ISSN 1684-0054

JOURNAL OF THE INSTITUTE OF BANKERS BANGLADESH

Volume 65

Volume 65

JOURNAL OF THE INSTITUTE OF BANKERS BANGLADESH

January-December 2022

January-December 2022

YEARLY JOURNAL OF THE INSTITUTE OF BANKERS, BANGLADESH (IBB)

Published by **:** The Institute of Bankers, Bangladesh (IBB)
Published on **:** June 2023

ISSN 1684-0054

JOURNAL OF
THE
INSTITUTE OF BANKERS
BANGLADESH

Volume 65
January-December, 2022

Journal of the Institute of Bankers, Bangladesh is a yearly refereed journal published in December

Journal of the Institute of Bankers, Bangladesh is a yearly refereed journal published in December

THE INSTITUTE OF BANKERS, BANGLADESH

DR Tower (12th Floor), 65/2/2 Bir Protik Gazi Golam Dostogir Road
(Box Culvert Road), Purana Paltan, Dhaka-1000, Bangladesh

THE INSTITUTE OF BANKERS, BANGLADESH

DR Tower (12th Floor), 65/2/2 Bir Protik Gazi Golam Dostogir Road
(Box Culvert Road), Purana Paltan, Dhaka-1000, Bangladesh

THE COUNCIL FOR 2023

Chairman
Mr. Abdur Rouf Talukder
Governor, Bangladesh Bank

Vice- Chairman
Mr. Md. Afzal Karim
CEO & Managing Director, Sonali Bank Limited

Members of the Council

Mr. Ahmed Jamal	Deputy Governor,Bangladesh Bank
Mr. Kazi Sayedur Rahman	Deputy Governor, Bangladesh Bank
Mr. A. K. M. Sajedur Rahman Khan	Deputy Governor, Bangladesh Bank
Mr. Abu Farah Md. Nasser	Deputy Governor,Bangladesh Bank
Mr. Md. Abdus Salam Azad	CEO & Managing Director, Janata Bank Limited
Mr. Md. Murshedul Kabir	Managing Director & CEO, Agrani Bank Limited
Mr. Mohammad Jahangir	Managing Director & CEO, Rupali Bank Limited
Mr. Md. Habibur Rahman Gazi	Managing Director, Bangladesh Development Bank Ltd.
Mr. Md. Anisur Rahman	Managing Director & CEO, BASIC Bank Limited
Mr. Md. Abdul Jabber	Managing Director, Bangladesh Krishi Bank
Md. Zahidul Haque	Managing Director, Rajshahi Krishi Unnayan Bank
Mr. Md. Abul Hossain	Managing Director, Investment Corporation of Bangladesh
Mr. Rafiqul Islam	Managing Director, Shimanto Bank Ltd.
Mr. Habibur Rahman	Managing Director & CEO, South Bangla Agriculture & Commerce Bank Ltd.
Mr. Zafar Alam	Managing Director & CEO, Social Islami Bank Limited
Mr. Nuruddin Md. Sadeque Hussain	Managing Director (CC), Southeast Bank Limited
Mr. Md. Habibur Rahman	Managing Director & CEO, Standard Bank Ltd.
Ms. Humaira Azam	Managing Director, Trust Bank Limited
Mr. A.B.M. Mokammel Hoque Chowdhury	Managing Director & CEO, Union Bank Ltd.
Mr. Arif Quadri	Managing Director & CEO, United Commercial Bank Ltd.
Mr. Mohammed Rabiul Hossain	Managing Director & CEO, Uttara Bank Limited
Mr. Tarique Afzal	President & Managing Director, AB Bank Limited
Mr. Adil Islam	Country Head, Bank Alfalah
Mr. Mohammed Mosharaf Hossain	Managing Director & CEO, Islamic Finance and Investment Ltd.
Mr. Khwaja Shahriar	CEO & Managing Director, Lankabangla Finance Ltd.
Ms. Anisa Hamed	Fellow, IBB & Ex-Managing Director, Ansar-VDP Unnayan Bank
Mr. Muhammad A (Rumee) Ali	Fellow, IBB & Ex. Chief Executive Officer, Standard Chartered Grindlays Bank & Former Deputy Governor, Bangladesh Bank & CEO, BIAC

Ms. Laila Bilkis Ara
Secretary General
The Institute of Bankers, Bangladesh (IBB)

LIST OF FELLOWS OF THE THE INSTITUTE OF BANKERS, BANGLADESH
(In alphabetical order)

Ahmed, Dr Fakhruddin	Ex-Governor, Bangladesh Bank
Ahmed, Dr Salehuddin	Ex-Governor, Bangladesh Bank
Ahmed, Ghiasuddin	Ex-Managing Director, Investment Corporation of Bangladesh
Ahmed, Neaz	Ex-Managing Director, National Bank Ltd
Ali, Md Yeasin	Ex-Managing Director, Dutch-Bangla Bank Ltd.
Ali, Muhammad A (Rumee)	Ex-Chief Executive Officer, Standard Chartered Grindlays Bank
Amin, Mohammed Nurul	Ex-Managing Director, National Credit & Commerce Bank Ltd
Choudhury Md. Enamul Huq	Ex-Managing Director, Sonali Bank
Chowdhury, SA	Ex-Managing Director, Sonali Bank
Farashuddin, Dr Mohammed	Ex-Governor, Bangladesh Bank
Ghaffar, AKM	Ex-Managing Director, Arab Bangladesh Bank Ltd.
Hamed, Anisa	Ex-Managing Direcor, Ansar-VDP Unnayan Bank
Hamid, Humayun	Ex-Managing Director, Bangladesh Shilpa Rin Sangstha
Haque, A S M Imdadul	Ex-Managing Director, Agrani Bank
Haque, M M Nurul	Ex-Managing Director, Investment Corporation of Bangladesh
Huda, Quamrul	Ex-Managing Director, Pubali Bank Ltd.
Huda, Md. Nazrul	Ex-Deputy Governor, Bangladesh Bank
Hussain, Rabiul	Ex-Managing Director, Sonali Bank
Kabir, Fazle	Ex- Governor , Bangladesh Bank
Karim, Mahmud-ul	Ex-Managing Director, Bangladesh Shilpa Bank
Khan, Abul Matin	Ex-Managing Director, Pubali Bank Ltd.
Khan, Murshid Kuli	Ex- Deputy Governor , Bangladesh Bank
Khan, Anisuddin Ahmed	Ex-Managing Director & CEO, Mutual Trust Bank Ltd.
Qureshi, A A	Ex-Managing Director, Bangladesh Small Industries & Commerce Bank Ltd.
Rahman, Dr. Atiur	Ex-Governor, Bangladesh Bank
Rahim, AMA	Ex-Economic Advisor, Bangladesh Bank
Rahman, AKM Sajedur	Ex-Managing Director, BASIC Bank Limited
Rahman, S M Aminur	Ex-CEO & Managing Director, Janata Bank Ltd.
Siddiqui AQ	Ex-Managing Director, Sonali Bank Ltd.
Siddiqui Hassan Ziaul	Ex-Deputy Governor, Bangladesh Bank

Journal of the Institute of Bankers, Bangladesh
Volume 65
January-December, 2022

CONTENTS

Editorial Notes

The greatest budget deficit to date, totaling Tk 2.62 trillion, or 5.2% of GDP, is included in Bangladesh's annual budget of Tk. 7.62 trillion for the fiscal years 2023–24. The potential for undermining macroeconomic activity increases with the budget deficit's percentage of GDP. This budget, which aims to increase GDP by 7.5% while keeping inflation under control at 6%, is expansionary amid austerity, buildup of debt, and rising inflation. There is growing concern over hefty government borrowing from banks & the central Banks – BB, for deficit financing and unrelenting price rises. The country’s banks reportedly suffers from liquidity shortage for deposit squeeze for limited economic activity and from banks’ distressed assets hovering around of BTD 3.0 trillion on the one hand and price spiral of consumer goods. Therefore, increased government bank borrowings have a crowding-out effect on credit flow to the private sector, resulting in a decrease in production and the creation of jobs with cascade implications. Failure to borrow the amount the government planned from external sources would make the banking industry's issues worse.

On the other side, there are three ways to borrow money from the Bangladesh Bank (BB). The wage and means advance, overdraft, and development are three ways to borrow money from BB. Development results from the central bank printing money, which the government borrows from BB for loans. Banking for development by relying on the Bangladesh Bank amounts to printing money that results in seigniorage. This ‘high powered money’ fuels inflation. The government borrows Tk. 1543 crore from BB under development means for the first 18 days of July for the fiscal year 2023–24. As of July 18, 2023 and June 30, 2023, the total amount of government loans (outstanding) from banks and BB was 3.91 trillion and 3.97 trillion, respectively. As of July 18, 2023 and June 30, 2023, the loans balance from BB was Tk. 1.50 trillion and Tk. 1.57 trillion, respectively.

For the first month of July of FY-2023-2024, the government borrowed a net amount of Tk. 9800 crore from banks. The total amount of money held outside the banking system (mattress money) rose by more than 7.7% year over year by June 30, 2023, reaching Tk. 2.91 trillion, according to the most recent statistics from the Bangladesh Bank. Household expenditure rise and 25 per cent taka depreciation drive money out of banks. Inflation is fueled by the mattress money, or currency kept outside bank vaults, which has reached above Tk. 2.91 trillion. In order to combat inflation, the Monetary Policy stance announced for H1 of FY 2023–24 switched for the first time from monetary targeting to an interest rate framework and chose contractionary money policy. It cannot be overstated that slowing the growth target may be necessary to control inflation in addition to monetary policy.

The first article in this issue looks into the degree of financial inclusion and literacy among university students. The study surveys 360 undergraduate and graduate students and evaluates the level of financial literacy among university students in light of the respondents' traits, financial behavior, attitude, and knowledge of specific macro-financial aspects. The study finds through a logistic regression analysis, that the respondents' degree of financial literacy is significantly influenced by their age, education level, study background, financial course, financial behavior, financial influence, and financial attitude. The odd ratio for undergraduate respondents is 0.566, which indicates that they are 0.566 times less likely than graduate respondents to be financially literate. The odds ratio of 0.176 indicates that respondents without a background in business and economics are 0.176 times less likely to be financially literate than respondents with a background in these fields. The odd value of not taking a financial course is 0.348, which suggests that respondents who did not take the course are 0.348 times less likely to be financially literate than respondents who did. Therefore, there is a lot of room to increase financial inclusion and literacy among university students, which would help the nation build financial knowledge-based human capital to achieve the SDGs by 2030.

The second paper aims to analyze the effects of various monetary policy stances and lessons learned In light of the COVID-19 situation. In order to determine whether the policies are consistent across countries in the face of COVID-19 and how effective they are to recover growth and employment while controlling inflation at desired level, the study reviewed the current stance of monetary policy from a global perspective based on some key macro-monetary indicators. Emerging market economies have been proven to be strongly linked to the US economy. Whether advanced and emerging economies need to maintain an extraordinary and accommodating monetary policy to enable their sustainable recovery notwithstanding inflationary pressure and chronically high inflation expectations. Emerging markets are affected by the pass-through and spillover effects of U.S. monetary policy.

The last article examines Sadharan Bima Corporation's (SBC) financial performance over the course of 19 years, from 2002 to 2020, as a government-run non-life insurance provider in Bangladesh. The 19-year average annual growth rate (AAGR) for SBC's net premium (total premium net of ceded reinsurance) is 11.72%, while the CAGR for the company's total assets is 11.07%. From 24% in 2003 to 9% in 2015, SBC's expense ratio—which measures management costs as a percentage of net premium—displayed a downward trend. From there, it fluctuated until 2020, when it was 13%. Lowering expense ratio over time does reflect improved cost-efficiency and productivity, which is a sign of higher SBC financial performance. It was found that its investment income ratio, expense ratio, and net retention ratio are the key contributors to the profitability, as determined by ROA, of Sadharan Bima Corporation, a state-owned provider of non-life insurance in Bangladesh.

Mahmood Osman Imam 30 June, 2023
Editor

©2022 Journal of IBB
Volume 65 January-December 2022
Institute of Bankers of Bangladesh
(ISSN 1684-0054)

An Assessment of Financial Literacy and Financial Inclusion among University Students in Bangladesh

Kohinur Aktar *

Abstract

Financial literacy accelerates inclusive finance through increasing savings, investment, self-employment, and engaging citizens as active participants in the developmental process of a country. The study investigates the level of financial literacy and financial inclusion among university students, particularly at Jagannath University in Bangladesh. Conducting a survey of 360 undergraduate and graduate level students, the study found that 57.80 percent and 88.33 percent of respondents have a bank accounts and mobile financial service accounts respectively while only 9.74 percent of respondents have an adequate level of financial literacy. The logistic regression analysis identified that age, education level, study background, financial course, financial behavior, influence, and attitude have a statistically significant impact, while gender, family income, and residence type have a statistically insignificant impact on the respondents' financial literacy level. So, there exists a significant space to improve financial literacy as well as financial inclusion among university students which will support the country to develop sound financial knowledge-oriented human capital to attain the sustainable development goals (SDGs) by 2030 and to become the inclusive economic growth-oriented upper middle-income country by 2031.

Article Info: Received 13 January 2022; Revised and Resubmitted: 11 September 2022; Accepted: 30 January 2023; Published: 30 June 2023.

Key Words: Financial Literacy, Financial Inclusion, Undergraduate and Graduate Level Assessment

JEL Classifications: G53, O16

I. Introduction

Financial literacy refers to the individual's ability to understand, analyze, and address financial issues, challenges, and decisions in daily life. It refers to understanding the use of money including the channel through which income and expenditure are driven and having the proficiency to utilize the usual methods of exchanging and managing currency (Sarigul, 2014). Financial literacy is the precondition of financial inclusion and its advancement in a country. Financial literacy is the study of personal financial management which provides the advantage of defending against financial fraud and planning for a financially secure future. A person who has no knowledge of budgeting, investing, borrowing, taxation, and personal financial management is referred to as financially illiterate.

* Assistant Professor, Department of Economics, Jagannath University, Dhaka-1100.
E-mail: kohinur@eco.jnu.ac.bd

Being financially literate, consumers can obtain the essential knowledge and expertise required to evaluate the financial products and investments existing in the financial market (Bangladesh Securities and Exchange Commission (BSEC), 2021).

Financial literacy is a combination of awareness, knowledge, skills, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual well-being (OECD, 2014). The ongoing COVID-19 pandemic has had a substantial negative influence on the group of people who are financially vulnerable and even many well-off people have abruptly discovered themselves in a financial crisis due to lack of knowledge of financial literacy. At present, a consumer's lack of financial knowledge makes the consumer vulnerable to the financial crisis (Braunstein and Welch, 2002), and recently, concerns about financial literacy have grown significantly in society (Fox, et al., 2005). Financial literacy helps the efficient allocation of national resources and strengthens the long-term potential for economic growth in the economy (Widdowson and Hailwood, 2007), as financial literacy influences people's investment decisions, including risk and return tradeoffs. Therefore, financial literacy is directly linked to the well-being of individuals as well as society as a whole (Bhushan and Medury, 2013).

Financial literacy acts as an important indicator for being financially healthy in the future life. It is really essential for the students to have financial knowledge and skills. Youngsters with financial proficiency are much more likely to lead a life of security from the start (Saving for College, 2021). Young people are the future contributors to labor force in the economy. The lack of financial literacy may perhaps navigate them to be engaged in a higher level of financial problems during education life which has a substantial consequence on their present and future life as well as professional life (Sarigul, 2014). Students' understating capacity of financial issues and concepts helps them to take a better decision regarding managing and investing money. At the same time, university students have to take on more personal financial obligations and they face more financial encounters (Peng et al., 2007). In this connection, financial literacy has paramount upside potential for university students.

Disseminating financial literacy among young people has become one of the challenging issues for policymakers because the financial choices confronted by the youth now are more different than those in the past. The financial decisions have become ever complex due to uncertion economic outlook, unemployment problem, lower propensity to sarvings etc. (Atkinson and Messy, 2012). Considering the significance of youth financial literacy and financial inclusion, the present study has attempted to investigate the level of financial literacy and financial inclusion among the students through conducting a survey at Jagannath University in Bangladesh.

II. Rationale of the Studythe

Financial literacy and capability stimulate better financial decision-making enabling better planning and management of life events such as education, housing, and retirement (Mahdzan and Tabiani, 2013). Financial literacy can assist individuals to prepare for managing financial crisis periods, like the COVID-19 pandemic; by upholding tactics that lessen risk e.g. accumulated savings, asset diversification, and purchasing insurance. According to Jappelli (2010), consumers having adequate financial knowledge tend to save for future, retirement and unpredictable circumstances. However, the financial literacy rate among adults in Bangladesh was 29 percent in 2017 (Finclusion, n. d.). The financial literacy rate as well as financial inclusion should be improved to achieve the quality education target of Sustainable Development Goals by 2030 and support the growth and development of Bangladesh by enabling individuals for protecting against financial frauds. A number of initiatives have been taken by the government of Bangladesh to increase financial inclusion as well as financial literacy and they have published the National Financial Inclusion Strategy.

Students need financial knowledge and skills more now than ever before due to present developments in the financial market. Financial education for adolescents leads to better management of financial plans, less under-saving and over-borrowing (Luhrmann, et al., 2014). The success of students not only depends on academic performance but also on opportunities available to them to learn, develop and strengthen basic financial risk-minimizing skills. So, the present study is important to explore the financial literacy as well as financial inclusion level among university students in Bangladesh.

III. Literature Review

The relevant literature outlining the importance of financial literacy, factors influencing financial literacy and financial inclusion, and the level of financial literacy among university students is briefly presented in this section.

Financial literacy is the set of skills and knowledge through which an individual can make cognizant and efficient decisions about his financial decisions. It is more than a measure of knowledge reflecting proficiency in managing one's personal money from accumulation to consumption (Remund, 2010). Financial literacy plays an important role in promoting financial inclusion, building better capacity to plan, save and cope with financial shocks (Atkinson & Messy, 2011; Klapper et al., 2013). The concept of incorporating those who are formally financially disadvantaged in the formal financial systems is known as financial inclusion (Uddin, et al., 2017). Financial inclusion is a metric used to assess the inclusiveness of a nation's financial system. In developing nations like Bangladesh, where a sizable portion of the population still lacks access to basic financial services and formal financial institutions, the financial inclusion has emerged as a noteworthy issue (Akter, 2016). Subbaro (2013) emphasizes the significance of financial literacy and has mentioned that financial inclusion does not only refer to the provision of financial services but also includes financial literacy.

Based on the household-level data, Khalily (2016) found the moderate level intensity of financial literacy in Bangladesh, and financial literacy has a positive impact on inclusive finance. The study suggests enhancing financial literacy for access to finance and informed investment decisions. Karim (2020) claimed that a good level of financial literacy helps to reduce the dependency of aging people and ensure better future life. Accordingly, to reduce the dependency on aging population, financial literacy should be increased in Bangladesh with the visionary programs of the government and other implementing agencies. Financial literacy is a way to promote the financial inclusion of a country. Besides financial literacy, digital and mobile financial services are also playing a significant role to stimulate financial inclusion in Bangladesh. According to Kim et al. (2018), financial inclusion fosters financial growth, and the two are inseparably linked to each other. Many rural people who are out of the conventional banking system take advantage of Mobile Financial Services (MFS) bridging the financial gap in Bangladesh. In addition to MFS, Digital Financial Services (DFS) help financially illiterate people gain access to finance aiming at greater financial inclusion (Hossain, 2019). Ozili (2018) found a positive association between digital finance and financial inclusion in emergent economies.

Ergun (2017) observed the level of financial literacy among university students in Estonia, Germany, Italy, Netherlands, Poland, Romania, the Russian Federation, and Turkey. The logistic regression technique of the study found that the students who are male, having business major in university, pursuing their PhD, living in rental house or from high income family are mare competent to manage personal finance. The study concluded that getting financial information from university education is the most effective way to improve students' financial literacy. Oseifuah, et al., (2018) found a positive relationship between students' experience in handling money and students' financial literacy level in the northern region of Ghana. The study observed that students also emphasize saving for managing their personal finances. Shaari et al. (2013) found that age, spending habits, gender, study duration, and faculty of the students all have a substantial impact on the financial literacy of university students in Malaysia.

Thapa and Nepal (2015) examined the impact of demographic, educational, and personality characteristics on the financial literacy of 436 college students. Applying the logistic regression techniques, the study recognized income, age, stream of education, types of college, and attitude of students as contributing factors of financial knowledge whereas financial knowledge is unaffected by gender, university affiliation, financial behavior, and influence.

Financial literacy impacts over all stages of life. It improves the ability to read, analyze, manage, and communicate about the individual's financial state and enhances welfare through better financial decisions (Vitt et al., 2000). Volpe, et al. (1996) surveyed undergraduate business students and found that students who majored in business were more knowledgeable about investing than students who did not major in business. Cameron, et al. (2014) stated that it is essential for youth to have a basic understanding of financial literacy for improving effective financial planning. Nidar and Bestari (2012) studied the personal financial literacy among students of Padjadjaran University and evaluated the factors which influence students' financial literacy. The study found the level of education, faculty, personal income, knowledge from parents, parent's income, and ownership of insurance as significant factors of personal financial literacy for students and recommended the improvement of financial knowledge in the areas of investment, credit, and insurance.

Financial behavior, attitude, and influence are closely linked to financial knowledge (Jorgensen, 2007). Hathaway and Khatiwada (2008) analyzed the impact of financial education on consumer financial behavior. However, the empirical relationship between financial knowledge and behavior was not found. Hilgert et al., (2003) advocated support for a link between financial knowledge and better financial practices through collecting data from households by the University of Michigan on cash flow management, credit management, saving, and investment.

Financial literacy skill has a profound impact on individual, family, and on the economy in a broader sense. According to Oseifuah, et al., (2018), financial literacy skills among young people are so crucial mainly for three reasons. Firstly, with the increased complexity in the financial products, services, and systems, today's youth are facing more challenges in the case of financial choices than the past generations did. Secondly, youth will most likely endure additional financial risks in later life for better life expectancy. Thirdly, youngsters can reduce financial literacy inequalities that exists in society by appropriate financial education. Hogarth (2002) recognized that a person is financially literate who is knowledgeable and well informed about issues concerning the management of money and assets, banking, investments, credit, and taxes; who has the basic concepts about money and assets management; and who employs his knowledge to plan and implement financial decisions.

Sarigül (2014) surveyed 1,099 students to investigate the level of financial literacy in terms of saving and spending, banking, risk and insurance, investing, and general financial knowledge among students and suggested that universities should conduct programs for enlightening the financial literacy of their students as soon as possible otherwise this may create a problem for them as well as for the society. Damayanti, et al., (2018) claimed that an individual can affront financial complications not only of low income but also for the mismanagement of finance which can cause pressure and loss of self-esteem. Financial literacy will assist to maximize the value of money and will increase the standard of living.

The reviewed literature of the study reveal that the several studies have already been conducted on different issues of the students' financial literacy in many courtiers. However, in the Bangladesh context, studies are rarely found that have examined the financial literacy as well as financial inclusion level of university students. Therefore, the present study has made an effort to assess the level of financial literacy, factors influencing financial literacy as well as financial inclusion among the undergraduate and graduate level students of Jagannath University in Bangladesh.

IV. Methodology of the study

The present study to investigate the level of financial literacy and financial inclusion is mainly based on primary data which are collected from the graduate and undergraduate level students of Jagannath University in Bangladesh in 2021. The researchers surveyed a total of 360 respondents who are selected by applying the stratified simple random sampling technique.

The face-to-face interview method of data collection has been applied to collect data from the respondents by employing data collectors in the study. A pilot survey has been conducted on the students of Jagannath University before finalizing the questionnaire. The collected data has been proceeded through SPSS, Version-20.0. Statistical analyses like descriptive analysis and logistic regression analysis are employed to interpret data and the result of the study.

Logistic Regression Model

To construct logistic regression model, the study considers students' financial literacy level as the dependent variable which is categorized by following the Chen and Volpe (1998), Thapa and Nepal (2015), and Ergun (2017) techniques as less financial literacy level and more financial literacy level. The study calculates the respondents' scores based on the correct answers to the financial knowledge- related questions in order to categorize the respondents as having a higher or lower level of financial literacy. Respondents with scores higher than 50 percent are classified as having higher financial literacy level, while those with scores of 50 percent or less are classified as having lower level of financial literacy. The independent variables of the logistic regression model are gender, age, education level, study field, financial behavior, financial course, financial influence, financial attitude, monthly family income, and type of residence of the respondents. The logistic regression model specification is in the following form-

$$log\left[\frac{p}{1-p}\right] = \beta_0 + \beta_1(Gender) + \beta_2(Age) + \beta_3(Education\ Level) + \beta_4(Study\ Field) + \beta_5(Financial\ Behavior) + \beta_6(Financial\ Course) + \beta_7(Financial\ Influence) + \beta_8(Financial\ Attitude) + \beta_9(Monthly\ Family\ Income) + \beta_{10}(Type\ of\ Residence) + \mu_i$$

The variables of the regression model are defined as follows-

Variables		**Definition**
P	=	The probability of the student to more financial literacy.
1-p	=	The probability of the student to less financial literacy.
Gender	=	The value is 1 if the respondent is male, 0 otherwise.
Age	=	The value is 1 if the respondent's age is less than or equal to 20 and the value is 2 if the respondent's age is greater than 20.
Education Level	=	The value is 1 if the respondent is studying at the undergraduate level and the value is 2 if the respondent is studying at the graduate level.
Study Field	=	The value is 1 if the respondent is studying at any subject related to business and economics, 0 otherwise.
Financial Behavior	=	Financial behavior of the respondents measured in a 5-point scale
Financial Course	=	The value is 1 if the respondent is studied any course of finance, 0 otherwise.
Financial Influence	=	Financial influence of the respondents measured in a 5-point scale
Financial Attitude	=	Financial attitude of the respondents measured in a 5-point scale
Monthly Family Income	=	The value is 1 if the monthly family income is < 10 Thousand, The value is 2 if the monthly family income is 10 Thousand to < 20 Thousand, The value is 3 if the monthly family income is 20 Thousand to < 30 Thousand, The value is 4 if the monthly family income is 30 Thousand to < 40 Thousand, The value is 5 if the monthly family income is 40 Thousand to < 50 Thousand, and The value is 6 if the monthly family income is ≥ 50 Thousand
Type of Residence	=	The value is 1 if the respondent living in mess without parents and the value is 2 if the respondent living with parents.
μi	=	Error term of the model.

Thus, by applying descriptive statistics and logistic regression techniques, the study assessed the financial literacy and financial inclusion level of the respondents.

V. Data Analysis and Results Discussion

Descriptive Statistics

The descriptive analysis of the study in table 1 focuses on the frequency and percentage of survey data on the respondents' financial literacy as well as financial inclusion.

Table-1: Profile, Financial literacy & financial inclusion of the respondents.

Age of the Respondents		
Age Group	Frequency	Percentage
18 to 20	23	6.4
21 to 23	207	57.5
24 to 26	130	36.1
Educational Status of the Respondent		
Educational Status	Frequency	Percentage
Undergraduate	259	71.94
Graduate	101	28.06
Sex of the Respondents		
Gender	Frequency	Percentage
Male	214	59.44
Female	146	40.56
Grade Point Average (GPA)		
GPA	Frequency	Percentage
< 3	135	37.5
3 to < 3.50	185	51.4
≥ 3.50	40	11.1
Maintaining Financial Records		
Financial Records	Frequency	Percentage
No records	159	44.2
Minimal records	166	46.1
Detailed records	35	9.7
Respondents' Economical Attitude		
Economical Attitude	Frequency	Percentage
Very economical	107	29.7
Somewhat economical	111	30.8
Neither economical nor spending oriented	104	28.9
Somewhat spending oriented	29	8.1
Very spending oriented	9	2.5

Use of Debit Cards		
Debit Cards	Frequency	Percentage
Yes	110	30.6
No	250	69.4
Use of Mobile Financial Services		
MFS	Frequency	Percentage
Yes	318	88.33
No	42	11.67
Respondents' Personal Bank Account		
Bank Account	Frequency	Percentage
Yes	208	57.8
No	152	42.2
Sources of Respondents' Monthly Deficit Financing		
Sources	Frequency	Percentage
Cut down expenses	104	28.89
Borrowing from friends or relatives	107	29.72
Spend my savings	109	30.28
Other Sources	40	11.11
Source: Calculations from survey data		

The descriptive analysis of the study considers the age of respondents as an important indicator to determine the level of understanding of financial literacy issues and dealing the financial matter in their daily life. The survey data showed that among the 360 respondents, 6.4 percent, 57.5 percent, and 36.1 percent of respondents belong to the age group of 18 years to 20 years, 21 years to 23 years, and 24 years to 26 years respectively. The study found that most of the respondents were 3rd year and 4th year undergraduate students of the university and they should have sufficient financial literacy. Gender distribution may have an impact on a country's financial literacy percentage because men deal with more financial concerns in their everyday lives than women do. The male and female respondents of the study were 49.44 percent and 40.56 percent respectively. The frequency distribution of respondents' education level shows that the undergraduate and graduate level respondents were 71.94 percent and 28.06 percent respectively. Considering the correlation between the financial literacy strength and academic results of the respondent, the study identifies that among the 360 respondents, 37.5 percent, 51.4 percent, and 11.1 percent respondents' undergraduate and graduate level Grade Point Average (GPA) were less than 3.00, 3.00 to 3.50 and greater or equal to 3.50 respectively suggesting that the majority of the study's respondents have a GPA of 3.00 to 3.50.

The frequency distribution of keeping financial records shows that 44.2 percent, 46.1 percent, and 9.7 percent of respondents were keeping no records, minimal records and detailed records of financial activities respectively which indicates only a small percentage of university students are aware of the importance of keeping track of transactions. The respondents are also categorized as very economical, somewhat economical, neither economical nor spending oriented, somewhat spending oriented, and very spending oriented. The study explores that among the 360 respondents, 29.7 percent, 30.8 percent, 28.9 percent, 8.1 percent, and 2.5 percent respondents claim that they are very economical, somewhat economical, neither economical nor spending oriented, somewhat spending oriented, and very spending oriented. The study revealed that 30.6 percent and 88.33 percent respondents are the users of debit card and mobile financial service respectively while remaining 69.4 percent and 11.67 percent respondents have no debit card and mobile financial service accounts respectively. Among the 360 respondents, 57.8 percent have a bank account; while 42.2 percent claims to have no bank account. Among the 360 respondents, 28.89 percent, 29.72 percent, 30.28 percent, and 11.11 percent finance their deficit by cutting down expenses, borrowing from friends or relatives, spending from savings, and other sources respectively.

Table-2: Rating of Respondents' Financial Behavior

Total No. of Respondents	360									
Financial Behavior	(1) Never		(2) Rarely		(3) Sometimes		4) Usually		(5) Always	
	Frequency	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**
I budget my money very well	36	10.00	51	14.20	94	26.10	94	26.10	85	23.60
I pay student bills on time	15	4.20	25	6.90	37	10.30	65	18.10	218	60.60
I miss class to work extra hours to meet bills and expenses	177	49.20	85	23.60	75	20.80	14	3.90	9	2.50
I contribute to a bank saving account regularly	209	58.06	64	17.78	44	12.22	29	8.06	14	3.89
I invest in the shares	294	81.70	32	8.90	24	6.70	4	1.10	4	1.10
I compare prices when do my shopping	24	6.70	26	7.20	79	21.90	79	21.90	152	42.20
I am good at managing my money	28	7.80	31	8.60	90	25.00	112	31.10	99	27.50
I have money left over at the end of the month	61	16.90	81	22.50	118	32.80	54	15.00	46	12.80
I feel secure in my current financial situation	96	26.67	67	18.61	89	24.72	68	18.89	40	11.11
I tend to worry about paying my normal living expenses	54	15.00	65	18.06	111	30.83	67	18.61	63	17.50
I read to increase my financial knowledge	29	8.06	33	9.17	79	21.94	112	31.11	107	29.72
Mean Value of Financial Behavior	**93**	**25.84**	**51**	**14.14**	**76**	**21.21**	**63**	**17.62**	**76**	**21.14**

Source: Calculations from survey data

The financial behavior of the respondents is evaluated on a 5-point scale in the areas of budgeting money, paying students' bills, missing classes due to working extra hours to meet bills and expenses, contributing to the bank saving account regularly, investing in the share market, comparing prices when shopping, managing money, having money left over at the end of the month, securing current financial situation, worrying about paying normal living expenses and reading to increase financial knowledge. The survey data in table-2 depict that among the 360 respondents, 25.84 percent of respondents never, 14.14 percent of respondents rarely, 21.21 percent of respondents sometimes, 17.62 percent of respondents usually, and 21.14 percent of respondents always deal with the financial behavior components. As a result, the study identifies that financial literacy in terms of financial behavior is extremely low among the respondents.

