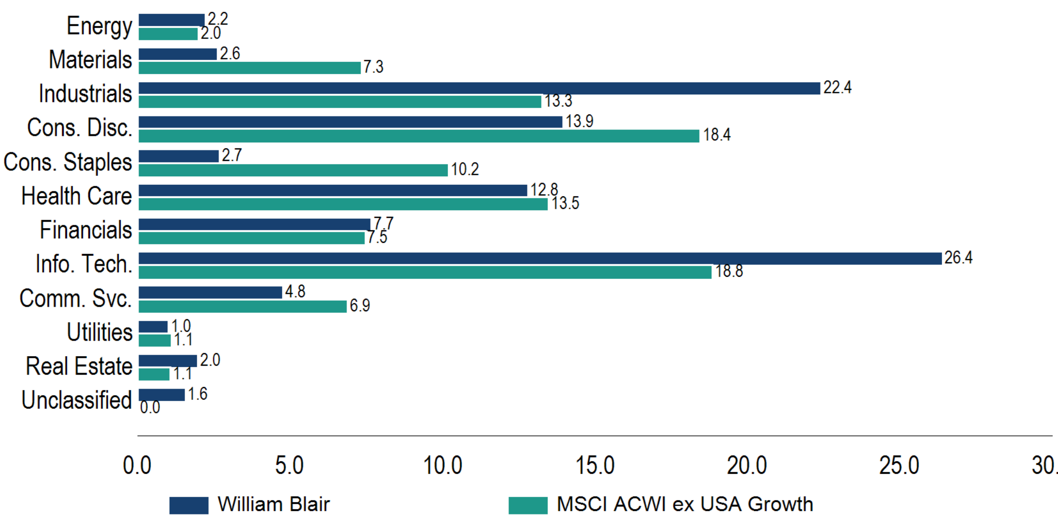
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Pyrford	4.7%	15.2%	0.2
MSCI ACWI ex USA Value	-0.4%	20.6%	-0.1
eV ACWI ex-US Value Equity Gross Median	1.2%	20.1%	0.0

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Pyrford	7.3%	12.8%	0.5
MSCI ACWI ex USA Value	5.7%	17.3%	0.3
eV ACWI ex-US Value Equity Gross Median	7.2%	17.2%	0.3

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

	Portfolio	ex USA Growth
Number of Holdings	181	1,011
Weighted Avg. Market Cap. ($B)	80.08	140.56
Median Market Cap. ($B)	13.17	10.35
Price To Earnings	41.80	32.34
Price To Book	6.41	4.23
Price To Sales	4.88	2.80
Return on Equity (%)	13.73	13.67
Yield (%)	0.77	1.22
Beta	1.17	1.00



Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	76.9%	68.3%
Emerging*	23.1%	31.7%
Top 10 Largest Countries		
Japan	12.5%	16.5%
China*	11.7%	12.5%
United Kingdom	8.9%	5.8%
France	7.8%	6.6%
Netherlands	6.7%	3.7%
Switzerland	6.2%	8.0%
Germany	5.9%	4.6%
Sweden	5.7%	3.1%
Denmark	4.9%	2.9%
Taiwan*	4.6%	4.6%
Total-Top 10 Largest Countries	**75.8%**	**68.2%**

Top Contributors

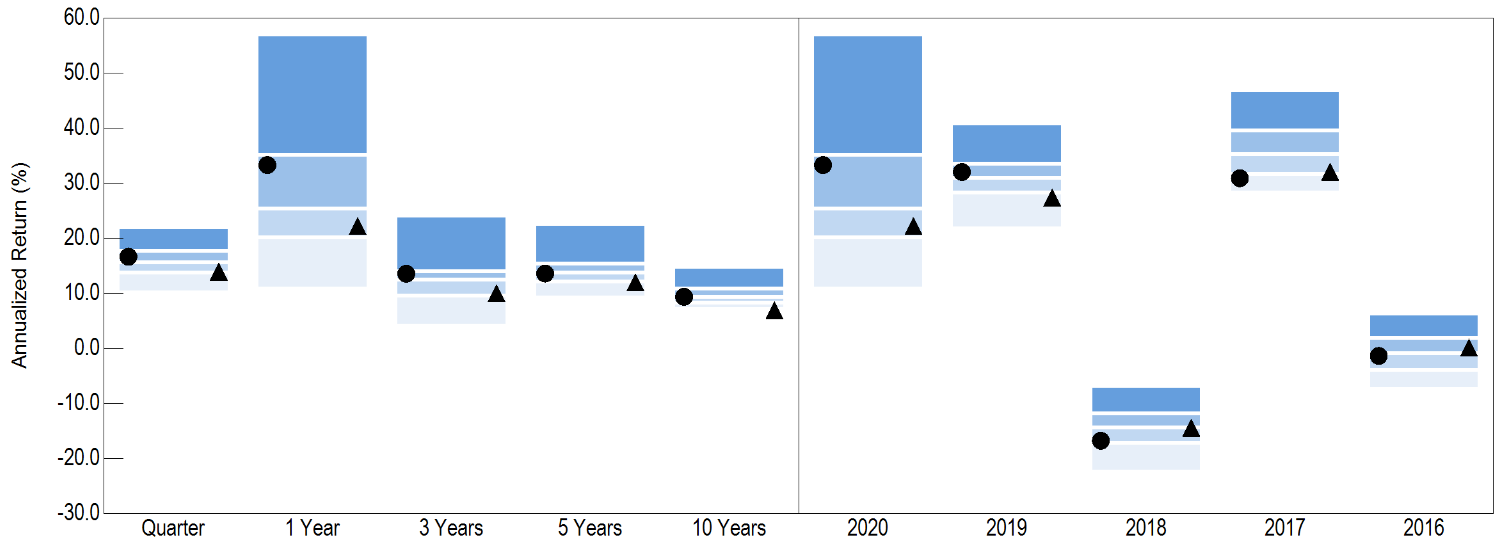
	Avg Wgt	Return	Contribution
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	2.05	35.07	0.72
ASML HOLDING NV	1.75	32.10	0.56
MTU AERO ENGINES AG	0.94	56.56	0.53
AIRBUS SE	1.04	50.68	0.53
INFINEON TECHNOLOGIES AG	1.25	35.60	0.45
SAFRAN SA	1.02	43.05	0.44
WUXI BIOLOGICS (CAYMAN) INC	0.68	63.45	0.43
LVMH MOET HENNESSY LOUIS VUITTON SE	1.27	33.79	0.43

Bottom Contributors

	Avg Wgt	Return	Contribution
BABA-SW ORD	2.46	-15.64	-0.38
KINGSPAN GROUP PLC	0.88	-23.04	-0.20
SAP SE	1.03	-15.87	-0.16
RELIANCE INDUSTRIES LTD	1.29	-10.54	-0.14
TAL EDUCATION GROUP	1.12	-5.96	-0.07
AVEVA GROUP	0.31	-11.95	-0.04
AK MEDICAL ORD	0.10	-31.98	-0.03
EURONEXT NV	0.27	-12.15	-0.03
CHR.HANSEN HOLDINGS AS	0.41	-7.54	-0.03
INTERTEK GROUP PLC, LONDON	0.49	-5.86	-0.03

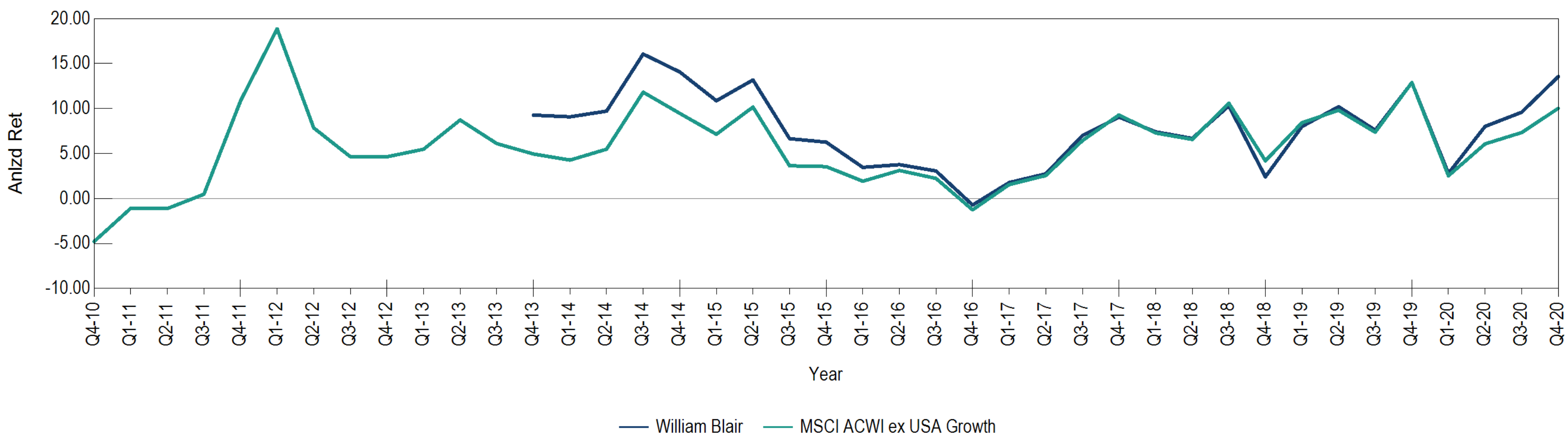
Unclassified sector allocation includes cash allocations.

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

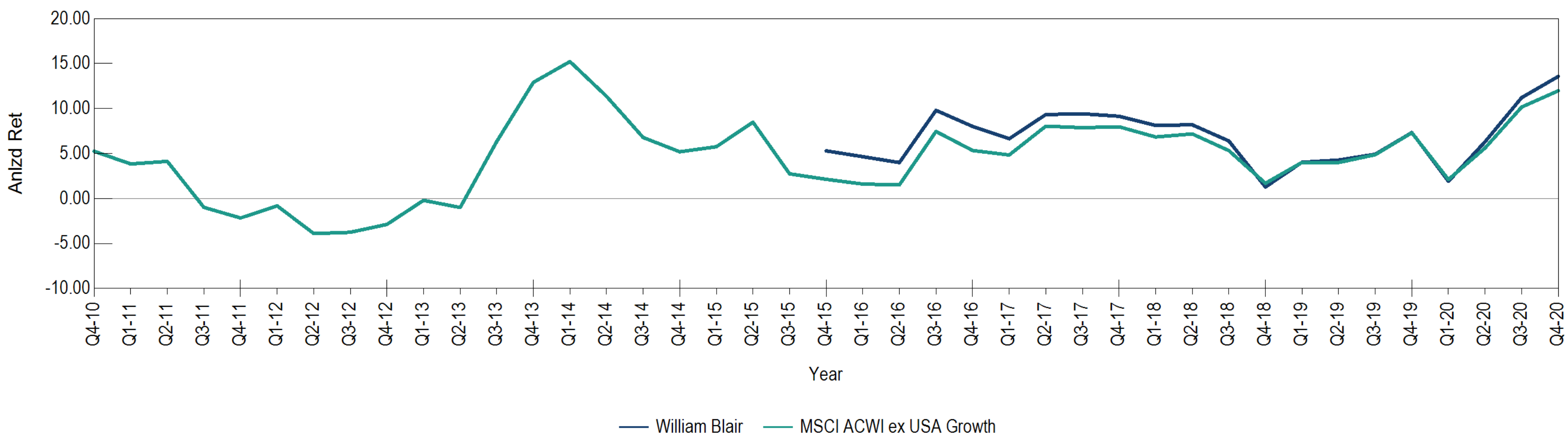


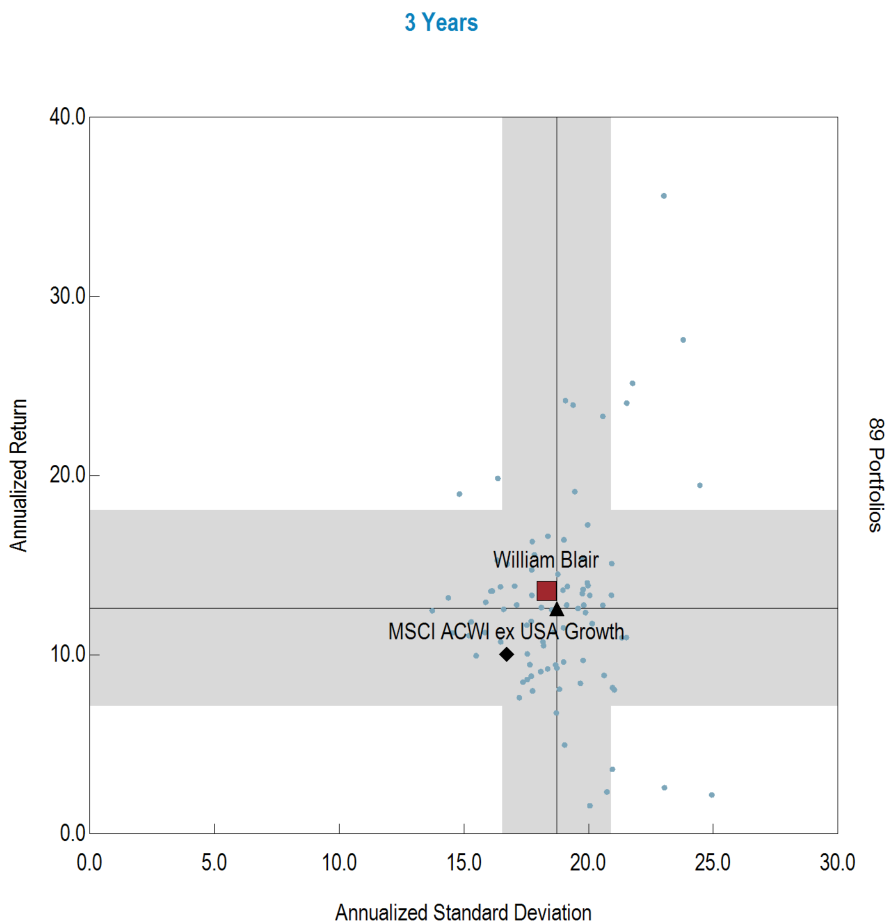
Return (Rank)	Quarter		1 Year		3 Years		5 Years		10 Years		2020		2019		2018		2017		2016	
5th Percentile	22.0		57.0		24.0		22.5		14.8		57.0		40.8		-6.8		46.8		6.3	
25th Percentile	17.8		35.2		14.0		15.4		10.9		35.2		33.6		-11.7		39.6		2.0	
Median	15.6		25.5		12.6		13.8		9.4		25.5		31.0		-14.3		35.3		-0.9	
75th Percentile	13.8		20.2		9.6		12.2		8.4		20.2		28.3		-17.2		31.8		-3.9	
95th Percentile	10.2		10.9		4.1		9.2		7.2		10.9		21.8		-22.3		28.3		-7.4	
# of Portfolios	95		94		89		85		55		94		93		82		94		90	
● William Blair	16.6	(39)	33.3	(30)	13.5	(36)	13.6	(57)	9.4	(50)	33.3	(30)	32.0	(39)	-16.8	(69)	30.9	(81)	-1.4	(55)
▲ MSCI ACWI ex USA Growth	13.9	(74)	22.2	(64)	10.0	(72)	12.0	(77)	6.9	(96)	22.2	(64)	27.3	(80)	-14.4	(51)	32.0	(75)	0.1	(45)

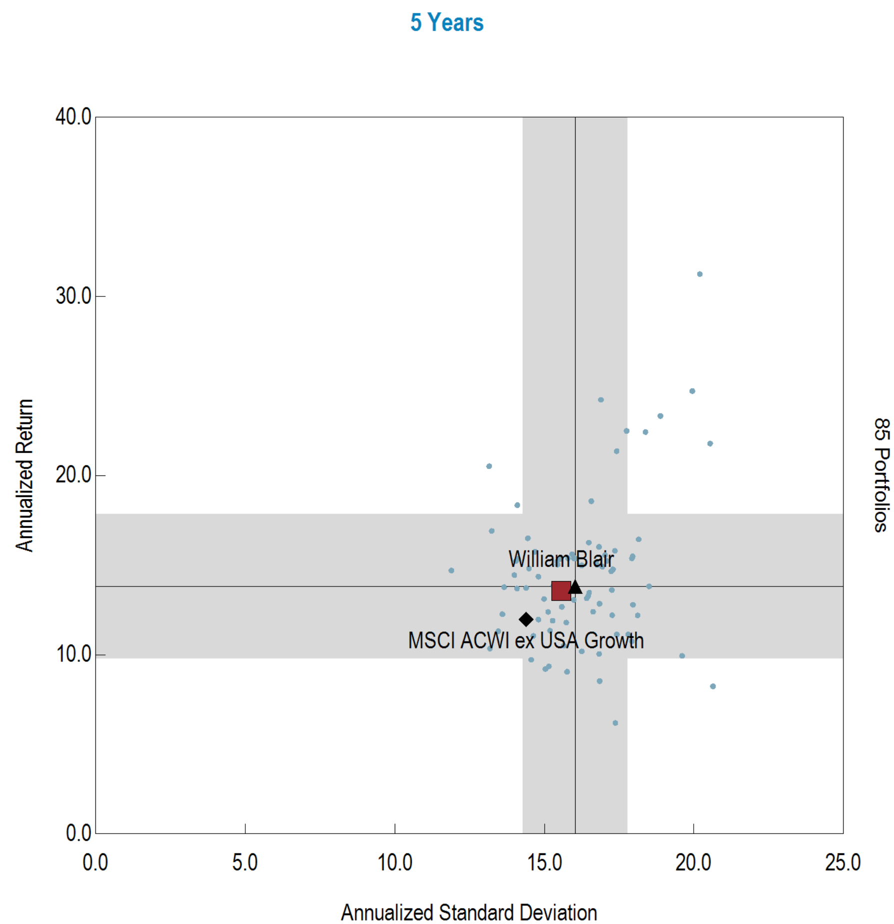
Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)







