



**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



**PERIOD ENDING: MARCH 31, 2021**

Investment Performance Review for

**Western States Office and Professional Employees' International Union Pension Plan**

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Investment Landscape

TAB I

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Investment Performance  
Review

TAB II





**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**

2<sup>ND</sup> QUARTER 2021  
Investment Landscape



# Recent Verus research

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

## Topics of interest

### IS THERE ALPHA AVAILABLE FROM EMERGING & DIVERSE MANAGERS?

While discussion on the alpha-generating ability of emerging and diverse managers has been part of institutional conversation for decades, the use of emerging and diverse managers has become a mainstay of industry conferences and in many Board meetings more recently. This paper explores the alpha-generating ability of emerging and diverse firms across asset classes and structures.

### LEVERAGE IN PORTFOLIOS

Our latest Topics of Interest paper hopes to shed light on one segment of today's investment challenge, the benefits and risks associated with using leverage. This paper finds that for investors with sufficient capital to leverage market opportunities and allocate to a wide range of asset classes, and with an appropriate Enterprise Risk Tolerance to accept the range of outcomes involved, modest leverage may be responsibly employed to provide greater diversification of risk while maintaining a similar return target.

### HOW TO MAKE MANAGER DECISIONS

Manager research decisions are made harder if you use the wrong tools and approaches. In this new paper, we outline the reasons why many investors may be finding these decisions harder than they need to and discuss a different way of thinking that may make the task of manager assessment clearer and more effective.

### DEVELOPING AN END-GAME STRATEGY FOR CORPORATE PENSIONS

As a plan sponsor's de-risking strategy ultimately bears fruit and the plan approaches full funding, a new phase of the pension management lifecycle brings with it new challenges. Navigating the later stages of the asset-liability journey requires that plan sponsors establish a clear and well-defined view of the end-state. Doing so requires careful consideration of costs (some knowable, some not), risks, and less tangible company-specific considerations. Once this end-state is defined, investment and contribution strategy can be cohesively aligned to maximize the probability of success. With greater flexibility, the probability of a successful outcome increases.

## Annual research

### ACTIVE MANAGEMENT ENVIRONMENT

We are pleased to release the Verus 2021 Active Management Environment. The past year has been one of extreme volatility and divergence in many respects, creating interesting opportunities for active managers to show differentiated performance and deliver alpha to clients. We hope the insights from this research will allow for a deeper understanding of active manager behavior and inform selection in the future.

### IMPLICATIONS OF RISK TOLERANCE ON ESTABLISHING AN EFFECTIVE INVESTMENT STRATEGY FOR PUBLIC PENSION PLANS

The future health of public pension plans is dependent on many factors and faces many risks, including low prospective returns, unfavorable plan demographics, and stressed plan sponsor financial conditions. This paper will explore these risks and provide a framework for discussion and evaluation designed to ensure a plan's investment program is appropriately aligned with its risk tolerance.

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# 1<sup>st</sup> quarter summary

## THE ECONOMIC CLIMATE

- Real GDP grew at a -2.4% rate year-over-year in the fourth quarter (+4.3% quarterly annualized rate) as the U.S. economic recovery continued at a brisk pace. [p. 11](#)
- The speed of vaccinations in the U.S. has exceeded expectations, reaching more than 3 million doses per day during the first week of April. Approximately 23% of the country have been fully vaccinated, and 37% have received a first dose. [p. 7](#)
- The Europe Union has been slower to roll out vaccinations, suggesting member countries may be grappling with the virus for longer periods of time. [p. 19](#)

## PORTFOLIO IMPACTS

- We believe the U.S. economy is playing catch-up to the markets in the current environment. While it seems increasingly likely that the economy will rapidly come back to life over the next year, this optimism may already be baked into equity prices. [p. 29](#)
- U.S. core inflation remained low and stable, at 1.6% year-over-year in March. A jump in gasoline prices, along with base effects from the 2020 recession, pushed up headline inflation to 2.6%. It appears likely that inflation will continue to see a temporary rise in the coming months due to the lower prices of Q2 2020, since inflation is a year-over-year measure. [p. 13](#)

## THE INVESTMENT CLIMATE

- President Biden announced his \$2 trillion Infrastructure Plan. In its initial form, the plan did not have bipartisan support, reportedly due to the lower proportion of the plan that related to traditional infrastructure spending, the size of the plan, and the proposed methods to fund it. Negotiations will commence in late-April, though it remains possible that the bill is modified in order to pass it via the “reconciliation” process, to avoid the need for Republican support. [p. 11](#)
- According to FactSet, S&P 500 earnings expectations for 2021 improved by 5.0% during the quarter. Analysts are now forecasting 25.4% earnings growth for 2021—an incredible recovery from the -11.2% earnings drop expected of 2020. [p. 28](#)

## ASSET ALLOCATION ISSUES

- U.S. equities were a top performer in Q1, returning +6.2%. International equities returned +3.5% (MSCI EAFE Index) and emerging markets returned +2.3% (MSCI Emerging Markets Index), on an unhedged currency basis. [p. 28](#)
- Size and value factors both delivered strong relative performance. U.S. value stocks beat growth stocks (Russell 1000 Value +11.3%, Russell 1000 Growth +0.9%), as growth stocks entered a correction in February. Small capitalization stocks continued their rally (Russell 2000 +12.7%, Russell 1000 +5.9%). [p. 31](#)

Prospects for a strong economic rebound are compelling, though this good news may already be reflected in asset prices

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

# What drove the market in Q1?

**“Biden signs \$1.9 trillion Covid relief bill, clearing way for stimulus checks, vaccine aid”**

## U.S. PERSONAL INCOME GROWTH (YEAR-OVER-YEAR)

Sep	Oct	Nov	Dec	Jan	Feb
6.0%	5.0%	3.2%	3.7%	13.1%	4.3%

Article Source: CNBC, as of March 11<sup>th</sup>, 2021

**“U.S. vaccination campaign gains steam as White House speeds shipments”**

## AVERAGE DAILY VACCINE DOSE ADMINISTRATIONS (TRAILING SEVEN DAYS)

1/15	1/31	2/14	2/28	3/15	3/31
843,447	1,348,021	1,681,951	1,735,053	2,427,429	2,828,491

Article Source: Reuters, March 31<sup>st</sup>, 2021

**“Bond Traders Gird for More Pain After Biggest Loss Since 1980”**

## BLOOMBERG BARCLAYS US LONG TREASURY INDEX TOTAL RETURN

Oct	Nov	Dec	Jan	Feb	Mar
-3.01%	+1.20%	-1.18%	-3.61%	-5.57%	-4.99%

Article Source: Bloomberg, March 31<sup>st</sup>, 2021

**“OECD More Than Doubles US Economic Growth Forecast”**

## U.S. 2021 GDP GROWTH FORECAST (BLOOMBERG MEDIAN ESTIMATE)

Oct	Nov	Dec	Jan	Feb	Mar
3.8%	3.8%	3.9%	4.1%	4.9%	5.7%

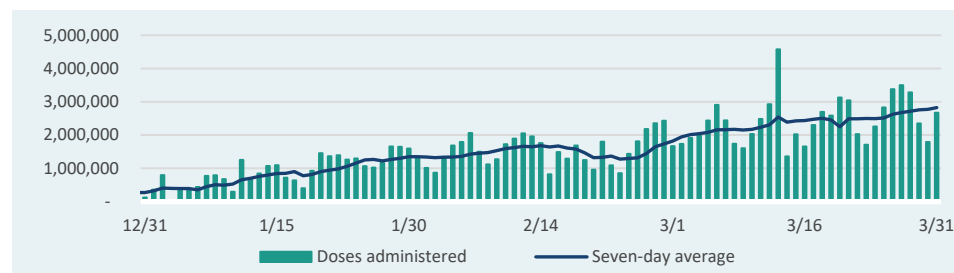
Article Source: Chief Investment Officer, March 17<sup>th</sup>, 2021

## AMERICAN RESCUE PLAN ACT ALLOCATIONS



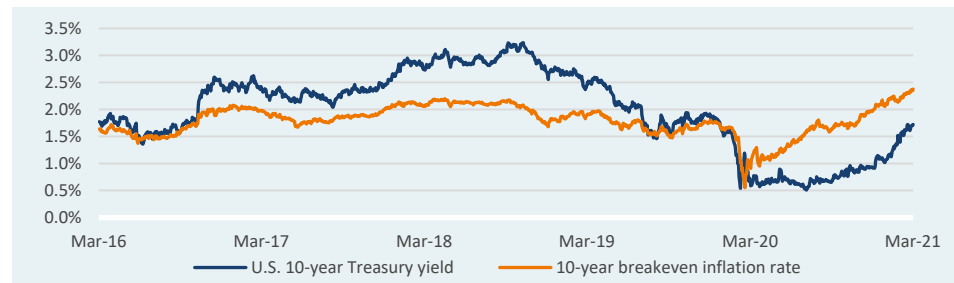
Source: Wall Street Journal, as of 3/11/21

## U.S. COVID-19 VACCINATION CAMPAIGN



Source: Bloomberg, as of 3/31/21

## INTEREST RATES AND INFLATION EXPECTATIONS



Source: Bloomberg, as of 3/31/21

# Economic environment



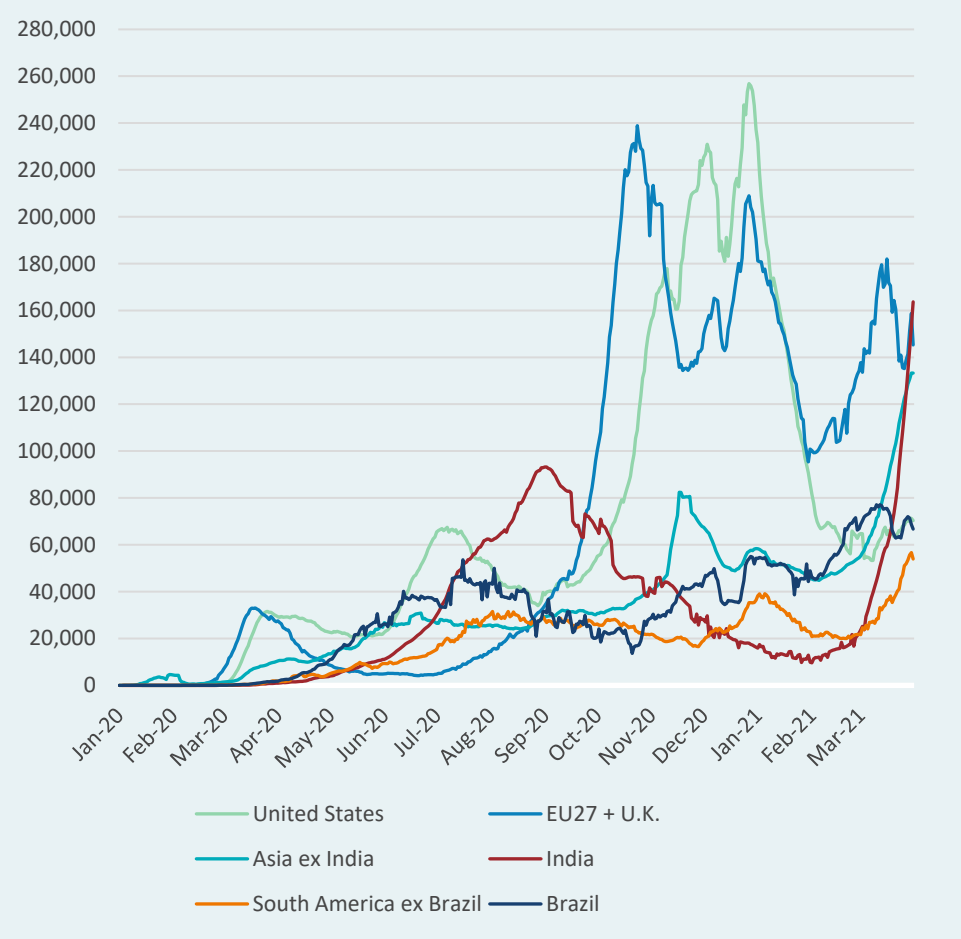
# U.S. economics summary

- Real GDP grew at a -2.4% rate year-over-year in the fourth quarter (+4.3% quarterly annualized rate) as the U.S. economic recovery continued. The Atlanta Fed's GDPNow forecast for 2021 Q1 growth was 6.0% on a quarter-over-quarter annualized basis as of April 9th, suggesting an even more robust pace than the prior quarter.
- The speed of vaccinations in the U.S. has exceeded expectations, reaching 3 million doses per day. Approximately 23% of the country have been fully vaccinated, and 37% have received a first dose.
- President Biden announced his \$2 trillion Infrastructure Plan. In its initial form, the bill would spend \$400b on expanded care for the elderly and disabled, spend \$500b on electric vehicle subsidies and incentives, and spend \$100B on national high-speed broadband internet access, with a smaller portion of the spending going towards traditional infrastructure such as power grid, railway, and public transit.
- U.S. core inflation remained low and stable, at 1.6% year-over-year in March. A jump in gasoline prices, along with base effects from the 2020 recession, pushed up headline inflation to 2.6%. It appears likely that inflation will continue to see a temporary rise in the coming months due to the lower prices of Q2 2020, since inflation is a year-over-year measure.
- While the U.S. unemployment rate continues to improve, falling from 6.7% to 6.0% during the quarter, the overall labor participation rate has stagnated. A disconnect seems to exist between the strong economy and weaker labor market.
- Consumer sentiment improved during Q1, along with the economic recovery. Sentiment is now at an average level relative to history.

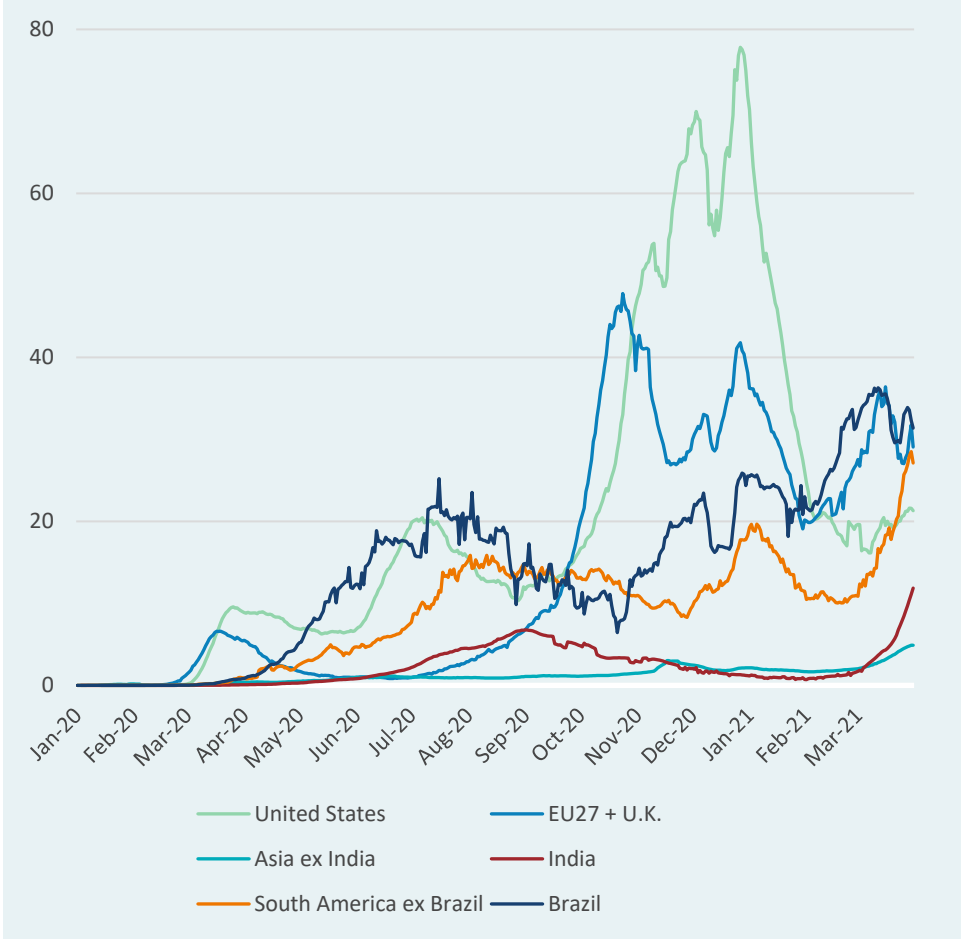
	Most Recent	12 Months Prior
GDP (YoY)	(2.4%) 12/31/20	2.3% 12/31/19
Inflation (CPI YoY, Core)	1.6% 3/31/21	2.1% 3/31/20
Expected Inflation (5yr-5yr forward)	2.20% 3/31/21	1.25% 3/31/20
Fed Funds Target Range	0% – 0.25% 3/31/21	0% – 0.25% 3/31/20
10-Year Rate	1.74% 3/31/21	0.67% 3/31/20
U-3 Unemployment	6.0% 3/31/21	4.4% 3/31/20
U-6 Unemployment	10.7% 3/31/21	8.8% 3/31/20

# COVID-19 case growth

SEVEN-DAY AVERAGE DAILY CASE GROWTH



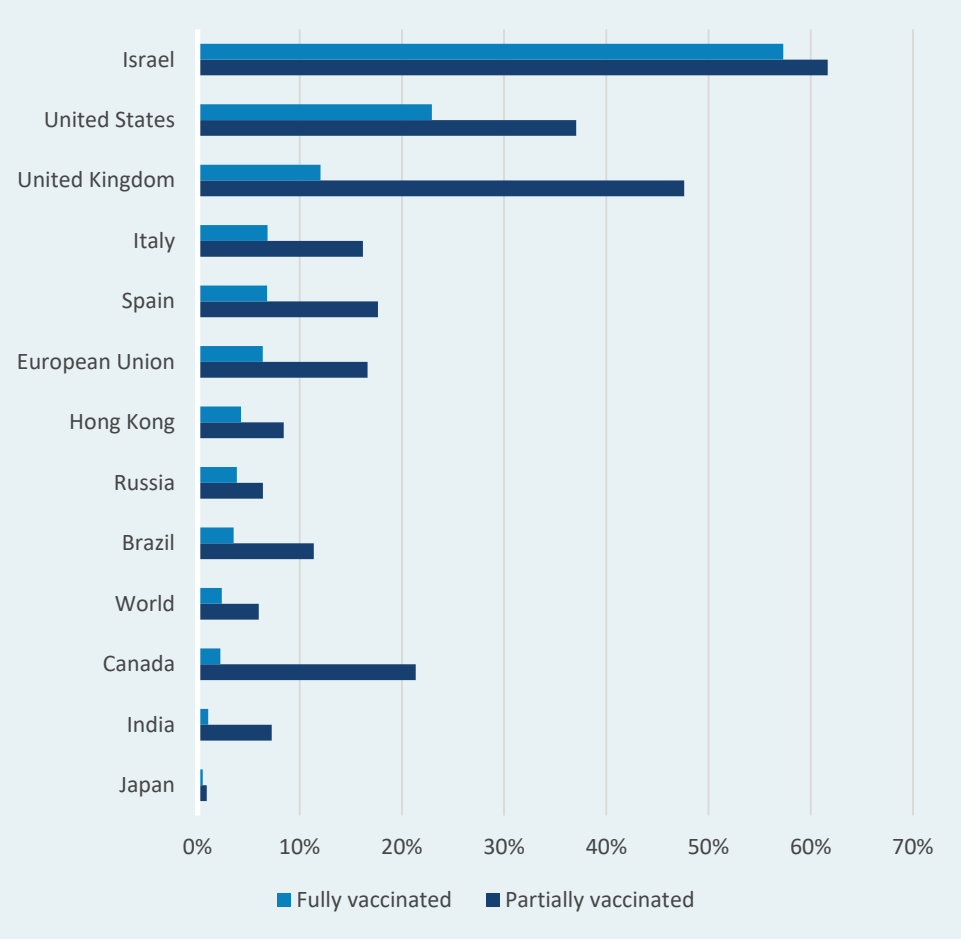
SEVEN-DAY AVERAGE DAILY CASE GROWTH – PER 100,000 RESIDENTS



Source: Bloomberg, as of 4/15/21

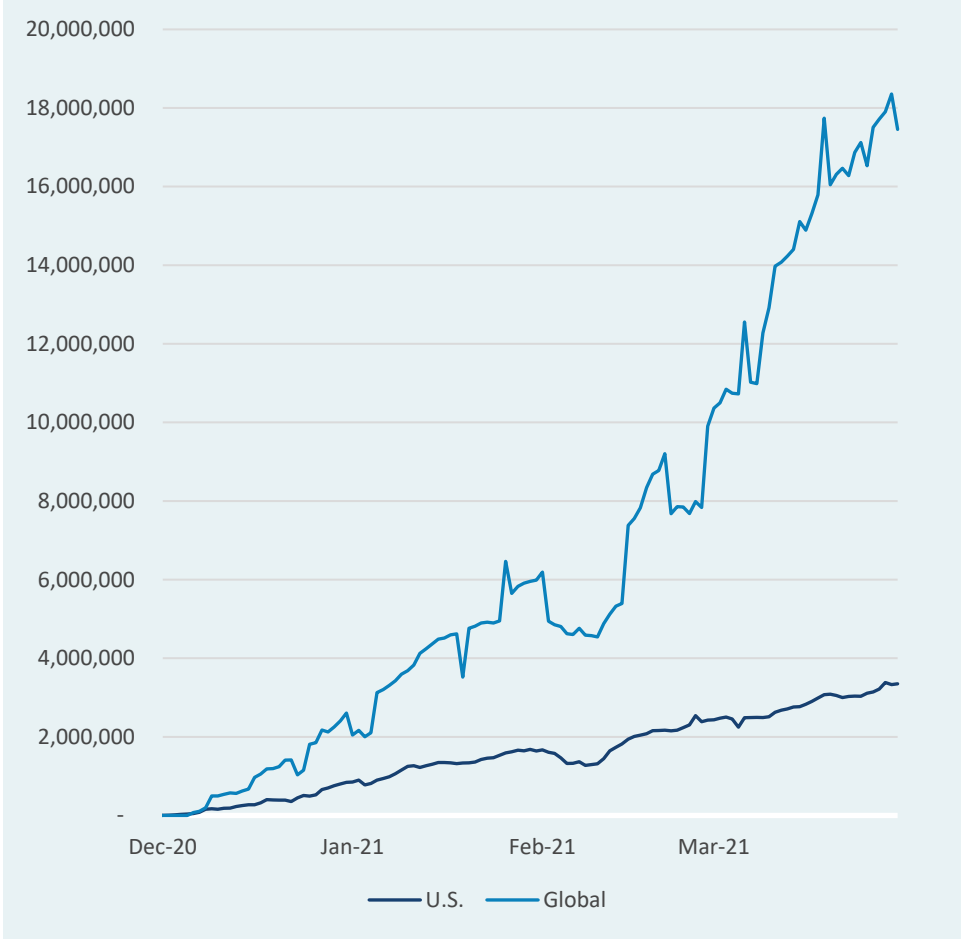
# Global vaccination campaign

PERCENTAGE OF PEOPLE WHO ARE...



Source: Our World in Data, as of 4/14/21, or most recent release.

DAILY VACCINE DOSE ADMINISTRATIONS (7-DAY TRAILING AVERAGE)



Source: Bloomberg, as of 4/15/21



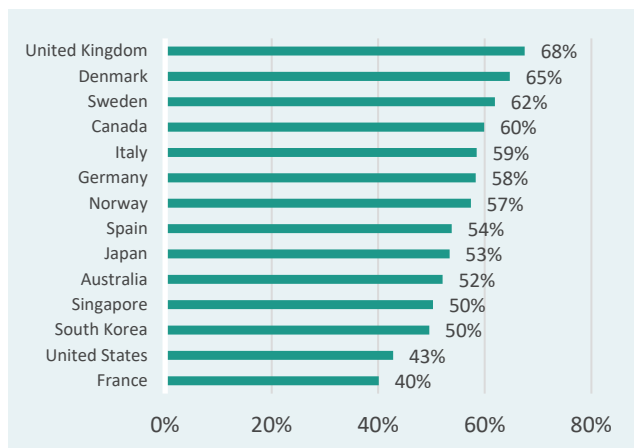
# Vaccine hesitancy

Toward quarter-end, concerns over the development of blood clots in a very small percentage of recipients of the AstraZeneca/Oxford and Johnson & Johnson vaccines led policymakers in many countries to suspend administrations pending further investigation.

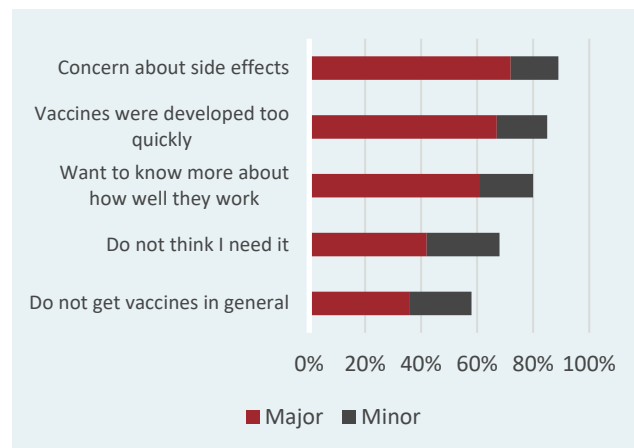
Though today these side effects appear quite rare, these developments will likely result in further delays in the push toward herd immunity over the short-term. If suspensions are lifted in the intermediate term, the vaccines in question are likely to face public relations issues which could

further hamper vaccination efforts. This dynamic is currently playing out in Europe with regard to the AstraZeneca vaccine—most of the Western part of the continent is taking a more cautious approach, while the Eastern segment has largely dismissed any clot-related concerns. Over the longer term, we believe that expanded vaccine production capacity, sufficiently diversified vaccine portfolios, and the coming online of new vaccines will reduce significantly the risk that idiosyncratic vaccine concerns create problems for the global vaccination campaign.

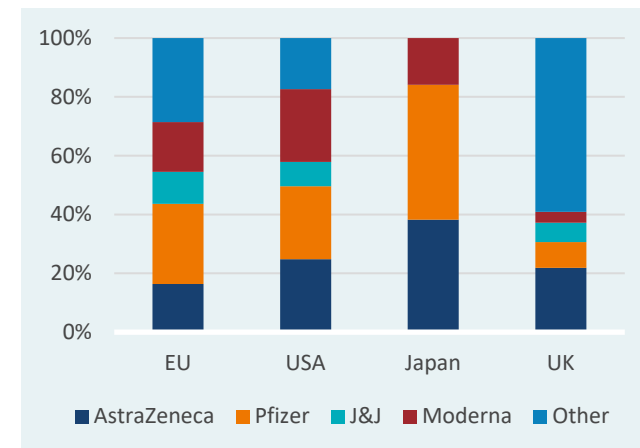
## VACCINE WILLINGNESS



## AMONG U.S. ADULTS ELECTING NOT TO BE VACCINATED, THE PERCENTAGE WHO SAY EACH OF THE FOLLOWING IS A MAJOR/MINOR REASON



## VACCINE PORTFOLIO COMPOSITION ESTIMATE



Source: Our World in Data, Pew Research, Duke Global Health Innovation Centre, as of 3/31/21, or most recent release. The bars in the "Vaccine Willingness" chart indicate the percentage of people who agree with the following statement: "If a COVID-19 vaccine were made available to me this week, I would definitely get it."

# GDP growth

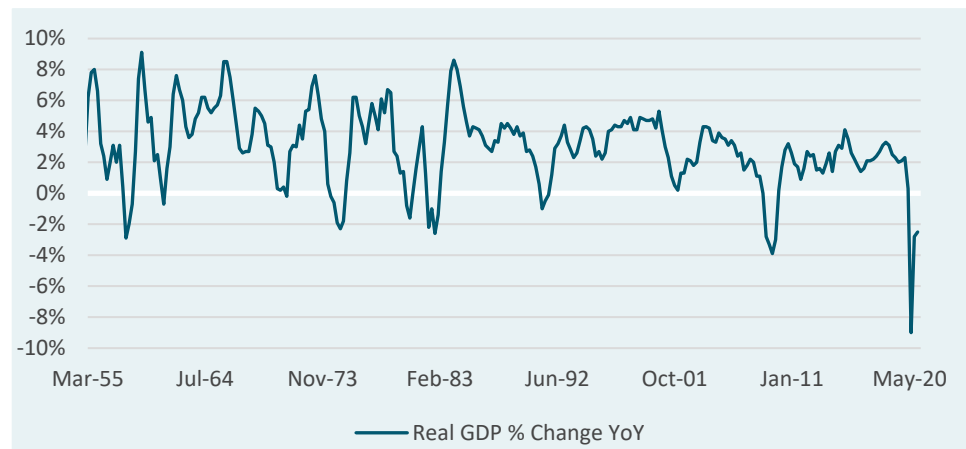
Real GDP grew at a -2.4% rate year-over-year in the fourth quarter (+4.3% quarterly annualized rate) as the U.S. economic recovery continued. The Atlanta Fed's GDPNow forecast for 2021 Q1 growth was 6.0% on a quarter-over-quarter annualized basis as of April 9th, suggesting an even quicker pace than the prior quarter.

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The plan as originally proposed did not have bipartisan support, reportedly due to the lower proportion of the plan dedicated to traditional infrastructure spending, its size, and its funding methods. Negotiations will commence in late-April, though it remains possible that the bill is modified in order to pass it via the "reconciliation" process, to avoid the need for Republican support.

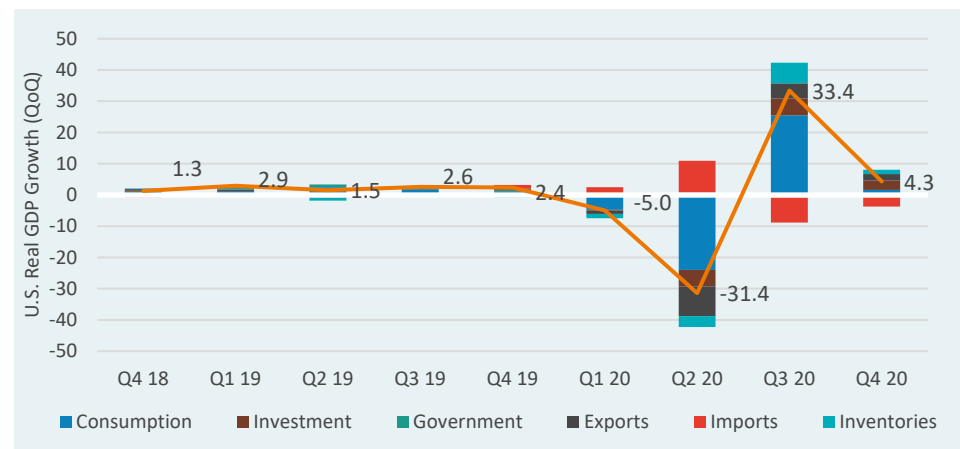
Large government stimulus programs are typically implemented during earlier stages of a recession, with the intent to fill a gap in demand and offset initial weakness. The current stimulus plans are very large and are being implemented at a time when the economy is well on the way to recovery. This creates risks of economic overheating, excesses, and inflation.

