Capital Markets Review | 1st Quarter 2020

March 31, 2020

Overview

The first quarter of 2020 was historic, both for markets and for the world at large, as a local outbreak in late 2019 of a previously unknown coronavirus in the Hubei Province of China morphed into a global pandemic. The disease caused by the virus, named COVID-19, has infected millions and led to tens of thousands of fatalities. In order to contain the virus and reduce the burden on healthcare systems, governments around the globe have closed down meaningful portions of their economies—imposing travel restrictions, cancelling social gatherings and events, shuttering non-essential businesses, and even locking down entire cities. In response to this extraordinary economic disruption, the United States Federal Reserve (the Fed) announced two emergency rate cuts, first by 50 basis points on March 3 and then by 100 basis points on March 16—bringing the Fed funds rate range down to 0 - 25 basis points. In addition, the Fed announced open-ended Quantitative Easing alongside a host of other liquidity enhancing programs. Meanwhile, the US Federal government passed the bipartisan Coronavirus Aid, Relief, and Economic Securities (CARES) Act, which provided $2.3 trillion in fiscal stimulus. These concurrent acts of fiscal and monetary policy were unprecedented in terms of size and scope, as well as the speed with which they were enacted—a direct reaction to a problem unseen in modern times.

Markets did not begin heavily discounting the economic risks associated with the COVID-19 outbreak until the last week of February. As recently as February 19, the S&P 500 closed at an all-time high of 3,386 and the VIX, a market implied measure of S&P 500 volatility, finished the day at 14.4. Over the course of the following 3 weeks, the S&P 500 closed in bear market territory—representing the fastest 20% drawdown from an all-time high in the history of the index. Ultimately, the index fell 33.9% from peak-to-trough before partially rebounding near month-end. The VIX touched levels last seen in October 2008, hitting an intraday high of 85.5 on March 18. **Exhibit 1**, on the following page, illustrates the spike in implied volatility across equity and fixed income markets, as the VIX (based on S&P 500 option prices) and TYVIX (based on Treasury option prices) both rose significantly in March.

Risk assets saw significant declines during the quarter. Although equities grabbed most of the headlines, stresses in lesser followed markets were in some ways more acute and did more to force the hand of monetary authorities. Spreads in short-term commercial paper and interbank lending markets relative to the target federal funds rate reached their highest levels since the Global Financial Crisis, as the market began to price in severely elevated credit risks. **Exhibit 2,** on the following page, shows the spread between the 3-month LIBOR and Treasury rates, an indicator of the health of funding markets (commonly referred to as the TED spread), which rose far higher than its long-term average. These short-term funding pressures created an elevated demand for dollars, leading to spillover effects and eventually forced selling of other assets. Credit markets across the quality spectrum sold off in earnest, as issuance seized up and investors found

Trailing Period Market Performance (%)

	QTD	CYTD	1 Year	5 Years	10 Years
S&P 500	-19.6	-19.6	-7.0	6.7	10.5
Russell 2000	-30.6	-30.6	-24.0	-0.2	6.9
MSCI EAFE	-22.8	-22.8	-14.4	-0.6	2.7
MSCI EAFE SC	-27.5	-27.5	-18.1	1.0	4.8
MSCI EM	-23.6	-23.6	-17.7	-0.4	0.7
Bloomberg US Agg Bond	3.1	3.1	8.9	3.4	3.9
BofA ML 3Mo US T-Bill	0.6	0.6	2.3	1.2	0.6
Wilshire US REIT	-25.6	-25.6	-19.4	-0.2	7.7
Bloomberg Commodity Index	-23.3	-23.3	-22.3	-7.8	-6.7

Quarter-to-Date Performance (%)

