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Editorial Notes

A major challenge for Bangladesh's economy would be to control inflation, keep import payments manageable, stop the loss of foreign reserves, and preserve stability on the foreign exchange market. It will be extremely difficult for the government to control inflation, which is predicted to increase in the days to come due to causes including pandemic fallout, war supply chain interruptions, and domestic adversities. In the meantime, the government released a growth-centric expansionary national budget with high fund deficit. In the coming days, this will increase inflationary pressure once more. With the main objective of cooling inflation and containing foreign reserve erosion, the Bangladesh Bank tightens monetary policy stance without removing the lending and deposit rate cap. On the other hand, Bangladesh's total external loans increased steadily to a total of $93.23 billion, having an unfavorable impact on its foreign exchange reserves. In a nutshell, Bangladesh's macroeconomic situation appears to be somewhat precarious.

Understanding the effects of the most recent inflation hike on the welfare loss of Bangladesh's economy is best done by reading the first article. Based on an estimation of the real money demand function using the ARDL model for the years 1978 to 2019, the research tried to quantify the nature and size of welfare cost of inflation (WCI) for Bangladesh's economy. The paper applied the consumer surplus approach to understand the relationship between inflation and real money demand, extending to welfare loss in the context of Bangladesh. The study's conclusion demonstrates that inflation reduces real money demand, increasing welfare loss. The study estimates WCI as 0.64 percent to 1.13 percent of GDP for an inflation rate ranging from "0 to 5.5" percent to "0 to 7.5" percent, based on the provisional GDP estimate for FY20. The research in the study has been extended to include the estimation of the inflation's welfare loss elasticity. According to the study, a one percentage point increase in inflation may result in a 1.80 percentage point increase in welfare loss for Bangladesh's economy.

The second article examined the stochastic behavior of inter-bank repo rate taking into account of uncollateralized call money rate and monetary transmission channel in Bangladesh. The call money rate and excess reserve do have a major impact on the collateralized interbank repo transaction's long-term equilibrium rate. According to the article, Bangladesh's inter-bank repo rate is determined by the monetary transmission mechanism while accounting for changes in the call money rate and excess reserves, in line with the standards of traditional monetary policy. Collateralized inter-bank repo rates have been chosen to provide a signal in determining banks' interest rates on deposits and loans subject to a ceiling and floor on the maximum and minimum rate of uncollateralized inter-bank call money rates at the same time, taking liquidity behavior into consideration.

The third article makes an effort to examine how monetary policy is operated and implemented.The Bangladesh Bank bases its monetary policy on the contemporay quantity theory of money and views reserve money (RM) and broad money (M2) as operating and intermediate targets for achieving high economic growth and price stability. The study found that Bangladesh Bank has been implementing monetary policy through three different tools: a change in reserve requirements, open market operations (OMOs), and the use of a refinancing facility. In terms of both the volume and the frequency of transactions, open market operations stand out among these as having a very high relevance compared to two other instruments. The prevalence of sizable non-performing loans, trade-based money laundering, the lack of a functional bond market, and the low demand for private investment are cited as the main obstacles to Bangladesh's monetary policy's efficacy.

The last and final note of this issue is concerned with exploring banking products for the growth of tourism economy. In this study, the Focused Group Discussion (FGD) approach was used with a group of 40 participants who were specifically chosen among the target stakeholders. Deposit schemes, SME schemes, financing packages for hotel purchase and restoration, lending packages for passengers & agencies, and bank guarantees for organizations engaged in tourist-related activity are a few examples of potential tourism banking products. Businesses' sales and earnings are impacted by tourism, which also increases the number of jobs and money they provide and brings in tax revenue for the whole economy. Accommodations, dining establishments, transportation, entertainment, and retail trade are all directly impacted. A robust tourism banking policy and strategy must be developed as a result to open up new opportunities for tourism enterprises.

Mahmood Osman Imam 31 December, 2021
Editor

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Computing Welfare Cost of Inflation for Bangladesh: An Empirical Analysis

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Abstract

The economy of Bangladesh has experienced more than seven percent economic growth on average with less than six percent annual average consumer price index (CPI) inflation from Fiscal Year (Fy'16 to Fy'19. The deviation of the inflation rate from its optimum level imposes costs on an economy which is commonly known as the Welfare Cost of Inflation (WCI). This study aims to measure the nature and magnitude of WCI for Bangladesh by applying Bailey's (1956) consumer surplus approach through estimation of Deaver's (1970) money demand function using the Autoregressive Distributive Lag (ARDL) model. Here, the ARDL model incorporates real money demand, real Gross Domestic Product (GDP), and annual average CPI inflation for the period from 1978 to 2019. The study finds WCI as an increasing function of the rate of inflation. The study estimates WCI ranging from 0.64 percent of GDP to 1.13 percent of GDP based on the provisional GDP estimate of FY20 corresponding to the inflation rate varying from 5.50 percent to 7.50 percent. The paper also finds that one percentage point increase in inflation may cause 1.80 percentage increase in the welfare loss of Bangladesh's economy.

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Keywords: Welfare Cost of Inflation, Consumer Surplus Approach, Autoregressive Distributive Lag Model, Money Demand.

JEL Classifications: C580, D110, E310, E410.

1.0 Introduction

Inflation plays a crucial role in determining the economic trajectory of any country. Comprehending the role of inflation in economic dynamics is important for a country to adopt a suitable policy measure for moving its economy forward. Policymakers of a country aim to design macroeconomic policies to achieve sustainable economic growth maintaining a low inflation rate. Most of the policymakers, economists, and researchers disagree to pursue zero or lower than

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zero inflation i.e. deflation, because deflation has significant adverse effects on the economic growth and development of a country (Billi & Khan, 2008). According to Billi and Khan (2008), setting an appropriate target for inflation requires understanding how alternative inflation objectives impact the economic stability and overall economic well-being, and policymakers should aim for an inflation rate that maximizes the economic well-being of the citizens. High inflation distorts the efficient allocation of resources by affecting the role of changes in the relative price level as well as discourages investment and savings through the generation of unpredictable future prices (Michel & Mbam, 2017). High inflation raises the nominal interest rate that helps to reduce the real stock of money demand and in turn diminishes consumer surplus by creating shoe-leather cost, menu cost, inflation tax, etc. Ultimately, an inflation rate higher or lower than the optimum level imposes costs on a nation which is popularly known as the welfare cost of inflation (WCI). So, measuring WCI has been an issue of interest for researchers in different countries. Several research works have been conducted to estimate the WCI in many countries by applying Bailey's (1956) traditional approach and Lucas's (2000) compensating variation approach. This study aims to compute the magnitude of the welfare cost of inflation for Bangladesh based on the estimation of the real money demand function. To address the objective of the study, the rest of the paper is organized into four sections. After laying out the introduction in section one of the paper, section two accommodates the extensive review of literature on the welfare cost of inflation while section three develops details of the methodology for the estimation of the welfare cost of inflation along with an initial analysis of data. Empirical estimation and analysis of the results are represented in section four. Finally, section five presents concluding remarks of the study followed by policy recommendations and the scope of future research.

2.0 Review of literature

This section of the paper attempts to carry out an extended review of literature to identify the research gap on the issue of our research interest and to apprehend the appropriate theoretical structure for the study. In this backdrop, this section aggregates the summary of both theoretical and empirical academic investigations in connection to the welfare cost of inflation across the globe.

Bailey (1956) mentioned the opportunity cost of holding money in his study−the welfare cost of inflationary finance and identified the welfare cost of inflation as

menu costs, shoe-leather or storage costs, etc. which are responsible to reduce the consumer surplus. According to Bailey, as the nominal interest increases due to an increase in the level of inflation, the demand for cash balance decreases. Hence, the cost occurs as inflation reduces welfare. The study estimated the WCI by computing the area under an inverse money demand curve from zero to some positive interest rate which is called Bailey's consumer surplus approach for the estimation of the welfare cost of inflation.

Deaver (1970) analyzed the demand for real money balances in Chile and tried to find out to what extent the rate of inflation that individuals may regard as likely to occur-affects the holdings of money. The study assumed that the real stock of money depends on the cost of holding money and on real income. Based on the money demand function, the study estimated the income elasticity of the demand for money in Chile and measured the size of Chile's inflation tax in terms of real national income from 1929 to 1955. The study observed that the inflation tax is a cost to the holder of money and if the prices were to rise at the same rate as the stock of money, the tax on cash balances would just equal the increase in the stock of money. But if prices may increase more or less rapidly than the stock of money, the value of the stock of money falls or rises. Shah et al. (2019) tried to estimate the WCI in India by applying consumer surplus and compensating variation approaches through the estimation of both partial and general equilibrium framework on quarterly data from 1996-97Q1 to 2014–15Q2. The study found that the WCI at an inflation rate of ten percent is approximately 0.53 percent of GDP that indicates the reduction of inflation rate of ten percent to zero percent may result in an output gain of 0.53 percent of GDP in India. The study also found that the WCI is an increasing function of the inflation rate and inflation elasticity of money demand.

Ireland (2009) investigated the WCI and the recent behavior of money demand in the U.S economy by using the dynamic ordinary least square model. The study found ten percent inflation rate causing welfare cost of 0.23 percent of income. Osei-Asare and Eghan (2013) tried to explore the effects of food price inflation on Ghanaian households by using household level data from 2005 to 2011. The study observed that increasing food price inflation between 2005 and 2011 had eroded real household food purchasing power by 47.18 percent. Koirala (2010) examined the welfare losses arising from rising inflation rate in Nepal for the period of 1973 to 2009. By applying ordinary least square techniques, study found a positive relationship between inflation and welfare loss.

Izadkhasti et al. (2013) measured the welfare cost of inflation in Iran by following both consumer surplus and compensating variation method and using annual data on money balances ratio and inflation rate from 1978 to 2010. The study estimated semi-log and log-log money demand functions and computed welfare cost by measuring the area under the inverse money demand function and demand function depends on inflation rate rather than nominal interest rate. The study found that long run relationship exists between inflation and money balances ratio. In case of semi-log (log-log) specification, consumer surplus approach showed the estimated welfare cost for rising inflation rate from one percent to thirty percent was 0.038 (0.003) percent to 3.52 (5.76) percent of GDP while the log-log specification based on compensating variation method estimated 0.038 percent to 3.52 percent of GDP.

Gupta and Uwilingiye (2008) investigated the long-run equilibrium relationship between money balance as a ratio of income and the Treasury bill rate for the period of 1965:02 to 2007:01 for obtaining welfare cost of inflation in South Africa. By employing Johansen co-integration technique and estimating log-log and semi-log model of the money demand function, the study found that the welfare cost of inflation in South Africa ranges between 0.34 percent and 0.67 percent of GDP, for a band of three to six percent of inflation. Gupta and Uwilingiye (2009) further estimated the long-run equilibrium relationship between money balance as a ratio of income and the Treasury bill rate for South Africa on the same data as they were used in 2008 by using the long-horizon regression approach developed by Fisher and Seater (1993). They found that the estimated welfare cost stood at 0.16 percent to 0.36 percent of GDP for the same band of three to six percent of inflation which is less than half of the values of their earlier estimation and claimed that the estimation of the welfare cost of inflation is sensitive to the methodology used to estimate the long-run equilibrium money demand relationships.

Kimbrough and Spyridopoulos (2012) measured the welfare cost of inflation for the case of Greece, using quarterly data for the period 1980Q1 to 1999Q4. Log-log and semi-log money demand functions were estimated using both OLS and Stock and Watson's (1993) dynamic OLS method. The study found that the welfare cost of a ten percent inflation rate in the range of 0.59 percent to 0.91 percent of GDP in Greece.

Mushtaq et al. (2012) quantified the welfare costs of inflation for Pakistan for the period 1960-2007 using semi-log and double-log money demand functions. The

welfare cost of inflation has been measured by the consumer surplus approach and compensating variation method. The study explored that the welfare cost of inflation is sensitive to the money demand specification. In Pakistan, for all the monetary aggregates, the welfare gain of moving from price stability to zero interest rate under the log-log model ranges from 0.10 percent to 0.25 percent of GDP, while for semi-log model the gain is trivial and ranges from 0.01 percent to 0.03 percent of GDP.

Fuchi et al. (2007) quantitatively evaluated the social loss for steady-state inflation of Japan by conducting a stochastic simulation for the zero lower bound on nominal interest rates. The analysis of the study revealed that the steady-state inflation rate minimizes the social loss that is generally between 0.5 percent and 2.0 percent, and divergence of around one percent in the steady-state inflation from the level will increase the social loss by no more than about 0.2 to 0.3 percent of GDP.

Serletis and Yavari (2005) investigated the welfare cost of inflation in Italy by applying the compensating variation approach of Lucas (2000) and the method applied by Serletis and Yavari (2004) for measuring the welfare cost of inflation in Canada and the United States. The study estimated the interest rate elasticity of the Italian money demand function by using the double log money demand function and the Fisher and Seater (1993) long-horizon regression Approach. The welfare cost of inflation quantified by incorporating estimated interest rate elasticity into the approaches introduced by Bailey and Lucas and found that reducing the interest rate from fourteen percent to three percent would yield a benefit equivalent to an increase in real income of 0.001 (0.1 percent).

Lucas (2000) tried to estimate the welfare cost of inflation based on the United States time series data for the period of 1900–1994, using Bailey's (1956) consumer surplus approach as well as the compensating variation approach. The findings of the study showed that reducing the interest rate from three percent to zero yields a benefit equivalent to an increase in real output of about 0.009 (or nine-tenths of one percent). Cao et al. (2018) assessed the interest rate elasticity of money demand and measured the welfare cost of inflation in Canada by constructing an overlapping generations (OLG) model of money holdings for transaction purposes subject to age, cohort and time effects of holding money. The study found that the elasticity is about 0.6, and the welfare cost of inflation is about 25 percent of one year of consumption for a permanent increase in inflation from two percent to five percent.

Feldstein (1979) argued on the welfare cost of permanent inflation and optimal short-run economic policy. The study found that the welfare loss caused by any given increase in the rate of inflation depends on the induced change in the real money stock and the prevailing rate of interest. The study suggested that if the inflation rate is above its optimal level, the economy should then be deflated to reduce the inflation rate, regardless of the temporary consequences for unemployment. Tatom (1976) extended the traditional idea of measuring the welfare cost of inflation. According to the study, the welfare cost of inflation is directly proportional to the elasticity of demand and the level of real money balances which would prevail in the absence of inflation or deflation, and inversely related to the real rate of return on capital in an economy. The welfare cost increases at an increasing rate with the inflation rate.

Calza and Zaghini (2011) estimated the shoe-leather costs of inflation in the United States using M1 data adjusted for the circulation of currency abroad for the period 1980-2006. Following Ireland (2009), the study applied a semi-log money demand function for the estimation of the welfare cost of inflation and found that the welfare cost of ten percent annual inflation rate is at just 0.05 percent of GDP per year and the welfare gain from moving from ten percent inflation to price stability is at about 0.1 percent of annual GDP. Friedman (1971) pointed out that the money monopolists have not only imposed welfare loss on their communities by their actual inflationary policy but have obtained less revenue from their monopoly than they would have obtained by less inflation. The revenue-maximizing rate of inflation is generally lower for growing than for constant real income and may even be negative. Iqbal et al. (2015) assessed the nature and extent of the welfare cost of inflation in Pakistan by estimating Locus's (2000) money demand function using an autoregressive distributed lag model (ARDL) framework. The study found that if the inflation rate decreases from fifteen percent to five percent then the amount of annual welfare gain will be Rupees 105 billion to 118 billion.

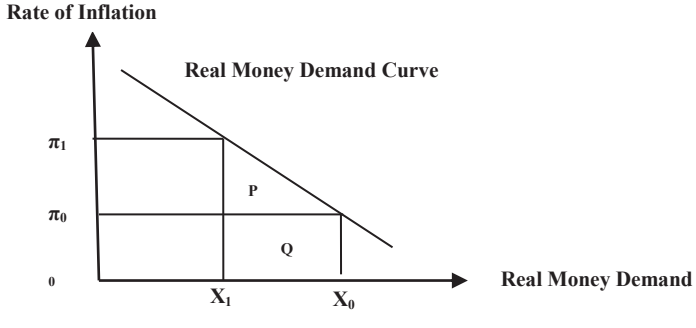
The reviewed study comes up with a consensus that most of the studies on measuring the welfare cost of inflation are based on Bailey's (1956) consumer surplus approach and Locus's (2000) compensating variation approach. Besides, it is evident from the review that there is no economic literature that has estimated the welfare cost of inflation for Bangladesh. As a result, this paper has tried to estimate the welfare cost of inflation for Bangladesh by applying Bailey's (1956) consumer surplus approach using Deaver's (1970) real money demand function.

3.0 Methodology

3.1 Theoretical Concept of WCI

The welfare cost of inflation is defined as the changes in social welfare induced by inflation. A rise in the inflation rate leads to the nominal interest rate hike which in turn raises the interest lost by holding currency i.e. the cost of holding currency increases. As a result, demand for currency plummets leading to the minimization of utility associated with real money demand. The magnitude of WCI can be determined by computing the fall in the appropriate area under the real money demand curve applying Bailey's (1956) traditional approach. WCI can be denoted as the reduced area of the welfare triangle i.e. area under the real money demand curve because of an inflation-driven fall in real money demand and hence, the reduction in benefits connected to the real money demand. Therefore, the magnitude of WCI depends on the elasticity of the real money demand function. If the real money demand function is more elastic, then the WCI would be large and vice-versa because a small increase in inflation results in a large loss in real money demand for a more elastic real money demand curve leading to large WCI. The concept of WCI can be explained through a graph as follows with the help of money demand function in terms of inflation:

Graph-1: Inflation and Real Money Demand



Source: Authors' Own

Graph-1 depicts that the real money demand decrease to X_1 from X_0 caused by the rate of inflation increased from π_0 to π_1; hence summation of the area P and Q is the fall in the area under the welfare triangle which is the welfare cost of inflation.

3.2 Data Description

The study is based on the secondary data using yearly [Fiscal Year (FY)] frequency. The methodology of this paper has required data on four variables: Real GDP, Money Supply (M2), Consumer Price Index (CPI), and Rate of

Inflation to estimate real money demand function. The target variable of our model, the Real Money Demand is calculated as a ratio of M2 and CPI. World Development Indicators of the World Bank database is the source for data on Real GDP and M2 while the Bangladesh Bureau of Statistics is the source of the data on CPI and Rate of inflation. Data on the variable has been collected for the period from 1978 to 2019. The sample for the data set starts from 1978 to ensure the common starting point of data for all the variables subject to the availability of data.

3.3 Model Specification

To compute the welfare cost of inflation for Bangladesh, following Koirala (2010), the study employs Deaver's (1970) real money demand model for obtaining income and inflation elasticity of demand for real money balances, and Bailey's (1956) consumer surplus approach of measuring welfare cost of inflation.

Deaver's (1970) model assumes that the real stock of money balances depends on the real income and rate of inflation as below,

$$\frac{M}{P} = f(\pi, Y) \ldots\ldots\ldots\ldots (1)$$

where; M, P, π, and Y indicate money demand, price level, rate of inflation and real income respectively. The functional form of the Deaver's (1970) real stock of money balances can be written as the following equation,

$$\frac{M}{P} = Z = AY^{\beta_1} e^{\beta_2 \pi} \ldots\ldots\ldots\ldots (2)$$

Here in equation (2), Z, β_1, and β_2 represent real money balances, income elasticity of real money balances and inflation elasticity of real money balances respectively. The logarithmic transformation of equation (2) turns it into equation (3) as below,

$$lnZ_t = \alpha + \beta_1 ln(Y_t) + \beta_2(\pi_t) + \mu_t \ldots\ldots\ldots\ldots (3)$$

where; α and μ_t represent constant term (lnA) and error term respectively, and β_1 and β_2 are the coefficients of income and price elasticity of real money balances respectively. The expected sign of β_1 is positive and β_2 is negative.

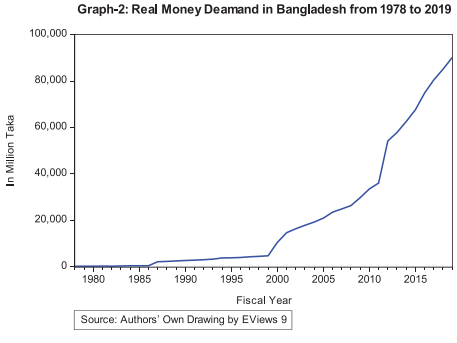
Let $Z(\pi)$ and $\psi(x)$ be the required money balances i.e. money demand and the inverse money demand functions respectively. The welfare cost of inflation, $W(\pi)$ in terms of consumer surplus approach, developed by Bailey (1956), can be written as:

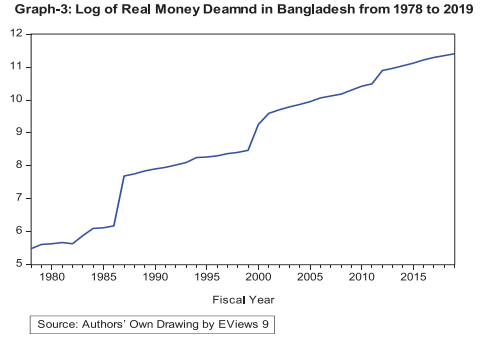
$$W(\pi) = \int_{Z(\pi)}^{Z(0)} \psi(x)dx = \int_0^{\pi} Z(x)dx - \pi.Z(\pi) \ldots\ldots\ldots\ldots\ldots (4)$$

Equation (4) yields the magnitude of the welfare cost of inflation.

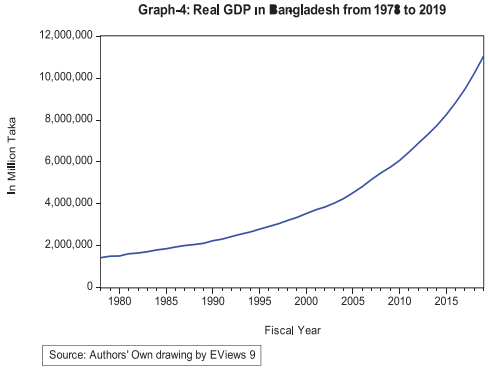
3.4 Graphical Analysis

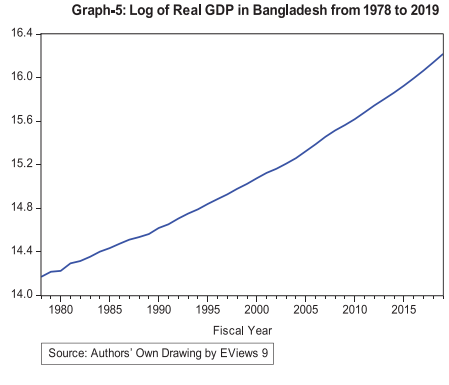
Before diving into the econometric analysis, it seems to be a good idea to eyeball the data of each variable by plotting them in graphs. In this regard, we will start with graphs of real money demand. Graph 2 and Graph 3 are the plots of real money demand data at the level and after logarithmic transformation respectively.



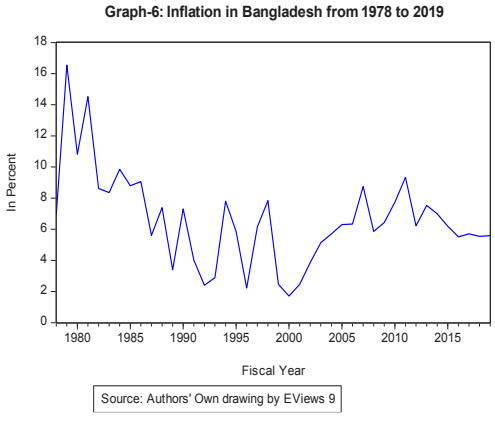


It is evident from graph 2 that real money demand remained low till the late 1990s and started to increase significantly from 2000. The reflection of the data using logarithmic transformation in graph 3 shows that the variable is unlikely to be stationary in level and has a trend. Graph 4 and Graph 5 are the plots of unadjusted real GDP data and post logarithmic transformation of real GDP respectively.





Graph 4 shows a steady increase in the real GDP of Bangladesh over time and the logarithmic transformation of data smoothens the increasing trend. From the perspective of the stationary issue, it seems that the real GDP variable is non-stationary at level with a trend. Graph 6 plots the inflation data of Bangladesh. A mixed picture is evident in the trajectory of the inflation movement. Though volatility is evident in the starting period of the inflation path, it becomes more stabilized later. It is difficult to make any concrete comment on the stationarity of the inflation variable from Graph 6 though the possibility of inflation to be stationary at level seems higher compared to the previous two variables. An econometric diagnosis is carried out to confirm the order integration of each variable to find the right approach for the required analysis leading to the research purpose.



4.0 Empirical analysis

The paper checks the unit root of variables included in the analysis using the Augmented Dickey-Fuller (ADF) and the Kwiatkowski–Phillips–Schmidt–Shin (KPSS) unit root test techniques. The results of ADF and KPSS are shown in Table-1.

Table-1: Results of Unit Root Test

Integration order	Variable	ADF		KPSS	
		No Trend	With Trend	No Trend	With Trend
I(0)	Z_t	-0.9880	-2.2144	0.7908**	0.1328@
	π_t	-3.5497*	-3.8808*	0.3117	0.1849*
	$\ln Y_t$	6.8795	0.9247	0.8089**	0.2163**
I(1)	$\Delta Z_{t)}$	-6.2887***	-6.2725***	0.0960	0.0490
	$\Delta\pi_t$	-3.5735*	-7.0827***	0.4745*	0.5000**
	$\Delta\ln Y_t$	-3.8840**	-9.0048***	0.7577**	0.0925

Note:@, *, **, and *** indicate that the critical values are significant at 10%, 5% level, 1% level, and 0.1% level respectively.

Source: Authors' Own Estimation by EViews 9

The results of the ADF and KPSS test indicate the logarithm of real money demand and the logarithm of real GDP are non-stationary at the level when

inflation is stationary, but the first difference makes all the variables stationary according to ADF while KPSS gives a slightly different picture. From this token, we can conclude that inflation is stationary at level i.e. I(0) when real money demand and real GDP are integrated to one i.e. I(1). Since variables included in our analysis are not integrated into the same order, we have taken the ARDL model as a befitting technique for estimating the real money demand function specified in equation 3. After the necessary estimation process, table 2 describes the result of ARDL as below,

Table-2: ARDL Results for Real Money Demand Function

Dependent Variable: Real Money Demand (Z_t)
Independent Variables: Real GDP ($\ln Y_t$) and Inflation (π_t)

Variable	Coefficient	Std. Error	t-Statistic	P-Value
$Z_t(-1)$	0.764617	0.089757	8.518749	0.0000
π_t	-0.038483	0.014938	-2.576162	0.0141
$\ln Y_t$	0.621692	0.273674	2.271651	0.0290
Constant	-6.942447	3.344010	-2.076084	0.0449
R-squared	0.984933	Adjusted R-squared		0.983711
F-statistic	806.2303	Durbin-Watson stat		1.916308
Prob(F-statistic)	0.000000			

Source: Authors' Own Estimation by EViews 9

Using the estimated result of ARDL Model from table 2, equation (3) is given as below:

$$lnZ_t = -6.942447 + 0.621692ln(Y_t) - 0.038483(\pi_t) + 0.764617lnZ_{t-1} \quad \ldots\ldots\ldots\ldots (5)$$

Before moving forward, we have checked the causality in equation (5) using the Wald Test. The test result confirms the impact of real GDP and inflation on real money demand. Annexure of the paper covers the results of all the diagnostic tests including the Wald test for the ARDL model. Now, substituting the value of Y_t and Z_{t-1}in equation (5) and then by rearranging, we find that real money demand (Z_t) is the function of the rate of inflation (π_t).

Equation (5) allows us to calculate the welfare cost of inflation. As our demand for real money equation covers the period from FY1978 to FY2019, we will use the GDP growth and inflation rate for FY20 declared by the Bangladesh

Government to do the WCI calculation. Firstly, at 5.24 percent real income growth over FY19 yields GDP of BDT 11637370.8 million in FY20. Now, we insert real income of BDT 11637370.8 million in FY20 into equation (5) to find the following equation,

$$lnZ_t = 11.8958 - 0.038483\,(\pi_t) \text{ ----------(6)}$$

This paper is going to express WCI as a fraction of real income. Now, to obtain the value of real money demand, lnZ_t^0 at zero inflation rate, we replace π_t with zero which turns equation (6) into the following form,

$$lnZ_t^0 = 11.8958 - 0.0385 * 0$$

or, $lnZ_t^0 = 11.8958$

or, $Z_t^0 = 146654.9818$ ---------- (7)

Now, taking the inflation rate of 5.5 percent at the end of FY20 allows us to calculate lnZ_t^1 as below,

$$lnZ_t^1 = 11.8958 - 0.0385 * 5.5$$

or, $lnZ_t^1 = 11.8958 – 0.2118$

or, $lnZ_t^1 = 11.6840$

or, $Z_t^1 = 118679.4624$ ---------- (8)

As per the objective of our research, we want to calculate the welfare loss caused by the inflation-induced reduction in real money demand. So, we want to reorganize the equation (6) as below,

$$\pi_t = 309.1193 - 25.9855(\,lnZ_t) \text{ ----------(9)}$$

The following definite integral of equation (9) using upper limit $Z_t^0 = 146654.9818$ and lower limit $Z_t^1 = 118679.4624$ will produce the Cost or loss, D

$$D = \int_{118679.4624}^{146654.9818} (\pi_t)\,dZ_t$$

or, $D = \int_{118679.4624}^{146654.9818} \{309.1193 - 25.9855(\,lnZ_t)\}\,dZ_t$

or,

$$D = 309.1193 \int_{118679.4624}^{146654.9818} dZ_t - 25.9855 \int_{118679.4624}^{146654.9818} (lnZ_t)\, dZ_t$$

or, $D = 8647772.9897 - 8573552.1708$ = 74220.8189 million taka.

So, the calculated welfare loss of Bangladesh for 5.5 percent of inflation is 74220.8189 million taka ≈ 74.2208 billion taka or 0.64 percent of GDP. The welfare loss calculation can be extended to different levels of inflation rates. Table 3 describes the welfare loss calculation for Bangladesh with respect to 5.5 percent to 7.5 percent inflation rates.

Table 3: Welfare loss at different inflation rates

Inflation Rate (In Percent)	(M/CPI)0	(M/CPI)1	Welfare Loss (In Billion BDT)	Projected Income in FY20 (In Billion BDT)	Loss to real income Rate (In Percent)
0-5.5	146654.982	118679.46	74.22082	11637.37	0.64
0-6	146654.982	116417.72	87.22402	11637.37	0.75
0-6.5	146654.982	114199.08	101.08873	11637.37	0.87
0-7	146654.982	112022.73	115.77739	11637.37	0.99
0-7.5	146654.982	109887.85	131.25356	11637.37	1.13

Source: Authors' Own Calculation

It is evident from table 3 that the inflation rate ranging from 0 percent to 5.5 percent and form 0 percent to 7.5 percent may cause welfare loss equivalent to BDT 74.22 billion to BDT 131.25 billion respectively. After empirically revealing that inflation is negatively related to real money demand and positively related to welfare loss, the analysis of the paper finds significant welfare loss, caused by inflation in Bangladesh, by 0.64 percent and 1.13 percent of GDP for inflation rate ranging from 0 percent to 5.5 percent and from 0 percent to 7.5 percent respectively. It is noteworthy that the elasticity of the real money demand curve and the government's usage of newly created money has a significant impact on the determination of the magnitude of inflation generated welfare loss. Besides, the extent of welfare loss is susceptible to money holders' behavior adjusted for the government's fiscal policy shocks and economic agents' investment decisions.

5.0 Conclusion and Recommendations

The econometric analysis of this paper is an attempt to calculate the inflation-caused welfare cost of Bangladesh's economy. The analysis is based on annual time series data from 1978 to 2019. This paper has applied the consumer surplus approach to discover the relationship between inflation and real money demand extending to welfare loss in the context of Bangladesh. The outcome of the paper shows that inflation hike dampens real money demand leading to a rise in welfare loss. The study estimates the WCI ranging from BDT 74.22 billion (0.64 percent of GDP) to BDT 131.25 billion (1.13 percent of GDP) corresponding to the inflation rate varying from 5.50 percent to 7.50 percent respectively based on the provisional GDP estimate of FY20. Econometric exercise backed WCI calculation of the paper indicates increasing WCI with respect to rising inflation. This paper has also extended the estimates of welfare loss from inflation hike to the calculation of the Welfare Loss Elasticity of Inflation. The calculation unveils that one percentage point increase in inflation may cause 1.80 percentage increase in the welfare loss of Bangladesh's economy. Apart from the positive relationship between the inflation rate and the welfare loss, the magnitude of the inflation-driven welfare loss is considerable from the perspective of the structure of an economy like Bangladesh. The recommendation drawn from the outcome of this paper is that the magnitude of WCI is significant enough to be addressed in the policy design of Bangladesh for guiding the economy towards the level of inflation rate rendering the optimized welfare of the economy. Thus, it will be easier for our macroeconomic policy to accommodate various economic crises like the one triggered by the current COVID-19 pandemic. However, this paper has unveiled a new avenue for further research to find the level of an inflation rate that minimizes inflation-caused welfare loss of Bangladesh.

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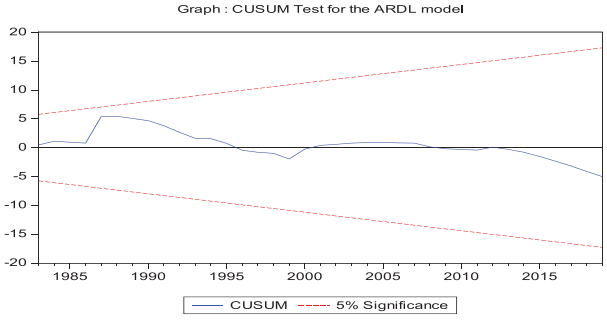
Annexure

Diagnostics of the ARDL model used in the paper

• CUSUM Test

It evident from the Graph that cumulative sum of recursive residuals lies within the five percent critical lines which shows stability of the equation during the sample period.



• Serial Correlation Test

High probability (0.8477) associated with the F-statistic from Breusch-Godfrey Serial Correlation LM test for the ARDL model indicates that the null hypothesis of no serial correlation cannot be rejected. So, the model seems to be free from serial correlation.

Table-1: Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.037444	Prob. F(1,36)	0.8477
Obs*R-squared	0.042600	Prob. Chi-Square(1)	0.8365

Source: Authors' Own Estimation by EViews 9

• Regression Specification Error Test

High probability (0.1911) associated with the F-statistic from Ramsey's RESET test indicates the failure to reject null hypothesis i.e. the coefficients on the powers of fitted values are all zero which in turn allows us to believe that the model specification is correct.

Table-2: Ramsey RESET Test
Specification: LNRMD LNRMD(-1) LNRGDP INLATION C
Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	1.332545	36	0.1911
F-statistic	1.775675	(1, 36)	0.1911
Likelihood ratio	1.974004	1	0.1600

Source: Authors' Own Estimation by EViews 9

• Wald Test

The Wald Test examines the null hypothesis that real GDP and inflation have no effect on the real money demand. The outcome of the test finds low p-value associated with F-statistic indicating that the null hypothesis can be rejected at five percent level of significance which consequently implies that real GDP and inflation have significant impact on real money demand in Bangladesh for the sample covered in the paper.

Table-3: Wald Test
Equation: ARDL

Test Statistic	Value	df	Probability
F-statistic	4.214258	(2, 37)	0.0224
Chi-square	8.428517	2	0.0148

Null Hypothesis: C(2) =C(3)=0

Source: Authors' Own Estimation by EViews 9

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Stochastic Behavior of inter-bank repo rate in Bangladesh

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Abstract

Mainly quantitative exercises has been performed in this paper in determining inter-bank repo rate stochastically taking into account uncollateralized call money rate and monetary transmission channel in developing country like Bangladesh. Using monthly data set ranging from July, 2007 to June, 2016 this paper identifies that inter-bank repo rate can be determined stochastically by the call money rate, CPI inflation rate and the excess reserve rate as explanatory variables deploying ARDL model. Call money rate and excess reserve rate have been found to be significant in determining the long run equilibrium rate of inter-bank repo transactions, while inflation does not have impact on inter-bank repo rate. Ultimately, economic and quantitative exercise suggest that in Bangladesh inter-bank repo rate can be determined stochastically necessitated for monetary transmission but call money interest rate corridor does not work effectively due to following monetary policy mix of conventional and unconventional mechanism depending on banks liquidity as we are in the developing stage. Precisely, central bank needs to be cautious in determining cap and floor in the inter-bank call money rate and allowing flexibility in policy rates to deal with asymmetry of the market and impacting inter-bank repo rate.