## U.S. REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 12/31/20

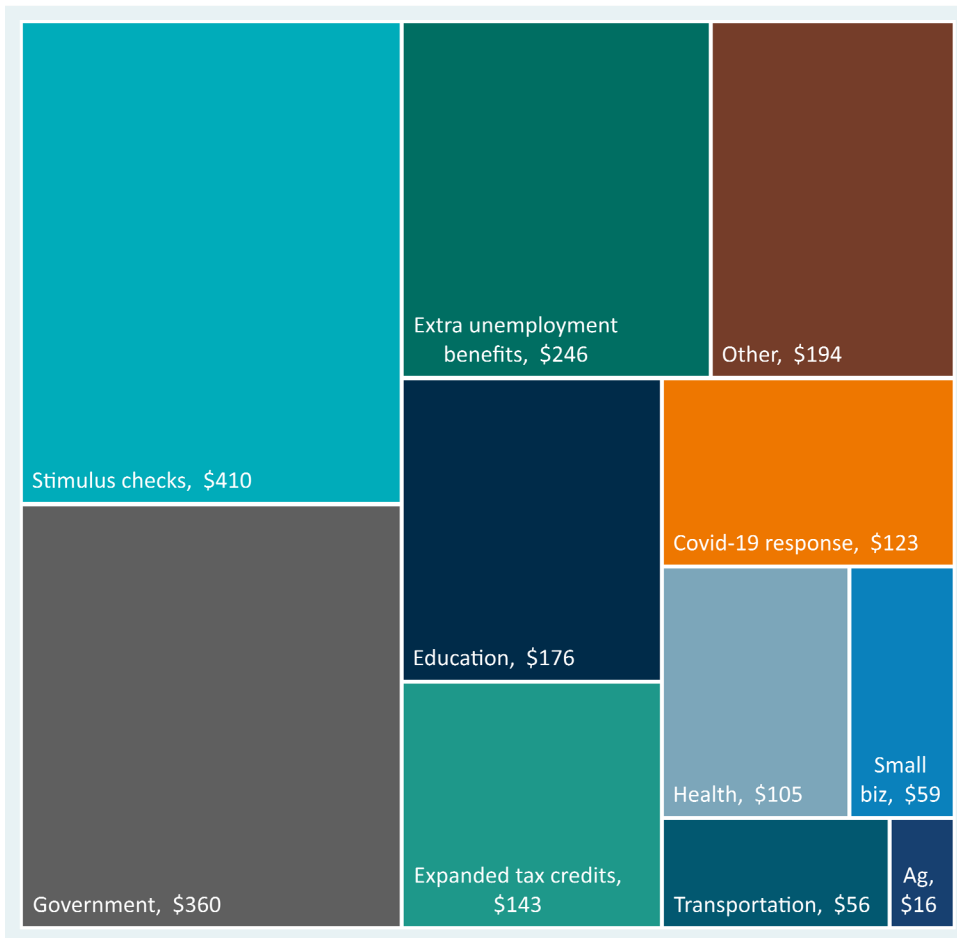
## U.S. GDP GROWTH ATTRIBUTION



Source: BEA, annualized quarterly rate, as of 12/31/20

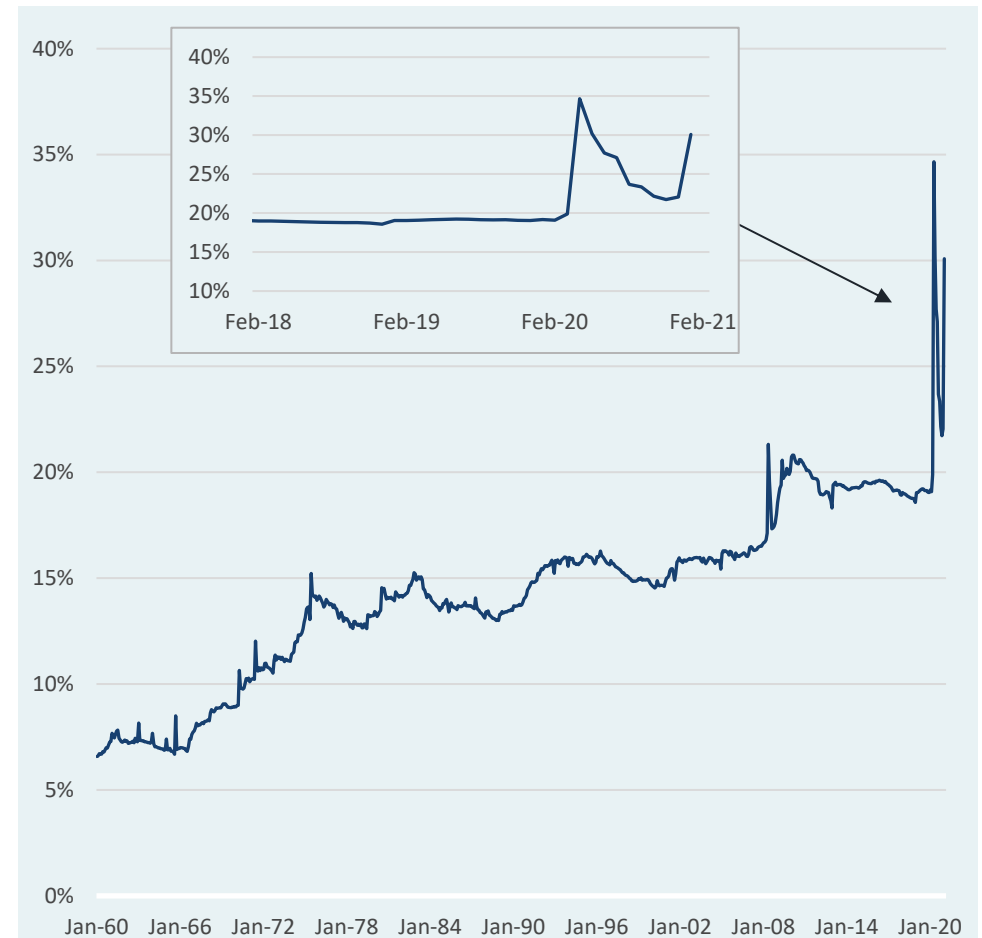
# American Rescue Plan Act of 2021

STIMULUS BILL ALLOCATIONS (BILLIONS)



Source: Wall Street Journal, as of 3/13/21

GOVT. TRANSFER PAYMENTS AS A % OF DISPOSABLE PERSONAL INCOME



Source: BEA, as of 2/28/21



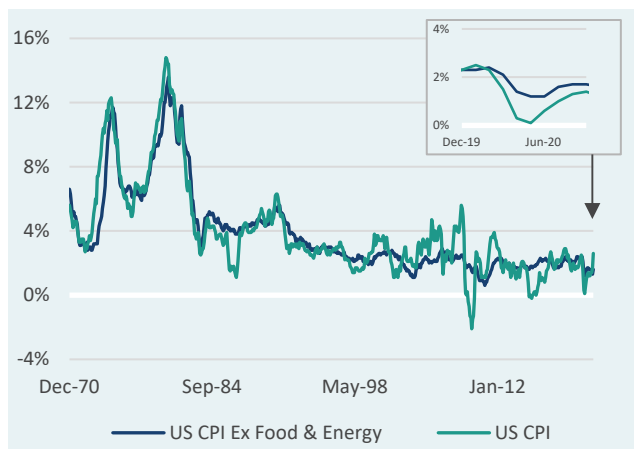
# Inflation

U.S. core inflation remained low and stable, at 1.6% year-over-year in March. A jump in gasoline prices, along with base effects from the 2020 recession, pushed up headline inflation to 2.6%. It appears likely that inflation may jump temporarily in the coming months due to the lower prices of spring 2020, which will flow through to inflation, since inflation is a year-over-year measure.

The 10-year TIPS breakeven inflation rate continued higher during the quarter to nearly 2.4% from 2.0%. Most inflation indicators have risen, though we believe that government purchases of TIPS may be artificially pushing up the breakeven rate.

Investor fears persist around potential inflation. Following the response of central banks to the Global Financial Crisis, and very little inflationary effects resulting from that monetary experiment, it is reasonable to have doubts around whether ultra low interest rates and easy money are highly inflationary. Some have argued that most money “printed” after 2008-2009 ended up on bank balance sheets, rather than in the real economy, which resulted in muted inflationary effects. In the current environment, much easy money is arriving in the form of checks delivered straight to households. This new form of stimulus, along with broader government spending, may suggest possible rising inflation, though we believe the probability of this remains low.

## U.S. CPI (YOY)



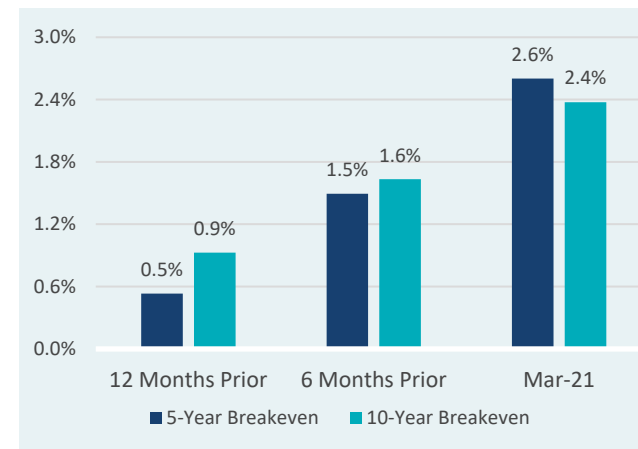
Source: Bloomberg, as of 3/31/21

## MARKET INFLATION EXPECTATIONS



Source: FRED, as of 3/31/21

## BREAKEVEN INFLATION RATES



Source: Bloomberg, as of 3/31/21

# Labor market

Unemployment fell from 6.7% in December to 6.0% in March. However, the overall labor force participation rate paints a less optimistic picture. At 61.5% participation in March, this metric has not budged since June of 2020.

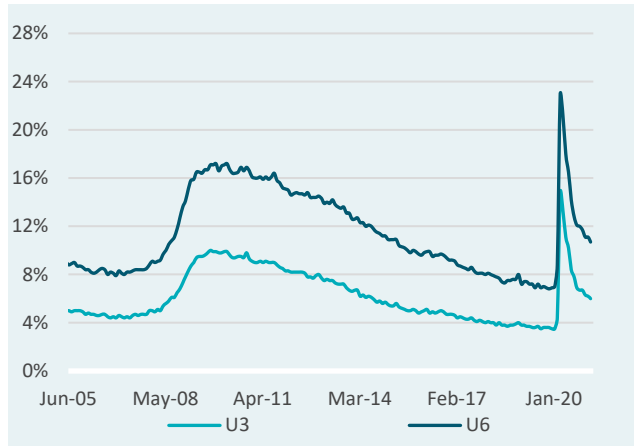
The U.S. labor force showed a strong rebound during the fall of 2020, but more recently appears to have stalled. Approximately 2% of the total U.S. workforce remains out of a job and is not seeking work, relative to pre-COVID levels. This effect is illustrated in the labor participation rate, which is a broad measure of employment—defined as the percentage of the country’s population that is currently employed, among all

eligible workers. The participation rate fell from 63.3% immediately before the pandemic, to 60.2% in April, then back to 61.7% in August. The labor market remains weak despite an impressive economic comeback.

The most recent NFIB Small Business Optimism report explained “Main Street is doing better as state and local restrictions are eased, but finding qualified labor is a critical issue for small businesses nationwide... Small business owners are competing with the pandemic and increased unemployment benefits that are keeping some workers out of the labor force.”

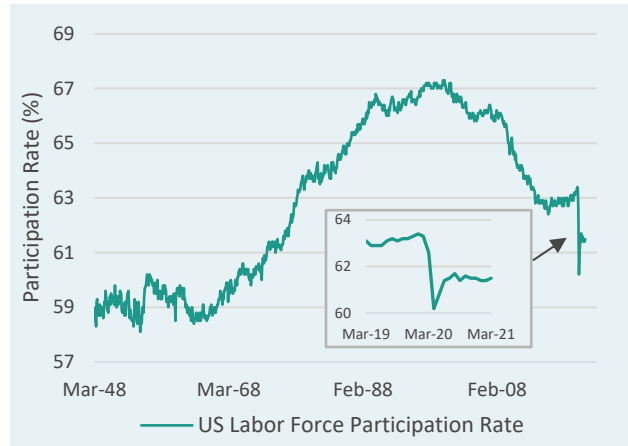
**A large portion of the U.S. labor force remains neither employed nor seeking work**

## U.S. UNEMPLOYMENT



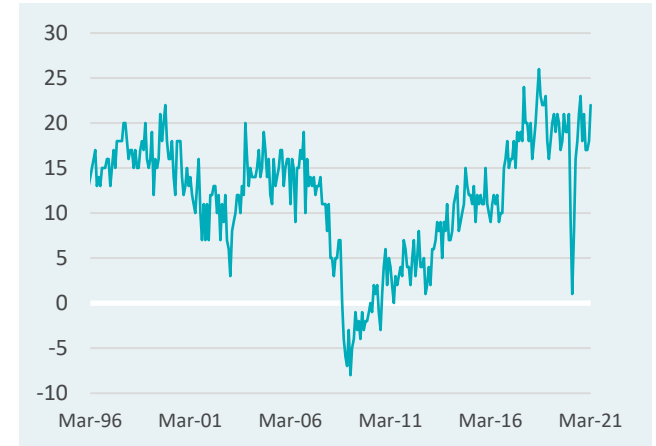
Source: FRED, as of 3/31/21

## LABOR PARTICIPATION RATE



Source: FRED, as of 3/31/21

## NFIB SMALL BUSINESS HIRING PLANS INDEX



Source: NFIB, as of 3/31/21

# Employment conditions

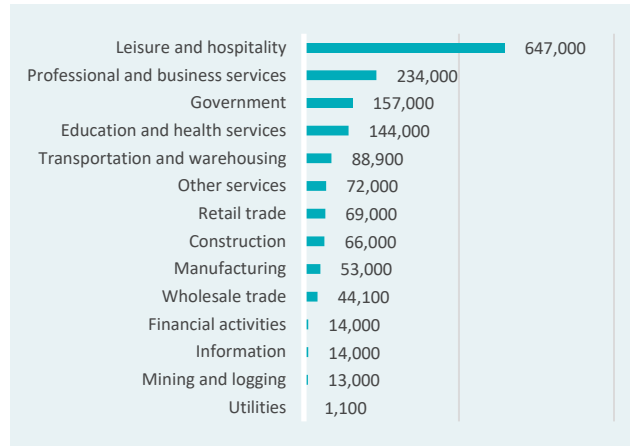
Hiring activity picked up considerably in the first quarter of 2021, supported by strong progress on the vaccination campaign and the concurrent relaxation of social distancing controls. While the broad unemployment rate dipped from 6.7% to 6.0%, that number probably overstates the magnitude of the labor market recovery thus far. Labor force participation dropped from 63.4% in January of 2020 to 60.2% in April, and as of the end of the first quarter, that number had recovered to just 61.5%. As a result, while unemployment has improved, there remain roughly nine million U.S. citizens who have yet to regain employment.

The primary concern of the Federal Reserve remains limiting the potential scarring of the labor market as a result of the shutdowns over the last year, and the Fed's accommodation, paired with continued progress on the vaccination campaign should lay the foundation for a continued recovery in the labor market over the next several quarters. There remains much wood to chop.

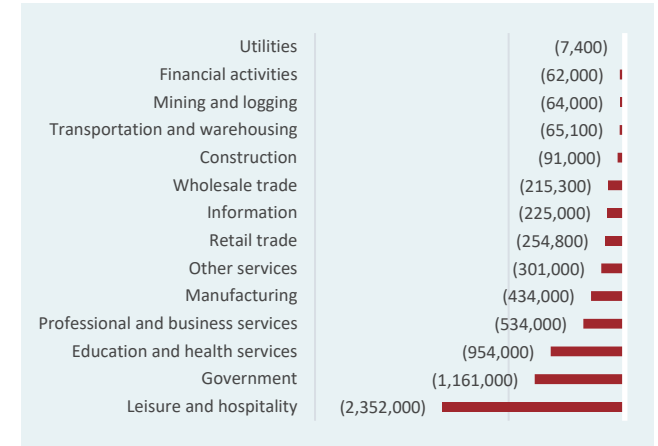
## NON-FARM PAYROLLS – ONE-MONTH CHANGE



## NON-FARM PAYROLLS – THREE-MONTH CHANGE



## NON-FARM PAYROLLS – ONE-YEAR CHANGE



Source: BLS, as of 3/31/21



# The consumer

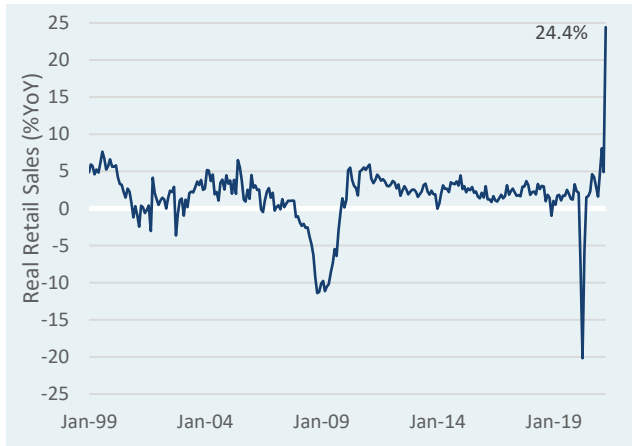
U.S. retail sales rocketed higher in the first quarter, accelerating to a 9.8% month-over-month pace in March (this rate was an astounding 24.4% on a year-over-year basis, though this metric is more difficult to interpret since it calculates growth from a starting point of March 2020—the depths of the recession). As expected, vast government stimulus is translating to red hot consumer spending.

According to anonymized cellular phone data collected by Google for COVID-19 public health research, Americans began returning to their daily routines through late spring and summer, as activity began moving back towards normalcy. Then, as COVID-19 cases

began to surge, many types of activities dipped once again. It now appears that activity such as retail, recreation, and grocery shopping are moving back to normal levels. At the same time, public transit usage and travel to workplaces remains depressed.

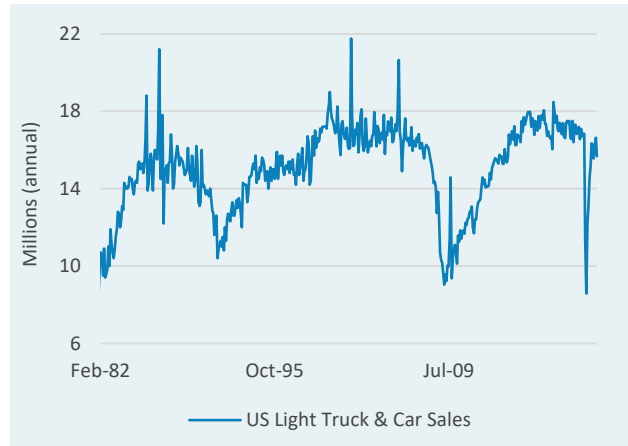
In last quarter’s landscape we discussed concerns around the difficulty in determining what portion of the economic bounceback may have been due to unprecedented government stimulus, rather than a “natural” recovery of jobs and the financial health of Americans. We remain cautious, as certain aspects of the economy remain very weak, such as the labor market trends outlined earlier in this document.

**REAL RETAIL SALES GROWTH (YOY)**



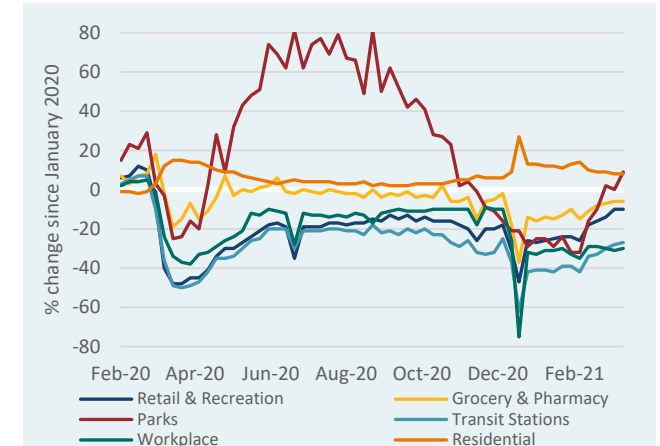
Source: FRED, as of 3/31/21

**AUTO SALES**



Source: Federal Reserve, as of 2/28/21

**GOOGLE U.S. ACTIVITY TRACKER**



Source: Google anonymized U.S. citizen mobility, as of 3/31/21

# Sentiment

Consumer sentiment has seen only mild improvement, despite the stronger-than-expected pace of economic recovery.

The Bloomberg Consumer Comfort Index attempts to gauge Americans' views on the economy, their personal financial situation, and buying conditions. The index rose from 44.6 to 50.0 during the quarter. The University of Michigan Consumer Sentiment Survey attempts to gauge attitudes about the business climate, personal finances, and spending conditions. The index jumped from 80.7 to 84.9 in Q1,

directionally in line with the continued economic recovery.

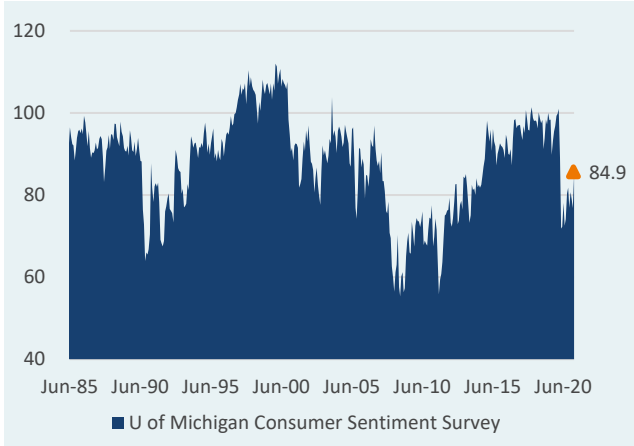
The NFIB Small Business Optimism Index returned to an average reading in Q4 and remains materially weaker than pre-pandemic levels. Participants in the survey expressed uncertainty around business conditions, and extreme difficulties in finding qualified workers due to attractive unemployment benefits. A surprising 42% of small business owners reported job openings that could not be filled, which was a record-high figure.

**CONSUMER COMFORT**



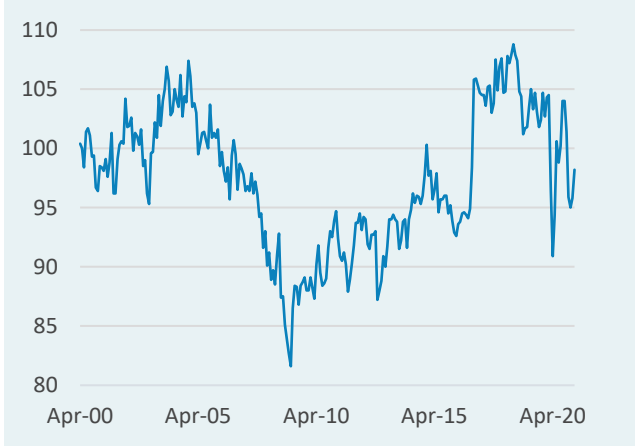
Source: Bloomberg, Langer, as of 3/28/21

**CONSUMER SENTIMENT**



Source: University of Michigan, as of 3/31/21

**SMALL BUSINESS OPTIMISM**



Source: NFIB, as of 3/31/21

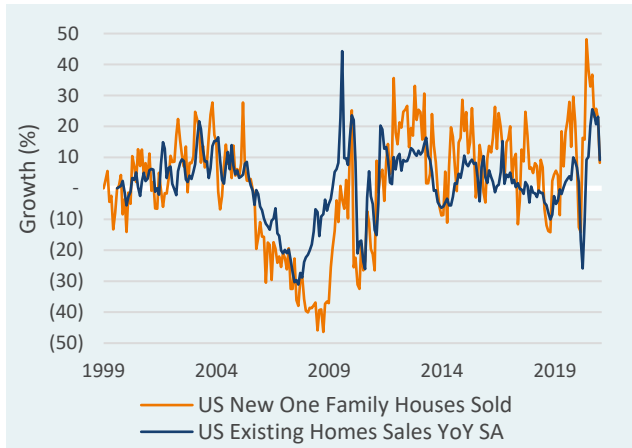
# Housing

Sales of existing homes continued at a near-record pace through fall of 2020 and the beginning of 2021, before decelerating to 9.1% year-over-year in February. Sales of new homes followed a similar directional trend, though new homes have shown an even stronger growth rate consistently over the past decade. The impressive number of sales were achieved despite there being an extremely slim inventory of homes available on the market.

It has been surprising to witness a housing boom coincide with a sharp and deep global recession, although the dynamics that led to this environment are fairly simple to understand with

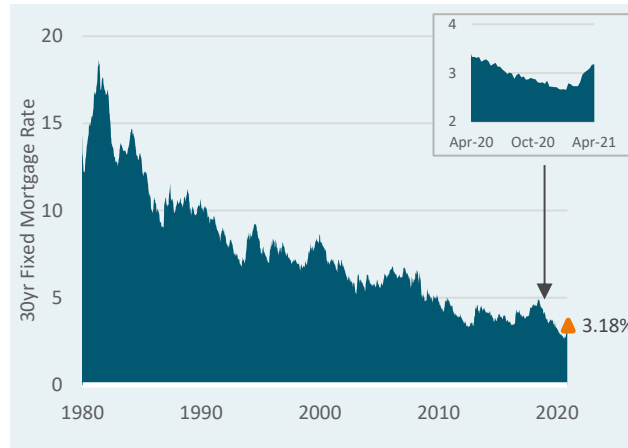
hindsight. Record-low interest rates, record-low inventory of homes, and a desire of Americans for more space during the work-from-home environment, have lifted the cost of homes significantly. Some of these influences appear to be easing. Rising interest rates since the beginning of the year have contributed to higher mortgage rates, as the 30-year fixed average mortgage rate has risen from 2.65% to 3.18%. And the nationwide inventory of homes has improved to 4.8 months worth of supply. A further easing of conditions may help to cool down an extremely hot market.

**U.S. HOME SALES (YOY)**



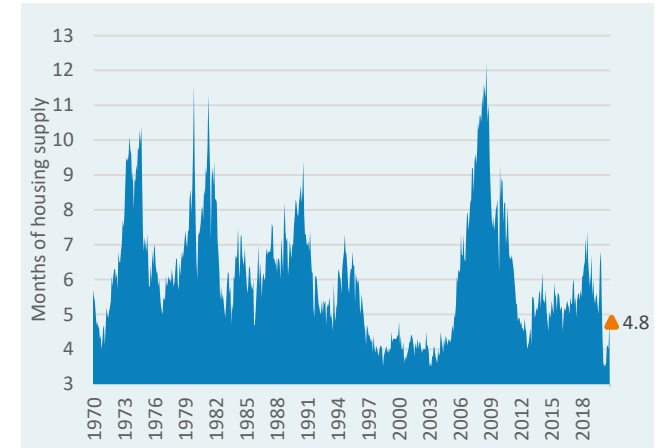
Source: FRED, as of 2/28/21

**30-YEAR FIXED MORTGAGE RATE (AVERAGE)**



Source: FRED, as of 3/31/21

**HOUSING INVENTORY**



Source: FRED, as of 2/28/21

# International economics summary

- Economic growth continued to recover during the fourth quarter, though was still negative on a year-over-year basis in many countries. Growth expectations have risen as successful vaccine rollouts suggest that the world may get back to normal more quickly than originally assumed.
- Europe may unfortunately be excluded from this optimism, as a renewed wave of COVID-19 has once again led to lockdowns and restrictions. The Europe Union has been slower to rollout vaccinations, suggesting member countries may be grappling with the virus for longer periods of time.
- Unemployment was stable in the Eurozone and Japan, and fell modestly in the United States. As we described in prior quarters, governments have taken very different approaches to supporting workers, which makes labor market comparisons difficult.
- Despite heightened discussions about inflation risk, inflation remains muted and stable around the world, though the rebound in energy prices from record-low levels last year is having a lifting impact. This influence, driven by base effects, will most likely persist for the next few months.
- The gap between the manufacturing and services sectors of the economy narrowed toward the end of the quarter, as the beaten-down services sector showed signs of life across Europe. Extended periods of service sector activity expansion will likely depend on manageable levels of case growth and relaxed social distancing controls.
- Vaccine campaigns across mainland Europe as well as Japan have materially lagged those of the U.S. and the U.K., and the indefinite suspension of the AstraZeneca vaccine in many countries is likely to widen the gap in the short-term.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	(2.4%) 12/31/20	2.6% 3/31/21	6.0% 3/31/21
Eurozone	(4.9%) 12/31/20	1.3% 3/31/21	8.3% 2/28/21
Japan	(1.4%) 12/31/20	(0.2%) 3/31/21	2.8% 2/28/21
BRICS Nations	1.6% 12/31/20	1.4% 3/31/21	5.7% 12/31/20
Brazil	(4.1%) 12/31/20	6.1% 3/31/21	14.2% 1/31/21
Russia	(3.0%) 12/31/20	5.8% 3/31/21	5.4% 3/31/21
India	0.4% 12/31/20	5.5% 3/31/21	6.5% 3/31/21
China	18.3% 3/31/21	0.4% 3/31/21	4.2% 12/31/20

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

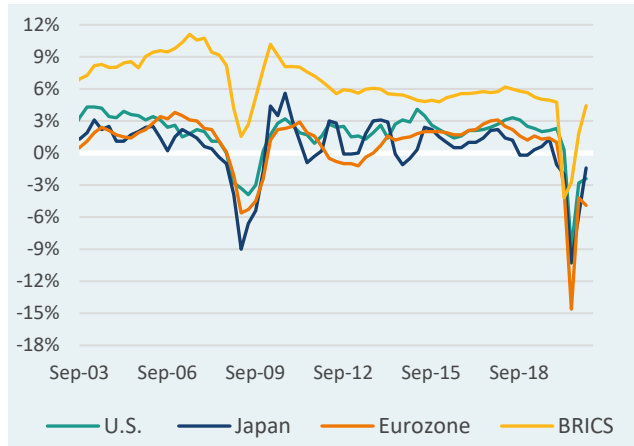
# International economics

Economic growth continued to recover during the fourth quarter, though still negative on a year-over-year basis in many countries. Growth expectations have risen as successful vaccine rollouts suggest that the world may move back to normal more quickly than originally expected, although the speed of vaccine distribution has differed wildly. As of quarter-end, the U.S. and United Kingdom lead in vaccine rollouts, while the European Union and Japan lag behind. Europe is seeing a renewed wave of COVID-19, which has once again led to lockdowns and restrictions.

Despite heightened discussions about inflation risk, inflation around the world remains muted and stable, though the rebound in energy prices from record-low levels last year is having a lifting impact. This influence, driven by base effects, will most likely persist for the next few months.

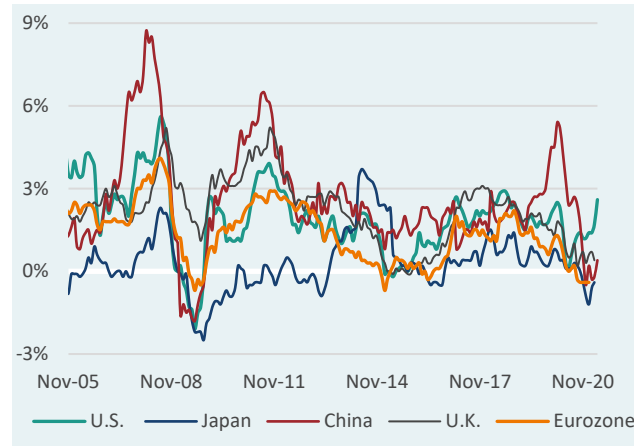
Unemployment was stable in the Eurozone and Japan, and fell modestly in the United States. As we have described in prior quarters, governments have taken very different approaches to supporting workers, which has made global labor market comparisons difficult.

