



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: MARCH 31, 2020

Investment Performance Review for

Western States Office and Professional Employees' International Union Pension Plan

Table of Contents



[VERUSINVESTMENTS.COM](https://www.verusinvestments.com)

SEATTLE 206-622-3700

LOS ANGELES 300-297-1777

SAN FRANCISCO 415-362-3484

PITTSBURGH 412-784-6678

Investment Landscape

TAB I

Investment Performance
Review

TAB II



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

2ND QUARTER 2020
Investment Landscape

Recent Verus research

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

Annual outlooks

ACTIVE MANAGEMENT ENVIRONMENT

Our work on active management addresses some shortfalls of the traditional analysis, which uses the median product to describe the active management universe as a whole. These improvements and insights have allowed us to better understand product behavior and may allow for more informed selection in the future.

Sound thinking

TEN THOUGHTS FOR 2020

A new year begins, and with it comes an opportunity to assess whether the correct areas were focused on in the previous year, and to create new suggested topics of interest for the year ahead. In this piece, our CIO, Ian Toner, will try to help investors prioritize shorter-term actions they might take, while addressing longer-term issues to improve their success.

THE JUDGMENTAL WAITER

In this piece our CIO, Ian Toner, lays out how Verus is approaching the challenge of building customized ESG advice and service to each of our clients, and outlines the significant resource commitment Verus is making during 2020 and beyond to provide that tailored support.

COVID-19

MARKET UPDATE 3/17/20

The first few weeks of March have been almost unprecedented in terms of market volatility and behavior. The combination of health concerns and oil market disruption has led to market moves of a type that we rarely see. Underlying this, there is also a real human concern about our families, and the human effect on people we love as the coronavirus spreads. So what are long term investors to do?

MARKET UPDATE 4/9/20

The COVID-19 crisis has had a sudden impact on the capital markets, which has been made worse by the recent disruption in the oil market. Now is a good time for investors to take stock of the possible intermediate and long-term implications of these disruptions, as well as to try to assess the possible short-term factors which might cause further market disruption.

Table of contents



VERUSINVESTMENTS.COM

SEATTLE 206-622-3700

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

PITTSBURGH 412-784-6674

Economic environment 6

Fixed income rates & credit 18

Equity 24

Other assets 35

Appendix 39

1st quarter summary

THE ECONOMIC CLIMATE

- Real GDP grew at a 0.3% rate year-over-year in the first quarter (-4.8% quarterly annualized rate). Personal consumption expenditures shrunk -7.6%, resulting in a -5.3% hit to headline growth. Forecasts of Q2 GDP growth have varied between -15% to -35%. **p. 9**
- The U.S. government quickly crafted and implemented historic stimulus measures to combat the economic impact of the virus. Support of this magnitude has not been seen since the Great Depression of the 1930s. **p. 10**

PORTFOLIO IMPACTS

- U.S. equities experienced an unusually sudden and significant sell-off in March as investors grew fearful of the health and economic impacts of COVID-19. During Q1 the S&P 500 fell -19.6%, international developed equities (MSCI EAFE) fell -22.8% and emerging markets (MSCI EM) fell -23.6%. **p. 25**
- U.S. core inflation increased 2.1% YoY in March. Headline inflation slowed to 1.5%, pushed lower by a sharp decline in energy prices which will likely have persistent effects in future months. Downward pressure could be compounded as households slow spending due to loss of income and a greater propensity to save rather than spend. **p. 11**

THE INVESTMENT CLIMATE

- In mid-March, the Federal Open Market Committee cut interest rates by a full 1.00% to a new range of 0 – 0.25%. This surprise action was taken on a Sunday with the intent to get out ahead of economic impacts of COVID-19. **p. 19**
- Implied volatility spiked in March to a record daily close of 82.7%, surpassing the high of 80.9% reached in November 2008 during the depths of the global financial crisis. **p. 32**
- Central banks are facing an economic slowdown and need for monetary policy support, but very little room to cut interest rates. This is a risk that has been discussed for years. We believe fiscal policies will play a much larger role in addressing the inevitable economic slowdown. **p. 19**

ASSET ALLOCATION ISSUES

- Risk markets experienced one of the most sudden corrections on record, amidst extreme volatility. The S&P 500 showed its largest one-day drop since 1987 (March 16 -11.98%) and its largest one-day gain since 2008 (March 24 +9.38%). Implied volatility reached global financial crisis levels, and high yield credit spreads temporarily expanded above 11%. Some of these losses were recovered toward the end of March as the market rebounded. **p. 27**
- The U.S. dollar appreciated significantly in the first quarter, rising 7.1% on a trade-weighted basis, resulting in losses for investors with unhedged currency exposure. **p. 36**

An underweight risk stance appears appropriate in today's environment

We remain watchful for investment opportunities

What drove the market in Q1?

“World Health Organization declares the coronavirus outbreak a global pandemic”

GLOBAL CONFIRMED COVID-19 CASES

1/31	2/15	2/29	3/15	3/31	4/15
11,374	69,267	86,351	164,403	857,778	2,077,469

Article Source: CNBC, March 11th, 2020

“Vix Hits Highest Level Since the Financial Crisis as Volatility Soars”

CBOE VIX INDEX

Oct	Nov	Dec	Jan	Feb	Mar
13.22	12.62	13.78	18.84	40.11	53.54

Article Source: Barron's, March 9th, 2020

“Fed announces unlimited QE and sets up several new lending programs”

FEDERAL RESERVE BALANCE SHEET (USD TRILLIONS)

3/4	3/11	3/18	3/25	4/1	4/8
4.3	4.4	4.7	5.3	5.9	6.1

Article Source: MarketWatch, March 23rd, 2020

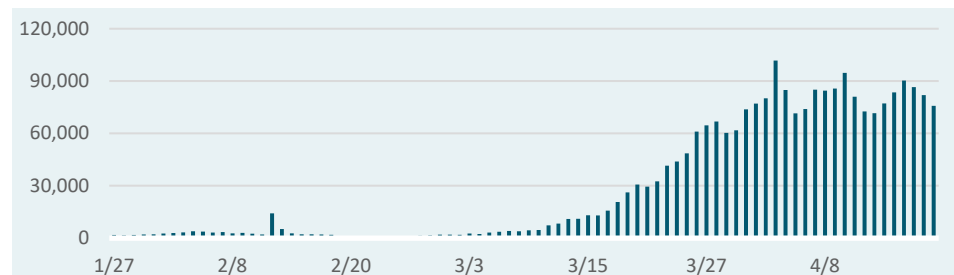
“Coronavirus job losses could total 47 million, unemployment rate may hit 32 percent, Fed estimates”

INITIAL WEEKLY JOBLESS CLAIMS

3/6	3/13	3/20	3/27	4/3	4/10
211,000	282,000	3,307,000	6,867,000	6,615,000	5,245,000

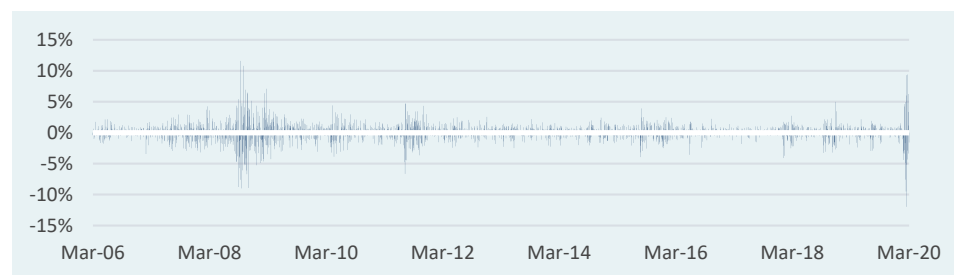
Article Source: NBC News, March 30th, 2020

DAILY NEW COVID-19 CASES (WORLDWIDE)



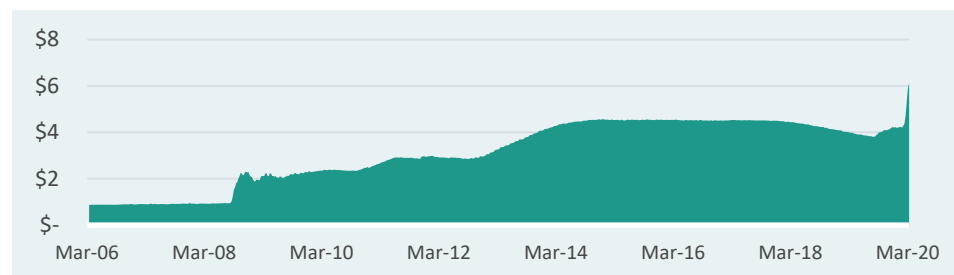
Source: Worldometer, as of 4/19/20

S&P 500 INDEX 1-DAY PERCENTAGE PRICE MOVE



Source: Standard & Poor's, Bloomberg, as of 3/31/20

FEDERAL RESERVE BALANCE SHEET (USD TRILLIONS)



Source: Federal Reserve, as of 4/8/20

Economic environment

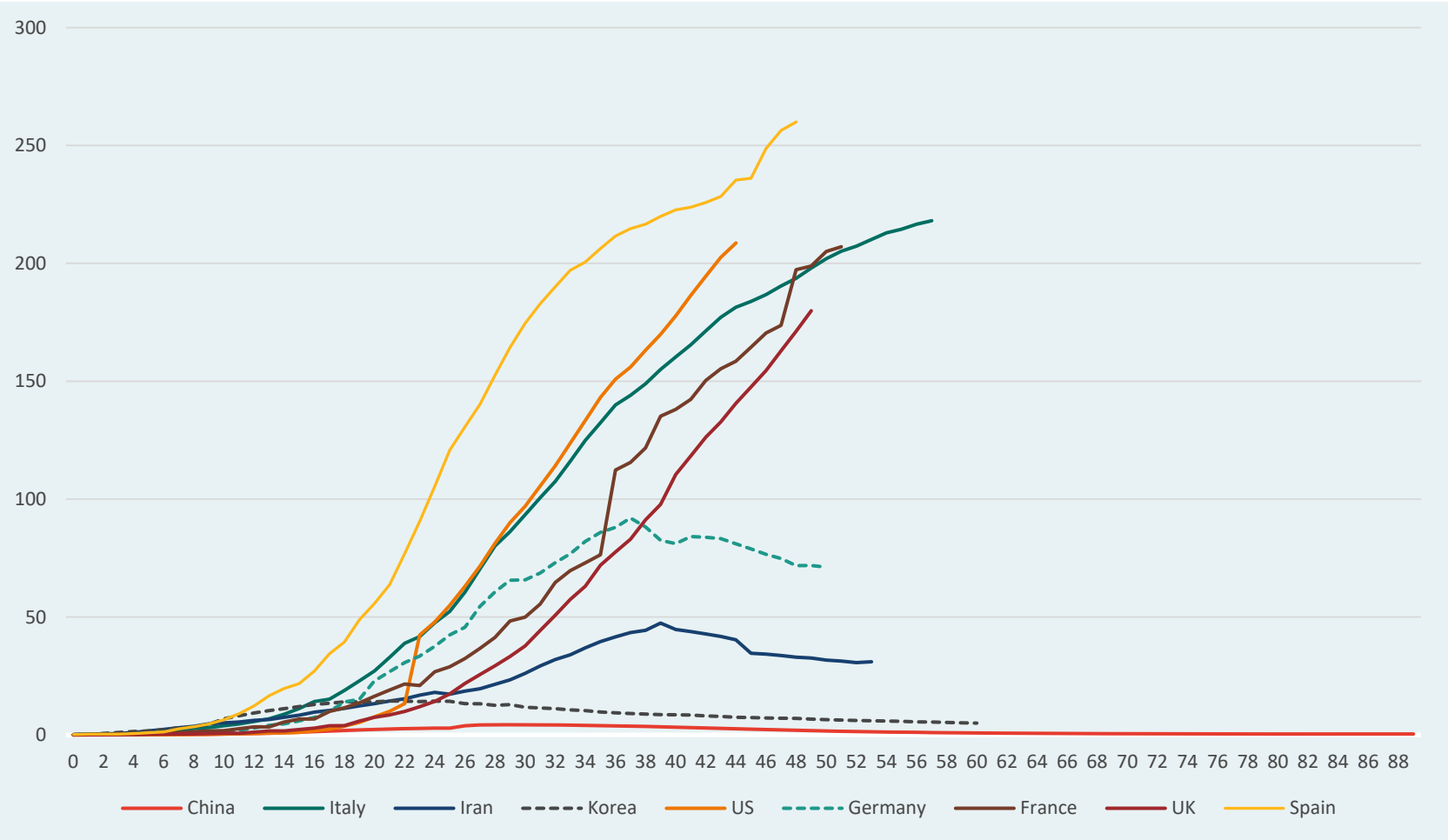
U.S. economics summary

- Real GDP grew at a 0.3% rate year-over-year in the first quarter (-4.8% quarterly annualized rate). Personal consumption expenditures shrunk -7.6%, resulting in a -5.3% hit to headline growth. Forecasts of Q2 GDP growth have varied between -15% to -35%.
- The U.S. government quickly crafted and implemented historic stimulus measures to combat the economic impacts of the virus. Support of this magnitude has not been seen since the Great Depression of the 1930s.
- U.S. core inflation rose 2.1% YoY in March. Headline inflation slowed to 1.5%, pushed lower by a sharp decline in energy prices which will likely have persistent effects in the coming months. This downward pressure could be compounded as households slow spending due to loss of income and show a greater propensity to save.
- The U.S. labor market exhibited a sharp weakening in March, as unemployment jumped to 4.4%. Some have estimated the true unemployment rate in April to be above 10%.
- March economic data should not be expected to fully reflect the extent of COVID-19. We are watching daily data releases to gain a better understanding of how conditions are evolving.
- The Bloomberg Consumer Comfort Index exhibited its sharpest two week drop since 1985, from 63.0 to 56.3, dipping from a 20-year high of 67.3 that was achieved in January.
- Existing homes sales increased +7.2% in February YoY, and new homes sales were up +14.3%. The 30-year fixed mortgage interest rate has continued to fall, finishing Q1 at 3.33%.

	Most Recent	12 Months Prior
GDP (YoY)	0.3% 3/31/20	2.7% 3/31/19
Inflation (CPI YoY, Core)	2.1% 3/31/20	2.0% 3/31/19
Expected Inflation (5yr-5yr forward)	1.3% 3/31/20	2.4% 3/31/19
Fed Funds Target Range	0% – 0.25% 3/31/20	2.25% – 2.50% 3/31/19
10 Year Rate	0.7% 3/31/20	2.4% 3/31/19
U-3 Unemployment	4.4% 3/31/20	3.8% 3/31/19
U-6 Unemployment	8.7% 3/31/20	7.4% 3/31/19

COVID-19 update

ACTIVE CASES PER 100,000 PEOPLE



The COVID-19 crisis has quickly become a global pandemic

Source: Bloomberg, aggregated official country statistics, x-axis indexed to when the country first reached 100 cases, as of 4/17/20

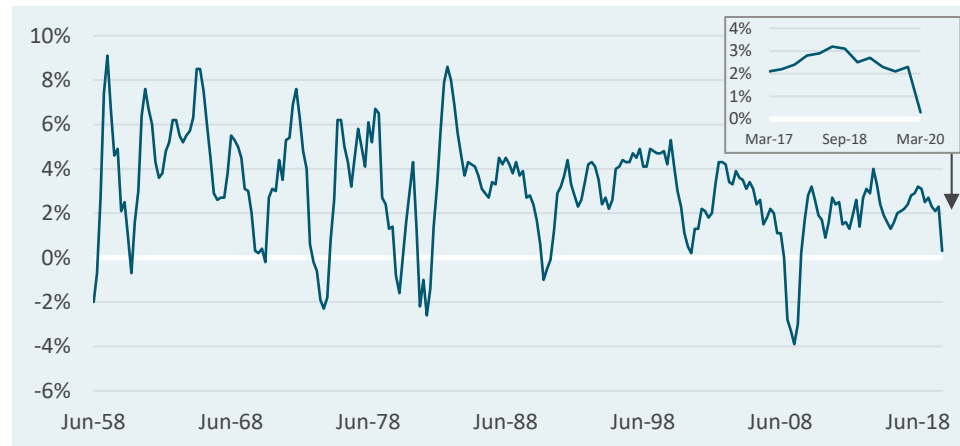
GDP growth

Real GDP grew at a 0.3% rate year-over-year in the first quarter (-4.8% quarterly annualized rate). Personal consumption expenditures shrunk -7.6%, resulting in a -5.3% hit to headline growth. Forecasts of Q2 GDP growth have varied between -15% to -35%.

The United States fiscal and monetary response to COVID-19 is unparalleled. The first response was from the Federal Reserve, swiftly cutting interest rates to zero, though 0% was not far away from levels at the time. The administration then rolled out the Families First Coronavirus Response Act, which guaranteed sick days to full-time workers, prorated for part-time workers. Next was an expansion of the

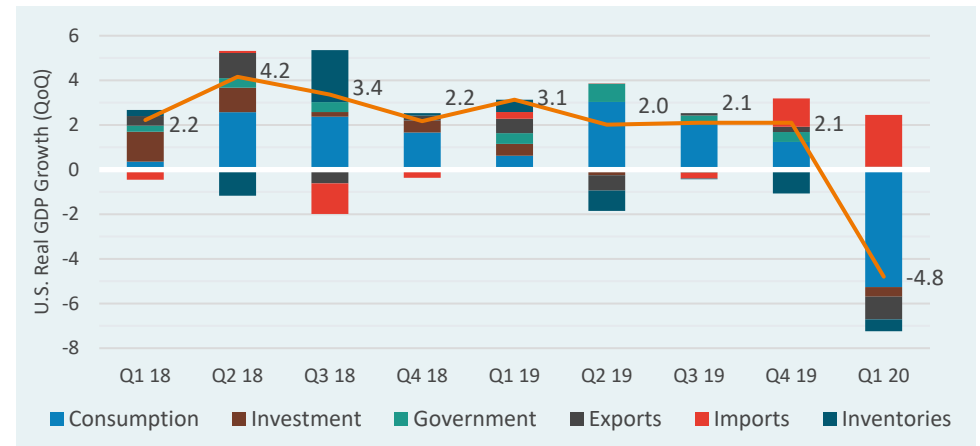
Family and Medical Leave Act, which provided paid leave for employees of businesses with fewer than 500 staff. For workers requiring more than two weeks of leave, the act covered those employees for up to 14 weeks. The most recent CARES Act was the largest in modern history, at \$2.2 Trillion in size. It included up to \$1,200 payments to every American, a \$600 increase in weekly unemployment benefits, expansion of unemployment to many of those not previously eligible, \$350 Billion in loans to small businesses, \$500 Billion in aid to corporations, and additional funding to individual states and government programs.

U.S. REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 3/31/20

U.S. GDP GROWTH ATTRIBUTION



Source: BEA, annualized quarterly rate, as of 3/31/20

U.S. fiscal response

Families First Coronavirus Response Act:

- 10 sick days to full-time workers, prorated for part-time workers. This legislation applies to most U.S. workers, though some restrictions exist.
- Food support for low-income families increased through programs such as: increased SNAP coverage for jobless and lower-income Americans, emergency food allotments, and guaranteed school lunches.

Family and Medical Leave Act:

- This existing act has been amended to provide paid leave for employees of businesses with fewer than 500 staff in size.
- For workers who still require time off after the first two weeks, this act covers these employees for up to 14 weeks.

\$2.2 Trillion Coronavirus Relief Package

- \$1,200 checks to every American, which begin to be phased out for Americans with more than \$75,000 of income and fully phased out for Americans with more than \$99,000 in income. It was communicated that these non-taxable checks would be issued within weeks.
- Weekly unemployment benefits were increased by \$600 per week for up to 4 months and were made available to many who previously did not qualify, such as freelance workers and furloughed employees.
- \$350 Billion in loans to small businesses.
- Companies with fewer than 500 employees could be eligible for up to \$10 Million in forgivable loans to meet payroll needs.
- \$500 Billion in aid to corporations, \$100 Billion in aid to hospitals, \$150 Billion for state and local governments.
- 60-day delays in home foreclosures. Optional 6-month student loan deferrals.

Inflation

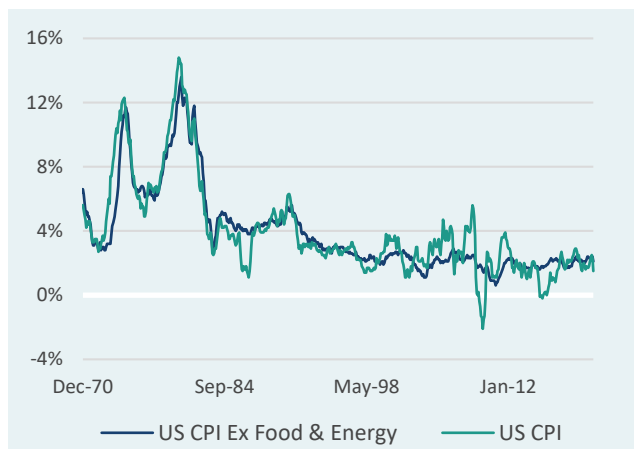
U.S. core inflation increased 2.1% YoY in March. Headline inflation slowed to 1.5%, pushed lower by a sharp decline in energy prices which will likely have continued effects over the coming months. This downward pressure could be compounded as households slow spending due to loss of income and show a greater propensity to save rather than spend.

During the sudden market sell-off in March, the U.S. TIPS inflation breakeven rate fell drastically from 1.7% to a low of 0.5%, ending the month at 0.9%. U.S. TIPS breakevens have historically tended to plummet in times of market turmoil.

We believe these moves may partially reflect the illiquidity of TIPS in volatile environments, rather than falling inflation expectations. This draws into question the usefulness of TIPS breakeven rates as a pure indication of investors' inflation forecasts. Inflation swaps, such as the 5-year Inflation Swap Forward Rate, may offer a cleaner reflection of true inflation expectations.

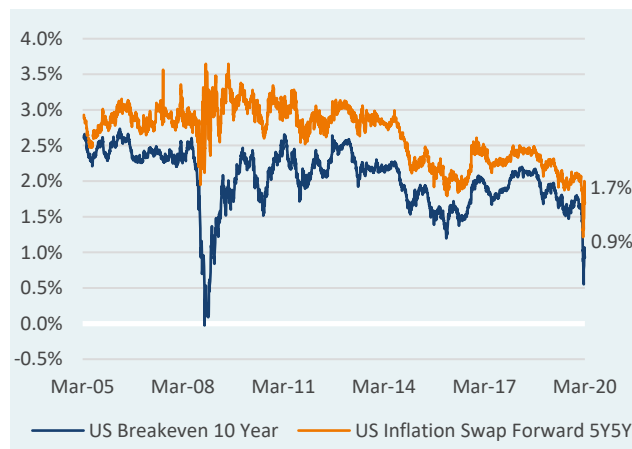
Consumer inflation surveys indicate that expectations were relatively flat, moving from 2.3% in December to 2.2% in March.

U.S. CPI (YOY)



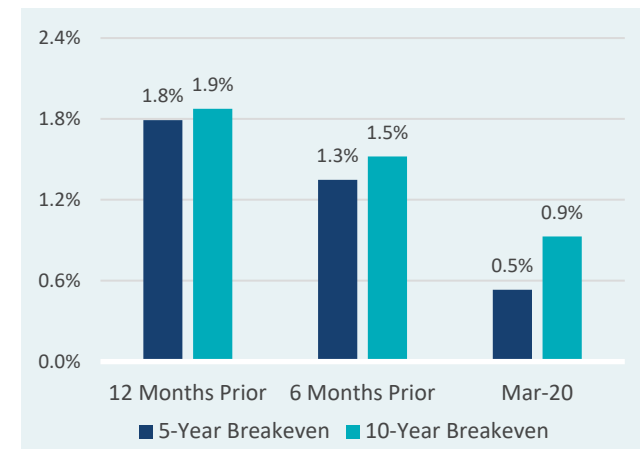
Source: Bloomberg, as of 3/31/20

U.S. INFLATION INDICATORS



Source: FRED, Bloomberg, as of 3/31/20

INFLATION EXPECTATIONS



Source: Bloomberg, as of 3/31/20

Labor market

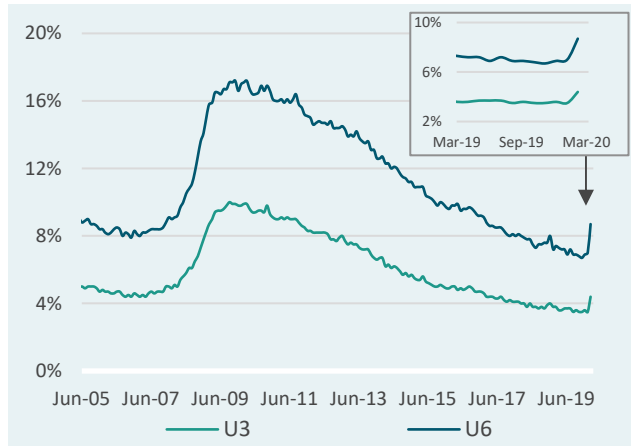
The U.S. labor market exhibited a sharp weakening in March, as unemployment jumped to 4.4%. Some have estimated the true unemployment rate in April to be above 10%.

The total number of Americans applying for unemployment skyrocketed to 6.65 Million at the end of March – a number historically unthinkable. This figure may stay elevated due to shelter-in-place mandates and widespread business closures across the country.

The NFIB Small Business Optimism Index decreased by 8.1 in March to 96.4, which was the largest drop of the series' history. Survey respondents indicated greater uncertainty on the horizon, contracting business conditions, falling sales in the coming six months, and fewer job openings. NFIB stated that "Small business orders are bracing themselves for a significant reduction in consumer spending and future orders." The organization also reported that around half of small businesses indicated that they cannot survive a shutdown of more than two months under current conditions.

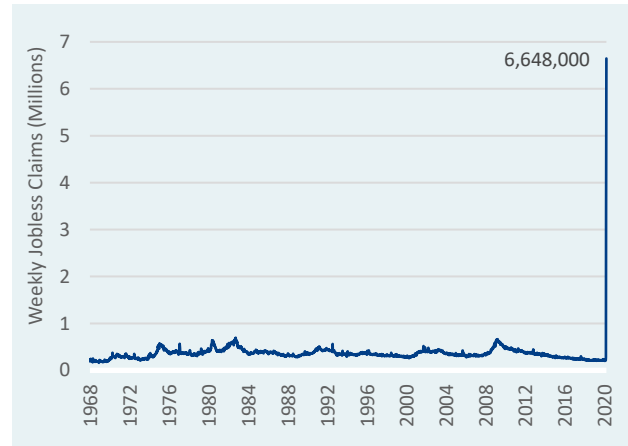
U.S. labor market is experiencing the largest negative shock in modern history

U.S. UNEMPLOYMENT



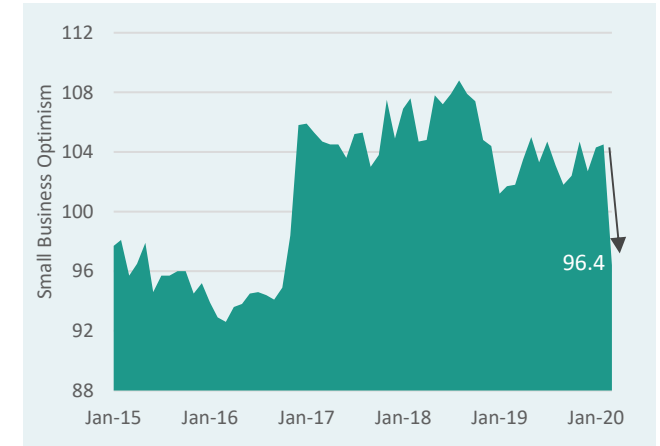
Source: FRED, as of 3/31/20

WEEKLY JOBLESS CLAIMS



Source: FRED, as 3/31/20

SMALL BUSINESS OPTIMISM



Source: NFIB, as of 3/31/20

The consumer

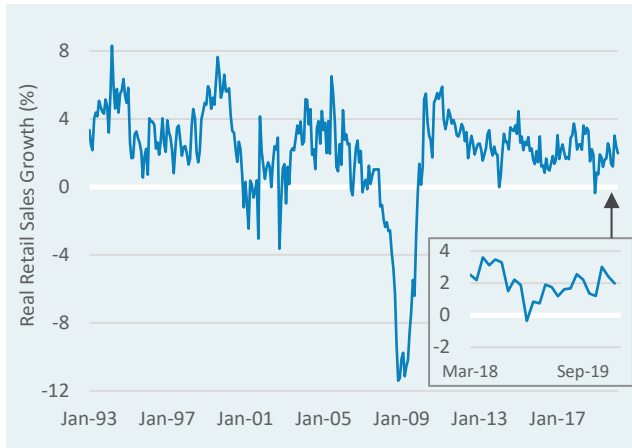
The U.S. consumer has been the greatest support to moderate domestic economic growth of recent years. At the same time, spending and use of credit has been conservative, and household balance sheets have remained robust. The relatively strong position of households at the onset of the crisis may help mitigate some pain of the COVID-19 economic slowdown.

U.S. retail sales declined -8.7% in March from the prior month, the largest ever decline since the series' inception in 1992. Big ticket discretionary purchases are likely to see severe slowdowns due to coronavirus.

Consumers appear to be paring back more elective purchases and allocating more of their income toward staple goods. In March, sales at clothing and home furnishing stores fell -51% and -27% respectively, while food and beverage purchases (+27%) posted a record advance.

