BBTA Journal

Thoughts on Banking and Finance

Volume 2 Issue 2
July-December 2013

Bangladesh Bank Training Academy
Mirpur-2, Dhaka-1216

BBTA Journal

Thoughts on Banking and Finance

Volume 2, Issue 2
July-December 2013

Bangladesh Bank Training Academy
Mirpur-2, Dhaka-1216

BBTA Journal

Thoughts on Banking and Finance

(A Journal of Bangladesh Bank Training Academy)

Volume 2 Issue 2

July-December 2013

For all sorts of correspondence:

The Executive Editor
BBTA Journal "Thoughts on Banking and Finance"
Bangladesh Bank Training Academy (BBTA)
Bangladesh Bank, Head Office, Mirpur-2, Dhaka-1216, Bangladesh
Phone: 880-2-8054247, Fax: 880-2-8032110
E-mail: awwal.sarker@bb.org.bd

Price:	Inland	BDT	100.00
	Foreign	US$	2.00

Note: The Editorial Advisory Committee, Editorial Board, Executive Editor and BBTA Journal Management Committee do not bear any responsibility for the views expressed in the papers by the contributors.

Table of Contents

Editorial Note

The Bangladesh financial sector has been repeatedly confirmed by positive ratings of top global agencies including Standard and Poor’s, Moody's and Fitch. Bangladesh is continually strengthening its financial sector management and supervision practices in line with best global practice standards. It has adopted a risk-focused capital adequacy regime called Basel II; and it is currently adopting a revised version (Basel III) which will boast new capital norms, new liquidity coverage and leveraged criteria. The stable and resilient banking sector further evidenced by the country remaining unimpaired during both the East Asian currency crisis, and the subsequent global financial crisis. Current global economic and geopolitical developments have led Bangladesh to focus more on Asia and the East for acquiring new trade and investment.

The central bank is deeply grateful for Japan’s eagerness to help Bangladesh gain acceptance to the Regional Comprehensive Economic Partnership. Bangladesh’s inclusion in this regional value chain will be of great mutual benefit. The Japanese will use Bangladesh as a cost efficient manufacturing base for major items such as: automobile parts, electronic goods, consumer apparels and various other consumer goods. As a World Trade Organization founder member, Bangladesh is fully open in external trade; and as a low income economy, they enjoy favored access to most of the advanced economy markets.

Bangladesh’s policy stance on Foreign Direct Investment and Foreign Policy Initiative inflows are among the most liberal in South Asia. The central bank is continually engaging with local foreign investor communities in Bangladesh for facilitating a variety of business related external transactions. Such transactions include: inflows of debt and equity; outflows of royalty and technical fees, profits and dividends and disinvestment proceeds including capital gains. An enhancement to the family remittance ceiling for expatriates is subject to 75% of salaries, and reparability of sales proceeds of foreign equity in unlisted companies. It is further based at fair value, on assets, income and earnings opposed to net asset value. Because of this, foreign owned businesses can now access local and external financing on the same basis as locally owned businesses. Further their interest free short term borrowing from respective parent company’s at home require no prior approval of the central bank.

The Bangladesh labor force is filled with semiskilled workers, young science and technology graduates, and Society of Manufacturing Engineers. The labor force is attractive to foreign investors currently in the country as they can hire at lower costs than anywhere else. Additionally, joint venture options with the private and public sector are open to Japan and other foreign investors. It is noted that Japan has proven eager to aid Bangladesh in its effort to achieve Higher Middle Income Status as well as Advanced Economy Status. Both of these levels are expected to be reached by Bangladesh in 2030 and 2040 respectively.

To protect the banking sector of Bangladesh from systemic risk, the Bangladesh Bank is considering adopting macroprudential tools including the countercyclical capital buffer and dynamic provisioning to address pro-cyclicality. Significant (above average trend) credit growth is the strongest of many possible early predictors of a financial crisis. Adopting countercyclical capital requirements would serve to protect banks against future deterioration in credit quality, while maintaining GDP growth. Dynamic provisioning, which raises general provisioning requirements during booms will allow for a surplus of loan-loss reserves to help banks avoid negative earnings surprises and possible undercapitalization in a crisis. Historically, banks that voluntarily built up their provisions during economic boom have emerged from a crisis much stronger than their competitors. Due to this, they were more efficient in taking advantage of recovery in both the level of economic activity and business demand for credit.

The concept of Domestic Systemically Important Banks (DSIBs) is emerging as another matter of concern for financial stability. Due to its heightened significance, DSIBs may have a contagion effect on other interconnected banks if a shock arises to liquidity or solvency. This situation may also lead to bank failures. The Financial Stability Department of the Bangladesh Bank has developed the methodologies for identifying such banks following international best practices. The bank is currently working on methods of supervising them in an effort to keep the financial system prosperous. Furthermore, Bangladesh has developed (and implemented) an interbank transaction matrix. This matrix can signal possible contagion from interconnected exposures of 87 institutions in the banking and Non-Bank Financial Institution system. Bangladesh Bank has taken plausible initiatives towards developing the 'Contingency Planning and Bank Intervention/Resolution Framework' which is developing recovery and resolution tools as well as modeling templates for banks to submit their own Recovery and Resolution plan. Banks will be required to submit these plans on a regular basis, which will identify options of restoring financial strength and viability when the bank faces severe stress.

To move beyond the traditional banking supervision mechanism, Bangladesh Bank has been leading the way in coordinated supervision. With the participation of other financial market regulators, one policy does not hinder the effectiveness of another. Stability in the financial sector, however, will not be achieved through prudential policies and market discipline alone; it further requires contributions from monetary and fiscal policies. Bangladesh Bank is also planning to publish a systemic risk dashboard that consists of key financial stability indicators on a quarterly basis. The central bank hopes this will meet stakeholders' expectations.

The central bank will need to supplement the above financial system changes, as well as economic trends with research and analysis. The purpose is to address the on-going issue of the country's financial sector.

Key areas of research are listed below:

(a) Revisit the current monetary policy framework of the Bangladesh Bank to ensure its continuing effectiveness of monetary policies. Specifically the monetary policy framework needs to evolve as market deepening and changes in degree of openness affect existing transmission channels (and open up new ones). Monetary targeting retains relevance in less advanced, less open economies while inflation targeting is the more typical framework in advanced open economies. The linkages between prices and the various monetary variables utilized in the monetary policy frame work needs to be occasionally reviewed to ensure relevance in the evolving market context.

(b) Review any linkages between price variables and monetary variables evolving with time in the Bangladesh economy: Review linkages between real sector growth variables (GDP and GNP). Review price variables (CPI, WPI, asset prices, interest rates, and exchange rates) and monetary variables (M2, M3, credit growth, bop trade, current and capital account balances). Examine the trends of correlations, (leads and lags). Examine the trends of correlation between real sector and financial sector prices. Lastly, discuss the likelihood of inflation targeting as a suitable option for Bangladesh.

(c) Review the present regulatory and supervisory framework to identify needs of changes for enhancing financial sector resilience and stability: techniques of risk-based integrated supervision and regulation of banks and financial institutions need to be strengthened in line with Basel core principles to ensure solvency, liquidity, capital adequacy and sound risk management in banks and financial institutions of Bangladesh.

Key research papers of this issue outlining the above are listed below.

The first paper titled The Impact of Financial Development on China's Economic Growth- an Empirical Study by Xiaolong Zhu, Weidong Zhu, Shuai Ding and Wencun Shu reviews financial and economic growth theories on employment adopting panel data of 27 provinces of China from 1995 to 2010 and on the basis of panel data model tries to measure the influence of two different organizations on economic growth: banks and non-bank financial institutions. The derived results show there to be a significant economic correlation between economic growth and banks instead of non-bank financial institutions. On this basis, the paper further examines the reform of financial institutions. Finally, a conclusion is drawn that large state-owned banks should be commercialized and a new financial system composed of medium and small banks should be established.

The second paper, The Vision 2021 of Bangladesh, associated Perspective Plan and upcoming 7th Five Year Plan and Possible Roles of the Financial Sector to Stimulate Growth by Professor Dr. Shamsul Alam. The paper explains the guiding principles of the Seventh five year plan; in particular, the vision to achieve middle income status of the country by 2021. It underscores that this will remain a core development objective. The macro-economy is facing different socio-economic challenges from overheating of the economy and adverse developments in the stock market; but the corrective policy actions suggested in the plan will minimize the damages and restore macroeconomic stability. The paper observed that while the above record of progress is comforting, the government needs to understand that the reform agenda is unfinished. The GDP growth rate is healthy but below the targeted rate in the Sixth Plan. Progress in improving the investment rate is less than satisfactory and must be strengthened to accelerate the growth rate in order to achieve the middle income status envisioned in Vision 2021 and the nation's first Perspective Plan.

The third paper, The Green Banking (GB) in Bangladesh: Conceptual Aspects and Implementation Status. by Md. Shahid Ullah and Tahmina Rahman. The paper presents an over view on the implementation status of green banking in Bangladesh which is still in an elementary stage. The authors find that Bangladesh Bank has been helping government in implementing environmental laws in the financial sector. Occasionally it has also been issuing environmental circulars as well as introducing refinance facilities which encourage banks for sustainable financing. The circular on ‘Policy Guidelines for Green Banking’ is a noteworthy step on the way to promoting green banking practices in Bangladesh. The paper observes that the banking sector has been facing significant challenges in implementing this direction from the central bank. These challenges are due (in part) to the developing nature of the country and include the lack of enforcement of the environmental laws. Further issues include: the inability to adopt modern technology, shifting ‘red’ industries to appropriate location, and unawareness of the end-users. The Department of Environment (DoE) is not duly shouldering its responsibility. Clearance from the DoE is one of the requirements for obtaining finance from commercial banks for the industrial units. Banks have been complying with the requirements. However, it is obvious that the arrangement is hardly playing any role in environmental protection because the certificate can be managed any way. As a developing country Bangladesh struggles to afford modern technologies. It is inefficient to abandon the technologies currently in use. Moreover, the lack of political commitment and bureaucratic complexity is also responsible for the delay in shifting the red industries. These industries include tanneries, pharmaceuticals, chemicals and others. The consumer group in Bangladesh is very vulnerable and most are unaware of green practices. They are hesitant to pay extra for cleaning up industrial hazards. The time frame as per the policy guideline for green banking of Bangladesh Bank is applicable for all banks irrespective of bank size. This suffers from the problem of ‘one size fits all’. The large banks especially the State-Owned Commercial Banks (SCBs) dominated by rural branches cover about half of the bank branches of the country. Moreover, most of the branches of SCBs do not have online banking facilities. As a result, they are facing more difficulty in following the policy guideline, especially in preparing the inventory of utilities, doing paperless banking and the like. The new banks are far behind the journey because of lack of skilled manpower in formulating green policies, strategies, and other documents. Moreover, the absence of coordination among commercial banks, Bangladesh Bank, the Department of Environment, law enforcing authorities, other government agencies, environmental NGOs, and the end-user are all challenges in pursuing green banking in Bangladesh.

The paper suggests that the challenges faced by the commercial banks can be overcome by the active participation of all stakeholders. The prevailing environmental laws are more than enough but their effective enforcement is urgent. Dedicated political commitment can mitigate the industrial pollution. The electronic as well as print media can play vital role in raising awareness among the end-users. Moreover, additional training, workshop, and seminars can be arranged to educate people about green banking. The deadline for implementation of different phases of green banking should be commensurate with the size and capacity of different banks. Finally, the paper strongly recommends that Bangladesh Bank, commercial banks, government agencies and other stakeholders work together to achieve the vision of green banking and a green economy in Bangladesh.