**REAL GDP GROWTH (YOY)**



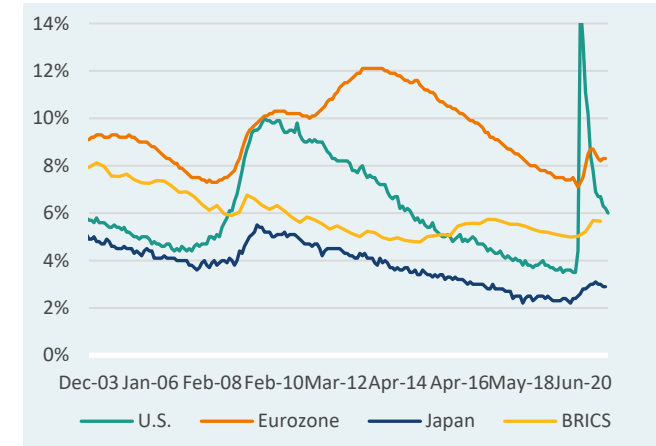
Source: Bloomberg, as of 12/31/20

**INFLATION (CPI YOY)**



Source: Bloomberg, as of 3/31/21 – or most recent release

**UNEMPLOYMENT**



Source: Bloomberg, as of 3/31/21 – or most recent release



# Fixed income rates & credit

# Interest rate environment

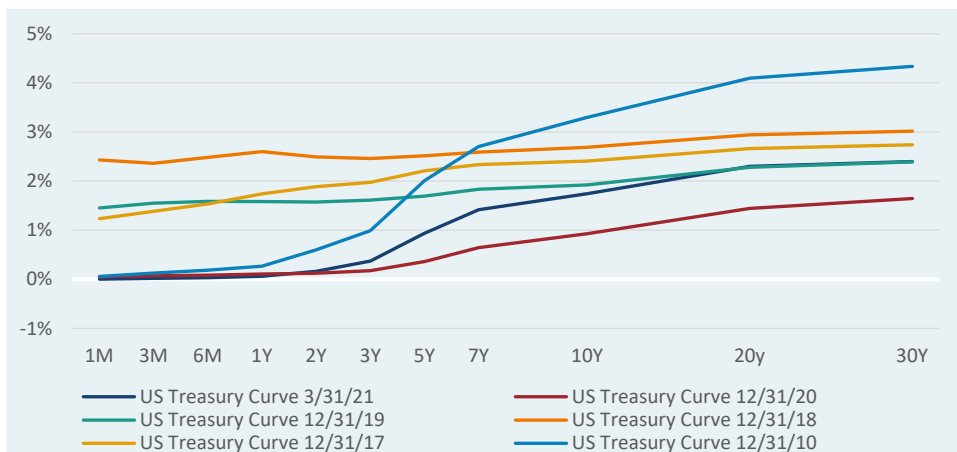
- Ten-year U.S. Treasury yields moved sharply higher, rising from 0.91% to 1.74%. Higher interest rates and tighter financial conditions create concerns for currently above-average risk asset prices, and for the economic recovery more broadly.
- Bond yields around the world rose in tandem with the United States, though the yield of shorter-dated bonds and cash remained anchored near zero. Rising bond yields at longer tenors and relatively steady movement in short tenor yields resulted in yield curve steepening in many countries.
- The spike in global interest rates tested the standing policies at a number of major central banks. The Reserve Bank of Australia was forced to step in to defend its 3-year bond yield target, the Bank of Japan widened the target band for its 10-year bond yield, and the ECB tweaked its asset purchase program to allow for more flexible purchases.
- The Federal Reserve maintained an accommodative tone and signaled it will continue to provide support until substantial progress has been made in the labor market and the pandemic is clearly in the rear-view mirror. On balance, the Fed remains of the view that any pickup in inflation over the next few months is likely to be transitory.
- Breakeven inflation rates surged as reflation bets continued to mount. The five-year breakeven inflation rate closed the quarter at 2.6%, its highest level since 2008.
- Credit spreads compressed to near decade-tights as demand for higher-yielding bonds remained high, and concerns over a wave of pandemic-driven defaults abated.
- Long-duration Treasuries posted their worst quarter since Q1 of 1980. The Bloomberg Barclays U.S. Long Treasury Index delivered a total return of -13.5%.

Area	Short Term (3M)	10-Year
United States	0.02%	1.74%
Germany	(0.67%)	(0.29%)
France	(0.62%)	(0.05%)
Spain	(0.56%)	0.34%
Italy	(0.54%)	0.67%
Greece	(0.24%)	0.86%
U.K.	(0.01%)	0.85%
Japan	(0.11%)	0.09%
Australia	0.00%	1.79%
China	2.28%	3.19%
Brazil	3.32%	9.28%
Russia	4.70%	7.00%

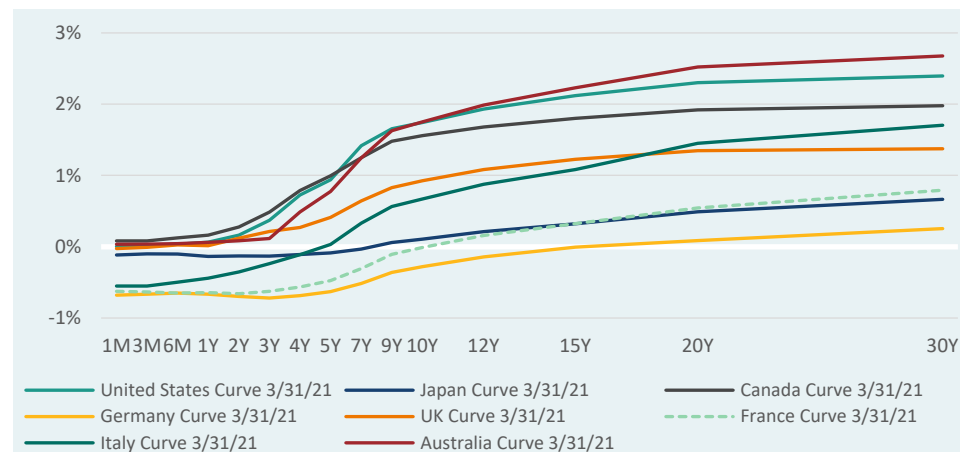
Source: Bloomberg, as of 3/31/21

# Yield environment

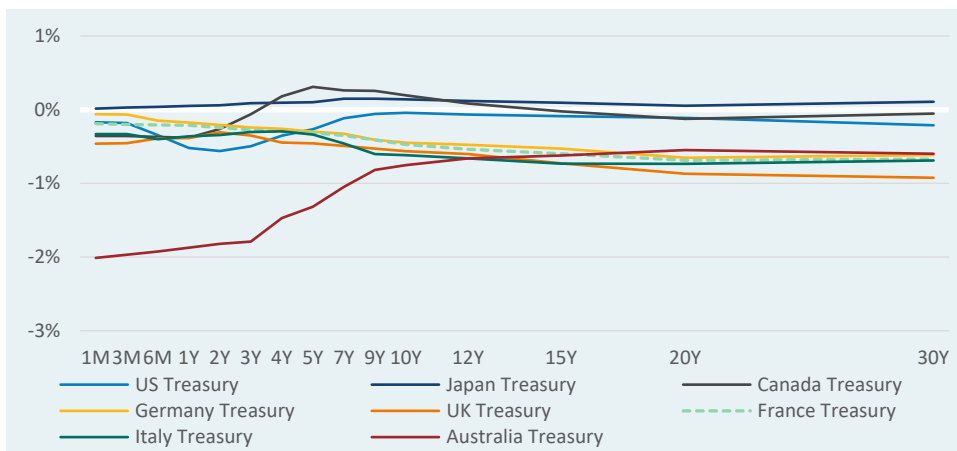
## U.S. YIELD CURVE



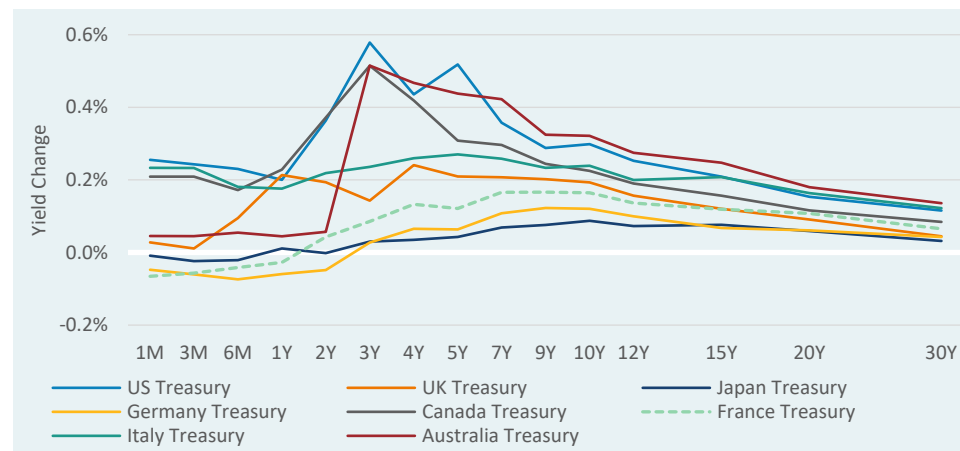
## GLOBAL GOVERNMENT YIELD CURVES



## YIELD CURVE CHANGES OVER LAST FIVE YEARS



## IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 3/31/21

# Yield increases have tested central banks

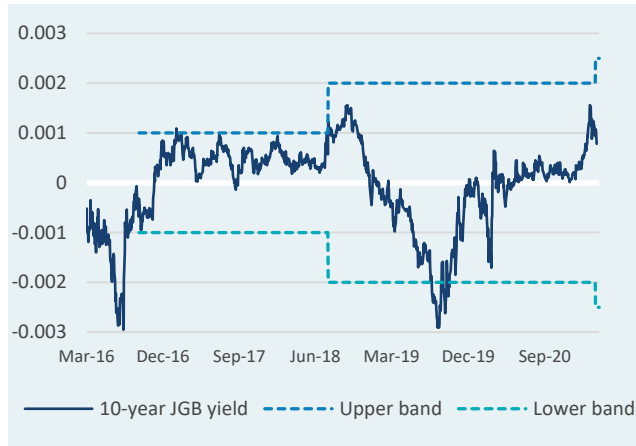
**Bank of Japan:** Clarified that 10-year yields can move within 25 basis points of the 0.00% target; tweaked guidance around buying ¥6 trillion in equity ETFs to make its purchases more “flexible and nimble”.

**Reserve Bank of Australia:** Purchased A\$7 billion of bonds in a matter of days, A\$5 billion more than the scheduled amount, in order to defend its 0.10% target for its three-year bond yield.

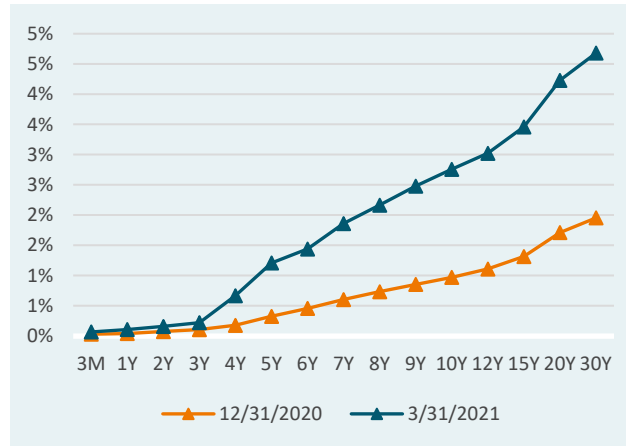
**European Central Bank:** Elected not to expand the size of its Pandemic Emergency Purchase Programme (PEPP), but elected to frontload bond purchases to increase short-term accommodation.

**Federal Reserve:** Fed officials have largely avoided comment and have been sticking to the script that financial conditions remain loose, and that higher long rates are indicative of an improving economic outlook. As a result, some have surmised that the ambiguity around the Fed’s reaction function may result in elevated levels of bond market volatility in the near-term.

**BANK OF JAPAN 10-YEAR YIELD TARGET BAND**



**AUD AUSTRALIAN YIELD CURVE**



**VALUE OF GLOBAL NEGATIVE YIELDING DEBT**



Source: Bloomberg, as of 3/31/21

# Credit environment

During the first quarter, credit market performance largely reflected the movements of the US Treasury curve, which steepened significantly as 10-year yields rose 82 basis points while 2-year yields remained anchored near zero.

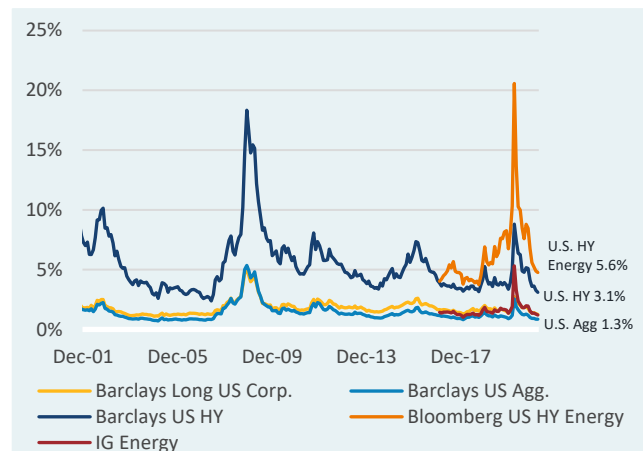
Investment grade credit, with an effective duration of 8.5, returned -4.65% over the quarter while high yield, with an effective duration of 3.9, return +0.85%. Bank Loans outperformed, returning +2.0% over the quarter.

Credit spreads continued to tighten during the quarter, as the vaccine rollout, which accelerated faster than expected, led to higher growth expectations for 2021. High yield spreads

tightened 51 basis points, to 308 basis points, while investment grade tightened a more modest 6 basis points to end the quarter at 90 basis points.

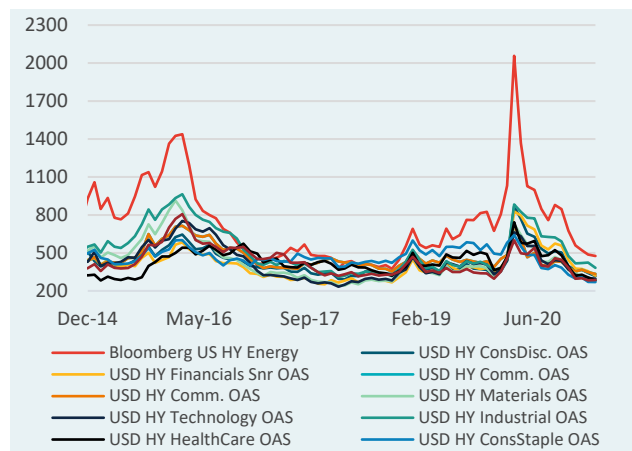
Spreads in higher quality investment grade assets have continued to compress over the past year. Notably, the BBB/A spread is now at an all-time low of 40 basis points, down from a high of 163 basis points experienced in Q1 2020. Similarly, the BB/BBB spread is now 155 basis points, down from recent high of 512 basis points established in March of 2020 and below the ten-year average of 215 basis points.

## SPREADS



Source: Barclays, Bloomberg, as of 3/31/21

## HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 3/31/21

Market	Credit Spread (OAS)	
	3/31/21	3/31/20
Long U.S. Corp	1.3%	2.8%
U.S. Inv Grade Corp	0.9%	2.7%
U.S. High Yield	3.1%	8.8%
U.S. Bank Loans*	4.3%	8.3%

Source: Barclays, Credit Suisse, Bloomberg, as of 3/31/21

\*Discount margin (4-year life)



# Default & issuance

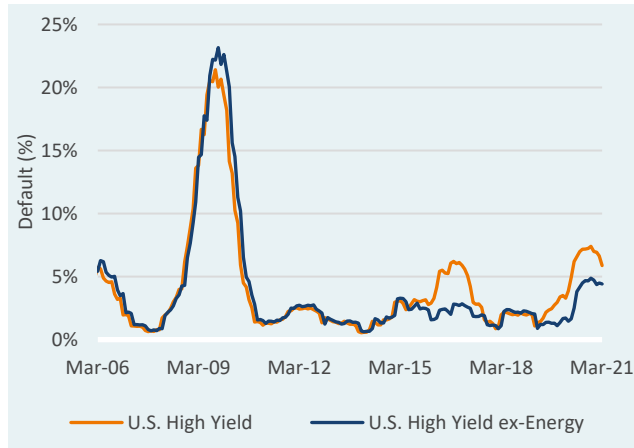
Default activity was modest over the quarter, with 5 companies totaling \$3.2 billion defaulting on bonds and loans. The par-weighted U.S. high yield default rate retreated 139 basis points from recent highs to end the quarter at 5.4%. Similarly, the loan par-weighted default rate ended the quarter at an eleven-month low of 3.3%, down 61 basis points year-to-date.

Given the market perception of upside rate risk throughout the remainder of 2021, high yield bond issuers continued to come to market at a blistering pace. Gross issuance for the quarter set a new quarterly record of \$158.6 billion, outpacing the previous record set in Q2 2020 of \$145.5

billion. Quarterly issuance remains significantly elevated relative to the ten-year average of \$79.9 billion. Notably, \$44.8 billion was issued to take-out leverage loans in Q1, which was roughly 60% of the previous annual record of \$78.5 billion set in 2012. \$154.6 billion in leverage loans were issued during the quarter, an amount eclipsing the previous record of \$139.5 in Q1 2017.

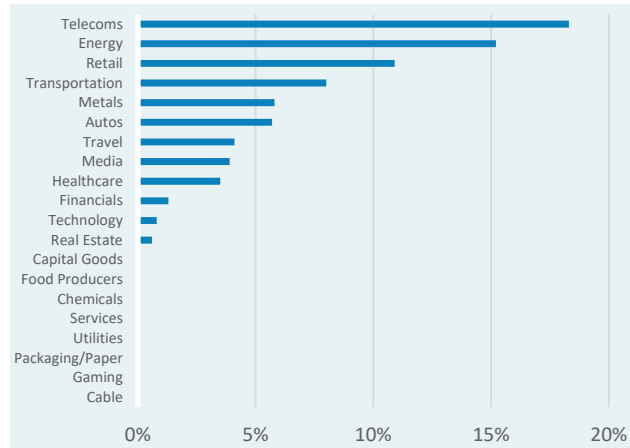
Investment grade issuance for the quarter totaled \$423 billion, which remains elevated from the 4-year average first quarter issuance of \$375, but lower than \$480 billion issued in Q1 2020 when supply surged due to COVID funding.

**HY DEFAULT RATE (ROLLING 1-YEAR)**



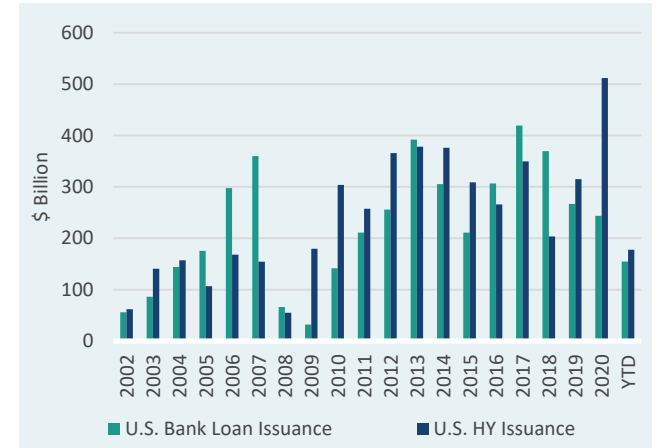
Source: BofA Merrill Lynch, as of 3/31/21

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



Source: BofA Merrill Lynch, as of 3/31/21 – par weighted

**U.S. ISSUANCE (\$ BILLIONS)**



Source: BofA Merrill Lynch, as of 3/31/21

# Equity

# Equity environment

- U.S. equities were a top performer in Q1, delivering +6.2%. International equities delivered +3.5% (MSCI EAFE Index) and emerging markets delivered +2.3% (MSCI Emerging Markets Index), on an unhedged currency basis. Trailing one-year returns hit extremely high levels, reflecting low base effects (markets bottomed out during March of 2020), and a recovery from those depressed levels year-over-year.
- We believe the U.S. economy is playing catch-up to the markets in the current environment. While it seems increasingly likely that the economy will rapidly recover over the next year, this optimism may already be baked into equity prices. It is reasonable to be enthusiastic about U.S. economic prospects while also being cautious about lofty equity valuations.
- According to FactSet, S&P 500 earnings expectations for 2021 improved by 5.0% during the

quarter. Analysts are now forecasting 25.4% earnings growth for 2021—an incredible recovery from the -11.2% earnings drop expected of 2020.

- The Cboe VIX Index has slowly been falling back towards the longer-term average of 19. The index fluctuated in the low 20s during Q1, falling below 19 briefly in late March.
- The U.S. dollar stabilized in the first quarter, paring some of the losses accrued in the final three quarters of last year. Rising relative yields helped the dollar to appreciate materially relative to the euro, yen, and a broad basket of emerging market currencies.
- A rotation towards value stocks persisted during the quarter, as beaten-down sectors delivered outsized performance. Energy, financials, industrials, and materials were the strongest performers.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	6.2%		56.4%	
US Small Cap (Russell 2000)	12.7%		94.8%	
US Large Value (Russell 1000 Value)	11.3%		56.1%	
US Large Growth (Russell 1000 Growth)	0.9%		62.7%	
International Large (MSCI EAFE)	3.5%	7.6%	44.6%	37.7%
Eurozone (Euro Stoxx 50)	6.3%	10.6%	53.7%	45.3%
U.K. (FTSE 100)	5.9%	5.0%	35.6%	22.5%
Japan (NIKKEI 225)	(0.2%)	7.0%	52.6%	57.4%
Emerging Markets (MSCI Emerging Markets)	2.3%	3.7%	58.4%	52.2%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 3/31/21

# Domestic equity

U.S. equities moved higher in Q1, returning +6.2%. According to FactSet, S&P 500 earnings expectations for 2021 improved by 5.0% during the quarter. Analysts are now forecasting 25.4% earnings growth for 2021—an incredible recovery from the -11.2% earnings drop expected of 2020.

Equities continued upward and valuations have followed. The U.S. market has been a top performer but has also remained one of the most expensive markets. On the other hand, successful COVID-19 vaccine rollouts, rosy earnings expectations, and the potential for an impressive economic

reopening may be supportive of high prices. This reopening appears to be fueling a rotation towards traditional cyclical sectors, such as energy, financials, and industrials.

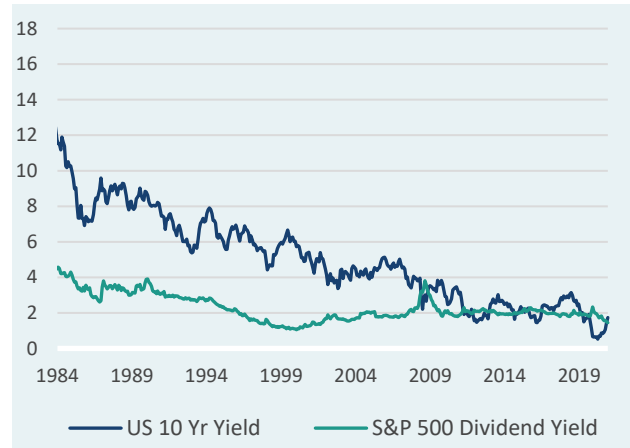
As markets move higher, it appears to us that the economy may be playing catch-up to the markets. While it seems increasingly likely that the economy will rapidly recover during the next year, this optimism may already be reflected in equity prices. In other words, it is reasonable to be enthusiastic about U.S. economic prospects while also being cautious about higher equity valuations.

## S&P 500 INDEX



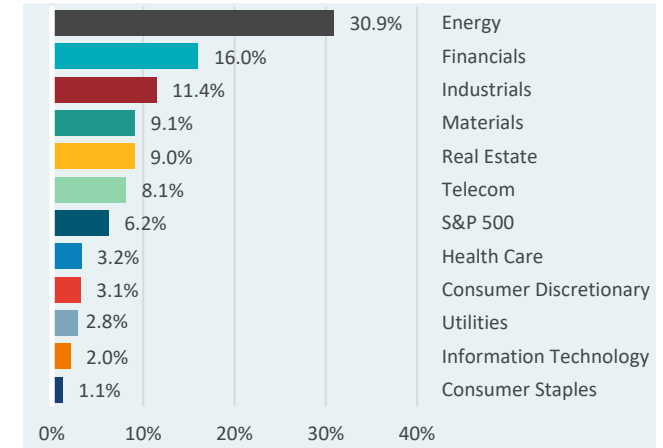
Source: Standard & Poor's, as of 3/31/21

## DIVIDEND YIELD VS BOND YIELD



Source: Standard & Poor's, as of 3/31/21

## Q1 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 3/31/21

# Retail market speculation

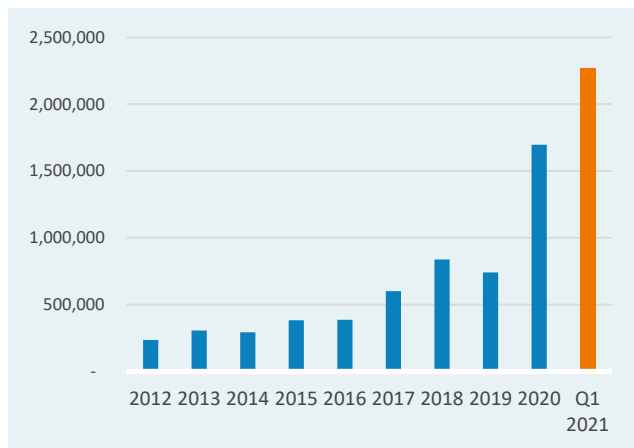
In recent years, trading has become free on certain platforms, making day trading a more attractive proposition. Retail's portion of total market trading has increased from 10% in 2010 to 23% in 2020, according to Bloomberg Intelligence.

Some trading platforms have attracted users by designing the trading process to be entertaining, similar to a video game. Discussion sites such as Reddit have also become popular places to talk about trades in a social setting.

Lockdowns due to COVID-19 have prevented many Americans from pursuing their usual hobbies, leading to boredom. Stock trading may have become an entertaining outlet for otherwise non-traders. And government stimulus checks may have provided idle cash to fuel this new hobby.

This environment appears to have contributed to intense speculation in stocks such as GME and AMC. In these instances, retail traders aimed to force a "short squeeze" on these heavily-shorted stocks.

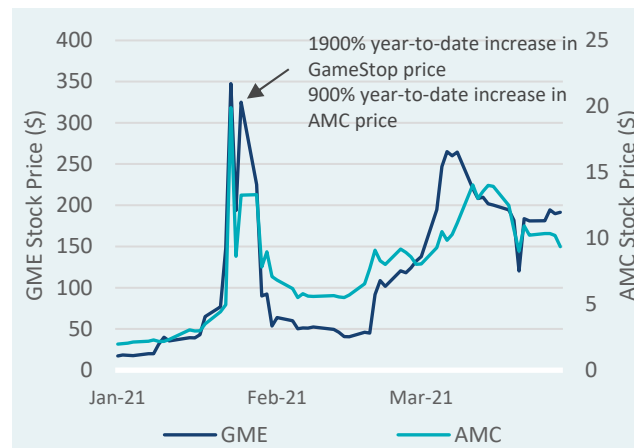
## SCHWAB - ORGANIC CHANGE IN ACTIVE BROKERAGE ACCOUNTS\*



Source: Bloomberg, as of 4/15/21.

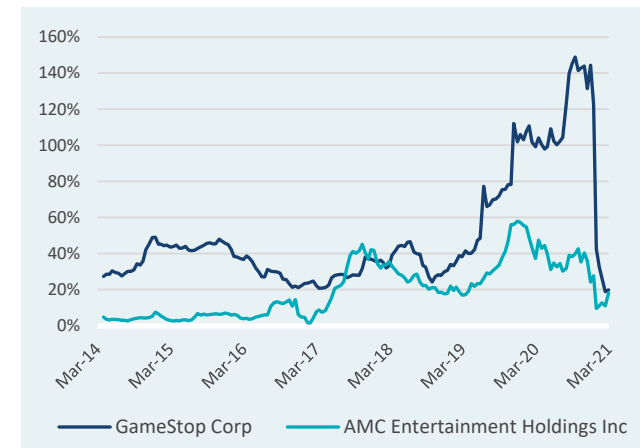
\*Excludes 15.6 million brokerage accounts which Schwab added in 2020 as a result of its acquisition of TD Ameritrade and its acquisition of the assets of USAA's Investment Management Company.

## GAMESTOP & AMC THEATERS STOCK PRICES



Source: Bloomberg, as of 3/31/21

## SHORT INTEREST AS A PERCENTAGE OF FLOAT



Source: Bloomberg, as of 3/31/21



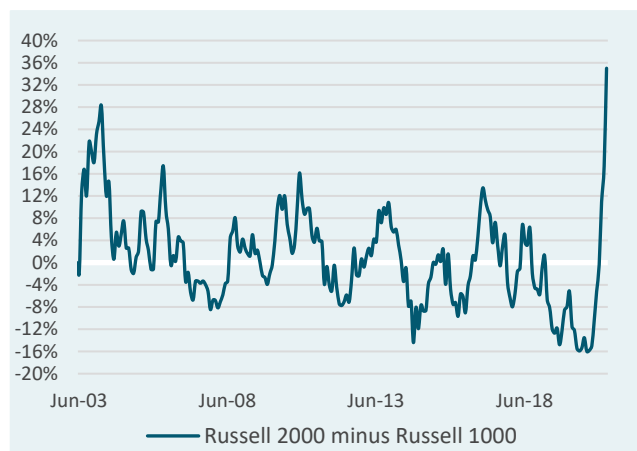
# Domestic equity size & style

Factor performance surged during the quarter, as small capitalization and value stocks delivered strong relative returns. U.S. value stocks beat growth stocks by a wide margin (Russell 1000 Value +11.3%, Russell 1000 Growth +0.9%), as growth entered a correction in February and value marched higher. Small cap stocks continued their surprisingly strong rally, outperforming growth (Russell 2000 +12.7%, Russell 1000 +5.9%).

A rotation towards value occurred as beaten-down sectors such as energy, financials, and materials delivered outsized performance—sectors which tend to possess a heavier concentration of value stocks. Companies which benefited from the pandemic due to a shift in household habits may see a further reversal of that windfall as households begin to go back to normal life. Additionally, value stocks typically exhibit strength during economic recoveries. These dynamics of growth and value may suggest further value factor strength, though factor trends are noisy and extremely difficult to predict.