3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
William Blair	13.5%	18.3%	0.7
MSCI ACWI ex USA Growth	10.0%	16.7%	0.5
eV ACWI ex-US Growth Equity Gross Median	12.6%	18.7%	0.6

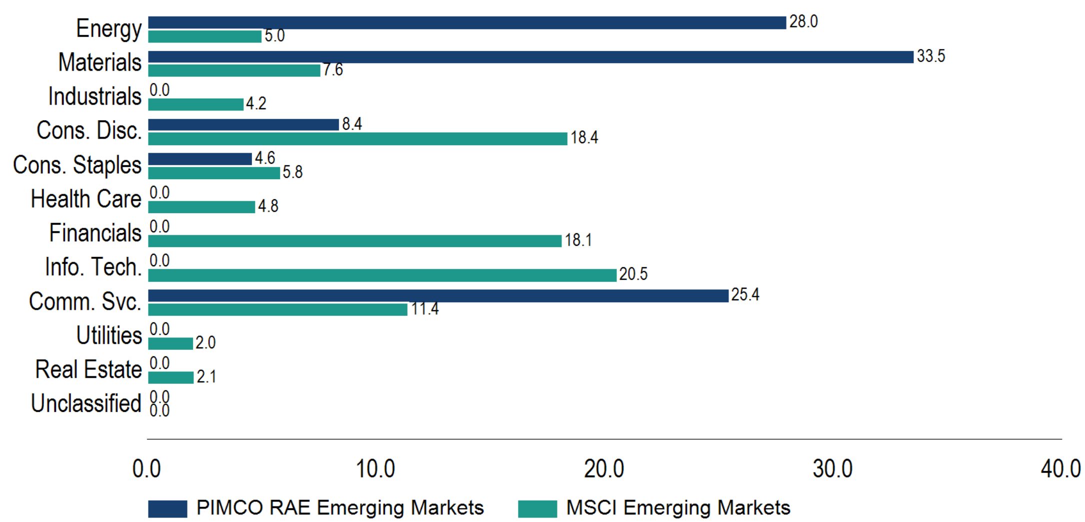
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
William Blair	13.6%	15.6%	0.8
MSCI ACWI ex USA Growth	12.0%	14.4%	0.8
eV ACWI ex-US Growth Equity Gross Median	13.8%	16.0%	0.8

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

	Portfolio	Emerging Markets
Number of Holdings	9	1,397
Weighted Avg. Market Cap. ($B)	25.93	171.50
Median Market Cap. ($B)	15.93	6.87
Price To Earnings	17.29	19.13
Price To Book	3.06	3.11
Price To Sales	0.45	1.36
Return on Equity (%)	6.82	11.11
Yield (%)	3.45	1.96
Beta	1.16	1.00

Sector Allocation (%) vs MSCI Emerging Markets



Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Emerging*	100.0%	100.0%
Top 10 Largest Countries		
Russia*	43.5%	2.6%
Korea*	23.4%	13.5%
South Africa*	18.1%	3.5%
China*	10.5%	39.2%
Mexico*	4.6%	1.7%
Total-Top 10 Largest Countries	**100.0%**	**60.6%**

Top Contributors

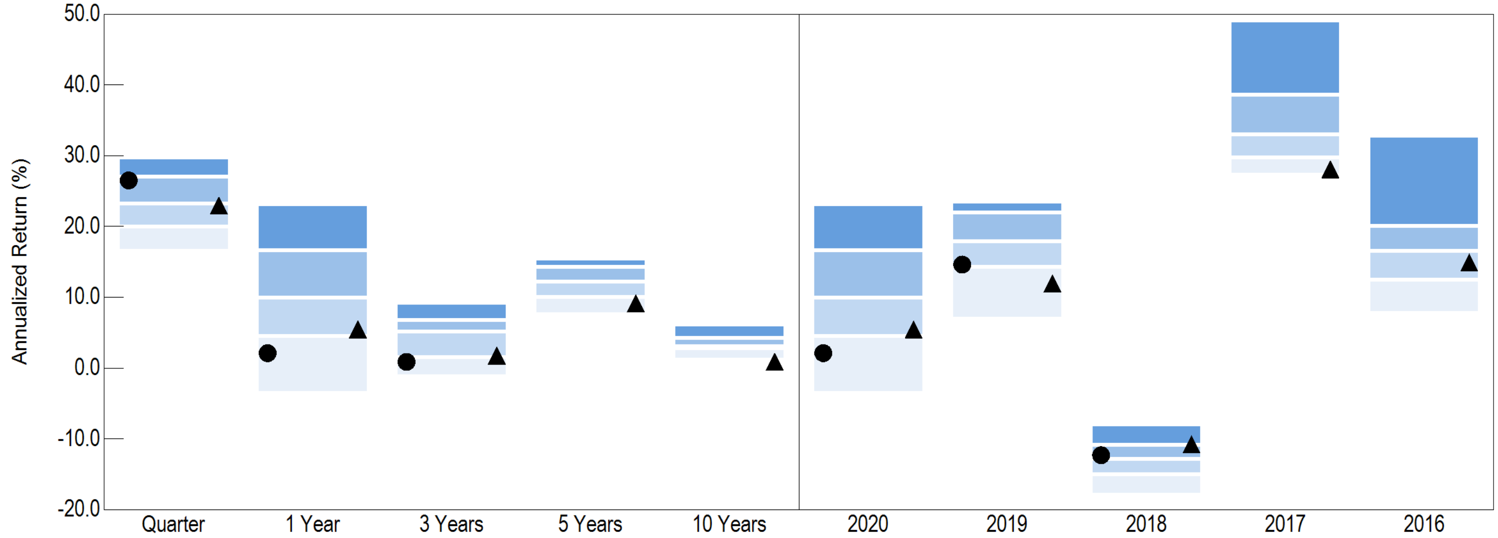
	End Weight	Return	Contribution
VIPSHOP HOLDINGS LIMITED	8.42	79.73	6.71
OIL CO LUKOIL PJSC	26.85	22.04	5.92
MINING AND METALLURGIAL CO NORILSK NICKEL PJSC	15.50	35.67	5.53
KT CORP	23.40	14.57	3.41
FOMENTO ECONOMICO MEXICAN SAB DE CV	2.06	36.74	0.76
COCA-COLA FEMSA SAB DE CV	2.55	16.75	0.43
GAZPROM NEFT PJSC	1.14	14.57	0.17
SOHU.COM LTD	2.04	-19.74	-0.40
GOLD FIELDS LTD	18.05	-24.57	-4.44

Bottom Contributors

	End Weight	Return	Contribution
GOLD FIELDS LTD	18.05	-24.57	-4.44
SOHU.COM LTD	2.04	-19.74	-0.40
GAZPROM NEFT PJSC	1.14	14.57	0.17
COCA-COLA FEMSA SAB DE CV	2.55	16.75	0.43
FOMENTO ECONOMICO MEXICAN SAB DE CV	2.06	36.74	0.76
KT CORP	23.40	14.57	3.41
MINING AND METALLURGIAL CO NORILSK NICKEL PJSC	15.50	35.67	5.53
OIL CO LUKOIL PJSC	26.85	22.04	5.92
VIPSHOP HOLDINGS LIMITED	8.42	79.73	6.71

Unclassified sector allocation includes cash allocations.

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

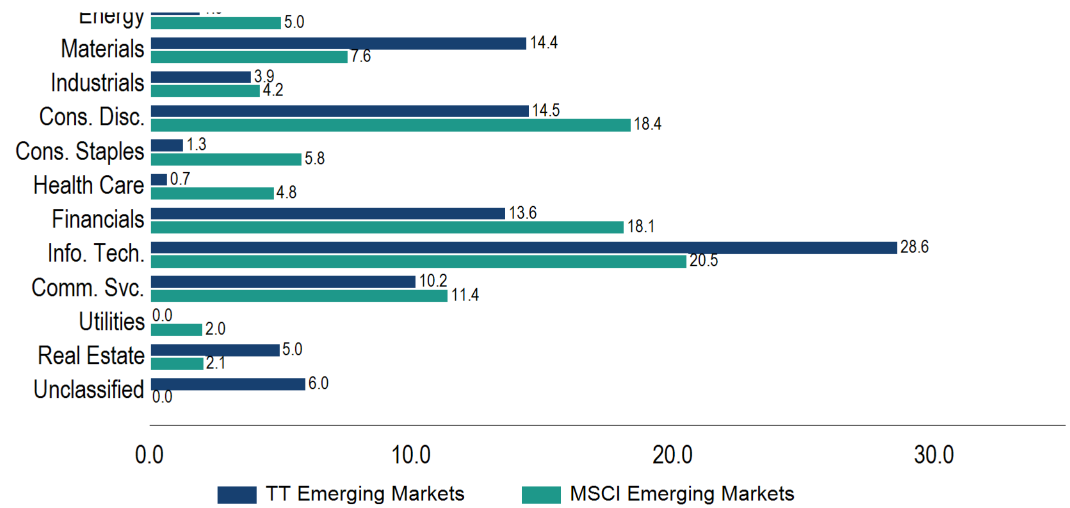


Return (Rank)

	Quarter	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016
5th Percentile	29.7	23.1	9.2	15.4	6.2	23.1	23.5	-7.9	49.0	32.8
25th Percentile	27.1	16.7	6.9	14.3	4.3	16.7	22.1	-10.8	38.6	20.1
Median	23.3	10.0	5.2	12.2	3.2	10.0	18.0	-12.7	33.0	16.6
75th Percentile	20.0	4.6	1.6	10.1	2.9	4.6	14.4	-14.9	29.8	12.6
95th Percentile	16.6	-3.4	-1.1	7.7	1.3	-3.4	7.0	-17.8	27.4	7.8
# of Portfolios	38	38	34	31	18	38	33	36	37	38
● PIMCO RAE Emerging Markets	26.5 (29)	2.1 (85)	0.9 (79)	-- (--)	-- (--)	2.1 (85)	14.6 (72)	-12.3 (44)	-- (--)	-- (--)
▲ MSCI Emerging Markets Value NR	23.0 (53)	5.5 (73)	1.8 (75)	9.2 (94)	0.9 (99)	5.5 (73)	12.0 (86)	-10.7 (25)	28.1 (90)	14.9 (59)

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

	Portfolio	Emerging Markets
Number of Holdings	68	1,397
Weighted Avg. Market Cap. ($B)	168.57	171.50
Median Market Cap. ($B)	13.87	6.87
Price To Earnings	18.73	19.13
Price To Book	3.20	3.11
Price To Sales	1.07	1.36
Return on Equity (%)	7.90	11.11
Yield (%)	1.32	1.96
Beta	1.17	1.00



Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	15.0%	0.0%
Emerging*	84.4%	100.0%
Frontier**	0.6%	0.0%
Top 10 Largest Countries		
China*	20.4%	39.2%
Korea*	20.0%	13.5%
Taiwan*	12.5%	12.8%
Brazil*	11.1%	5.1%
India*	9.7%	9.3%
South Africa*	6.4%	3.5%
Netherlands	5.6%	0.0%
Hong Kong	4.1%	0.0%
United Kingdom	2.7%	0.0%
Mexico*	1.7%	1.7%
Total-Top 10 Largest Countries	**96.4%**	**85.1%**

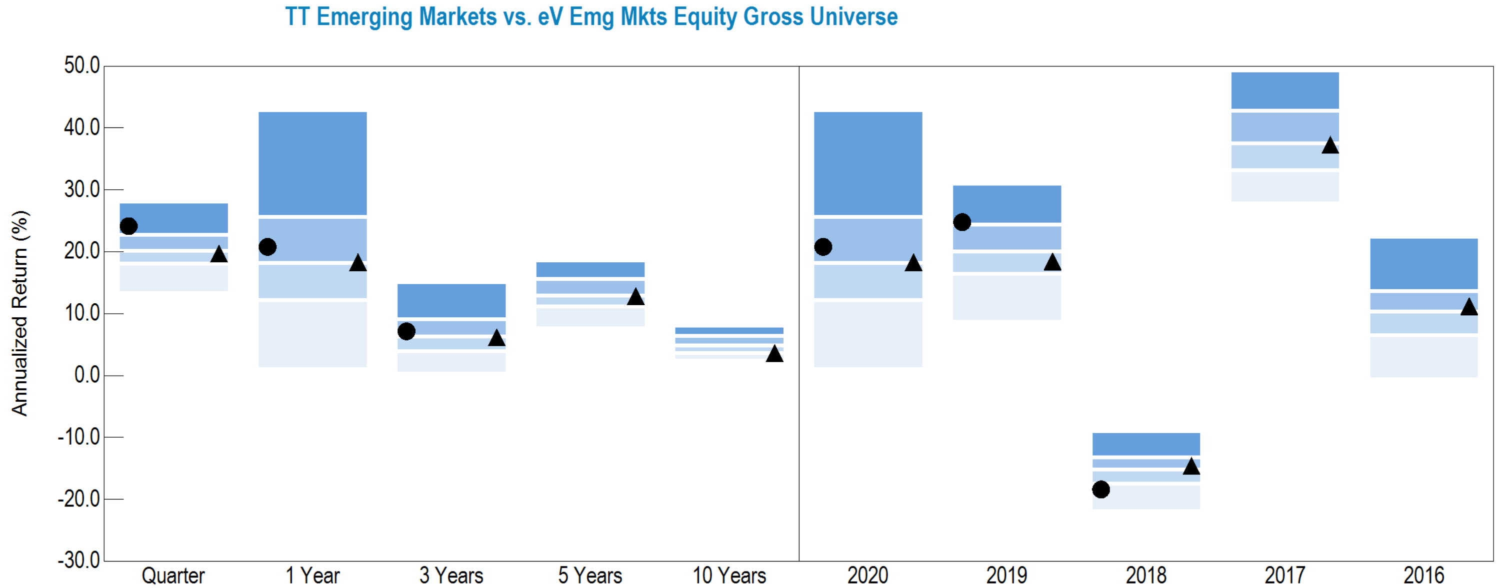
Top Contributors

	End Weight	Return	Contribution
SAMSUNG ELECTRONICS CO LTD	5.21	56.68	2.95
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	7.84	26.77	2.10
SAMSUNG ELECTRONICS CO LTD	4.17	49.56	2.07
VALE SA	3.12	58.41	1.82
ICICI BANK	3.50	51.86	1.81
BANCO BRADESCO SA BRAD	2.97	56.16	1.67

Bottom Contributors

	End Weight	Return	Contribution
ALIBABA GROUP HOLDING LTD	2.79	-20.83	-0.58
B2W COMPANHIA DIGITAL	2.13	-9.10	-0.19
A-LIVING ORD H	1.55	-12.29	-0.19
TIMES NEIGHBOR ORD	0.60	-29.13	-0.17
RELIANCE INDUSTRIES LTD	0.77	-16.26	-0.13
HUYA INC	0.73	-16.78	-0.12
SUNAC CHINA HOLDINGS LTD	1.91	-5.18	-0.10
DOUYU INTERNATIONAL HOLDINGS LTD	0.46	-16.28	-0.08
ONECONNECT FINANCIAL TECHNOLOGY CO LTD	0.78	-7.46	-0.06

Unclassified sector allocation includes cash allocations.