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Introduction

A repurchase agreement (also known as a sale and repurchase agreement, or more popularly as repo) is a short-term transaction between two parties (mostly banks and financial institutions) in which one party borrows cash from the other

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by pledging a government security as collateral. Inter-bank repo markets are a vital source of secured financing for banks and financial institutions. Repo can be viewed as a form of collateralized loan, where a security lender posts a security as collateral with a cash provider. Typically repo leads to an outflow of collateral and an inflow of cash. Inter-bank repo rate is the rate at which cash is lent against collateral for an agreed tenor. The inter-bank repo rate is synonymous to the call money market rate subject to using collateral as underlying asset. The inter-bank repo rate is based on government and central bank securities as collateral or underlying asset for lending and borrowing money apart from uncollateralized call money rate, which provide signal to the economy to maintain interest rate corridor using repo and reverse repo rate as a band.

Scarcity of funds triggers the inter-bank rate. Money market funds are derived from the deposit money banks (DMB's) Taka balance with Bangladesh Bank (BB) minus cash reserve requirement (CRR). Lack of investment opportunity of banks increase the DMB's Taka balance with BB contributing lower amount of interest rate in inter-bank repo rate assuming market is fair and symmetric. In case of asymmetric situation banks with lower credit rating do not get funds from the call money market resulting in a rise in inter-bank money market subject to imposition of ceiling by the central bank and hindering transmission mechanism. It may be noted that good credit ratings of banks enhance the trust among market player ensuring fair play. Huge amount of excess liquidity or excess reserves increases the reserve money (RM) lowering money multiplier (MM). Higher amount of excess liquidity in the banking system for instance causes lowering interest rate in the government securities that hinders secondary market development and provide effective rate to the economy. In case of Bangladesh recent surge in net foreign assets (NFA) comparing RM contributes to negative domestic assets (NDA) mainly due to lower domestic asset (DA) and higher outstanding amount of Bangladesh Bank Bills of different tenures and contingency liability of BB.

Productive economic activities in the country can also absorb the DMB's excess liquidity with lower RM and higher MM and ensuring robust rate in inter-bank money market, which is the indicator of overall deposit and lending rate of banks. Optimum inter-bank repo rate along with call money rate can contribute for real return (inflation minus call money rate) to the public with lower spread (difference between banks lending and deposit rate) desired for the economy taking into account bad loans. Besides discussing conventional monetary policy

necessitate for effective transmission mechanism we also need to follow the unconventional monetary policy to address the prime need of the economy. However, we have taken excess reserve rate, CPI inflation rate and call money rate as explanatory variables to observe the behavior of inter-bank repo rate as an explained variable. Following sections of the paper will highlight the economic reasoning and quantitative approach of measuring of inter-bank repo rate for ensuring better transmission mechanism with effective deposit and lending rates of banks. The research question of this paper is that the central bank need to be cautious imposing cap and floor on maximum and minimum rate of inter-bank call money rate and allowing flexibility in determining policy rates (repo and reverse repo rate) to deal with abnormal rate following unconventional monetary policy impacting inter-bank repo rate.

Collateralized based inter-bank repo is a new dimension of money market of Bangladesh. Prudent management of excess reserve (liquidity) of conventional banks allowing precautionary reserve requirement with Cash Reserve Requirement (CRR) of demand and time liability of banks may contribute for robust inter-bank repo rate in Bangladesh bringing efficiency in fund management. Gradually, pragmatic steps may also be taken by BB to introduce inter-bank call money and inter-bank repo for Islamic banks. Necessary long and short position of excess reserves of banks according to the need of the economy balancing Taka interest rate and foreign currency exchange rate can be maintained applying relevant tools of open market operations (OMOs) in order to use the inter-bank repo rate for proper signaling about deposit and lending rates of banks.

Organization of the paper

Literature review is described in Section I. Section II introduces the inter-bank repo market of Bangladesh in brief. Section III illustrates research methodology as well as data and econometric modelling. Section IV deals with ARDL model results and discussion and Section V concludes the paper.

Section I

Literature Review

The greater importance of collateral has been investigated in several strands in the theoretical literature, which relate to each other. One strand is the literature on collateral is primarily focused on the role of margin, "haircuts" and "fire sales" (Geanakoplos, 2003; Brunnermeier and Pedersen, 2009; Gorton and Metrick, 2010; Krishnamurthy, Nagel and Orlov, 2010). Another strand is on securitization, where collateral serves to support specific asset values, (Hleifer and Vishny, 2011).

Stulz and Johnson (1985) study the impact of collateralisation on the pricing of secured debt using contingent claim analysis. Jokivuolle and Peura (2000) present a model of collateral haircut determination for bank loans. Their model is geared to providing adequate loan-to-value ratios, which is similar to the concept of haircut, using structural credit risk approach. In a related research, Cossin and Hricko (2000), present a methodology for haircut determination also using a structural approach.

Adrian and Shin (2009) builds on the analytical foundations that show how financial lubrication is provided via collateral chains. However, this paper is not about fire sales, or securitization but on how collateral is used in financial transactions.

Pradhan (2009), Caballero (2011), Akhtar (1997) and Varadaranjan (2011) have worked on debt management and OMOs especially for developing countries.

Battellino and Macfarlane (2010) wrote with more countries moving away from direct controls toward market-oriented methods implementing monetary policy, interest has increased in the operating procedures for open market operations. Most of what has been written on the subject comes from the United States, but is instructive to look at practices in a range of countries. The paper outlines procedures used to implement open market operation in Australia, Canada, Germany, New Zealand, the United Kingdom, and the United States. It draws out similarities and differences and notes the inter-relationships between operating procedures and the institutional structure of the financial system in each country.

Section II

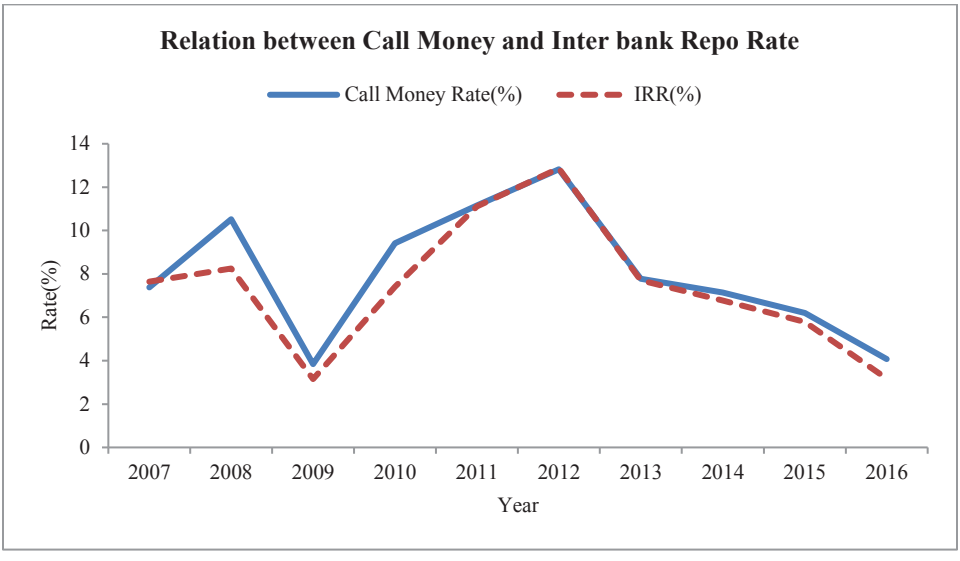
The inter-bank repo market of Bangladesh

A repurchase agreement (or "repo") is a financial contract used by market participants as a financing method to meet short term liquidity needs. Inter-bank repo consists of six key variables: the size of the transaction, the interest rate, the type of eligible collateral, the haircut, the maturity date, and the counterparties. The haircut corresponds to the difference between the value of the cash and the value of the collateral and is generally expressed as a percentage. For example, if Tk.100 of securities collateralizes a loan of Tk.98, the haircut is 2 percent. The level of haircut typically reflects the quality of the collateral. Haircut is not precisely determined by the central bank for inter-bank repo transaction in Bangladesh. Securities used in inter-bank repo market are not virtually outright purchased or sold. So, securities are not unencumbered. It is blocked by the security's original owner generally for 1 to 7 days mentioned in the agreement between counterparties. Government treasury bills, bonds and BB bills are used as collateral for inter-bank repo transaction. Basically, banks and financial institutions are the counterparties for inter-bank repo transaction. The volume and rate of this market are determined freely under the supervision of central bank. Systematic risk of the counter parties are also calculated by the BB following Basel III norms.

High or low amount of liquidity in the money market is less effective in bringing interest rate sensitivity ensuring monetary transmission mechanism in the country following conventional or classical monetary policy. Consequently, financial characteristics are described meticulously in order to arrive at inter-bank repo rate. In Bangladesh during the study period generally flow of liquidity is either low or high and in most of the cases it is not optimum in terms of marginality. Considering the behavior of stipulated liquidity, collateralized inter-bank repo rate (**chart-1**) has been chosen to provide better signal in determining banks' interest rate on deposit and lending, subject to imposing cap and floor on maximum and minimum rate of inter-bank call money rate by the central bank to deal with abnormal rate following unconventional monetary policy. However, the thrust of this paper is to examine the stochastic interest rate behavior of inter-bank repo rate (**chart-1**) in Bangladesh through interest rate channel.

Chart-1

Time Series Behavior of Call Money and Inter Bank Repo Rate

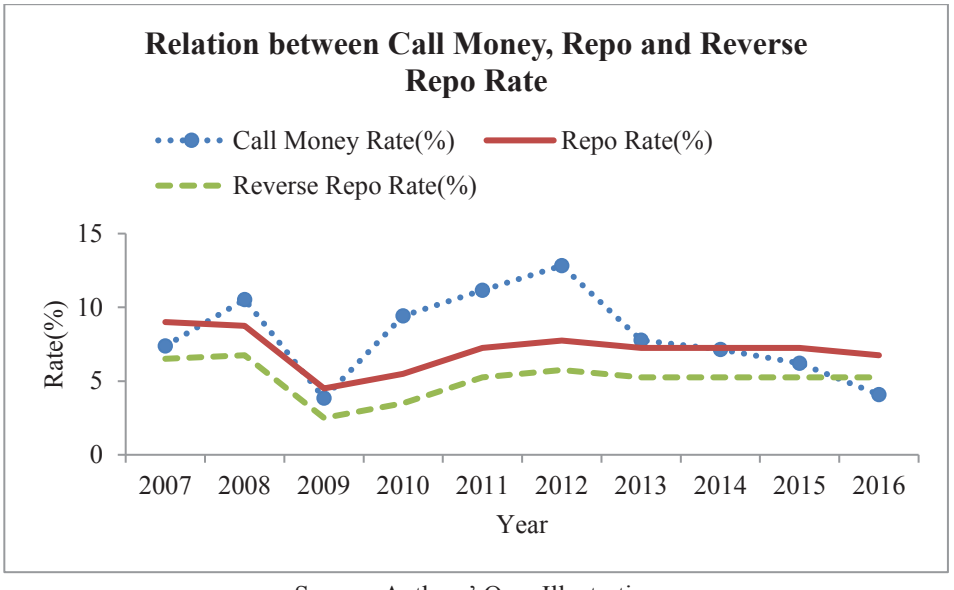


Source: Authors' Own Illustration

Chart-2 illustrates the movement of inter-bank repo rate and call money rate from July, 2007 to June, 2016. It is observed from the graph that call money rate is synonymous to inter-bank repo rate subject to risk behaving differently during 2007-2016 depending on banks' liquidity. The uncollateralized call money rates were higher than repo rates during 2008-2013 due to liquidity shortfall. During this period banks' were mostly depended on repo from BB to mitigate their liquidity crunch impacting monetary transmission through interest rate channel for instance. During 2014-2015 call money rate was in the repo and reverse repo band desired for monetary transmission mechanism. After 2015 banks had excess liquidity. As a result call money rate was lower than reverse repo rate hindering proper monetary transmission mechanism. Consequently, desired liquidity is required in the banking system. At the same time, analyzing **chart-2** central bank needs to be cautious imposing cap and floor on maximum and minimum rate of inter-bank call money rate and follow flexibility in determining repo and reverse repo rate to deal with abnormal rate following unconventional monetary policy impacting inter-bank repo rate.

Chart-2

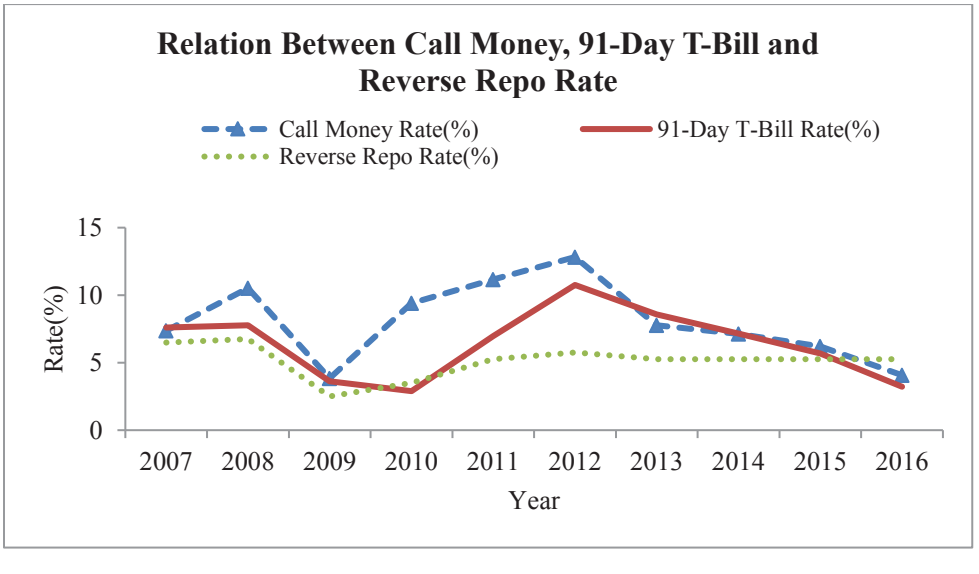
Time Series Behavior of Call Money, Repo and Reverse Repo Rate



Source: Authors' Own Illustration

Chart-3

Time Series Behavior of Call Money,91-Day T Bill Repo Rate



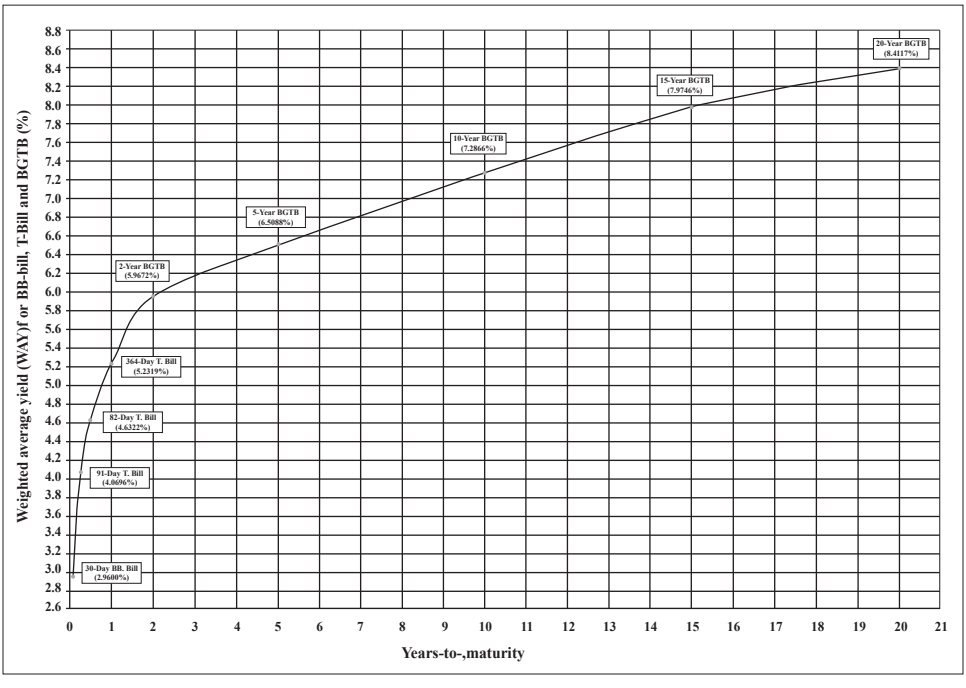
Source: Authors' Own Illustration

Comparing liquidity of different year 91-day treasury bill in **chart-3** was within the call money rate and reverse repo rate signaling positive term structure of interest and maturity of different government treasury bills and bonds with positive expectation **(Figure-1)** towards the economy.

Figure-1

Yield Curve of BB-Bill, T-Bill and BGTB

(As of Jun 29, 2016)



Risks in inter-bank repo transactions

Like other financial markets, repo markets are subject to counterparty credit risk, market risk and operational risk. These risks are minimized but not eliminated through a variety of risk management tools, including the use of collateral face value and marking to market (M2M) of collateral for first leg and second leg settlement of inter-bank repo transaction.

Counterparty credit risk, or the risk that one party to a transaction will default, is addressed by posting securities as collateral. Under most circumstances, the collateral is legally the property of the cash provider, who can sell it in the event that the security lender defaults on the loan. In case of our market the securities are locked in favor of seller. Repo against a basket of government and BB

securities, known as a general collateral (GC) repo, is associated with the lowest level of risk. Government securities are free from default risk but it is exposed to market risk. The interest rate on an overnight GC inter-bank repo is therefore typically close to the overnight policy rates (repo and reverse repo rate) depending on liquidity and unconventional monetary policy applied by the central bank to deal with asymmetry of particular banks and financial institutions.

The main risk in a inter-bank repo transaction is market risk. Market risk arises from price volatility of securities. A decline in the price of securities serving as collateral can result in under collateralization of the inter-bank repo transaction. To address these risks, repos feature initial margin (or a "haircut") where the quantity of cash (or securities) delivered is adjusted to ensure over collateralization, typically in favor of the cash provider. The collateral is marked to market on a weekly basis for instance. If the market yield of the bond increases, the price of the bond will decrease. Fall in market interest rate will enhance the securities' price. Inherently rise in market rate leads to lower securities value in the trading and banking book of the banks. Consequently, we describe firstly the yield calculation procedure by using of extrapolation method and later the price calculation. For illustration purpose we have used 05-year BGTB. The Yield calculation by using extrapolation method is below.

Yield Calculation:

Market Yield= Coupon rate(latest)-Yearfrac Yield
Yearfrac Yield=(5-Year frac)* 2 different maturity latest cut-off yield difference/year
Yearfrac= YEARFRAC(Re-issue Date, Maturity, basis)
Difference= 10 Year Cut-off yield-05 year cut-off yield/10-5 (class interval: extrapolation)

Price Calculation:

PRICE=f (settlement, maturity, rate, yield, redemption, frequency, basis)
Settlement = Security's settlement date i.e. the date on which the security is bought/sold.
Maturity = The maturity date is the date when the security expires.
Rate = Security's annual coupon rate i.e. cut off yield rate of that particular auction.
Yield = Security's annual yield quoted by the bidder in that particular auction.

Redemption = Face value. (100 Tk.)
Frequency = The number of coupon payments per year; for semiannual, frequency = 2
Basis = Actual/Actual. (1)

It is noteworthy to mention that size of the haircut reflects the market risk of the collateral, with longer-maturity bonds and lower-rated securities requiring higher margin due to their higher price volatility. Repo market's operational risks related to the transfer and management of the collateral. Settlement is typically delivery versus payment (DVP), where cash is delivered against receipt of the collateral. Either party to an inter-bank repo may fail to deliver. A "fail" to deliver a security is a situation in which a trade involving a security does not settle on schedule. Such a fail is not treated as a contractual default in the repo market (Fleming and Garbade, 2005). Instead, the failing security provider can make delivery the next day at the unchanged invoice price. The security provider is exposed to movements in the price of the securities, and loses the interest they could have earned by investing the cash overnight. Operational risk relates to who holds the collateral. It may be noted that there are three types of repo, each with different benefits and costs that are reflected in the repo rate and the haircut. The repo are bilateral repo, tri-party repo and hold-in-custody repo.

In a bilateral repo, the collateral is held on the balance sheet of the cash provider, granting immediate access in the event of default on the loan. In a tri-party repo, an agent stands between the security lender and cash provider and physically controls the securities offered as collateral. The original counterparties remain as principals to the transaction, but the agent – typically a custodial bank – manages the collateral, makes substitutions when necessary, monitors risk and collects payments.

In a hold-in-custody repo, the security lender continues to hold the bond on their own balance sheet in a segregated account, raising the risk to the cash provider. The risks are reflected in the interest rate at which a repo transaction is agreed on. Repo transactions involving riskier types of collateral typically offer higher rates than for government securities as a collateral. There are other factors that can significantly affect repo rates which will be discussed next.

Inter-bank repo and financial crisis

Financial crisis has roots in secondary money market involving inter-bank repo transactions. The inter-bank repo market was correlated with increases in the spreads on non-subprime securitized assets. These increased spreads are equivalent to a price decrease, which represents a fall in the value of collateral used in repo transactions.

In 2007, the risk on collateral assets increased unexpectedly due to the sharp decline in housing prices. Concerned about the quality of collateral assets. The haircut and interest rates increased sharply. This led to the downfall of Lehman Brothers.

Although the subprime crisis was knocking on the door, Lehman Brothers went into repo transactions with their mortgage backed financial securities and collected more money from the market. Although repo transactions are secured but due to the fall in the value of collateral the borrowers were forced to raise repo rates and haircut. According to the accounting purposes, ownership of the repo securities belongs to the lender. Despite this, prior to its bankruptcy Lehman was treating some of its repo transactions, repo 105 transactions, as outright sales. Put differently, since it is legally determined that repo transactions resemble outright sales. Lehman was trying to make the accounting treatment follow the legal treatment of crucial financial issues. In finance everything is not either black or white some issues are gray as both parties' (lender and borrower) financial interest is involved for informed decision making in a contract.

Observing the market behavior JP Morgan and Citicorp asked Lehman Brothers to pay up their cash. But in an unfortunate turn of event on 15 September 2008 it filed for bankruptcy following certain Chapter of the US and the failure of Lehman brothers is the largest bankruptcy in the US history. In Bangladesh securities market is not deep enough compared to a developed country. However, fluctuations of market rate can impact the underlying securities value. Lower price of the security can lead to lower book value of banks and ultimately banks need to issue share for example to raise the capital improving their balance sheet from lower capital adequacy ratio (CAR) mentioned in the Basel III norms. BB constantly and meticulously monitors the banks, especially those who are exposed to different kinds of mentioned risks. To avoid the underlying securities' price risk related to interest, Bangladesh Bank time to time may revise the haircut ratio for government treasury bills and bonds for example.

Section III

Research methodology

We have derived coefficients of stipulated variables in arriving at inter-bank repo rate using econometric tools. Different econometric tests and properties related to ARDL model ranging from unit root, model selection criterion, bounds test for co-integration, estimation of long run coefficients, short run dynamics, autocorrelation diagnostic checking, heteroskedasticity test, model specification test and stability tests are performed in this article to derive relevant parameters of excess reserve rate, CPI inflation rate and call money rate related to inter-bank repo rate for ensuring better monetary transmission mechanism.

Data and econometric modelling

The time series behaviours of Interbank Repo Rate (IBR), Call Money Rate (CMR), Excess Reserve Rate (ERR) and Inflation (INF) rate are examined in this paper. These time series data are obtained from Monetary Policy Department of Bangladesh Bank and Monthly Economic Trend. The data under discussion are taken on monthly basis from July, 2007 to June, 2016. The period is considered because Inter Bank repo market was operated formally from 2007. Here Monthly interbank repo rate and Call money rate is obtained through averaging their daily weighted average rate, inflation rate is the 12-month average and Excess reserve rate is formulated as percentage amount of excess reserve relative to cash reserve ratio.

Methodically, Augmented Dickey-Fuller (ADF) and Phillips-Perron unit root test is performed to scrutinize the order of integration. Akaike information criterion (AIC) has been chosen in ADF test. Based on the results of unit root test, Auto Regressive Distributed Lag (ARDL)/Bound Testing is approached to see the co-integrating relationship among the variables. ARDL approach has the advantage that it permits mixture of I(0) and I(1) variables under consideration. Pesaran *et al*. (2001) advocated the use of the ARDL model for the estimation of level relationships because the model suggests that once the order of the ARDL has been recognised, the relationship can be estimated by OLS. The general form of distributed lag model that was undertaken for this study is:

$$IBR_t = \beta_0 + \sum_{1}^{p} \beta_i \, IBR_{t-i} + \sum_{0}^{q} \gamma_j \, CMR_{t-j} + \sum_{0}^{r} \delta_k \, ERR_{t-k} + \sum_{0}^{s} \lambda_l \, INF_{t-l} + e_t \; ----- (1)$$

Where

IBR= Interbank repo rate

CMR= Call money rate

ERR=Excess reserve rate

INF=Inflation rate.

Basically, the ARDL (p,q,r,s) approach to cointegration means to estimate the following unrestricted error correction models-

$$\Delta IBR_t = \beta_0 + \sum_{1}^{p} \beta_i \, \Delta IBR_{t-i} + \sum_{0}^{q} \gamma_j \, \Delta CMR_{t-j} + \sum_{0}^{r} \delta_k \, \Delta ERR_{t-k} + \sum_{0}^{s} \lambda_l \, \Delta INF_{t-l} + \Theta_0 IBR_{t-1} + \Theta_1 CMR_{t-1} + \Theta_2 ERR_{t-1} + \Theta_3 INF_{t-1} + \upsilon_t \; ----- (2)$$

To find the appropriate lag of the variables AIC (Akaike Information Criteria) has been used. The appropriate lag i.e the value of p, q r and s is determined automatically in E-views by restricting the maximum lag up to 4. The model specified by AIC and automatic selection described above was ARDL (1,1,0,1) and functionally have the following form:-

$$\Delta IBR_t = \beta_0 + \beta_1 \Delta IBR_{t-1} + \gamma_0 \Delta CMR_t + \gamma_1 \Delta CMR_{t-1} + \delta_0 \Delta ERR_t + \lambda_0 \Delta INF_t + \lambda_1 \Delta INF_{t-1} + \Theta_0 IBR_{t-1} + \Theta_1 CMR_{t-1} + \Theta_2 ERR_{t-1} + \Theta_3 INF_{t-1} + \upsilon_t \; ----- (3)$$

Upon determining the ARDL model specified above, the bound test is performed to examine the long run relationship.

Bound test due to Pesaran et al. (2001) supply bounds on the critical values for the asymptotic distribution of the F test statistic. The original F test is the test of null hypothesis for no cointegration among variables in equation (1) i.e H_0: $\Theta_0 =$

$\Theta_1 = \Theta_2 = \Theta_3 = 0$; against the alternative H_0 is not true. In bound testing, for different numbers of variables, they give lower and upper bounds on the critical values. In each case, the lower bound is based on the assumption that all of the variables are I(0), and upper bound is based on the assumption that all of the variables are I(1).

If the computed F-statistic falls below the lower bound we conclude that the variables are I(0), so no co-integration is possible, by definition. If the F-statistic exceeds the upper bound, we conclude that we have co-integration. If the F-statistic falls between the bounds, the test statistic is inconclusive.

The ARDL specification of the short-run dynamics can be derived by constructing an error correction model (ECM) of the following form:

$$\Delta IBR_t = \beta_0 + \beta_1 \Delta IBR_{t-1} + \gamma_0 \Delta CMR_t + \gamma_1 \Delta CMR_{t-1} + \delta_0 \Delta ERR_t + \lambda_0 \Delta INF_t + \lambda_1 \Delta INF_{t-1} + \psi ECM_{t-1} + \upsilon_t \quad -----(4)$$

Where, ECM_{t-1} is the error correction term

All coefficients of short-run equation are coefficients relating to the short run dynamics of the model's convergence to equilibrium and ψ represents the speed of adjustment.

A key assumption in the ARDL / Bounds Testing methodology of Pesaran *et al*. (2001) is that the errors must be serially independent. Breusch-Godfrey Serial Correlation LM test and unit root test of the model residuals is performed to see if there is autocorrelation.

Finally, Stability test by Cumulative sum (CUSUM) test is executed to examine the long run stability of model coefficients.

Section IV

ARDL model results and discussion

Unit Root test:

The standard Augmented Dickey-Fuller (ADF) and Phillips-Perron unit root test is used to see the order of integration of the variables under scrutiny. The results obtained from these unit root tests are reported in Table 1. According to the ADF test statistic, three variables i.e IBR, CMR, and INF have unit root at level but become stationary when first differences are taken, implying that they are integrated at order 1 i.e I(1), while the other variable ERR is I(0). On the other hand, CMR and ERR are I(0) and IBR and INF are I(1) by Phillips-Perron unit root test.

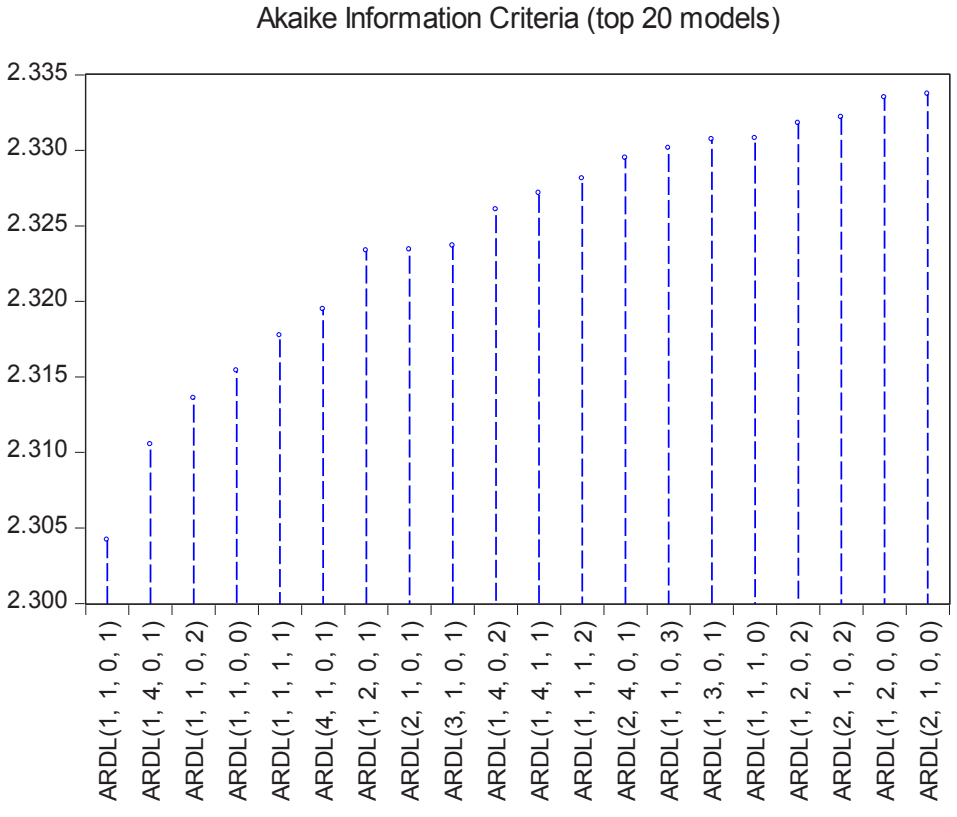
Table 1: Unit Root Estimation

	Augmented Dickey-Fuller (ADF)			Phillips-Perron (PP)		
	Level	1st difference		Level	1st difference	
Variables	Intercept and Trend	Intercept and Trend	Order of Integration	Intercept and Trend	Intercept and Trend	Order of Integration
IBR	-2.15	-10.11**	I(1)	-3.271	-14.679**	I(1)
CMR	-2.88	-10.55**	I(1)	-4.55*		I(0)
INF	-3.31	-3.56*	I(1)	-2.45	-5.68**	I(1)
ERR	-11.58**		I(0)	-11.44**		I(0)

Note- The null hypothesis is that the series is non-stationary, or contains a unit root. The rejection of the null hypothesis is based on absolute values of test statistic being greater than critical values at 5 percent significance level. The lag lengths are selected based on AIC criteria. * and ** indicate the rejection of the null hypothesis of non-stationary at 5 and 1% significant level, respectively.

Selection criterion of Model:

The unit root tests of the selected variables provides a mixture of both I(0) and I(1) series. This gives a good justification for using the bounds test approach, or ARDL model as proposed by Pesaran *et al*. (2001). The optimum model was selected automatically based on AIC. With restrictions of maximum 4 lags, top twenty fitted models based on AIC are given below:



From the above graph, it can be seen that ARDL (1,1,0,1) has the lowest AIC value. So ARDL (1,1,0,1) is chosen to see the relationship among interbank repo rate, call money rate, excess reserve rate and inflation.

Bounds Test for Co-integration

Pesaran *et al*. (2001) supply *bounds* on the critical values for the *asymptotic* distribution of the F-statistic. For various situations (*e.g*., different numbers of variables, (k + 1)), they give lower and upper bounds on the critical values. If the computed F-statistic falls below the lower bound we would conclude that the variables are I(0), so no cointegration is possible, by definition.

If the F-statistic exceeds the upper bound, we conclude that we have cointegration.

Table-2: Bounds Test for Co-integration

Critical value	Lower Bound Value	Upper Bound Value
1%	3.65	4.66
5%	2.79	3.67
10%	2.37	3.20

In Table 2, The computed F-statistic for (3+1)=4 variables is 4.97 which is greater than the upper bound at 1 % level of significance. Therefore, the empirical findings lead to the conclusion that a long run relationship between inter-bank repo rate, excess reserve rate, and inflation exists.

The long run relationship between the variables is also tested by Wald test. F value of Wald test is 63.02 which signify that the long run relationship among the variables is highly significant.

The Estimated long run coefficients

The following table gives the estimated marginal impacts of Call money rate, excess reserve rate, inflation on Inter Bank repo rate.

Table-3: Estimated Long Run Coefficients

Variables	Coefficient	p-Value
CMR	1.064	0.000
ERR	-0.212	0.028
INF	-0.190	0.495
C	0.271	0.865

From the table 3, it can be seen that call money rate has significant long-run positive and Excess reserve rate has negative impact on the inter-bank repo rate while Inflation does not have significant effect on the inter-bank repo rate. The relationship suggests that a 1 (one) percentage point increase in call money rate causes 1.064 percentage point increase in inter-bank repo rate and 1 (one) point increase in excess reserve rate leads to 0.212 percent point decrease in inter-bank repo rate.

Short run dynamics

Table-4: Short run dynamics (ECM) of ARDL

Variables	Coefficient	p-Value
D (CMR)	0.720	0.000
D(ERR)	-0.053	0.006
D(INF)	0.347	0.099
EC	-0.250	0.000

In Table 4, the coefficient of EC explaining the speed of adjustment to the long run equilibrium is highly significant. It implies that 25% of disequilibrium is adjusted in each month to reach long run equilibrium.

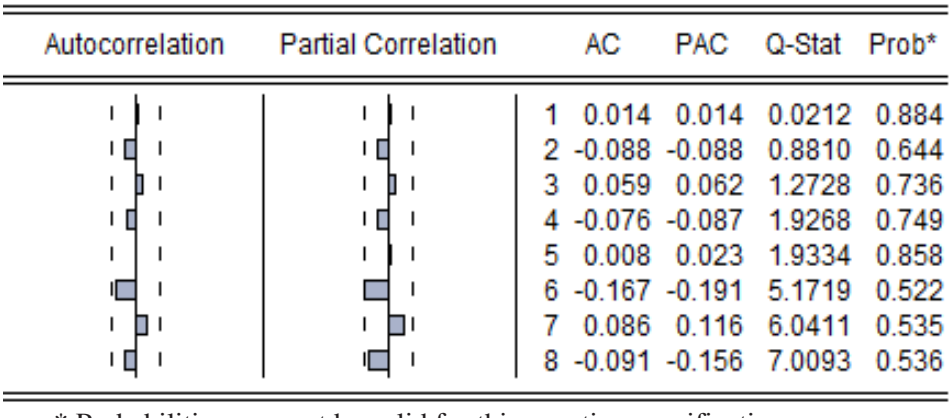
Autocorrelation Diagnostic checking

Breusch-Godfrey Serial Correlation LM test and unit root of the model residuals are examined to see if there is any autocorrelation. The LM test is performed at different lags which are given below:

Lag	LM F-statistic	P-value
1	0.030	0.862
2	0.517	0.597
3	0.410	0.745
4	0.530	0.713
5	0.421	0.832
6	1.110	0.358
7	1.099	0.370
8	1.373	0.218

The F statistic value of LM test up to lag 8 is insignificant at 5% level of significance, suggesting there is no autocorrelation in the model residuals.