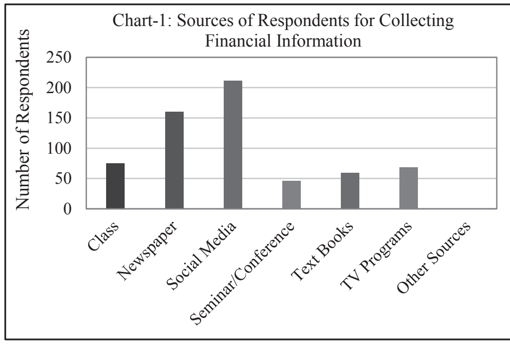
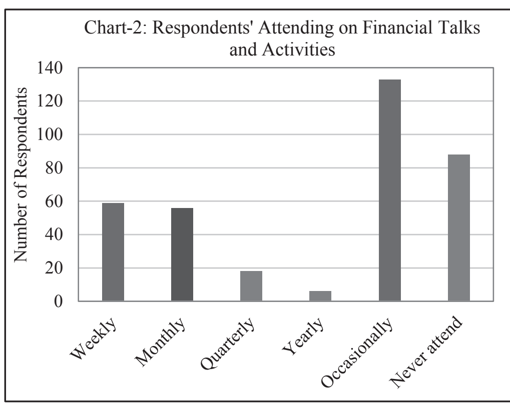


Chart-1 displays the frequency distribution of sources for collecting financial information by the respondents. Among the 360 respondents, 20.83 percent, 44.44 percent, 58.61 percent, 12.78 percent, 16.39 percent, 18.89 percent, and 30.83 percent respondents claimed that their financial information sources are class, newspapers, social media, seminars or conferences, textbooks, TV programs, and other sources respectively. Chart-1 clearly shows that most of the respondents gather financial information from social media followed by newspapers and class.



The chart-2 demonstrates the frequency distribution of how frequently respondents discuss and do activities related to finance. The study found that among the 360 respondents, 16.39 percent, 15.56 percent, 5.00 percent, 1.67 percent, and 36.94 percent respondents talk over financial issues weekly, monthly, quarterly, yearly, and occasionally respectively indicating that most of the students conversed about the financial activities.

Table-3: Rating of Respondents' Financial Influence

Total No. of Respondents	360									
	(1) Never		(2) Rarely		(3) Sometimes		4) Usually		(5) Always	
Financial Influence	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Parents	33	9.20	16	4.40	77	21.40	68	18.90	166	46.10
Friends	54	15.00	76	21.11	148	41.11	54	15.00	28	7.78
Class	109	30.28	80	22.22	107	29.72	43	11.94	21	5.83
Public Seminar	154	42.78	82	22.78	77	21.39	38	10.56	9	2.50
Books	67	18.61	63	17.50	129	35.83	67	18.61	34	9.44

Total No. of Respondents	360									
	(1) Never		(2) Rarely		(3) Sometimes		4) Usually		(5) Always	
Financial Influence	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Newspaper	68	18.89	64	17.78	112	31.11	71	19.72	45	12.50
Social Media	47	13.06	52	14.44	111	30.83	92	25.56	58	16.11
Internet	42	11.67	40	11.11	110	30.56	101	28.06	67	18.61
TV Programs	108	30.00	70	19.44	104	28.89	53	14.72	25	6.94
Mean Value of Financial Influence	**76**	**21.05**	**60**	**16.75**	**108**	**30.09**	**65**	**18.12**	**50**	**13.98**

Source: Calculations from survey data

Table 3 shows the frequency and percentage analysis of the measurement of respondents' financial influence. The study evaluates the respondents' financial influence in terms of parents, friends, class, public seminars, books, newspapers, social media, internet, and TV program that helps the students to solve the financial issues and enhance the financial literacy level. The rating of respondents' financial influence based on 5-point scale identified that 21.05 percent, 16.75 percent, 30.09 percent, 18.12 percent, and 13.98 percent of respondents are influenced as never, rarely, sometimes, usually, and always respectively by the stated sources.

Table-4: Rating of Respondents' Financial Attitude

Total No. of Respondents	360									
	(1) Strongly Agree		(2) Agree		(3) Neutral		4) Disagree		(5) Strongly Disagree	
Statements	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**
I feel capable of handling my financial future.	127	35.28	149	41.39	84	23.33	0.00	0.00	0.0	0.00
I feel in control of my financial situation.	92	25.56	156	43.33	11 2	31.11	0.00	0.00	0.0	0.00
I feel putting away money each month for saving or investment is important	143	39.72	150	41.67	67	18.61	0.00	0.00	0.0	0.00
I am afraid of loans and credit cards	131	36.39	97	26.94	65	18.06	40	11.11	27	7.5
I am uncertain about where my money is spent	0.0	0.00	0.0	0.00	85	23.61	167	46.39	108	30.00
It is interesting for me to know more about how to manage my finance in the best possible way	138	38.33	130	36.11	60	16.67	19	5.28	13	3.61
Parents should teach their children how to manage money.	201	55.83	96	26.67	30	8.33	12	3.33	21	5.83
I believe that students should be taught how to manage their finances at educational institution	205	56.94	106	29.44	49	13.61	0.0	0.00	0.0	0.00
Mean Value of Financial Attitude	**130**	**36.01**	**111**	**30.69**	**69**	**19.17**	**30**	**8.26**	**21**	**5.87**

Source: Calculations from survey data

Following the study of Thapa and Nepal (2015), the present study evaluates the respondents' financial attitudes based on a 5-point scale in terms of their ability to handle future financial issues, financial situation control, putting money aside each month for saving or investment, fear of loans and credit cards, uncertainty about money spending, desire to learn more about how to manage finance in the best possible way, parents should teach their children how to manage finance, and students should be taught how to manage finances at educational institution. The collected survey data on financial attitude reveal that among the 360 respondents, 36.01 percent strongly agreed, 30.69 percent agreed, 19.17 percent neutral, 8.26 percent disagreed, and 5.87 percent respondents strongly disagreed with the financial attitude components stated in table 4.

Table-5: Rating of Financial Literacy of Respondents

Total No. of Respondents	360									
	(1) Very Poor		(2) Poor		(3) Good		(4) Very Good		(5) Excellent	
Financial Literacy	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Basic interest calculation	42	11.67	59	16.39	133	36.94	63	17.50	63	17.50
Definition of Inflation	52	14.44	88	24.44	134	37.22	52	14.44	34	9.44
Relationship between interest rate and inflation	57	15.83	88	24.44	138	38.33	52	14.44	25	6.94
Time value of money	35	9.72	68	18.89	129	35.83	60	16.67	68	18.89
Exchange rate calculation	52	14.44	93	25.83	118	32.78	61	16.94	36	10.00
Appreciation and depreciation of currency	65	18.10	113	31.40	109	30.30	48	13.30	25	6.90
Taxation	48	13.33	106	29.44	129	35.83	47	13.06	30	8.33
Value added tax	46	12.78	80	22.22	140	38.89	51	14.17	43	11.94
Insurance	63	17.50	100	27.78	116	32.22	51	14.17	30	8.33
Investment risk	59	16.39	116	32.22	108	30.00	48	13.33	29	8.06
Risk diversification	78	21.67	115	31.94	109	30.28	37	10.28	21	5.83
Purchasing power of money	50	13.89	114	31.67	112	31.11	59	16.39	25	6.94
Conventional Banking	70	19.44	117	32.50	108	30.00	45	12.50	20	5.56
Unemployment	45	12.50	72	20.00	125	34.72	64	17.78	54	15.00
Saving and spending	35	9.72	50	13.89	142	39.44	79	21.94	54	15.00
Budgeting	31	8.61	75	20.83	140	38.89	67	18.61	47	13.06
Central Bank	49	13.61	89	24.72	135	37.50	56	15.56	31	8.61
Asset Depreciation	75	20.83	109	30.28	108	30.00	46	12.78	22	6.11
Shares/stocks	77	21.39	124	34.44	95	26.39	46	12.78	18	5.00
Islamic Banking	54	15.00	100	27.78	133	36.94	45	12.50	28	7.78
NGO financing	70	19.44	111	30.83	117	32.50	44	12.22	18	5.00
Internet Banking	52	14.44	93	25.83	139	38.61	47	13.06	29	8.06
Mobile Financial Services	33	9.17	55	15.28	137	38.06	78	21.67	57	15.83
Mean Value of Financial Literacy	**54**	**14.95**	**93**	**25.78**	**124**	**34.47**	**54**	**15.05**	**35**	**9.74**

Source: Calculations from survey data

The study assesses respondents' financial literacy on a 5-point scale (very poor, poor, good, very good, and excellent) in the areas of basic interest calculation, the definition of inflation, relationship between interest rate and inflation, time value of money, exchange rate calculation, appreciation and depreciation of the currency, taxation, value added tax, insurance, investment risk, risk diversification, the purchasing power of money, conventional banking, unemployment, saving and spending, budgeting, central bank, asset depreciation, shares or stocks, Islamic banking, NGO financing, internet banking, and mobile financial services. According to the survey data, among the 360 respondents, 14.95 percent respondents claims their level of financial literacy is very poor, 25.78 percent of respondents expresses their level of financial literacy is poor, 34.47 percent of respondents' financial literacy level is good, 15.05 percent of respondents' financial literacy strength is very good, and 9.74 percent expresses their financial literacy level is excellent. The findings of the study regarding the financial literacy level of respondents indicate that there exists a good space to improve the financial literacy as well as the financial understating level of the respondents in the context of financial literacy components mentioned in table 5.

Table-6: Testing of Respondents' Financial Knowledge

Total No. of Respondents	360			
	Correct Response		Incorrect Response	
Financial Knowledge	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Inflation is the increase of purchasing power of a given currency over time.	95	26.39	265	73.61
High inflation means that the cost of living is increasing rapidly.	201	55.83	159	44.17
If the inflation rate exceeds the interest earned on a savings account, the investor is losing money.	137	38.06	223	61.94
When prices increase, Consumers gain purchasing power.	142	39.44	218	60.56
The exchange rate is the price of one currency in terms of another currency.	181	50.28	179	49.72
Taxes are used to pay for people who work for the government.	159	44.17	201	55.83
Tax is money that people have to pay to the government.	262	72.78	98	27.22
Value-added taxation is based on taxpayers' consumption rather than their income.	164	45.56	196	54.44
Insurance is something for which I pay to cover a certain risk (health problem, car accident, house hazards, etc.)	233	64.72	127	35.28
It is likely that you will lose all of your money if you save it in more than one place.	180	50.0	180	50.0
Mean Value of Financial Knowledge	**175**	**48.72**	**185**	**51.28**

Source: Calculations from survey data, 2021

Following the study of Thapa and Nepal (2015) and Ergun (2017), the present study also investigates the financial knowledge of the students based on the correct and incorrect responses to the statements regarding inflation, purchasing power, exchange rate, taxation, insurance, and risk diversification. The frequency distribution and percentage analysis of respondents' financial knowledge are presented in table 6. The study explores that on average 48.72 percent of respondents properly addressed the statements, whereas the remaining 51.28 percent did not properly address the correct answers. The study observes that 51.11

percent, 44.44 percent, 3.33 percent, and 38.89 percent of respondents accurately responded to the question regarding inflation measuring approach in Bangladesh, while the rest of 48.89 percent did not correctly answer.

Logistic Regression Analysis

The logistic regression model was estimated in the study to examine the relationship between the respondents' financial literacy and their demographic characteristics, educational status, study background, personal financial behavior, influence, and attitude. The results of the estimated regression model are reported in the following table 7.

Table-7: Result of Logistic Regression Model

Independent Variables		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
								Lower	Upper
Gender	Male	0.327	0.261	1.569	1	0.21	1.387	0.831	2.313
	Female	(Reference Category)							
Age	≤ 20	-1.567	0.552	8.057	1	0.005	0.209	0.071	0.616
	> 20	(Reference Category)							
Education Level	Undergraduate	-0.569	0.299	3.611	1	0.057	0.566	0.315	1.018
	Graduate	(Reference Category)							
Study Field	Non-Business and Economics	-1.735	0.555	9.775	1	0.002	0.176	0.059	0.524
	Business and Economics	(Reference Category)							
Financial Behavior		0.406	0.242	2.819	1	0.093	1.501	0.934	2.413
Financial Course	Not Studied Financial Course	-1.055	0.354	8.893	1	0.003	0.348	0.174	0.697
	Studied Financial Course	(Reference Category)							
Financial Influence		0.557	0.202	7.578	1	0.006	1.745	1.174	2.594
Financial Attitude		0.536	0.327	2.683	1	0.101	1.709	0.9	3.246
Monthly Family Income	< 10 Thousand	0.545	0.52	1.095	1	0.295	1.724	0.622	4.781
	10 Thousand to < 20 Thousand	0.452	0.535	0.715	1	0.398	1.572	0.551	4.482
	20 Thousand to < 30 Thousand	0.067	0.527	0.016	1	0.899	1.07	0.381	3.005
	30 Thousand to < 40 Thousand	0.678	0.621	1.192	1	0.275	1.97	0.583	6.655
	40 Thousand to < 50 Thousand	0.517	0.654	0.624	1	0.429	1.677	0.465	6.047
	≥ 50 Thousand	(Reference Category)							
Type of Residence	Live without Parents	-0.081	0.28	0.083	1	0.773	0.922	0.533	1.596
	Live with Parents	(Reference Category)							
Constant		-0.832	1.287	0.418	1	0.518	0.435		
-2 Log likelihood		397.183							
Chi-square		74.865			14	0.00			
Nagelkerke R Square		0.257							
Correct Classification		63.6 percent							
Change Classification		72.5 percent							

Source: Author's Calculations from survey data

The output of the logistic regression model in table 7 reveals that the estimated model is well fitted with a Chi-square value of 74.865 on 14 degrees of freedom which is significant at a 1 percent level of significance. The Nagelkerke R Square and -2 Log likelihood values of the model are 0.257 and 397.183, respectively. Therefore, Nagelkerke R Square of 0.257 indicates that the financial literacy level of respondents is 25.7 percent change in explained by the considered independent variables of the study. The entire sample of the estimated model was correctly classified by 63.6 percent while the change classification was 72.5 percent. The coefficient of the estimated regression model shows that the coefficient of the male is 0.327 and the odd ratio [Exp(β)] is 1.387 that indicates the male respondent is 1.387 times likely to be more financially literate than female respondents. The coefficient of age (≤ 20) of the respondents is -1.567 and the odd value is 0.209 which is highly significant at the 1 percent level. The odd value of age indicates the respondents whose age is ≤ 20 is less likely to be financially literate by 0.209 times than the respondent whose age is greater than 20. In the case of respondents' education level, the coefficient of undergraduate respondents is negative and the value is -0.569 which is significant at a 5 percent level of significance. The odd ratio of undergraduate respondents is 0.566 meaning that the undergraduate respondents are 0.566 times less likely to be financially literate than graduate respondents. The study found that the non-business and economics background respondents' coefficient is -1.735 which is statistically significant at 1 percent level while the odd ratio implies that the respondents having no Business and Economics background are 0.176 times less financially literate than the respondents having business and economics background. Likewise, the study also observed that studying financial course has a significant impact on respondents' financial literacy. The coefficient value of not studied financial course is -1.055 which is statistically significant at a 1 percent level of significance. The odd value of not studying financial course is 0.348 meaning that respondents who did not study financial course are 0.348 times less likely to be financially literate than the respondents who studied financial course. The financial behavior, financial influence, and financial attitude variables are measured in a 5-point scale comprising several components of each variable in the study. The estimated coefficient of financial behavior, financial influence, and financial attitude of respondents in the logistic regression model are 0.406, 0.557, and 0.536 respectively while the coefficient of financial behavior and financial attitude of respondents is statistically significant at a 10 percent level of significance and while the coefficient of financial influence is statistically significant at 1 percent level of significance. The odd ratio of financial behavior, financial influence, and financial attitude are 1.501, 1.745, and 1.709 respectively which indicate if the respondent's financial behavior, financial influence, and financial attitude increase by 1 point then the financial literacy level of the respondents is more likely to be increased by 1.501 points, 1.745 points, and 1.709 points respectively. Though the coefficients of monthly family income ranges show a positive impact on the respondents' financial literacy level, the all of coefficients are statistically insignificant in the study. The estimated model finds that the respondents who live without parents are less likely to have financial literacy than the students who live with parents. However, the coefficient of type of residence is statistically insignificant in the study. The study explores that age, education level, study background, financial course, financial behavior, financial influence, and financial attitude have a statistically significant impact on the respondents' financial literacy level while gender, monthly family income, and type of residence have the statistically insignificant impact on the respondents' financial literacy level.

VI. Conclusion and Recommendations

Financial literacy helps the citizens of a country to understand, manage, and minimize the several risks associated with financial issues. It is essential for increasing people's access to financial services, which has a positive impact on inclusive finance (Hasan et al., 2021). Financial inclusion has a strong connection with the overall financial system of a country (Hasan et al. 2020). Hence, the student's financial literacy is a useful strategy to encourage the students to participate in the financial market as well as to increase the financial inclusion. To assess the financial literacy level among university students, the study conducted a detailed survey on the 360 undergraduate and graduate level students of Jagannath University in Bangladesh in the context of respondents' demographic characteristics, financial behavior, attitude, and components of financial knowledge with certain macro-financial aspects. The analyses of survey data using statistical analysis like descriptive statistics and logistic regression analysis reveals that most of the respondents' financial literacy levels is not enough to minimize financial risks as well as efficiently handle financial issues. The study also identifies that age, education level, study background, financial course, financial behavior, financial influence, and financial attitude have a statistically significant impact on the respondents' financial literacy level while gender, monthly family income, and type of residence have a statistically insignificant impact on the respondents' financial literacy level. Therefore, the government should focus on basic foundation skills regarding financial education at the early possible age of students even at the secondary school level. Financial courses and training may be introduced into the university curricula as a common course for all students at tertiary level. National-level public awareness campaigns may be arranged to inform the general public about financial issues including risk, fraud, and financial resilience through the banking channel, television, websites, social media, etc. To develop a comprehensive framework for ensuring financial literacy among all segments of society, further study may be conducted by including secondary and tertiary educational institutions across the country. However, the findings and recommendations of the study can be carefully considered by universities, policymakers, and other stakeholders to enhance the students' financial literacy level and financial inclusion in Bangladesh. Therefore, the youth financial literacy is essential for ensuring sound financial knowledge-oriented human capital to achieve sustainable development goals by 2030, an inclusive economic growth-oriented upper middle-income country by 2031, and a high-income nation by 2041.

References

Akter, S., 2016, "Overview of Financial Inclusion in Bangladesh", *The Journal of Modern Society and Culture, 63, p. 225-255.*

Albeerdy, M. I., & Gharleghi, B., 2015, "Determinants of the Financial Literacy among College Students in Malaysia", *International Journal of Business Administration, 6(3), p. 15-24.*

Atkinson, A., & Messy, F. A., 2012, "Measuring financial literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study", OECD Working Papers on Finance, Insurance and Private Pensions No. 15, p. 1-73

Atkinson, A., & Messy, F., 2011, "Assessing financial literacy in 12 countries: An OECD/INFE international pilot exercise", Journal of Pension Economics & Finance, 10(4), p. 657–665.

Bangladesh Bank (BB), August, 2021, "Financial Inclusion and Digital Financial Statistics: Mobile Financial Services (MFS) Statistics: Part-1, Mobile Financial Services (MFS) Statistics: Part-1, Mobile Financial Services (MFS) Statistics: Part-2, Agent Banking: Agent & Outlet Information, Agent Banking: Transaction Statistics, School Banking Statistics", Retrieve from: https://www.bb.org.bd/econdata/index.php, Date: October 27, 2021.

Bangladesh Bureau of Statistics (BBS), 2020, "Gross Domestic Product of Bangladesh 2016-17 to 2019-20(p)", Retrieved from http://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/057b0f3b_a9e8_4fde_b3a6_6daec3853586/2020-08-10-14-49-94b607082 40f454c1036d64090cf38ec.pdf

Bangladesh Securities and Exchange Commission (BSEC), 2021, "Capital market of Bangladesh", Retrieved from http://www.financialliteracybd.com/index.php, Date: October 25, 2021.

Bhushan, P. & Medury, Y., 2013, "Financial Literacy and its Determinants", International Journal of Engineering, Business and Enterprise Applications, 4(2), p. 155-160.

Braunstein, S., & Welch, C., 2002, "Financial literacy: An overview of practice, research, and policy", Federal Reserve Bulletin. Retrieved from https://www.federalreserve.gov/pubs/bulletin/2002/1102lead.pdf

Cameron, M. P., Calderwood, R., Cox, A., Lim, S., & Yamaoka, M., 2014, "Factors associated with financial literacy among high school students in New Zealand", International Review of Economics Education, 16, p.12-21.

Chen, H. & Volpe, R. P., 1998, "An analysis of personal financial literacy among college students", Financial Services Review, 7(2), 107-128.

Damayanti, S. M., Murtaqi I. & Pradana H. A., 2018, "The importance of financial literacy in a global economic era", The Business and Management Review, 9 (3), p. 435-441.

Ergun, K., 2017, "Financial literacy among university students: A study in eight European countries", International Journal of Consumer Studies, 42(1), p. 2-15.

Finclusion., n. d., "Financial-Literacy". http://finclusion.org/topic/financial-literacy.html. Retrieve date: October 25, 2020.

Fox, J., Bartholomae, S. & Lee, J., 2005, "Building the Case for Financial Education", The Journal of Consumer Affairs, 39(1), p. 195-214.

Gupta, S. P., and Gupta, M. P., 2008-2009, "Business statistics", New Delhi: Sultan Chand and Sons.

Hasan M. M., Yajuan, L., & Khan, S., 2020, "Promoting China's inclusive finance through digital financial services", Global Bus Review, 23(4), p. 984-1006.

Hasan, M., Le, T., & Hoque, A., 2021, "How does financial literacy impact on inclusive finance?", Financial Innovation, 7(40), p. 1-23.

Hathaway, I. & Khatiwada, S., 2008, "Do Financial Education Programs Work"? Federal Reserve Bank of Cleveland, Working Paper, No. 0803.

Hilgert, M. A., Jeanne, M., Hogarth, J. M. & Beverly, S. G., 2003, "Household financial management: the connection between knowledge and behavior", Federal Reserve Bulletin, 89(7), p. 309-322.

Hogarth, J., 2002, "Financial literacy and family and consumer sciences", Journal of Family and Consumer Sciences, 94, p. 14-28. http://finclusion.org/topic/financial-literacy.html

Hossain, T., 2019, March 17, "Digital and mobile financial services facilitate financial inclusion", The Financial Express, Retrieved from, https://thefinancialexpress.com.bd/views/digital-and-mobile-financial-services-facilitate-financial-inclusion-1552832325.

Jappelli, T., 2010, "Economic literacy: An international comparison", The Economic Journal, 120(548), 429–451.

Jorgensen, B. L., 2007, "Financial Literacy of College Students: Parental and Peer Influences", Master Thesis Submitted to Virginia Polytechnic Institute and State University in Master of Science in Human Development. Blacksburg, Virginia.

Karim, M. A., 2020, "Aging population and the necessity of financial literacy: Bangladesh perspective", Retrieve from: https://m.theindependentbd.com/post/256172, Date: October 25, 2021.

Khalily, M. A. B., 2016, "Financial inclusion, financial regulation, and education in Bangladesh", ADBI Working Paper 621. Tokyo: Asian Development Bank Institute. Available: https://www.adb.org/publications/financial-inclusion-financial-regulation-and educationbangladesh.

Kim, D.-W., Yu, J.-S., & Hassan, M. K., 2018, "Financial inclusion and economic growth in OIC countries", Research in International Business and Finance, 43 (2018), p. 1-14.

Klapper, L., Lusardi, A., & Panos, G. A., 2013, "Financial literacy and its consequences: Evidence from Russia during the financial crisis", Journal of Banking & Finance, 37(10), p. 3904–3923.

Luhrmann, M., Serra-Garcia, M., & Winter, J., 2014, "The Impact of Financial Education on Adolescents' Inter-temporal Choices", CESifo Working Paper Series No. 4925.

Mahdzan, N. S., & Tabiani, S., 2013, "The Impact of Financial Literacy on Individual Saving: An Exploratory Study in the Malaysian Context". Transformations in Business & Economics, 12(1), p. 41–55.

Nidar, S. R. & Bestari, S., 2012, "Personal financial literacy among university students (Case study at Padjadjaran University Students, Bandung, Indonesia)", World Journal of Social Sciences, 2(4), p. 162-171.

Organization for Economic Co-operation and Development (OECD)., 2014, "Measuring Financial Literacy: Questionnaire and Guidance Notes for Conducting an Internationally Comparable Survey of Financial Literacy", https://www.oecd.org/finance/financial-education/49319977.pdf

Oseifuah E., Gyekye A. & Formadi P., 2018, "Financial literacy among undergraduate students: empirical evidence from Ghana", Academy of Accounting and Financial Studies Journal, 22(6), p. 1-17.

Ozili, P. K., 2018, "Impact of digital finance on financial inclusion and stability", Borsa Istanbul Review, 18(4), p. 329-340.

Peng, T., Bartholomae, S., Fox, J., & Cravener, G., 2007, "The impact of personal finance education delivered in high school and college courses", Journal of Family and Economics, 28(2), p. 265-284.

Remund, D. L., 2010, "Financial literacy explicated: The case for a clearer definition in an increasingly complex economy", Journal of Consumer Affairs, 44(2), p. 276-295.

Sarigül, H., 2014, "A Survey of financial literacy among university students", The Journal of Accounting and Finance, October (64), p. 207-224.

Saving for College., 2021, "Financial literacy for college students", Retrieved from: https://www.savingforcollege.com/article/financial-literacy-for-college-students. Date: October 25, 2021.

Shaari, N. A., Hasan, N. A., Mohamed, R. K. M.H. & Sabri, M. A. J. M., 2013, "Financial literacy: a study among the university students", Interdisciplinary Journal of Contemporary Research in Business, 5 (2), p. 279-299.

Subbarao, D., 2013, "Keynote Address in India-OECD-World Bank Regional Conference on Financial Education," Reserve Bank of India Monthly Bulletin, 67 (4), p. 5-10.

Thapa, B. S. & Nepal, S. R., 2015, "Financial Literacy in Nepal: A Survey Analysis from College Students", Nepal Rastra Bank (NRB) Economic Review. 2015, p. 49-74

Uddin, A., Chowdhury, M. A. F., & Islam, M. N., 2017, "Determinants of financial inclusion in Bangladesh: Dynamic GMM & quantile regression approach", The Journal of Developing Areas, 51(2), p. 221-237.

Vitt, L. A., Anderson, C., Kent, J., Lyter, D. M., Siegenthaler, J. K. & Ward, J., 2000, "Personal Finance and the Rush to Competence: Financial Literacy Eeducation in the U. S. A National Field Study Commissioned and Supported by the Fannie Mae Foundation", http://www.isfs.org/documents-pdfs/repfinliteracy.pdf

Volpe, R. P., Chen, H. & Pavlicko, J. J.1996, "Personal investment literacy among college students: A survey", Financial Practice and Education, Fall-Winter, 6, p. 86-94.

Widdowson, D. & Hailwood, K., 2007, "Financial literacy and its role in promoting a sound financial system", Reserve Bank of New Zealand Bulletin, 70 (2), p. 37-49.

©2022 Journal of IBB
Volume 65 January-December 2022
Institute of Bankers of Bangladesh
(ISSN 1684-0054)

The Monetary Policy Stances and the COVID-19 Pandemic: Lessons from Global Perspectives

Dr. Md. Ezazul Islam[1]
Dr. Md. Salim Al Mamun
Md. Al-Amin Parvez

Abstract

The intention of this paper is to trace out the impacts of monetary policy stances and lessons learnt against the backdrop of COVID-19 situation. The paper reviewed the current stance of monetary policy in global perspective based on some key macro-monetary indicators in order to examine whether the policies are consistent across the countries in the face of COVID-19 and how they are effective to recover growth and employment while controlling inflation at desired level. The paper employed trend analysis for output growth, commodity price and inflation, global trade, labour market development, policy rates and bond yields using data of selected countries grouped between developed market economies and emerging market economies along with highlighting the monetary policy stance in Bangladesh. Besides, to summarize the lessons from global perspective, statistical tools and techniques have been used on the short-term and long-term interest rates from 2001-2022 and it is found that emerging market economies are significantly associated with the US economy. The U.S. monetary policy pass-through and spillover effect to emerging market are found strong. Since advanced economies are expecting to raise medium to longer term policy rates, the paper also attempted to investigate the impact of policy tightening on financial market and whether extraordinary and accommodative monetary policy is required to continue both in advanced and emerging economies to secure their sustained recovery despite the inflationary pressure and persistent high inflation expectation.

Article Info: Received 15 September 2022; Revised and Resubmitted: 22 December 2022; Accepted: 30 January 2023; Published: 30 June 2023.

Key Words: Monetary Policy Stance, Global Developments, Recent Trends

JEL Classifications: E52, E58, E63, F62.

I. Introduction

The onslaught of the COVID-19 pandemic has posed a dual challenge for the governments worldwide, saving lives and protecting livelihoods, since it not only adversely affected, but also severely altered the very definition of normal life in a mere time span of a year. After medical sciences, the most challenged sector of the countries around the globe happens to be their entire economy since millions of people rendered jobless, homeless and starved (IMF, 2022). The enforcement of stringent infection containment measures such as lockdowns left many economies crippled to catch-up the pre-pandemic growth momentum.

---

[1]The authors are Executive Director, Additional Director, and Assistant Director of Bangladesh Bank respectively. The views expressed in this paper are authors' own and do not necessarily reflect that those of the Bangladesh Bank. The correspondence email is ezazul.islam@bb.org.bd

Besides the remarkable actions taken to mitigate the health hazard, extraordinary interventions have also been taken to tackle the economic crisis. Governments across the globe embarked on unprecedented discretionary fiscal policies along with swift and significant emergency lifelines to protect lives, labors, and businesses. In May 2020, the IMF estimated these interventions as US$9 trillion (IMF, 2020). This amounts to about 10 per cent of world GDP which includes direct budget support of $4.4 trillion globally, and additional public-sector loans and equity injections, guarantees, and other quasi-fiscal operations (such as non-commercial activity of public corporations) of $4.6 trillion (IMF, 2020). These interventions played important roles in mitigating the shocks of the economic crisis. For instance, in the UK, some measures showed that the fall in household incomes was more evenly distributed across the income distribution than the loss of jobs was distributed across the earnings' distribution (Brewer and Gardiner, 2020).

Unlike the global financial crisis of 2007-08, the financial system remained strong and stable during the pandemic induced global slowdown since both bank balance sheets and the prudential regulatory standards that banks had to follow a decade ago were very different from what they are now (Giese and Haldane, 2020). Furthermore, fiscal policy was greatly supported by the monetary and financial policies which helped economies to be resilient. For instance, the Bank of England has expanded its balance sheets by almost a third in 3 months during the crisis (Hauser, 2020). Although social safety net programs under different schemes such as job retention scheme, direct cash transfer scheme, unemployment benefit etc. were implemented in almost all the countries to mitigate the uncertainties of income, Mayhew and Anand (2020) showed that those policies are unsustainable in the longer run. Hence, it is evident that many of these remarkable economic interventions were intended to be temporary emergency measures. However, if the pandemic is to be more long-lasting or if similar pandemic arsis in the future, interventions designed for a short-lived crisis must be revisited.

An enriched embodiment of literature based on event-study methodology regarding the transmission of monetary policy to financial markets is available where transmission of monetary policy to single financial market indicators was investigated, such as government bond yields (Kuttner, 2001; Sun, 2020), stock index returns (Bayraci, Demiralay, & Gencer, 2018; Ferrer, Bol´os, & Benítez, 2016), exchange rates (Bouakez & Normandin, 2010; Inoue & Rossi, 2019), and CDS spreads (Alexander & Kaeck, 2008; Chung & Chan, 2010; Eser & Schwaab, 2016; Hammoudeh & Sari, 2011; Hull, Predescu, & White, 2004). On the other hand, Claus, Claus, and Krippner (2018) investigated the transmission of monetary policy to multiple financial market indicators, instead of a single indicator by estimating the effects of both conventional and unconventional monetary policy shocks on 10-year government bond yields, corporate bond rates, gold fixing prices, the stock price index, the real estate market index, and exchange rates in the United States.

