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Q2 2020 OUTLOOK & REVIEW

QMA's Global Multi-Asset Solutions Group

EXECUTIVE SUMMARY

- The rapid spread of the coronavirus has triggered a global health crisis, rocked global financial markets, and caused a sudden stop in the global economy.
- Global equity markets have melted down at a dizzying speed, and implied volatility has surged to global financial crisis levels.
- Global bond yields first plunged to an all-time low, then recovered as market participants contemplate the impact of a tsunami of government bond issuance designed to ease the pain of the crisis and stave off economic collapse.
- The pandemic itself will worsen before it gets better, and no one can say with certainty when the crisis will abate.
- A global recession is unavoidable at this point. The big question is whether it will be a sharp but short recession lasting just a couple of quarters or a more sustained economic downturn.
- A more benign type of recession would occur if efforts to bring the virus under control succeed within a few months, however, we are closely monitoring for downside risks, potential "tipping points," and signs of economic contagion that could push us toward a more adverse economic scenario.
- The Saudi/Russia price war has led to a collapse in the price of oil, which could not have come at a worse time. Lower energy prices will benefit global consumers, but these benefits are diffuse and realized over a period of time, while the costs for energy-producing firms and countries are immediate and concentrated and are causing credit market shockwaves.
- The response from global policy makers will play a critical role in determining how much collateral damage can be minimized.
- Governments around the world, both central banks and fiscal authorities, have adopted a "whatever-it-takes" war-time type response and are throwing everything but the kitchen sink at the problem.
- Even massive fiscal spending has its limits, and providing a pathway out of the crisis requires a coordinated and credible public health strategy that brings the spread of the virus under control.
- Equity markets have been crushed with the S&P 500 experiencing its' fastest-ever descent into bear market territory from a record high on February 19th.
- How much further equity downside could we experience? The average US equity bear market in the postwar period has been 35% but we experienced roughly 50% drawdowns in stocks during the global financial crisis, the tech wreck, and the mid-70s bear market.
- With global equity markets already pricing in a significant recession, the vast majority of equity markets declines could be behind us, however, should we experience a deep and extended economic downturn we shouldn't rule out 50% declines or possibly worse.
- In a more optimistic scenario, governments bring the coronavirus under control, and aggressive economic stimulus, ultra-low bond yields, cheap oil, and low inflation turbo charge the economic rebound and restore market enthusiasm.
- We are playing it cautiously for now with our portfolio positioning across all risky assets. Equity market bottoming takes time once stocks have entered a bear market, and equities could have further downside near term, especially with implied volatility at financial crisis levels and virus fears likely to worsen.
- That said, equity markets may exhibit a positive risk-reward tradeoff over the next six to 12 months. Historical analysis reveals a high probability of positive and rewarding average returns after a bear market drawdown, even if there is further downside in the interim.
- However, it is important to recognize the uncertainty, fluidity, and path dependence of the current situation. We are truly in uncharted waters.

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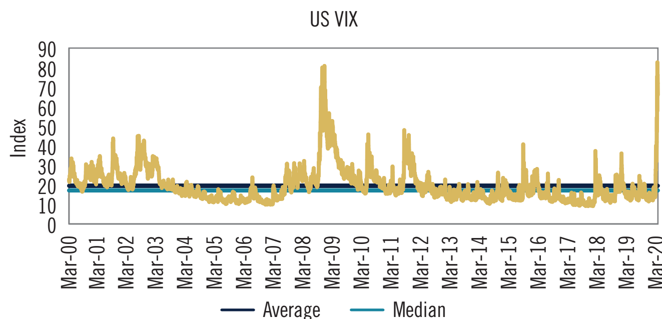
All investments involve risk, including the possible loss of capital.

COVID-19: Uncharted Waters for the Economy and Markets

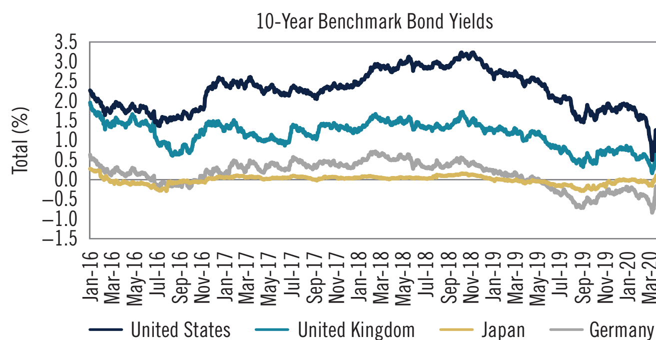
The rapid spread of the coronavirus has triggered a global health crisis, rocked global financial markets, and caused a sudden stop in the global economy. Global equity markets have melted down at a dizzying pace, and implied volatility has surged to global financial crisis levels (Figure 1). Global bond yields first plunged to all-time lows but have since climbed (Figure 2) as market participants contemplate the impact of a tsunami of government bond issuance designed to ease the pain of the crisis and stave off an economic collapse.

