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The Efficacy of Government Strategies to Control COVID 19: Evidence from 22 High Covid Fatality Rated Countries

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Abstract : TheCOVID-19 pandemic has created unprecedented challenges to both the health and economic states in countries around the world. This study aims to evaluate the effectiveness of governments' decisions to mitigate the risks of COVID-19 through proposing policy directions to reduce its magnitude. The study is motivated by the ongoing coronavirus outbreaks and comprehensive policy responses taken by countries to mitigate the spread of COVID-19 and reduce death rates. This study contributes to filling the knowledge by exploiting the long-term efficacy of extensive plans of governments. This study employs a Panel autoregressive distributed lag (ARDL) framework. The panels incorporate both a significant number of variables and fortnightly observations from22 countries. The dependent variables adopted in this study are the fortnightly death rates and the rates of the spread of COVID-19. Mortality rate and the rate of infection data were computed based on the number of deaths and the number of new cases per 10000 people.The explanatory variables are fortnightly values of indexes taken to investigate the efficacy of government interventions to control COVID-19. Overall government response index, Stringency index, Containment and health index, and Economic support index were selected as explanatory variables. The study relies on the Oxford COVID-19 Government Measure Tracker (OxCGRT). According to the procedures of ARDL, the study employs (i) the unit root test to check stationarity, (ii) panel cointegration, and (iii) PMG and ARDL estimation techniques. The study shows that the COVID-19 pandemic forced immediate responses from policymakers across the world to mitigate the risks of COVID-19. Of the four types of government policy interventions: (i) Stringency and (ii) Economic Support have been most effective and reveal that facilitating Stringency and financial measures has resulted in a reduction in infection and fatality rates, while (iii) Government responses are positively associated with deaths but negatively with infected cases. Even though this positive relationship is unexpected to some extent in the long run, social distancing norms of the governments have been broken by the public in some countries, and population age demographics would be a possible reason for that result. (iv) Containment and healthcare improvements reduce death rates but increase the infection rates, although the effect has been lower (in absolute value). The model implies that implementation of containment health practices without association with tracing and individual-level quarantine does not work well. The policy implication based on containment health measures must be applied together with targeted, aggressive, and rapid containment to extensively reduce the number of people infected with COVID 19. Furthermore, the results demonstrate that economic support for income and debt relief has been the key to suppressing the rate of COVID-19 infections and fatality rates.

Keywords : COVID-19, infection rate, deaths rate, government response, panel data
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