

After ending 2019 and starting 2020 on a bullish note, markets have fallen sharply over the past two weeks on concerns related to the potential economic ramifications of the spread of the Coronavirus throughout the globe. US equity markets at this point are just shy of officially entering bear territory after opening limit down on Monday March 9th, while US Treasury yields have declined to all time lows. The Fed has already cut rates by 50 bps in an emergency action to counter expected economic slowing and there is increased discussion of potential targeted stimulus measures. With the spread of COVID-19 increasing its hold outside of China, we believe we are in and we expect to stay in a period of heightened economic and financial market uncertainty until market participants can better understand the eventual impact of the disease. At times like these, we think it is useful to focus on what we know, what we need to know, what are the knock-on effects if any and what actions should investors consider in their portfolios.

What do we know?

While the general global population is much more aware of the Coronavirus now than two weeks ago, gauging the potential magnitude and duration of the impact of the disease caused by the Coronavirus, COVID-19, on the economy and financial markets is still conjecture at this point, largely because the ultimate pace and breadth of disease transmission is unknown.

From a contagion perspective, COVID-19 has been described by some as a severe flu, which is comforting but understates the reality. While the coronavirus appears to have a similar transmission mechanism to the flu (virus on water droplets expelled during talking, coughing and/or sneezing), some early studies indicate the virus can live up to 9 days on hard surfaces, significantly longer than the 24-hour life of the influenza virus. At least partially as a result, COVID-19 is estimated to be 2-3 times more contagious than the flu and importantly, can be spread while an infected person is asymptomatic, meaning that infected people who exhibit no outward symptoms may be infecting others they are in close contact with. Initial government efforts have been focused strongly on isolation and quarantine to curb spread, notably China's unprecedented quarantining of 57 million+residents and more recently Italy's decision to restrict travel for all 60 million of its citizens, both of which carry material and hopefully short-lived economic consequences.

From a mortality perspective, COVID-19 appears to have a much higher average fatality rate than the flu but a vastly different mortality distribution based on initial data. Teasing out which data to use is tricky given the relative newness of the disease, the vastly different testing protocols in place globally and the calculation methodology being used. According to the World Health Organization (WHO) Coronavirus Worldometers website, as of 11:48 pm GMT, March 10th, globally there are or have been a total of 115,695 coronavirus cases, of which 4,085 have led to death, 64,277 have led to recovery and there remain 47,333 active cases, only 17,512 of which are in China. The reason the newness of the disease can cause the mortality rate to be understated is that for those who succumb to the disease, median time from diagnosis to death is roughly 14 days. Since the cases are currently growing exponentially, comparing the number of deaths to total reported cases, including brand new diagnosed cases, understates the severity. The better way to look at mortality rate is based on resolved cases (i.e., death or recovery), which indicates currently about 6% of resolved cases led to death.

However, it was widely acknowledged last month that many individuals seeking medical attention in China were unable to be admitted and/or tested given lack of adequate resources and testing supplies due to such high volumes which means likely more people had the disease and subsequently recovered than was reported¹. The WHO estimates fatality rate may be around 3.4%. Mortality rates are much higher initially when the disease spreads as patients that succumb to COVID-19 do so faster than the length of time it takes patients to recover, with initial mortality rates in South Korea and Italy of 18% and 39%. China experienced a similar early spike in fatality which subsided as more patients were able to be treated and ultimately recovered. In the United States, the reported rate of infection is currently 2.2 cases per 1 million citizens, substantially below the roughly 150 cases per 1 million citizens in South Korea and Italy². The massive discrepancy is likely due to vastly different testing protocols, where the US appears to be meaningfully behind on proactive testing and both South Korea and Italy have been aggressively testing non-symptomatic individuals. As US increases testing, reported cases are likely to increase materially in the next several weeks. Looking at available data so far, a paper by the Chinese CCDC released on February 17, based on roughly 72,000 confirmed, suspected and asymptomatic cases as of data available February 11th found that mortality rates varied widely by demographic.³ While the WHO fatality rate estimate of 3.4% for COVID-19 is 30x that of the flu fatality rate, those deaths are heavily concentrated in the elderly and those with preexisting medical condition, leading to the saying "many patients are dying with the coronavirus, not because of the coronavirus."² Looking at the table to the right, we see that fatality rates for the population aged 70+ years is tremendously higher than fatality rates for younger patients, which in fact more closely resemble flu fatality rates.²

