

# A Note On Inflationary Condition In Nepal

Tirtha Kumar Shrestha\*

## INTRODUCTION

In ordinary language inflation means a process of rising prices. Inflation describes that situation when the prices and supply of money both rise. It is a process of continuous rising price of goods and services and continuously falling value of money and other fixed priced assets in the economy. If there is full employment, then increase in the money supply will result partly in the increase of output (GNP) and partly feeds the rise in prices, and when the supply of output lags far behind, the rise in prices is described as inflationary. Thus we can say that inflation is generally associated with an abnormal increase in the quantity of money resulting in abnormal rise in prices. Consumer price index and GDP deflator are the most commonly used indicators to measure the rate of inflation. A higher rate of inflation causes misallocation of resources because it increases the inflationary expectations and encourages loading of goods to make greater profit rather than investing in productive sectors. If income does not increase in proportion to increases in price level, people depend on fixed income such as salary, pension, fixed term contract and the likewise will be affected negatively. Similarly people holding financial assets such as bonds, fixed and savings deposits with fixed interest rate will suffer from capital loss, so higher rate of inflation may cause instability in the economy and there is a need of analysis of the causes and measure along with the solution of it.

Inflation in Nepal may be represented by the national urban consumer price index (CPI) or GDP deflator, and this CPI is available since 1964/65, though there is a lack of time series data on wholesale price wage rate, export and import price index of construction materials etc. In Nepal in the period of 25 years, 1970-1995, the consumer price index has increased more than sixfold which clearly depicts the inflationary situation in the country (Appendix I). The national urban consumer price index, 1983/84 = 100, on an annual average basis, registered a rise of 7.6 percent in the fiscal year 1994/95, the food and beverages group index moved up by 7.3 percent as compared to the growth of 9.1 percent in 1993/94. All the sub-group indices with the exception of index for spices demonstrated the increasing trend ranging between 1.3 percent and 31.1 percent. The highest movement of prices was observed in pulses, 31.1 percent, sugar and related products 9.6 percent. The indices for remaining sub-groups such as grains

---

\* Mr. Shrestha is Lecturer, Mahendra Morang Multiple Campus, Tribhuvan University, Biratnagar, Nepal.

and cereal products, meat, fish and eggs, restaurant meals, vegetables and fruits, beverages and milk products advanced by 7.8 percent, 6.2 percent, 5.1 percent, 5.0 percent, 3.9 percent and 1.3 percent respectively. The index for spices however, preceded by 3.4 percent.

The non-food and services group index improved by 8.1 percent as against the rise of 8.9 percent last year. All the sub-groups indices under non-food and service group recorded the rise ranging between 3.9 percent and 10.3 percent. The indices for education, reading and recreation, cloth, clothing's and sewing services and housing showed soaring tendency registering the notable increase of 10.3 percent, 10.1 percent and 7.4 percent respectively. The indices for other sub-groups like medical and personal card, footwear, cigarettes and transports and communication moved up by 6.1 percent, 5.9 percent, 5.0 percent and 3.9 percent respectively.

Regionwise, on an annual average basis, the highest rate of inflation was noticed in Kathmandu, 8.0 percent followed by the hill 7.8 percent and the terai 7.3 percent. In the preceding year also, Kathmandu recorded the highest rate of inflation at 12.8 percent. It was however, followed by the terai 6.7 percent and the hill 6.4 percent.

Besides the consumer price index, prices of construction materials, wages of skilled and the semi-skilled labour, imported goods etc., which are not included in the index, have also increased rapidly. Thus inflation has become one of the major problem in the Nepalese economy.

Comparing the growth rate of inflation with the population growth rate which is nearly 2.6 percent, we find increment in percapita GDP. On the other side, government's expenditures are also increasing every year heading to increase in aggregate demand which in turn, will naturally lead to the increase in price level unless output increases correspondingly. But we have already seen that the output level is increasing only by a small amount while increase in aggregate demand is higher rate which brought inflation in the economy. Moreover, due to the open border with India, the movement of Indian prices has an important impact upon the domestic prices.

