



An update on the coronavirus's trajectory and impacts

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Since our last note “Coronavirus and US elections” from Valentine’s Day, global risk assets have materially declined, government bonds have strongly rallied, and central banks have eased (including an inter-meeting “emergency” Federal Reserve cut of 50 basis points). As we had discussed in our prior note, we expected the second and third weeks of February would be key for assessing the virus’s spread and impact, primarily via international comparisons.

Indeed, at the end of the third week of February, case counts dramatically increased in South Korea, igniting the selloff, which continued as weekend newsflow deteriorated and the broadening scale of the virus’s spread and impacts became clearer throughout the fourth week of February.

Looking ahead, there are a variety of salient factors at play, from the virus’s transmission, to healthcare capacity, to policy responses, to economic impacts, to financial market implications. We organize and summarize our thoughts on all of these below:

1. **Looking ahead:** markets have digested the reality of increasing international proliferation, and no longer discount this as just a China story, and the path ahead is likely to be a referendum on how on top of the threat the US public policy apparatus is.
2. **Stylized path in the medium term:** testing needs to proliferate, so confirmed case counts can converge to actual infection counts, policy can shift from containment to preventing congestion and capacity constraints, and the epidemic curve can flatten.
3. **Healthcare capacity:** the primary rationale for social isolation procedures is not to contain the spread of the virus per se, but to prevent congestion in public places and hospitals (which quickens transmission rates) and allow healthcare capacity to meet and catch up to the threat at hand.
4. **Public health policy:** until this week, the White House was largely downplaying the threat, and the evolution of its policy from here is key to whether they catch up to the threat in time.
5. **Economic impacts:** many of the policies required to minimize human tolls are likely to depress commercial activity and travel, and the longer this persists, the higher the chances of job losses, which can accelerate the shock into a broader economic slowdown or even recession if left unmitigated.
6. **Economic policy:** The Federal Reserve has preemptively cut by 50bps in an emergency meeting, while the G7 has pledged coordinated policy responses, but the fiscal policy response is likely to be most key, especially in regards to whether firms and households are able to weather the storm in the interim without the type of financial disruption that can hit earnings and even feed upon itself through job, income, and spending losses.
7. **Financial market implications:** the market is currently focused on whether policymakers are acting sufficiently forcefully and effectively to mitigate the threat, and looking ahead, will likely be most focused on the duration of the economic shock, and the extent to which policy responses successfully mitigate it.

Below we explore each of these factors, one by one.

Looking ahead

Now that markets have substantially corrected, expectations have adjusted to the reality of the virus’s global spread, and the likelihood of rising case counts as testing proliferates further. However, we still remain concerned about the impact, especially in the United States, where testing has been severely constrained, and cases are likely materially undercounted. Additionally, social isolation procedures (like closing schools, cancelling large gatherings/events, and public transportation restrictions) have only been implemented in a few isolated cases.

The White House is belatedly rolling out plans to try to catch-up to the threat, most importantly with a planned proliferation of 2,500 testing kits, each of which can provide 500 tests, creating the capacity to test about 1.5 million individual samples. However, at present, labs only are able to process about 10,000 tests daily, nationwide.

South Korea had already ramped up to testing about 10,000 samples daily by a full week ago, and as of March 2, it had completed a cumulative amount of almost 110,000 tests, or over 2,000 tests per million Koreans. In contrast, the United States has completed only about one single test per million Americans, and its “total tested” figure was removed from the CDC website on March 2.

International comparisons of testing proliferation are presented in Figure 1 below. As is evident, South Korea has shown the most forceful ramp-up of virus diagnosis, while the United States is dead last, behind even Turkey and Vietnam. We expect this to have to materially change in the next two weeks, in order to prevent devastating consequences.