Figure 1: A Crushing Level of Stock Market Volatility



Source: Factset, QMA Calculation As of 3/20/20

Figure 2: Global Bond Yields Plunge and Recover

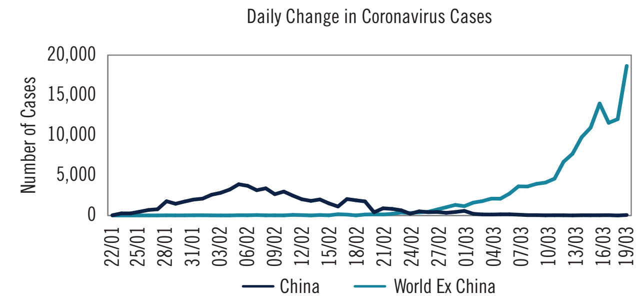


Source: Factset As of 3/24/20

The pandemic itself will worsen before it gets better. While the number of new cases in China has slowed dramatically because of the government's draconian containment measures, the virus has gone global, morphing into the fastest-spreading pandemic in modern history, with the number of new cases outside China rising rapidly (Figure 3). Many major economies are on lock down as the number of cases surge. In Italy, the number of new cases is overwhelming its healthcare system.

The virus is spreading quickly in the US, where the number of cases is still significantly understated due to an inadequate supply of test kits, which only now are becoming available on a large-scale basis. The number of new cases is now exploding as testing is ramping up. One of the unique features of COVID-19 is that carriers are contagious long before symptoms manifest, which enables the virus to spread absent extreme quarantine measures. State and local authorities in the United States have implemented massive mitigation measures to slow the spread of the virus, attempting to avoid an Italian scenario. Such measures are causing severe, albeit temporary, drops in economic activity.

Figure 3: Number of New Virus Cases Outside China is Soaring



Source: World Health Organisation 3/19/20.

China's ability to reduce the number of infections through forceful counter measures is encouraging, however, it may take similar trends elsewhere for investors even to begin to gauge the ultimate the economic costs of this crisis. Financial markets prefer known estimates of economic damage (even if the projection is for immense economic damage) to the fog of uncertainty, which markets are unable to price. Investors should pay particular attention to how the situation progresses in Italy. A peak in the number of new cases in Italy could engender confidence that western countries will be able to get the virus under control. There are some tentative signs that this may be happening.[1]

A global recession is unavoidable at this point. The big question is whether it will be a sharp but short recession lasting two or three quarters or a more sustained economic downturn. Even a short recession will be deep, but economic growth could come charging back once peak virus fears are behind us. This more benign type of recession would occur if efforts to bring the virus under control succeed within a few months, however, we are closely monitoring for downside risk and signs of economic contagion that could push us toward a more adverse economic scenario.

As one example, many observers have pointed to the high level of US corporate debt as an economic vulnerability (Figure 4). We have often pointed out that this is unlikely to spark a recession but could make matters more difficult during the next downturn. Many of these companies are reliant on steady economic growth and low interest rates. Even a short, sharp economic contraction could increase distress and cause a generalized fallout for companies with marginal finances. Total leverage in China has been another perennial downside risk factor. This has the potential to complicate matters for Chinese policymakers as they attempt to ramp up economic growth after the economy has experienced a sudden stop.

[1] While the number of new cases in Italy is rising, the percent change in new cases is falling. This could mean we are not too far from a peak in the number of new cases, which would suggest the lockdown measures are working.

