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The Causative Factors of Inflation in Bangladesh- An Econometric Study

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1. *Introduction, Causes of Inflation and Data Issues*

1.1. *Introduction, Objective and Scope of the Study*

For any government, one of the most urgent economic issues is to stabilise the price and maintain a price level within the limits of purchasing power of the common people. It is vital because price instability yields a lot of economic and political distortions which hinder overall development of a country. Therefore, it is important for policy-makers to pay special attention on this burning issue.

The rate of inflation in Bangladesh has been very high since 1972 though the previous government has managed to keep it at a tolerable rate (Budget Speech 1995). High inflation rate has pushed the economy into a disastrous condition of decay since it is responsible for lowering real income of the consumers, worsening pattern of income distribution and difficulties in executing development projects. The factors contributing to inflation in our country are not equally important for generating inflation. The objective of this study is to look into the causes of inflation in Bangladesh and to find out their relative strength and significance. Special attention is paid to the model specification.

A few studies are found on inflation in Bangladesh. Perhaps, Bose (1973) attempted first to analyse the phenomenon of inflation in post-liberation Bangladesh. Using data for four years, 1969 through 1972, he showed that wholesale price indices for agicultural and industrial products jumped to 161 and 272 respectively in 1972 from 100 in 1969.

Analysing collected data from forty eight tea gardens in Bangladesh Chowdhury (1976) showed that inflation in tea industry originated mainly from a sharp rise in the costs of unskilled labour and other

primary materials. In another study, Haque and Emran (1992) showed that the ratio of imports to total food availability significantly affected the inflation in Bangladesh.

Taslim (1980) was ths the first author who used regression models for explaining the inflationary process in Bangladesh. Estimating monetarist models he showed that one year lagged money supply had significant positive effect on inflation. However, the introduction of wage variable as an additional independent variable resulted in dramatic fall of statistical significance of coefficients of other variables in the regression model.

We have taken a few representative variables from supply and demand sides of the economy. The supply side variables considered here are the growth rate of unit price indices of import, the growth rate of indices of nominal wage rate and the growth rate of output levels (deflated GNP). The demand side variables considered here are the growth rate of aggregate supply of money, the growth rate of government development expenditures, the growth rate of domestic savings, the growth rate of remittances and the growth rate of population.

Scope of the Study

It is undoubted true that the scope of the study is very limited. This is because we are able to use only 20 years data (1972-73--1991-92) which are not sufficient for a time series analysis. Perhaps this sample size (n=20) does not provide much idea about the true population. Besides, we have studied the nature of inflation in Bangladesh by using only a few variables. The other remaining explanatory variables, such as- prices of indigenous raw materials and machineries, natural disasters, political unrest, consumers' demand, smuggling activities, dishonesty of business-men as the causative factors of inflation in our country are beyond the scope of our study.

In spite of these apparent theoretical and practical limitations, we have tried to find out the strength of a few explanatory variables to explain the state of inflation in our country, where unused resources and unemployed people are present, on the basis of some statistical criteria.

1.2 *Causes of Inflation in Bangladesh*

The causes of inflation in Bangladesh are many. We would discuss those causes that would be considered as explanatory variables in our models. Data on those variables are available and the sources of data are seemed reliable.

a) *Increase in the supply of money :* Theoretically, money supply is an important determinant of inflation. The supply of money in Bangladesh is increasing every year (Table 2). This excessive rise in the total supply of money may contribute to the cause of high inflationary pressure in Bangladesh.

b) *Increase in the development expenditure :* Development expenditures are increasing every year in Bangladesh (Table 2). Since the money spent for social and economic infrastructure cannot usually raise the supply of output, such expenditure raises the current price of goods.

c) *The rate of growth of output and population :* In Bangladesh the output growth rate is always lower than the population growth rate. The greater percentage of increase in the population has brought about a scarcity of goods. As a result, excess demand occurs that contributes to rise in prices.

d) *Higher price of imported commodities :* Bangladesh has to import huge capital goods, necessary consumer goods and even huge quantity of food grain. The inflation in foreign countries causes severe rise in prices in Bangladesh through the importation of commodities from those countries (Ahad 1978: 364-365).

e) *Increase in wage rate :* An increase in wage rate, without productivity increase or with productivity increase lower than wage increase, causes severe inflation in any economy. Table-1 shows that wage rate is increasing every year which contributes to inflation in our country.

f) *Remittances :* Remittance may be another important determinant for inflation. Table 2 shows that it is increasing almost every year which may cause inflationary pressure in our economy.

g) *Savings :* The savings rate of our people is low as most of the people are below the poverty line. Less savings rate may also lead to inflation in Bangladesh.