Correlogram Q-staitstics up to 36 lags shows that none of the statistics is significant. This result also conforms to the findings from Breusch-Godfrey Serial Correlation LM test that there is no serial correlation in the residuals. The plots and Q-statistics probabilities upto 8 lags are given below:



Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob*
		1	0.014	0.014	0.0212	0.884
		2	-0.088	-0.088	0.8810	0.644
		3	0.059	0.062	1.2728	0.736
		4	-0.076	-0.087	1.9268	0.749
		5	0.008	0.023	1.9334	0.858
		6	-0.167	-0.191	5.1719	0.522
		7	0.086	0.116	6.0411	0.535
		8	-0.091	-0.156	7.0093	0.536

* Probabilities may not be valid for this equation specification.

Heteroskedasticity Test

It is likely that time series data shows variability over time that is residuals can be heteroskedastic. So, Autoregressive Conditional Heteroskedasticity (ARCH) test is used to see whether the conditional variances of errors identical or varying across time. The following table gives the result of ARCH test for heteroskedasticity.

Lag	Chi-Square value	p-value
2	3.55	0.169

The above results show that the probability values of chi-square for selected lag are greater than 5% level of significance, which suggests the null hypothesis that there is no ARCH up to the order specified by the lag, cannot be rejected.

Model Specification Test

The model specified in this study is correctly formed according to Ramsey RESET (Regression Specific Error Test) test which is a general test to check the correctness of the specification of the model. The results of Ramsey RESET test is furnished in the following manner:

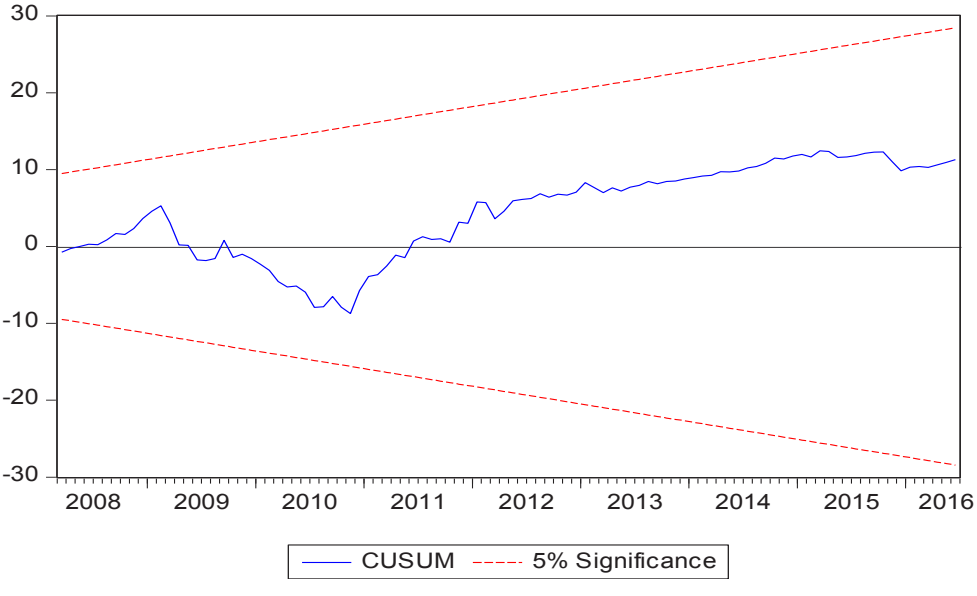
Omitted variables	F statistic	p-value
Squares of regressors	1.963	0.164

The p values of F statistic indicate the null hypothesis that the coefficients of omitted variables (squares of fitted regressors) is zero cannot be rejected at 5% level of significance. It means that the model without any quadratic terms of specified regressors is a good fit.

Stability Test

Cumulative sum (CUSUM) test has been examined to test the stability of long run coefficient. The result obtained is given in the following figure:

Figure-2: Stability of Long Run Co-efficient



It can be seen from the Figure-2 that the plot of CUSUM stays within the critical 5% bounds which confirms the stability of coefficient in the long run.

Section V

Conclusion

This paper for the first time systematically examined inter-bank repo rate in relation to some other important factors such as call money rate, inflation and excess reserve rate to fill up the literature gap in money market. Previously, there has been a dearth of studies in respect to inter-bank repo rate since the inception of formal operation of inter-bank repo market in Bangladesh in 2007. In this exercise monthly time series data of the stipulated variables is taken from July, 2007 to June, 2016. Bound testing approach of cointegration as proposed by Pesaran *et al*. (2001) has been applied within the framework of distributed lag to investigate the long-run relationship between inter-bank repo rate, call money rate, CPI inflation rate and excess reserve rate.

Call money rate and excess reserve rate have been found to be significant in determining the long run equilibrium rate of inter-bank repo transactions, while inflation does not have any impact on inter-bank repo rate in long run equilibrium. In quantitative magnitude and direction, inter-bank repo rate has overperformed by 1.064 percent and underperformed by 0.212 percent for 1 percent rise of call money rate and 1 percent rise in excess reserve rate respectively. It has also been found that the long run equilibrium state is achieved through adjusting 25 percent deviations in each month. In a nutshell, we can infer that taking into account the change in call money rate and excess reserves, monetary transmission mechanism works in determining inter-bank repo rate in Bangladesh following monetary norms of conventional monetary policy. At the same time, considering the behavior of liquidity, collateralized inter-bank repo rate has been chosen to provide better signal in determining banks' interest rate on deposit and lending subject to imposing cap and floor on maximum and minimum rate of inter-bank call money rate.

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Operational Aspects of Monetary Policy in Bangladesh

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Abstract

Bangladesh Bank follows the quantity theory of money as the foundation of monetary policy and considers reserve money and broad money as operating and intermediate targets to achieve high economic growth and price stability. This study attempts to analyse the operational aspect of monetary policy and found that Bangladesh Bank has been using mainly three instruments—the reserve requirement, open market operations (OMOs), and refinance facility—to conduct monetary policy. Among these, the significance of OMOs is very high compared to the two other instruments in terms of both volume and frequencies of transactions. The impact of monetary policy on real GDP, inflation and financial sector stability seems to be positive in the context of Bangladesh. However, some impediments like the existence of huge non-performing loans, lack of coordination between monetary and fiscal policy, and the absence of effective bond market reduce the positive impact of monetary policy on Bangladesh economy many times.

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1. Introduction

Monetary policy plays an important role in the economic growth of a developing country like Bangladesh by influencing the cost and availability of credit, controlling inflation, and maintaining equilibrium in the balance of payments. In Bangladesh, the output gap (actual output minus potential output) is usually negative due to the abundance of unemployed labour. Therefore, it is a great opportunity for Bangladesh to increase the actual output by expanding the labour

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intensive industries like readymade garments. In this regard, the role of monetary policy is very significant in the sense that it can create opportunities for the expansion of such labour intensive industries by expanding the availability of credit with a low interest rate. But such monetary expansion may enhance the rate of inflation if the real output does not increase accordingly. In Bangladesh, the political instability, undeveloped infrastructure, low productivity and the lack of good governance are the main obstacles for the expansion of real output. The success of monetary policy in boosting real output requires strong support of other government policies, mainly the fiscal policy. In this circumstance, Bangladesh Bank (BB), the monetary authority of Bangladesh, needs to maintain an efficient role in formulating and operating the monetary policy in order to achieve high economic growth with stable inflation.[1] Therefore, it is very important to analyse the formulation as well as implementation process of BB's monetary policy for its further development.

The main objective of this study is to analyse the operational aspect of monetary policy in the context of BB. Before doing this, it is very important to analyse the formulation process of BB's monetary policy. Therefore, the specific objectives of this study are:

(i) To analyse the economic theory used in the formulation process of monetary policy
(ii) To discuss the different tools used in the implementation process of monetary policy
(iii) To discuss the impact of monetary policy on the overall economy of Bangladesh.

This study is basically an empirical analysis that links up the economic theory with the practices of monetary policy in Bangladesh Bank. It explores different techniques and tools used in monetary policy since the independence of Bangladesh. It also analyses the impacts of monetary tools on the operational, intermediate and final targets of monetary policy in the context of Bangladesh. This study uses secondary sources, particularly Bangladesh Bank, for necessary data/information.

Regarding the structure of the study, Section 2 reviews the existing literature after introducing the background, objectives and methodology in the first section. Section 3 analyses the theoretical aspect of the monetary policy followed by

[1]According to the research findings of Ahmed & Mortaza (2005), 6 percent is the threshold level of inflation for Bangladesh above which inflation adversely affects economic growth.

Bangladesh Bank. Section 4 discusses the history of monetary policy in Bangladesh, since the independence of the country. The instruments of monetary policy used in Bangladesh Bank are explained in Section 5. This section also discusses the impacts of monetary policy operations on different monetary targets adopted by Bangladesh Bank. Section 6 analyses the impact of monetary policy on the overall economy of Bangladesh. Finally, the concluding remarks along with some recommendations are written in Section 7.

2. Review of Existing Literature

The existing literature directly related to the topic of this study is not very strong. However, there are many studies related with monetary policy of Bangladesh, particularly with regard to monetary transmission mechanism. Among them, some of the recent studies are reviewed here briefly, considering their relevance with the current topic.

Ahmed & Islam (2004) investigated the effectiveness of bank lending and exchange rate channels as monetary transmission mechanism in Bangladesh economy, using unrestricted vector autoregressions (VARs) approach and quarterly data from July-September 1979 to April-June 2005. They found weak existence of both the channels in Bangladesh economy.

Younus (2005) examined whether the monetary policy transmits through bank assets or liabilities or both, using quarterly data from 1976:Q3 to 2004:Q1. She found that both the money channel and credit channel as monetary transmission mechanism operated well in the Bangladesh economy during the period under review.

Nguyen, Islam & Ali (2012) empirically documented that the real GDP growth was weakly exogenous from the Bangladeshi countercyclical monetary policy actions. That means, even though Bangladesh Bank uses its monetary policy to manage the macroeconomy, money and hence monetary policy seem not to matter in the short-run.

Alam (2015) used Structural Vector Autoregression (SVAR) models with appropriate short-run restrictions to see the response of output, price and exchange rate to an exogenous monetary policy shock in Bangladesh. He found that an independent increase in policy interest rate was followed by a decrease in output, appreciation of local currency and increase in price level. However, the impacts were not statistically significant, implying that monetary policy was not effective in controlling short-run economic fluctuations in Bangladesh.

Chowdhury & Afzal (2015) tried to determine the influence of fiscal and monetary policy on the economic activities in Bangladesh by using annual data for the period 1980-2012. They found that both monetary and fiscal policies were equally effective in stimulating economic growth in Bangladesh. Moreover, they had a long-run relationship with cointegrated impact on economic growth.

Noman & Khudri (2015) also examined the impact of fiscal and monetary policies on the economic growth of Bangladesh, using annual data for the period 1979-80 to 2012-13. They found that the money supply, exchange rate, and the government revenue and expenditure had positive impacts on real GDP growth of Bangladesh, while the impacts of inflation and interest rate were negative during the period under review.

Afrin (2017) analysed the effectiveness of monetary policy transmission channels, especially the lending and exchange rate channels, in Bangladesh and found that the bank lending channel played a non-trivial role, while the exchange rate channel was less effective. However, the monetary aggregates targeting framework of Bangladesh Bank was still effective in influencing the price level of Bangladesh. Moreover, the external shocks appeared important for the monetary aggregates in Bangladesh.

The existing literature reviewed here emphasised mainly on the effectiveness of monetary policy transmission mechanism, i.e., the impact of monetary policy actions on the real economy and the price level in Bangladesh. But none of the studies explained the operational process of different monetary policy instruments in details in the context of Bangladesh. This study attempts to fill this gap.

3. Theoretical Aspect of Monetary Policy in Bangladesh

Monetary policy is the process by which the monetary authority of the country controls the money supply in order to promote economic growth by keeping the price level stable. In Bangladesh, Bangladesh Bank, the central bank as well as the monetary authority of the country, is responsible for formulating and implementing the monetary policy of the country. Although the long-term focus of monetary policy in Bangladesh Bank is on economic growth along with price stability, the short-term objectives are determined after a careful and realistic appraisal of the prevailing economic situation of the country.

Like many other countries, the monetary policy of Bangladesh is formulated on the basis of the concept of the quantity theory of money, developed in the 16th century. The quantity theory of money states that there is a direct relationship between the quantity of money in an economy and the level of the prices of goods and services. Another way to understand this theory is to recognize money as any other commodity and thus the increase of money supply decreases its marginal value, i.e., the buying capacity of one unit of currency. So, an increase in the money supply causes the rise in the prices of goods and services (inflation), as they compensate the decrease in money's marginal value. The quantity theory of money is mathematically expressed as:

$$MV = PY \ldots (3.1)$$

where M = money supply, V = velocity of money (the number of times money changes hands), P = price level and Y = volume of transactions of goods and services which is also called real GDP of the country. The original quantity theory of money was orthodox among the classical economists of the 17th century. But it was overhauled by the economists of the 20th century, especially by Irving Fisher who formulated the above equation. Therefore, it is called 'Fisher's Equation' or the 'Equation of Exchange' in the literature.

The quantity theory assumes that the velocity of money and the volume of transactions are constant in the short-run. It also assumes an economy which is in equilibrium and at full employment. These assumptions, however, have been criticized, particularly with regard to the velocity of money. Among the criticisers, John Maynard Keynes strongly challenged this theory in the 1930s. He pointed out that the velocity of money depends on the impulses of consumer and business spending that cannot be constant. Besides, the volume of transactions is determined by labor, capital, natural resources, knowledge and organization that can also be not constant. However, the monetary economist, particularly Milton Friedman could not accept the argument of Keynes and noted that Keynes shifted the focus away from the quantity of money and put the focus on price and output. In 1956, Friedman restated the old quantity theory of money in his easy, 'The Quantity Theory of Money—A Restatement' and said that his quantity theory was a theory of demand for money and not a theory of output, income or prices. This modern quantity theory of money has been followed by most of the monetary authorities in the world including Bangladesh Bank while formulating the monetary policy of the country.

Under the framework of the quantity theory, Bangladesh Bank adopts money supply growth (m) as target variable to achieve the ultimate goal of monetary policy, i.e., high economic growth with low and stable inflation. There are three more target variables used by many other central banks to achieve the ultimate goal of monetary policy. Among them, the inflation rate is directly visible in the equation of exchange where the others—interest rate and exchange rate—work as channels of the monetary transmission mechanism. Whatever the target variables of monetary policy are, the central bank always controls money supply growth that influences both economic growth and inflation rate through interest rate and exchange rate channels. Among them, interest rate channel is more active than the exchange rate channel to transmit the impact of money supply on economic growth and inflation.

In the context of interest rate channel, an expansionary monetary policy, for example, causes a sudden reduction in official rates (i_{off}) thus reducing the cost that each commercial bank faces to access the central bank's facility. Under normal conditions, the interbank rate (i_{bank}) also moves downward, generating an expansion of lending to individual banks. These, in turn, create greater credit facility to the private sector. In addition, an expansion of money supply (M) can raise the expected price level (P^e) and hence expected inflation (π^e), thereby lowering the real interest rate ($r = i - \pi^e$), that stimulates spending. In the context of exchange rate channel, an expansion of money supply (M) reduces the value of the domestic currency in terms of foreign currency, i.e., nominal exchange rate (S) and hence real exchange rate (Q), leading to increasing net exports (NX).[2] All these help the evolution of aggregate demand (AD) through the expansion of investment, consumption and net exports (I, C and NX). In symbols,

$$M\uparrow \Rightarrow i_{off}\downarrow \Rightarrow i_{bank}\downarrow \Rightarrow r\downarrow \Rightarrow I\uparrow C\uparrow \Rightarrow AD\uparrow$$

$$M\uparrow \Rightarrow S\downarrow \Rightarrow Q\downarrow \Rightarrow NX\uparrow \Rightarrow AD\uparrow$$

The evolution of aggregate demand leads to increased equilibrium output (Y) as well as price level (P) on the basis of the realisation of aggregate supply. In the case of Bangladesh where a substantial part of resources, particularly labour, are unutilised, the expansion of money supply increases both output and price level.

Bangladesh Bank uses desired economic growth (y) and rate of inflation (p), and the anticipated change in velocity of money (v) in Equation (3.2) to fix the target level of money supply growth (m). The economic growth and the rate of inflation

[2] Assuming the price levels (both domestic and external) are constant in the short-term.

are assumed to be similar to the government announced one in the national budget. However, Bangladesh Bank also applies its own judgment in fixing the target level of economic growth and rate of inflation. Equation (3.2) is derived from equation (3.1) by using natural logarithm and differentiation. Thus,

$$m = p + y - v \ldots (3.2)$$

Where the lower-case letters indicate the growth of corresponding upper-case letters used in equation (3.1).

Although the money supply growth is the target variable of BB's monetary policy, it cannot be controlled directly. BB uses reserve money (RM) growth as another target variable to control money supply growth indirectly. Therefore, reserve money is the operational target of BB's monetary policy while the money supply growth is the intermediate target to achieve the final target of high economic growth with low and stable inflation. There is a mathematical relationship between reserve money and money supply, which is called money multiplier (MM) in economics. Symbolically,

$$M = MM*RM \ldots (3.3)$$

MM is almost stable in the case of Bangladesh. However, the value of MM is influenced by two factors, namely—currency-deposit ratio (c) and reserve-deposit ratio (r). For detail, we can write, $MM = \frac{M}{RM}$, where M = currency (currency outside Banks) + deposits (demand and time liabilities of the commercial banks), and RM = currency + reserves (reserves of the commercial banks in Bangladesh Bank as well as in their own vaults). Therefore,

$$MM = \frac{\text{currency} + \text{deposits}}{\text{currency} + \text{reserves}} = \frac{1+c}{r+c} \ldots (3.4)$$

Out of these two factors, Bangladesh Bank has no direct control on 'c', as it is influenced by the public choice only.[3] But it has direct control on 'r', through using the instruments of monetary policy. The monetary policy instruments can also influence RM by changing the banks' reserves. Therefore, it is very important to analyse the instruments of monetary policy used by BB and their impacts on bank reserves, reserve money and money supply.

[3] The public choice with regard to holding currency is positively influenced by the level of income and expected inflation, and negatively influenced by the rate of interest.

4. Brief History of Monetary Policy in Bangladesh

With the shifts of government's policy stance in various phases, necessary adjustments were made in the country's monetary policy. In the early years of independence, the primary target of monetary policy was to regulate not only the quantity of money but also the direction of the flow of money and credit in support of the government's financial programme. In 1975, Bangladesh entered into a standby-arrangement with IMF and the country's monetary policy got a changed shape, which fixed an explicit target of safe limit of monetary expansion on annual basis. With that change, Bangladesh Bank started to set short-term objectives of monetary policy in close collaboration of the government and tried to achieve the target by using the direct instrument of control. The principal target of monetary control was broad money (M2), i.e., the sum of currency in circulation (currency outside banks) and total liabilities (demand and time liabilities) of the commercial banks. The targeted growth of M2 depended on a realistic forecast of the growth rate of real GDP, an acceptable rate of inflation and an attainable level of international reserves.

Bangladesh Bank took measures to monitor credit and monetary expansion keeping in view the price situation and international reserves position. Efforts were made to achieve the targeted growth of domestic credit and thereby, the money supply, through imposing ceilings on credit to the government, public, and private sectors. The major policy instruments available to Bangladesh Bank were setting credit ceiling on the banks and providing liberal refinance facility at concessional rate for priority lending. According to the national economic policy, the banks were to provide the desired volume of credit at an administered and low rate of interest. In that situation, Bangladesh Bank had no effective instrument for making adjustments in the growth of the money supply or for transmitting market signals into changes in money supply. The monetary policy, therefore, could not function in its true sense. As a result, the banking system could not play its role as an effective financial intermediary.

In 1989, the government adopted a comprehensive Financial Sector Reform Programme (FSRP), following the monetary policy that assumed a new orientation towards the promotion of the market economy in a competitive environment. Bangladesh Bank started moving away from direct quantitative monetary control to indirect methods of monetary management. Although, the fixation of target continued to remain as the central piece of exercise, the way to achieve it had been changed. Credit ceilings on individual banks and direct

controls of interest rates were withdrawn. At present, the money supply is regulated through indirect manipulation of reserve money instead of credit ceiling. Major instruments of monetary control available with Bangladesh Bank are the bank rate, open market operations, foreign exchange transactions, refinance facility and statutory reserve requirement. Among them, the open market operations are more powerful in terms of volume and frequency of transactions.

5. Instruments of Monetary Policy used in Bangladesh Bank

The major instruments of monetary policy used in Bangladesh Bank are already mentioned in the previous chapter. Now their operational aspects are analysed here in detail along with historical perspectives.

5.1 Bank Rate

It is the lending rate of Bangladesh Bank for borrowings of the commercial banks to meet their temporary needs. The use of this instrument was virtually non-existent in Bangladesh until 1990. The existence of refinance facilities at rates lower than the bank rate substantially eroded its significance. However, since 1990, it has been put in use to change the cost of borrowings for banks and thereby to affect the market rate of interest (Khan & Sarker, 2014a). The bank rate has been changed in a few occasions to align with the re-fixation of deposits and lending rates. The changes in bank rate, since 1990, are listed in Table 5.1.

Table 5.1: Changes in Bank Rate

Date	Rate (%)
Before 1990	10.75
January 1990	9.75
March 1994	5.00
September 10, 1995	5.75
May 19, 1997	7.50
November 24, 1997	8.00
August 29, 1999	7.00
October 24, 2001	6.00
November 6, 2003	5.00

Source: Annual Report, Bangladesh Bank (various issues)

As Table 5.1 shows, the bank rate has remained fixed at 5.00 percent for long time since November 6, 2003. It indicates that the use of bank rate as a monetary policy instrument is very limited in Bangladesh due to the application of other instruments, particularly repo facility. At present, the bank rate is applied to relatively modest amounts of refinancing/rediscounting that a few banks, mostly Bangladesh Krishi Bank and Rajshahi Krishi Unnayan Bank, avail of from the Bangladesh Bank, and has little bearing on the market interest rates (Bangladesh Bank, 2004).

5.2 Open Market Operations

The open market operation (OMO) is an activity of central bank by which it injects/mops up liquidity[4] to/from the commercial banks. In this regard, the central bank buys/sells the government securities, i.e., government treasury bills and bonds, to the commercial banks through the open market. However, many central banks, including Bangladesh Bank, use other instruments like Bangladesh Bank Bill, to manage the liquidity position of the commercial banks. The purpose of liquidity/monetary management is the control of money supply through manipulating the short-term interest rate and the supply of base money. The instruments that are used in open market operations of Bangladesh Bank are discussed below in detail.

5.2.1 Bangladesh Government Treasury Bills and Bonds

Treasury bills and bonds are the debt instruments of Bangladesh government, used mainly for deficit financing from the banking system. These negotiable instruments are also used by Bangladesh Bank for liquidity management, as the issues/sells of treasury bills and bonds to the commercial banks mop-up and their maturities inject liquidity from and to the banking system. As per the agreement between the Government of Bangladesh and Bangladesh Bank in 1985[5] and Article 20 of Bangladesh Bank Order 1972 (Government of Bangladesh, 1972), BB is empowered to issue new loans and manage public debt for the Government. Bangladesh Bank has been using these instruments for the purpose of liquidity management since independence of the country, though the amount and timing of the issuance of treasury bills and bonds were not flexible (required for effective OMO) until 1990. Nonetheless, they were the only instruments for liquidity management in Bangladesh Bank until 1990 (Khan & Sarker, 2014b). In

[4] It refers to banks' reserves in the central bank as well as in their own vaults in terms local currency.
[5]Treasury Rules-1998, Appendix-1, Section-3.

December 1990, Bangladesh Bank introduced its own instrument, Bangladesh Bank Bill, for the same purposes. In this regard, BB also introduced repo and reverse repo facilities for the financial institutions from 2003. However, the government withdrew the flexibility and fixed the amount and timing of the issuance of treasury bills and bonds by providing weekly auction calendar from FY2008. The auction calendar specifies the date and amount of treasury bills and bonds needed to be issued on weekly basis during the whole fiscal year.

The treasury bills are the short-term debt instruments of Bangladesh government with tenures of maximum one year. The government followed this time frame for treasury bills auctions up to August 1998. But she introduced six types of treasury bills with tenures of 28-day, 91-day, 182-day, 364-day, 2-year and 5-year on September 6, 1998. Among them, the auction of 5-year treasury bill stopped from 2004 and that of 2-year treasury bill stopped from 2008. Moreover, the auction of treasury bill having 28-day also suspended from July 1, 2008 to avoid overlapping with the 30-day Bangladesh Bank Bill. On November 15, 2016 the government introduced a 14-day treasury bill for proper liquidity management of the government, though it is not as regular as other treasury bills. Following these steps, three categories of regular treasury bills namely 91-day, 182-day and 364-day treasury bills are now (2018) available for transactions. As per auction calendar, the bids for treasury bills are held on every Sunday, where they are issued at a discount and redeemed at the face value on maturity.

The treasury bonds are the long-term debt instrument of Bangladesh government with tenures of more than one year. There are five categories of treasury bonds available now (2018) with tenures of 2-year, 5-year, 10-year, 15-year and 20-year basis. As per auction calendar, the bids for treasury bonds are held on every Tuesday, where the yields of treasury bonds are determined as per cut off rates, which are also called coupon rates. The coupon rates or cut off rates remain fixed for the whole tenure of the bonds, but the interests on bonds are paid as per coupon rates on every six months and the principal are repaid on maturity.

Usually, the primary dealers (PDs)[6] can place bids in auctions of treasury bills and bonds. Other commercial banks and non-bank financial institutions, insurance companies, corporates, individuals, provident fund etc. Can also participate in the auction through PDs (Bangladesh Bank, 2018). There is no

[6] PDs are financial institutions that act as underwriters of government securities in primary auction. Auction committee can devolve securities on PDs in case they find the offered bids unacceptable. PDs receive periodic underwriting commission on successful bids and devolved amount.

strong secondary bill or bond market in Bangladesh. However, banks can use these instruments as the components of their statutory liquidity requirements. These instruments are also used as collateral in the field of repo and reverse repo operations. Besides, Bangladesh Bank buys back these instruments from the financial institutions as and when necessary. This buy-back activity is held for the purpose of liquidity management as well as to create an environment of the secondary security market.

5.2.2 Bangladesh Government Islamic Investment Bond

To manage the liquidity position of the Islamic Shariah-based banks and the Islamic windows/branches of conventional banks,[7] the government introduced Bangladesh Government Islamic Investment Bond (BGIIB) in 2004 with tenures of 6-month, 1-year and 2-year. But the tenures of BGIIB changed and re-fixed at 3-month and 6-month, which are prevailed till now. As like as treasury bills and bonds, Bangladesh Bank is empowered to deal the transactions of BGIIB. The issuances of these bonds mop up and their maturities inject liquidity from/to the Islamic banking system. The yields of these Islamic bonds are measured on the basis of profit-sharing ratio. As the government does not use the pool of fund, created by issuing the Islamic bonds, the profits are earned only by investing the fund to the Islamic banks and the Islamic windows/branches of the conventional banks. The tenures of the investments are also 3-month and 6-month. As like as conventional banks, the Islamic banks and the Islamic windows/branches of conventional banks can use the BGIIB in maintaining their statutory liquidity requirements.

5.2.3 Bangladesh Bank Bill

As mentioned earlier, Bangladesh Bank introduced its own monetary policy instrument 'Bangladesh Bank Bill' on December 23, 1990 with the tenure of 91 days (Bangladesh Bank, 1991). The issuance of BB bill mopped up and its maturity injected liquidity from/to the banking system. The auction of BB bill was suspended in March 1997 due to the coincidence of its tenure with 90-day treasury bill (Khan & Sarker, 2014b). Bangladesh Bank reintroduced BB bills on September 21, 2006 with the tenures of 30 days and 91 days, following the decision that the auctions of treasury bills/bonds will exclusively be used for Government debt management. However, the auction of 91-day Bangladesh

[7] Out of 59 scheduled banks, there are 8 banks and the windows/branches of 16 conventional banks have been following the Islamic Shariah based banking system as on June 30, 2018.

Bank bill was discontinued from January 2008 to avoid its duplication of tenure with 91-day treasury bill (Bangladesh Bank, 2008). After that, only 30-day Bangladesh Bank bill had been auctioned before the introduction of 7-day and 14-day Bangladesh Bank bills on April 5, 2016. With regard to the auction date, it is not predetermined rather held as and when necessary on the basis of the amount of excess liquidity. Bangladesh Bank bills are auctioned on a discount basis. So, the cut off discount rates are the yields of BB bills.

5.2.4 Repo Operation

Repo is an indirect monetary policy instrument of Bangladesh Bank used for managing the short-term liquidity position of the banks and financial institutions. Under the repo system, the financial institutions (FIs) can borrow fund from Bangladesh Bank for short-term, usually overnight (considering the working day only) basis. Therefore, the issuance of repo enhances and its maturity reduces the liquidity position of the FIs. Bangladesh Bank introduced repo facility for FIs on June 18, 2002 for the first time (Bangladesh Bank, 2003). Actually, repo is an agreement of banks and other financial institutions with Bangladesh Bank to repurchase the government securities used as collateral during the repo operation. In the beginning, the 28-day treasury bill was the only government security used as collateral in the repo operation. However, Bangladesh Bank allows the FIs to use other treasury bills and bonds as collateral in the repo operation after the suspension of 28-day treasury bill auction in July 2008.

Although the repo facility is usually issued for overnight, Bangladesh Bank introduced term repo facility on June 6, 2018 with the tenures of 7 days, 14 days and 28 days. The repo interest rate or simply repo rate was flexible and determined by auction committee on the basis of cut off rate, up to March 2005. After that, it has been predetermined by the Monetary Policy Committee of Bangladesh Bank and circulated to the financial institutions. By this way, the repo rate which is also called the policy rate of Bangladesh Bank re-fixed by 18 times between April 2005 to December 2018, showing a declining trend (Table 5.2).

There are two more repo facilities that existed in Bangladesh Bank. One is the special repo which is provided to FIs who face a serious problem in maintaining the reserve requirement in BB. Another is the liquidity support provided by BB to PDs. Usually, the special repo rate is 300 basis points higher than that of the normal repo. Thus the current special repo rate is 9.00 per cent while the repo rate is 6.00 per cent. But the interest rate on liquidity support is similar to the

normal repo rate. Actually, the liquidity support is the special facility for PDs, as they are the underwriters of government securities. Besides, this special facility is promised by BB during the devolvement of government securities to PDs. Therefore, it is also called assured liquidity support of BB to PDs.

Table 5.2: Repo and Reverse Repo Rates

Fixation Date	Repo Rate (%)	Reverse Repo Rate (%)
April 2005	8.20	NA
May 2005	8.00	NA
May 2006	8.50	NA
March 2007	9.00	NA
June 2007	9.25	NA
December 2007	8.50	6.50
September 2008	8.75	6.75
March 11, 2009	8.50	6.50
October 12, 2009	4.50	2.50
August 19, 2010	5.50	3.50
March 13, 2011	6.00	4.00
April 27, 2011	6.25	4.25
June 15, 2011	6.75	4.75
September 5, 2011	7.25	5.25
January 8, 2012	7.75	5.75
February 1, 2013	7.25	5.25
January 14, 2016	6.75	4.75
April 15, 2018	6.00	4.75

Source: Annual Report, Bangladesh Bank. NA = Not Available.

5.2.5 Reverse Repo Operation

As the counterpart of repo operation, Bangladesh Bank introduced reverse repo auction in May 2003 in which the banks submit offers of their excess funds. Bangladesh Bank accepts the banks' offers in ascending order of interest rates to the extent needed to maintain the intended level of liquidity (Bangladesh Bank, 2003). The issuance of reverse repo mops up and its maturity injects liquidity to the banking system. By this way, the reverse repo can be viewed as a fine-tuning supplement to the weekly T-bills auctions. As like as repo, reverse repo auctions are held as and when necessary, and the tenure of the reverse repo is on an overnight basis, considering only the working day. Initially, the reverse repo rate was flexible and determined by the auction committee on the basis of cut off rate. However, it has been predetermined by the Monetary Policy Committee of Bangladesh Bank and circulated to the financial institutions from April 2005. The reverse repo rate has re-fixed by 17 times during April 2005-December 2018 that has been showing a declining trend (Table 4.2). The current reverse repo rate is 4.75 per cent, which was re-fixed on January 14, 2016.

5.3 Refinance and Demand Loan Facility

Refinance facility is a financing process of Bangladesh Bank to the commercial banks against some specific projects, as desired by the government. Usually, such financing facility is provided to the agricultural sector or agro-based industrial sector through the state-owned specialised banks, namely Bangladesh Krishi Bank and Rajshahi Krishi Unnayan Bank. Bangladesh Bank also uses Bangladesh Rural and Advancement Committee, Bangladesh Rural Development Board and Bangladesh Development Bank Limited to finance in such projects. Under the refinance scheme, the commercial banks borrow fund from Bangladesh Bank with bank rate and finance it to the project owners with interest rate which is higher than bank rate. The gap between these two interest rates is the earnings of commercial banks. The refinanced facility enhances the liquidity position of commercial banks and their repayment reduces it. Bangladesh Bank does not provide such facilities to the commercial banks at a time; rather transmit them gradually as per prescheduled time frame considering their impacts on money supply and price level. The BB's refinance schemes are usually medium term basis, of which three important running schemes are: (i) Refinance Scheme for Solar Energy, Bio-gas and Effluent Treatment Plant, (ii) Refinance Fund for Islamic Shariah-based Financing to Agro-based Product Processing Industries, Small Enterprises (include Women Entrepreneurs), Renewable Energy & Environment-friendly Ventures and (iii) Financing Brick Klin Efficiency Improvement Project.

As like as refinance facility, the demand loan facility of Bangladesh Bank enhances the liquidity position of commercial banks and their repayment reduces it. Actually, the demand loan is a system under which Bangladesh Bank can claim to the commercial banks to repay the loan without any prior schedule. Usually, Bangladesh Bank provides such loan to the commercial banks considering their critical situation. Bangladesh Krishi Bank is the prime borrower of demand loans from Bangladesh Bank.

5.4 Reserve Requirement

Reserve requirement is a direct monetary policy instrument of Bangladesh Bank used mainly for liquidity management. The increase of reserve requirement reduces the liquidity, i.e., the availability of loanable fund of the commercial banks and vice versa. It is also used as the security of public deposits in the commercial banks. There are two types of reserve requirement in Bangladesh Bank—cash reserve requirement (CRR) and statutory liquidity requirement (SLR). Under CRR arrangement, the commercial banks are obliged to reserve a certain percentage of their total demand and time liabilities to Bangladesh Bank in cash form. The rate of CRR is determined by the Monetary Policy Committee of Bangladesh Bank as and when necessary. Usually, the committee does not change the CRR rate frequently. During the last 30 years, Bangladesh Bank changed the CRR rate 16 times, while the current rate was re-fixed at 5.5 per cent on April 15, 2018 (Table 5.3).

Table 5.3: Rate of CRR and SLR in Bangladesh Bank

Fixation Date	CRR Rate (%)	SLR Rate (%)	
		Conventional Bank	Islamic Bank
Prior to 1987	5.0	20.0	NA
October 1987	10.0	25.0	NA
April 4, 1991	9.0	24.0	NA
April 25, 1991	8.0	23.0	NA
December 5, 1991	7.0	22.0	NA
April 1, 1992	6.0	21.0	NA
May 28, 1992	5.0	20.0	10.0
October 1, 1999	4.0	20.0	10.0
November 8, 2003	4.0	16.0	10.0
March 1, 2005	4.5	16.0	10.0

October 1, 2005	5.0	18.0	10.0
May 15, 2010	5.5	18.5	10.0
December 15, 2010	6.0	19.0	11.5
June 24, 2014	6.5	13.0	5.5
April 15, 2018	5.5	13.0	5.5

Note: NA = Not Available.