The monetarist model provides a fairly reasonable explanation of the inflationary process in the (LDCs) less developed countries. The monetarist explains that inflation is always and everywhere a monetary phenomenon. However, studies on inflation in Nepal shows clearly that the monetarist model has not been adequately tested using the latest available data, and the structuralism hypothesis has not been considered.

The macroeconomic indicators of the Nepalese economy are presented in the Table 1 which shows that the average annual growth rate of per capita GDP from 1971-88 has remained low and unstable overtime. The average annual growth rate of percapita GDP from 1971-1988 has remained at 1.06 percent which shows that there is very little improvement in percapita GDP of the country. This is due to the dependence on



agriculture of Nepalese economy, which has grown very slow. For example, during the period 1974/75 to 1990/91, the average production of principal food crops has increased by 2.3 percent while the annual population growth rate was recorded to be 2.6 percent (MOF 1994). In this way, the slow growth rate of agriculture production and rapidly growing population has increased the demand for food items. The prices of pulses, vegetables, milk and milk products, meat, fish and eggs have high rise and caused for demand pull inflation in Nepal.

**Table 1**  
**Main Economic Indicators Of The Nepalese Economy**

Indicators	Years				
	1971	1975	1980	1985	1988
Growth Rate Percapita GDP	-2.39	-0.75	-4.41	3.35	5.26
Growth Rate Money Supply (M <sub>1</sub> )	12.14	3.39	13.03	13.63	13.18
Growth Rate Money Supply (M <sub>2</sub> )	19.03	11.9	17.27	20.04	23.05
Government Budget Deficit (Rs. Mn.)	-24.0	248.0	909.4	3151.4	4622.9
Current Account Balance (Rs. Mn.)	-	-120.3	-341.6	-1849.0	-4622.8
Rate of Inflation	-1.99	7.59	14.51	8.05	8.98
Growth Rate of Import Price	5.15	4.55	28.3	4.49	6.50

Source: MOF/HMG, Economic Survey 1994.

On the other side, growth of percapita is slow, but the money supply, narrow (M<sub>1</sub>) and broadly defined (M<sub>2</sub>) both, has increased rapidly in the country. The average annual growth rate of money supply has been found to be 14.82 percent during 1965-88 (CBS 1997). This shows that the growth rate of money supply is faster than the growth rate of per capita GDP which implies that there is more money in the economy as compared to the production level of goods and services. Thus, rapidly increasing money supply might be another important cause of inflation in the country.

In the country, adequate infrastructure and other essential services are lacking. Private sector is less interested in developing infrastructures in the country, so the governments' expenditure in this sector has increased. For example total government expenditure has increased to Rs. 36401.6 million in 1994/95 from Rs. 14050.1 million in 1987/88 (CBS 1997). Revenue from tax and non-tax sources is not adequate to finance the growing government expenditure and hence there is a growing budget deficit, and the government has borrowed from domestic as well as foreign sources. The growing of external borrowing has increased the supply of money and helped to create the inflation in the country. Similarly internal borrowing has also used the another source for fulfill the deficit budget. Most of the internal borrowing comes from the banking sector which

reduces the availability of funds to the private sector which might have created inflation.

Nepal has an open economy with virtually no restrictions on the movements of most of the goods across the border. Substitutes to almost all domestic products are easily available from India. Nepal need to meet a large percent of the demand from omports. While importing goods from abroad, we also import inflation. In this way, the growing amount of imported goods also imports inflation in Nepal. Imported inflation is another source of inflation in the country. It also means that the Nepalese price situation is intimately linked with the Indian price situation.