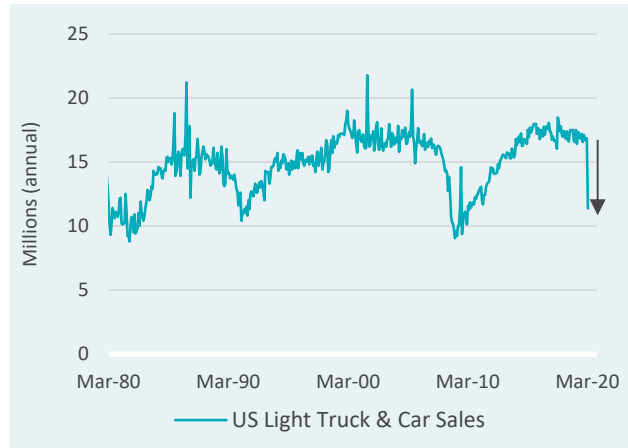
Data from Google suggests that consumers have been travelling far less as of late, and whether that trend continues will be interesting to observe as we move into spring in the United States. Filling station receipts fell around 17% in March, and those revenues are less likely to be "made up" later in the year.

REAL RETAIL SALES GROWTH (YOY)



Source: FRED, as of 2/29/20

U.S. AUTO SALES



Source: Bloomberg, as of 3/31/20

HOUSEHOLD DEBT BURDEN



Source: FRED, as of 12/31/19

Sentiment

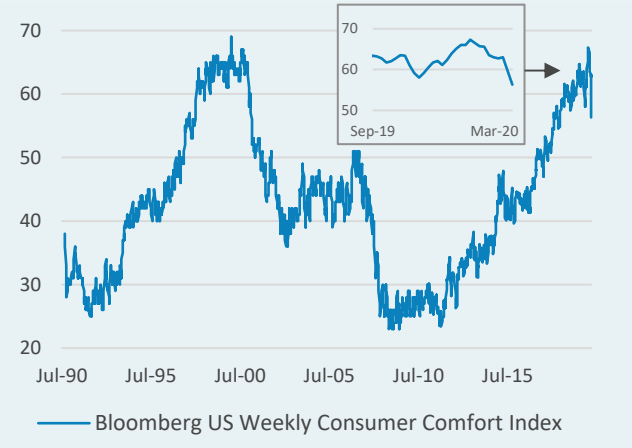
The Bloomberg Consumer Comfort Index exhibited its sharpest two week drop since 1985, falling from 63.0 to 56.3, down from a 20-year high of 67.3 that was achieved in January. Slowing business activity, rising unemployment, and greater uncertainty has led to a broad deterioration in consumer confidence.

Small business owners have been among the hardest hit by the COVID-19 economic disruptions. The NFIB Small Business Optimism Index registered its largest ever single month drop

in March, falling -8.1 points to 96.4. Plummeting expectations for real sales over the next six months drove the decline in the overall index, and it appears Main Street business owners are anticipating and bracing themselves for continued economic disruptions moving forward.

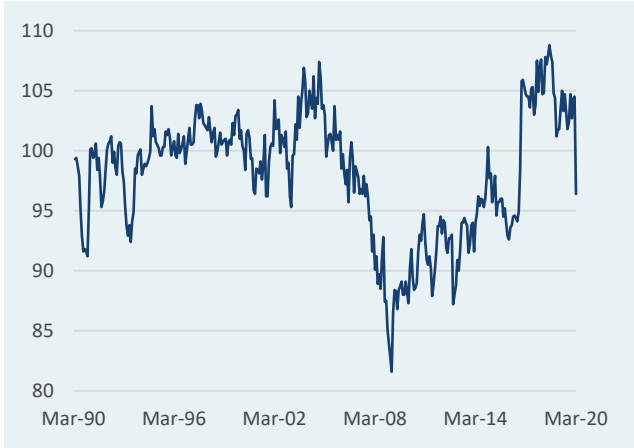
While hiring activity remained relatively healthy in early March, hiring plans showed a significant drop-off in February, a signal of a strong downturn in the coming months.

CONSUMER COMFORT



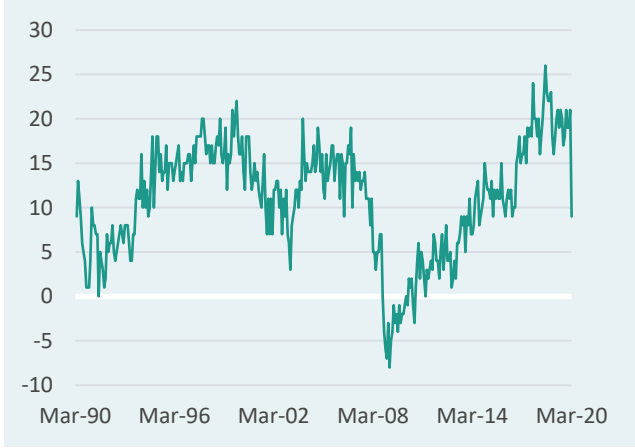
Source: Bloomberg, as of 3/31/20

SMALL BUSINESS OPTIMISM



Source: NFIB, as of 3/31/20

SMALL BUSINESS HIRING PLANS INDEX



Source: NFIB, as of 3/31/20

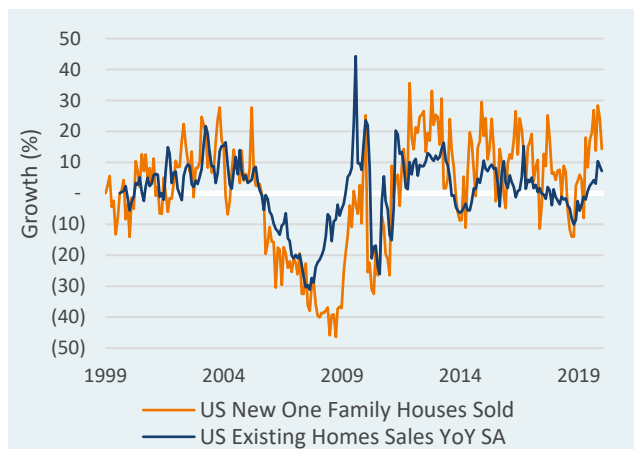
Housing

The housing market exhibited strength to start the year, with February existing homes sales rising 7.2% YoY, and new home sales up 14.3%. The 30-year fixed mortgage interest rate has continued to fall, finishing Q1 at 3.33%. Near record-low interest rates will likely continue to support housing prices and demand, as home affordability improves for Americans.

It is difficult to forecast the effect that COVID-19 will have on the housing market, as there are perhaps two opposing forces at work. The first effect is falling mortgage rates, which should be supportive of home values and purchase activity, assuming U.S. interest rates remain lower as they

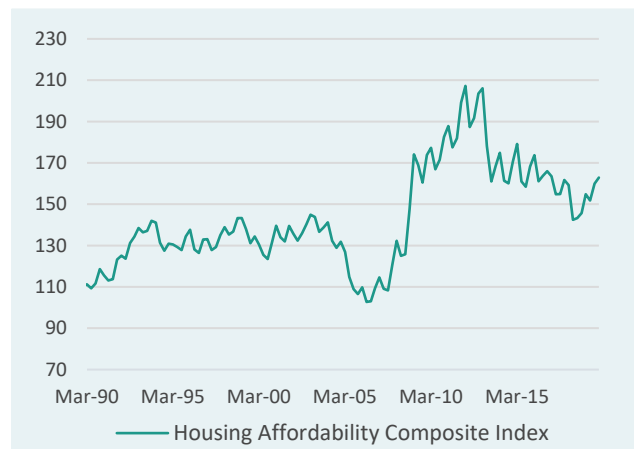
typically do during market strain. The second effect – a slowing U.S. economy – is of course negative on housing values and demand. Millions of job losses have occurred in the first few weeks of the COVID-19 nationwide shutdown, and many Americans will soon struggle to meet mortgage payments. Under the new CARES Act, homeowners with Federally-backed mortgages who have been affected by COVID-19 can request forbearance on mortgage payments for up to 180 days, with an option to extend for an additional 180 days. This intervention will hopefully ease some of the strains and mitigate some downside risk during a time of historically unprecedented spikes in unemployment.

U.S. HOME SALES (YOY)



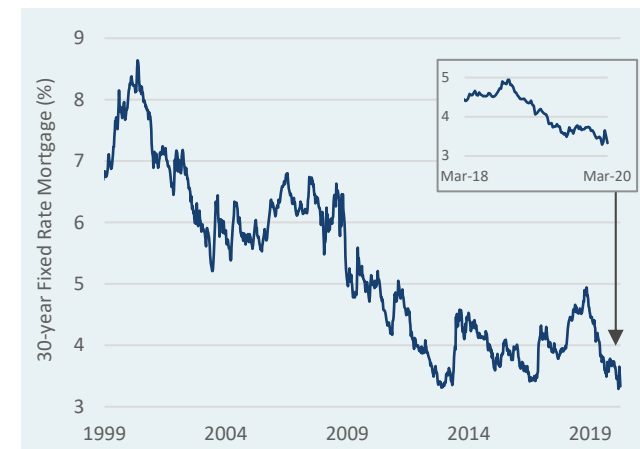
Source: FRED, as of 2/29/20

HOUSING AFFORDABILITY INDEX



Source: Bloomberg, NAHB, as of 12/31/19 (see appendix)

30YR FIXED RATE MORTGAGE



Source: FRED, as of 3/31/20

International economics summary

- Most international developed economies grew at a rate of 0.5% to 2.5% in Q4. The low and stable expansion of recent years has changed suddenly with the onset of COVID-19. Many global economies will enter recession in 2020. On April 14th the IMF revised their 2020 global growth forecast from +3.3% to -3.0%.
- Governments are using monetary and fiscal policies to fill the large hole in spending and lending that the slowdown may cause. These policies vary in their characteristics and aggressiveness.
- Governments with limited ability to implement stimulus policies may face tougher economic fallout. Specifically, European Union member nations that cannot exercise independent actions may see greater difficulties ahead as income gaps cannot be supplemented with fiscal spending.
- The World Trade Organization (WTO) forecast a 13%-32% fall in global trade in 2020 – a larger decrease than witnessed during the global financial crisis. This forecast was paired with the expectation of a 21%-24% rebound in trade throughout 2021.
- While not yet reflected in the most recent economic data, unemployment rates around the world are certain to rise considerably.
- The COVID-19 virus breakout originated in China, and many investors have pointed to China as a testcase for how the virus might play out economically. Although the data released by China suggests the outbreak has been defeated, there is increasing evidence that the severity of virus has been underreported – perhaps severely.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	0.3% 3/31/20	1.5% 3/31/20	4.4% 3/31/20
Eurozone	1.0% 12/31/19	0.7% 3/31/20	7.3% 2/29/20
Japan	(0.7%) 12/31/19	0.4% 3/31/20	2.3% 2/29/20
BRICS Nations	5.0% 12/31/19	4.9% 3/31/20	5.0% 12/31/19
Brazil	1.7% 12/31/19	3.3% 3/31/20	11.6% 2/29/20
Russia	2.1% 12/31/19	2.6% 3/31/20	4.6% 2/29/20
India	4.7% 12/31/19	5.9% 3/31/20	8.5% 12/31/17
China	6.0% 12/31/19	4.3% 3/31/20	3.6% 12/31/19

International economics

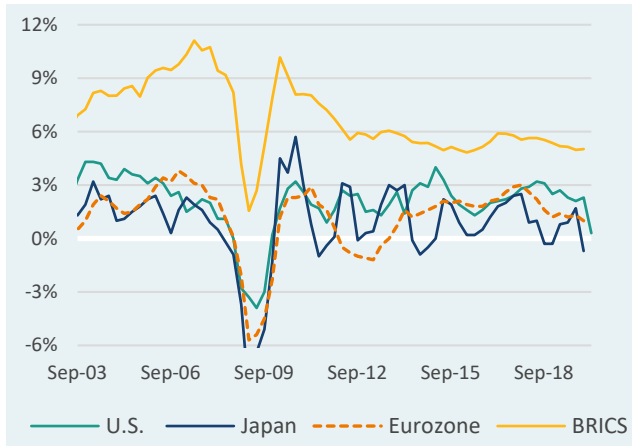
Most international developed economies grew at a rate of 0.5% to 2.5% in Q4. The low and stable expansion of recent years has changed suddenly with the onset of COVID-19. Many global economies will enter recession in 2020. On April 14th the IMF revised their 2020 global growth forecast from +3.3% to -3.0%.

Governments are using monetary and fiscal policies to fill the potentially large hole in spending and lending that the slowdown may cause. These policies vary in their characteristics. For example, the UK government has taken a more aggressive stance, committing to subsidize 80% of the salaries of workers who become unemployed, up to £2,500 per month for a three-month period.

The World Trade Organization (WTO) forecast a 13%-32% fall in global trade in 2020 – a larger decrease than witnessed during the global financial crisis due to broader restrictions on labor and travel that are not involved with a typical recession. This forecast was paired with the expectation of a 21%-24% rebound in trade throughout 2021, though forecasts of the shape and nature of the recovery may be more speculative in nature.

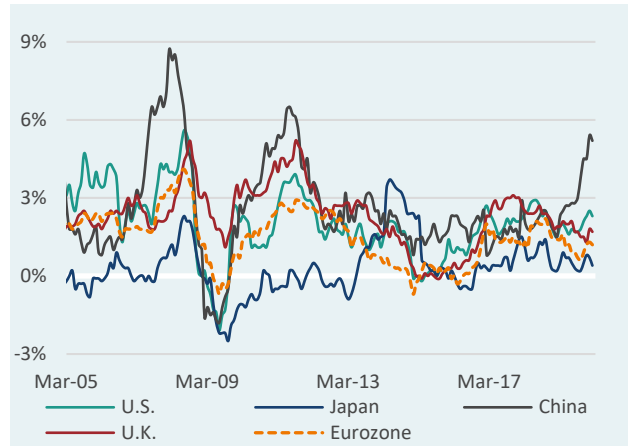
Due to the extremely quick onset of COVID-19 and its economic impacts, many traditional economic metrics do not yet reflect the effects of the virus since these metrics are released with a one-month or greater lag.

REAL GDP GROWTH (YOY)



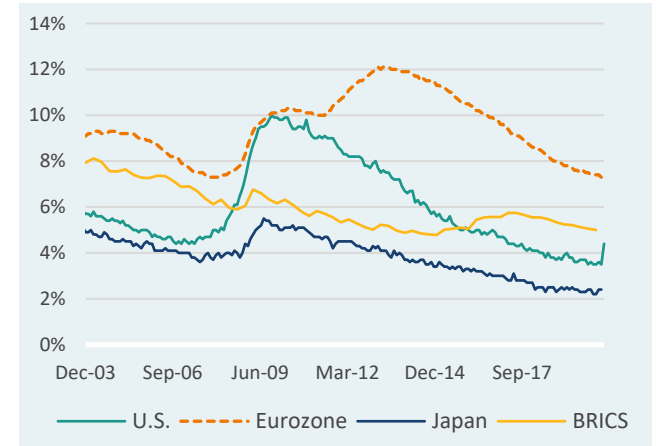
Source: Bloomberg, as of 3/31/20 or most recent release

INFLATION (CPI YOY)



Source: Bloomberg, inflation range of past 5 years, as of 2/29/20

UNEMPLOYMENT RATE



Source: Bloomberg, as of 3/31/20 or most recent release

Fixed income rates & credit

Interest rate environment

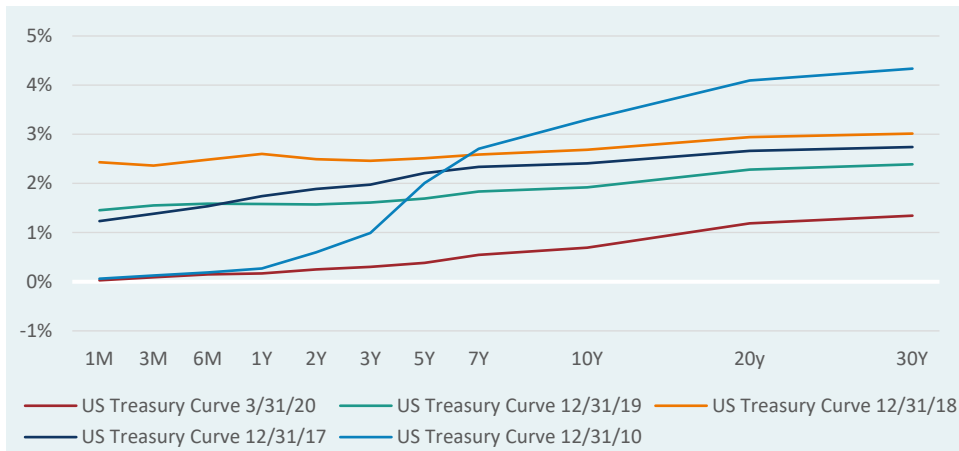
- In mid-March, the Federal Open Market Committee cut interest rates by a full 1.00% to a new range of 0 – 0.25%. This surprise action was taken on a Sunday with the intent to get out ahead of the economic impacts of COVID-19.
- On April 9th, the Federal Reserve announced an additional \$2.3 Trillion program aimed towards providing financing to small businesses and municipalities. The program included \$1M-\$25M sized loans at an interest rate of 2.5%-4.0% with a four-year maturity. This move involved Fed purchases of certain types of low-grade speculative debt, a reversal from comments just weeks earlier that the Federal Reserve would stick to investment-grade debt purchases.
- The European Central Bank (ECB) announced a €750B asset purchase program in March to address effects of the virus. ECB President Christine Lagarde claimed that there are “no limits to our commitment to the euro”. Bond yields of Euro member countries fell on the news.
- Central banks are now facing a unique problem – an immediate economic slowdown and need for monetary policy support, but very little room to cut interest rates to provide that support. This is a risk that has been discussed by investors for years, only now becoming reality. We believe fiscal policies will play a much larger role in addressing the inevitable economic slowdown.
- The Federal Reserve rolled out several liquidity programs which were components of its Global Financial Crisis playbook and are aimed at ensuring the flow of credit to U.S. households and businesses, as well as financial market stability. The New York Fed began offering up to \$500B in overnight liquidity through repurchase agreements and has expanded dollar swap lines to alleviate any possible strains in global U.S. dollar funding markets.

Area	Short Term (3M)	10-Year
United States	0.09%	0.67%
Germany	(0.71%)	(0.47%)
France	(0.50%)	(0.02%)
Spain	(0.23%)	0.67%
Italy	(0.05%)	1.52%
Greece	0.16%	1.63%
U.K.	0.03%	0.36%
Japan	(0.30%)	0.01%
Australia	0.37%	0.76%
China	1.34%	2.58%
Brazil	3.37%	7.77%
Russia	5.47%	6.70%

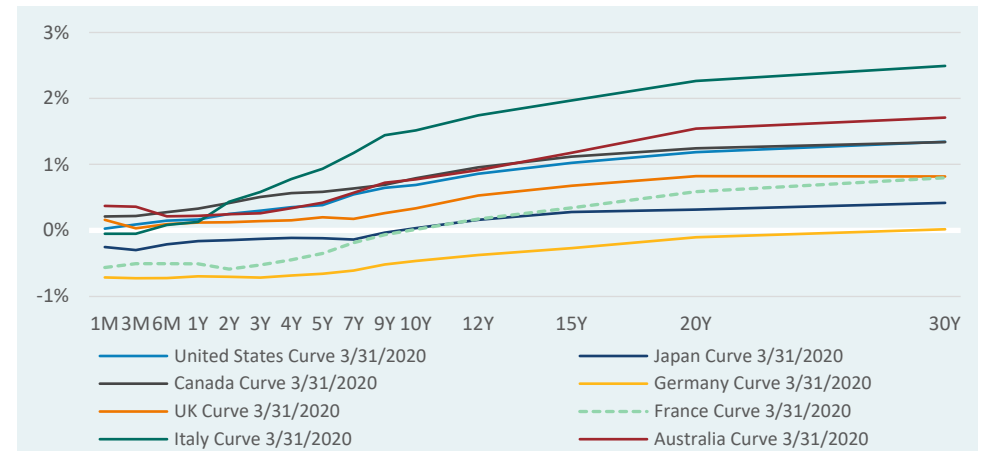
Source: Bloomberg, as of 3/31/20

Yield environment

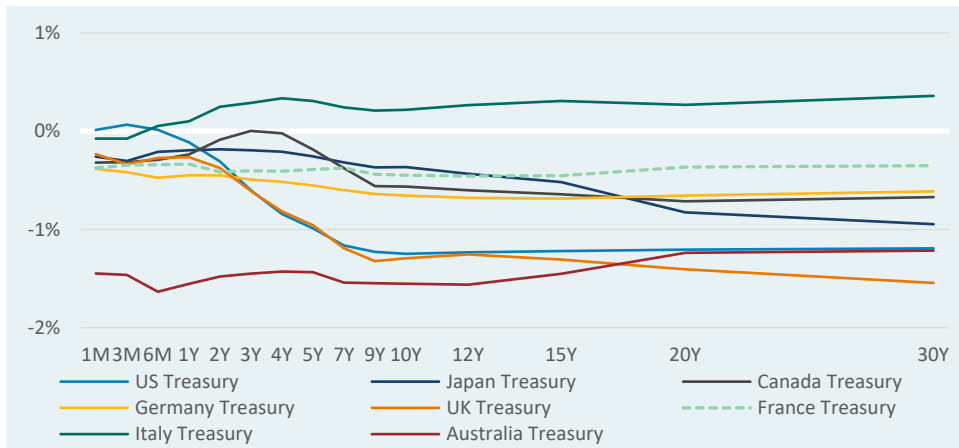
U.S. YIELD CURVE



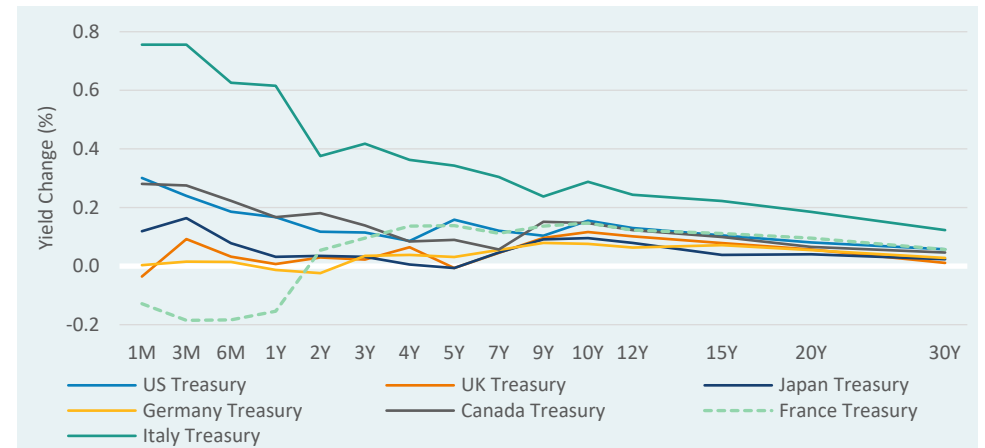
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 3/31/20

Credit environment

After a positive start to the year following the completion of phase one of the US-China trade deal, the impacts of the COVID-19 pandemic struck fear into credit markets, causing a broad-based sell-off and liquidity crisis in early March. This volatility prompted decisive Fed action, including but not limited to announcing unlimited QE and the reopening of several financial crisis-era liquidity facilities, which collectively incited a partial recovery in the last week of the quarter and restored a reasonable level of liquidity to credit markets.

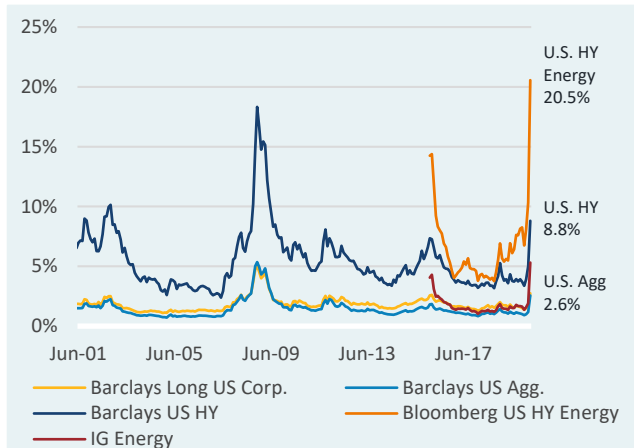
U.S. investment grade credit spreads widened from 93 bps at the end of 2019 to 272 bps at the end of the quarter after reaching highs of 373 bps in March. Similarly, high yield credit spreads spiked from 336 bps to 880 bps over the quarter, after March highs of 1100 bps. High yield ex-

Energy spreads increased from 295 bps to 749 bps over the same period.

The US Aggregate finished the quarter up 3.15%, while investment grade credit fell -3.63% followed by high yield -12.68% and leveraged loans -13.05%. In general, higher quality bonds meaningfully outperformed lower quality.

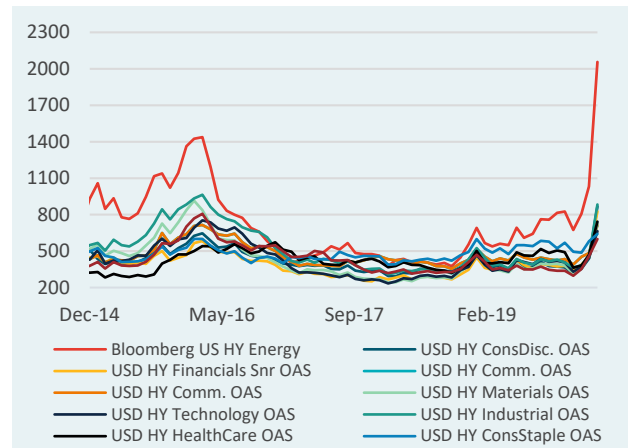
While the energy sector within high yield was the top performer in Q4 2019, the sector was faced with both a supply and demand shock with the Saudi Arabia-Russia production conflict and COVID-19 outbreak, causing it to decline by -38.94% in Q1 2020. The utility and technology sectors held up relatively well, declining -5.1% and -5.3%, respectively.

SPREADS



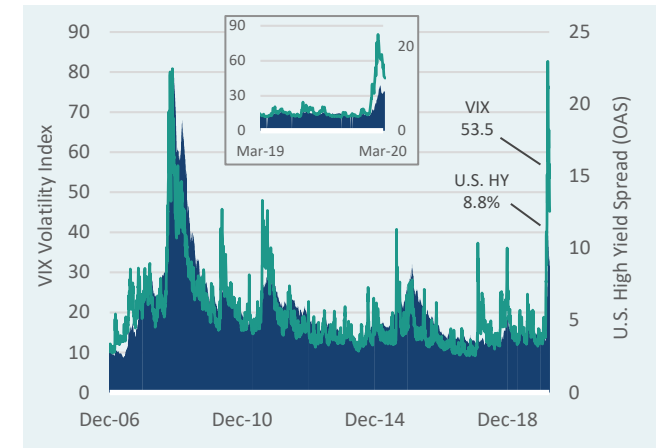
Source: Barclays, Bloomberg, as of 3/31/20

HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 3/31/20

CREDIT SPREADS MOVING WITH VOLATILITY



Source: CBOE, BofA, as of 3/31/20

Default & issuance

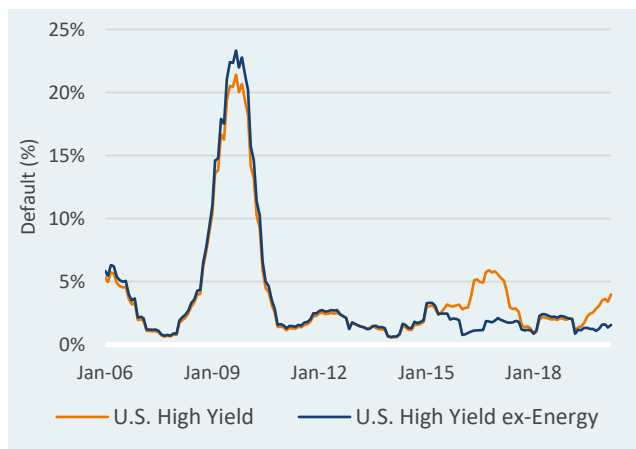
The first quarter saw 13 defaults affecting \$23.5 Billion in bonds and loans. However, one company, Frontier Communications, accounted for \$16.7 Billion of the total. For context, this quarterly amount compares with 43 defaults affecting \$51.5 Billion in bonds and loans for the full year of 2019. While this quarter ranks as the seventh highest in default volume on record, fixed income investors are expecting the worst is yet to come as companies grapple with the COVID-19-induced economic shutdown.

In March, the par-weighted U.S. high-yield default rate rose to a three-year high of 3.4%, up from 2.6% at the end of last year. Loan default rates rose less dramatically, to 1.9% over the trailing 12 months, up from 1.6% at year end.

Energy has driven around 45% of total defaults over the last 12 months, and in Q1 the full year 2020 outlook for the sector worsened dramatically. The trailing 12-month energy default rate in high yield ended the quarter at 9.8% (high yield ex-energy was 2.2%) while the trailing 12-month energy default rate in loans ended at 13.0% (loan ex-energy was 1.8%). In addition to energy, travel and tourism, gaming, leisure, retail, and restaurants appear particularly vulnerable in the current economic environment.

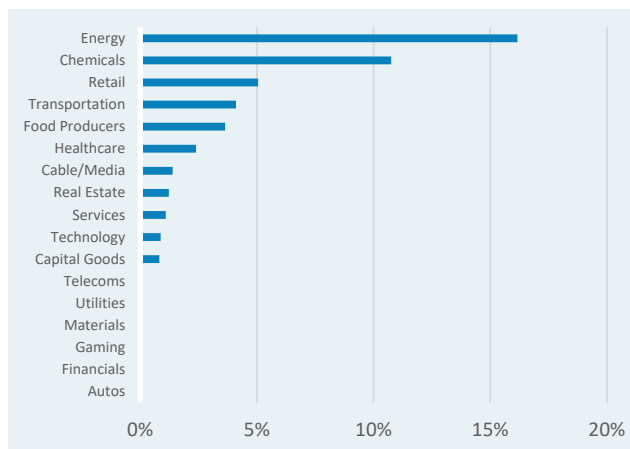
Investment grade bond issuance boomed in Q1 as companies tried to shore up liquidity for the coming recession. This was particularly pronounced in March, which saw a record \$262 Billion in investment grade issuance. Q1 also saw \$73 Billion in high yield volume and loan issuance spike to \$199 Billion.