Besides, Bu et al. (2021) studied the conventional and unconventional policymaking periods, to identify the monetary policy shocks series in the US economy and showed that the shock series tends to be moderately correlated along with some significant differences and gaps. They also provided evidence of the first-order importance to the staff at central banks, taking into consideration the quantitative theoretical modeling of the effects of monetary policy, particularly during periods of shocks. Furthermore, Bhar & Malliaris (2020) found that the Fed's unconventional monetary policies, implemented after 2008 financial crisis, could help reduce longer-term interest rates and pointed out their results could provide lessons for the central bank to calm financial and economic impacts of the COVID-19.

However, no study on the dynamics of the monetary policy across countries during the COVID-19 pandemic period was conducted. Therefore, it could be concluded that some of the above studies studied single country or single financial market, some focused solely on the data during the COVID-19 pandemic period, and the others only discussed a single monetary policy. Since the COVID-19 pandemic has been a global phenomenon, a general study involving a wider range of sample countries is required. As a result, the objectives of this paper are to analyze the global monetary policy stances in order to examine whether the policies are consistent across the countries during financial crisis times, how they get changed during the ongoing COVID pandemic, and how they influence the growth recovery and employment while controlling inflation at desired level. This paper also extends the existing literature by analyzing the impacts of pandemic more comprehensively by conducting trend analysis of output growth, commodity price and inflation, global trade, labour market, policy rates and bond yields and the results provide a better understanding of the changes in the effects of monetary policy in response to the outbreak of pandemic and a more specific consideration for future monetary policy adjustments in the post-pandemic period. Furthermore, association of emerging market economies with the US economy was analyzed using the short-term and long-term interest rates from 2001-2022. The results showed significant association which signals higher responsiveness of the emerging market economies towards the changes of different rates of advanced economies especially in the US. The policies so far have taken globally significantly influence growth, employment and inflation and Bangladesh is not the exception and has taken prudent fiscal and extraordinary expansionary monetary policies since the wake of the COVID-19 pandemic. Therefore, this paper also conducts a comparative analysis of the monetary policy stance of Bangladesh.

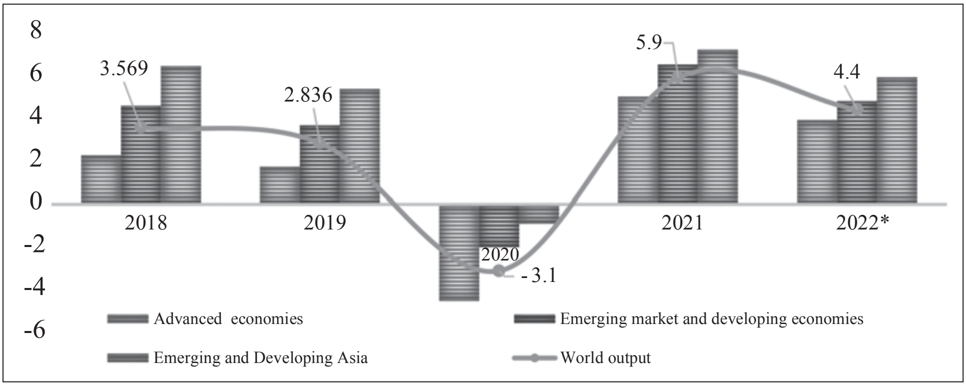
The remainder of the paper is structured as follows. Section II presents global economic developments and recent trends to provide a clear scenario. Section III delves into global developments of monetary policy to identify the triangulation of monetary policy during crisis times. Section IV focuses on the monetary policy stance of Bangladesh to incorporate the country perspective with the global picture. Lastly, section V illustrates on the key takeaways for the preparedness of the future monetary policy stance.

II. Global Economic Developments and Recent Trends

II.1 Output Growth

The IMF in its latest World Economic Outlook published in January 2022 estimated that the global economy grew at 5.9 percent in 2021 and predicted that the growth will be 4.4 percent in 2022, after the estimated contraction of -3.12 percent in 2020 (Chart 1). The 2022 growth is revised down 0.5 percentage point relative to the previous forecast, reflecting asymmetric access to COVID-19 vaccines for different country groups despite vast sums of fiscal supports with easy monetary condition, particularly in many large economies. In advanced economies, the growth rate is estimated at 5.0 percent for 2021 and predicted at 3.9 percent in 2022 which is 0.6 percent lower than the previous forecast, being contributed by successfully vaccination coverage, significant innovations in macroeconomic policy and massively scaled-up fiscal support, following a severe contraction of 4.5 percent in 2020. Emerging market and developing economies grew at 6.5 percent in 2021 and are predicted to grow at 4.8 percent in 2022 against -2.0 percent growth in 2020, which indicates a lesser impact towards achieving strong recovery, as effective vaccine protection remains unavailable for most of the population in emerging economies caused disruptions in economic activities associated with continued lockdown and containment measures. The growth rate for emerging and developing Asia, a regional group of emerging market and developing economies, is estimated at 7.2 percent in 2021 and projected at 5.9 percent in 2022, revised down by 0.4 percentage points, reflecting weaker than expected recovery followed by eased lockdown in some large countries.

Chart 1: Output growth of global, advanced and emerging economies (in percent)



Source: World Economic Outlook, January 2022, IMF. Note: * indicates projections.

Overall, the economic recoveries are divergent across countries and sectors, linked to clear differences in the pace of vaccination programme, the extent of policy support, and structural factors such as reliance on tourism and commodity exports.

The United States among advanced countries, for example, surpassed its pre-pandemic GDP level in 2021 along with other advanced countries. Among emerging market and developing economies, on the other hand, China crossed its pre-pandemic level in 2021, while many other emerging countries will need to wait until 2023 for a complete recovery. The divergence may even occur within country as income inequality is likely to increase because the pandemic heavily affected young labor force and those with relatively lower skills both in advanced and emerging economies, whereas severely affected female employment in the latter group of countries worsened the disparity, according to the IMF (Fiscal-Monitor, IMF, October 2021).

Chart 2 reviews the growth rates of selected countries both from advanced and emerging economies. The United States grew at 5.6 percent in 2021, and is projected to grow at 4.0 percent in 2022 which is 1.2 percentage points lower than forecasted earlier, due to large inventory draw downs, supply disruptions, and softening consumption. Estimated GDP growth in Euro area was 5.2 percent in 2021, and the growth is projected at 3.9 percent revised down by 0.4 percentage point than the earlier projection since economic activities stayed below pre-pandemic levels in 2022, while experiencing increased costs for public health responses to infection, flexibility and adaptability of economic activity to low mobility, and structural rigidities. China's swift recovery in 2021 by growing at 8.1 percent facilitated mainly by effective containment measures, a forceful public investment response, and central bank liquidity support.

Chart 2: Economic growth of selected economies in advanced and emerging countries (in percent)

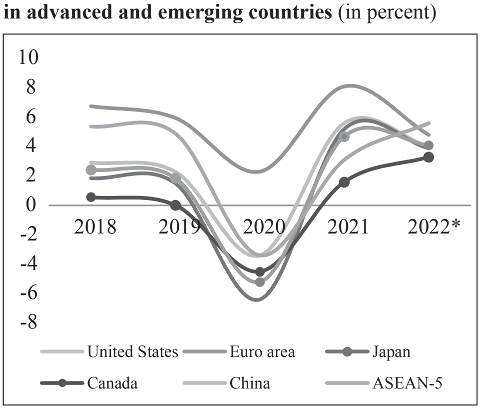
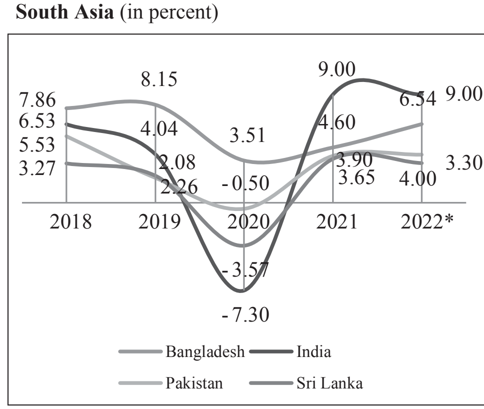


Chart 3: Economic growth of peer countries: South Asia (in percent)



Source: World Economic Outlook, January 2022, IMF. Note: * indicates projections.

While reviewing growth performance of selected South Asian countries as shown in Chart 3, only Bangladesh maintained a positive growth rate at 3.5 percent in 2020, and the following growth projections are 4.6 percent in 2021 and 6.5 percent in 2022, according to the IMF. The Chart also shows that India witnessed a sharp negative growth rate (-7.3 percent) in 2020, but rebounded back at 9.0 percent growth rate in 2021, reflecting stronger than expected recovery after lockdowns were eased

II.2 Commodity Prices and Inflation

Oil price grew by 67.3 percent in 2021 and is projected to grow by 11.9 percent in 2022, consistent with the projected global recovery, in part reflecting a temporary tight demand-supply balance maintained by OPEC+ as expected (Chart 4). The IMF in its WEO assumes that the average price of oil will decrease in 2022, resulting mainly from a substantial production recovery of higher-cost producers in non-OPEC+ countries who might be induced by persistent oil prices close to USD 60 a barrel. Nonfuel commodity prices are expected to rise faster than previous projections.

A faster-than-expected economic recovery is boosting prices as supply chains have been struggling to keep up the economic trend; persuading increased inflation from 0.7 percent in 2020 to 3.1 percent in 2021 to 3.9 percent in 2022 (projected) for advanced economies (Chart 5), as inflation expectations are well anchored around central banks' inflation target in advanced economies. Inflation expectations are also generally anchored in emerging market economies as observed in gradual increase to 5.7 percent in 2021 and 5.9 percent in 2022. However, the inflationary developments were not uniform across the emerging countries. Some countries or regions have experienced limited scopes of monetary accommodation, rapidly rising food inflation and temporarily high headline inflation, which could raise inflation expectations in emerging economies.

Chart 4: Global commodity prices, in percent (year on year)

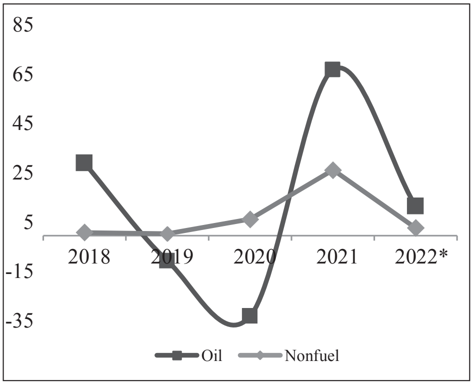
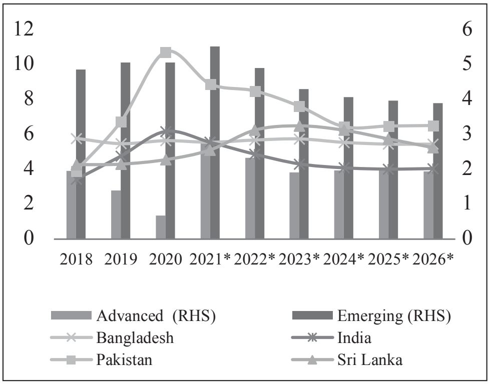


Chart 5:Consumer prices: global and emerging markets and selected peer countries of South Asia (in percent)

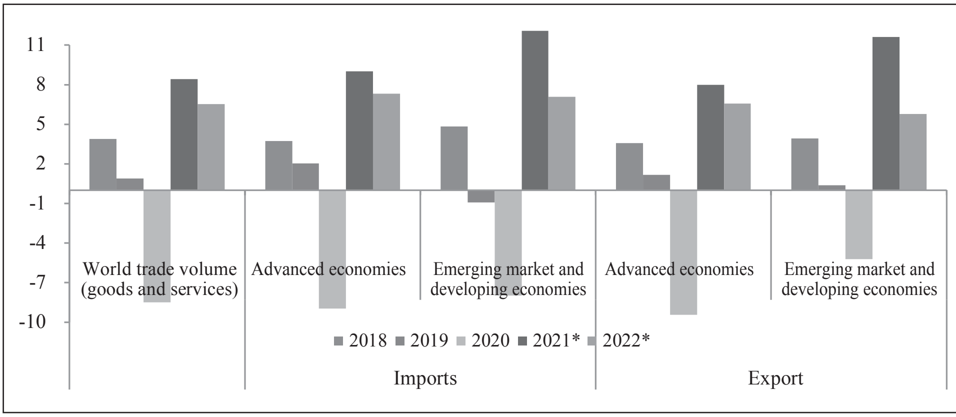


Source: World Economic Outlook, January 2022, IMF. Note: * indicates projections.

II.3 Global Trade

World trade witnessed a larger contraction of 8.2 percent in 2020 as contact-intensive sectors experienced a sharp fall in activities with much smaller trade intensity than manufacturing. Global trade began recovering in the second half of 2020 and has reached at 9.3 percent in 2021, reflecting pent-up demand for consumer durables from advanced economies and resumption of supply chains in emerging markets (Chart 6).

Chart 6: Global trade and imports and exports (in percent)

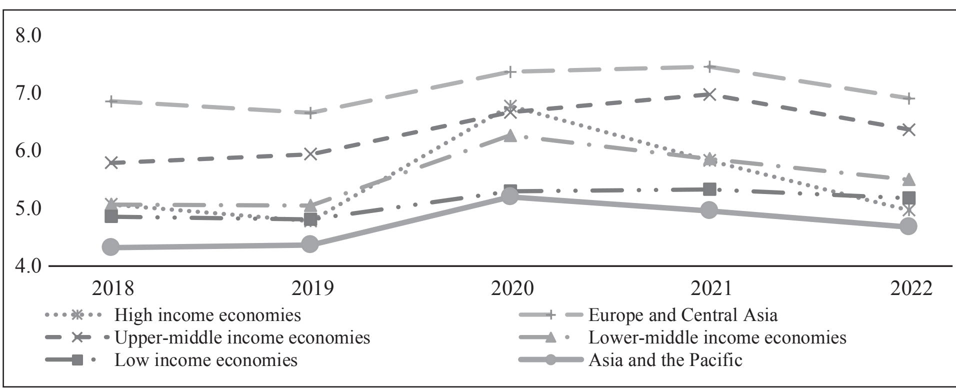


Source: World Economic Outlook, January 2022, IMF. Note: * indicates projections.

II.4 Labor Market Developments

The COVID-19 pandemic shock continues to generate widespread disruptions in labor markets across the countries, even with extraordinary policy supports already deployed. Average unemployment rates are up during the pandemic periods as compared with pre-pandemic rates in all types of economies as shown in Chart 7, according to the ILO data.

Chart 7: Unemployment rate at age 15 years or above (in percent)



Source: International Labour Organization (https://ilostat.ilo.org/topics/unemployment-and-labour-underutilization/).

The pandemic shock is also accelerating worker relocations, in part shifting away from sectors and occupations that are vulnerable to online based businesses. However, this relocation comes at a high cost because the relocated workers who switch are lower paid. Therefore, the argument is to find out whether job retention policies can help reduce job relocation or supportive measures for worker relocation can gear up job finding prospects. An IMF analysis (discussed in Chapter 3 of the October 2021 WEO) finds that job retention policies are extremely powerful when the current pandemic shock is acute and maintaining high social distancing is inevitable. On the other hand, relocation policies can help ease the adjustment to the permanent effect of COVID-19 shock on labor markets. Therefore, a careful monitoring on the intensity of COVID-19 is critical to understand the appropriate timing to cope with the reduction of job retention policies, or to switch towards greater reliance on relocation.

II.5 Growth Recovery and Uncertainty

Looking forward, the world output growth will decelerate to still a strong 4.9 percent in 2022, up from its April 2021 forecast of 4.4 percent, based on the assumption that vaccines will be accessible in most countries by the second half of 2022. However, the outlook still remains a high degree of uncertainty as new virus mutations including the Omicron variant and the accumulating human losses are growing, particularly in many emerging countries.

Faster recovery and further fiscal support largely by expansion in the U.S. may build up inflationary pressure and could require raising interest rates earlier than expected. Such sustained inflationary pressure along with higher US interest rates could lead to a sharp tightening of global financial conditions. Emerging economies may feel burnt of such higher interest rate and inflationary pressure generated through spillover effects in exchange rate, yield rate and capital flows, while many of emerging countries are still struggling to recover the growth.

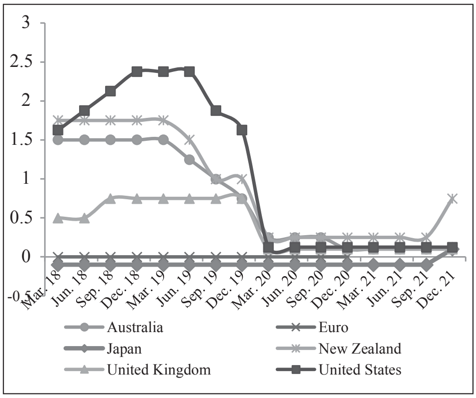
In between the global inflation developments, many countries are also facing rising commodity and food prices, putting low income peoples at risk. Besides, disrupted labor markets because of the pandemic worsened the peoples' purchasing capacity and led income inequality to a significant level, indicating a need for income support for the vulnerable segment of laborer before the market conditions normalize, while in parallel incentivizing job creation initiatives, in addition to job retention or relocation policies.

III. Monetary Policy – Global Developments

III.1 Developed Market Economies

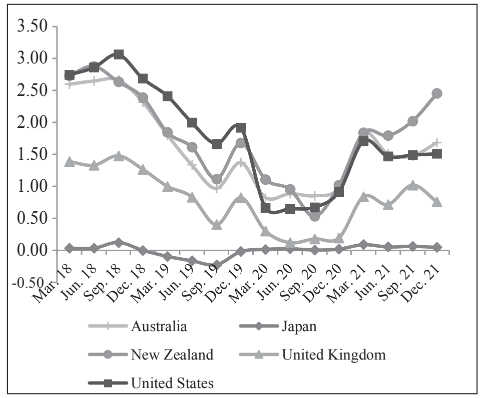
Central banks in advanced economies such as Bank of Australia, Reserve Bank of New Zealand, Bank of England and Federal Reserve of US cut their policy interest rates in March 2020, while Euro and Japan continued to maintain near or at zero interest rates over the years, reflecting considerably lower policy rates in more than 10 years after the global financial crisis. The policy rates in some countries started creeping up from September 2021 and continued till December 2021 (Chart 8). Given that policy rates are already very low in many advanced economies, policymakers needed to rely on unconventional monetary policy tools to stimulate the economy, countering the future downturn.

Chart 8: Central bank's policy rate of selected advanced economies (in percent)



Source: Bank for International Settlements (BIS) till 8 December 2021

Chart 9: 10-year government bond yields of selected advanced economies (in percent)



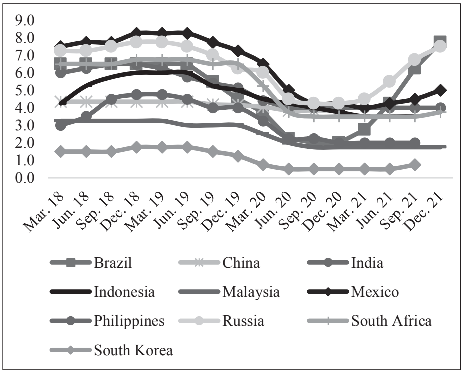
Source: Investing.com till 8 December 2021.

Ten-year government bond yields of selected advanced economies have a declining trend since December 2018 until December 2020, reflecting a combination of lower return on safe assets and compression of risk premium (Chart 9). However, the yields on 10-year government bonds increased in March 2021 in all the selected advanced economies except Japan, almost matching their pre-pandemic levels. In December 2021, yield curves showed mixed trends since yields on 10-year government bonds increased in some countries and decreased for some other countries. The increased rates reflect improved prospects for inflation and growth. However, such an increase, if it is rapid and persistent, may result in a re-pricing of risk and a sudden tightening in financial conditions, which may elevate financial vulnerabilities and macro-financial instability on the back of ongoing COVID-19 shock.

III.2 Emerging Market Economies

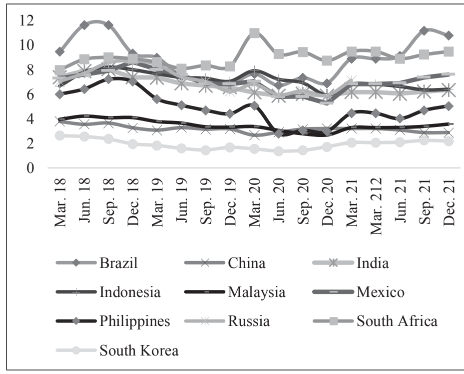
Following the policy rate cut in March 2020 in response to COVID-19 inflicted shocks, overall, central banks in emerging market economies have been maintaining low interest rates throughout the periods of 2020. Afterwards, Chart 10 shows an upward tendency of the rates in some emerging countries such as Brazil, Turkey, Pakistan, and Russia in March 2021 and the rising trend continued in December 2021. Government bond yields for many emerging market economies have increased since January 2021 though experienced mixed trends till December 2021, reflecting recent increase in market volatility (Chart 11).

Chart 10: Central bank's policy rate of selected emerging market economies (in percent)



Source: Bank for International Settlements (BIS).

Chart 11: 10-year government bond yields of selected emerging market economies (in percent)



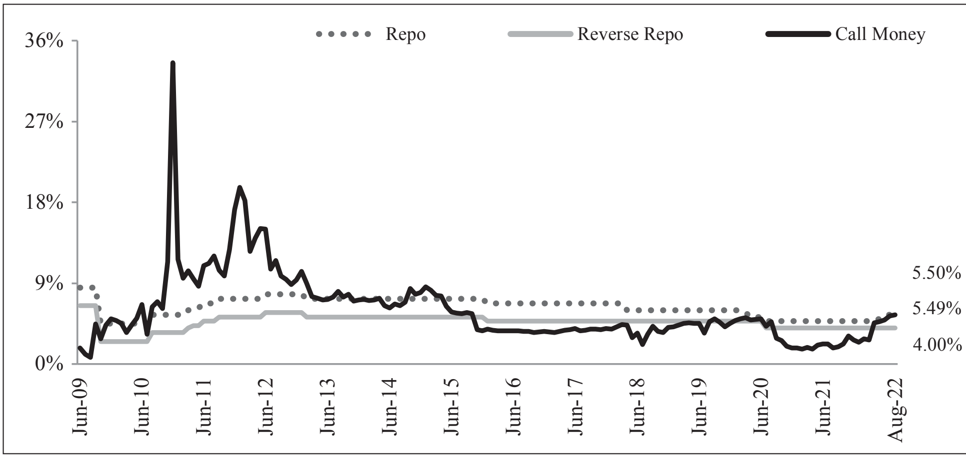
Source: Investing.com.

IV. Monetary Policy Stance in Bangladesh

Like many central banks in emerging and developing economies, Bangladesh Bank conducts and implements monetary policy with both conventional and unconventional policies to ensure macroeconomic stabilization. Accordingly, Bangladesh Bank has been pursuing an accommodative and expansionary monetary policy stance from 2020 until end June 2022 in order to tackle the pandemic induced economic slowdown. The BB undertook a wide array of investment and employment enhancing policy measures such as; relaxations of various policy interest rates, introduction of low-cost refinance schemes and credit guarantee schemes, allowing moratorium facilities, extended time for realizing export receipts and import payments, supports towards implementing the stimulus packages of the government. All these policy measures were taken to ensure easier and better access to finance for the people as well as CMSMEs. Consequently, Bangladesh economy started showing early signs of a broad-based economic recovery since Q1FY21, reflected by the various macroeconomic and financial indicators which continued up to now.

Economic growth slumped to 3.45 percent in FY20 from 7.88 percent in FY19. With extraordinary fiscal and monetary policy measures, real economic growth recovered sharply and grew by 6.94 percent and 7.25 percent respectively in FY21 and FY22. But headline CPI inflation (p-t-p) has started to rise and rose to 7.56 percent in FY22 from 5.64 percent in FY21, with an increasing pent-up demand in domestic front along with global high commodity prices, global supply bottlenecked mainly because of COVID-19 related restrictions and Ukraine-Russia war. Besides, exchange rate of BDT also started to depreciate and depreciated more than 10 percent within a year. Bangladesh Bank adopted a cautious policy stance with a tightening bias to contain inflation and exchange rate pressures for FY23 (MPS, 2022-23).

Chart 12: Developments of Policy and Call Money Rates



Source: Bangladesh Bank

Bangladesh Bank adjusted policy rate twice during May-June, 2022 and Repo rate increased by 100 basis points to 5.50 percent in June 2022 from May 2022 (Chart 12). In tandem of inflation, exchange rate and global financial condition, short and long term interest rates have started increasing in the financial markets of Bangladesh since March 2022 (Table 1).

Table 1: Developments of Financial Sector Prices

	Treasury Bills		BGTB		Repo	Reverse Repo	Call Money Rate
	91-Day	364-Day	2-Year	10-Year			
June'18	3.67	4.27	4.71	7.41	6.00	4.75	3.41
June'19	6.78	7.06	7.41	8.42	6.00	4.75	4.55
June'20	6.83	7.35	7.75	8.62	5.25	4.75	5.01
June'21	0.52	1.21	2.44	5.38	4.75	4.00	2.25
June'22	5.94	6.62	7.21	8.03	5.50	4.00	4.88
August'22	5.91	6.80	7.39	8.17	5.50	4.00	5.49
September'22@	5.99	6.81	7.47	–	5.50	4.00	5.54

Source: Monetary Policy Department and Debt Management Department, Bangladesh Bank . – = there was no auction, @= up to September 11, 2022.

Bangladesh Bank fixes policy rates (repo and reverse repo), CRR and SLR to fulfill the objectives of price stability and growth fostering. The rationality of setting policy rates are outlined MPS in detailed. This policy decision transmits in the financial market rate which is reflected in financial sector prices. But, the lending interest rate (9 Percent) cap imposed in 2020 may be weakening policy transmission mechanism in the market.

V. Monetary Policy Stance and Lessons from Global Perspective

The monetary stance of the advanced economy, tightening or loosening, impacts both advanced and emerging market economies in many ways. The extent of monetary policy pass-through or spillover effects of US monetary policy depend on domestic monetary policy and economic fundamental, integration to the global financial market and FX market intervention, and capital flow management with macro-prudential policy. Recent many researches indicate that the QE of developed economies' impacted on EMEs in five ways. First, it lowered the EMEs' short-term policy rates. Second, it brought down the EMEs' long-term rates. Third, it has had an influence on global asset allocation, dramatically increasing the fluctuations in EME exchange rates and foreign reserves. Fourth, EMEs face mounting currency mismatches as they accumulate more local currency assets and more foreign currency liabilities. Fifth, cross-border capital flows have had impacts on EMEs' domestic capital markets (BIS paper, No 78).

Carlos Caceres et al. (2016) estimate the pass through and spillover effect of changing US monetary policy to domestic short term and long term interest rate of advanced and emerging market economies (Table 2). The major findings of the study are (1) a modest but nontrivial pass-through from U.S to domestic short-term interest rates on average and to a large extent this movement reflects synchronized business cycles, (2) The co-movement of longer term interest rates is larger and more pervasive.

Albagli, et al. (2018) identify US monetary policy spillovers to international bond market with event shocks (events: FOMC meeting, release of economic activities, inflation, and unemployment both in advanced and emerging market economies). The major findings of their study are (1) US monetary policy spillovers to long-term yields have increased substantially after the global financial crisis, (2) spillovers are larges compared to the effects of other events, and at least as large as the effects of domestic monetary policy after 2008, and (3) spillovers work through different channels, concentrated in risk neutral rates for developed countries, but predominantly on term premia in emerging market.

The spillover effects to international financial markets also depend on the arrangement of exchange rate regime and FX intervention both in developed and emerging market economies. By taking these, Albagli et al. (2018) provide evidence consistent with an exchange rate channel, according to which foreign central banks face a tradeoff between narrowing monetary policy rate differentials, and experiencing currency movements against the US dollar. They also noted that advanced economies adjust in a manner consistent with freely floating regime, responding partially with risk neutral rates, and partially through currency adjustment. Emerging countries display patterns consist with FX interventions, which cushion the response of exchange rates but reinforce capital flows and their effects on bold yields through movements in term premia (Annexure 1: Table 2-5). We have estimated the association of the short-term and long-term interest rates of 18 emerging market economies with the short-term and long-term interest rates of the US for the sample period of 2001- 2021. We have made descriptive statistics, conducted standard diagnostic tests such as test for equality of means between series, unit root test, and autocorrelation test for the series of short term and long term interest rate of 18 countries including Bangladesh (Annexure 1: Table 1-3). The group unit root test indicates that both the series are I(0). Results show that the policy interest rates of emerging market economies including Bangladesh are significantly associated with the interest rates of the US. Hence, we can say that the changes of monetary policy rate in the US immediately affect the policy rates (short-term interest rates) of the emerging market economies. This short term interest rate changes transmitted to the long-term interest rates, 10-year government bond yield rates, through to the changes in the financial market (bond and equity) and exchange rate. The co-integration test also confirms the long run relation between the series during the sample period 2001-2021.

Table 1: Descriptive Statistics (Short term Interest Rates)

	BGD	BRA	CHL	CHN	CBA	HGY	IND	IDA	MLA	MXO	PAK	PHL	RSA	SA	SK	SLK	THD	TKR	USA
Mean	5.68	9.24	2.69	4.80	4.68	3.18	6.00	6.14	2.89	6.11	7.14	4.00	8.84	6.49	1.96	6.78	1.67	14.7	1.20
Median	5.00	8.34	2.50	4.35	4.25	0.90	6.15	5.76	3.00	6.62	5.70	3.78	7.85	6.50	1.50	7.25	1.50	13.36	1.05
Max.	9.00	23.0	7.16	7.04	9.81	11.31	8.10	11.83	5.00	9.26	13.73	7.50	22.66	12.25	4.70	8.00	4.79	48.09	5.02
Min.	4.00	2.00	0.50	3.85	1.75	0.60	4.00	3.50	1.75	3.02	5.61	2.00	4.25	3.50	0.50	4.50	0.50	4.79	0.12
SD	1.50	5.11	1.56	0.92	2.00	3.30	1.32	2.34	0.74	1.69	2.29	1.61	3.64	2.19	1.26	1.03	0.97	9.04	1.29
Skw.	0.73	0.77	0.69	0.85	0.38	0.99	-0.15	0.93	0.38	-0.17	1.63	0.74	1.78	0.83	0.82	-1.43	1.16	1.69	1.42
Kurtosis	2.13	3.21	3.38	2.58	2.91	2.44	2.01	2.86	4.01	1.74	4.55	2.61	7.31	3.82	2.56	3.52	4.54	6.57	4.89
Jarque-Bera	4.32	3.69	3.12	4.66	0.91	6.42	1.61	5.31	2.41	2.51	19.65	3.51	47.10	5.20	4.38	12.74	11.73	36.35	17.56
Prob	0.11	0.15	0.20	0.09	0.63	0.04	0.44	0.07	0.29	0.28	0.00	0.17	0.00	0.07	0.11	0.00	0.00	0.00	0.00
Sum	204.5	332.8	96.9	173.0	168.7	114.5	216.0	221.3	104.1	220.1	257.2	144.2	318.3	233.7	70.80	244.2	60.2	531.6	43.4
Sum Sq. Dev.	79.5	914.3	85.3	29.6	140.7	382.3	61.62	192.3	19.2	100.3	183.6	91.4	465.4	169.0	56.01	37.5	33.4	2864.8	58.4
Obs	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36

Source : Author own estimate

We have also found some positive association (+ 0.70) between Dhaka Stock Exchange Broad Index (DSEX) and MSCI Emerging Markets Index during 2015-2021 (Chart 13). It implies that capital/equity market of Bangladesh has a link with global financial market. So tightening or easing monetary policy either conventional or unconventional method transmits to the financial market of emerging market including Bangladesh.