### **THEORY OF INFLATION**

Three different theories have been offered to explain the causes of inflation in industrial countries during the sixties and seventies. The first theory, based on the Phillips curve, envisages a negative correlation between the rate of growth of money wages, price and unemployment rate. The second is known as the monetarist inflation theory which advocates a connection between the rate of inflation and growth rate of money supply per unit of output. The third is structural factor for explanation of inflation. Structural factors are important for a higher growth rate of productivity in industrial sector as compared to services sector and a uniform growth of nominal wages in both the sectors. The Phillips curve approach can not be tested in the context of LDCs like Nepal, where are unemployment and underemployment problem and the data are not also available on time series basis.

#### **Monetarist Theory Of Inflation**

The monetarist theory was first formulated and tested by Harberger (1963), later Vogel (1974), Sheely (1980), Aksay (1982). This theory has been widely employed in studying inflation in many developing countries. According to this theory, aggregate excess demand resulting from an excess supply of money is regarded as the principal cause of inflation. And according to the simple quantity theory of money, inflation is caused by an excess of monetary demand over the market to clear supply at current prices. In terms of equation of exchange:

$$MV=PY \dots\dots\dots (i)$$

Where,

M = Quantity of Money

P= Price Level

V = Velocity of Circulation of Money

Y = Volume of Real Income

According to this framework, suppose,  $V$  and  $Y$  are constant, changes in  $P$  brings inflation, therefore, it is caused by monetary and fiscal policies affecting money supply. A fairly widely used monetarist model of the determinants of inflation is written as:

$$P/M - aY + BC \dots\dots\dots (2)$$

Since the rate of inflation is measured in percentage the above equation change to :

$$P^* = M^* - aY + BC^* \dots\dots\dots (3)$$

Where,

$P^*$  = Rate of inflation (percentage change in consumer price index)

$M^*$  = Percentage in the rate of growth of money supply.

$Y^*$  = Percentage change in the rate of growth of percapita income

and,

$C^*$  = Rate of growth of the expected cost of holding money.

The percentage change in the consumer price index is considered as rate of inflation. Money supply is narrowly defined as currency plus demand deposits.  $Y$  is the growth rate of real percapita income.  $C = P_t - P_{t-1}$  the first difference of the change in the inflation rate, is used as the proxy to estimate the cost of holding money. Equation (3) implies that the demand for real cash balance depends on real variables, i.e. there is no money illusion and the adjustment is instantaneous. When financial institutions are relatively underdeveloped and economic activities are insufficiently monetised as in the case of Nepal, the adjustment specification should help to capture most of the delayed effects of an increase in the money stock. Due to the lack of well developed financial market in Nepal, the adjustment of changes in the money stock is not instantaneous, hence, we had modified equation (3) into:

$$P^*_t = a + a_1m_t^* + a_2m_{t-1}^* + a_3y_t^* + a_4c_t^* \dots\dots\dots (4)$$

Where  $m_t$  and  $m_{t-1}$  are growth rate of money supply in current year and lagged by one year adjustment of changes in money and prices.  $C_t = (P_t - P_{t-1})$  is used in this analysis as a proxy of the cost of holding money. The cost of holding money ( $C_t$ ) is simply the difference in inflation rate between the current year and the last year. Interest rate is another possible variable for it but the minimum interest rate on savings and fixed deposit and maximum interest rate on lending were centrally fixed by the Nepal Rastra Bank during the sample period, and interest rate is not deemed to have adequate representation of the cost of holding money. Hence the difference in inflation rate has been chosen as proxy for cost of holding money.



### **The Structuralist Theory Of Inflation**

This theory explain the inflationary behaviour in developing countries. It was developed in the 1950s when the monetarist model could not explain the rapidly growing inflation in the Latin American Countries. The basic argument of the structuralist approach is that inflationary process in the LDCs can not be adequately explained by reference to the level of aggregate demand. They argued that fragmentation between supply and demand in and between different sectors of the economy is the root cause of inflation in developing countries.

The structuralist model shows that increase in import price leads to inflaiton in Nepal. The lag import price implies that availability of import from the previous period is the indicator to increase the price and make exception. The government budget deficit variable shows positive impact on infaltion. The growing budget deficit and financing it from foreign loans help to increase net foreign assets which leads to increase in money supply and inflation. It should be rated that a continuous deficit budget helps the business people and importers to make positive expectation on inflation.

