

Does COVID Improve The Taiwan Bio Industry Development?

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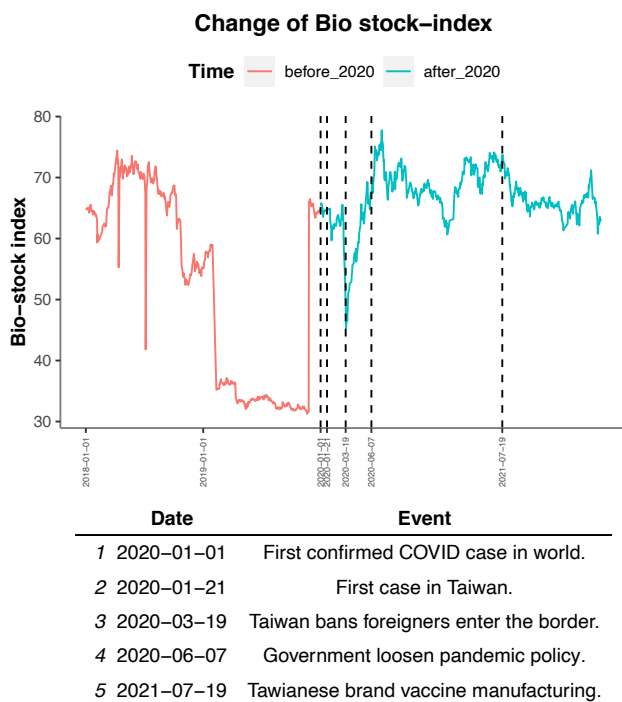


Figure 1. The plot shows the bio-stock index before and after COVID. Also, the time line of the events are marked. We can see the index was influenced by government policy.

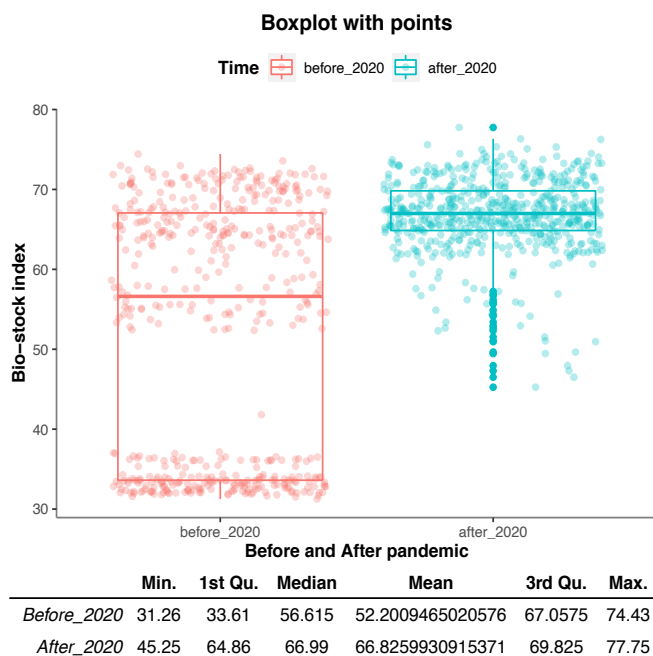
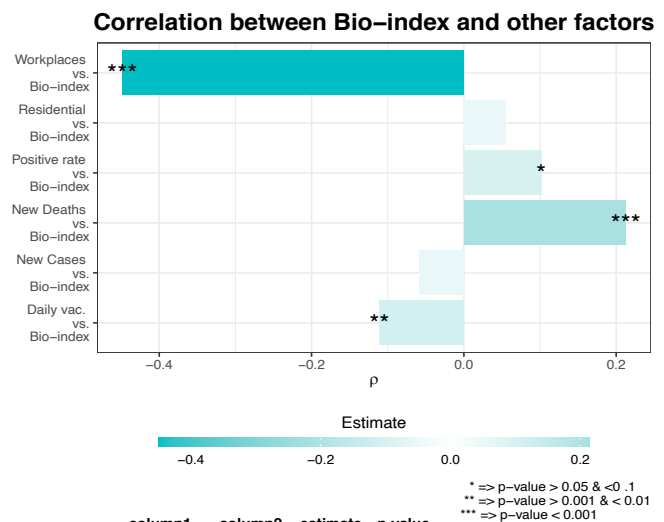


Figure 2. The plot shows the boxplot of bio-stock index before and after COVID and their distribution. From the distribution, we can see that Taiwanese citizens have more confidence in the bio-industry or value bio-industry more after occurring the COVID.



* => p-value > 0.05 & < 0.1
 ** => p-value > 0.001 & < 0.01
 *** => p-value < 0.001

Figure 3. The plot is to see the correlation between bio-index and other factors, etc. daily vaccination, new cases, new deaths, positive rate, residential, workplaces. It shows that the amount of people in workplace is the most relevant factor with the bio-index. The second relevant factor is New deaths. Spearman's correlation is used in the plot because the data is nonparametric data and does not normally distribute.

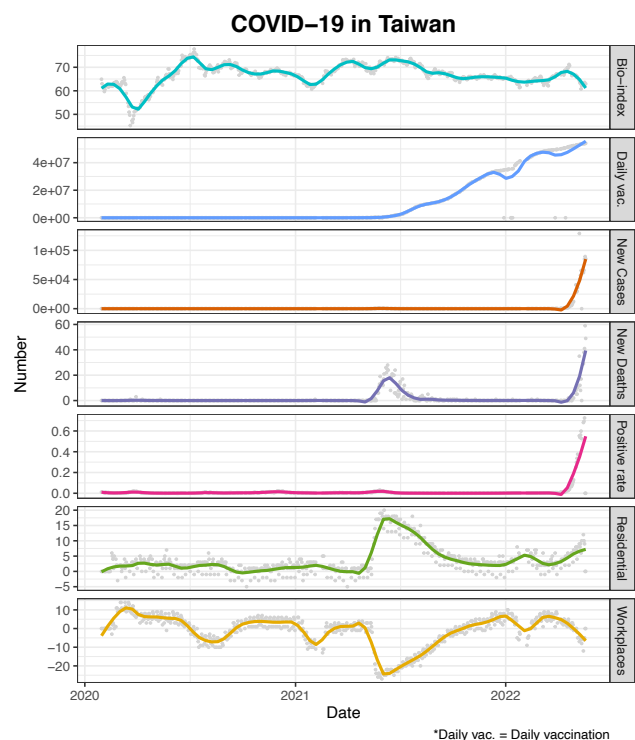


Figure 4. The linear plot of bio-index and others factors.

Conclusion

COVID definitely makes the bio-industry develop. From Fig. 2, we can say that Taiwanese citizens value the bio-industry more after occurring the COVID because of the compact distribution. However, policy also impact the bio-stock index. Fig.3 shows the bio index is relevant to workplaces and death numbers. In Taiwan, the number of deaths will influence the government policy which will determine whether people should work from home or not. Thus, I can guess that the performance of the bio-index is reliant on government policy. We can also observe the same phenomenon in Fig. 1.