The fourth paper A Study on Regulatory Compliance in Preparing Financial Statements of Listed Non-Bank Financial Institutions in Bangladesh by Md. Mahabbat Hossain and Ms. Maksuda Khanam finds that non-bank financial institutions (NBFIs) prepare their financial statements complying with the requirements of different regulators. The study analyzes the effectiveness of regulatory initiative in this regard. A list of 120 disclosure items was selected consulting the related regulators and their regulations. The study covered 20 non-bank financial institutions, which are listed on DSE (2008 data); further data has been collected from the annual reports of the concern firms for the years 2008 and 2011. The results show that the industry average total disclosure score was 83.17% in 2011 which was only 56.17% in 2008. This improvement has been possible because of the active regulatory initiatives taken in this regard. It indicates that the firms are very much reluctant to comply if the regulators do not push them. Therefore, to ensure full compliance with all requirements it is important to strengthen the capacity of the regulators for close supervision and monitoring. To ensure accounting information to be relevant, reliable, comparable and consistent for pragmatic decision making of the users, regulators should impose some requirements for preparing financial statements that may protect the interest of all types of stakeholders. There is no specific provision for them who are not preparing the financial statements complying with all requirements. However, the regulators, to review the compliance status of firms on regular basis, may establish a separate review cell. The accountancy professional body, ICAB may prepare a disclosure checklist, which maybe circulated among the auditors. Auditors may also consider the checklist while auditing the FSs of a firm. This type of regulatory initiative may be taken for other industries also that could improve disclosure level of the firms.

The fifth paper, Implementing BASEL III in Bangladesh: Benefits, Challenges, Options and Opportunities, by Md. Shahin ul Islam, Md. Ala Uddin, and Mohammad Shahriar Siddiqui highlights the strong debates over the impact of the new bank regulatory standards on capital and liquidity, known as Basel III. Basel III (issued by Basel Committee on Banking Supervision) works towards solving existing macroeconomic conditions and discusses the benefits, challenges, options and opportunities of implementing higher capital ratios (and liquidity standards) in the Bangladesh banking industry. The new capital accord is scheduled to be implemented in January, 2013. The standards will be a full regulatory requirement as of January, 2019. The authors find that through Basel III implementation, Bangladesh, as a country may achieve the following benefits: reduced crisis probability, reduced amplitude of business cycle, and enhanced resilience of the financial sector. There is however a possibility that the framework may impose increased cost on output, raising lending rate, slower credit growth, adverse impact on profitability and encourage shadow banking activities in the country. This new accord may adversely affect the smooth development of the Islamic banking industry as well as necessitate additional monetary policy intervention. The paper concludes that a rigorous quantitative impact study on probable cost and benefit of this framework may be initiated before starting implementation of the new Basel framework. This will ensure the greater resilience and robustness of the banking sector without hurting economic growth of the country.

The final paper, titled The Impact of Private Sector Credit on Output and the Price Level in Bangladesh by Dr. Sayera Younus and Nazmun Nahar Mily examines the relationship, if any, among the private sector credit (with output as proxies) by the industrial production and the price level in Bangladesh. In this regard, they reviewed different literature and find that in many developed and developing countries, private sector credit has played a critical role in allocating resources efficiently for investment and is considered to be an engine of economic growth. Impulse Response Functions and Variance Decompositions derived from Vector Auto Regression (VAR) and Granger Causality tests are used to examine the relationship for Bangladesh. The outcomes of the econometric results suggest that private sector credit has positive and significant effect on economic growth however, it is also inflationary. They find that this result is consistent with the conventional belief that when an economy starts to grow it creates immediate additional demand for financial services and helps grow a better financial system. At this stage, the positive impact of financial development on economic growth could be modest or negligible. As development proceeds, a better and well-functioning financial system is established where it can contribute to a greater extent to income growth. The policy implication of the findings is that careful attention is required while expanding private sector credit so that much of the credit goes for productive investment rather than consumption purposes because of its impact on inflation in Bangladesh.

Md. Abdul Awwal Sarker
General Manager, Research Department
Faculty Member, Bangladesh Bank Training Academy
Executive Editor, BBTA Journal 'Thoughts on Banking and Finance'

References:

1. Welcome Address of the honorable Governor, Bangladesh Bank **Dr. Atiur Rahman**, delivered at Japan-Bangladesh Business Forum meeting held at Pan Pacific Sonargaon Hotel, Dhaka on September 6, 2014 on the occasion of the visit of the honorable Japanese Prime Minister H.E. Mr. Shinzo Abe to Bangladesh.
2. Speech of the honorable Deputy Governor of Bangladesh Bank **Mr. Shitangshu Kumar Sur Chowdhury** delivered at Bangladesh Bank Head Office, Dhaka on September 3, 2014 on occasion of the unveiling ceremony of Financial Stability Report (FSR), 2013.
3. Financial Stability Report 2013, Bangladesh Bank.
4. Strategic Plan 2010-2014, Bangladesh Bank.

The Impact of Financial Development on China's Economic Growth - An Empirical Study

Xiaolong Zhu[1,2,3], Weidong Zhu[1], Shuai Ding and Wencun Shu[2]

Abstract

Through employing financial and economic growth theories and adopting the panel Data of 27 provinces from 1995 to 2010, this paper uses the panel data model to measure the influence of two different organizations on economic growth: banks and non-bank financial institutions. Results show that there is a significant and economic correlation between economic growth and banks instead of non-bank financial institutions. On this basis, this paper further examines the reform of financial institutions. Final\y, a conclusion is drawn that large state-owned banks should be commercialized and a new financial system composed of medium and smal\ banks should be established.

Keywords

Financial development; banks; non-bank financial institutions; economic growth; panel data model.

I. Introduction

Finance is the core of the modem economy. Global economic development history has repeatedly proven that both financial depression and overheated finance can undermine economic growth. Under the circumstance of the global financial crisis, it is especial\y vital to recognize the relationship between financial development and economic growth and establish a modem financial system in conformity to rapid economic growth so as to ensure consistent, healthy and rapid economic growth. Since the Reform and Opening Up, China's finance has experienced a deepening and progressive phase. During this process, banks occupy the leading position in the financial system, and play an increasingly prominent role in social capital allocation and economic growth. Nevertheless, the state-owned economy is overprotected, and loan risks of state- owned enterprises aredeliberately lowered, consequently, more credit funds flow into inefficient sectors and the economy becomes inefficient. Therefore, it can be il\ustrated that the national financial system is weak and it needs further reform to adapt to the demands of economic growth.

1. School of Management, Hefei University of Technology, Box 270, Hefei 230009, Anhui, PR China
Email: gdzwd@mail.hf.ah.cn dingshuai@hfut.edu.cn
2. Anhui Business Vocational College, Hefei 231131. Anhui, PR China. Email: swencun2012@qq.com
3. Corresponding author, Email: zhuxiaolong2008@163.com

On the premise that future economic growth can response to financial development, namely, financial institutions can offer necessary funds to relevant projects and enterprises which enjoy promising prospects, this paper adopts the panel data of 27 provinces from 1995 to 2010 to examine the relationship between financial growth and high economic growth rate as well as compare banks and non-bank financial institutions in terms of their impact on economic growth.

2. LITERATURE REVIEW

There is undoubtedly a close relationship between financial development and economic growth in the modern economy. Overseas scholars have deepened their studies to cover the micro-levels including the region, industry and enterprise. Goldsmith (1969) [1] creatively put forward stock and flow indexes to measure the financial structure and development level, and the financial interrelations ratio (FIR) is the most significant index. Mckinnon and Shaw (1973) [2] cooperated in studying economic growth from the financial development perspective and advocated the financial repression theory in respective works. They held that ―price distortions and other financial instruments of the interest rate and exchange rate can lead to a decrease of the actual economic growth rate and financial system scale and that ―new strategies like financial liberalization strategy which can deepen the financial effect (or exert other effects) are vital to the liberalization of economic development.

Cheng and Degryse (2006)[3] came to a conclusion that banking financial development played a significant role in promoting regional economic growth through the empirical study of the panel data model. Guariglia and Poncet (2008)[4] made a parameter estimation of financial development and economic growth through the systematic generalized matrix, and concluded that financial distortions can finally impede economic growth. Sassi and Goaied (2012) [5] focused on the study of the impact of financial development and information and communication technology on economic growth, and reached a conclusion that information and communication technology played a prominent role in stimulating financial development and economic growth whereas it took place only when the development level of information and communication technology reached a threshold value. Ayadi and Arbak (2013)[6] studied the relationship between financial sector development and economic growth through the analysis of the panel data of northern and southern Mediterranean countries from 1985 to 2009, and draw a conclusion that there was a negative correlation between private loans, banking deposits and economic growth. Moreover, they also elaborated the defects of loan allocation and financial surveillance as well as the importance of the stock market scale and mobility to economic growth.

Domestically, there are also rich studies in this regard. Zhang Lina and Wang Jing (2013)[7] examined the relationship between rural financial development and economic growth through the use of Pagano model and the analysis of and rural financial data. Zhang Qian (2012)[8] applied the co-integration analysis, error correction model (ECM) and Granger causality test into the research, and proved that there was a long-term and equilibrium relationship between rural loans and rural economic growth, and loans played an important role in stimulating agricultural development. Yu Li and Zhao Xinwei (2012)[9] used the VAR model and relevant data concerning financial development, divided research indexes into the trend variable and volatile variable, then reached a conclusion that there was a co-integration relationship between financial development and economic growth, namely a long-term and equilibrium relationship. Yin Zongcheng and Li Xiangjun (2012)[10] carried out an empirical study on the relationship between the financial development scale, entrepreneurial spirit and economic growth through the generalized least squares estimation method. Results showed that it was through enterprising that capital support could be guaranteed for economic growth. Lin Yifu (2007)[11] analyzed the financial structure, with the banking structure included, and its significance to economic development. He reached a conclusion that the situation when a financial structure and a banking structure matched the economic one was favorable to economic growth, and vice versa. Xu Lili and Hu Jie (2012)[12] made a quantitative analysis of the domestic transmission channel through which financial deepening influences economic growth with five indexes (loan balance, GDP, consumption rate, investment rate, ring growth rate of GDP per capita) and held that the consumption rate and the investment rate were two significant and stable transmission channels (the former one was the major one) between financial deepening and economic growth.

To sum up, we have in practice explored the significance of financial development in economic growth. Due to financial liberalization to some extent, some developing countries had to suffer from the financial crisis, but they learned to develop the economy through financial constraint in a meticulous way under the guidance of the financial repression theory. Nevertheless, current studies are limited to the role that financial institutions as a whole play in economic growth and the causality relationship between them. Two problems remain unsolved here: there is a relatively big gap among various regions in terms of financial development in our country; and the whole financial system consists of two different organizations: banks and non-banking financial institutions. Do these two types of financial institutions differ greatly in their role in promoting economic growth and which type is more influential? Therefore, a clear understanding of the relationship between these two types of financial institutions and economic growth is favorable to the improvement of the financial institutional reform and thus the economic development.

3. RESEARCH DESIGN

This paper bases on the theoretical model of the relationship between financial development and economic growth advocated by King Levine, and develops it into a detailed empirical model. Through establishing a fixed effect panel data regression model with the panel data of 27 provinces from 1995 to 2004, this paper examines the internal relationship between financial development and economic growth, and specifically discusses and compares the role that banks and non-bank financial institutions play in stimulating economic growth respectively.

3.1 The Design of the Panel Data Model

To overcome the limitations of traditional studies which deal with the impact of the overall development of financial institutions on economic growth and the causality relationship between them, and in light of the disparity of financial development among various provinces and regions as well as different roles of banks and non-bank financial institutions in economic growth, this paper adopts the extended Cobb-Douglas production function (C-D production function) and establishes the fixed effect panel data economic quantitative model as follows.

$$GYP_{i,t} = \alpha_0 GDP_{i,t} + \alpha_1 GK_{i,t} + \alpha_2 FI_{i,t} + \alpha_3 CON_{i,t} + \sum_{i=1}^{I} \delta_i U_i + \sum_{t=1}^{T} \phi_t V + \varepsilon_{i,t}\, t \qquad (1)$$

$GYP_{i,t}$ is the actual growth rate of GDP per capita at t o'clock, i,t 1 $GDP_{i,t\text{-}1}\tilde{}$ is the actualinitial GDP value per capita, GK is the actual growth rate of capital stock per capita, and $FI_{i,t}$ is the financial development index of either the bank or the non-bank financial institution at t o'clock in the province i. U refers to a series of dummy variables, V_t refers to temporal dummy variables which have already been set, and both δ, and φ, are regression coefficients. $CON_{i,t}$ refers to the control variable information set which includes foreign direct investment (FDI), the ratio between FDI and GDP, fixed asset investment and the ratio between fixed asset investment and GDP. To guarantee the stability of variables, variables in this model have been calculated through the first difference method. This paper adopts the panel data of 27 provinces from 1995 to 2004, the advantage of which lies in the fact that the relationship between variables can be estimated even in a short period of time and the model is free from the influence of temporal variables.

