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GRT ROLE OF INTERNAL FORCES IN INFLATIONARY PRESSURE IN INDIA

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Abstract:-Inflation is nothing but the persistent rise in the general price level of the country. But in recently all the economies of the world, underdeveloped as well as developed suffer from inflation and it is also not consistent with Keynes approach since majority of these underdeveloped countries are operating at underemployment level. The pressure and cause of inflation may differ from country to country. In fact in the process of economic growth generally inflation is always taking place and if the real growth rate of the economy is greater than the rate of inflation then the phenomena of inflation will not be adversely affects on standard of living of the citizens and vice versa. In Indian, there is high pressure of inflation since June 1955 and this pressure has further increased after 2001. There are various causes of inflation in India and these causes can be classified in to two major heads namely internal and external causes. In present research paper attempt is made to study the long run relationship between money supply, fiscal deficit, rate of investment, rate of import, public debt (as internal major causes of inflation) and inflationary pressure. With the help of correlation and regression technique this relationship has been examined. Study has covered twenty year's period from 1991 to 2010 and arrived at conclusion that there is significant positive correlation exist between these variables and inflation.

Keywords: WPI, CPI, Inflation, Money Supply M3, Fiscal Deficit, Public Debt, Investment .

JEL: R00, R23, R15, Q25, O4, O47, O44

INTRODUCTION

Inflation is a persistent rise in the general price level of the country. Generally a different economist gives different causes that lead to inflationary rise in prices. There are the quantity theorists or monetarists who explain inflation due to demand pull or excess demand often described as "too much money chasing too few goods." According to them, inflation is the result of excessive increase in the money supply in the face of an inelastic supply of goods and services. Another group of economists attributed inflation to cost-push factors. Cost-push inflation is caused by wage-push and profit-push to prices. The basic cause of wage –push inflation is the rise in money wages more rapidly than the productivity of labour. The structural school of Latin America put stress on structural rigidities in a developing economy as the principal cause of inflation. According to this view,

structural inflation is caused by two basic rigidities. First, the rate of export growth in a developing economy is slow and unstable which is inadequate to support the required growth rate of the economy. The slow growth rate of export necessitates a continuous policy of import substitution which, in turn leads to a cost-push because of the high prices of imported material and equipment. The secular deterioration in the terms of trade of primary products of developing countries further limits the growth of the income from exports which often leads to exchange rate devaluation. Second, agricultural production is inelastic in such economies due to defective system of land tenure and other rigidities in the form of lack of irrigation, finance, marketing and other facilities. Thus structural inflation may result from cost of import substitution, rise in agricultural prices, deterioration in the terms of trade and exchange rate devaluation. These factors add to cost-push inflation. But in recently all the economies of the world, underdeveloped as well as developed suffer from inflation and it is also not consistence with Keynes approach since majority of these underdeveloped countries are operating at underemployment level. The pressure and cause of inflation may be differs from country to country. In fact in the process of economic growth generally inflation is always taking place and if the real growth rate of the economy is greater than the rate of inflation then the phenomena of inflation will not be adversely affects on standard of living of the citizens and vice versa.

II. OBJECTIVES OF THE STUDY

Following are the major objectives of the study:

- 1.To study the cause of inflation in India,
- 2.To examine the correlation of coefficient between money supply, public debt, fiscal deficit investment rate, import and inflation,
- 3.To depict the regression line of inflation and money supply.

III. RESEARCH METHODOLOGY

A)Data source and Data collection

The present study is purely empirical type of research which exclusively relies on secondary data. The necessary data has been collected from the Economic Survey of India and various reports of RBI. The collected data has been processed and tabulated by using Excel Software. The statistical tools such as, correlation and linear regression are applied for data analysis and interpretation. The present paper has considered twenty years period from 1991 to 2010 and attempts are made to examine the correlation coefficient between money supply and inflation. In other words this paper attempted to fill up the gap between theories and practice in context of inflation.

B) Hypothesis

Following hypothesis have been formulated.

1. Significant positive correlation prevails between money supply and inflation.
2. Significant positive correlation exists between fiscal deficit, public debt and inflation.

IV. CAUSES OF INFLATION IN INDIA

There are several causes of inflation in India. These causes can be basically classified into two parts namely, demand side and supply side.

Demand Side Factors

For increase in will leads to increase in prices. The following factors have been responsible for increasing the in relation

to their supply in the Indian economy, thereby leading to inflationary pressure.

- 1) Increase in population: After 1951 rapid increase population is one of the major contributors in Indian inflation.
- 2) Increase in Government Expenditure: After adopting planning, the expenditure of the centre, state government and Union territories has been steadily increasing. From a mere Rs 744 crores in 1950-51, the total expenditure of centre, state government and Union territories had risen to Rs 4,41,547 crores in 2011-12.
- 3) Increase in money supply: So long as the growth rate of the economy is high enough to absorb there is no inflationary rise in prices in any country. But in India has been much higher than the growth rate of the economy.
- 4) Deficit finance: Deficit financing has been one of the major contributors in increasing money supply and thereby contributing increasing inflationary pressure in India.
- 5) Effect of black money: In India, there is parallel economy supported by black money. The National Institute of Public Finance and Policy estimated the amount of black money at 18.2 % of GDP in 1984-85 or Rs 40,000 crore every year. The Ministry of Finance estimated it at Rs 80,000 crores in 1990.