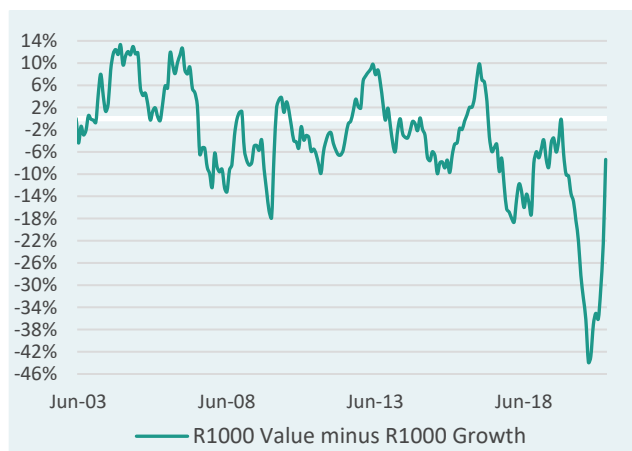
Small cap and value stocks delivered strong relative performance during Q1

SMALL CAP VS LARGE CAP (YOY)



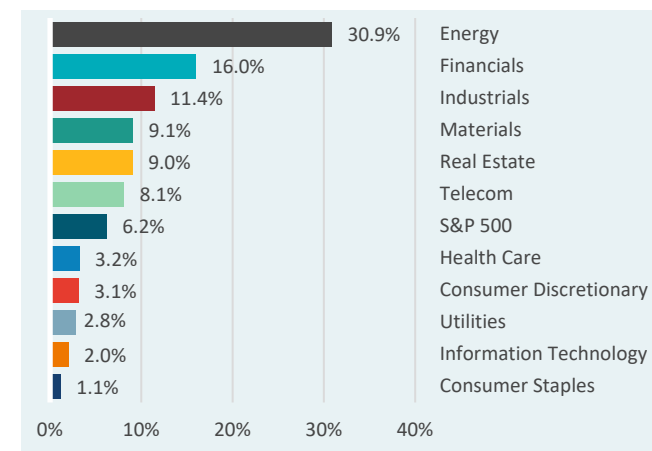
Source: FTSE, as of 3/31/21

VALUE VS GROWTH (YOY)



Source: FTSE, as of 3/31/21

Q1 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 3/31/21

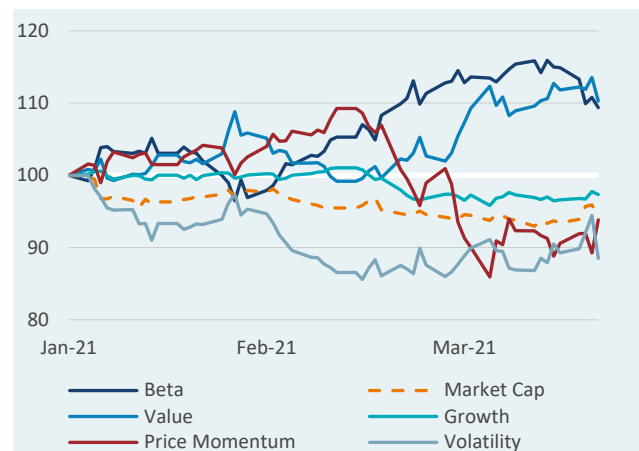
# Factor portfolios in 2021

Factor performance trends that started with positive COVID vaccine news in late 2020 continued into 2021 Q1. Investors kept favoring the value factor; they also bought stocks with higher betas and higher volatility (long/short, sector neutral, S&P 500 Index quintiles). This was a significant change from pre-vaccine pandemic behavior when investors had bid up the low volatility, growth, and price momentum factors.

From a longer-term perspective, the latest rotation did not come close to reversing the trend of positive results accruing to the momentum and low volatility factors.

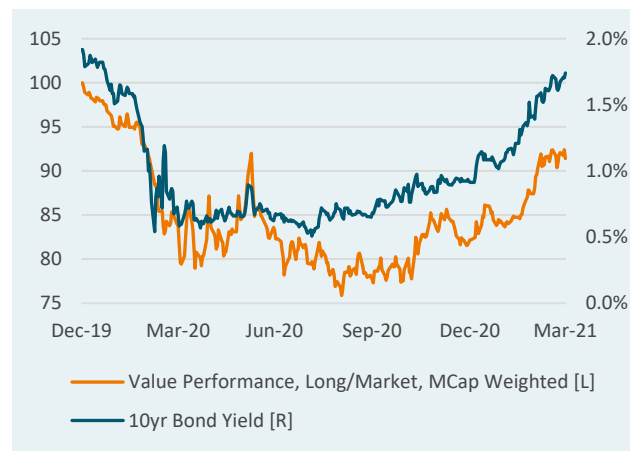
Value stocks, which were largely beaten down during the pandemic, remain an ongoing beneficiary of the economic recovery rooted in both positive medical news and ongoing government stimulus programs. Higher interest rates and a steepening yield curve, which are related to the recovery trade, also help certain cheap financial stocks. In contrast, certain growth stocks are hurt by higher rates as future profits are further discounted. The recent market activity is reflected within the momentum factor itself as investors sold growth and low volatility stocks to keep buying stocks with higher exposure to value and other factors.

## Q1 2021 PERFORMANCE



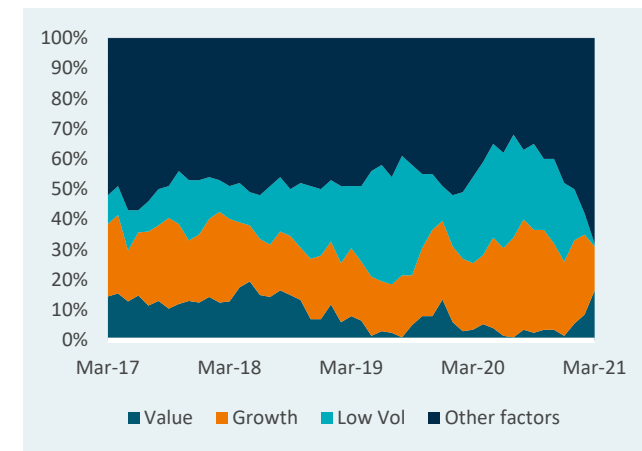
Source: J.P. Morgan, as of 3/27/21

## VALUE PERFORMANCE AND RATE MOVEMENT



Source: J.P. Morgan, as of 3/31/21

## J.P. MORGAN MOMENTUM BUCKET: LONG-SIDE FACTOR EXPOSURES (S&P 500 INDEX UNIVERSE)



Source: J.P. Morgan, as of 3/31/21

# International developed equity

International equities delivered +3.5% (MSCI EAFE Index) during the first quarter on an unhedged currency basis. International developed underperformed the S&P 500 Index (+6.2%) while outperforming the MSCI Emerging Markets Index (+2.3%). The trend towards U.S. dollar weakness has boosted the performance of unhedged international equities, adding +6.8% over the past year, though this trend may have begun to reverse in the first quarter.

International developed equity weakness may be partly attributed to snags in the European COVID-19 vaccination

campaign, which has materially lagged the rest of the world. However, European equities (+4.1%) managed to outperform Japanese equities (+1.6%) in U.S. dollar terms, primarily due to currency movements, as the yen (-6.7%) depreciated more sharply relative to the U.S. dollar than the euro (-4.0%) or swiss franc (-6.2%).

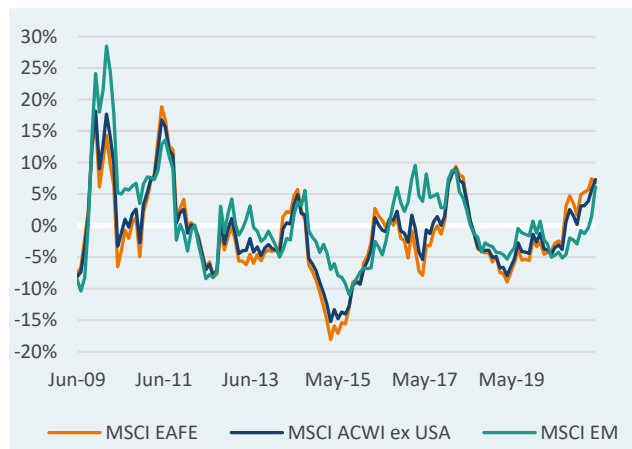
Bets against the Japanese yen rose to multi-year highs amid a backdrop of increasing relative interest rates available in the U.S., and a wave of risk-on sentiment pouring cold water on the appeal of traditional safe-haven assets.

**INTERNATIONAL DEVELOPED EQUITIES**



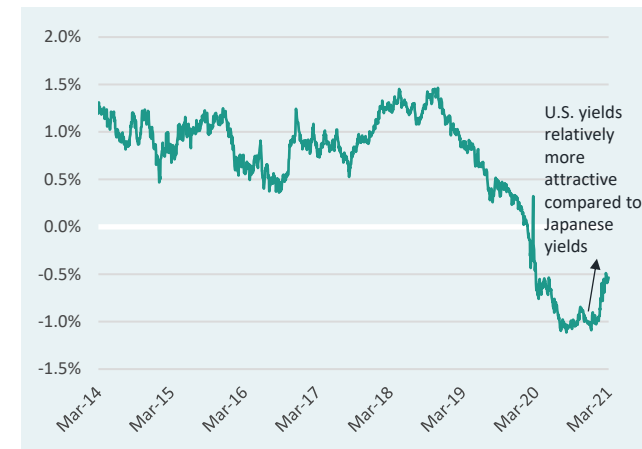
Source: MSCI, as of 3/31/21

**EFFECT OF CURRENCY (1-YEAR ROLLING)**



Source: MSCI, as of 3/31/21

**10-YEAR REAL YIELD SPREAD (US MINUS JAPAN)**



Source: Bloomberg, as of 3/31/21

# Emerging market equity

Emerging market equities (MSCI EM +2.3%) underperformed U.S. (S&P 500 +6.2%) and international developed equities (MSCI EAFE +3.5%) during the quarter. Latin American equities pulled back from strong performance in Q4, underperforming the broader index (MSCI Latin America -5.3%).

Chinese mainland equities, which account for roughly 36% of the MSCI EM Index, slumped -0.4%, dampening overall index returns. Many analysts attributed the relative weakness in China to tightening liquidity conditions, as the People's Bank

of China shifted focus away from promoting economic recovery and toward clamping down on real estate speculation and leverage broadly, in the interest of preventing the buildup of financial excesses.

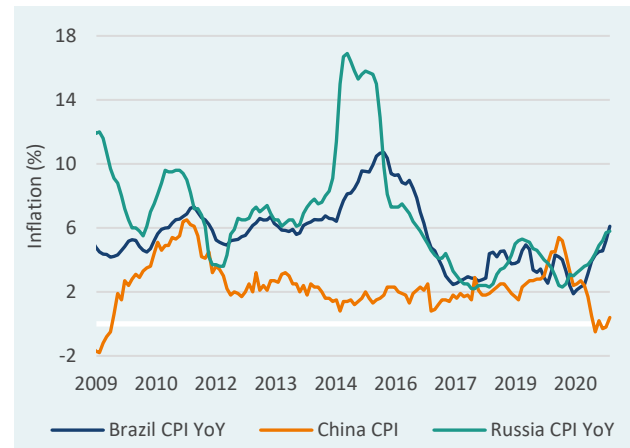
Central banks from Turkey to Russia to Brazil delivered surprise rate hikes in part to respond to a resurgence in inflation, which weighed on markets. Idiosyncratic political developments further pressured returns in Turkey (-20.4%) and Brazil (-10.0%), while Russian equities held up better (+2.4%) despite a weaker ruble (-2.1%).

## EMERGING MARKET EQUITY



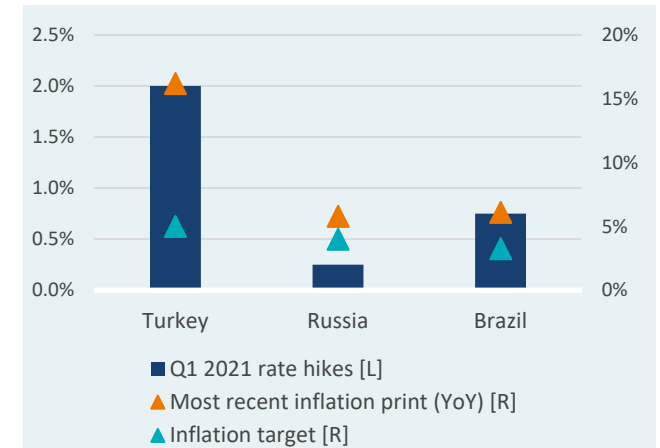
Source: MSCI, as of 3/31/21

## INFLATION (YOY)



Source: Bloomberg, as of 3/31/21 or most recent data

## SURPRISE CENTRAL BANK RATE HIKES



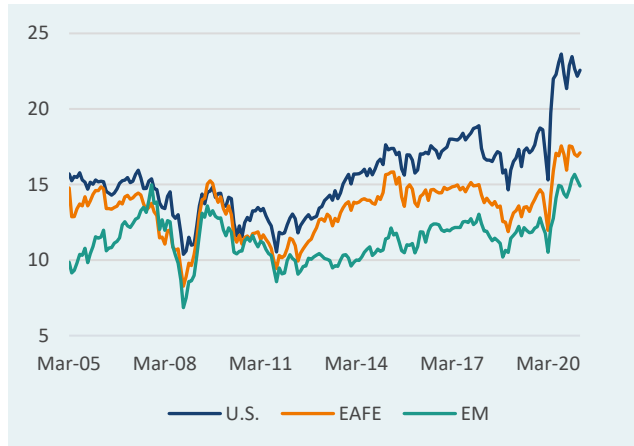
Source: Bloomberg, as of 3/31/21

# Equity valuations

Valuations remain at very high levels relative to history. However, prices may be somewhat justified, considering the historically low (though slightly higher over the quarter) level of interest rates, and the fact that earnings are expected to rebound sharply later this year. Additionally, some have projected that aggressive cost-cutting measures and pandemic-driven innovation could result in higher operating leverage within U.S. companies, which would allow them to generate more earnings per dollar of revenue than before the pandemic began, and perhaps more earnings overall if revenues were to return to near pre-pandemic levels.

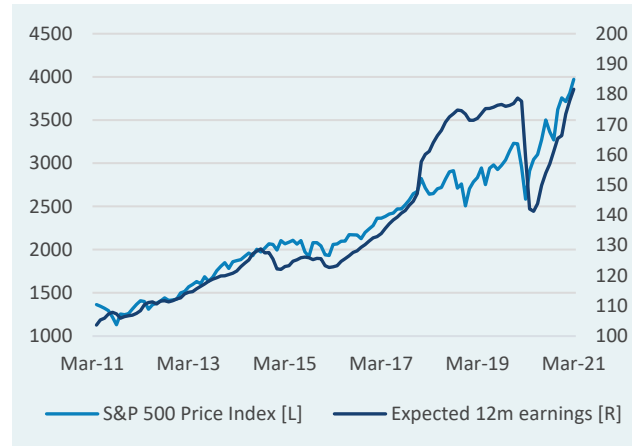
Equity prices proved quite resilient to the significant increase in global interest rates, leaving investors pondering the level at which rising interest rates would materially impact the present value of equities. While this is difficult to gauge, the answer is likely dependent on the sector and duration characteristics of the various global equity benchmarks. Additionally, central bank accommodation remains a crucial support for equity prices. Looking ahead, if central bankers were to adopt a more hawkish tone as the developed world approaches herd immunity, valuations may be challenged.

## FORWARD P/E RATIOS



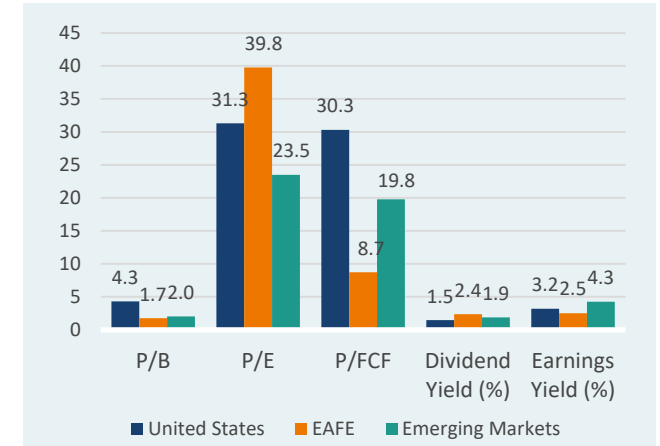
Source: MSCI, 12m forward P/E, as of 3/31/21

## S&P 500 PRICE & EARNINGS EXPECTATIONS



Source: Bloomberg, as of 3/31/21

## VALUATION METRICS (3-MONTH AVERAGE)



Source: Bloomberg, MSCI as of 3/31/21 - trailing P/E



# Equity volatility

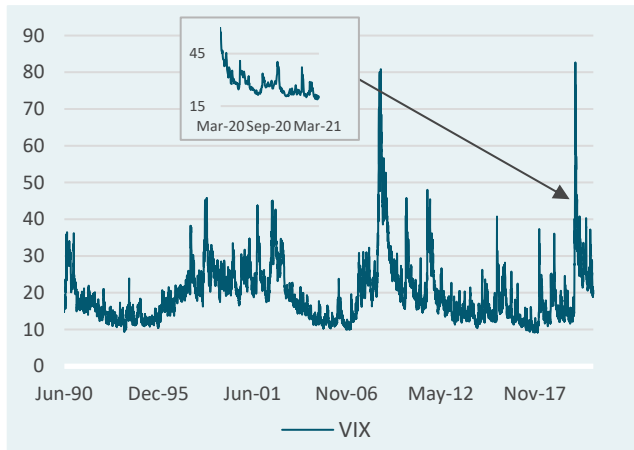
The Cboe VIX Index has slowly been falling back towards the longer-term average of 19. The index fluctuated in the low 20s during Q1, falling below 19 briefly in late March.

One-year trailing realized volatility began to fade alongside implied volatility in the first quarter of the year, as the tumultuous markets of Q1 2020 fell out of the lookback period. Central bank accommodation has translated to easy global financial conditions, though policy normalization and liquidity tightening in China has likely contributed to recent

weakness in Chinese equity markets.

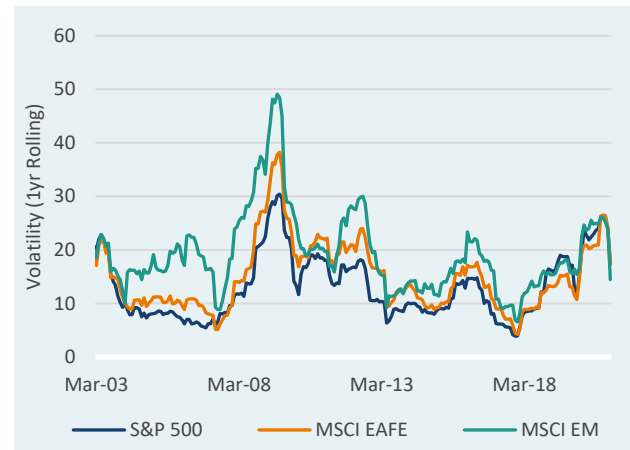
Since seeing recoveries during Q3 and Q4 of last year, respectively, U.S. and international equities have headed higher with relatively low volatility. Idiosyncratic political developments across the emerging markets universe, surprise central bank rate hikes, and the high concentration of tech in Asian EM countries in a period of rising rates, all contributed to a more volatile quarter for the emerging markets complex.

**U.S. IMPLIED VOLATILITY (VIX)**



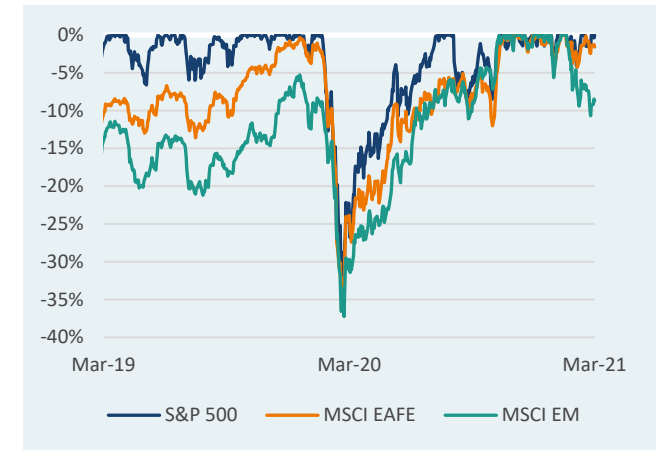
Source: Cboe, as of 3/31/21

**REALIZED VOLATILITY**



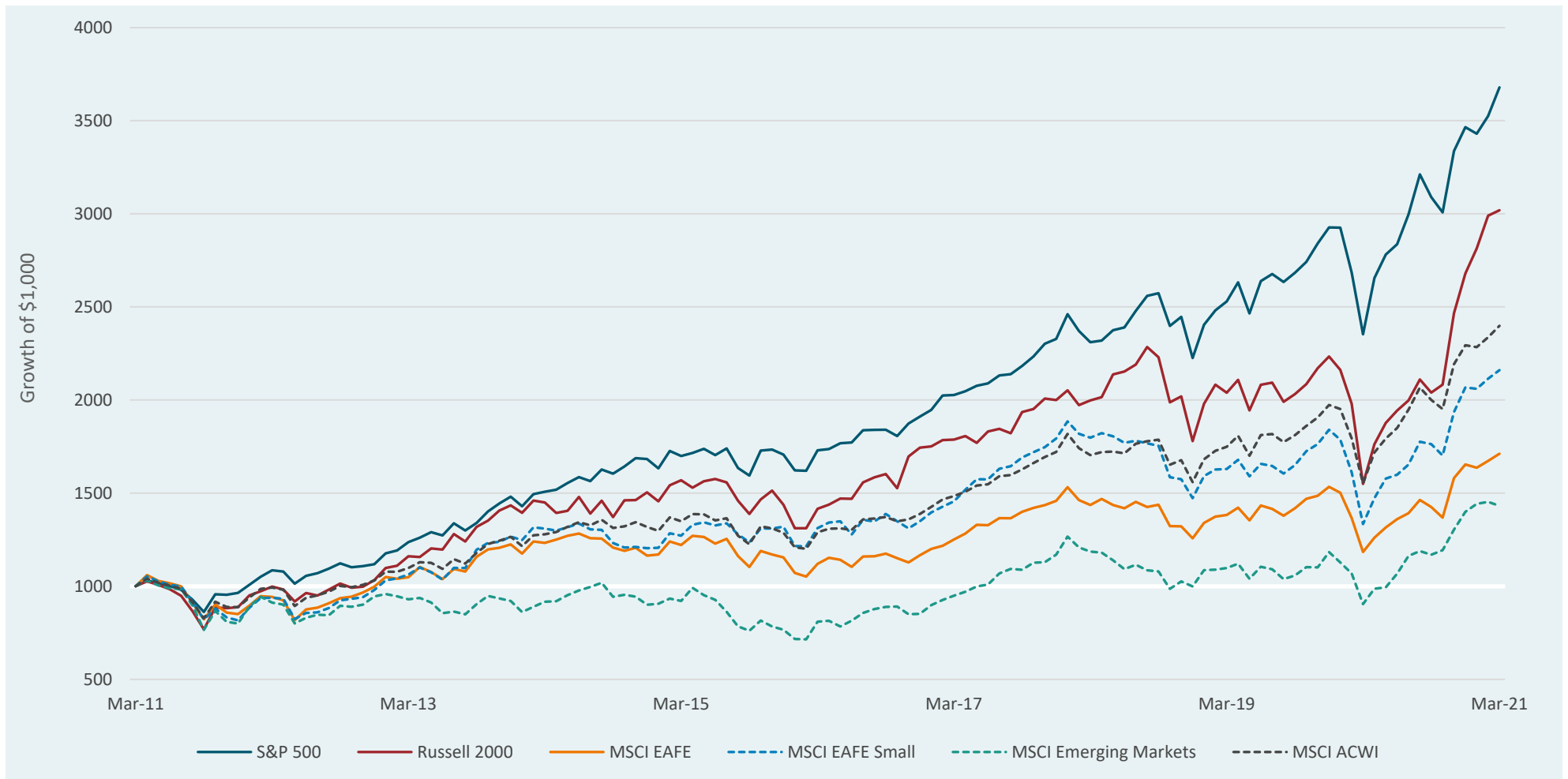
Source: Standard & Poor's, MSCI, as of 3/31/21

**MAX DRAWDOWNS FROM PRIOR PEAKS**



Source: Standard & Poor's, MSCI, Bloomberg, as of 3/31/21

# Long-term equity performance



Source: Morningstar, as of 3/31/21

# Other assets

# Currency

U.S. dollar weakness had prevailed for most of 2020, but turned around in the first quarter of 2021. The Bloomberg Dollar Spot Index increased 2.8% over the quarter, after slipping -5.4% in 2020. Strength in the dollar was attributed to rising relative yields in the U.S., the relatively effective vaccination campaign, and speculation that a series of fiscal support packages might fuel supernormal growth over the next few years.

Currency beta returns, or the returns of a long-short portfolio of G10 currencies constructed by investing in three equally-weighted factors (carry, value, momentum), remained negative over the trailing year. Rotations back into the U.S. dollar and

out of the euro and yen supported performance for the carry factor while detracting from the performance of the currency momentum factor.

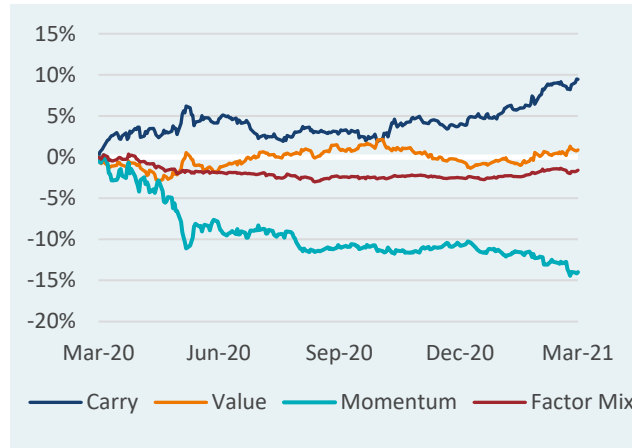
International developed currencies fared poorly, pressured by risk-on sentiment, a lackluster European vaccination effort, and concerns expressed by the European Central Bank about rising global interest rates. The embedded currency portfolio of the MSCI EAFE Index returned -4.1%, as the yen (-6.7%) and euro (-4.0%) weakened relative to the U.S. dollar. Emerging market currencies (-3.1%) softened, driven by declines in the Brazilian real (-7.8%) and Turkish lira (-9.9%).

**BLOOMBERG DOLLAR SPOT INDEX**



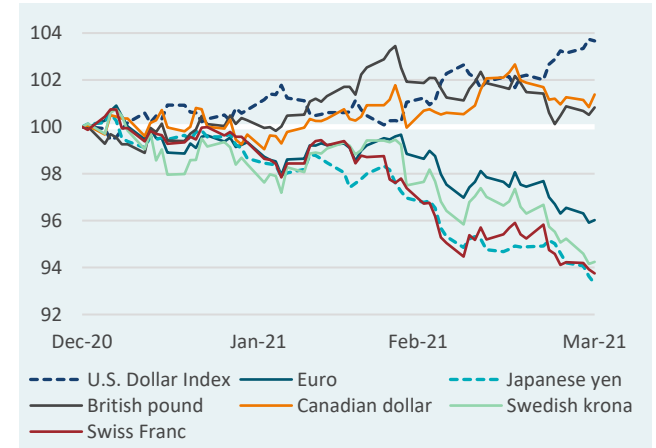
Source: Bloomberg, as of 3/31/21

**CURRENCY BETA (ONE-YEAR RETURNS)**



Source: MSCI, Bloomberg, as of 3/31/21

**U.S. DOLLAR INDEX CONSTITUENTS**



Source: Bloomberg, as of 3/31/21

# Appendix

# Periodic table of returns

BEST

↑

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	5-Year	10-Year
Small Cap Value	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	21.2	21.0	16.6
Small Cap Equity	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	12.7	18.6	14.0
Large Cap Value	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	11.3	16.7	13.0
Commodities	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	6.9	16.4	11.7
Large Cap Equity	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	5.9	13.6	11.0
Small Cap Growth	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.4	14.0	4.9	12.1	10.1
International Equity	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.0	10.3	3.5	11.7	8.6
Emerging Markets Equity	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	2.3	9.2	6.6
Hedge Funds of Funds	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	2.0	8.8	5.5
60/40 Global Portfolio	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	1.0	5.6	3.7
Large Cap Growth	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	0.9	5.4	3.4
Cash	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	3.1	3.4
Real Estate	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	0.0	2.3	0.6
US Bonds	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-3.4	1.1	-6.3

↓

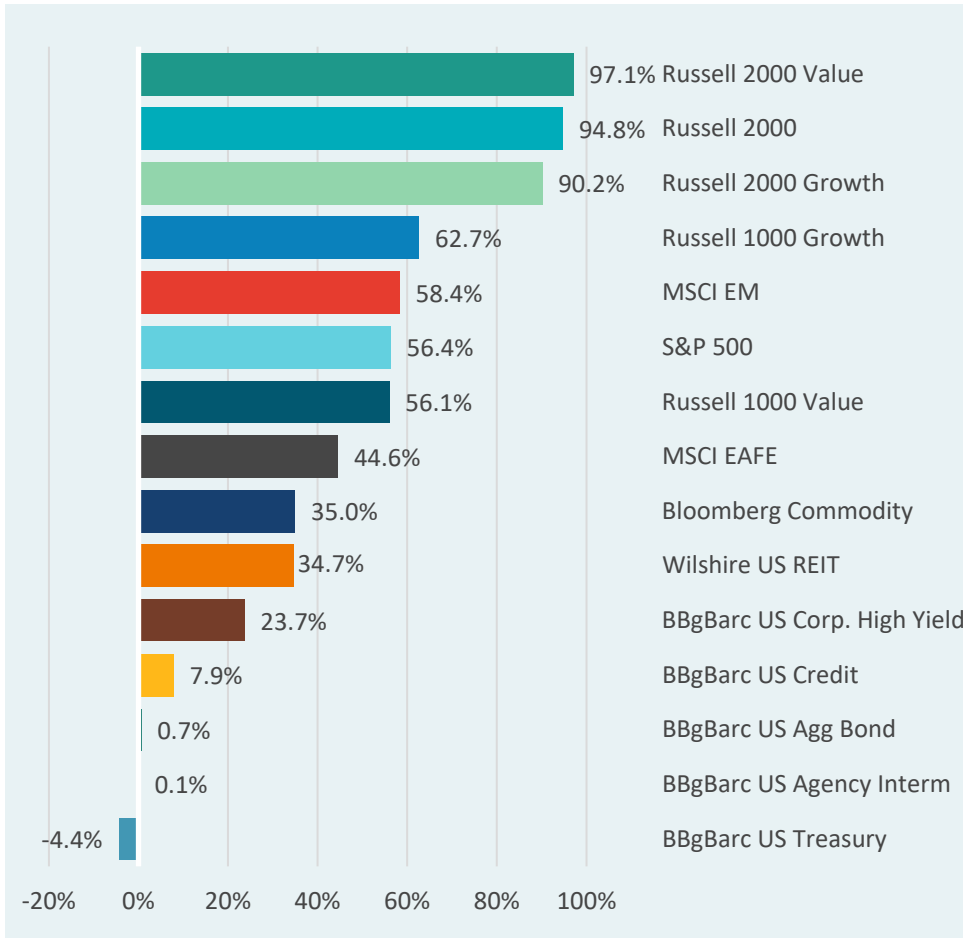
WORST

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

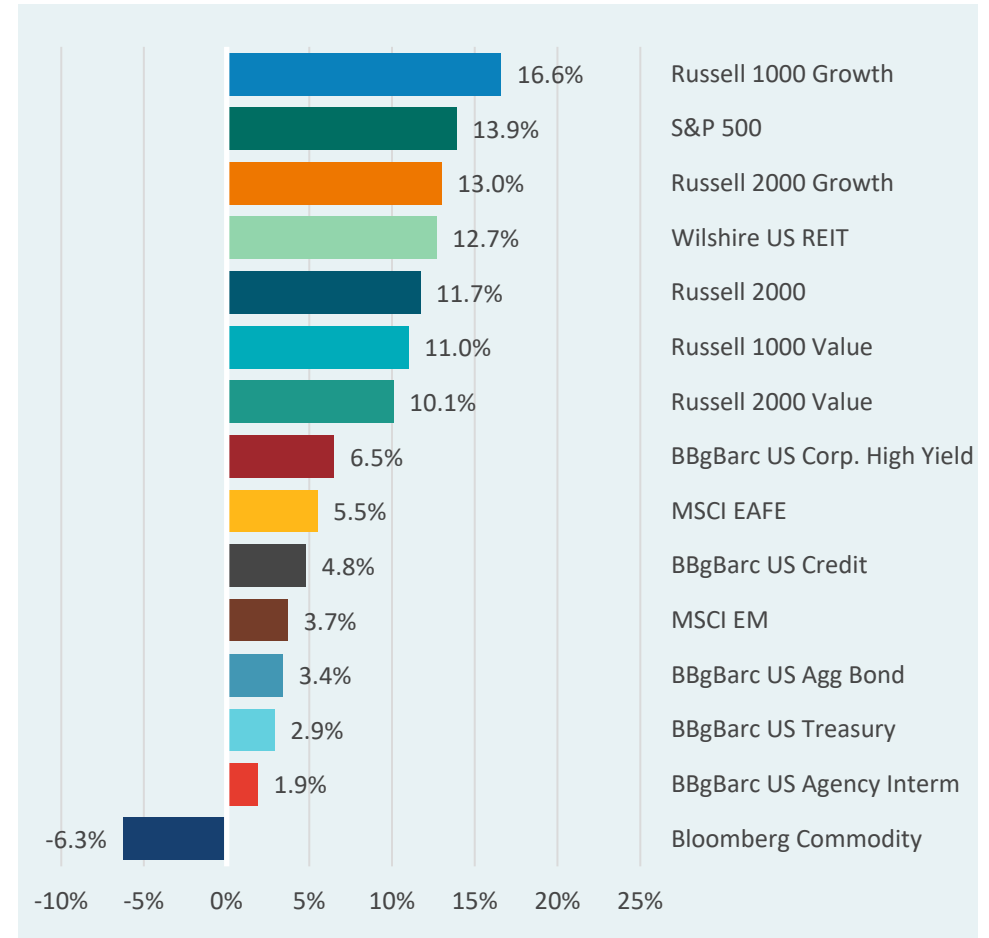
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 12/31/20.