As of March 2, 2020

Country	Tests Performed	Tests per Million People	Population	
South Korea	109,591	2,138	51,269,185	source
Italy	23,345	386	60,461,826	source
Austria	2,120	235	9,006,398	source
Switzerland	1,850	214	8,654,622	source
UK	13,525	199	67,886,011	source
Finland	130	23	5,540,720	source
Vietnam	1,737	18	97,338,579	source
Turkey	940	11	84,339,067	source
United States	472*	1	331,001,651	source

* as of March 1. On March 2, the "[Total tested](#)" figure was removed from [CDC's website](#).

Figure 1. Coronavirus tests performed, cumulative total and total per million people, for selected countries. Sources: Korea CDC, Protezione Civile, Sozial Ministerium, Bundesamt für Gesundheit, UK Department of Health & Social Care, Finnish Institute for Health & Wellness, Vietnam Ministry of Health, US CDC, Worldometers.

Stylized path in the medium term

As you are all aware, we are not epidemiologists, which is why last month we focused on the calendar and potential time windows for catalysts, particularly international comparisons as the virus spread. There is more data now, which we have been following and analyzing closely, but the more general lack of subject matter expertise remains salient. As such, we are focused on key aspects of the potential trajectory from here, particularly with respect to public policy, rather than trying to provide superior quantitative estimates of the spread of the virus to date. We currently are framing our expectations for the public policy path in the US as per below:

1. Testing proliferates
2. Case counts materially rise
3. Public health focus shifts from containment to congestion and capacity
4. Social distancing procedures begin to be implemented on larger scales, depressing commercial activity
5. Epidemic curve flattens, and testing and treatment capacity constraints alleviate, while fiscal policy offsets the depressed commercial activity
6. Social distancing procedures are eased, commercial activity rebounds, and relative normalcy gradually returns

It is difficult to get an idea of case counts without sufficient testing, and it is difficult for larger-scale social distancing to be justified without high and rising case counts. Thus, what we are most focused on right now is the planned roll-out of increased testing capacity in the United States. This is a belated and critical development, as multiple factors have constrained testing in the United States to date.

Originally, federal guidelines only qualified a very small group of people to qualify for testing (severely ill patients, with pneumonia, and an association with China, whether through recent travel or close contact with recent visitors). Furthermore, the CDC distributed test kits to state and local health departments last month, but these were ultimately abandoned, as they proved to be flawed and often produced inaccurate results.

This past weekend, testing criteria were loosened, and now anyone with fever, coughs, or difficulty breathing can qualify for testing, contingent upon a physician's judgment. The federal government has also now allowed private companies and laboratories to begin developing their own testing kits,

However, at present, only 10,000 tests per week can be accomplished, even if all of the 100 pertinent labs were able to scale up to their maximum capacity. We will likely see more labs outside of these 100 begin to implement testing capacity, but this will take some time. We expect a rise of case counts to be the only thing that accelerates this process.

As case counts proliferate, we expect policy to shift from containment to congestion and capacity. Isolation procedures do not eliminate the spread of the virus, but they slow it. This allows hospitalization rates to not spike too high too quickly, in which case we would see higher transmission rates within hospitals, as well as risks to healthcare professionals, and higher mortality rates among non-coronavirus patients. A "glide path" on transmission rates that allows healthcare capacity (diagnosis, treatment, and biotech/vaccine development) is the key here. It appears that the US is currently behind the curve here.

The focus on congestion and capacity likely leads to new, large-scale social isolation procedures being implemented, first on a state & local level, and then potentially with federal guidelines. These types of policies are likely to be effective in stemming the ultimate human toll, but will meaningfully depress commercial activity. It likely leads to a much-needed and much stronger fiscal response from Congress to help firms and households weather the storm in the interim without a large spike in default rates and job losses. The current fiscal package is only \$8.3 billion. For comparison, 9/11, Hurricane Katrina, and Hurricane Sandy all led to \$50-100 billion fiscal responses. We have much further to go here.

Once we have social isolation procedures in place, and a strong fiscal response to offset, then we can begin the process of anticipating a gradual re-opening of commercial activity and public venues. At this point, we would expect people to be quite concerned (including market participants), and at this point, we would focus more on whether we are seeing signs of an imminent V-shaped, U-shaped, or L-shaped recovery. This likely will frame how we progress out of the virus threat.