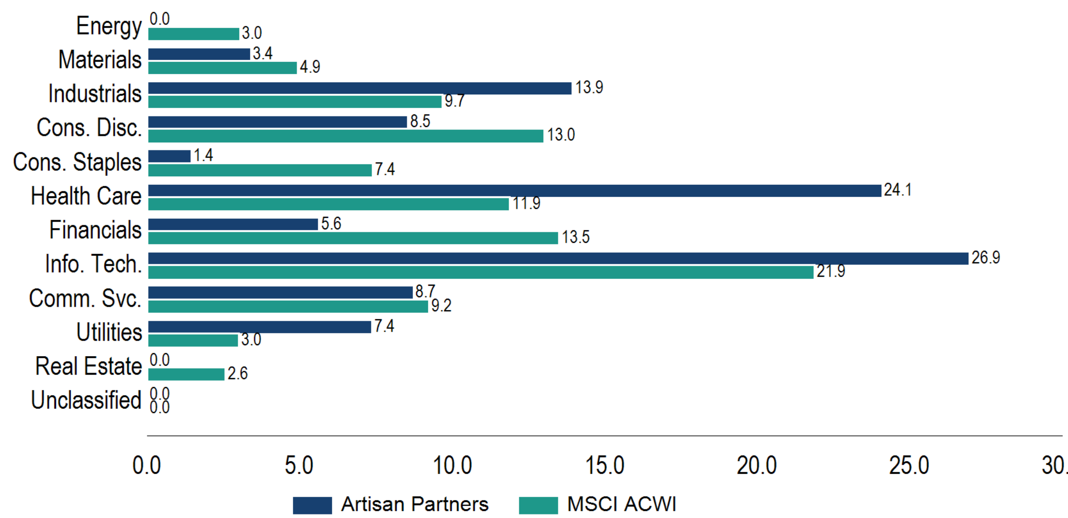


Return (Rank)	Quarter		1 Year		3 Years		5 Years		10 Years		2020		2019		2018		2017		2016	
5th Percentile	28.1		42.8		15.0		18.6		8.0		42.8		30.9		-9.0		49.2		22.4	
25th Percentile	22.7		25.7		9.2		15.7		6.4		25.7		24.4		-13.2		42.8		13.7	
Median	20.2		18.2		6.3		13.0		4.9		18.2		20.1		-15.2		37.6		10.4	
75th Percentile	18.1		12.2		4.0		11.2		3.7		12.2		16.5		-17.4		33.2		6.6	
95th Percentile	13.3		1.1		0.3		7.7		2.5		1.1		8.8		-21.8		27.8		-0.6	
# of Portfolios	381		381		349		317		182		381		386		355		343		337	
● TT Emerging Markets	24.1	(18)	20.8	(39)	7.1	(42)	--	(--)	--	(--)	20.8	(39)	24.8	(24)	-18.4	(83)	--	(--)	--	(--)
▲ MSCI Emerging Markets	19.7	(56)	18.3	(50)	6.2	(54)	12.8	(57)	3.6	(79)	18.3	(50)	18.4	(63)	-14.6	(43)	37.3	(53)	11.2	(45)

Global Equity Managers

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

Number of Holdings	46	2,982
Weighted Avg. Market Cap. ($B)	141.49	306.44
Median Market Cap. ($B)	53.02	12.22
Price To Earnings	41.12	25.54
Price To Book	5.89	3.68
Price To Sales	5.23	1.96
Return on Equity (%)	13.97	15.76
Yield (%)	0.85	1.81
Beta	0.99	1.00



Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	96.6%	86.7%
Emerging*	3.4%	13.3%
Top 10 Largest Countries		
United States	46.8%	57.3%
United Kingdom	13.4%	3.8%
Denmark	7.8%	0.7%
Hong Kong	6.5%	0.9%
Switzerland	4.7%	2.6%
Netherlands	4.7%	1.0%
Sweden	4.6%	0.9%
Japan	3.5%	6.8%
Spain	2.6%	0.7%
Australia	2.0%	1.9%
Total-Top 10 Largest Countries	**96.6%**	**76.4%**

Top Contributors

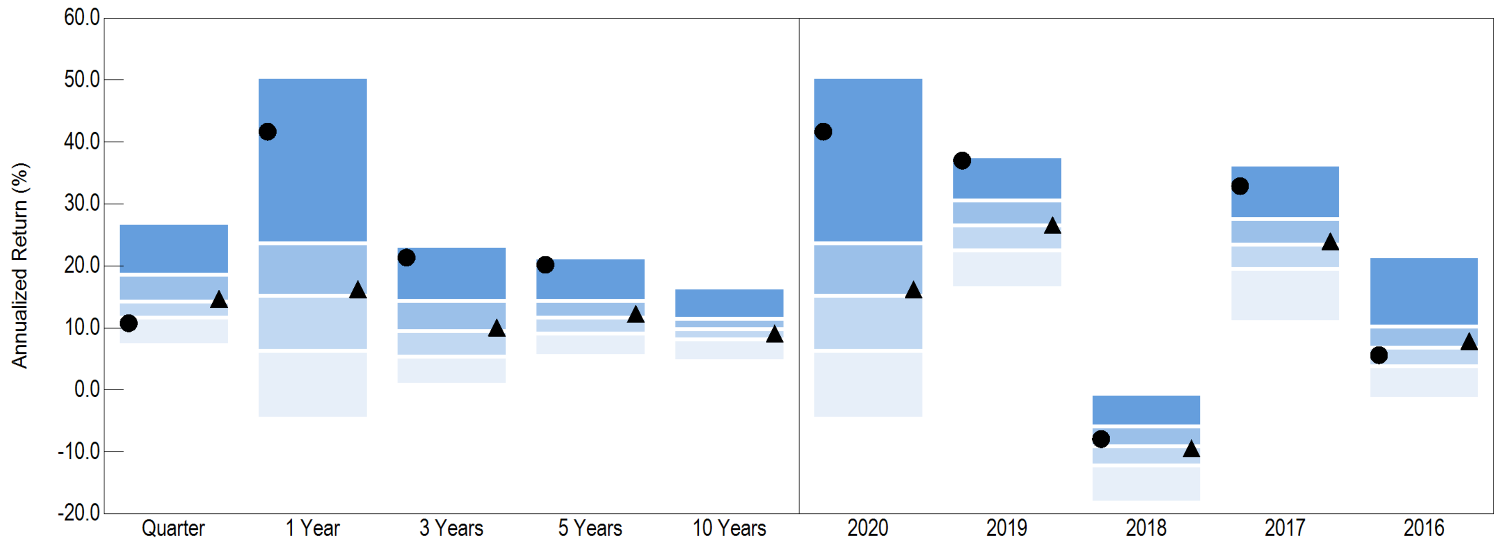
	Avg Wgt	Return	Contribution
VESTAS WIND SYSTEMS A/S	2.89	45.60	1.32
PAGSEGURO DIGITAL LTD	1.63	50.84	0.83
APTIV PLC	1.54	42.11	0.65
ARISTA NETWORKS INC	1.60	40.42	0.65
ORSTED A/S	1.29	47.98	0.62
ATLASSIAN CORP PLC	1.83	28.65	0.53
IHS MARKIT LTD	3.27	14.66	0.48
TECHTRONIC INDUSTRIES CO LTD	5.20	8.81	0.46
TJX COMPANIES INC (THE)	1.85	22.71	0.42

Bottom Contributors

	Avg Wgt	Return	Contribution
ZOOM VIDEO COMMUNICATIONS INC	2.75	-28.25	-0.78
ASTRAZENECA PLC	4.18	-8.57	-0.36
FIDELITY NATIONAL INFORMATION SERVICES INC	4.18	-3.68	-0.15
LOWE'S COS INC	4.99	-2.90	-0.14
BOSTON SCIENTIFIC CORP	2.41	-5.91	-0.14
RECKITT BENCKISER GROUP PLC	1.16	-8.64	-0.10
VEEVA SYSTEMS INC	2.86	-3.18	-0.09
DANAHER CORP	2.97	3.25	0.10
NETFLIX INC	1.20	8.14	0.10

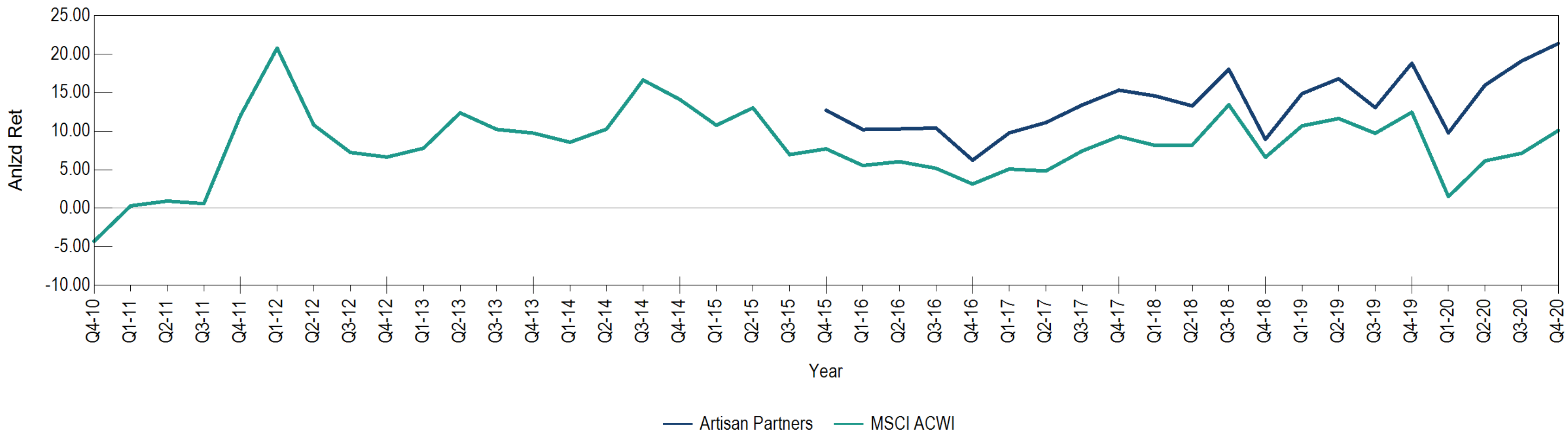
Unclassified sector allocation includes cash allocations.

Artisan Partners vs. eV All Global Equity Gross Universe

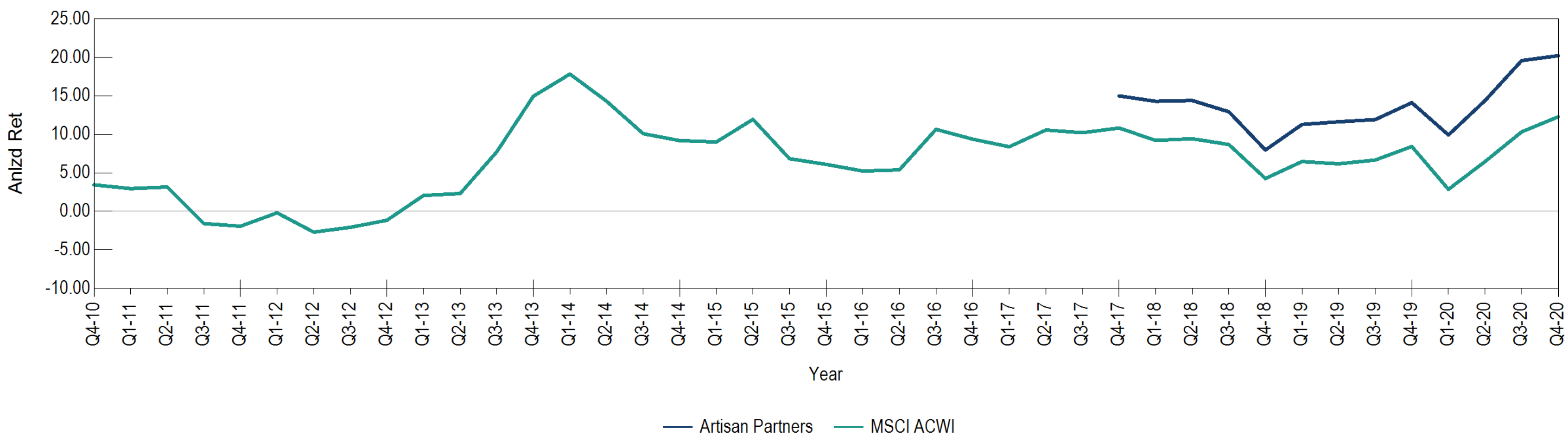


	Return (Rank)																			
5th Percentile	26.9		50.5		23.2		21.3		16.5		50.5		37.6		-0.7		36.3		21.5	
25th Percentile	18.6		23.7		14.4		14.4		11.6		23.7		30.7		-5.8		27.6		10.3	
Median	14.3		15.3		9.5		11.7		9.9		15.3		26.6		-9.1		23.5		6.8	
75th Percentile	11.7		6.3		5.4		9.1		8.2		6.3		22.6		-12.2		19.6		3.9	
95th Percentile	7.3		-4.6		0.9		5.5		4.7		-4.6		16.5		-18.1		11.0		-1.4	
# of Portfolios	1,040		1,040		952		846		531		1,040		989		920		880		842	
● Artisan Partners	10.8	(82)	41.7	(8)	21.3	(7)	20.2	(6)	--	(--)	41.7	(8)	37.0	(7)	-7.9	(40)	32.9	(11)	5.6	(61)
▲ MSCI ACWI	14.7	(46)	16.3	(46)	10.1	(48)	12.3	(45)	9.1	(66)	16.3	(46)	26.6	(50)	-9.4	(53)	24.0	(47)	7.9	(42)

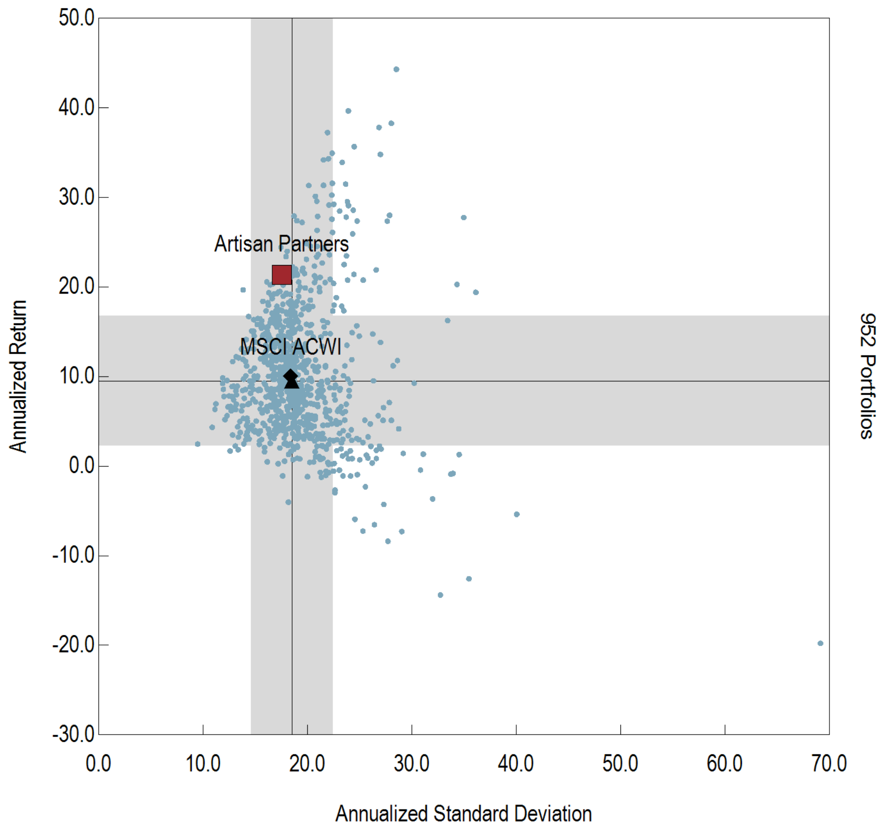
Rolling 3 Year Annualized Return (%)



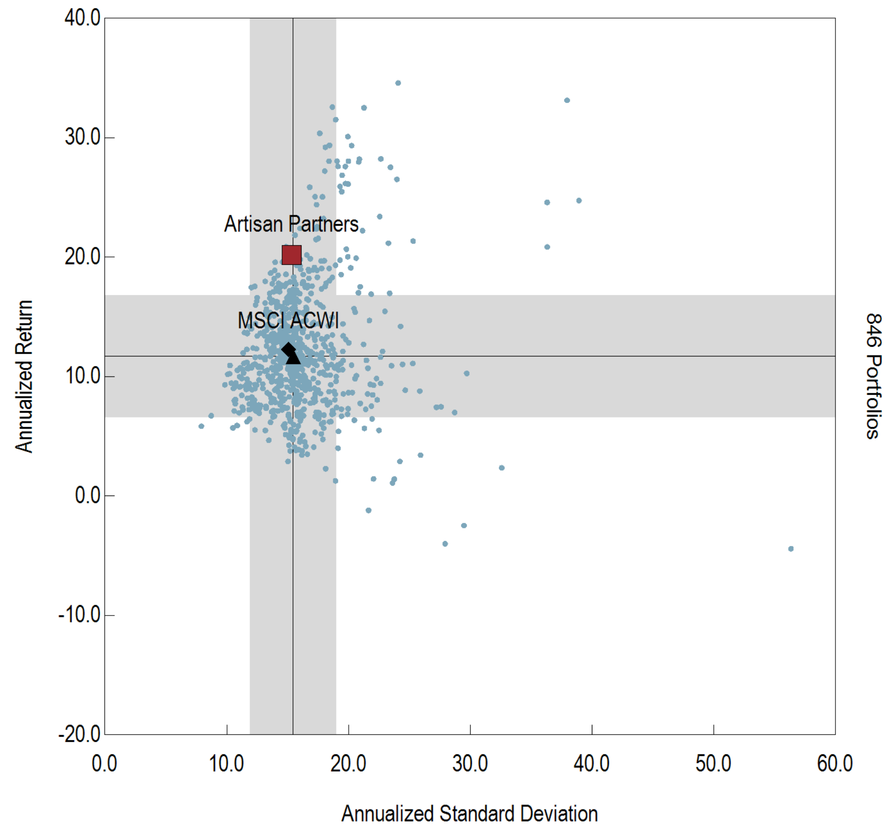
Rolling 5 Year Annualized Return (%)



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Artisan Partners	21.3%	17.5%	1.1
MSCI ACWI	10.1%	18.4%	0.5
eV All Global Equity Gross Median	9.5%	18.5%	0.5