### **CONCLUSION**

The money supply and cost of holding real balances are the important explanatory variables to explain the causes of inflation in Nepal. Due to the lack of quarterly data on GDP, the exact length of the lag adjustment of money supply could not be indentified.

The structuralist approach suggests that short fall in commodity producing sectors, increasing imports prices and government budget deficit are important causes of inflation in the country. The continuously increasing government budget deficit and slow growth of agricultural and industrial production generate inflationary expectations.

Monetary policy is a important instrument to control inflation. A policy of increasing money supply in line with the growth of percapita GDP will help to control inflation because growing government budget deficit and financing it from external borrowing helps to increase money supply via increase in the foreign assets. Growing rate of money supply has been found to be inflationalry in Nepal. Fiscal policy must be directed towards controlling, regulating and managing regular supply of goods. Similarly, effective policy is needed to control the unexpected price hiking activities. A price monitoring unit to control and regulate wholesale and retail prices of both domestically produced or imported goods is needed to control the inflationary expectation in Nepal. Government policies must be directed toward increasing production in agriculture and manufacturing sectors. This policy will help to increase supply of goods in the market which will help to combat inflation.

## SELECTED REFERECES

- Akhtar, M.A. (1975) "The Inflation Problem in Developing Economics India and the Philippines" *Indian Economics Journal*, Vol. 27, India.
- CBS (1997) *Statistical Year Book of Nepal 1997*, CBS/NPC/HMG/N.
- Frich, Helmut (1977) "Inflation Theory: A Second Generation Survey", *Journal of Economic Literature*, Vol. 15 No. 4, p. 1290, USA.
- Khanal, Suman (1985) "Causes of Inflation in Nepal: An Econometric Analysis" *The Economic Journal of Nepal*, Vol. 8 No. 1, CEDECN, T.U. Kirtipur.
- MOF (1994) *Economic Survey (1994)*, MOF/HMG/N.
- Thapa, Nara Bahadur, (1997) "The Money Supply Function in Nepal" *Economic Review*, January No. 9, Nepal Rastra Bank.

## ANNEX

**Table 1**  
**Rate of Inflation In Nepal (1970-1995)**

Year	Consumer Price Index	Inflation Rate in Percentage
1970	31.1	15.19
1971	30.5	-1.93
1972	33.1	8.52
1973	36.8	11.18
1974	44.2	7.47
1975	47.5	7.47
1976	46.0	-3.16
1977	50.6	10.00
1978	54.3	7.91
1979	56.7	3.50
1980	64.5	14.77
1981	71.7	11.16
1982	80.1	11.72
1983	90.0	12.36
1984	92.5	2.78
1985	100.00	8.11
1986	119.0	19.00
1987	131.8	10.76
1988	143.6	8.95
1989	179.9	11.5
1990	197.6	9.8
1991	225.5	19.7
1992	239.1	21.00
1993	260.3	8.9
1994	305.4	7.6
1995	330.2	8.1

Source : IMF, International Financial Statistics, Year Book 1990.

**Table 2**  
**Main Economic Indicators of the Nepalese Economy**  
**Rs. in million**

Indicators	1990/91	191/92	1992/93	1993/94	1995	1995/96
Real GDP at Producer's Price	61952	64496	66982	72482	74982	78989
Price (1983/84 Price)	197.6	239.1	260.4	283.7	305/4	330.2
Money Supply (M1)	16283.6	19457.7	23833.0	28510.4	32985.4	36763.3
Money Supply (M2)	37712.5	45670.5	58322.5	69769.8	-	-
Government Budget Deficit	-106555.1	-11261.7	-11956.0	011623.0	10547.7	-
Current Account Balance	-9499.7	-10074.0	-9971.8	-8027.2	117861.0	23824.3

**Source:** Central Bureau of Statistics, Statistical Year Book of Nepal 1997, HMG /Nepal.