Source: Annual Report, Bangladesh Bank (Various Issues).

Under SLR arrangement, the commercial banks are required to maintain a certain amount of reserves in the form of cash (deposited in Bangladesh Bank as well as their own vault), gold and government approved securities before providing credit to the customer. The amount of this required reserve, also called liquid assets, is calculated by using the SLR rate (a certain percentage) on total demand and time liabilities of the commercial banks. As like as CRR rate, the SLR rate is also determined by the Monetary Policy Committee and it changed 16 times during the last 30 years. Usually, the SLR rate of the Islamic banks is smaller than that of the conventional banks, as they do not invest in government approved securities. The current SLR rate for the conventional and the Islamic banks are 13.0 per cent and 5.5 per cent respectively (Table 5.3).[8]

6. Movements of Some Related Macroeconomic Variables

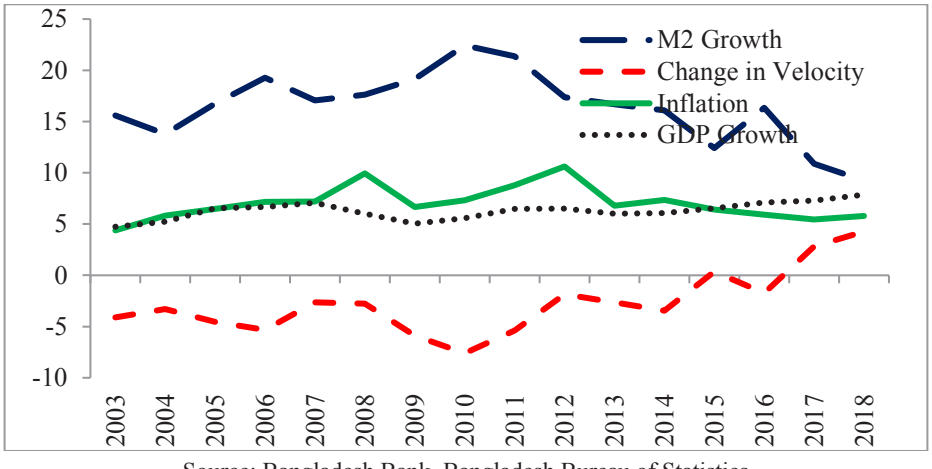
As the quantity theory of money is the foundation of monetary policy in Bangladesh, the broad money (M2), velocity of money, price level and real GDP are the primary variables needed to be discussed. Among them, broad money, the anchored variable, is the product of reserve money (RM) and money multiplier (MM). In another way, broad money is the liability of the banking system which is backed by net foreign assets (NFA) and net domestic assets (NDA). In NFA, exports, imports and workers' remittances; and in NDA, net credit to government and private sector credit are very influential factors in the context of Bangladesh. Therefore, this section attempts to analyse the movements of such related variables briefly in order to investigate the effectiveness of monetary policy in Bangladesh economy. The annual data used in this analyses are considered from FY03 to FY18, based on availability.

[8] The CRR rate is separated from SLR rate from June 24, 2014, while it was included with SLR rate before that date.

6.1 Movements of M2, Velocity of Money, Price Level and Real GDP

Figure 6.1 justifies the theoretical aspect of monetary policy in context of Bangladesh, during the period under review. Thus, the M2 growth was almost equal to GDP growth plus rate of inflation minus change in velocity of money. Figure 6.1 shows a high correlation between M2 growth and the rate of inflation, though there was lag effect of monetary policy actions to inflation. This finding is similar to the estimation of Milton Friedman, presented in American Economic Association meetings held on December 27-29, 1971. Friedman estimated that the monetary changes took much longer to affect prices than to affect output and the correlation between money growth and CPI inflation was the highest with lag of 21 months for narrow money and 23 months for broad money (Batini & Nelson, 2001).

Figure 6.1: Change in M2, Velocity, Price Level and Real GDP (%)



Source: Bangladesh Bank, Bangladesh Bureau of Statistics

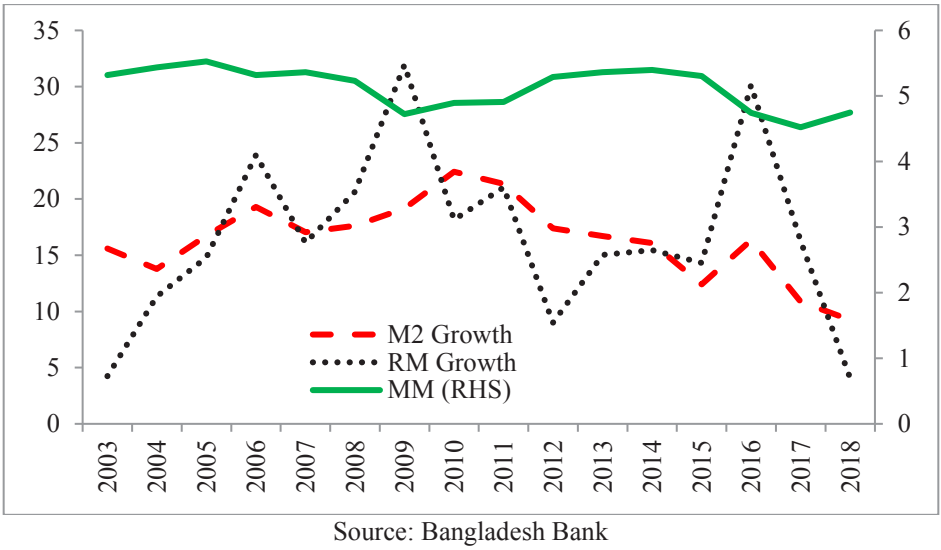
Figure 6.1 shows a declining trend in M2 growth, though the GDP growth and the change in the velocity of money were steadily increasing particularly from FY10 meaning that the economic activities of money, i.e., passes from one holder to the next, have increased over the years. The rise of electronic transfer of money was one of the important reasons behind the increase in the change in the velocity of money.

6.2 Movements of M2, RM and money multiplier

The movement of reserve money growth, the operating target of monetary policy, was fluctuating during the period under review; though the movement of money multiplier was almost stable (Figure 6.2). The value of money multiplier stayed

between 4.73 and 5.43 during the period shown in Figure 6.2. As a result, the movement of broad money growth was less volatile with a declining trend, particularly from FY10.

Figure 6.2: Change in M2 and RM (%), and MM (Unit)

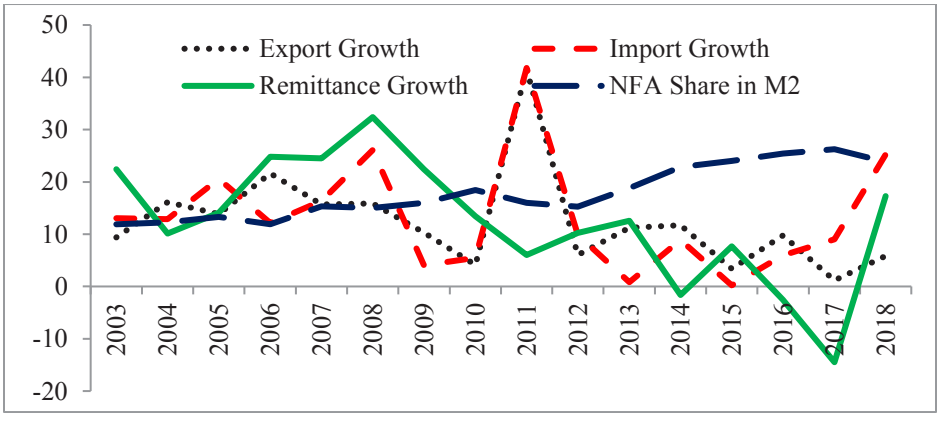


Source: Bangladesh Bank

6.3 Movements of NFA and its Major Components

It is observed that there was an increasing trend in the share of NFA in M2 during the period under review (Figure 6.3). Among the major components of NFA, the export base was far below compared to that of import, though their growth moved almost together. Therefore, the inflows of workers' remittances were the vital factor behind the increasing trend of NFA share in M2.

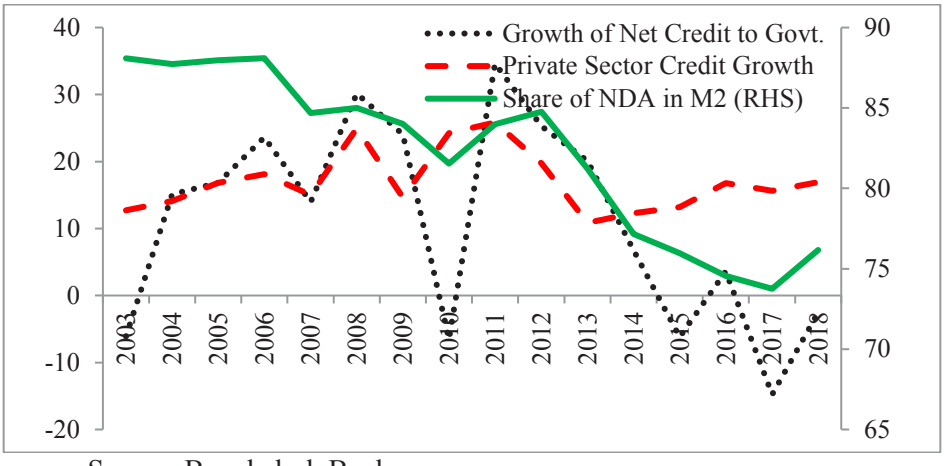
Figure 6.3: Export, Import and Remittance Growth, and Share of NFA in M2 (%)



Source: Bangladesh Bank and Export Promotion Bureau

6.4 Movements of NDA and its Major Components

Figure 6.4: Credit Growth and the Share of NDA in M2 (%)



Source: Bangladesh Bank

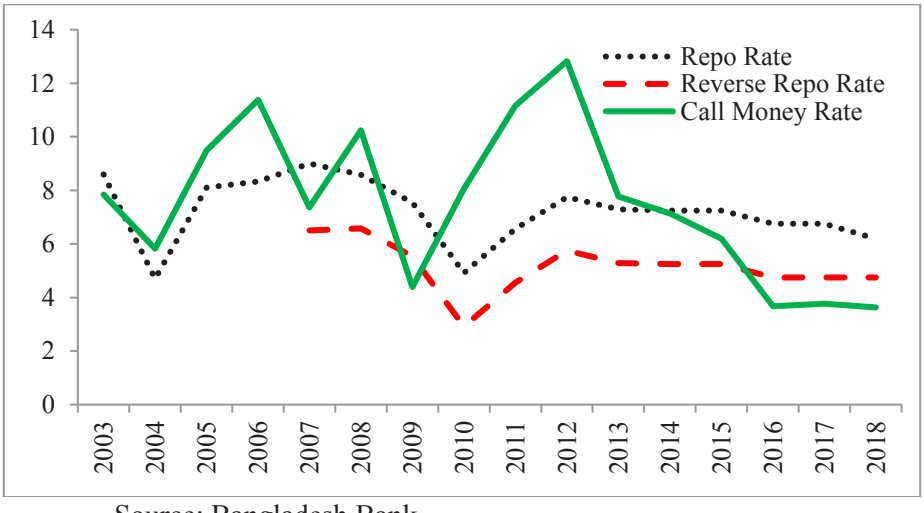
It is observed that the movement of NDA share in M2 was opposite to that of NFA, i.e., decreasing during the period under review, though it was still very high with 76.2 per cent at the end of FY18. Among the major components of NDA, the private sector credit was the main contributing factor for M2 and its growth was almost stable compared to that of net credit to the government, another important factor for M2. However, there was a decreasing trend in the growth of net credit to government from FY11, while that of private sector credit was increasing from FY13.

6.5 Movements of Interest Rates

The policy interest rates, i.e., repo and reverse repo rates were fluctuating before FY12 and almost stable with a slight declining trend thereafter. But the call money rate sharply declined from FY12 and moved even below the reverse repo rate from FY16 (Figure 6.5).[9] At the same time, the trend of both lending rate and deposit rate were slightly declining from FY12 (Figure 6.6). With regard to an interest rate spread (the gap between lending rate and deposit rate), there was a declining trend during the period under review, though it was very high until December 2018 (4.45 per cent).

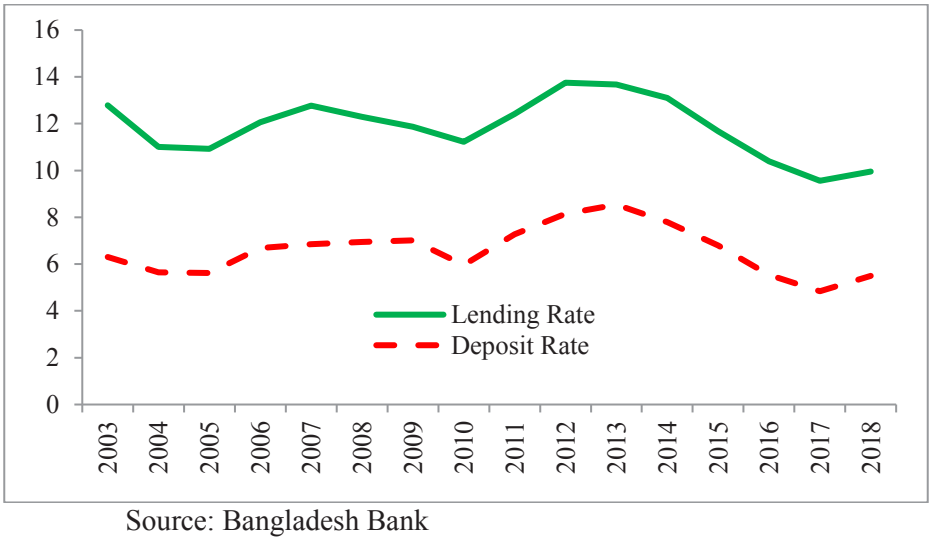
[9] The call money rate should move through the interest rate corridor, i.e., through the gap between repo and reverse repo rate in the case of Bangladesh.

Figure 6.5: Movements of Repo, Reverse Repo and Call Money Rate



Source: Bangladesh Bank

Figure 6.6: Movements of Lending and Deposit Rates (%)

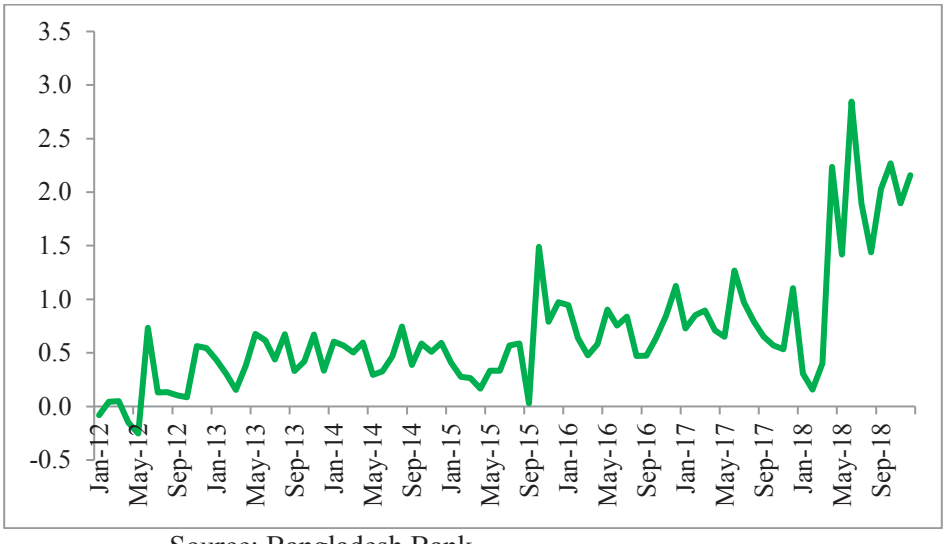


Source: Bangladesh Bank

The declining trends in the movement of interest rates resulted mainly from the existence of high excess reserves/liquidity. The adoption of easy monetary policy and the low investment demand in the private sector (compared to the expectation of monetary policy) were the main reasons behind the existence of high excess reserves. Figure 6.7 shows the position of excess reserves (reserves of the commercial banks with Bangladesh Bank in excess of their required reserves) as per cent of total demand and time liabilities (TDTL) of the banking

system. It is observed that the trend of the excess reserve as per cent of TDTL was increasing particularly from June 2012.

Figure 6.7: Excess Reserves as % of TDTL



Source: Bangladesh Bank

7. Concluding Remarks and Recommendations

As a monetary authority of the country, Bangladesh Bank is responsible for conducting the monetary policy of Bangladesh. Thus, Bangladesh Bank is engaged in the process of formulation and implementation of monetary policy since the independence of the country, in order to achieve high economic growth and price stability. In this regard, Bangladesh Bank has been using the concept of the quantity theory of money as a foundation for monetary policy and considering the reserve money and the broad money as operational and intermediate targets respectively.

Regarding the use of monetary policy instruments, Bangladesh Bank shifted towards the use of market-based instruments instead of direct control on domestic credit and the rate of interest from the early 1990s. Under the new strategy, Bangladesh Bank uses mainly three instruments—the change in reserve requirements, open market operations and the use of refinancing facility. Among these, the significance of open market operations is very high compared to two other instruments in the context of both the volume and the frequencies of transactions. As tools of open market operations, Bangladesh Bank has been using repo and reverse repo operations, issuance of Bangladesh Bank bills and

the sell/purchase of foreign currencies. In addition, the auctions of government treasury bills and bonds, and Bangladesh Government Islamic Investment Bond work as open market operations indirectly.

The impact of monetary policy in Bangladesh economy is effective. Thus, the historical data shows a positive relationship between the money supply and the rate of inflation, considering the lag effect of the former to the later. The impact of monetary policy operations with regard to the stability in local currency and foreign currency markets is significantly positive in the case of Bangladesh. Therefore, the movements of inter-bank call money rate and the exchange rate of Bangladesh taka against the major trading partners' currencies are almost stable during the last couple of years. Finally, the impact of monetary policy on economic growth seems to be positive and thus the country has been obtaining above 7 per cent growth since the FY16.

The existence of huge non-performing loans, trade-based money laundering, the absence of an effective bond market, the high-interest rate spread, high interest rate on government savings certificates and the low demand for private investments are the major impediments behind the effectiveness of monetary policy in Bangladesh now a days. Therefore, strengthening of Bangladesh Bank's autonomous power to implement its monetary policy along with its capacity build up is very important to mitigate such impediments in near future. Besides, the role of other government agencies, particularly the Ministry of Finance is very significant in this regard.

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Exploring Banking Products for the Growth of Tourism Economy

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Abstract

Banks should develop diversified range of products & services in the broad arena of tourism sector to promote tourism in Bangladesh. This will help to create more jobs and increase the country's gross domestic product (GDP) through tourism. Tourism business entities, on the other hand, can take financial supports from banks to renovate hotels, restaurants, and in particular, tourist spots. As a result, tourism sector's contribution to GDP is expected to rise. Such tourism banking products can be introduced in the form of deposit schemes, SME loan schemes, lending packages for hotel purchase & renovation, lending packages for travelers & agencies, and bank guarantee for tourism related business entities. Tourism impacts on sales & profits of the businesses, as well as creates more of such jobs and income while generating tax revenue for the economy. The direct effects are seen in lodging, restaurants, transportation, amusement, and retail trade. Therefore, a strong tourism-banking-policy need to be developed to create new avenues in tourism businesses.

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Keywords: Tourism, Banking, Products.

Introduction

Tourism is a school of thought and a vital part of the global economy. Tourism has been ranked internationally as the third-largest industry in the world; after fuels, chemicals, and automotive products. The breadth of international travel also has greatly expanded in recent years to encompass the developing world. Once excluded, the tourism industry has now become a major growth area of the developing world. Tourism is a key foreign exchange earner for 83 percent of developing countries and is the leading export earner for one-third of the world's poorest countries. For the world's forty poorest countries, tourism is the second-most important source of foreign exchange after oil.

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The banking system plays an important role in the modern tourism-economy. Financial services works as the gearing oil of tourism. Banks create new capital tourism and thus helps its growth. It can have positive impacts on capital accumulation and stimulate economic growth too. Financial intermediaries are needed to the effect of (DFID, 2005) savings mobilization, provision of information on investment opportunities, monitoring of borrowers, facilitation of exchange of goods and services, management of risks, and provision of loans to stimulate & facilitate economic growth.

A well-functioning financial sector contributes positively to the level of tourism economic growth by contributing to a better income distribution and thus can be seen as having pro-poor effects (Beck *et.al*, 2004).

Although often underestimated, the tourism industry can help to promote peace and stability in developing countries by providing jobs, generating income, diversifying the economy, protecting the environment, and promoting cross-cultural awareness. Tourism is the largest industry in the global economy.

However, for tourism to help deliver prosperity and stabilize communities effectively, specific action must be taken by the three main constituencies: host communities, host governments, and stakeholders. Host communities should work to leverage their competitive advantage, improve service delivery, and protect their environment and culture. Host governments should establish supportive strategies, introduce & implement necessary regulations, remove bottlenecks, and adopt internationally recognized tourism standards. Stakeholders should prioritize tourism as a viable economic force, direct investment to this sector, and facilitate knowledge.

In this context, Tourism banking may be a new kind of banking approach in a country like Bangladesh by which delivery of comprehensive special services would be possible to the customers and the entrepreneurs of tourism sector. It is thought that tourism banking will be able to provide competitive advantages to the industry as a new player, ensuring service to the community as well.

Rationale of the Study

Many positive effects of tourism are known both in global and national levels of the economy. It is known that finances are indispensable either from the aspect of exploitation or from the aspect of further development of tourism. Little is known about the material basis of tourism and possible modalities of efficient and effective financing of the same.

The lack of development of tourism industry in Bangladesh has been traced to the low level of capital adequacy of banks, low patronage of tourists, poor funding of the industry, and high proportion of portfolio of non-performing loans maintained by some banks. These factors have been considered to cause the low level impact of the banking sector on tourism industry. But the fact is that, tourism covered 3 percent of total economy and contributed 77,300 cr. Taka to the GDP in 2019 (UNWTO, 2020). Bangladesh earned foreign currency equivalent to 2,800 cr. taka in 2019 utilizing 44,000 workers who were directly and indirectly involved in tourism industry. But this industry still suffers from the lack of banking and financial support of the banks and other financial institutions. For expansion of the industry, one need to develop a strong banking policy structure that will give a sustainable shape of tourism in Bangladesh. Accordingly, this research is highly appropriate to help the banking sector to identify the tourism related financial products and their mode of fair application.

Objectives

To identify and analyze the fact of tourism related banking products is the broad objective of this study. The following specific objectives have been chosen to achieve that.

a) To identify the current status of tourism related to banking system in Bangladesh.

b) To analyze the banking products and systems for the tourism industry.

Literature Review

The ODI World Bank review identifies three main pathways through which tourism affects poverty reduction (Caroline Ashley, et. al. 2007). First are tourism's direct effects—the wages and earnings of those who participate directly in the sector as workers or entrepreneurs. There are special types of banks which provide facilities to different kinds of economic activities including tourism. Now-a-days in every country there is a central bank which controls the activities of all other banks, endeavors to keep the price level steady, and controls the rates of foreign exchange. This review will explore some truth in this regard.

Financing small tourism projects presents challenges linked with their size which may require public intervention, as higher transaction costs (related to low volumes traded) result in difficulties in accessing external finance (OECD, 2006). However,

the most difficult obstacle is how to reduce the risk of inability to transfer money and property. Tourism industry circumvents this issue by paying outside the destination itself, that is, by paying clients, tourist agencies, guides, etc. The money goes through creditors who keep a percentage for repayment, while transforming the rest of the money locally.

Micro-financing in tourism emerged in response to two key issues. First, despite microfinance's rapid growth, the majority of people living in poverty, especially 'the poorest of the poor', still have no access to microfinance services (Armendáriz & Morduch, 2010; Morduch & Haley, 2002). (Additionally, the micro-financing realizes financial sustainability (i.e., generate sufficient revenue to cover operating costs) and in many cases of tourism, increasing profitability, further contributed to limiting the depth of outreach to serve poorer and more remote clients (Phan, 2009).

'Project finance' is an umbrella term for all aspects of financing of the project with direct debt pay off—the debt is paid off from the project profits instead of the overall debtor company profits- or indirect debt pay off with money coming from the debtor company's funds. Therefore, the creditor has clear insights into the money flow, while their only way of return on their investment is the success of the project (hotel, building, lot, etc.), which in itself is the guarantee for the loan. (Arsić L. J., 2004).

On the other hand, green finance comprises of financial instruments with the specific purpose of delivering environmental benefits by tackling issues such as clean energy production, air pollution, biodiversity loss, climate change and resource efficiency, as well as waste and water management (OECD, 2017). This includes green bonds, whose proceeds are earmarked for environmental projects.

Methodology

In this study, primarily, tourism related banking products will be explored. In addition, contribution of the products on socio-economic phenomenon and the relationship among banks, stakeholders, and tourists will also be investigated for sustainable development. Thus, an explorative study will be conducted that generates qualitative information. As tourism banking does not exist yet, so there is no structured population. This is why, standard probability sampling methods may produce much error from improper response. Therefore, Focused Group

Discussion (FGD) method (Zikmund, W.G., 2009) has been applied in this study. FGD begins with a set of 40 participants, purposively selected from the target population. In total there were 4 groups and each was composed of 10 participants of which 4 were from banks, 4 from industry players and 2 from civil society. In each of the groups, one was the moderator, one was the reporter and rests were discussants. Discussion was run for 2 hours for each group. However, identifying the initial set of participants was a challenge. Social visibility is considered as one of the major solutions in locating the initial reference points (Biernacki and Waldorfe, 1981). Simultaneously, the researcher applied the social visibility concept along with an in-depth review of case-relevant literature to enable the identification of initial reference points.

Result and Discussions

From the 8 (eight) hour discussion with 4 (four) FGDs, many valuable information has been uncovered. Especially academicians and industry players provided a lot of insights related to banking activities in the field of tourism.

First group of FGD focused on how tourism industry helps in economic transformations in societies, often for the better. They said that tourism has several advantages than other industries, like point of production and consumption are made in the same points. So, community gets direct benefits from the consumers.

So, the poor community with rich and unique culture and heritage generates income as a competitive advantage. They focused that tourism industry creates networks of different operations, from hotels and restaurants to adventure sports provider and food suppliers. They also described tourism industry as a complex and varied supply chains of goods and services, supporting a versatile labor market with a variety of jobs for tour guides, translators, cooks, cleaners, drivers, hotel managers, and other service sector workers. Furthermore, they mentioned the trends to encourage the development of multiple-use infrastructure that benefits the host community, including roads, health care facilities, and sports centers, in addition to the hotels and high-end restaurants that cater to foreign visitors.

Second group of FGD discussed with the major prospective banking products for tourism divided into 3 parts: deposit banking, advance banking and miscellaneous services.

a) Deposit banking belongs to Travelers' Special Deposit A/C e.g., Short Term Deposit (STD), Fixed Deposit etc.; Tourism Savings Bank A/C e.g., Housewife of tourism entrepreneurs and tourism employees may open this A/C; Tourism Current Deposit A/C may be considered for tourism business people.

b) Advance banking includes all kinds of tourism transport like motor vehicles (tourist micro-bus, mini-bus and coach) and non-motor vehicles (battery driven and manual vans), water transport (speed boat, tourist lunch, steamer, boatel, cruise ship etc.); Accommodation includes hotel, motel, resort, eco-cottage, tree house, tourist tent, time share, villa, sanatorium etc.; Food means all kinds of restaurants for local, continental and western food and beverage; and Recreation belongs to Theme Park, Children Park, orchard, drama & theatre etc.

c) Other Promising Tourism Banking Products: Recreational Resort for holiday enjoyers: Beach area, Hill area and Forest area; Tourist Village for village lovers, Orchard for day visitors, Aquarium for all tourists in river area and sea area; herbarium for students / researchers; Open Sky Show for cultural tourists in small river and plain land area; 18-hole and 9-hole Golf course for Golf tourists; Youth Hostel for youth tourists in district town area and Exhibition Hall for MICE tourists etc.

Third group of FGD discussed on the present traditional banking and bottleneck of the system. They advised clearly to come forward bankers for developing a new tourism economy for the future. Now, tourism shares 3% of the total economy of Bangladesh and it's contribution to our GDP is 4.4%. Mentioning all these, they suggested to develop tourism friendly product lines and progressive banking with due caution. This group expressed their dissatisfaction loudly about the so-called Bankers-customers relationship which is derived from the west. New and applied banker-customer relationship must be discovered specially for the tourism industry. Through secondary effects, tourism affects most sectors of the economy. For these reasons, a strong tourism banking policy should be developed covering areas as mentioned under:

a) Need to develop a sound tourism investment policy that will generate business and eradicate poverty.

b) Encouraging tourism businesses that support the socio-economic development, which emphasized on the development of high-quality banking business.

c) Encouraging participation of the local communities in various forms of tourism business and management through the use of low interest loans.

d) Encouraging private business organization of pro poor tourism development.

e) Promoting banking products in producing essential goods, supplies and equipment to support tourism activities and services in order to help reduce imports.

f) Supporting financially in the production of reasonably priced international standard goods, appliances and equipment's for use of tourism entrepreneurs.

Fourth group of FGD explored and explained the present status laws, policies and practicing guidelines for the tourism industry. Bangladesh is still very much dependent on revenues from trade and commerce. Aside from this, this country also receives income from value added tax (VAT), corporate tax and other industries. But now it needs economic diversification. So, there should be a practice of liberal investment policy in tourism industry under the framework of Bangladesh Bank and the regulatory form of the country. In particular community support is essential for tourism, as it is an activity that affects the entire community. Tourism businesses depend extensively on each other as well as on other businesses, government and residents of the local community. This group mentioned that tourism has a variety of economic impacts. Tourists contribute to sales, profits, jobs, tax revenues, and income in an area. The most direct effects occur within the primary tourism.

Suggestions

An individual tourism business is interested primarily in its own revenues and costs, while a community or region is concerned with tourism and overall contribution to the economy, as well as its social, fiscal and environmental impacts. Therefore, the principal motivation for introducing dedicated and hardcore tourism banking is surely contributory to the economy of any country. Unfortunately, tourism is a technical area, involving concepts, methods, and models that are unfamiliar to most general experts. That's why this study suggests that it needs appropriate experts to start tourism banking methodically.

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"A SURVEY OF ECONOMIC SITUATION IN BANGLADESH" January-June 2019

Monetary and Credit Situation

Narrow Money (M1)

During January-June 2019 narrow money stood at BDT 273293.40 crore and recorded an increase by 6.98 as compared to the increase of 0.22 percent during July-December 2018. However, it stood at BDT 273293.40 crore in June 2019. It may be mentioned that, it rose by 9.03 percent during January-June 2018 (Annexure-1).

Broad Money (M2)

At the end of June 2019 Broad money stood at BDT 1219611.5 crore. It showed an increase of 5.56 percent during January- June 2019 as compared to the increase of 4.09 percent during July-December 2018. It may be mentioned that it rose by 5.11 percent during January-June 2018 (Annexure-1).

Furthermore, during January-June 2019 Broad Money increased because of the positive growth in demand deposits, time deposits and currency outside banks. Demand deposits increased by BDT 8229.50 crore or 7.43 percent and time deposits increased by BDT 46413.40 crore or 5.16 percent during January-June 2019. Currency outside banks also recorded an increase of BDT 9607.90 crore or 6.64 percent during the reported period. An analysis of the causative factors of the change in money supply revealed that net foreign assets increased by BDT 7699.30 crore or 2.91 percent, while net domestic assets of the banking system increased by BDT 56551.50 crore or 6.35 percent during the period under review (Annexure-1).

Domestic Credit

Total domestic credit recorded an increase of 6.16 percent during January-June 2019 as compared to the increase of 5.75 percent during July-December 2018. It may be mentioned that it rose by 7.31 percent during the same period of the previous year, January-June 2018. The rise in domestic credit during the period under report can be attributed both to the increase in credit to public sector and private sector during the reported period (Annexure-1).

Reserve Money

Reserve money recorded an increase of 4.89 percent during January-June 2019 as compared to the increase of 0.42 percent during July- December 2018. It may be mentioned that, this reserve money rose by 7.71 percent during January-June 2018 (Annexure-1).

Auctions of Government Treasury Bills

Thirty three (33) weekly auctions of each of the 14-Day, 91-Day, 182-Day and 364-Day Government Treasury Bills (TBs) were held during January-June 2019. In all, 2177 bids amounting BDT 97684.16 crore (face value) were offered in the auctions of which 678 bids amounting BDT 56700.0 crore (face value) were accepted. Among those bids BDT 21367.35 crore was devolved on primary dealers and non-primary dealers Bank. Bills worth of BDT 39400.0 crore were retired during the period under report and the outstanding balance of the bills stood at BDT 73800.0 crore at the end of June 2019. The weighted average yields of the accepted bids were ranged between 2.09 to 7.31.

Auctions of Bangladesh Government Treasury Bonds (BGTBs)

Twenty one (21) weekly auctions of Bangladesh Government Treasury Bonds (BGTBs) were held during January-June 2019. In all, 1374 bids amounting BDT 40032.95 crore were offered in the auctions of which 587 bids amounting BDT 19675.0 crore were accepted. Among those bids only BDT 5420.92 crore were devolved on Bangladesh Bank. Bonds worth of BDT 9067.32 crore were retired during the period under report and the outstanding balance of the bonds stood at BDT 301574.40 crore at the end of June, 2019. The weighted average yields of the accepted bids were ranged between 4.7254-9.0849 percent.

REPO Auctions

A total number of eighty four (84) auctions of REPO (Liquidity Support Facility & Special Repo) operations were held on daily basis during January-June 2019. In all, 561 bids of 1-2 Day and 3-7 Day tenor amounting BDT 98903.97 crore were received in these auctions, of which all the bids were accepted amounting BDT 98903.97 crore. The interest rate of the accepted bids was ranged between 6.0-9.0 percent per annum during the period under report.

Reverse REPO Auctions

No auction of Reverse REPO operation was held during January-June 2019.

Auctions of Bangladesh Bank Bills

7-Day Bangladesh Bank Bills:

Ten (10) auctions of 7-Day Bangladesh Bank Bills (BB Bill) were held during January-June 2019. In all, 10 bids amounting BDT 1625.0 crore were offered in the auctions of which 3 bids amounting BDT 325.0 crore were accepted. BB Bills worth of BDT 325.0 crore were retired during the period under report and no outstanding balance of the bills at the end of June, 2019. The weighted average yield of the accepted bids was ranged between 0.0-0.02 percent.

14-Day Bangladesh Bank Bills:

Ten (10) auctions of 14-Day Bangladesh Bank Bills (BB Bill) were held during January-June 2019. In all, 10 bids amounting BDT 820.0 crore were offered in the auctions of which no bid was accepted. No retired amount and outstanding balance of the bill at the end of June, 2019.

30-Day Bangladesh Bank Bills:

No auction of 30-Day Bangladesh Bank Bills (BB Bill) was held during January-June 2019.

Revenue Receipts under National Board of Revenue (NBR): January-June 2019

The revised revenue collection target under the National Board of Revenue (NBR) for 2018-19 has been set at BDT 2,80,063.0 crore, which is 5.45 percent lower than the initial target of revenue collection amounting to BDT 296201.0 crore set for NBR.

Following this target, the total revenue collection by NBR during January-June 2019 stood at BDT 125844.62 crore which is 45.0 percent of the revised annual target. The aforementioned collection by NBR during this stated period is 28.48 percent higher than BDT 98,047.8 crore collected during July-December 2018 as well as 10.3 percent higher than BDT 1,14,244.24 crore collected during January-June 2018 of the previous year.

Reviewing the revenue collection situation, it can be seen that during the period under discussion, a total of BDT 32563.59 crore from duty from import and export stage, BDT 49157.43 crore from VAT (domestic) and BDT 44123.6 crore from income and travel tax was collected during January-June 2019.[1]

[1]Source: Provisional Statement of revenue collection up to June'19 of FY19, National Board of Revenue (NBR)

Agricultural Credit

Agricultural credit disbursement target has fixed at BDT 21800.0 crore for FY19 which was 6.86 percent higher than BDT 20400.0 crore targeted in FY18. Agricultural credit disbursement by all banks stood at BDT 13384.84 crore during January-June 2019, which was 30.82 percent higher than that of July-December 2018. During January-June 2018, disbursement of agriculture credit stood at BDT 10637.81 crore, which was 25.82 percent lower than that of the reporting period, January-June 2019. The Recovery of agricultural credit stood at BDT 12341.08 crore during January-June 2019, which was 8.32 percent higher than that of July-December 2018. During January-June 2018, recovery of agriculture credit stood at BDT 11371.30 crore, which was 8.53 percent lower than that of the reporting period, January-June 2019. Outstanding balance (including interest) of agricultural credit stood at BDT 42974.19 crore at the end of June 2019, which was 5.85 percent higher than BDT 40601.11 crore at the end of June 2018.

