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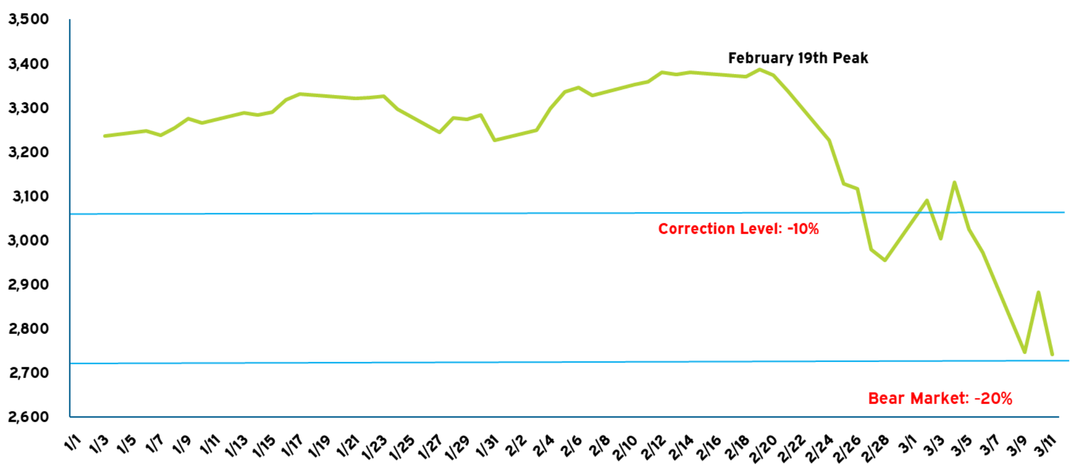
MEMORANDUM

TO: All Clients
FROM: Meketa Investment Group
DATE: March 12, 2020
RE: Covid-19 Update

Since our February 28 update, concerns about the ultimate impact from the COVID-19 virus on the global economy have continued to weigh on financial markets.

US equity markets, as measured by the S&P 500 index, declined through yesterday by just over 19% from their record high, and with today's losses are now considered in "bear market" territory. This represents the fastest decline from peak to bear market in history. Further, the path to this point has been volatile, with ten days experiencing returns of +/- 2%, more than the seven days of similar volatility in all of 2019. The decline through yesterday included a day where the S&P 500 index fell by 7.6%. The last time the market lost over 7% was in December of 2008.

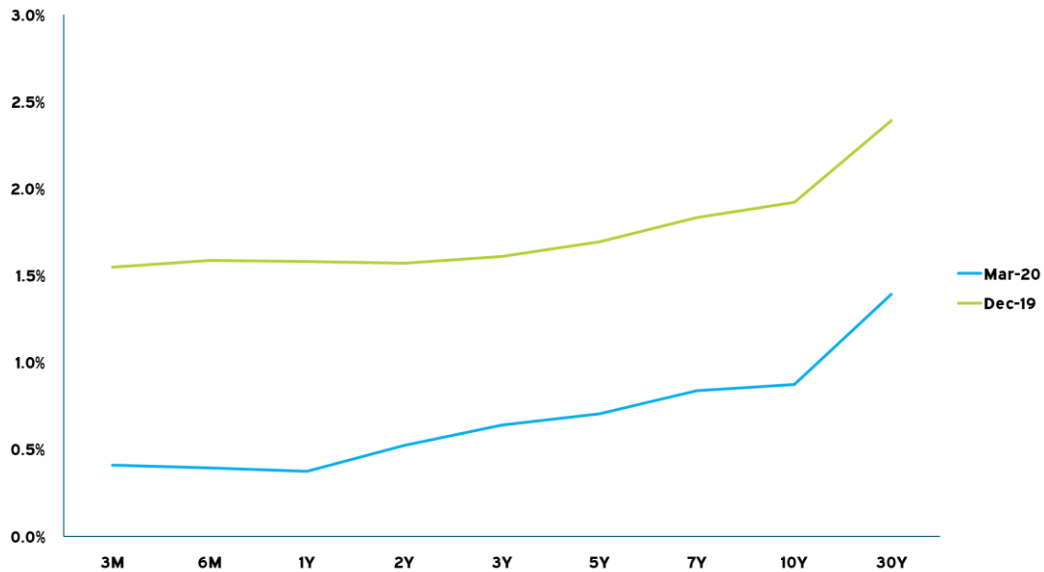
S&P 500[1]