HY DEFAULT RATE (ROLLING 1-YEAR)



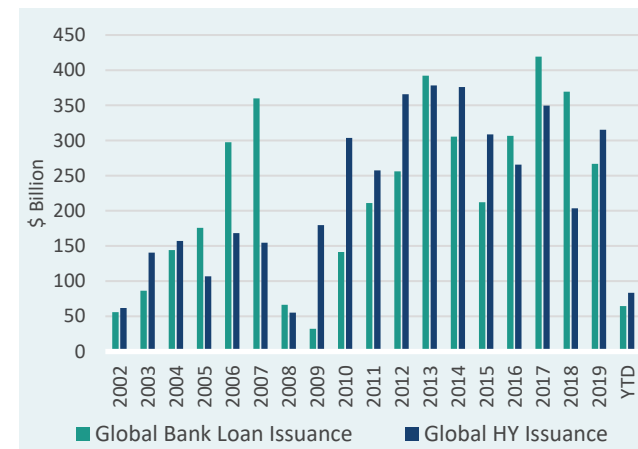
Source: BofA Merrill Lynch, as of 3/31/20

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



Source: BofA Merrill Lynch, as of 3/31/20 – par weighted

GLOBAL ISSUANCE (\$ BILLIONS)



Source: Bloomberg, BofA Merrill Lynch, as of 3/31/20

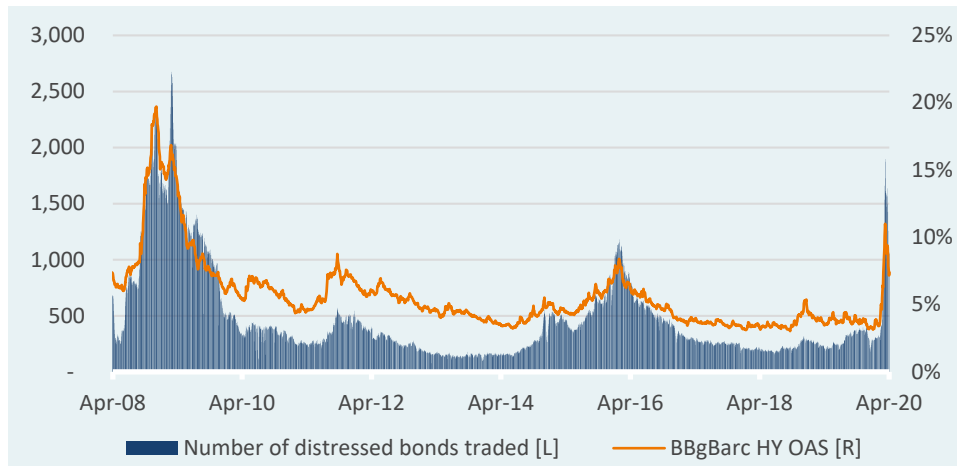
High yield – what happened?

The considerable economic fallout from the COVID-19 pandemic and collapsing oil prices broadly impacted credit markets. Credit spreads topped 1,000 basis points for the first time since the global financial crisis and the number of distressed bonds soared from 218 at the beginning of the year to a peak of 1,896. Higher defaults typically follow slowing growth and credit spread widening. J.P. Morgan’s estimates of credit defaults increased from a 3% rate to an 8% rate for the near-term.

Approximately half of the investment grade bond market now sits within the BBB rated segment, which is the lowest

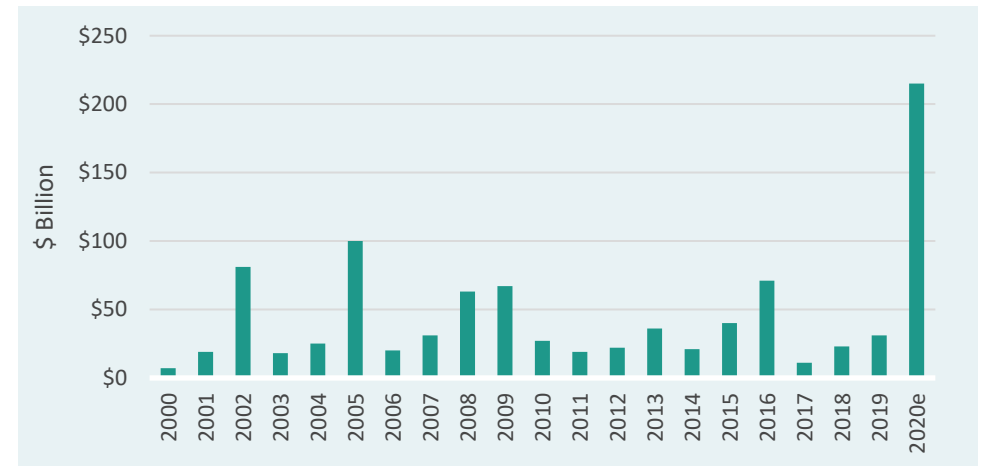
rung on the investment grade scale. Some market participants now expect more than \$200 Billion to fall from the investment grade to the high yield space. Because the BBB sector alone totals more the twice the size of the entire high yield market, downgrades and subsequent forced selling are likely to add pressure to that already stressed market segment throughout the rest of the year. These dislocations have already impacted strategies across the space as investors redeem capital, resulting in suspensions and even closures.

VOLUME AND SPREADS



Source: J.P. Morgan, Bloomberg, as of 4/16/20

FALLEN ANGELS



Equity

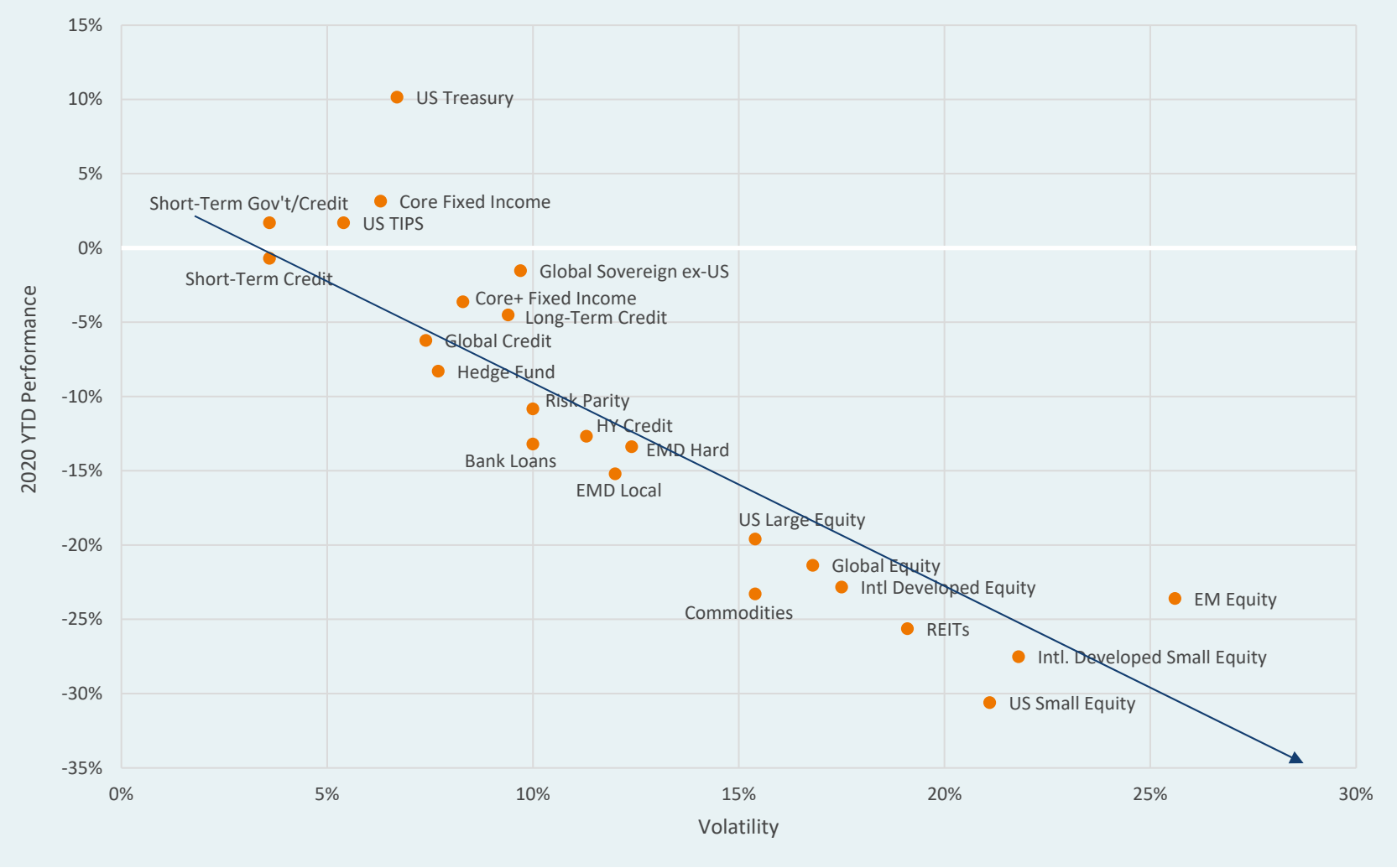
Equity environment

- U.S. equities experienced an unusually sudden and significant sell-off in March as investors grew fearful of the health and economic impacts of COVID-19 spread. During Q1 the S&P 500 fell -19.6%, international developed equities (MSCI EAFE) fell -22.8% and emerging markets (MSCI EM) fell -23.6%.
- The greatest influence on equity performance in 2020 will perhaps be the path of corporate earnings. The degree to which corporate earnings will fall is largely unknown with few reliable estimates.
- Implied volatility spiked in March to a record daily close of 82.7%, surpassing the high of 80.9% in November 2008 during the depths of the global financial crisis.
- In March, a squabble between OPEC+ members led to a historic drop in energy prices. The energy sector faces sharply falling demand and potentially significant oversupply due to oil producers' decision to ramp up production in an oil war. The energy sector experienced a loss of -50.5% in Q1.
- The U.S. dollar appreciated significantly in the first quarter, rising 7.1% on a trade-weighted basis, resulting in large losses for investors with unhedged currency exposure. As is often the case during higher risk market environments, demand for safe-haven currencies positively impacted the dollar.
- Value stocks severely underperformed growth stocks during the first quarter (Russell 1000 Value -26.7%, Russell 1000 Growth -14.1%). Small cap stocks underperformed large cap stocks by a similar magnitude (Russell 2000 -30.6%, Russell 1000 -20.2%). Value and size factors continue to experience an extended period of relative underperformance.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	(19.6%)		(7.0%)	
US Small Cap (Russell 2000)	(30.6%)		(24.0%)	
US Large Value (Russell 1000 Value)	(26.7%)		(17.2%)	
US Large Growth (Russell 1000 Growth)	(14.1%)		(0.9%)	
International Large (MSCI EAFE)	(22.8%)	(19.9%)	(14.4%)	(10.3%)
Eurozone (Euro Stoxx 50)	(27.0%)	(24.8%)	(16.6%)	(12.0%)
U.K. (FTSE 100)	(28.8%)	(23.0%)	(22.0%)	(16.4%)
Japan (NIKKEI 225)	(18.6%)	(18.8%)	(6.7%)	(6.8%)
Emerging Markets (MSCI Emerging Markets)	(23.6%)	(18.5%)	(17.7%)	(12.7%)

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 3/31/20

Q1 performance



Riskier assets performed the worst in Q1...

...and this relationship was fairly consistent across most asset classes

Source: Verus, as of 3/31/20 – Volatility is based on our forward looking 10-year Capital Market Assumptions

Domestic equity

U.S. equities experienced an unusually sudden and significant sell-off in March as investors grew fearful of the health and economic impacts of COVID-19 spread. During Q1 the S&P 500 fell -19.6%, international developed equities (MSCI EAFE) fell -22.8% and emerging markets (MSCI EM) fell -23.6%.

At the same time that COVID-19 was spreading throughout the U.S., a squabble between OPEC+ members led to a historic drop in energy prices. The energy sector faces a perfect storm – sharply falling demand due to a global economic slowdown, and potentially significant oversupply due to oil producers’ decision to ramp up production in an oil war. The energy sector experienced a loss of -50.5% in Q1.

The greatest influence on equity performance in 2020 will perhaps be the path of corporate earnings. The degree to which corporate earnings will fall throughout the year is largely unknown with few reliable estimates.

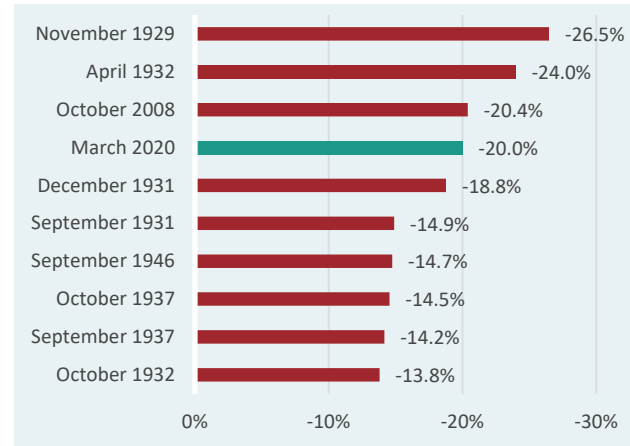
We continue to believe an underweight to international developed equities is appropriate. The economic pain that European Union member countries face may be significant, and membership to the EU inherently limits the ability of these countries to enact certain changes to address weakening economies. The U.S. market may continue to perform relatively well throughout the economic recovery.

S&P 500



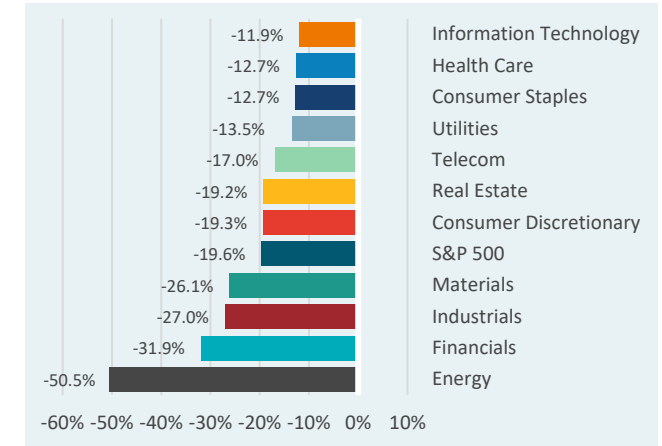
Source: Standard & Poor's, as of 3/31/20

WORST S&P 500 MAX MONTHLY DRAWDOWNS



Source: Standard & Poor's, as of 3/31/20

Q1 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 3/31/20

Domestic equity size & style

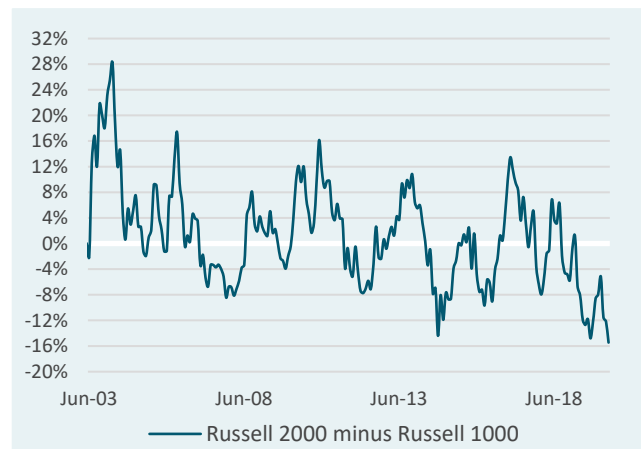
Value stocks severely underperformed growth stocks during the first quarter (Russell 1000 Value -26.7%, Russell 1000 Growth -14.1%). Small cap stocks underperformed large cap stocks by a similar magnitude (Russell 2000 -30.6%, Russell 1000 -20.2%). Value and size factors continue to experience a surprisingly long period of relative underperformance.

Once again, the impact of sector performance on the value premium in Q1 was notable – specifically energy and financial sectors (-50.5% and -31.9%, respectively) which tend to be value-tilted. Energy prices saw a historic drop fueled by OPEC+ infighting and likely the intent of the cartel to push out U.S. energy producers. Financial stocks delivered losses as

falling interest rates hurt profitability. Information Technology (-11.9%), a sector that tends to contain more growth stocks, was the best performer.

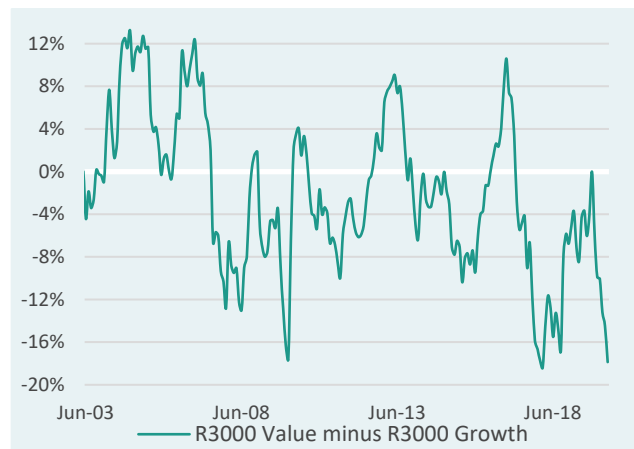
We believe that it is extremely difficult to successfully make short-term bets on style factors. Factor performance can be incredibly noisy and vulnerable to sector randomness. Market events of the past month seem to support this belief. While value in particular continues to be historically cheap, price itself does not translate to short-term outperformance – a catalyst for a turnaround should also be clearly identified and understood. We remain watchful and believe that consistent long-term exposure to these style factors is an ideal implementation approach for most investors, most of the time.

SMALL CAP VS LARGE CAP (YOY)



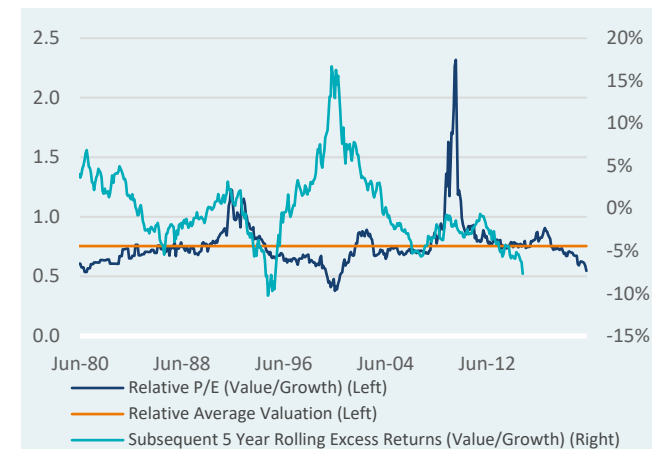
Source: FTSE, as of 3/31/20

VALUE VS GROWTH (YOY)



Source: FTSE, as of 3/31/20

VALUE HISTORICALLY CHEAP



Source: Russell, Bloomberg, as of 3/31/20

International developed equity

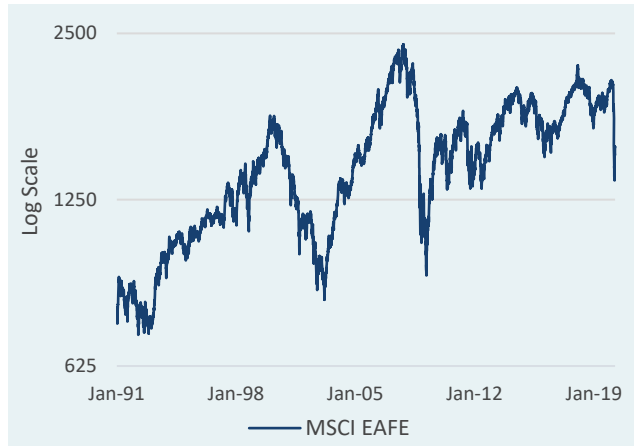
Equity markets around the world sold off broadly in the first quarter, down between -16% to -29%. Japanese equities were among the best performing (MSCI Japan -17%) while the U.K. was one of the worst performing (MSCI U.K. -29%).

As the global transactional currency, demand for U.S. dollars tends to ramp up when markets become stressed and companies abroad require dollars to pay down dollar-denominated liabilities. In the first quarter, the U.S. dollar gained +2.3% against the Euro and +6.4% against the British pound, resulting in losses for U.S. investors in European

equities with unhedged currency exposure. In mid-March, the Federal Reserve expanded its dollar swap liquidity lines and opened a FIMA repo facility which will allow foreign monetary authorities to enter repurchase agreements with the Fed. Both measures worked to help improve U.S. dollar liquidity abroad, and as a result, slow the pace of appreciation of the U.S. dollar relative to international pairs.

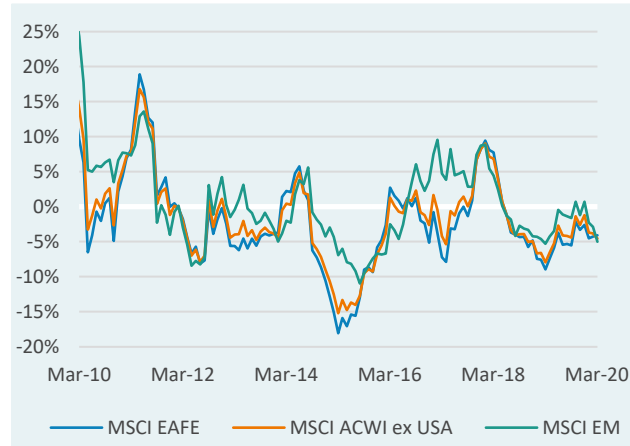
Cross-currency basis, which measure the additional premia investors must pay to swap one currency for another over a term, narrowed in March, signaling that the Fed's efforts to ease dollar funding strains have proved effective thus far.

INTERNATIONAL DEVELOPED EQUITIES



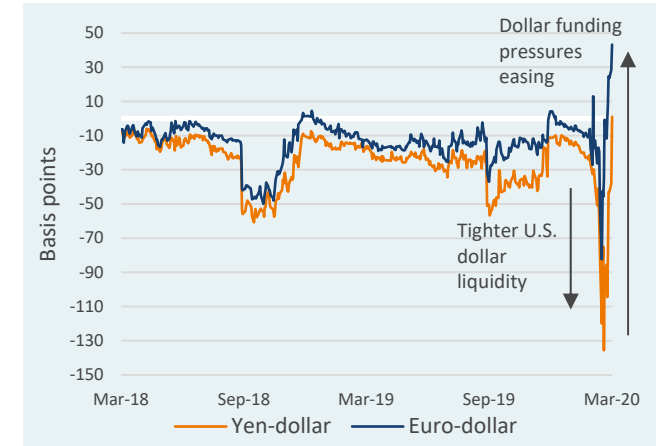
Source: MSCI, as of 3/31/20

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 3/31/20

3M/3M CROSS CURRENCY BASIS SWAPS



Source: Bloomberg, as of 3/31/20

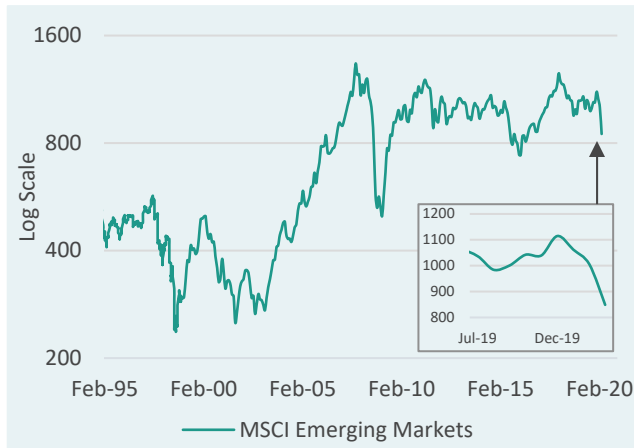
Emerging market equity

Emerging market equities (MSCI EM -23.6%) underperformed both U.S. (S&P 500 -19.6%) and international developed equities (MSCI EAFE -22.8%) over the quarter. Within the complex, Latin American equities (MSCI EM Latin American -45.6%) dramatically underperformed Asian equities (MSCI EM Asia -18.1%), which were propped up by remarkably resilient Chinese equity markets. Currency exposure also played a big role in the outperformance of EM Latin America over EM Asia, as the U.S. dollar strengthened significantly against the Brazilian real, and the Mexican peso, and was little changed against the Chinese renminbi.

Inflation remains low in emerging economies and may face downward pressure in the coming months as energy prices have fallen. Central banks may have more room to maneuver relative to developed economies with regard to monetary policy, as interest rates are closer to average levels.

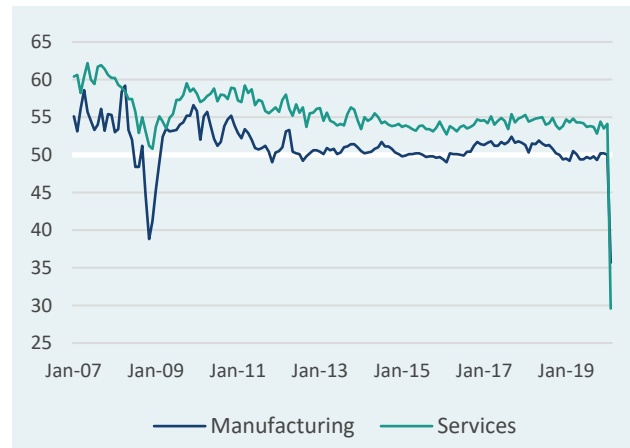
Countries viewed as having poor health infrastructure as well as economic dependence on oil prices fared the worst. Mexico's sovereign debt rating was downgraded by several rating agencies, and Moody's downgraded South Africa's sovereign debt rating below investment-grade.

EMERGING MARKET EQUITY



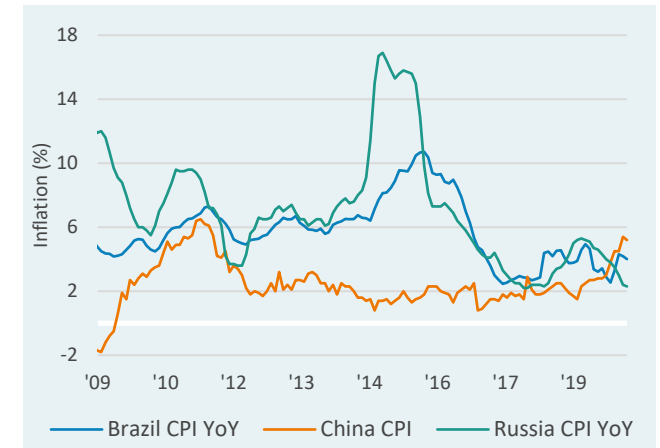
Source: MSCI, as of 3/31/20

CHINA PURCHASING MANAGERS' INDICES



Source: China Federation of Logistics and Purchasing, as of 2/29/20

INFLATION (CPI YOY)



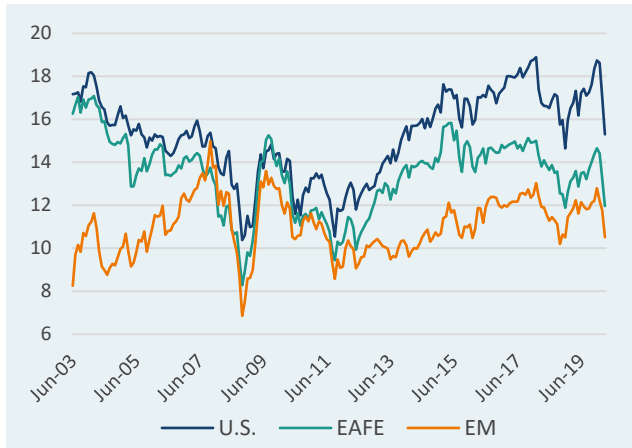
Source: Bloomberg, as of 2/29/20

Equity valuations

Throughout the significant Q1 market sell-off, losses across global markets have been fairly similar. This has resulted in U.S. equities retaining their status as the most expensive market, though we believe this may be justified as governments with limited ability to implement stimulus policies could face tougher economic fallout. Specifically, European Union member nations that cannot exercise independent actions may see greater difficulties ahead as income gaps cannot be supplemented with government spending.

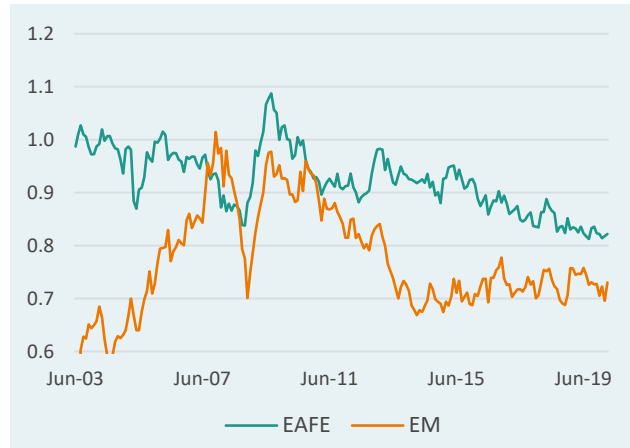
In 2005, Thomas Friedman put forth the notion that “The World is Flat”, and that the 21st century will be characterized by globalization, with historical and geographical divisions becoming less relevant. In Friedman’s world, companies produce their goods where it is cheapest to do so, often in emerging and developing economies with fewer labor protections. Supply chains are built within profit maximization frameworks often with little regard for the risks associated with having a supply chain concentrated in one or a few countries. Looking ahead, it will be interesting to follow whether Friedman’s world becomes slightly bumpier.

FORWARD P/E RATIOS



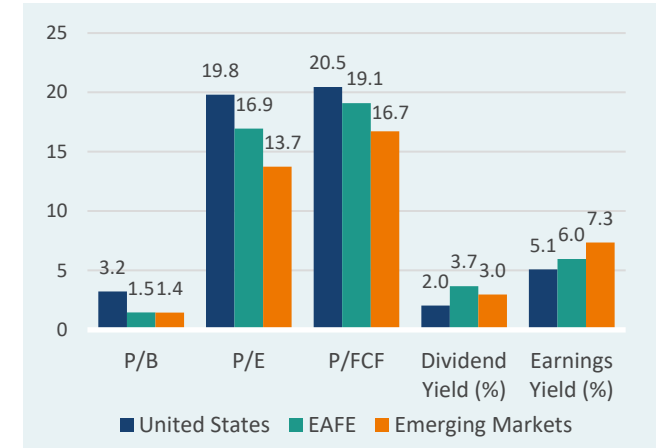
Source: MSCI, 12m forward P/E, as of 3/31/20

FORWARD P/E RATIOS (RELATIVE TO THE U.S.)