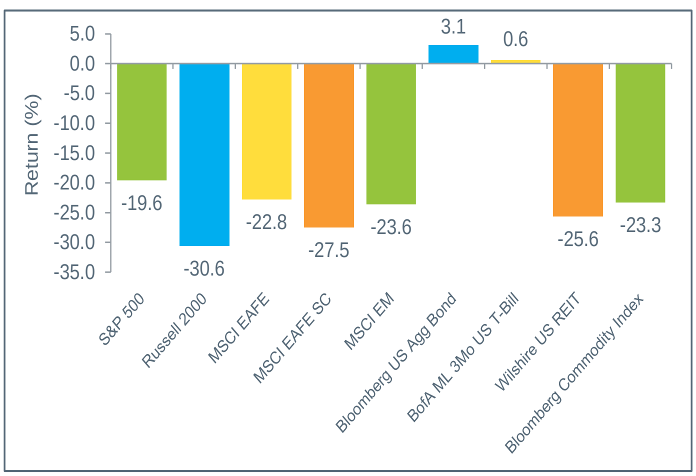
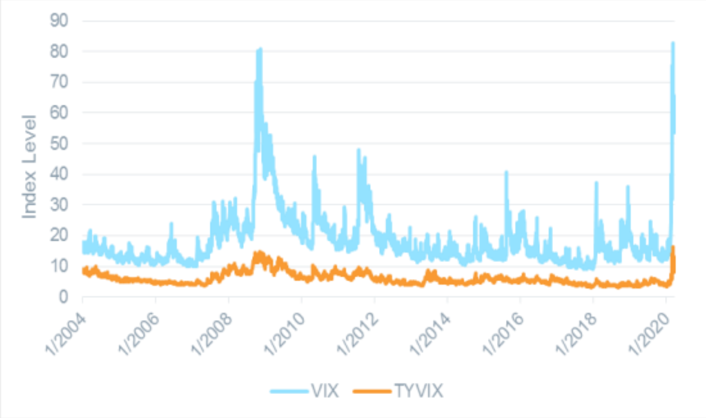


Exhibit 1: Significant Implied Volatility Spike



a lack of willing buyers amid record mutual fund and ETF outflows. Credit ETFs, which normally track the value of their underlying bonds, routinely closed at large discounts to their Net Asset Value (NAV) due to liquidity mismatches and difficulty in price discovery. Lower-quality credit assets, such as high yield debt and bank loans, fell in excess of 20% intra-month, while investment grade debt and high-quality structured credit also suffered severe losses. Compounding the effects of the reduction in demand caused by COVID-19 was an oil price war that erupted between Saudi Arabia and Russia in early March. The ensuing price drop in oil further stressed the valuations and debt of companies, and the stability of economies, tied to oil revenues. The US Dollar appreciated by nearly 10% against its trade weighted basket from March 3 through March 23, weighing heavily on returns in emerging markets.

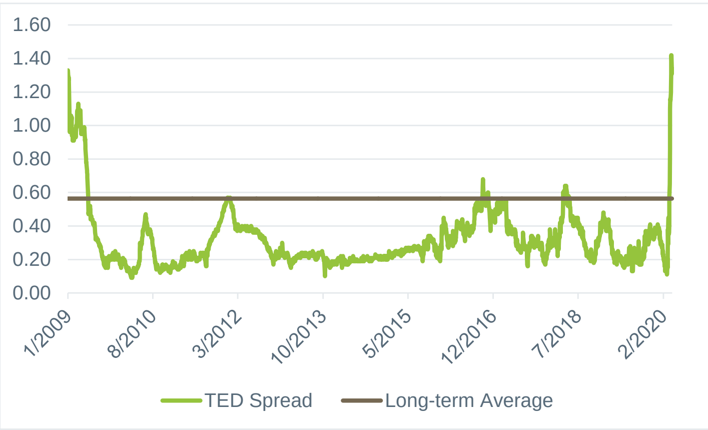
In response to these market conditions, the Fed announced a host of new programs designed to alleviate short-term funding stresses and restore functionality to primary and secondary credit markets. These programs included open-ended large-scale purchases of Treasuries, agency mortgage backed securities, and agency commercial mortgage backed securities. In addition, facilities were launched to provide bridge financing to investment grade corporate borrowers and to backstop some of the associated credit risk in the market through asset purchases. Other programs included support for consumer and business borrowing, a facility to act as a liquidity provider in short-term commercial funding markets, and an expanded effort to provide liquidity to otherwise stressed money market funds for eligible collateral. Also, the Fed extended dollar liquidity swap lines to foreign central banks to alleviate dollar funding shortages abroad.

The Fed's extraordinary steps took place alongside the development and eventual passing of the CARES Act, which included myriad provisions designed to stabilize the economy. The Act provided $500 billion to an Exchange Stabilization Fund, managed by the US Treasury Department in connection with the Fed, to backstop household and business balance sheets through the aforementioned programs and others during the forced economic shutdown. The wide ranging emergency spending authorized by the CARES Act also included $300 billion for cash payments to individuals, $260 billion for enhanced unemployment benefits, $350 billion for small business loans, and $340 billion to state and local governments.