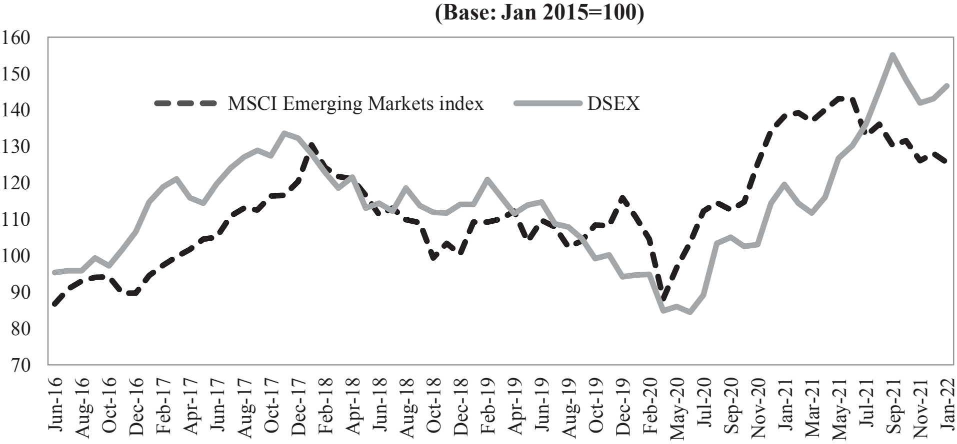
Table 2: Descriptive Statistics (Long-term Interest Rates)

	BGD	BRA	CHL	CHN	CBA	HGY	IND	IDA	MLA	MXO	PAK	PHL	RSA	SA	SK	SLK	THD	TKR	USA
Mean	8.61	10.6	4.70	3.34	13.8	11.86	7.06	8.12	3.73	7.27	11.05	6.35	8.26	8.90	3.11	9.52	2.81	13.20	2.54
Median	8.44	11.0	4.69	3.20	7.00	3.58	6.75	7.36	3.73	7.38	11.06	5.10	7.70	8.82	2.37	8.36	2.49	11.43	2.39
Max.	12.49	16.00	6.30	4.65	125.2	104.70	10.42	13.12	4.80	9.56	14.30	16.29	13.91	12.37	7.12	13.43	5.48	23.05	5.12
Min.	5.40	6.71	2.39	2.663	4.84	2.04	5.22	5.31	2.67	5.01	7.60	2.79	5.91	6.53	1.36	7.30	1.16	6.70	0.65
SD	2.00	2.23	1.07	0.47	25.73	26.14	0.97	2.05	0.47	1.03	1.80	3.16	1.94	1.15	1.59	1.75	1.16	4.01	1.19
Skw.	0.36	-0.14	-0.44	1.00	4.00	3.14	0.97	0.90	-0.02	-0.33	-0.22	1.61	1.21	0.97	0.90	0.64	0.56	0.92	0.54
Kurtosis	1.97	2.41	2.16	3.71	17.26	11.01	4.88	2.73	2.82	2.80	2.01	4.94	3.80	5.14	2.55	2.13	2.25	3.12	2.58
Jarque-Bera	2.58	0.69	2.38	7.35	434.8	168.6	11.97	5.43	0.05	0.80	1.91	23.1	10.7	13.6	5.66	3.96	2.98	5.54	2.18
Probability	0.27	0.70	0.30	0.02	0.00	0.00	0.00	0.06	0.97	0.66	0.38	0.00	0.00	0.00	0.05	0.13	0.22	0.06	0.33
Sum	335.8	415.0	183.4	130.4	540.4	462.8	275.3	316.8	145.5	283.7	431.1	247.6	322.0	347.4	121.6	371.5	109.8	514.9	99.1
Sum Sq. Dev.	153.1	189.9	43.7	8.5	25158.3	25983.8	36.0	159.9	8.4	41.0	123.7	379.8	143.4	50.3	96.7	117.2	51.6	613.2	54.4
Obs	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39

Source: Authors' own estimate.

Some emerging market economies faced exchange rate appreciation trend of their domestic currency against US dollar when the most advanced economies notably U.S. pursued quantitative easing heavily to recover economic activities from global financial crisis (GFC) in 2007-08. To manage exchange rate, many emerging markets adopted capital flow management (CFM) policies and/or combined these with macro-prudential measures (CFMs/MPMs) extensively in the aftermath of GFC to handle the influx of capital inflows as a result of foreign investors search for better yield in risky emerging market assets. When US declared tapper tantrum in 2013 than some emerging market economies experienced exchange rate depreciation due to capital reversal and adopted "preemptive measures" of CFM/MPM of capital outflows. Recent studies indicate that EMs tightened on CFM on inflows following the U.S. QE policies and then eased them after the Taper Tantrum shock of 2013 (Das, et al., 2022).

Chart 13: Synchronization of DSE with Global Markets (Base: Jan 2015=100)



Sources: Dhaka Stock Exchange and www.msci.com.

Table 3: Co-movements of Short-term and Long-term Interest Rates with The US.

Country	Short-term interest rate (Policy Rate)	Long-term interest rate (10-yrs Govt. Bond)
TURKEY	0.34*	-0.33*
	(2.12)	(-2.12)
THAILAND	0.66***	0.87***
	(5.17)	(11.06)
SRILANKA	0.45***	-0.22
	(2.97)	(-1.40)
SOUTHKOREA	0.56***	0.87***
	(3.89)	(10.58)
SOUTHAFRICA	0.52**	0.23
	(3.54)	(1.46)
RUSSIA	0.30	0.33*
	(1.82)	(2.12)
PHILIPPINES	0.70***	0.87***
	(5.70)	(10.69)
PAKISTAN	0.10	0.50***
	(0.56)	(3.55)
MEXICO	0.75***	0.74***
	(6.54)	(6.64)
MALAYSIA	0.48***	0.66***
	(3.19)	(5.33)
INDONESIA	0.54***	0.84***
	(3.73)	(9.26)
INDIA	0.36	0.47
	(2.23)	(3.24)
HUNGARY	0.27	0.57***
	(1.64)	(4.24)
COLOMBIA	0.56***	0.08
	(3.87)	(0.48)
CHINA	0.33*	0.27
	(2.00)	(1.74)
CHILE	0.46***	0.62***
	(3.00)	(4.85)
BRAZIL	0.31	0.62***
	(1.93)	(4.75)
BANGLADESH	0.36*	0.58***
	(2.23)	(4.30)
Observations	**36**	**39**

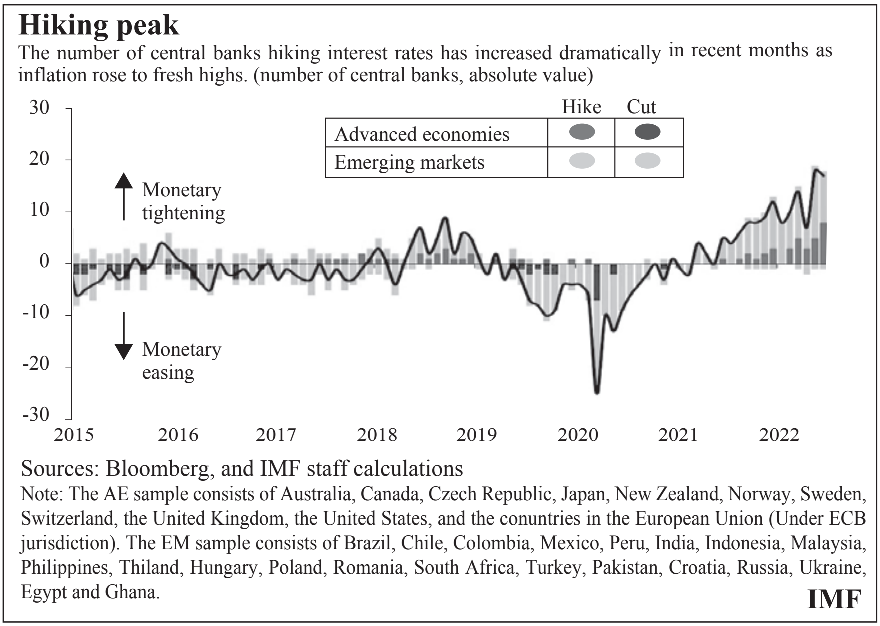
t statistics in parentheses, * p<0.05, ** p<0.01, *** p<0.001

Source: Authors' own estimate.

Das, et al., 2022, also showed that "preemptive" CFMs can reduce emerging market and developing economies (EMDE) external finance premia during risk-off shock including Tapper Tantrum and Covid-19, especially for vulnerable counties. They used a panel dataset of 56 EMDEs during 1996-2020 and find that countries with preemptive policies in place during five-year window before risk-off shock experienced relatively lower external finance premia and exchange rate volatility during the shock compared to countries which did not have such preemptive policies in place.

In the backdrop of recent inflation development, all advanced economies and some emerging market economies are setting tight monetary stance by reducing QE and raising policy interest rate. The fallout of Ukraine-Russian war is that the inflation in many countries soared to multi-decade highs which prompting rapid monetary policy tightening in many advanced countries. Monetary policy's stances in response to elevated inflation will be tightened in near future. The upshot of the above analysis indicates that this tightening monetary stance impacts adversely financial market of emerging market economies in medium to longer term. Recent data show that global inflation has soared to more than 6 percent and U.S. consumer inflation reached 7 percent which were much higher than the target of 2 percent of inflation. To stabilize inflation and continue growth momentum at target level, raising interest setting may be faster in near future. To tame inflation in target level, almost all central banks are hiking policy rates (Chart 14)

Chart 14: Recent Developments of Policy Rates in Advanced and emerging market economies



VI. Conclusion

The advanced economies are expecting to raise medium to longer term policy interest rates to tame inflationary pressures stemmed from supply chain constrain, increasing pent-up demand and Russian–Ukraine war, which may disrupt emerging bond markets and currencies and cause some portfolio outflows depending on domestic monetary policy stance along with counter cyclical CFM/MPMs measures. Many emerging countries with slower economic recovery or limited access to vaccines may face daunting challenges, if medium to longer term yield rates continue to rise in advanced economies, which may have adverse spillovers to emerging market and developing economies, inducing them to tighten financial conditions, when they have, in fact, large financing needs. Additionally, with rising prices in the global commodity markets, inflation started behaving abruptly from the third quarter of 2021 and is expected to remain elevated in 2022 in many countries. Therefore, monetary policy has to work with tight situation to tackle inflation and financial risks and support the economic recovery.

Consequently, policies should be formulated by mapping contingent actions, announcing clear triggers, and performing in line with that communication to act promptly while encountering uncertainties in this unknown regime of recovery. This clarity and consistency regarding policy stance can be effective to avoid unnecessary policy accidents that might agitate financial markets and delay the speed of economic recovery.

However, extraordinaring accommodative monetary policy and fiscal stimulus may be phasing out gradually both in advanced and emerging economies to secure the sustained recovery and stabilize inflationary pressure and anchoring inflation expectation. The most central banks are monitoring closely inflation and financial stability risks and they are communicating carefully their policy plans to avoid the risks. Fiscal policy is also required to be well-designed for sustainable and more inclusive growth. Thus, policymakers must cautiously calibrate their responses tailored to the emerging new circumstances to ensure price stability and uphold the strength of recoveries across different sectors of the economies around the world.

References

Albagli, E., Ceballos, L., Claro, S. and Romero, D., 2019. Channels of US monetary policy spillovers to international bond markets. Journal of Financial Economics, 134(2), pp.447-473.

Alexander, C., & Kaeck, A., 2008. Regime dependent determinants of credit default swap spreads. Journal of Banking & Finance, 32(6), 1008–1021.

Bayraci, S., Demiralay, S., & Gencer, H. G., 2018. Stock-bond co-movements and flightto-quality in Q7 countries: A time-frequency analysis. Bulletin of Economic Research, 70(1), E29–E49.

Bhar, R., & Malliaris, A., 2020. Modeling US monetary policy during the global financial crisis and lessons for covid-19. Journal of Policy Modeling (in press).

Bouakez, H., & Normandin, M., 2010. Fluctuations in the foreign exchange market: How important are monetary policy shocks? Journal of International Economics, 81(1), 139–153.

Brewer, M., and Gardiner, L., 2020. 'The Initial Impact of COVID-19 and Policy Responses on Household Incomes', Oxford Review of Economic Policy, 36(Supplement), S187–S199.

Bu, C., Rogers, J., & Wu, W., 2021. A unified measure of Fed monetary policy shocks. Journal of Monetary Economics, 118, 331–349.

Caceres, C., Carriere-Swallow, M.Y., Demir, I. and Gruss, B., 2016. US monetary policy normalization and global interest rates. International Monetary Fund.

Chung, H.-L., & Chan, W.-S., 2010. Impact of credit spreads, monetary policy and convergence trading on swap spreads. International Review of Financial Analysis, 19 (2), 118–126.

Claus, E., Claus, I., & Krippner, L., 2018. Asset market responses to conventional and unconventional monetary policy shocks in the United States. Journal of Banking & Finance, 97, 270–282.

Das, M., Gopinath, G. and Kalemli-Özcan, S., 2022. Preemptive Policies and Risk-Off Shocks in Emerging Markets (No. w29615). National Bureau of Economic Research.

Eser, F., & Schwaab, B., 2016. Evaluating the impact of unconventional monetary policy measures: Empirical evidence from the ECB's securities markets programme. Journal of Financial Economics, 119(1), 147–167.

Ferrer, R., Bol´os, V. J., & Benítez, R., 2016. Interest rate changes and stock returns: A European multi-country study with wavelets. International Review of Economics & Finance, 44, 1–12.

Giese, J., and Haldane, A. (2020), 'COVID-19 and the Financial System: A Tale of Two Crises', Oxford Review of Economic Policy, 36(Supplement), S200–S214.

Hammoudeh, S., & Sari, R., 2011. Financial CDS, stock market and interest rates: Which drives which? The North American Journal of Economics and Finance, 22(3), 257–276.

Hauser, A., 2020. 'Seven Moments in Spring: Covid-19, Financial Markets and the Bank of England's Balance Sheet Operations', speech delivered at Bloomberg, London, 4 June.

Hull, J., Predescu, M., & White, A., 2004. The relationship between credit default swap spreads, bond yields, and credit rating announcements. Journal of Banking & Finance, 28(11), 2789–2811.

IIMF, 2021. World Economic Outlook: Recovery During A Pandemic. Washington, DC, October. https://www.imf.org/en/Publications/WEO/Issues/2021/10/12/world-economic-outlook-october-2021

IMF, 2020. 'Tracking the $9 Trillion Global Fiscal Support to Fight COVID-19', IMF Blog, 20 May.

IMF, 2021. Fiscal Monitor: Strengthening The Credibility Of Public Finances. Washington, DC, October. https://www.imf.org/en/Publications/FM/Issues/2021/10/13/fiscal-monitor-october-2021

IMF, 2022. IMF, World Economic Outlook Update, January 2022.

Inoue, A., & Rossi, B., 2019. The effects of conventional and unconventional monetary policy on exchange rates. Journal of International Economics, 118, 419–447.

Kuttner, K. N., 2001. Monetary policy surprises and interest rates: Evidence from the Fed funds futures market. Journal of Monetary Economics, 47(3), 523–544.

Monetary Policy Statement, Bangladesh Bank, Fiscal Year 2022-23.

Mohanty, M.S., 2014. The transmission of unconventional monetary policy to the emerging markets-An overview. BIS Paper, (78a).

Mayhew, K., and Anand, P., 2020. 'COVID-19 and the UK Labour Market', Oxford Review of Economic Policy, 36(Supplement), S215 S224.

Sun, R., 2020. Monetary policy announcements and market interest rates' response: Evidence from China. Journal of Banking & Finance, 113, 1–15.

Annexure: 1

Table 1. Cumulative Impulse Response of Domestic Rates After 12 Months, Median

	Short-term interest rates		Long-term interest rates	
	Pass-through	Spillover	Pass-through	Spillover
Sample	0.23	0.14	0.67	0.5
Advanced	0.23	0.12	0.67	0.49
Emerging	0.14	0.14	0.65	0.54

Source: Carlos Caceres et al. (2016). Note: Number of countries 43, sample period from 2000-2016, data frequency monthly. The table reports the cumulative impulse response of domestic rates after one year to shock to the federal funds rate that leaves it 100 basis points higher

Table 2: Changes in 2-yr Yields Around Selected Events

	Pre Oct. 2008						Post Oct. 2008					
	US		DEV		EME		US		DEV		EME	
	Mean	Std	Mean	Std	Mean	Std	Mean	Std	Mean	Std	Mean	Std
No news	0.07	8.94	0.04	6.43	0.29	19.31	0.05	4.35	-0.25	7.35	-0.31	10.01
MPM	-0.22	9.50*	-0.86	9.73***	-1.72	18.47*	-0.23	5.67***	-1.24	11.07***	-2.09	14.38***
Inflation	-1.28	9.04	0.33	6.87**	0.42	19.24	-0.32	4.87*	-0.25	6.37**	-0.97	11.53***
Activity	-1.86	9.04	-0.40	5.32***	0.64	12.87***	-0.19	4.51	-0.60	8.41***	-0.58	10.59**
Unemployment	0.10	9.33	0.27	7.52***	1.12	8.41***	-0.24	4.95***	-0.27	7.93***	-0.29	8.44***

The table shows the mean and the standard deviation of changes in 2-yr yields around economic releases. ***p-value<1%, **p-value<5%, and *p-value<10%, denote the probability that volatility is higher in the corresponding event than in non-event days.

Source: Elias Albagli et al. (2018)

Table 3: Effects of US Monetary Policy

	a) DEV			B) EME		
	Full sample	Pre Oct. 2008	Post Oct. 2008	Full sample	Pre Oct. 2008	Post Oct. 2008
2-yr yield	0.263***	0.318***	0.173***	0.160***	0.100*	0.287***
	(0.023)	(0.028)	(0.038)	(0.041)	(0.052)	(0.068)
10-yr yield	0.335***	0.297***	0.429***	0.293***	0.193***	0.557***
	(0.026)	(0.028)	(0.053)	(0.061)	(0.070)	(0.107)
RN(10-yr)	0.331***	0.390***	0.234***	0.054	0.019	0.136**
	(0.032)	(0.040)	(0.053)	(0.039)	(0.050)	(0.053)
TP (10-yr)	0.005	-0.092***	0.196***	0.239***	0.174**	0.421***
	(0.030)	(0.033)	(0.054)	(0.076)	(0.088)	(0.132)

The table shows the impact of US monetary policy events, corresponding to the β^h coefficient of equation (1). The regression is estimated separately for each group of countries: DEV and EME. Standard errors computed using Newey-West correction up to 40 lags (reported in parentheses). ***p-value<1%, **p-value<5%, and *p-value<10%.

Source: Elias Albagli et al. (2018)

Table 4: Effects of Domestic Monetary Policy

	a) DEV			b) EME		
	Ful sample	Pre Oct. 2008	Post Oct. 2008	Ful sample	Pre Oct. 2008	Post Oct. 2008
10-yr yield	0.371***	0.304***	0.418***	0.416***	0.518***	0.325**
	(0.060)	(0.098)	(0.070)	(0.116)	(0.068)	(0.164)
RN	0.782***	0.723***	0.825***	0.614***	0.677***	0.560***
	(0.070)	(0.093)	(0.092)	(0.081)	(0.130)	(0.112)
TP	-0.412***	-0.419	-0.407***	-0.198	-0.159	-0.236
	(0.089)	(0.102)	(0.134)	(0.173)	(0.180)	(0.257)

The table shows the impact of domestic monetary policy events, corresponding to the Y^h coefficient of equation (1). The regression is estimated separately for each group of countries: DEV and EME. Standard errors computed using Newey-West correction up to 40 lags (reported in parentheses). ***p-value<1%, **p-value<5%, and *p-value<10%.

Source: Elias Albagli et al. (2018)

Table 5: Effect of Domestic Economy Releases

	Full Sample			Pre Oct. 2008			Post Oct. 2008		
a) DEV	10-yr yield	RN	TP	10-yr yield	RN	TP	10-yr yield	RN	TP
Inflation	0.361***	0.662***	-0.301***	0.351***	0.812***	-0.461***	0.362***	0.561**	-0.199
	(0.085)	(0.170)	(0.096)	(0.055)	(0.053)	(0.049)	(0.135)	(0.247)	(0.126)
Activity	0.509***	0.819***	-0.310***	0.444***	0.796***	-0.353***	0.520***	0.820***	-0.300***
	(0.050)	(0.111)	(0.109)	(0.048)	(0.063)	(0.059)	(0.066)	(0.144)	(0.143)
Unempl.	0.487***	0.819***	-0.332***	0.485***	0.811***	-0.325***	0.480***	0.827***	-0.346***
	(0.046)	(0.042)	(0.063)	(0.047)	(0.048)	(0.064)	(0.071)	(0.063)	(0.09)

	Full Sample			Pre Oct. 2008			Post Oct. 2008		
b)EME	10-yr yield	RN	TP	10-yr yield	RN	TP	10-yr yield	RN	TP
Inflation	0.394***	0.428***	-0.034	0.404***	0.424***	-0.020	0.369**	0.424***	-0.056
	(0.097)	(0.027)	(0.100)	(0.064)	(0.049)	(0.092)	(0.153)	(0.029)	(0.153)
Activity	0.341**	0.312***	0.030	0.135	0.253**	-0.118	0.640***	0.394***	0.246***
	(0.133)	(0.089)	(0.086)	(0.122)	(0.116)	(0.091)	(0.049)	(0.083)	(0.081)
Unempl.	0.400***	0.507***	-0.107	0.312*	0.530***	-0.218	0.422***	0.486***	-0.064
	(0.079)	(0.076)	(0.134)	(0.170)	(0.120)	(0.215)	(0.097)	(0.091)	(0.179)

The table shows the estimated impact of domestic economic releases, corresponding to the θ^h_n coefficient of equation (1). The regression is estimated separately for each group of countries: DEV and EME. Standard errors computed using Newey-West correction up to 40 lags (reported in parentheses). ***p-value<1%, **p-value<5%, and *p-value<10%.

Source: Elias Albagli et al. (2018)

Annexure: 2

Short-term interest rate (Policy Rate)

Table 1: Test for Equality of Means between Series

Method	df	Value	Probability
Anova F-test	(18, 683)	40.14141	0.0000
Welch F-test*	(18, 252.292)	69.65915	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	18	6884.540	382.4744
Within	683	6507.745	9.528177
Total	701	13392.28	19.10454

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BANGLADESH	37	5.651081	1.497566	0.246198
BRAZIL	37	9.471284	5.224651	0.858927
CHILE	37	2.756194	1.586717	0.260855
CHINA	37	4.835135	0.923364	0.151800
COLOMBIA	37	4.846284	2.202289	0.362054
HUNGARY	37	3.390203	3.494505	0.574493
INDIA	37	6.062162	1.361903	0.223895
INDONESIA	37	6.267275	2.421565	0.398103
MALAYSIA	37	2.959009	0.834754	0.137233
MEXICO	37	6.264977	1.899547	0.312284
PAKISTAN	37	7.106216	2.270996	0.373349
PHILIPPINES	37	4.152027	1.820338	0.299262
RUSSIA	37	9.280405	4.470361	0.734923
SOUTH_KOREA	37	2.037838	1.320375	0.217068
SOUTH_AFRICA	37	6.612613	2.285912	0.375802
SRI_LANKA	37	6.797297	1.023742	0.168302
THAILAND	37	1.683559	0.966748	0.158932
TURKEY	36	14.76757	9.047187	1.507864
UNITED_STATES	37	1.273378	1.338168	0.219993
All	702	5.577164	4.370874	0.164968

Table 2: Group unit root test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-4.66344	0.0000	19	658
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-2.71105	0.0034	19	658
ADF - Fisher Chi-square	68.6378	0.0017	19	658
PP - Fisher Chi-square	86.1129	0.0000	19	683

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Table 3: Correlations

<table>
<tr><th>BANGLADESH,BRAZIL(-i)</th><th>BANGLADESH,BRAZIL(+i)</th><th>i</th><th>lag</th><th>lead</th></tr>
<tr><td>. |**** |</td><td>. |**** |</td><td>0</td><td>0.3835</td><td>0.3835</td></tr>
<tr><td>. |***** |</td><td>. |*** |</td><td>1</td><td>0.4787</td><td>0.2697</td></tr>
<tr><td>. |****** |</td><td>. |**. |</td><td>2</td><td>0.6004</td><td>0.2381</td></tr>
<tr><td>. |******* |</td><td>. |*** |</td><td>3</td><td>0.6615</td><td>0.2550</td></tr>
<tr><td>. |******* |</td><td>. |**. |</td><td>4</td><td>0.6834</td><td>0.1878</td></tr>
<tr><td>. |****** |</td><td>. |* . |</td><td>5</td><td>0.6207</td><td>0.1362</td></tr>
<tr><td>. |****** |</td><td>. |* . |</td><td>6</td><td>0.5617</td><td>0.1164</td></tr>
<tr><td>. |**** |</td><td>. |* . |</td><td>7</td><td>0.4108</td><td>0.1326</td></tr>
<tr><td>. |**** |</td><td>. |* . |</td><td>8</td><td>0.3852</td><td>0.1415</td></tr>
<tr><td>. |**** |</td><td>. |* . |</td><td>9</td><td>0.4049</td><td>0.1303</td></tr>
<tr><td>. |**** |</td><td>. |* . |</td><td>10</td><td>0.4231</td><td>0.1052</td></tr>
<tr><td>. |**** |</td><td>. |* . |</td><td>11</td><td>0.3767</td><td>0.0528</td></tr>
<tr><td>. |*** |</td><td>. *| . |</td><td>12</td><td>0.3041</td><td>-0.0555</td></tr>
<tr><td>. |**. |</td><td>. *| . |</td><td>13</td><td>0.2067</td><td>-0.1257</td></tr>
<tr><td>. |* . |</td><td>.**| . |</td><td>14</td><td>0.1238</td><td>-0.2247</td></tr>
<tr><td>. | . |</td><td>***| . |</td><td>15</td><td>-0.0040</td><td>-0.2876</td></tr>
<tr><td>. *| . |</td><td>***| . |</td><td>16</td><td>-0.1180</td><td>-0.3239</td></tr>
</table>

Long-term interest rate (10-yrs Govt. Bond)

Table 1: Test for Equality of Means between Series

Method	df	Value	Probability
Anova F-test	(19, 760)	6.694574	0.0000
Welch F-test*	(19, 278.362)	179.2488	0.0000

*Test allows for unequal cell variances

Analysis of Variance

Source of Variation	df	Sum of Sq.	Mean Sq.
Between	19	8945.604	470.8213
Within	760	53449.88	70.32879
Total	779	62395.49	80.09690

Category Statistics

Variable	Count	Mean	Std. Dev.	Std. Err. of Mean
BANGLADESH	39	8.610513	2.007597	0.321473
BRAZIL	39	10.64126	2.235800	0.358014
CHILE	39	4.703333	1.073154	0.171842
CHINA	39	3.344692	0.473726	0.075857
COLOMBIA	39	13.85669	25.73056	4.120187
HUNGARY	39	11.86872	26.14927	4.187234
INDIA	39	7.060846	0.974604	0.156062
INDIA01	39	7.060846	0.974604	0.156062
INDONESIA	39	8.123846	2.051764	0.328545
MALAYSIA	39	3.731487	0.471330	0.075473
MEXICO	39	7.275103	1.039579	0.166466
PAKISTAN	39	11.05615	1.804432	0.288940
PHILIPPINES	39	6.350692	3.161563	0.506255
RUSSIA	39	8.267564	1.942799	0.311097
SOUTH_AFRICA	39	8.908333	1.150993	0.184306
SOUTH_KOREA	39	3.119231	1.595408	0.255470
SRI_LANKA	39	9.527923	1.756371	0.281244
THAILAND	39	2.817308	1.166276	0.186754
TURKEY	39	13.20308	4.017265	0.643277
UNITED_STATES	39	2.541821	1.196930	0.191662
All	780	7.603472	8.949687	0.320450

Table 2: Group unit root test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	4.03528	0.0030	19	709
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-6.80523	0.0000	19	709
ADF - Fisher Chi-square	127.599	0.0000	19	709
PP - Fisher Chi-square	167.384	0.0000	19	722

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Table 3: Correlations

BANGLADESH,BRAZIL(-i)	BANGLADESH,BRAZIL(+i)	i	lag	lead
. |**** |	. |**** |	0	0.3920	0.3920
. |**** |	. |***** |	1	0.4192	0.4763
. |**** |	. |***** |	2	0.4328	0.4743
. |***** |	. |***** |	3	0.5280	0.4577
. |****** |	. |**** |	4	0.6133	0.3808
. |****** |	. |**. |	5	0.5892	0.2504
. |***** |	. |*** |	6	0.5101	0.2613
. |**** |	. |*** |	7	0.4044	0.2876
. |*** |	. |**** |	8	0.2996	0.4348
. |**. |	. |**** |	9	0.2018	0.4498
. |**. |	. |**** |	10	0.1734	0.4132
. |* . |	. |*** |	11	0.1457	0.2604
. |* . |	. |* . |	12	0.0794	0.0968
. | . |	. | . |	13	-0.0144	-0.0173
. *| . |	. *| . |	14	-0.0718	-0.0869
.**| . |	. *| . |	15	-0.1915	-0.1337
.**| . |	.**| . |	16	-0.2298	-0.2200

©2022 Journal of IBB
Volume 65 January-December 2022
Institute of Bankers of Bangladesh
(ISSN 1684-0054)

Financial Performance Analysis of Government Sector Non-life Insurance in Bangladesh.

Khosru Dostagir Alam, ABIA, L.L.B [1]
Dr. Md. Ibrahim, PhD, ABIA, L.L.B [2]

Abstract

This paper will present the financial performance of government sector non-life insurance in Bangladesh. The analysis is based on the 19 years (2002-2020) of statistical information relating to gross premium, net premium, total investment, and income from investment, claim charge, management expenses, net profit, total assets and contribution to the Govt. Financial performance of government sector nonlife insurance is also evaluated based on the ratio analysis such as claim ratio, expenses ratio, underwriting result ratio, investment income ratio, net retention ratio and return on assets (ROA) ratio. Data has been collected from the annual reports of Sadharan Bima Corporation (SBC) which is the only government sector nonlife insurance organization in Bangladesh. For analyzing the data, the statistical tools including mean, Average Annual Growth Rate, correlation, regression and 'F' test have been used. The correlation analysis revealed that expense ratio, underwriting result ratio and net retention ratio have a significant correlation with return on asset (ROA). The regression analysis expressed that independent variables (investment income ratio, expenses ratio and net retention ratio) can influence the dependent variable (ROA) by 79.6%. The test of hypothesis indicates that there is a significant relationship between dependent variable (ROA) and independent variables (IIR, Ex R and NRR). Therefore, SBC has shown a good financial performance during the study period. However for better performance, SBC needs to take some innovative initiatives like product diversification, crops insurance for agro-based economy, health insurance for government employees, grow a positive attitude for clients, improve service quality, proper utilization of assets, training on innovation and implementation of global concept.

Article Info: Received 14 August 2021; Revised and Resubmitted: 31 October 2022; Accepted: 30 January 2023; Published: 30 June 2023.

Key Words: Non-life Insurance, ROA (Return on Asset), Claim ratio, Expenses ratio, Investment income ratio, net retention ratio, Annual Average Growth rate.

JEL Classifications: G22, I13

I. Introduction

Insurance is defined as a co-operative device to spread the loss caused by a particular risk over a number of persons who are exposed to it and who agree to insure themselves against that risk. Risk is the uncertainty of financial loss (Mirsha, 2009). Non-life insurance, also called property and casualty insurance, is a type of coverage that is very common and covers businesses and individuals. It

1. General Manager, Asset Management & Law, Sadharan Bima Corporation, Head office, Dhaka. Mobile # 01834127698, 2. Principal & Corresponding Author: Assistant General Manager, Zonal Incharge, Cumilla, Sadharan Bima Corporation. Mobile: 01911324589, 01977324589 E-mail- Ibrahim.sbc123@gmail.com

protects the insured, financially from disaster by providing money in the event of a financial loss (AlibasterSmith, 2017). Government sector nonlife insurance deals with the risks of all public (government) property or assets as mandatory portfolio and also the risks of private property or assets as an auxiliary portfolio of nonlife insurance in Bangladesh. The government sector non-life insurance of Bangladesh is known as ‘Sadharan Bima Corporation (SBC).

SBC is the only state-owned non-life insurance organization functioning under the direct control and supervision of the ‘Ministry of Finance’, ‘Financial Institutions Division’, Government of the People’s Republic of Bangladesh. With the emergence of Bangladesh as an independent nation, banking and other industrial sector were nationalized along with insurance sector. At the initial stage of nationalization of insurance industry, five Government owned Insurance Corporations (two in life sector and two in non-life sector) including one controlling corporation were established by the government. Due to the operational difficulties, the insurance industry was further reconstructed in 1973 by passing the Insurance Corporation Act VI of 1973 which established two Corporations – one for non-life insurance in the name of Sadharan Bima Corporation and one for life insurance in the name of Jibon Bima Corporation. By the virtue of Insurance Corporation Act VI of 1973, SBC was privileged to be the sole insurer for the non-life insurance business in Bangladesh. SBC enjoyed this advantage till 1984. Then the Government amended the Insurance Corporation Act, 1973 by ordinance no L and LI of 1984, allowing the private sector to underwrite insurance business of the private sector only. In 1990, the Insurance Corporation Act 1973 was further amended by the Insurance Corporations (Amendment) Act 1990, wherein it was provided that 50% of all insurance business relating to any public property shall be placed with SBC and the remaining 50% of such business may be placed either with SBC or with any other insurers in Bangladesh.