The theme of a "flight-to-quality" has persisted with strong demand for US Treasuries pushing yields lower across the entire yield curve, including driving the benchmark 10-year security to a record low of 0.34% and the 30-year security to 0.71%. Consistent with the experience in equity markets, the aggressive decline in Treasury yields is nearly unprecedented outside of the 2008 financial crisis and the 1930's depression.

[1] Source: Bloomberg. S&P 500 data is as of market close on 3/11/2020.

US Treasury Yield Curve[2]



These historically significant market moves have been driven by three primary factors: the spread of COVID-19 to pandemic levels, uncertainty related to the monetary and fiscal responses, and developments in the oil markets.

COVID-19 Update

Regarding the state of the virus, as of March 11 the World Health Organization officially designated the virus a pandemic, with close to 128,000 cases confirmed globally (up from the 84,000 level in our last memo) across 116 countries. The majority of cases are in China (80,932), Italy (12,462), Iran (10,075), and South Korea (7,869). As for the rate of growth in infections, Italy has seen a rapid rise in the number of confirmed instances, as has Iran, France, Germany, and Spain.

For countries experiencing declining instances (namely China and South Korea), aggressive actions taken to limit interaction with infected persons (self-imposed or mandatory quarantine) has been the most effective policy response. Consistent with that observation, and as a direct effort to contain the spread of the virus, Italian officials recently announced a full quarantine of its citizens, a complete shutdown of its borders, and an order to cease all commercial and retail activities in the country. The only exceptions were for grocery stores, pharmacies, and related components of their supply chains. Other countries are considering similar measures, and markets expect more countries to impose analogous policies over the coming days and weeks.

Domestically, there are a total of 1,323 cases across the US, with the largest outbreaks being reported in Washington, California, and New York. These states, as well as a few others, are taking aggressive action to contain the spread, including closing schools and canceling community events with expected crowds of over 200 people.

[2] Source: Bloomberg. Yield curve data is as of market close on 3/11/2020.

Nonetheless, while expectations are for the virus to continue to spread, officials are suggesting that as testing becomes more readily available across the country, and state and local communities take more direct actions to limit citizen interactions, local governments and health-care professionals should be able to more quickly identify potential carriers and subsequently move to contain or minimize the spread.

Monetary and Fiscal Response

Potential responses by monetary and fiscal authorities have been a central focus of market participants, and to date we have seen several measures taken. On the monetary side, central banks from the Group of Seven (G7) met on March 3 to discuss coordinated policy actions, and since that call we have seen accommodative policy responses by the Bank of Canada, the US Federal Reserve, the Bank of England, and the European Central Bank. Measures thus far have taken the form of policy rate cuts, increases in short and longer-dated liquidity programs and provisions, as well as forward guidance that policy will remain accommodative over the near-term. While the Bank of Japan has yet to make any material policy adjustments, it is expected to announce some degree of easing or additional accommodation when it meets next week.

It appears that monetary policy actions thus far have either been largely discounted by financial markets or perceived as ineffective, judging by the continued deterioration in prices for riskier assets. It is widely believed that monetary policy alone will not be able to stimulate economic activity given the uncertain nature of the virus and what impact it will have on the global economy.

For fiscal policy, efforts have broadly taken the form of allocating government funds to deploy as the needs become evident. In the US, on March 11 the administration announced measures to support consumers and employers that might ultimately be impacted by the economic downturn expected to result from the virus. The proposed measures include lending aid for small businesses and an undefined payroll tax relief measure that will need congressional approval. Additionally, the administration announced a broad-based 30-day European travel ban.