To discover the relationship between financial development and future economic growth, outdated financial development indicators are introduced in the panel regression.

$$GYP_{i,t} = \alpha_0 GDP_{i,t\text{-}1} + \alpha_1 GK_{i,t} + \alpha_2 FI_{i,t\text{-}1} + \alpha_3 CON_{i,t} + \sum_{i=1}^{I} \delta_i U_i + \sum_{t=1}^{T} \phi_t V + \varepsilon_{i,t}\, t \qquad (2)$$

Generally, the Ordinary Least Squares (OLS) is adopted in the Model (2). Suppose the outdated FI is an exogenous variable and there is no heteroscedasticity or autocorrelation, but problems will arise when these assumptions are interfered. For instance, heteroscedastic or auto-correlation errors are usually found in the panel analysis, nevertheless, this problem can be resolved through introducing an exogenous standard error or first difference data. According to the analysis, heteroscedasticity can be detected. And the Model (2) adopts the robust standard error. The analysis of a country's fixed samples can help decrease potential endogenous problems. Another issue worthy of paying attention to is the reverse causality relationship. The significant correlation between financial development and economic growth does not necessarily demonstr that financial development can contribute to economic growth. But just as what has been assumed, this paper only discusses the impact of financial development on economic growth.

3.2 Index Selection

To have a better understanding of the relationship between financial development and economic growth in each province, this paper adopts the actual GDP growth rate per capita instead of the economic growth index. According to the economic growth accounting equation, economic growth can be divided into capital growth, labor growth, and the improvement of the total factor productivity (TFP) growth rate. Concerning that financial development reflects the factor productivity, this paper will regard capital as the control variable which can directly stimulate economic growth (and the factor labor is temporarily not discussed here). Because fixed asset investment and material and capital stock are effective data to measure the capital amount, they are chosen to be explanatory variables. Moreover, the impact of FDI on economic growth is also taken into consideration. Major economic growth indexes are illustrated in the Table 1.

Table 1: Major Economic Growth Indexes

Major index	Explanation
AGDPGROWTH	GDP Growth Rate
IAGDP	Initial GDP
GDPGROWTH	GDP Growth Rate Per Capita
IGDP	Initial GDP Per Capita
ACAPITAL	Total Capital Stock Growth Rate
CAPITALGROWTH	Growth Rate of Capital Stock Per Capita
FDI	Foreign Direct Investment/Provincial GDP
INVEST	Fixed Asset Investment/Provincial GDP

In terms of financial development indexes, Levine made a comprehensive classification and analysis of them. Domestic scholars also put forward new indexes to measure China's financial development. Internationally, McClellan Index and Eugene Index are generally adopted. McClellan Index refers to the ratio between broad money stock and GDP (M 2/GDP) whereas Eugene Index (Financial Interrelations ratio) refers to the ratio between a nation's total financial assets and GDP/GNP. Because of the annual growth of household savings in China and a big proportion of M2-type foreign currencies, FIR is preferred by more experts. However, Levine (1993) also pointed out that bank current liabilities can better reflect financial depth than GDP. The author also holds that this index can reflect the bank scale enlargement as well as bank's activity level of capital allocation in national economy. Thus, this paper adopts four indexes to measure financial development in the following Table 2.

Table 2: Major Financial Development Indexes

Major index	Explanation
BANKD	The ratio between provincial GDP and local bank deposits, serving to measure the financial depth of local banks
BANKC	The ratio between provincial GDP and local bank loans, serving to measure financial resources provided by banks
NBANKD	The ratio between provincial GDP and the deposits of local non-bank financial institutions
NBANKC	The ratio between provincial GDP and the loans of local non-bank financial institutions

3.3 Data Sources

This article selects the panel data of 27 provinces from 1995 to 2004(except Tibet, Qinghai and Ningxia. And Chongqing is merged into Sichuan). Relevant data are estimated and obtained mainly based on the China Finance Yearbook and China Statistical Yearbook from 1995 to 2010 and China's provincial capital stock from 1995 to 2010 provided by Zhang Jun et al.

In our research, financial development indicators mainly employ the data from the Statistical Report of the China Finance Yearbook and bank financial institutions adopt the annual deposits and loan data from the Yearbook related with Five Banks in various provinces including four state-owned commercial banks and the Bank of Communications. By the end of 1994, these Five Banks had accounted for 96% of the total assets of bank financial institutions. Beginning from 1995, the China Finance Yearbook documented savings and credit data of rural credit cooperatives, certain selected trust and investment companies, financial companies and other non-bank financial institutions from various provinces. Only those that are considered as sufficiently large non-bank financial institutions can be recorded in the Statistical Yearbook, which may become the limitation of this article. As we failed to collect valid data in the provinces with a number of small institutions, the overall scale of non-bank financial institutions might be underestimated. So far, we assume that the sample error structure remains unchanged in the sample period.

Non-bank financial institution development indicators established in this article derive from rural credit cooperatives and other relevant non-banking financial institutions of various provinces. Although rural credit cooperatives are secluded like other non-banking financial institutions, aggregated data for all rural credit cooperatives of each province are documented in the China Finance Yearbook. However, in reality, instead of being —integrated into one entity, rural credit cooperatives are composed of .a number of small-scale ones in a particular province. Therefore, to some extent, it is likely that development Indicators of non-banking financial institutions are incorrectly estimated, which brings about unavoidable constraints to our data.

4. EMPIRICAL RESULT AND ANALYSIS

4.1 Descriptive statistics analysis

There are 243 variable samples. The result of descriptive statistics is as follows:

Table 3: Descriptive Statistics

Variable	Sample size	Mean	Standard deviation	Maximum	Minimum
GDPGROWTH	243	0.077	0.013	0.102	0.057
IGDP[a]	243	0.0471	0.313	3.390	0.302
CAPITAL	243	0.114	0.020	0.072	0.145
AGDPGWORTH	243	0.088	0.013	0.067	0.111
IAGDP[b]	243	1854.933	1397.122	141.774	5353.567
IAGDP[b]	243	0.121	0.080	0.080	0.158
BANKD	243	0.843	0.467	0.477	2.936
BANKC	243	0.683	0.224	0.402	1.223
NBANKD	243	0.141	0.053	0.049	0.268
NBANKC	243	0.109	0.041	0.038	0.224
INVEST	243	0.455	0.087	0.337	0.683
FDI	243	0.031	0.033	0.002	0.110

Table 3 conducts a simple description on main statistics with an emphasis on the huge differences between provinces. Among these provinces, Shanghai, as one of China’s economically developed cities, achieved GDP per capita of 73297.48 Yuan in 2010 while Gui Zhou Province only reached GDP per capita of 13024 Yuan that year, merely accounting for 17% of Shanghai’s. Among all provinces, the average ratio of bank deposits to GDP and that of bank loans to GDP are 0.843 and 0.683 respectively in bank financial institutions whereas the average ratio of deposits to GDP and that of loans to GDP are merely 0.141 and 0.109 in non-bank financial institutions. Thus, bank deposits and bank loans are more important than deposits and loans in non-bank financial institutions. The average ratio of bank deposits and loans is highest in Beijing and lowest in Shandong Province. Non-bank financial institutions develop most slowly in Qinghai Province and the proportions of non-bank deposits and of non-bank loans are highest in Shanxi Province and Guangdong Province respectively.

4.2 The Estimate of Fixed Effect Regression Model

Table 4: Fixed Effect Regression Model

Explained variables: **GDP GROWTH**

Variable	Model A	Model B	Model C	Model D	Model E	Model F
IGDP (Initial GDP per capita)	-0.334*** (0.000)	-0.331*** (0.000)	-0.342*** (0.000)	-0.343*** (0.000)	-0.334*** (0.000)	-0.330*** (0.000)
CAPITALGROWTH (Growth rate of capital stock per capita)	0.013 (0.840)	0.044 (0.510)	0.010 (0.882)	0.014 (0.827)	0.007 (0.912)	0.039 (0.562)
BANKD (Bank deposit/GDP)	0.070** (0.013)				0.062** (0.024)	
BANKC (Bank loan/GDP)		0.083*** (0.007)				0.084*** (0.006)
NBANKD (Non-bank deposit /GDP)			0.030 (0.121)		0.022 (0.157)	
NBANKC (Non-bank loan /GDP)				0.006 (0.667)		0.007 (0.521)
INVEST (Fixed asset investment /GDP)	0.044 (0.183)	0.046 (0.156)	0.025 (0.454)	0.031 (0.405)	0.036 (0.237)	0.043 (0.168)
FDI (Foreign direct investment/GDP	-0.001 (0.887)	-0.001 (0.992)	-0.000 (0.932)	-0.001 (0.992)	-0.001 (0.811)	-0.001 (0.854)
0bs Adjusted R2	243 0.922	243 0.927	243 0.937	243 0.921	243 0.932	243 0.930

Note: (1) * represents the passing of the 10% significance level,
** the passing of the 5% significance level and
*** the passing of the 1% significance level.
(2) What’s shown in parentheses is the small probability P.

Table 4 shows the regression result of Equation (2) under different conditions with the initial GDP per capita and the capital stock growth rate per capita being the explanatory variables and the GDP growth rate per capita being the explained variable. What model A and model B display is the regression result including the development indicators of bank financial institutions. Bank deposits and loans pass the inspection at the significance level of 5% respectively and their coefficients are both positive. This demonstrates that the development of bank financial institutions has a significant impact on economic growth and that bank credit can effectively stimulate economic growth. Model C and model D include the financial development indicators of non-bank financial institutions in the regression model. These indicators all fail to pass the inspection at the significance level of 10% and the development indicator in none of the non-bank financial institutions has a significant impact on economic growth. This shows that the financial development of non-bank financial institutions does not have a significant role in promoting local economic growth.

In the regression results presented in model E and model F, we can find that the financial development indicators of bank financial institutions and those of non-bank financial institutions are in the same model, which can illustrate the impacts of the entire financial institutions on economic growth and also show that the promoting effect of bank financial institution development on economic growth is obviously greater than that of non-bank financial institutions. The financial development indicators of banks and those of non-banks exhibit significant different impacts on economic growth. As has been mentioned above, with bank credits mainly concentrated in the state sector and non-bank credits primarily concentrated in the non-state sector, the loans of non-bank financial institutions have an estranged relationship with local economic growth while the loans of bank financial institutions play a key role in boosting local economic growth. The significant difference between bank financial institutions and non-bank financial institutions demonstrates that financial sector credit does not simply develop along with economic growth. On the contrary, bank financial institutions have higher-quality borrowers than do non-bank financial institutions and are superior to them in the evaluation of loan credit and loan repayment. Thus, bank financial development plays a critical role in promoting China’s regional economic growth. Additionally, bank financial institutions also benefit a lot from financial deregulation.

Table 4 shows that FDI and fixed asset investment have an insignificant impact on economic growth. On the one hand, such result may mainly derive from the internal fixed effects of each province. Therefore, it is unlikely that FDI and fixed asset investment show great time sequence variation. On the other hand, as FDI is mainly focused in particular industry, the impacts of FDI increase in local economic growth may not necessarily be obtained through observation. That initial GDP per capita is negative in all models demonstrates that economic growth in China’s provinces has a trend of convergence. Due to the influence of rapid population growth and population flows between regions, the growth rate of capital stock per capita has an insignificant impact on local economic growth.