Thereafter, in pursuance of the decision of the Government, a Memorandum of Agreement (MOA) was signed between SBC and the nonlife insurance companies where it was agreed that SBC will distribute 50% public property related business to the all nonlife insurance private companies after retaining 50% plus 10% for management expenses in its own account. In 2009, the management expenses rate was revised as 7.5%. The above change resulted in adverse impact on the direct premium income of the Corporation. Then, the Insurance Corporation Act. 1973 has been repealed and the Insurance Corporation Act, 2019 has been promulgated on 09 may, 2019 wherein it is provided that SBC will underwrite 100% of all public property related business and distribute 50% of the same to all the private Non-life Insurance Companies transacting in Bangladesh on equal basis after keeping 50% in its own account. SBC also acts as the only reinsurer in Bangladesh insurance Market. SBC Brokerage Division has transformed a separate company named as SBC Securities & Investment Ltd (A subsidiary company of SBC) in 23rd September, 2010. It is registered in the Registrar of joint stock companies and firms. SBC has a very strong financial base. It has a market share of over 20% of the total non-life premium income of the insurance market of Bangladesh.

1.1 What is Financial Performance?

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period (Kenton, 2021). Financial Performance is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Verma, 2020).

1.2 Why does Financial Performance Analysis needed for a Financial Institution or Business?

Today’s businesses need timely information that helps the business people to take important decisions in business. Finance plays an important role in increasing the value of a business. Finance is finding its way as an important business function and it overlaps with analytics in many areas. Financial executives are finding out new ways in the field of finance to increase the value of their organization. There are many reasons why financial institutions need a statement of financial performance. Generally, a statement of financial performance is important to understanding if business is profitable and, if not, where to make needed changes. It shows the current financial status of business firm, how cash is used and where the unnecessary costs are. One of the most important tasks successful business owners undertake is monitoring their financial performance on a regular basis.

Management who understand where the business currently stands from a performance standpoint as well as where it’s heading hold a huge advantage over those who choose not to. A lot of businesses owners make key decisions based on gut feelings. This is an incredibly risky way to run a business. Success in business comes down to how successful an owner of a business in answering these types of questions and making correct decisions based on what have learnt. By monitoring performance and gaining these types of insights, businessmen are able to make better business decisions and improve their business’s performance over the long term.

The present study has been conducted based on secondary data. The data is consisted with gross premium, net premium, claim paid, management expenses, Investment income, profit before taxes, and profit after taxes and net retention. Some ratios are calculated for evaluating the financial performance of SBC. Statistical tools such as mean, range, standard deviation, correlation and regression analysis have been used. The SPSS software verson-20 has been used for data analysis. The study found that three independent variables B1, B2 and B3 and the

R2 is 0.796, which is very high. It means that independent variables (investment income ratio, expenses ratio and net retention ratio) can influence the dependent variable ROA by 79.6%.The regression reported that claim, expenses and investment income have a significant effect on return on assets. This study will help to identify the barriers of the SBC to perform better financial performance and how to remove these barriers.

2. Review of Literature

The review of related literature is a way for a researcher to relate with the existing study and identifying the research gap. There may be a number of studies in the same topic but a researcher can identify a research gap by studying the previous research. The followings are some studies that are relevant to the existing study present here.

Ahmed (1977) revealed that insurance industry in Bangladesh is still in a preliminary stage. With the liberation and with the nationalization of insurance business numerous problems cropped up and the industry had to be reorganized through the trial and error methods. Habibullah & Ghosh (1989) in their article 'Stated that the government nationalized the insurance business which is one of the major segments of service industry of a country with definite objectives. The society also has its own expectation out of the general insurance business. Kashish & Kashrim (1998) conducted study on Jordan's' insurance industry and used profitability as dependent variable, where profitability was peroxided by return on investment by using this equitation ROA= (net profit)/total assets. Azad (1999) stated that insurance can play a vital role in the economy by providing safeguard to properties, minimizing risk etc, which are vital to the growth and development of business and industry. Besides, Cooperative insurance has a social feature in which case shareholders, who are weaker section of the people or have assembled together to safeguard their interest, can have earning benefit. Islam (1999) found that the insurance industry in Bangladesh is facing acute shortage of professional insurance personnel, specially the marketing professionals. The growth of the insurance industry depends much on the educated and trained professionals. As a first step, marketing staff profession requires to be standardized and regulated. Barua, Mamun & Islam (2000) said that the nationalized general insurance sector of Bangladesh is passing through a crucial phase. On one side there are complains of bureaucracy, inefficiency, lethargy and decrease in profitability. On the other hand, there is strong lady supporting need for the promotion of the nationalized sector pointing to its contribution to secured capital formation, investment and employment in addition to providing financial assistance to the insuring community. Shirazi, Mamun & Arefin (2004) revealed that non-government general insurance are prompt responding to the market changes, product demand, and changes of overall social and business environment. More over, taking the advantages of recent change in reinsurance policy, non-government insurers have acquired a mentionable control over premium earning. Azam (2005) said that the growth of insurance industry and the economic development is interdependent. Economic development of a country is partly depended on the development of insurance industry. At present, insurance has become very closer to people of all walks. Without insurance, nobody can go one step. Kasturi (2006) argued that the performance of insurance company in financial terms is normally expressed in net premium earned, profitability from underwriting activities, annual turnover, return on investment and return on equity. These measures can be classified as profit performance measures and investment performance measures. Ali (2008) stated that the present legal position is that 50% of the public sector insurance businesses has been kept reserved for nationalized corporation (SBC) and the companies in the private sector are entitled to write the remaining 50% business of this sector. It is evident that the average growth of public sector premium was around 9.36% over the years under review while the rate of private sector was 14.00% only. Haq (2008) described that the trend of globalization may create new dimension of challenges for insurance industry. The structure of investment portfolio of these insurance companies was not discussed under those studies. This paper basically focuses on this area of investment portfolio structure of general insurance companies in Bangladesh. Haq (2009) asserts that insurance in veritably plays a vital role in the society and the country. Possibly no country can attain economic development without development of insurance organizations on sound basis. Kumar (2010) in the post-reform period, the comparative profitability analysis of the public and private sectors reveals that the public sector general insurance companies have exhibited higher underwriting losses than the private sector companies but the higher investment income of the public sector has compensated their higher underwriting losses which resulted into their higher profitability than the private sector general insurance companies. Ahmed et al. (2011) conducted a study on the determinants of performance and found that size, risk and leverage are important determinants of performance of life insurance companies of Pakistan. According to their study Return on Asset (ROA) has statistically insignificant relationship with growth, profitability, age and liquidity. Mamun (2011) have conducted a research on the topic of performance evaluation of general (non-life) insurance companies in Bangladesh and stated that as a result of globalization, deregulation and terrorist threats, the insurance industry has under gone a tremendous transformation over the past decade. Globally insurance business was increasing at a low rate till 2007 and registered a growth of 3.3%. But in 2008, the industry contracted by 4.2% to reach gross written premium of 3,888.6 billion. Kamrul & Khanam (2013) have conducted an article on the topic of performance evaluation of public sector general insurance companies in Bangladesh, where they demonstrated the performance of SBC. They suggested that for further continuous growth and development, SBC should take some strategic steps including the adoption of modern techniques for asset management, follow-up of modern marketing strategies, launching more research & development programs, develop HRD program, flexible pricing rules and so on. Sarkar (2013) found that the profitability of both the sectors has been measured with suitable ratio analysis. Both the expense ratio and claim ratio of the private sector are comparatively lower than the public sector. In spite of their unfavorable expense ratios and claim ratios; the public sector maintained comparatively higher return on equity in every year under study due to their higher return from investment. Khan (2015) revealed that variable such as age, VOC (Volume of Capital) and leverage are negatively related with ROA. On the other hand, size is positively related and significant. This study does not find any relationship between loss ratio and ROA.

3. Research Gap

From the above review of literature, it is noticed that few research has been conducted in Bangladesh on government sector nonlife insurance companies. So, there is a research gap and this research paper is an initiative to cover this gap.

4. Objectives of the Study

The following are the objectives of the study

- To analyze the financial performance of government sector non-life insurance in Bangladesh.
- To analyze Return on Assets (ROA) as a driver of financial performance.
- To find out the obstacles of government sector non-life insurance in Bangladesh.
- To recommend suggestions for the successful financial performance.

5. Research Methodology

The secondary data is the main source of this study. The data has been collected from the annual reports, journal, books and other print media etc. Data has been collected for a period of 19 (nineteen) years (2002-2020). The data consists of some financial parameters like Premium income, Investment, Income from investment, Claim intimated and settled, profit and overall profitability etc. The financial data collected is analyzed using financial parameters like Annual average growth rate (AAGR), percentage (%) of investment as total assets, Investment income as a percentage (%) of total investment, net claim charge as a percentage (%) of net premium, profit as a percentage (%) of net premium, Return on Assets (ROA), Total Asset Turn over (TATO). Besides, for analyzing data, the technique of ratio analysis like claim ratio, expenses ratio, income from investment ratio and Return on assets ratio has been used. The statistical tools such as mean, standard deviation, correlation and regression analysis have been used for data analysis. For the purpose of data analysis SPSS (version -20) software has been used.

5.1 Parameters Used to analyze the financial Performance

Financial performance can be analyzed by using the following ratios. **(Expressed in percentage form).**

Claim Ratio = Net claim incurred to net written premium

Expense Ratio = Expenses of management to net written premium

Underwriting Results Ratio = Net written premium minus claim, expenses and increase in unexpired risk reserve to net written premium

Investment Income Ratio = Investment income to net written premium

Return on Asset Ratio = Profit after tax to net worth/assets

Model: ROA (dependent variable) = IIR+ER+NRR (Independent variables)

6. Hypotheses of the Study

To achieve the specific objectives of the study, the main hypotheses formulated for the present study are as follows:

H_o = there is no significant relationship between the dependent variable (ROA) and independent variables (Income from Investment, Management Expenses and Net Retention Ratio) of government sector nonlife insurance in Bangladesh.

H_1 = there is a significant relationship between the dependent variable (ROA) and independent variables (Income from Investment, Management Expenses and Net Retention Ratio) of government sector nonlife insurance in Bangladesh.

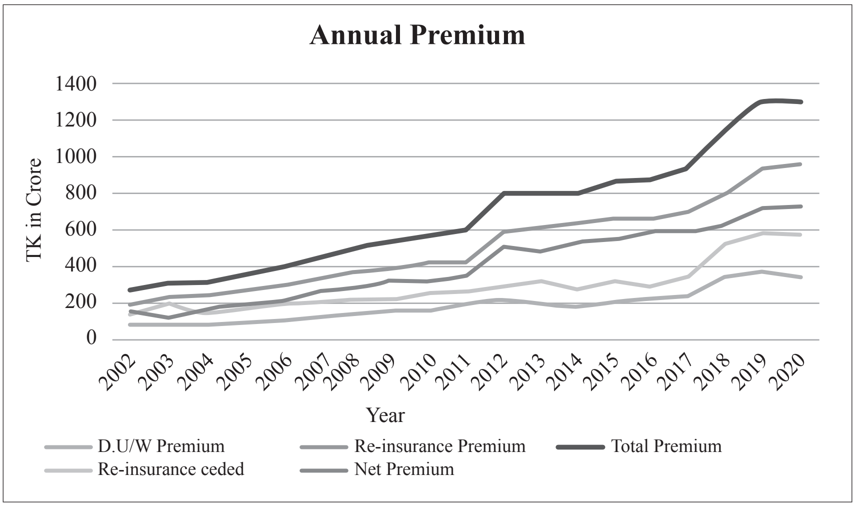
7. Financial Performance Analysis of Govt. Sector Nonlife Insurance

Financial performance analysis is consisted with premium income, claim, investment, income from investment, management expenses, profit, total assets and contribution to the government etc.

7.1 Premium Income

The premium income of SBC comes from the direct underwriting and re-insurance business. SBC earns premium from four (4) major areas of non-life insurance sectors like, marine, fire, motor, and miscellaneous insurance. The Corporation mainly earns premium from public sector business (PSB) as per Insurance Corporation (Amendment) Act 1990, at present Insurance Corporation Act 2019 and Memorandum of Agreement (MOA) with all private insurance companies. According to this Act & MOA, 100% of public sector business will be underwritten by SBC. Then keeping 50% of that business in its own account, rest 50% will be distributed on an equal basis among 45 private nonlife insurance companies. After adjusting of claims payment, reinsurance premium and deducting 7.5% service charge. However, it has been handling 100% re-insurance business of private insurance companies except a few. Anyway, Direct underwriting premium, re-insurance premium, total premium, re-insurance ceded have been shown in line Chart 01.

Chart 01



Source: Author's own

7.2 Direct underwriting premium & Re-insurance Premium

Direct underwriting premium is the main revenue source of SBC. During the 19 years under review (2002 to 2020), direct underwriting premium has gradually increased except in 2013, 2014 & 2020. The increasing trend continued over the years which is seen in line chart 01.

As per appendix table 01, in this case, AAGR (Average Annual Growth Rate) is 9.14%. Re-insurance premium has also gradually increased except in 2011 and 2016. In this case AAGR is 9.73%. For protecting risk, after keeping own retained premium, SBC cedes premium with overseas re-insurers. In this case AAGR is 9.38%. SBC has been underwriting almost 100% of re-insurable business of all nonlife private insurance companies of Bangladesh. Although, as per the provision of Insurance Corporation (Amendment) Act-1990, at present Insurance Corporation Act-2019, Private insurance companies have to re-insure at least 50% of re-insurable business with SBC and the rest with any insurer in or outside Bangladesh. However But reality is that , they are underwriting almost all re-insurable businesses with SBC. There is a relationship between direct underwriting business & re-insurance business when SBC at first underwrites 100% public business. After keeping 50% for it, rest 50% is distributed among 45 private companies. But private companies further re-insure their share of 50% of public business with SBC. As a result, when direct underwriting premium is increased simultaneously re-insurance premium is also increased, in a cyclic order.

7.3 Net Premium

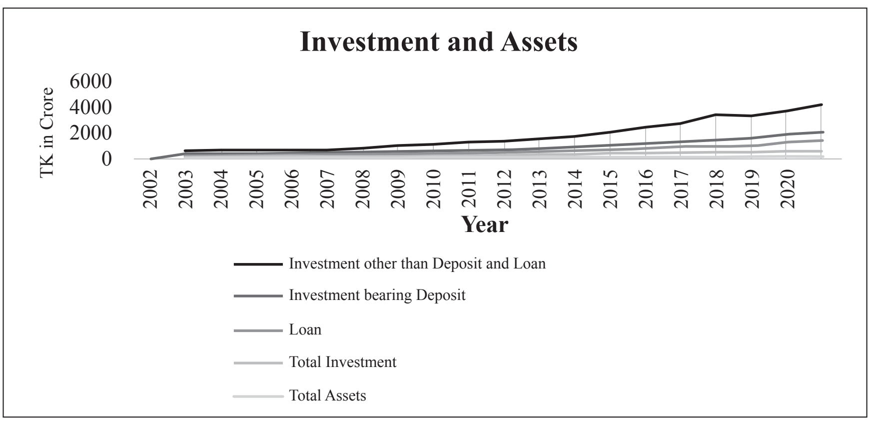
Net Premium is calculated by deducting the re-insurance amount ceded from the sum of total premium. During the studied period, the AAGR (Average Annual Growth Rate) was 11.72%. As per line chart 01, it is seen that net premium is gradually increased during the concerned period except in 2003, 2010 and 2013.

Growth Rate = (Ending Value / Beginning Value) – 1

7.4 Total Investment and Assets of SBC

The main source of capital formation by SBC is premium income. One of the main functions of insurance business is capital formation and investment of the accumulated fund to productive channel through which it generates revenues. So, financial performance of SBC depends not only on volume of business in terms of premiums but also on efficient portfolio consisting of profitable investments. So, SBC's investment portfolio of the period under review is shown in line chart 02.

Chart 02

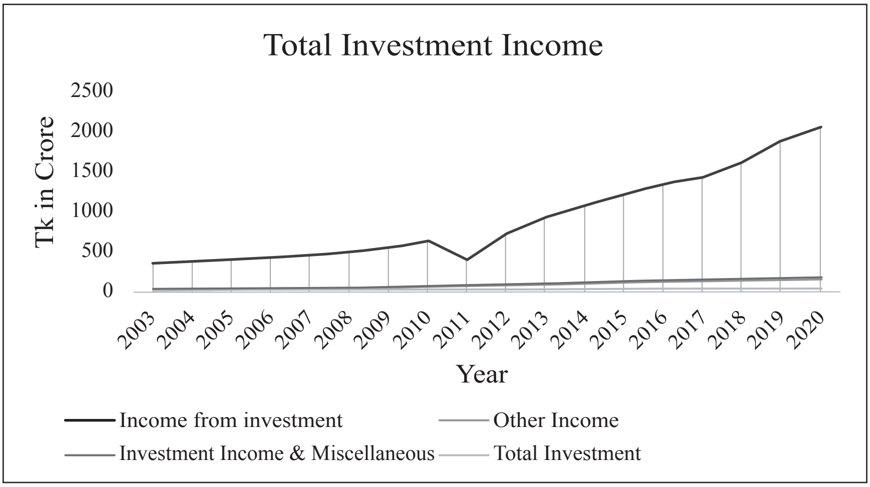


Source: Author's own

As per chart 02, total investment has been categorized into investment other than deposit & loan, investment bearing deposit and loan depending on the usual rate of return. Investment (other than deposit & loan) consists of statutory investments, investment in bonds, share and house properties. This is the highest income generating category of investment. Management can reflect its talent by maximizing the proportion of this category and efficiently managing the portfolio. A subsidiary investment company limited was introduced for generating higher income.

In the appendix table 02, it is seen that the average category of investment of SBC was 54% of total assets during the study period from 2002 to 2020. Here, noticeable that total investment of SBC was Tk 346.63 crore in 2002, which was gradually increased to Tk 2039.68 crore in 2020. On the other hand, Total Assets of SBC was Tk 566.33 crore in 2002 which was gradually increased to Tk 4167.86 crore in 2020. There is a co-relation between total investment and total assets i.e. when total assets has increased, simultaneously total investment also has increased, but, there is a proportionate difference between the two, which has been shown in appendix table 02 as percentage (%). AAGR of total investment is 10.52% and AAGR of total asset is 12.02%.But, AAGR of percentage of investment as asset is -0.83%, which indicates that it was required to ensure proper utilization of the asset for the purpose of investment. A reflection of income from investment is shown in line chart 03.

Chart 03



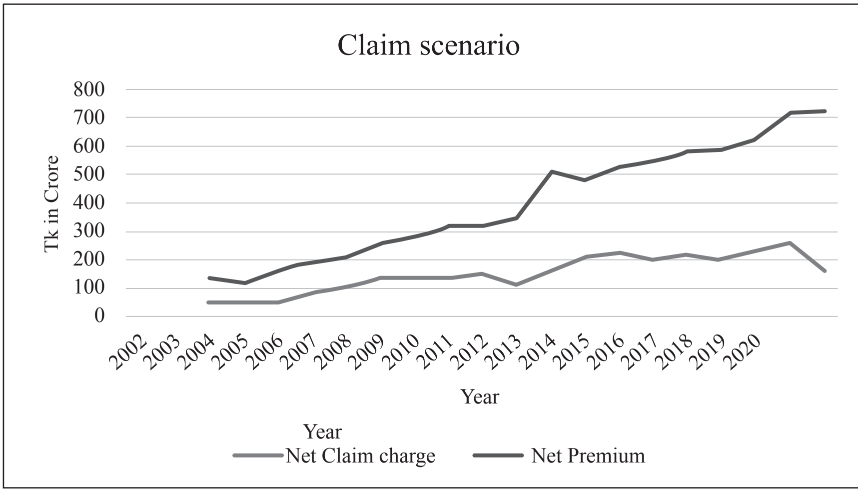
Source: Author's own

In the appendix Table 03, it is noticed that Average Annual Growth rate of total investment income is 11.44%, whereas AAGR of investment is 10.52%. Investment income as a percentage (%) was 9.52% in 2002. It gradually increased from 8.09% in 2009 to 12.70% in 2014. However, the figure fluctuated within a range of 9% to 11% over the whole period. But average investment income as a percentage of investment is 9.34% during the study period. Another important thing is that AAGR of investment income as a percentage of investment is -3.25%, which indicates that Return on Investment (ROI) overall has improved however, year wise growth rate has not improved. This is due to the gradual shifting of relatively from higher income generating investment (share, debenture) to lower income generating investments (deposits/FDR), although, overall investment increased in our study period.

7.5 Claim Paid by SBC

Total claims lodged/intimated and settled are consisted of two categories. First one is Direct under writing claim & second one is re-insurance claim. However, the amount of claims lodged and net charges on the claims settled in each year has increased which is shown in line chart 04. As per appendix table 04, the average net claim charge is Tk 151.95 crore and AAGR is 12.57% during the period from 2002 to 2020. AAGR of net premium is 11.72%. Impact of the net charges of claims on the profitability depends on the ratio of net charges to net premium. During the study period of overview, the average proportion of net charge as a percentage of net premium was 37.98% and AAGR was 12.86%. Almost every year, the actual net charge proportion was close to the average percentage, except 2004, 2009, 2011, 2012 and 2020.

Chart 04



Source: Author's own

7.6 Overall Profitability of SBC

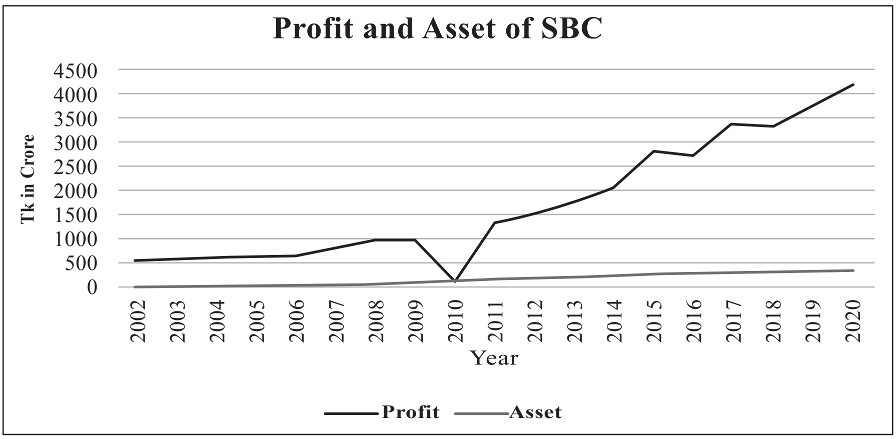
Overall Profitability is consisted of annual profit and profitability. Profitability of SBC can be analyzed through time series analysis to reflect the trend of Profit with the elapse of time. The data reveals (appendix table-05) that the annual profit magnitude of SBC gradually increases throughout the total study period. Further analysis is made to measure the overall profitability through the concept of Net Margin and Return on Total Assets (ROTA). During the period reviewed, all these measures of profitability showed consistent increasing trends. Under writing Income and Net Profit as percentage of net premiums both increased to 56% and 48% in 2020 from 50% and 24% respectively in 2002.Average underwriting income and net profit as a percentage of net premium are 57% and 37% respectively. Similarly, ROTA i.e. Return on total assets before taxes also gradually increased to 13.08% in 2011 from 5.80% of 2002, but then decreased from 2012 to 2020. But average ROTA was 9.09% which is reasonable during the study period.

$$ROA = \frac{P}{TA} \times 100, \quad TATO = \frac{NP}{TA} \times 100$$

On the other hand, total asset turnover ratio has also increased from 23% in 2002 to 33% in 2007. However the ratio fluctuated over the years between 2008 and 2020.

Nevertheless, overall, it is seen that, although, TATO (Total Asset Turn Over) has fluctuated, but average TATO rate is 25%, which is reasonable. Besides, due to the fluctuation of TATO, there is no negative impact on ROA, rather it is improved with the gradual increase in overall profitability, due to the increase of net premium income, reducing operating expenses and net charges on claims, increase in rate of return from investment and increase in performing assets (i.e.-Car parking, House property, Rent, share and FDR etc.). A reflection of profit and asset of SBC is shown in line chart 05.

Chart 05

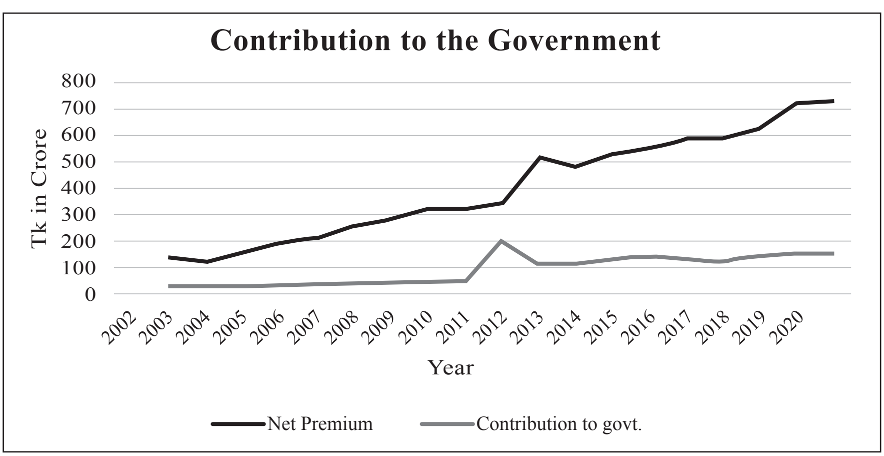


Source: Author's own

7.7 Contribution to the Government Fund

Sadharan Bima Corporation recognizes that the Corporation has certain responsibilities for the development of the nation as a whole. For this, corporation makes significant contribution to the Government each year. A reflection is shown in line chart 06.

Chart 06

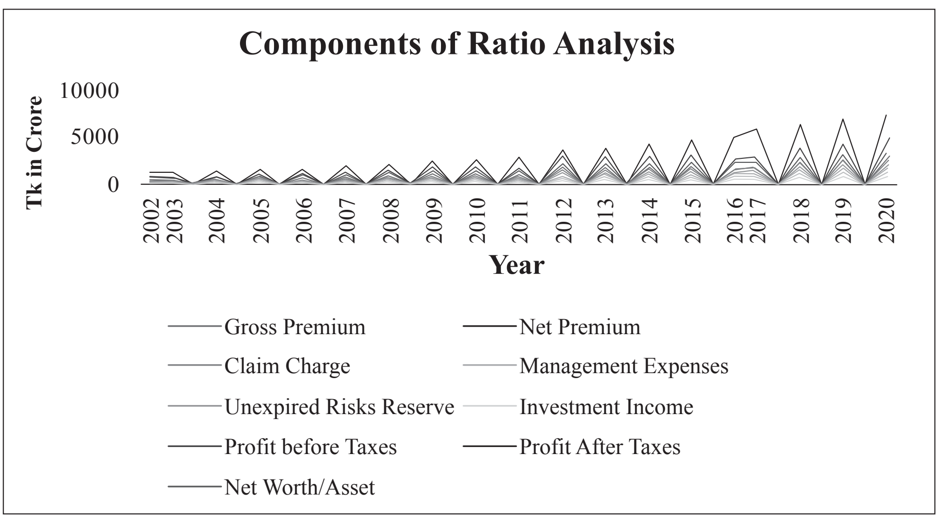


Source: Author's own

As per appendix table 06, it is noticed that SBC is continuously contributing a huge amount to the Govt. fund from the source of VAT, TAX and profit. This contribution has gradually increased from 2002 to 2020. In the year 2011, that contribution was Tk. 200 crore. However it was not a drastic change like the year 2011 when the condition of the stock market deteriorated extensively. In order to improve the stock market, SBC contributed Tk. 100 crore to the Bangladesh Mutual Fund like other financial institutions (ICB, Agrani, Sonali, Janata, Rupali Bank). Average 22.78% of net premium has contributed to the Government Fund during the study period. So, there is no doubt that, SBC is playing a vital role for raising government fund of Bangladesh which is helpful for developing a sound economy.

8. Financial performance measure based on Ratio Analysis

There are so many methods or ways in financial management to analyze financial performance of a financial institution. Ratio analysis is one of the popular methods. The following ratios will be analyzed for evaluating the financial performance of SBC. The data relating to these ratios has been shown in line chart 07.



Source: Author's own

1. **Claim Ratio** = Net claim incurred to net written premium
2. **Expense Ratio** = Expenses of management to net written premium
3. **Underwriting Results Ratio** = Net written premium minus claim, expenses and increase in unexpired risk reserve to net written premium
4. **Net Retention Ratio** = Net written premium to gross-direct premium
5. **Investment Income Ratio** = Investment income to net written premium
6. **Return on Asset Ratio** = Profit after tax to net worth

Ratio Analysis of different financial performance parameters of SBC

Table 01

In Percentage (%)

Year	Claim Ratio	Expenses Ratio	Underwriting Result Ratio	Investment Income Ratio	Net Retention Ratio	ROA Ratio
2002	38.30	18.69	36.91	24.36	49.62	4.03
2003	40.76	23.99	27.85	22.03	39.22	3.76
2004	31.73	20.43	47.83	17.11	53.66	3.55
2005	44.25	18.01	30.35	13.92	54.73	3.73
2006	49.06	14.49	32.25	14.21	52.79	3.60
2007	51.68	10.80	28.49	14.78	56.54	5.66
2008	47.48	10.24	37.62	14.33	56.30	5.89
2009	41.47	9.42	42.25	13.90	58.96	7.41
2010	47.56	11.70	39.11	19.96	55.38	6.96
2011	32.78	11.20	52.71	19.56	57.07	9.44
2012	32.03	7.51	41.60	16.74	63.98	9.28
2013	43.94	8.64	41.97	18.94	60.27	9.20
2014	42.65	8.90	43.96	25.87	65.86	8.57
2015	36.84	8.45	44.71	22.98	63.62	8.33
2016	37.08	13.89	39.02	25.84	66.72	7.47
2017	34.71	15.08	40.18	23.74	62.79	6.25
2018	37.40	13.35	39.24	27.31	54.61	7.01
2019	36.23	13.68	40.10	24.28	55.14	6.56
2020	22.86	13.02	54.17	25.83	56.00	6.00
Mean	**39.41**	**13.23**	**40.02**	**20.30**	**57.01**	**6.48**
Range	**28.82**	**16.48**	**26.32**	**13.41**	**27.50**	**5.89**
ST.D	**7.13**	**4.45**	**7.16**	**4.74**	**6.37**	**2.01**

Source: SBC Annual Report (2002-2020)

- Mean, Range and Standard Deviation calculated by SPSS Software

8.1 Ratio Analysis

In the above table 01, a statement of different financial ratios of government sector non-life Insurance Corporation has been presented. The statistical tools such as mean, range and standard deviation have been used for describing the variability of data.

Firstly, in case of claim ratio, the range value is 28.82 percent and standard deviation is 7.13 percent, where mean value is 39.41 percent. Secondly, the range value of expenses ratio is 16.48 percent and standard deviation is 4.45 percent, where mean value is 13.23 percent. Considering underwriting result ratio, the range value is 26.32 percent and standard deviation is 7.16 percent, where mean value is 40.02 percent. Moreover the range value of investment income ratio is 13.41 percent and standard deviation is 4.74 percent, where mean value is 20.30 percent. In case of net retention ratio, the range value is 27.50 percent and standard deviation is 6.37 percent, where mean value is 57.01 percent. Lastly, in case of ROA ratio, the range value is 5.89 percent and standard deviation is 2.01 percent, where mean value is 6.48 percent.

Claim Ratio (CR)

Claim Ratio is expressed as a percentage of total net claims incurred to net premium underwritten. A lower claim ratio signifies the efficiency of the risk underwriting team and also a better claim management mechanism. A higher claim ratio signifies an inefficient claim management and risk underwriting team. It is evident from the period (2002-2020) under study that the CR has fluctuated over the years. The CR was 38% in 2002. The ratio fluctuated and maintained an increasing trend up to 2010. Then, except for 2014, the ratio fluctuated, and decreased in the following years up to 2020. The mean value of CR is 39.41%. The range value of CR is 28.82% and standard deviation value is 7.13%, both values are smaller than mean value which implies lower and better variability of data for more precise measurements and accurate analysis. On average, CR was 39.41%. This signifies that, there was a moderate claim management and risk underwriting team at that tenure.

Expenses Ratio (ER)

Expenses of Management are generally operating expenses which include employee's remuneration and benefits, office and administrative expenses etc. Expenses ratio is calculated as a percentage of net premiums which reflects the percentage of revenue which is being utilized on account of commission and management expenses. This ratio is a pointer of the cost effectiveness and productivity. A higher ratio reflects financial instability of the business. A decrease in revenue may result in losses, whereas lower ratio is an indicator of better financial performance. The study shows that the expenses ratio of SBC showed a declining trend from 24% in 2003 to 09% in 2015 and again fluctuating trends up to 2020. The mean value of management expenses is 13.23%. The range value of ER is 16.48% which implies a large variability of data but the standard deviation value is 4.45% which indicates a lower and better variability of data that brings more precise and accurate result. As per rules of "Determination of maximum management expenses of non-life insurance-2016", maximum management expenditure was 22% in case of fire and other insurance and 16% in case of marine insurance. The average management expenses is 13.23%, which implies a better financial performance during the study period.