Inflation Situation

General (Twelve month average basis) CPI inflation at the national level stood at 5.48 percent at the end of June 2019 compared to 5.55 percent in December 2018 and 5.78 percent in June 2018. Inflation rate kept rising since May 2017 to April 2018. On the other hand, point-to-point (p to p) general CPI inflation at the national level stood at 5.52 percent at the end of June 2019 compared to 5.35 percent in December 2018 and 5.54 percent in the corresponding month of the preceding year.

Average food inflation at the national level stood at 5.51 percent in June 2019 compared to 6.21 percent in December 2018 and 7.13 percent in June 2018. Point-to-point food inflation at the national level stood at 5.40 percent in June 2019, which was 5.28 percent in December 2018 and 5.98 percent in June 2018.

Average non-food inflation at the national level stood at 5.42 percent in June 2019 compared to 4.51 in December 2018 and 3.74 percent in June 2018. Non-food inflation measured by point to point basis at the national level was 5.71 percent in June 2019 compared to 5.45 percent in December 2018 and 4.87 percent in June 2018.

Food Situation

The target for food grains production for FY19 was set at 373.12 lakh metric tons, which was 0.17 percent lower than the actual production 373.76 lakh metric tons in FY18.

For FY19, the target for total government import of food grains in the country was set at 11.0 lakh metric tons, which was 20.92 percent lower than 13.91 lakh metric tons imported by government during FY18. Import of food grains during January-June 2019 stood at 32.0 lakh metric tons against 26.34 lakh metric tons imported during July-December 2018 and 38.96 lakh metric tons during January-June 2018. The target for domestic procurement of food grains during FY19 was fixed at 17.25 lakh metric tons, which was higher by 12.38 percent than 15.35 lakh metric tons actual procurement during FY18. Procurement of food grains during January-June 2019 stood at 13.13 lakh metric tons against the procurement of 11.02 lakh metric tons during July-December 2018 and 10.10 lakh metric tons during January-June 2018. For FY19, government distribution of food grains was targeted at 28.77 lakh metric tons, which was higher by 35.90 percent than 21.17 lakh metric tons distributed during FY18. Distribution of food grains during January-June 2019 stood at 12.86 lakh metric tons against the distribution of 13.08 lakh metric tons during July-December 2018 and the distribution of 14.05 lakh metric tons during January-June 2018. The actual food grains Stock at the end of June 2019 stood at 16.74 lakh metric tons against the stock of 13.27 lakh metric tons at the end of December 2018 and the stock of 13.15 lakh metric tons at the end of June 2018.

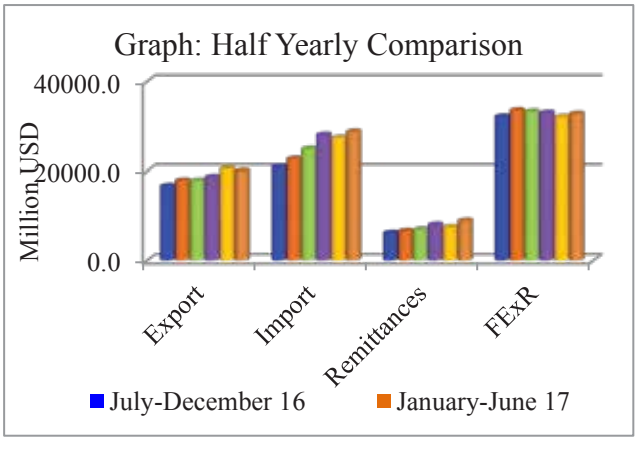
Stock Exchange Activities

In the Dhaka Stock Exchange Ltd. (DSE), the total number of listed securities stood at 584 including 221 Government Treasury Bonds at the end of June 2019. During the period January-June 2019, a total of 17541.58 million shares and debentures worth BDT 67866.58 crore were traded as against 19354.90 million shares and debentures worth BDT 78098.96 crore during July-December 2018.It was 9.4 percent lower in volume and 13.10 percent lower in value than that of the preceding period. The market capitalization of DSE stood at BDT 399816.38 crore at the end of the period under report, which was 3.23 percent higher than BDT 387295.28 crore at the end of the preceding period. The All Share Price Index of DSE stood at 5421.62 points at the end of June 2019, which was 0.67 percent higher than 5385.64 points at the end of December 2018.

In the Chittagong Stock Exchange Ltd. (CSE), the total number of listed securities stood at 326 at the end of June 2019. During the period January-June 2019, a total of 1201.33 million shares and debentures worth BDT 3660.51 crore were traded as against 1273.34 million shares and debentures worth BDT 4882.04 crore during the preceding six months. It was 5.6 percent lower in volume and 25.02 percent lower in value than that of the preceding period. The market capitalization of CSE stood at BDT 329330.28 crore at the end of the period under report, which was 0.5 percent higher than that of BDT 314683.54 crore at the end of the preceding period. The All Share Price Index of CSE stood at 16634.21 points at the end of June 2019, which was 1.12 percent higher than that of 16449.51 points at the end of December 2018.

Exports, Imports, Remittances and Foreign Exchange Reserves

Export, import, remittance and foreign exchange reserve of Bangladesh for the period of January-June 2019 are discussed below:



Export earnings stood at USD 20035.2 million during January-June 2019 which decreased by 2.3 percent compared to the preceding period but increased by 6.8 percent compared to the same period of the previous year respectively. The increase in export was due to increase of export of readymade garments (RMG), jute & jute goods, chemical products, plastic products, agricultural products and specialized textiles etc.

In January-June 2019, import payments increased by 5.0 percent and stood at USD 28719.8 million compared to previous period and 2.5 percent higher than the same period of the preceding year. It was mainly due to the decrease in the import payments of wheat, milk & dairy products, spices, oil seeds, edible oil, pulses (all sorts) sugar, clinker, crude petroleum, petroleum products, chemicals, pharmaceutical products, fertilizers, plastic & rubber articles thereof, cotton, textile & articles thereof, iron & steel and capital machinery etc.

Remittance earnings of the country stood at USD 8924.3 million during January-June 2019 which increased by 19.1 percent and 10.9 percent compared to the previous period and the same period of the preceding year respectively. During the period, the large amount of remittance inflow received from KSA, UAE, USA, Kuwait, Malaysia, UK and other countries.

At the end of June 2019, foreign exchange reserve of the country stood at USD 32716.5 million which is 2.2 percent higher than USD 32016.3 million of December 2018. It may be mentioned that it was USD 32943.5 million at the end of June 2018. The half-yearly data of the country's foreign exchange reserve, export, import and remittances are shown in annuxure-2.

Some Important Policy Measures (January-June 2019)

A. Policy Announcements on Banking and Financial Sector Development

February 2019	Banks are now allowed to write off the default loans, recovery of which remained suspended for long time and with no chances of recovery in near future that have been hovering in the bad/loss category consecutively for three years or more according to the policy. Besides, lenders do not have to file any law suit with the Artha-Rin-Adalat (Money Loan Court) to write off a delinquent loan worth BDT 2 lakh. After deducting interest suspense from the corresponding loan/investment account, the rest entire outstanding balance would be then maintained as provisions. No loan/investment can be partially written-off. At the same time, written-off loan/investment cannot be rescheduled or restructured as well.
February 2019	Scheduled banks in Bangladesh will have to invest at least 75 percent of the outstanding amount of the offshore financing in the country, according to the policy introduced by the central bank. Foreign entities with presence in Bangladesh and abroad are eligible to borrow foreign currency loans from the Offshore Banking Units (OBUs). Besides, local enterprises located at economic zones, export processing zones, private export processing zones, and hi-tech parks can take loans from the units. OBUs will have to mobilize major funds from external sources and will not be allowed to collect more than 20 percent of their regulatory capital from domestic banking operation.
March 2019	A person exceeding 65 years is not allowed to be appointed or posted in the financial institutions. But in case of special necessity, a person exceeding 65 years can be appointed or posted on contractual basis in the post of counselor and adviser. All other financial institutions will follow state-owned commercial banks and financial institutions in formulating policy for retirement age for regular employees.

March 2019	Government of the people's republic of Bangladesh has constituted a loan fund in Bangladesh Bank to support the RMG factories through medium to long term finance under the "Program to Support Safety Retrofits and Environmental Upgrades in the Bangladeshi Ready-Made Garments (RMG) Sector Project (SREUP)" sponsored by AFD (Agence Française de Développement) The loan fund size of the project is EUR 50 million and the total fund size for Technical Assistance (TA) is EUR 14.29 million.
May 2019	Bangladesh Bank has decided to provide Agricultural loan facility to the farmers affected by recent cyclone and subsequent tidal bore caused by Fani. To facilitate the decision, banks are guided to strengthen and intensify disbursement of agricultural loan activities to the affected areas. They are also instructed to suspend and delay loan recovery from the affected farmers for one year, relax down payment condition for rescheduling previous loan and disbursing fresh loan without harassment within shortest possible time.
May 2019	Transaction limit through Mobile Financial Services (MFS) has been revised. From now on, a maximum of BDT 30,000 can be deposited (Cash-in) into an MFS account in a day. The monthly transaction ceiling has been fixed to BDT 2 lakh. An individual can now deposit money into his/her account five times a day. In a month, he/she can deposit 25 times. The daily withdrawal limit (Cash-out) is determined to BDT 25,000 and monthly ceiling to BDT 1.50 lakh. A person can withdraw money from an account maximum five times a day, twenty times a month. For account-to-account transfers (P2P), the ceiling has been raised to BDT 25,000 daily and to BDT 75,000 monthly. A person can maintain maximum BDT 3 lakh in his mobile account. However, the ceiling is not applicable to other mobile banking services like-P2B, B2P, G2P, B2B, merchant payment, online and e-commerce payments.

May 2019	The fund received under Annual Development Program (ADP) from Government, own fund of government or semi-government institutions, autonomous and semi-autonomous bodies' are allowed to be deposited in the Special Notice Deposit, Savings account or Fixed Deposit account in any scheduled bank or government approved 14 NBFIs in Bangladesh at maximum 6% interest rate. However, banks failed to bring down the interest rate of loans at 9% as promised would not avail this facility.
June 2019	Refinance scheme introduced by Bangladesh Bank in 2014 has been enhanced by BDT 100 crore to a consolidated amount of BDT 300 crore and extended by another 5 years. Banks shall avail this fund at Bank rate and, subject to repayment/adjustment of the Interest-principal amount semi-annually at a specific rate, offer loan at maximum 8 percent to the jute mills/jute exporters.

B. Policy Announcements on Monetary Sector Development

January 2019	It has been decided to publish cut-off yield in Bangladesh Bank website after converting cut-off yield of re-issued treasury bills and bonds determined by the latest auction through interpolation/extrapolation method to Standard Tenor Yield to facilitate the actual revaluation of government securities. Banks shall calculate their government securities on the basis of Standard Tenor Yield published in Bangladesh Bank website.
May 2019	The total investment (solo and consolidated) of scheduled bank in the capital market shall not include the investment in non-listed securities like-equity share, non-convertible cumulative preference share, non-convertible bond, debenture, open-end mutual fund.

C. Policy Announcements on External Sector Development

January 2019	As per S.R.O No-237-Ain/2018/39/Shulka, dated July 17, 2018 regarding import through Land Custom Station formulated by National Board of Revenue, all dealer banks' branches have hereby been advised not to open Letter of Credit for any imported goods other than the importable listed goods approved by NBR through Land Custom Station.
March 2019	To obtain authorized gold dealer license for importing gold bar and jewelry, both the authorized dealer bank and applicant organization should have all other licenses/registrations/certificates update as per law of the land. Besides, applicant organization should have bullion volt including telephone, mobile, e-mail etc. so that reporting to BB can be made easily. Additionally, applicant organizations have to be a resident sole proprietorship of partnership farm or registered limited company.
April 2019	ADs may issue International Debit/Prepaid/Credit Card in favor of Bangladeshi medical centers accredited by Gulf Health Council (GHC) to pay only the registration fee for medical check-up services of Bangladeshi nationals proceeding abroad for employment in member countries of GHC. Each medical center may avail only one card from any one of the card issuing banks.
May 2019	Refinance from Export Development Fund (EDF) will be admissible to ADs for bulk imports by manufacturer-exporters irrespective of sectors against eligible requirements, based on their export performance over the preceding twelve months or USD 500,000, whichever is lower.
May 2019	Authorized Dealers (ADs) may open and maintain Foreign Currency Account in the name of International Gateway (IGW) Operators having valid operator license issued by BTRC under the following terms and conditions:

	a. Foreign currency received only from International Carrier for international incoming calls may be credited in the account; b. Balances of these accounts may be used to pay to International Carrier for international outgoing calls and to IGW Operator Switch or other IGW Operators for international incoming calls against invoices; c. Balances of these accounts are freely en-cashable to taka; and d. ADs shall ensure deduction of applicable VAT & Taxes and deposit of the same to the Government Treasury.
May 2019	Companies resident in Bangladesh are given general approval for extending interest-free Taka working capital loans to foreign owned/controlled companies in Bangladesh.
May 2019	Usance period has been enhanced up to 360 days from 180 days for import of raw materials in the case of power generating enterprises only.
May 2019	The validity period of Bangladesh Bank's approval for outward remittance has been extended from 30 days to 45 days.
June 2019	International cards (debit/credit/prepaid) may be used for online purchase of air/ship tickets for travelling abroad by foreign nationals on e-commerce website accessible through the internet. To facilitate the transactions, ADs may, under merchant arrangement, provide acquiring services to airlines/shipping lines/general sales agent/ travel agents to realize the sales proceeds in foreign currency.

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A SURVEY OF ECONOMIC SITUATION IN BANGLADESH

July-December 2019

Monetary and Credit Situation

Narrow Money (M1)

During July-December 2019 narrow money stood at BDT 275938.50 crore which recorded an increase of BDT 2645.10 crore or 0.97 percent as compared to the increase of 6.98 percent during January-June 2019. It may be mentioned that it rose by 0.22 percent in July-December 2018 (Annexure-1).

Broad Money (M2)

At the end of December 2019 Broad money stood at BDT 1294435.10 crore. It showed an increase of 6.14 percent during July-December 2019 as compared to the increase of 5.56 percent during January-June 2019. It may be mentioned that broad money rose by 4.09 percent during July-December 2018 (Annexure-1).

However, during July-December 2019 broad money increased mainly due to higher growth in time deposits. Demand deposits only increased by BDT 349.10 crore or 0.29 percent, on the other hand, time deposits increased by BDT 72178.60 crore or 7.63 percent during July-December 2019. An analysis of the causative factors of the change in money supply revealed that net foreign assets increased by BDT 1727.00 crore or 0.63 percent and net domestic assets increased by BDT 73096.60 crore or 7.72 percent during July-December 2019. The positive growth in net domestic assets is the major factor of the positive growth in broad money during the period under report.

Domestic Credit

Total domestic credit recorded an increase of 8.17 percent during July-December 2019 as compared to the increase of 6.16 percent during January–June 2019. It may be mentioned that it rose by 5.75 percent during the same period of the previous year, July-December 2018. The rise in domestic credit during the period under report due to the sharp increase both in credit to the public sector

and Govt. (Net), which increased by 37.19 percent and 38.48 percent respectively during July-December 2019(Annexure-1).

Reserve Money

Reserve money recorded an increase of 1.89 percent during July-December 2019 as compared to the increase of 4.89 percent during January-June 2019. It may be mentioned that as compared to January-June 2018, this reserve money was 0.42 percent higher during July-December 2018 (Annexure-1).

Auctions of Government Treasury Bills

Thirty-two (32) weekly auctions of each of the 14-day, 91-Day, 182-Day and 364-Day Government Treasury Bills (TBs) were held during July-December 2019. In all, 3348 bids amounting BDT 160171.93 crore (face value) were offered in the auctions. However, only1444 bids amounting BDT 91000.00 crore (face value) were accepted of which BDT 22954.63 crore were devolved on primary dealers and non-primary dealers Bank. Bills worth of BDT 67800.00 crore were retired during the period under report and the outstanding balance of the bills stood at BDT 132000.00 crore at the end of December 2019. The weighted average yields of the accepted bids were ranged between 4.50-8.72 percent.

Auctions of Bangladesh Government Treasury Bonds (BGTBs)

Nineteen (19) auctions of Bangladesh Government Treasury Bonds (BGTBs) were held during July-December 2019. In all, 2173 bids amounting BDT 79657.57 crore were offered in the auctions of which 917 bids amounting BDT 33300.00 crore were accepted. From all those bids only BDT 5859.26 crore were devolved on Bangladesh Bank. Bonds worth of BDT 9188.75 crore were retired during the period under report and the outstanding balance of the bonds stood at BDT 344935.65 crore at the end of December, 2019. The weighted average yields of the accepted bids were ranged between 7.8152-9.7381 percent.

REPO Auctions

A total number of Sixty eight (68) auctions of REPO (Liquidity Support Facility & Special Repo) operations were held on daily basis during July-December 2019. In all, 517 bids of 1-2 Day and 3-7 Day tenor amounting BDT 150940.45 crore were received in these auctions of which all the bids were accepted amounting BDT 150940.45 crore. The interest rate of the accepted bids was ranged between 6.00-9.00 percent per annum during the period under report.

Reverse REPO Auctions

A total number of ten (10) auctions of Reverse REPO operations were held on daily basis during July-December 2019. In all, 11 bids of 1-2 Day and 3-7-Day tenor amounting BDT 2355.00 crore were received in these auctions, of which no bid was accepted during the period under report.

Auctions of Bangladesh Bank Bills

7-Day Bangladesh Bank Bills:

Six (06) auctions of 7-Day Bangladesh Bank Bills (BB Bill) were held during July-December 2019. In all, 18 bids amounting BDT 2150.00 crore (face value) were offered in the auctions of which 02 bids amounting BDT 150.00 crore were accepted. Bills worth of BDT 150.00 crore were retired during the period and no outstanding amount of the bills at the end of December 2019. The weighted average yield of the accepted bids was 2.96 percent.

14-Day Bangladesh Bank Bills:

Three (03) auctions of 14-Day Bangladesh Bank Bills (BB Bill) were held during July-December 2019. In all, 03 bids amounting BDT 155.00 crore (face value) were offered in the auction of which no bid was accepted. No amount was retired during the period and no outstanding balance of the bills at the end of December 2019.

30-Day Bangladesh Bank Bills:

No auction of 30-Day Bangladesh Bank Bills (BB Bill) was held during July-December 2019 period.

Revenue Receipts under National Board of Revenue (NBR): July-December 2019

The revised revenue collection target under the National Board of Revenue (NBR) for 2019-20 has been set at BDT 3,00,500 crore, which is 7.71 percent lower than the initial target of revenue collection set for NBR.

Following this target, the total revenue collection by NBR during July-December 2019 stood at BDT 1,05,161.35 crore which is 35.0 percent of the revised annual target The aforementioned collection by NBR during this stated period is 16.52 percent lower than BDT 125969.14 crore collected during January-June 2019 but 7.26 percent higher than BDT 98047.8 crore collected during July-December 2018 of the previous fiscal year.

Reviewing the revenue collection situation, it can be seen that during the period under discussion, a total of BDT 31,423.81 crore from duty from import and export stage, BDT 41,090.81 crore from VAT (domestic) and BDT 32,646.73 crore from income and travel tax was collected during July-December 2019.

Collection from income and travel tax experienced the highest growth during the period of discussion over the same period of the previous fiscal year, which is 13.66 percent. On the counterpart, duty from import and export stage experienced a growth of 1.96 percent only in this period under discussion.[1]

Agricultural Credit

The annual agricultural credit disbursement target has fixed at BDT 24124.00 crore for FY20 which was 10.66 percent higher than BDT 21800.00 crore targeted in FY19. During July-December 2019, the achievement was 44.77 percent of the disbursement target for FY20. Agricultural credit disbursement by all banks stood at BDT 10800.80 crore during July-December 2019, which was 19.31 percent lower than that of January-June 2019. During July-December 2018, disbursement of agriculture credit stood at BDT 10231.41 crore, which was 5.57 percent lower than that of the reporting period, July-December 2019. Total recovery of agricultural credit stood at BDT 11500.13 crore during July-December 2019, which was6.81 percent lower than that of January-June 2019. During July-December 2018 recovery of agriculture credit stood at BDT 11393.24 crore, which was 0.94 percent lower than that of the reporting period, July-December 2019. Outstanding balance (including interest) of agricultural credit stood at BDT 43026.40 crore at the end of December 2019, which was 7.26 percent higher than BDT 40112.35 crore at the end of December 2018. Overdue of agricultural credit stood at BDT 6397.37 crore at the end of December 2019, which was 4.19 percent lower than BDT 6676.91 crore at the end of December 2018. Overdue of agricultural credit as percentage of outstanding stood lower at 14.87 percent at the end of December 2019 Compared to 16.65 percent at the end of December 2018.

[1] Source: Provisional Statement of revenue collection up to December'19 of FY20, National Board of Revenue (NBR)

Inflation Situation

General (Twelve month average basis) CPI inflation at the national level stood at 5.59 percent at the end of December 2019 compared to 5.48 percent in June 2019 and 5.55 percent in December 2018. Inflation rate kept rising since May 2017 to April 2018. On the other hand, point-to-point (p to p) general inflation at the national level stood at 5.75 percent at the end of December 2019, which was 5.52 percent in June 2019 and 5.35 percent in the corresponding month of the preceding year. Average food inflation at the national level stood at 5.56 percent at the end of December 2019, which was 5.51 percent in June 2019 and 6.21 percent in December 2018. Point-to-point food inflation at the national level stood at 5.88 percent in December 2019 compared to 5.40 percent in June 2019 and 5.28 percent in December 2018. Average non-food inflation at the national level stood at 5.64 percent in December 2019, which was 5.42 percent in June 2019 and 4.51 percent in December 2018. Non-food inflation measured by point to point basis at the national level was 5.55 percent at the end of December 2019 compared to 5.71 percent in June 2019 and 5.45 percent in December 2018.

Food Situation

The target for food grain production for FY20 was set at 399.69 lakh metric tons, which was 6.85 percent higher than the actual production 374.08 lakh metric tons in FY19.

For FY20, the target for total government import of food grain in the country was set at 5.03 lakh metric tons, which was 7.54 percent lower than 5.44 lakh metric tons imported by government during FY19. Total import of food grain during July-December 2019 stood at 30.95 lakh metric tons against 32.00 lakh metric tons imported during January-June 2019 and 26.34 lakh Metric tons during July-December 2018.

The target for domestic procurement of food grain during FY20 was fixed at 22.69 lakh metric tons, which was 6.05 percent lower than 24.15 lakh metric tons actual procurement during FY19. Procurement of food grain during July-December 2019 stood at 7.36 lakh metric tons against the procurement of 13.13 lakh metric tons during January-June 2019 and 11.02 lakh metric tons during July-December 2018.

Government distribution of food grain for FY20 was targeted at 31.03 lakh metric tons, which was higher by 19.62 percent than 25.94 lakh metric tons distributed during FY19. Distribution of food grain during July-December 2019 stood at 12.38 lakh metric tons against the distribution of 12.86 lakh metric tons

during January-June 2019 and the distribution of 13.08 lakh metric tons during July-December 2018.

The actual food grain stock at the end of December 2019 stood at 14.29 lakh metric tons against the stock of 16.74 lakh metric tons at the end of June 2019 and the stock of 13.27 lakh metric tons at the end of December 2018.

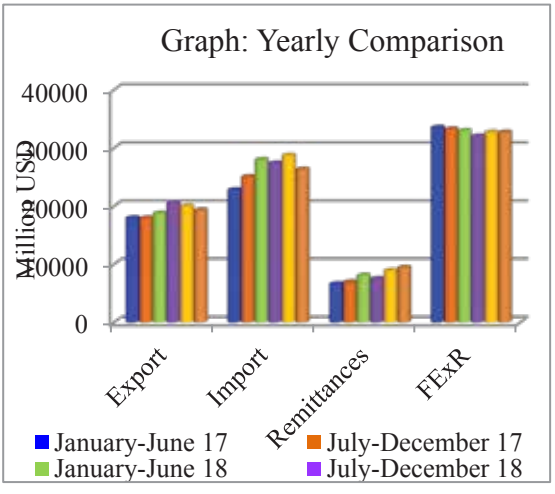
Stock Exchange Activities

In the Dhaka Stock Exchange Ltd. (DSE), the total number of listed securities stood at 587 at the end of December 2019. During the period July-December 2019, a total of 15216.99 million shares and debentures worth BDT 45973.70 crore were traded as against 17541.58 million shares and debentures worth BDT 67866.58 crore during January-June 2019. It was 13.25 percent lower in volume and 32.3 percent lower in value than that of the preceding period. The market capitalization of DSE stood at BDT 339551.06crore at the end of the period under report, which was 15.1 percent lower than BDT 399816.38 crore at the end of the preceding period. The All Share Price Index of DSE stood at 4452.93 points at the end of December 2019, which was 17.9 percent lower than 5421.62 points at the end of June 2019.

In the Chittagong Stock Exchange Ltd. (CSE), the total number of listed securities stood at 329 at the end of December 2019. During the period July-December 2019, a total of 998.53 million shares and debentures worth BDT 2838.17 crore were traded as against 1201.33 million shares and debentures worth BDT 3660.51crore during the preceding six months. It was 16.9 percent lower in volume and 22.5 percent lower in value than that of the preceding period. The market capitalization of CSE stood at BDT 288887.6 crore at the end of the period under report, which was 12.3 percent lower than that of BDT 329330.28 crore at the end of the preceding period. The All Share Price Index of CSE stood at 13505.70 points at the end of December 2019, which was 18.8 percent lower than that of 16634.21 points at the end of June 2019.

Exports, Imports, Remittances and Foreign Exchange Reserves

The key components of external sector of Bangladesh for the period of July-December 2019 are discussed below:



Export earnings stood at USD 19302.2 million during July-December 2019 which decreased by 3.7 percent compared to USD 20035.2 million in preceding period and decreased by 5.8 percent compared to the same period of the previous year. The yearly export earnings decreased mainly due to decrease export of readymade garments (RMG), live fish and crabs, petroleum products, leather & leather products, engineering products and chemical products etc.

In July-December 2019, import payments decreased by 8.4 percent to USD 26302.5 million compared to previous period and 3.8 percent lower than the same period of the preceding year. It was due to the decrease in the import payments of rice, milk & dairy products, spices, oil seeds, edible oil, pulses (all sorts), sugar, clinker, crude petroleum, petroleum products, fertilizers, dyeing & tanning materials, cotton yarn, textile & articles thereof, staple fibers, iron & steel and capital machinery etc.

Remittance earnings of the country stood at USD 9407.9 million during July-December 2019 which increased by 5.4 percent and 25.5 percent compared to the previous period and the same period of the preceding year respectively. During the period, the large amount of remittance inflow received from KSA, UAE, USA, Kuwait, UK, Malaysia and other countries.

At the end of December 2019, foreign exchange reserve of the country stood at USD 32689.2 million which is 0.1 percent lower than USD 32716.5 million in June 2019. It may be mentioned that it was USD 32016.3 million at the end of December 2018. The half-yearly data of the country's export, import remittances and foreign exchange reserves are shown in the Annexure-2.

Some Important Credit Policy and Measures July-Dec 2019

A. Policy Announcements on Banking and Financial Sector Development

July 2019	All scheduled banks shall form a "Special Monitoring Cell" headed by concerned Deputy Managing Director to monitor Classified Loan Accounts of equal to or more than BDT 100 crore and this cell will submit "Quarterly Statement of Classified Loans amounting BDT 100 crore & above" to respective bank's managing committee. This report will also be submitted to BRPD of Bangladesh Bank through EDW. (BRPD 22 July 2019)
August 2019	Financial institutions have been allowed to borrow maximum 40 percent of their equity value from the call money market. (DFIM 05 Aug 2019)
August 2019	Total amount (book value) of assumed immovable/permanent assets of banks shall not exceed 30 percent of their paid-up capital value. All scheduled banks have been asked not to purchase sedan cars with more than BDT 50 lakh and sport utility vehicle with more than BDT 1 crore. In case of renting new space or relocating branches, banks are asked to limit it within 6,000 square feet in the urban areas and 3,000 square feet in the rural areas. The Bangladesh Bank also asked banks to refrain from making excessive expenses in the name of business development, branding and advertisement. (BRPD 20 Aug 2019)
September 2019	While sorting and packing fresh and re-issuable notes, to ensure durability scheduled banks have been prohibited from writing numbers, putting signature or seal or any sort of writing on the bank notes. Scheduled banks have also been disallowed to staple any bundle-packet of bank notes except that of BDT 1000 note. (DCM 09 September 2019)

September 2019	Conventional banks have been allowed to keep the Advance-Deposit Ratio (ADR)/Investment-Deposit Ratio (IDR) at 85 percent (81.5 percent + excess 3.5 percent based on the decision of the board of the bank considering overall economic indices) and Islami Shariah-based banks at 90 percent (89.0 percent + excess 1.0 percent based on the decision of the board of the bank considering overall economic indices). (DOS 17 Sep 2019)
October 2019	All the scheduled banks are instructed to fix the interest rate for financing onion imports at maximum 9 percent with a view to containing the price spiral of onion. The banks are also advised to set a lower margin for opening letters of credit (LCs) for onion import. (BRPD 02 Oct 2019)
October 2019	To enhance deposit in banking sector and make small amount depositors bank oriented, all scheduled banks have been instructed not to charge any account maintenance fee (AMF) up to weighted average balance of BDT 10,000 for savings account.

B. Policy Announcements on Monetary Sector Development

September 2019	Scheduled banks have been allowed to invest both in SOLO and consolidated basis in the capital market from their excess liquidity. The upper limit of investment shall be less than 25 percent of bank's capital on SOLO basis and 50 percent on consolidated basis. Banks have hereby been permitted to invest in the capital market through their own portfolio in the form of direct investment and their subsidiaries in the form of lending for investment. Opening new BO account has been made mandatory for investing the liquid fund. The facility shall be availed in the form of REPO of treasury bond or bill from their excess liquidity. The liquidity support shall be provided after taking 5 percent margin of the REPO value of Treasury bond or bill. Initial repayment tenure has been set at 28 days and the tenure shall be extended to six months on successful fund uses. Interest rate has been fixed at 6 percent. (DOS 22 Sep 2019)

C. Policy Announcements on External Sector Development

July 2019	Authorized Dealer (Ads) have been allowed to borrow funds from EDF against their loans to manufacturer-exporters of leather goods and footwear industrial sectors for input procurements up to maximum single borrower limit of USD 20.00 million. (FEPD 11 July 2019)
July 2019	Private travel entitlement has been enhanced to USD 12,000 or equivalent per adult passenger during a calendar year from USD 5,000 and USD 7,000 for travel to SAARC member countries and Myanmar, and for travel to other countries respectively. (FEPD 25 July 2019)
September 2019	The maximum limit to repatriate remittances against small value service exports in non-physical form has been enhanced per transaction to USD 10,000 from USD 5,000 through Online Payment Gateway Service Providers (OPGSPs). (FEPD 11 Sep 2019)
September 2019	Producers-Exporters producing consumer electronics, electrical home and Kitchen appliances domestically for export shall enjoy 10 percent export subsidy on net FOB value, not applicable for specialized zones (EPZ, EZ). In this regard, the rate of local value addition must be a minimum of 30 percent for these products. (FEPD 29 Sep 2019)
October 2019	For the convenience of private sector participants for attending seminar, conference, workshop, training etc. abroad irrespective of countries or regions, Authorized Dealers (ADs) are allowed to release foreign exchange to them at the scale of up to USD 400 per diem for the actual period of program to be held along with one additional day as transit on the basis of invitation letters received in the name of the applicants or their employer institutions. (FEPD 03 October 2019)

October 2019	Producers-exporters producing readymade garments at their own workshop for export shall enjoy 1 (one) percent export subsidy on net FOB value. In this regard, the rate of local value addition must be a minimum of 30 percent for these products. The corresponding privilege is also admissible for the Type-C institutions under local ownership located in special zones (EPZ, EZ) for export to the EU, the USA and Canada. However, the fund to be offered as cash incentive is not realizable if found violating rules in case of availing the privilege. (FEPD 10 October 2019)
October 2019	Subject to 30 percent local value addition against the export of related products produced in Type-C industries (under indigenous ownership) in Economic Zone/High-tech Park, 4 percent new products/new market expansion assistance, irrespective of country/region, shall be applied in the current FY20 against their export. (FEPD 27 Oct 2019)
November 2019	Interest rates on EDF loans to ADs will be charged by Bangladesh Bank at six-month USD LIBOR + 0.50 percent, while ADs will charge interest to manufacturer-exporters at six-month USD LIBOR + 1.50 percent; for disbursements until June 30, 2020 from the date of this circular. (FEPD 19 November 2019)
November 2019	Two percent cash incentive shall be admissible against the inflows of remittance of maximum USD 1,500/ equivalent to other foreign currencies/ BDT 150,000 without any documents. Above that amount, the timeframe for submitting required documents is extended to 15 working days from that of earlier 5 days. (FEPD 20 Nov 2019)
November 2019	Advance payment limit against admissible imports is enhanced to USD 10,000.00 from USD 5,000.00 or equivalent to other foreign currency. (FEPD 25 Nov 2019)
December 2019	Foreign remittance of maximum BDT 1,25,000 including 2 percent cash incentive, in-flowed through the banking channel is now allowed to be deposited by the banks to the beneficiaries MFS account. This transaction benefit is admissible only for foreign remittance through proper banking channel. (PSD 02 Dec 2019)

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"A SURVEY OF ECONOMIC SITUATION IN BANGLADESH"
January-June 2020

The survey of economic situation in Bangladesh incorporates movement of some of the major macroeconomic indicators of real, financial and external sector. This indicators help to understand the economic circumstances of Bangladesh. The overall situation of the economy of Bangladesh has been given below:

Monetary and Credit Situation

Narrow Money (M1)

During January-June 2020 narrow money stood at BDT 328263.90 crore and recorded an increase of 18.96 percent as compared to that of July-December 2019. It may be mentioned that it rose by 6.98 percent over January-June 2019 (Annexure-1).

Broad Money (M2)

At the end of June 2020 broad money stood at BDT 1373735.0 crore. It showed an increase of 6.13 percent during January-June 2020 as compared to the increase of 6.14 percent during July-December 2019. It may be mentioned that it rose by 5.56 percent during January-June 2019 (Annexure-1).

However, during January-June 2019 broad money increased because of the positive growth in demand deposits, time deposits and currency outside banks. Demand deposits increased by BDT 16793.90 crore or 14.07 percent and time deposits increased by BDT 26974.50 crore or 2.65 percent during January-June 2020. Currency outside banks also recorded an increase of BDT 35531.50 crore or 22.69 percent during this period. An analysis of the causative factors of the change in money supply revealed that net foreign assets increased by BDT 23209.70 crore or 8.47 percent, while net domestic assets of the banking system increased by BDT 56090.20 crore or 5.50 percent during the period under review (Annexure-1).

Domestic Credit

Total domestic credit recorded an increase of 5.40 percent during January-June 2020 as compared to the increase of 8.17 percent during July-December 2019. It may be mentioned that it rose by 6.16 percent during the same period of the previous year i.e. January-June 2019. The rise in domestic credit during the period under report can be attributed to the increase in credit to both public and private sector (Annexure-1).

Reserve Money

Reserve money recorded an increase of 13.53 percent during January-June 2020 as compared to the increase of 1.89 percent during July- December 2019. It may be mentioned that, this reserve money increased by 4.89 percent during January-June 2019 (Annexure-1).

Auctions of Government Treasury Bills

Twenty two (22) weekly auctions of each of the 14-Day, 91-Day, 182-Day and 364-Day Government Treasury Bills (TBs) were held during January-June 2020. In all, 2968 bids amounting BDT 131726.77 crore (face value) were offered in the auctions of which 1072 bids amounting BDT 59300.0 crore (face value) were accepted. Among all those bids only BDT 7269.92 crore was devolved on primary dealers and non primary dealers Bank. Bills worth of BDT 61700.0 crore were retired during the period under report and the outstanding balance of the bills stood at BDT 132300.0 crore at the end of June 2020. The weighted average yields of the accepted bids were ranged between 6.67-8.17 percent.

