

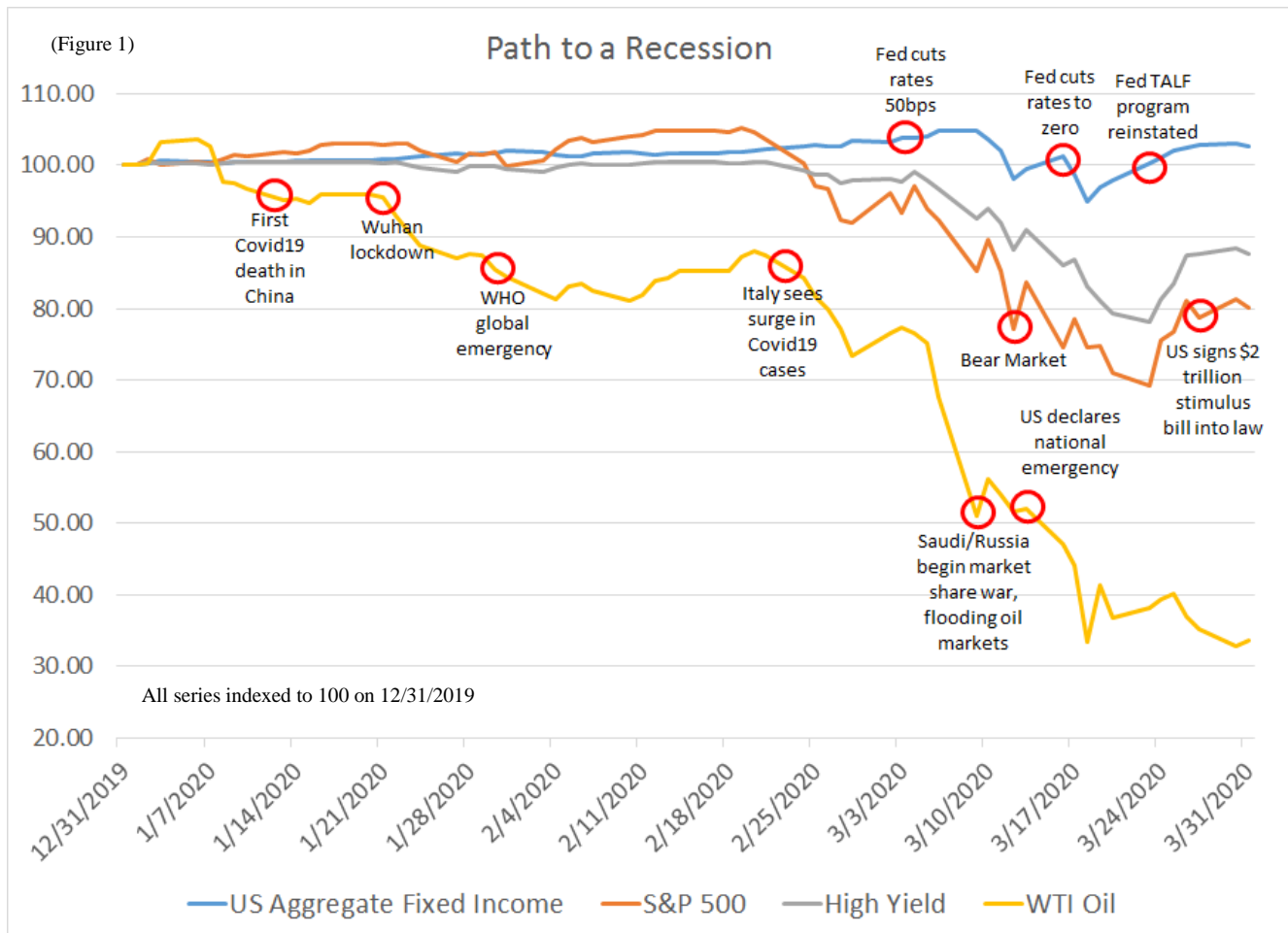
2020: FIRST QUARTER MARKET UPDATE

APOCALYPSE NOW

The month of March saw the sudden onset of a bear market across global equities as the economic cost of quarantine measures to contain the Covid-19 infection became evident. Empty shelves at grocery stores and a steady stream of dire health warnings reinforced the feeling that investment apocalypse was at hand.

