Does "Phillips curve really exist in Sri lanka? econometric empirical evidence from Sri lanka

[1]S. Sivarajasingham and [2]N.Balamurali
[1]Department of Economics and Statistics, University of Peradeniya, Sri Lanka
[2]Regional Educational Services, The Open University of Sri Lanka
E-mail : ssivarajasingham@gmail.com

Abstract

This paper reexamines empirically the existence of a long run relationship between inflation and unemployment in Sri Lanka using annual data from 1963 to 2012. First, simple scatter plots, scatter with regression, scatter with kernel density, Nearest Neighbor fit are used to explore the above relationship. Scatter with kernel fit and Nearest Neighbor fit showed that there was a weak and downward sloping and non-linear relationship between inflation rate (CPI inflation or wage inflation) and unemployment rate in Sri Lanka during the study period. Confidence Ellipse also showed that there was a negative relationship between these variables. Co-integration analysis showed that there was a negative long-run equlibrium relationship between inflation and unemployment during the sample period. A closer look at the data shows that there have been in fact several distinct curves over the past 47 years. Stripping away some of more volatile data shows that the trade-of between inflation and unemployment shifted both inward and outward at different times. Granger causality test shows that there was a statistically significant causation from unemployment with lag 3 to inflation rate. GARCH analysis indicates that uncertainity posses a significant chalange to policy makers. Another interesting point to note is the change in the gradient of the curve along with time. It implies that the slope of the Phillips curve is a function of the macroeconomic status and the relationship is asymmetric. There is some evidence that the elasticity of CPI inflation with respect to unemployment has fallen recently. This could suggest that the Central bankcould allow the country to grow

a faster rate without running the risk of breaking its inflation target level. Empirical evidence for Sri Lanka shows that the Phillips curve has convex and concave shapes. The optimal poilcy stance under convexity will be inappropriate under concavity. Sacrifice ratio between inflation rate and unemployment rate also change over the period.

Key words: Inflation; Unemployment; Cointegration, Granger causality ,Confidence ellipse