Due to the policy response, markets rallied significantly from their lows by quarter-end. However, considerable uncertainty remains with respect to the balancing act policy makers must perform between ensuring public health and restoring economic activity. Experts believe the virus can incubate for up to 14 days—during which an otherwise healthy person could spread it to others. Safely reopening the economy without pushing infections, hospitalizations, and deaths higher is likely to require expanded testing capacity, serology tests to indicate immunity, and increased surveillance of potential hot spots to reduce flare-ups until reliable treatments or a vaccine are developed. The timeline for these innovations is believed to be several months with respect to testing capacity, but upwards of 12 to 18 months for a scientifically reliable vaccine.

The most recent IMF World Economic Outlook report forecasted global GDP growth of -3% for 2020, a level significantly below what was experienced during the Global Financial Crisis in 2008. This model still relies on a gradual recovery taking hold beginning in the second half of the year. Recent US GDP growth estimates for Q2 2020 across major investment banks indicate an annualized contraction in economic activity ranging anywhere from 15% to in excess of 30%. Employment data for the three weeks ending April 4 was not encouraging, as 16.8 million Americans filed for jobless claims during the period.

Exhibit 2: Stressed Funding Markets



Key Economic Indicators

	Q1 2020	Q4 2019	Q3 2019	10 Year Average
Federal Funds Rate	0.08%	1.55%	1.90%	0.64%
Treasury - 1 Year	0.17%	1.59%	1.75%	0.76%
Treasury - 10 Year	0.70%	1.92%	1.68%	2.34%
Treasury - 30 Year	1.35%	2.39%	2.12%	3.12%
Breakeven Inflation - 5 Year	0.53%	1.70%	1.35%	1.74%
Breakeven Inflation - 10 Year	0.93%	1.79%	1.52%	1.97%
Breakeven Inflation - 30 Year	1.25%	1.81%	1.59%	2.11%
Barclays US Corp: Hi Yld Index - OAS	8.80%	3.36%	3.73%	4.78%
Capacity Utilization	72.72%	77.10%	77.43%	76.86%
Unemployment Rate	4.40%	3.50%	3.50%	6.07%
ISM PMI - Manufacturing	49.10%	47.80%	48.20%	54.05%
Baltic Dry Index - Shipping	626	1,090	1,823	1,216
Consumer Confidence (Conf. Board)	120.00	128.20	126.30	93.55
CPI YoY (Headline)	1.50%	2.30%	1.70%	1.77%
PPI YoY - Producer Prices	-0.90%	1.90%	-0.10%	1.72%
US Dollar Total Weighted Index	122.82	114.72	117.99	102.94
WTI Crude Oil per Barrel	$20	$61	$54	$72
Gold Spot per Ounce	$1,577	$1,517	$1,472	$1,360

Asset Class Commentary

US Equity

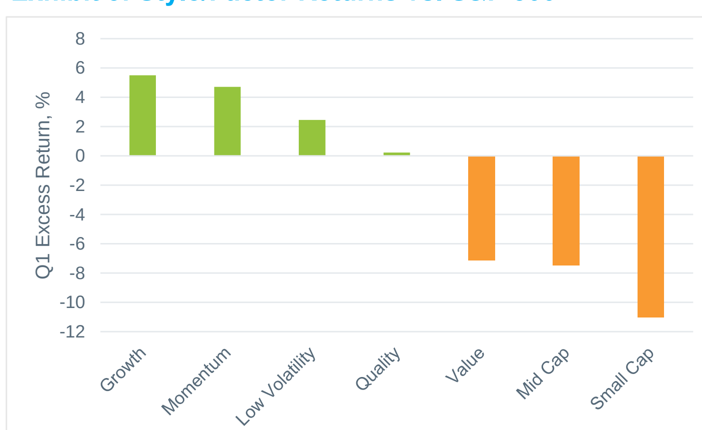
US markets hit their peak in mid-February before growing concerns about the spread of COVID-19 caused the S&P 500 to draw down nearly -34% over a 3 week period. In response, Federal lawmakers passed a fiscal stimulus package through the CARES Act, and the Fed worked to combat the effects of the pandemic by cutting interest rates to near zero and launching large scale asset purchases. Buoyed by these relief measures, the market experienced a 15.5% gain from the trough to end Q1, however the S&P 500 still finished the quarter down -19.6%, marking the ninth worst quarter since 1926. Small- and mid-cap stocks were hardest hit with the Russell 2000 and Russell Mid Cap indexes down -30.6% and -27.1%, respectively.