5 Years

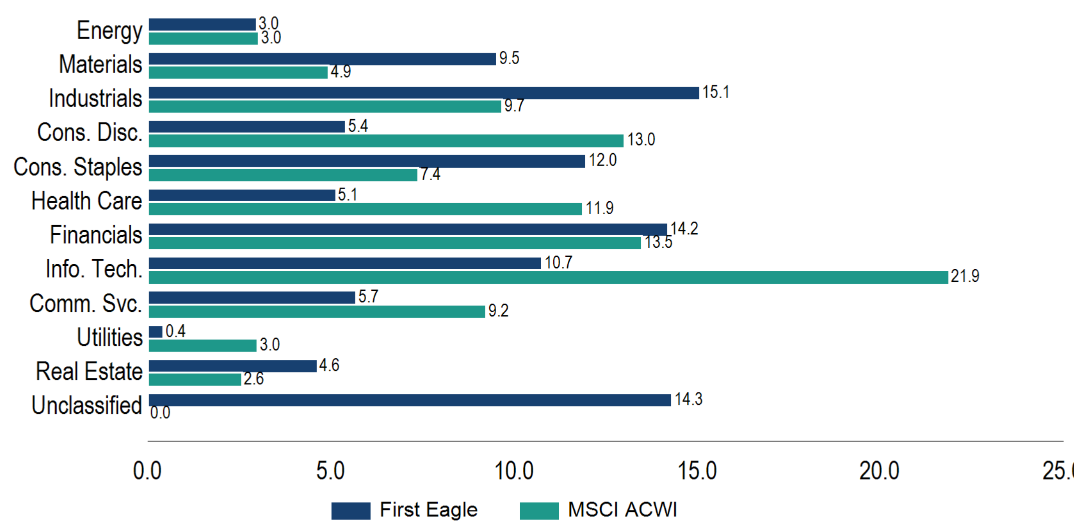
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Artisan Partners	20.2%	15.3%	1.2
MSCI ACWI	12.3%	15.1%	0.7
eV All Global Equity Gross Median	11.7%	15.5%	0.7

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

Characteristics

	Portfolio	MSCI ACWI
Number of Holdings	126	2,982
Weighted Avg. Market Cap. ($B)	119.31	306.44
Median Market Cap. ($B)	27.49	12.22
Price To Earnings	22.17	25.54
Price To Book	2.90	3.68
Price To Sales	1.76	1.96
Return on Equity (%)	13.64	15.76
Yield (%)	2.05	1.81
Beta	0.76	1.00

Sector Allocation (%) vs MSCI ACWI



Country Allocation

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Totals		
Developed	93.7%	86.7%
Emerging*	6.3%	13.3%
Top 10 Largest Countries		
United States	56.6%	57.3%
Japan	11.5%	6.8%
United Kingdom	5.7%	3.8%
Canada	5.4%	2.7%
France	5.1%	3.0%
Korea*	2.6%	1.8%
Switzerland	2.3%	2.6%
Belgium	1.7%	0.3%
Sweden	1.3%	0.9%
Taiwan*	1.2%	1.7%
Total-Top 10 Largest Countries	**94.5%**	**80.7%**

Top Contributors

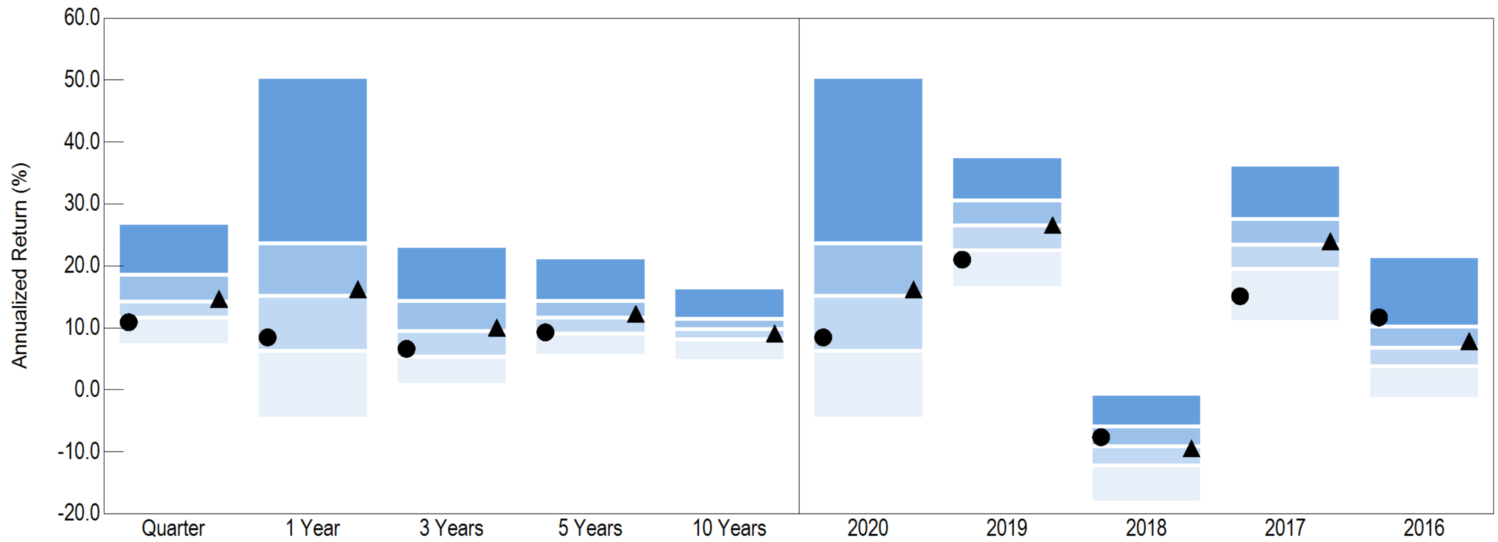
	End Weight	Return	Contribution
FANUC CORP	2.10	28.80	0.60
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.16	35.07	0.41
EXXON MOBIL CORP	1.67	22.90	0.38
CIE FINANCIERE RICHEMONT AG, ZUG	1.11	34.57	0.38
COMCAST CORP	2.76	13.86	0.38
SCHLUMBERGER LTD	0.90	41.13	0.37
DEERE & CO	1.66	21.74	0.36
BANK OF NEW YORK MELLON CORP (THE)	1.19	24.67	0.29
NUTRIEN LTD	1.23	23.93	0.29
ORACLE CORP	3.23	8.79	0.28

Bottom Contributors

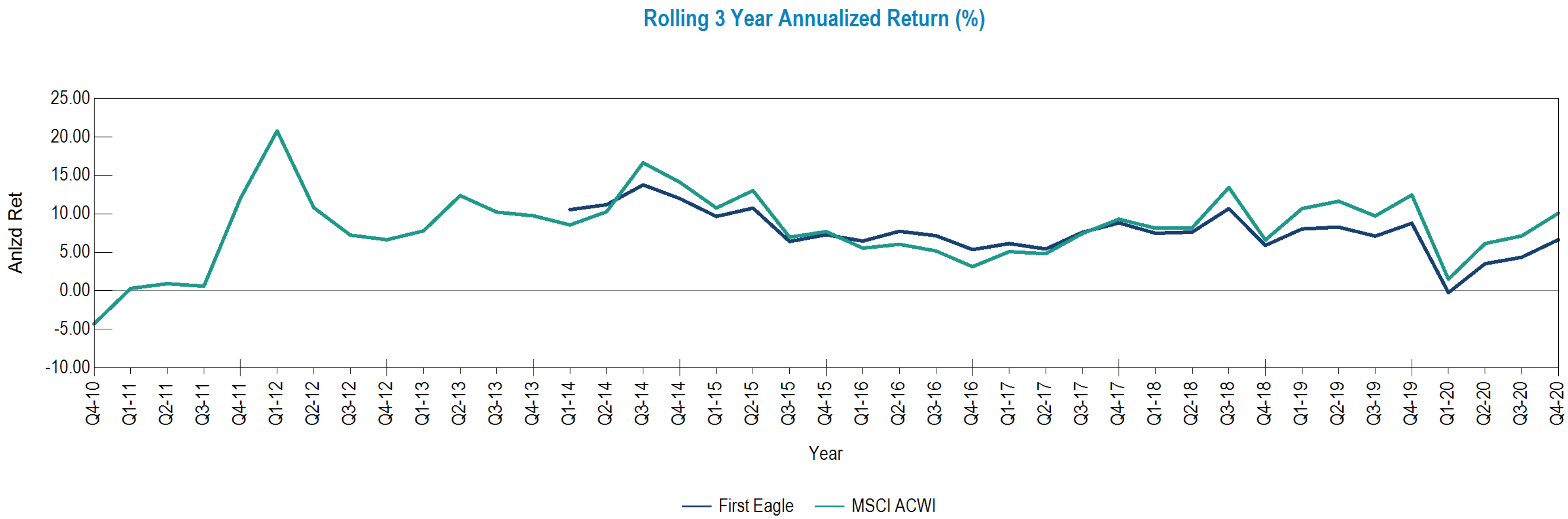
	End Weight	Return	Contribution
BARRICK GOLD CORP	0.99	-18.64	-0.18
WHEATON PRECIOUS METALS CORP	1.14	-14.67	-0.17
C.H. ROBINSON WORLDWIDE INC.	1.94	-7.64	-0.15
SALESFORCE.COM INC	0.79	-11.46	-0.09
NEWMONT CORPORATION	1.64	-4.97	-0.08
AGNICO EAGLE MINES LTD	0.71	-11.21	-0.08
NEWCREST MINING LTD	0.55	-11.19	-0.06
SANOFI	1.21	-3.92	-0.05
ROYAL GOLD INC	0.32	-11.29	-0.04
FRANCO-NEVADA CORP	0.28	-10.14	-0.03

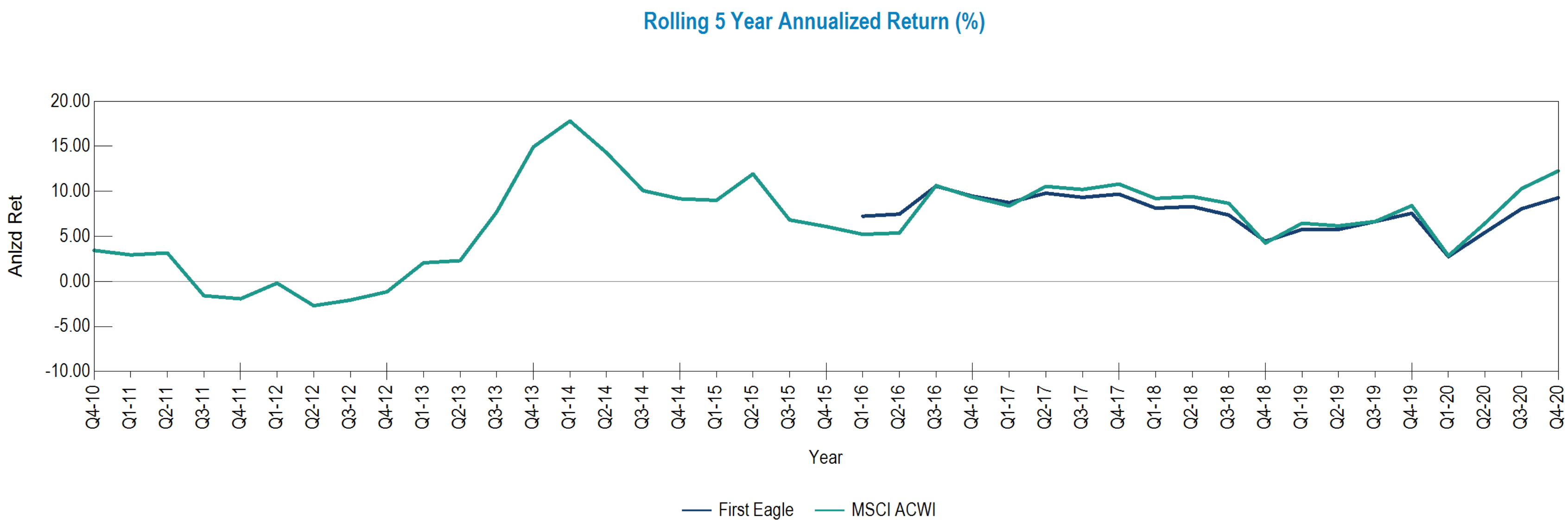
Unclassified sector allocation includes cash allocations and Gold allocations (11.2% as of 12/31/2020).

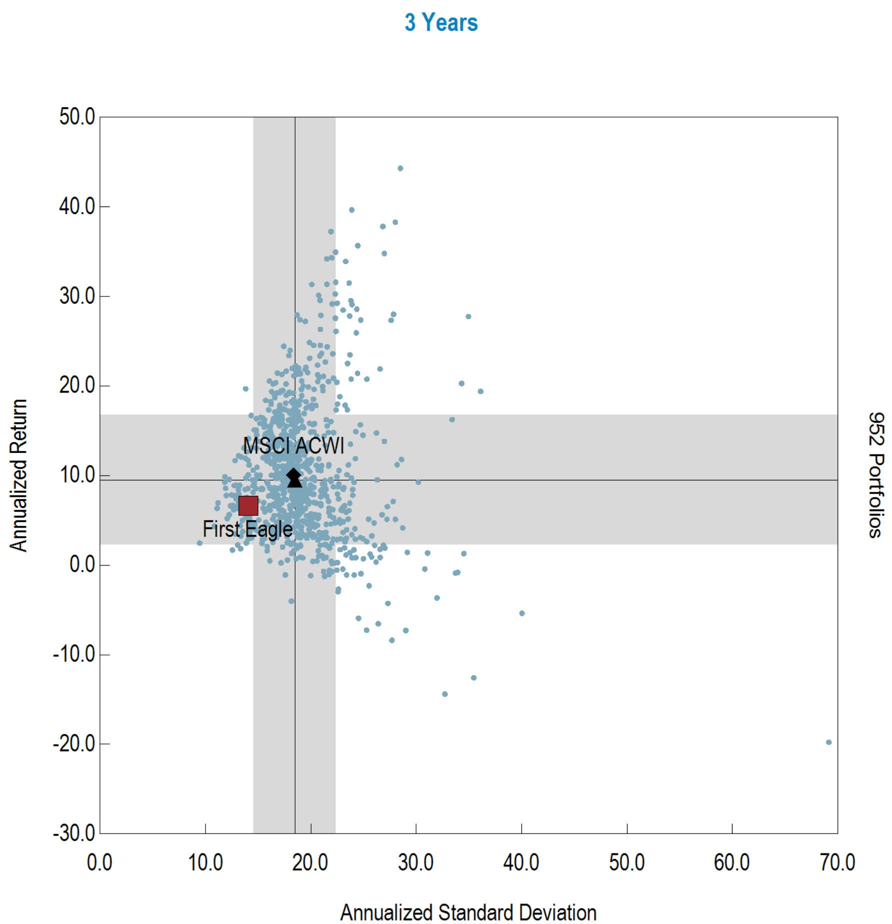
First Eagle vs. eV All Global Equity Gross Universe

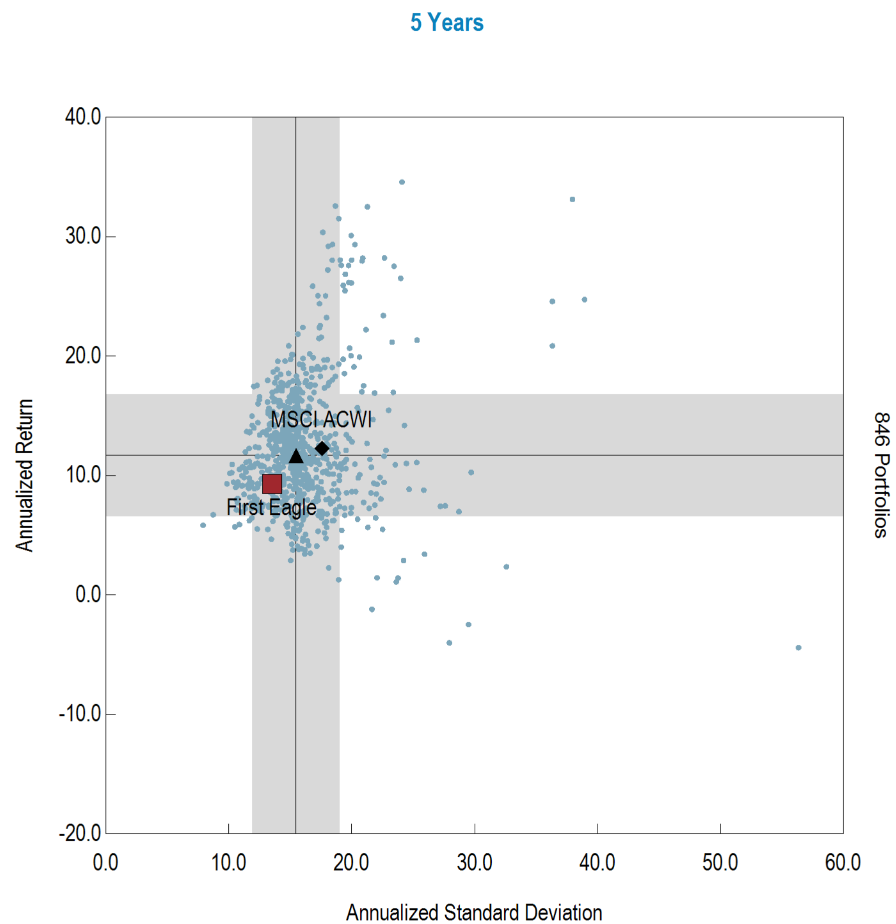


	Quarter		1 Year		3 Years		5 Years		10 Years		2020		2019		2018		2017		2016	
Return (Rank)																				
5th Percentile	26.9		50.5		23.2		21.3		16.5		50.5		37.6		-0.7		36.3		21.5	
25th Percentile	18.6		23.7		14.4		14.4		11.6		23.7		30.7		-5.8		27.6		10.3	
Median	14.3		15.3		9.5		11.7		9.9		15.3		26.6		-9.1		23.5		6.8	
75th Percentile	11.7		6.3		5.4		9.1		8.2		6.3		22.6		-12.2		19.6		3.9	
95th Percentile	7.3		-4.6		0.9		5.5		4.7		-4.6		16.5		-18.1		11.0		-1.4	
# of Portfolios	1,040		1,040		952		846		531		1,040		989		920		880		842	
● First Eagle	10.9	(81)	8.5	(70)	6.6	(69)	9.3	(74)	--	(--)	8.5	(70)	21.0	(82)	-7.6	(38)	15.1	(89)	11.7	(19)
▲ MSCI ACWI	14.7	(46)	16.3	(46)	10.1	(48)	12.3	(45)	9.1	(66)	16.3	(46)	26.6	(50)	-9.4	(53)	24.0	(47)	7.9	(42)


