EUROPEAN
ACADEMIC
RESEARCH

Relationship between Economic Growth and Inflation of Jammu and Kashmir State Economy

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Abstract:

The present paper analysis the relationship between the economic growth rate and inflation rate of state economic output for a reference time period of 1980-2011.For inflation rate measurement we have calculated the GDP Deflator which is considered to be the best measure of inflation. The results vividly has shown that there is a weak positive correlation between the growth rate and inflation rate of state economic output which is in real sense a matter of concern for our state economy. The big question before policy makers is how to accept the inflation which does not lead any significant benefit for the economy.

Key words: Inflation, Growth Rate, GDP Deflator, Regression Model, J&K Economy, NSDP

The association between economic growth and inflation lingers a debatable one in both theory as well as empirical results

because Classical Growth Theory, Keynesian Theory, Neo-classical Theory, Neo-Keynesian Theory, the Tobin Effect and Endogenous Growth Theory states that inflation is an important factor that facilitates economic growth. Originating in the Latin American context in the 1950s, the issue has generated a permanent debate between **Structuralists and Monetarists**. The structuralists believe that inflation is essential for economic growth, whereas the monetarists see inflation as detrimental to economic progress. There are two aspects to this debate: (a) the nature of the relationship if one exists and (b) the direction of causality. Friedman (1973: 41) succinctly summarized the inconclusive nature of the relationship between inflation and economic growth as follows:- historically, all possible combinations have occurred: inflation with and without development, no inflation with and without development.

GROWTH AND INFLATION IN THE JAMMU & KASHMIR ECONOMY

A noteworthy feature of Jammu & Kashmir Economy growth process over the last one and a half decades has been its stability. This is evident from the substantially lower coefficient of variation of real GDP growth during the post-reform period as compared to that during the pre-reform period, that is, before the nineties. It is also important to note that Jammu & Kashmir Economy's growth is driven by domestic consumption, contributing on an average to almost two-thirds of the overall demand, while investment and export demand are also accelerating. As consumption is less volatile component of demand, this has also contributed to reducing the volatility of NSDP.

The growth rate of NSDP in Jammu & Kashmir Economy increased from 2.44 % in the 1980s to 3.54 % in the

1990s, and finally reached to 4.27 % in 2000's while as the inflation rate was 4.4 % in 1980's and it increased to 7.8% in 1990's and finally it reached to 14.2 % in 2000's.Therefore, it shows clearly that there is positive correlation between growth rate and inflation in Jammu and Kashmir state. Therefore, this supports the structuralists believe that inflation is essential for economic growth, whereas the monetarists see inflation as detrimental to economic progress.

OBJECTIVES

The following are the objectives of our study:
1) To analyze the relationship between economic growth and state economic output inflation rate in Jammu and Kashmir state economy.
2) To analyze whether this relation is feasible for our economy or not

DATA AND METHODOLOGY

The study is primarily based on the secondary data that is obtained from the following sources: -
- Economic census, Govt. of India, various issues.
- Digest of statistics; Directorate of Economics and Statistics; Govt. of J&K, various issues.
- Economic Survey; Directorate of Economics and Statistics; Govt. of J&K, various issues.
- Economic Review of J&K; Directorate of Economics and Statistics; Govt. of J&K, 2007-08.
- Reports, journals, magazines and news papers.

The following appropriate statistical tools and formulas have been used to analyze the data:

STATISTICAL AND ECONOMETRICAL TOOLS

The following statistical and econometrical tools have been used to explain the relationship between economic growth and inflation rate:

1. GDP Deflator

It refers to the ratio between GDP at current prices and GDP at constant prices. If GDP at current prices = GDP at constant prices, GDP deflator =1, implying no change in price level. If GDP Deflator is found to be 2, it implies rise in price level by a factor of 2 and if GDP Deflator is found to be 4, it implies a rise in price level by a factor of 4.

GDP Deflator is acclaimed as a better measure of price behavior because it covers all goods and services produced in the country.

Data on inflation rate for J&K state is available since 2010 on CPI index. Therefore, in our study we have employed GDP Deflator which we have calculated from the NSDP time series data from 1980-2011.

2. **Compound Growth Rate:** the compound growth rate (cgr) has been calculated with the help of exponential function which is as:

Exponential function $y = ab^x$

The compound growth rate = (b-1)* 100

3. The Regression Model for Growth Rate of State Economy Output and Total Inflation Rate of State Economy

- **Simple Growth Regression Model**

We have used this model by converting the variables of a simple regression equation into the form of growth rate as given below.

$$X = a + b_1 X_1 + u_1$$

Where dependent variable X = Total **Inflation Rate of State Economy**

X_1 = Growth **Rate of State Economy Output**

u_1 = error term assumed to follow normal distribution with zero mean and constant variance.