Volatility in the markets reached levels last seen during the Global Financial Crisis, with the VIX index closing near 83 in mid-March. However, volatility levels declined at the end of Q1, dropping to the low 50s. The month of March experienced two of the six worst days in the stock market dating back to 1928 with daily returns of -12.0% and -9.5%. Conversely, March also included the ninth (9.3%) and tenth (9.4%) best days since 1928.

As expected, low volatility stocks held up well in the risk-off environment of Q1. Less expected was the downside protection provided by momentum and growth stocks, as shown in **Exhibit 3**. Value underperformed growth across all market capitalizations, experiencing a sharper drawdown than growth. The Russell 1000 Value finished Q1 down -26.7% while the Russell 1000 Growth finished down -14.1%. Additionally, the Russell 2000 Value finished down -35.7% with the Russell 2000 Growth down -25.8%.

Active management continued to deliver mixed results in Q1 with approximately 50% of managers providing excess returns. Large-cap value managers and small-cap growth managers outperformed their respective benchmarks with the highest rates of success. Large-cap growth and small-cap value managers struggled, on average, against their benchmarks. Overall, many value managers provided notably better relative returns in March as more growth managers failed to outpace comparatively higher benchmark returns. Across the style spectrum, manager exposure (or lack thereof) to cyclical industries—especially airlines, leisure, and oil-related businesses—drove benchmark-relative returns.

Exhibit 3: Style/Factor Returns vs. S&P 500



Non-US Equity

Developed international markets fared slightly worse than domestic markets during Q1 with broad indexes declining nearly -25%. Value stocks continued to underperform growth, with the gap between the style groups widening meaningfully and larger companies with diversified business lines generally outperformed their smaller counterparts. Sectors were negative across the board, but defensive sectors (such as healthcare, consumer staples, and utilities) held up better amidst the volatility. Healthcare stocks performed best, as the sector was the only one to avoid double-digit negative returns. On the other hand, more economically-sensitive and commodity-linked stocks were hit hard. In particular, energy and financial stocks lost about a third of their value. By region, performance was not as diverse as it was by sector; although the Pacific region was propped up by Japan which provided investors a measure of safety. Japan reported a lower infection rate than other developed countries, and the high cash balances carried by many Japanese companies, which previously had been seen as a detriment to returns, proved useful in providing ballast to stocks during the quarter. Most European country returns were in line with the developed markets index, but there were a few standouts, such as Denmark and Switzerland. Among the active managers that RVK follows closely, most emphasized an increased focus on quality companies with healthy balance sheets and confirming that the companies they hold will be able to make it through these uncertain times.

For the quarter, emerging markets were the worst performing equity asset class, although they only trailed developed equity markets by a thin margin. Similar to the rest of the world, value significantly underperformed growth, and large-cap stocks also outperformed small. Emerging markets were also negative across sectors and countries, but with greater disparity by region than the developed world, as there was a flight to countries perceived as safe havens. The worst performers were less industrialized countries, such as Colombia and Brazil, where index levels were roughly cut in half. On the other hand, China was the second-best performing country in the world, behind Denmark. Generally, larger-cap Asian countries, such as China and Taiwan, buoyed the emerging markets, whereas performance in Latin America was more challenged. China's growth-oriented economy, coupled with declining reported cases of COVID-19, helped to limit its depreciation.

Fixed Income

COVID-19-related fears and subsequent monetary policy responses led Treasury yields to steep declines of more than 100 basis points across all maturities. On March 9, the 30-year yield ended the day at just 0.99%, marking the first time ever that all maturities ended below the 1% threshold. The declines benefitted Treasuries, as the Bloomberg US Treasury Index returned 8.2% for the quarter. Long-dated Treasury returns were even more pronounced, as the Bloomberg US Long Treasury Index returned 20.6%.