Meanwhile, congressional democrats announced their own proposed legislative measures aimed at mitigating the economic damage from the virus. In summary, the proposed measures would provide short-term benefits in the form of expanded unemployment reimbursements and targeted relief for certain low-income households that lose their jobs due to the virus, additional funding for food security for low-income children, and federally funded family and sick leave for people affected by the virus. The bill also includes free testing and Medicaid reimbursement to assist states in testing and treatment needs.

Similar to the response to monetary policy measures, the financial markets largely perceived the proposed fiscal measures and travel ban as lacking substance and failing to address the risks as they currently stand. Immediately after the announcement, futures markets continued to decline. Today the S&P 500 is down an additional 9.5%.

Developments in the Oil Markets

Amidst the headlines and uncertainty surrounding the virus and its impact on the global economy, a crisis developed in the oil markets last weekend when Russia surprisingly decided not to participate in production cuts proposed by Saudi Arabia and OPEC. This ultimately led to a decline in global oil prices as Saudi Arabia launched an all-out price war.

Specifically, at an OPEC meeting on March 6, Saudi Arabia oil officials proposed production cuts of 1.5 million barrels to help stem the decline in oil prices amidst the expected negative demand shock due to weakness resulting from COVID-19. With prices already lower by roughly 30% heading into the meeting, the decision by Russia to not participate in the cuts prompted Saudi Arabia to increase production while simultaneously reducing prices to key customers in an effort to take market share away from Russia. In the wake of the announcements, West Texas Intermediate (WTI) declined by over 30% to trade near $30 per barrel, where it has generally held since.

Concerns about US producers' abilities to maintain profitability or just remain solvent at such low price levels is being heavily assessed by financial markets. A broad review of performance for oil and gas exploration and production companies reveals price declines for some indices and companies in excess of 60% year-to-date, and notable increases in credit default swap spreads on a number of perceived risky companies. Additionally, as a number of oil producers over the last few years have been issuing debt, including US shale producers, market participants expect an increase in defaults and even bankruptcies. On the positive side, declining oil prices should benefit consumers and net importers.

What is Next?

The market volatility experienced over the last few weeks has, in some ways, been unprecedented. The COVID-19 pandemic, and the potential policy reactions to it, are very challenging risks for the market to discount due to a lack of historical precedent to draw upon. As it is unlikely the spread of the COVID-19 virus will abate soon, we expect the markets to continue to struggle in pricing the impact of the pandemic.

Further, it is important to recognize that this uncertainty has hit the market after an 11-year economic expansion and bull market in the US, with all the customary characteristics that come with long expansions and bull markets – stretched valuations, extended financial leverage, optimized supply chains, etc. Unwinding the excesses built up over time is bound to cause some amount of pain and volatility to the financial system.

One thing we do know is that Bear Markets are temporary. While a global pandemic may be a new trigger for a Bear Market, there have been many causes of Bear Markets historically. It is worth noting the magnitude and duration of each (see the table below[3]), but also that the market eventually recovered from each downturn. The amount of time it took the market to recover has varied, with deeper downturns generally requiring more time.

Period	Peak-to-Trough Decline of the S&P 500	Recovery Date	Approximate Time to Recovery
February 1966 to October 1966	-22%	May 1967	1 year 3 months
November 1968 to May 1970	-36%	March 1972	3 years 4 months
January 1973 to October 1974	-48%	July 1980	7 years 6 months
November 1980 to August 1982	-27%	November 1982	2 years
August 1987 to December 1987	-34%	July 1989	1 year 11 months
July 1990 to October 1990	-20%	February 1991	7 months
March 2000 to October 2002	-49%	May 2007	7 years 2 months
October 2007 to March 2009	-57%	March 2013	5 years 5 months
Average	**-37%**		**3 years 8 months**

Portfolio Implications

While the recent market losses will negatively impact the portfolios of long-term investors, these losses will be temporary for well diversified investors with long time horizons. As always, we encourage our clients to structure prudent, diversified strategic asset allocation policies, invest in a disciplined way over time, and stay focused on the long-term.

Please reach out to your client service teams if you have specific questions or concerns about your portfolio, and we will continue to provide timely and appropriate updates on market events.

[3] Source: Charles Schwab.

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