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The economic story is also more concerning than the impact of the flu. Thus far, government efforts at isolating the disease have been a blunt policy tool, designed to keep the population from interacting with each other through the incubation period. This "shutdown" policy has had a major negative economic impact so far, with China manufacturing and services data for February declining to even lower levels than the worst period of the Great Recession of 2008. Although initial indications are that China has been able to successfully check the spread of Coronavirus in their country, efforts to restart the economy are ongoing. Starbucks has reported that they have reopened 90% of their stores within China, but they expect same store sales to be down roughly 50% year-over-year due to reduced foot traffic.⁴ Across the globe, attempts to isolate and selfdistance from potentially infected individuals and clusters has led to sharp drops in leisure and travel spending habits by consumers and businesses.

DEATH RATE²

(confirmed cases)	
80+ years old	14.80%
70-79 years old	8.00%
60-69 years old	3.60%
50-59 years old	1.30%
40-49 years old	0.40%
30-39 years old	0.20%
20-29 years old	0.20%
10-19 years old	0.20%

Note that working age population rates are much closer to flu mortality.

² World Health Organization (WHO) Coronavirus Worldometers website.

⁴ Wall Street Journal, "Starbucks Reopens Stores in China", Heather Haddon, February 27, 2020.

¹ Financial Times, "China accused of under-reporting coronavirus outbreak", Yuan Yang and Nian Liu, February 12, 2020.

³ "Vital Surveillances: The Epidemiological Characteristics of an Outbreak of 2019 Novel Coronavirus Diseases (COVID-19)", CCDC, 2020 2



Italy had already seen hotel cancellations in excess of 90%⁵ in Milan and Rome prior to shutting down travel, schools are closing or operating via online classrooms when possible, companies are instating do not travel policies globally and consumers are cancelling vacations, partly driven out of fear of illness but also out of concern about being allowed to return to their home country post travel. Early estimates are that airline revenues will drop as much as \$113B globally, more than 10% from 2019 levels.⁶

What do we need to know?

Ultimately, while community spread is a foregone conclusion at this point, what will dictate economic and market outcomes will largely be government policy. Recognizing mortality rate in the most productive segment of the population from an economic perspective is similar to the flu, the rational economic policy would be to allow normal economic activity to continue while taking all reasonable measures to curb the transmission, including asking ill individuals to stay home and temporarily closing schools/workplaces when infection levels reach certain thresholds. However, that policy would come with a substantial emotional and human cost given higher fatality rates for elderly and loved ones and will likely only come about naturally if disease spread is so pervasive it's considered uncontrollable and people can no longer reduce risk of contracting the disease by staying at home. Additionally, while slowing the spread ("flattening the curve") has a more pronounced economic impact, it helps to mitigate strain on healthcare delivery systems, allowing better patient treatment and outcomes than would be the case with rapid transmission. While that tug-of-war between shutting down the economy and returning to more normal life with pockets of isolation is playing out, the US economy is increasingly vulnerable to risk of recession. Potentially imminent recessions are often talked about and speculated on, but the reality is that the growth of consumer services inside the US economy has led to a durable source of spending growth that is not easily deterred and did not contract even during the 2008 recession, which was the result of an incredibly sharp, liquidity driven slowdown in manufacturing and trade. However, that discretionary spending is already declining due to changing spending habits around the Coronavirus. During Q4 2019, Discretionary/"Fun" spending (transportation, recreation, food service and hotel) accounted for about \$1.8 trillion of annualized activity, or roughly 9% of US GDP. It's difficult to gauge real time spending levels on a national basis, but a 5% or 10% cut back on spending in these areas as people travel less, cancel hotel reservations or conferences, and eat out less, appears within reason and would be enough to push the economy into a technical, albeit we believe short-lived, recession.⁷

⁶ Source: The International Air Transport Association.