Underwriting Result Ratio (URR)

Underwriting results indicate the performance of an insurance organization from core insurance business. To ascertain the underwriting performance, first net underwritten premium is adjusted with the increase/decrease in unexpired risk reserve to arrive at net premium (earned). Thereafter, underwriting profit /loss of a general insurer is ascertained after deducting the commission expenses, claim incurred and management expenses from net premium (earned). The underwriting results ratio is calculated by dividing underwriting results by net underwritten premium. It is seen for the whole study period. SBC is able to record profit from underwriting activities. In 2002, it was 36.91%. In 2008, it was 37.62% and in 2014, it was 43.96% and in 2020, it was 54.17%. The mean value of URR is. 40.02%.The range value of URR is 26.32% and the standard deviation value is 7.16% which indicates a lower and better variability of data that brings more precise and accurate result. The average URR is 40.02% which indicates an efficient risk management and claim settlement performance.

Investment Income Ratio (IIR)

Income from investment creates a significant impact on profitability of an insurance organization. Insurer collects huge amount of money as premium and invest it efficiently to maximize its return. The investment income ratio is determined by investment income to net premium written. This ratio indicates the effectiveness and efficiency of investment decisions. The IIR of SBC shows an increasing trend for the period from 2002 to 2020 (24.36% to 25.83%). The mean value of IIR is 20.30%. The range value of IIR is 13.40% and the standard deviation value is 4.45%, which indicates a lower and better variability of data that brings more precise and accurate result. The average IIR is 20.30% which signifies that return on investment in relation to net premium collection is high. It also indicates that the huge amount of return on investments which is evolving out from a substantially large volume of investment portfolio maintained by SBC during the study period.

Net Retention Ratio

The net retention ratio has been calculated by dividing net premium to Gross Premium. Net retention ratio signifies an insurer's ability to bear risk. It is expressed as a percentage of business retained (net of reinsurance ceded) in relation to gross direct premium. As per Insurance Corporation Act –1973 now Insurance Corporation Act-2019, it is mandatory for SBC to cede business to the overseas market after keeping its own retention. The retention ratio of SBC is increasing day by day. The ratio increased from 49.62% in 2002 to 65.86% in 2014. Afterwards, it showed a decreasing trend up to 2020. The mean value of NRR is 57.01%. The range value of NRR is 27.50% and the standard deviation value is 6.37% which indicates a lower and better variability of data that brings more precise and accurate result. The average NRR is 57.01% which implies a better capability of SBC to bear risk.

Return on Asset (ROA)

Return on Asset is the most popular measure of profitability of a business concern irrespective of its nature of business. It measures the return available for accruing to owner's capital. It is calculated by dividing net profit after tax to Net Worth/assets. The Return on assets of SBC showed an increasing trend during the study period. The ratio gradually increased from 4.03% in 2002 to 9.44% in 2011. Afterwards, it maintained a decreasing trend up to 2020. The mean value of ROA is 6.48 %. The range value of ROA is 5.89 %, which implies a variability of data. However the standard deviation value is 2.01%, which indicates a lower and better variability of data that brings more precise and accurate result. The average ROA is 6.48% which implies a good financial performance, but not better.

9. Correlation analysis of financial Parameters

Correlation analysis represents the linear relationship between two or more variables. The correlation matrices for government sector non-life Insurance Corporation has been shown in Tables 02.

Table-02

Spearman's correlation of Government sector non-life Insurance						
	ROA	CR	Ex R	IIR	U/W	NRR
ROA	1.00					
CR	-.267 (.285)	1.00				
Ex R	-.824** (.000)	-.137 (.588)	1.00			
IIR	.249 (.318)	-.441 (.067)	.109 (.667)	1.00		
UWR	.623** (.006)	-.641** (.004)	-.402 (.098)	.226 (.367)	1.00	
NRR	.704** (.001)	-.189 (.452)	-.749** (.000)	.139 (.583)	.497* (.036)	1.00

Source: Author's own

Note: The figures relating to parentheses represent the P-values
** Significant at the .01 Level (2-tailed)
* Significant at the .05 level (2 tailed)

Table 02 presents the correlation between dependent variable Return on Asset (ROA) with other independent variables of Government sector non-life insurance Corporation during the period of 2002 to 2019. It can be seen from the table that expense ratio, underwriting result ratio and Net retention ratio have a significant correlation with Return on Asset (ROA) and the coefficients are (-.824), .623 and .704 respectively. Another two independent variables have insignificant correlation with return on assets. Few independent variables also have significant correlation one with another during the study period, such as expenses and claim ratio have a negative correlation with underwriting results and their coefficients are (-.402) and (-.641) respectively. Underwriting result ratio has a positive correlation with investment income ratio and coefficient is .226. Investment income has a positive correlation with Net- retention and coefficient is .139. Expense ratio also has a positive correlation with IIR and coefficient is .109.

10. Regression Analysis

In the Table 03 & 04, an attempt has been made to examine the combined influence of some selected factors on the financial performance of the government sector of non-life insurance industry. Accordingly, multiple regression techniques have been applied to study the joint influence of the selected ratios, namely investment income ratio, expenses ratio, net retention ratio. The Regression formula is as follows:

ROA = a +B_1 investment income ratio + B_2 Expenses ratio + B_3 net retention ratio +Error………………………………………………………………. (1)

We know the actual multiple regression equation is equation (1). where a denotes constant, B_1 is the slope or coefficient of investment income ratio, B_2 is the slope or co-efficient of expenses ratio, B_3 is the slope or co-efficient of net retention ratio and E is the error which accounts for the variability in Y that cannot be explained by the linear effect of all the three independent variables together.

Co-efficient of Multiple Correlations(R)

Co-efficient of multiple correlation measures the strength of the linear relationship between variables. In this model, the value of R = .892 express that there is a high degree of positive relationship between dependent variable Y (ROA) and the independent variables expressed as X_1, X_2 and X_3 respectively for IIR, ER, and NRR.

Co-efficient of Determination (R2)

Co-efficient of Determination measures the percent of variation in the dependent variable, explained by the set of independent variables. Here, in three independent variables X_1, X_2 and X_3, the R^2 is 0.796, which is very high. It means that independent variables (investment income ratio, expenses ratio and net retention ratio) can influence the dependent variable ROA by 79.6%.

Multiple Standard Error of estimate (Sy)

Standard error of estimate expresses the total amount of error or variability in the dependent variable that cannot be explained by the linear effect of the three independent variables in the multiple regression equation. Here sy is 1.03292.

Table 03.
Model Summery

Model	R	R square	Adjusted R square	Std. Error Est
1	.892[a]	.796	.752	1.03292

Source: Software Output

a. Predictors (constant), Expenses ratio, Investment Income Ratio, Net Retention Ratio,

Table 04
Co-efficient

Model	Unstandardized Coefficient		Standardized co-efficient	t	sig
	B	Std.error	Beta		
1 constant	8.010	4.201		1.907	.077
Investment income ratio	.149	.057	.337	2.609	.021
Expenses Ratio	-.379	.087	.839	-4.349	.001
Net Retention Ratio	.009	.061	.029	.150	.883

Source: Software Output

In the table 04, an initiative has been taken to verify the combined influence of independent variables (IIR, ER& NRR) on dependent variable (ROA). The regression co-efficient have been tested with't' test. The regression model used in this analysis is ROA= $a+b_1IIR+b_2ER+b_3NRR$ where a, b_1, b_2, b_3 are the parameters of the ROA line. The result provides the following regression equation:

$$ROA = 08.010 +.149\ IIR - .379\ ER +.009\ NRR$$

$$Y = 08.010 +.149 - .379 + .009$$

It is seen that when IIR is increased by one unit; the ROA increased by .149 unit. In this case, P- value is .021, which is less than .05 and indicates a statistically significant result. When ER is increased by one unit; ROA decreased by .379 unit where P-value is .001, which is less than .05 and statistically significant. Again, an increase in NRR by one unit favorably increases or enhances the ROA by .009 units where P-value is .883 which is greater than .05 and indicates statistical insignificance.

10.1 Test of Hypothesis

Hypothesis test is also possible from this equation .If the b of each independent variable is same; the null hypothesis is accepted it means the independent variables have no effect on dependent variable. However, if the independent variables impact or influence the dependent variable it can be said that null hypothesis is rejected and automatically alternative hypothesis is accepted.

In this ANOVA model, the hypothesis for the 'F' Test involves the parameters of multiple regression models.

$H_o = B_1 = B_2 = B_3 = 0$

H_1=Not all the B's are Zero.

Table 05

ANOVA[a]

Model	Sum of Square	df	Mean square	F	Sig
1					
Regression	58.132	3	19.377		
Residual	14.937	14	1.067	18.162	.000[b]
Total	73.069	17			

As per table 05, The P-value is 0.000 which is ≤.05 for the ROA of public sector nonlife insurance in Bangladesh. This test shows that there is a significant influence of independent variables (IIR, ER& NRR) on dependent variable (ROA). Therefore, the study rejected the null hypothesis and accepted alternative hypothesis. So we can draw a conclusion that there is a significant relationship between dependent variable (ROA) and independent variables (IIR, ER and NRR of SBC)

11. Conclusion and Recommendations

Non-life insurance sector in Bangladesh is contributing to the growth and development process of the business and property by protecting all variety of assets from the financial losses. After the banking sector, the insurance sector has become (basically Non-life insurance) the second most important provider of financial services in Bangladesh. The non-life insurance industry of Bangladesh has consequently become a prominent sector of the economy. This research paper was designed to find out how the SBC has been performing during the study period (2002-2020).

The average Income from investment as a percentage of total investment was 9.34% and AAGR was -3.25% from 2002 to 2020. The AAGR of total investment was 10.52%.The average profit as a percentage of net premium was 37% and average ROTA (Return of total asset) of SBC was 9.09%. The average Underwriting income as a percentage of net premium was 47% and TATO (Total Asset Turn Over) was 25% respectively during the study period. The average contribution to the government fund amonted to Tk 91.19 crore and AAGR was 15.93% during the period of the study.

The average claim charge was amounting to Tk 151.85 crore and claim ratio was 39.41%. The average management expenses was amounting to Tk 49.20 crore and management expenses ratio was 13.23%. The average underwriting result ratio was 40.01%. The average income from investment was amounting to Tk 87.30 crore and investment income ratio was 20.29%. The average net retention ratio was 57.01% and the average return on asset (ROTA) was 6.45% during the study period (2002 to 2020).

In case of claim ratio, the range value is 28.82 percent and standard deviation is 7.13 percent, where mean value is 39.41 percent. In case of expenses ratio, the range value is 16.48 percent and standard deviation is 4.45 percent, where mean value is 13.23 percent. In case of underwriting result ratio, the range value is 26.32 percent and standard deviation is 7.16 percent, where mean value is 40.02 percent. In case of investment income ratio, the range value is 13.41 percent and standard deviation is 4.74 percent, where mean value is 20.30 percent. In case of net retention ratio, the range value is 27.50 percent and standard deviation is 6.37 percent, where mean value is 57.01 percent. In case of ROA ratio, the range value is 5.89 percent and standard deviation is 2.01 percent, where mean value is 6.48 percent.

The regression analysis shows that the percent of variation in the dependent variable, explained by the set of independent variables. Here, in three independent variables B1, B2 and B3 and the R2 is 0.796, which is very high. It means that independent variables (investment income ratio, expenses ratio and net retention ratio) can influence the dependent variable ROA by 79.6%.The regression reported that claim, expenses and investment income have a significant effect on return on assets.

After introduction of private insurance in 1984 and further liberalization in 1990, SBC took some measures like increasing marketing efforts and efficient portfolio-management. The chronological success in the previous years encouraged and helped to maintain as efficient management in our study period. Nevertheless, state owned organization has some barriers like, lack of challenging attitude, resistance to change, lack of effective automation system, etc. However, a hope is in front of us i.e. BISDP (Bangladesh Insurance Sector Development Project) is working for a sustainable development of insurance sector in Bangladesh.

However, SBC can achieve more success and can improve global oriented performance by expanding and diversifying its product, like crops insurance, health insurance for government employees, long term home insurance and new innovative investment scheme to utilize more proportion of total assets for generating income as well as revising the policy of direct insurance business. If SBC wants to continue its current image of better performance, it should be provided a computerized net working environment, improvement of professionalism, to introduce the concept of “one man for one computer”, marketing efforts improvement, grow a positive attitude of clients, improve quality services, proper utilization of assets, training on innovation and implementation of global concept.

12. Scope for Future Study

In existing study, a step has been taken to evaluate the financial performance of the Public sector nonlife insurance in Bangladesh. Nevertheless, there is a feasible scope for future research.

1. The existing study has ascertained the ROA (Return on Asset) of the public sector nonlife insurance in Bangladesh. Research can be conducted in future to find out ROE (Return on Equity) of nonlife insurance sector in Bangladesh.
2. The present study has evaluated the only ROA of public sector nonlife insurance in Bangladesh. Future research can be conducted for assessing service quality of public sector nonlife insurance in Bangladesh.
3. The present study has focused only on financial performance of SBC nonlife insurance in Bangladesh. Future study can be held to analyze the comparative financial performance of JBC (Jibon Bima Corporation) and SBC (Sadharan Bima Corporation), both life and nonlife insurance in Bangladesh.
4. This research has point out only the financial performance of public sector nonlife insurance within Bangladesh. Future study can be made to compare inter countries (Bangladesh and India) financial performance of nonlife insurance sector. In this case, a research may be conducted between SBC and GICI (General Insurance Corporation of India)

13. Limitations of the Study

Every study of social science has some limitations. Existing study is also no exception. The present study has the following limitations:

- The secondary data based study always carries all the limitations inherent with the secondary data.
- This study only has counted ROA as the main component for performance analysis but liquidity ratio, leverage ratio and activity ratio could not be

assessed due to unavailability of data.

References

Ahmed, S. U. (1977) "Insurance Business in Bangladesh", *Bureau of Business Research,* University of Dhaka, Bangladesh.

Azad, M.A.K. (1999) "Nature and Significance of General Insurance in Bangladesh: A Case study of Cooperative Bangladesh Insurance Limited." *Insurance Journal,* Vol.50, Pp.79-88.

Azam, M. S. (2005) "Consumers' Attitude of General Insurance Service: Contrasting the public and private Sectors in Bangladesh." *Insurance Journal,* Vol.56, Pp. 91-110.

Ahmed N., Zulfiqar A.,Ahmad U. (2011) "Determinants of Performance: A Case of life Insurance Sector of Pakistan." *International Research Journal of Finance and Economics,* Vol.61.

Ali, M.H. (2008) "Present Scenario of General Insurance in Bangladesh" *Insurance and Banking,* Dhaka Declaration, no-1/11.issue-22.pp.1-4.

Chowdhury, A. H, (1981) *'Elements Insurance,'* BIA.29 Toyenbee circular road, Dhaka.

Habibullah & Ghosh.S N (1990) "General Insurance Business in Bangladesh '(An appraisal of SBC)", *Bureau of Business Research.* D.U.

IBM-SPSS (version- 20) Software.

Islam, S.M.F. (1999) "Thoughts on Building an Effective Marketing Force." *Insurance Journal,* Vol.50, Pp.33-38.

Jahangir, S. M. (2004): 22pc "Growth in Insurance Sector Premium Income". *The Financial Express,* vol. Xll No. 1, Wednesday, November, 24. 2004.

Kumar, R. (2010) "Performance Evaluation of General Insurance Companies "- A study of Post-reform period. *PhD thesis, Punjab University,* India.

Hassan, K. & Khanam, F.A, (2013) "Performance Evaluation of Public Sector General Insurance Company in Bangladesh" – A Case Study on SBC, *European Journal of Business and management,* Vol-05,No- 25,Pp.118-123.

Khan, S. N. (2015) "The Determinants of Probability of Non-life Insurance Company of Bangladesh- An Empirical Study." *Insurance Journal,* Vol.60/61, Pp.86-102.

Mishra, M.N. (1993) *"Insurance, Principles and Practice."* New Delhi: S. Chand

and Company Ltd.

Mamun, M.Z., Barua, A., & Islam, N. 2000 "Performance of the Nationalized General Insurance Company of Bangladesh." *BIBM Journal,* 25(4), Pp.26-38.

Mamun, Z PhD (2011)"Performance evaluation of General Insurance Companies in Bangladesh." BIA, *Insurance Journal*-V-58, No. July 2011, Pp...21- 67.

Mehr, R. I & Commack .E (1957) *'Principle of Insurance',* University of Illinois.

Nurul Haq, A.B.M (2009) *"Thoughts on Insurance Bangladesh perspective."*Adorn Publication, 22 Segun Bagicha-Dhaka.

Quazi Sagota Samina. (2012) "Investment Portfolio of Insurance Companies in Bangladesh." *World Journal of Social Sciences,* Vol.2: Pp.37-47.

Solaiman, M and A. Haque. (1999) "Development of Insurance Industry in Bangladesh: An Innovative Approach." *Insurance Journal,* Vol.50, Pp.43-48.

Shirazi, H., Mamun, M. Z., and Arefin, K. (2004) "Performance of Some Selected Non-Government General Insurance Companies in Bangladesh Compared to Government Insurance Company." *Journal of Business Administration,* 30(No. 1 & 2) Pp.2-18.

Sarkar, A. (2013)"Performance of Assessment of General Insurance Business in India (2003-2013)" *Business Sprectrum*-vol-02, Pp.35-54

Sadharan Bima Corporation (SBC), *Annual Report* (2002-2020.)

The Investopedia. Retrieved 3 June, 2021 from htts:// www.investopedia.com>terms

The Pocketsense. Retrieved, 03, June, 2021 from https://pocketsense.com/definition-nonlife-insurance-6711512.html

The Simplimen, Retrieved,03 June 2021from https://www.simplilearn.com/financial-performance-rar21-article,

The Dolfinblue Retrieved 03 June 2021 from www.dolfinblue.com/the-importance-of-monitoring-financ

Appendix

Table 01
Annual Insurance Premium

Amount in crore Tk.

Year	Direct U/W Premium	Re-insurance Premium	Total Premium	Re-insurance ceded	Net Premium
2002	81.86	191.18	273.04	137.57	135.47
2003	76.66	229.05	305.71	185.79	119.92
2004	77.86	232.62	309.90	143.59	166.30
2005	88.61	267.66	356.27	161.27	195.00
2006	104.45	291.40	395.85	185.95	209.00
2007	126.58	329.16	455.74	198.05	257.69
2008	141.90	359.44	501.34	219.08	282.26
2009	161.35	379.27	540.62	221.85	318.77
2010	165.99	408.53	574.52	256.32	318.20
2011	197.48	404.53	601.73	258.29	343.44
2012	218.92	581.60	800.52	288.27	512.25
2013	190.96	605.07	796.03	316.21	479.83
2014	176.11	624.78	800.89	273.41	527.48
2015	207.31	654.14	861.44	313.32	548.12
2016	223.49	649.39	872.88	290.50	582.38
2017	238.65	692.36	931.01	346.41	584.6
2018	351.92	792.29	1144.21	519.32	624.89
2019	370.07	930.09	1300.16	583.24	716.92
2020	345.91	948.55	1295.38	570.51	724.86
Average	**186.64**	**503.74**	**690.38**	**287.84**	**402.49**
AAGR	**9.14%**	**9.73%**	**9.34%**	**9.38%**	**11.72%**

Source: SBC Annual Report (2002-2020)

AAGR = Annual Average Growth Rate
AAGR= (Ending Value /Beginning Value – 1) +2^{nd} year+3^{rd} year+--Last year)/Total Number of Years

Table 02
Investment and Assets

Amount in crore Tk.

Year	Investment other than Deposit and Loan	Investment bearing Deposit	Loan	Total Investment (Loan + Deposit)	Total Assets	% of Investment as Total Assets
2002	65.75	266.35	14.53	346.63	566.33	61%
2003	68.91	261.65	14.65	345.20	594.20	58%
2004	68.44	293.35	14.20	375.99	635.97	59%
2005	79.78	316.36	11.41	407.75	605.19	67%
2006	102.90	318.80	10.79	432.50	666.61	64%
2007	114.09	333.97	10.61	458.68	776.81	59%
2008	125.90	349.59	11.15	486.65	962.38	50%
2009	145.91	390.87	10.63	547.42	994.23	55%
2010	183.45	443.24	12.70	630.40	1219.27	51%
2011	240.51	439.03	16.24	695.79	1338.37	52%
2012	277.31	523.43	17.21	717.95	1500.41	48%
2013	280.49	633.35	17.92	931.76	1766.34	53%
2014	399.28	657.03	17.99	1074.30	2052.86	52%
2015	406.07	787.05	17.59	1210.71	2383.47	51%
2016	425.05	902.26	20.01	1347.32	2716.57	50%
2017	481.87	914.84	31.97	1428.68	3398.45	42%
2018	518.21	1021.36	58.98	1598.55	3328.70	48%
2019	551.14	1239.39	90.50	1881.03	3702.03	51%
2020	578.17	1345.32	116.19	2039.68	4167.86	49%
Average	**269.12**	**601.96**	**27.12**	**892.47**	**1756.63**	**54%**
AAGR	**13.39%**	**9.66%**	**14.83%**	**10.52%**	**12.02%**	**-0.83%**

Source: SBC Annual Report (2002-2020)

Table 03
Income from Investment

Amount in crore Tk.

Year	Income from investment	Other Income	Investment Income & Miscellaneous	Total Investment	Investment income as a percentage (%) of total Investment
2002	25.82	7.19	33.01	346.63	9.52%
2003	25.38	1.04	26.42	345.20	7.65%
2004	26.66	1.80	28.46	375.99	7.56%
2005	25.60	1.56	27.16	407.75	6.66%
2006	26.13	3.57	29.70	432.50	6.86%
2007	32.67	5.44	38.11	458.68	8.30%
2008	35.09	5.38	40.47	486.65	8.31%
2009	40.91	3.41	44.32	547.42	8.09%
2010	46.58	16.94	63.52	630.40	10.07%
2011	63.77	3.44	67.21	395.79	9.65%
2012	82.65	3.13	85.78	717.95	11.94%
2013	88.97	1.93	90.90	931.76	9.75%
2014	135.27	1.21	136.48	1074.30	12.70%
2015	124.45	1.49	125.94	1210.71	10.40%
2016	149.16	1.30	150.47	1347.32	11.17
2017	130.62	7.35	138.81	1428.68	9.72%
2018	163.04	4.00	170.68	1598.55	10.68%
2019	170.09	3.99	174.08	1881.03	9.25%
2020	183.65	3.61	187.26	2039.68	9.18%
Average	**82.97**	**4.09**	**87.30**	**892.47**	**9.34%**
AAGR	**12.61%**	**42.81%**	**11.44%**	**10.52%**	**-3.25%**

Source: SBC Annual Report (2002-2020)

Table 04

Claims Scenario of SBC (2002 to 2020)

Amount in crore Tk.

Year	Net Claim charge Tk in Crore	Net Premium Tk in Crore	Net Claim charge as a % of net premium
2002	51.89	135.47	38.30%
2003	48.89	119.92	40.76%
2004	52.77	166.30	31.73%
2005	86.29	195.00	44.25%
2006	102.54	209.00	48.85%
2007	133.19	257.69	51.68%
2008	134.03	282.26	47.48%
2009	134.22	318.77	14.47%
2010	151.34	318.20	47.56%
2011	112.58	343.44	32.78%
2012	164.11	512.25	32.03%
2013	210.84	479.83	43.94%
2014	224.98	527.48	42.65%
2015	201.94	548.12	36.84%
2016	215.96	582.38	37.08%
2017	202.91	584.6	34.71%
2018	233.71	624.89	37.40%
2019	259.71	716.92	36.22%
2020	165.28	724.86	22.80%
Average	**151.95**	**402.49**	**37.98%**
AAGR	**12.57%**	**11.72%**	**12.86%**

Source: SBC Annual Report (2002-2020)

Table 05

Contribution to the Government fund

Amount in core Tk.

Year	Net Premium Tk in Crore	Contributed Amount Tk in Crore	Contribution as a % of Net Premium
2002	135.47	29.43	21.72%
2003	119.92	30.94	25.80%
2004	166.30	32.22	19.37%
2005	195.00	33.76	17.31%
2006	209.00	38.04	18.20%
2007	257.69	35.61	13.85%
2008	282.26	40.65	14.40%
2009	318.77	47.75	14.97%
2010	318.20	47.42	14.90%
2011	343.44	200.00	58.23%
2012	512.25	119.19	23.27%
2013	479.83	114.51	23.86%
2014	527.48	132.90	25.20%
2015	548.12	140.02	25.55%
2016	582.38	129.43	22.22%
2017	584.6	122.52	20.96%
2018	625.20	141.64	22.67%
2019	716.93	152.38	21.25%
2020	724.87	154.36	21.29%
Average	**402.49**	**91.70**	**22.78%**
AAGR	**11.72%**	**15.93%**	**7.65%**

Source: SBC Annual Report (2002 -2020)

Table 06

Annual Profit and Profitability

Amount in core Tk

Year	Gross Premium Tk in Crore	Net Premium Tk in Crore	Profit of SBC Tk in Crore	U/W Income as a % of net premium	Profit as a % of net Premi um	ROTA BT %	TATO %	Total Assets Tk in Crore
2002	273.04	135.47	32.87	50%	24%	5.80%	23%	566.33
2003	305.71	119.92	33.34	39%	28%	5.61%	20%	594.20
2004	309.90	166.30	34.84	54%	21%	5.47%	26%	635.97
2005	356.27	195.00	36.38	55%	19%	6.01%	32%	605.19
2006	395.85	209.00	42.04	53%	20%	6.30%	31%	666.62
2007	455.74	257.69	60.60	57%	24%	7.80%	33%	776.81
2008	501.34	282.26	77.37	56%	27%	8.03.%	29%	962.38
2009	540.62	318.77	101.50	59%	32%	10.20%	32%	994.23
2010	574.52	318.20	125.52	55%	39%	10.29%	26%	121.98
2011	601.73	343.44	175.19	57%	51%	13.08%	25%	1338.38
2012	800.52	512.25	180.37	64%	35%	12.02%	34%	1500.41
2013	796.03	479.83	218.40	60%	45%	12.36%	27%	1766.34
2014	800.89	527.48	247.07	66%	47%	12.02%	25%	2058.86
2015	861.44	548.12	283.26	64%	52%	9.98%	23%	2838.47
2016	872.88	582.38	285.44	67%	49%	10.51%	21%	2716.57
2017	931.01	584.60	301.73	63%	52%	8.88%	18%	3398.45
2018	1144.21	625.20	325.02	55%	52%	9.76%	19%	3328.70
2019	1300.16	716.93	340.06	55%	47%	9.18%	19%	3702.03
2020	1295.38	724.87	344.44	56%	48%	8.26%	17%	4167.86
Average	**690.38**	**402.51**	**170.81**	**57%**	**37%**	**9.09%**	**25%**	**1723.15**

Source: SBC Annual Report (2002-2020)

Table 07

Statement of different parameters of Sadharan Bima Corporation (SBC)

Amount in crore Tk

Year	Gross Premium	Net Premium	Claim Charge	Management Expenses	Unexpired Risks Reserve	Investment Income	Profit before Taxes	Profit After Taxes	Net Worth/ Asset
2002	273.04	135.47	51.89	25.32	8.25	33.01	32.87	22.87	566.33
2003	305.71	119.92	48.89	28.78	8.85	26.42	33.34	22.40	594.20
2004	309.90	166.30	52.77	33.98	9.25	28.46	34.84	22.62	635.97
2005	356.27	195.00	86.29	35.12	14.40	27.16	36.37	22.62	605.19
2006	395.85	209.00	102.54	30.29	8.76	29.70	42.04	24.00	666.62
2007	455.74	257.69	133.19	27.85	23.22	38.11	60.60	44.00	776.81
2008	501.34	282.26	134.03	28.93	13.11	40.47	77.37	56.73	962.38
2009	540.61	318.77	132.22	30.03	21.81	44.32	101.50	73.75	994.62
2010	574.52	318.20	151.34	37.25	5.16	63.52	125.52	98.10	1121.11
2011	601.73	343.44	112.58	39.24	10.56	67.21	175.19	126.46	1338.38
2012	800.52	512.25	164.11	38.47	96.56	85.78	180.37	139.37	1500.41
2013	796.03	479.83	210.84	41.48	26.56	90.90	218.40	162.56	1766.34
2014	800.89	527.48	224.98	46.99	23.61	136.48	247.07	176.60	2058.86
2015	861.45	548.12	201.94	46.30	54.81	125.94	283.26	198.50	2383.47
2016	872.87	582.38	215.96	80.88	58.24	150.47	285.44	202.92	2716.57
2017	931.01	584.60	202.91	88.19	58.60	138.81	301.73	212.30	3398.45
2018	1144.22	624.89	233.71	83.44	62.52	170.68	325.02	233.37	3328.70
2019	1300.16	716.92	259.71	98.06	71.69	174.08	340.06	242.68	3702.03
2020	1295.38	724.86	165.28	94.38	72.48	187.25	344.44	250.07	4167.86

Source: SBC Annual Report (2002-2020)

©2022 Journal of IBB
Volume 65 January-December 2022
Institute of Bankers of Bangladesh
(ISSN 1684-0054)

"A SURVEY OF ECONOMIC SITUATION IN BANGLADESH"
January-June 2022

The 'Survey of Economic Situation in Bangladesh' incorporates movement of some major macroeconomic indicators of monetary, credit and external sectors which help to understand overall macroeconomic environment of Bangladesh. The overall situation of the economy of Bangladesh has been described below:

Monetary and Credit Situation

Narrow Money (M1)

At the end of June 2022, narrow money stood at BDT 425904.80 crore which was increased by 12.28 percent during January-June 2022 compared to an increase of 0.93 percent during July-December 2021. It may be mentioned that it also rose by 11.73 percent during January-June 2021 (Annexure-1).

Broad Money (M2)

Broad money recorded an increase of 5.40 percent during January-June 2022 and stood at Taka 1708122.30 crore in June 2022 as compared to the increase of 3.83 percent during July-December 2021. It may be mentioned that, M2 increased by 5.56 percent during the corresponding period of the preceding year.

Demand deposits increased by BDT 20868.10 crore or 12.38 percent and time deposits increased by BDT 40893.50 crore or 3.29 percent during January-June 2022. Of the sources of broad money, net foreign assets (NFA) decreased by BDT 4856.50 crore or 1.32 percent, while net domestic assets (NDA) of the banking system increased by BDT 92343.90 crore or 7.38 percent which is also the major contributing factor of increasing M2 during the period under review. It may also be noted that, during the reported period, currency outside banks went up by BDT 25725.80 crore or 12.21 percent (Annexure-1).

Domestic Credit

Total domestic credit recorded an increase of 9.11 percent during January-June 2022 as compared to an increase of 6.41 percent during July-December 2021. The rise in domestic credit can be attributed to the increase in credit to both the public and private sectors by 19.18 percent and 6.97 percent respectively (Annexure-1). This rises in public sector credit growth during the reported period took place mainly from net credit to the government sector.

Reserve Money

Reserve money recorded an increase of BDT 23495.80 crore or 7.26 percent during January-June 2022 and stood at BDT 347162.10 crore in June 2022, which decreased by 7.01 percent during July-December 2021 but increased by 14.48 percent during the corresponding period of the previous year.

Auctions of Government Treasury Bills

25 weekly auctions of each of the 14-Day, 91-Day, 182-Day and 364-Day Government Treasury Bills (TBs) were held during January-June 2022. In all, 2618 bids amounting to BDT 155607.88 crore (face value) were offered in the auctions of which only 794 bids amounting to BDT 74435.52 crore (face value) were accepted. BDT 19424.15 crore were devolved on Bangladesh Bank and bills worth of BDT 57489.27 crore were retired during the period under report. The outstanding balance of the bills stood at BDT 128466.91 crore at the end of June 2022. The weighted average yields of the accepted bids ranged between 1.99-6.66 percent.

Auctions of Bangladesh Government Treasury Bonds (BGTBs)

24 weekly auctions of Bangladesh Government Treasury Bonds (BGTBs) were held during January-June 2022. In all, 2684 bids amounting to BDT 93413.91 crore were offered in the auctions, of which only 976 bids amounting to BDT 41680.81 crore were accepted, of which BDT 12863.78 crore were devolved on Bangladesh Bank in this period. Bonds worth of BDT 17250 crore were retired during the period under report and the outstanding balance of the bonds stood at BDT 608255.10 crore at the end of June, 2022. The weighted average yields of the accepted bids were ranged between 4.23-8.48 percent.