Source: MSCI, 12m forward P/E, as of 3/31/20

VALUATION METRICS (3-MONTH AVERAGE)



Source: Bloomberg, MSCI as of 3/31/20 - trailing P/E

Equity volatility

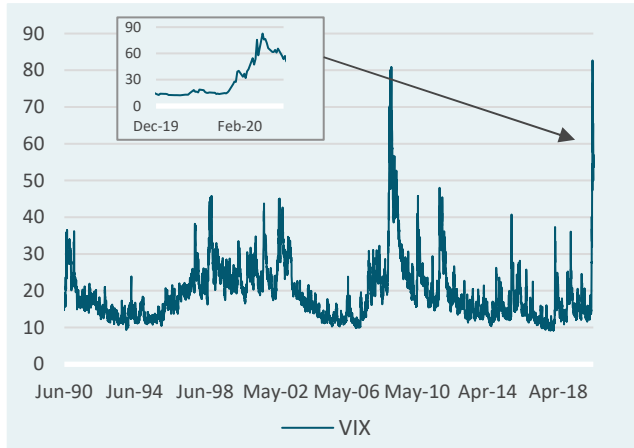
Risk markets experienced one of the most sudden corrections on record, amidst extreme volatility. The S&P 500 showed its largest one-day drop since 1987 (March 16 -11.9%) and its largest one-day gain since 2008 (March 24 +9.4%). The transition from a very low- to a very high-volatility environment likely caught many investors off guard.

Implied volatility (CBOE VIX Index) spiked in March to a record daily close of 82.7, surpassing the high of 80.9 on November 20th, 2008 during the depths of the global financial crisis. Such extreme levels of market volatility can

create difficulties for investors in managing portfolios. Processes such as portfolio rebalancing that are often systematic can become complex and subjective when equities are exhibiting nearly double-digit daily moves.

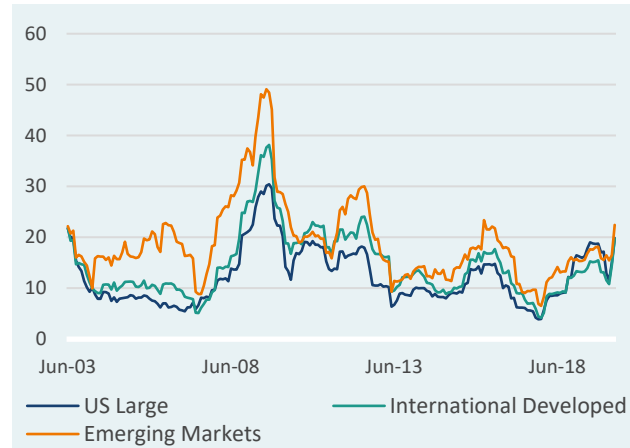
The S&P 500 Price Index closed at 2237 on March 23rd, -33.9% below February 19th peaks. Since then, U.S. equities have staged a remarkable rebound in the foreground of a historically bleak economic background. Debate over whether the rebound is justified has continued as economic uncertainty remains at unprecedented levels.

U.S. IMPLIED VOLATILITY (VIX)



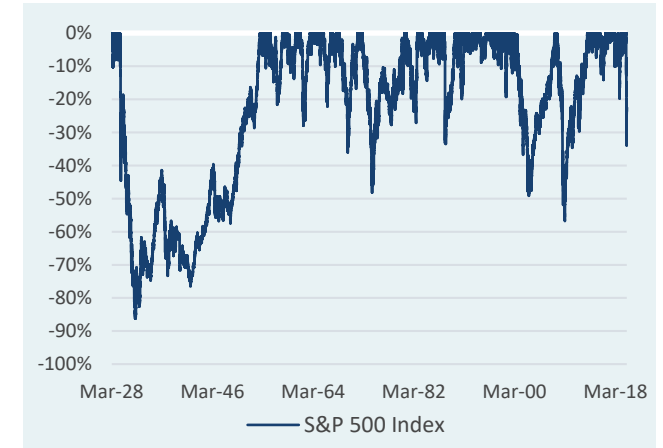
Source: CBOE, as of 3/31/20

ROLLING 1-YEAR REALIZED VOLATILITY



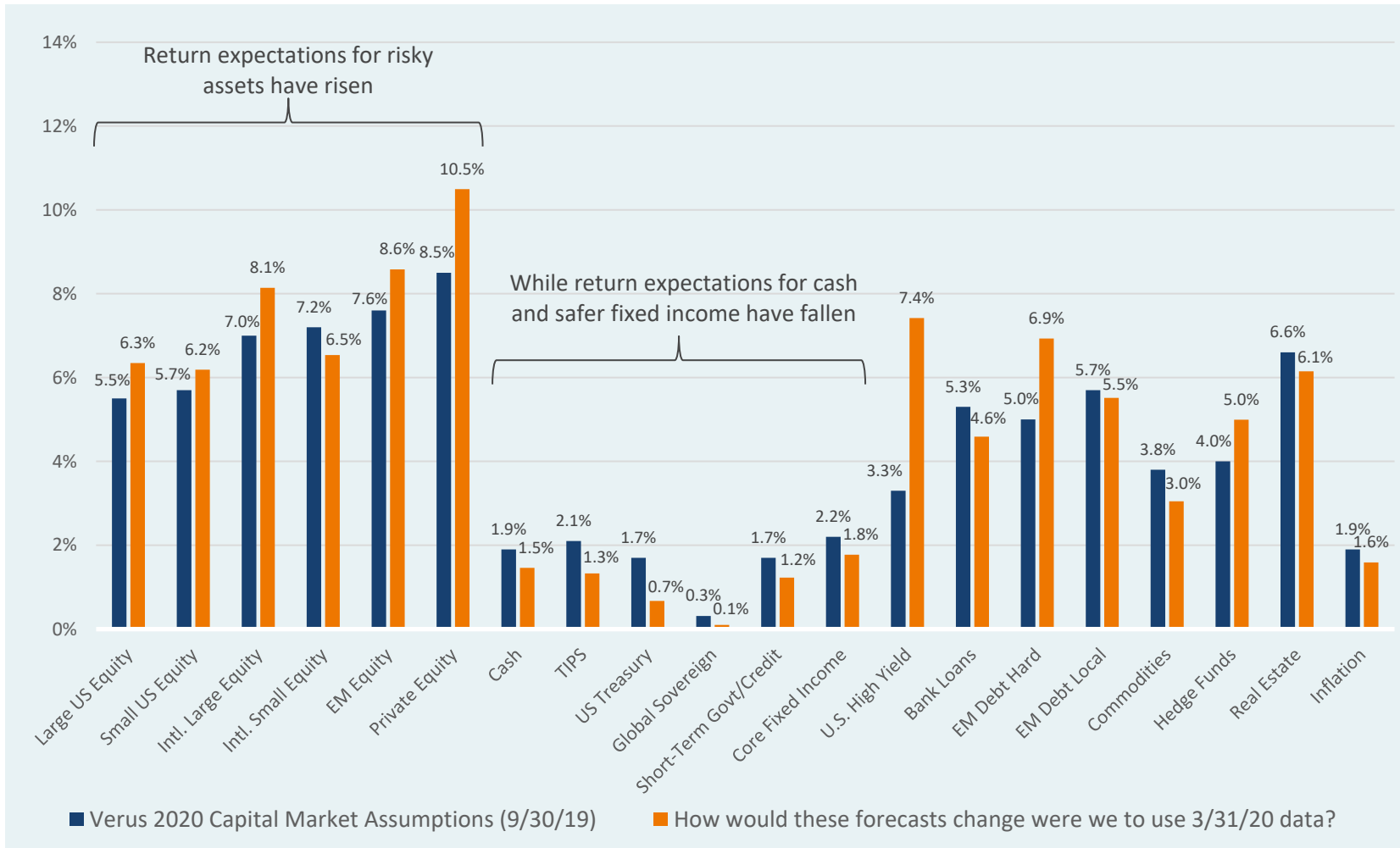
Source: Standard & Poor's, MSCI, Bloomberg, as of 3/31/20

MAX DRAWDOWN FROM PRIOR PEAKS



Source: Standard & Poor's, Bloomberg, as of 3/31/20

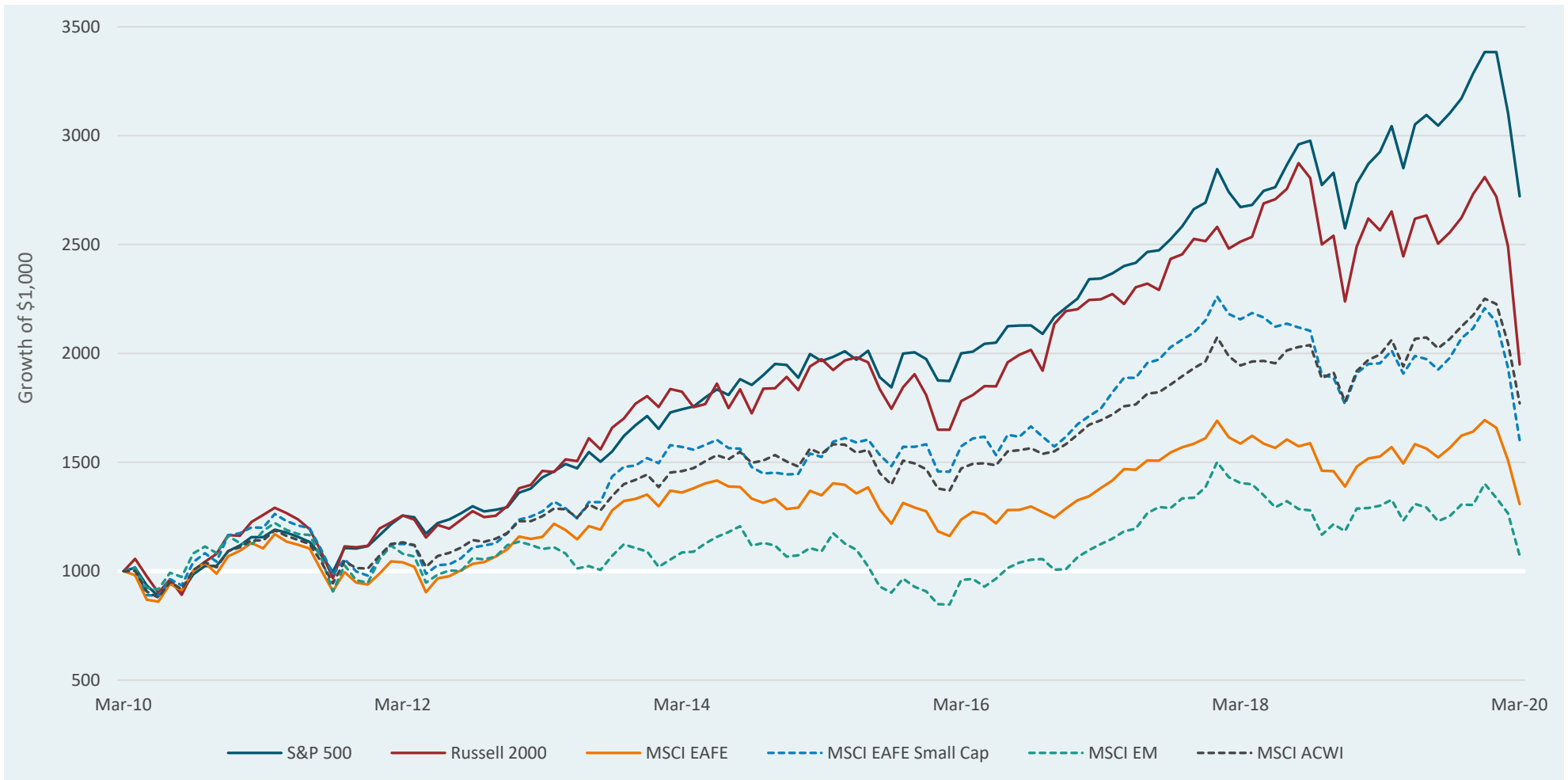
How have return expectations changed?



The overall portfolio's expected return may have risen or fallen during Q1, depending on the asset allocation & risk level

Source: Verus

Long-term equity performance



Source: Morningstar, as of 3/31/20

Other assets

Currency

The U.S. dollar appreciated significantly in the first quarter, rising 7.1% on a trade-weighted basis, resulting in losses for investors with unhedged currency exposure. As is often the case during higher risk market environments, demand for safe-haven currencies contributed to the rising dollar.

Historically speaking, environments where the U.S. dollar was much more expensive than average tended to be followed by an eventual mean-reversion. However, this mean-reversion effect is not a sure bet, and it can take years (or perhaps decades) to occur. As recent years have shown,

leaving currency exposure unhedged tends to result in uncompensated volatility, and occasional (or frequent) large and sharp losses or gains.

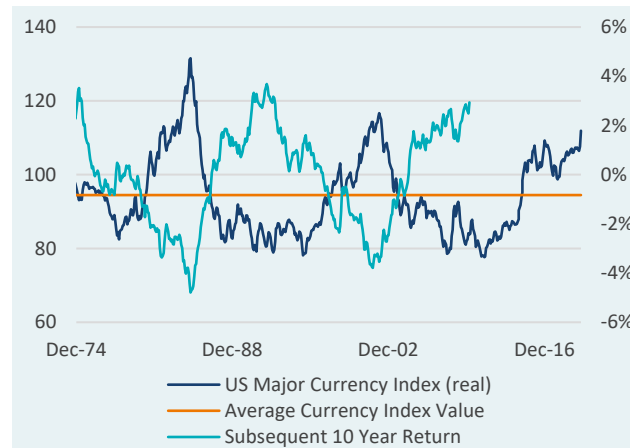
The MSCI Currency Factor Mix Index, constructed as a combination of individual Currency Factor indices (carry, value, momentum) advanced 1.2% in Q1. The momentum factor (+8.7%) posted strong gains as appreciating currencies continued to strengthen while the carry factor (-7.2%) lagged as the exchange rate adjustments implied by local interest rate differentials occurred faster than expected.

BLOOMBERG DOLLAR SPOT INDEX



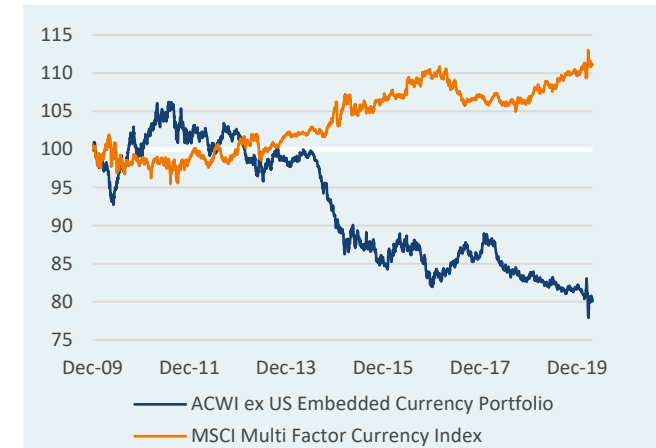
Source: Bloomberg, as of 3/31/20

USD CURRENCY LEVEL & SUBSEQUENT RETURN



Source: Federal Reserve, Verus, as of 3/31/20

EMBEDDED CURRENCY VS CURRENCY BETA



Source: MSCI, Bloomberg, as of 3/31/20

Oil crisis

In mid-March, the price of oil experienced a sudden drop as Russia refused to join the OPEC recommended production cuts. In retribution, Saudi Arabia signaled that they would increase production drastically in April upon expiration of the OPEC pact. These events led to a 30% one-day drop in price, and historically volatile trading.

Russia's actions are likely linked to increased U.S. sanctions on its energy producers, which have negatively impacted the economy. Sanctions have prevented Russia from completing the Nord Stream 2 gas pipeline in the Baltic Sea, a project that \$11 Billion had previously been invested in, which would

carry Russian Gas directly to Germany and would circumvent the Ukraine. Sanctions were also levied against Russia's Rosneft for allegedly supporting the Nicolas Maduro regime in Venezuela. It is estimated that 70% of oil production in Venezuela was going through Rosneft.

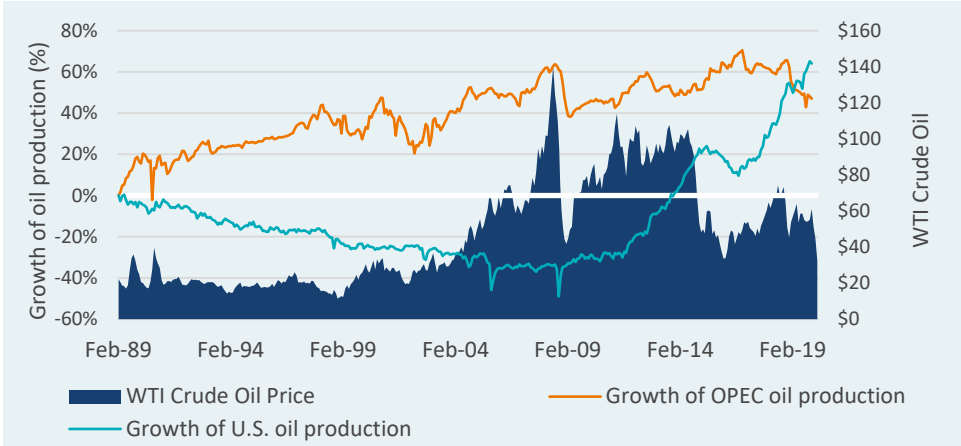
A similar dynamic occurred during the oil crash of 2014 as OPEC let oil plummet, arguably with the intent to put U.S. oil producers out of business. American oil production has been ramped up drastically over the last decade, at a time when OPEC producers were working to minimize their own production in order to balance global supply.

WTI OIL PRICE



Source: FRED, as of 3/31/20

GLOBAL OIL PRODUCER CONFLICT



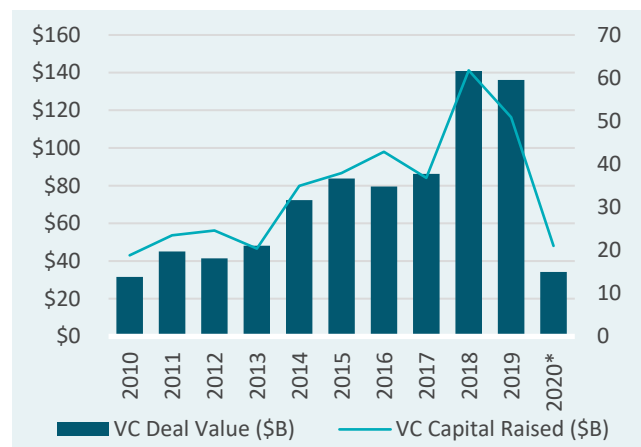
Source: Bloomberg, U.S. Energy Information Administration, as of 3/31/20

Private markets

Deals plateaued in buyouts and venture; multiples are steady; buyout fundraising has slowed

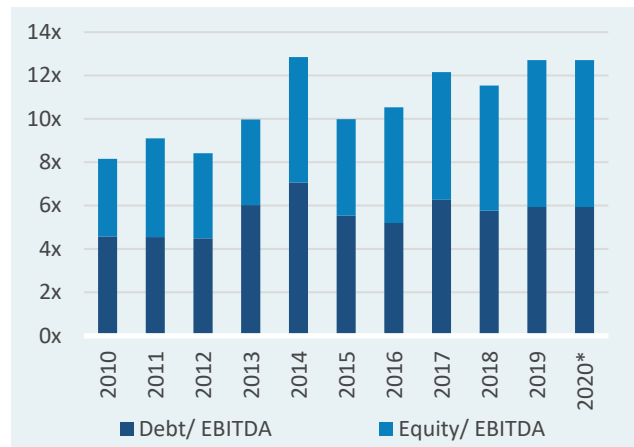
- Before the impending market dislocation, venture capital fundraising was on pace to eclipse 2019, while total deal volume and number of deals had plateaued. \$21 Billion of venture capital was raised in the U.S. in Q1 2020, constituting 40% of capital raised in 2019. Deal value and number of deals in the quarter represented 25% and 19% of 2019's totals, respectively.
- Buyout activity continued to decrease in Q1 2020 from 2019. Through the first quarter, buyouts dollar value and number of transactions amounted to 18% and 19% of 2019 levels, respectively. The size of the average buyout, \$135.6M, has decreased from 2019, \$145.2M. Similarly, fundraising has also slowed. Only 46 buyout funds representing \$45 Billion closed in Q1 2020, down from 249 funds representing \$315 Billion in 2019.
- Pricing multiples on completed buyout deals remained in line with 2019's. Median EV/EBITDA is 12.9x (up slightly from 12.7x in 2019) with debt multiples unchanged at 5.9x. Debt as a percentage of transaction value hovers around 45%.

VENTURE DEAL VOLUME & FUNDRAISING



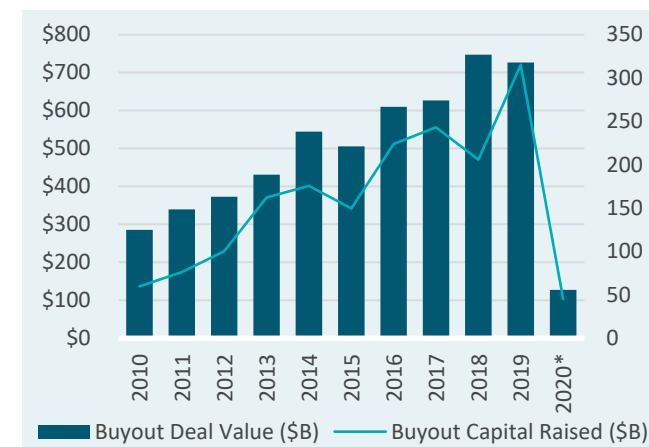
*2020 figures through 3/31/20
Source: PitchBook

TRANSACTION MULTIPLES



*2020 figures through 3/31/20
Source: PitchBook

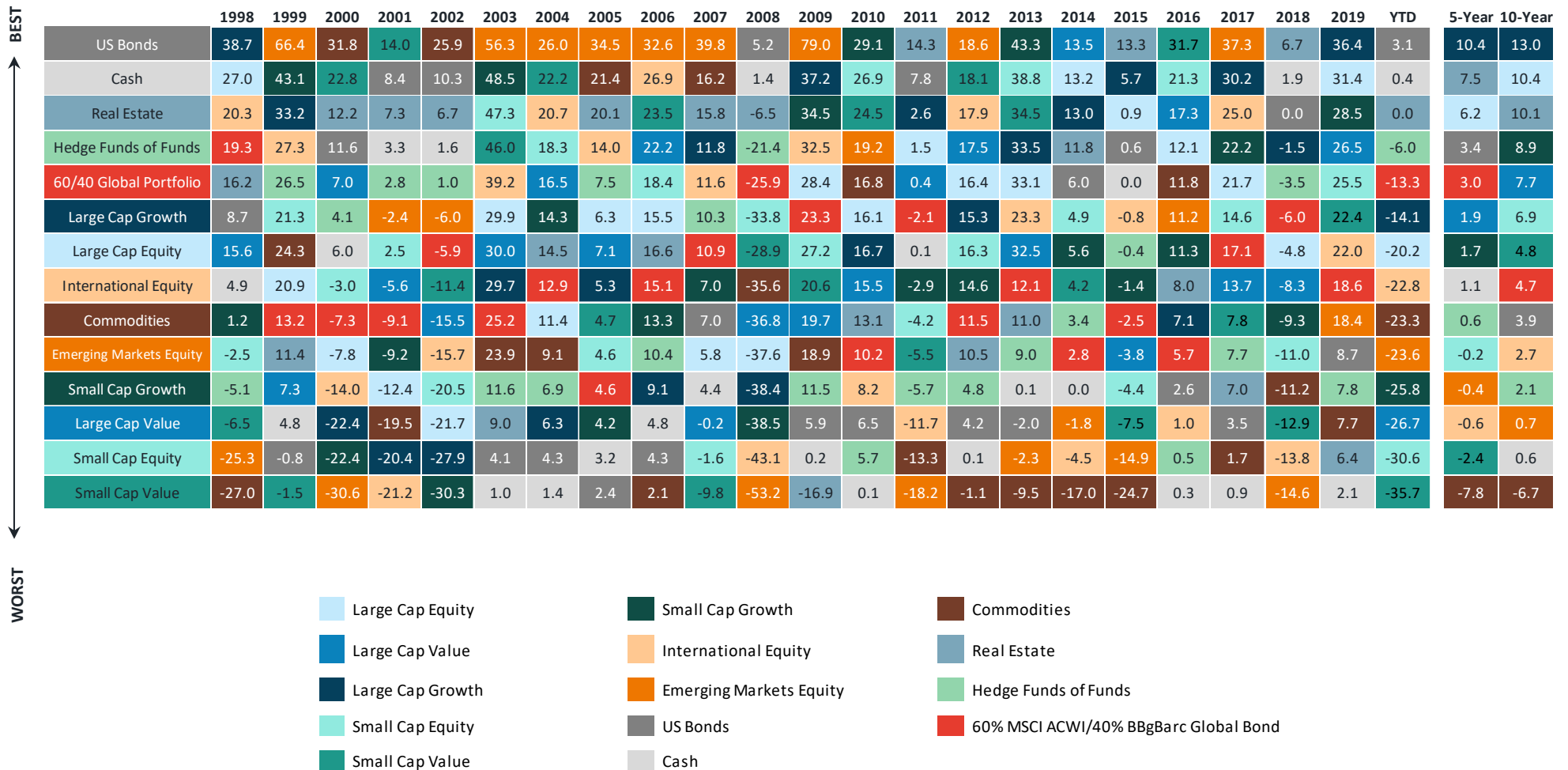
BUYOUTS DEAL VOLUME & CAPITAL RAISED



*2020 figures through 3/31/20
Source: PitchBook

Appendix

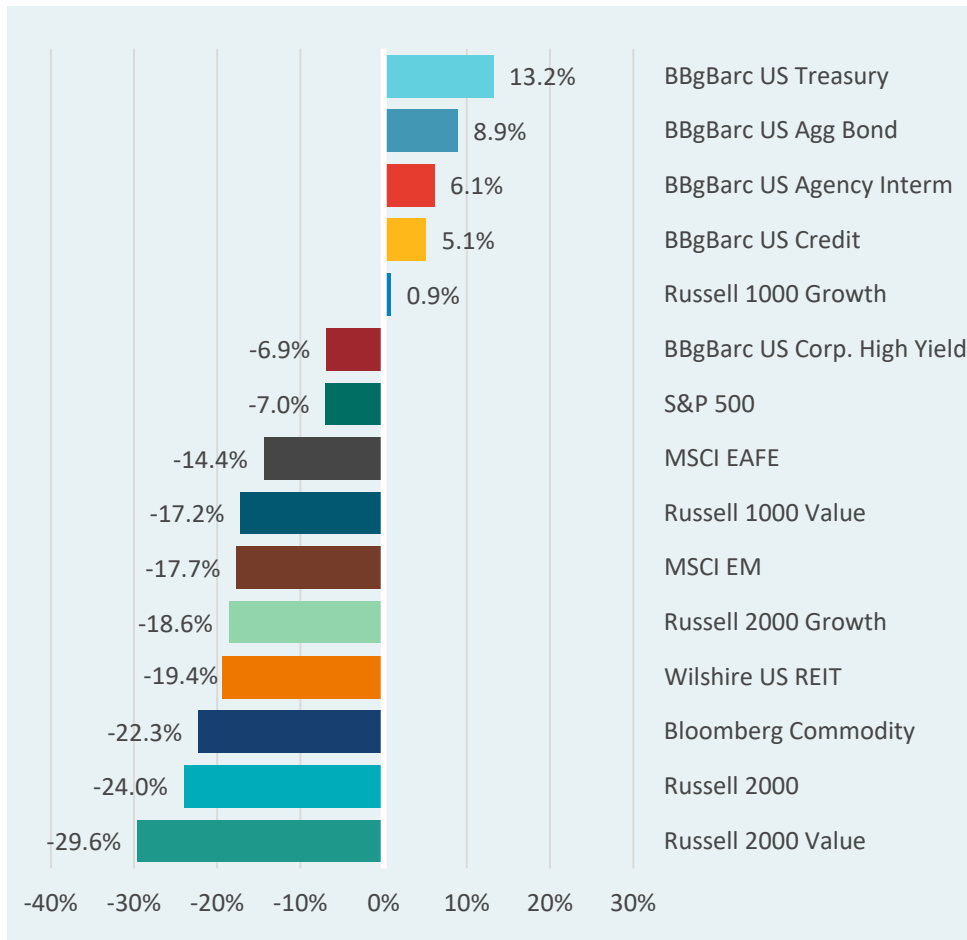
Periodic table of returns



Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, 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 12/31/19.