The regression equation is below

$$X = 1.02 + 0.10\ X_1$$

Predictor	Coefficient	St.Dev	T	P
Constant	1.02	0.27	3.81	0.001
X_1	0.10	0.05	2.23	0.03
R-Sq = 15.1%		R-Sq(adj) = 12.1%		
F= 4.99		P=0.03		

It is noticeable from the results as shown by growth regression model that Growth Rate of State Economy Output is positively related to the Total Inflation Rate of State Economy. This variable is highly significant as P-value is just 0.001 percent. It is a well observed from the above equation that one percent increases in output growth rate leads to 0.10 percent increase in the inflation rate in the Total Inflation Rate of State Economy. The results of our regression models have clearly proved the *structuralists' theory of inflation which expresses* that inflation is essential for economic growth, and it refutes the monetarists view about inflation and economic growth who believed that inflation is detrimental to economic progress. Although, the relationship between growth rate of output and inflation is positive, but it is not so strong as S*tructuralists believed as it is evident from the R^2- value which is just 15.1% which in other words imply that* one percent increases in output growth rate leads to 0.10 percent increase in the inflation rate in the Total Inflation Rate of State Economy and for this in actuality inflation rate is responsible upto 15 percent only.
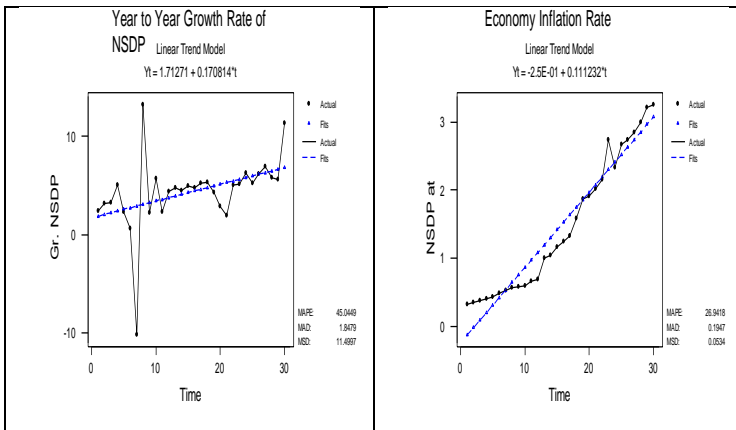
The results of our regression models have also proved the **Phillips Curve** indirectly which explains the inverse

relationship between inflation and unemployment. As we know from the **Phillips Curve** *that* inflation and unemployment *are negatively related while as the relationship between inflation and growth rate is positive proved by Structuralists. Therefore, from it we can infer that the relationship between inflation and economic growth should be positive which indirectly represents the negative relationship between* inflation and unemployment *i.e.* Phillips Curve. *Therefore, our last model indirectly represents negative relationship between inflation and unemployment if we assume that there exists a negative relationship between inflation and unemployment. The following diagrams make it clear*

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FINDINGS

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CONCLUSIONS

The main objective was to examine whether a relationship exists between economic growth and inflation and, if so, its nature. The interesting results found in this chapter is that the, inflation and economic growth are positively related.

Second, the sensitivity of inflation to changes in growth rates is larger than that of growth to changes in inflation rates. These findings have important policy implications. In this study, the inflation-growth nexus in Jammu & Kashmir Economy has been systematically analyzed. The important

conclusion is that any increase in inflation from the previous period positively affects growth rate of Jammu & Kashmir Economy. Therefore, unlike in the case of the Indian economy, the most desired policy for Jammu & Kashmir Economy is the one in which there is always an upward pressure on inflation, without having to worry about what is the threshold level.

Further, the policymakers should note that any increase in inflation from the previous period at any level has positive effect on economic growth. However, the fact that the common people and the decision makers do not like inflation has enormous effects on the consumption pattern, which in turn affects the output demanded. Macroeconomic stability and the necessary infrastructure are among the preconditions for sustained growth. Among the ways inflation can affect growth, an important avenue is the effect of inflation on investment. Low or moderate inflation is an indicator of macroeconomic stability and creates an environment conducive for investment. The Jammu & Kashmir Economy experience appears to support the Structuralists Theory.

In Jammu & Kashmir Economy inflation has generally been kept under control. There have been two episodes of high inflation since 1980 but price rise has been controlled by various fiscal, monetary and administrative measures.

Also, evidence from investment behavior in private manufacturing suggests that an increase in the rate of inflation has a negative impact on private investment in manufacturing. The regression for private investment in agriculture points towards complementarities between public and private investment. Taking economy-wide linkages into account, the analysis suggests that higher growth can be achieved by controlling inflation and raising public investment. To promote growth and keep inflation low, the government needs to control budget deficits. While simulations indicate that this can be achieved by switching public expenditure from consumption to

investment, this may be a difficult policy to pursue, especially in a developing in Jammu & Kashmir Economy.

The model allows the policy maker to see the various trade-offs involved. The overall message is clear—the government should curtail unproductive expenditure, which is bad for both growth and inflation, in favour of investment. Providing stability and the necessary infrastructure can set the stage for the use of other more direct policy measures aimed at promoting growth.

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