REPO Auctions

During January-June 2022, 61 auctions of REPO (Liquidity Support Facility & Special Repo) operations were held on daily basis during January-June 2022. In total, all these auctions received 2010 bids of 1-3 Day, 1-4 Day and 7 Day tenor amounting to BDT 176269.14 crore, of which 1996 bids amounting to BDT 175041.62 crore were accepted. The interest rates of the accepted bids ranged between 4.75-7.75 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 2022 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 2022.

- **14-Day Bangladesh Bank Bills:**

  No auction of 14-Day Bangladesh Bank Bills (BB Bill) was held during January-June 2022.

- **30-Day Bangladesh Bank Bills:**

  Considering the overall liquidity situation, no auction of 30-Day Bangladesh Bank Bills (BB Bill) was held during January-June 2022.

Revenue Receipts under the National Board of Revenue (NBR): January-June 2022

The revised target of revenue collection under the National Board of Revenue (NBR) for FY 2021-22 was set at BDT 330000 crore. Following this target, total revenue collection by NBR during January-June 2022 stood at BDT 172543.73 crore which was 52.29 percent of the revised annual target. The collection by the NBR during this period was 33.66 and 15.45 percent higher than that of July-December 2021 and January-June 2021 respectively.

Reviewing the revenue collection scenario, during the period it can be seen that, collections from import duty, VAT and supplementary duty at import stage were BDT 19049.62 crore (10.25 percent), 23768.28 crore (10.22 percent) and 5411.81 crore (16.07 percent) respectively. A total of BDT 1314.87 crore (18.86 percent) from excise duty, BDT 41036.61 crore (14.21 percent) from VAT (domestic) and BDT 16779.46 crore (-1.39 percent) from supplementary duty (domestic) was collected during this period.

On the other hand, collection from income tax and travel tax was BDT 63536.94 crore and BDT 620.62 crore respectively [1].

Agricultural Credit

The annual agricultural credit disbursement was targeted at BDT 28391 crore for FY22, which was 7.98 percent higher than that of BDT 26292 crore in FY21. Agricultural cr edit disbursement by all banks stood at BDT 14337.17 crore

[1] Source: Provisional statement of revenue collection for the month of June'22 of FY22, National Board of Revenue (NBR)

during January-June 2022, which was 1.10 percent lower than BDT 14497.04 crore in July-December 2021 and 6.73 percent higher than BDT 13433.37 crore during January-June 2021. The recovery of agricultural credit stood at BDT 13869.61 crore during January-June 2022, which was 2.03 percent higher than BDT 13593.80 crore in July-December 2021 and 6.42 percent higher than BDT 13032.83 crore during January-June 2021. The outstanding balance (including interest) of agricultural credit stood at BDT 49802.28 crore at the end of June 2022, which was 4.50 percent higher than BDT 47659.51 crore in December 2021 and 8.41 percent higher than BDT 45939.50 crore at the end of June 2021.

Inflation Situation

General CPI inflation (12-month average basis) at the national level stood at 6.15 percent at the end of June 2022 compared to 5.55 percent in December 2021 and 5.56 percent in June 2021. On the other hand, point-to-point (p-to-p) general inflation at the national level stood at 7.56 percent at the end of June 2022, which was 6.05 percent in December 2021 and 5.64 percent in June 2021.

12-month average food inflation at the national level stood at 6.05 percent at the end of June 2022, which was 5.30 percent in December 2021 and 5.73 percent in June 2021. Point-to-point food inflation at the national level stood at 8.37 percent in June 2022 compared to 5.46 percent in December 2021 and 5.45 percent in June 2021.

12-month average non-food inflation at the national level stood at 6.31 percent in June 2022, which was 5.93 percent in December 2021 and 5.29 percent in June 2021. Non-food inflation measured by point-to-point basis, at the national level was 6.33 percent at the end of June 2022 compared to 7.00 percent in December 2021 and 5.94 percent in June 2021.

Food Situation

The target for food grains production in FY22 was set at 407.08 lakh metric tons, which was 5.21 percent higher than the actual production in FY21.

The target for total import of food grains by the government for FY22 in the country was set at 13.31 lakh metric tons, whereas the government imported only 10.52 lakh metric tons during FY21. Total import of food grains during January-June 2022 stood at 21.60 lakh metric tons against 28.39 lakh metric tons during July-December 2021 and 40.96 lakh metric tons during January-June 2021.

The target for domestic procurement of food grains during FY22 was set at 19.23 lakh metric tons, which was 23.82 percent higher than the actual procurement of 15.53 lakh metric tons during FY21. Procurement of food grains during January-June 2022 stood at 10.97 lakh metric tons against the procurement of 9.23 lakh metric tons during July-December 2021 and 9.54 lakh metric tons during January-June 2021.

Government distribution of food grains for FY22 was targeted at 32.75 lakh metric tons, which was 0.37 percent higher than 32.63 lakh metric tons in FY21. Distribution of food grains during January-June 2022 stood at 15.63 lakh metric tons against the distribution of 15.14 lakh metric tons during July-December 2021 and 10.60 lakh metric tons during January-June 2021.

The stock of actual food grains at the end of June 2022 stood at 16.07 lakh metric tons against the stock of 18.55 lakh metric tons at the end of December 2021 and 14.48 lakh metric tons at the end of June 2021.

Stock Exchange Activities

In the Dhaka Stock Exchange Ltd. (DSE), the total number of listed securities stood at 625 at the end of June 2022. During the period January-June 2022, a total of 27457.31 million shares and debentures worth BDT 116413.29 crore were traded as against 55370.09 million shares and debentures worth BDT 202193.73 crore traded during July-December 2021. It was 50.41 percent lower in volume and 42.42 percent lower in value than that of the preceding period. The market capitalization of DSE stood at BDT 517781.69 crore at the end of the period under report, which was 4.50 percent lower than BDT 542196.40 crore at the end of the preceding period. DSE broad index stood at 6376.94 points at the end of June 2022, which was 5.62 percent lower than 6756.66 points at the end of December 2021.

In the Chittagong Stock Exchange Ltd. (CSE), the total number of listed securities stood at 364 at the end of June 2022. During the period January-June 2022, a total of 1513.46 million shares and debentures worth BDT 4160.32 crore were traded as against 2793.46 million shares and debentures worth BDT 7896.55 crore traded during the preceding six months. It was 45.82 percent lower in volume and 47.31 percent lower in value than that of the preceding period. The market capitalization of CSE stood at BDT 433369.31 crore at the end of the period under report, which was 5.49 percent lower than that of BDT 458554.44 crore at the end of the preceding period. The All Share Price Index of CSE stood at 18727.51 points at the end of June 2022, which was 4.77 percent lower than that of 19666.07 points at the end of December 2021.

Export, Import, Remittance and Foreign Exchange Reserve

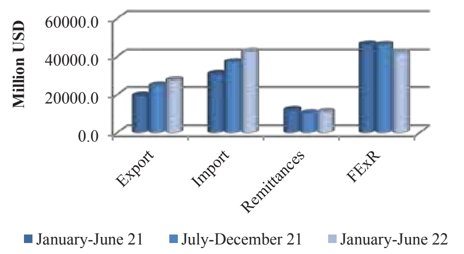
The position of export, import, remittance and foreign exchange reserve of Bangladesh for the period of January-June 2022 is discussed below:

Export earnings stood at USD 27384.1 million during January-June 2022 which was 10.9 percent and 40.3 percent higher compared to the preceding period and the same period of the previous year respectively. Amid the recent prolongation of the Russian-Ukraine conflict, country's total export earnings during January-June

2022 gradually hit a record high with the resumption of export orders from buyers and several policy supports taken by the government and Bangladesh Bank.

In January-June 2021, import payments stood at USD 42532.2 million and increased by 14.8 percent compared to the previous period and 38.2 percent than the same period of the preceding year. Consumer goods, intermediate goods, RMG related goods, capital machinery, industrial raw material, machinery for miscellaneous industries, etc partially drove the half yearly increase in import payments.

Graph-1: Position of the Components of External Sector



During January-June 2022 remittance earnings of the country stood at USD 10792.2 million and increased by 5.4 percent compared to that of the previous period but decreased by 8.8 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 Saudi Arabia, the United States of America, the United Arab Emirates, the United Kingdom, Kuwait, Malaysia, Oman and other countries.

At the end of June 2022, the country's foreign exchange reserve stood at USD 41826.7 million which was 9.4 percent lower than USD 46153.9 million in December 2021. The half-yearly data of the country's foreign exchange reserve, export, import and remittance are shown in graph-1 and Annexure-2.

Exchange Rate Situation and Policy Measures

Since the end of 2021, commodity prices have been surged due to the post-COVID economic recovery-induced demand increase and supply chain disruptions. The situation has worsened due to the conflict between Russia and Ukraine, driving up global commodity prices and abnormally high transportation costs. Bangladesh is not an exception, as it is reflected through rising inflation and exchange rates in 2022.

The effects of global commodity price hikes ultimately caused significant increases in import costs for Bangladesh since the first quarter of 2021. First two quarters of 2022 consecutively experienced huge import growth, which, thereafter, created huge pressure on the exchange rate of BDT against USD. The nominal exchange rate (BDT/USD) remained mostly stable for a long period before first quarter of 2022. However, it exhibited some instabilities reaching BDT 86.20 per USD in March and BDT 93.45 in June. Moreover, export-import financing in terms of BDT vis-à-vis USD grew much faster during January-June 2022.

Various Policy Measures Undertaken During January-June 2022 Period

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

January, 2022	Bangladesh Bank (BB) rolled out a refinance scheme titled 'Ghore Fera' of BDT 5.0 billion from its own source to create new employment and alleviate poverty for workers/laborers/small businessmen, who were compelled to return home because of losing their jobs due to COVID-19 pandemic and other reasons. The tenure of the scheme shall be till 31 December 2024. (ACD, January 03, 2022)
February, 2022	In light of the existing negative impact of COVID-19, it was decided that borrowers who are unwilling to coordinate their debt in financial institutions or are unable to carry on business activities can apply for an exit facility by submitting a minimum of 2.0 percent of the loan status as on 31 December 2021 to bring dynamism to financial institutions' lending/investment recovery activities, improve liquidity condition and protect the interests of borrowers. (DFIM, February 15, 2022)
February, 2022	In order to protect customer interests and ensure effective payment ecosystem, scheduled banks have been directed not to impose any non-transactional fees/charges (annual fee, CIB fee, SMS fee, etc.) on the customer before activating the credit card. However, non-transactional fees/charges shall allow applying after activation of the credit card on customer consent, and no fine in addition to non-transactional fees/charges shall be levied because of overdue/late payment on an active credit card that does not have any transactional liability (related to shopping, cash withdrawal, or merchandise). Interest or profit cannot be earned on non-transactional fees/charges, and a customer shall not be classified into lower categories due to overdue non-transactional liabilities but overdue transactional liabilities shall be duly classified and provisioned. In addition, banks were permitted to adjust transactional liabilities after adjusting non-transactional fees/charges on full or partial realization of credit card bill. (BRPD, February 15, 2022)
February, 2022	For acceleration and more vibrant business activities by considering financial condition of the borrowers of banking

	credit, scheduled banks were directed to follow revised instructions of Internal Credit Risk Rating System which would be remained in force till 31 December 2023. The Internal Credit Risk Rating Scores had amended as follows: Excellent: ≥75%; Good: ≥65% to < 40%, ICRR shall be 'Unacceptable'. (BRPD, February 23, 2022)
April, 2022	For reflecting actual financial state of banks, and overall credit discipline in the banking sector with capital consolidation, it has been directed that interest charged on rescheduled loans will not be allowed to transfer into income account unless authentically realized. (BRPD, April 07, 2022)
April, 2022	To create an investment friendly environment and for justifying the deposit collection and credit/lease/investment rate, all financial institutions were advised to set interest/profit rate for deposit at maximum 7 percent and for credit/lease/investment at maximum 11 percent from 01 July 2022. (DFIM, April 18, 2022)
April, 2022	Scheduled banks were directed to reschedule short-term agricultural credit (including previously rescheduled agricultural credit) for maximum 3 years including 6 months grace period from the date of rescheduling with relaxing down payment condition, without down payment in some cases, on banker-customer relationship. In addition, new loans shall be sanctioned to borrowers after rescheduling without any fresh deposit, and loans under certificate case shall be asked to be suspended/ settled through compromise before rescheduling. (BRPD, April 19, 2022)
April, 2022	With a view to promoting continued production and maintaining the dynamics of economic activities including imports and exports, schedule banks operating in Bangladesh were directed to increase the limit of already-sanctioned working capital loan to the borrowers to a reasonable level based on necessities and banker-customer relationship during the interim period after scrutiny of credit risk minimization and borrower financial competency. (BRPD, April 27, 2022)
April, 2022	In order to ensure easy and secured fund transfer through online/internet banking, maximum limit for fund transfer would be set by the bank considering its own risk factor and borrowers' transaction profile. Keeping unchanged maximum limit for daily and single transaction of Internet Banking Fund Transfer (IBFT) through National Payment Switch Bangladesh

	(NPSB), it was instructed to withdraw the conditions for the maximum number of daily transaction. (PSD, April 28, 2022)
May, 2022	Strengthening foreign exchange reserve amid volatility of global economy caused by the COVID-19 pandemic and war in Ukraine, foreign tour of bank officials and employees for participating in training/ meetings/ seminars/ workshops/ study tours including private tour, shall remain suspended until further notice. However, following grounds shall remain beyond the purview of the restrictions: foreign travelling for observing the holy Hajj of 1443 Hijri/2022 and for emergency treatment subject to specialized doctor recommendation; travelling to own country of foreign citizens serving at bank and travelling to head office of the officials serving at Bangladeshi branch of foreign banks; participating in full-funded training/meetings/seminars/workshops/ study tours by foreign organizers. (BRPD, May 23, 2022)
May, 2022	BB formed a 'Refinance Scheme for Ship Building Industry' worth of BDT 20.0 billion to develop, conduct and flourish it. All export oriented and local industries engaged in ship building may avail this loan facility. Under the scheme, no loan/investment shall be allowed to disburse against construction of dockyard or purchase of land/lease and to any defaulter, and such loans shall not be utilized in adjustment or repayment other types of loan. Participating banks shall access refinance at 1.0 percent interest rate from BB; and interest rate at customer level shall be maximum 4.5 percent. In addition, proven misused refinancing shall be charged 2.0 percent penalty. (BRPD, May 26, 2022)
June, 2022	In view of financial inclusion and better living standard of marginal people, Refinance scheme to provide 'Digital Nano Loan' of BDT 1.0 billion was introduced by BB from its own fund. The tenor of the fund is 3 years and all the scheduled banks involved in disbursement would be admissible for this scheme and shall access the fund from BB at 1 percent interest against refinancing. After ensuring the eligibility, banks could disburse from minimum BDT 500.0 to maximum BDT 50,000.0 to each borrower. The interest rate at customer level will be a maximum of 9 percent. (BRPD, June 02, 2022)
June, 2022	No conversion factor shall be used while accounting large loan provided to single borrower or group against non-funded facility. That is, 100.0 percent of both funded and non-funded

	loan exposure shall be accounted. However, conversion factor shall be applied in banks portfolio level while setting ceiling to large loan. (BRPD, June 02, 2022)
June, 2022	To save the flood affected farmers of North-Eastern districts and to keep them engaged in farming, all scheduled banks were instructed to disburse new loan in crops, fisheries, poultry and livestock. In this continuum, banks were directed to ensure disbursement of at least 40.0 percent of the unused outstanding of allotted amount under special refinance scheme of BDT 30.0 billion for the said flood affected areas. (ACD, June 05, 2022)
June, 2022	To encourage the women entrepreneurs of CMSME sector under the refinance scheme titled 'Refinance Scheme for Small Enterprises' it was instructed that only the women entrepreneurs would avail the loan and incentive and the interest rate would be a maximum of 5.0 percent at borrowers end. Following an ideal and timely recovery/adjustment procedure a 1.0 percent incentive by BB to be provided to borrowers and 1.0 percent incentive to be provided to the implementing banks and financial institutions engaged in loan management. (SMESPD, June 20, 2022)
June, 2022	To achieve self dependency in milk production through providing loans at 5.0 percent concessional interest rate, a 'Refinance Scheme on Milk Production and Artificial Insemination Sector' was introduced earlier. In this regard, time-limit of the said scheme has been extended till 31 December 2024 for recovery/adjustment of the refinanced credit against the disbursed loans at customer level, and to pay/reimburse of the interest subsidy owing to compensation claims of the banks. (ACD, June 27, 2022)
June, 2022	For properly implementation of 'Special Incentive-based Refinance Scheme in Agricultural Sector (Phase II)', the timeline of loan disbursement was increased up to 30 September 2022. (ACD, June 30, 2022)

B. Major Policy Announcements/Guidelines/Circulars related to Monetary Policy and Monetary Management

January, 2022	Maximum BDT 10 (ten) million is permitted to be reinvested in National Sanchaya Bonds (Wage Earner Development Bond, US Dollar Investment Bond and US Dollar Premium

	Bond), if not reinvested before the notification on 03 December 2020 by Internal Resource Division or if the bearer of the bond request in writing for reinvestment after circulation of notification. (DMD, January 17, 2022)
May, 2022	As per decision of the 54th meeting of the Monetary Policy Committee, held on 29 May 2022, the Repo rate was increased by 25 basis points to 5.00 percent from 4.75 percent. Reverse Repo rate remained unchanged at 4.00 percent. (MPD, May 29, 2022)
June, 2022	Repo rate was further increased by 50 basis points and re-fixed at 5.50 percent from 5.00 percent in line with decision taken in the 55th meeting of the Monetary Policy Committee on 27 June 2022. However, Reverse Repo rate kept unchanged at 4.00 percent. (MPD, June 30, 2022)

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

January 2022	In order to encourage the repatriation of remittances through legal channels, the incentive/cash assistance against remittance was increased to 2.50 percent from existing 2.0 percent. (FEPD, January 02, 2021)
January 2022	To facilitate smooth transition of external trade activities, it was decided to continue extended support for trade transactions till June 2022. Usance period for imports of industrial raw materials, including back-to-back imports and imports of agricultural implements and chemical fertilizers, under supplier's/buyer's credit is extendable up to 270 days. In addition, the Export Development Fund (EDF) limit for individual member mills of BTMA and BGMEA will be USD 30.0 million instead of USD 25.0 million, and the extension of the EDF loan for a period of 90 days up to 270 days will remain applicable. (FEPD, January 06, 2022)
January 2022	In case of repatriation of export earnings up to USD 5,000.0 against the export of software and ITES services through the international marketplace, it has been decided that export incentives/cash assistance will be applicable at the prevailing rate subject to confirmation of the accuracy of receiving the money in the absence of import related information sources. (FEPD, January 06, 2022)

January 2022	According to government directives it was decided to provide cash incentive against remittances of legal income in foreign currency to be remitted through banking channel into the country to encourage remitters' permanent shift from formal channel for following sources: a. Retirement benefits such as pension funds; b. Provident fund; c. Leave salary; d. Bonus and other gratuities, paid by the employer; e. Retirement benefits. (FEPD, January 20, 2022)
January 2022	Authorized Dealers (ADs) were advised to submit all foreign exchange market related statements through the 'Online Foreign Exchange Market Monitoring System' regularly within the stipulated timeline and submit monthly 'Foreign Exchange Inflow Outflow Statement' in US dollar/equivalent US dollar through 'Online Foreign Exchange Market Monitoring System'. (FEPD, January 30, 2022)
February 2022	ADs were instructed to submit daily exchange position statements through revised Rationalized Input Template (RIT) on trial basis from February 2022 and continue to submit those statements through previous RIT to EDW. (FEPD, February 07, 2022)
February 2022	According to government directive under section 56 of Income Tax Ordinance 1984, in case of remitting invoice value of fees, commissions, consultancy fees, etc favoring non-resident, the remaining value after deduction of applicable duties and taxes will be considered. (FEPD, February 09, 2022)
March 2022	ADs may establish letter of credit (LC) in foreign currency favoring local contractor to execute work order provided under international tender. Such LCs established in foreign currency shall be settled through FC clearing accounts of the bank concerned maintained with BB. (FEPD, March 02, 2022)
March 2022	All the scheduled banks operating in Bangladesh were instructed to maintain the import L/C margin rate at a minimum level, and permitted to open L/C at zero margin on banker-customer relationship and to keep the commission of import L/C margin at the lowest possible rate, which is to contain the price-hike of daily essential commodities to keep the commodity price at affordable level and to ensure adequate supply of commodities such as edible oil, chickpeas, pulses, peas, onions, spices, dates, fruits, sugar and other daily necessities during Ramadan till May 10, 2022. (BRPD, March 10, 2022)

March 2022	To facilitate export trade, it has now been decided that export proceeds received in advance as declared on Advance Receipt Voucher (ARV) in accordance with paragraph 20, chapter 8 of GFET may be retained in foreign exchange as per paragraph 41 or 42 of chapter 7 ibid depending on the nature of import bills. (FEPD, March 14, 2022)
April, 2022	To lead properly overall functionality of the monetary and credit management in the present context of world trade, scheduled banks were instructed to maintain at least 25 percent cash margin for setting LC against importing all products other than baby foods, essential food products including fuel, lifesaving drugs, local and export oriented industries and agricultural sector related imports. (BRPD, April 11, 2022)
April 2022	To maintain smooth support for input procurements from Export Development Fund (EDF) against export trade, ADs were allowed to charge additional interest to borrowers not exceeding 1.0 percent per annum for the period between import payments from sources of ADs and receipts of refinancing from EDF. (FEPD, April 19, 2022)
April 2022	ADs were allowed to safeguard their financing against exports by appropriate insurance coverage available from insurance companies locally as an extra comfort. (FEPD, April 24, 2022)
May 2022	With the aim of keeping the domestic currency and credit management more integrated during global economic instability caused by COVID-19 and the state of war in Ukraine, cash margin for import LC has been re-fixed. In this regard, a minimum of 75 percent cash margin shall be maintained for opening LC against importing motor car (Sedan car, SUV, etc.), electrical and electronic products used as home appliances. Besides, a minimum of 50.0 percent cash margin shall be maintained for setting LC against importing all other products except baby foods, essential food products, fuel, medical equipments including lifesaving drugs and equipment recognized by the Directorate of Health, directly imported capital equipment and raw materials for production oriented local industries and export oriented industries, products related to agriculture sector and essential products imported for government thrust projects. (BRPD, May 10, 2022)
May 2022	ADs were instructed to conduct the tracking of shipments through tracking system recognized by competent authority for relevant import transactions to ensure the onboard of import of goods. (FEPD, May 17, 2022)

May 2022	For providing cash support to exporters in order to meet their working capital needs in BDT, ADs designated for export transactions were advised to make BDT fund available to exporters through encashment of value added portion out of their repatriated export proceeds by the following business day on receipt of proceeds. (FEPD, May 29, 2022)
May 2022	To facilitate export trade, ADs repatriating export proceeds were advised to transfer the fund in foreign currency (FC) to ADs designated for export transactions, thus enabling the designated ADs to make BDT fund available to exporters' accounts maintained with them after conversion of the encashable portion of FC fund. (FEPD, May 29, 2022)
June 2022	To ensure export of goods for which EDF loans were used, ADs were advised to refrain from forwarding applications of EDF loans for customers whose liabilities were settled, without repayment out of realized value of the relative exports in foreign currency, by extending funded facilities in the immediate past 180 days. To ensure safeguards of export transactions, ADs were instructed to conduct the tracking of shipments in all cases through tracking systems recognized by competent authorities for relevant trade transactions. (FEPD, June 29, 2022)

©2022 Journal of IBB
Volume 65 January-December 2022
Institute of Bankers of Bangladesh
(ISSN 1684-0054)

"A SURVEY OF ECONOMIC SITUATION IN BANGLADESH"
July-December 2022

The 'Survey of Economic Situation in Bangladesh' incorporates movement of some of the major macroeconomic indicators of monetary, credit and external sectors which help to understand overall macroeconomic environment of Bangladesh. Despite global supply chain disruptions due to the Russian-Ukraine war as well as record-high inflation, the economy of Bangladesh shows resiliency in terms of export earnings and remittance inflow and private sector credit growth. As a result, recovery from two yearlong COVID related pandemic, the growth of GDP became stronger and rose to 7.10 percent in FY22 from 6.94 percent in FY21. General inflation (12-month average basis) at the national level also increased to 6.15 percent at the end of the said fiscal year from 5.56 percent at the end of the previous fiscal year.

Monetary and Credit Situation

Narrow Money (M1)

At the end of December 2022, narrow money stood at BDT 452540.90 crore which was increased by 6.25 percent during July-December 2022 as compared to an increase of 12.28 percent during January-June 2022. It may be mentioned that it also rose by 0.93 percent during July-December 2021 (Annexure-1).

Broad Money (M2)

Broad money recorded an increase of or 2.92 percent during July-December 2022 and stood at BDT 1757968.60 crore in December 2022 as compared to the increase of 5.40 percent during January-June 2022. It may be mentioned that, M2 increased by 3.83 percent during July-December 2021 (Annexure-1).

Furthermore, during July-December 2022, demand deposits decreased by BDT 5096.50 crore or 2.69 percent and time deposits increased by BDT 23210.20 crore or 1.81 percent. An analysis of the causative factors of the change in money supply revealed that net foreign assets (NFA) decreased by 12.33 percent due to higher amount of import payments compared to the total export receipts, and inward remittances, and a significant repayment of trade credit, while net domestic assets (NDA) increased by 7.05 percent which is also the major contributing factor of M2 during July-December 2022 due to steady growths in public and private sector credit. It may also be noted that, during the reported period the currency outside banks also went up by BDT 31732.60 crore or 13.42 percent (Annexure-1).

Domestic Credit

Total domestic credit recorded an increase of 5.38 percent during July-December 2022 as compared to an increase of 9.11 percent during January-June 2022. It also rose by 6.41 percent during the same period of the previous year. The rise in the domestic credit can be attributed both to the increase in credit to public sector by 4.72 percent and private sector credit to 5.54 percent during July-December 2022 (Annexure-1).

Reserve Money

Reserve money recorded an increase of 9.46 percent during July-December 2022 as compared to the increase of 7.26 percent during January-June 2022. Reserve money increased during the reported period due to the increase in net domestic assets (NDA) of Bangladesh Bank. It is noteworthy to point out that, it dropped by 7.01 percent during July-December 2021 (Annexure-1).

Auctions of Government Treasury Bills

28 weekly auctions of Government Treasury Bills (TBs) were held during July-December 2022. In all, 2786 bids amounting to BDT 184532.97 crore (face value) were offered in the auctions of which 748 bids amounting to BDT 101432.55 crore (face value) were accepted. BDT 35598.04 crore were devolved on Bangladesh Bank and BDT 2107.00 crore were devolved on primary dealer's bank respectively. Bills worth of BDT 91215.47 crore were retired during the period under report. The outstanding balance of the bills stood at BDT 167727.55 crore at the end of December 2022. The weighted average yields of the accepted bids were ranged between 5.71 to 7.93 percent.

Auctions of Bangladesh Government Treasury Bonds (BGTBs)

23 weekly auctions of Bangladesh Government Treasury Bonds (BGTBs) were held during July-December 2022. In all, 1848 bids amounting to BDT 60833.75 crore were offered in the auctions of which 654 bids amounting to BDT 34863 crore were accepted. A total of BDT 21785.24 crore was devolved on Bangladesh Bank. Bonds worth of BDT 17150 crore were retired during the period under report. The outstanding balance of the bonds stood at BDT 651575.20 crore at the end of December, 2022. The weighted average yields of the accepted bids were ranged between 7.28 to 8.95 percent.

REPO Auctions

During the period July-December 2022 120 auctions of REPO (Liquidity Support Facility & Special Repo) operations were held on daily basis. In total, these auctions received 8529 bids, 1-4 Day, 1-5 Day and 7 Day tenor amounting to BDT 969541.9 crore were received, of which 8472 bids amounting to BDT 748144.84 crore were accepted. The interest rate of the accepted bids was ranged between 5.50 to 8.75 percent during the period under report.

Reverse REPO Auctions

No auction of Reverse REPO operations was held during July-December 2022.

Auctions of Bangladesh Bank Bills

- **7-Day Bangladesh Bank Bills:**
  No auction of 7-Day Bangladesh Bank Bills (BB Bill) was held during July-December 2022.

- **14-Day Bangladesh Bank Bills:**
  No auction of 14-Day Bangladesh Bank Bills (BB Bill) was held during July-December 2022.

- **30-Day Bangladesh Bank Bills:**
  Considering the overall liquidity situation, no auction of 30-Day Bangladesh Bank Bills (BB Bill) was held during July-December 2022.

Revenue Receipts under the National Board of Revenue (NBR): July-December 2022

The target of revenue collection under the National Board of Revenue (NBR) for FY 2022-2021 has been set at BDT 370000 crore. Following this target, total revenue collection by NBR during July-December 2022 stood at BDT 145431.26 crore which was 39.31 percent of the annual target. The aforementioned collection by NBR during this stated period was 15.71 percent lower than BDT 172543.73 crore collected during January-June 2022 but 12.66 percent higher than BDT 129090.11 crore collected during July-December 2021.

Reviewing the revenue collection scenario, during the period under discussion it is seen that, collections from import duty, VAT and supplementary duty at import stage were BDT 17862.66 crore (10.06 percent), 22096.88 crore (7.75 percent) and 4988.39 crore (13.23 percent) respectively. A total of BDT 7306.99 crore (308.61 percent) from excise duty, BDT 33556.09 crore (6.19 percent) from VAT (domestic) and BDT 14408.10 crore (-0.24 percent) from supplementary duty (domestic) were collected during this period.

On the other hand, collection from income tax and travel tax was BDT 43959.03 crore (6.32 percent) and BDT 683.12 crore (158.10 percent) respectively.

Collection from excise duty experienced the highest growth (308.61 percent) during the period over the same period of the previous fiscal year. On the counterpart, revenue from supplementary duty (domestic) decreased by 0.24 percent in this period under discussion [1].

Agricultural Credit

The annual agricultural credit disbursement was targetted at BDT 30911 crore for FY23 which was 8.88 percent higher than that of FY22. Agricultural credit disbursement by all banks stood at BDT 16670.10 crore during July-December 2022, which was 16.27 percent higher than BDT 14337.17 crore during January-June 2022 as well as 14.98 percent higher than BDT 14497.04 crore during July-December 2021. Total recovery of agricultural credit stood at BDT 16429.76 crore during July-December 2022, which was 18.46 percent higher than BDT 13869.61 crore during January-June 2022 and 20.86 percent higher than BDT 13593.80 crore during July-December 2021. The outstanding balance (including interest) of agricultural credit stood at BDT 50997.35 crore at the end of December 2022, which was 2.40 percent higher than BDT 49802.28 crore at the end of June 2022 as well as 7 percent higher than BDT 47659.51 crore at the end of December 2021.

Inflation Situation

General CPI inflation (12-month average basis) at the national level stood at 7.70 percent at the end of December 2022 compared to 6.15 percent in June 2022 and 5.55 percent in December 2021. On the other hand, point-to-point (p-to-p) general CPI inflation at the national level stood at 8.71 percent at the end of December 2022, which was 7.56 percent in June 2022 and 6.05 percent in December 2021. Average food inflation at the national level stood at 7.75 percent at the end of December 2022, which was 6.05 percent in June 2022 and 5.30 percent in December 2021. Point-to-point food inflation at the national level stood at 7.91 percent in December 2022 compared to 8.37 percent in June 2022 and 5.46 percent in December 2021. Average non-food inflation at the national level stood at 7.62 percent in December 2022, which was 6.31 percent in June 2022 and 5.93 percent in December 2021. Non-food, inflation measured by point-to-point basis, at the national level was 9.96 percent at the end of December 2022 compared to 6.33 percent in June 2022 and 7.00 percent in December 2021.

[1] Source: Provisional statement of revenue collection for the month of December'22, National Board of Revenue (NBR)

Food Situation

The target for food grains production for FY23 was set at 427.32 lakh metric tons, which was 9.22 percent higher than the actual production in FY22.

The target for total government import of food grains for FY23 was set at 16 lakh metric tons, which was 30.19 percent higher than imported by government during FY22. Total import of food grains during July-December 2022 stood at 19.59 lakh metric tons against 21.60 lakh metric tons imported during January-June 2022 and 28.39 lakh metric tons during July-December 2021.

The target for domestic procurement of food grains during FY23 was fixed at 17.04 lakh metric tons, which was 15.64 percent lower than actual procurement of 20.20 lakh metric tons in FY22. Procurement of food grains during July-December 2022 stood at 8.31 lakh metric tons against the procurement of 10.97 lakh metric tons during January-June 2022 and 9.23 lakh metric tons during July-December 2021.