Healthcare capacity

US hospitals appear quite constrained in stressed scenarios, from labs to beds to staff. Diagnostic capacity is still very low, with lots of bad news ahead as confirmed case counts begin to rise on the back of more dispersed testing. The key to public health policy is to slow down transmission rates, to allow capacity to catch up to the threat.

At present, the US response has been behind the curve, and we are concerned that we will see hospital capacity constraints emerge before we see a turning point in transmission rates. The key is not to prevent the virus from spreading altogether, but allowing hospitals and biotechnology firms to catch up to the threat. We think this dynamic has to get worse before it gets better. We do expect an ultimately strong and positive response from the biotech space, in terms of more diagnostic capacity, and more importantly, an eventual vaccine. The fear we have is about the path to that destination.

Hospitalization rates likely matter more than mortality rates here. High hospitalization rates likely turn hospitals (and nursing homes) into breeding grounds for the virus. They likely present risks of infection to hospital staff, as well as other patients who don't have the virus at that point. And the general capacity constraints increase the risks of rising mortality rates among patients who do not have the virus. This is the feedback loop that public health policy has to stem in the near-term, to buy time for healthcare capacity and biotech developments to catch up to the threat.

Public health policy

As the true case count becomes clearer, we expect the need for social isolation procedures to be implemented. One of the New York cases highlights this risk, as a lawyer who works in Manhattan tested positively for the virus, after traveling from his home in Westchester to Manhattan, and likely after picking up the virus on a recent trip to Miami. We believe that Grand Central station may have been his mechanism of travel. There have been reports of infection transmission to family and close contacts in this case, which is why New York City closed down his child's school in the Bronx.

We would not be surprised to see mass school closures (perhaps with remote teaching/learning via video-conferencing software like Zoom, as is occurring elsewhere already) in the United States. Public gatherings, events, and venues also may close or be cancelled, as the famous electronic dance music festival Ultra in Miami showed with its cancellation. This may ultimately even affect public transportation.

These types of policies are likely to lead to economic disruption, with commercial activity coming to a bit of a stand-still, firms having trouble with various short-term liabilities (including inventory financing), declining output prices, and potential job shedding.

Economic impacts

We think the economic consequences of any necessary social isolation procedure wave is likely to lead to a material decline in commercial activity, ultimately potentially hitting financing costs and even jobs growth. This can be a shock that can be managed as a short-term disruption, if the public health response is quick enough and the economic policy response is forceful enough. However, we are only this week seeing the beginning of testing capacity ramping, and the fiscal package agreed upon so far is far too little to combat the risk. As such, we think the White House and Congress are likely going to be forced to accept a much larger package, and likely with much more direct targeting.

Left to itself without sufficient offsets, we believe that we could see a spike in default rates and job losses. Given the weak underlying growth backdrop in the US and the world, this presents a serious risk of developing into a feedback loop, and ultimately potential “rolling recessions” in various industries. We are optimistic that the White House and Congress can get caught up to the threat as case counts become clearer, especially since Democrats are unlikely to fight such a response, but we will be closely watching the pace of adaptation against the pace of case count growth.

Economic policy

The Bank of England presents an interesting case, as the incoming Governor suggests that monetary and fiscal policy is combined to direct loans to small and medium businesses, to keep credit risks and job losses at bay. The US response is far behind this, but likely to be pressured to catch up quite quickly.

The Federal Reserve has cut interest rates by 50 basis points, which by itself does not do much to combat the virus, because the price of money only matters to the extent people want to take risk. It does not spur risk appetite in this case, by itself. The easing does help prevent the counterfactual of stocks crashing harder, on the back of the Fed “fighting” the bond market. But most saliently, this puts a lot more much-needed pressure on the White House and Congress, and sooner, since the swift and forceful Fed response prevents the likelihood of another week or two of debates within DC about whether the Fed is acting sufficiently appropriately or not. This is especially the case, given that President Trump tends to blame the Fed during market volatility.