This unexpected turn of events caught most investors by surprise, given the bullish tone of markets at the beginning of the year, and led to massive selling of risky assets and a flight to liquidity. The S&P500 index entered a bear market on March 12th and ended the quarter down 19.6% (figure 1) with a peak to trough move lower of 33.8%.

The wave of selling was painful enough in equities but then completely overwhelmed fixed income markets' normal trading volumes, leading to sharp drops in security prices. Fund managers seeking to avoid realizing losses by selling risky securities into an illiquid market instead sold safer, more liquid securities, spreading the pain to all corners of the credit markets, including municipal debt. Handcuffed by regulations set in place in the wake of the Great Financial Crisis of 2008, banks were unable to step in and provide liquidity as market makers. Spreading disruptions to the normal functioning of fixed income markets eventually forced the Fed's hands, leading to renewed quantitative easing measures (a policy in which the central bank purchases government debt or other fixed income securities in an effort to lower interest



rates, increase liquidity and stimulate economic growth, see figure 2) and zero interest rate policy (ZIRP). The Fed’s balance sheet has now passed the \$5 trillion mark for the first time in history and is still rising.

(Figure 2)

Historic monetary stimulus, including:

- **\$700B+ in purchases of U.S. Treasury securities, mortgage-backed securities, CMBS, and agency MBS**
- **\$300B in new financing to support the flow of credit to employers, consumers, and businesses**
- **Establishment of primary and secondary market corporate credit facilities to provide liquidity for new and outstanding corporate bonds**
- **Establishment of Term Asset-Backed Securities Loan Facility to support credit to consumers and businesses**
- **Expanded Money Market Mutual Fund Liquidity Facility to facilitate the flow of credit to municipalities**
- **Expanded the Commercial Paper Funding Facility to facilitate the flow of credit to municipalities**
- **Slashed policy rate to 0%**

Source: John Hancock Investments

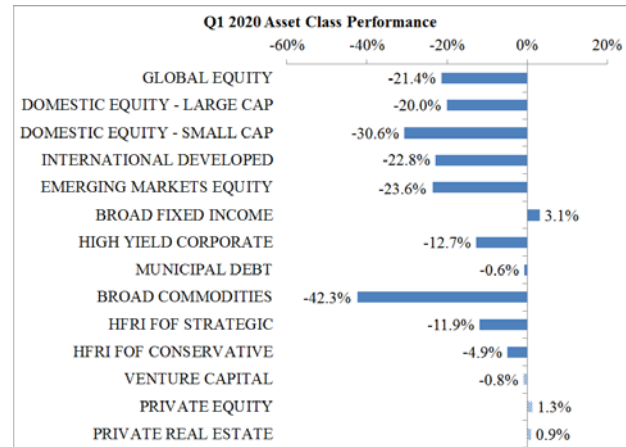
The unfolding crisis seemed to have an immediate impact on oil markets as stay at home orders crushed demand for transportation fuels. Faced with rapid demand destruction, OPEC and Russia failed to agree on supply cuts, instead triggering a market share war and flooding markets with excess oil. The unprecedented combination of both a demand and supply shock took oil spot prices down by two thirds over the quarter, ending just above \$20/barrel, a level not seen since 2001.

With the threat of a looming recession, the U.S. Congress passed the \$2.6 trillion Coronavirus Aid, Relief and Economic Security (CARES) Act (see details in Appendix). Amounting to 12% of GDP, the new fiscal stimulus package dwarfed the \$787

billion passed in 2009, which represented 5.6% of GDP at the time.

Massive monetary and fiscal stimulus measures helped markets stage a late month rally but all asset classes except fixed income ended the quarter in deeply negative territory (figure 3).