1.3. *Sources of Data and Methodological Framework*

For the purpose of this empirical study, data have been collected from secondary sources. The sources are various issues of the Statitical Year Book of Bangladesh and Statistical Pocket Book of Bangladesh published by the Bangladesh Bureau of Statistics and Economic Trends published by the Bangladesh Bank (details are noted at the end of Tables). All data are annual. For our purpose, we have selected the years from 1972-73 to 1991-92. These years have been chosen not because of any desirable statistical property but because of the availability of most of the data series.

All variables are expressed in terms of growth rate. For all indices, base year is the 1969-70, the immediate pre-liberation normal year. As it is difficult to obtain data on output levels, deflated Gross National Product has been used as a proxy of output levels. Population growth rates are only available in census years. Therefore, in order to obtain population growth rates for all years, crude death rates have been subtracted from crude birth rates in respective years. Since net migration figures are not available, they are not considered here in calculating population growth rates. Rates of growth of wholesale price indices (of products of all groups) have been considered as inflation rates.

The estimation method in the selection of the preferred model is Ordinary Least Squares (OLS) throughout. The inflation rate is regressed on various explanatory variables. We have used log linear model in our analysis since it gives better results than linear model. Moreover, one of the advantages of taking log on both sides of a regression model is that all coefficients of explanatory variables give respective elasticity directly. However, since we cannot take log of negative values, all negative values in all observations are replaced by zero.

2. *Testing Procedures and Model Specification*

2.1. *Formulation of Hypothesis and Testing Procedures*

The main hypothesis to be investigated in this study relates to the effects of growth rates of import prices, wage rates, output levels, money supply, government expenditures, population, domestic savings and remittances on the rate of inflation. Therefore, the present study will seek to test the following hypothesis.

> The rate of inflation is positively related to the growth rates of import prices, wage rates, money supply, government expenditures, population and remittances, and negatively related to the growth rates of output levels and domestic savings.

In testing particular function, attention will be given to the following criteria :

(a) Parameter estimates with an algebraic sign consistent with a priori expectations;

(b) Confidence intervals for parameter not wide enough to include zero at a reasonable level;

(c) Non-autocorrelated residuals as shown by Durbin-Watson (DW) statistic;

(d) Percentage of variation in each function explained by the explanatory variables as indicated by the simple coefficient of

determination (R^2) as well as the adjusted coefficient of determination ($\bar{R}^2$).

If an estimate fails to satisfy (a) or (b) or (c) or any combination of these, it will be deemed unsatisfactory.

2.2. *Estimation and Specification of the Model.*

As mentioned earlier, our motive is to find out the causative factors of inflation in Bangladesh. For this purpose several steps have been undertaken in the process of model specification.

First of all, taking two representative variables from each side (demand and supply sides), a simple log linear equation of the following form has been estimated.

$$\ln Y_t = \alpha + \beta_1 \ln X_{1t} + \beta_2 \ln X_{2t} + \beta_3 \ln X_{3t} + \beta_4 \ln X_{4t}$$

(Disturbance term disappears since it is an estimated model. We assume that all disturbance terms follow the assumptions of classical linear regression model and are normally and independently distributed).

Where Y = rate of inflation, X_1 = rate of growth of import prices, X_2 = rate of growth of nominal wage rates, X_3 = rate of growth of money supply, X_4 = rate of growth of government development expenditures, a = Constant term, β_1 - β_4 = parameters and t = time subscript. The estimated results are as follows :

$$\ln Y_t = \underset{(-1.168)}{-1.473} + \underset{(1.877)}{0.304} \ln X_{1t} + \underset{(2.236)}{0.736} \ln X_{2t} + \underset{(0.779)}{0.294} \ln X_{3t} + \underset{(0.933)}{0.164} \ln X_{4t} \quad (1)$$

(Note : Figures in parentheses are t-ratios unless stated otherwise)

$R^2 = 0.567$, $\bar{R}^2 = 0.452$, DW = 2.184

The model shows that both the demand side variables X_3 and X_4 are not significant even at 10% error probability level.

