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Data Science and Investment Sciences

States Reopening Now Should Not Expect South Korea-Like Results

This replaces the version published 24-Apr-20, 18:56 GMT to correct the y-axis scale in Figures 1 and 5.

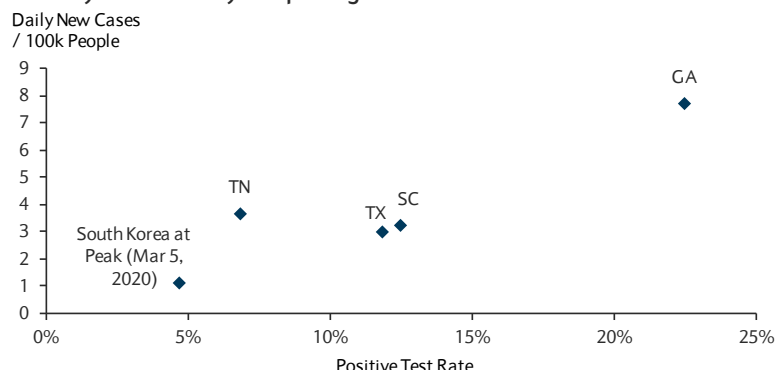
A group of US states plan to reopen activities that had been stopped to promote social distancing, hoping to control the spread of COVID-19 with other means. South Korea remains the best example of controlling the outbreak with “test and trace,” but even at its peak it had many fewer new cases, and a lower positive test rate. We think there is a significant risk that these states will find it more difficult to control their outbreaks than South Korea did, which could result in the resurgence of new cases.

Georgia, South Carolina, Tennessee, and Texas have all announced plans to reduce social distancing measures in the coming days and weeks. Each of these states has seen their case growth fall as social distancing increased, and their governments believe that they can sufficiently control the spread of COVID-19 with less social distancing, while benefitting their economies. Comparing them to South Korea, which has been able to keep COVID-19 case growth under control without widespread social distancing, we see several things:

- Population-adjusted testing rates in GA, SC, TN, and TX are similar or higher to South Korea at its peak
- But the states have daily new cases in the area of 3x higher than South Korea’s peak (Figure 1), and the positive test rates are much higher as well, suggesting much more widespread outbreaks

FIGURE 1

South Korea’s Peak for New Infections and Positive Test Rate Was Much Lower Than Currently Seen in Early Reopening States



Note: US states as of April 19, 2020. Source: South Korea CDC, The COVID Tracking Project

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Special Report | Research

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COVID-19 Case Growth Has Slowed, but Relaxing Social Distancing Now is Risky

A selection of US states have begun to announce plans to “reopen” their economies by relaxing restrictions intended to curb the spread of COVID-19 by promoting social distancing. The states where policies are poised to relax first include Georgia¹, South Carolina², Tennessee³, and Texas⁴. In general, these moves are framed as a response to slower case growth, based on the idea that each state’s outbreaks can now be controlled even as public activities return somewhat to normal.

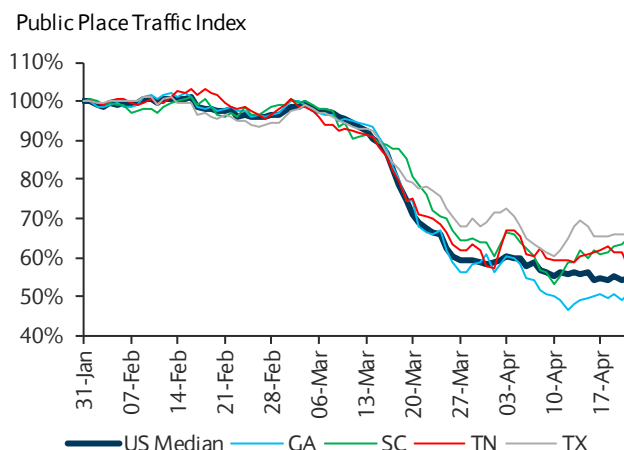
All the states that have proposed reopening have seen some social distancing (Figure 2). And all have seen gains in COVID-19 case growth decline as distancing has increased (Figure 3).

Despite case growth being down, there are concerns that it is too early to reopen and relax social distancing steps.⁵ We think it is useful to frame their decision relative to South Korea, which is the clearest example available of a place that has reduced case growth using testing and exposure tracing, rather than social distancing.