(Figure 3)



Source: Bloomberg

(Private funds report with a lag. We show the performance of the most recent reported quarter through September 2019).

As we explained in our year-end note, our goal is always to maintain highly diversified portfolios on behalf of our clients in order to hedge against unforeseen and potentially adverse outcomes. Thus, we rely on cash, fixed income and absolute return strategies to act as shock absorbers to growth-oriented portfolios centered on equities.

THE HURT LOCKER

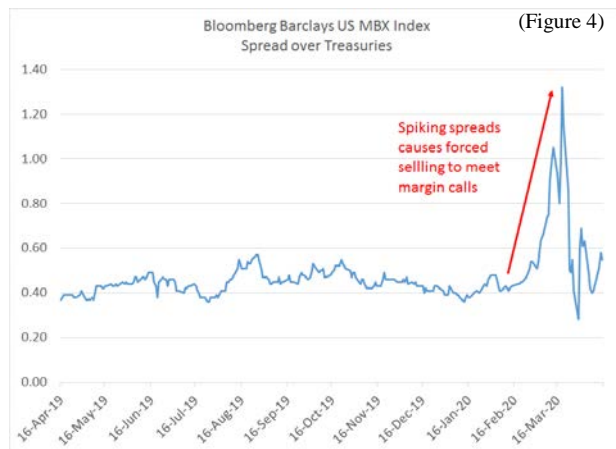
Volatility in March was unprecedented, not so much in its magnitude, but in the speed at which markets unraveled. Shell-shocked investors experienced multiple market dislocations, most prominently in structured credit and midstream energy, because of the presence of leveraged funds.

Structured Credit:

Mortgage-backed securities (MBS) are traditionally defensive assets trading at low credit spreads relative to U.S. Treasuries. Mortgage REITs are investment structures that purchase MBS and apply leverage to amplify returns. As fixed income markets seized up in mid-March in a rush to

(Figure 3)

liquidity, even staid MBS experienced sharp spikes in spreads (figure 4).



Source: Bloomberg

Mortgage REITs had to liquidate assets in order to meet margin calls from their lenders, leading to staggering losses of 70-90% for these funds given 8-12x turns of leverage. The implementation of a Term Asset-Backed Securities Loan Facility (TALF) on March 23rd calmed markets for the most highly rated securities, but spreads remain elevated in lower-rated or non-agency MBS.

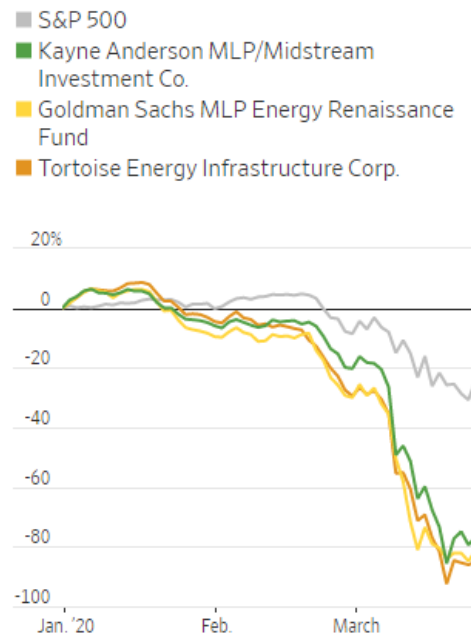
This situation is reminiscent of 2009 when specialized credit investors were able to generate outsized returns in structured credit in the wake of the Great Financial Crisis.

Midstream Energy:

Because midstream companies (i.e. pipelines and related infrastructure) do not take direct commodity price, they were perceived as low volatility assets. Closed-end funds used leverage to amplify the steady yield offered by these companies.

With the collapse in oil prices, risks to customers of midstream assets (energy producers, but also refiners and utilities) became pronounced, impacting the market value of midstream companies. Closed end funds operating with leverage were forced to liquidate assets to meet margin calls, recording massive losses in the process, but also magnifying the downside for all market participants, even unlevered ones (figure 5).