Adding population growth rate, another demand side explanatory variable, second equation has been estimated. Regression results are as follows :

$$\ln Yt = \underset{(-0.001)}{-0.003} + \underset{(1.833)}{0.369} \ln X_{1t} + \underset{(2.243)}{0.810} \ln X_{2t} + \underset{(0.758)}{0.293} \ln X_{3t} + \underset{(1.073)}{0.221} \ln X_{4t} - \underset{(-0.568)}{2.301} \ln X_{5t} \quad (2)$$

$R^2 = 0.577$, $\bar{R}^2 = 0.425$, DW = 2.162

Where X_5 = rate of growth of population. The variables X_3 and X_4 are still insignificant at a reasonable probability level. The variable X_5 is not only insignificant but also gives a wrong sign. So variable X_5 has been dropped from the model.

Money supply and government expenditure may have lag effect on inflation. So to see the lag structure of the model and thus make the model a dynamic one, a third equation has been estimated by including lagged value of these two variables. Regression results are shown below.

$$\ln Y_t = \underset{(-0.282)}{-.258} + \underset{(1.769)}{0.243} \ln X_{1t} + \underset{(2.997)}{0.856} \ln X_{2t} + \underset{(0.560)}{0.135} \ln X_{3t-1} - \underset{(-1.495)}{0.214} \ln X_{4t-1} \quad (3)$$

$R^2 = 0.586$, $\bar{R}^2 = 0.475$, DW = 1.976.

The lagged explanatory variables are insignificant at a satisfactory probablity level. Moreover, lagged variable X_4 gives a wrong sign.

So the above lagged variables have been dropped from the model. But we are still interested in keeping the variables X_3 and X_4 in the model since these are important variables on the demand side. Adding one more supply side variable and two more demand side variables the fourth equation has been estimated. Regression results are :

$$\ln Y_t = \underset{(-0.696)}{-1.226} + \underset{(1.441)}{0.313} \ln X_{1t} + \underset{(1.797)}{0.789} \ln X_{2t} + \underset{(0.368)}{0.213} \ln X_{3t} + \underset{(0.684)}{0.156} \ln X_{4t} - \underset{(-0.387)}{0.070} \ln X_{6t} + \underset{(0.190)}{0.078} \ln X_{7t} - \underset{(-0.142)}{0.017} \ln X_{8t} \quad (4)$$

$R^2 = 0.526$, $\bar{R}^2 = 0.224$, DW = 2.120

Where X_6 = rate of growth of remittances, X_7 = rate of growth of output, X_8 = rate of growth of domestic savings.

The variables X_1 and X_2 are now less satisfactory. The variables X_3, X_4, X_6, X_7 and X_8 appear as insignificant even at 10% error probability level. Moreover, the variables X_6 and X_7 have incorrect signs. So a variable deletion test (general F test) has been done and X_3, X_4, X_6, X_7 and X_8 have been found to be jointly insignificant.

That is, the rate of inflation does not depend on the growth rates of money supply, government development expenditures, remittances, output levels and domestic savings. In short, we can accept the following regression as representing the equation of inflation in Bangladesh. Thus, the specified or accepted model, which is the basis of our analysis of inflation in Bangladesh, is

$$\ln Y_t = \alpha + \beta_1 \ln X_{1t} + \beta_2 \ln X_{2t} + U_t$$

Regression results for the estimated model are :

$$\ln Yt = \underset{(-0.691)}{-0.476} + \underset{(1.550)}{0.212} \ln X_{1t} + \underset{(3.200)}{0.911} \ln X_{2t} \quad (5)$$

$R^2 = 0.524$, $\bar{R}^2 = 0.468$, DW = 2.028

3. *Diagnostic Tests of the Model*

3.1. *Test for Multicollinearity*

To check whether there is multicollinearity in our model, we regress each independent variable of the model on the remaining independent variables and compute R_i^2's. If any of these R_i^2's is greater than the original R^2, then we can conclude that there is severe multicollinearity in the model.