Rolling 3 Year Annualized Return (%)
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
Anlzd Ret
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
First Eagle
MSCI ACWI


Rolling 5 Year Annualized Return (%)
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
Anlzd Ret
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
First Eagle
MSCI ACWI





3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
First Eagle	6.6%	14.1%	0.4
MSCI ACWI	10.1%	18.4%	0.5
eV All Global Equity Gross Median	9.5%	18.5%	0.5

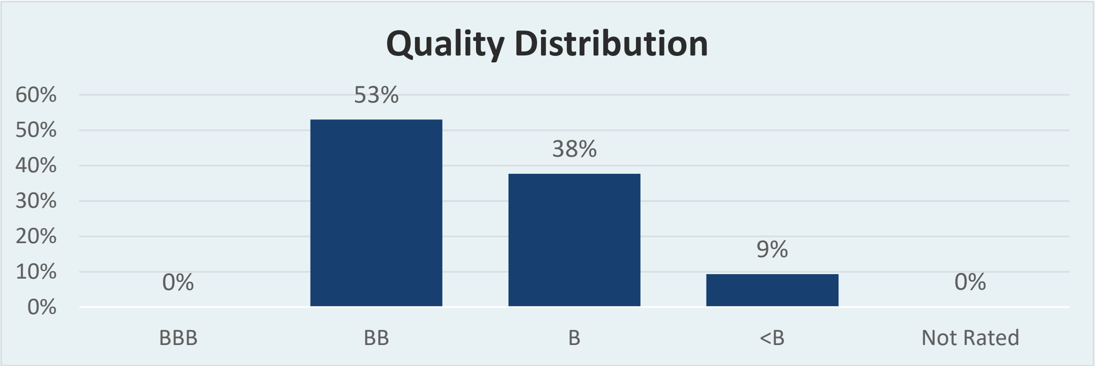
5 Years

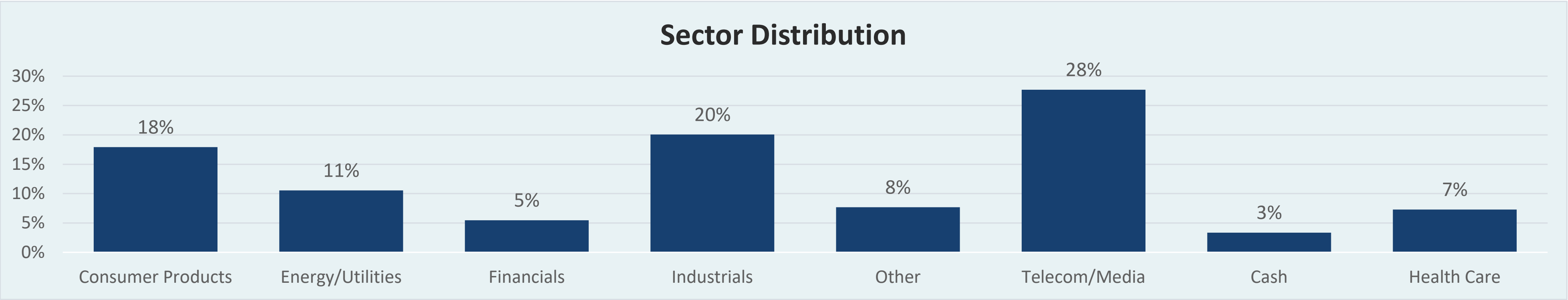
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
irst Eagle	9.3%	11.5%	0.7
ISCI ACWI	12.3%	15.1%	0.7
√ All Global Equity Gross Median	11.7%	15.5%	0.7

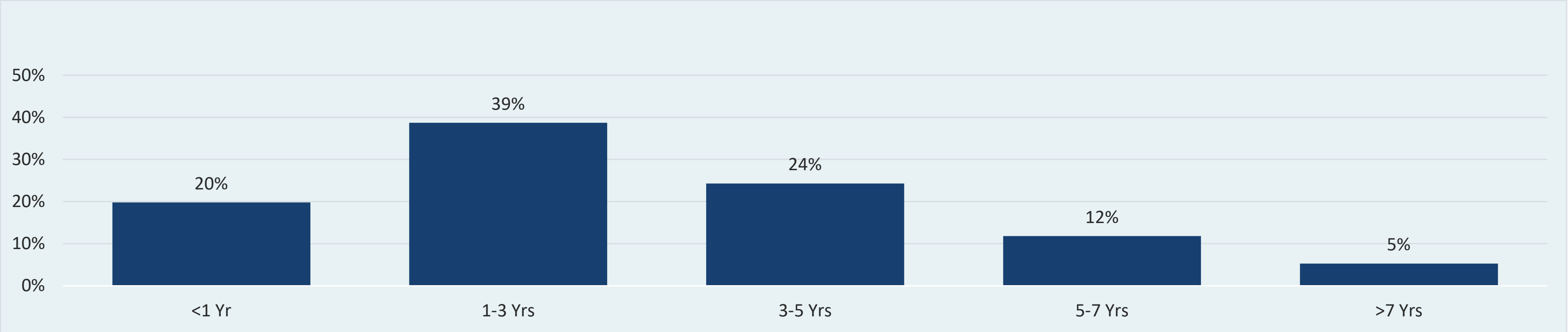
High Yield Managers

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

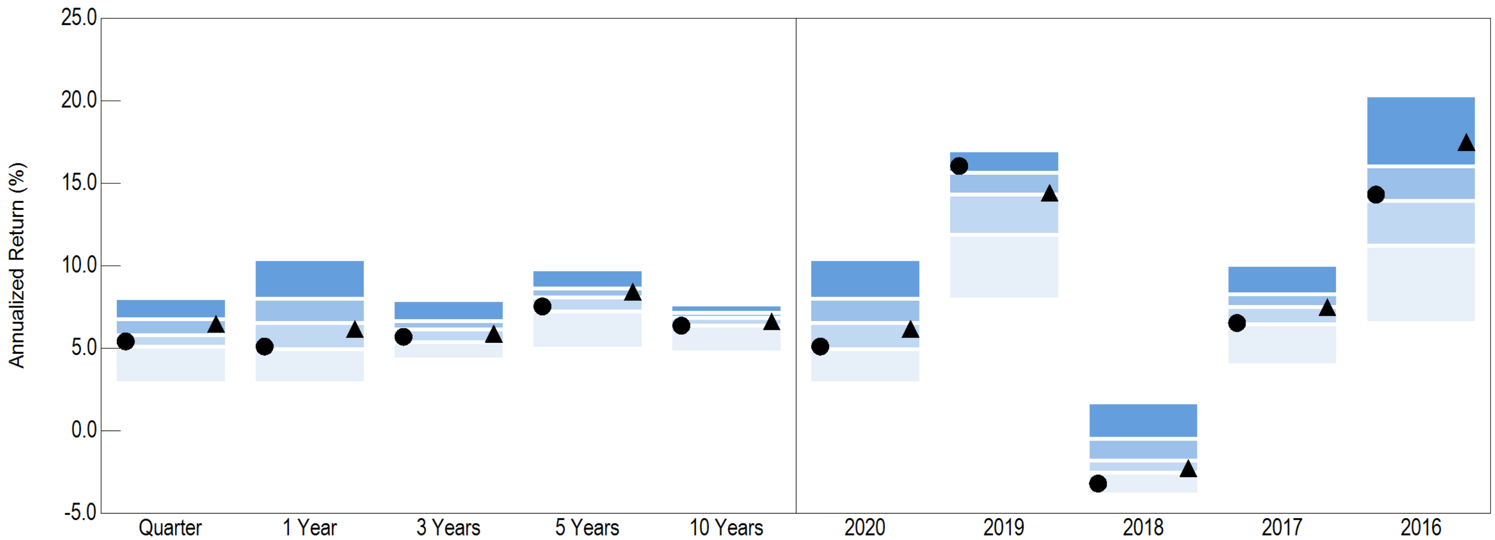
	Allianz	ICE BofAML HY Master II
Effective Duration	2.90	3.70
Yield to Maturity	4.90	5.00
Average Quality	B1	B1
Average Coupon	6.5%	6.0%





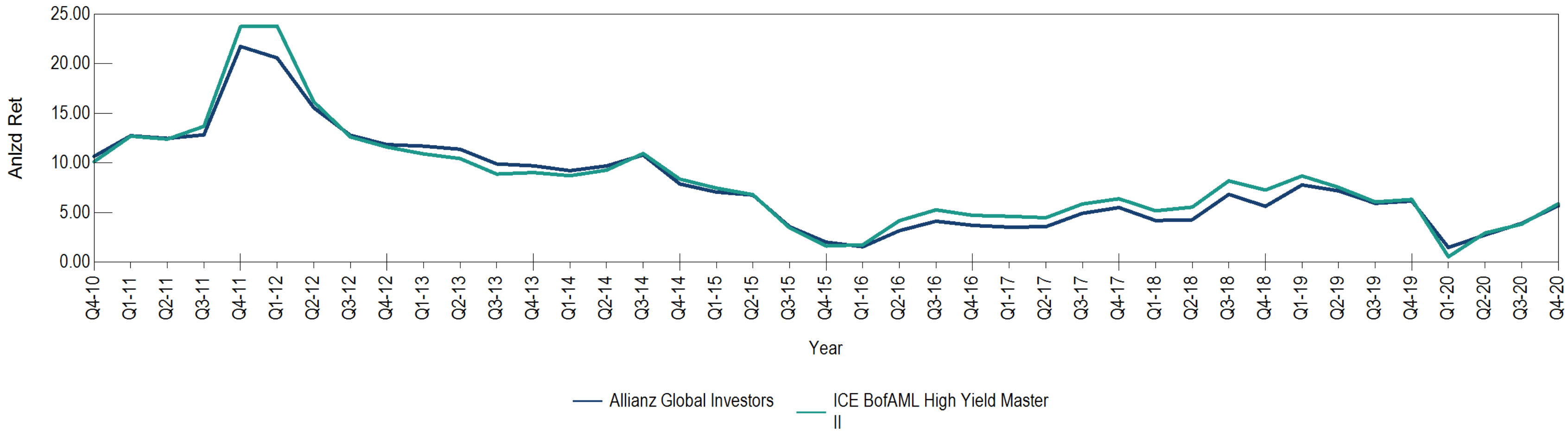


Allianz Global Investors vs. eV US High Yield Fixed Inc Gross Universe

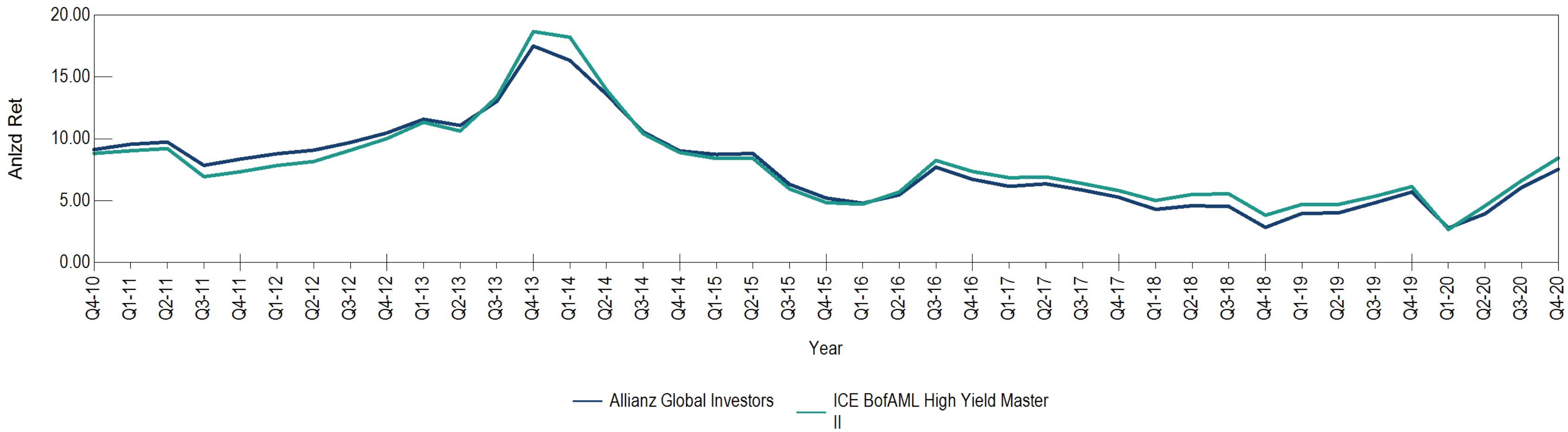


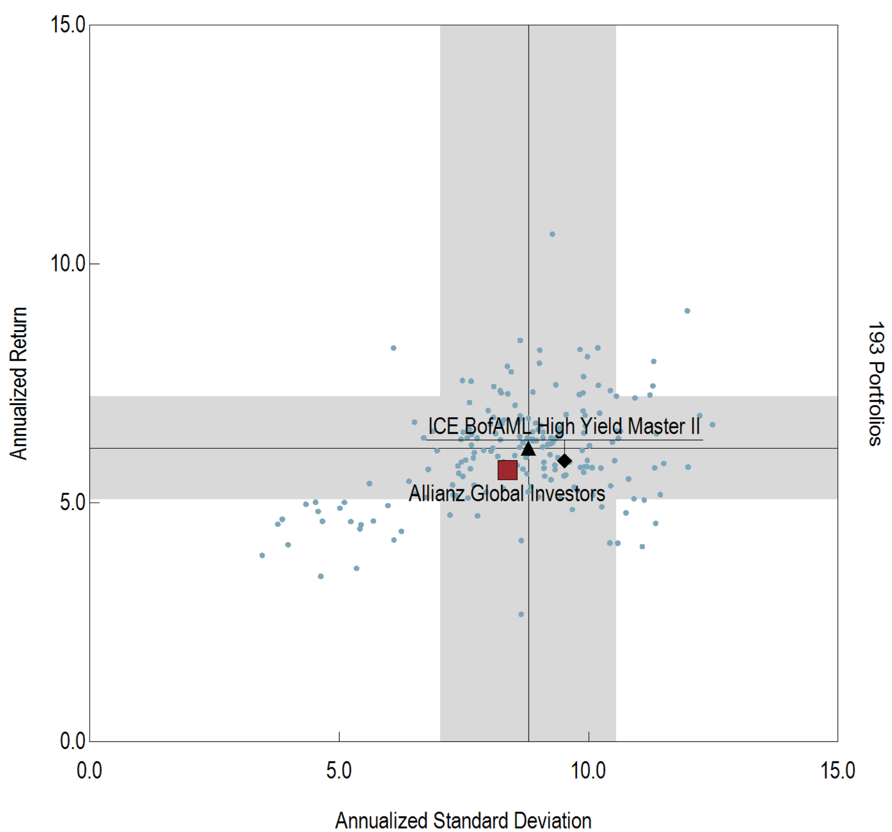
Return (Rank)	Quarter		1 Year		3 Years		5 Years		10 Years		2020		2019		2018		2017		2016	
5th Percentile	8.0		10.4		7.9		9.8		7.6		10.4		16.9		1.7		10.0		20.3	
25th Percentile	6.8		8.0		6.6		8.6		7.1		8.0		15.6		-0.5		8.3		16.0	
Median	5.8		6.5		6.1		8.1		6.8		6.5		14.3		-1.8		7.5		14.0	
75th Percentile	5.1		5.0		5.4		7.2		6.4		5.0		11.9		-2.5		6.5		11.3	
95th Percentile	2.9		2.9		4.3		5.0		4.8		2.9		8.0		-3.8		4.0		6.6	
# of Portfolios	197		197		193		177		131		197		226		210		198		183	
● Allianz Global Investors	5.4	(65)	5.1	(75)	5.7	(69)	7.5	(64)	6.4	(76)	5.1	(75)	16.0	(15)	-3.2	(88)	6.5	(74)	14.3	(47)
▲ ICE BofAML High Yield Master II	6.5	(33)	6.2	(56)	5.9	(58)	8.4	(34)	6.6	(64)	6.2	(56)	14.4	(49)	-2.3	(69)	7.5	(53)	17.5	(14)