Auctions of Bangladesh Government Treasury Bonds (BGTBs)

Twenty one (21) weekly auctions of Bangladesh Government Treasury Bonds (BGTBs) were held during January-June 2020. In all, 2619 bids amounting BDT 93463.53 crore were offered in the auctions of which 1009 bids amounting BDT 42300.0 crore were accepted. Among those bids only BDT 9844.23 crore were devolved on Bangladesh Bank. Bonds worth of BDT 4880.0 crore were retired during the period under report and the outstanding balance of the bonds stood at BDT 408816.90 crore at the end of June, 2020. The weighted average yields of the accepted bids were ranged between 7.4753-9.1039 percent.

REPO Auctions

A total number of one hundred and three (103) auctions of REPO (Liquidity Support Facility & Special Repo) operations were held on daily basis

during January-June 2020. In all, 5369 bids of 1-3 Day, 7 Day, 14 Day and 28 Day tenor amounting BDT 399736.84 crore were received in these auctions, of which all the bids were accepted. The interest rates of the accepted bids were ranged between 5.25-9.0 percent per annum during the period under report.

Reverse REPO Auctions

No auction of Reverse REPO operation was held on daily basis during January-June 2020 period.

Auctions of Bangladesh Bank Bills

7-Day Bangladesh Bank Bills:

No auction of 7-Day Bangladesh Bank Bills (BB Bill) was held during January-June 2020.

14-Day Bangladesh Bank Bills:

No auction of 14-Day Bangladesh Bank Bills (BB Bill) was held during January-June 2020.

30-Day Bangladesh Bank Bills:

No auction of 30-Day Bangladesh Bank Bills (BB Bill) was held during January-June 2020.

Revenue Receipts under National Board of Revenue (NBR): January-June 2020

The revised revenue collection target under the National Board of Revenue (NBR) for 2019-20 has been set at BDT 3,00,500 crore, which is 7.71 percent lower than the initial target of revenue collection set for NBR.

Following this target, the total revenue collection by NBR during January-June 2020 stood at BDT 113,247.59 crore which is 37.7 percent of the revised annual target. The collection by NBR during this period is 7.69 percent higher than BDT 105161.35 crore during July-December 2019 but 10.1 percent lower than BDT 125969.14 crore collected during January-June 2019 of the previous year.

Reviewing the revenue collection situation, it can be seen that, a total of BDT 29,128.42 crore from duty from import and export stage, BDT 43,761.69 crore from VAT (domestic) and BDT 40,357.48 crore from income and travel tax was collected this period.

Collection from income and travel tax experienced 0.14 percent growth during the period of discussion over the same period of the previous fiscal year. On the counterpart, duty from import and export stage as well as VAT (domestic) experienced 4.46 and 2.67 percent negative growth during the period of discussion over the same period of the preceding fiscal year.[1]

Agricultural Credit

The annual agricultural credit disbursement target has fixed at BDT 24124.0 crore for FY20 which was 10.66 percent higher than BDT 21800.0 crore targeted in FY19. Agricultural credit disbursement by all banks stood at BDT 11948.23 crore during January-June 2020, which was 10.62 percent higher than that of July-December 2019. During January-June 2019, disbursement of agriculture credit stood at BDT 13384.84 crore, which was 10.73 percent higher than that of the reporting period, January-June 2020. The Recovery of agricultural credit stood at BDT 9745.11 crore during January-June 2020, which was 15.26 percent lower than that of July-December 2019. During January-June 2019, recovery of agriculture credit stood at BDT 12341.08 crore, which was 21.04 percent higher than that of the reporting period, January-June 2020. Outstanding balance (including interest) of agricultural credit stood at BDT 45592.86 crore at the end of June 2020, which was 6.09 percent higher than BDT 42974.29 crore at the end of June 2019.

Inflation Situation

General inflation (Twelve month average basis) at the national level stood at 5.65 percent in at the end of June 2020 compared to 5.59 percent in December 2019 and 5.48 percent in June 2019. On the other hand, point-to-point (p to p) general CPI inflation at the national level stood at 6.02 percent at the end of June 2020, which was 5.75 percent in December 2019 and 5.52 percent in June 2019.

Average food inflation at the national level stood at 5.52 percent at the end of June 2020, which was 5.56 percent in December 2019 and 5.51 percent in June 2019. Point-to-point food inflation at the national level stood at 6.54 percent in June 2020 compared to 5.88 percent in December 2019 and 5.40 percent in June 2019.

[1] Source: Provisional Statement of revenue collection up to June'20 of FY20, National Board of Revenue (NBR)

Average non-food inflation at the national level stood at 5.85 percent in June 2020, which was 5.64 percent in December 2019 and 5.42 percent in June 2019. Non-food inflation measured by point to point basis at the national level was 5.22 percent at the end of June 2020 compared to 5.55 percent in December 2019 and 5.71 percent in June 2019.

Food Situation

The target for food grains production for FY20 was set at 399.69 lakh metric tons, which was 6.85 percent higher than the actual production 374.08 lakh metric tons in FY19.

For FY20, the target for total government import of food grains in the country was set at 5.03 lakh metric tons, which was 7.54 percent lower than 5.44 lakh metric tons imported by government during FY19. Import of food grains during January-June 2020 stood at 33.43 lakh metric tons against 30.95 lakh metric tons imported during July-December 2019 and 32.0 lakh metric tons during January-June 2019.

The target for domestic procurement of food grains during FY20 was fixed at 22.69 lakh metric tons, which was 6.05 percent lower than 24.15 lakh metric tons actual procurement during FY19. Procurement of food grains during January-June 2020 stood at 11.35 lakh metric tons against the procurement of 7.36 lakh Metric Tons during July-December 2019 and 13.13 Lakh metric tons during January-June 2019.

Government distribution of food grains for FY20 was targeted at 31.03 lakh metric tons, which was higher by 19.62 percent than 25.94 lakh metric tons distributed during FY19. Distribution of food grains during January-June 2020 stood at 15.39 lakh metric tons against the distribution of 12.38 lakh metric tons during July-December 2019 and the distribution of 12.86 lakh metric tons during January-June 2019.

The actual food grains Stock at the end of June 2020 stood at 11.20 lakh metric tons against the stock of 14.29 lakh metric tons at the end of December 2019 and the stock of 16.74 lakh metric tons at the end of June 2019.

Stock Exchange Activities

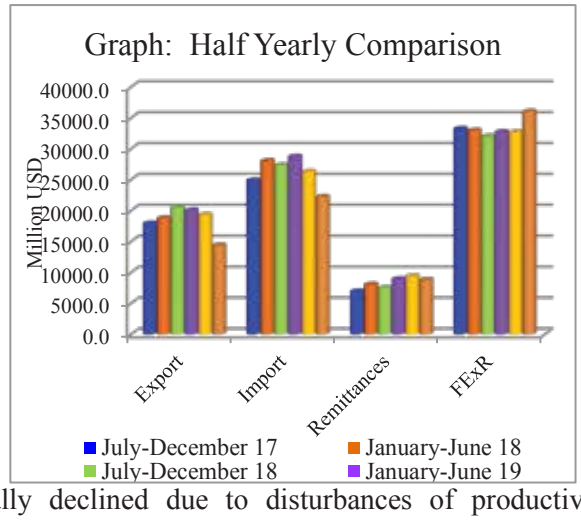
In the Dhaka Stock Exchange Ltd. (DSE), the total number of listed securities stood at 589 at the end of June 2020. During the period January-June 2020, a total of 10813.44 million shares and debentures worth BDT 32069.07 crore were traded as against 15216.99 million shares and debentures worth BDT

45973.7 crore during July-December 2019. It was 28.94 percent lower in volume and 30.24 percent lower in value than that of the preceding period. The market capitalization of DSE stood at BDT 311966.98 crore at the end of the period under report, which was 8.12 percent lower than BDT 339551.06 crore at the end of the preceding period. The All Share Price Index of DSE stood at 3989.09 points at the end of June 2020, which was 10.42 percent lower than 4452.93 points at the end of December 2019.

In the Chittagong Stock Exchange Ltd. (CSE), the total number of listed securities stood at 331 at the end of June 2020. During the period January-June 2020, a total of 676.85 million shares and debentures worth BDT 2469.64 crore were traded as against 998.53 million shares and debentures worth BDT 2838.17 crore during the preceding six months. It was 32.22 percent lower in volume and 13 percent lower in value than that of the preceding period. The market capitalization of CSE stood at BDT 244756.71 crore at the end of the period under report, which was 15.3 percent lower than that of BDT 288887.6 crore at the end of the preceding period. The All Share Price Index of CSE stood at 11332.59 points at the end of June 2020, which was 16.1 percent lower than that of 13505.70 points at the end of December 2019.

Exports, Imports, Remittances and Foreign Exchange Reserves

The position of export, import, remittance and foreign exchange reserve of Bangladesh for the period of January-June 2020 is discussed below:



Export earnings stood at USD 14371.9 million during January-June 2020 which significantly decreased by 25.5 percent and 28.3 percent compared to the preceding period and the same period of the previous year respectively. With the effect of global COVID-19 pandemic, country's total export earnings during January-June 2020 dramatically declined due to disturbances of productive activities specially in the RMG sector and receipt of fewer number of work orders from foreign buyers.

In January-June 2020, import payments drastically declined by 15.5 percent and stood at USD 22215.3 million compared to the previous period and 22.6 percent than the same period of the preceding year. It was partially caused due to the decrease in the import payments of clinker, crude petroleum, petroleum products, chemicals, pharmaceutical products, fertilizers, dyeing & tanning materials, plastic & rubber articles, cotton, yarn, textile & articles, staple fibres, iron & steel and capital machinery etc.

Remittance earnings of the country stood at USD 8797.1 million during January-June 2020 which was both decreased by 6.5 percent and 1.4 percent compared to the previous period and the same period of the preceding year respectively. During the period, the remittance came from KSA, USA, UAE, UK, Kuwait, Malaysia, Oman and other countries.

At the end of June 2020, foreign exchange reserve of the country stood at USD 36037.0 million which is 10.2 percent higher than USD 32689.2 million of December 2019. It may be mentioned that it was USD 32716.5 million at the end of June 2019. The half-yearly data of the country's foreign exchange reserve, export, import and remittances are shown in Annexure-2.

Some Important Policy Measures (January-June 2019)

A. Policy Announcements on Banking and Financial Sector Development

February 2019	Banks are now allowed to write off the default loans, recovery of which remained suspended for long time and with no chances of recovery in near future that have been hovering in the bad/loss category consecutively for three years or more according to the policy. Besides, lenders do not have to file any law suit with the Artha-Rin-Adalat (Money Loan Court) to write off a delinquent loan worth BDT 2 lakh. After deducting interest suspense from the corresponding loan/investment account, the rest entire outstanding balance would be then maintained as provisions. No loan/investment can be partially written-off. At the same time, written-off loan/investment cannot be rescheduled or restructured as well.
February 2019	Scheduled banks in Bangladesh will have to invest at least 75 percent of the outstanding amount of the offshore financing in the country, according to the policy introduced by the central bank. Foreign entities with presence in Bangladesh and abroad are eligible to borrow foreign currency loans from the Offshore Banking Units (OBUs). Besides, local enterprises located at economic zones, export processing zones, private export processing zones, and hi-tech parks can take loans from the units. OBUs will have to mobilize major funds from external sources and will not be allowed to collect more than 20 percent of their regulatory capital from domestic banking operation.
March 2019	A person exceeding 65 years is not allowed to be appointed or posted in the financial institutions. But in case of special necessity, a person exceeding 65 years can be appointed or posted on contractual basis in the post of counselor and adviser. All other financial institutions will follow state-owned commercial banks and financial institutions in formulating policy for retirement age for regular employees.

March 2019	Government of the people's republic of Bangladesh has constituted a loan fund in Bangladesh Bank to support the RMG factories through medium to long term finance under the "Program to Support Safety Retrofits and Environmental Upgrades in the Bangladeshi Ready-Made Garments (RMG) Sector Project (SREUP)" sponsored by AFD (Agence Française de Développement) The loan fund size of the project is EUR 50 million and the total fund size for Technical Assistance (TA) is EUR 14.29 million.
May 2019	Bangladesh Bank has decided to provide Agricultural loan facility to the farmers affected by recent cyclone and subsequent tidal bore caused by Fani. To facilitate the decision, banks are guided to strengthen and intensify disbursement of agricultural loan activities to the affected areas. They are also instructed to suspend and delay loan recovery from the affected farmers for one year, relax down payment condition for rescheduling previous loan and disbursing fresh loan without harassment within shortest possible time.
May 2019	Transaction limit through Mobile Financial Services (MFS) has been revised. From now on, a maximum of BDT 30,000 can be deposited (Cash-in) into an MFS account in a day. The monthly transaction ceiling has been fixed to BDT 2 lakh. An individual can now deposit money into his/her account five times a day. In a month, he/she can deposit 25 times. The daily withdrawal limit (Cash-out) is determined to BDT 25,000 and monthly ceiling to BDT 1.50 lakh. A person can withdraw money from an account maximum five times a day, twenty times a month. For account-to-account transfers (P2P), the ceiling has been raised to BDT 25,000 daily and to BDT 75,000 monthly. A person can maintain maximum BDT 3 lakh in his mobile account. However, the ceiling is not applicable to other mobile banking services like-P2B, B2P, G2P, B2B, merchant payment, online and e-commerce payments.

	activities of the conventional banks is also augmented by 2 percentage point from previous 90 percent and fixed at 92 percent.
April 2020	Bangladesh government announced a financial stimulus package worth BDT 300 billion for the worst affected institutions of industrial and service sector to mitigate probable economic impacts due to break out of the COVID-19. Under the package, the said institutions shall avail of working capital loan/investment facility from the banks against their own fund. The rate of interest is set at maximum 9 percent, of which 4.5 percent interest shall be borne by the borrower and the rest 4.5 percent shall be subsidized to the participating bank by the government. The tenure of the package is three years but the maturity of the loan/investment is one year.
April 2020	Bangladesh government announced a special incentive package worth BDT 200 billion for the badly affected entrepreneurs of Cottage, Micro, Small and Medium Enterprise due to COVID-19 pandemic to revive the sector. Entrepreneurs shall avail of working capital loan/investment facility from the banks and financial institutions. Interest rate for the facility shall be maximum 9 percent under the package, out of which borrower shall pay 4 percent interest and the government shall pay the rest 5 percent interest as subsidy to the related bank or financial institution. The tenure of the package is set at three years
April 2020	A refinance scheme worth BDT 50 billion is constructed for providing working capital in the agriculture sector (horticulture, pisciculture, poultry, dairy and livestock sectors) to combat the probable loss in this sector emerged from the COVID-19 pandemic. The fund under concern shall be financed from the own source of Bangladesh Bank. And the title of the scheme shall be “Special Simulative Refinance Scheme in Agriculture Sector.” Participating banks shall enjoy one percent refinance facility from Bangladesh Bank and the rate of interest at the customer level shall be four percent.

April 2020	A refinance scheme titled "Refinance Scheme for Professionals, Farmers and Marginal/Small businessman of low income, 2020" is constructed by Bangladesh Bank. The refinance scheme worth BDT 30 billion shall be financed from the own source of Bangladesh Bank. The tenure of the scheme is fixed at three years. Bangladesh Bank shall charge one percent interest against the refinance to the financing banks, whereas financing banks shall realize 3.5 percent interest against their finance to the microcredit institutions.
April 2020	A refinance scheme worth BDT 150 billion is constructed by Bangladesh Bank from its own source for providing working capital loan/investment facilities in large industrial and service sector. The title of the scheme is "Refinance Scheme for providing working capital loan/investment facilities in large industrial and service sector." The tenure of the scheme is set at 3 years. The rate of interest shall be 4 percent on quarterly basis.
April 2020	Bangladesh Bank constructed a revolving refinance scheme of 100 billion from its own source for CMSME sector to provide working capital facility to the Entrepreneurs to minimize the effect of corona virus pandemic in this sector. The tenure of the scheme is estimated at three years. The rate of interest for the refinance scheme is four percent on quarterly basis.
April 2020	Scheduled banks are instructed to provide loans in agricultural products such as paddy, wheat, grain/crop corn, cash crop, vegetables etc along with import substitute products at 4 percent concessional rate to ensure smooth supply of these products in coming days. The tenure of the scheme is from April 01, 2020 to June 30, 2021 and the rate of interest at the farmer level is maximum 4 percent. Banks shall avail of 5 percent interest-loss reimbursement facilities against their disbursed loans from Bangladesh Bank.
April 2020	Refinance scheme for environment–friendly products is revised as "Refinance Scheme for Green Products /Initiatives /Projects" and the size of the fund of this scheme is enhanced to BDT 4 billion from that of BDT 2 billion to support the

	increasing demand of this sector. Under the scheme, the fund is allowed to disburse only against term loans. Bangladesh bank shall charge interest rate at bank rate against the finance to participatory banks and banks shall charge interest rate varied from 7 to 8 percent at customer level depending on the term of the loan.
May 2020	Scheduled banks are directed to transfer attributed/attributable interest from 01 April 2020 to 31 May 2020 to non-interest bearing blocked account considering the business situation due to break out of the COVID-19. And interest transferred to blocked account is not allowed to be realized from the debtor and is also barred from transferring to income account of the banks until further notice. If already transferred, then it must be adjusted trough reverse entry.
May 2020	Scheduled banks, mobile financial service providers and Directorate of Posts are instructed to provide constant and undisrupted service to materialize the government decision to disburse cash assistance for 5 million distressed families through Mobile Financial Service (MFS). Each family is entitled to receive BDT 2500 under this cash assistance from the government.

B. Policy Announcements on Monetary Sector Development

March 2020	The existing Repo interest rate of Bangladesh Bank is reduced by 25 basis points and re-fixed at 5.75 percent from that of 6.0 percent while Reverse Repo rate will remain unchanged at 4.75 percent. This instruction will be effective from March 24, 2020.
April 2020	The existing repo interest rate of Bangladesh Bank is reduced by 50 (Fifty) basis point from annual 5.75 percent and is re-fixed at 5.25 percent effective from April 12, 2020.

C. Policy Announcements on External Sector Development

January 2020	The exporter-producer of locally produced readymade garments (RMG)/textile products (like-Teri-towel and specialized textile) shall be privileged with 1 (one) percent special cash assistance on net FOB value against their export admissible in the fiscal year 2019-2020. The facility is equally admissible for the Type-C institutions under local ownership located in specialized zones (EPZ, EZ) against their export in the EU, USA and Canada. The said privilege and duty draw-back/ bond privilege are allowed to be simultaneously availed. If any irregularity is, however, found in providing the facility, the fund is realizable by debiting the payee-bank account maintained with the Bangladesh Bank. And punitive measures shall be initiated against the officials implicated with irregularities, if proven.
January 2020	The limit to remit with international card facility by the Authorized Dealers (ADs)on behalf of IT/Software firms who are members of BASIS, for meeting bonafide current payment needs, is enhanced to USD 40,000 in a calendar year from USD 30,000. Within the limit of USD 40,000, international cards may be issuable for USD 8,000 instead of USD 6,000 which may be refilled subject to availability of the limit and observance of specified formalities.
January 2020	Subject to the compliance of the regulations followed in foreign currency transactions by the importers, all the head offices/ principal offices of the authorized dealer banks are instructed to initiate letters of credit and provide all necessary support to the importers for the uninterrupted, prompt and speedy supply of the essential commodities (onion, garlic, lentils, chickpeas, dried chilies, cinnamon/cassia, clove, cardamom, seeds of coriander, seeds of cumin, ginger, turmeric, bay leaves, edible soya bean oil, edible palm oil, sugar and edible salt, excluding beet salt) in the local market.
January 2020	Stamp duty is not attributable to the exporters of bill of exchange against deferred/usance export bills as per the Stamp Act, 1899. So, the stamp duty on the deferred export

	bill of exchange at the rate of 0.2 percent formerly levied on exporters is waived.
February 2020	The limit of foreign currency brought in without declaration to the Custom Authorities and taken out while proceeding abroad by a concerned person is enhanced to USD 10,000 or its equivalent from USD 5,000 or its equivalent.
February 2020	The limit to borrow maximum USD 15.0 million by the Authorized Dealers (ADs) from EDF against their foreign currency financing to manufacturer-exporters for input procurement is enhanced to USD 20.0 million for member mills of BKMEA.
March 2020	Authorized Dealers (ADs) are allowed to effect advance payment up to USD 500,000.0 or equivalent to other foreign currency without repayment guarantee for import of corona virus related life-saving drugs, medical kits/equipment and other essential medical items. This instruction will be valid till September 30, 2020.
April 2020	Interest rates on EDF loans to Authorized Dealers (ADs) will be charged by Bangladesh Bank at 1.0 percent per annum, while ADs will charge interest to manufacturer-exporters at 2.0 percent per annum; for disbursements until further instructions. The size of EDF has been enhanced to USD 5 billion.
April 2020	Bangladesh Bank introduced a refinance scheme titled "Refinance Scheme for Pre-shipment Credit" worth BDT 50 billion from its own source for the locally produced export oriented industries to fight the crisis in this sector arisen from the COVID-19 pandemic. The tenure of the scheme is three years. The rate of interest at the customer level is 6 percent, of which Bangladesh bank shall charge 3 percent interest rate to the banks for the refinance facility. The maturity of the loan shall be one year.
May 2020	Loan limit from Export Development Fund (EDF) has been enhanced from existing limit of USD 25 million to USD 30 million for refinancing from EDF to ADs against their foreign currency financing, for input procurement to member mills of BGMEA and BTMA.

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"A SURVEY OF ECONOMIC SITUATION IN BANGLADESH" July-December 2020

The survey of economic situation in Bangladesh incorporates movement of some of the major macroeconomic indicators of real, financial and external sectors. These indicators help to understand the economic circumstances of Bangladesh. Despite the Covid-19 pandemic situation in this period, the economy of Bangladesh shows resiliency due to better export earnings and huge remittance inflows which pushed foreign exchange reserves to a record high. However, food inflation rose to 5.77 percent at the end of December 2020 due to lockdown and mobility restrictions to contain the pandemic.

Monetary and Credit Situation

Narrow Money (M1)

During July-December 2020 narrow money recorded an increase of BDT 8120.3 crore or 2.47 percent as compared to the increase of 18.96 percent during January-June 2020. However, it stood at BDT 336384.20 crore in December 2020. In addition, it may be mentioned that it rose by 0.97 percent in July-December 2019 (Annexure-1).

Broad Money (M2)

At the end of December 2020 broad money stood at BDT 14,78,684.50 crore. It showed an increase of 7.64 percent during July-December 2020 as compared to the increase of 6.13 percent during January-June 2020.It may be mentioned that broad money rose by 6.14 percent during July-December 2019(Annexure-1).

Furthermore, during July-December 2020 broad money increased because of the positive growth in demand deposits, time deposits and currency outside banks. Demand deposits increased by 12,771.90 crore or 9.38 percent, while time deposits increased by 96,829.0 crore or 9.26 percent. An analysis of the causative factors of the change in money supply revealed that net foreign assets increased by BDT 59,640.60 crore or 20.06 percent and net domestic assets increased by BDT 45,308.90 crore or 4.21 percent during July-December

2020. The positive growth in net foreign assets is the major factor of the positive growth in broad money during the period under report (Annexure-1).

Domestic Credit

Total domestic credit recorded an increase of 4.28 percent during July-December 2020 as compared to the increase of 5.40 percent during January-June 2020. In addition, it may be mentioned that it rose by 8.17 percent during the same period of the previous year. Both public sector and private sector credit contributed to the rise in the domestic credit in the period under report (Annexure-1).

Reserve Money

Reserve money recorded an increase of 6.85 percent during July-December 2020 as compared to the increase of 13.53 percent during January-June 2020. In addition, it may be mentioned that, this reserve money grew by 1.89 percent during July-December 2019 (Annexure-1).

Auctions of Government Treasury Bills

Twenty four (24) weekly auctions of each of the 14-day, 91-Day, 182-Day and 364-Day Government Treasury Bills (TBs) were held during July-December 2020. In all, 2851 bids amounting BDT 2,00,763.57 crore (face value) were offered in the auctions of which 803 bids amounting BDT 62,700.0 crore (face value) were accepted. Among all those bids BDT 1,120.15 crore were devolved on primary dealers and non-primary dealers Bank. Bills worth of BDT 69,800.0 crore were retired during the period under report and the outstanding balance of the bills stood at BDT 1,27,300.0 crore at the end of December 2020. The weighted average yields of the accepted bids were ranged between 0.49-6.44 percent.

Auctions of Bangladesh Government Treasury Bonds (BGTBs)

Twenty three (23) auctions of Bangladesh Government Treasury Bonds (BGTBs) were held during July-December 2020. In all, 2471 bids amounting BDT 1,45,817.95 crore were offered in the auctions of which 714 bids amounting BDT 43750.0 crore were accepted. Among all those bids only BDT 3,379.11 crore were devolved on Bangladesh Bank. Bonds worth of BDT 11,050.0 crore were retired during the period under report and the outstanding balance of the bonds stood at BDT 4,83,536.90 crore at the end of December, 2020. The weighted average yields of the accepted bids were ranged between 3.2842-8.1324 percent.

REPO Auctions

A total number of thirty nine (39) auctions of REPO (Liquidity Support Facility & Special Repo) operations were held on daily basis during July-December 2020. In all, 719 bids of 1-4 Day, 7-Day, 14-Day and 28-Day tenor amounting BDT 32,977.33 crore were received in these auctions of which all the bids were accepted. The interest rates of the accepted bids were ranged between 4.75-5.50 percent per annum during this period.

Reverse REPO Auctions

No auction of Reverse REPO operation was held on daily basis during July-December 2020period.

Auctions of Bangladesh Bank Bill

7-Day Bangladesh Bank Bills:

No auction of 7-Day Bangladesh Bank Bills (BB Bill) was held during July-December 2020.

14-Day Bangladesh Bank Bills:

No auction of 14-Day Bangladesh Bank Bills (BB Bill) was held during July-December 2020.

30-Day Bangladesh Bank Bills:

No auction of 30-Day Bangladesh Bank Bills (BB Bill) was held during July-December 2020.

Revenue Receipts under National Board of Revenue (NBR): July-December 2020

The revised revenue collection target under the National Board of Revenue (NBR) for 2020-2021 has been set at BDT 3,01,000 crore, which is 8.79 percent lower than the initial target of revenue collection set for NBR.

Following this target, the total revenue collection by NBR during July-December 2020 stood at BDT 11,0433.96 crore which is 36.7 percent of the revised annual target. The aforementioned collection by NBR during this stated period is 2.48 percent lower than BDT 11,3247.59 crore collected during

January-June 2020 but 5.0 percent higher than BDT 10,5161.35 crore collected during July-December 2019 of the previous fiscal year.

Reviewing the revenue collection situation, it can be seen that during the period under discussion, revenue from import, VAT and Supplementary duty at import level amounted to BDT 13,177.16 crore, 16,706.57 crore and 3,759.39 crore respectively. A total of BDT 1,311.98 crore from excise duty, BDT 27,856.44 crore from VAT (domestic) and BDT 13,031.36 crore from Supplementary duty (domestic) was collected during this period.

On the other hand, revenue collection from income tax and travel tax amounted to BDT 34,151.43 crore and BDT 111.99 crore respectively.

Collection from supplementary duty experienced the highest growth during the period under report over the same period of the previous fiscal year, which is 16.74 percent. On the counterpart, revenue from travel tax fall by 79.82 percent in this period under discussion.[1]

Agricultural Credit

The annual agricultural credit disbursement target has fixed at BDT 26,292.0 crore for FY21 which was 8.99 percent higher than BDT 24,124.0 crore targeted in FY20. During July-December 2020, the achievement was 45.94 percent of the disbursement target for FY21. Agricultural credit disbursement by all banks stood at BDT 12,077.98 crore during July-December 2020, which was 1.09 percent higher than that of January-June 2020. During July-December 2019, disbursement of agriculture credit stood at BDT 10,800.80 crore, which was 11.82 percent lower than that of the reporting period, July-December 2020.Total recovery of agricultural credit stood at BDT 14,091.07 crore during July-December 2020, which was 44.60 percent higher than that of January-June 2020. During July-December 2019 recovery of agriculture credit stood at BDT 11,500.13 crore, which was 22.53 percent lower than that of the reporting period, July-December 2020. Outstanding balance (including interest) of agricultural credit stood at BDT 44,089.09 crore at the end of December 2020, which was 2.47 percent higher than BDT 43,026.40 crore at the end of December 2019.

[1]Source: Provisional Statement of revenue collection up to December'20 of FY21, National Board of Revenue (NBR)

Inflation Situation

General (twelve month average basis) CPI inflation at the national level stood at 5.69 percent at the end of December 2020 compared to 5.65 percent in June 2020 and 5.59 percent in December 2019. On the other hand, point-to-point (p to p) general CPI inflation at the national level stood at 5.29 percent at the end of December 2020, which was 6.02 percent in June 2020 and 5.75 percent in December 2019.

Average food inflation at the national level stood at 5.77 percent at the end of December 2020, which was 5.52 percent in June 2020 and 5.56 percent in December 2019. Point-to-point food inflation at the national level stood at 5.34 percent in December 2020 compared to 6.54 percent in June 2020 and 5.88 percent in December 2019.

Average non-food inflation at the national level stood at 5.56 percent in December 2020, which was 5.85 percent in June 2020 and 5.64 percent in December 2019. Non-food inflation measured by point to point basis at the national level was 5.21 percent at the end of December 2020 compared to 5.22 percent in June 2020 and 5.55 percent in December 2019.

Food Situation

The target for food grains production for FY21 was set at 395.53 lakh metric tons, which was 5.10 percent higher than the actual production 376.32 lakh metric tons in FY20.

The target for total government import of food grains for FY21, in the country was set at 15.68 lakh metric tons, which was 269.63 percent higher than 4.36 lakh metric tons imported by government during FY20. Total import of food grains during July-December 2020 stood at 26.06 lakh metric tons against 33.43 lakh metric tons imported during January-June 2020 and 30.95 lakh metric tons during July-December 2019.

The target for domestic procurement of food grains during FY21 was fixed at 14.04 lakh metric tons, which was 24.96 percent lower than 18.71 lakh metric tons actual procurement during FY20. Procurement of food grains during July-December 2020 stood at 5.99 lakh metric tons against the procurement of 11.35 lakh metric tons during January-June 2020 and 7.36 lakh metric tons during July-December 2019.

Government distribution of food grains for FY21 was targeted at 24.53 lakh metric tons, which was higher by 11.67 percent and lower than 27.77 lakh metric tons distributed during FY20. Distribution of food grains during July-December 2020 stood at 12.29 lakh metric tons against the distribution of 15.39 lakh metric tons during January-June 2020 and the distribution of 12.38 lakh metric tons during July-December 2019.

The actual food grains stock at the end of December 2020 stood at 7.71 lakh metric tons against the stock of 11.20 lakh metric tons at the end of June 2020 and the stock of 14.29 lakh metric tons at the end of December 2019.

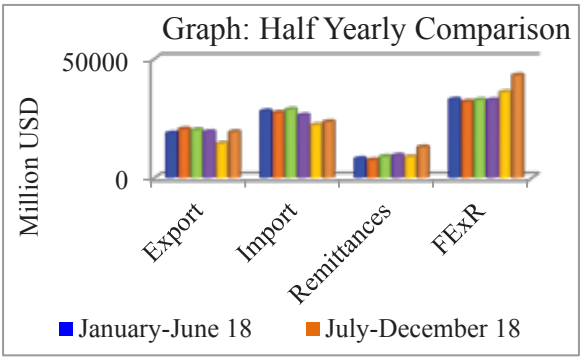
Stock Exchange Activities

In the Dhaka Stock Exchange Ltd. (DSE), the total number of listed securities stood at 597 at the end of December 2020. During the period July-December 2020, a total of 38156.61 million shares and debentures worth BDT 1,02,912.16 crore were traded as against 10813.44 million shares and debentures worth BDT 32,069.07 crore during January-June 2020.It was 252.9 percent higher in volume and 220.9 percent higher in value than that of the preceding period. The market capitalization of DSE stood at BDT 4,48,230.1 crore at the end of the period under report, which was 43.67 percent higher than BDT 3,11,967 crore at the end of the preceding period. The All Share Price Index of DSE stood at 5402.07 points at the end of December 2020, which was 35.42 percent higher than 3,989.09 points at the end of June 2020.

In the Chittagong Stock Exchange Ltd. (CSE), the total number of listed securities stood at 338 at the end of December 2020. During the period July-December 2020, a total of 1514.45 million shares and debentures worth BDT 3,703.21 crore were traded as against 676.85 million shares and debentures worth BDT 2,469.64 crore during the preceding six months. It was 123.75 percent higher in volume and 49.95 percent higher in value than that of the preceding period. The market capitalization of CSE stood at BDT 3,75,494.84 crore at the end of the period under report, which was 53.42 percent higher than that of BDT 2,44,756.71 crore at the end of the preceding period. The All Share Price Index of CSE stood at 15592.92 points at the end of December 2020, which was 37.59 percent higher than that of 11332.59 points at the end of June 2020.

Exports, Imports, Remittances and Foreign Exchange Reserves

Key components of external sector of a country are export, import, remittance and foreign exchange reserve. The positions of these components of external sector of Bangladesh for the period of July-December 2020 are discussed below:



Export earnings stood at USD 19,233.5 million during July-December 2020 which increased by 33.8 percent compared to USD 14371.9 million in preceding period. The yearly trend of export mainly changed due to increase in the export of engineering products, jute & jute goods**,** home textile, chemical products and agricultural products etc.

In July-December 2020*,* import payments increased by 6.1 percent and stood at USD 23,563.4 million compared to previous period but 10.4 percent lower than the same period of the preceding year. It was partially caused due to the decrease in import payments of rice, spices, sugar crude petroleum, chemicals, pharmaceutical products, fertilizers, dyeing & tanning materials, plastic & rubber articles, yarn textile & articles, iron & steel and capital machinery etc.

Remittance earnings of the country stood at USD 12,944.8 million during July-December 2020 which increased by 47.1 percent and 37.6 percent compared to the previous period and the same period of the preceding year respectively. During the period, the large amount of remittance inflow received from KSA, USA, UAE, Malaysia, Kuwait, UK and other countries.

At the end of December 2020, foreign exchange reserve of the country stood at USD 43,166.5 million which is 19.8 percent higher than USD 36037.0 million of June 2020. It may be mentioned that it was USD 32689.2 million at the end of December 2019. The half-yearly data of the country's export, import remittances and foreign exchange reserves are in Annexure-2.