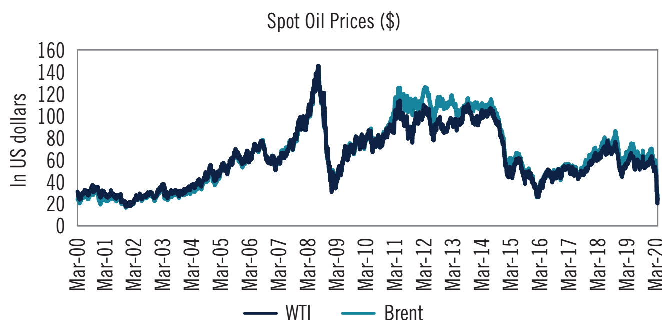
Figure 4: Corporate America's Debt Binge May Come Back to Bite

*Deflated by headline CPI   Source: Datastream As of 3/20/20

Leverage risks extend to other emerging markets, especially in Asia, where companies have borrowed in dollars to finance their operations, taking advantage of the low rates abroad. The current panic in financial markets has led to a surge in the value of the US dollar, given its safe- haven characteristics. In order to service and pay principal on this debt, these companies need dollars. The soaring demand for the currency has made it scarce and expensive, increasing the burden of dollar-denominated debt. The dollar shortage is exacerbated by the fall in trade activity and foreign trade flows. This dynamic raises the risk of an emerging- market debt crisis, as a second-order effect of current market turmoil.

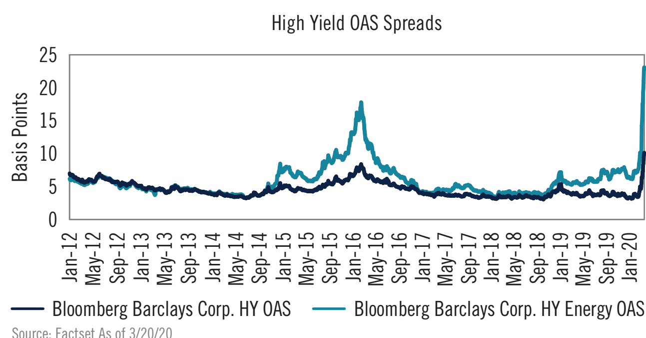
The coronavirus shock is being exacerbated by the oil price plunge triggered by the Saudi/Russia oil price war, which could not have come at a worse time. The massive decline in crude oil prices (Figure 5) is already threatening debt-servicing capacity of high-yield energy companies, causing their spreads to blow out (Figure 6). Lower energy prices will have a beneficial impact on global consumers, but these benefits are diffuse and realized over a period of time, while the costs for energy-producing firms and countries are immediate and concentrated.

Figure 5: Oil Price Collapse



Source: Factset As of 3/20/20

Figure 6: Massive Surge in Spreads for Lower Grade Companies



Source: Factset As of 3/20/20

The response from global policy makers will play a critical role in determining whether collateral damage can be minimized. Global policy rates are re-converging at zero with central banks breaking out their financial crisis playbook, reintroducing quantitative easing and rolling out various liquidity measures.

The US Federal Reserve has gone "all in," rolling out an extraordinary collection of measures, that even exceed in force and scope it's response during the global financial crisis. It has cut its policy rate to zero, unleashed unlimited quantitative easing purchases of Treasuries and agency mortgage-backed securities, and—in conjunction with Treasury—taken steps to support a range of risky assets, including municipal bonds and corporate debt. The Fed has also enhanced and added to its existing dollar liquidity swaps, which it offers to foreign central banks to ease the current shortage of greenbacks. The idea is to alleviate some of the pressure in the currency market. The European Central Bank and the Bank of England have also taken emergency action, and more than 40 other central banks have cut rates or taken easing measures.

Such extraordinary measures on the monetary front are a necessary but insufficient, and therefore the baton is passing to fiscal policy in the form of direct relief for workers and to businesses impacted by the crisis. Fortunately, governments around the world have adopted a wartime "whatever-it-takes" mentality and are throwing everything but the kitchen sink at the problem.

French President Emmanuel Macron has announced that France was "at war" with the virus and unveiled EUR 300 billion in emergency bank loan funding and repayment support. Additional moves from other major markets, including the European Union, UK, Spain, Japan, Canada, Australia and South Korea, are coming. In the US, congress passed a first tranche of fiscal support of $100 billion, and is set to pass an additional round of more than $2 trillion, including targeted support to individuals and impacted businesses.

Even fiscal stimulus has its limits in that it is more about treating the symptoms of the problem and cushioning the economic blow. Providing a pathway out of the crisis requires a coordinated and credible public health strategy that brings the spread of the virus under control. While there are many efforts underway by governments and perhaps some promising developments, public health experts believe the numbers will worsen over the near term, and no one can say with certainty when the crisis will abate.