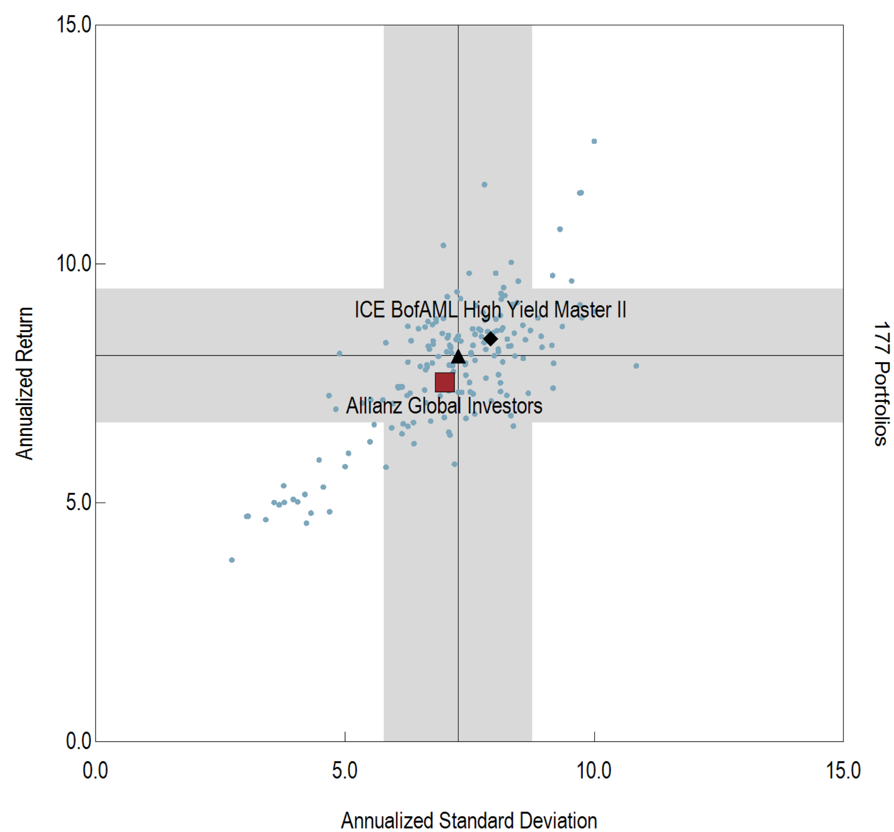
Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)







3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Allianz Global Investors	5.7%	8.4%	0.5
ICE BofAML High Yield Master II	5.9%	9.5%	0.5
eV US High Yield Fixed Inc Gross Median	6.1%	8.8%	0.5

5 Years

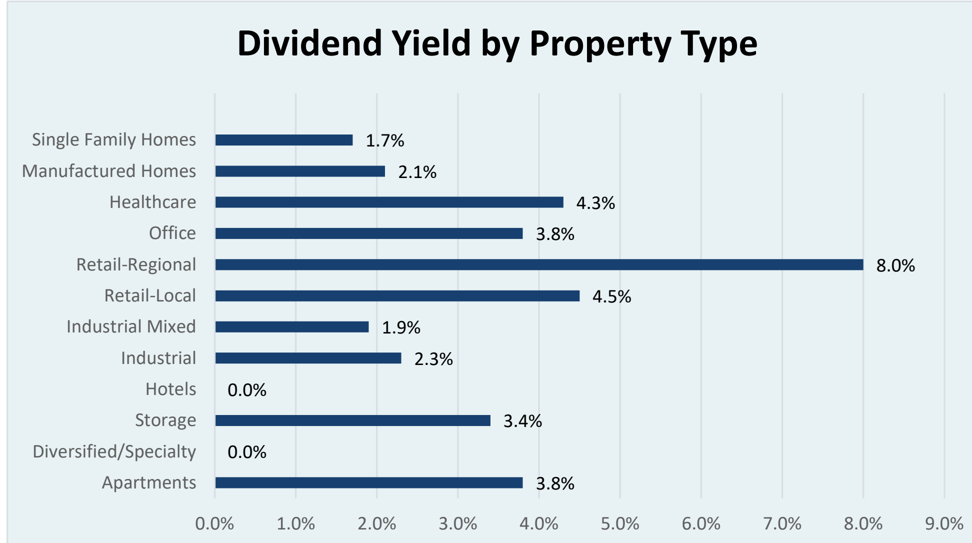
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Allianz Global Investors	7.5%	7.0%	0.9
ICE BofAML High Yield Master II	8.4%	7.9%	0.9
eV US High Yield Fixed Inc Gross Median	8.1%	7.3%	1.0

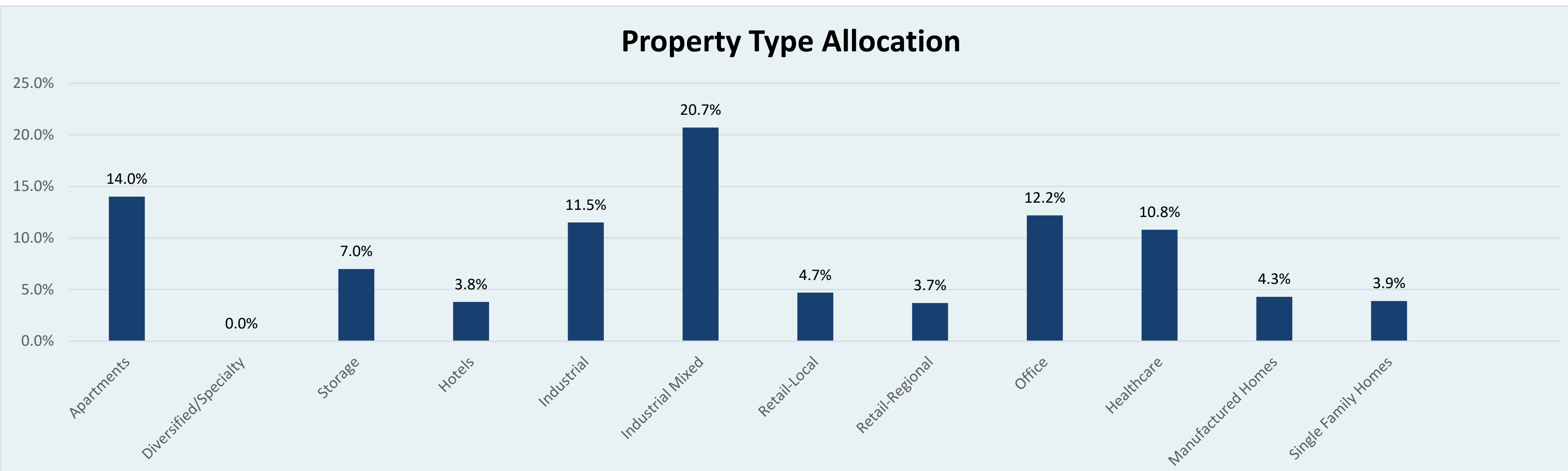
Real Estate Managers

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

Top Five Holdings

Company	Property Type	Allocation
Equinix Inc	Industrial Mixed	11.0%
ProLogis Inc.	Industrial	9.9%
Welltower, Inc.	Healthcare	5.5%
Equity Residential	Apartments	4.7%
Duke Realty Corporation	Industrial Mixed	4.6%

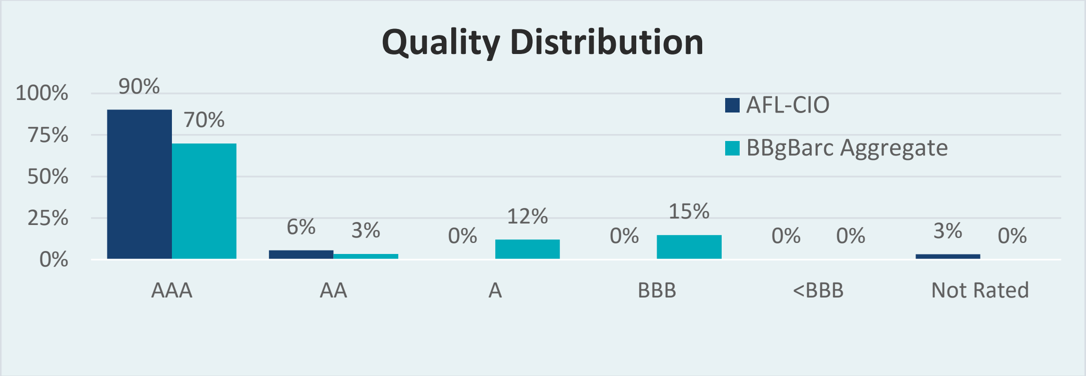


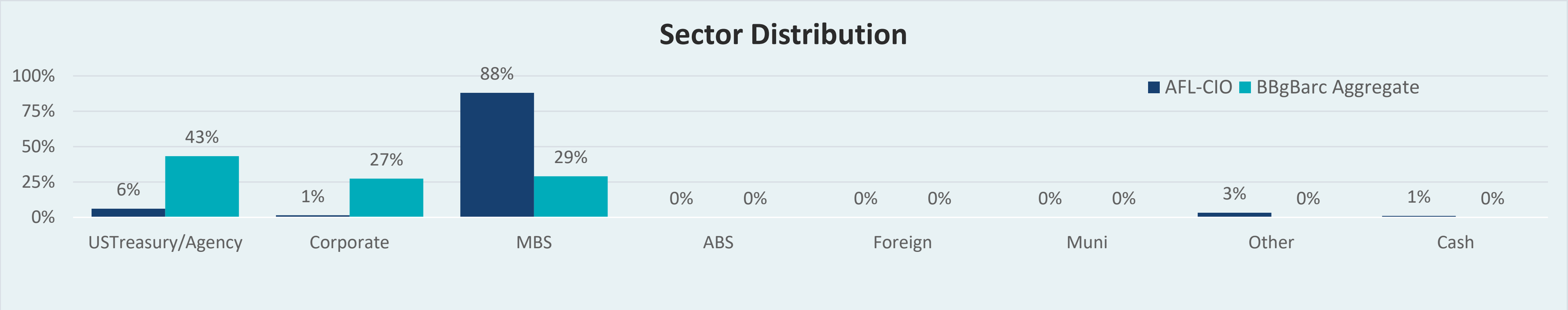


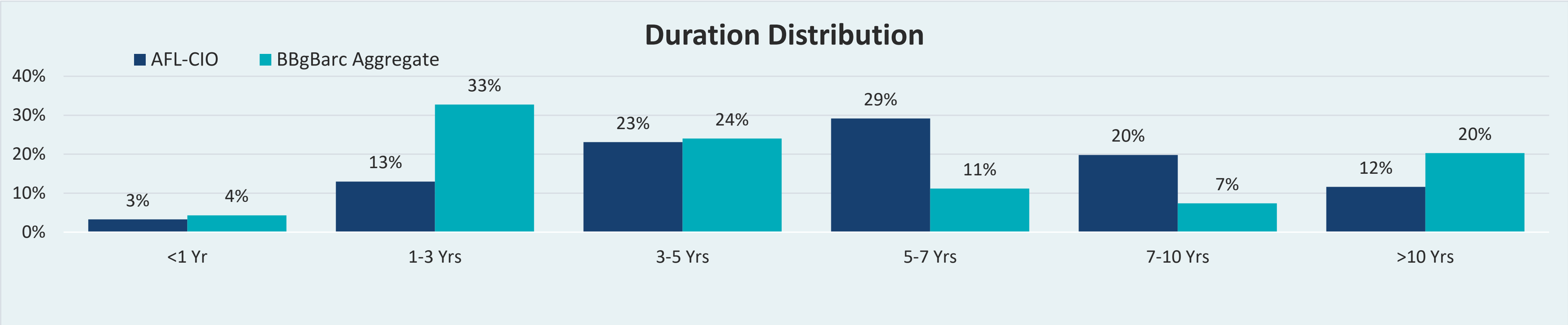
Diversifying Fixed Income Managers

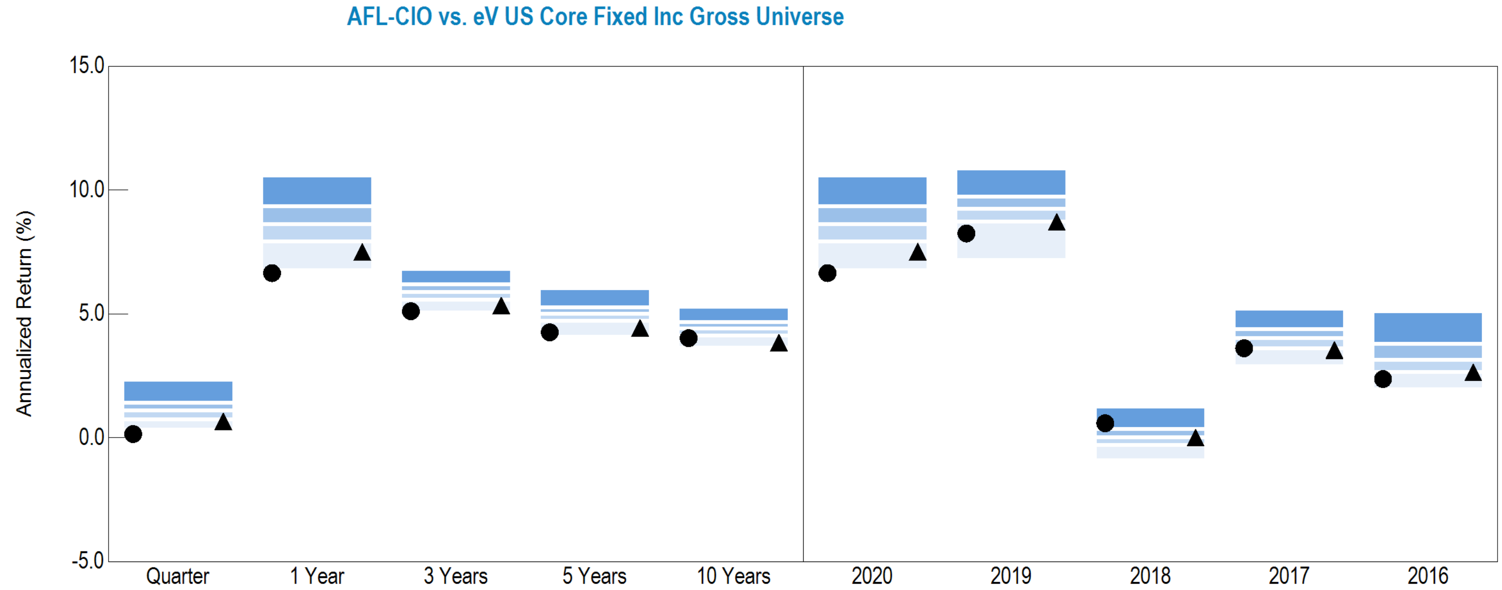
Domestic core fixed income portfolio with an exclusive focus on mortgage-related securities. Primary personnel include Stephen Coyle and Chang Su.

