

## Which Key Figure for Which Purpose?

From our point of view, it makes sense to look at different key figures depending on the phase of coronavirus spread we are in.

At the beginning of the spread of the virus, key figures such as the doubling time or the average percentage increase of confirmed new infections per day (averaged over a fixed number of days, e.g. five or seven days) are useful and intuitively easy to understand.

However, as soon as the percentage daily increase of confirmed new infections gradually decreases - in Italy it is already below 5% - other indicators than the doubling time should be considered since other indicators are more meaningful if we want to assess where we stand in the fight against the pandemic: The best indicators are then no longer the percentage increase in the total number of infected persons or the doubling time derived from this, but rather the absolute numbers of new infections per day over time.

For this purpose, we have suggested key figures such as "3/14 Growth Indicator" and "3/7 Growth Indicator" in our blog [openbook.de](https://openbook.de). What is this all about? Here we look at key figures that are easy to determine and also intuitively easy to understand, namely: The average number of new infections of the last three days divided by the average number of new infections of the last 7 days or e.g. 14 days.

A value greater than 1 means that the number of new infections tends to increase, a value close to 1 means that the absolute number of confirmed new infections per day remains approximately the same, and a value significantly smaller than 1 indicates that the numbers tend to decrease.

The advantage of the Growth Indicator from our point of view: If, for example, 60,000 people were infected many weeks ago and have now largely recovered, then this number is not included in the further figures we propose (unlike when using the doubling time). We therefore see much better with these figures where we stand *at the moment*.

A look at the figures for South Korea, for example, illustrates this: If you look at the percentage increase in confirmed infections over time since beginning of March 2020, you can see a significant reduction in this key figure during the first two weeks of March, while no significant changes can be seen from around mid-March onwards.

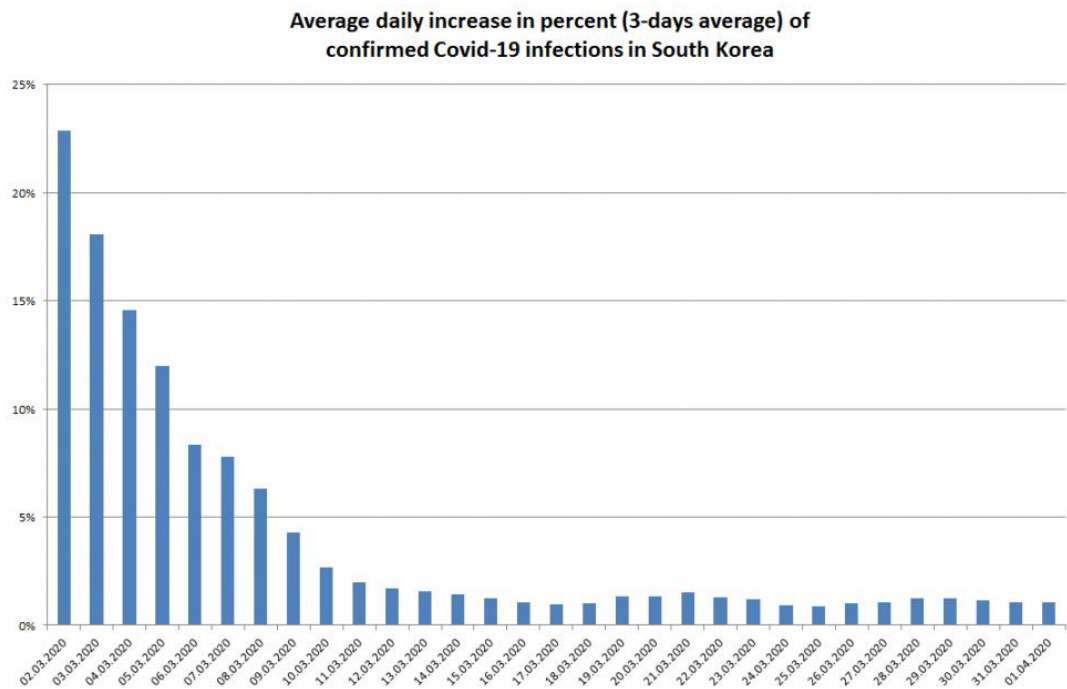


Diagram 1

In comparison, the 3/7 Growth Indicator clearly shows that the number of confirmed new infections per day tends to rise again from around 12 March. The indicators have been fluctuating around the value 1 for about two weeks, which means that there is currently neither an exponential increase nor a significant decrease in the numbers.