# Major asset class returns

ONE YEAR ENDING MARCH



TEN YEARS ENDING MARCH



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

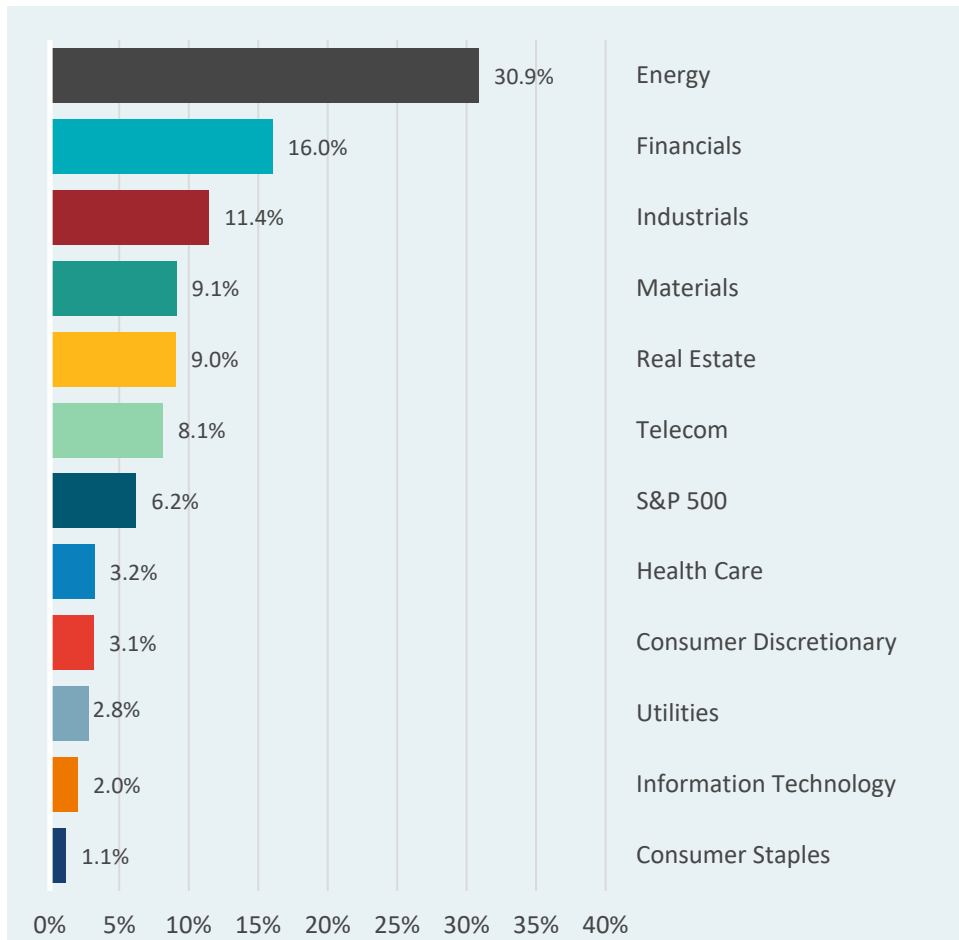
Source: Morningstar, as of 3/31/21

Source: Morningstar, as of 3/31/21



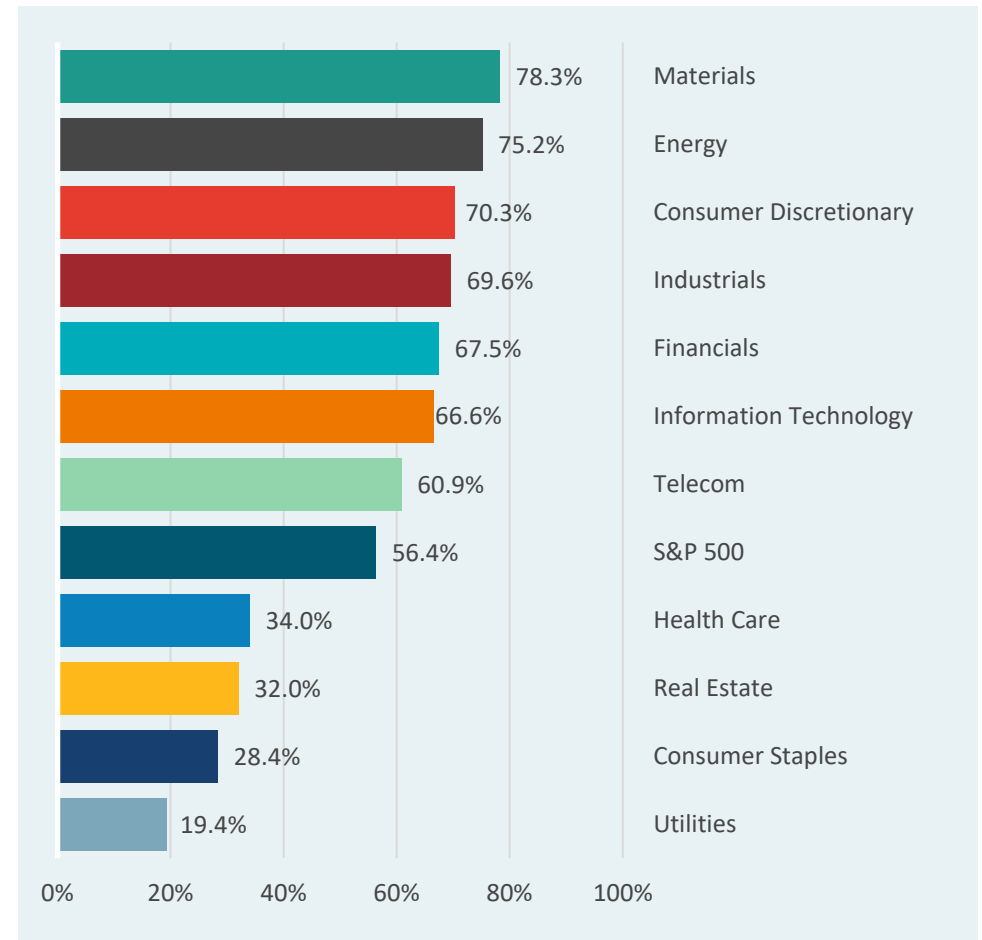
# S&P 500 sector returns

Q1 2021



Source: Morningstar, as of 3/31/21

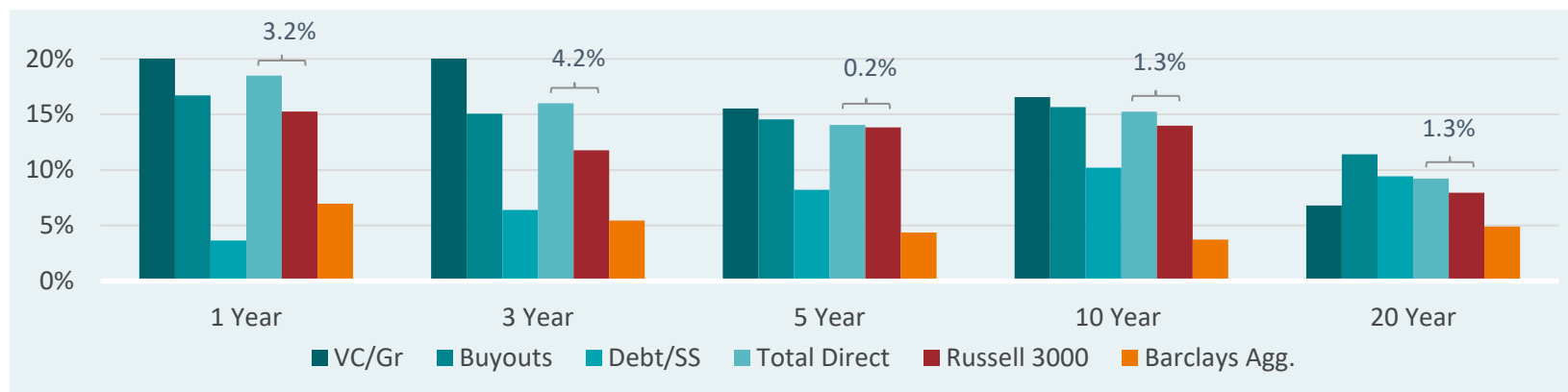
ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/21

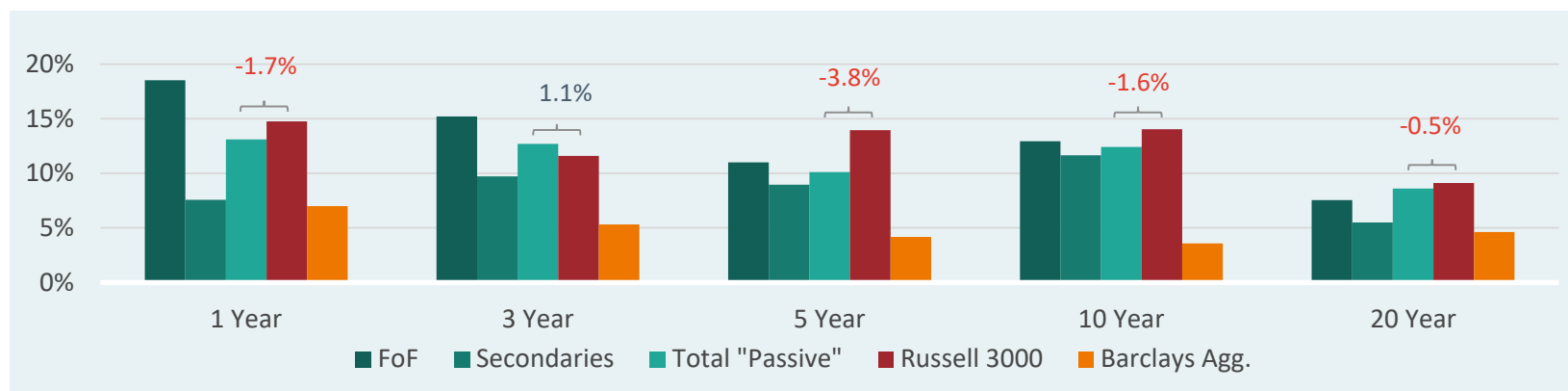
# Private equity vs. traditional assets performance

## DIRECT PRIVATE EQUITY FUND INVESTMENTS



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

## "PASSIVE" STRATEGIES

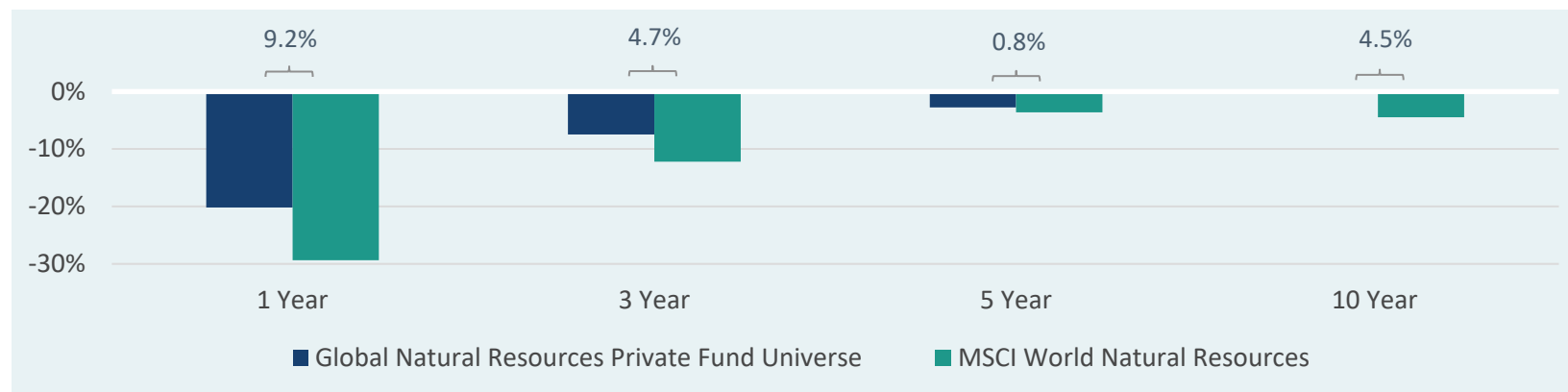


"Passive" strategies underperformed comparable public equities across all time periods, aside from the 3-year basis.

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

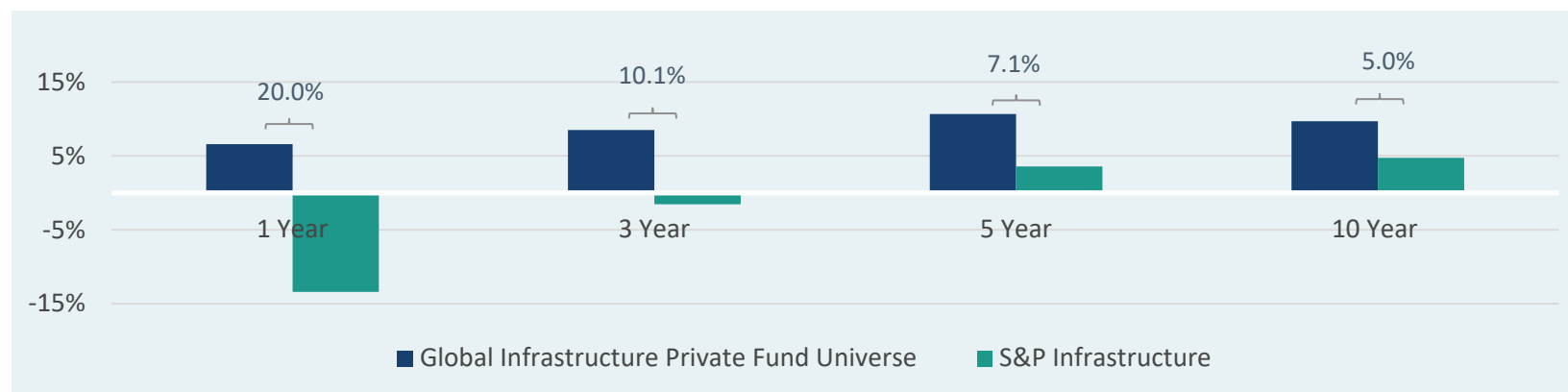
# Private vs. liquid real assets performance

## GLOBAL NATURAL RESOURCES FUNDS



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

## GLOBAL INFRASTRUCTURE FUNDS

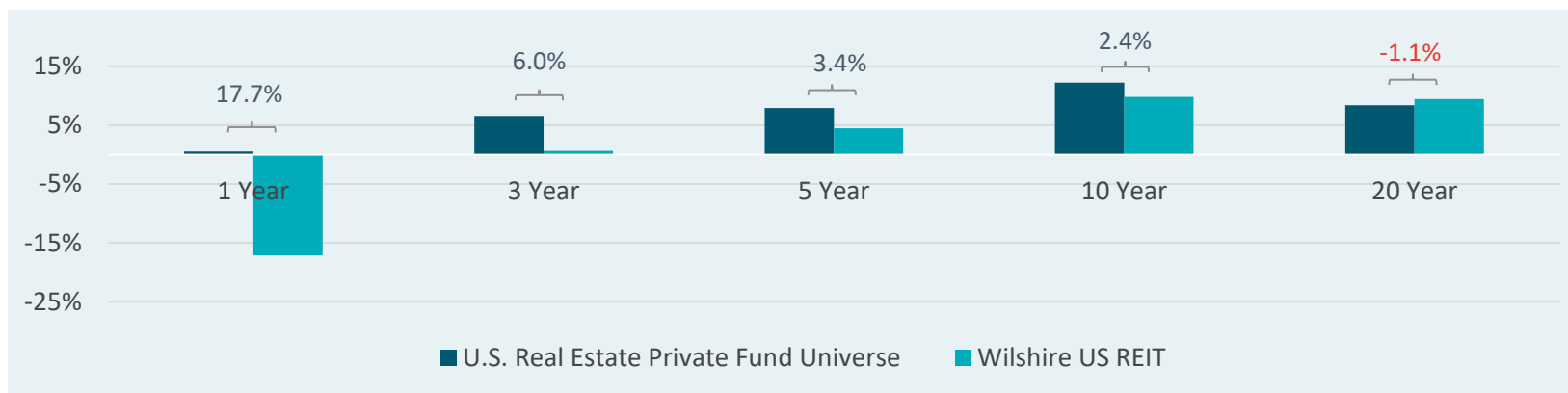


Infra. funds outperformed the S&P Infra. across all periods.

Sources: Refinitiv CJA PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of September 30, 2020. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

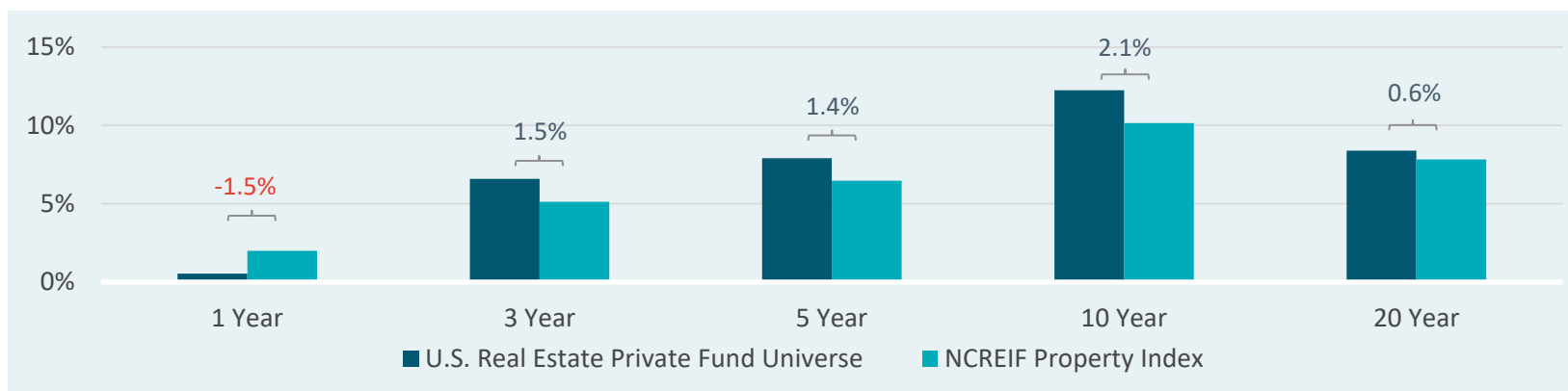
# Private vs. liquid and core real estate performance

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



U.S. Private R.E. funds outperformed the Wilshire U.S. REIT Index across all time periods, aside on a 20-year basis.

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



U.S. Private R.E. Funds outperformed the NCREIF Property Index across all time periods, aside on a 1-year basis.

Sources: Refinitiv CJA PME: Global and U.S. Real Estate universes as of September 30, 2020. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.

# Detailed index returns

## DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Core Index</b>							
S&P 500	4.4	6.2	6.2	56.4	16.8	16.3	13.9
S&P 500 Equal Weighted	6.0	11.5	11.5	71.6	14.9	14.7	13.1
DJ Industrial Average	6.8	8.3	8.3	53.8	13.6	16.0	13.1
Russell Top 200	4.2	5.1	5.1	56.3	18.3	17.4	14.6
Russell 1000	3.8	5.9	5.9	60.6	17.3	16.7	14.0
Russell 2000	1.0	12.7	12.7	94.8	14.8	16.4	11.7
Russell 3000	3.6	6.3	6.3	62.5	17.1	16.6	13.8
Russell Mid Cap	2.7	8.1	8.1	73.6	14.7	14.7	12.5
<b>Style Index</b>							
Russell 1000 Growth	1.7	0.9	0.9	62.7	22.8	21.0	16.6
Russell 1000 Value	5.9	11.3	11.3	56.1	11.0	11.7	11.0
Russell 2000 Growth	(3.1)	4.9	4.9	90.2	17.2	18.6	13.0
Russell 2000 Value	5.2	21.2	21.2	97.1	11.6	13.6	10.1

## INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
MSCI ACWI	2.7	4.6	4.6	54.6	12.1	13.2	9.1
MSCI ACWI ex US	1.3	3.5	3.5	49.4	6.5	9.8	4.9
MSCI EAFE	2.3	3.5	3.5	44.6	6.0	8.8	5.5
MSCI EM	(1.5)	2.3	2.3	58.4	6.5	12.1	3.7
MSCI EAFE Small Cap	2.2	4.5	4.5	62.0	6.3	10.5	8.0
<b>Style Index</b>							
MSCI EAFE Growth	1.2	(0.6)	(0.6)	42.6	9.8	10.8	7.2
MSCI EAFE Value	3.4	7.4	7.4	45.7	1.8	6.6	3.7
<b>Regional Index</b>							
MSCI UK	2.8	6.2	6.2	33.5	0.9	4.3	3.3
MSCI Japan	1.1	1.6	1.6	39.7	6.3	10.5	7.2
MSCI Europe	3.1	4.1	4.1	44.9	5.6	8.2	5.1
MSCI EM Asia	(3.0)	2.2	2.2	60.1	9.5	14.5	6.6
MSCI EM Latin American	4.6	(5.3)	(5.3)	50.1	(6.1)	4.0	(4.1)

## FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
BBgBarc US TIPS	(0.2)	(1.5)	(1.5)	7.5	5.7	3.9	3.4
BBgBarc US Treasury Bills	0.0	0.0	0.0	0.1	1.5	1.2	0.7
BBgBarc US Agg Bond	(1.2)	(3.4)	(3.4)	0.7	4.7	3.1	3.4
BBgBarc US Universal	(1.2)	(3.1)	(3.1)	3.0	4.9	3.6	3.8
<b>Duration</b>							
BBgBarc US Treasury 1-3 Yr	(0.0)	(0.1)	(0.1)	0.3	2.8	1.7	1.3
BBgBarc US Treasury Long	(5.0)	(13.5)	(13.5)	(15.8)	5.9	3.1	6.3
BBgBarc US Treasury	(1.5)	(4.3)	(4.3)	(4.4)	4.1	2.2	2.9
<b>Issuer</b>							
BBgBarc US MBS	(0.5)	(1.1)	(1.1)	(0.1)	3.7	2.4	2.8
BBgBarc US Corp. High Yield	0.1	0.9	0.9	23.7	6.8	8.1	6.5
BBgBarc US Agency Interim	(0.4)	(1.0)	(1.0)	0.1	3.2	2.0	1.9
BBgBarc US Credit	(1.6)	(4.5)	(4.5)	7.9	5.9	4.7	4.8

## OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Index</b>							
Bloomberg Commodity	(2.1)	6.9	6.9	35.0	(0.2)	2.3	(6.3)
Wilshire US REIT	4.8	8.8	8.8	34.7	9.0	5.7	12.7
CS Leveraged Loans	0.1	2.0	2.0	20.8	4.1	4.6	5.0
Alerian MLP	6.9	22.0	22.0	99.1	(4.0)	(2.1)	(0.7)
<b>Regional Index</b>							
JPM EMBI Global Div	(1.0)	(4.5)	(4.5)	16.0	4.0	5.1	5.6
JPM GBI-EM Global Div	(3.1)	(6.7)	(6.7)	13.0	(0.8)	3.1	0.5
<b>Hedge Funds</b>							
HFRI Composite	1.0	6.1	6.1	34.0	7.7	7.5	4.6
HFRI FOF Composite	0.4	2.0	2.0	23.9	5.4	5.6	3.4
<b>Currency (Spot)</b>							
Euro	(3.2)	(3.9)	(3.9)	7.1	(1.5)	0.6	(1.9)
Pound Sterling	(1.3)	0.9	0.9	11.3	(0.6)	(0.8)	(1.5)
Yen	(3.6)	(6.6)	(6.6)	(2.3)	(1.3)	0.3	(2.8)

Source: Morningstar, HFRI, as of 3/31/21

# Definitions

**Bloomberg US Weekly Consumer Comfort Index** - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. ([www.lanqerresearch.com](http://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](http://www.Bloomberg.com))

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

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

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# Western States Office & Professional Employees Pension Fund

Investment Performance Review

Period Ending: March 31, 2021



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SAN FRANCISCO 415-362-3484

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# 1<sup>st</sup> quarter summary

## THE ECONOMIC CLIMATE

- Real GDP grew at a -2.4% rate year-over-year in the fourth quarter (+4.3% quarterly annualized rate) as the U.S. economic recovery continued at a brisk pace.
- The speed of vaccinations in the U.S. has exceeded expectations, reaching more than 3 million doses per day during the first week of April. Approximately 23% of the country have been fully vaccinated, and 37% have received a first dose.
- The Europe Union has been slower to roll out vaccinations, suggesting member countries may be grappling with the virus for longer periods of time.

## PORTFOLIO IMPACTS

- We believe the U.S. economy is playing catch-up to the markets in the current environment. While it seems increasingly likely that the economy will rapidly come back to life over the next year, this optimism may already be baked into equity prices.
- U.S. core inflation remained low and stable, at 1.6% year-over-year in March. A jump in gasoline prices, along with base effects from the 2020 recession, pushed up headline inflation to 2.6%. It appears likely that inflation will continue to see a temporary rise in the coming months due to the lower prices of Q2 2020, since inflation is a year-over-year measure.

## THE INVESTMENT CLIMATE

- President Biden announced his \$2 trillion Infrastructure Plan. In its initial form, the plan did not have bipartisan support, reportedly due to the lower proportion of the plan that related to traditional infrastructure spending, the size of the plan, and the proposed methods to fund it. Negotiations will commence in late-April, though it remains possible that the bill is modified in order to pass it via the “reconciliation” process, to avoid the need for Republican support.
- According to FactSet, S&P 500 earnings expectations for 2021 improved by 5.0% during the quarter. Analysts are now forecasting 25.4% earnings growth for 2021—an incredible recovery from the -11.2% earnings drop expected of 2020.

## ASSET ALLOCATION ISSUES

- U.S. equities were a top performer in Q1, returning +6.2%. International equities returned +3.5% (MSCI EAFE Index) and emerging markets returned +2.3% (MSCI Emerging Markets Index), on an unhedged currency basis.
- Size and value factors both delivered strong relative performance. U.S. value stocks beat growth stocks (Russell 1000 Value +11.3%, Russell 1000 Growth +0.9%), as growth stocks entered a correction in February. Small capitalization stocks continued their rally (Russell 2000 +12.7%, Russell 1000 +5.9%).