The estimated results of two regression models for testing multi-collinearity are as follows :

1. $\ln X_{1t} = 0.293 + 0.568 \ln X_{2t}$ and $R_1^2 = 0.077$

2. $\ln X_{2t} = 2.224 + 0.136 \ln X_{1t}$ and $R_2^2 = 0.077$

But from the original model we know that $R^2 = 0.524$.

As R_1^2 and R_2^2 are much lower than R^2, we can conclude that there is no multicollinearity in the model.

3.2. *Test for Heteroscedasticity*

To test for heteroscedasticity, we have used the Goldfeld-Quandt test. First, let X_1 be responsible for heteroscedasticity. Then we reordered the observations in ascending order by the values of X_1. Omitting 4 central observations we have fitted separate regressions by OLS to the first and the last sub-samples and computed RSS_1 and RSS_2. The estimated equation of the first sub-sample is

$\ln Y_t = -0.674 + 0.457 \ln X_{1t} + 0.900 \ln X_{2t}$; $RSS_1 = 4.794$

The estimated equation for the second sub-sample is

$\ln Y_t = -1.551 - 0.376 \ln X_{1t} + 1.661 \ln X_{2t}$; $RSS_2 = 3.551$

Thus, $F = \frac{RSS_2}{RSS_1} = \frac{3.551}{4.794} = 0.740$ with (5,5) d.f.

But $F_{0.05}$ (5,5) = 5.05. Thus the calculated F is smaller than the tabulated F. So F is not significant at 5 per cent error probability level. This implies that there is no heteroscedasticity.

Again, let X_2 be responsible for heteroscedasticity. Accordingly, we have reordered the observations in ascending order by the values of X_2. Omitting 4 central observations we have fitted separate regressions by OLS to the first and the last sub-samples and computed RSS_1 and RSS_2. The estimated equation for the first sub-sample is

$\ln Y_t = 1.392 + 0.888 \ln X_{1t} - 0.549 \ln X_{2t}$; $RSS_1 = 2.112$

The estimated equation for the second sub-sample is

$\ln Y_t = -5.033 + 0.236 \ln X_{1t} + 2.294 \ln X_{2t}$; $RSS_2 = 4.072$

Thus $F = \frac{RSS_2}{RSS1} = \frac{4.072}{2.112} = 1.927$ with (5, 5) d.f.

But $F_{0.05}$ (5,5) = 5.05. Thus the calculated F is smaller than the tabulated F. So F is not significant at 1% and 5% error probability levels. This implies that there is no heteroscedasticity. Therefore, we can conclude that our model is free from heteroscedasticity.

3.3. *Test for Auto-correlation*

Since our sample size is only 20 and all explanatory variables are predetermined, Durbin-Watson d test is appropriate for detecting the first-order auto-correlation.

The test procedure is as follows :

$$Ho : \rho = 0$$

$$Ha : \rho \neq 0$$

Durbin-Watson established upper (d_U) and lower (d_L) bounds for the critical values at the 5% and 1% levels of significance.

If $d < d_L$, we reject the null hypothesis.

If $d > d_U$, we do not reject the null hypothesis.

If $d_L < d < d_U$, the test is inconclusive.

Positive autocorrelation

Our sample size is 20. At 5% error probability level when K = 2, d_L = 1.100 and d_U = 1.537. Again, at 1% error probability level when k = 2, d_L = 0.863 and d_U = 1.271. So, $d > d_U$ at both probability levels. This implies that there is no positive first order auto-correlation in the model.

Negative autocorrelation

Let us define $d^* = 4-d$.

Therefore, $d^* = 4-2.028 = 1.972$

So, d^* is still greater than d_U at both probability levels. This suggests that there is no negative first order autocorrelation in the model.

3.4. *Test for Stability*

Structural stability can be examined through several methods. However, we have used the Chow test.