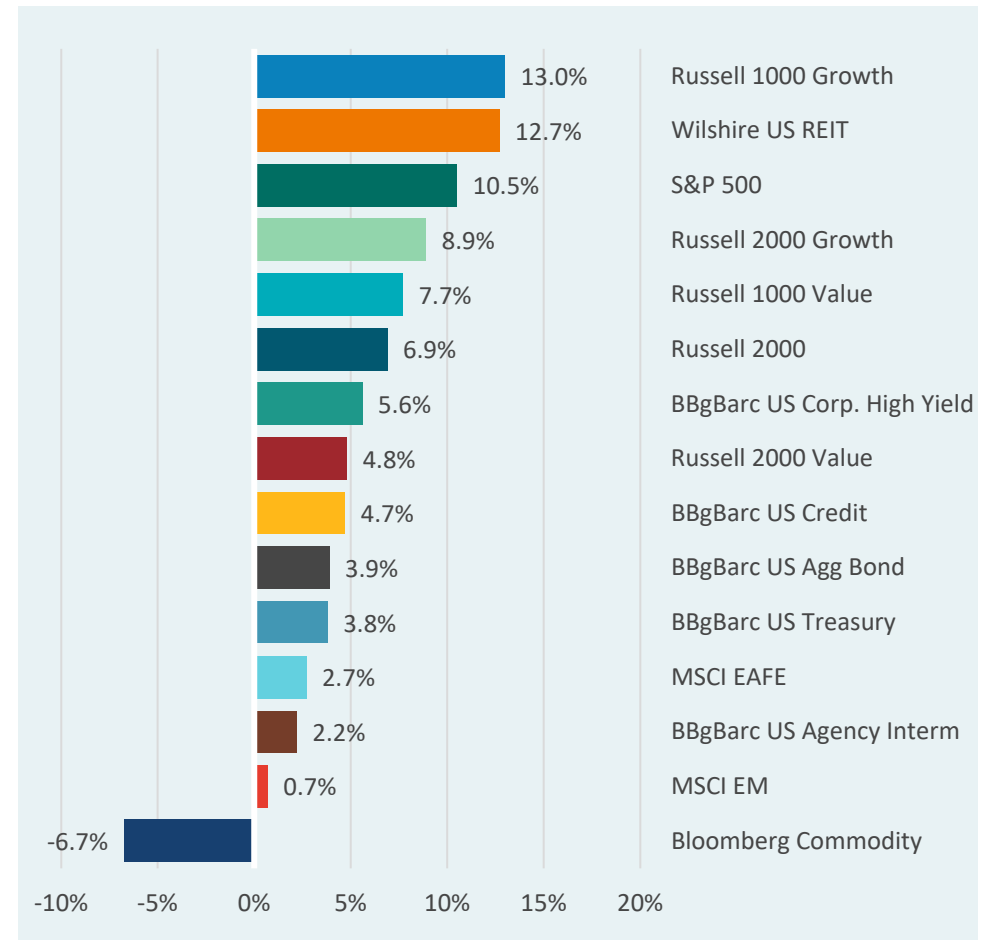
Major asset class returns

ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/20

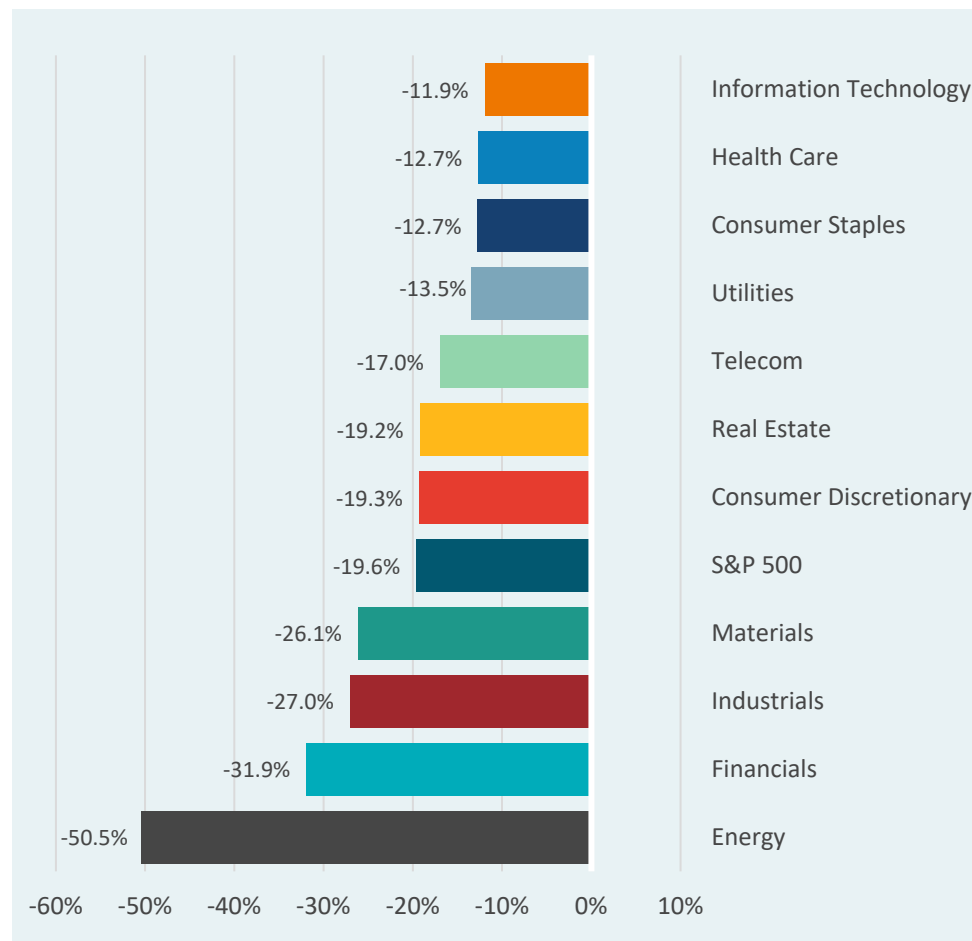
TEN YEARS ENDING MARCH



Source: Morningstar, as of 3/31/20

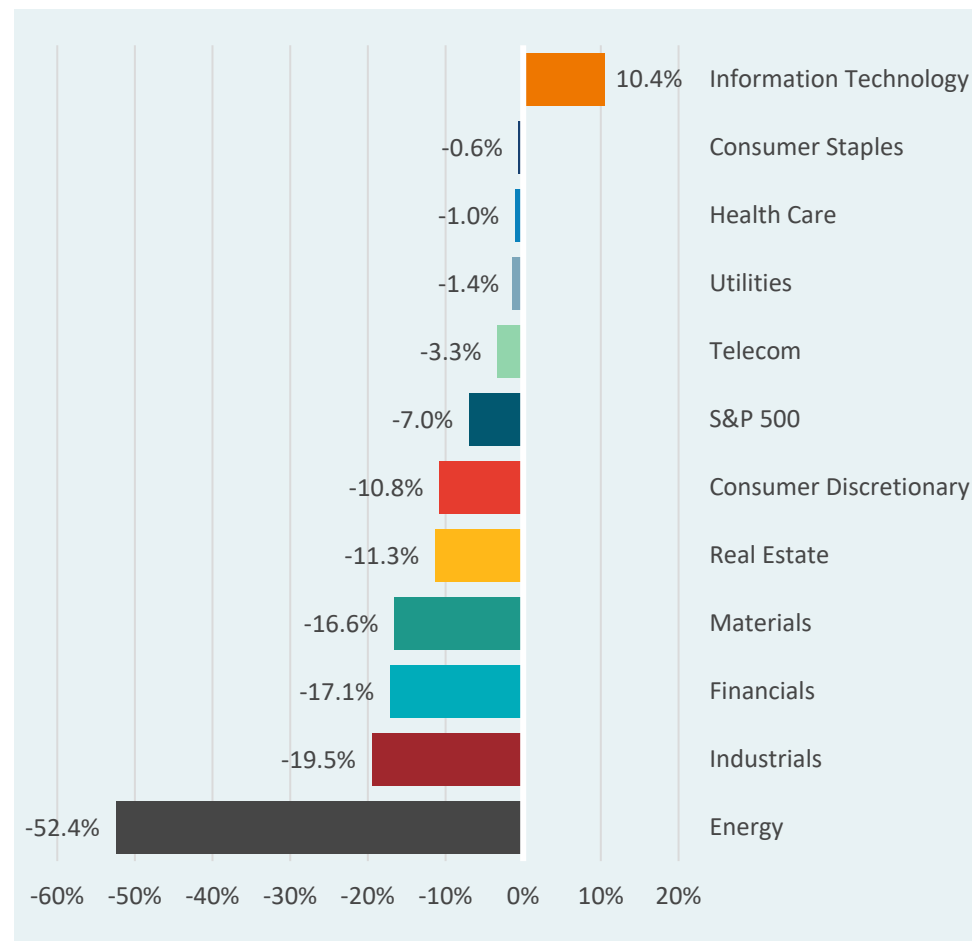
S&P 500 sector returns

Q1 2020



Source: Morningstar, as of 3/31/20

ONE YEAR ENDING MARCH

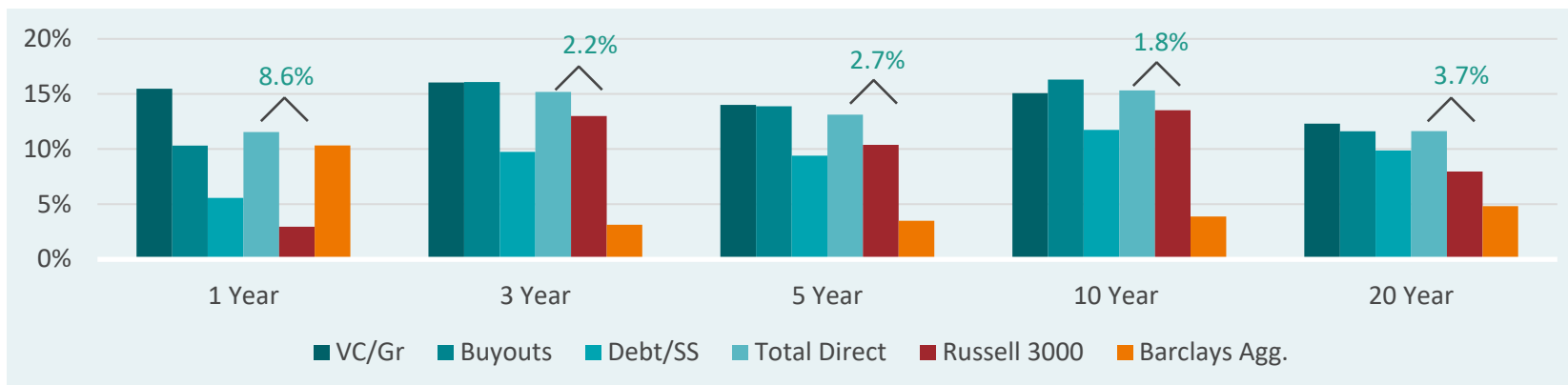


Source: Morningstar, as of 3/31/20

Private equity vs. public performance

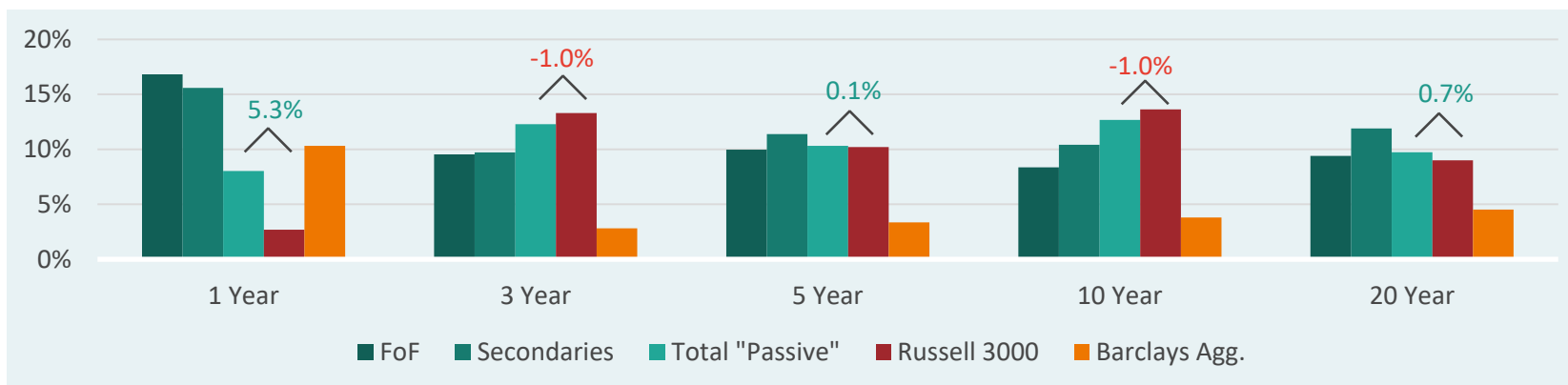
As of 9/30/2019

DIRECT PRIVATE EQUITY FUND INVESTMENTS



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

"PASSIVE" STRATEGIES



"Passive" strategies outperformed comparable public equities on a 1-, 5-, and 20-year basis, and underperformed on a 3- and 10-year basis

Sources: Thomson Reuters Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of September 30, 2019. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.

Private equity vs. liquid real assets performance

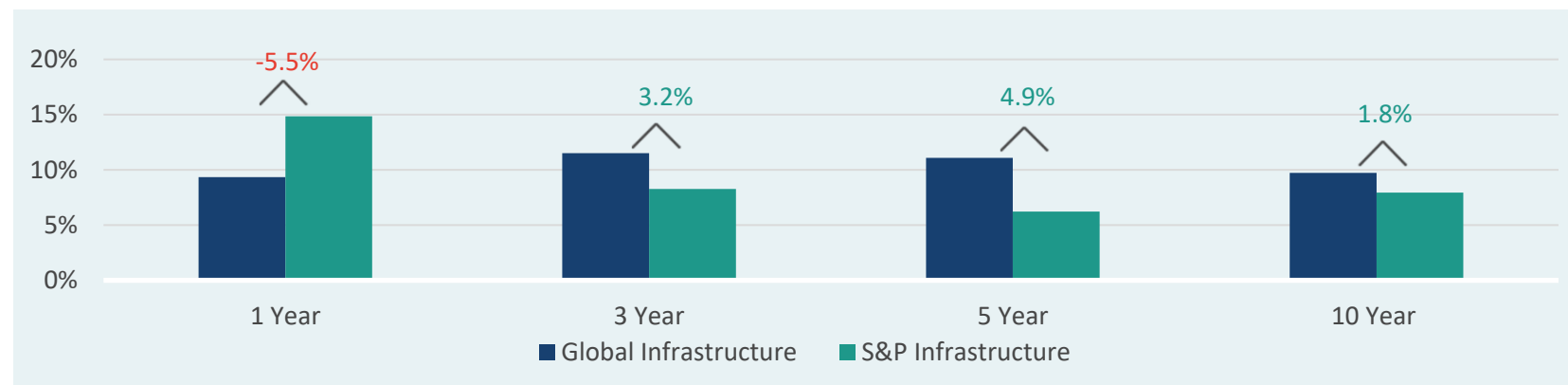
As of 9/30/2019

GLOBAL NATURAL RESOURCES FUNDS



N.R. funds outperformed the MSCI World Natural Resources benchmark across all time periods

GLOBAL INFRASTRUCTURE FUNDS



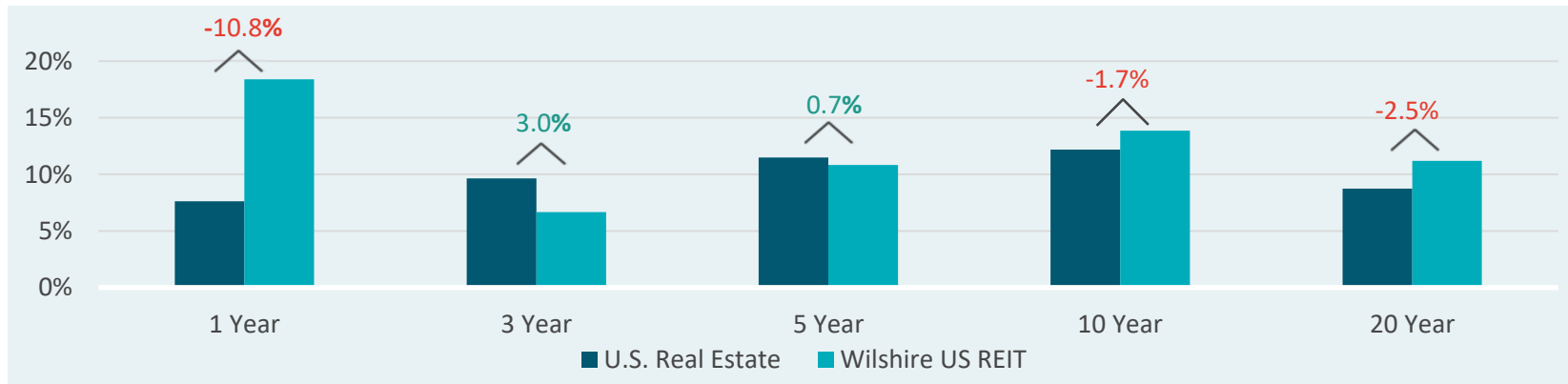
Infra. funds outperformed the S&P Infra. across all periods, except on a 1-year basis

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, 2019. 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

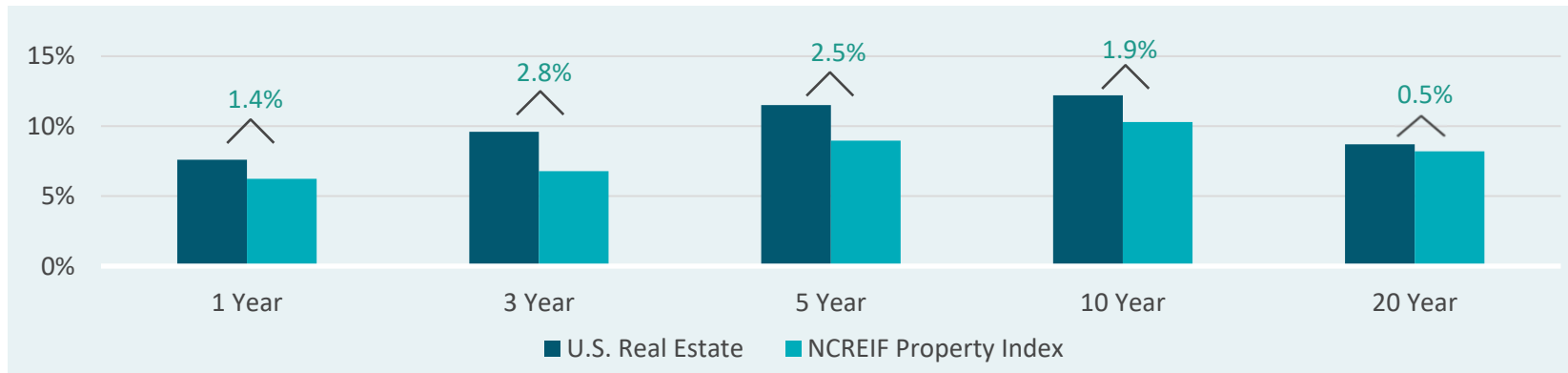
As of 9/30/2019

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



U.S. Private R.E. funds underperformed the Wilshire U.S. REIT Index on a 1-, 10-, and 20-year basis, but not over 3- and 5-years

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



U.S. Private R.E. Funds outperformed the NCREIF Property Index over all time periods

Sources: Thomson Reuters C|A PME: Global and U.S. Real Estate universes as of September 30, 2019. 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	(12.4)	(19.6)	(19.6)	(7.0)	5.1	6.7	10.5
S&P 500 Equal Weighted	(18.0)	(26.7)	(26.7)	(17.6)	(0.4)	2.8	9.2
DJ Industrial Average	(13.6)	(22.7)	(22.7)	(13.4)	4.4	6.9	10.0
Russell Top 200	(11.0)	(17.7)	(17.7)	(4.1)	6.7	7.9	11.0
Russell 1000	(13.2)	(20.2)	(20.2)	(8.0)	4.6	6.2	10.4
Russell 2000	(21.7)	(30.6)	(30.6)	(24.0)	(4.6)	(0.2)	6.9
Russell 3000	(13.8)	(20.9)	(20.9)	(9.1)	4.0	5.8	10.1
Russell Mid Cap	(19.5)	(27.1)	(27.1)	(18.3)	(0.8)	1.8	8.8
Style Index							
Russell 1000 Growth	(9.8)	(14.1)	(14.1)	0.9	11.3	10.4	13.0
Russell 1000 Value	(17.1)	(26.7)	(26.7)	(17.2)	(2.2)	1.9	7.7
Russell 2000 Growth	(19.1)	(25.8)	(25.8)	(18.6)	0.1	1.7	8.9
Russell 2000 Value	(24.7)	(35.7)	(35.7)	(29.6)	(9.5)	(2.4)	4.8

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	(13.5)	(21.4)	(21.4)	(11.3)	1.5	2.8	5.9
MSCI ACWI ex US	(14.5)	(23.4)	(23.4)	(15.6)	(2.0)	(0.6)	2.1
MSCI EAFE	(13.3)	(22.8)	(22.8)	(14.4)	(1.8)	(0.6)	2.7
MSCI EM	(15.4)	(23.6)	(23.6)	(17.7)	(1.6)	(0.4)	0.7
MSCI EAFE Small Cap	(17.2)	(27.5)	(27.5)	(18.1)	(2.9)	1.0	4.8
Style Index							
MSCI EAFE Growth	(9.2)	(17.5)	(17.5)	(5.8)	3.0	2.5	4.7
MSCI EAFE Value	(17.7)	(28.2)	(28.2)	(22.8)	(6.7)	(3.8)	0.6
Regional Index							
MSCI UK	(16.0)	(28.8)	(28.8)	(23.0)	(4.9)	(3.3)	1.6
MSCI Japan	(7.1)	(16.8)	(16.8)	(6.7)	1.0	1.8	3.8
MSCI Euro	(17.2)	(27.0)	(27.0)	(18.3)	(4.4)	(2.3)	1.1
MSCI EM Asia	(11.7)	(18.1)	(18.1)	(12.1)	1.3	1.4	3.5
MSCI EM Latin American	(34.5)	(45.6)	(45.6)	(40.8)	(13.0)	(5.9)	(6.7)

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	(1.8)	1.7	1.7	6.8	3.5	2.7	3.5
BBgBarc US Treasury Bills	0.3	0.6	0.6	2.4	1.8	1.2	0.7
BBgBarc US Agg Bond	(0.6)	3.1	3.1	8.9	4.8	3.4	3.9
Duration							
BBgBarc US Treasury 1-3 Yr	1.3	2.8	2.8	5.4	2.7	1.8	1.4
BBgBarc US Treasury Long	6.1	20.9	20.9	32.6	13.4	7.3	9.0
BBgBarc US Treasury	2.9	8.2	8.2	13.2	5.8	3.6	3.8
Issuer							
BBgBarc US MBS	1.1	2.8	2.8	7.0	4.0	2.9	3.3
BBgBarc US Corp. High Yield	(11.5)	(12.7)	(12.7)	(6.9)	0.8	2.8	5.6
BBgBarc US Agency Interm	0.9	2.9	2.9	6.1	3.2	2.3	2.2
BBgBarc US Credit	(6.6)	(3.1)	(3.1)	5.1	4.2	3.3	4.7

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	(12.8)	(23.3)	(23.3)	(22.3)	(8.6)	(7.8)	(6.7)
Wilshire US REIT	(20.0)	(25.6)	(25.6)	(19.4)	(2.5)	5.7	12.7
CS Leveraged Loans	(12.5)	(13.2)	(13.2)	(9.5)	(0.7)	4.6	5.0
Alerian MLP	(48.1)	(58.1)	(58.1)	(61.9)	(29.9)	(21.1)	(4.7)
Regional Index							
JPM EMBI Global Div	(13.8)	(13.4)	(13.4)	(6.8)	0.4	2.8	4.9
JPM GBI-EM Global Div	(11.1)	(15.2)	(15.2)	(6.5)	(0.8)	0.3	0.5
Hedge Funds							
HFRI Composite	(5.9)	(8.3)	(8.3)	(4.0)	0.7	1.3	2.9
HFRI FOF Composite	(4.9)	(6.0)	(6.0)	(2.6)	1.0	0.6	2.1
Currency (Spot)							
Euro	(0.1)	(2.3)	(2.3)	(2.3)	0.9	0.4	(2.1)
Pound	(2.9)	(6.4)	(6.4)	(4.8)	(0.3)	(3.5)	(2.0)
Yen	(0.1)	0.7	0.7	2.5	1.1	2.1	(1.4)

Source: Morningstar, HFR, as of 3/31/20

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.lanqerresearch.com)

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

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

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

Notices & disclosures

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

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

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

Verus⁷⁷⁷ is a registered trademark of Verus Advisory, Inc.

Western States Office & Professional Employees Pension Fund

Investment Performance Review

Period Ending: March 31, 2020



[VERUSINVESTMENTS.COM](https://www.verusinvestments.com)

SEATTLE 206-622-3700

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

1st quarter summary

THE ECONOMIC CLIMATE

- Real GDP grew at a 0.3% rate year-over-year in the first quarter (-4.8% quarterly annualized rate). Personal consumption expenditures shrunk -7.6%, resulting in a -5.3% hit to headline growth. Forecasts of Q2 GDP growth have varied between -15% to -35%.
- The U.S. government quickly crafted and implemented historic stimulus measures to combat the economic impact of the virus. Support of this magnitude has not been seen since the Great Depression of the 1930s.

PORTFOLIO IMPACTS

- U.S. equities experienced an unusually sudden and significant sell-off in March as investors grew fearful of the health and economic impacts of COVID-19. During Q1 the S&P 500 fell -19.6%, international developed equities (MSCI EAFE) fell -22.8% and emerging markets (MSCI EM) fell -23.6%.
- U.S. core inflation increased 2.1% YoY in March. Headline inflation slowed to 1.5%, pushed lower by a sharp decline in energy prices which will likely have persistent effects in future months. Downward pressure could be compounded as households slow spending due to loss of income and a greater propensity to save rather than spend.

THE INVESTMENT CLIMATE

- In mid-March, the Federal Open Market Committee cut interest rates by a full 1.00% to a new range of 0 – 0.25%. This surprise action was taken on a Sunday with the intent to get out ahead of economic impacts of COVID-19.
- Implied volatility spiked in March to a record daily close of 82.7%, surpassing the high of 80.9% reached in November 2008 during the depths of the global financial crisis.
- Central banks are facing an economic slowdown and need for monetary policy support, but very little room to cut interest rates. This is a risk that has been discussed for years. We believe fiscal policies will play a much larger role in addressing the inevitable economic slowdown.

ASSET ALLOCATION ISSUES

- Risk markets experienced one of the most sudden corrections on record, amidst extreme volatility. The S&P 500 showed its largest one-day drop since 1987 (March 16 -11.98%) and its largest one-day gain since 2008 (March 24 +9.38%). Implied volatility reached global financial crisis levels, and high yield credit spreads temporarily expanded above 11%. Some of these losses were recovered toward the end of March as the market rebounded.
- The U.S. dollar appreciated significantly in the first quarter, rising 7.1% on a trade-weighted basis, resulting in losses for investors with unhedged currency exposure.

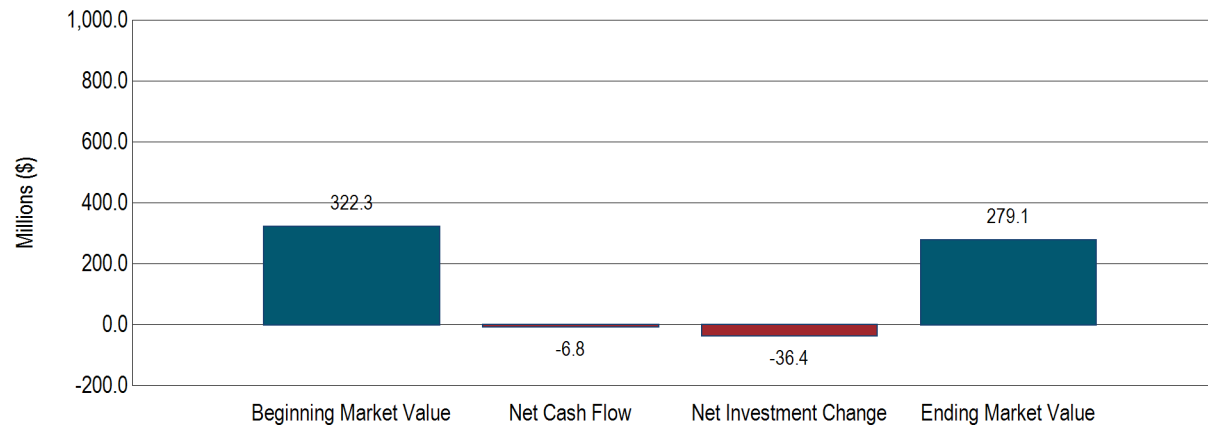
An underweight risk stance appears appropriate in today's environment

We remain watchful for investment opportunities

Portfolio Reconciliation

	Last Three Months	Year-To-Date
Beginning Market Value	\$322,285,320	\$322,285,320
Net Cash Flow	-\$6,777,089	-\$6,777,089
Net Investment Change	-\$36,411,190	-\$36,411,190
Ending Market Value	\$279,097,041	\$279,097,041

Change in Market Value
Last Three Months



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

Total Fund

Cash Flow by Manager - Last Three Months

Period Ending: March 31, 2020

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
BlackRock Equity Index NL	\$34,712,314	\$0	-\$1,700,000	-\$1,700,000	-\$6,444,642	\$26,567,671
INTECH US Adaptive Volatility	\$34,392,110	\$0	\$0	\$0	-\$6,201,698	\$28,190,412
PanAgora US Small Cap Core Stock Selector	\$16,068,934	\$0	\$0	\$0	-\$5,022,194	\$11,046,740
WCM Focused International Growth Fund, L.P.	\$35,773,859	\$0	\$0	\$0	-\$5,930,327	\$29,843,532
Causeway International Value Ins	\$24,775,648	\$0	\$0	\$0	-\$7,930,662	\$16,844,986
Loomis Sayles Core Plus	\$67,515,007	\$0	-\$3,800,000	-\$3,800,000	\$867,698	\$64,582,706
ASB Allegiance Real Estate	\$21,595,666	\$0	-\$55,464	-\$55,464	\$374,124	\$21,914,326
JPMorgan Special Situation Property	\$15,047,516	\$0	-\$58,665	-\$58,665	\$211,991	\$15,200,841
IFM Global Infrastructure (US) LP	\$10,324,671	\$0	\$0	\$0	-\$406,536	\$9,918,135
JPMorgan IIF ERISA LP	\$8,188,663	\$0	-\$348,220	-\$348,220	-\$296,219	\$7,544,224
Invesco Balanced-Risk Allocation	\$48,823,736	\$0	\$0	\$0	-\$5,632,726	\$43,191,010
US Bank Checking Account	\$2,492,135	\$8,238,814	-\$9,076,433	-\$837,619	\$0	\$1,654,516
US Bank Clearing Account	\$2,575,062	\$7,695,099	-\$7,672,221	\$22,878	\$0	\$2,597,940
Total	\$322,285,320	\$15,933,913	-\$22,711,002	-\$6,777,089	-\$36,411,190	\$279,097,041

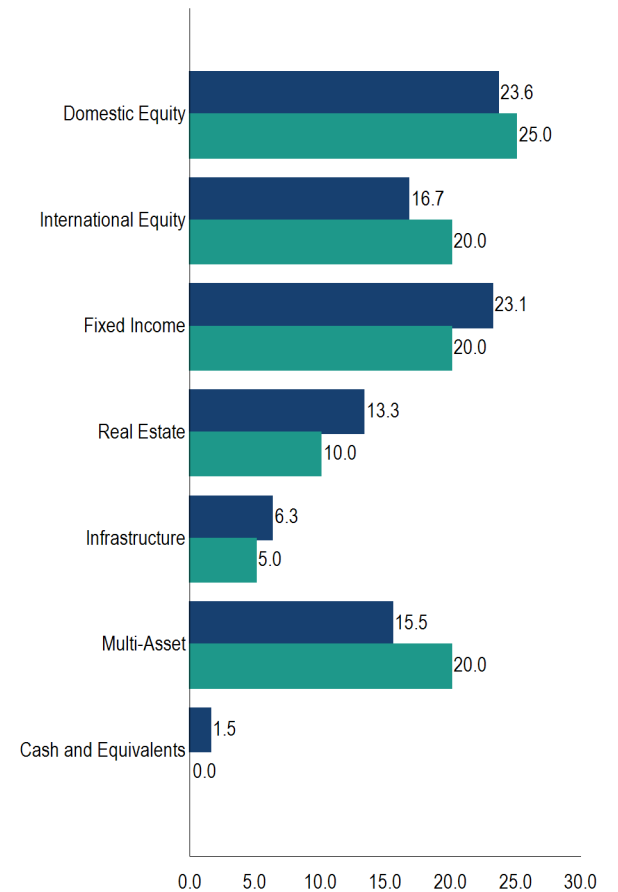
Loomis Sayles Full Discretion liquidated 3/21/2017. Loomis Sayles Core Plus funded 3/21/2017. Parametric liquidated 4/21/2017. Mellon Dynamic liquidated 5/5/2017. Grosvenor Institutional liquidated 4/30/2018. Brandes International Small Cap Equity liquidated 8/31/2019. Invesco Real Estate II liquidated 9/1/2019.