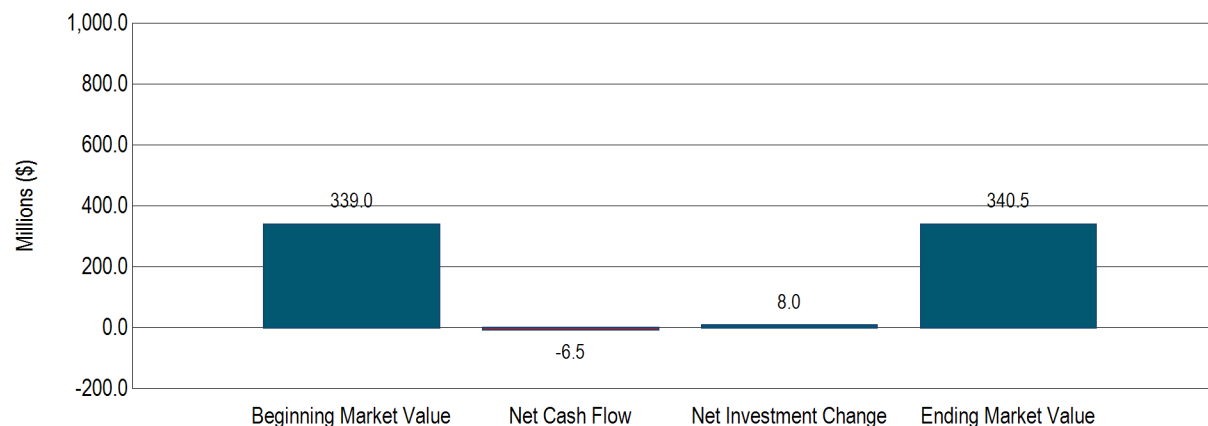
Prospects for a strong economic rebound are compelling, though this good news may already be reflected in asset prices

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

**Portfolio Reconciliation**

	Last Three Months	Year-To-Date
Beginning Market Value	\$339,009,626	\$339,009,626
Net Cash Flow	-\$6,542,662	-\$6,542,662
Net Investment Change	\$8,030,903	\$8,030,903
Ending Market Value	\$340,497,867	\$340,497,867

**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, 2021

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
BlackRock Equity Index NL	\$36,548,000	\$0	-\$2,400,000	-\$2,400,000	\$2,257,963	\$36,405,963
INTECH US Adaptive Volatility	\$36,905,268	\$0	-\$1,600,000	-\$1,600,000	\$915,056	\$36,220,324
PanAgora US Small Cap Core Stock Selector	\$18,595,569	\$0	\$0	\$0	\$2,955,021	\$21,550,590
WCM Focused International Growth Fund, L.P.	\$47,603,873	\$0	\$0	\$0	\$49,635	\$47,653,508
Causeway International Value Ins	\$26,112,694	\$0	\$0	\$0	\$1,800,858	\$27,913,552
Loomis Sayles Core Plus	\$63,272,441	\$0	\$0	\$0	-\$1,867,171	\$61,405,270
ASB Allegiance Real Estate	\$21,896,147	\$0	-\$56,104	-\$56,104	\$525,964	\$22,366,007
JPMorgan Special Situation Property	\$15,357,423	\$0	-\$60,074	-\$60,074	\$280,172	\$15,577,521
IFM Global Infrastructure (US) LP	\$10,520,897	\$0	-\$104,331	-\$104,331	\$195,353	\$10,611,919
JPMorgan IIF ERISA LP	\$7,933,087	-\$172,976	\$0	-\$172,976	\$14,434	\$7,774,545
Invesco Balanced-Risk Allocation	\$49,988,560	\$0	-\$2,300,000	-\$2,300,000	\$903,619	\$48,592,179
US Bank Checking Account	\$1,682,472	\$9,116,696	-\$8,957,222	\$159,474	\$0	\$1,841,946
US Bank Clearing Account	\$2,593,195	\$5,101,245	-\$5,109,895	-\$8,651	\$0	\$2,584,544
<b>Total</b>	<b>\$339,009,626</b>	<b>\$14,044,964</b>	<b>-\$20,587,626</b>	<b>-\$6,542,662</b>	<b>\$8,030,903</b>	<b>\$340,497,867</b>

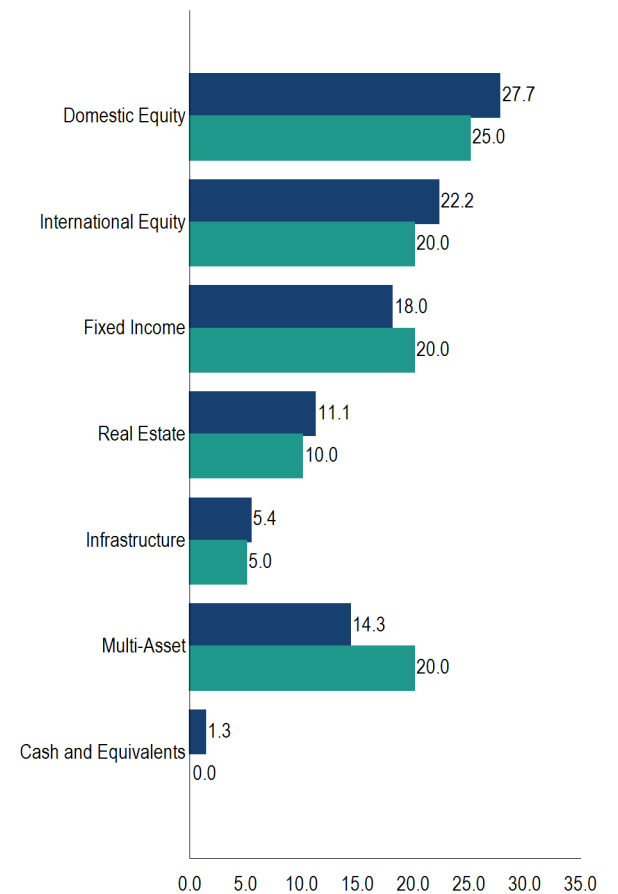
Loomis Sayles Full Discretion liquidated 3/21/2017. Loomis Sayles Core Plus funded 3/21/2017. Parametric liquidated 4/21/2017. Mellon Dynamic liquidated 5/5/2017. Grosvenor Institutional liquidated 4/30/2018. Brandes International Small Cap Equity liquidated 8/31/2019. Invesco Real Estate II liquidated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

# Total Fund Executive Summary (Net of Fees)

Period Ending: March 31, 2021

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs
<b>Total Fund</b>	<b>340,497,867</b>	<b>100.0</b>	<b>2.3</b>	<b>31.1</b>	<b>9.4</b>	<b>9.4</b>	<b>7.7</b>
<i>Total Fund Policy Index</i>			1.6	29.2	9.3	9.0	7.3
<i>Target Asset Allocation Policy Index</i>			2.4	32.1	10.4	10.0	8.4
<i>InvMetrics Tft-Hrtly DB \$250mm-\$1B Net Rank</i>			80	66	42	69	62
<b>Total Domestic Equity</b>	<b>94,176,877</b>	<b>27.7</b>	<b>6.7</b>	<b>57.0</b>	<b>13.6</b>	<b>14.1</b>	<b>12.8</b>
<i>Dow Jones U.S. Total Stock Market</i>			6.4	62.7	17.0	16.6	13.7
<i>InvMetrics Tft-Hrtly DB US Eq Net Rank</i>			62	91	86	87	44
<b>Total International Equity</b>	<b>75,567,060</b>	<b>22.2</b>	<b>2.5</b>	<b>61.9</b>	<b>11.9</b>	<b>12.2</b>	<b>5.9</b>
<i>Total Public Int'l Equity Benchmark (MSCI ACWI ex US IMI)</i>			3.8	51.9	6.5	9.8	5.4
<i>InvMetrics Tft-Hrtly DB ex-US Eq Net Rank</i>			76	18	4	11	31
<b>Total Fixed Income</b>	<b>61,405,270</b>	<b>18.0</b>	<b>-3.0</b>	<b>6.7</b>	<b>5.8</b>	<b>5.4</b>	<b>4.8</b>
<i>Total Fixed Income Benchmark (BBgBarc Aggregate)</i>			-3.4	0.7	4.7	3.1	3.4
<i>InvMetrics Tft-Hrtly DB US Fix Inc Net Rank</i>			95	46	4	5	8
<b>Total Real Estate</b>	<b>37,943,528</b>	<b>11.1</b>	<b>2.0</b>	<b>2.8</b>	<b>4.9</b>	<b>5.1</b>	<b>9.4</b>
<i>NCREIF ODCE Net</i>			1.9	1.5	4.0	5.3	8.7
<b>Total Infrastructure</b>	<b>18,386,464</b>	<b>5.4</b>	<b>1.2</b>	<b>10.8</b>	<b>7.3</b>	<b>9.3</b>	<b>7.3</b>
<i>CPI + 5%</i>			2.9	7.7	7.1	7.2	6.8
<b>Total Multi-Asset</b>	<b>48,592,179</b>	<b>14.3</b>	<b>1.8</b>	<b>27.6</b>	<b>7.6</b>	<b>7.7</b>	<b>6.7</b>
<i>60% MSCI ACWI Net/40% FTSE WGBI</i>			0.4	31.3	8.4	8.9	6.3
<i>eV Global Balanced Net Rank</i>			64	87	73	87	61
<b>Total Cash</b>	<b>4,426,489</b>	<b>1.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>0.6</b>

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, 2021

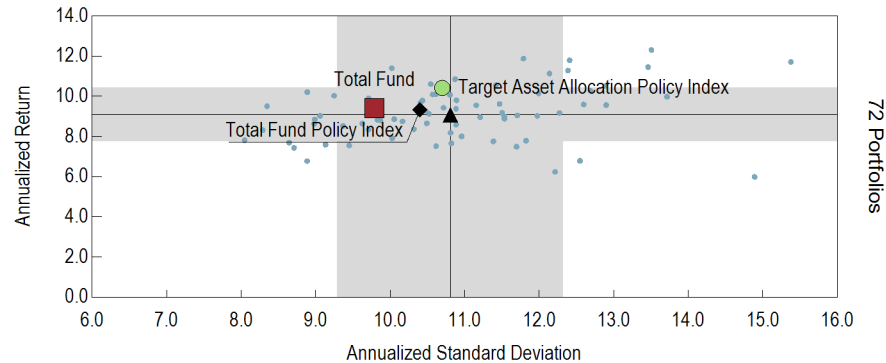
### 3 Year

	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	9.79%	0.09%	0.75%	0.93	0.97	91.66%	88.01%	0.05	1.77%	0.82
Total Fund Policy Index	10.40%	0.00%	0.00%	1.00	1.00	100.00%	100.00%	--	0.00%	0.76
Target Asset Allocation Policy Index	10.70%	1.10%	0.85%	1.03	1.00	107.92%	100.89%	1.37	0.80%	0.85

### 5 Year

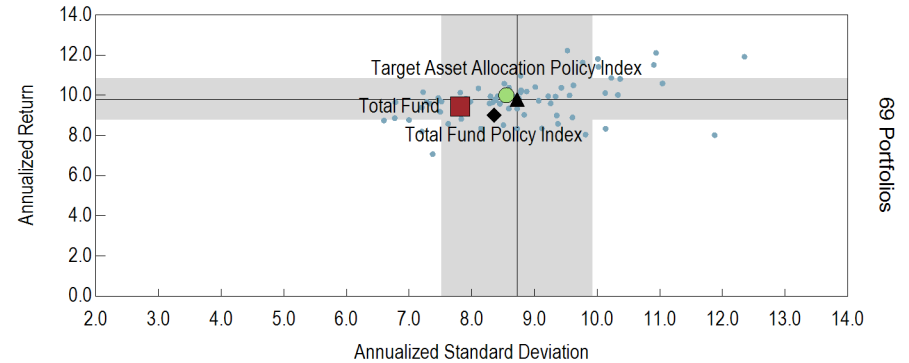
	Anlzd Standard Deviation	Ann Excess BM Return	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio
Total Fund	7.81%	0.42%	1.15%	0.92	0.97	93.14%	84.96%	0.27	1.58%	1.06
Total Fund Policy Index	8.36%	0.00%	0.00%	1.00	1.00	100.00%	100.00%	--	0.00%	0.94
Target Asset Allocation Policy Index	8.55%	0.99%	0.82%	1.02	0.99	107.67%	98.63%	1.28	0.77%	1.04

### 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

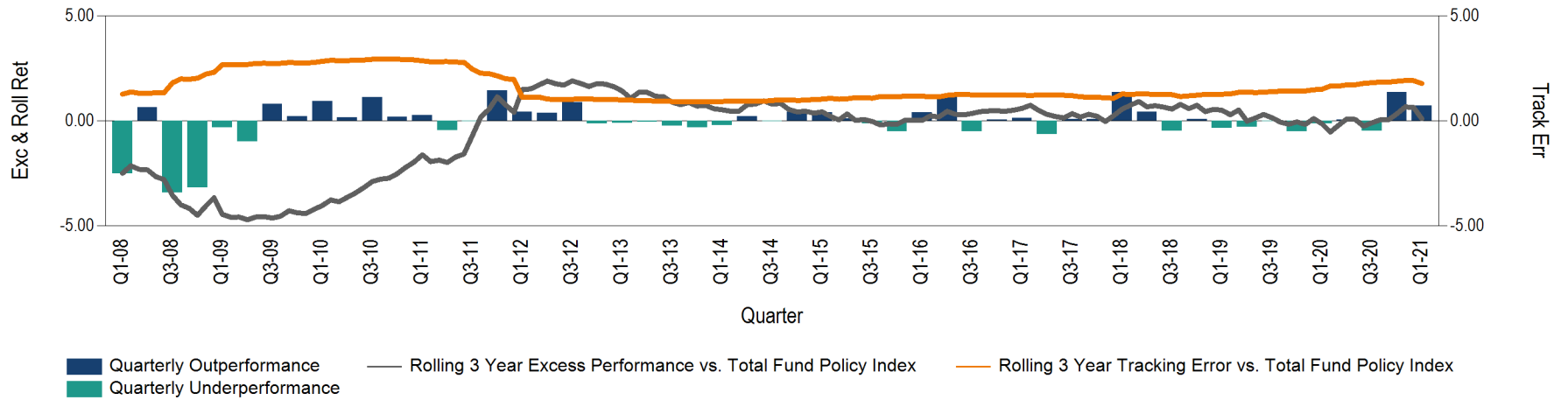


- Total Fund
- ◆ Total Fund Policy Index
- Target Asset Allocation Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Tft-Hrtly DB \$250mm-\$1B Net

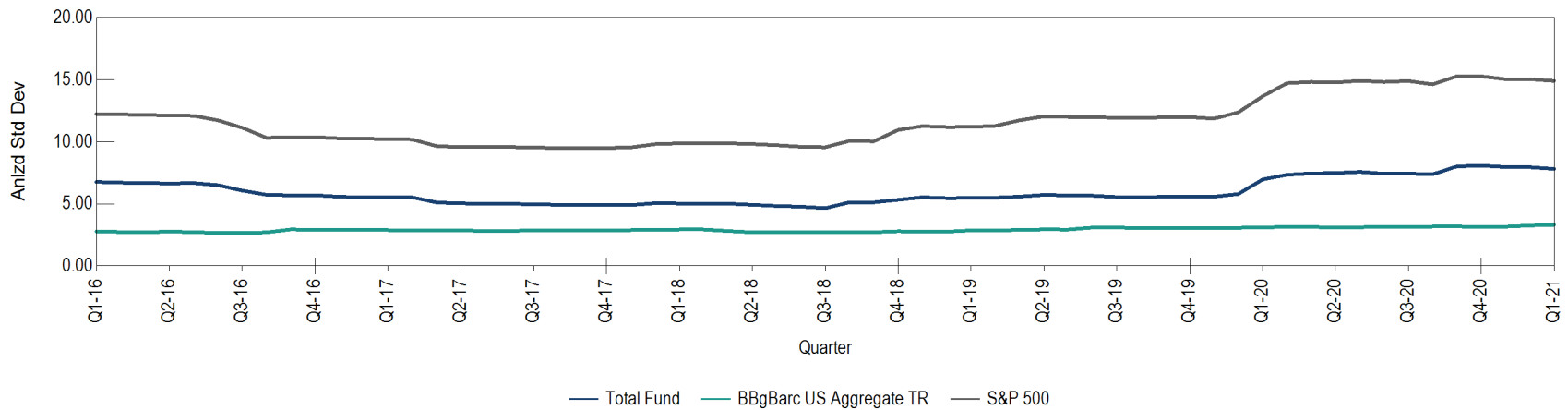
Total Fund  
Rolling Performance Relative to Policy (Net of Fees)

Period Ending: March 31, 2021

Rolling Annualized Excess Performance and Tracking Error



Rolling 5 Year Annualized Standard Deviation



# Total Fund

## Executive Summary (Net of Fees)

Period Ending: March 31, 2021

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
<b>Total Fund</b>	<b>340,497,867</b>	<b>100.0</b>	<b>2.3</b>	<b>31.1</b>	<b>9.4</b>	<b>9.4</b>	<b>7.7</b>	<b>13.3</b>	<b>17.2</b>	<b>-3.2</b>	<b>13.0</b>	<b>6.9</b>
<i>Total Fund Policy Index</i>			1.6	29.2	9.3	9.0	7.3	12.6	18.6	-4.5	13.5	5.8
<i>Target Asset Allocation Policy Index</i>			2.4	32.1	10.4	10.0	8.4	13.9	19.1	-3.2	13.7	7.2
<i>InvMetrics Tft-Hrtly DB \$250mm-\$1B Net Rank</i>			80	66	42	69	62	15	52	45	64	80
<b>Domestic Equity</b>	<b>94,176,877</b>	<b>27.7</b>										
BlackRock Equity Index NL	36,405,963	10.7	6.2	56.3	16.8	16.3	13.9	18.4	31.5	-4.4	21.8	11.9
S&P 500			6.2	56.4	16.8	16.3	13.9	18.4	31.5	-4.4	21.8	12.0
<i>eV US Large Cap Core Equity Net Rank</i>			56	42	23	19	14	29	28	32	46	21
INTECH US Adaptive Volatility	36,220,324	10.6	2.5	42.5	--	--	--	14.0	23.4	--	--	--
Russell 1000			5.9	60.6	--	--	--	21.0	31.4	--	--	--
<i>eV US Large Cap Core Equity Net Rank</i>			95	87	--	--	--	53	91	--	--	--
PanAgora US Small Cap Core Stock Selector	21,550,590	6.3	15.6	93.4	13.7	15.1	--	14.7	26.1	-9.2	10.8	20.3
Russell 2000			12.7	94.8	14.8	16.4	--	20.0	25.5	-11.0	14.6	21.3
<i>eV US Small Cap Core Equity Net Rank</i>			32	35	48	45	--	51	37	36	83	41
<b>International Equity</b>	<b>75,567,060</b>	<b>22.2</b>										
WCM Focused International Growth Fund, L.P.	47,653,508	14.0	0.1	59.7	18.2	--	--	33.1	35.7	-7.4	31.1	--
MSCI ACWI ex USA			3.5	49.4	6.5	--	--	10.7	21.5	-14.2	27.2	--
<i>eV ACWI ex-US All Cap Growth Eq Net Rank</i>			57	48	14	--	--	35	12	1	71	--
Causeway International Value Ins	27,913,552	8.2	6.9	65.7	4.6	--	--	5.4	20.1	-18.6	27.2	--
MSCI EAFE			3.5	44.6	6.0	--	--	7.8	22.0	-13.8	25.0	--
<i>Foreign Large Value MStar MF Rank</i>			57	11	20	--	--	22	22	91	14	--
<b>Fixed Income</b>	<b>61,405,270</b>	<b>18.0</b>										
Loomis Sayles Core Plus	61,405,270	18.0	-3.0	6.7	5.8	--	--	11.3	9.4	-0.4	--	--
BBgBarc US Aggregate TR			-3.4	0.7	4.7	--	--	7.5	8.7	0.0	--	--
<i>eV US Core Plus Fixed Inc Net Rank</i>			72	48	21	--	--	9	63	40	--	--
<b>Real Estate</b>	<b>37,943,528</b>	<b>11.1</b>										
ASB Allegiance Real Estate	22,366,007	6.6	2.4	3.1	4.8	4.6	--	2.4	4.2	7.1	3.9	4.5
NCREIF ODCE Net			1.9	1.5	4.0	5.3	--	0.3	4.4	7.4	6.7	7.8
JPMorgan Special Situation Property	15,577,521	4.6	1.4	2.5	5.2	6.4	--	2.0	5.0	9.6	7.9	8.7
NCREIF ODCE Net			1.9	1.5	4.0	5.3	--	0.3	4.4	7.4	6.7	7.8

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, 2021

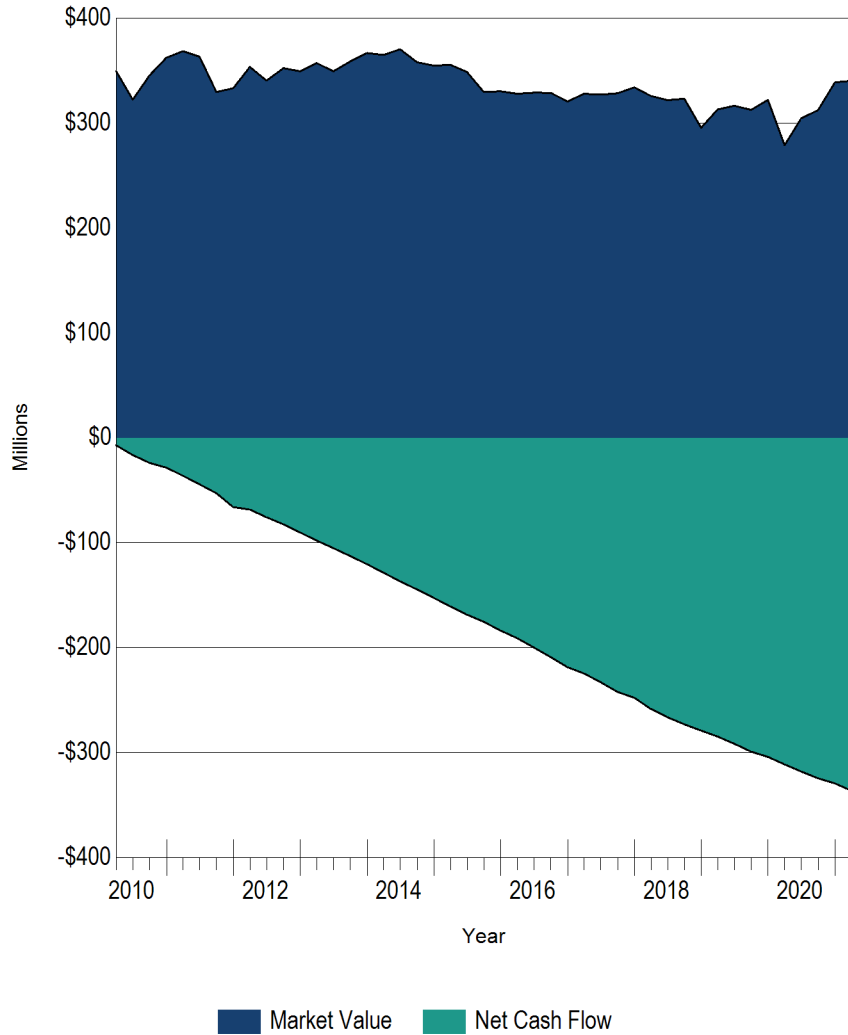
	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
<b>Infrastructure</b>	<b>18,386,464</b>	<b>5.4</b>										
IFM Global Infrastructure (US) LP	10,611,919	3.1	1.9	9.4	8.6	11.8	8.8	3.1	14.6	15.8	21.1	6.1
CPI + 5%			2.9	7.7	7.1	7.2	6.8	6.4	7.4	7.0	7.2	7.2
JPMorgan IIF ERISA LP	7,774,545	2.3	0.2	12.8	5.9	6.6	5.8	8.4	8.0	4.2	14.2	1.2
CPI + 5%			2.9	7.7	7.1	7.2	6.8	6.4	7.4	7.0	7.2	7.2
<b>Multi-Asset</b>	<b>48,592,179</b>	<b>14.3</b>										
Invesco Balanced-Risk Allocation	48,592,179	14.3	1.8	27.6	7.6	8.3	7.0	10.8	15.7	-5.8	10.5	12.2
60% MSCI ACWI Net/40% FTSE WGBI			0.4	31.3	8.4	8.9	6.3	14.5	18.2	-5.8	17.1	5.5
FTSE 3-Month T-bill +6%			1.5	6.2	7.5	7.2	6.6	6.6	8.4	8.0	6.9	6.3
eV Global Balanced Net Rank			64	87	73	84	49	46	92	22	99	19
<b>Cash and Equivalents</b>	<b>4,426,489</b>	<b>1.3</b>										
US Bank Checking Account	1,841,946	0.5										
US Bank Clearing Account	2,584,544	0.8										

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.

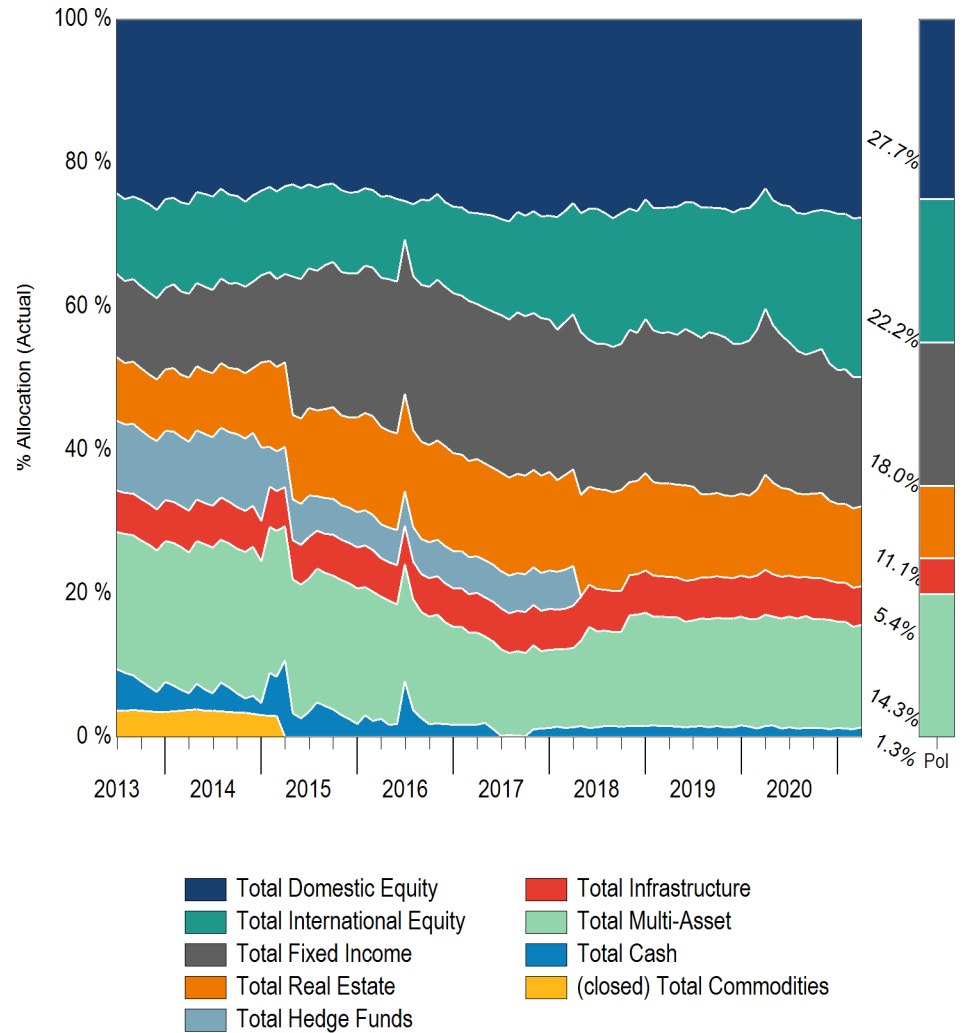
Total Fund  
Asset Allocation History

Period Ending: March 31, 2021

Market Value History



Asset Allocation History

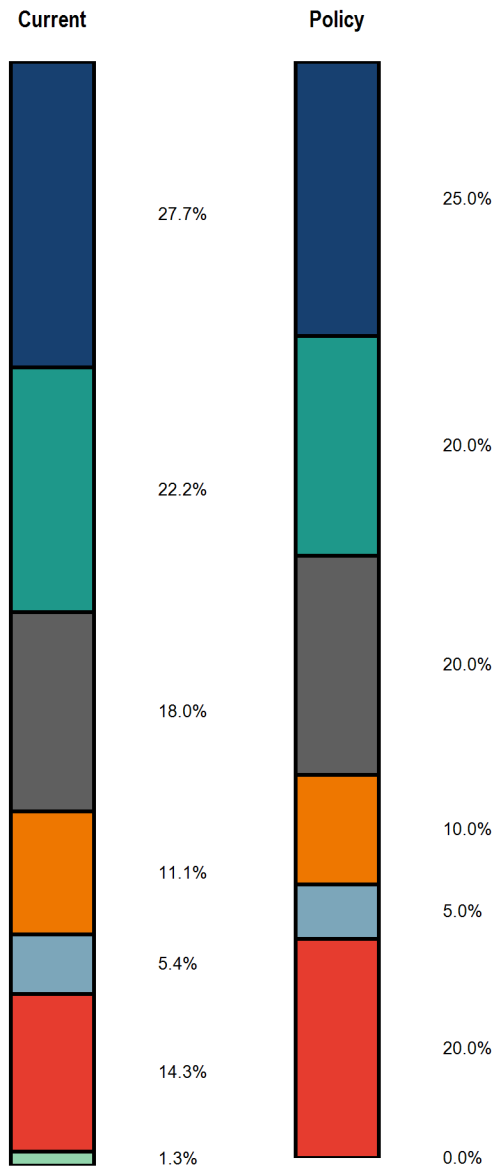


Net cash flow is cumulative.

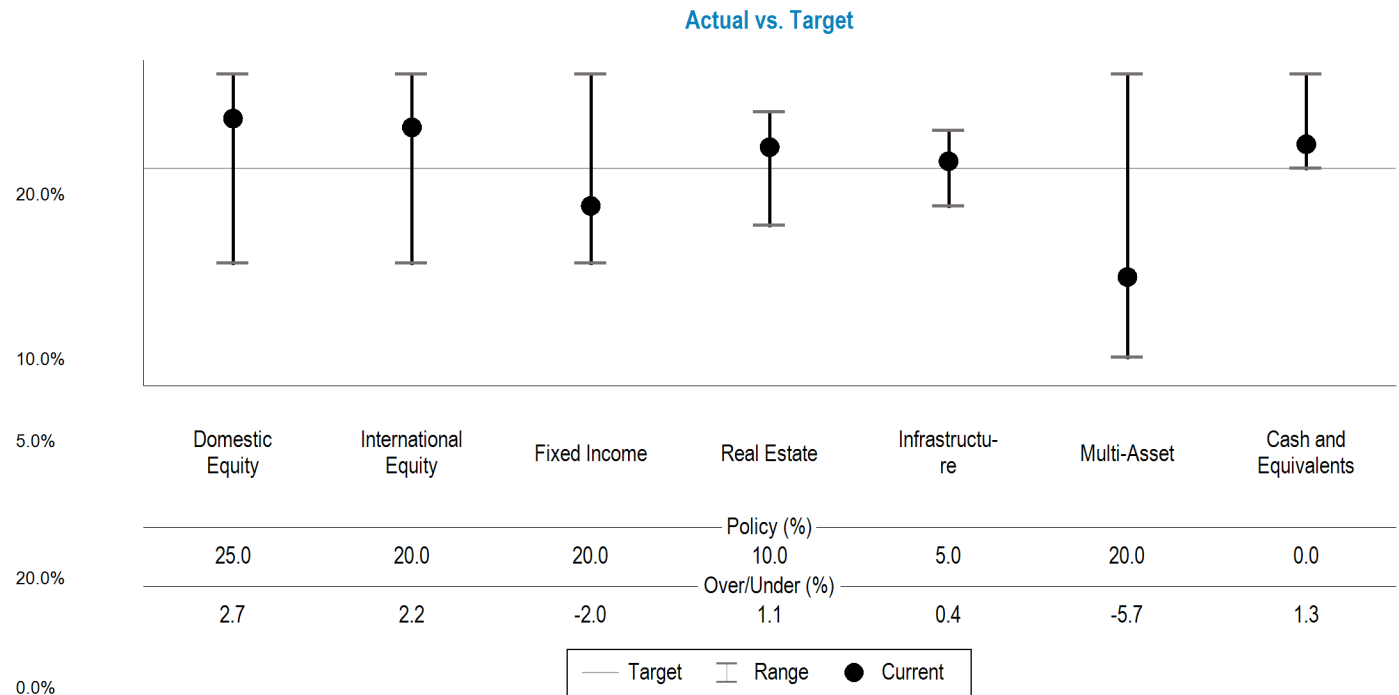
# Total Fund

## Asset Allocation vs. Policy

Period Ending: March 31, 2021



	Current	%	Policy	Difference	Policy Range	Within Range
Domestic Equity	\$94,176,877	27.7%	25.0%	\$9,052,410	20.0% - 30.0%	Yes
International Equity	\$75,567,060	22.2%	20.0%	\$7,467,487	15.0% - 25.0%	Yes
Fixed Income	\$61,405,270	18.0%	20.0%	-\$6,694,303	15.0% - 25.0%	Yes
Real Estate	\$37,943,528	11.1%	10.0%	\$3,893,742	7.0% - 13.0%	Yes
Infrastructure	\$18,386,464	5.4%	5.0%	\$1,361,570	3.0% - 7.0%	Yes
Multi-Asset	\$48,592,179	14.3%	20.0%	-\$19,507,395	10.0% - 25.0%	Yes
Cash and Equivalents	\$4,426,489	1.3%	0.0%	\$4,426,489	0.0% - 5.0%	Yes
<b>Total</b>	<b>\$340,497,867</b>	<b>100.0%</b>	<b>100.0%</b>			



Total Fund  
Investment Fund Fee Analysis

Period Ending: March 31, 2021

Name	Asset Class	Fee Schedule	Market Value	% of Portfolio	Estimated Fee Value	Estimated Fee
BlackRock Equity Index NL	Domestic Equity	0.03% of Assets	\$36,405,963	10.7%	\$10,922	0.03%
INTECH US Adaptive Volatility	Domestic Equity	0.40% of Assets	\$36,220,324	10.6%	\$144,881	0.40%
PanAgora US Small Cap Core Stock Selector	Domestic Equity	0.85% of Assets	\$21,550,590	6.3%	\$183,180	0.85%
WCM Focused International Growth Fund, L.P.	International Equity	0.75% of Assets	\$47,653,508	14.0%	\$357,401	0.75%
Causeway International Value Ins	International Equity	0.85% of Assets	\$27,913,552	8.2%	\$237,265	0.85%
Loomis Sayles Core Plus	Fixed Income	0.35% of First 20.0 Mil, 0.25% Thereafter	\$61,405,270	18.0%	\$173,513	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	\$22,366,007	6.6%	\$228,794	1.02%
JPMorgan Special Situation Property	Real Estate	1.60% of Assets	\$15,577,521	4.6%	\$249,240	1.60%
IFM Global Infrastructure (US) LP	Infrastructure	0.77% of Assets	\$10,611,919	3.1%	\$81,712	0.77%
JPMorgan IIF ERISA LP	Infrastructure	1.25% of First 50.0 Mil, 1.15% of Next 50.0 Mil, 1.05% Thereafter	\$7,774,545	2.3%	\$97,182	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	\$48,592,179	14.3%	\$182,221	0.38%
US Bank Checking Account	Cash and Equivalents		\$1,841,946	0.5%		
US Bank Clearing Account	Cash and Equivalents		\$2,584,544	0.8%		
<b>Total</b>			<b>\$340,497,867</b>	<b>100.0%</b>	<b>\$1,946,311</b>	<b>0.57%</b>

Total Fund  
Watch List (Net of Fees)

Period Ending: March 31, 2021

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	✓	--	--
WCM Focused International Growth Fund, L.P.	International Equity	No Issues	✓	✓	--	--	--	--
Causeway International Value Ins	International Equity	No Issues	R	✓	--	--	R	--
Loomis Sayles Core Plus	Fixed Income	No Issues	✓	✓	--	--	R	--
ASB Allegiance Real Estate	Real Estate	No Issues	✓	--	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	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.