Some Important Policy Measures (July-Dec 2020)

A. Policy Announcements on Banking and Financial Sector Development

July 2020	All the scheduled banks operating in Bangladesh are advised to implement/disburse the lion's share of the loans/investments stimulus packages introduced/declared by Bangladesh Bank by July 2020 and the remaining share by August 2020 through their fruitful efforts.
July 2020	All the scheduled banks operating in Bangladesh are advised to open 10-BDT -deposit bank accounts based on the information available on national ID card or smart card and certification by Upazila Nirbahi Officer (UNO) favoring those beneficiaries who have no mobile phone or for whom it is not possible to open mobile financial service account. Moreover, payment of cash has to be made through debit voucher to the beneficiaries who do not have a cheque book. The beneficiaries who already have an account with the bank need not open new accounts. (FID Circular No. 02 July 06, 2020)
July 2020	Any Continuous Loan if not repaid/renewed within the fixed expiry date for repayment or after the demand by the bank will be treated as past due/overdue from the following day of the expiry date. Any Demand Loan if not repaid within the fixed expiry date for repayment or after the demand by the bank will be treated as past due/overdue from the following day of the expiry date. Whereas, in case of any installment(s) or part of installment(s) of a Fixed Term Loan is not repaid within the fixed expiry date, the amount of unpaid installment(s) will be treated as past due/overdue after six months of the expiry date. If a Continuous Loan, Demand Loan, Fixed Term Loan or any installment(s)/part of installment(s) of a Fixed Term Loan remain(s) past due/overdue for a period of 6 (six) months or beyond but

	less than 18 (eighteen) months, the entire loan will be classified as "Sub-standard (SS)". If a Continuous Loan, Demand Loan, Fixed Term Loan or any installment(s)/part of installment(s) of a Fixed Term Loan remain(s) 61 past due/overdue for a period of 18 (eighteen) months or beyond but less than 30 (thirty) months, the entire loan will be classified as "Doubtful (DF)". If a Continuous loan, Demand loan, Fixed Term Loan or any installment(s)/part of installment(s) of a Fixed Term Loan remain(s) past due/overdue for a period of 30 (thirty) months or beyond, the entire loan will be classified as "Bad/Loss (B/L)". Provision for Cottage, Micro and Small credits under CMSME shall be : a) Classified as 'Sub-standard': 5% b) Classified as 'Doubtful': 20% c) Classified as 'Bad/Loss' : 100%. d) All unclassified credits : 0.25% (BRPD Circular No. 16 July 21, 2020)
July 2020	Bangladesh Bank launched a Credit Guarantee Scheme for Cottage, Micro and Small Enterprises (CMS) to salvage the adversely COVID-19-pandemic-hit CMS sector. The credit guarantee scheme shall give coverage to the scheduled banks and financial institutions against their collateral-free loans and investment in CMS sector. The scheme shall be provided through the Credit Guarantee Scheme (CGS) Unit under SME and Special Program Department of Bangladesh Bank. The said scheme is applicable only for the working capital loans and investment in CMSME sector under BDT 200 billion stimulus package. Interested scheduled banks and financial institutions will have to sign an Agreement of Participation for 5 (Five) years with the CGS unit of Bangladesh Bank to avail the benefit. Under the agreement, CGS unit shall provide portfolio guarantee against CMS portfolio. The required fund for the scheme shall be financed jointly by the Government and the Bangladesh Bank. (SMESPD Circular No. 03 July 27, 2020)

September 2020	The transaction limit in Internet Banking Fund Transfer (IBFT) through National Payment Switch Bangladesh (NPSB) is revised. The maximum limit of transaction in individual level is set at BDT 5 lakh per day with maximum 10 transactions. The maximum limit of a single transaction is fixed at BDT 1 (one) lakh per day. For that of institution entity, the upper limit of transaction per day is set at BDT 10 lakh per day, with provision of maximum 20 transactions and no transaction exceeding the limit of BDT 2 lakh per day. (PSD Circular Letter No. 11 September 06, 2020)
September 2020	The rate of interest/profit on credit cards is not anyhow allowed to set above 20 percent. The rate of interest/profit on credit cards is attributable from the very next day of the last date of bill payment on the unpaid bill amount. In this regard, interest is in no way allowed to be imposed from the date of transaction. Except that of 50 percent cash-withdrawal-loan facility against the credit cards, no other cash-withdrawal-loan facilities are allowed to be provided to the card holders. For late payment, a late fee can be realizable only for once. (BRPD Circular Letter No. 47 September 24, 2020)
September 2020	Loan/investment-classification status that occupied on 01 January 2020 cannot be declassified till 31 December 2020 even if the standard degrades. By the time, however, if classification status of a loan/investment upgrades, that loan/investment can be classified following proper norms. (BRPD Circular No. 17 September 28, 2020)
October 2020	To inform customers properly, Mobile Financial Services (MFS) are advised to display information on the type of service offered, the amount of applicable service charge/tariffs and if applicable, the schedule of charges and Frequently Asked Question (FAQ) on their website and applications for the information of the customer, before offering any type of service for delivery. In case of any change in the type of service and service charge/tariffs, the MFS providers have to inform the changes to the customer by advance notification. (PSD Circular Letter No. 12 October 15, 2020)

October 2020	Concerned banks should apply to Accounts and Budgeting Department of Bangladesh Bank for interest/profit subsidies with a permission letter from Banking Regulations and Policy Department of Bangladesh Bank after charging interest/profit on the loan/investment under stimulus packages and realizing, borrowers/investors share of the interest/profit within next twelve (12) working days following the end of the corresponding quarter. (BRPD Circular Letter No. 51 October 18, 2020)
October 2020	Banks have to maintain 2% general provision against unclassified loans of all categories under consumer financing excluding house finance. In case of house finance, the required rate of general provision will remain same (i.e. 1%) as before. (BRPD Circular Letter No. 52 October 20, 2020)
November 2020	Under the Refinance Scheme for the COVID-19 affected low-income professionals, farmers and holders of small and marginal businesses, a microcredit institution is allowed to avail of financing facility from a maximum of 3 (three) different banks. In case of availing financing facility from more than one bank within the stipulated limit, the microcredit institution shall have to submit a declaration on the availed financing facility from the first, if applicable from the first and second, bank to the finally financing bank. (FID Circular Letter No. 02 November 09, 2020)
November 2020	The rate of interest at participating bank and financial institution level under the refinance fund of Second Small and Medium Sized Enterprise Development Project (SMEDP-2) has been re-fixed at 2 (two) percent and at customer level maximum 6 (six) percent. The re-fixed rate of interest shall come into effect from 18 November 2020. (SMEDP-2 Circular Letter No. 01 November 23, 2020)
November 2020	The proportional rate of annual loan/investment in the Business (Trading) sub-sector by the banks and financial institutions under the special loan/investment facility of BDT 20,000 crore provided to CMSME sector affected by

	Novel Corona Virus (COVID-19) pandemic has been scaled up to 35 (thirty five) percent from that of previous 30 (thirty) percent. If the annual loan/investment in the said sub-sector by the banks and financial institutions exceeds 30 (thirty) percent, no way above 35 (thirty five) percent, the annual loan/investment in the production and 71 service subsector by the banks and financial institutions shall recede proportionately. But the annual aggregate loan/investment in production and service subsector cannot be less than 65 (sixty five) percent. The sanctioned limit of loan/investment (working capital) in production, service and business (trading) sub-sector of the existing customer shall be determined through banker-customer relationship under the concerned bank's loan/investment policy. But the said limit must not be higher than the previous year working capital loan/investment. The implementation deadline for the loan/investment disbursement target under the package has been reset till December 31, 2020. (SMESPD Circular Letter No. 16 November 26, 2020)
December 2020	The deadline of the loan disbursement at the customer level by the banks under the refinance scheme of BDT 5000 crore for providing working capital in agriculture sector due to break-out of Novel Corona virus has been extended till 31 March 2021. (ACD Circular Letter No. 03 December 29, 2020)
December 2020	Loan/investment-classification status of rescheduled/one time exit facility availed loans/investments that occupied on 01 January 2020 cannot be declassified till 31 December 2020 even if the standard degrades. By the time, however, if classification status of a loan/investment upgrades, that loan/investment can be classified following proper norms. (BRPD Circular Letter No. 59 December 30, 2020)

B. Policy Announcements on Monetary Sector Development

July 2020	In order to provide prompt and effective cliental service to the potential investors in treasury bills and bonds, all the scheduled banks and financial institutions operating in Bangladesh are directed to form a "Government Securities Investment Window" under the control/supervision of their respective Treasury Division. (DMD Circular No. 4 July 21, 2020)
July 2020	The existing overnight based Repo rate is reduced by 50 basis points from 5.25 percent and re-fixed at 4.75 percent and Reverse Repo rate is reduced by 75 basis points from 4.75 percent and re-fixed at 4.0 percent annually. (MPD Circular No. 05 July 29, 2020)
July 2020	The existing bank rate is reduced by 100 basis points from 5.0 percent and re-fixed at 4.0 percent.(MPD Circular No. 06 July 29, 2020)
September 2020	As per schedule 52D of Income Tax Ordinance, 1984, it is mandatory to deduct source tax at the time of the payment of profit of Savings instruments. Source tax has to be deducted at the existing tax rate on payment date of profit. Here payment means a transfer, a credit, an adjustment of payment or an order of instruction of making payment. For the second term auto reinvestment in 5-year term Bangladesh Sanchyapatra, net profit and principal amount of first term investment shall be treated as total investment (consolidated investment). If the consolidated investment exceeds BDT 5 lakh on the date of making payment of profit, 10 percent tax at source has to be levied against the total profit. For that of less than BDT 5 lakh, 5 (five) percent tax at source has to be deducted. (DMD Circular Letter No. 06 September 10, 2020)
October 2020	In order to issue a shariah based investment, A Shariah Advisory Committee shall be formed by Bangladesh Bank in association with Bangladesh Bank, Finance Division and Shariah specialists- having adequate experience and

	knowledge on islamic trade laws, business and financial services-for the management of Sukuk. The tenure and number of members of the said committee shall be fixed by Bangladesh Bank. Government may appoint Bangladesh Bank or any other institution as Special Purpose Vehicle (SVP) and/or trustee for the purpose of issuing Sukuk. Appointed institution(s) shall make an agreement with the government in order to act as Special Purpose Vehicle (SVP)/trustee. Sukuk shall be issued as domestic credit in Bangladeshi BDT and Finance Division shall act as originator on behalf of the government for issuing Sukuk. Both resident and non-resident entity shall be eligible for making investment in Sukuk on condition that they have to give consent to embrace the share of profit or loss (if any) as depicted in prospectus. (DMD Circular No. 05 October 21, 2020)
December 2020	The upper limit of total investment in Five-Year Bangladesh Sanchaypatra, Three-Month Profit-Based Sanchaypatra, and Paribar Sanchaypatra has been re-fixed at maximum 50 (fifty) lakh in individual name and 1 (one) crore in joint names. (DMD Circular Letter No. 10 December 20, 2020)
December 2020	The upper limit of total investment in Wage Earner Development Bond, U.S Dollar Premium Bond and U.S Dollar Investment Bond has been set at BDT 1 (one) crore equivalent foreign currency. (DMD Circular Letter No. 09 December 21, 2020)

C. Policy Announcements on External Sector Development

July 2020	The policy supports to export trade due to COVID-19 pandemic are extended till March 31, 2021. The tenure of realization of export proceeds is also enhanced up to 90 days, as additional time from the statutory period of 4(four) months. The facilities for the extended period shall be applicable only for exports of readymade garments and textile goods. (FEPD Circular No. 30 July 23, 2020)

August 2020	Refinancing from EDF will be admissible in case of no overdues against the realizable export proceeds during the immediate past 720 days from the date of applications by manufacturer-exporters for loans from EDF against concerned input imports. (FEPD Circular No. 36 August 27, 2020)
September 2020	Exporters-employers are allowed to transfer from their Exporter's Retention Quota (ERQ) accounts up to 75 percent of net monthly income of the expatriate employees in equivalent foreign currency to their FC accounts maintained and operated in terms of paragraph 1, chapter 13 of GFET. In the context of transfer of net monthly income from ERQ accounts of relevant exporter-employers, ADs shall observe the instructions as contained in aforementioned FE Circular; including verification of the authenticity of the work permits issued by the competent authorities. (FEPD Circular No. 37 September 15, 2020)
September 2020	All the scheduled banks operating in Bangladesh are advised, with effect from 31 December 2020, to set the margin of Letter of Credits (LCs) for onion imports at the minimum level with a view to containing the price hike of onion in the local market and maintaining the smooth supply of onion. (BRPD Circular Letter No. 46 September 17, 2020)
September 2020	Export subsidy/cash incentive for the financial year 2020-2021 has been announced to boost up country's export trade. Under the assistance, all types of listed 37 categories of export products on board from 01 July 2020 to 30 June 2021, with export subsidies/cash incentives varying from 1 percent to 20 percent, shall be privileged with the facility. (FEPD Circular No. 39 September 21, 2020)
October 2020	The government declared financial incentives of the stimulus packages implemented by or under-implementation by banks and financial institutions shall also be admissible to the industrial organizations of type 'A', 'B' and 'C' located in Bangladesh Economic Zone Authority (BEZA), Bangladesh

	Export Processing Zone Authority (BEPZA) and Hi-Tech Park. (BRPD Circular Letter No. 50 October 01, 2020)
October 2020	Interest rate on EDF loans has been reduced at 1.75 percent pa, chargeable to eligible borrowers; for disbursements until March 31, 2021. In accordance with the decision, ADs shall make interest payments to Bangladesh Bank at 0.75 percent pa; the remainder 1.0 percent pa as before will be retained by ADs as their interest income. (FEPD Circular No. 47 October 28, 2020)
October 2020	Working capital facilities under stimulus packages for adversely affected industrial and service sector institutions have been enhanced to BDT 400 billion from previous BDT 330 billion. The enhanced BDT 70 billion shall be admissible for the type ―A‖, ―B‖ and ―C‖ industrial institutions located in Bangladesh Economic Zone Authority (BEZA), Bangladesh Export Processing Zone Authority (BEPZA) and Bangladesh Hi- 69 Tech Park Authority as working capital loan/investment. The rate of interest of the said loan/investment shall be 9 percent, of which 4.50 percent of interest shall be subsidized by the government and the rest shall be borne by the borrower. (BRPD Circular Letter No. 53 October 29, 2020)
November 2020	Extended period for realization of export proceeds up to 210 days for exports of readymade garments and textile goods shall equally be applicable for all sectors, depending on the necessity, till March 31, 2021. (FEPD Circular No. 49 November 18, 2020)
December 2020	To avail of 2 percent cash incentive against remittance above USD 5000 (five thousand) or BDT 5,00,000 (five lakh) sent through legal channels, the beneficiary shall submit necessary documents to the branch of remittance provider bank. The remittance provider bank shall scrutinize the documents on its own and send confirmation to the remittance collecting bank within fastest possible time in order to release the cash incentive amount. Upon confirmation, the remittance collecting bank shall release the cash incentive amount to the

	remittance provider bank. If the remittance collecting bank and remittance provider bank is the same entity, remittance collecting bank itself shall collect and scrutinize the documents submitted by the beneficiary. (FEPD Circular Letter No. 40 December 02, 2020)
December 2020	Scheduled banks operating in Bangladesh have been advised to grant loan and credit card facility to the virtual ID card-holder IT Freelancers subject to the compliance of existing banking rules and regulations to help develop the potential freelancing sector. (BRPD Circular No. 19 December 27, 2020)

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"A SURVEY OF ECONOMIC SITUATION IN BANGLADESH" January-June 2021

The survey of economic situation in Bangladesh incorporates movement of some of the major macroeconomic indicators of real, financial and external sector. This indicators help to understand the economic circumstances of Bangladesh. The overall situation of the economy of Bangladesh has been described below:

Monetary and Credit Situation

Narrow Money (M1)

During January-June 2021 narrow money stood at BDT 375828.7 crore which was 11.73 percent higher than that of July-December 2020. It also rose by 18.96 percent during January-June 2020 (Annexure-1).

Broad Money (M2)

At the end of June 2021, broad money stood at BDT 1560895.3 crore. It showed an increase of 5.56 percent during January-June 2021 as compared to the increase of 7.64 percent during July-December 2020. It may be mentioned that it also rose by 6.13 percent during January-June 2020 (Annexure-1).

However, during January-June 2021 broad money increased because of positive growth of all the components of it. Demand deposits increased by BDT 17389.7 crore or 11.68 percent and time deposits increased by BDT 42766.4 crore or 3.74 percent during January-June 2021. Currency outside banks also recorded an increase of BDT 22054.8 crore or 11.76 percent during this period. An analysis of the causative factors of the change in money supply revealed that both the indicators: Net Foreign Assets (NFA) and Net Domestic Assets (NDA) of the banking system increased by 7.1 and 5.07 percent respectively during the period (Annexure-1).

Domestic Credit

Total domestic credit recorded an increase of 5.6 percent during January-June 2021 as compared to the increase of 4.28 percent during July-December 2020. The rise in domestic credit can be attributed to the increase in credit to both the public and private sectors by 12.94% and 4.17% respectively (Annexure-1). It may be mentioned that it also rose by 5.4 percent during the same period of the previous year.

Reserve Money

Reserve money recorded an increase of 14.57 percent during January-June 2021 as compared to the increase of 6.85 percent during July-December 2020. It is noteworthy to point out that, it increased by 13.53 percent during January-June 2020 (Annexure-1).

Auctions of Government Treasury Bills

31 weekly auctions of each of the 14-Day, 91-Day, 182-Day and 364-Day Government Treasury Bills (TBs) were held during January-June 2021. In all, 1408 bids amounting BDT 150487.19 crore (face value) were offered in the auctions of which 315 bids amounting BDT 51800 crore (face value) were accepted. Among all those bids, only BDT 1445.1 crore was devolved on primary dealers and non-primary dealer bank. Bills worth of BDT 56800 crore were retired during the period under report and the outstanding balance of the bills stood at BDT 100150 crore at the end of June 2021. The weighted average yields of the accepted bids were ranged between 0.35-1.86 percent.

Auctions of Bangladesh Government Treasury Bonds (BGTBs)

20 weekly auctions of Bangladesh Government Treasury Bonds (BGTBs) were held during January-June 2021. In all, 1980 bids amounting BDT 131155.28 crore were offered in the auctions of which 564 bids amounting BDT 32600 crore were accepted. There was no devolvement on Bangladesh Bank in this period. Bonds worth of BDT 14200 crore were retired during the period under report and the outstanding balance of the bonds stood at BDT 523236.9 crore at the end of June, 2021. The weighted average yields of the accepted bids were ranged between 2.44-6.89 percent.

REPO Auctions

No auction of REPO operation was held on daily basis during January-June 2021.

Reverse REPO Auctions

No auction of Reverse REPO operation was held on daily basis during January-June 2021.

Auctions of Bangladesh Bank Bills

7-Day Bangladesh Bank Bills:

No auction of 7-Day Bangladesh Bank Bill (BB Bill) was held during January-June 2021.

14-Day Bangladesh Bank Bills:

No auction of 14-Day Bangladesh Bank Bill (BB Bill) was held during January-June 2021.

30-Day Bangladesh Bank Bills:

No auction of 30-Day Bangladesh Bank Bill (BB Bill) was held during January-June 2021.

Revenue Receipts under National Board of Revenue (NBR): January-June 2021

The revised target of revenue collection under the National Board of Revenue (NBR) for FY 2020-21 was set at BDT 301000 crore, which was 8.79 percent lower than the initial target of revenue collection set for NBR.

Following this target, total revenue collection by NBR during January-June 2021 stood at BDT 149447.84 crore which was 49.65 percent of the revised annual target. The collection by NBR during this period was 35.33 and 31.97 percent higher than that of July-December 2020 and January-June 2020 respectively.

Reviewing the revenue collection scenario, it can be seen that during the period, collection from import duty, VAT and supplementary duty at import stage was BDT 17278.75 crore (131.12%), 21,565.21 crore (129.08%) and 4662.73 crore (124.03%) respectively. A total of BDT 1106.2 crore (84.32%) from excise duty, BDT 35930.33 crore (128.98%) from VAT (domestic) and

BDT 17016.37 crore (130.58%) from supplementary duty (domestic) was collected during this period.

On the other hand, collection from income tax and travel tax was BDT 50736.81 crore and BDT 223.94 crore respectively.[1]

Agricultural Credit

The target for annual agricultural credit disbursement was set at BDT 26292 crore for FY21, which was 8.99 percent higher than that of FY20. Agricultural credit disbursement by all banks stood at BDT 13433.37 crore during January-June 2021, which was 11.22 percent higher than BDT 12077.98 crore in July-December 2020 and 12.43 percent higher than BDT 11948.23 crore during January-June 2020. The recovery of agricultural credit stood at BDT 13032.83 crore during January-June 2021, which was 7.51 percent lower than BDT 14091.07 crore in July-December 2020 and 33.74 percent higher than BDT 9745.11 crore during January-June 2020. Outstanding balance (including interest) of agricultural credit stood at BDT 45939.8 crore at the end of June 2021, which was 4.2 percent higher than BDT 44089.09 crore in December 2020 and 0.76 percent higher than BDT 45592.86 crore at the end of June 2020.

Inflation Situation

General inflation (12-month average basis) at the national level stood at 5.56 percent at the end of June 2021 compared to 5.69 percent in December 2020 and 5.65 percent in June 2020. On the other hand, point-to-point (p-to-p) general inflation at the national level stood at 5.64 percent at the end of June 2021, which was 5.29 percent in December 2020 and 6.02 percent in June 2020.

12 month average food inflation at the national level stood at 5.73 percent at the end of June 2021, which was 5.77 percent in December 2020 and 5.52 percent in June 2020. Point-to-point food inflation at the national level stood at 5.45 percent in June 2021 compared to 5.34 percent in December 2020 and 6.54 percent in June 2020.

12 month average non-food inflation at the national level stood at 5.29 percent in June 2021, which was 5.56 percent in December 2020 and 5.85 percent in June 2020. Non-food inflation measured by point to point basis, at the

[1] Source: Provisional statement of revenue collection for the month of June'21 of FY21, National Board of Revenue (NBR)

national level was 5.94 percent at the end of June 2021 compared to 5.21 percent in December 2020 and 5.22 percent in June 2020.

Food Situation

The target for food grains production of FY21 was set at 395.53 lakh metric tons, which was 5.1 percent higher than the actual production of FY20.

The target for total import of food grains by the government for FY21 in the country was set at 15.68 lakh metric tons, where only 4.36 lakh metric tons was imported by the government during FY20. Total import of food grains during January-June 2021 stood at 40.96 lakh metric tons against 26.06 lakh metric tons during July-December 2020 and 33.43 lakh metric tons during January-June 2020.

The target for domestic procurement of food grains during FY21 was set at 14.04 lakh metric tons, which was 24.96 percent lower than actual procurement of 18.71 lakh metric tons during FY20. Procurement of food grains during January-June 2021 stood at 9.54 lakh metric tons against the procurement of 5.99 lakh metric tons during July-December 2020 and 11.35 lakh metric tons during January-June 2020.

Government distribution of food grains for FY21 was targeted at 24.53 lakh metric tons, which was 11.67 percent lower than 27.77 lakh metric tons of FY20. Distribution of food grains during January-June 2021 stood at 10.6 lakh metric tons against the distribution of 12.29 lakh metric tons during July-December 2020 and 15.39 lakh metric tons during January-June 2020.

The stock of actual food grains at the end of June 2021 stood at 14.48 lakh metric tons against the stock of 7.26 lakh metric tons at the end of December 2020 and 11.2 lakh metric tons at the end of June 2020.

Stock Exchange Activities

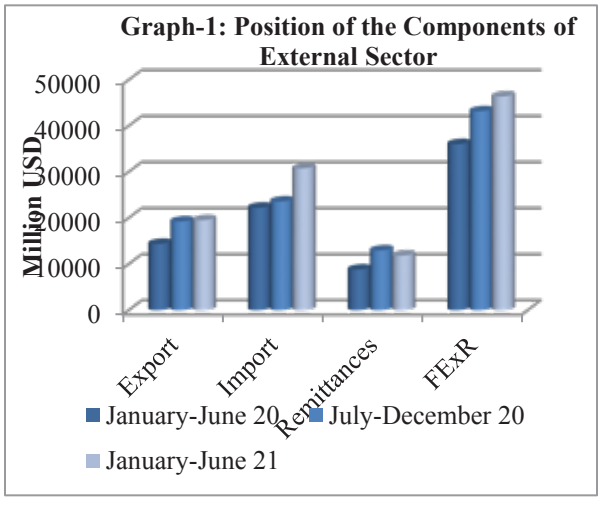
In the Dhaka Stock Exchange Ltd. (DSE), the total number of listed securities stood at 609 at the end of June 2021. During the period January-June 2021, a total of 45416.74 million shares and debentures worth BDT 151784.89 crore were traded as against 38156.61 million shares and debentures worth BDT 102912.15 crore traded during July-December 2020. It was 19.03 percent higher in volume and 47.49 percent higher in value than that of the preceding period.

The market capitalization of DSE stood at BDT 514282.13 crore at the end of the period under report, which was 14.74 percent higher than BDT 448230.05 crore at the end of the preceding period. The All Share Price Index of DSE stood at 6150.48 points at the end of June 2021, which was 13.85 percent higher than 5402.07 points at the end of December 2020.

In the Chittagong Stock Exchange Ltd. (CSE), the total number of listed securities stood at 348 at the end of June 2021. During the period January-June 2021, a total of 2558.43 million shares and debentures worth BDT 7988.19 crore were traded as against 1514.45 million shares and debentures worth BDT 3703.21 crore traded during the preceding six months. It was 68.93 percent higher in volume and 115.71 percent higher in value than that of the preceding period. The market capitalization of CSE stood at BDT 438365.33 crore at the end of the period under report, which was 16.74 percent higher than that of BDT 375494.84 crore at the end of the preceding period. The All Share Price Index of CSE stood at 17795 points at the end of June 2021, which was 14.12 percent higher than that of 15592.92 points at the end of December 2020.

Export, Import, Remittance and Foreign Exchange Reserve

The position of export, import, remittance and foreign exchange reserve of Bangladesh for the period of January-June 2021 is discussed below:



Export earnings stood at USD 19524.9 million during January-June 2021 which was 1.5 percent and 35.9 percent higher compared to that of the preceding period and the same period of the previous year respectively. Amid the surge of COVID-19 pandemic, country's total export earnings during January-June 2021 gradually increased with easing of the transportation barrier in different destination countries and resumption of the export orders from foreign buyers.

In January-June 2021, import payments increased by 30.6 percent and stood at USD 30768.8 million compared to the previous period and 38.5 percent

than the same period of the preceding year. It was partially caused due to the increase in the import payments of consumer goods, machinery for miscellaneous industries, industrial raw material, intermediate goods, capital machinery etc.

Remittance earnings of the country decreased by 8.6 percent and stood at USD 11833 million during January-June 2021 compared to that of the previous period but increased by 34.5 percent than that of the same period of the preceding year. It may be mentioned that during this period most of the remittance earnings came from the middle-east countries, USA & UK.

At the end of June 2021, foreign exchange reserve of the country stood at USD 46391.4 million which was 7.5 percent higher than USD 43166.5 million in December 2020. It may be mentioned that it was USD 36037 million at the end of June 2020. The half-yearly data of the country's foreign exchange reserve, export, import and remittance are shown in graph-1 and Annexure-2.

Policy Measures
(January-June 2021)

A. Major Policy Announcements/Guidelines/Circulars related to Banking and Financial Sector Development

January 2021	It was decided that, the deferral benefit of the classification of all categories of loans and investments which was provided from January, 2020 to December, 2020, owing to the adverse economic impacts caused by the COVID-19 pandemic would no longer be extended from 01 January 2021. To facilitate the payment of the installments of the loans and investments, only 50 percent tenure of the remaining term of the existing unclassified term loans/investments on 01 January 2021 was allowed to extend on the basis of banker-customer relationship considering adverse impact of COVID-19 pandemic and payable outstanding of the loans/investments of the borrowers. However, the said extension cannot be more than 2 years. (BRPD, January 31, 2021)
February 2021	The Credit Guarantee Scheme is made admissible for both working capital loans and term loan/investment to cottage, micro and small enterprises. (SMESPD, February 01, 2020)
February 2021	Scheduled banks operating in Bangladesh were allowed to consider any of the audited financial statements of 2020 and 2019 to prepare the credit risk rating of the investors to contain the adverse impacts of COVID-19 within tolerable levels. Therefore, the Internal Credit Risk Rating Scores were revised as follows: Excellent: ≥75%; Good: ≥65% to <75%; Marginal: ≥55% to <65% and Unacceptable: <55%. (BRPD, February 23, 2021)
March 2021	Financial institutions were allowed to declare a total of 30 percent dividend including 15 percent in cash considering the overall situation. (DFIM, March 22, 2021)
March 2021	The imposed/levied interests, if unrealized/unpaid, on continuous loan(s)/investment(s) from 01 January 2020 to

	31 December 2020, the tenure of which was expired without renewal by the banks under existing policy were allowed to pay in 6 equal quarterly installments from March, 2021 to June, 2022. It was decided that such loan(s)/investment(s) shall not be deemed as classified until 30 June 2022, if regular installments from March, 2021 to June, 2022 along with the unpaid interest of 2020 are paid. Demand loan(s)/investment(s) were permitted to pay in 8 equal quarterly installments from March/2021 to June, 2022. If the installments are paid on a quarterly basis, those loans/investments are not allowed to be declassified. However, if the installment of any quarter is not paid as per aforementioned criteria, such provision on loans/investments shall remain revoked from that quarter and those loans/investments shall have to be classified as per proper norms. (BRPD, March 24, 2021)
March 2021	In order to promote new entrepreneurs and encourage self employment opportunities, two start-up funds: a) "Start-up Fund" worth BDT 50 billion by Bangladesh Bank and b) "Start-up Fund" by the scheduled banks by allocating 1.0 percent of their annual operating profits have been instructed to form. (SMESPD, March 29, 2021)
April 2021	Due to the outbreak of COVID-19, special loan/investment facility of BDT. 200 billion for CMSME sector was provided by Bangladesh Bank of which 72.31 percent was disbursed until March 31, 2021. Therefore, the deadline for implementation of the first phase (1st year) of the incentive package was extended till June 30, 2021 to ensure full implementation of the package. (SMESPD, April 12, 2021)
April 2021	Due to the outbreak of COVID-19 and considering the contribution of agriculture sector in our national economy, the interest/profit rate on agricultural and rural credit/investments was redefined by Bangladesh Bank at a maximum of 8 percent instead of earlier existed maximum of 9 percent. (BRPD, April 22, 2021)

June 2021	Considering the outbreak of COVID-19, to increase agricultural production by ensuring uninterrupted credit supply and reduction of non-performing loans in the agricultural sector, Bangladesh Bank has relaxed the condition of accepting down payment or even in case of non-down payment in particular, short term agricultural loan is allowed to reschedule for a maximum period of 2 years from the date of rescheduling on the basis of banker-customer relationship. In addition, short-term agricultural loans are allowed to be re-issued to farmers after rescheduling. In this case new loan facility can be provided after rescheduling without any new deposit. (BRPD, June 01, 2021)
June 2021	In order to maintain desired momentum of the ongoing economic activities and for increasing the flow of credit/investment to the private sector, in case of repayment of loan/investment by June 30, 2021, if at least 20 percent of the total amount is paid on the basis of banker-customer relationship by 31st August 2021, then the loan/investment cannot be classified adversely. In this case, the rest of the balance of the installments payable till June/2021 can be paid along with the last installment as well as other installments have to be paid on time. (BRPD, June 27, 2021)
June 2021	Bangladesh Bank instructed the banks to disburse 25 percent of allocated refinancing scheme fund of BDT 30 billion in favor of the female borrowers both in microcredit and micro enterprise credit segments. (FID, June 08, 2021)

B. Major Policy Announcements/Guidelines/Circulars related to External Sector Development

January 2021	It has been decided that Authorized Dealers (ADs) may remit admissible expenses up to 1 percent of annual sales as declared in the previous year's income tax return of the concerned remitter-companies or USD 1,00,000 whichever is higher. (FEPD, 04 January, 2021)

January 2021	To bring flexibility in executing transactions from FC accounts, it has been decided that up to 75 percent of net monthly income in equivalent foreign currency may be credited to FC accounts of the expatriate employees from Taka accounts and Exporter's Retention Quota (ERQ) accounts of the employers. (FEPD, 07 January, 2021)
January 2021	It has been decided that in addition to manufacturing enterprises, the short term borrowing may be admissible to foreign owned/controlled companies engaged in services output activities in Bangladesh; however trading business shall not come under this facility. Such loan may be admissible in convertible foreign currencies for maximum 6 years from the date of inception of manufacturing and/or service output activities by the borrower enterprises and interest rate will be maximum 3 percent per annum. (FEPD, 19 January, 2021)
March 2021	It was decided that, EDF loan would be admissible against back to back import LCs for input procurements by Type B
	industries in EPZs producing apparel items for export. (FEPD, March 22, 2021)
April 2021	Considering existing COVID situation, it has been decided that ADs may continue to send outward remittances on account of study abroad under online teaching arrangements for another two semesters/sessions subject to comply other usual regulatory instructions. (FEPD, April 13, 2021)
April 2021	A refinance scheme worth of BDT 50 billion was provided by Bangladesh Bank for the purpose of earning foreign exchange and bringing momentum in the economy by providing pre-shipment export loan assistance to the export oriented industries affected by the COVID-19 pandemic. Under this scheme, interest rate was reset maximum at 5 percent instead of earlier instructed maximum 6 percent at the consumer level and 2 percent instead of 3 percent at the bank level to achieve higher growth in the export sector. (BRPD, April 26, 2021)

May 2021	To facilitate e-commerce trade in the country, it was decided that, all the authorized dealers (ADs) involved in foreign exchange transactions might be allowed annual remittance facilities of USD 10,000 or its equivalent to a member firm of e-Commerce Association of Bangladesh (e-CAB) to meet up bonafide current expenses abroad through traditional banking channel or card channel. (FEPD, May 02, 2021)
June 2021	A policy for Post Import Financing (PIF) was formulated by Bangladesh Bank. Accordingly, all types of loan facilities like LTR/LATR/MTR/MPI, etc provided for payment of import liabilities in various sectors including daily necessities or trading products, industrial raw materials, etc. will be called Post Import Financing (PIF). Depending on the customer's demand, the nature of the concerned product and the production/marketing cycle, the term of the PIF was fixed at not more than 90 days for daily necessities and 180 days for industrial raw materials from the date of creation of the PIF. In addition, Bangladesh Bank's policy would be followed for loan approval, restructuring and rescheduling as well as recovery and supervision of loans for Post Import Financing. (BRPD, June 13, 2021)

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"A SURVEY OF ECONOMIC SITUATION IN BANGLADESH" July-December 2021

The survey of economic situation in Bangladesh incorporates movement of some of the major macroeconomic indicators of real, financial and external sectors. These indicators help to understand the economic circumstances of Bangladesh. Despite the Covid-19 pandemic situation in this period, the economy of Bangladesh shows resiliency in terms of export earnings and remittance inflow and accumulation of foreign exchange reserve. As a result, in FY21, the growth in GDP rose to 6.94 percent amid the ongoing pandemic situation. General inflation (12-month average basis) at the national level stood at 5.56 percent at the end of the said fiscal year.

Monetary and Credit Situation

Narrow Money (M1)

During July-December 2021, narrow money stood at BDT 379311 crore which was 0.93 percent higher than that of January-June 2021. It also rose by 2.47 percent during July-December 2020.

Broad Money (M2)

At the end of December 2021, broad money stood at BDT 1620635 crore. It showed an increase of 3.83 percent during July-December 2021 as compared to the increase of 5.56 percent during January-June 2021. It may be mentioned that it also rose by 7.64 percent during July-December 2020 (Annexure-1).

Furthermore, during July-December 2021, broad money increased because of the positive growth of all components of it. Demand deposits increased by BDT 2276.9 crore or 1.37 percent and time deposits increased by BDT 56257.40 crore or 4.75 percent. Currency outside banks also recorded an increase of BDT 1205.40 crore or 0.58 percent during the reported period. An analysis of the causative factors of the change in money supply revealed that Net Foreign Assets (NFA) decreased by 3.45 percent while Net Domestic Assets (NDA) increased

by 6.19 percent during July-December 2021. The positive growth in NDA was the prime factor of the positive growth in broad money during the period (Annexure-1).

Domestic Credit

Total domestic credit recorded an increase of 6.41 percent during July-December 2021 as compared to the increase of 5.6 percent during January-June 2021. It also rose by 4.28 percent during the same period of the previous year. Domestic credit went up due mainly to the increase in credit to Govt. (Net) by 6.12% and private sector credit to 6.26% during July-December 2021 (Annexure-1).

Reserve Money

Reserve money recorded a decrease of 7.02 percent during July-December 2021 as compared to the increase of 14.57 percent during January-June 2021. It is noteworthy to point out that, it grew by 6.85 percent during July-December 2020 (Annexure-1).

Auctions of Government Treasury Bills

25 weekly auctions of Government Treasury Bills (TBs) of each of the 14-day, 91-day, 182-day and 364-day were held during July-December 2021. In all, 2164 bids amounting BDT 179136.29 crore (face value) were offered in the auctions of which 548 bids amounting BDT 62681.27 crore (face value) were accepted. Among all those bids, BDT 420 crore was devolved on primary dealer bank. Bills worth of BDT 52635 crore were retired during the period under report and the outstanding balance of the bills stood at BDT 119906.27 crore at the end of December 2021. The weighted average yields of the accepted bids were ranged between 0.45 to 3.98 percent.