Total Fund Executive Summary (Net of Fees)

Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Fund	279,097,041	100.0	-11.6	-3.7	3.0	3.7	6.3
<i>Total Fund Policy Index</i>			-11.4	-2.8	3.1	3.6	5.8
<i>Target Asset Allocation Policy Index</i>			-11.7	-3.0	3.7	4.3	6.7
<i>InvMetrics Tft-Hrtly DB \$250mm-\$1B Net Rank</i>			23	16	37	44	56
Total Domestic Equity	65,804,824	23.6	-21.2	-11.8	2.1	4.3	9.5
<i>Dow Jones U.S. Total Stock Market</i>			-21.0	-9.3	3.9	5.7	10.1
<i>InvMetrics Tft-Hrtly DB US Eq Net Rank</i>			27	51	58	49	27
Total International Equity	46,688,518	16.7	-22.9	-11.3	-0.1	0.2	1.9
<i>Total Public Int'l Equity Benchmark (MSCI ACWI ex US IMI)</i>			-24.1	-16.3	-2.3	-0.7	2.0
<i>InvMetrics Tft-Hrtly DB ex-US Eq Net Rank</i>			20	12	11	20	55
Total Fixed Income	64,582,706	23.1	1.1	6.9	4.5	3.8	5.1
<i>Total Fixed Income Benchmark (BBgBarc Aggregate)</i>			3.1	8.9	4.8	3.4	3.9
<i>InvMetrics Tft-Hrtly DB US Fix Inc Net Rank</i>			24	14	10	5	5
Total Real Estate	37,115,168	13.3	1.4	4.2	5.9	7.4	11.0
<i>NCREIF ODCE Net</i>			0.8	3.9	5.9	7.5	10.4
Total Infrastructure	17,462,359	6.3	-3.8	5.2	10.2	9.0	7.4
<i>CPI + 5%</i>			1.7	6.6	7.0	6.9	6.8
Total Multi-Asset	43,191,010	15.5	-11.6	-5.7	1.2	1.5	5.5
<i>60% MSCI ACWI Net/40% FTSE WGBI</i>			-12.4	-4.1	2.9	3.2	4.6
<i>eV Global Balanced Net Rank</i>			13	22	30	73	17
Total Cash	4,252,456	1.5	0.0	0.0	0.4	1.4	--

Actual vs Target Allocation (%)



Actual Policy

Policy Index: 45% MSCI World, 25% BBgBarc Aggregate, 10% NCREIF-ODCE net, 20%(60% MSCI ACWI Net/40% CITI WGBI). Target Asset Allocation Policy Index: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% BBgBarc Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60% MSCI ACWI Net/40% CITI WGBI). Data prior to 3Q 2015 is from previous consultant.

Total Fund

Risk Analysis - 3 & 5 Year (Net of Fees)

Period Ending: March 31, 2020

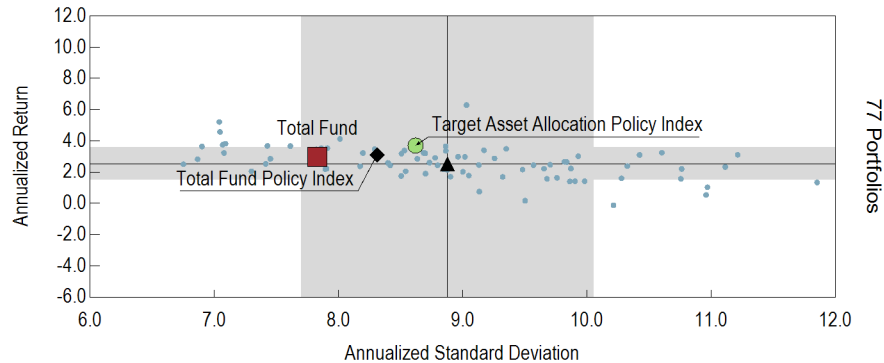
3 Year

	Anlzd Standard Deviation	Ann Excess BM Return	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio
Total Fund	7.83%	-0.15%	0.08%	0.93	0.97	87.28%	88.43%	-0.10	1.50%	0.16
Total Fund Policy Index	8.31%	0.00%	0.00%	1.00	1.00	100.00%	100.00%	--	0.00%	0.17
Target Asset Allocation Policy Index	8.62%	0.59%	0.48%	1.03	0.99	108.14%	102.38%	0.81	0.72%	0.23

5 Year

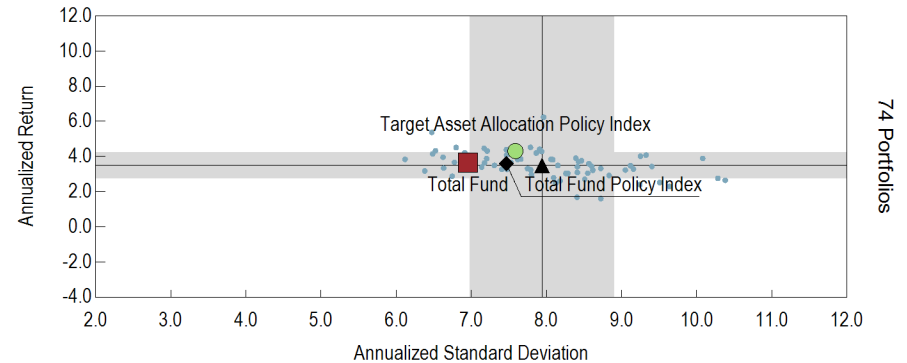
	Anlzd Standard Deviation	Ann Excess BM Return	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio
Total Fund	6.96%	0.06%	0.35%	0.92	0.97	88.66%	88.45%	0.04	1.37%	0.36
Total Fund Policy Index	7.47%	0.00%	0.00%	1.00	1.00	100.00%	100.00%	--	0.00%	0.33
Target Asset Allocation Policy Index	7.59%	0.70%	0.66%	1.01	0.99	105.11%	97.38%	0.91	0.78%	0.42

3 Year



- Total Fund
- ◆ Total Fund Policy Index
- Target Asset Allocation Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Tft-Hrtly DB \$250mm-\$1B Net

5 Year

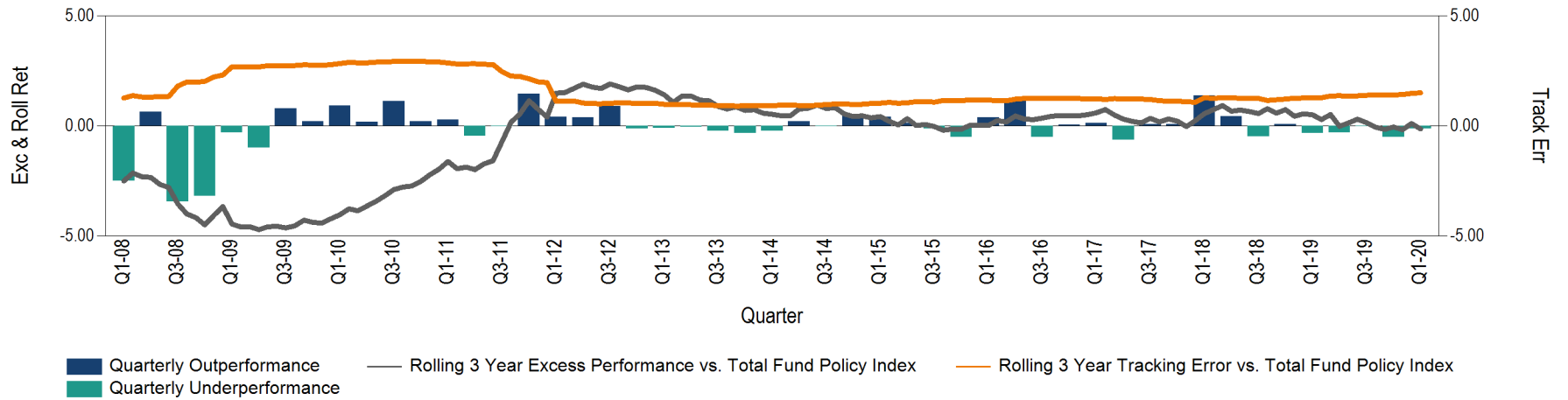


- Total Fund
- ◆ Total Fund Policy Index
- Target Asset Allocation Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Tft-Hrtly DB \$250mm-\$1B Net

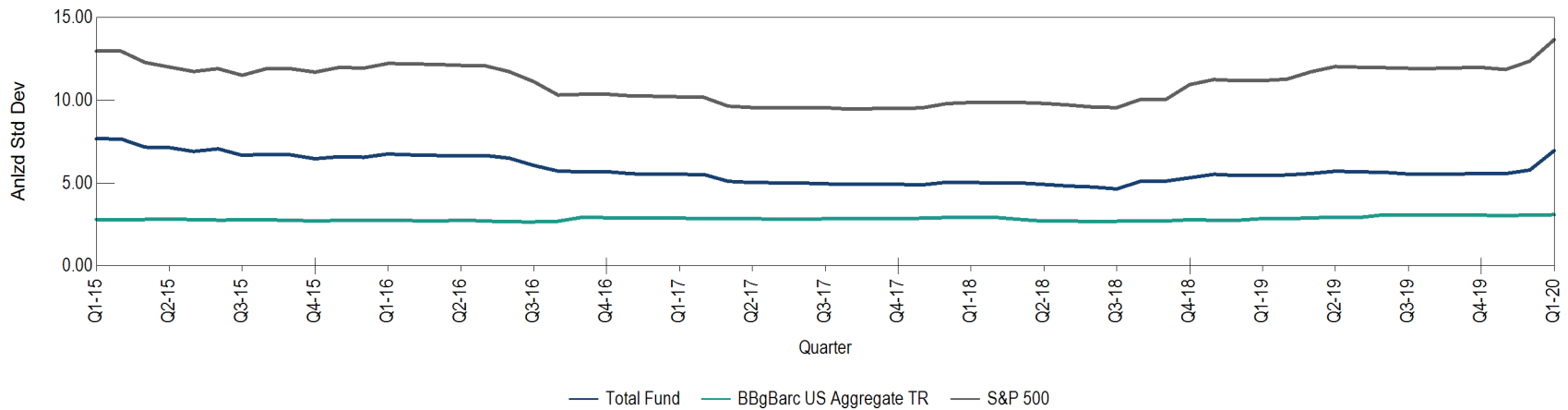
Total Fund
Rolling Performance Relative to Policy (Net of Fees)

Period Ending: March 31, 2020

Rolling Annualized Excess Performance and Tracking Error



Rolling 5 Year Annualized Standard Deviation



Total Fund

Executive Summary (Net of Fees)

Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015
Total Fund	279,097,041	100.0	-11.6	-3.7	3.0	3.7	6.3	17.2	-3.2	13.0	6.9	0.9
<i>Total Fund Policy Index</i>			-11.4	-2.8	3.1	3.6	5.8	18.6	-4.5	13.5	5.8	1.1
<i>Target Asset Allocation Policy Index</i>			-11.7	-3.0	3.7	4.3	6.7	19.1	-3.2	13.7	7.2	1.3
<i>InvMetrics Tft-Hrtly DB \$250mm-\$1B Net Rank</i>			23	16	37	44	56	52	45	64	80	38
Domestic Equity	65,804,824	23.6										
BlackRock Equity Index NL	26,567,671	9.5	-19.6	-7.0	5.1	6.7	--	31.5	-4.4	21.8	11.9	1.3
S&P 500			-19.6	-7.0	5.1	6.7	--	31.5	-4.4	21.8	12.0	1.4
<i>eV US Large Cap Core Equity Net Rank</i>			40	34	24	13	--	28	32	46	21	37
INTECH US Adaptive Volatility	28,190,412	10.1	-18.0	-10.6	--	--	--	23.4	--	--	--	--
Russell 1000			-20.2	-8.0	--	--	--	31.4	--	--	--	--
<i>eV US Large Cap Core Equity Net Rank</i>			24	67	--	--	--	91	--	--	--	--
PanAgora US Small Cap Core Stock Selector	11,046,740	4.0	-31.4	-24.3	-5.3	-0.8	--	26.1	-9.2	10.8	20.3	--
Russell 2000			-30.6	-24.0	-4.6	-0.2	--	25.5	-11.0	14.6	21.3	--
<i>eV US Small Cap Core Equity Net Rank</i>			53	49	55	60	--	37	36	83	41	--
International Equity	46,688,518	16.7										
WCM Focused International Growth Fund, L.P.	29,843,532	10.7	-16.6	0.2	7.5	--	--	35.7	-7.4	31.1	--	--
MSCI ACWI ex USA			-23.4	-15.6	-2.0	--	--	21.5	-14.2	27.2	--	--
<i>eV ACWI ex-US All Cap Growth Eq Net Rank</i>			24	8	16	--	--	12	1	71	--	--
Causeway International Value Ins	16,844,986	6.0	-32.0	-26.0	-7.8	--	--	20.1	-18.6	27.2	--	--
MSCI EAFE			-22.8	-14.4	-1.8	--	--	22.0	-13.8	25.0	--	--
<i>Foreign Large Value MStar MF Rank</i>			87	80	74	--	--	22	91	14	--	--
Fixed Income	64,582,706	23.1										
Loomis Sayles Core Plus	64,582,706	23.1	1.1	6.9	4.5	--	--	9.4	-0.4	--	--	--
BBgBarc US Aggregate TR			3.1	8.9	4.8	--	--	8.7	0.0	--	--	--
<i>eV US Core Plus Fixed Inc Net Rank</i>			24	27	17	--	--	63	40	--	--	--
Real Estate	37,115,168	13.3										
ASB Allegiance Real Estate	21,914,326	7.9	1.7	3.9	5.3	6.9	--	4.2	7.1	3.9	4.5	--
NCREIF ODCE Net			0.8	3.9	5.9	7.5	--	4.4	7.4	6.7	7.8	--
JPMorgan Special Situation Property	15,200,841	5.4	1.0	4.4	7.2	9.3	--	5.0	9.6	7.9	8.7	18.9
NCREIF-ODCE			1.0	4.9	6.8	8.5	--	5.3	8.3	7.6	8.8	15.0

Policy Index: 45% MSCI World, 25% BBgBarc Aggregate, 10% NCREIF-ODCE net, 20%(60% MSCI ACWI Net/40% CITI WGBI). Target Asset Allocation Policy Index: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% BBgBarc Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60% MSCI ACWI Net/40% CITI WGBI). Loomis Sayles Core Plus replaced Loomis Sayles Full Discretion 3/21/2017. Parametric liquidated 4/21/2017. Mellon Dynamic liquidated 5/5/2017. Grosvenor Institutional liquidated 4/30/2018. Brandes International Small Cap Equity liquidated 8/31/2019. Invesco Real Estate II liquidated 9/1/2019. Data prior to 3Q 2015 is from previous consultant.

Total Fund
Executive Summary (Net of Fees)

Period Ending: March 31, 2020

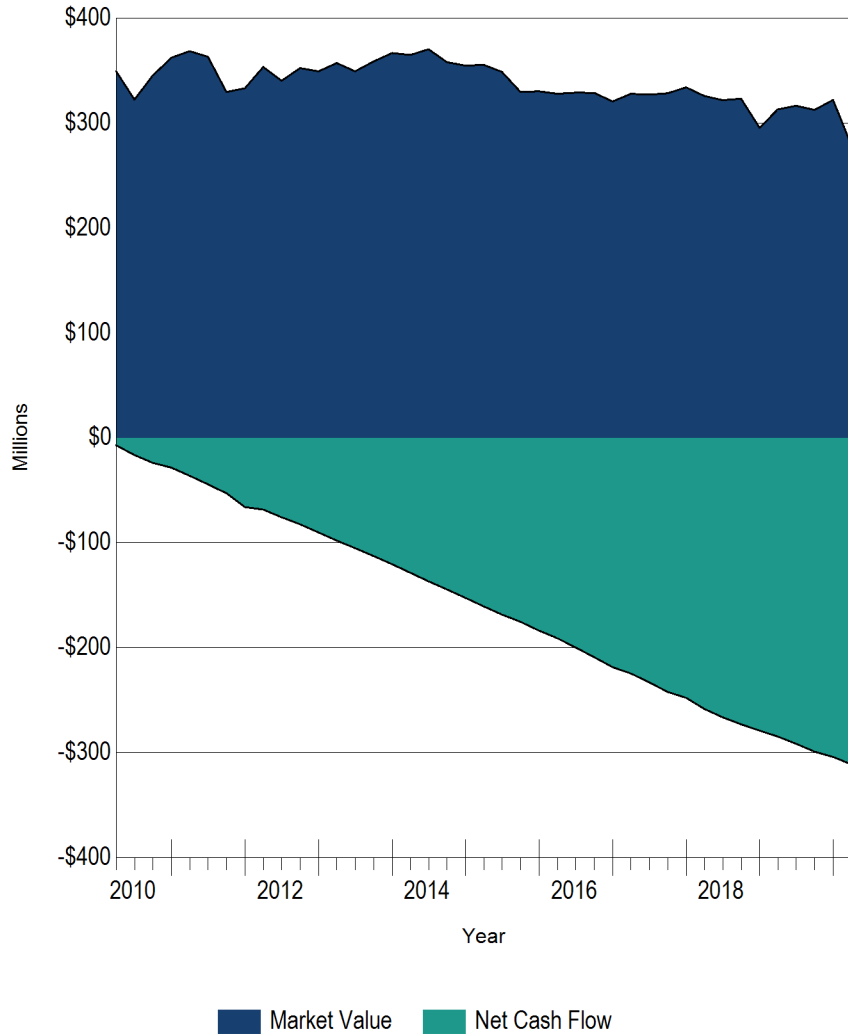
	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015
Infrastructure	17,462,359	6.3										
IFM Global Infrastructure (US) LP	9,918,135	3.6	-3.9	7.3	13.4	11.9	9.6	14.6	15.8	21.1	6.1	5.2
CPI + 5%			1.7	6.6	7.0	6.9	6.8	7.4	7.0	7.2	7.2	5.8
JPMorgan IIF ERISA LP	7,544,224	2.7	-3.7	2.9	6.6	5.8	--	8.0	4.2	14.2	1.2	3.4
CPI + 5%			1.7	6.6	7.0	6.9	--	7.4	7.0	7.2	7.2	5.8
Multi-Asset	43,191,010	15.5										
Invesco Balanced-Risk Allocation	43,191,010	15.5	-11.6	-5.7	1.2	2.1	5.8	15.7	-5.8	10.5	12.2	-3.5
60% MSCI ACWI Net/40% FTSE WGBI			-12.4	-4.1	2.9	3.2	4.6	18.2	-5.8	17.1	5.5	-2.6
FTSE 3-Month T-bill +6%			1.9	8.2	7.8	7.2	6.6	8.4	8.0	6.9	6.3	6.0
eV Global Balanced Net Rank			13	22	31	66	7	92	22	99	19	74
Cash and Equivalents	4,252,456	1.5										
US Bank Checking Account	1,654,516	0.6										
US Bank Clearing Account	2,597,940	0.9										

Policy Index: 45% MSCI World, 25% BBgBarc Aggregate, 10% NCREIF-ODCE, 20%(60% MSCI ACWI Net/40% CITI WGBI). Target Asset Allocation Policy Index: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% BBgBarc Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60% MSCI ACWI Net/40% CITI WGBI). Loomis Sayles Core Plus replaced Loomis Sayles Full Discretion 3/21/2017. Parametric liquidated 4/21/2017. Mellon Dynamic liquidated 5/5/2017. Grosvenor Institutional liquidated 4/30/2018. Brandes International Small Cap Equity liquidated 8/31/2019. Invesco Real Estate II liquidated 9/1/2019. Data prior to 3Q 2015 is from previous consultant.

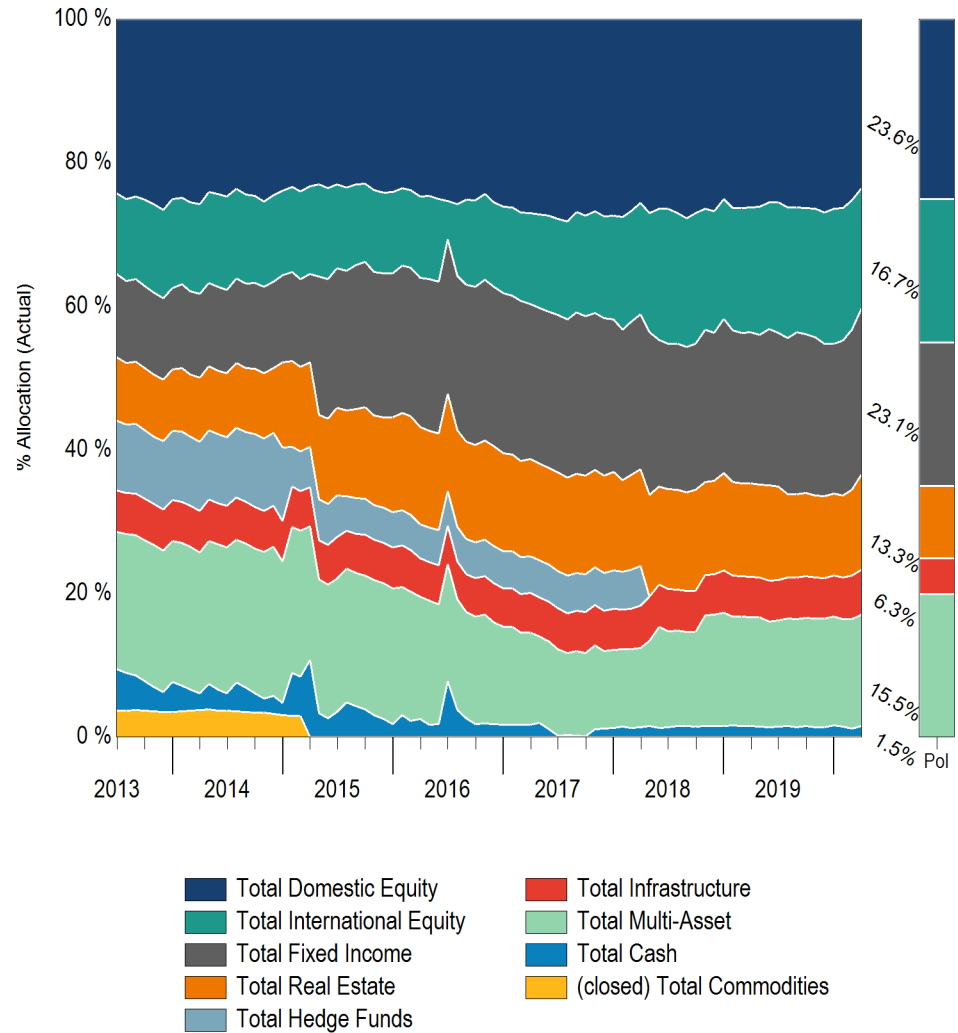
Total Fund
Asset Allocation History

Period Ending: March 31, 2020

Market Value History



Asset Allocation History

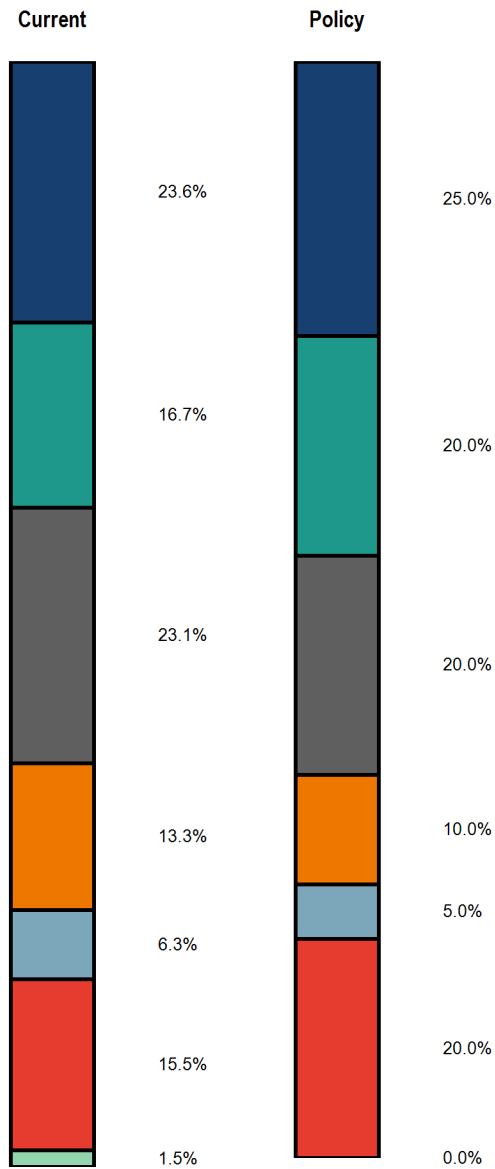


Net cash flow is cumulative.

Total Fund

Asset Allocation vs. Policy

Period Ending: March 31, 2020



	Current	%	Policy	Difference	Policy Range	Within Range
Domestic Equity	\$65,804,824	23.6%	25.0%	-\$3,969,436	20.0% - 30.0%	Yes
International Equity	\$46,688,518	16.7%	20.0%	-\$9,130,890	15.0% - 25.0%	Yes
Fixed Income	\$64,582,706	23.1%	20.0%	\$8,763,297	15.0% - 25.0%	Yes
Real Estate	\$37,115,168	13.3%	10.0%	\$9,205,464	7.0% - 13.0%	No
Infrastructure	\$17,462,359	6.3%	5.0%	\$3,507,507	3.0% - 7.0%	Yes
Multi-Asset	\$43,191,010	15.5%	20.0%	-\$12,628,398	10.0% - 25.0%	Yes
Cash and Equivalents	\$4,252,456	1.5%	0.0%	\$4,252,456	0.0% - 5.0%	Yes
Total	\$279,097,041	100.0%	100.0%			



Total Fund

Investment Fund Fee Analysis

Period Ending: March 31, 2020

Name	Asset Class	Fee Schedule	Market Value	% of Portfolio	Estimated Fee Value	Estimated Fee
BlackRock Equity Index NL	Domestic Equity	0.03% of Assets	\$26,567,671	9.5%	\$7,970	0.03%
INTECH US Adaptive Volatility	Domestic Equity	0.40% of Assets	\$28,190,412	10.1%	\$112,762	0.40%
PanAgora US Small Cap Core Stock Selector	Domestic Equity	0.85% of Assets	\$11,046,740	4.0%	\$93,897	0.85%
WCM Focused International Growth Fund, L.P.	International Equity	0.75% of Assets	\$29,843,532	10.7%	\$223,826	0.75%
Causeway International Value Ins	International Equity	0.90% of Assets	\$16,844,986	6.0%	\$151,605	0.90%
Loomis Sayles Core Plus	Fixed Income	0.35% of First 20.0 Mil, 0.25% Thereafter	\$64,582,706	23.1%	\$181,457	0.28%
ASB Allegiance Real Estate	Real Estate	1.25% of First 5.0 Mil, 1.00% of Next 10.0 Mil, 0.90% of Next 60.0 Mil, 0.75% Thereafter	\$21,914,326	7.9%	\$224,729	1.03%
JPMorgan Special Situation Property	Real Estate	1.60% of Assets	\$15,200,841	5.4%	\$243,213	1.60%
IFM Global Infrastructure (US) LP	Infrastructure	0.77% of Assets	\$9,918,135	3.6%	\$76,370	0.77%
JPMorgan IIF ERISA LP	Infrastructure	1.25% of First 50.0 Mil, 1.15% of Next 50.0 Mil, 1.05% Thereafter	\$7,544,224	2.7%	\$94,303	1.25%
Invesco Balanced-Risk Allocation	Multi-Asset	0.38% of First 250.0 Mil, 0.35% of Next 500.0 Mil, 0.33% of Next 250.0 Mil, 0.30% Thereafter	\$43,191,010	15.5%	\$161,966	0.38%
US Bank Checking Account	Cash and Equivalents		\$1,654,516	0.6%		
US Bank Clearing Account	Cash and Equivalents		\$2,597,940	0.9%		
Total			\$279,097,041	100.0%	\$1,572,099	0.56%

Total Fund Watch List (Net of Fees)

Period Ending: March 31, 2020

Name	Allocation Group	Status	Rule 1	Rule 2	Rule 3	Rule 4	Rule 5	Rule 6
BlackRock Equity Index NL	Domestic Equity	No Issues	--	--	--	--	--	✓
INTECH US Adaptive Volatility	Domestic Equity	No Issues	--	--	--	--	--	--
PanAgora US Small Cap Core Stock Selector	Domestic Equity	No Issues	R	R	R	R	--	--
WCM Focused International Growth Fund, L.P.	International Equity	No Issues	✓	✓	--	--	--	--
Causeway International Value Ins	International Equity	No Issues	R	R	--	--	R	--
Loomis Sayles Core Plus	Fixed Income	No Issues	R	✓	--	--	--	--
ASB Allegiance Real Estate	Real Estate	No Issues	R	--	R	--	--	--
JPMorgan Special Situation Property	Real Estate	No Issues	✓	--	✓	--	--	--
IFM Global Infrastructure (US) LP	Infrastructure	No Issues	✓	--	✓	--	--	--
JPMorgan IIF ERISA LP	Infrastructure	No Issues	R	--	R	--	--	--
Invesco Balanced-Risk Allocation	Multi-Asset	No Issues	R	✓	R	R	--	--

Rule 1 - Manager has underperformed the benchmark index for the three year period.

Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the three year period.

Rule 3 - Manager has underperformed the benchmark index for the five year period.

Rule 4 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period.

Rule 5 - Fund experiences non-performance related issues including personnel turnover, changes in investment philosophy or drift, excessive asset growth, change in ownership and any other reason that raises concern.

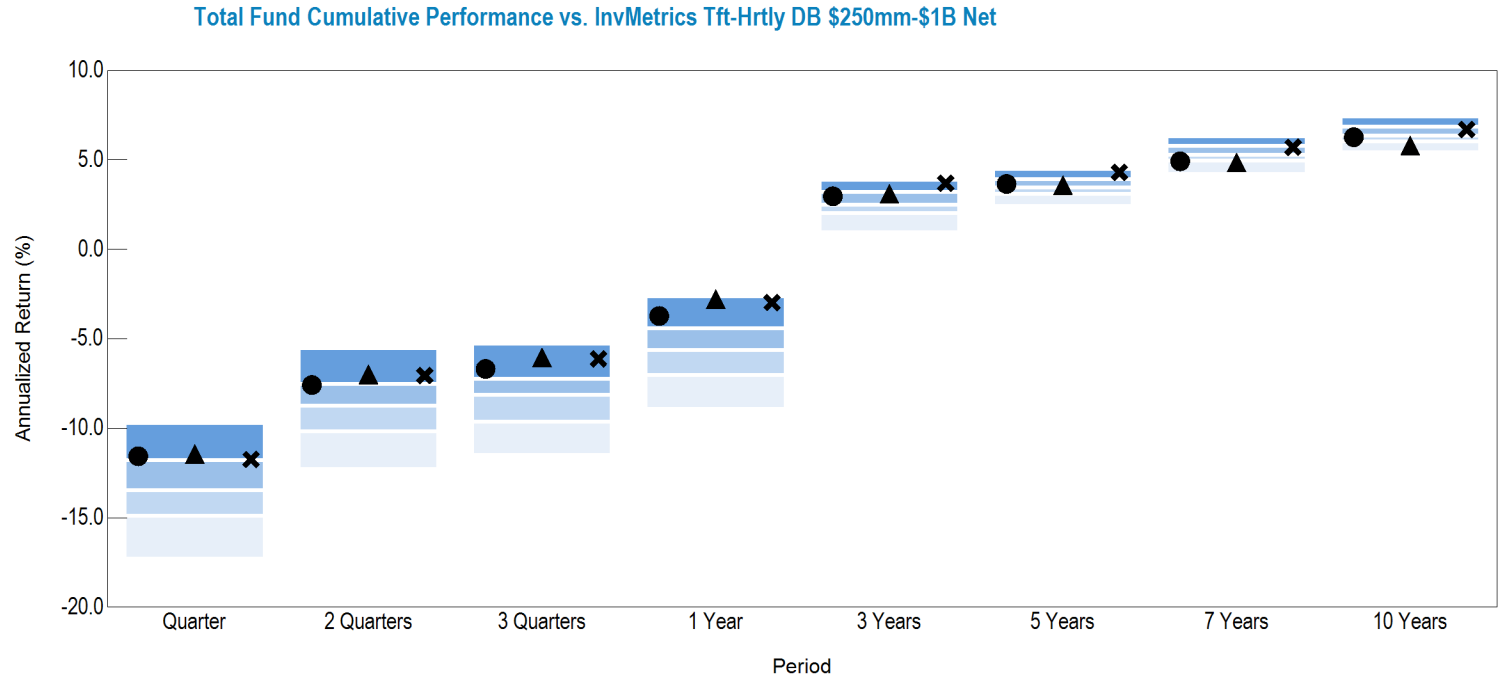
Rule 6 - Index Fund Tracking Error exceeds 0.25% of the appropriate benchmark over the one year period.

Causeway International Value Ins: Provisional: 1/31/2020, Jamie Doyle, one of their eight Fundamental Portfolio Managers, will retire in June 2020.

Total Fund

Peer Universe Comparison: Cumulative Performance (Net of Fees)

Period Ending: March 31, 2020



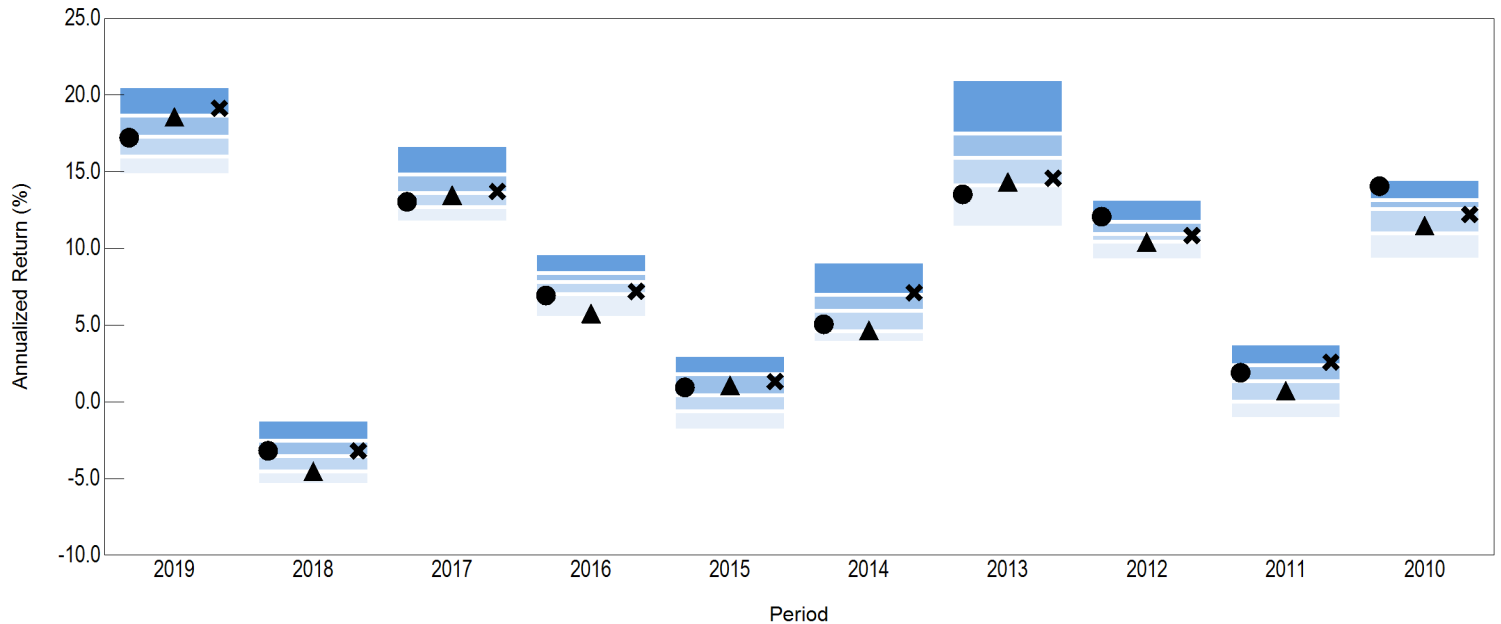
	Return (Rank)															
	Quarter		2 Quarters		3 Quarters		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	-9.7	-5.5	-5.3	-2.6	3.9	4.5	6.3	7.4								
25th Percentile	-11.7	-7.5	-7.2	-4.4	3.2	3.9	5.8	6.9								
Median	-13.4	-8.7	-8.1	-5.6	2.5	3.5	5.3	6.4								
75th Percentile	-14.9	-10.2	-9.6	-7.0	2.0	3.1	5.0	6.0								
95th Percentile	-17.3	-12.3	-11.5	-8.9	1.0	2.4	4.2	5.5								
# of Portfolios	79	79	79	79	77	74	73	66								
● Total Fund	-11.6 (23)	-7.6 (27)	-6.7 (17)	-3.7 (16)	3.0 (37)	3.7 (44)	4.9 (80)	6.3 (56)								
▲ Total Fund Policy Index	-11.4 (21)	-7.0 (17)	-6.0 (13)	-2.8 (7)	3.1 (32)	3.6 (46)	4.9 (81)	5.8 (87)								
✕ Target Asset Allocation Policy Index	-11.7 (25)	-7.1 (17)	-6.1 (14)	-3.0 (11)	3.7 (8)	4.3 (13)	5.7 (29)	6.7 (28)								

Total Fund

Peer Universe Comparison: Consecutive Periods (Net of Fees)

Period Ending: March 31, 2020

Total Fund Consecutive Periods vs. InvMetrics Tft-Hrtly DB \$250mm-\$1B Net



	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
5th Percentile	20.6	-1.2	16.7	9.7	3.0	9.1	21.0	13.2	3.8	14.5
25th Percentile	18.7	-2.5	14.9	8.4	1.8	7.0	17.5	11.8	2.4	13.2
Median	17.3	-3.5	13.6	7.8	0.4	6.0	15.9	11.0	1.4	12.6
75th Percentile	16.0	-4.5	12.7	7.0	-0.6	4.6	14.2	10.4	0.0	11.0
95th Percentile	14.8	-5.4	11.7	5.5	-1.9	3.9	11.4	9.3	-1.1	9.3
# of Portfolios	86	84	69	56	58	55	49	37	34	32
● Total Fund	17.2 (52)	-3.2 (45)	13.0 (64)	6.9 (80)	0.9 (38)	5.1 (70)	13.5 (79)	12.1 (20)	1.9 (40)	14.1 (10)
▲ Total Fund Policy Index	18.6 (28)	-4.5 (75)	13.5 (51)	5.8 (93)	1.1 (37)	4.7 (75)	14.3 (70)	10.4 (79)	0.7 (60)	11.5 (66)
✕ Target Asset Allocation Policy Index	19.1 (19)	-3.2 (45)	13.7 (46)	7.2 (69)	1.3 (36)	7.1 (21)	14.6 (66)	10.8 (63)	2.6 (20)	12.2 (58)

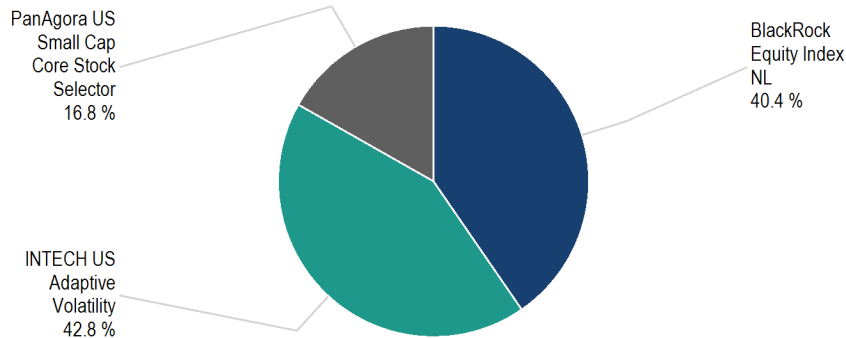
Domestic Equity

Total Domestic Equity Performance Summary (Net of Fees)

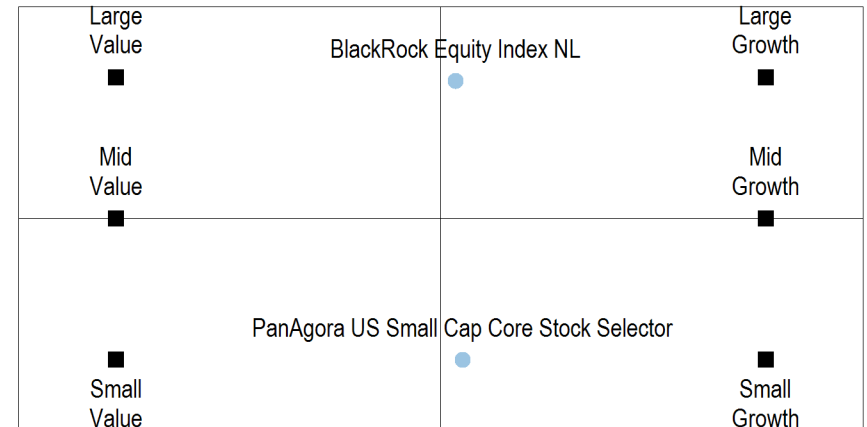
Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015
Total Domestic Equity	65,804,824	100.0	-21.2	-11.8	2.1	4.3	9.5	27.2	-5.9	19.4	11.5	0.7
<i>Dow Jones U.S. Total Stock Market</i>			-21.0	-9.3	3.9	5.7	10.1	30.9	-5.3	21.2	12.6	0.4
<i>InvMetrics Tff-Hrtly DB US Eq Net Rank</i>			27	51	58	49	27	89	34	71	61	30
Domestic Equity	65,804,824	100.0										
BlackRock Equity Index NL	26,567,671	40.4	-19.6	-7.0	5.1	6.7	--	31.5	-4.4	21.8	11.9	1.3
<i>S&P 500</i>			-19.6	-7.0	5.1	6.7	--	31.5	-4.4	21.8	12.0	1.4
<i>eV US Large Cap Core Equity Net Rank</i>			40	34	24	13	--	28	32	46	21	37
INTECH US Adaptive Volatility	28,190,412	42.8	-18.0	-10.6	--	--	--	23.4	--	--	--	--
<i>Russell 1000</i>			-20.2	-8.0	--	--	--	31.4	--	--	--	--
<i>eV US Large Cap Core Equity Net Rank</i>			24	67	--	--	--	91	--	--	--	--
PanAgora US Small Cap Core Stock Selector	11,046,740	16.8	-31.4	-24.3	-5.3	-0.8	--	26.1	-9.2	10.8	20.3	--
<i>Russell 2000</i>			-30.6	-24.0	-4.6	-0.2	--	25.5	-11.0	14.6	21.3	--
<i>eV US Small Cap Core Equity Net Rank</i>			53	49	55	60	--	37	36	83	41	--

**Total Domestic Equity
Current Allocation**

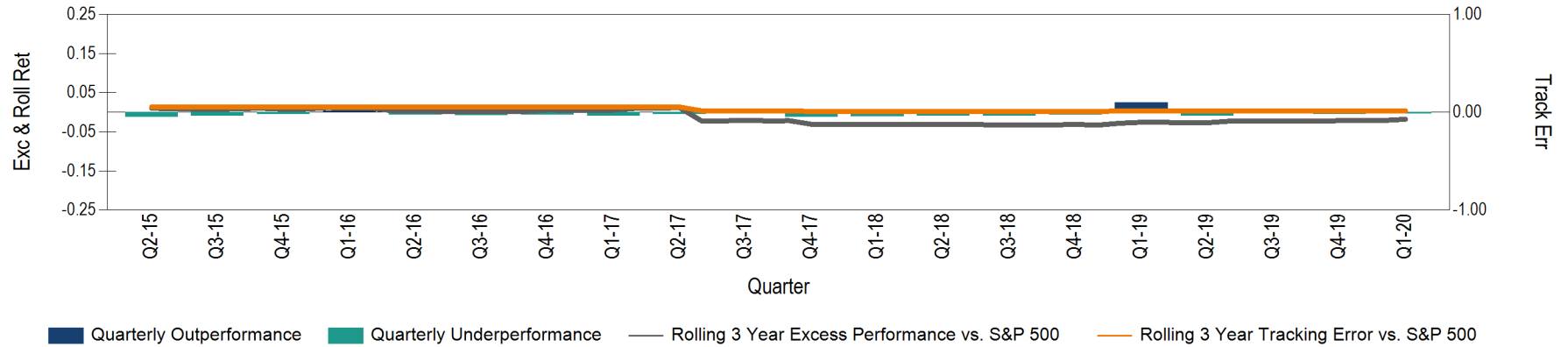


**Domestic Effective Style Map
3 Years**

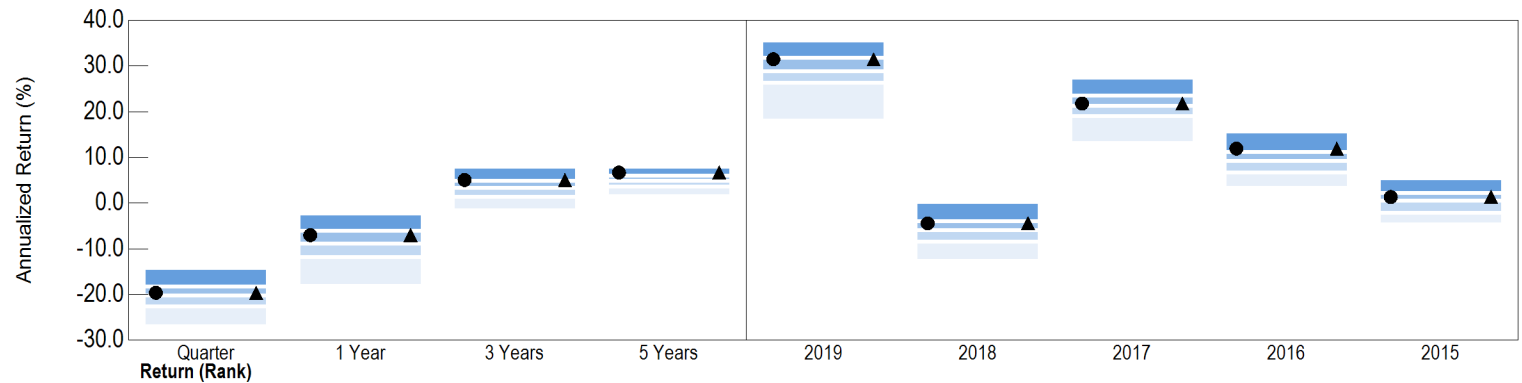


Style map requires 3 years of returns. INTECH US Adaptive Volatility replaced INTECH US Managed Volatility on 8/3/2018.

Rolling Annualized Excess Performance and Tracking Error



BlackRock Equity Index NL vs. eV US Large Cap Core Equity Net Universe

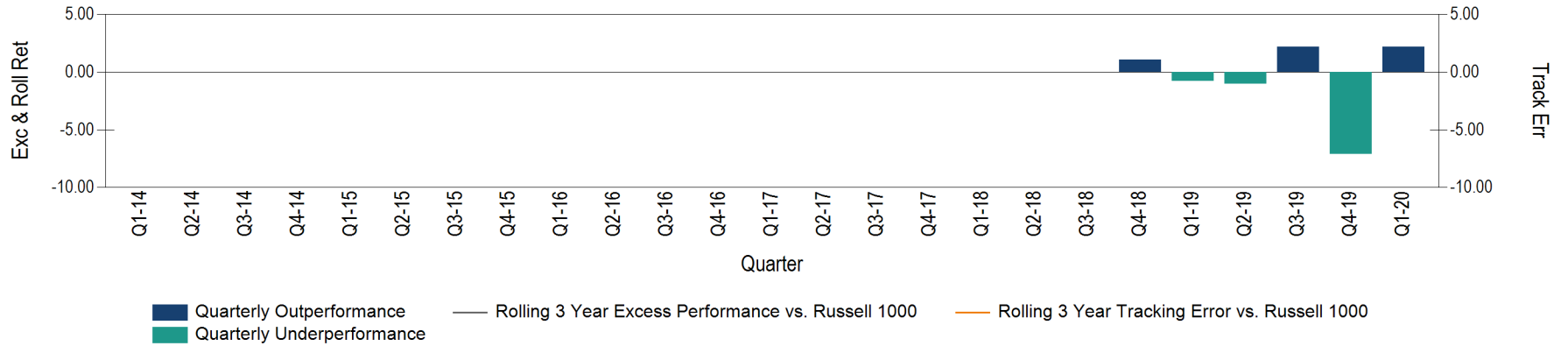


	Quarter	1 Year	3 Years	5 Years	2019	2018	2017	2016	2015
5th Percentile	-14.2	-2.3	7.9	7.9	35.5	0.1	27.4	15.6	5.4
25th Percentile	-18.1	-6.0	4.9	6.1	31.9	-3.8	23.7	11.3	2.4
Median	-20.1	-8.7	3.4	5.0	28.9	-5.8	21.4	9.3	0.6
75th Percentile	-22.5	-11.7	1.5	3.6	26.5	-8.3	19.2	6.9	-2.0
95th Percentile	-26.8	-18.0	-1.5	1.6	18.1	-12.5	13.2	3.4	-4.6
# of Portfolios	204	202	194	180	203	189	188	177	142
● BlackRock Equity Index NL	-19.6 (40)	-7.0 (34)	5.1 (24)	6.7 (13)	31.5 (28)	-4.4 (32)	21.8 (46)	11.9 (21)	1.3 (37)
▲ S&P 500	-19.6 (40)	-7.0 (33)	5.1 (24)	6.7 (13)	31.5 (28)	-4.4 (32)	21.8 (46)	12.0 (21)	1.4 (37)

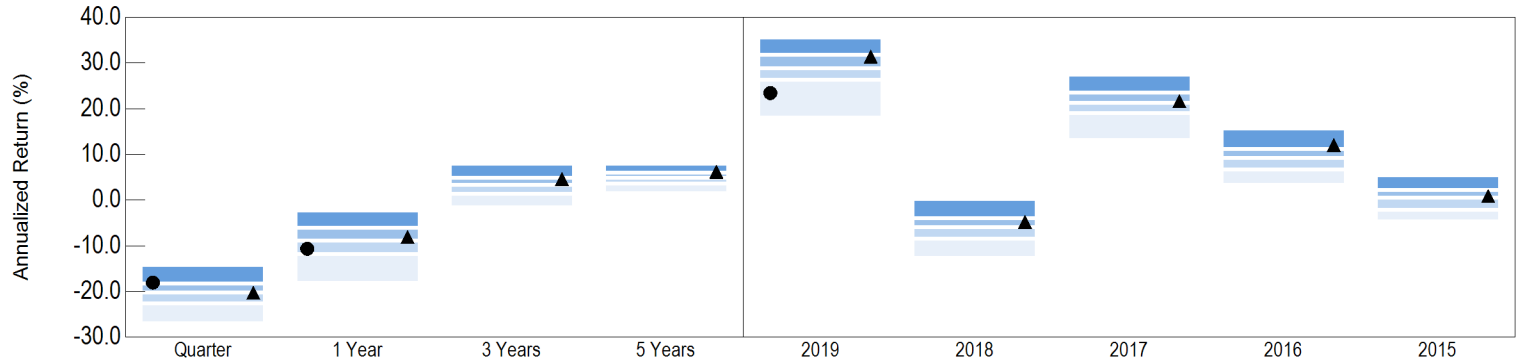
INTECH US Adaptive Volatility Performance Summary (Net of Fees)

Period Ending: March 31, 2020

Rolling Annualized Excess Performance and Tracking Error



INTECH US Adaptive Volatility vs. eV US Large Cap Core Equity Net Universe



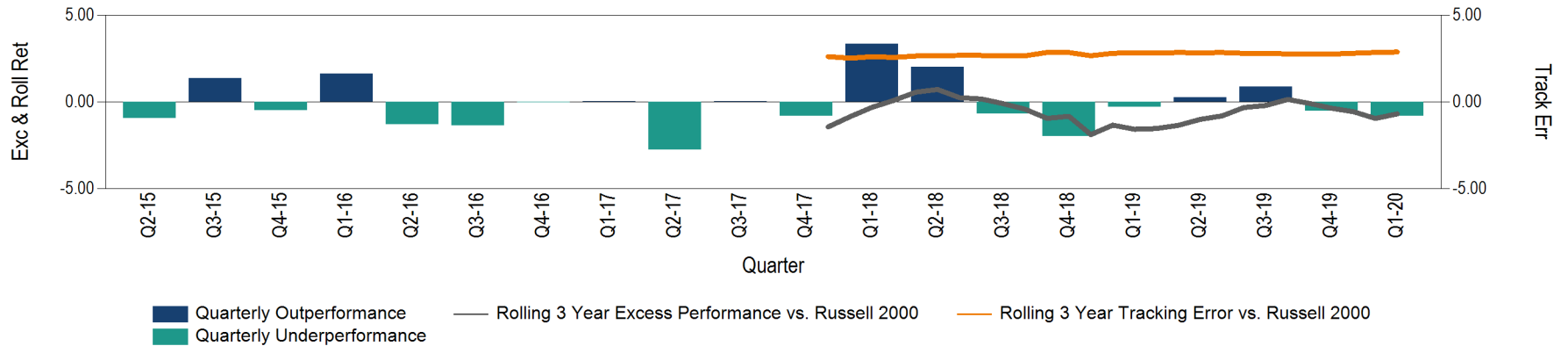
	Quarter	1 Year	3 Years	5 Years	2019	2018	2017	2016	2015
5th Percentile	-14.2	-2.3	7.9	7.9	35.5	0.1	27.4	15.6	5.4
25th Percentile	-18.1	-6.0	4.9	6.1	31.9	-3.8	23.7	11.3	2.4
Median	-20.1	-8.7	3.4	5.0	28.9	-5.8	21.4	9.3	0.6
75th Percentile	-22.5	-11.7	1.5	3.6	26.5	-8.3	19.2	6.9	-2.0
95th Percentile	-26.8	-18.0	-1.5	1.6	18.1	-12.5	13.2	3.4	-4.6
# of Portfolios	204	202	194	180	203	189	188	177	142
● INTECH US Adaptive Volatility	-18.0 (24)	-10.6 (67)	-- (-)	-- (-)	23.4 (91)	-- (-)	-- (-)	-- (-)	-- (-)
▲ Russell 1000	-20.2 (51)	-8.0 (45)	4.6 (28)	6.2 (21)	31.4 (29)	-4.8 (37)	21.7 (47)	12.1 (20)	0.9 (47)

INTECH US Adaptive Volatility replaced INTECH US Managed Volatility on 8/3/2018.