⁵ AP News, "Italy moves to curb virus impact as more countries get cases", Frances D'Emelio, February 28, 2020.

⁷ Source: U.S. Bureau of Economic Analysis (www.bea.gov)

What are the potential knock-on effects?

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One potential US knock-on consideration is the timing of the disease spread relative to the US election cycle. One common characteristic of the COVID-19 treatment in China, South Korea and Italy to date is that hospitals have been overwhelmed once the infection spreads. This is partly due to the higher likelihood that health care workers themselves become infected tending to ill patients, reducing staffing levels, but has mainly been a function of the sharp and sudden influx of intensive care patients who have a median stay of 10 days once admitted to hospital. To the extent that hospital services are overwhelmed, if there is broad transmission in the US and elderly loved ones are passing away with COVID-19 as a contributing factor, dissatisfaction with the health care system and voter turnout could increase substantially. In addition, if there is increasingly broad spread of the disease and the economy and markets stay or continue to move lower as a result, history suggests those are incredibly difficult fact patterns for incumbent presidents to overcome when seeking reelection. As a result, we now ascribe a higher likelihood of tax law change in 2021 (income, estate and corporate tax legislation) than we did at the beginning of the year.

We have also seen declining travel lead to early pressure on oil demand. Contributing to the market limit down open on Monday the 9th, Saudi Arabia and Russia are visibly battling for market share in the oversupplied global oil market, with each promising to increase production to drive the other to reduce their market share and define a new normal equilibrium. One potential outcome of that battle is that weaker OPEC partners who are currently overproducing relative to quota, given the reliance of their economies on oil revenue, will be forced to reduce production which in turn helps restore supply to current demand levels and would lead to more normalized price levels.

One real-time economic data point we are closely watching to gauge the impact of COVID-19 on the US economy are weekly jobless claims. We expect to see material upticks in jobless claims over the next several weeks as businesses attempt to right size for declining demand. The pace and magnitude of the claims and importantly, early signs of stabilization/slowing growth in claims, will tie closely into market price dynamics in our view.

What actions should investors consider in their portfolios?

The good news is that the current consumers savings rate of 7.9% is at very high levels and if widespread transmission is relatively quick, reducing the need for broad-based shutdown measures, the economy can go back to more normal functioning in the next 3-4 months and the economic impact should be relatively short-lived.

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The bad news on the monetary policy side is the tool kit of central banks are designed to stimulate medium-term price sensitive demand by lowering borrowing costs, and any slowdown of spending will be health-concern related, not price sensitive. A much more important policy tool depending on the breadth of transmission and depth of impact will likely be fiscal policies allowing the US and global governments to act as lenders of last resort to stabilize liquidity impaired companies, in order to ensure any layoffs are short lived. Encouragingly, we have seen initial signs of exploration of these types of policies now by multiple government. While we expect the ultimate form of the stimulus and backstop measures to evolve, the early recognition of the need is critical to instilling hope and allowing the market to look through the expected decline in consumer demand.

While we are concerned and closely watching how the coronavirus impacts the economy and the stock market over the next 2-3 months, we remain optimistic about the longer-term direction and stability of the economy. Portfolio construction decisions are inherently individual decisions due to differences in taxation, spending requirements, risk aversion and time horizon among other factors. Please contact your advisor to discuss your individual situation, at a minimum, be sure to stress test your downside tolerance in the event there is a larger market sell-off and to re-examine your estate gifting plans in the event of current law changes next year.

Sincerely,

Sean Leonard Chief Investment Officer Rockefeller Capital Management Family Office

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