Supply Side Factors

- 1) Slow growth rate of industrial sector: The growth rate of industrial production is lesser than the demand for it and consequently it resulted in rise in general price level.
- 2) Agriculture sector: The variation in agriculture production is the contributor in inflation especially in food and food grain inflation.
- 3) Import duties: Higher import duty will leads to higher prices. Consequently it leads in inflation.

V. CORRELATION MATRIX AND REGRESSION RESULTS

The association magnitude of internal forces on the inflation has been attempted to study through Pearson Correlation Coefficient. The correlation matrix has presented in table 1. Now let us discuss the core part of study with theory and observation.

1. Money supply (M3) and general price level

According to classical view there is direct and proportionate relationship between money supply and general price level. In fact this view has been nullified by the several modern studies and it has been proved that there is a positive relationship between money supply and the rate of inflation but it is disproportionate. Our research study also found consistent result with the modern view, because the correlation of coefficient between money supply and the rate of inflation shows very low positive association i.e .0.34.

Table 1: Correlations Matrix

Inter forces	Inflation	Fiscal Deficit	M3	Import	Public Debt	Investment Rate
Pearson Correlation	-	.236	.034	.397	.172	-.072
Fiscal Deficit	.236	-	.188	.667	.352	-.226
M3	.34	.188	-	.069	.084	-.311
Import	.397	.667	.069	-	.370	-.048
Public Debt	.172	.352	.084	.370	-	-.067
Investment Rate	-.072	-.226	-.311	-.048	-.067	-

2. Fiscal deficit and general price level

The fiscal deficit is one of the major contributors of inflation. Especially the deficit finance push forwards the general price level. The study reveals that there is weak positive correlation prevails between fiscal deficit and the rate of inflation in Indian context.

3.Import and inflation

Several studies demonstrated that there is positive correlation prevails between import rate and the rate of inflation. However the present research study shows that there is moderate positive correlation exists between these two variables i.e 0.39

4.Public debt and the rate of inflation

During the period under consideration, study found that there is very weak positive correlation exists between public debt and the rate of inflation.

Regression Results

<i>Regression Statistics</i>					
Multiple R	0.52965278				
R Square	0.280532068				
Adjusted R Square	0.003813632				
Standard Error	3.394081732				
Observations	19				

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	58.39276167	11.67855	1.01378163	0.448351986
Residual	13	149.7572804	11.51979		
Total	18	208.1500421			

<i>Coefficients</i>				
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	13.25830644	10.29007673	1.288456	0.22004705
M3	-0.017982274	0.310835154	-0.05785	0.95474671
import	-0.121027876	0.075287476	-1.60754	0.13194075
fiscal deficit	-0.029794308	1.04354295	-0.02855	0.97765626
Public Debt	-0.142972305	0.098153963	-1.45661	0.16894946
Investment rate	-0.046175688	0.170271918	-0.27119	0.79050492

Thus regression line would be derived from influence of internal forces and external forces That is,

Rate of Inflation(Y)

$$=13.25830644 (-0.017982274*M3 - 0.121027876*Import-0.029794308* fiscal Deficit-0.142972305*Public debt- 0.046175688* Investment Rate)$$

It is clear from the regression results that the magnitude of internal forces in the inflationary pressure is not significant in India. The internal forces are minor runners of inflation. The magnitude power of external forces (i.e 13.25) is the major responsible cause of inflationary pressure in India.

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Appendix 1
Growth rate of inflation, money supply, import and fiscal deficit

Years	Inflation CPI	WPI	M3	import	fiscal deficit	Public Debt	Investment rate
1991	13.87	13.7	19.3	-19.4	5.60	14.9	26.03
1992	11.78	10.1	14.8	12.7	5.40	13.0	21.80
1993	6.36	8.4	18.4	6.5	7.00	15.1	23.04
1994	10.21	12.6	22.4	22.9	5.70	21.4	22.19
1995	10.22	8.0	13.6	28.0	5.10	8.3	24.73
1996	8.97	4.6	16.2	6.7	4.90	13.1	25.27
1997	7.16	4.4	18.0	6	5.80	11.0	23.68
1998	13.23	4.3	14.6	17.2	5.40	11.4	25.57
1999	4.66	3.3	16.8	1.7	5.70	16.3	24.21
2000	4.00	7.2	14.1	1.7	6.20	49.5	26.78
2001	3.68	3.6	14.7	19.4	5.90	12.5	24.36
2002	4.39	3.4	16.8	27.3	4.60	13.2	24.32
2003	3.80	5.5	12.3	42.7	3.90	9.7	24.81
2004	3.76	6.5	16.9	33.8	3.97	10.0	26.87
2005	4.24	4.4	21.7	24.5	3.32	12.5	32.82
2006	6.14	6.5	21.4	35.5	2.55	11.0	34.65
2007	6.36	4.8	19.3	19.8	6.04	11.0	35.66
2008	8.35	8.0	16.8	-2.6	6.39	16.6	38.11
2009	10.87	8.6	16.5	19	5.10	12.0	34.30
2010	11.99	8.2	Na	Na	4.60	15.4	36.60

Source: Rural Development Statistics 2011-12' Ministry of Rural Development, Government of India. August 2011



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