To apply the Chow test, the data set is divided into two parts at a priori date and two regressions over the two sub-periods are compared to the full-sample regression using an F ratio. The F statistic for Chow test can be given as follows :

$$F = \frac{(RSS_R - RSS_U) / K}{RSS_U / (n-2K)}$$

Where RSS_U and RSS_R are unrestricted and restricted residual sum of squares respectively. We have divided the observations into two sub-samples i.e. from 1972-73 to 1981-82 and from 1982-83 to 1991-92. So, the estimated equation for the first sub-sample is :

$\ln Y_t = -1.744 + 0.250 \ln X_{1t} + 1.330 \ln X_{2t}$; $RSS_{U1} = 5.088$

and the estimated equation for the second sub-sample is

$\ln Y_t = 1.692 - 0.077 \ln X_{1t} + 0.186 \ln X_{2t}$; $RSS_{U2} = 2.327$

Therefore, $RSS_U = 5.088 + 2.327 = 7.415$.

Again from the full sample regression, $RSS_R = 11.264$

$$\text{Therefore, } F = \frac{(RSS_R - RSS_U) / 3}{RSS_U / (n-6)} = \frac{(11.264 - 7.415) / 3}{7.415 / 14}$$

$= 2.420$ with (3,14) d. f.

But $F_{0.05}$ (3,14) is 3.34. Therefore, we can conclude that the hypothesis of no structural change is accepted. That is the estimated inflation equation for Bangladesh is found structurally stable over time.

4. *Discussion of Results of the Specified Estimated Model*

Our Specified estimated model has already been shown in equation (5). The detailed results of estimation are presented below.

$\ln Y_t = -0.476 + 0.212 \ln X_{1t} + 0.911 \ln X_{2t}$

(-0.691) (1.550) (3.200)

$R^2 = 0.524$, $\bar{R}^2 = 0.468$, DW = 2.028, F = 9.371

	partial corr.
X_1	0.352
X_2	0.613
constant	-0.165

We see that the model is satisfactory. The variable X_2 is significant even at 1% error probability level and the variable X_1 is also significant at 10% error probability level ($t_{0.10}$, with 17 d.f., is 1.333). The coefficients of all variables have correct signs and also there is no autocorrelation problem. The overall significance of the model can be tested by testing the following hypothesis.

$$Ho : \beta_1 = \beta_2 = 0$$

$$Ha : \beta 1 \neq 0 \text{ or } \beta_2 \neq 0$$

$$\text{Now } F = \frac{ESS/(K-1)}{RSS/(N-K)},$$

where ESS = Explained sum of squares and RSS = Residual sum of squares.

$$\text{Therefore. } F = \frac{ESS/2}{RSS/(20-3)} = \frac{ESS/2}{RSS/17} = 9.371 \text{ with d.f. (2, 17).}$$

Which is significant even at 1% error probability level [$F_{0.01}$ (2.17) = 6.11]. Hence the model is satisfactory.

However, goodness of fit (R^2) of the model is not execellent. Jointly both the explanatory variables can explain only 52.4 per cent of the total variation of the Y values around their mean. The remaining 47.6 per cent of the total variation is unconnected with the regression equation. This is because, we could not include all explanatory variables that contribute to inflation in Bangladesh. Other explanatory variables, e.g. prices of indigenous raw materials, natural disasters, political unrest, consumers' demand, smuggling activities, dishonesty of businessmen, wage earner scheme etc. are beyond the scope of our study. However, only a low R^2 or $\bar{R}^2$ does not necessarily mean that the model is bad (Gujarati 1988:186).

From the partial correlation results of the regression model, it is observed that the influence of wage rates is more than that of import prices on the inflation in Bangladesh. If wage is increased by Tk. 1, holding other things constant, the price level will be increased by Tk. 0.613 and vice versa, and if import price is increased by Tk. 1, holding other things constant, the price level will be increased only by Tk. 0.352 and vice versa.

Since our model is log-linear, coefficients of variables give elasticity directly. The import price elasticity of inflation is 0.212 and the wage elasticity of inflation is 0.911. This indicates that, holding other things constant, if import price is increased by 1%, the price level will be increased by 0.212% and if money wage is inceased by 1%, the price level will be increased by 0.911%. So inflation in Bangladesh is more sensitive to the growth rate of money wages relative to the growth rate of import prices. Higher wage elasticity also suggests that productivity of Bangladeshi people increases very little with the increase of money wages.

