Global equity markets and Treasury yields fell materially last week as money rushed into safe-haven assets. This move reflected concerns over the spread of the Coronavirus (COVID-19) into developed markets and the expected impact on the global economic expansion. Financial market volatility will remain heightened as investors assess the efficacy of policy responses across healthcare, monetary and fiscal channels.

Our tactical asset allocation team met this morning to review recent market developments. Global financial markets were hit hard last week as COVID-19 cases continued to rise outside of China. The number of reported global cases has now reached nearly 90,000, with a growing number in developed markets and the first deaths in the U.S. Investors should be prepared for a notable uptick in U.S. cases, especially as more robust testing is done. In addition to supply-side concerns emanating from China, markets are now grappling with the impact on global demand as economic activity suffers from containment efforts. Equity markets have responded and are officially in correction territory with little discrimination between regions. U.S. equities, which hit a record high on February 19, have been hit harder than their European, Japanese and emerging market counterparts during the correction — down 13% through the end of last week versus 12% for Europe, 7% for Japan and 9% for emerging markets. Treasury yields have moved notably lower. The 10-year U.S. Treasury now sits near its all-time low at 1.2%. This has provided some support for fixed income asset classes, with high yield only down 2.6% and investment grade up 1.7% during the correction.

EXHIBIT 1: MARKET RESPONSE
Equity markets and interest rates have fallen since mid-February.

OUR UPDATED OUTLOOK

Clearly, the near-term global economic outlook has deteriorated as COVID-19 disrupts day-to-day economic activity — from travel to basic consumption. We have downgraded our U.S. growth outlook, now expecting it to disappoint versus market expectations (as we already expected to be the case in other developed and emerging markets). However, we acknowledge that the situation is very fluid and that we could be revising our outlook as new information is provided on the severity and evolution of the outbreak in the U.S. and other developed countries.

In the very short term, the focus will be on the spread and impact of the virus itself. According to the official data, China has been able to contain the spread of the virus — with the number of new cases falling and workers starting to head back to work. However, the veracity of the data is questionable and there is also some concern that cases will begin to grow again once workers return to the workplace, spread by those incubating the virus. Developed markets do not have the ability to shut down travel (and entire cities) as efficiently as China can give its authoritarian style of government, so the spread of the virus may be harder to contain. However, the mortality rate may also be lower — both because the mortality rate in China may be overstated (with deaths more likely to be reported than infections) and because air quality is better in developed countries than in China. In Exhibit 2, we have updated our table comparing COVID-19 to other outbreaks and infectious diseases from our last report.

EXHIBIT 2: CLINICAL STATISTICS ON COVID-19

COVID-19, as compared with other viruses, appears less deadly but more infectious.

<table>
<thead>
<tr>
<th>Year</th>
<th>Virus Main Geography</th>
<th>Incubation Period (days)</th>
<th>Mortality Rate</th>
<th>Mortality Susceptibility / Age</th>
<th>Global # Infected</th>
<th>U.S. # Infected</th>
<th>Global # Deaths</th>
<th>U.S. # Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19</td>
<td>2020 Coronavirus China</td>
<td>1-14</td>
<td>~2.3%*</td>
<td>Older with medical comorbidities*</td>
<td>~90k</td>
<td>91**</td>
<td>&gt;3k</td>
<td>2</td>
</tr>
</tbody>
</table>

** Relevant Outbreak References **

SARS (Severe acute respiratory syndrome) 2002-03 Coronavirus China 2-7 10% older and medical comorbidities ~8,000 8 774 0

Swine Flu (H1N1) 2009 Influenza U.S. (originated Mexico) 1-4 0.02% younger than 5, older than 60 11-21% of global population 60.8 million 151,700-575,400 12,469

MERS (Middle East respiratory syndrome) 2012 Coronavirus Middle East 2-14 30% mostly men over 50 2,494 2 858 0

Ebola 2014 Ebola virus West Africa 2-21 25-90% 25-34 in women, 35-44 in men ~29,000 11 ~11,000 2

** Ongoing Infectious Disease References **

Measles Annual Rubella Global 10-12 15% younger than 20 6.7 million in 2017 1.282 in 2019 140,000 in 2018 1 in 2015 (last reported death)

Seasonal flu Annual Influenza Global 1-4 <1% children and 65 and older 3-5 million severe illnesses annually 140,000-810,000 hospitalized annually 250,000-500,000 annually 12,000-61,000 annually

* Data 2/11/20 shows overall 2.3% mortality rate, with 1.3% for age 50-59, increasing to 14.8% at age >80, decreasing to 0.2% at age 10-19
** Includes 36 people from the Diamond Princess cruise ship
*** WHO estimate of 1.4-2.5, independent analysis published 2/13/20 of 3.28 (Journal of Travel Medicine, Liu et al)