Table 5: Fixed effect model

Explained variables : **AGDPGROWTH**

Variable	a	b	c	d	e	f
IAGDP (Initial GDP)	-0.253*** (0.000)	-0.257*** (0.000)	-0.264*** (0.000)	-0.265*** (0.000)	-0.256*** (0.000)	-0.259*** (0.000)
ACAPITAL (Growth rate of total capital stock)	0.346*** (0.007)	0.379** (0.011)	0.386 *** (0.003)	0.388*** (0.002)	0.356*** (0.006)	0.384*** (0.008)
BANKD (Bank deposits/GDP)	0.027 (0.375)		—	—	0.028 (0.372)	
BANKC (Bank loans/GDP)	0.052* (0.093)		—	—	0.053* (0.096)	
NBANKD(Non-bank deposits/GDP)	—	—	-0.002 (0.853)	—	-0.004 (0.724)	
NBANKC (Non-bank loans /GDP)	—	—	-0.003 (0.647)		-0.002 (0.750)	
INVEST (Investment/GDP)	-0.043 (0.224)	-0.039 (0.302)	-0.051 (0.134)	-0.050 (0.163)	-0.043 (0.227)	-0.038 (0.327)
FDI (Foreign Direct Investment /GDP)	-0.001 (0.998)	-0.001 (0.954)	-0.000 (0.960)	-0.001 (0.942)	-0.001 (0.985)	-0.001 (0.967)
0bs Adjusted R2	243 0.932	243 0.929	243 0.927	243 0.932	243 0.933	243 0.937

Note: (1) * represents the passing of the 10% significance level,
** the passing of the 5% significance level and
*** the passing of the 1% significance level.
(2) What's shown in parentheses is the small probability P.

Based on the total GDP and total capital stock of each province, table 5 conducts a research on financial development indicators and obtains the regression result with the GDP growth rate of each province being the explained variable. Without taking into account the population flows between provinces, the total capital stock of each province undergoes little change within a certain time and the total capital growth rate of each province has a significant positive impact on local GDP. Although the financial development indicators of bank financial institutions still keep increasing, bank deposits have been unable to pass examination and even become negligible at the 10% significance level; and though bank loans can pass the examination at the 10% significance level, they have a significantly weakened impact on local economy. Financial development indicators of non-bank financial institutions have insignificant and even negative influence on economic growth. As for other control variables of table 5, the coefficient of initial GDP is negative in all models, which further shows that China's regional economic growth exhibits a trend of convergence. That the impacts of FDI on economic growth are still hard to observe and fixed asset investment has a negative effect on economic growth is probably due to the fact that China's provinces have varying degrees of digesting the economic growth brought about by fixed asset investment. Developed provinces can translate fixed asset investment into productive forces and create national wealth while less developed provinces fail to make good use of fixed asset investment which after offsetting with that in developed provinces exhibits negative impacts on economic growth on the whole.

5. CONCLUSIONS AND POLICY RECOMMENDATIONS

Through employing the regional panel data in China's 27 provinces from 1995 to 2010, this paper conducts an empirical research, investigates the relationship between financial development and economic growth, verifies the relationship of —financial development-high growth and further explores the impacts of financial development on economic growth from two different types of institutions - banks and non-bank financial institutions. Ultimately, we arrive at the conclusion that only the development of financial institutions has a significant role in promoting regional economic growth between provinces.

To better bring into play the role that financial development plays in promoting economic growth, we propose the following financial system reform recommendations based on our research findings.

5.1 Perfect the Transformation of State-Owned Commercial Banks and Play its Central Role in Financial Markets

Bank financial institutions, especially China's five commercial banks dominate China's entire financial system and play a key role in distributing funds. To improve China's financial system reform requires that first and foremost large state-owned banks must undergo commercial reforms to enable them to play their due parts, especially the critical role in supporting China's indispensable large and medium-sized investment projects.

5.2 Establish and Perfect the System of Small and Medium-Sized Banks as the Main Direction of China's Current Financial Reform

It is necessary not only to conduct commercial transformations on China's state-owned large banks but also to establish and perfect small and medium-sized banks, which is the correct direction of China's current financial reform. As the nerve center of the modern economy, a healthy financial system should be able to operate efficiently to meet various financial demands of economic development and also effectively guard against and defuse risks. However, generally speaking, small and medium-sized banks are more vulnerable to crisis than large state-owned banks and their dispersal renders it hard to supervise them. Therefore, it is all the more urgent to strengthen financial regulation and establish and improve mechanisms for risk prevention and mitigation. Of course, we shouldn't be put off easily by a slight risk and treat small and medium-sized banks passively because of risk issues. The successful development experience of foreign countries shows that small and medium-sized banks bear an irreplaceable important role in economic operation. Particularly, in the lower level of development in each country, small and medium-sized banks have more obvious effects. Even if the economy has developed quite mature, small and medium-sized banks with a reasonable mix of big banks also constitute a significant part of the bank system.

5.3 Treat State-Owned Economy and Non-State-Owned Economy Fairly as the Supporting Reform of the Financial System

The success of financial system reform entails reforms in other areas. In particular, it is necessary to continue to increase the intensity of financial reform to eliminate ownership discrimination in a commitment to equaling the status of the state-owned economy and non-state-owned economy in the process of financing and fully satisfying the investment demands of non-state-owned economy, thereby playing the huge potential of non-state economy to the utmost and the tremendous impetus on economic growth.

On the whole, China's financial system is compatible with its market status and current development stage. Still, there are deficiencies. After all, the financial system reform is a very complex and hard systematic project which still has a long way to go.

ACKNOWLEDGEMENTS

This work has been supported by the National Natural Science Foundation of China (No.71201042). This paper is sponsored by Key Program of Anhui Provincial Humanities and Social Science Fund (No.SK2013A027). Higher education project in Anhui Province (No.2013zdjy169).

REFERENCES

1. Allen F., Qian J. and Qian M., (2005). Law – Finance and Economic Growth in China. J. Fin. Econ., 77, 57-116.

2. King, R.G. and Levine, R. (1993). Finance and Growth. Quar. J. Econ., 108, 717-737.

3. Cheng, X. and Degryse, H. (2007). The impact of bank and non-bank financial institutions on local economic growth in China. LICOS Discussion Paper, 22, 1-49.

4. Guariglia, A. and Poncet, S. (2008).Could financial distortions be no impediment to economic growth after all evidence from China. Comparative Econ., 36(4), 633-657.

5. Mohamed Goaied (2013).Financial development, ICT diffusion and economic growth, Lessons from MENA region. Telecommunications Policy, 37,252-261.

6. Rym Ayadi, Emrah Arbak, Sami Ben-Naceurand Willem Pieter De Groen (2013). Bank Efficiency and Economic Growth across the Mediterranean. Mediterranean Prospects, MEDPRO Technical Report No. 30/March 2013.

7. Lina Zhang and Jing Wang (2013). Empirical Study on Relationship between Financial Development and Economic Growth in China's Rural Areas. J. Northwest A&F Univ. (Social Sci. Edi.), 3, 7-11.

8. Qian Zhang. (2012). Empirical Analysis of Relationship between Agricultural Credit and Rural Economic Growth. J. Northwest A&F Univ. (Social Sci. Edi.), 12(1), 55-60.

9. Li Yu and Xinwei Zhao (2012). At different times an empirical analysis of the relationship between financial development and economic growth in China. China J. Fin., 09, 34-35.

10. Zongcheng Yin and Xiangjun Li (2012). A Study on the Relation between Financial Development and Regional Economic Growth-Perspective on Entrepreneurship. China Univ. of Fin. and Econ. J., 11, 38-44.

11. YiFu Lin and Ye Jing (2012). The economic structure, banking structure and economic development–Based on an empirical analysis on the provincial panel data. China Fin. Res. J., 01, 7-23.

12. Lili Xu and Jie Hu (2012). Financial deepening of transmission channels for domestic research on economic growth. China dc Econ. J., 10, 57-59.

Perspectives of 7th Five Year Plan and Possible Roles of the Financial Sector to Stimulate Growth

Prof. Dr. Shamsul Alam[1]

Abstract

This paper explains the guiding principles of the Seventh five year plan. In particular, the vision to achieve middle income status of the country by 2021. It underscores that this will remain a core development objective. The macro-economy is facing different socio-economic challenges from overheating of the economy and adverse developments in the stock market. But the corrective policy actions suggested in the plan will minimize the damages and restore macroeconomic stability. The paper observed that while the above record of progress is comforting, the government needs to understand that the reform agenda is unfinished. The GDP growth rate is healthy but below the targeted rate in the Sixth Plan. Progress in improving the investment rate is less than satisfactory and must be strengthened to accelerate the growth rate in order to achieve the middle income status envisioned in Vision 2021 and the nation's first Perspective Plan.

The Plan Perspective

We all know that the Article 15 of the Bangladesh Constitution requires that the country should follow the path of a planned economy for realizing its development objectives. Accordingly, to fulfill this constitutional obligation and also to transform Bangladesh into a middle income country by 2021 a long term Perspective Plan named "Perspective Plan of Bangladesh (2010-2021): Making Vision 2021 a Reality", has been articulated. The Perspective Plan is a vision for the nation that gives us a road map for accelerated growth and portrays broad approaches for eradication of poverty, reducing inequality, and human deprivation. This long term development plan is being implemented through two successive Five Year Plans; Sixth Five Year Plan (FY 2011-15) and Seventh Five Year Plan (FY 2016-20).The Sixth Five Year Plan adopted a strategic approach to development that combines all instruments at the disposal of the government including rules, regulations, safeguards, institutions and public investment with a view to helping secure the major development targets of the Sixth Plan. The Seventh Plan would be seen as a continuation of the development strategy articulated in the Sixth Plan and for successfully achieving those targets the significance of the Financial Sector is indispensable. The preparation of the 7FYP is in progress at the behest of National Economic Council, Planning Commission chaired by the Prime Minister.

Sixth Plan core targets were: increasing agricultural productivity, spurring manufacturing and service sector growth, stabilizing the macro-economy to reduce poverty at a faster rate.

---

1. Member, General Economics Division, Planning Commission of Bangladesh. The paper presented at the 2nd Executive Development Seminar 2014 organized by Bangladesh Bank Training Academy on 6 April, 2014.

It is well-known that economic development and the maturity of the financial sector are strongly correlated. That's why the Bangladesh government has given immense weight to this sector in its plan document. In the 6th Five Year Plan emphasis has been given on improving prudential regulations and oversight/supervision responsibility/capacity of the Central Bank. It also emphasized on strengthening the quality of banking system as well as the performance of the State-owned Commercial Banks (SCBs) by ensuring better management and accountability by strengthening the oversight of the Bangladesh Bank. This was because of the high Non Performing Loans (NPL) ratio for SCBs. Although some progress has been made in recovering loans, this remains a major challenge for the SCBs.

Table: Ratio of net NPL to Total Loans of SCBs

2005-06	2009-10	2012-13
14.5	1.9	8.1

Source: Bangladesh Bank

Financial Sector Performance

The reason for this concern is both state owned and private commercial banks are suffering from nonperforming loans due to exposure to the stock market, stalemate in investment, and partly due to strengthening of provisioning requirements by Bangladesh Bank. All the performance indicators of the banking sector has shown downward trend since December 2011. During the period, the health of public sector banks has deteriorated at a faster rate compared to the private sector banks. The NPL ratio was improving steadily until December 2011 after which it started to increase.

This deterioration of gross non-performing loan (NPL) ratio of the banking system as a whole and particularly for the state-owned commercial banks causes the sharp drop in capital adequacy ratio also. The capital-to-asset ratio exhibited an upward trend for the last 2 decades till December 2011 after which there is a downward trend for the overall banking sector as well as the State Owned Commercial Banks. It is seen that while there is a falling trend for both, the capital to asset ratio has dropped sharply for the State owned Commercial Banks from 11.68% in December 2011 to 8.13% in December 2012, and thereafter dropped to 1.2 in June 2013 which should be considered as alarming for the health of the Financial Sector.