Equity markets have been pummeled, with the S&P 500 experiencing its' fastest-ever descent into bear market territory from a record high on February 19th. Figure 7 shows that global equity markets have experienced sizeable drawdowns and are generally already pricing in a significant recession. How much further downside could we experience? Figure 8 shows, among other things, the depth of previous US bear markets with an average drawdown of 35% for the S&P 500 index. This suggests the vast majority of downward price action is likely behind us, especially if the virus is brought under control, and the downturn is brief.

Figure 7: Equity Markets Have Experienced Significant Drawdowns Already

Index	Maximum Drawdown				
	2007-08	2010-12	2015-16	2018	2020
MSCI World	-56.3%	-20.8%	-18.4%	-17.8%	-33.2%
S&P 500	-56.8%	-19.4%	-14.2%	-19.8%	-33.9%
Euro STOXX	-61.8%	-32.3%	-27.4%	-20.6%	-37.9%
FTSE 100	-47.8%	-18.8%	-22.1%	-16.4%	-34.9%
Nikkei 225	-61.4%	-24.8%	-28.3%	-21.1%	-31.3%
MSCI EM	-58.9%	-24.0%	-26.6%	-20.9%	-29.5%
MSCI AC Asia ex Japan	-61.5%	-26.7%	-27.8%	-22.9%	-27.5%
Hang Seng	-65.2%	-34.9%	-35.6%	-25.8%	-25.3%
Shanghai Composite	-72.0%	-31.4%	-48.6%	-30.2%	-14.6%

Local Currency, Price Return
Source: FactSet: 3/18/2020

Figure 8: A Historical Perspective on US Equity Bear Markets

Peak Date	Through Date	Length of Drawdown (Trading Days)	Percent Loss	Time to Recover Peak (Trading Days)	Date of Recovery
May 29, 1946	June 13, 1949	761	-29.6%	247	June 9, 1950
August 2, 1956	October 22, 1957	307	-21.6%	233	September 24, 1958
December 12, 1961	June 26, 1962	135	-28.0%	299	September 3, 1963
February 9, 1966	October 7, 1966	167	-22.2%	143	May 4, 1967
November 29, 1968	May 26, 1970	372	-36.1%	451	March 6, 1972
January 11, 1973	October 3, 1974	436	-48.2%	1461	July 17, 1980
November 28, 1980	August 12, 1982	430	-27.1%	58	November 3, 1982
August 25, 1987	December 4, 1987	71	-33.5%	414	July 26, 1989
March 24, 2000	October 9, 2002	637	-49.2%	1166	May 30, 2007
October 9, 2007	March 9, 2009	355	-56.8%	1021	March 28, 2013
	Averages	**367.1**	**-35.2%**	**549.3**	

Source: FactSet

Could we experience a 50% drawdown in stocks similar to those we experienced during the 2008 global financial crisis, the early 2000s tech wreck, and the mid-70s bear market? It's certainly possible if economic contagion spreads and a dire extended downturn develops. But the fundamental macroeconomic conditions prior to the COVID-19 crisis were not bad and stocks were not at bubble valuations. In fact, the global economy, especially the US, looked to have been in a decent place before the crisis hit with a variety of indicators pointing toward accelerating growth. These include US payrolls, China's purchasing managers index, and German factory orders. Thus, the economic strength that was present prior to the current crisis could help restore global growth if the exogenous shock of the virus fades, economic contagion is limited and no lasting structural damage occurs.

In a more optimistic scenario, governments bring the coronavirus under control, and aggressive economic stimulus, ultra-low bond yields, cheap oil, and low inflation turbo charge the economic rebound, restoring market enthusiasm. Thus, we think the time to recover stock market losses could be considerably shorter than the average shown in Figure 8.

Still, we are playing it cautiously for now with our portfolio positioning because equity market bottoming takes time once stocks have entered a bear market, and equities could have further downside near term, especially with implied volatility at financial crisis levels and virus fears likely to worsen. That said, equity markets may exhibit a positive risk-reward tradeoff over the next six to 12 months. Following a drawdown of 20%, US and global stocks have generated average historical returns of 5% to 10% and 15% in the subsequent six- and 12-month periods, respectively, even if there is further downside in the interim.[2] ***However, it is important to recognize the uncertainty, fluidity, and path dependence of the current situation. We are truly in uncharted waters.***

[2]Source: MacroResearch Board Fallout From COVID-19: Most Asked Questions, March 12, 2020

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ABOUT QMA

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Notes to Disclosure

Sources: Datastream, FactSet and QMA. **This is intended for Professional Investors only. All investments involve risk, including the possible loss of capital. Past performance is not a guarantee or a reliable indicator of future results.**

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