There are no treatment developments to report since our last update, and we continue to believe that the successful development of a drug or vaccine is speculative. Dr. Anthony Fauci (National Institute of Allergy and Infectious Diseases) recently stated that it will take “at least a year to a year and a half at best” to develop a vaccine, which is in line with our views. We believe a treatment could be developed earlier than that, such as Remdesivir from Gilead (GILD). However, this drug is delivered intravenously, and therefore it is more likely to be used as treatment for severe patients, rather than as a preventative
measure. We continue to believe that basic public health efforts are more likely to curtail this outbreak than a new drug or vaccine over the next twelve months.

At the same time, public health efforts may weigh on economic growth. We expect companies, focused on employee health, to take a conservative approach and have already seen evidence of this — including the cancellation of conferences and reduced air travel. Further, the service-oriented nature of the U.S. economy means a good portion of lost output is unlikely to be recovered in future quarters (those staying home from work one day are unlikely to buy two coffees the next day) as compared to an economy more based on manufacturing. As such, we believe expectations for a “V-shaped” recovery are too optimistic. Full-year 2020 economic growth in the range of 1.0-1.5% is increasingly likely and the odds of a recession have risen.

That said, we do expect a monetary policy response. Inflation expectations — as implied by the 10-year breakeven rate (the difference between 10-year nominal and real yields) — have slipped to 1.4% and the long-end of the yield curve has fallen, pressuring the Fed to respond. Currently, markets are expecting at least one rate cut by the March Federal Open Market Committee (FOMC) meeting and at least three rate cuts by the end of the year (see Exhibit 3). We previously expected two rate cuts during 2020 and have increased that to an expectation of four cuts during the year. We have also lowered our expectations for 2-year and 10-year yields by 0.5% to 0.75% and 1.0% respectively. Other central banks have less room to maneuver on the interest rate side, but we believe the European Central Bank and Bank of Japan may look to increase their quantitative easing packages.

**EXHIBIT 3: RISING EXPECTATIONS FOR FED CUTS**

Investors now fully expect the Fed to cut rates by at least 25 bps in March.

<table>
<thead>
<tr>
<th>12/31/2019</th>
<th>2/28/2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Northern Trust Asset Management, Bloomberg. Rate cut expectations are based on Fed Funds futures and are cumulative from the current policy rate.

We believe easier monetary policy is a “necessary but not sufficient” action to stabilize the economy. While it may help stabilize financial markets in the near term given the influx of money, intermediate-term support will require coordination with fiscal policy. We believe the Trump administration — anxious to provide economic support in an election year — will look to put forth an economic package such as a middle class tax break, but getting such a package through a split Congress may prove challenging.

The policy response will be the focus over the next couple of quarters, especially since economic data will be extremely volatile during this time frame. The epidemic will also play into the 2020 presidential election. Depending on the virus’s course and how it is managed, a range of outcomes are possible with respect to the public’s view of U.S. President Donald Trump’s administration — both in terms of economic policy and crisis management. We view U.S. political leadership as weakening given the uncertainty on these two issues. Should the Trump administration fail to deliver and a progressive candidate become the Democratic nominee, financial markets may see further pressure as investors weigh the economic impacts of a Democratic win and a less business-friendly political agenda.
CONCLUSION: WHAT THE CORONAVIRUS MEANS FOR INVESTORS

Our tactical asset allocation team met this morning (March 2) to review the recent market developments. Despite lowering our growth outlook, we made no changes in our tactical asset allocation policy. We remain moderately overweight risk favoring U.S. assets (equities and high yield) and interest-rate sensitive asset classes (global real estate and listed infrastructure). We do not view it prudent to sell into market weakness given our expectations for near-term central bank action and the belief that such action can — at least temporarily — stabilize the financial markets. Looking at the largest weekly declines in the S&P 500 throughout history (see Exhibit 4), we find that the following week’s return has been positive in all but two occasions with a median return of 3.3%. The extent of the slowdown ultimately depends on the reaction function across governments, companies and individuals in terms of how they respond to the threat posed by the virus. We will continue to monitor developments on the epidemic and the expected impacts on economic growth and financial markets. Our next investment policy meetings are set for next week.

EXHIBIT 4: WHAT COMES NEXT?
The week after a market correction generally sees some consolidation.

Weekly return (%)  Following week return (%)

Source: Northern Trust Asset Management, Bloomberg, S&P. Returns shown are S&P 500 price returns. Past performance does not guarantee future results.

Special thanks to Tom O’Shea and Colin Cheesman, Investment Analysts, for data research.