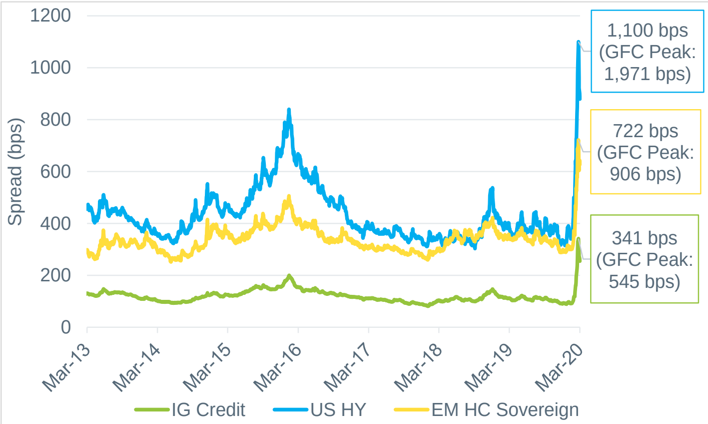
Credit experienced significant selloffs and volatility over the quarter. Investment-grade corporates recorded the two most severe weeks of spread-widening ever in March, only to be followed by the most extreme week of spread-tightening. At one point, spreads reached 373 basis points, surpassing the previous month's high yield levels. In all, the Bloomberg US Corporate Index returned -3.6% in Q1 with bifurcated returns between quality groups, as AAA-rated bonds returned 4.7% while BBB-rated bonds returned -7.1%. This disparity highlighted concerns of potential downgrades amid an uncertain economic outlook.

Non-investment grade credit was hit even harder. High yield spreads exceeded 1,000 basis points for the first time since 2008, and the Bloomberg US High Yield Index registered its second-worst quarter on record with a return of -12.7%. Energy was the worst-performing sector, returning -38.9%. The spread of the sector widened 342 basis points on March 9 in response to the oil price war launched between Russia and Saudi Arabia. This represented the largest single-day move ever recorded and was nearly twice as severe as the next largest increase, which occurred three days later. The change was more than four times the magnitude reached during the worst day of the 2015/2016 energy crisis. Similarly, the Credit Suisse Leveraged Loan Index fell -13.0%, and posted its lowest (-3.8%) and highest (3.0%) single-day returns since its launch in a span of just eight days. It also recorded its three worst trading days ever during the week of March 16.

Global markets were heavily impacted as well. With so many countries relying on oil exportation, emerging market debt suffered from both declining oil prices and coronavirus-induced reductions in demand. The JPM EMBI Global Diversified Index had its worst quarterly decline in more than 20 years, returning -13.4%, which was worse than the total losses experienced in 2008.

Exhibit 4 illustrates the sharp widening of OAS spreads of investment grade credit, high yield, and hard currency emerging market yields versus Treasuries that occurred in March.

Exhibit 4: Significant Spread Widening



Diversified Hedge Funds

The HFRI Fund Weighted Composite Index returned -8.3% for the quarter, led lower by hedged equity (-13.0%) and event-driven (-15.0%) strategies that generally maintain significant net market exposure. The managers that RVK follows closely fared better than many peers, albeit with considerable dispersion across investment styles.

Equity Long/Short (ELS) managers protected against major capital impairment through strong short alpha generation, particularly through bets against stocks in the physical retail or travel and leisure sub-sectors. However, long books were challenged across the board. Managers that outperformed on the long side generally entered the quarter with measured outlooks for cyclicals and global growth relative to peers. In aggregate, ELS managers that RVK tracks closely avoided capturing an outsized portion of the equity market drawdown, and given surging levels of stock price dispersion, remain constructive on the opportunity set for generating alpha via stock selection and industry shifts going forward. While impacted by deleveraging activity during the week of March 16, which caused massive pricing headwinds and volatility across more crowded names, ELS funds were largely spared some of the major factor rotations that negatively affected strategies in prior periods, such as Q1-2016 and Q4-2018.

Within the multi-strategy space, dispersion of returns across managers varied widely. Those managers who lean toward market neutrality and trade highly liquid, high quality instruments tended to outperform managers with a directional bias, or those who rely on complex restructuring situations in lower quality, less liquid securities to generate returns. Programs enacted by the Fed specifically targeted dislocations in treasury and agency mortgage markets as well as investment grade bonds. Managers who rely heavily on market neutral equity and liquid fixed income relative value trading consequently performed relatively well, as did those with sophisticated hedging overlay programs. Managers with merger-arbitrage and credit event driven exposure suffered significant losses mid-month and did not benefit to the same degree from the subsequent rally on the back of the monetary and fiscal stimulus.

Macro managers provided protection during the quarter, with discretionary thematic managers up 3.91% YTD and systematic managers up 2.07% YTD on average, according to HFR. Discretionary managers that maintain cheap long convexity exposure, including options that bet on the front-end of the US yield curve were rewarded when the Fed slashed rates during the quarter. Systematic managers and trend followers in particular benefited from being long USD and short energy commodities as the complex sold off amid the oil price war.