5. *Concluding Remarks*

The main purpose of this paper was to identify the causative factors of inflation in Bangladesh by estimating an appropriate inflation function. The important conclusions of this study can briefly be summarised as follows :

The explanatory variables that significantly influence the inflation are the growth rates of import prices and money wages. These are supply side variables. Both variables affect the inflation positively. However, the growth rate of money wages is more powerful than that of import prices. Wage elasticity of inflation is near unity. This implies that productivity of Bangladeshi workers increases very little with the increase of money wages.

We have also found that all demand side variables have insignificant influences on the rate of growth of prices. However, a unanimous conclusion about the determining factors of inflation in Bangladesh may not be drawn based on this study only. Here sample size is only 20. Moreover, a specific estimation method has been used. Lack of time and money prevented us from taking other estimation methods.

Besides, we could not check unit root problem of the data used here due to the limitation of computer facilities. So, the results obtained here could be improved in many ways and that is where a scope for further research lies.

Table : 1
Base : 1969-70 = 100

Period	Wholesale Price Indices	Rate of Growth	Unit Price Indices of Import	Rate of Growth	Nominal Wage Rate Indices	Rate of Growth
1972-73	179	79	125	25	131	31
1973-74	250	40	201	61	173	32
1974-75	399	60	234	16	221	28
1975-76	359	-10	201	-14	244	10
1976-77	362	1	186	-7	252	3
1977-78	408	13	188	1	280	11
1978-79	446	9	171	-9	346	24
1979-80	502	13	231	35	433	25
1980-81	540	8	257	11	492	14
1981-82	609	13	286	11	566	15
1982-83	643	6	359	26	598	6
1983-84	747	16	361	1	685	15
1984-85	875	17	407	13	734	7
1985-86	914	4	458	13	895	22
1986-87	989	8	482	5	1085	21
1987-88	1048	6	517	7	1201	11
1988-89	1129	8	443	-14	1288	7
1989-90	1225	9	502	13	1426	11
1990-91	1276	4	627	25	1482	4
1991-92	1323	4	608	-3	1553	5

Source : For wholesale price indices: Statistical Year Book of Bangladesh, 1981, p. 406, 1987, p. 452 and 1993, p. 458, BBS.

For import price indices : Statistical Year Book of Bangladesh, 1982, p. 425, 1984-85, p. 506, 1987, p. 328 and 1993, p. 337, BBS.

For nominal wage rate indices : Statistical Year Book of Bangladesh, 1982, p. 510 and 1993, p. 477, BBS.

Table : 2

Period	Money Supply (Tk. in Crore)	Rate of Growth of Money Supply	Govt. Exp. (Tk. in Million)	Rate of Growth of Govt. Exp.	Remit-tances (Tk. in Crore)	Rate of Growth of Remit-tances
1971-72	699	...	1807	...	...	...
1972-73	989	41	2515	39	16	...
1973-74	1217	23	3117	24	9	-44
1974-75	1288	6	4281	37	48	429
1975-76	1438	12	7442	74	71	48
1976-77	1715	19	9973	34	73	3
1977-78	2221	30	12196	22	154	112
1978-79	2745	24	15546	27	189	22
1979-80	3184	16	21726	40	386	104
1980-81	4134	30	24683	14	620	61
1981-82	4446	8	25529	3	840	36
1982-83	5682	28	24272	-5	1480	76
1983-84	8525	50	29739	23	1491	1
1984-85	10302	21	34837	17	1147	-23
1985-86	12318	20	33803	-3	1661	45
1986-87	14353	17	38499	14	2136	29
1987-88	16408	14	40472	5	2304	8
1988-89	19078	16	46454	15	2477	8
1989-90	22298	17	54307	17	2496	1
1990-91	25004	12	52898	-3	2726	9
1991-92	28526	14	60240	14	3242	19

Note : Money Supply = M_2 (Broad Money)
where $M_2 = M_1$ (Narrow Money i.e.: Currency Outside Banks + Schedule Banks' Demand Deposits) + Schedule Banks' Time Deposits

Sources : For Money Supply : Economic Trends, Jan. '79, Vol. IV, No. I, p. 2, Dec. '85, Vol. X, No. 12, p. 2, Dec. '90, Vol. XV, No. 12, p. 4, Apr. '95, Vol. XX1, No. 4, p. 3 Bangladesh Bank.