	AFL-CIO	BBgBarc Aggregate
Effective Duration	5.83	6.22
Yield to Maturity	2.68	1.12
Average Quality	AAA	AA/AA+
Average Coupon	2.9%	2.8%

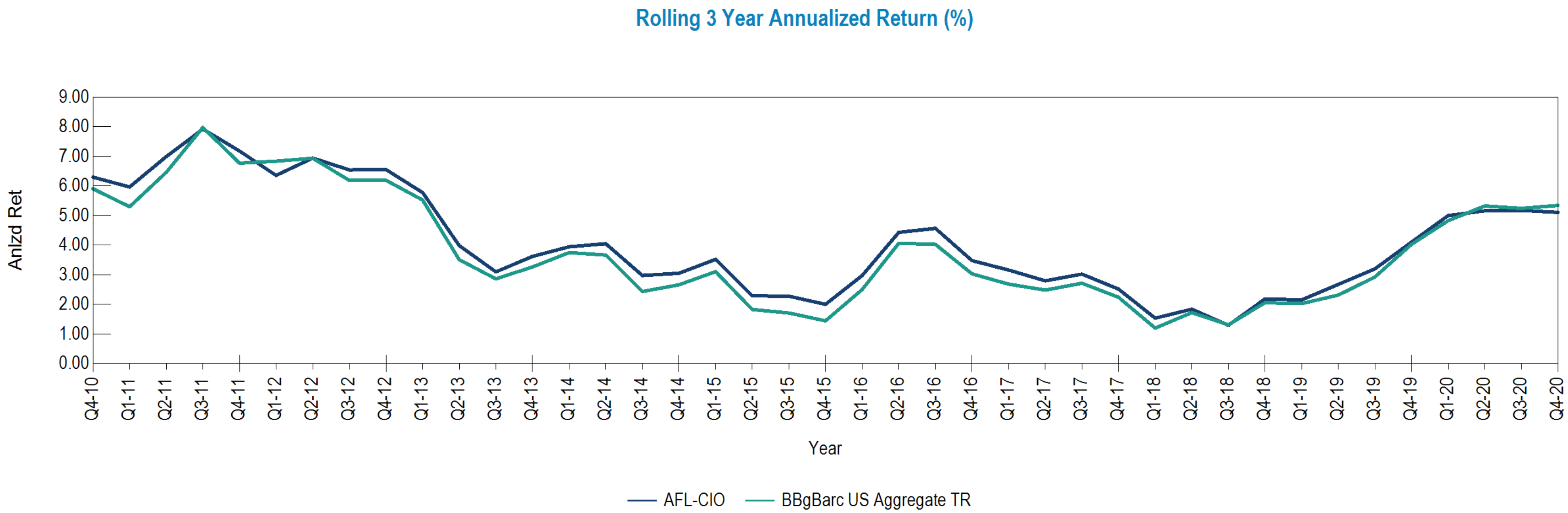


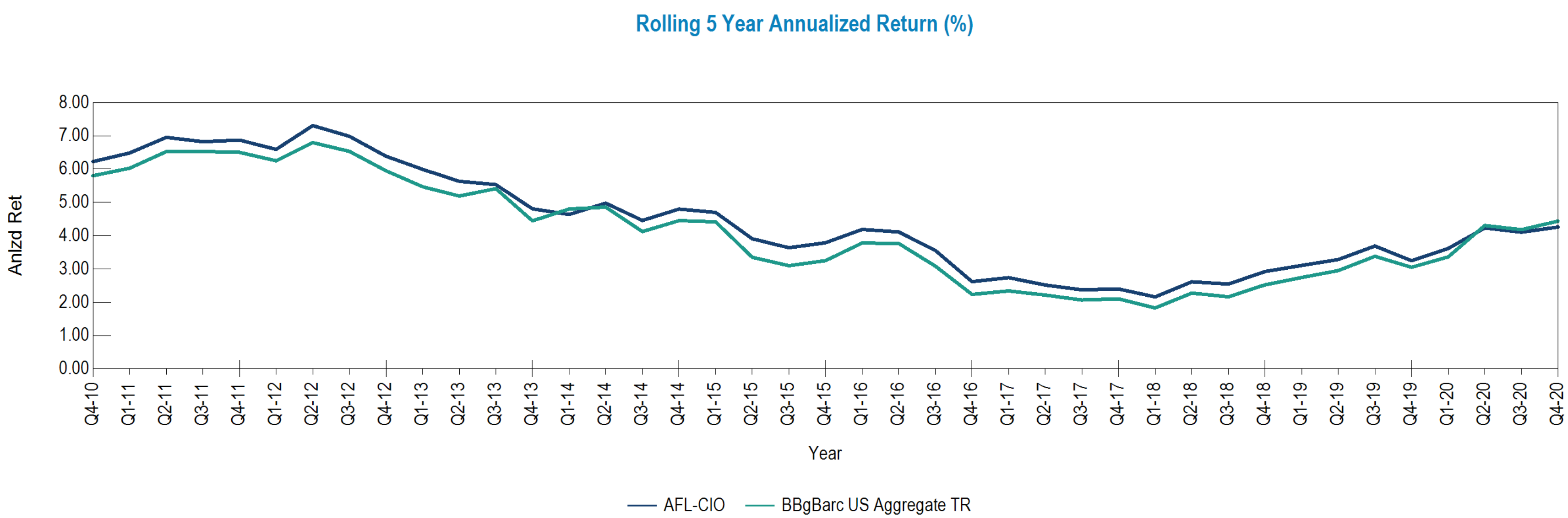


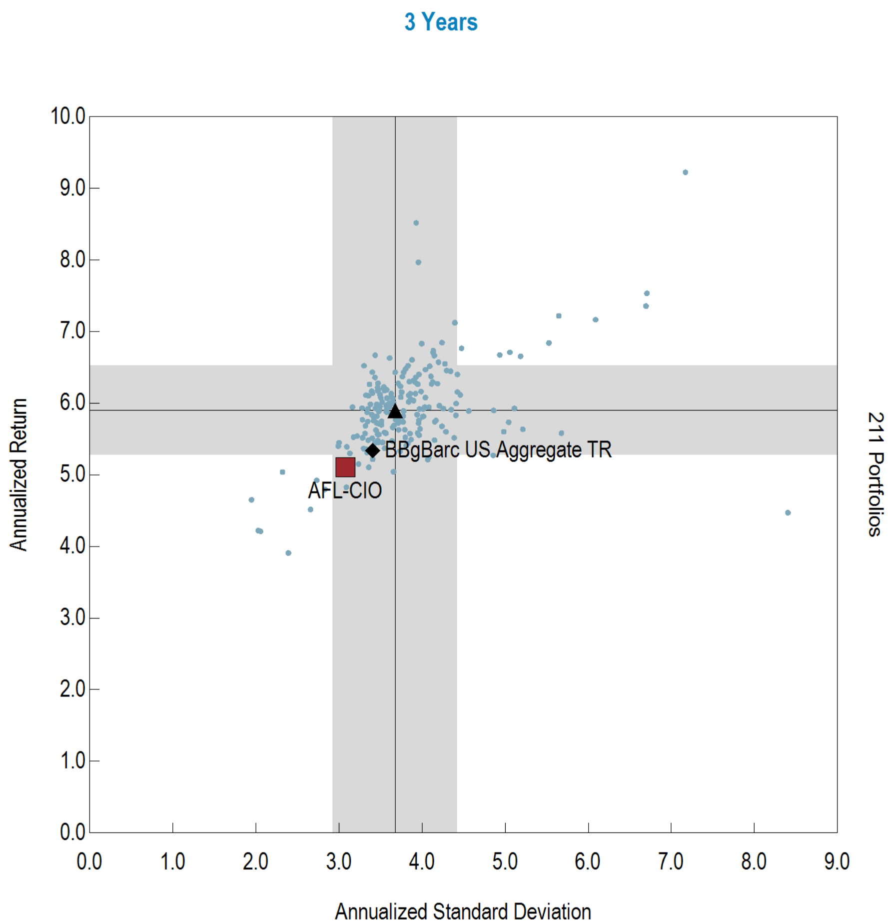


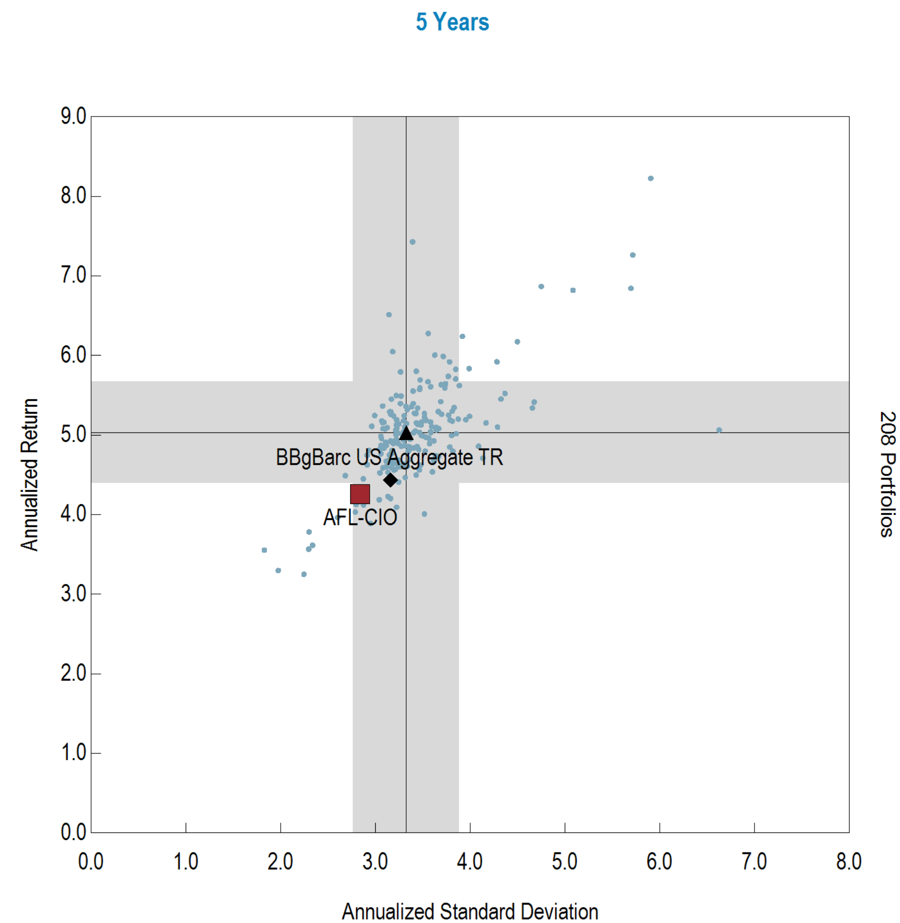


	Quarter		1 Year		3 Years		5 Years		10 Years		2020		2019		2018		2017		2016	
	Return (Rank)																			
5th Percentile	2.3		10.6		6.8		6.0		5.3		10.6		10.9		1.2		5.2		5.1	
25th Percentile	1.4		9.4		6.2		5.3		4.7		9.4		9.8		0.4		4.4		3.8	
Median	1.1		8.6		5.9		5.0		4.4		8.6		9.3		0.0		4.0		3.2	
75th Percentile	0.8		7.9		5.6		4.7		4.2		7.9		8.7		-0.3		3.6		2.7	
95th Percentile	0.3		6.8		5.1		4.1		3.6		6.8		7.2		-0.9		2.9		2.0	
# of Portfolios	214		214		211		208		198		214		228		240		233		223	
● **AFL-CIO**	0.2	(97)	6.6	(96)	5.1	(95)	4.3	(93)	4.0	(86)	6.6	(96)	8.2	(88)	0.6	(16)	3.6	(76)	2.4	(87)
▲ **BBgBarc US Aggregate TR**	0.7	(81)	7.5	(86)	5.3	(90)	4.4	(91)	3.8	(93)	7.5	(86)	8.7	(77)	0.0	(54)	3.5	(79)	2.6	(77)


Rolling 3 Year Annualized Return (%)
Anlzd Ret
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
AFL-CIO
BBgBarc US Aggregate TR


Rolling 5 Year Annualized Return (%)
Anlzd Ret
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Q4-10 Q1-11 Q2-11 Q3-11 Q4-11 Q1-12 Q2-12 Q3-12 Q4-12 Q1-13 Q2-13 Q3-13 Q4-13 Q1-14 Q2-14 Q3-14 Q4-14 Q1-15 Q2-15 Q3-15 Q4-15 Q1-16 Q2-16 Q3-16 Q4-16 Q1-17 Q2-17 Q3-17 Q4-17 Q1-18 Q2-18 Q3-18 Q4-18 Q1-19 Q2-19 Q3-19 Q4-19 Q1-20 Q2-20 Q3-20 Q4-20
Year
AFL-CIO
BBgBarc US Aggregate TR





3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
AFL-CIO	5.1%	3.1%	1.2
BBgBarc US Aggregate TR	5.3%	3.4%	1.1
eV US Core Fixed Inc Gross Median	5.9%	3.7%	1.2

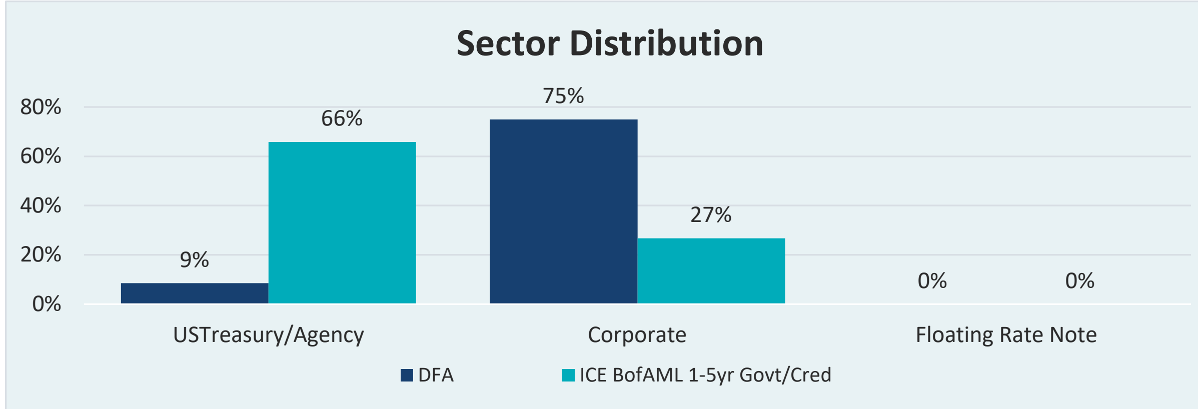
5 Years

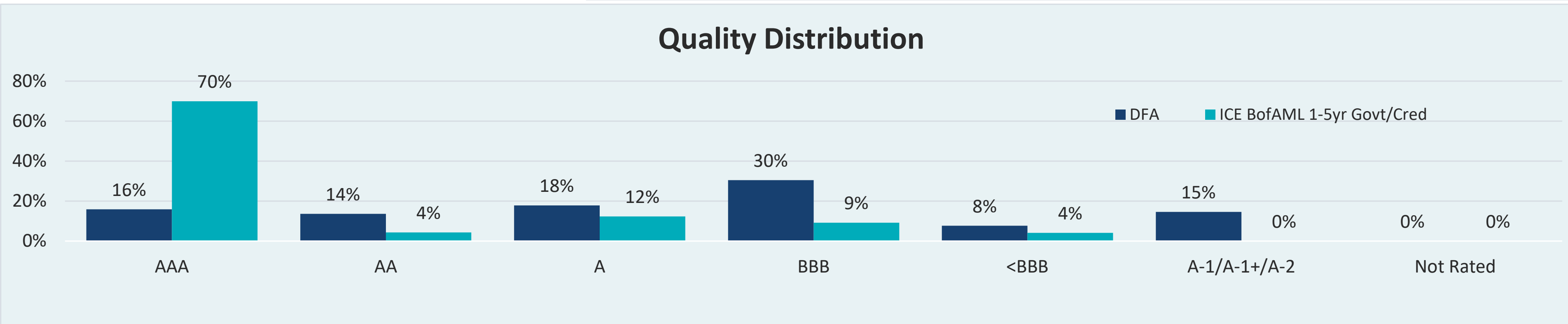
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
AFL-CIO	4.3%	2.8%	1.1
BBgBarc US Aggregate TR	4.4%	3.2%	1.0
eV US Core Fixed Inc Gross Median	5.0%	3.3%	1.1

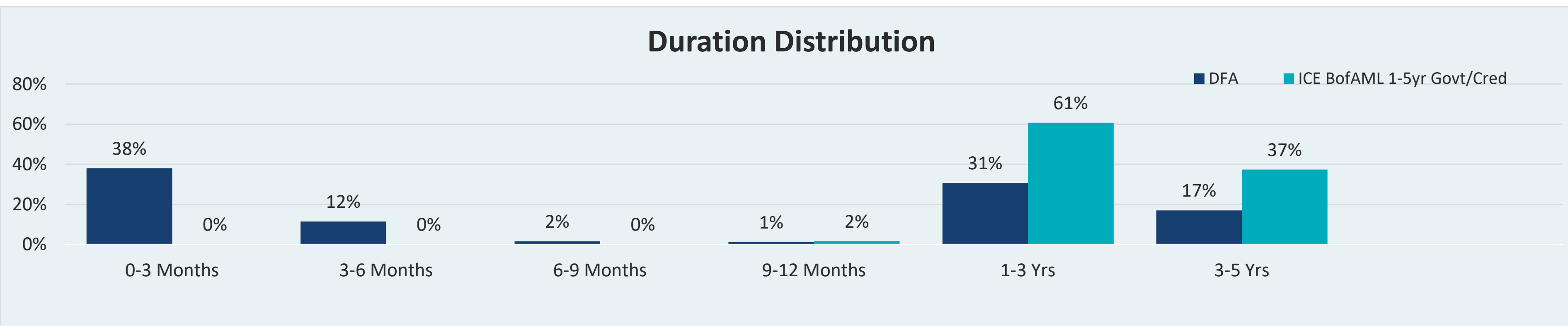
Liquidity Managers

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

	DFA	ICE BofAML 1-5yr Govt/Cred
Effective Duration	1.28	2.68
Yield to Maturity	0.60	0.40
Average Quality	A	AA+
Average Coupon	2.06%	2.17%