Government distribution of food grains for FY23 was targeted at 32.34 lakh metric tons, which was 5.10 percent higher than 30.37 lakh metric tons distributed in FY22. Distribution of food grains during July-December 2022 stood at 13.84 lakh metric tons against the distribution of 15.63 lakh metric tons during January-June 2022 and 15.14 lakh metric tons during July-December 2021.

The stock of actual food grains at the end of December 2022 stood at 17.94 lakh metric tons against the stock of 16.07 lakh metric tons at the end of June 2022 and 18.55 lakh metric tons at the end of December 2021.

Stock Exchange Activities

In the Dhaka Stock Exchange Ltd. (DSE), the total number of listed securities stood at 656 at the end of December 2022. During the period July-December 2022, a total of 22647.83 million shares and debentures worth BDT 117886.92 crore were traded as against 27457.31 million shares and debentures worth BDT 116413.29 crore traded during January-June 2022. It was 17.52 percent lower in volume and 1.27 percent higher in value than that of the preceding period. The market capitalization of DSE stood at BDT 760936.90 crore at the end of the period under report, which was 46.96 percent higher than BDT 517781.69 crore at the end of the preceding period. This is because the number of listed government bonds increased in DSE which ultimately helped in increasing the market capitalization. DSE broad index stood at 6206.81 points at the end of December 2022, which was 2.67 percent lower than 6376.94 points at the end of June 2022.

In the Chittagong Stock Exchange Ltd. (CSE), the total number of listed securities stood at 618 at the end of December 2022 as Government Treasury Bond included in the number of listed securities. During the period July-December 2022, a total of 1034.48 million shares and debentures worth BDT 3388 crore were traded as against 1513.46 million shares and debentures worth BDT 4160.32 crore traded during the preceding six months. It was 31.65 percent lower in volume as well as 18.56 percent lower in value than that of the preceding period. The market capitalization of CSE stood at BDT 741438.01 crore at the end of the period under report, which was 71.09 percent higher than that of BDT 433369.31 crore at the end of the preceding period. The all share price index of CSE stood at 18328.02 points at the end of December 2022, which was 2.13 percent lower than that of 18727.51 points at the end of June 2022.

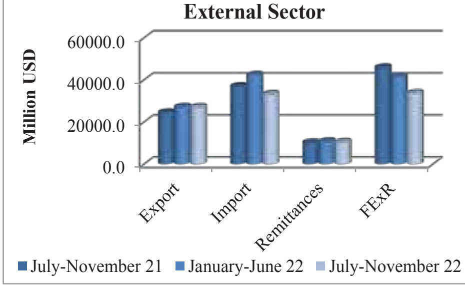
Exports, Imports, Remittances, Foreign Exchange Reserves and Balance of Payments

The position of export, import, remittance and foreign exchange reserve of Bangladesh for the period of July-December 2022 is discussed below:

Export earnings stood at USD 27311.3 million during July-December 2022 which decreased by 0.3 percent compared to USD 27384.1 million during January-June 2022 but increased by 10.6 percent compared to the same period of the previous year. The yearly trend of export mainly increased due to the lofty demand of Ready-made Garments (knitwear and woven garments) and withdrawal of nation-wide lockdown.

In July-November 2022, import payments stood at USD 33247 million which was 13.1 percent higher than the same period of the preceding year. The half-yearly increase in import payments was caused mainly due to rise of the consumer goods and intermediate goods.

Graph-1: Position of the Components of External Sector



Remittance earnings of the country stood at USD 10493.3 million during July-December 2022 which decreased by 2.8 percent but increased by 2.5 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 United States of America, Saudi Arabia, United Arab Emirates, United Kingdom, Kuwait, Malaysia, Oman and other countries. During July-December 2022, various policy initiatives taken by Bangladesh Bank and Government of Bangladesh such as 2.5 percent cash incentive, easing the rules on the furnishing of documents and depreciation of exchange rate (BDT/USD) might have influenced this growth in overseas remittances.

In July-December 2022, foreign exchange reserves of the country stood at USD 33747.7 million which drastically fell by 19.3 percent compared to the previous period and 26.9 percent compared to the same period of the preceding year respectively. The half-yearly data of the country's export, import, remittance and foreign exchange reserve is shown in graph-1 and annexure-2.

Bangladesh's current account deficit narrowed in FY23 (July-December), supported by the significantly decrease in trade deficit and slightly increase in secondary income. Current account balance recorded a lower deficit of USD 5270 million during July-December FY23 compared to USD 8297 million deficit mostly due to lower trade deficit during the corresponding period of the preceding year. In contrast, overall balance widened notably deficit of USD 7169 million during July- December 2022; resulting from the deficit in financial account during the period under review against a substantial surplus in the corresponding period of the last fiscal year. The overall Balance of payment of the country during the said period is shown in annexure-2.

Exchange Rate Situation and Policy Measures

Bangladesh economy faced an unusual current account deficit since the last quarter of FY22, which continued in the first quarter of FY23, emanating from unprecedented high import payments and subdued inward remittances. The surge in the current account deficit has led to considerable depreciating pressure on the BDT-USD exchange rate. BB responded with considerable foreign exchange support and allowed a greater extent of exchange rate depreciation in tandem. Bangladesh Taka depreciated sharply during the first half of FY23 reflecting excess demand for foreign exchange along with an appreciation of the USD in the global market. To mitigate the depreciating pressure and bring current account deficits to a comfortable level, BB extended necessary policy measures, including net sales of USD 7.8 billion during the first half of FY23 to meet the excess demand for the greenback, imports barriers for unnecessary and luxury items, reduction of ERQ (Exporter's Retention Quota), reduction of cash foreign currency holdings by money changers, reduction of NOP limit (Net Open Position), increase in interest rate hike on borrowing from EDF, import monitoring and restrictions on foreign travels. Moreover, to bring stability to the exchange rate, BB has let the ABB (Association of Banker's Bangladesh) and BAFEDA (Bangladesh Foreign Exchange Dealer's Associations) to determine the exchange rate based on the market demand and supply conditions, effective from 12 September 2022.

BB is well aware of this deviation of more than 2% and understands that this is a transitory outcome of the current volatile market condition, which we except to gradually converge to the rates within 2% limit as foreign exchange market condition improve. Likewise, BAFEDA has revised the exchange rates for both exporters and remitters towards narrowing the spread. In the beginning, exchange rate for exporters was 99.00 BDT/USD & for remitters it was 108 BDT/USD. Subsequently, the spread is reduced from 9.00 BDT to 4.00 BDT. Going forward, as foreign exchange availability increases, BAFEDA is expected ensure current exchange rate practice to a single exchange rate (i.e., within the limit of 2% variation) for all participants in around six months period. BB will use market-determined exchange rates for all official foreign exchange transactions on behalf of the government by end-June 2023.

BB also has taken an indirect measure by reducing the Forex NOP limit of commercial banks 25% to maintain the liquidity of the Forex market & also to stabilize the exchange rate.

Various Policy Measures Undertaken During July-December 2022 Period

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

July, 2022	BB has re-fixed cash margin rate for import LC: a) 100 percent cash margin must be maintained against import LC for luxurious items like motor car (Sedan-car, SUV, MPV, etc), electrical and electronic home appliances, gold and gold-ornaments, precious metals and pearls, ready-made garments, leather goods, jute products, cosmetics, furniture and decorations, fruits and flowers, non cereal food, processed foods and beverages, alcohol, tobacco, tobacco products or substitute products; b) 75 percent cash margin must be kept in case of all other products excluding necessary items like child food, essential food products, fuel, medicine and medical equipment, capital machinery and raw materials for local and export industry production, essential products for agriculture and government priority projects. The customer must provide a margin from own source. (BRPD, July 04, 2022)
July, 2022	BB instructed Authorized Dealers (ADs) to facilitate short-term import finance under buyer's credit, and it has been decided that importers may extend guarantees like corporate guarantee, personal guarantee, third party guarantee, etc., to foreign lenders making payments to suppliers under buyer's credit against admissible imports on sight letters of credit. (FEPD, July 13, 2022)
July, 2022	For account opening by Non-Resident Bangladeshis staying abroad, the documents requested by the scheduled banks operating in Bangladesh are not required to be attested by the concerned embassy as Machine Readable Passport (MRP) and Electronic Passport (e-Passport) are issued through a specific verification process by the Government of Bangladesh. (BFIU, July 27, 2022)
July, 2022	Special loan/investment facility provided to the CMSME sector affected by Novel Corona Virus (COVID-19) pandemic will be effective from 01 July 2022 to 30 June 2023 (in the third phase). (SMESPD, July 24, 2022)
July, 2022	A Refinance scheme amounting BDT 300.0 billion against 'Financial Stimulus Package to Mitigate Probable Economic Impact Due to Breakout of Novel Corona Virus (COVID-19)'

	was initiated by BB from its own source. Under this scheme, allotment has been made amounting BDT 270.0 billion for the industrial and services sector except CMSME and BDT 30.0 billion for the foreign-owned/Joint owned (A, B, C-Type) industrial units in the EPZs/EZs/HTPs in Bangladesh for the 3rd and last phase. (BRPD, July 28, 2022)
August, 2022	Banks would ascertain their highest capital market exposure limit based on the stock-like instruments' purchasing price instead of their market value. (DOS, August 04, 2022)
August, 2022	To facilitate entrepreneurs' accessing refinance facility and loans, Credit Guarantee Facility against term loan to CMSME sector under BDT 250.0 billion Refinance scheme has been introduced. Under this scheme, a) loan of a cottage and micro (manufacturing and service) enterprise ranging from a minimum of BDT 25,000 to a maximum of BDT 10 million will get the credit guarantee facility, b) small manufacturing enterprise loan ranging from BDT 0.1 million to BDT 30 million and small service enterprise loan ranging from BDT 25,000 and a maximum of BDT 10 million will avail this facility, c) medium manufacturing enterprise loans ranging from a minimum of BDT 0.1 million and a maximum of BDT 50 million and medium service enterprise loans ranging from BDT 0.1 million to BDT 20 million will get credit guarantee facility. Under the credit guarantee facility, interest rate on customers' level will be 7 percent and participating banks would have to disburse 10 percent of their Portfolio Guarantee Limit (PGL) in favor of women. (CGD, August 10, 2022)
August, 2022	BB formed a Refinance scheme of BDT 10.0 billion for increasing production of wheat and maize from its own source. The tenure of the scheme is up to 30 June 2025. Under this scheme, participating banks would get refinancing facility at 0.50 percent interest/profit rate, and customer (Farmer) will get loans at maximum of 4 percent (simple interest) interest/profit rate. (ACD, August 25, 2022)
September, 2022	In the context of rising global prices of energy, food and daily commodities due to economic shock caused by Covid-19 and the ongoing Russia-Ukraine war situation; with aim of cost-saving and practicing austerity, scheduled banks operating in Bangladesh are directed to continue the adopted measures of reducing consumption of fuel (petrol, diesel, gas

	etc.), oil and lubricants by 20 percent or more, and to strengthen effective measures regarding lessening electricity consumption by 25 percent or more. (BRPD, September 05, 2022)
September, 2022	The interest rate at the customer level for pre-financing under SREUP has been re-fixed to a maximum of 5 percent per annum instead of the existing 7 percent per annum. This 5 percent interest rate will applicable to all new and existing sub-loans under SREUP. Interest rate to be paid by PFIs to BB for On-Lending Loan (OLL) under this Project is fixed at 2.5% per annum; and Investment grants will be sanctioned on a "first come, first served" basis. (SMESPD, September 26, 2022)
October, 2022	In order to avoid possible financial and legal risks caused by transactions of Virtual asset and Virtual currency/Crypto currency and their exchange/transfer/trading activities, all scheduled banks operating in Bangladesh are directed to immediately cease transactions, buying-selling, reselling, P2P exchange/transfer/trading or assistance in any such activities of Virtual currency/Crypto currency, Foreign currency etc. through Virtual Asset Service Provider (VASP) using customer's bank account, and to increase monitoring with due precautions in this regard. In addition, banks should take necessary measures in effort to inform the public by displaying the instructions issued through FE Circular No.-24/2022 on the notice boards at head office, all branches, sub-branches and agent banking outlets and publishing on home page of the website, and acquainting the content of the circular to the trainees in all training programs. (BRPD, October 12, 2022)
November, 2022	Disbursement of loans/investment under Refinance scheme of BDT 250.0 billion in CMSME sector was eased by ensuring the admissibility for trading sector along with previously allowed Manufacturing and Service sector and by allowing working capital loans/investments along with term loans/investments. It is instructed that, banks and financial institutions will disburse not more than 40 percent of the total disbursed loans/investments in working capital. Moreover, banks and financial institutions will have to ensure that disbursed amount from this scheme is concentrated in Manufacturing & Service sector not less than 65 percent and in Trading sector not exceeding 35 percent. (SMESPD, November 08, 2022)

November, 2022	In the wake of global food crisis due to weak supply system, to ensure the food security of the country a refinance scheme of BDT 50.0 billion was introduced for maintaining credit flow with minimum interest rate to agriculture sector. (ACD, November 17, 2022)
November, 2022	In light of the long-term negative effects of Covid-19 and the prolonged war situation in the world, time limit for imposing 100 percent Risk Weight against Investments in Venture Capital and all sectors (private equity, impact fund etc.) under the scope of Alternative Investment has been extended till 30 September 2024 for the expansion of Alternative Investment sector in Bangladesh and creating various innovative initiatives and new employment opportunities in the country. (BRPD, November 30, 2022)
December, 2022	In compliance with the government order regarding the life span of the vehicle of 08 (eight) years, instruction has been given to the scheduled banks that full time vehicles purchased for the board chairman and chief executive and for other purposes of banks, will be replaceable after a minimum of 08 (eight) years of usage. (BRPD, December 07, 2022)
December, 2022	In view of promoting green economy to accelerate the sustainable growth in export and manufacturing-oriented industries, BB has formed the Green Transformation Fund (GTF) in local currency. The size of this fund is BDT 50.0 billion. The refinance facility would be provided against bank financing regarding the import payments done for capital machineries and spare parts. (SFD, December 07, 2022)
December, 2022	Ensuring adequate supply along with affordable price of edible oil, chickpea, pulses, peas, onion, spices, sugar and dates during the upcoming holy month of Ramadan, instruction has been given to keep the minimum cash margin rate for setting up import L/C for these products on the basis of banker-customer relationship. (BRPD, December 11, 2022)
December, 2022	In the context of growing food price due to supply chain interruption in international market caused by negative influence of recent Russia-Ukraine war, instructions has been given to keep the cash margin rate at a minimum level for setting up import L/C of rice and wheat on the basis of banker-customer relationship for keeping rice and wheat

	price at tolerable level and ceaseless supply in domestic market. (BRPD, December 14, 2022)
December, 2022	For facilitating the clients in repaying their loans, non bank financial institutions (NBFIs) operating in Bangladesh are directed to follow instructions regarding loan/lease/investment classification as below: a) term loans/lease/investment a/c being unclassified till September/2022, will not be classified negatively whether a minimum 50 percent of the due installments from October/2022 to December/2022 are paid by the last working day of December/2022; b) balance of the said outstanding loan installments shall be payable in equal installments (monthly/quarterly) within 01 year after the expiry of the predetermined term. However, based on NBFIs-customer relationship, installments shall be rescheduled and collected as per new schedule considering the remaining tenor and an extended period of 01 year. (DFIM, December 21, 2022)

B. Major Policy Announcements/Guidelines/Circulars Related to Monetary Policy and Monetary Management

September, 2022	As the current Covid-19 situation is normal and no demand for the 360-day special repo is observed, 360 Days Term Repo facilities has been cancelled. (DMD, September 06, 2022)
September, 2022	As per the decision taken by 56th meeting of the Monetary Policy Committee, the overnight Repo rate was re-fixed and increased by 25 basis points to 5.75 percent from 5.50 percent. Reverse Repo rate remained unchanged at the existing rate of 4.00 percent. (MPD, September 29, 2022)
December, 2022	To aid the liquidity management and deepen the financial system, BB has introduced a new financial instrument, namely, ‘Islamic Banks Liquidity Facility (IBLF)’ for shari’ah based banks operating in Bangladesh. IBLF is a framework for providing short-term liquidity facility under the Mudarabah contract with tenor of 14 days. 03 months MTDR (Mudaraba Term Deposit Receipt) rate of respective bank will be the profit rate for IBLF. (DMD, September 06, 2022)

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

<table>
<tr><td>July 2022</td><td>Export Development Fund (EDF) limit for individual member mill of BTMA and BGMEA was enhanced to USD 30 million from USD 25 million for disbursement of EDF loans till June 30, 2022. Now, it has been decided to extend the period of same facility till December 31, 2022. (FEPD, July 19, 2022)</td></tr>
<tr><td>July 2022</td><td>It has been decided that those customers whose EDF liabilities have to be settled through funded facilities against disbursement from the date of this circular letter will not be accessible for further EDF loan. (FEPD, July 19, 2022)</td></tr>
<tr><td>July 2022</td><td>It has been decided that interest rate on EDF loans to ADs will be charged by BB at 1.50 percent pa, while ADs will charge interest to manufacturer-exporters at 3.00 percent pa; for disbursements until further instructions. (FEPD, July 20, 2022)</td></tr>
<tr><td>August, 2022</td><td>To bring uniformity, it has been decided to set annual interest rate ceiling on Non-resident Foreign Currency Deposit (NFCD) Accounts along with benchmark reference rate in the relevant currency of deposits as follows:
<table>
<tr><td>Period of deposit</td><td>Ceiling rate</td></tr>
<tr><td>1 year and up to 3 years</td><td>Benchmark reference rate + 2.25 percent</td></tr>
<tr><td>Above 3 years and up to 5 years</td><td>Benchmark reference rate + 3.25 percent</td></tr>
</table>
(FEPD, August 01, 2022)</td></tr>
<tr><td>September, 2022</td><td>To facilitate pre-fabricated Steel Structure industries it has now been decided to enhance usance period up to 360 days from 180 days for import of raw materials by these industries only. (FEPD, September 15, 2022)</td></tr>
<tr><td>September, 2022</td><td>Given the global market trends, it has been decided to set all-in-cost ceiling per annum at SOFR + 3.50 percent for short term trade finance in foreign exchange. (FEPD, September 28, 2022)</td></tr>
<tr><td>October, 2022</td><td>Given the prevailing global commodity market trends, ADs are advised to adhere to regulatory parameters for verification of import prices and price competitiveness. As</td></tr>
</table>

	usual, ADs shall comply with extended due diligence in import transactions and relevant regulations without limiting to provisions of Import Policy Order in force, credit reports of suppliers, KYC and AML/CFT standards, and so on. (FEPD, October 10, 2022)
October, 2022	In response to the self-motivated decision by the Central Bank of Sri Lanka (CBSL) to remain temporarily suspended from ACU mechanism with effect from October 14, 2022; all ADs are advised not to do any trade and trade related transactions with Sri Lanka through ACU mechanism. (FEPD, October 27, 2022)
November, 2022	It has been decided that interest rate on EDF loans to ADs will be charged by BB at 2.50 percent pa, while ADs will charge interest to manufacturer-exporters at 4.00 percent pa; effective for disbursements from November 13, 2022. (FEPD, November 8, 2022)
November, 2022	To bring wider flexibility, licensed Mobile Financial Service Providers (MFSPs) will be allowed to repatriate wage earners' remittance in association with internationally recognized online payment gateway service providers (OPGSPs)/banks/digital wallets/card schemes and/or aggregators abroad (hereinafter referred to as approved/licensed foreign payment service providers, foreign PSPs). A wage earners' can open MFS account in Taka through proper e-KYC along with validated proof of departure from Bangladesh (arrival or departure date stamped page of the passport). On return to Bangladesh, such account can be converted to local MFS account. This account may be converted again to wage earners' MFS account with the proof of departure. It is important that wage earners MFS account can only be credited against foreign currency. (FEPD, November 29, 2022)
December, 2022	To facilitate import transactions, it has been decided to allow import of edible oil, chickpea, pulse, pea, onion, spices, sugar and date on usance terms on upto 90 days under supplier's/buyer's credit. This facility will remain applicable for initiation of imports till March 31, 2023. (FEPD, December 13, 2022)

Annexure-1

Monetary and Credit Situation
(January-June 2022)

Tk. In crore

Particulars	Outstanding Position				Changes					
	June 2022	December 2021	June 2021	December 2020	January-June 2022		July-December 2021		January-June 2021	
					Absolute	%	Absolute	%	Absolute	%
A) Net Foreign Asset of Banking System	**364298.80**	**369155.30**	**382337.50**	**356976.80**	-4856.50	-1.32	-13182.20	-3.45	25360.70	7.10
B) Net Domestice Asset of Banking System	**1343823.50**	**1251479.60**	**1178557.80**	**1121707.70**	92343.90	7.38	72921.80	6.19	56850.10	5.07
i) Domestic Credit	**1671749.00**	**1532188.00**	**1439899.00**	**1363575.50**	139561.00	9.11	92289.00	6.41	76323.50	5.60
Public Sector	**320513.40**	**268940.50**	**251043.70**	**222272.50**	51572.90	19.18	17896.80	7.13	28771.20	12.94
Govt. (Net)	**283314.50**	**234544.10**	**221025.90**	**191282.60**	48770.40	20.79	13518.20	6.12	29743.30	15.55
Other Public	**37198.90**	**34396.40**	**30017.80**	**30989.90**	2802.50	8.15	4378.60	14.59	-972.10	-3.14
Private Sector	**1351235.60**	**1263247.50**	**1188855.30**	**1141303.00**	87988.10	6.97	74392.20	6.26	47552.30	4.17
ii) Other Assets(net)	**-327925.50**	**-280708.40**	**-261341.20**	**-241867.80**	-47217.10	16.82	-19367.20	7.41	-19473.40	8.05
C) Broad Money (M2)	**1708122.30**	**1620634.90**	**1560895.30**	**1478684.50**	87487.40	5.40	59739.60	3.83	82210.80	5.56
D) Narrow Money (M1)	**425904.80**	**379310.90**	**375828.70**	**336384.30**	46593.90	12.28	3482.20	0.93	39444.40	11.73
E) Currency Outside Banks	**236448.90**	**210723.10**	**209517.70**	**187462.90**	25725.80	12.21	1205.40	0.58	22054.80	11.76
F) Deposits	**1471673.40**	**1409911.80**	**1351377.60**	**1291221.60**	61761.60	4.38	58534.20	4.33	60156.00	4.66
i) Demand Deposits	**189455.90**	**168587.80**	**166311.00**	**148921.40**	20868.10	12.38	2276.80	1.37	17389.60	11.68
ii) Time Deposits	**1282217.50**	**1241324.00**	**1185066.60**	**1142300.20**	40893.50	3.29	56257.40	4.75	42766.40	3.74
G) Reserve Money	**347162.10**	**323666.30**	**348071.80**	**304054.30**	23495.80	7.26	-24405.50	-7.01	44017.50	14.48

Annexure-2

Postions of the Components of the External Sector of Bangladesh
(January-June 2022)

	Volume (In Million USD)			Percentage Change	
Item	**Jan-Jun 22**	**Jul-Dec 21**	**Jan-Jun 21**	**Jan-Jun 22 over Jul-Dec 21**	**Jan-Jun 22 over Jan-Jun 21**
Export	27384.10	24698.60	19524.90	10.90	40.25
Import	42532.20	37041.30	30768.80	14.80	38.23
Remittance	10792.20	10239.50	11833.00	5.40	-8.80
Fx. Reserve (End Period)	41826.70	46153.90	42532.20	-	-

Sources: Statistics Department, Bangladesh Bank and Bangladesh Bank Website

Annexure-2

Postions of the Components of the External Sector of Bangladesh
(July-December 2022)

	Volume (In Million USD)			Percentage Change	
Item	**Jul-Dec 22**	**Jan-Jun 22**	**Jul-Dec 21**	**Jul-Dec 22 over jan-Jun 22**	**Jul-Dec 22 over Jul-Dec 21**
Export	27311.3	27384.1	24698.6	-0.3	10.6
Import	33247.0*	42532.2	37041.3	-	-
Remittance	10493.3	10792.2	10239.5	-2.8	2.5
Fx. Reserve (End Period)	33767.5	41826.7	46153.9	-	-

* for July-November 2022

Sources: Statistics Department, Bangladesh Bank and Bangladesh Bank Website

Table -3: Balance of Payment

(In million US$

Items	2021-22^{R}	2022-23^{P}	% Changes
	July-Dec	July-Dec	3 over 2
1	2	3	4
Trade balance	-15707	-12300	-21.69
Export f.o.b.(including EPZ)	23264	25832	11.04
Import f.o.b (including EPZ)	38971	38132	-2.15
Services	-1683	-1955	16.16
Credit	4756	4552	-4.29
Debit	6439	6507	1.06
Primary income	-1490	-1861	24.9
Credit	157	215	36.94
Debit	1647	2076	26.05
Of which : Official interest payments	465	634	36.34
Secondary income	10583	10846	2.49
Official transfers	12	38	216.67
Private transfers (net)	10571	10808	2.24
Of which: Workers' remittances inflows	10240	10493	2.47
Current Account Balance	-8297	-5270	-36.48
Capital account	138	171	23.91
Capital transfers	138	171	23.91
Financial account	6894	-1098	-115.93
Foreign direct investment (gross inflows)	2329	2628	12.84
Of which : Net FDI flows	1118	1151	2.95
Portfolio investment (net)	-89	-30	-66.29
Of which : Investment by NRBs	60	56	-6.67
Other investment (net)	5865	-2219	-137.83
Net Aid Flows	3247	2710	-16.54
Medium and long-term (MLT) loans	4025	3502	-12.99
MLT amortization payments	778	792	1.8
Other long term loans (net)	1016	-230	-122.64
Other short term loans (net)	1403	-238	-116.96
Trade credit (net)	-510	-2789	446.86
DMBs and NBDCs (net)	709	-1672	-335.83
Assets	564	401	-28.9
Liabilities	1273	-1271	-199.84
Errors and omissions	-526	-972	84.79
Overall Balance	-1791	-7169	300.28
Reserve Assets	1791	7169	300.28
Bangladesh Bank (net)	1791	7169	300.28
Assets	-47	-8061	17051.06
Liabilities	1744	-892	-151.15

* Note: Exports and Imports both are compiled on the basis of shipment data

* Disinvestment, repayments of loans & loss have been deducted as per BPM6 and it includes in financial account calculation instead of gross FDI R:Revised, P =Provisional, RP=Revised but still Provisional

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)

10. The Institute or the Journal Committee does not take any responsibility for opinions expressed in the articles/papers published in the journal.

11. The papers should be original and unpublished. The copyright of the paper will be reserved by the Institute one it is accepted for publication in the Journal. Papers not accepted in the journal will not be returned.

12. Two hard copies of the paper/article along with a CD should be submitted to:

The Editor/The Secretary General
The Institute of Bankers, Bangladesh
DR Tower (12th floor)
65/2/2 Bir Protik Gazi Golam Dostogir Road
(Box Culvert Road), Purana Paltan, Dhaka-1000.
E-mail: ibb.diploma@gmail.com

List of Suggested Topics for Publication in the Journal:

1. Structure and Regulation of the Financial System
2. Role and Pricing of financial market instruments
3. International Monetary Reform & New Economic Order, Current Issues in International Banking.
4. Financial Intermediaries—its importance to Economic Development and Securities Markets
5. Money & Business Cycles, Inflation, Interest rates & Monetary Policy, Debt Management
6. Interest rates — Behavior, Risk and Term Structure
7. Islamic Finance and Banking, Equity based Islamic Finance
8. Credit markets and Credit Analysis — Transaction costs, Asymmetric Information, ICRRS, and Political Economy of Default
9. Financial Sector Reforms—interest rate liberalization, classification and provisioning, capital adequacy–Basel Accord on risk based capital requirement
10. Loan Monitoring and Recovery Technique –A Queue to Banking Prospects
11. Foreign Exchange Markets — Managed Float and Freely Floating currency, Currency convertibility, Exchange rate in the short run and long run, Explaining changes in exchange rate, Volatility of Exchange Rate, Trends in Bangladesh's Balance of Payments, Managing Exchange Rate Risk
12. Financial development and economic growth—Financial Crisis
13. Central Bank Supervision , Monitoring and Independence
14. Management of Financial Institutions—Asset & Liability Management, Managing Credit Risk, Managing Interest Rate Risk & Strategies, Off-Balance-Sheet Activities, Financial Innovation
15. Effective Bank Marketing and Financial Product Development in Bangladesh–Marketing and Corporate Strategy for Financial Institutions–Market Structure–Competitive Environment–Marketing decisions–Serivice design, Marketing of Financial Products–Market Research in Bank Marketing Information System, Problems and Issues of Bank Marketing
16. Banking Industry—Structure, Competition, Products and Services Diversity, Cost and Scale Efficiency, Consolidation, Prudential Regulation and Supervision, and Governance problem
17. Human Resource Manangement for a Good Banking Governance–Needs and Planning, Job Analysis, Training, Stress Management and Creativity, Information Technology in Human Resource Mnangemnt, Service Regulations, Banking Governance–Criteria, Problems, Suggestions.
18. Development Financial Institutions in Bangladesh – Their role and problems
19. Non-bank Financial Institutions—Leasing financial instituions–growth and potentiality, role in credit, savings mobilization & problems of NBFIs, Merchant Banks—Role in capital market & problems
20. E-Business and E-Banking, Automation and Electronic data processing in Bangladesh

21. Financial Market Integration in Developing Countries–Regional Financial Integration, Cross Border Integration, Policy Implications for Developing Countries–Approaches and Lessons
22. Globalization and Trade Liberalization–Challenges and Threats, Export Thrust Sector interms of Competitiveness, new markets identification and new products development, Tariff Structure and Value Addition
23. Productivity Trends in Bangladesh with special reference to industry and agriculture
24. Development of Agriculture in Bangladesh and the Role of Credit
25. Regionalization—custom union, Free Trade, SAARC and SAPTA
26. Capital Market Development—Bank-based financing vs. security based financing, Liquidity, transparency and volatility of stock market, Problems and Prospects, Regulation of security markets, Market Efficiency and Over-reaction, Bubbles and Stock Market Crash
27. Opportunity for DFI and Foreign Portfolio Investment in the Emerging Capital Market–Risk and Return, DFI's roles–prospects, problems and remedies, Foereign Investors' Stimulative role
28. Disclosure, Financial Reporting, Sustainability Reporting of FIs and Corporate Governance of Banks.
29. Reaction of Security Price to Announcement of Earnings, Dividend, Capital Structure Change, and so on—Event Study.
30. Initial Public Offerings (IPOs)—Pricing and Long-run under-performance, Hot Issue Phenomenon, Operating Performance, Earnings Management, Earnings Forecast Error
31. Mutual Funds—Growth and Performance—timing ability and selectivity
32. Growth, Dividend, Capital Structure and Ownership Structure of Listed Companies in Different Industry
33. Corporate Risk Management and its Strategy, Equity Management Risk and Portfolio Insurance
34. Insurance—Industry Structure, Conduct and Performance, Loanable Funds, Growth, Investment Portfolio, Insurance Policies and Risk Coverage, Acturial Pricing etc.
35. Micro Credit and MFIs—Extent and Intensity of Poverty, Poverty Alleviation and Outreach, Assessment of Different Models of Services Delivery, Impact Evaluation, Sustainability of MFIs and of Borrowers, Standardization of Accounts, Regulations, Governnace of MFIs.
36. Mobile Funancial Services- Cashless Society, Financial Inclusion.
37. Fintech, Block Chain, Big-data analysis, Machine Learning and Artificial Intelligence in Banking and Crypto currency
38. Cyber Security
39. Crowd Funding, P2P lending
40. Bond Market --Perpetual Bond, Subordinate Bond, Green Bond, Blue bond and Shariah compliant Shukuk, Green-Shukuk Al Izara and Al Istisnah

Journal of the Institute of Bankers, Bangladesh
Volume 64 Number I & II
January-June, 2017 ~ July-December, 2021

CONTENTS

The Journal of the Institute of Bankers, Bangladesh, is published yearly and provided free to members. Non-members may obtain copies of the Journal from the Institute on payment of Tk. 75.00 each.

Published by ***The Institute of Bankers, Bangladesh,*** *DR Tower (12th Floor) 65/2/2, Bir Protik Gazi Golam Dostogir Road (Box Culvert Road), Purana Paltan, Dhaka-1000, Bangladesh. Tel: 88-02-55112857-60, Fax: 88-02-55112856, E-mail: ibb.diploma@gmail.com and Printed at Tithy printing & packaging 28/c-1, Toyenbee Circular Road, Motijheel, Dhaka-1000.*