For Govt. Expenditures : Statistical Year Book of Bangladesh, 1979, p. 302, 1982 p. 459, 1987 p. 373 and 1993 p. 385, BBS.

For Remittances : Economic Trends, April 1995, Vol. XX1, No. 4, p. 65. Bangladesh Bank.
Statistical Year Book of Bangladesh, 1979 p. 327, BBS.

Table : 3

Period	Domestic Savings (Tk. in Million)	Rate of Growth	CBR (Per 1000)	CDR (Per 1000)	Rate of Growth of Popula-tion (%)
1972-73	1350	...	41.8	18.0	2.38
1973-74	5511	308.22	43.0	14.6	2.84
1974-75	2712	-50.78	40.0	14.5	2.55
1975-76	2156	-20.50	39.4	15.0	2.44
1976-77	7100	229.31	37.0	15.3	2.17
1977-78	8611	21.28	39.7	16.5	2.32
1978-79	8373	-2.76	37.0	16.5	2.15
1979-80	23780	184.00	40.9	16.0	2.49
1980-81	7501	-68.45	41.2	16.5	2.47
1981-82	1018	-86.42	34.6	11.5	2.31
1982-83	883	-13.26	34.8	11.9	2.29
1983-84	4194	374.97	35.0	12.3	2.27
1984-85	13009	210.18	34.8	12.3	2.25
1985-86	18497	42.18	34.6	12.0	2.26
1986-87	19664	6.30	34.4	11.9	2.25
1987-88	15289	-22.24	33.3	11.5	2.18
1988-89	12935	-15.39	33.2	11.3	2.19
1989-90	20098	55.37	33.0	11.4	2.16
1990-91	34456	71.43	32.8	11.3	2.15
1991-92	52933	53.62	31.6	11.2	2.04

Note : CBR = Crude Birth Rate
CDR = Crude Death Rate

Sources : For Domestic Savings : Statistical Year Book of Bangladesh, 1979, p. 343.
Statistical Pocket Book of Bangladesh, 1980, p. 407, 1986, p. 202, 1992, p. 226 and 1993, p. 230, BBS.

For CBR and CDR : Statistical Year Book of Bangladesh, 1980, p. 45, 1984-85, p. 111 and 121, and 1993, p. 55 and 61.
Statistical Pocket Book of Bangladesh, 1980, p. 149 and 161, BBS.

Table-4

GNP CONSTANT (73-74) FACTOR COST

Period	GNP at current Factor cost (Tk. in Crore)	Deflated GNP	Rate of Growth	GNP Deflator
1972-73	4441.7	6255.9		71
1973-74	6919.1	6919.1	10.60	100
1974-75	12424.3	7308.4	5.62	170
1975-76	10169.9	7883.6	7.87	129
1976-77	10029.9	8023.9	1.77	125
1977-78	14043.3	8615.5	7.37	163
1978-79	16575.1	8959.5	3.99	185
1979-80	19110.5	9143.8	2.05	209
1980-81	22561.9	9767.1	6.81	231
1981-82	25709.7	9888.3	1.24	260
1982-83	28458.7	10424.4	5.42	273
1983-84	34322.2	10793.1	3.53	318
1984-85	40378.6	11062.6	2.49	365
1985-86	44842.3	11617.2	5.01	386
1986-87	52463.9	12088.5	4.05	434
1987-88	58489.9	12210.8	1.01	479
1988-89	64452.6	12515.1	2.49	515
1989-90	71803.0	13296.9	6.24	540
1990-91	81083.5	13719.7	3.17	591
1991-92	88286.1	14308.9	4.29	617

Sources: *Economic Trends*, December, 1988, Vol. XLII, No. 12, p. 33, December, 1990, Vol. XV, No. 12, p. 31

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