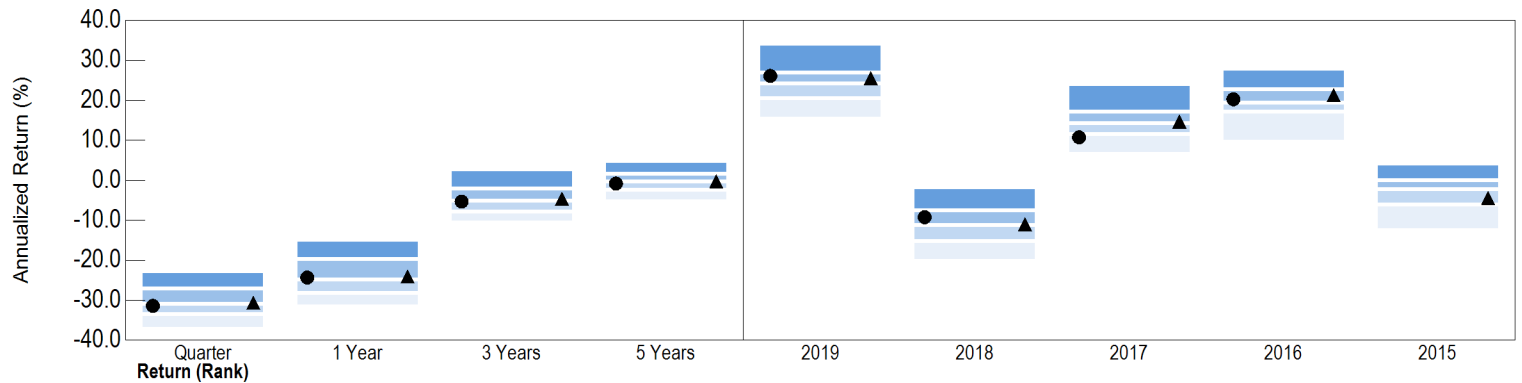
PanAgora US Small Cap Core Stock Selector Performance Summary (Net of Fees)

Period Ending: March 31, 2020

Rolling Annualized Excess Performance and Tracking Error



PanAgora US Small Cap Core Stock Selector vs. eV US Small Cap Core Equity Net Universe



	Quarter	1 Year	3 Years	5 Years	2019	2018	2017	2016	2015
5th Percentile	-22.8	-15.0	2.6	4.8	34.1	-1.8	24.1	27.8	4.2
25th Percentile	-26.9	-19.6	-1.9	1.7	27.0	-7.5	17.3	22.8	0.1
Median	-30.7	-24.7	-5.0	-0.2	24.3	-11.1	14.4	19.5	-2.1
75th Percentile	-33.3	-28.0	-7.7	-2.2	20.7	-15.1	11.6	17.3	-5.9
95th Percentile	-37.0	-31.4	-10.5	-5.1	15.5	-20.1	6.7	9.7	-12.3
# of Portfolios	107	107	103	96	112	113	106	99	88
● PanAgora US Small Cap Core Stock Selector	-31.4 (53)	-24.3 (49)	-5.3 (55)	-0.8 (60)	26.1 (37)	-9.2 (36)	10.8 (83)	20.3 (41)	-- (--)
▲ Russell 2000	-30.6 (48)	-24.0 (47)	-4.6 (47)	-0.2 (52)	25.5 (41)	-11.0 (50)	14.6 (46)	21.3 (34)	-4.4 (71)

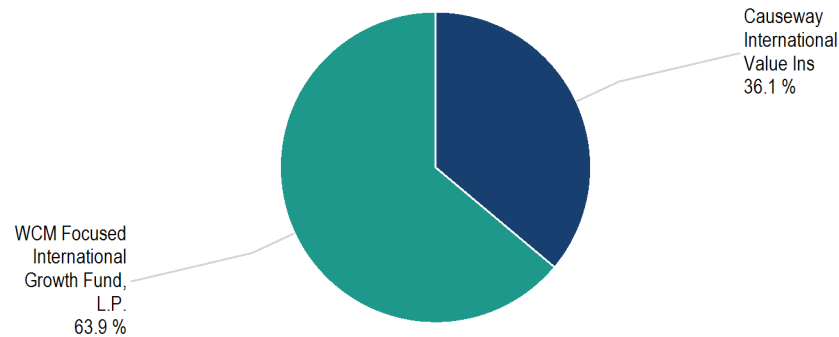
International Equity

Total International Equity Performance Summary (Net of Fees)

Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015
Total International Equity	46,688,518	100.0	-22.9	-11.3	-0.1	0.2	1.9	27.8	-13.0	26.6	0.9	-4.5
<i>Total Public Int'l Equity Benchmark (MSCI ACWI ex US IMI)</i>			-24.1	-16.3	-2.3	-0.7	2.0	21.6	-14.8	27.8	4.4	-4.6
<i>InvMetrics Tft-Hrtly DB ex-US Eq Net Rank</i>			20	12	11	20	55	10	14	71	82	51
International Equity	46,688,518	100.0										
WCM Focused International Growth Fund, L.P.	29,843,532	63.9	-16.6	0.2	7.5	--	--	35.7	-7.4	31.1	--	--
<i>MSCI ACWI ex USA</i>			-23.4	-15.6	-2.0	--	--	21.5	-14.2	27.2	--	--
<i>eV ACWI ex-US All Cap Growth Eq Net Rank</i>			24	8	16	--	--	12	1	71	--	--
Causeway International Value Ins	16,844,986	36.1	-32.0	-26.0	-7.8	--	--	20.1	-18.6	27.2	--	--
<i>MSCI EAFE</i>			-22.8	-14.4	-1.8	--	--	22.0	-13.8	25.0	--	--
<i>Foreign Large Value MStar MF Rank</i>			87	80	74	--	--	22	91	14	--	--

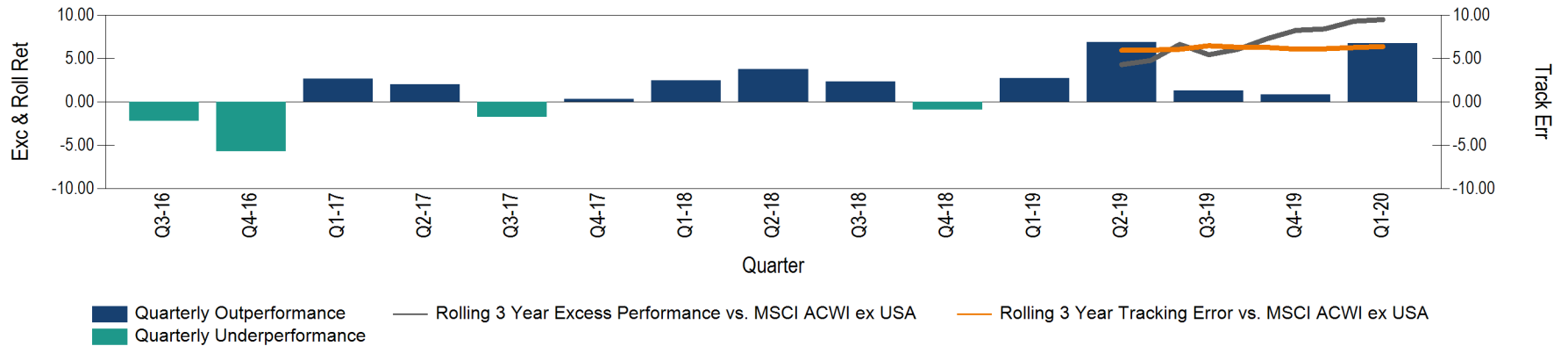
Total International Equity
Current Allocation



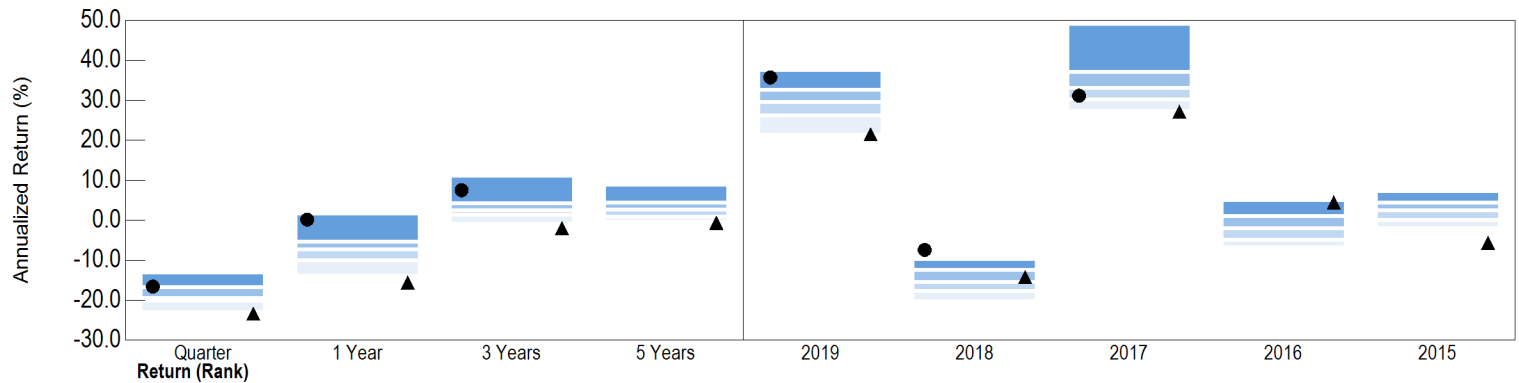
WCM Focused International Growth Fund, L.P.
Performance Summary (Net of Fees)

Period Ending: March 31, 2020

Rolling Annualized Excess Performance and Tracking Error



WCM Focused International Growth Fund, L.P. vs. eV ACWI ex-US All Cap Growth Eq Net Universe

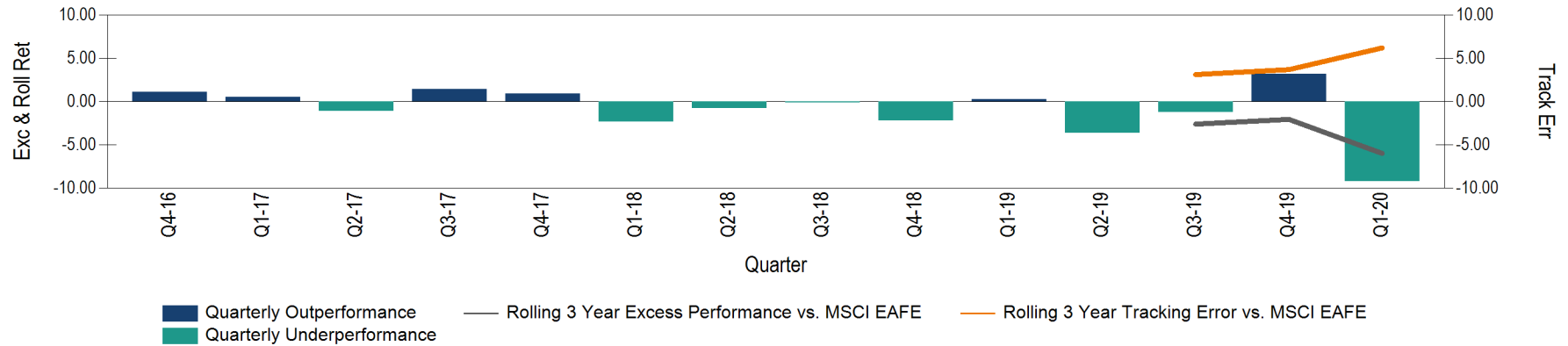


	Quarter	1 Year	3 Years	5 Years	2019	2018	2017	2016	2015
5th Percentile	-13.1	1.6	11.1	8.8	37.5	-9.7	49.1	5.0	7.2
25th Percentile	-16.7	-5.2	4.3	4.5	32.7	-12.3	37.2	1.2	4.5
Median	-19.3	-7.2	2.6	2.8	29.7	-15.3	33.2	-2.0	2.5
75th Percentile	-20.0	-9.9	1.4	1.0	26.2	-17.5	30.4	-4.7	0.2
95th Percentile	-22.8	-13.8	-0.8	-0.3	21.5	-20.2	27.5	-6.6	-1.9
# of Portfolios	33	33	31	29	32	26	27	25	18
● WCM Focused International Growth Fund, L.P.	-16.6 (24)	0.2 (8)	7.5 (16)	-- (--)	35.7 (12)	-7.4 (1)	31.1 (71)	-- (--)	-- (--)
▲ MSCI ACWI ex USA	-23.4 (97)	-15.6 (98)	-2.0 (98)	-0.6 (97)	21.5 (96)	-14.2 (49)	27.2 (96)	4.5 (8)	-5.7 (99)

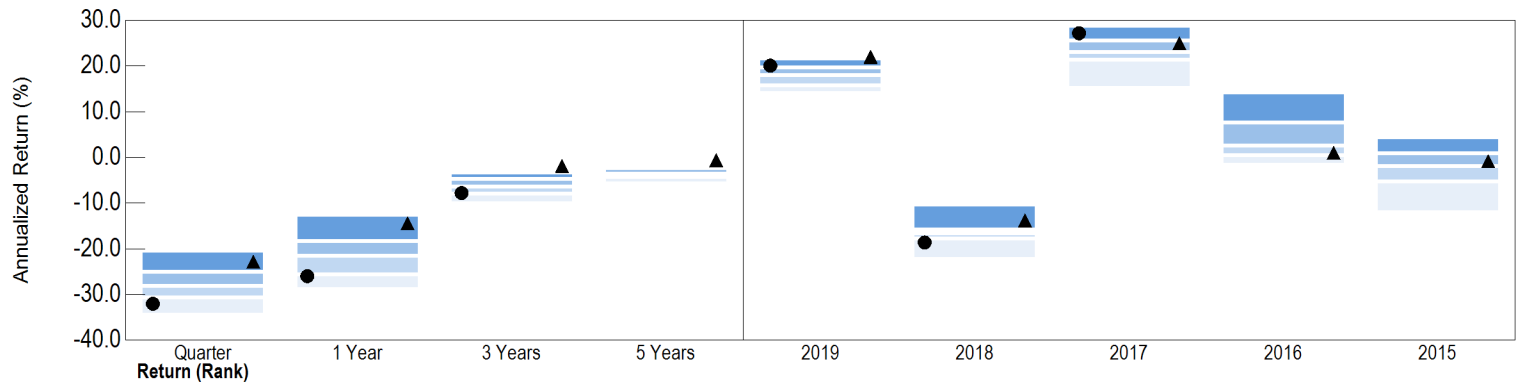
Causeway International Value Ins Performance Summary (Net of Fees)

Period Ending: March 31, 2020

Rolling Annualized Excess Performance and Tracking Error



Causeway International Value Ins vs. Foreign Large Value MStar MF Universe



	Quarter	1 Year	3 Years	5 Years	2019	2018	2017	2016	2015
5th Percentile	-20.5	-12.6	-3.3	-1.5	21.7	-10.4	28.7	14.1	4.4
25th Percentile	-24.9	-18.2	-4.6	-2.3	19.8	-15.6	25.7	7.7	1.1
Median	-28.1	-21.4	-6.3	-3.4	18.1	-16.5	23.2	2.7	-1.8
75th Percentile	-30.6	-25.5	-7.8	-4.2	15.9	-17.7	21.5	0.6	-5.1
95th Percentile	-34.4	-28.7	-9.9	-5.6	14.2	-22.2	15.3	-1.6	-11.9
# of Portfolios	81	80	76	67	84	74	74	78	76
● Causeway International Value Ins	-32.0 (87)	-26.0 (80)	-7.8 (74)	-- (-)	20.1 (22)	-18.6 (91)	27.2 (14)	-- (-)	-- (-)
▲ MSCI EAFE	-22.8 (14)	-14.4 (7)	-1.8 (1)	-0.6 (2)	22.0 (4)	-13.8 (17)	25.0 (30)	1.0 (69)	-0.8 (43)

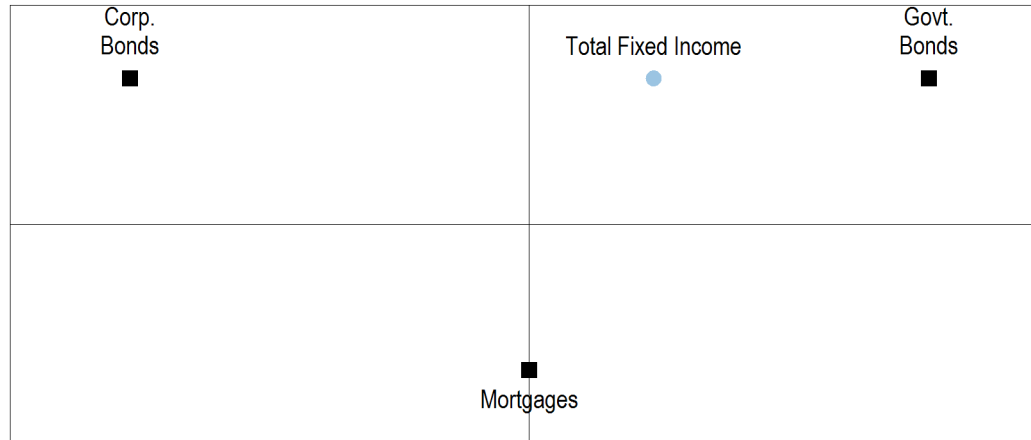
Domestic Fixed Income

Total Fixed Income
Performance Summary (Net of Fees)

Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015
Total Fixed Income	64,582,706	100.0	1.1	6.9	4.5	3.8	5.1	9.4	-0.4	5.6	7.5	-2.1
<i>Total Fixed Income Benchmark (BBgBarc Aggregate)</i>			3.1	8.9	4.8	3.4	3.9	8.7	0.0	3.5	2.6	0.5
<i>InvMetrics Tff-Hrtly DB US Fix Inc Net Rank</i>			24	14	10	5	5	28	75	18	9	93
Fixed Income	64,582,706	100.0										
Loomis Sayles Core Plus	64,582,706	100.0	1.1	6.9	4.5	--	--	9.4	-0.4	--	--	--
<i>BBgBarc US Aggregate TR</i>			3.1	8.9	4.8	--	--	8.7	0.0	--	--	--
<i>eV US Core Plus Fixed Inc Net Rank</i>			24	27	17	--	--	63	40	--	--	--

Fixed Income Style Map
3 Years



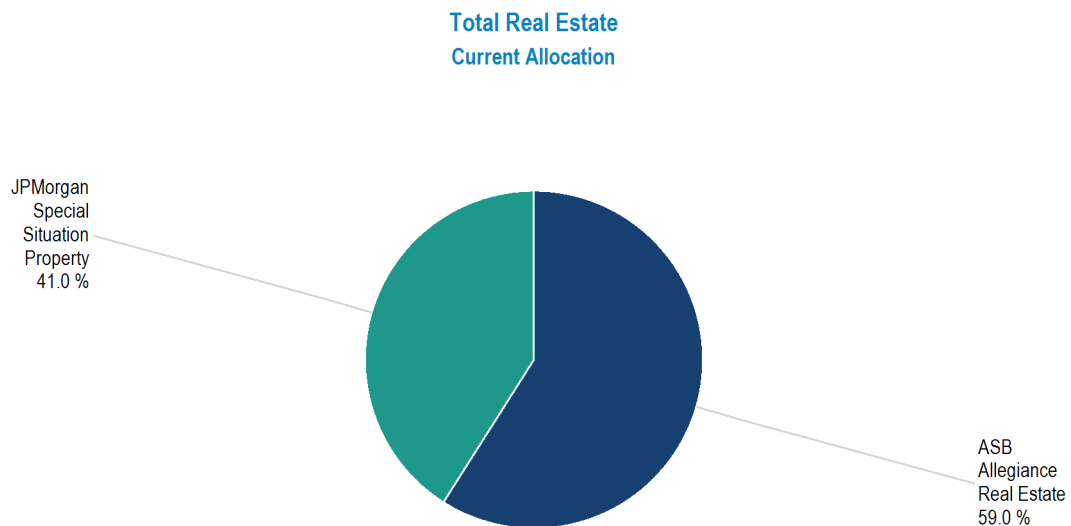
Loomis Sayles Core Plus replaced Loomis Sayles Full Discretion 3/21/2017.

Alternatives

Total Real Estate Performance Summary (Net of Fees)

Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015
Total Real Estate	37,115,168	100.0	1.4	4.2	5.9	7.4	11.0	4.6	7.8	5.0	5.4	16.9
<i>NCREIF ODCE Net</i>			<i>0.8</i>	<i>3.9</i>	<i>5.9</i>	<i>7.5</i>	<i>10.4</i>	<i>4.4</i>	<i>7.4</i>	<i>6.7</i>	<i>7.8</i>	<i>13.9</i>
Real Estate	37,115,168	100.0										
ASB Allegiance Real Estate	21,914,326	59.0	1.7	3.9	5.3	6.9	--	4.2	7.1	3.9	4.5	--
<i>NCREIF ODCE Net</i>			<i>0.8</i>	<i>3.9</i>	<i>5.9</i>	<i>7.5</i>	<i>--</i>	<i>4.4</i>	<i>7.4</i>	<i>6.7</i>	<i>7.8</i>	<i>--</i>
JPMorgan Special Situation Property	15,200,841	41.0	1.0	4.4	7.2	9.3	--	5.0	9.6	7.9	8.7	18.9
<i>NCREIF-ODCE</i>			<i>1.0</i>	<i>4.9</i>	<i>6.8</i>	<i>8.5</i>	<i>--</i>	<i>5.3</i>	<i>8.3</i>	<i>7.6</i>	<i>8.8</i>	<i>15.0</i>



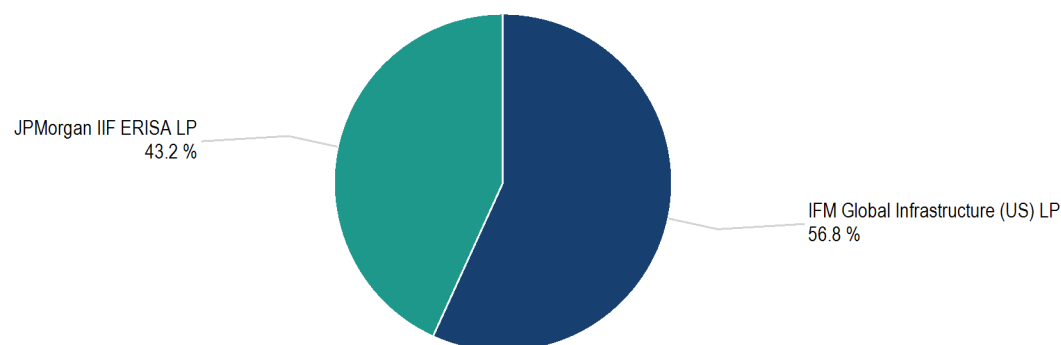
Invesco Real Estate II liquidated 9/1/2019.

Total Infrastructure Performance Summary (Net of Fees)

Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015
Total Infrastructure	17,462,359	100.0	-3.8	5.2	10.2	9.0	7.4	11.5	10.2	17.9	3.8	4.2
<i>CPI + 5%</i>			1.7	6.6	7.0	6.9	6.8	7.4	7.0	7.2	7.2	5.8
Infrastructure	17,462,359	100.0										
IFM Global Infrastructure (US) LP	9,918,135	56.8	-3.9	7.3	13.4	11.9	9.6	14.6	15.8	21.1	6.1	5.2
<i>CPI + 5%</i>			1.7	6.6	7.0	6.9	6.8	7.4	7.0	7.2	7.2	5.8
JPMorgan IIF ERISA LP	7,544,224	43.2	-3.7	2.9	6.6	5.8	--	8.0	4.2	14.2	1.2	3.4
<i>CPI + 5%</i>			1.7	6.6	7.0	6.9	--	7.4	7.0	7.2	7.2	5.8

Total Infrastructure
Current Allocation

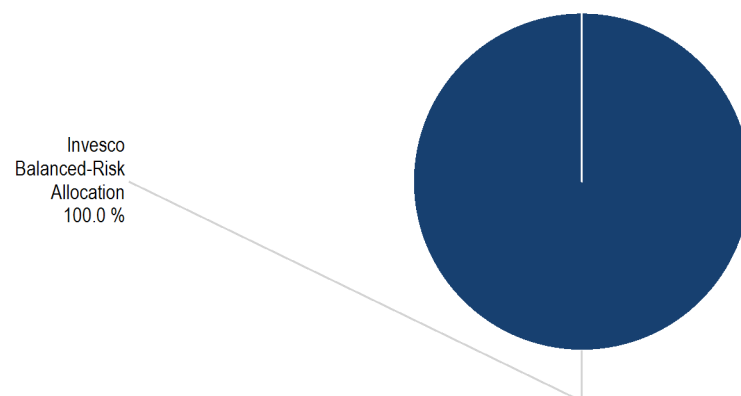


Total Multi-Asset Performance Summary (Net of Fees)

Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015
Total Multi-Asset	43,191,010	100.0	-11.6	-5.7	1.2	1.5	5.5	15.7	-5.8	10.6	7.4	-1.0
60% MSCI ACWI Net/40% FTSE WGBI			-12.4	-4.1	2.9	3.2	4.6	18.2	-5.8	17.1	5.5	-2.6
eV Global Balanced Net Rank			13	22	30	73	17	92	22	99	54	38
Multi-Asset	43,191,010	100.0										
Invesco Balanced-Risk Allocation	43,191,010	100.0	-11.6	-5.7	1.2	2.1	5.8	15.7	-5.8	10.5	12.2	-3.5
60% MSCI ACWI Net/40% FTSE WGBI			-12.4	-4.1	2.9	3.2	4.6	18.2	-5.8	17.1	5.5	-2.6
FTSE 3-Month T-bill +6%			1.9	8.2	7.8	7.2	6.6	8.4	8.0	6.9	6.3	6.0
eV Global Balanced Net Rank			13	22	31	66	7	92	22	99	19	74

Total Multi-Asset
Current Allocation

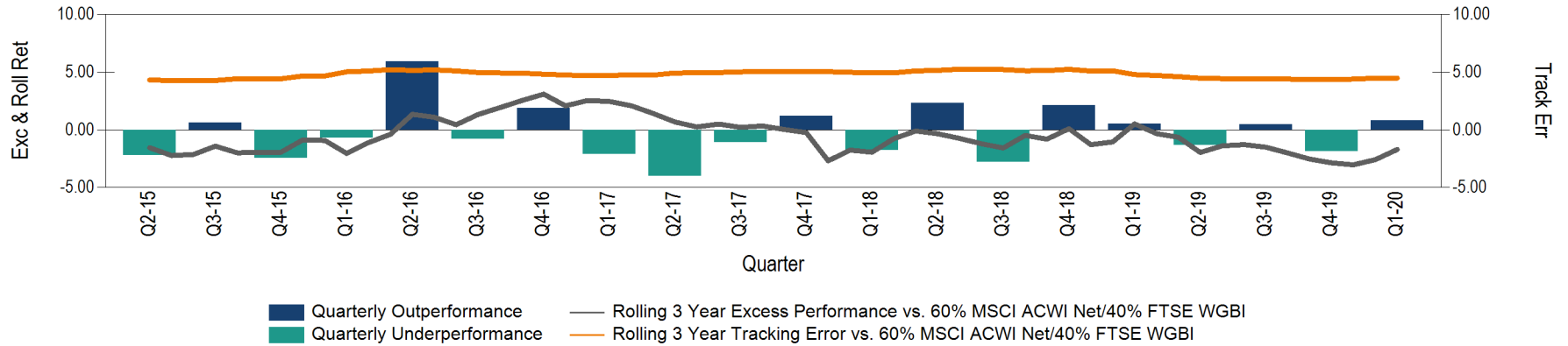


Mellon Dynamic liquidated 5/5/2017.

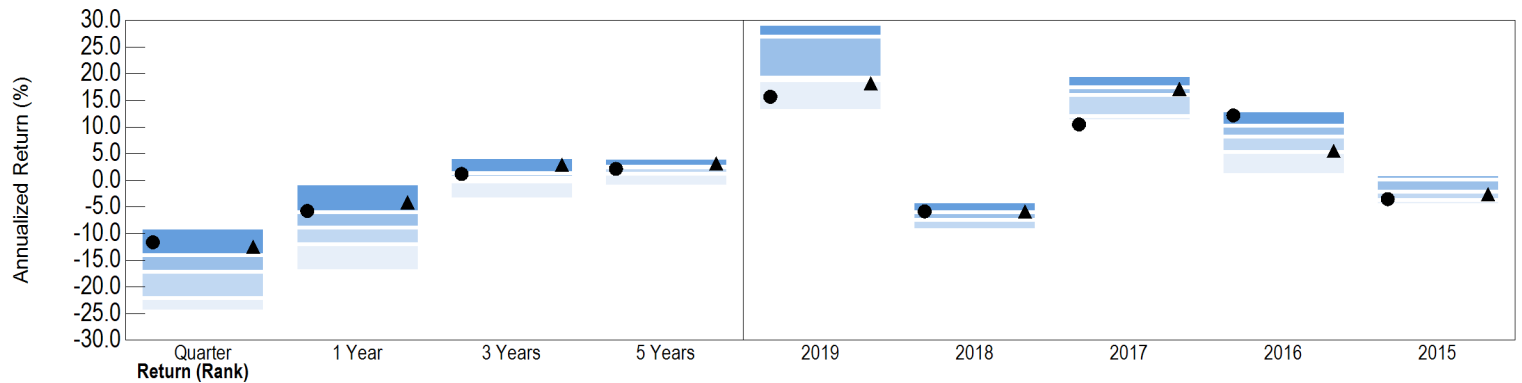
Invesco Balanced-Risk Allocation Performance Summary (Net of Fees)

Period Ending: March 31, 2020

Rolling Annualized Excess Performance and Tracking Error



Invesco Balanced-Risk Allocation vs. eV Global Balanced Net Universe



	Quarter	1 Year	3 Years	5 Years	2019	2018	2017	2016	2015
5th Percentile	-9.0	-0.7	4.3	4.2	29.3	-4.0	19.6	13.1	1.1
25th Percentile	-14.0	-5.9	1.5	2.6	27.0	-6.0	17.5	10.3	0.2
Median	-17.1	-8.8	0.6	2.5	19.3	-7.3	16.1	8.2	-2.0
75th Percentile	-22.0	-11.9	-0.1	1.3	18.8	-9.3	12.2	5.4	-3.7
95th Percentile	-24.5	-17.0	-3.5	-1.1	13.1	-10.0	11.1	1.1	-4.6
# of Portfolios	10	10	10	10	9	10	9	13	13
● Invesco Balanced-Risk Allocation	-11.6 (13)	-5.7 (22)	1.2 (31)	2.1 (66)	15.7 (92)	-5.8 (22)	10.5 (99)	12.2 (19)	-3.5 (74)
▲ 60% MSCI ACWI Net/40% FTSE WGBI	-12.4 (17)	-4.1 (16)	2.9 (16)	3.2 (19)	18.2 (88)	-5.8 (22)	17.1 (29)	5.5 (68)	-2.6 (64)

Performance Return Calculations

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

Data Source

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

Illiquid Alternatives

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

Manager Line Up

Manager	Fund Incepted	Data Source	Manager	Fund Incepted	Data Source
BlackRock Equity Index NL	4/30/2010	BlackRock	JPMorgan SSP	12/31/2014	JP Morgan
INTECH US Adaptive Volatility	8/3/2018	INTECH	IFM Global Infrastructure (US) LP	1/31/2009	IFM
PanAgora US Small Cap	1/31/2015	PanAgora	JPMorgan IIF ERISA LP	9/30/2010	JP Morgan
WCM Focused International Growth	7/1/2016	WCM	Invesco Balanced-Risk Allocation	1/31/2010	Invesco
Causeway International Value	7/27/2016	US Bank	US Bank Checking Account	N/A	US Bank
Loomis Sayles Core Plus	3/21/2017	Loomis Sayles	US Bank Clearing Account	N/A	US Bank
ASB Allegiance Real Estate	3/31/2015	ASB			

Policy & Custom Index Composition

Policy Index: 45% MSCI World, 25% BBgBarc Aggregate, 10% NCREIF-ODCE Net, 20% (60%MSCI ACWI Net/40% CITI WGBI)

Target Asset Allocation Policy: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% BBgBarc Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60%MSCI ACWI Net/40% CITI WGBI).

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Disclaimer

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

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

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

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

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