

An Econometric Analysis of Macroeconomic Equilibrium Condition: A Study of Open Economy on Sri Lankan Context

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Abstract

This study aimed to empirically ensure and examine the macroeconomic equilibrium level of the open economy in Sri Lankan context. In general, this equilibrium analysis of any open economy consisted of various prominent variables such as income, consumption expenditure, investment, exports and imports. GDP proxy for the income was the dependent variable in this model. Other variables were used as the independent variables. The data used in this study were collected from the annual report of central bank of Sri Lanka from the time period of 1959 – 2013. It was an econometric analysis using regression method with the support of the statistical software of E-views and MS Excel. ADF test, cointegration test, residual diagnostic, OLS results, stability test, Kernel Fit and non-parametric test were used to ensure and examine the macroeconomic equilibrium condition of the open economy and relationship between the dependent and independent variables. As per the results of this study, the independent variable of IMP was inversely related to the dependent variable and GDP and other independent variables were directly related to the dependent variable. So it resulted in empirically ensuring the equilibrium condition of the open economy in Sri Lankan experience. The value of R-squared was 0.998 (99.8%) which was less than the value (1.81) of Durbin Watson Statistics. Thus, this macroeconomic equilibrium model was not suffering from the problem of spuriousness. All the independent variables could jointly influence the dependent variable as the corresponding p-value of the F-statistic was significant. The residual of the model was homoscedastic. The non-parametric and parametric analyses proved that significant relationship existed between the variables ensuring the macroeconomic equilibrium condition in the long run over sample period. Thus, this analysis empirically confirmed and ensured the macroeconomic equilibrium condition of the open economy in Sri Lankan context.

Key words: Macroeconomic Equilibrium, Open Economy, Cointegration, Spuriousness, Heteroskedasticity

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