The financial cost of the increasing share of non-performing loans and the corresponding provisioning requirements impacted on the return on assets (ROA) and the return on capital (ROC) for the whole banking system, and state-owned banks in particular. The ROAs and ROCs for all banks including the state-owned commercial banks have been improving over last two decades until December 2011, when the trend reversed with continued fall in both the indicators for all categories of banks in subsequent quarters. The deterioration was more substantial for the state-owned banks from a peak of 1.34% in 2011 to -0.56% in 2012. If the stock market does not rebound very strongly, loan loss provisions and profitability of commercial banks may deteriorate further in future.

Further deterioration in the health of the banking sector—particularly on account of higher loan loss provisions--may lead to a widening of the interest rate spread. Recent loan loss in the state-owned banking sector has compromised the credibility as well as the performance of the banks. If the performance of state-owned banks becomes worse, the interest rate spread of the state-owned commercial banks may be wider and the private banks will therefore adopt similar increases in the interest rate spread in their banks even though the magnitude of their non-performing loans is lower. This may potentially undermine government's efforts to bring down the interest rate structure and the interest rate spread below 5% for the benefit of private sector investors.

Improving Macroeconomic Scenario

Over the last four years, Bangladesh showed outstanding performance in Macroeconomic arena. The annual average growth rate of GDP was more than 6.33 per cent. With a revenue growth of more than 21 per cent and share of revenue in GDP being 13.5 per cent, the country surpassed all the previous milestones in the sector. Foreign exchange reserve reached a more than stable figure of 19.2 Billion USD. Moreover, the current account balance is positive for a long time. Despite all this promising indicators, the investment scenarios of the country show some dampen figures.

Sluggishness of the overall rate of investment is of great concern. The Sixth Plan recognized the critical importance of this growth driver and accordingly sought to increase the investment rate from 24% (2009) to 32% of GDP by June 2015. However, the results so far show that the investment rate has increased only marginally to 28.7% (using new base year 2005-06).

Looking forward, what really matters for investors is the general investment climate and competitiveness of the economy. High priority needs to be given in improving the security situation and restoring political stability in a sustainable manner for boosting private investment and moving toward a path of economic recovery. Another possible reason may be the looming good governance by the present government. The Anti-Corruption Commission (ACC) got momentum than ever. A number of Banking scams are coming under penalty. This may induce some local investors to become dormant for a while. They like to do business in a more relaxed environment of wait and see.

Despite the continuing efforts for making the environment for protecting the investors and its continued favorable macroeconomic conditions, Bangladesh has failed to become an attractive destination for FDI compared to its regional comparators. Despite some recent improvements, Bangladesh's average (5-year average) net FDI level of less than 1% of GDP is the worst among the regional comparators. FDI flows in Bangladesh have been primarily limited to telecommunications, energy and investments in Export Processing Zones (EPZs). Recent expansion of telecommunication networks and the thrust on the power sector have helped sustain the growth in FDI. Reflow of foreign portfolio investment in the stock market following the market correction and some limited merger and acquisition by foreign firms in the garment sector outside EPZs have also contributed to the increased FDI level in FY13. Given the medium and long term growth prospects of

Bangladesh economy and its cheaper labor force, a large number of foreign investors are interested to invest in the EPZs and Private Economic Zones. However, in many instances these investors turn back and move to other destinations(Myanmar, Cambodia and Vietnam) due to non-availability of industrial land with proper infrastructure (gas, electricity, road connectivity, sewerage etc.). Urgent attention needs to be paid in this issue.

Resource Mobilization Targets in 6FYP

However, realization of the Sixth Plan objectives entailed involvement of both the private sector and the public sector. Although private sector continued to play its dominant role in the economy, public sector was mobilized to foster an economic environment more conducive for higher private sector production, investment, consumption and savings. Total investment under the Plan is amounted to Tk. 13.47 trillion in constant FY2011 prices. Much of the investment is undertaken by the private sector (10.39 Trillion Taka), although public sector investment plays a bigger role in catalysing much greater private sector investment under the Plan. Private sector investment (including through PPP programs) accounts for 77.1% of the total investment under the Plan, much of that from domestic sources. External financing for private investment, primarily in the form of foreign direct investment (FDI) is expected to grow, but will still remain modest in relative term at about 4.0 %. Of total investment, 91% has been postulated to be coming from domestic resources and the rest 9% would be coming from external source.

Table: Financing of Sixth Five Year Plan Investment (FY2011 prices)

Items:(Billion Taka)	Total	Share (%)	Public	Share (%)	Private	Share (%)
Total Investment	13469.4	100	3075.8	100	10393.6	100
Domestic Resources	12215.3	90.7	2239.6	72.8	9975.7	96.0
External Resources(net)	1254.1	9.3	836.2	27.2	417.9	4.0

Source: Sixth Five Year Plan Projection

Like the Sixth Plan, in the Seventh Plan also majority of the public sector investment is supposed to be financed from domestic sources comprising savings of the government sector, capital receipts, self-financing by the public enterprises, and borrowing from the domestic banking and nonbank sources. Use of external financing for project and budget support will be done flexibly within the context of prudent management of the external debt. This will mostly entail loans from the official bilateral and multilateral sources on best possible terms. The scope for a limited borrowing from the international capital market by the private sector may also be possible.

Total public sector spending under the SFYP, including spending on account of provision of public services and transfer payments and subsidies, is projected to be Tk. 9.6 trillion or 19.6% of GDP. The Plan envisaged a significant increase in the size of the government spending in relation to GDP in order to broaden the basic economic and social services across the country and improves the quality of public service delivery. The size of the public sector in Bangladesh is relatively small and the task of improving the quality and coverage of public service delivery will require a larger and more proactive role with a bigger domestic resource base to finance it in a sustainable and noninflationary manner. Banks can play significant role in this regard.

Seventh Plan will be a Continuum of the 6FYP

The Sixth Plan made a major change in the approach to economic planning in Bangladesh that has served Bangladesh well. Instead of setting detailed physical targets and milestones, the Sixth Plan adopted a flexible indicative approach to planning. This was well suited to the needs of the present economic environment of the country, where more than 90% of the economic activities are privately owned and additionally more than 80% of total investment is in the private sector. Like the Sixth Five Year Plan, the Seventh Five Year Plan will also follow the dependency more on the private sector. While public investment is an essential complement to private investment, GDP growth, human development and poverty reduction, policies and institutions are even more important to stimulate the private sector and achieve a higher level of equity. Government policies and institutions are essential to set a level playing field for all citizens, to protect the rights and interests of the under-privileged, and to provide an equitable mechanism for resolving all disputes.

Ensuring adequate levels of domestic credit for the private sector over the Plan period, within the aggregate limits of the targeted broad money expansion will require containing credit to the government (net) and other public entities within reasonable limits. The fiscal deficit targets under the Plan, while sustainable will however require sizable new borrowing from the banking system. If needed, the Government may have to seek additional external financing to avoid any crowding out of the private sector. Particularly important in this respect will be to limit credit to the loss making public enterprises which would potentially crowd out private sector credit and at the same time lead to the accumulation of nonperforming assets of the state-owned commercial banks. Loan provisioning to the SCBs also need to be gradually reduced by the Finance Division.

Focused Initiatives by the Central Bank Needed

It is appreciated that, to improve the efficiency of the banking system, strengthen the financial position of banks and ensure effectiveness of monetary policy, Bangladesh Bank has adopted a Strategic Action Plans (SAP) for 2010-14. Under those plans, strategy 7 stresses onenhancing regulatory and supervisory framework against money laundering. This is supposed to be done by meeting the international standard for AML &CFT (Anti-Money Laundering/Combating the Financing of Terrorism); strengthening of Financial Intelligence Unit (FIU); enhancing of regional and international cooperation; coordinating among law enforcement and related agencies; taking membership of EGMONT group. However, more careful initiatives should be taken in this regard.

The high level of reserves can play a very important role in accelerating the economic recovery of Bangladesh. Therefore, a number of major initiatives to boost domestic economic activity in the short term and major infrastructure projects to sustain higher growth over the medium term should be undertaken. Any bold initiative will require massive imports and related foreign currency denominated financing, a part of which can be covered through use of reserves. Additional fiscal stimulus and resurgent private sector investment demand can only be sustained without being constrained by external sector financing if the foreign exchange reserve level remains high and comfortable. The high level of reserves will also help maintain and further improve Bangladesh's sovereign rating, which will help catalyze higher foreign direct investment (FDI) in Bangladesh. In all respects, the high reserve level will help Bangladesh's strive for attaining the middle-income status in the post-political crisis period. However, happy days of increase in reserve may not be there if there is continuous decline in remittances unless there is accelerated surge in export earnings.

Bangladesh has been able to manage stable sovereign rating by both Moody's and S&P over the four consecutive years 2010-2013 due largely to stable economic growth supported by massive fiscal reforms and accommodative monetary policy. Despite, there has been double digit inflationary pressure throughout the FY 2011 owing to external factors and substantive growth of net foreign asset in the previous fiscal year, overall monetary sector registered balanced performance up until 2012-13.

The key objective of the monetary policy during the Sixth Plan period was to allow monetary aggregates to expand in a manner consistent with the growth and inflation targets envisaged under the Plan. In the Seventh Plan also, monetary policy stance should be targeted achieving higher economic growth as well as managing inflation. It means that, the broad money growth (M2), inflation, reserve money growth, private sector credit growth, public sector credit growth, government borrowing etc. all these should be targeted to achieve the growth target of the government not only targeting inflation alone. If the growth is higher then, some inflation could be accepted.

The priority for Bangladesh Bank should be to keep its focus on price stability by bringing down inflation. Also Bangladesh Bank's on and off site supervision needs to be strengthened and banks need to be more cautious about the quality of loans and thereby reduce the proportion of non-performing loan (NPL), if the interest rate spread is to be brought down in a systemic and sustainable manner.

The core theme of the Seventh Plan is proposed to be "accelerating growth with equity". This would suggest that utmost attention will be given to the ways that the GDP growth rate could be accelerated from the levels achieved in the Sixth Plan and how income distribution might be significantly improved. Higher GDP growth and better income distribution will ensure a faster pace of poverty reduction. Emphasis will be placed on improving the growth drivers and on policies, institutions and programs that will support the lowering of income inequality. The reduction in income inequality is not an easy challenge but the government is committed to making strong efforts in this regard. Financial sector can help improve both the quantity and quality of real investment and thereby increase income per capita and also boosting credit flows to SMEs for faster economic growth.

Considerably more effort will be needed in the Seventh Plan to accelerate the national rate of investment. Attention will need to be put to both public and private investment. The Seventh Plan will review the experience of the Sixth Plan in increasing the investment rate, identify the constraints and suggest ways the investment rate could be accelerated. This will likely require greater attention to public resource mobilization including tax reforms, a well-articulated foreign borrowing strategy to mobilize resources from official aid as well as private foreign capital, better incentives for domestic and foreign private investments, and improvement in the planning and implementation of public investment programs.

In today's modern Bangladesh the availability of financial services through the banking sector is a major determinant of private investment. The banking sector has on average done well and contributed to the growth of private investment. Several initiatives have also been taken to make finance more inclusive through micro-credit and other specialized programs of the banking sector. Despite these efforts, the availability of credit in rural areas remains a challenge. The Seventh Plan will take stock of the ongoing efforts to provide credit to the poor and suggest further actions that could be taken to strengthen financial services to this target group.

For Growth Focus should be on SMEs

For accelerating growth the Sixth Plan has sought to transform the production structure of Bangladesh from a primarily agrarian one to a more modern manufacturing and organized services type economy. For this reason it has given emphasis on spurring the development of the SME sector in manufacturing. International experience shows that during the early phase of industrialization a dynamic SME sector, particularly the small enterprises, is critical to push the growth of the manufacturing sector and to create more jobs in manufacturing. If properly nurtured, the small manufacturing enterprises in rural and urban areas can be a very good source of product diversification and finding niche of exports. They are also a critical element to enhance the inclusiveness of growth and thereby reduce income inequality. Therefore, the Seventh Plan will focus on facilitating the growth of this subsector and financial sector can contribute a lot for boosting up this subsector.