Energy-focused closed-end funds, share price (Figure 5)



Source: FactSet

Source: Wall Street Journal

The midstream industry is in a better position today, after having strengthened balance sheets and moved to a self-funding model not reliant on access to capital markets. The industry also has significant exposure to natural gas, rather than oil, which is less cyclical as electricity and heating are bigger end markets and both essential services.

However, low commodity prices and forced selling have created a historic valuation opportunity in midstream assets, now trading at levels below those seen in 2008 (figure 6).

(Figure 6)

Alerian Weighted Price to Distributable Cash Flow (P/DCF)



Average = 10.3x | Current = 4.7x | Minimum = 4.7x

Bloomberg, Chickasaw, 3/6/20

Source: Chickasaw

With selling pressures abating, the appeal of stable cash flows underpinned by contracted fee for service revenue should become attractive. The MLP Alerian index rebounded by 28.8% between March 18th and the end of the quarter.

THE GREAT ESCAPE

The sharp and sudden market downturn offered few places to hide besides cash as even gold and fixed income wobbled and posted negative returns.

In this environment, strategies with low market exposure performed better. As shown below in figure 7, absolute return strategies (equity market neutral, relative value, global macro) performed much better than market directional strategies (equity hedge and event driven).

(Figure 7)

HEDGE FUND INDICES	March Return
HFRI EQUITY HEDGE	-12.9%
HFRI EVENT DRIVEN	-15.3%
HFRI EQUITY MARKET NEUTRAL	-3.0%
HFRI MACRO	0.1%
HFRI RELATIVE VALUE	-7.0%

Source: Bloomberg

Because of its flexibility to go long or short across major asset classes, global macro was in the best position to deliver positive returns (+0.1% for the month) and became the star of the show.

Even within this asset class, a volatile environment caused significant dispersion: discretionary funds (human judgement) did better than systematic funds (machines); and funds focused on developed markets generally performed better than funds exposed to emerging markets.

With a significant overweight to discretionary global macro, our Absolute Return sleeve was well positioned for the dislocation. We anticipate that global macro strategies will continue to do well in a volatile environment and are adding to our allocations.

A related area that did very well in March is commodities trading. Exploding volatility in

energy markets (figure 8) benefitted these flexible strategies. The trader in our portfolio correctly anticipated massive moves and went short oil markets via futures and put options, delivering welcome positive returns.

(Figure 8)



Source: Bloomberg

PATHS OF GLORY

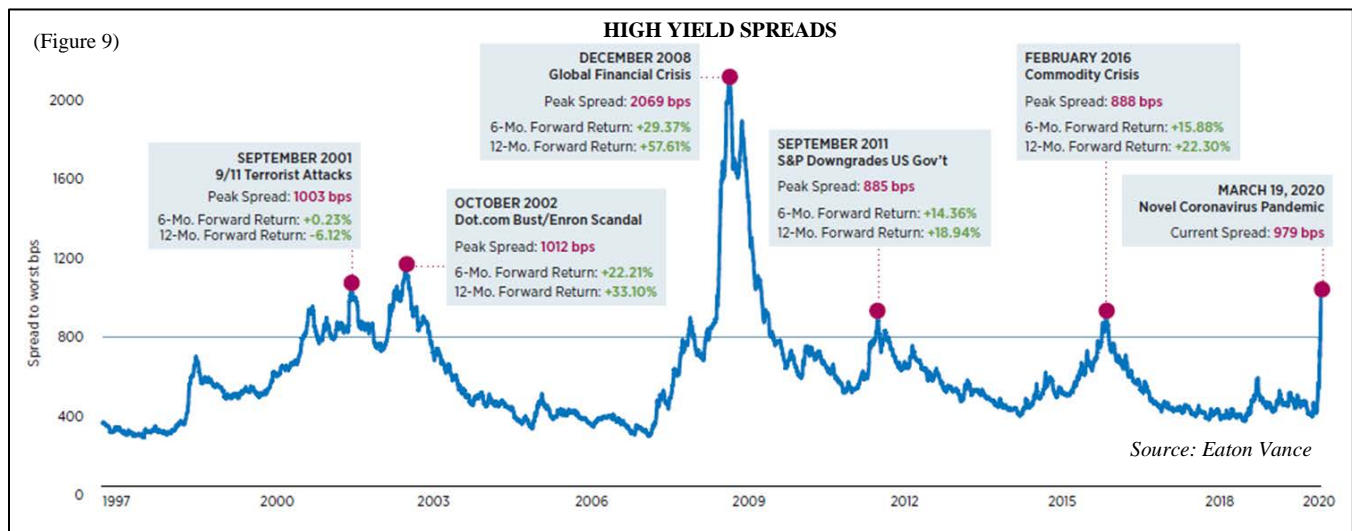
Going forward, areas of opportunities have emerged for investors willing to tolerate short-term volatility.