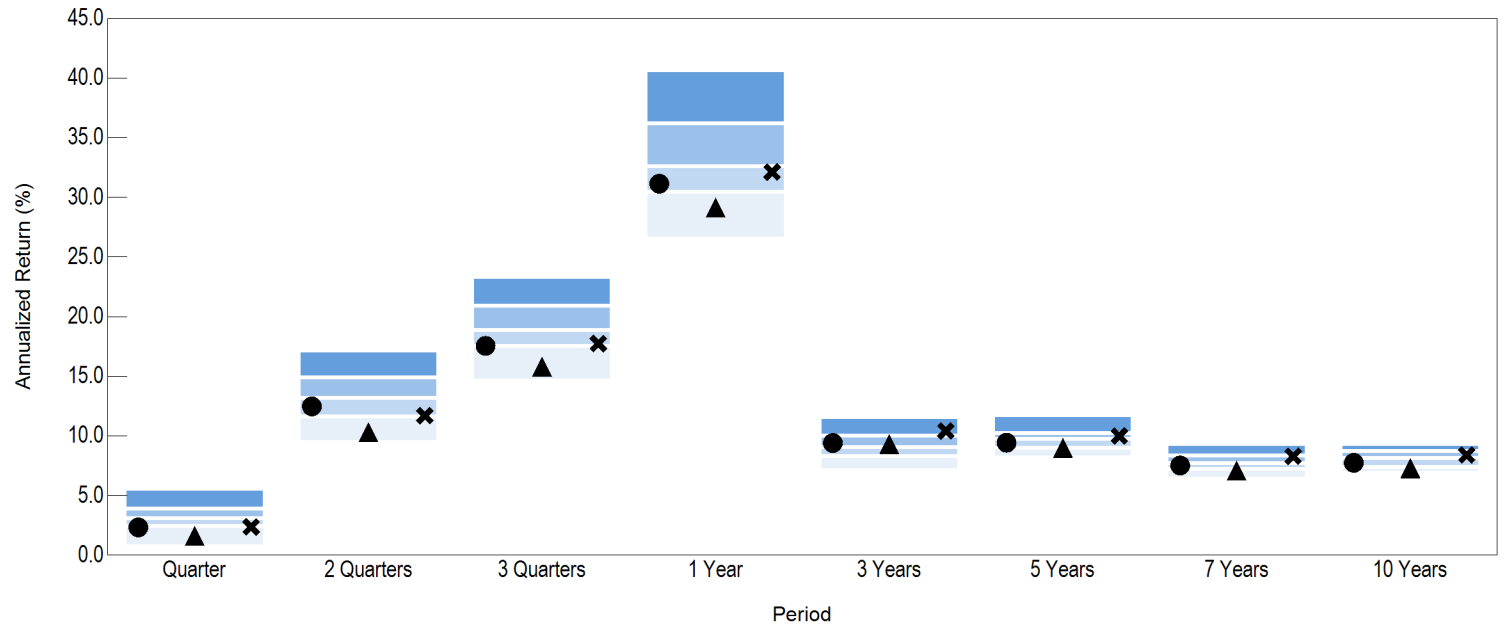
Causeway International Value Ins: Provisional: 1/31/2020, Jamie Doyle, one of their eight Fundamental Portfolio Managers, will retire in June 2020. Loomis Sayles Core Plus: Provisional: 10/16/2020, On October 13, 2020, Loomis Sayles announced that Jae Park, Chief Investment Officer, will retire from the firm effective 3/31/2021.

Total Fund

Peer Universe Comparison: Cumulative Performance (Net of Fees)

Period Ending: March 31, 2021

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



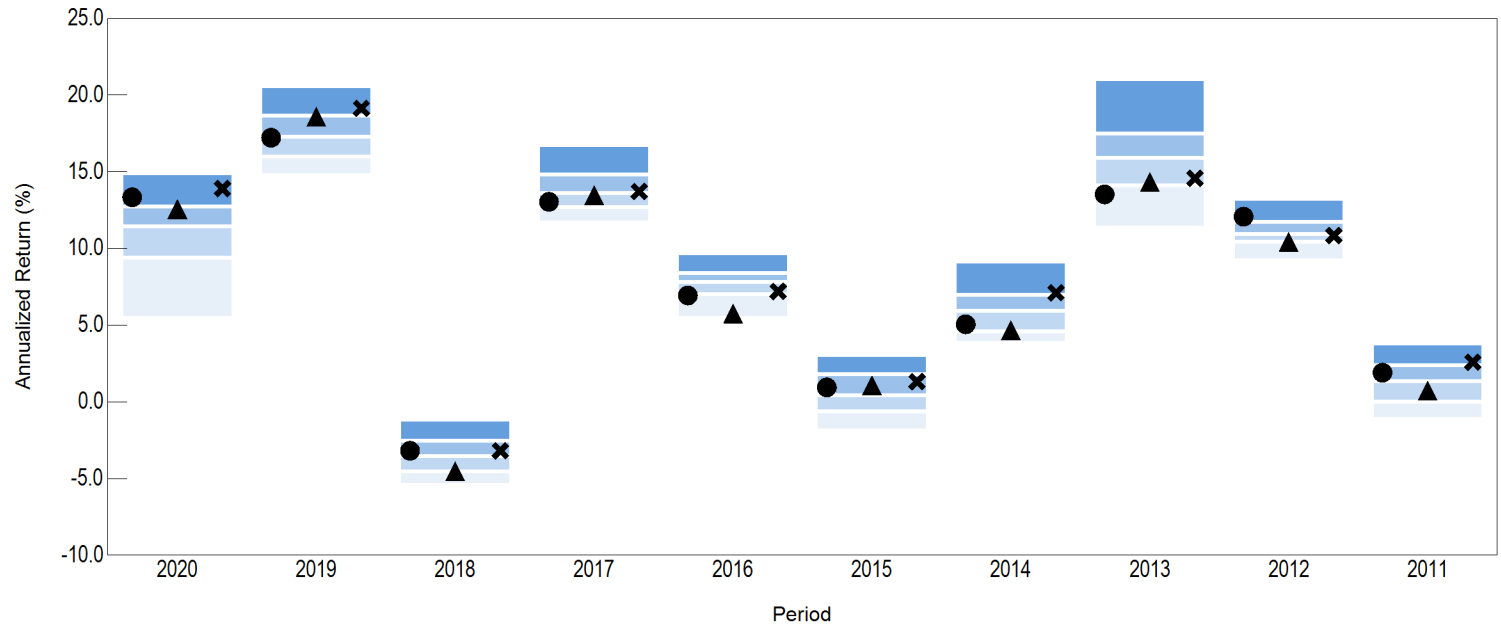
	Return (Rank)															
	Quarter		2 Quarters		3 Quarters		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	5.5		17.2		23.3		40.6		11.6		11.7		9.3		9.3	
25th Percentile	3.9		14.9		20.9		36.2		10.0		10.2		8.4		8.8	
Median	3.2		13.2		18.9		32.6		9.1		9.8		7.7		8.2	
75th Percentile	2.5		11.7		17.6		30.5		8.3		9.0		7.2		7.4	
95th Percentile	0.8		9.5		14.7		26.6		7.1		8.2		6.5		7.0	
# of Portfolios	72		72		72		72		72		69		69		64	
● Total Fund	2.3	(80)	12.5	(63)	17.5	(76)	31.1	(66)	9.4	(42)	9.4	(69)	7.5	(59)	7.7	(62)
▲ Total Fund Policy Index	1.6	(89)	10.3	(90)	15.8	(93)	29.2	(83)	9.3	(43)	9.0	(76)	7.1	(79)	7.3	(81)
✕ Target Asset Allocation Policy Index	2.4	(79)	11.7	(75)	17.7	(73)	32.1	(55)	10.4	(17)	10.0	(35)	8.3	(28)	8.4	(39)

Total Fund

Peer Universe Comparison: Consecutive Periods (Net of Fees)

Period Ending: March 31, 2021

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



	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>5th Percentile</b>	14.9	20.6	-1.2	16.7	9.7	3.0	9.1	21.0	13.2	3.8
<b>25th Percentile</b>	12.8	18.7	-2.5	14.9	8.4	1.8	7.0	17.5	11.8	2.4
<b>Median</b>	11.5	17.3	-3.5	13.6	7.8	0.4	6.0	15.9	11.0	1.4
<b>75th Percentile</b>	9.4	16.0	-4.5	12.7	7.0	-0.6	4.6	14.2	10.4	0.0
<b>95th Percentile</b>	5.5	14.8	-5.4	11.7	5.5	-1.9	3.9	11.4	9.3	-1.1
<b># of Portfolios</b>	77	86	84	69	56	58	55	49	37	34
<b>● Total Fund</b>	13.3 (15)	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)
<b>▲ Total Fund Policy Index</b>	12.6 (30)	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)
<b>✕ Target Asset Allocation Policy Index</b>	13.9 (9)	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)



## Domestic Equity

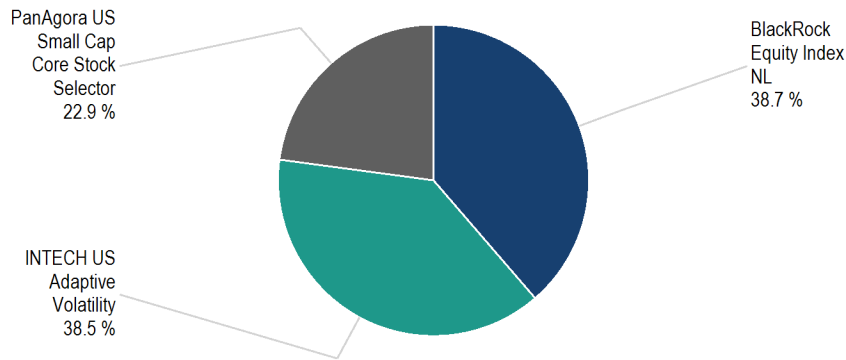
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# Total Domestic Equity Performance Summary (Net of Fees)

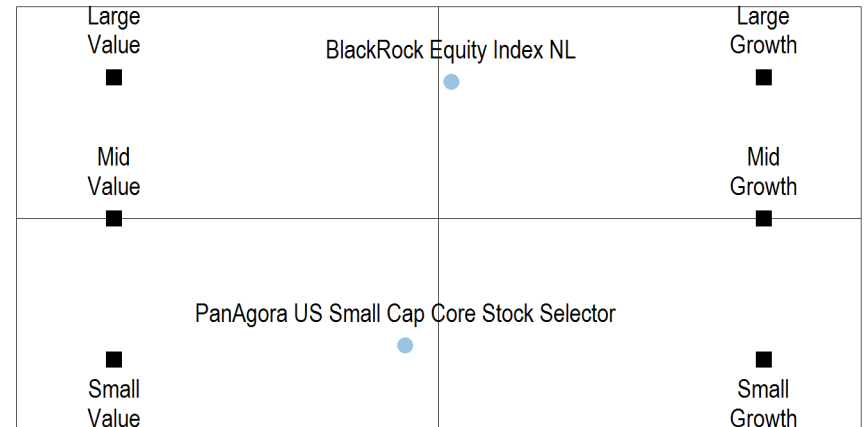
Period Ending: March 31, 2021

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
<b>Total Domestic Equity</b>	<b>94,176,877</b>	<b>100.0</b>	<b>6.7</b>	<b>57.0</b>	<b>13.6</b>	<b>14.1</b>	<b>12.8</b>	<b>15.9</b>	<b>27.2</b>	<b>-5.9</b>	<b>19.4</b>	<b>11.5</b>
<i>Dow Jones U.S. Total Stock Market</i>			6.4	62.7	17.0	16.6	13.7	20.8	30.9	-5.3	21.2	12.6
<i>InvMetrics Tff-Hrtly DB US Eq Net Rank</i>			62	91	86	87	44	68	89	34	71	61
<b>Domestic Equity</b>	<b>94,176,877</b>	<b>100.0</b>										
BlackRock Equity Index NL	36,405,963	38.7	6.2	56.3	16.8	16.3	13.9	18.4	31.5	-4.4	21.8	11.9
<i>S&amp;P 500</i>			6.2	56.4	16.8	16.3	13.9	18.4	31.5	-4.4	21.8	12.0
<i>eV US Large Cap Core Equity Net Rank</i>			56	42	23	19	14	29	28	32	46	21
INTECH US Adaptive Volatility	36,220,324	38.5	2.5	42.5	--	--	--	14.0	23.4	--	--	--
<i>Russell 1000</i>			5.9	60.6	--	--	--	21.0	31.4	--	--	--
<i>eV US Large Cap Core Equity Net Rank</i>			95	87	--	--	--	53	91	--	--	--
PanAgora US Small Cap Core Stock Selector	21,550,590	22.9	15.6	93.4	13.7	15.1	--	14.7	26.1	-9.2	10.8	20.3
<i>Russell 2000</i>			12.7	94.8	14.8	16.4	--	20.0	25.5	-11.0	14.6	21.3
<i>eV US Small Cap Core Equity Net Rank</i>			32	35	48	45	--	51	37	36	83	41

**Total Domestic Equity  
Current Allocation**

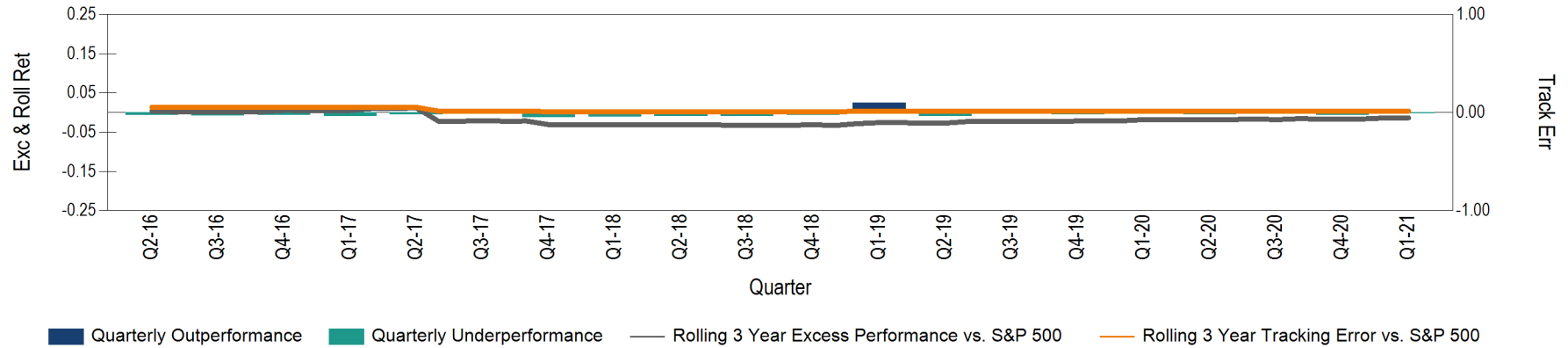


**Domestic Effective Style Map  
3 Years**

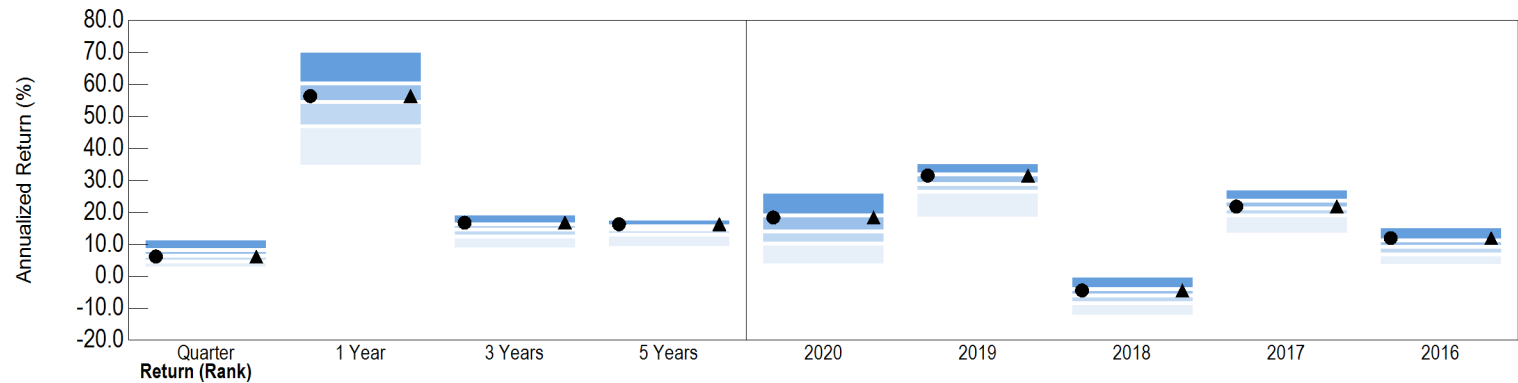


Style map requires 3 years of returns. INTECH US Adaptive Volatility replaced INTECH US Managed Volatility on 8/3/2018.

Rolling Annualized Excess Performance and Tracking Error



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

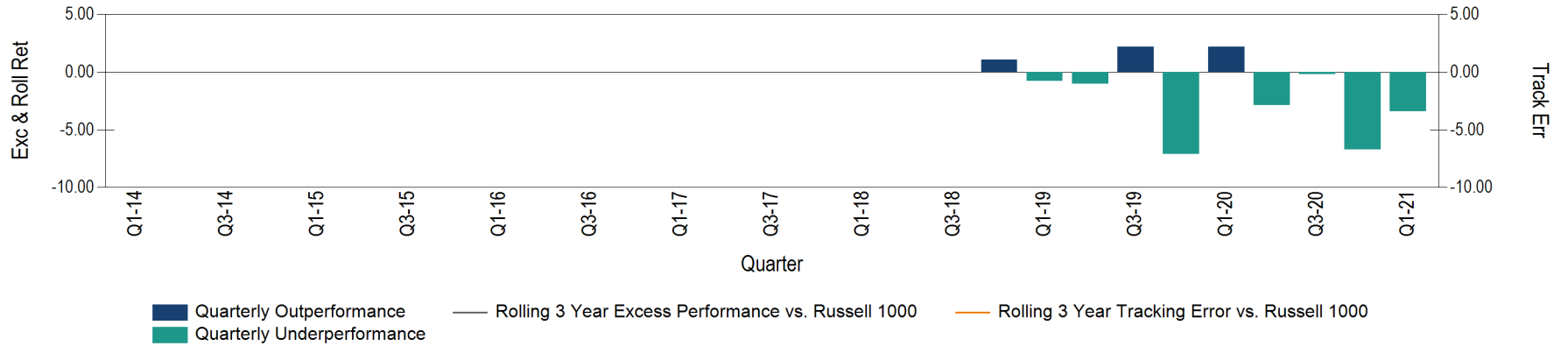


	Quarter	1 Year	3 Years	5 Years	2020	2019	2018	2017	2016
<b>5th Percentile</b>	11.7	70.4	19.6	18.0	26.4	35.5	0.1	27.4	15.6
<b>25th Percentile</b>	8.2	60.4	16.4	15.8	19.1	31.9	-3.8	23.7	11.3
<b>Median</b>	6.5	54.7	14.6	14.8	14.1	28.9	-5.8	21.4	9.3
<b>75th Percentile</b>	4.7	47.0	12.5	13.1	10.4	26.5	-8.3	19.2	6.9
<b>95th Percentile</b>	2.4	34.4	8.5	8.9	3.5	18.1	-12.5	13.2	3.4
<b># of Portfolios</b>	213	212	202	188	216	203	189	188	177
● BlackRock Equity Index NL	6.2 (56)	56.3 (42)	16.8 (23)	16.3 (19)	18.4 (29)	31.5 (28)	-4.4 (32)	21.8 (46)	11.9 (21)
▲ S&P 500	6.2 (56)	56.4 (42)	16.8 (23)	16.3 (18)	18.4 (29)	31.5 (28)	-4.4 (32)	21.8 (46)	12.0 (21)

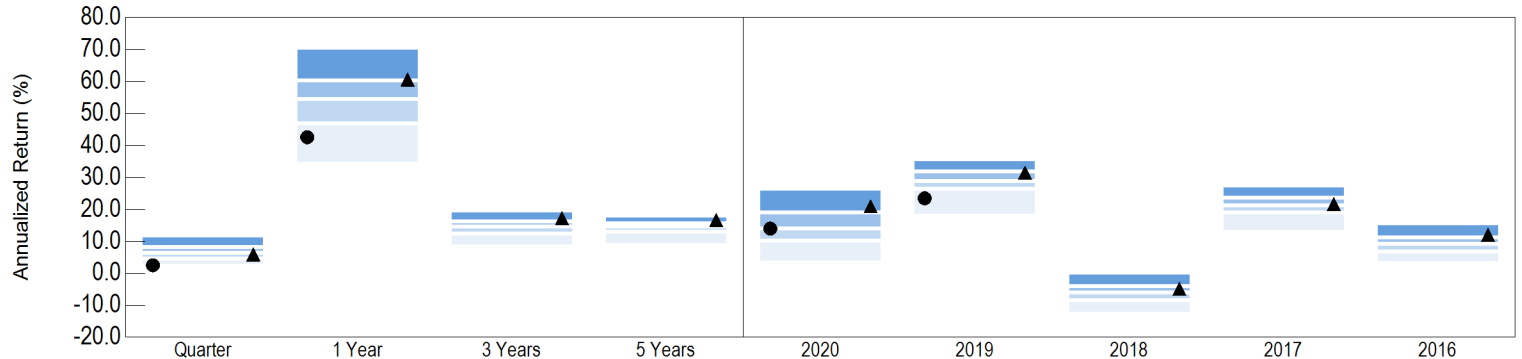
# INTECH US Adaptive Volatility Performance Summary (Net of Fees)

Period Ending: March 31, 2021

Rolling Annualized Excess Performance and Tracking Error



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



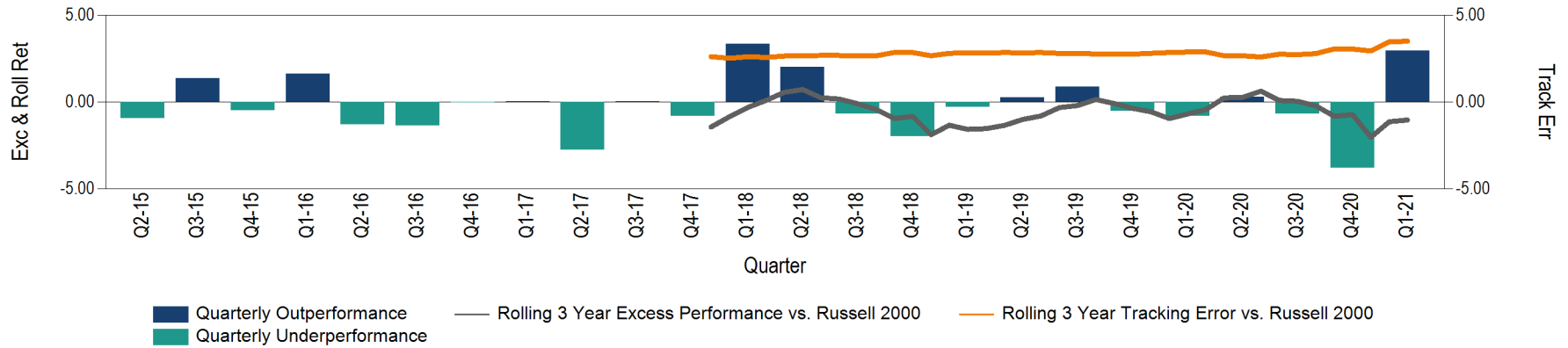
	Quarter Return (Rank)	1 Year	3 Years	5 Years	2020	2019	2018	2017	2016
5th Percentile	11.7	70.4	19.6	18.0	26.4	35.5	0.1	27.4	15.6
25th Percentile	8.2	60.4	16.4	15.8	19.1	31.9	-3.8	23.7	11.3
Median	6.5	54.7	14.6	14.8	14.1	28.9	-5.8	21.4	9.3
75th Percentile	4.7	47.0	12.5	13.1	10.4	26.5	-8.3	19.2	6.9
95th Percentile	2.4	34.4	8.5	8.9	3.5	18.1	-12.5	13.2	3.4
# of Portfolios	213	212	202	188	216	203	189	188	177
● INTECH US Adaptive Volatility	2.5 (95)	42.5 (87)	-- (-)	-- (-)	14.0 (53)	23.4 (91)	-- (-)	-- (-)	-- (-)
▲ Russell 1000	5.9 (59)	60.6 (25)	17.3 (18)	16.7 (13)	21.0 (19)	31.4 (29)	-4.8 (37)	21.7 (47)	12.1 (20)

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

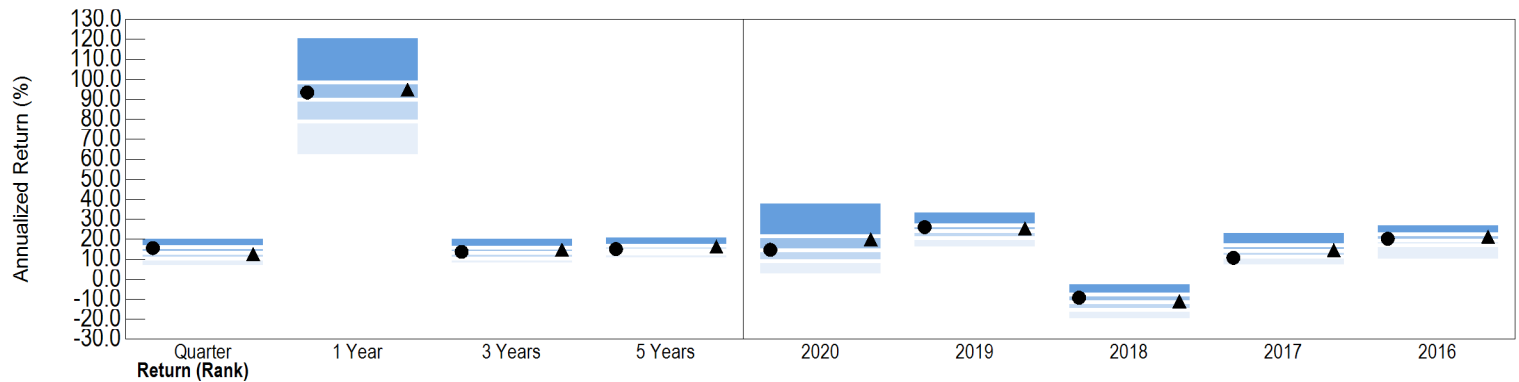
# PanAgora US Small Cap Core Stock Selector Performance Summary (Net of Fees)

Period Ending: March 31, 2021

### 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	2020	2019	2018	2017	2016
<b>5th Percentile</b>	21.1	121.3	21.0	21.9	38.8	34.1	-1.8	24.1	27.8
<b>25th Percentile</b>	16.4	98.7	16.0	16.9	21.8	27.0	-7.5	17.3	22.8
<b>Median</b>	13.3	90.0	13.3	14.7	14.8	24.3	-11.1	14.4	19.5
<b>75th Percentile</b>	10.4	79.1	10.6	13.0	9.1	20.7	-15.1	11.6	17.3
<b>95th Percentile</b>	6.5	61.9	7.5	10.3	2.1	15.5	-20.1	6.7	9.7
<b># of Portfolios</b>	110	110	108	102	113	112	113	106	99
● PanAgora US Small Cap Core Stock Selector	15.6 (32)	93.4 (35)	13.7 (48)	15.1 (45)	14.7 (51)	26.1 (37)	-9.2 (36)	10.8 (83)	20.3 (41)
▲ Russell 2000	12.7 (56)	94.8 (32)	14.8 (37)	16.4 (33)	20.0 (30)	25.5 (41)	-11.0 (50)	14.6 (46)	21.3 (34)

## International Equity

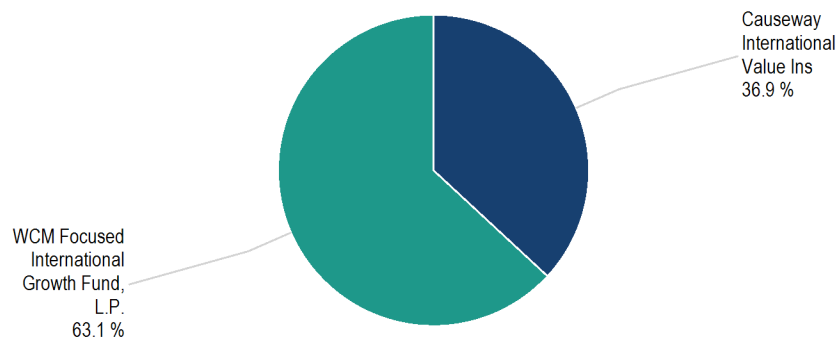
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# Total International Equity Performance Summary (Net of Fees)

Period Ending: March 31, 2021

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
<b>Total International Equity</b>	<b>75,567,060</b>	<b>100.0</b>	<b>2.5</b>	<b>61.9</b>	<b>11.9</b>	<b>12.2</b>	<b>5.9</b>	<b>21.7</b>	<b>27.8</b>	<b>-13.0</b>	<b>26.6</b>	<b>0.9</b>
<i>Total Public Int'l Equity Benchmark (MSCI ACWI ex US IMI)</i>			3.8	51.9	6.5	9.8	5.4	11.1	21.6	-14.8	27.8	4.4
<i>InvMetrics Tft-Hrtly DB ex-US Eq Net Rank</i>			76	18	4	11	31	13	10	14	71	82
<b>International Equity</b>	<b>75,567,060</b>	<b>100.0</b>										
WCM Focused International Growth Fund, L.P.	47,653,508	63.1	0.1	59.7	18.2	--	--	33.1	35.7	-7.4	31.1	--
<i>MSCI ACWI ex USA</i>			3.5	49.4	6.5	--	--	10.7	21.5	-14.2	27.2	--
<i>eV ACWI ex-US All Cap Growth Eq Net Rank</i>			57	48	14	--	--	35	12	1	71	--
Causeway International Value Ins	27,913,552	36.9	6.9	65.7	4.6	--	--	5.4	20.1	-18.6	27.2	--
<i>MSCI EAFE</i>			3.5	44.6	6.0	--	--	7.8	22.0	-13.8	25.0	--
<i>Foreign Large Value MStar MF Rank</i>			57	11	20	--	--	22	22	91	14	--