The Dream Desire

The Vision 2021 and the associated Perspective Plan will continue to provide the guiding principles of the Seventh Plan. In particular, the vision to achieve middle income status by 2021 will remain a core development objective. We have seen that the macro-economy faced challenges from overheating of the economy and adverse developments in the stock market. But corrective policy actions minimized the damages and restored macroeconomic stability. While the above record of progress is comforting, the government needs to understand that the reform agenda is unfinished. The GDP growth rate is healthy but below the targeted rate in the Sixth Plan. Progress in improving the investment rate is less than satisfactory and must be strengthened to accelerate the growth rate in order to achieve the middle income status envisioned in Vision 2021 and the nation's first Perspective Plan.

Green Banking in Bangladesh: Conceptual Aspects and Implementation Status

Md. Shahid Ullah[1] Tahmina Rahman[2]

Abstract

Green Banking (GB)is banking honoring environment.Compared to the developed economies, the status of GB is not satisfactory in developing countries. The broad objective of the study is to discuss the conceptual aspects and existing literature in the context of both the developed and developing countries, and examine the implementation status of GB in Bangladesh. The study finds that all the banks of the country have formulated GB policies and have departments/cells for GB; over 41 percent bank branches have online banking facilities; about 80 percent banks have some initiatives related to financing environment friendly projects; all the banks have some sort of training arrangement for their employees. In general, banks do not publish separate reports of their green activities, however, all the banks report to Bangladesh Bank and in their annual reports. The study recommends that the challenges faced in implementing GB can be overcome by the active participation of all stakeholders.

Key Words: Green Banking, Environment, Bank, Bangladesh

Background

Environmental concern is at the centre of Green Banking (GB) policies and strategies. The public concern of the state of environment has been growing rapidly in the last few years, mostly due to unusual weather patterns, rising greenhouse gases, declining air quality etc (Zeitlberger 2008). Banks interact with the environment in a number of ways: as lenders- financing sustainable developmental activities; as innovators - devising environment - friendly - energy - saving financial products; as valuers – pricing environmental risks and estimating returns; as shareholders; as polluters- consuming considerable chunk of resources; and as victims of environmental/climate change (EC, 1997). Banks hold a unique position in an economic system. They play a crucial role affecting production, business, economic and developmental activities through their financing; exercising considerable influence over investment and management decisions of businesses that could have positive effects on the environment (Habib 2010).

1. Md.Shahid Ullah is an Assistant Professor of Bangladesh Institute of Bank Management (BIBM).
2. Ms. Tahmina Rahman is a Lecturer of Bangladesh Institute of Bank Management (BIBM).

Today, society demands that economic units and businesses take responsibility for safeguarding the environment. And some production units, business entities, and financial institutions have responded significantly to the demand and expectation of the society. An increasing number of banks around the world are going green by offering innovative green products, saving resources and supporting the activities that help conserve environment. 'Conserving Environment' through operation and financing is at the centre of GB activities of a bank. A green bank is expected to use its resources with responsibility avoiding waste and giving priority to environment and society.

In response to the legislative and regulatory bindings and incentives to promote GB, a good number of banks in developed countries have been demonstrating their commitment to the earth through incorporating environmental risk in financing; using recycling programs; focusing on energy efficiency, purchasing carbon offsets; and sponsoring environmental events. In contrast, the status of environmental management has not been satisfactory in many developing countries, largely due to poor enforcement of existing laws and policies, lack of incentives and inadequate pressure from civil society and interest groups (Habib, 2010). However, Bangladesh Bank (BB) has been helping government in implementing environmental laws in the financial sector and from time to time it has been issuing a few environmental circulars and introducing refinance facilities to encourage banks for sustainable financing. The circular on 'Policy Guidelines for Green Banking' is a noteworthy step on the way to promoting GB practices in Bangladesh.

On this backdrop, the objectives of the study are: One, to discuss the conceptual aspects of GB and role of different stakeholders, Two, to identify the implementation status of green banking in global. economies, Three, to review the policy and regulatory environment for GB in Bangladesh; Four, to examine the implementation status of green banking in Bangladesh; and Five, to identify challenges and recommend the measures for effective implementation of GB in Bangladesh.

The paper is based on secondary information. Earlier studies of BIBM on green banking were extensively used in preparing this report. In addition, published research papers, and sustainability reports of different banks and environmental organizations have also been reviewed. Websites, published documents of Bangladesh Bank and other commercial banks have been used to attain the basic objectives of the paper. The paper has been presented in a seminar on 'Green Banking: Opportunities and Initiatives for Bangladesh' organized by the Bangladesh Bank Training Academy on January 27, 2014 and finalized after incorporating comments of the designated discussants and the audience.

The paper is organized into seven sections. After stating the background, objectives and methodological aspects in section 1, section 2 attempts to discuss some conceptual issues of GB and stakeholders' role. Policy and Regulatory Environment for Green Banking in Global Economies are discussed in section 3. Section 4 is about the policy and regulatory environment for green banking in Bangladesh. Section 5 examines the implementation status of green banking in Bangladesh. Section 6 identifies some challenges and critical issues on the way to effective implementation of green banking in Bangladesh, and finally Section 7 concludes the paper.

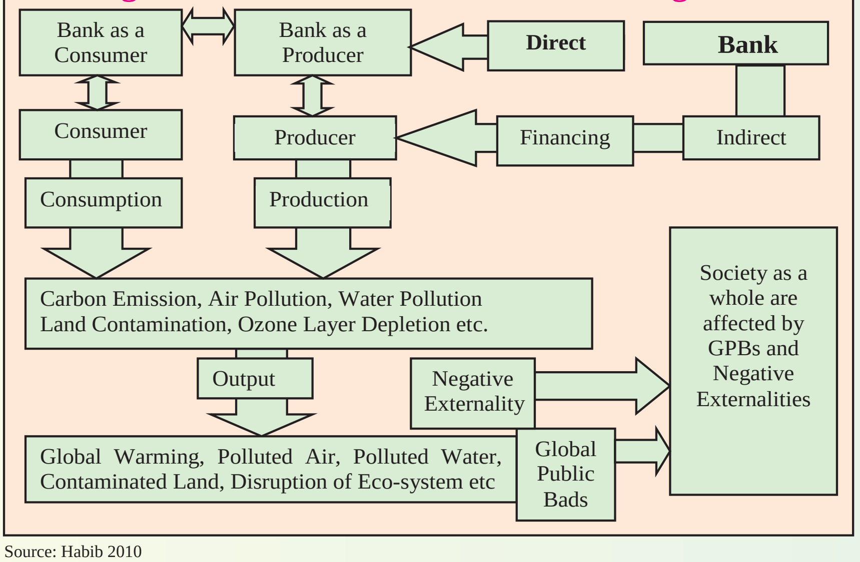
2. Conceptual Aspects of Green Banking and Stakeholders' Role

The term 'Green Banking' simply refers to environment friendly banking and a 'Green Bank' is an environment-friendly bank. A growing number of banks around the world are providing innovative financial services to support the activities that are not harmful to environment and help conserve environment (Habib 2010). Such bank is known as a green bank. A green bank is also called an ethical bank, a socially responsible bank, or a sustainable bank. The approach to green banking (GB) varies from bank to bank, however, broad objectives of green banks are to use their resources with responsibility avoiding waste and giving priority to environment and society.

Banks are Responsible for Damaging Environment

In economic theory, the environmental issues have been linked with the concepts of market failure-public goods and externalities (Binger 2003). The Global Public Goods (GPGs)[1] having negative impacts are known as Global Public Bads (GPBs). The results of the global pollutions and emissions like global warming, contamination, disruption of eco-systems etc are GPBs. In economic theory, the green initiatives to handle these negative externalities and GPBs are GPGs (Habib 2010). Banks contribute both directly and indirectly in this process. A bank is a consumer and a producer by itself and also support producers and consumers through its financing services (Figure-2.1).

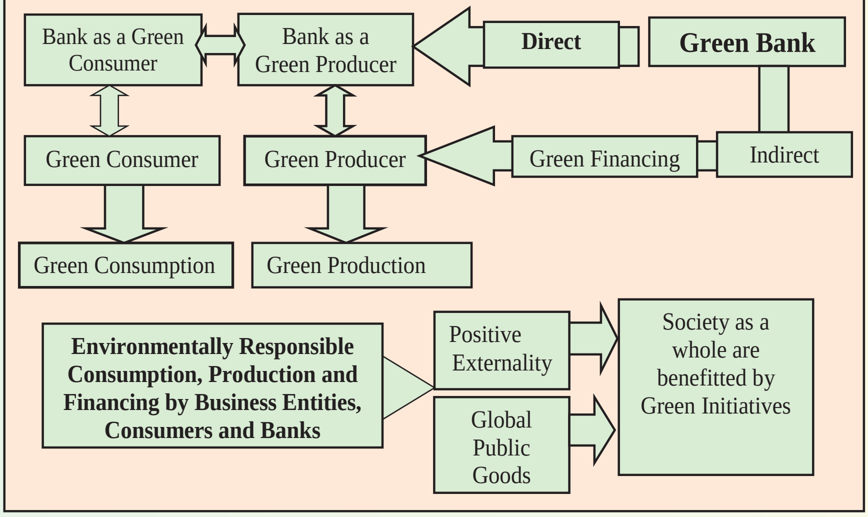
Figure-2.1 : Bank and Environmental Degradation



Source: Habib 2010

[1] GPGs are public goods with benefits or costs that extend across countries and regions and across rich and poor population groups, and even across generations (Inge et. al 2003).

Figure-2.2 : Green Banking and Sustainable Environment



Source: Habib 2010

Green Banks Contribute in Saving Environment

The motivation for providing GPGs arises from a desire to produce or enhance positive externalities and correct negative ones. In the area of environment, reduction of emission and conservation are GPGs (Morissey et al.2002). It is well recognized that green banking is one of the global initiatives by the stakeholders to save environment. The efforts are expected to bring positive changes in the environment, which are mostly non-excludable and non-rival in nature. The ongoing GB initiatives by different stakeholders are a GPG where the society as a whole is the target beneficiary (Figure-2.2). In regard to the external benefits, green banking clearly has a direct, positive effect on the environment, but the benefits go much further, reaching into security and cost (Javelin Research 2009).

Green Banking requires Multi-stakeholders' Engagement

Stakeholders are expected to perform certain roles for developing GB. The major stakeholders include International Financial Institutions (IFIs)/Inter Governmental Organizations (IGOs); government; central bank; media; environmental NGOs; business or production units; and consumers. In the international arena, IGOs and IFIs have been contributing in framing international policy architecture that enables countries and stakeholders to better anticipate and respond to environmental initiatives[2]. Governments are expected to formulate policies, and enact and enforce relevant rules and regulations. As a critical stakeholder of GB, central banks are supposed to formulate rules, policies and guidelines for creating a supportive and congenial environment for undertaking GB

2. For example, Kyoto Protocol is a remarkable initiative that has been ratified by several industrialized and developing countries under which the members committed themselves to a reduction of four greenhouse gases.

practices. These three stakeholders i.e. IFI/IGO, government, and central bank are expected to play the roles of torch bearers. Government and central banks are also to offer effective positive and negative incentives to the banks. Generally, policy and regulatory supports exist in most industrialized economies in favor of developing a congenial atmosphere for providing green products by banks[3].