Distressed Credit:

Massive redemptions out of high yield debt, bank loans and structured credits (residential and commercial mortgages) have led to distressed pricing levels, which historically portend positive future returns (figure 9, next page).

Credit investments offer downside protection by being higher in the capital structure than equities, offer an income component (in the case of performing debt) and if purchased cheap enough, can generate strong equity-like returns.

Distressed specialists with long-term capital will be well positioned to generate strong appreciation by deploying capital at these levels. We are in active dialogue with managers presenting attractive co-investment opportunities over a three-year horizon.



Real Estate:

As the world hunkers down under the shadow of Covid-19, stress is evident in real estate: hospitality, leisure and entertainment facilities lost traffic almost overnight. Similarly, the crisis will accelerate the demise of weaker regional malls. Poor operators with stretched balance sheets will be forced to off-load assets at fire-sale prices. Distressed real estate investors with long-term capital in the form of private vehicles will be well positioned to take advantage of these opportunities as they arise.

Publicly traded REIT securities are trading much below the net asset value of their properties, at levels not seen since the Great Financial Crisis of 2008. Even amid the strain, specific sectors are emerging as safe havens in real estate including data centers, cellular towers and laboratory space. We think that active managers will be able to take advantage of increased dispersion in the sector.

Private Equity:

In private markets, we think that a wealth of opportunities will emerge as managers use the environment to negotiate better pricing and terms on deals yet retain dry powder by bringing in some co-investors in specific situations.

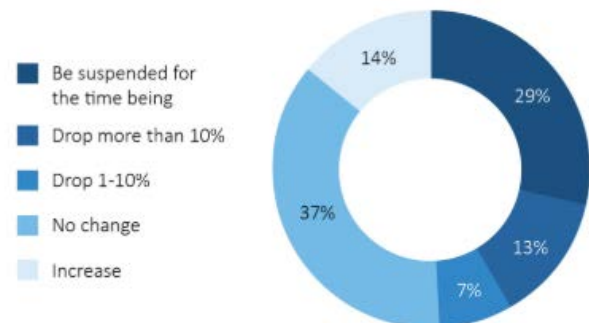
Based on recent surveys, it is clear that some investors in private markets are pulling back. In a Pitchbook survey (figure 10), 49% of respondents indicated they would suspend or reduce allocations

to private markets in the next six months. Only 14% were considering increasing their allocation. This will allow investors endowed with liquidity to increase allocations to the most sought-after managers.

(Figure 10)

Limited partners

My firm or fund's allocation to private market investments in the next six months will:

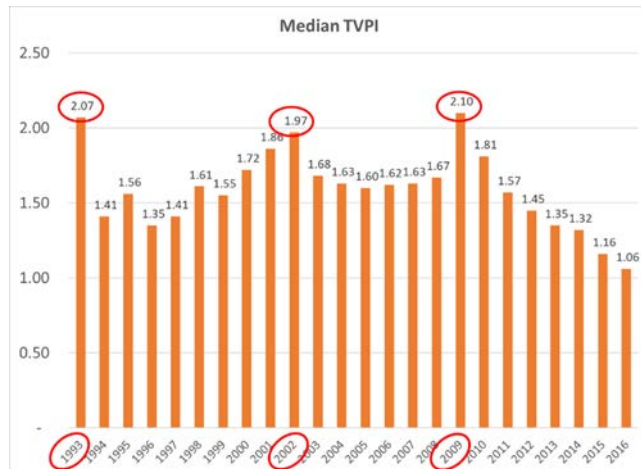


Source: Pitchbook

Finally, a silver lining in this environment is that liquidity needs for Limited Partners with large private equity portfolios may create buying opportunities in secondary deals (i.e. acquiring commitments in a previously closed hard to access fund at a discount).

As we pointed out in a May 2019 note to clients, private equity managers typically notch their best returns in the wake of a market pullback when scarce liquidity means limited competition and better pricing on new assets (figure 11).

(Figure 11)



Source: Cambridge Associates.

(TVPI is the Total Value to Paid in ratio).

CONCLUSION

In the first quarter of 2020, the world experienced a major global health crisis, which sharply curtailed economic activity, disrupted global supply chains and exposed weaknesses in crisis preparedness.

The shockwave of this unexpected event rocked financial markets to an extent unseen since the 2008 Great Financial Crisis, ushering a bear market and most likely a recession, and helping unleash unprecedented levels of monetary and fiscal stimuli.

No asset class escaped unscathed from this crisis and significant dislocations appeared. Thanks to highly diversified portfolios across a large number of assets and managers, we helped preserve capital on behalf of our clients.

The flip side of dislocated asset prices and massive stimulus is the potential for stronger performance once the crisis abates. In the course of a month, markets went from an environment where all assets were expensive to one where everything abruptly went on sale. The fact is that we don't know if volatility is over and markets may yet face another dip. However, now is the time to stay the course as great long-term opportunities are becoming

available for investors willing to deploy liquidity or tolerate volatility.

APPENDIX 1

\$2 Trillion in US Rescue Funds

\$532bn Big business, local government loans & financial institutions with \$61bn to airlines	\$290bn Direct payments to families (est.)	\$290bn Tax Cuts	\$126bn Hospital restitution, veteran & other health care
			\$45bn FEMA
			\$31bn*
			\$27bn*
\$377bn Small business loans & grants	\$260bn Unemployment insurance expansion (est.)	\$150bn State and local stimulus funds	\$25bn*
			\$131bn Other

* \$31bn to Education Stabilization, \$27bn to Vaccine stockpiles and \$25bn to Infrastructure

Sources: Bloomberg as of 3/31/20. The views contained in this report are those of IR+M as of 3/31/20 and are based on information obtained by IR+M from sources that are believed to be reliable.

Source: Income Research & Management

RESEARCH/COMMENTARY DISCLAIMER

PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS. This material has been prepared by Windrose Advisors, LLC on the basis of publicly available information, internally developed data and other sources believed to be reliable. The information provided herein is for general informational purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any securities or commodities, or investment advice relating to securities or commodities, or a representation that any security or commodity is a suitable or appropriate investment for any person. All information herein is written and prepared for large and experienced institutional investors with the highest degree of financial sophistication and knowledge and the capacity to withstand and assess any financial losses. Opinions expressed herein are current opinions as of the date appearing in this material only and are subject to change without notice. In the event any of the assumptions used herein do not prove to be true, results could vary substantially. All investments entail risks. There is no guarantee that investment strategies will achieve the desired results under all market conditions. No representation is being made that any account, product, or strategy will or is likely to achieve profits, losses, or results similar to those discussed, if any. No part of this document may be reproduced in any manner, in whole or in part, without the prior written permission of Windrose Advisors, LLC. You may not rely on the statements contained herein. Windrose Advisors, LLC shall not have any liability for any damages of any kind whatsoever relating to this material. You should consult your advisors with respect to these areas. By accepting this material, you acknowledge, understand and accept the foregoing.