INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND STUDIES

VOLUME01ISSUE02

''REGRESSION MODELS TO IDENTIFY THE DETERMINANTS OF INFLATION IN ETHIOPIA: THE CASE OF ILLU ABBA BOR ZONE, ETHIOPIA.''

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Abstract:

Inflation refers to a situation in which the economy's overall price level is rising. The inflation rate is the percentage change in the price level from the previous period. The measures of inflation are various price indices, such as a consumer price index (CPI), producer price index (PPI), or GDP deflator. However, inflation is usually defined as a change in the CPI over a time. The aim of this study is to identify the key determinants of inflation by using regression models in Illu Abba Bor zone which can be used to forecast the rate of inflation in study area. A random sample of 408 was selected using multistage random sampling from the study area. Multiple regression Models, Logistic regression models, Vector Autoregressive (VAR) Models, Testing Stationary: Unit root test, Estimating Order of the VAR, Co integration Analysis (testing of co integration) and Vector Error Correction (VEC) Models and coefficients of determination methods of data analysis were used in this study. Comparisons were made between food price index and non-food price index using the Z- test and regression analysis. The findings of the study suggest that the percentage of food price index in higher than that of non-food price index. The determinants of inflation differ between sectors (food and non-food) and the time horizons under consideration. The most important forces behind inflation were money supply, access of agricultural products, Tax, Exchange rates, Infrastructure, Access of raw material for production, Import and Producers price index. Similarly, the results of the research imply the existence of short term adjustments and long – term dynamics in the CPI, FPI and NFPI. Unit root test reveals that all the series are non stationary at level and stationary at first difference. The result of Johansen test indicates the existence of one co integration relation between the variables. The final result shows that a Vector Error Correction (VEC) model of lag two with one co integration equations best fits the data. Finally, using the fitted model out-of-sample forecasts were produced for I/A/B inflation rate. To contain inflation, therefore, the policy interventions

aimed at tackling the current determinants of inflation need to take into account the priorities of the government as the effect of policy instruments and means of solutions.

KEYWORDS

Inflation, Vector autoregressive, Vector Error correction model, Multiple Regression, Logistic regression, forecasting

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