A number of environmental NGOs and Media (and other civil society and academic/research institutions) have been engaged as the watchdogs against financing dirty companies. Practically, these NGOs and media are the pressure group. For example, Green America[4] and a group of media protested the plans of financing to build 11 new coal-fired plants[5] in Texus by some USA mega-banks in 2007, which helped stopping 8 of the 11 plants (Habib 2011). As independent agencies, these stakeholders could play remarkable roles by offering both positive and negative incentives to the banks. Some environmental NGOs are also engaged in formulating guidelines and principles for the banking and financial sector. There are important international standards and principles[6] relevant for different environmentally sensitive sectors prepared by international organizations and NGOs.

The voluntary initiatives of business firms (the main clients of banks) have been working as a complement to strictly regulatory approaches and are crucial incentives to the green banks. In USA, recent developments in technology have made it easier to undertake environment protection measures by a good number of corporate businesses (Bhat 2008). Large Japanese companies such as OKI, Asahi, Fuji, Fujitsu and Sumitomo have led the way to establishing zero-emissions plants. Voluntary cleaner production initiatives have also existed for some time in developing countries like Taiwan, Thailand and China (Welford 2004). In recent years, a good number of global businesses have adopted ISO 14000[7] as a part of their commitment to environment and the society.

Consumers can also offer market incentives to the banks by supporting the green activities of banks and by paying premium. Consumer awareness and responses improved over the years, though a lot more is expected for the betterment of environment and society. However, a study by Javelin Research (2009) observes that consumers have more interest in 'thinking' green than actually 'acting' green.

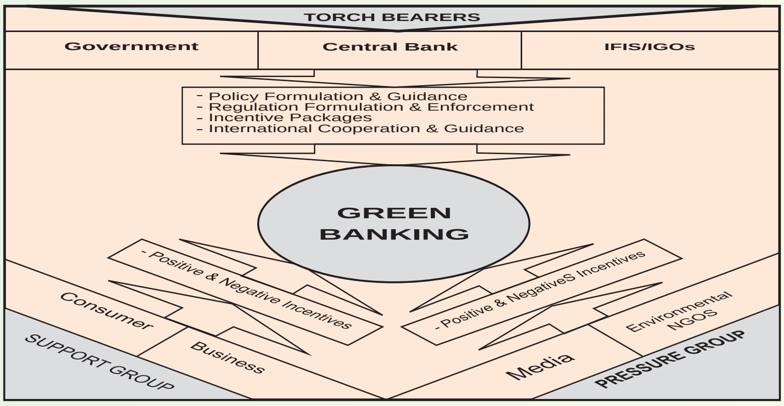
3. For example, banks' engagements in environmental and community development activities are entitled to receive incentives from US Department of the Treasury. The Treasury offers certification to banks as a Community Development Financial Institution (CDFI) and access to CDFI Fund to provide commercial loans to the renewable energy, green building, fishing, foods and agriculture industries. Banks are also receiving funding from the USA Small Business Administration (SBA) for ER financing (Fed Atlanta 2009).

4. Green America is a not-for-profit membership organization founded in 1982 with a mission to create a socially just and environmentally sustainable society.

5. There's no doubt that climate change presents a serious threat—so it makes no sense to continue building carbon-spewing coal-fired power plants.

6. For example, the 'Guidelines for Investment in Operations that Impact Forests' published by WWF; Equator Principles by Ceres; Sector Specific Guidelines by Bank Track etc.

7. The ISO 14000 family addresses various aspects of environmental management. The very first two standards, ISO 14001:2004 and ISO 14004:2004 deal with environmental management systems (EMS). ISO 14001:2004 provides the requirements for an EMS and ISO 14004:2004 gives general EMS guidelines.



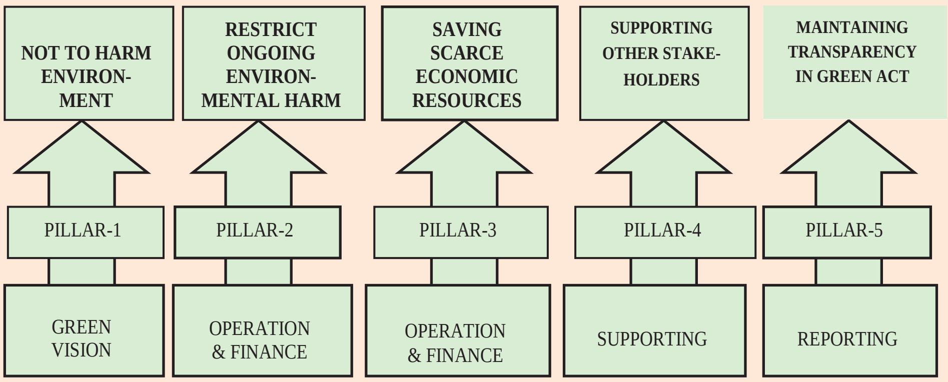
Source: Habib et al. 2013

Figure-2.3: Expected Roles of Stakeholders in promoting Green Banking

Five Pillars of Green Banking

Broadly, GB constitutes of five pillars (Figure-2.4). First one is related to the ‘green vision’ of a bank. It is the basic principle. Practically, activities and operations of banks cannot completely discard environmental harm. In most cases, it is about minimizing harm. Second and third pillars are connected with banks’ in-house activities, and operation and financing. These are connected with a bank’s green efforts to minimize environmental risks and saving scarce resources. Fourth pillar is concerned with supporting other stakeholders and cooperation. it also involves activities such as green research and green marketing. Banks may also engage NGOs for educating consumers and businesses[8]. Pillar 5 is about green reporting. Transparency of a green bank is a crucial component in its sustainable operation. All these pillars are integrated and crucial to ensure sustainable green banking.

Figure-2. 4 : Five Pillars of Green Bankin



[8] For example, in USA PayItGreen and NACHA have been engaged in educating consumers and businesses about the positive environmental impact of choosing electronic bills, statements and payments over paper.

Some of the Dos and Don'ts of a Green Bank

GB means doing and avoiding a set of activities. Box-2.1 shows the activities that a green bank should and should not do to promote GB.

Box -2.1 : Dos and Don'ts of a Green Bank

Dos
• *Policy and Strategy Formulation* • *Environmental Risk Management in Financing* • *Creation of Green and Risk Fund* • *Saving Energy and Natural Resources* • *Supporting and Sponsoring Green Initiatives and Events* • *Designing and Offering Innovative Green Products* • *Green Marketing, Awareness and Promotional Activities* • *Monitoring of Green Financing* • *Waste Management* • *Offering Incentives for Green Activities*
Don'ts
• *Financing Technology/Activities without handling Environmental Risk* • *Supporting/ Financing Energy/Resource Inefficient Activities* • *Disclosing Misleading and Untrue Information*

Monitoring and Evaluation of Green Performance by Banks

Monitoring and evaluation arrangement should be in place for supporting ongoing green banking practices. There should be framework under which central bank should monitor the performance of banks using selected indicators on continuous basis. Reporting arrangement and disclosure is part of the framework. However, there should be a mechanism for the validation of data provided or disclosed by a bank. Evaluation of the performance of banks is expected to offer both positive and negative incentives to a bank and must be transparent. In evaluating the performance, all environmental impacts (negative, negligible, or positive) of financing activities of banks should receive due attention.

Regulatory and Market Incentives for Green Banking

Refusing to lend to 'dirty' industries is one thing but making a commitment to clean up one's own act is even harder (Goth 2008). Sometimes it is difficult for the banks to balance environmental concerns and business demands. Banks need market incentives for that. Policy and regulatory supports exist in most industrialized economies in favor of developing a congenial atmosphere for providing green products by banks (Fed Atlanta 2009). There is no doubt that mandatory or legal imposition may not work for long and will not bring optimum result. Thus, it is important to convert regulation-driven approach of corporate to market based approach for long run effective environmental protection.

Affordability and Economic Impacts of Green Financing

Green financing may not always be attractive to the policy makers in a developing economy when the economy is burdened with severe problems like poverty and unemployment. Developing countries having huge resource constraints cannot ignore the opportunity costs of job loss, price rise, and other economic impacts and may not afford to discard all economic activities and technologies immediately that are environmentally hazardous. In such a scenario a country may opt for relatively a lenient approach for selected sectors that would allow banks to finance environmentally harmful industries/technology on certain conditions (to minimize environmental risk) for the time being. However, there should be long-term planning to handle these projects/activities.

3. Implementation Status of Green Banking in Global Economies

US banks are the early starters that drastically began changing their policies after enforcement of the Comprehensive Environmental Responses, Compensation, and Liability Act (CERCLA) by the US government in 1980. CERCLA holds US banks directly responsible for the environmental pollution of their clients (Weber et. al. 2008). The responsible banks had to incur huge loss as they had to pay the remedial cost. This is the reason the banks in the US are ahead of other countries in integrating environmental concerns into their business operations (Bhat 2008). In USA, The Department of Natural Resources subsidizes one-half of the financing for the energy-efficient improvements, making the loan more affordable. Banks engaged in environmental and community development activities are entitled to CDFI Fund that allows them to provide more commercial loans to the renewable energy, green building, fishing, foods and agriculture industries (Fed Atlanta 2009).

Policy makers of developed countries are also responding positively to the suggestions of stakeholders. In 2009, Green Alliance proposed to set up a Green Investment Bank in order to deliver a low carbon economy in the UK, and the government responded positively (Reuters 2010). Australia is the worst contributors in terms of per capita green-house gas production. Recently the Australian government proposed to impose carbon tax on 500 companies at the rate of USD 25 per ton from the coming year which would rise by 2.5 % every year. This scheme aims to cut Australian carbon emissions by 5 % of 2000 levels by 2020[9].

In regard to supportive policy environment, the approaches of governments and central banks have changed dramatically over time even in developing countries. In 2007, a Green Credit Policy was jointly developed by the State Environmental Protection Agency, the People's Bank of China, and the China Banking Regulatory Commission with the objective to guide loan financing away from highly polluting and/or energy consuming enterprises and projects. According to the policy, firms that fail to pass an environmental assessment

9. The Daily Star, July 11, 2011.

or implement state environmental protection regulations will be disqualified from receiving loans from any financial institution. The policy sends a strong message to banks concerning new responsibilities towards environmental protection (Business Issues Bulletin 2009).

In-house Implementation Status by Banks

The banking sector is generally perceived to be a relatively environment friendly industry; however, energy and water efficiency and waste reduction are of high concern for many big banks. Strategies for in-house GB performances of banks generally center on certain aspects. For example, HSBC centers its sustainability strategy on carbon offsetting. It therefore endeavored to go carbon neutral in 2006, which means that its worldwide operations contribute net zero carbon dioxide emissions in the atmosphere (Harvey 2007). Paper consumption is a major key point of sustainable banking for Bank Sarasin which achieved to reduce paper consumption by 3.3 % from 2005 to 2006 (Bank Sarasin 2006).

The IBT Market Pulse survey (2008) on USA financial intuitions identified some of the green initiatives of their financial institutions including 81% using energy-efficient lighting; 62 % encouraging car-sharing or public transportation for employees; and 46% using environment friendly cleaning products; about 74% of banks and financial institutions are having recycling programs in place and with such programs office papers, toner cartridges, electronic office equipments, newspapers, aluminum, tin, plastic and glass are recycled.

Banks are working in Groups for Implementing Green Banking

In response to growing expectations for banks to address the climate change impact of their lending activities, a number of major financial firms have made headway in developing industry standards for climate risk management. For example, in February 2008, Citigroup, JPMorgan Chase and Morgan Stanley launched the Carbon Principles, a voluntary framework aimed at addressing climate risks associated with financing carbon-intensive projects in the US power sector. In December 2008, a second group of global financial institutions including Credit Agricole, HSBC, Munich Re, Standard Chartered and Swiss Re announced their adoption of the Climate Principles, a set of commitments on climate business strategies developed by the Climate Group, a UK-based climate advocacy group.