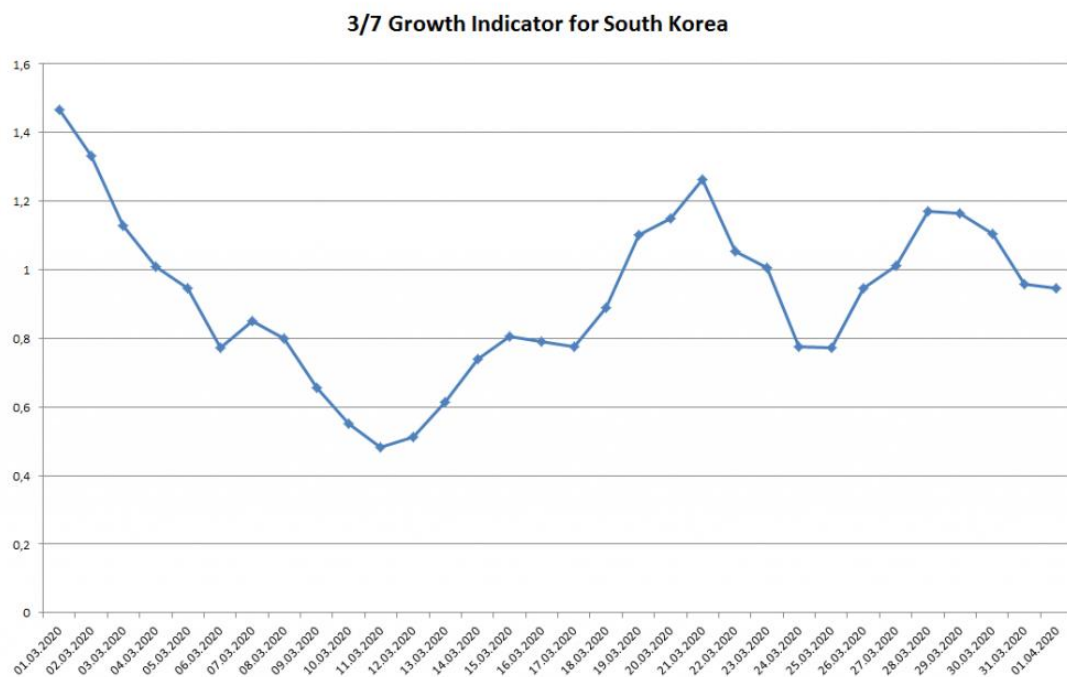


Diagram 2

The changed trend in South Korea since around mid-March 2020 becomes even more apparent when looking at the 5/20 Growth Indicator:

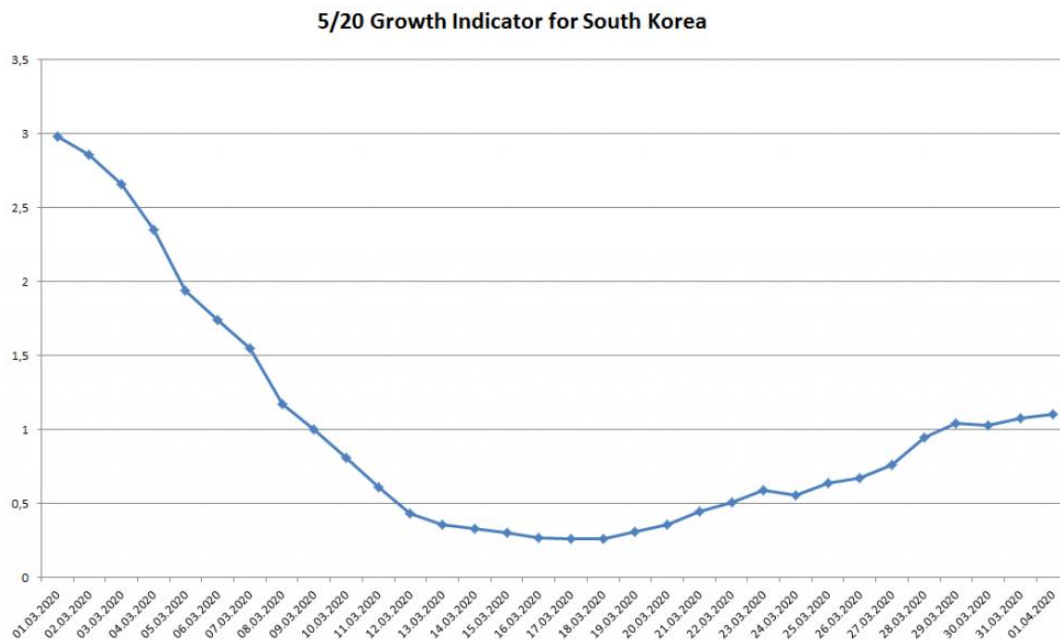


Diagram 3

Although the average percentage increase of confirmed infections in South Korea is still very low - and the doubling time is correspondingly high - a look at the growth indicators shows that great caution is still required.

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