Determinants of Inflation in Sri Lanka after Economic Liberalization: An Econometric Analysis

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Introduction

Despite Sri Lanka achieving a substantial rate of economic growth over the past three decades, it remains far from optimal regarding some of its macroeconomic indicators. Since trade liberalization and other market-oriented reforms, Sri Lanka has come almost a full circle with respect to economic policy regimes. During this period, the trend of inflation recorded in Sri Lanka has been highly volatile and has emerged as the most common problem all over the country. As measured by the Colombo Consumer Price Index, inflation increased from 16.6 percent in 1984 to 21.5 percent in 1990. Since 1990, the rate decreased gradually until 1995. From 1995 to 2002 the inflation rate was low. However, after 2003, the inflation rate has been increasing gradually again until 2008. In year 2008, the inflation rate recorded was at a peak at 22.6 percent. During the above period, various factors contributed to this highly volatile situation. Particularly the growth of money supply, interest rate, budget deficit and depreciation of the Sri Lankan currency against the dollar contributed to this outcome. Further, structural factors have also had an impact on this high level of inflation. This study however only attempts to analyze the experience of inflation after trade liberalization through focusing on the main factors influencing the rate of inflation in Sri Lanka.

Rationale of the Study

When looking at the performance of Sri Lanka in comparison to her regional partners in South Asia, the inflation experience is clearly relatively high. Several factors have contributed to this high level of inflation. The purpose of this paper is to examine the relevant variables influencing inflation in Sri Lanka using both theoretical and empirical frameworks over the period 1977-2008.

Methodology

For the purpose of analysis, secondary data for the period of 1977 to 2008 is used in the study. All data have been obtained from the annual reports and monthly bulletins of the

Central Bank of Sri Lanka. This test involves estimating the effects of money supply, budged deficit, interest rate, real GDP and exchange rate on the inflation rate. All the coefficients on the variables are expected to have a positive sign, except for real GDP. Further, tests of stationarity on all the time series variables are tested by applying the Augmented Dickey-Fuller test. This study employs the econometric technique of co-integration and error correction modeling to estimate a more specific relationship between inflation and its determinants. Moreover, to test the existence of a co-integrating relationship among the variables, this study has applied the Johansen and Johansen multivariate co-integrating methodology. Further to determine the causality direction between inflation and its determinants Granger type causality methodology has been applied.

Findings of the study

The empirical evidence from the study suggests the existence of a long run dynamic relationship between inflation and its determinants. In the long run changes in the broad money supply, exchange rate depreciation, budged deficit and interest rate have significant positive impacts on inflation. And real GDP is found to be negative but have a statistically insignificant impact on long run inflation. Further the long run inflation function indicates when the broad money supply in the economy increases by one percent that the inflation rate will also increase by 0.69 percent. And when the Sri Lankan Rupee depreciates by one percent, inflation will increase by approximately 0.18 percent, which shows the importance of the exchange rate in the long-run inflation situation in Sri Lanka. The result also reflects that an increase in the budget deficit is also contributing to long run Inflation. It implies that when the budget deficit increases by one percent, the inflation rate also increases by 0.55 percent. This result reflects the need to control the budget deficit in Sri Lanka. However in the case of short run, the analysis indicates that money supply, exchange rate depreciation and real GDP were found to be statistically significant in affecting inflation but budged deficit and interest rate were found to be statistically insignificant in affecting inflation. Moreover, the results of the Granger Causality Tests between inflation and its determinants revealed that there is a unidirectional causal relationship between exchange rate depreciation and inflation and the broad money supply and inflation, budget deficit and inflation, real GDP and inflation and the interest rate and inflation. Moreover, the Granger Causality Test also indicates that there is a unidirectional causal relationship exists between budget deficits and money supply.

Conclusion

The purpose of this study was to investigate the factors that determined inflation in the Sri Lankan economy using a co-integration analysis over the period 1977 to 2008. The analysis indicates that increasing broad money supply, rising government budget deficit and exchange rate depreciation appear to be the major determinants of inflation as they play a significant role in the long run inflation equation. The results also reveal that there is a stable inflation function in the long run in Sri Lanka and indicates the reliability of forecasting inflation using money supply growth, budget deficit and exchange rate depreciation as key determinants. Further, the results of this study emphasize the need to put in place a stable macroeconomic policy environment relating to these variables in an effort to maintain price stability, since low inflation would enhance economic growth in Sri Lanka.

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