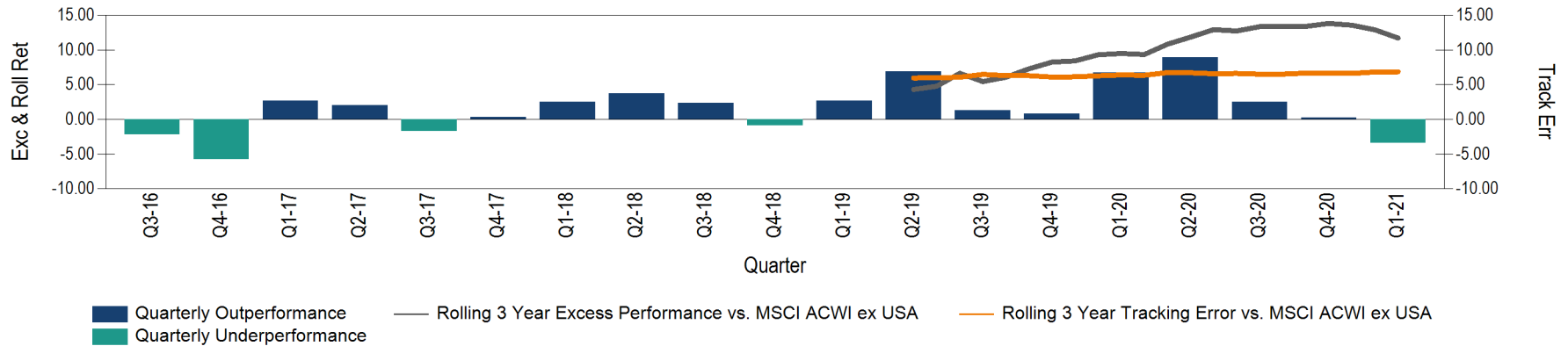
Total International Equity  
Current Allocation



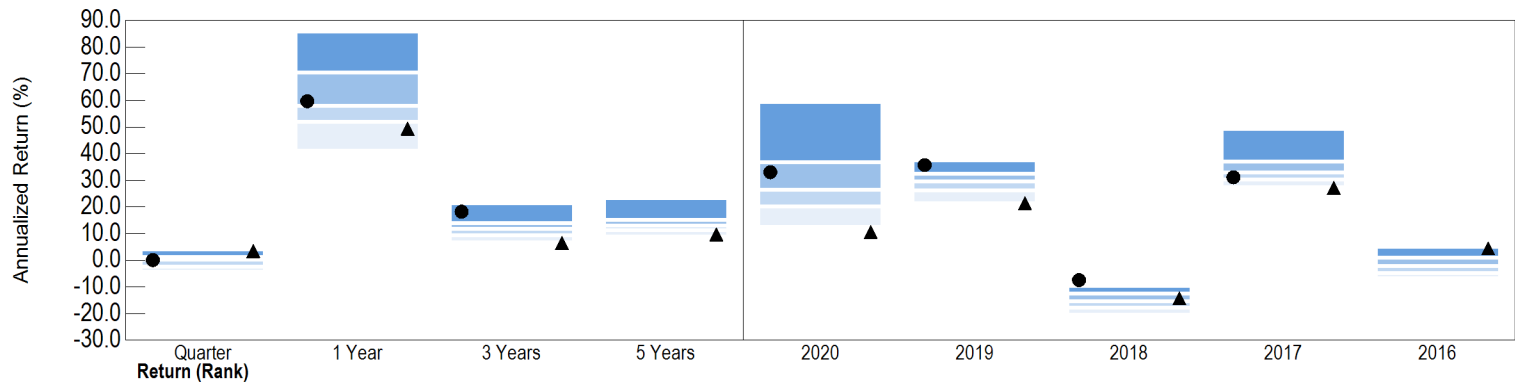
WCM Focused International Growth Fund, L.P.  
Performance Summary (Net of Fees)

Period Ending: March 31, 2021

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



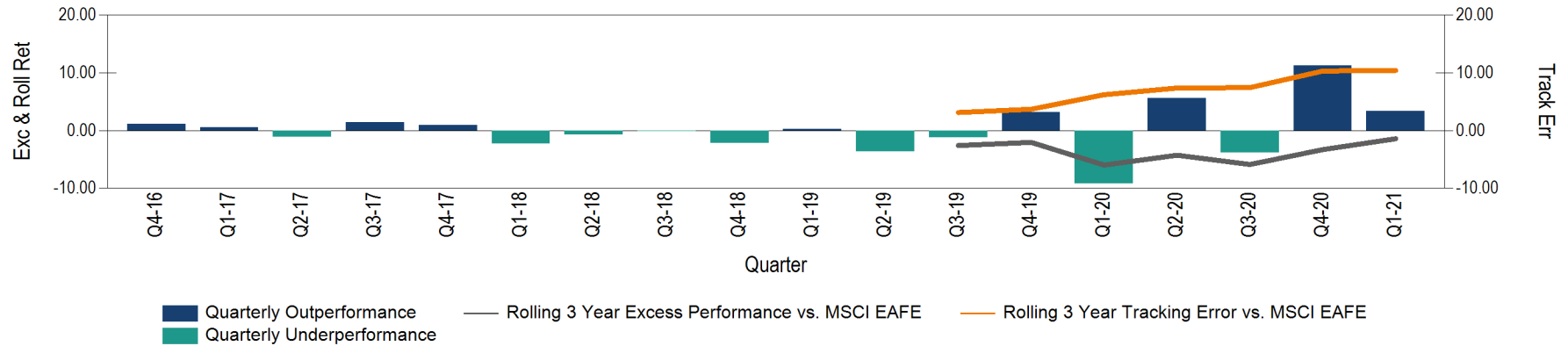
	Quarter	1 Year	3 Years	5 Years	2020	2019	2018	2017	2016
<b>5th Percentile</b>	4.1	85.7	21.2	23.3	59.4	37.5	-9.7	49.1	5.0
<b>25th Percentile</b>	1.4	70.5	14.2	15.3	36.8	32.7	-12.3	37.2	1.2
<b>Median</b>	0.3	58.0	11.8	13.2	26.7	29.7	-15.3	33.2	-2.0
<b>75th Percentile</b>	-2.3	52.0	9.5	11.4	20.3	26.2	-17.5	30.4	-4.7
<b>95th Percentile</b>	-4.2	41.3	7.0	9.0	12.6	21.5	-20.2	27.5	-6.6
<b># of Portfolios</b>	33	33	33	30	33	32	26	27	25
● WCM Focused International Growth Fund, L.P.	0.1 (57)	59.7 (48)	18.2 (14)	-- (--)	33.1 (35)	35.7 (12)	-7.4 (1)	31.1 (71)	-- (--)
▲ MSCI ACWI ex USA	3.5 (8)	49.4 (80)	6.5 (97)	9.8 (89)	10.7 (97)	21.5 (96)	-14.2 (49)	27.2 (96)	4.5 (8)



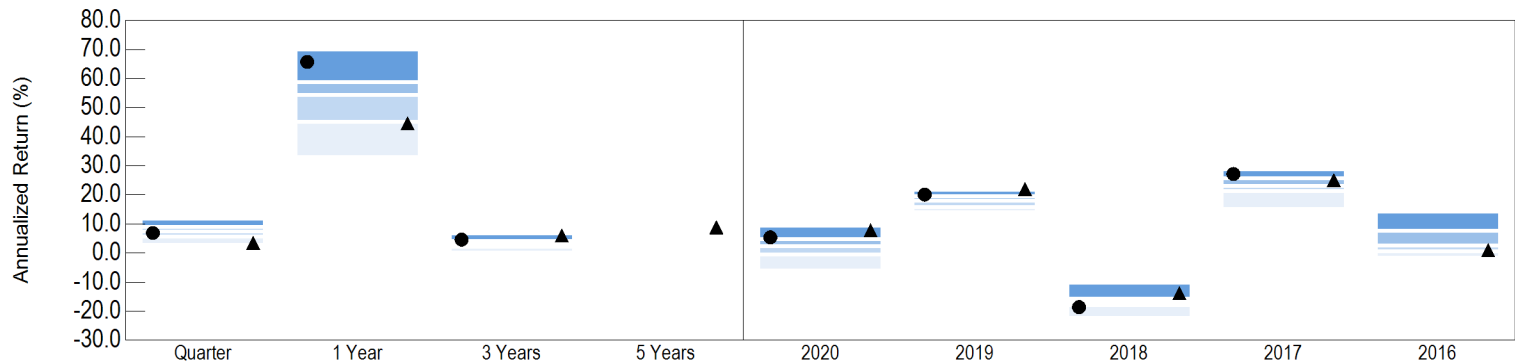
# Causeway International Value Ins Performance Summary (Net of Fees)

Period Ending: March 31, 2021

### 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	2020	2019	2018	2017	2016
<b>5th Percentile</b>	11.8	69.9	6.6	9.5	9.3	21.7	-10.4	28.7	14.1
<b>25th Percentile</b>	9.0	59.0	4.3	8.4	4.8	19.8	-15.6	25.7	7.7
<b>Median</b>	7.5	54.4	3.4	7.3	2.4	18.1	-16.5	23.2	2.7
<b>75th Percentile</b>	5.8	45.2	2.4	6.1	-0.5	15.9	-17.7	21.5	0.6
<b>95th Percentile</b>	3.0	33.2	0.3	5.0	-5.9	14.2	-22.2	15.3	-1.6
<b># of Portfolios</b>	91	88	82	80	84	84	74	74	78
● Causeway International Value Ins	6.9 (57)	65.7 (11)	4.6 (20)	-- (-)	5.4 (22)	20.1 (22)	-18.6 (91)	27.2 (14)	-- (-)
▲ MSCI EAFE	3.5 (94)	44.6 (79)	6.0 (7)	8.8 (15)	7.8 (7)	22.0 (4)	-13.8 (17)	25.0 (30)	1.0 (69)

## Domestic Fixed Income

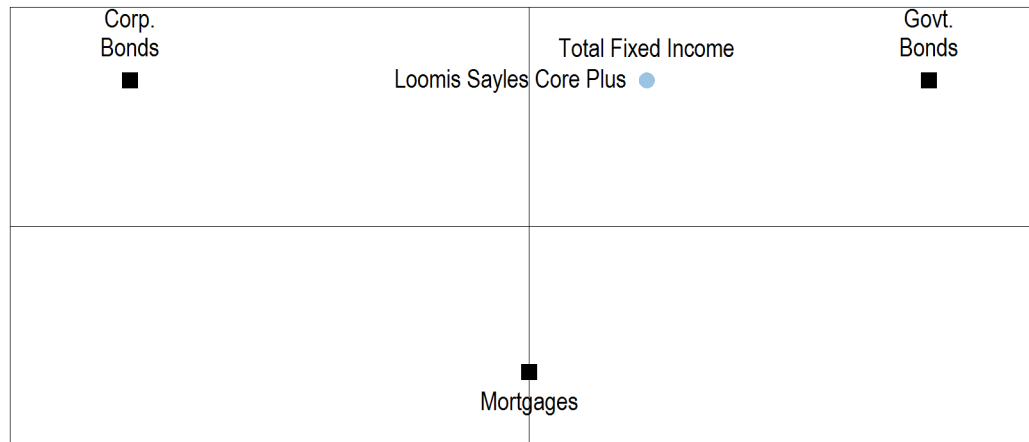
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Total Fixed Income  
Performance Summary (Net of Fees)

Period Ending: March 31, 2021

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
<b>Total Fixed Income</b>	<b>61,405,270</b>	<b>100.0</b>	<b>-3.0</b>	<b>6.7</b>	<b>5.8</b>	<b>5.4</b>	<b>4.8</b>	<b>11.3</b>	<b>9.4</b>	<b>-0.4</b>	<b>5.6</b>	<b>7.5</b>
<i>Total Fixed Income Benchmark (BBgBarc Aggregate)</i>			-3.4	0.7	4.7	3.1	3.4	7.5	8.7	0.0	3.5	2.6
<i>InvMetrics Tff-Hrtly DB US Fix Inc Net Rank</i>			95	46	4	5	8	2	28	75	18	9
<b>Fixed Income</b>	<b>61,405,270</b>	<b>100.0</b>										
Loomis Sayles Core Plus	61,405,270	100.0	-3.0	6.7	5.8	--	--	11.3	9.4	-0.4	--	--
<i>BBgBarc US Aggregate TR</i>			-3.4	0.7	4.7	--	--	7.5	8.7	0.0	--	--
<i>eV US Core Plus Fixed Inc Net Rank</i>			72	48	21	--	--	9	63	40	--	--

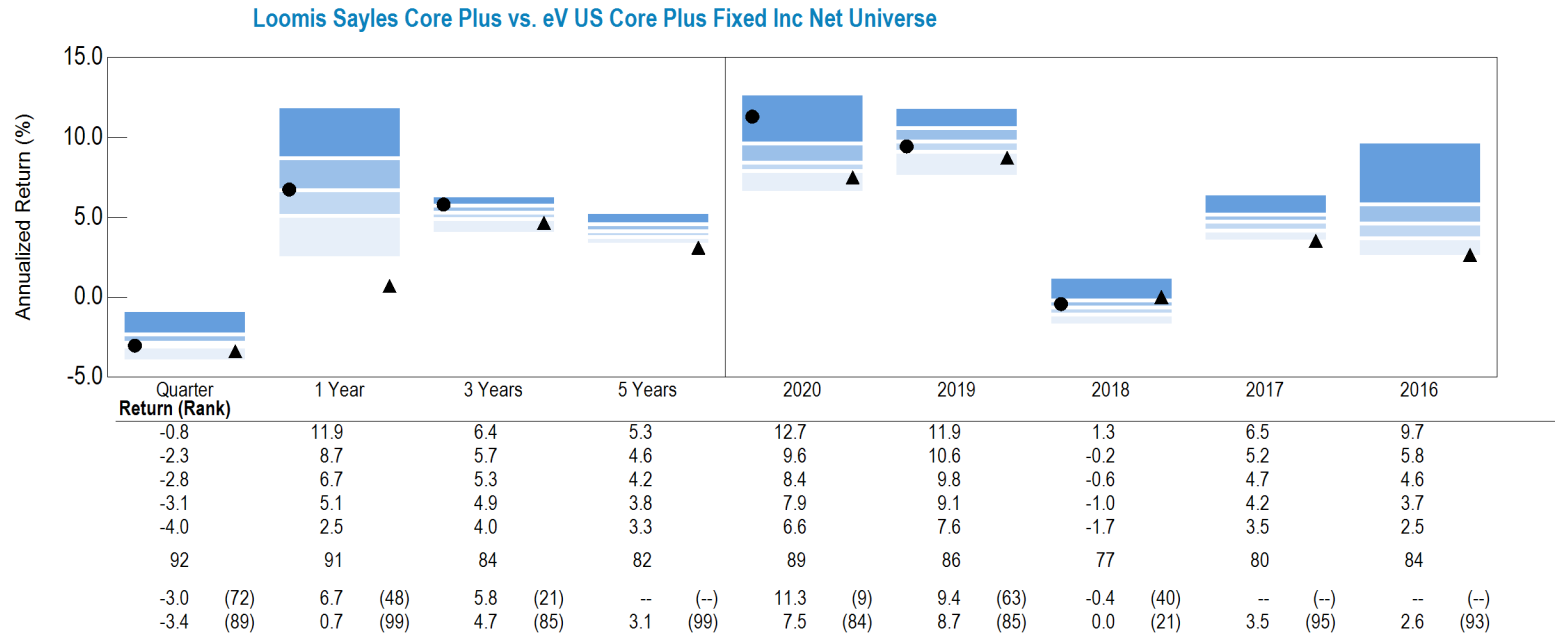
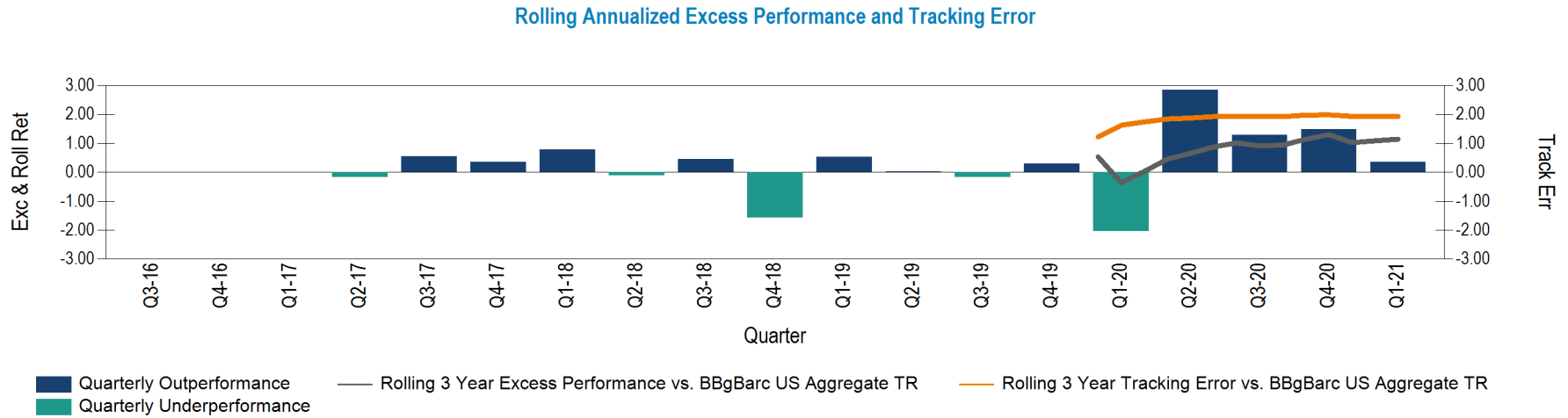
Fixed Income Style Map  
3 Years



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

# Loomis Sayles Core Plus Performance Summary (Net of Fees)

Period Ending: March 31, 2021



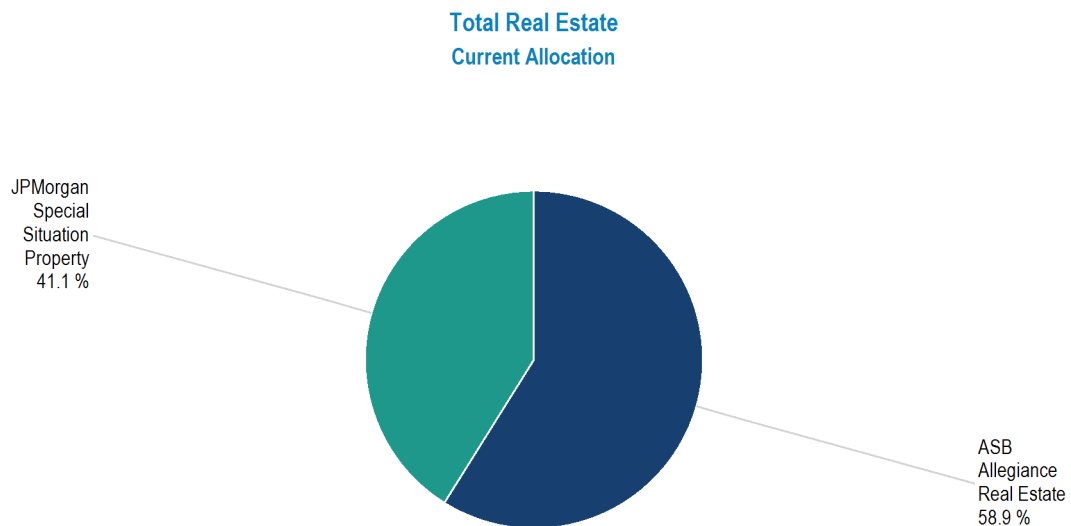
## Alternatives

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# Total Real Estate Performance Summary (Net of Fees)

Period Ending: March 31, 2021

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
<b>Total Real Estate</b>	<b>37,943,528</b>	<b>100.0</b>	<b>2.0</b>	<b>2.8</b>	<b>4.9</b>	<b>5.1</b>	<b>9.4</b>	<b>2.3</b>	<b>4.6</b>	<b>7.8</b>	<b>5.0</b>	<b>5.4</b>
<i>NCREIF ODCE Net</i>			1.9	1.5	4.0	5.3	8.7	0.3	4.4	7.4	6.7	7.8
<b>Real Estate</b>	<b>37,943,528</b>	<b>100.0</b>										
ASB Allegiance Real Estate	22,366,007	58.9	2.4	3.1	4.8	4.6	--	2.4	4.2	7.1	3.9	4.5
<i>NCREIF ODCE Net</i>			1.9	1.5	4.0	5.3	--	0.3	4.4	7.4	6.7	7.8
JPMorgan Special Situation Property	15,577,521	41.1	1.4	2.5	5.2	6.4	--	2.0	5.0	9.6	7.9	8.7
<i>NCREIF ODCE Net</i>			1.9	1.5	4.0	5.3	--	0.3	4.4	7.4	6.7	7.8



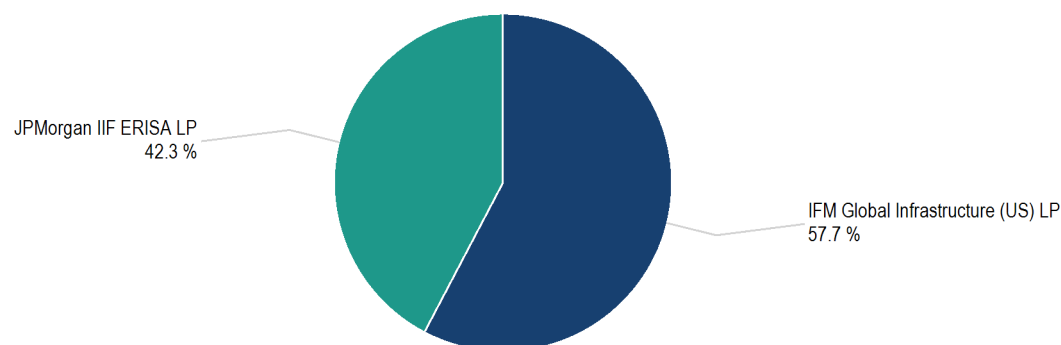
Invesco Real Estate II liquidated 9/1/2019.

# Total Infrastructure Performance Summary (Net of Fees)

Period Ending: March 31, 2021

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
<b>Total Infrastructure</b>	<b>18,386,464</b>	<b>100.0</b>	<b>1.2</b>	<b>10.8</b>	<b>7.3</b>	<b>9.3</b>	<b>7.3</b>	<b>5.4</b>	<b>11.5</b>	<b>10.2</b>	<b>17.9</b>	<b>3.8</b>
<i>CPI + 5%</i>			2.9	7.7	7.1	7.2	6.8	6.4	7.4	7.0	7.2	7.2
<b>Infrastructure</b>	<b>18,386,464</b>	<b>100.0</b>										
IFM Global Infrastructure (US) LP	10,611,919	57.7	1.9	9.4	8.6	11.8	8.8	3.1	14.6	15.8	21.1	6.1
<i>CPI + 5%</i>			2.9	7.7	7.1	7.2	6.8	6.4	7.4	7.0	7.2	7.2
JPMorgan IIF ERISA LP	7,774,545	42.3	0.2	12.8	5.9	6.6	5.8	8.4	8.0	4.2	14.2	1.2
<i>CPI + 5%</i>			2.9	7.7	7.1	7.2	6.8	6.4	7.4	7.0	7.2	7.2

Total Infrastructure  
Current Allocation

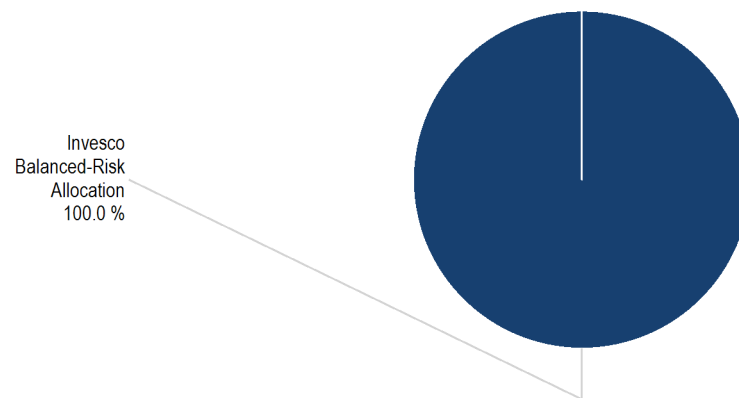


Total Multi-Asset  
Performance Summary (Net of Fees)

Period Ending: March 31, 2021

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2020	2019	2018	2017	2016
<b>Total Multi-Asset</b>	<b>48,592,179</b>	<b>100.0</b>	<b>1.8</b>	<b>27.6</b>	<b>7.6</b>	<b>7.7</b>	<b>6.7</b>	<b>10.8</b>	<b>15.7</b>	<b>-5.8</b>	<b>10.6</b>	<b>7.4</b>
60% MSCI ACWI Net/40% FTSE WGBI			0.4	31.3	8.4	8.9	6.3	14.5	18.2	-5.8	17.1	5.5
eV Global Balanced Net Rank			64	87	73	87	61	46	92	22	99	54
<b>Multi-Asset</b>	<b>48,592,179</b>	<b>100.0</b>										
Invesco Balanced-Risk Allocation	48,592,179	100.0	1.8	27.6	7.6	8.3	7.0	10.8	15.7	-5.8	10.5	12.2
60% MSCI ACWI Net/40% FTSE WGBI			0.4	31.3	8.4	8.9	6.3	14.5	18.2	-5.8	17.1	5.5
FTSE 3-Month T-bill +6%			1.5	6.2	7.5	7.2	6.6	6.6	8.4	8.0	6.9	6.3
eV Global Balanced Net Rank			64	87	73	84	49	46	92	22	99	19

Total Multi-Asset  
Current Allocation



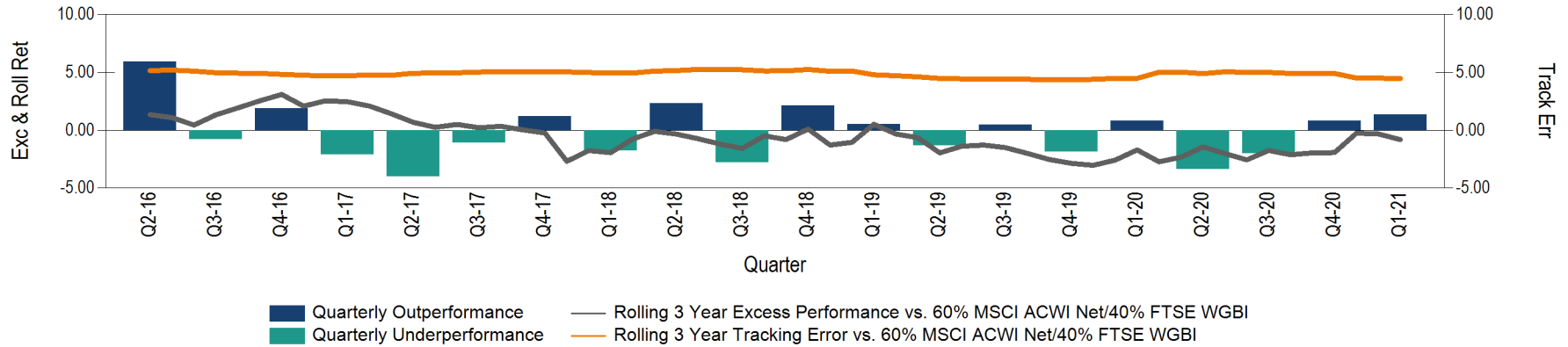
Mellon Dynamic liquidated 5/5/2017.



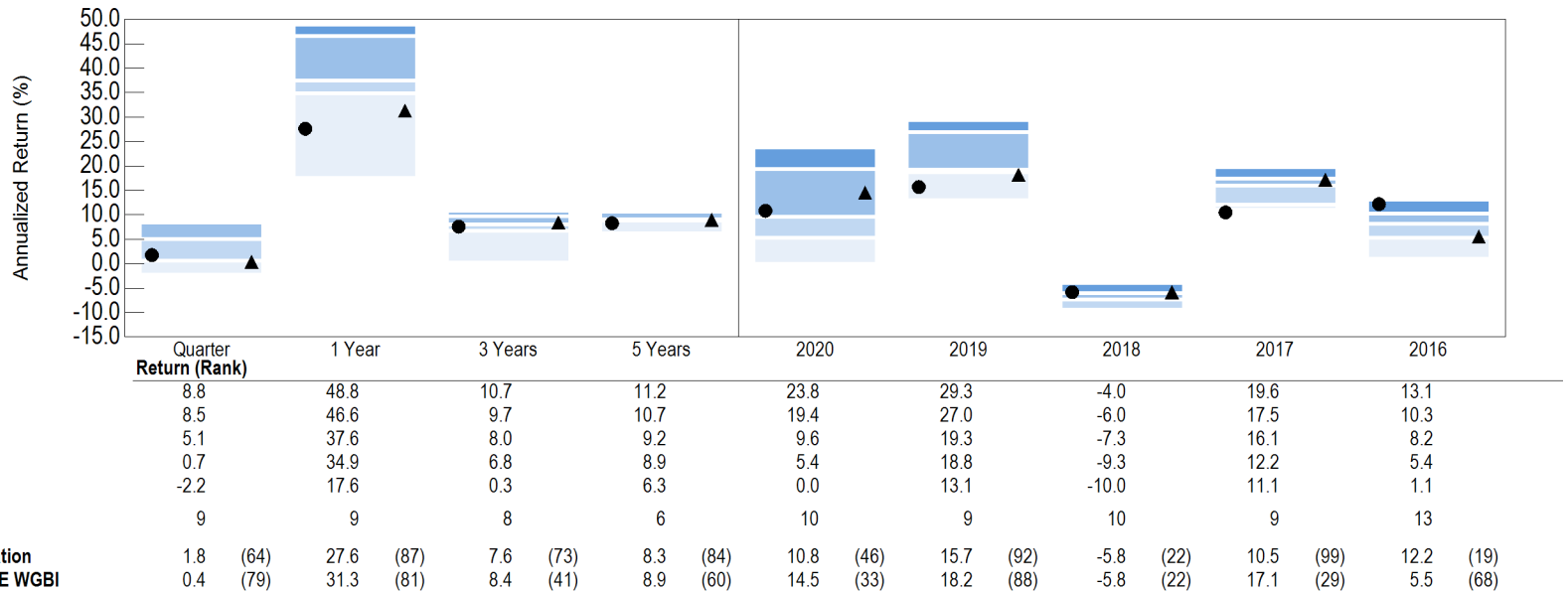
# Invesco Balanced-Risk Allocation Performance Summary (Net of Fees)

Period Ending: March 31, 2021

### Rolling Annualized Excess Performance and Tracking Error



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



**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**

<u>Manager</u>	<u>Fund Incepted</u>	<u>Data Source</u>	<u>Manager</u>	<u>Fund Incepted</u>	<u>Data Source</u>
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

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**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.

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