Importantly, RVK's ongoing conversations with managers throughout the quarter indicate that few are experiencing material issues with respect to liquidity, execution, or portfolio financing. Industry lessons learned from 2008—using multiple prime brokerage relationships, improving risk management systems, and avoiding liquidity mismatches—have kept operations flowing smoothly to date.

Global Tactical Asset Allocation (GTAA)

GTAA managers largely provided negative absolute returns during the quarter with long-biased strategies generally underperforming a static and less diversified blend of 60% US equity and 40% US fixed income. Although most long-biased GTAA strategies RVK tracks underperformed this measure, the degree to which strategies lagged varied. Strategies that provided the weakest relative returns versus peers tended to have higher relative allocations to emerging markets equities or exposure to oil markets and US small-cap equities. Within emerging market equities, growth equities once again out-paced value, detracting from performance for managers. Emerging market debt allocations also detracted from the relative performance of these strategies. Even though many of these strategies held or added hedges to various equity markets during the quarter, contributions from these hedges were outweighed by other long exposures. Long-biased managers that outperformed peers on a relative basis tended to have more exposure across US markets as opposed to emerging markets, both within fixed income and equities. Allocations to preferred securities also provided positive relative performance versus riskier assets. Among multi-asset managers that intend to provide reduced correlations, lower volatility, and less market sensitivity, most outperformed long-biased GTAA managers. While this group still generally provided negative absolute returns, this subset of managers largely outperformed a static blend of 60% US equity and 40% US fixed income during the quarter.

Diversified Inflation Strategies (DIS)

Performance across DIS managers RVK tracks was generally negative on an absolute basis during Q1, though there was dispersion among strategies driven by exposure differences. In a reversal from 2019, managers with larger TIPS allocations tended to outperform peers as riskier assets saw relatively large drawdowns during the quarter. These strategies also tended to hold relatively higher allocations to commodities, which was a headwind in part due to the price war in the oil industry. Despite the commodity exposures, TIPS allocations helped to buoy Q1 returns relative to peers. Managers that underperformed by the widest margins versus peers emphasized allocations to REITs, global listed infrastructure and/or global natural resource equities in varying proportions. All of these assets detracted from performance significantly in Q1. Over the quarter, inflation and market-based measures of future expected inflation both decreased. Inflation, as measured by the year-over-year change in Headline CPI, decreased over the quarter from 2.30% in December to 1.50% in March. The decrease from February to March alone is the largest one month drop seen since January 2015 and was largely attributed to the oil price drop. Other contributors included decreased rates across airfares and lodging. The 10-year Treasury break-evens, a market-based measure of future inflation expectations, also decreased over the quarter from 1.79% to 0.93%.

Real Estate

Core private real estate returned 0.97% during the first quarter (on a preliminary basis), as reported by the NCREIF-ODCE Index, with the total return comprised of a 1.02% gain from income with a -0.05% loss due to price appreciation. While the income component remained in line with historical levels, price appreciation experienced a meaningful decrease of -0.52% compared to the prior quarter. Investments in publicly traded real estate trailed their private market counterparts by a wide margin, delivering a first quarter total return of -25.4% as measured by FTSE/NAREIT All REITs Index.

Overall, the significant divergence between public and private real estate performance in the first quarter was largely due to the public market sell-off in March, whereas in private real estate, there is a lagged pricing effect. The impact on property pricing and rent collections stemming from the economic slowdown forced by COVID-19 will be more evident in second quarter returns and through the remainder of the year.

The effects of the economic slowdown on investments in commercial real estate are expected to be far-reaching, with both income and appreciation returns at risk. In the near term, most real estate sectors are expected to see below-trend rent collections as tenants request various forms of rent relief from property owners. This is expected to have a meaningful influence on future capital values as owners and appraisers re-evaluate underlying property value, income, and lease-up assumptions. To a large extent, these impacts were not widely factored into first quarter returns, as only a subset of managers felt it was appropriate to make adjustments to valuations where the effects were most immediate.

Given the wide reaching consequences of this pandemic, the sensitivity and operational issues experienced by property type will vary significantly. In the near-term, the retail, leisure and hospitality sectors are the heaviest hit segments of the market. Senior and student housing also have unique circumstances which can cause these properties to be more at-risk. Seniors are the most vulnerable to the global pandemic while student housing is beholden to campus policies and potential cancellations of classes for the remainder of the academic year.

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RVK

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