Comparing South Korea during its peak in case growth (early March 2020) to current data in GA, TN, SC, and TX offers some interesting insights:

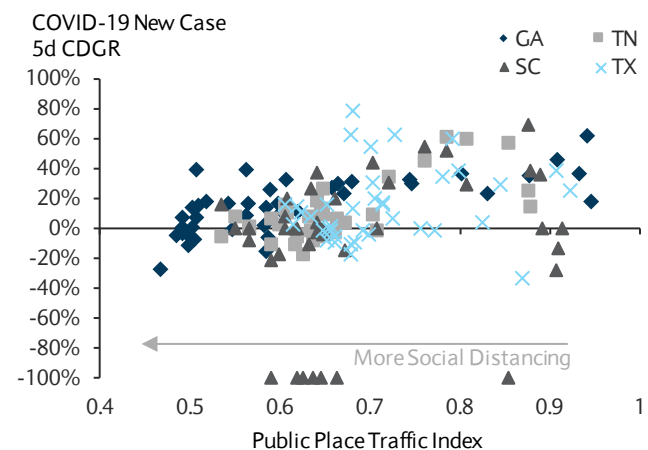
- All of the reopening states are testing their populations at least as intensively as South Korea was at the peak of their case growth in early March (Figure 4). This does suggest that at least one of the needed capabilities is in place to control outbreaks with less social distancing.
- But all those states are finding cases at a much higher rate than what was seen in South Korea (Figure 5). On a per-capita basis, those states are finding cases at a 3x higher rate. That would indicate that infections remain much more widespread in the early opening states than they were in South Korea in early March. Those higher rates in the US are

FIGURE 2
Early Reopening States Have Implemented Social Distancing



Source: Complementics, Pitney Bowes, Barclays Research

FIGURE 3
And COVID-19 Case Growth Has Declined



Source: The COVID Tracking Project, Barclays Research

¹ Georgia is reopening hair salons, gyms and bowling alleys despite a rise in coronavirus deaths statewide, CNN, April 24, 2020

² South Carolina Reopening Explained: Nonessential Businesses, Beaches Allowed To Open By Tuesday, Newsweek, April 21, 2020

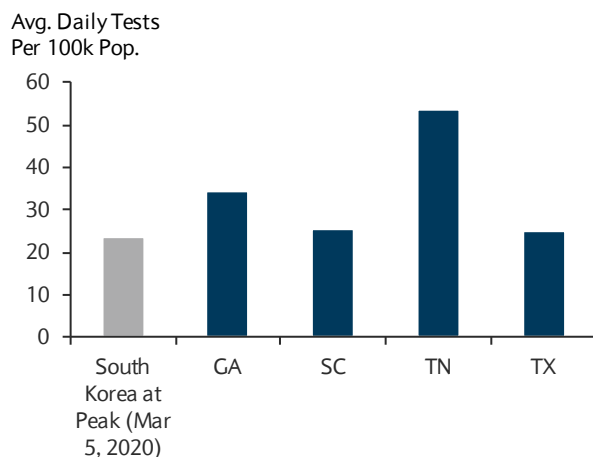
³ Gov. Lee gives updates on COVID-19, reopening Tennessee, wsmv.com, April 23, 2020

⁴ Texas governor says ‘massive’ amount of business to reopen soon, kvia.com, April 23, 2020

⁵ States rushing to reopen are likely making a deadly error, coronavirus models and experts warn, Washington Post, April 22, 2020

FIGURE 4

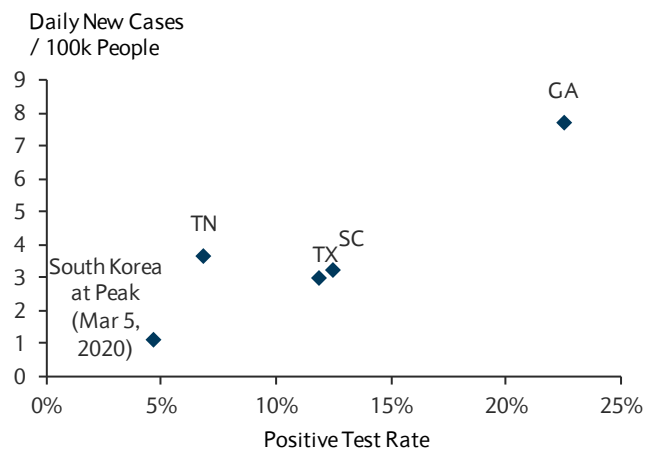
Early Reopening States Are Testing As Intensely as South Korea was During Its Case Growth Peak...



Source: South Korea CDC, The COVID Tracking Project

FIGURE 5

...But Those Tests Are Finding 3x (or More) the New Cases, Suggesting That Their Outbreaks Are Still More Widespread



Note: US states as of April 19, 2020. Source: South Korea CDC, The COVID Tracking Project

consistent with reports that most testing is done on people who are already sick, which suggest many more cases have not been discovered (so the actual infection rate could be even higher relative to South Korea).

It may be that a combination of some social distancing (but less than current levels), and intensive testing will be sufficient to control the outbreak. But the data suggests that while the testing capacity may be in place to control a smaller outbreak (as in South Korea), it is not clear that this is enough to control more widespread ones which those states appear to have.

This is a real risk as these states represent about 15% of the US population. If they experience resurgences of their outbreaks, it could outweigh the improvements in case growth seen in other states, and extend the overall timeline for control nationally. It is also possible that people will continue to social distance even as the official constraints loosen, making the reopening one in policy only, not practice. But if it goes wrong, it will be a while before we know it, and it would then likely require a costly acceleration / extension of social distancing to get it back under control.

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