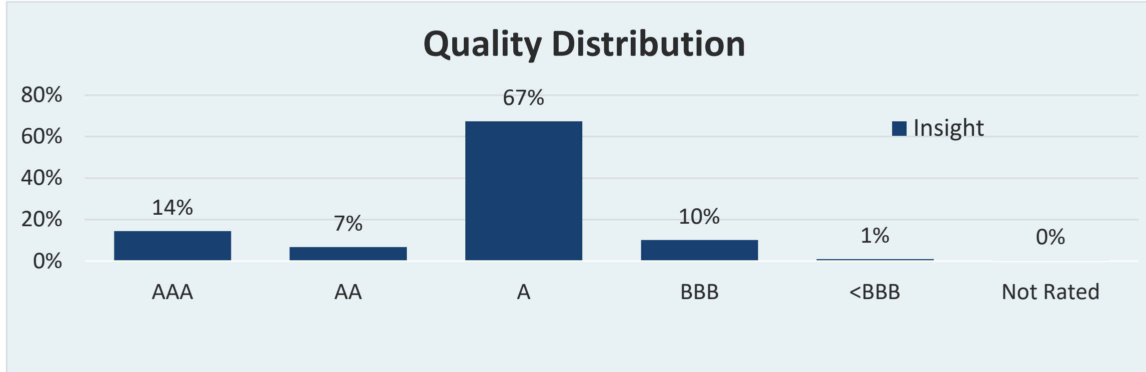


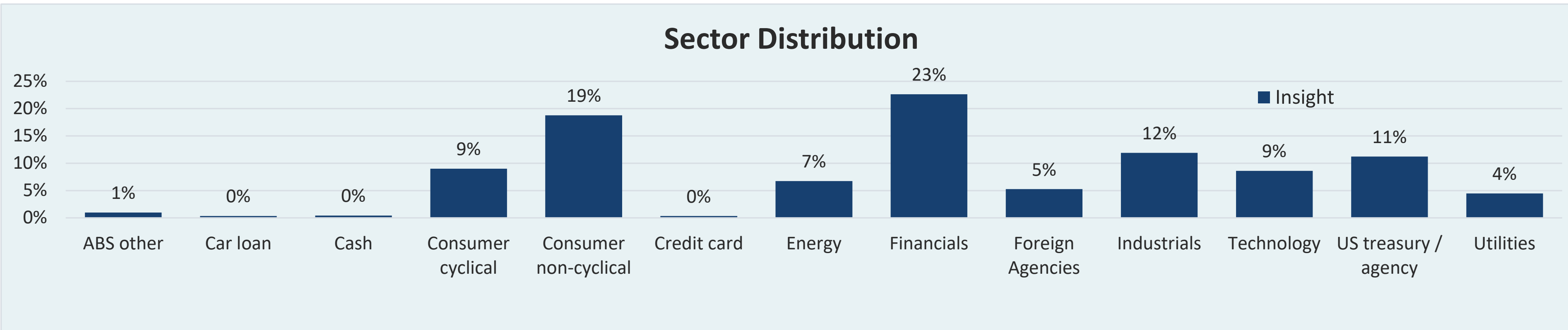


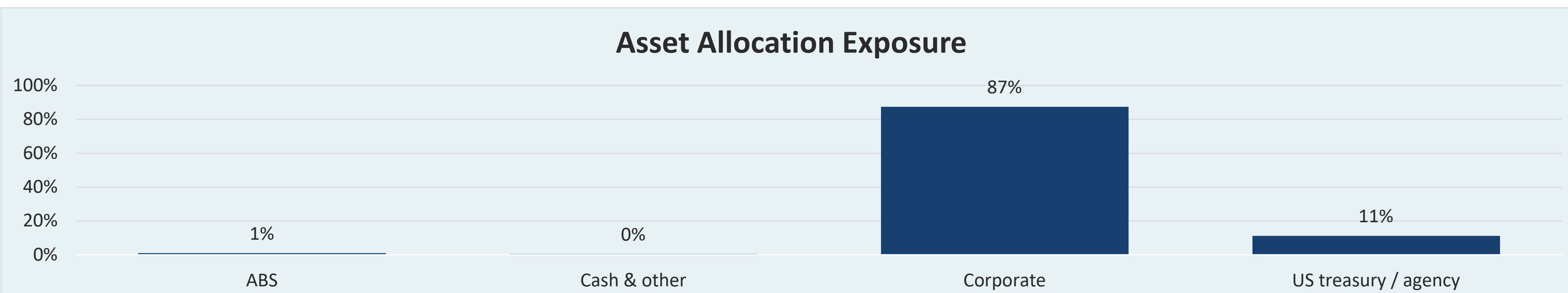


High quality, short duration multi-sector fixed income portfolio comprised of Treasuries, Agencies, investment grade corporates, and ABS designed specifically to meet CCCERA's liabilities. Key personnel include Gerard Berrigan and Jesse Fogarty.

	Insight	BBgBarc 1-3yr Govt
Effective Duration	1.58	1.96
Yield to Maturity	0.60	0.13
Average Quality	A	AAA
Average Coupon	2.75%	1.45%

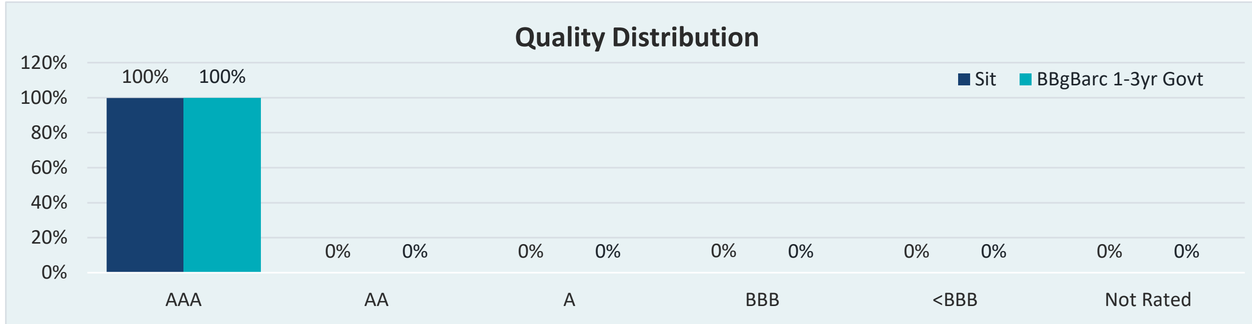


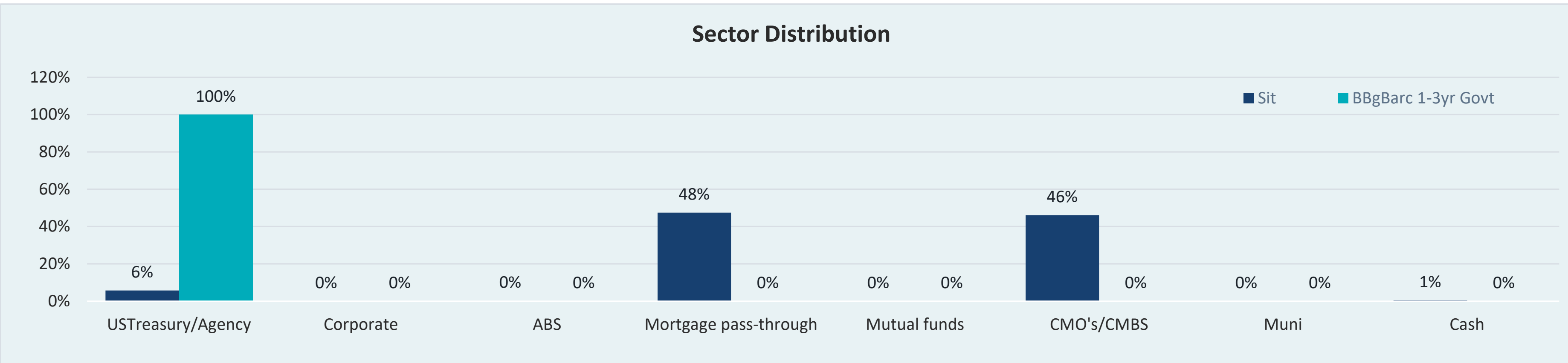


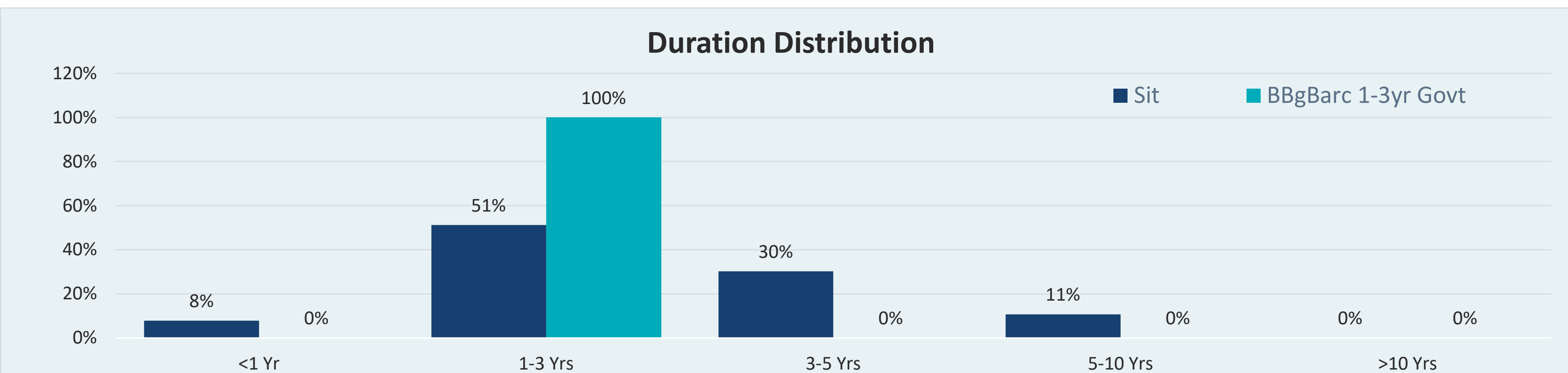


Short duration fixed income portfolio with a focus on earning high levels of interest income. Primary personnel include Bryce Doty, Paul Jungquist and Michael Brilley.

	Sit	BBgBarc 1-3yr Govt
Modified Duration	**2.90**	**1.90**
Yield to Maturity	**1.50**	**0.10**
Average Quality	**AAA**	**AAA**
Average Coupon	**5.80%**	**1.40%**







Performance Return Calculations

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

Data Source

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

Illiquid Alternatives

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

Policy & Custom Index Composition

Policy Index (7/1/2020 - present)	9% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 1.5% CPI + 4%, 11% S&P 500 +4% (Lagged), 7% ICE BofAML High Yield Master II +2%, 1.5% ICE BofAML High Yield Master II, 25% BBgBarc 1-3 Yr Gov/Credit, 3% BBgBarc US Aggregate, 2% BBgBarc Global Aggregate, 2% HFRI EH Equity Market Neutral.
Policy Index (7/1/2019 - 6/30/2020)	10% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 2% CPI + 4%, 11% S&P 500 +4% (Lagged), 5% ICE BofAML High Yield Master II +2%, 2% ICE BofAML High Yield Master II, 24% BBgBarc 1-3 Yr Gov/Credit, 3.5% BBgBarc US Aggregate, 2% BBgBarc Global Aggregate, 2.5% HFRI EH Equity Market Neutral.
Policy Index (7/1/2018 - 6/30/2019)	11% Russell 3000, 19% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 1.8% NCREIF Property Index, 7.2% NCREIF ODCE Index, 2% CPI + 4%, 10% S&P 500 +4% (Lagged), 4% ICE BofAML High Yield Master II +2%, 2% ICE BofAML High Yield Master II, 23% BBgBarc 1-3 Yr Gov/Credit, 3.5% BBgBarc US Aggregate, 2% BBgBarc Global Aggregate, 2.5% HFRI EH Equity Market Neutral.
Policy Index (10/1/2017 - 6/30/2018)	16.3% Russell 3000, 18.8% MSCI ACWI ex-US (Gross), 8.6% MSCI ACWI (Net), 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 2.5% CPI + 4%, 10.1% S&P 500 +4% (Lagged), 1.9% ICE BofAML High Yield Master II +2%, 4.3% ICE BofAML High Yield Master II, 25% BBgBarc 1-3 Yr Gov/Credit, 3.5% BBgBarc US Aggregate.
Policy Index (1/1/2017 - 9/30/2017)	22.9% Russell 3000, 11% MSCI ACWI ex-US (Gross), 10.9% MSCI ACWI (Net), 1% Wilshire REIT, 1.7% NCREIF Property Index, 6.8% NCREIF ODCE Index, 3.6% CPI + 4%, 8.1% S&P 500 +4% (Lagged), 1.7% ICE BofAML High Yield Master II +2%, 5.1% ICE BofAML High Yield Master II, 22.4% BBgBarc 1-3 Yr Gov/Credit, 3.2% BBgBarc US Aggregate, 1.6% 91-Day T-Bills.
Policy Index (4/1/2012-12/31/2016)	27.7% Russell 3000, 10.6% MSCI ACWI ex-US (Gross), 12.3% MSCI ACWI (Net), 19.6% BBgBarc U.S. Aggregate, 5% ICE BofAML High Yield Master II, 4% BBgBarc Global Aggregate, 13.5% Real Estate Benchmark, 6.8% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
Policy Index (4/1/2011-3/31/2012)	31% Russell 3000, 10.4% MSCI EAFE (Gross), 9.6% MSCI ACWI (Net), 25% BBgBarc U.S. Aggregate, 3% ICE BofAML High Yield Master II, 4% BBgBarc Global Aggregate, 8.4% DJ Wilshire REIT, 3.1% NCREIF, 5% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
Policy Index (4/1/2010-3/31/2011)	35.6% Russell 3000, 10.4% MSCI EAFE (Gross), 5% MSCI ACWI (Net), 25% BBgBarc U.S. Aggregate, 3% ICE BofAML High Yield Master II, 4% BBgBarc Global Aggregate, 8.4% DJ Wilshire REIT, 3.1% NCREIF, 5% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
Policy Index (7/1/2009-3/31/2010)	40.6% Russell 3000, 10.4% MSCI EAFE (Gross), 25% BBgBarc U.S. Aggregate, 3% ICE BofAML High Yield Master II, 4% BBgBarc Global Aggregate, 8.4% DJ Wilshire REIT, 3.1% NCREIF, 5% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
Custom Growth Benchmark (7/1/2020 - present)	13.14% Russell 3000, 26.28% MSCI ACWI ex-US (Gross), 16.06% MSCI ACWI (Net), 1.46% Wilshire REIT, 2.34% NCREIF Property Index, 9.33% NCREIF ODCE Index, 16.06% S&P 500 +4% (Lagged), 10.22% ICE BofAML High Yield Master II +2%, 2.19% ICE BofAML High Yield Master II, 2.92% BBgBarc Global Bond
Custom Growth Benchmark (7/1/2019 - 6/30/20)	14.7% Russell 3000, 26.4% MSCI ACWI ex-US (Gross), 16.2% MSCI ACWI (Net), 1.5% Wilshire REIT, 2.4% NCREIF Property Index, 9.4% NCREIF ODCE Index, 16.2% S&P 500 +4% (Lagged), 7.4% ICE BofAML High Yield Master II +2%, 2.9% ICE BofAML High Yield Master II, 2.9% BBgBarc Global Bond
Custom Growth Benchmark (7/1/2018 - 6/30/2019)	16.0% Russell 3000, 27.5% MSCI ACWI ex-US (Gross), 15.9% MSCI ACWI (Net), 1.5% Wilshire REIT, 2.6% NCREIF Property Index, 10.4% NCREIF ODCE Index, 14.5% S&P 500 +4% (Lagged), 5.8% ICE BofAML High Yield Master II +2%, 2.9% ICE BofAML High Yield Master II, 2.9% BBgBarc Global Bond
Custom Growth Benchmark (9/30/2017- 6/30/2018)	23.6% Russell 3000, 27.2% MSCI ACWI ex-US (Gross), 12.5% MSCI ACWI (Net), 1.5% Wilshire REIT, 2.3% NCREIF Property Index, 9.3% NCREIF ODCE Index, 14.6% S&P 500 +4% (Lagged), 2.8% ICE BofAML High Yield Master II +2%, 6.2% ICE BofAML High Yield Master II
Custom Growth Benchmark (1/1/2017-9/30/2017)	32.6% Russell 3000, 15.7% MSCI ACWI ex-US (Gross), 15.5% MSCI ACWI (Net), 1.4% Wilshire REIT, 2.4% NCREIF Property Index, 9.6% NCREIF ODCE Index, 1.6% CPI +4%, 11.5% S&P 500 +4% (Lagged), 2.4% ICE BofAML High Yield Master II +2%, 7.3% ICE BofAML High Yield Master II
Custom Growth Benchmark (Prior to 1/1/2017)	Weighted-average of the benchmarks of the sub-composites that make up the composite.
Custom Diversifying Benchmark (8/1/2020 - present)	46.15% BBgBarc US Aggregate, 30.77 FTSE 3-Month T-bill +4%, 23.08 FTSE 3-Month T-bill +5%.
Custom Diversifying Benchmark (7/1/2018 - 7/31/2020)	43.75% BBgBarc US Aggregate, 25% CPI + 4%, 31.25% HFRI EH Equity Market Neutral.
Custom Diversifying Benchmark (10/1/2017 - 6/30/2018)	58.33% BBgBarc US Aggregate, 41.67% CPI + 4%.
Custom Diversifying Benchmark (1/1/2017 - 9/30/2017)	56.1% BBgBarc US Aggregate, 43.9% CPI + 4%.
Custom Diversifying Benchmark (Prior to 1/1/2017)	Weighted-average of the benchmarks of the sub-composites that make up the composite.
Real Estate Benchmark (current)	11% Wilshire REIT, 18% NCREIF Property Index, 71% NCREIF ODCE Index.
Real Estate Benchmark (4/1/2012-11/30/2016)	40% Wilshire REIT, 50% NCREIF Property Index, 10% FTSE/EPRA NAREIT Developed ex-US.

Custom Diversifying Benchmark (1/1/2017 - 9/30/2017)	56.1% BBgBarc US Aggregate, 43.9% CPI + 4%.
Custom Diversifying Benchmark (Prior to 1/1/2017)	Weighted-average of the benchmarks of the sub-composites that make up the composite.
Real Estate Benchmark (current)	11% Wilshire REIT, 18% NCREIF Property Index, 71% NCREIF ODCE Index.
Real Estate Benchmark (4/1/2012-11/30/2016)	40% Wilshire REIT, 50% NCREIF Property Index, 10% FTSE/EPRA NAREIT Developed ex-US.

Manager Line Up

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

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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