From here, the main questions are about the swiftness, size, scope, and salience of future fiscal packages. Because of President Trump’s attempt to downplay the virus (even calling it “coronaflu” and suggesting infected people should still go to work, just yesterday), we think that a sufficiently large proactive response is unlikely. This is why we expect the path to move from testing proliferation, to case counts, to pressure on the White House and Congress to enact public health procedures and a sufficiently large and targeted fiscal offset to those procedures’ impacts.

Financial market implications

As of this writing, markets found their footing on Friday on the back of Fed Chair Powell saying in an unscheduled statement that the Fed would “act as appropriate” in response to the virus (which is the same terminology used before the rate cuts starting last summer), and then again on Monday, as G7 announced an emergency, coordinated conference call, which included central bankers.

By the end of last week, we expected a Fed-driven relief rally to emerge, particularly since we were beginning to see signs of short-term panic and liquidations in risk assets. As markets caught their footing, we used our tactical macro portfolio to capture some of the upside, while booking some profits in our core macro portfolio. Once the Fed surprised with an inter-meeting “emergency” 50bps cut, we booked our tactical profits on the upside, and began positioning our core macro portfolio more bearishly.

Now that we have a gradual path toward increasing testing capacity, and have retested some key levels that presented themselves during the selloff, we are starting to get bearish again on risk assets. We are not necessarily anticipating an immediate breakdown to new lows, and would not be surprised to see a choppy, wide, and volatile range, as we digest and consolidate the sharp selloff last week. But as we approach the highs of our expected range, we are building our short risk assets exposure back in our core macro portfolio, and as we approach the lows of the range, we are using our tactical macro portfolio to take advantage of potential bullish expressions cross-asset in the near-term.

As of this writing, January 2021 Fed Funds futures are priced at around 25bps, which essentially implies that rates markets expect a return to zero rates by the end of the year. This makes it much tougher for bonds to short-circuit stock weakness.

As such, we are getting more bearish on the impact of negative newsflow from here, on risk assets. We expect some volatility in front-end rates markets, in any bounces in risk assets. But ultimately, we expect a choppy and volatile range for the next couple weeks, ultimately leading to new lows on the back of social isolation procedures being presented and implemented.

At this point, we think markets have priced-in the notion that the virus is “not just a China story”, and even are expecting a material rise in case counts. Mapping out the timing of the public policy response, how effective it will be (“is the White House off the ball?”), and the economic impact of policy responses like social isolation procedures, are what we expect markets to grapple with next.

If this comes to bear out, then we would expect one more breakdown in risk assets, as markets price a bigger-than-expected shock to US growth and/or a slower-than-needed policy response. At that point, we think that markets would begin to present opportunities to start buying assets that appear cheap. Given the extremely low-rates environment that has emerged now, we think we could see quite a sharp rebound in equities after this path plays out. We would not be surprised to see some extremely vicious rebounds, if the virus threat does peak out on the back of public health policy responses, with new highs not necessarily out of the question.

So far, our proxies for tracking passive investment strategies have not seen major outflows. Active strategies, primarily in systematic strategies like volatility-targeting, trend-following, and risk parity, have seen large outflows. So we think the broader case for “end-of-cycle multiples to exceed everyone’s expectations” is still in play, for now.

What we will be watching for after any breakdown to new lows is the areas where investors are currently “hiding”, like utilities and software and staples, to take a hit, representing liquidations and price-insensitive grossing-down of portfolios. This likely would signal the beginning of the end to the selling, and at that point we would likely be active on the long side in our long/short portfolio, and beginning to size down our bearish core macro positions. As always, our tactical macro exposures are likely to be quite actively shifting on a day-to-day basis.

Please do not hesitate to reach out with any questions about this. And please make sure to wash your hands every chance you get. The efficacy of 20-second hand-washing is very high, and our best defense from infection, more so than wearing masks or gloves.