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Economic determinants of suicides in Sri Lanka over the period 1975 – 2015

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Suicide is a major public health problem in the world. According to the World Health Organization, every 40 seconds, a person commits suicide somewhere in the world. In Sri Lanka a steady increase of suicides has been reported and it stands in the fourth place among the countries with high occurrences of suicides in 2015. Further suicide is one of the major causes of death in Sri Lanka. There are many studies done in Sri Lanka to investigate the variations in suicide rates in relation to age, gender, method and reason specific trends and geographical distributions. But there are no previous studies done to identify the economic determinants using a dynamic econometric model of suicides on the basis of time series data. This study investigates the association of economic conditions with the suicide rates among male, female and general population in Sri Lanka over the period 1975-2015.The data for suicides from 1975 to 2015 was taken from the Registrar General Department and Police Department of Sri Lanka. The effective suicide rates were computed as the number of suicides per 100,000 population. The unemployment rate, GDP growth rate, inflation and fertility rates for 1975-2015 were taken from the Department of Census and Statistics. In our analysis, overall suicide rate, male suicide rate and female suicide rate are taken as dependent variables, and unemployment rate, GDP growth rate, inflation and fertility rate as independent variables in each case. Because of the time series nature of the variables, Autoregressive Distributed Lag (ARDL) regression model is employed to identify the long run relationship between the dependent variable and explanatory variables. The analysis reveals that, for the general population the incidence and rate of suicide increase with the increase in unemployment rate and inflation. Further, the male suicide rate increases with the increase in unemployment and inflation. The positive coefficient of the unemployment rate supports the increase in female suicides. In general, the ARDL models reveal the association between suicide and three economic variables; inflation, unemployment and GDP growth. The inflation and unemployment enhance the incidence of overall suicides and male suicides, while only inflation supports the incidence of female suicides in the long run in Sri Lanka. There are some limitations in the analysis due to the unavailability of information of several economic factors. The results obtained in this analysis would be helpful for a comprehensive work on economic determinants of suicides in Sri Lanka.

Keywords: ARDL model, Economic factors, Suicide, Time series