Auctions of Bangladesh Government Treasury Bonds (BGTBs)

21 auctions of Bangladesh Government Treasury Bonds (BGTBs) were held during July-December 2021. In all, 1887 bids amounting BDT 100986.22 crore were offered in the auctions of which 841 bids amounting BDT 37275.34 crore were accepted. Out of the accepted amount of BDT 1087.85 crore were devolved on primary dealer banks. Bonds worth of BDT 16850 crore were retired during the period under report and the outstanding balance of the bonds stood at BDT

565402.24 crore at the end of December 2021. The weighted average yields of the accepted bids were ranged between 2.23 to 7.98 percent.

REPO Auctions

3 auctions of REPO (Liquidity Support Facility & Special Repo) operations were held during the period July-December 2021. In all, 15 bids of 1 Day and 3 Day tenor amounting BDT 1697.08 crore were received in these auctions, of which 13 bids amounting BDT 945.38 crore were accepted. The interest rate of the accepted bids was ranged between 4.75 to 7.75 percent during the period.

Reverse REPO Auctions

No auction of Reverse REPO operations was held during July-December 2021.

Auctions of Bangladesh Bank Bill

17 auctions of Bangladesh Bank Bills (BB Bills) were held during July-December 2021. In all, 659 bids amounting BDT 100393.2 crore were offered in the auctions of which 419 bids amounting BDT 68971.5 crore were accepted. Bills worth of BDT 68971.5 crore were retired during the period under report and the outstanding balance of the bills stood at BDT 10201 crore at the end of December 2021. The weighted average yields of the accepted bids were ranged between 0.53 to 2.65 percent.

Revenue Receipts under National Board of Revenue (NBR): July-December 2021

The target of revenue collection under the National Board of Revenue (NBR) for FY 2021-2022 has been set at BDT 330000 crore.

Following this target, total revenue collection by NBR during July-December 2021 stood at BDT 129090.11 crore which was 39.12 percent of the annual target. The aforementioned collection by NBR during this stated period was 13.62 percent lower than BDT 149447.84 crore collected during January-June 2021 but 16.89 percent higher than BDT 110433.96 crore collected during July-December 2020.

Reviewing the revenue collection scenario, it is seen that during the period under discussion, collection from import duty, VAT and supplementary duty at import stage was BDT 16226.96 crore (23.14%), 20560.46 crore (23.07%) and

4406 crore (17.20%) respectively. A total of BDT 1787.99 crore (36.28%) from excise duty, BDT 31569.84 crore (13.33%) from VAT (domestic) and BDT 14454.99 crore (1092%) from supplementary duty (domestic) was collected during this period.

On the other hand, collection from income tax and travel tax was BDT 39371.22 crore (15.08%) and BDT 263.03 crore (124.35%) respectively.

Collection from travel tax experienced the highest growth (124.35%) during the period over the same period of the previous fiscal year. On the counterpart, revenue from supplementary duty (domestic) showed the lowest growth by 10.92 percent in this period under discussion.[1]

Agricultural Credit

The target for annual agricultural credit disbursement was set at BDT 28391 crore for FY22 which was 7.98 percent higher than that of FY21. During July-December 2021, the achievement was 51.06 percent of the total target for FY22. Agricultural credit disbursement by all banks stood at BDT 14497.04 crore during July-December 2021, which was 7.92 percent higher than BDT 13433.37 crore during January-June 2021 as well as 20.03 percent higher than BDT 12077.98 crore during July-December 2020. Total recovery of agricultural credit stood at BDT 13593.8 crore during July-December 2021, which was 4.3 percent higher than BDT 13032.83 crore during January-June 2021 but 3.53 percent lower than BDT 14091.07 crore during July-December 2020. Outstanding balance (including interest) of agricultural credit stood at BDT 47659.51 crore at the end of December 2021, which was 3.74 percent higher than BDT 45939.8 crore at the end of June 2021 as well as 8.1 percent higher than BDT 44089.09 crore at the end of December 2020.

Inflation Situation

General inflation (12-month average basis) at the national level stood at 5.55 percent at the end of December 2021 compared to 5.56 percent in June 2021 and 5.69 percent in December 2020. On the other hand, point-to-point (p-to-p) general inflation at the national level stood at 6.05 percent at the end of December 2021, which was 5.64 percent in June 2020 and 5.29 percent in

[1]Source: Provisional statement of revenue collection for the month of December'21, National Board of Revenue (NBR)

December 2020. 12 month average food inflation at the national level stood at 5.30 percent at the end of December 2021, which was 5.73 percent in June 2021 and 5.77 percent in December 2020. Point-to-point food inflation at the national level stood at 5.46 percent in December 2021 compared to 5.45 percent in June 2021 and 5.34 percent in December 2020. 12 month average non-food inflation at the national level stood at 5.93 percent in December 2021, which was 5.29 percent in June 2020 and 5.56 percent in December 2020. Non-food, inflation measured by point to point basis, at the national level was 7 percent at the end of December 2021 compared to 5.94 percent in June 2021 and 5.21 percent in December 2020.

Food Situation

The target for total import of food grains by the government for FY22 in the country was set at 15.31 lakh metric tons, which was 45.53 percent higher than 10.52 lakh metric tons imported by the government during FY21.

Total import of food grains during July-December 2021 stood at 28.39 lakh metric tons against 40.96 lakh metric tons during January-June 2021 and 26.06 lakh metric tons during July-December 2020.

The target for domestic procurement of food grains during FY22 was fixed at 19.19 lakh metric tons, which was 23.57 percent higher than actual procurement of 15.53 lakh metric tons in FY21. Procurement of food grains during July-December 2021 stood at 9.23 lakh metric tons against the procurement of 9.54 lakh metric tons during January-June 2021 and 5.99 lakh metric tons during July-December 2020.

Government distribution of food grains for FY22 was targeted at 32.75 lakh metric tons, which was 43.08 percent higher than 22.89 lakh metric tons of FY21. Distribution of food grains during July-December 2021 stood at 15.14 lakh metric tons against the distribution of 10.6 lakh metric tons during January-June 2021 and 12.29 lakh metric tons during July-December 2020.

The stock of actual food grains at the end of December 2021 stood at 18.55 lakh metric tons against the stock of 14.48 lakh metric tons at the end of June 2021 and 7.26 lakh metric tons at the end of December 2020.

Stock Exchange Activities

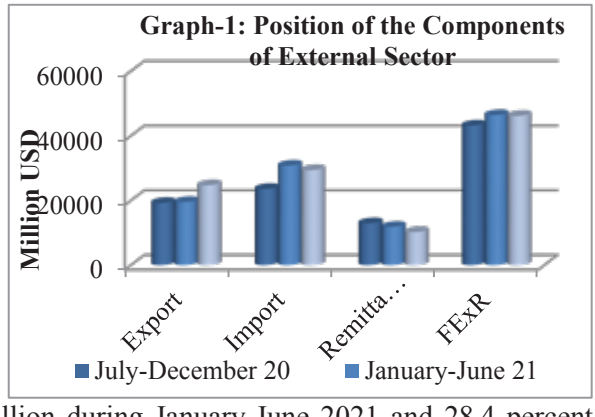
In the Dhaka Stock Exchange Ltd. (DSE), the total number of listed securities stood at 617 at the end of December 2021. During the period July-December 2021, a total of 90589.67 million shares and debentures worth BDT

321322.21 crore were traded as against 45416.74 million shares and debentures worth BDT 151784.89 crore traded during January-June 2021. It was 99.46 percent higher in volume and 111.7 percent higher in value than that of the preceding period. The market capitalization of DSE stood at BDT 542196.40 crore at the end of the period under report, which was 5.43 percent higher than BDT 514282.13 crore at the end of the preceding period. The all share price index of DSE stood at 6756.66 points at the end of December 2021, which was 9.86 percent higher than 6150.48 points at the end of June 2021.

In the Chittagong Stock Exchange Ltd. (CSE), the total number of listed securities stood at 356 at the end of December 2021. During the period July-December 2021, a total of 2793.46 million shares and debentures worth BDT 7896.55 crore were traded as against 2558.43 million shares and debentures worth BDT 7988.19 crore traded during the preceding six months. It was 9.19 percent higher in volume and 1.15 percent lower in value than that of the preceding period. The market capitalization of CSE stood at BDT 458554.44 crore at the end of the period under report, which was 4.61 percent higher than that of BDT 438365.33 crore at the end of the preceding period. The all share price index of CSE stood at 19666.07 points at the end of December 2021, which was 10.51 percent higher than that of 17795 points at the end of June 2021.

Exports, Imports, Remittances and Foreign Exchange Reserves

The position of export, import, remittance and foreign exchange reserve of Bangladesh for the period of July-December 2021 is discussed below:



Export earnings stood at USD 24698.6 million during July-December 2021 which increased by 26.5 percent compared to USD 19524.9 million during January-June 2021 and 28.4 percent compared to the same period of the previous year. The trend of export earnings during the period under report went up mainly due to the withdrawal of nation-wide lockdown and higher demand of Ready-made Garments (RMG) products from our corresponding buyers of United States of America, United Kingdom, Canada and European Union (EU).

In July-November 2021, import payments stood at USD 29397.9 million which was 55.36 percent higher than the same period of the preceding year. The drastic rise in import payments was caused by comparatively higher import of rice, wheat, yarn textile & articles, edible oil, pharmaceutical products, fertilizers, pulses, capital machinery, raw cotton, spices etc.

Remittance earnings of the country stood at USD 10239.5 million during July-December 2021 which was 13.5 percent and 20.9 percent lower than that of the previous period and the same period of the preceding year respectively. It may be mentioned that during this period most of the remittance earnings came from the middle-east countries, USA & UK.

At the end of December 2021, foreign exchange reserve of the country stood at USD 46153.9 million which was 0.51 percent lower than USD 46391.4 million of June 2021. It may be mentioned that it was USD 43166.5 million at the end of December 2020. The half-yearly data of the country's export, import, remittance and foreign exchange reserve is shown in graph-1 and annexure-2.

Policy Measures
(July-Dec 2021)

A. Major Policy Announcements/Guidelines/Circulars related to Banking and Financial Sector Development

July 2021	To develop a sustainable agricultural system and for creating a farmer friendly environment and poverty alleviation, Bangladesh Bank has formulated "Agricultural & Rural Credit Policy and Program for the Fiscal Year 2021-2022". (ACD-29 July 2021)
July 2021	Banks have been advised to give priority in providing the facility of financial stimulus packages to the pandemic-hit industrial and service sector institutions in fiscal year 2021-2022 which didn't previously get benefit of the packages. Scheduled banks operating in Bangladesh should attempt to extend the facility to a larger number of pandemic affected industries and service sector institutions rather than concentrating on a few beneficiaries. (BRPD 28 July 2021)
July 2021	The Honorable Prime Minister announced BDT 1(one) thousand crore financial stimulus package as working capital loan at 4 percent interest rate through the banking channel to pay salaries/wages and allowances of the low-income earning staff of hotels/motels/theme parks in tourism industry affected by the persistent transmission of COVID. Under the package, scheduled banks may offer working capital loan, with tenure of 1 year, from their own fund to the pandemic-hit owners of hotels/motels/theme parks of the tourism sector based on banker-customer relationship. The rate of interest of the package is determined at 8 percent, of where 4 percent has to be borne by the beneficiary institution and the remaining 4 percent will be subsidized by the government. Banks are allowed to get 50 percent refinancing facility of the disbursed loan/investment from BB. The rate of interest against the refinance is determined at 4 percent with a term of 1 year from the date of availing the refinancing facility. (BRPD 15 July 2021)

August 2021	Financial institutions operating in Bangladesh are advised to regularly monitor the effective implementation of the financial stimulus packages announced by the government of Bangladesh and the Bangladesh Bank for ensuring proper utilization of the packages. They have also been instructed to be sure about proper utilization of the loans provided under stimulus packages, by monitoring and conducting inspection through their internal audit departments so that those loans cannot be used in any unproductive sector which may foil ultimate purpose of the packages. (DFIM 02 Aug 2021)
August 2021	Scheduled banks and financial institutions operating in Bangladesh are instructed to preserve minimum 10 percent of their Portfolio Guarantee Limit for women entrepreneurs to promote collateral-free loan to them for Cottage, Micro and Small Enterprises sector and to attain the objective of disbursing minimum 15 percent of the net loan/investment outstanding of CMSME sector to the women entrepreneurs by 2024 set by Bangladesh Bank. (SMESPD 05 Aug 2021)
August 2021	In order to protect the interest of depositors and to prevent the imbalance between assets and liabilities in the banking sector, all the scheduled banks have been instructed that their rate of interest on 3-month and above individual term deposit and any sum of term deposit formed with a view to settling payment/dues of provident fund, post-retirement benefit etc. of the officials/staffs of different public and private organizations- must not be fixed lower than the rate of inflation. In case of fixing interest/profit rate of a specific month on the mentioned deposits, the 3-month prior inflation rate (12-month average basis inflation rate published at the website of Bangladesh Bank) will have to be considered. However, interest/profit rate on loans/investments are kept unchanged maximum at 9 percent as per previously issued circular. (BRPD- 08 Aug 2021)

August 2021	Bangladesh Bank has already set a target of disbursing minimum 15 percent of the net loan/investment outstanding of CMSME sector to the women entrepreneurs by 2024 to promote economic growth, establish equitable society and ensure empowerment of the women. In connection with this effort, Bangladesh Bank has announced to provide 2 percent incentive, including 1 percent each to women entrepreneurs/customers level and the rest 1 percent at the providing banks/FIs level for encouraging timely repayment of loan and investment in this sector. The title of the incentive is "Cash Incentive Facility Against Loan/Investment to Women Entrepreneurs in CMSME Sector" and it will be funded by BB from its own source. (SMESPD 17 Aug 2021)
August 2021	The financial institutions operating in Bangladesh have been instructed that any approved loan/lease/investment to their borrowers must be released to the bank account of the authentic borrower and the proper filing of banks statement of such fund release must have to be ensured. In case of FIs run under Islami Shariah basis, investment approved by the board has been allowed to be released to the bank account of authentic supplier after collecting consent letter from the customer and must be preserved in files. (DFIM 17 Aug 2021)
August 2021	As the adverse impacts of the second wave of covid-19 is being lingered, scheduled banks operating in Bangladesh have been directed not to classify loans/investments into adverse categories provided that minimum 25 percent of the payable installments from January, 2021 to December, 2021 is repaid within the last working day of December 2021 to attain desired investment, employment and export trade by maintaining the current dynamics of economic activities and bringing normalcy in private sector credit/investment momentum. In this connection, the remaining amount of the payable installments till December, 2021 will have to repay within next 1 year of the expiry. Besides, other installments must be repaid on regular basis. (BRPD- 26 Aug 2021)

September 2021	Bangladesh Bank established a refinance scheme titled "Refinance Scheme for Marginal/Landless Farmers, Low-earning Professionals, School-Banking Account Holders and Small Businessmen of 10/50/100 Taka Account Holders" to escalate financial inclusion agenda and for mitigating adverse impact of ongoing COVID-19 pandemic. The size of the fund has been enhanced to BDT 500 crore, to be financed by BB from its own source, from previously approved BDT 200 crore. The tenure of the scheme is 5 years, to be extended if needed. (FID 05 Sep 2021)
September 2021	Bangladesh Bank formed a refinance scheme titled "Special Stimulus Refinance Scheme in Agricultural Sector (Phase II)" of BDT 3000 crore with its own fund, in continuation of the previously adopted incentive packages, amid the fallout of COVID-19 pandemic. Under the scheme, participating banks will get refinancing facility at 1 percent interest/profit from BB. The simple rate of interest/profit at the farmers' level will be maximum 4 percent, equally applicable for existing and new borrowers. (ACD- 14 September 2021)
December 2021	As the adverse impact of the second wave of COVID-19 is lingering, scheduled banks operating in Bangladesh have been directed not to classify loans/investments disbursed to CMSME sector into adverse categories provided that minimum 15 percent of the payable installments from January, 2021 to December, 2021 is repaid within last working day of December, 2021. (BRPD- 29 Dec 2021)

B. Major Policy Announcements/Guidelines/Circulars Related to Monetary Sector Development

September 2021	The existing rate of commission on the sales of 5 savings schemes- 5-year Term Bangladesh Savings Certificate, 3-month Profit Bearing Savings Certificate, Pensioners Savings Certificate, Family Savings Certificate, various term deposits at post office savings bank- has been reduced to 0.05 percent or not exceeding BDT 500 against each registration, whichever is lower. (DMD 28 Sep 2021)

C. Major Policy Announcements/Guidelines/Circulars related to External Sector Development

July 2021	Bangladesh Bank shall issue permission for the import of raw gold (ore) and partial refined-gold (dore) to refineries permitted by the ministry of commerce under the Foreign Exchange Regulatory Act, 1947 in line with the Gold Policy-2018 (amendment-2021). For that permissible importers-applicant refineries- should have permission from the ministry of commerce as gold refinery or for establishing gold refinery. They also should have unit ownership, joint ownership or registered limited company of Bangladeshi resident and meet all other conditions by the issued circular. (FEPD 01 July 2021)
September 2021	BB has issued a detailed circular indicating various government enlisted products, including 4 new, to be shipped abroad from July 01, 2021 to June 30, 2022 for providing cash incentive/ cash subsidy ranging between 1 percent and 20 percent in the current fiscal year (2021-2022) to promote export trade of Bangladesh. (FEPD 20 Sep 2021)
October 2021	To widen the scope of repatriation of income against service exports, it has been decided that ADs may allow their service exporters-customers to enter into arrangements, including maintenance of merchant accounts, with international market places/platforms. In addition to such accounts, service exporters may maintain notional accounts, without limiting to licensed Online Payment Gateway Service Providers (OPGSPs), with internationally reputed payment service aggregators, payment facilitators, digital wallets or other legitimate payment systems licensed by the regulatory authorities concerned. Accordingly, ADs shall facilitate repatriation of service income deposited in their nostro accounts by international market places/platforms including eligible foreign payment operators, regardless of having arrangements and maintaining separate nostro collection accounts subject to fulfillment of some specific conditions. (FEPD 18 Oct 2021)

October 2021	It is observed that Bangladeshi students are still studying under online teaching arrangements from Bangladesh due to travel restrictions imposed by some foreign governments for ongoing COVID-19 pandemic. Due to the current situation, it has been decided that ADs may continue to effect outward remittances on account of study abroad under online teaching arrangements for another two semesters/sessions subject to observance of usual regulatory instructions. (FEPD 27 Oct 2021)
December 2021	Bangladesh Bank introduced online foreign exchange transaction monitoring and management system (FX Dashboard) including two separate modules, namely online export monitoring system (OEMS) and online import monitoring system (OIMS) for proper management and monitoring of export and import related information and transaction. (FEOD 26 Dec 2021)

Annexure-1

Monetary and Credit Situation
(January-June 2019)

Tk. In crore

Particulars	Outstanding Position				Changes					
	June 2019	December 2018	June 2018	December 2017	January-June 2019		July-December 2018		January-June 2018	
					Absolute	%	Absolute	%	Absolute	%
A) Net Foreign Asset of Banking System	**272399.50**	**264700.20**	**264674.40**	**264023.80**	7699.30	2.91	25.80	0.01	650.60	0.25
B) Net Domestice Asset of Banking System	**947212.00**	**890660.50**	**845306.60**	**791975.20**	56551.50	6.35	45353.90	5.37	53331.40	6.73
i) Domestic Credit	**1146884.70**	**1080350.00**	**1021626.80**	**951989.50**	66534.70	6.16	58723.20	5.75	69637.30	7.31
Public Sector	**136629.00**	**121498.80**	**114095.20**	**105902.00**	15130.20	12.45	7403.60	6.49	8193.20	7.74
Govt. (Net)	**113273.40**	**98152.20**	**94895.00**	**87276.60**	15121.20	15.41	3257.20	3.43	7618.40	8.73
Other Public	**23355.60**	**23346.70**	**19200.10**	**18625.50**	8.90	0.04	4146.60	21.60	574.60	3.09
Private Sector	**1010255.70**	**958851.20**	**907531.60**	**846087.50**	51404.50	5.36	51319.60	5.65	61444.10	7.26
ii) Other Assets(net)	**-199672.70**	**-189689.50**	**-176320.20**	**-160014.30**	-9983.20	5.26	-13369.30	7.58	-16305.90	10.19
C) Broad Money (M2)	**1219611.50**	**1155360.60**	**1109981.00**	**1055999.00**	64250.90	5.56	45379.60	4.09	53982.00	5.11
D) Narrow Money (M1)	**273293.40**	**255456.00**	**254893.80**	**233789.70**	17837.40	6.98	562.20	0.22	21104.10	9.03
E) Currency Outside Banks	**154287.00**	**144679.10**	**140917.50**	**129149.20**	9607.90	6.64	3761.60	2.67	11768.30	9.11
F) Deposits	**1065324.50**	**1010681.60**	**969063.60**	**926849.70**	54642.90	5.41	41618.00	4.29	42213.90	4.55
i) Demand Deposits	**119006.40**	**110776.90**	**113976.30**	**104640.50**	8229.50	7.43	-3199.40	-2.81	9335.80	8.92
ii) Time Deposits	**946318.10**	**899904.70**	**855087.30**	**822209.20**	46413.40	5.16	44817.40	5.24	32878.10	4.00
G) Reserve Money	**245399.20**	**233957.30**	**232983.90**	**216313.40**	11441.90	4.89	973.40	0.42	16670.50	7.71

Annexure-1

Monetary and Credit Situation
(July-December 2019)

Tk. In crore

Particulars	Outstanding Position				Changes					
	June 2019	December 2019	June 2018	December 2018	January-June 2019		July-December 2019		July-December 2018	
					Absolute	%	Absolute	%	Absolute	%
A) Net Foreign Asset of Banking System	272399.50	274126.50	264674.40	264700.20	7699.30	2.91	1727.00	0.63	25.8	0.01
B) Net Domestice Asset of Banking System	947212.00	1020308.60	845306.60	890660.50	56551.50	6.35	73096.60	7.72	45353.9	5.37
i) Domestic Credit	1146884.70	1240598.10	1021626.80	1080350.00	66534.70	6.16	93713.40	8.17	58723.2	5.75
Public Sector	136629.00	187446.50	114095.20	121498.80	15130.20	12.45	50817.50	37.19	7403.6	6.49
Govt. (Net)	113273.40	156860.80	94895.00	98152.20	15121.20	15.41	43587.40	38.48	3257.2	3.43
Other Public	23355.60	30585.70	19200.10	23346.70	8.90	0.04	7230.10	30.96	4146.6	21.60
Private Sector	1010255.70	1053151.50	907531.60	958851.20	51404.50	5.36	42895.80	4.25	51319.6	5.65
ii) Other Assets(net)	-199672.70	-220289.50	-176320.20	-189689.50	-9983.20	5.26	-20616.80	10.33	-13369.3	7.58
C) Broad Money (M2)	1219611.50	1294435.10	1109981.00	1155360.60	64250.90	5.56	74823.60	6.14	45379.6	4.09
D) Narrow Money (M1)	273293.40	275938.50	254893.80	255456.00	17837.40	6.98	2645.10	0.97	562.2	0.22
E) Currency Outside Banks	154287.00	156583.00	140917.50	144679.10	9607.90	6.64	2296.00	1.49	3761.6	2.67
F) Deposits	1065324.50	1137852.20	969063.60	1010681.60	54642.90	5.41	72527.70	6.81	41618	4.29
i) Demand Deposits	119006.40	119355.50	113976.30	110776.90	8229.50	7.43	349.10	0.29	-3199.4	-2.81
ii) Time Deposits	946318.10	1018496.70	855087.30	899904.70	46413.40	5.16	72178.60	7.63	44817.4	5.24
G) Reserve Money	245399.20	250039.40	232983.90	233957.30	11441.90	4.89	4640.20	1.89	973.4	0.42

Annexure-1

Monetary and Credit Situation
(January-June 2020)

Tk. In crore

Particulars	Outstanding Position				Changes					
	June 2020	December 2019	June 2019	December 2018	January-June 2020		July-December 2019		January-June 2019	
					Absolute	%	Absolute	%	Absolute	%
A) Net Foreign Asset of Banking System	**297336.20**	**274126.50**	**272399.50**	**264700.20**	23209.70	8.47	1727.00	0.63	7699.30	2.91
B) Net Domestice Asset of Banking System	**1076398.80**	**1020308.60**	**947212.00**	**890660.50**	56090.20	5.50	73096.60	7.72	56551.50	6.35
i) Domestic Credit	**1307633.80**	**1240598.10**	**1146884.70**	**1080350.00**	67035.70	5.40	93713.40	8.17	66534.70	6.16
Public Sector	**210365.90**	**187446.50**	**136629.00**	**121498.80**	22919.40	12.23	50817.50	37.19	15130.20	12.45
Govt. (Net)	**181150.80**	**156860.80**	**113273.40**	**98152.20**	24290.00	15.49	43587.40	38.48	15121.20	15.41
Other Public	**29215.10**	**30585.70**	**23355.60**	**23346.70**	-1370.60	-4.48	7230.10	30.96	8.90	0.04
Private Sector	**1097267.90**	**1053151.50**	**1010255.70**	**958851.20**	44116.40	4.19	42895.80	4.25	51404.50	5.36
ii) Other Assets(net)	**-231235.00**	**-220289.50**	**-199672.70**	**-189689.50**	-10945.50	4.97		10.33	-9983.20	5.26
C) Broad Money (M2)	**1373735.00**	**1294435.10**	**1219611.50**	**1155360.60**	79299.90	6.13	74823.60	6.14	64250.90	5.56
D) Narrow Money (M1)	**328263.90**	**275938.50**	**273293.40**	**255456.00**	52325.40	18.96	2645.10	0.97	17837.40	6.98
E) Currency Outside Banks	**192114.50**	**156583.00**	**154287.00**	**144679.10**	35531.50	22.69	2296.00	1.49	9607.90	6.64
F) Deposits	**1181620.60**	**1137852.20**	**1065324.50**	**1010681.60**	43768.40	3.85	72527.70	6.81	54642.90	5.41
i) Demand Deposits	**136149.40**	**119355.50**	**119006.40**	**110776.90**	16793.90	14.07	349.10	0.29	8229.50	7.43
ii) Time Deposits	**1045471.20**	**1018496.70**	**946318.10**	**899904.70**	26974.50	2.65	72178.60	7.63	46413.40	5.16
G) Reserve Money	**283862.40**	**250039.40**	**245399.20**	**233957.30**	33823.00	13.53	4640.20	1.89	11441.90	4.89

Annexure-1

Monetary and Credit Situation
(July-December 2020)

Tk. In crore

Particulars	Outstanding Position				Changes					
	June 2020	December 2020	June 2019	December 2019	January-June 2020		July-December 2020		July-December 2019	
					Absolute	%	Absolute	%	Absolute	%
A) Net Foreign Asset of Banking System	297336.20	356976.80	272399.50	274126.50	23209.70	8.47	59640.60	20.06	1727.00	0.63
B) Net Domestice Asset of Banking System	1076398.80	1121707.70	947212.00	1020308.60	56090.20	5.50	45308.90	4.21	73096.60	7.72
i) Domestic Credit	1307633.80	1363575.60	1146884.70	1240598.10	67035.70	5.40	55941.80	4.28	93713.40	8.17
Public Sector	210365.90	222272.50	136629.00	187446.50	22919.40	12.23	11906.60	5.66	50817.50	37.19
Govt. (Net)	181150.80	191282.60	113273.40	156860.80	24290.00	15.49	10131.80	5.59	43587.40	38.48
Other Public	29215.10	30989.90	23355.60	30585.70	-1370.60	-4.48	1774.80	6.07	7230.10	30.96
Private Sector	1097267.90	1141303.00	1010255.70	1053151.50	44116.40	4.19	44035.10	4.01	42895.80	4.25
ii) Other Assets (net)	-231235.00	-241867.90	-199672.70	-220289.50	-10945.50	4.97	-10632.90	4.60	-20616.80	10.33
C) Broad Money (M2)	1373735.00	1478684.5	1219611.50	1294435.10	79299.90	6.13	104949.50	7.64	74823.60	6.14
D) Narrow Money (M1)	328263.90	336384.20	273293.40	275938.50	52325.40	18.96	8120.30	2.47	2645.10	0.97
E) Currency Outside Banks	192114.50	187462.90	154287.00	156583.00	35531.50	22.69	-4651.60	-2.42	2296.00	1.49
F) Deposits	1181620.60	1291221.5	1065324.50	1137852.20	43768.40	3.85	109600.90	9.28	72527.70	6.81
i) Demand Deposits	136149.40	148921.30	119006.40	119355.50	16793.90	14.07	12771.90	9.38	349.10	0.29
ii) Time Deposits	1045471.20	1142300.20	946318.10	1018496.70	26974.50	2.65	96829.00	9.26	72178.60	7.63
G) Reserve Money	283862.40	303305.10	245399.20	250039.40	33823.00	13.53	19442.70	6.85	4640.20	1.89

Annexure-1

Monetary and Credit Situation
(January-June 2021)

Tk. In crore

Particulars	Outstanding Position				Changes					
	June 2021	December 2020	June 2020	December 2019	January-June 2021		July-December 2020		January-June 2020	
					Absolute	%	Absolute	%	Absolute	%
A) Net Foreign Asset of Banking System	**382337.50**	**356976.80**	**297336.20**	**274126.50**	25360.70	7.10	59640.60	20.06	23209.70	8.47
B) Net Domestice Asset of Banking System	**1178557.80**	**1121707.70**	**1076398.80**	**1020308.60**	56850.10	5.07	45308.90	4.21	56090.20	5.50
i) Domestic Credit	**1439899.10**	**1363575.60**	**1307633.80**	**1240598.10**	76323.50	5.60	55941.80	4.28	67035.70	5.40
Public Sector	**251043.70**	**222272.50**	**210365.90**	**187446.50**	28771.20	12.94	11906.60	5.66	22919.40	12.23
Govt. (Net)	**221025.90**	**191282.60**	**181150.80**	**156860.80**	29743.30	15.55	10131.80	5.59	24290.00	15.49
Other Public	**30017.80**	**30989.90**	**29215.10**	**30585.70**	-972.10	-3.14	1774.80	6.07	-1370.60	-4.48
Private Sector	**1188855.30**	**1141303.00**	**1097267.90**	**1053151.50**	47552.30	4.17	44035.10	4.01	44116.40	4.19
ii) Other Assets(net)	**-261341.20**	**-241867.90**	**-231235.00**	**-220289.50**	-19473.30	8.05	-10632.90	4.60	-10945.50	4.97
C) Broad Money (M2)	**1560895.30**	**1478684.50**	**1373735.00**	**1294435.10**	82210.80	5.56	104949.50	7.64	79299.90	6.13
D) Narrow Money (M1)	**375828.70**	**336384.20**	**328263.90**	**275938.50**	39444.50	11.73	8120.30	2.47	52325.40	18.96
E) Currency Outside Banks	**209517.70**	**187462.90**	**192114.50**	**156583.00**	22054.80	11.76	-4651.60	-2.42	35531.50	22.69
F) Deposits	**1351377.60**	**1291221.50**	**1181620.60**	**1137852.20**	60156.10	4.66	109600.90	9.28	43768.40	3.85
i) Demand Deposits	**166311.00**	**148921.30**	**136149.40**	**119355.50**	17389.70	11.68	12771.90	9.38	16793.90	14.07
ii) Time Deposits	**1185066.60**	**1142300.20**	**1045471.20**	**1018496.70**	42766.40	3.74	96829.00	9.26	26974.50	2.65
G) Reserve Money	**347485.30**	**303305.10**	**283862.40**	**250039.40**	44180.20	14.57	19442.70	6.85	33823.00	13.53

Annexure-1

Monetary and Credit Situation
(July-December 2021)

Tk. In crore

Particulars	Outstanding Position				Changes					
	June 2021	December 2021	June 2020	December 2020	July-December 2021		January-June 2021		July-December 2020	
					Absolute	%	Absolute	%	Absolute	%
A) Net Foreign Asset of Banking System	**382337.50**	**369155.30**	**297336.20**	**356976.80**	-13182.20	-3.45	25360.70	7.10	59640.60	20.06
B) Net Domestice Asset of Banking System	**1178557.80**	**1251479.60**	**1076398.80**	**1121707.70**	72921.80	6.19	56850.10	5.07	45308.90	4.21
i) Domestic Credit	**1439899.10**	**1532188.00**	**1307633.80**	**1363575.60**	92288.90	6.41	76323.50	5.60	55941.80	4.28
Public Sector	**251043.70**	**268940.50**	**210365.90**	**222272.50**	17896.80	7.13	28771.20	12.94	11906.60	5.66
Govt. (Net)	**221025.90**	**234544.10**	**181150.80**	**191282.60**	13518.20	6.12	29743.30	15.55	10131.80	5.59
Other Public	**30017.80**	**34396.40**	**29215.10**	**30989.90**	4378.60	14.59	-972.10	-3.14	1774.80	6.07
Private Sector	**1188855.30**	**1263247.50**	**1097267.90**	**1141303.00**	74392.20	6.26	47552.30	4.17	44035.10	4.01
ii) Other Assets(net)	**-261341.20**	**-280708.40**	**-231235.00**	**-241867.90**	-19367.20	7.41	-19473.30	8.05	-10632.90	4.60
C) Broad Money (M2)	**1560895.30**	**1620635.00**	**1373735.00**	**1478684.50**	59739.70	3.83	82210.80	5.56	104949.50	7.64
D) Narrow Money (M1)	**375828.70**	**379311.00**	**328263.90**	**336384.20**	3482.30	0.93	39444.50	11.73	8120.30	2.47
E) Currency Outside Banks	**209517.70**	**210723.10**	**192114.50**	**187462.90**	1205.40	0.58	22054.80	11.76	-4651.60	-2.42
F) Deposits	**1351377.60**	**1409911.9**	**1181620.60**	**1291221.50**	58534.30	4.33	60156.10	4.66	109600.90	9.28
i) Demand Deposits	**166311.00**	**168587.90**	**136149.40**	**148921.30**	2276.90	1.37	17389.70	11.68	12771.90	9.38
ii) Time Deposits	**1185066.60**	**1241324.00**	**1045471.20**	**1142300.20**	56257.40	4.75	42766.40	3.74	96829.00	9.26
G) Reserve Money	**347485.30**	**323097.00**	**283862.40**	**303305.10**	-24388.30	-7.02	44180.20	14.57	19442.70	6.85

Call for Papers and Notes to the Contributors

JOURNAL OF THE INSTITUTE OF BANKERS, BANGLADESH is a half-yearly peer-refereed Journal, published in June and December. The Journal contains research-based papers on Trade, Insurance, Finance and Banking related issues. A list of topics on these areas has been suggested at the end but undoubtedly it is not a comprehensive one.

Contributors are requested to submit papers/articles on the above issues for publication in the journal.

The following may be treated as guidelines for submission of the article/paper:

1. The article/paper should be based on research and should demonstrate the author's own analysis, thought and judgment.
2. Name(s) and address(es) of the author(s) with the title of the article/paper and institutional affiliation(s) should be provided on a separate page.
3. The manuscript must be typed (Font–Times New Roman, Font Size–11 point) on one side of the paper in double space and normally should not exceed 20 pages.
4. All footnotes and Equations should be numbered consecutively. Explanation of footnotes should be given at the bottom page.
5. An abstract of 150 words or less (in Time New Roman 9 point) should be given along with the article/paper.
6. Keywords of the paper should be given below the abstract.
7. Bibliographical references should be made in a defined structure. In the case of article, the citation should be as follows:

   Author's last name, First name and Middle initial, Year of Publication, "Title of the Paper", name of the journal (to be italicized), volume number, month and page number.

   For example,

   > Mussa, M., 1974, "A Monetary Approach to Balance of Payments Analysis", *Journal of Money, Credit and Banking,* Vol. 6, No.3, pp. 333-351.

   In the case of Text Books/Monograph, the citation should be as follows:

   Author's last name, First name and Middle initial, Year of Publication, "Title of the Book"(to be italicized), Name of the Publisher.

For example,

Hicks, Junior R., 1946, *Value and Capital,* Oxford University Press.

8. For citation of published papers/books in the text, it should be, for example, as follows:
   a) Smith (1998)
   b) Jensen and Smith (1992)
   c) Smith et al. (1988) [with more than three authors]
   d) (e.g. see Smith 1982; Goldner 1991) [with more than one source cited together]
   e) (FASB 1986:9) states
   f) (Collins and Salarka 1993: 122)
9. Use suffix a, b,c etc. when the references list contains more than one work of an author in the same year.

   For example,

   a) Becker 1990a
   b) (e.g; see Smith 1987a; Becker 1995b)
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