Reporting and Transparency of Green Banking

In some developed countries environmental reporting has been made mandatory. For example, Denmark regulated the matter in 1996; the Netherlands and Norway in 1999; and Sweden made the environmental disclosure mandatory in 2002 (Bandyopadhyay undated). In USA, companies having more than 10 employees are required to report on specified toxic emission to the US Environmental Protection Agency (Pramanik et. al. 2008). However, generally, environmental disclosures are encouraged through the voluntary local and international guidelines such as CERES Principles, the EU Eco-Management and

Audit Scheme, Greenhouse Gas Protocol Initiative and GRI that are relevant for banks. To address the financial services sector, the GRI and the UNEP FI published various financial services sector supplements on issues such as product responsibility, human rights and environment (Bank Track 2010). Some very big and reputed global banks have adopted voluntary principles however use of these frameworks remains very limited. Bank Track (2010) observes that the use of external verification has been very limited in reporting practices. In general, there is significant scope for improving the status of the environmental reporting and disclosure in developing economies.

4. Policy and Regulatory Environment for Effective Implementation of Green Banking in Bangladesh

Government Initiatives Supporting Green Banking

The awareness build up and environment conservation efforts started in Bangladesh mainly in 1980s when several developments took place, a separate Ministry, called Ministry of Environment and Forest (MoEF) and The Department of Environment (DoE) were established. To protect environment, government formulated Environmental Policy in 1992 and made commitments as a signatory of a number of Multilateral Environmental Agreements[10]. The Bangladesh Environment Conservation Act (ECA), 1995[11] is the umbrella act. Other notable laws include the Environmental Conservation Rules (ECR), 1997[12]; the Environment Court Act, 2000; the Environment Court (Amendment) Act, 2010[13]; the Bangladesh Environment Preservation (Amendment) Act, 2010 etc.

Moreover, in order to manage different waste in an environmentally and hygienically acceptable manner the Solid Waste Management Rules, 2011 and the Hazardous Waste and Ship Breaking Waste Management Rules, 2011 were enacted. In the adopted National ICT Policy, 2009, environment, climate and disaster management is identified as one of the ten objectives, which aims to ensure safe disposal of toxic wastes. Government has already prepared a draft National 3R (Reduce, Reuse & Recycle) Strategy where e-waste issues have been addressed.

To promote sustainable energy in the country, a Renewable Energy Policy has been prepared and various action plans have been undertaken with the target to generate 5% and 10% of total power production by 2015 and 2020 respectively. The government has also initiated to set up a Sustainable Energy Development Authority (SEDA) and has finalized Sustainable Energy Development Act, 2011. There is no doubt that the country has adequate regulatory measures in place, however, efforts needed for better enforcement and implementation.

---

10. Bangladesh is a signatory of the Rio Conventions (RCs), i.e. United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD) and United Nations Convention to Combat Desertification (UNCCD).
11. To exercise the powers conferred by section 20 of the Bangladesh ECA, 1995, the Government of Bangladesh passed this rule.
12. The following are the prescribed standards: Water (Schedule 3), Sound (Schedule 4), Sewage discharge (Schedule 9), Waste from industries (Schedule 10), gaseous emissions from industries (Schedule 11) and sector-wise industrial effluent or emissions (Schedule 12).
13. BB BRPD Circular No-12 dated August 10, 1997.

ECA 1995 and ECR 1997 together provide a framework of environmental regulations related to the financing to the industry sector. According to the framework, 'no industrial unit or project shall be established or undertaken without obtaining environmental clearance from the Director General, DoE in the manner prescribed by the rules'. It is to be noted that the clearance from the DoE is one of the requirements for obtaining finance from commercial banks for the industrial units grouped under different categories of EIA. For the purpose of issuing the Environmental Clearance Certificate (ECC), the industrial unit and projects shall in consideration of their location and impact on the environment be classified into the following 4 categories: Green; Orange-A; Orange-B; and Red. ECR 1997 prescribes various performance standards[14] requirements that are both general and industry specific. Practically, the certification arrangement and prescribed standards are hardly effective in protecting environment from pollution by industrial units.

Role of Bangladesh Bank in Implementing Green Banking

Bangladesh Bank (BB) has undertaken certain initiatives to help implement the relevant provisions of environment related acts enacted by the government of the country. In 1997, commercial banks of the country were asked[15] by the central bank to undertake necessary steps for implementation of certain decisions in regard to environmental conservation and protection by the National Environment Committee. Banks of the country were asked to ensure that steps have been undertaken to control environmental pollution before financing a new project or providing working capital financing to the existing enterprises[16]. According to the BB requirements, the industrial units that may cause environmental pollution to be established under bank credit would get permission for opening LC to import machineries only after ensuring that the list of machines includes equipments to set up waste treatment plant[17].

A comprehensive guideline on Corporate Social Responsibility (CSR) has been issued by BB where banks have been asked to concentrate hard on linking CSR at their highest corporate level for ingraining environmentally and socially responsible practices and engaging with borrowers in scrutiny of the environmental and social impacts[18]. Considering the adverse effects of climate change, banks have been advised by BB to be cautious about the adverse impact of natural calamities and encourage the farmers to cultivate salinity resistant crops in the salty areas, water resistant crops in the water logged and flood prone areas, drought resistant crops in the drought prone areas, using surface water instead of underground water for irrigation and also using organic fertilizer, insecticides by natural means instead of using chemical fertilizer and pesticides[19].

14. BB BRPD Circular No-12 dated October 08, 1997; BRPD Circular No-21, November 10, 1999; and BRPD Circular No-17, December 29, 2010.
15. BB BRPD Circular No-12 dated October 08, 1997
16. BB DOS Circular No-1, June 1, 2008.
17. BB ACSPD Circular No-04, dated July 14, 2009.
18. BB ACSPD Circular No-05, July 14, 2009.
19. BB DOS Circular No-2, June 2, 2009.

BB has also been taking initiatives for the rehabilitation of cyclone and other natural disaster affected people of the country time to time. For example, Bangladesh Bank issued a circular on Agri-loan facilities for rehabilitation of agriculture sector in cyclone Aila affected areas in July, 2009[20]. Moreover, banks were asked to undertake CSR activities in the areas of the affected people for their rehabilitation[21]. Online banking which is considered by many as the starting point of GB, received due attention of the BB. Banks have been brought under the purview of E-commerce with a view to providing the customers with online-banking facilities covering payments of utility bills, money transfer and transactions in local currency through internet as well[22].

To promote environmental financing, banks have been advised to finance in renewable energies such as solar energy, bio-gas plant, ETP and modern technologies in brick field under refinance program of BB[23]. BB introduced Taka 2.0 billion refinance facilities in FY 2010-11 against bank loans for investments in solar energy, biogas plants and ETPs in line with the government's plan to meet 5% of the total demand for electricity from green energy by 2015 and 10% by 2020. In its recent circular[24], BB has included more sectors[25] under its green banking refinance scheme and increased credit limits for different sectors.

The first circular on 'Policy Guidelines for Green Banking'[26] was a remarkable step on the way to develop GB practices in Bangladesh. The circular required commercial banks to introduce environment friendly financial products besides introducing internal environment management. The policy is segregated into three phases. The three phases were supposed to be implemented by December 2011, 2012 and 2013 respectively. Many banks of the country could not comply with the implementation timeline. Consequently, BB issued a few circulars[27] extending the timeline. According to the new circulars the Phase- I for all new banks scheduled in 2013 and all Financial Institutions (FIs) should not exceed June 2014; the Phase –II and III for all banks and FIs should not exceed December 2014 and June 2015 respectively.

Phase-I requires banks/FIs to develop green banking policies and show general commitment on environment through in-house performances; to formulate environmental policy, and a green office guide for practicing internal environment management and create a GB cell; allocate sufficient fund in their annual budget for GB; create a climate risk fund. They should take measures to save electricity, water and paper consumption as per the requirement. Instead of relying on printed documents, online communication should be extensively used for office management. Energy saving bulbs should replace the

20. Circular No-2, dated February 27, 2011.
21. ACSPD Circular No-9, July 08, 2010.
22. GBCSRD Circular No- 02, July 01, 2013.
23. Solar mini grid, solar irrigation pump system, vermicompost production, hydropower, PET, bottle reprocessing, solar battery reprocessing and LED bulb.
24. BRPD Circular No-2, February 27, 2011.
25. GBCSR Circular No. 04, August 11, 2013; GBCSR Circular Letter No. 05, September 11, 2013; GBCSR Circular No. 08, December 24, 2013
26. GBCSR Circular No. 08, December 24, 2013
27. Habib, Shah Md. Ahsan (2010), Green Banking Initiatives: Opportunities for Bangladesh, BIBM.

regular ones in branches/offices of the banks and employees should be encouraged to purchase energy saving cars. As per the recent circular[28] the Risk Management Committee will review the banks’ environmental policies, strategies and programs instead of earlier high-powered committee.

Phase-II requires banks to formulate specific policies for environmentally sensitive sectors, determine a set of achievable targets and strategies, and disclose these in their annual reports and websites. They are expected to set up green branches and should increasingly rely on virtual meeting through video conferencing. The Phase-III requires banks to publish independent Sustainable Annual Report following internationally accepted format like GRI with the arrangement of external verification.

The revised circular on policy guidelines for GB requires reporting to BB on quarterly basis within next thirty days instead of fifteen days of the respective quarter. BB offers some incentives in the form of preferential treatments for the compliant banks including BB ggiving points to compliant banks on management component while deciding on its CAMELS rating; declaring top ten banks for their overall performances in sustainable banking; and taking into account GB in giving license for new branches.

Furthermore, BB prepared and circulated a Guideline on Environmental Risk Management (ERM) on January 30, 2011 to streamline solutions for managing the environmental risks in the financial sector. The ERM guideline prescribes a set of sector specific ‘Environmental Due-diligence Checklist’ for financing environmentally sensitive sectors by banks. As per the guideline, banks should establish and maintain a database of NPLs that are due to environmental reasons to ensure that the banks/FIs streamline their own institutional knowledge for better decision-making in their future financing.

Moreover, Bangladesh Bank has taken the lead position in encouraging and implementing IT based technologies in the overall banking sector. BB took a number of initiatives for environment friendly in-house practices as well.

Role of BIBM in Green Policies Formulation and Capacity Development

BIBM has been playing pivotal role in formulating green banking policies and capacity building of the bankers. A green banking policy framework was first placed in mid 2010 in a seminar[29] at BIBM at the presence of the honorable Governor of Bangladesh Bank and senior level bank executives. The proposal on green policy framework received attention of the honorable governor and the audience. Then as per instruction of the governor, BIBM prepared a draft policy framework with the consultation of BRPD, BB and placed it in a Research Workshop (titled Environmental Responsibilities of Banks: A Proposed Framework for the Banking Sector of Bangladesh) for discussion in October 2010. Incorporating the comments and recommendations of the workshop, BIBM then placed the

28. SCB initiated tree-plantation for using e-statements by its clients (one tree for one account holder); SCB discourages printing of e-mail by the receiver to save papers.

29. For example NBL financed over BDT 100 crore in drought prone areas for irrigation purposes; Mutual Trust, Agrani and NCCBL have also some programs in the vulnerable areas.

proposed 'green banking policy framework' to the concerned authority of BB. Besides, BIBM is regularly organizing training courses, training workshops, research workshops and seminars to acquaint the target group with green banking, disseminate the green initiatives of BB, and finally to develop awareness among the stakeholders.

5. Implementation Status of Green Banking in Bangladesh

5.1 In-house Green Practices by Bangladesh Bank

Bangladesh Bank has implemented a number of green initiatives within their in-house besides ensuring sustainable practices by the commercial banks. Some of them are stated below in Box 5.1.

Box 5.1 : BB In-house Green Practices

Installation of 8 kilowatt solar panel on its roof top in 2010 as a move towards use of clean energy; use of energy saving LED bulbs; In-house online connectivity - all departments are using intranet connecting more than 4000 computers; Online salary and other necessary advice, personnel file updated information, office orders, notification about online balance statements for employees, an electronic pass for visitors; E-recruitment; E-tendering- a web based tendering system encompassing announcement of tender, distribution of schedules, bidding etc., to ensure simplicity and transparency of the tendering process; ; the Enterprise Data Warehouse - an electronic data bank of all information and statistics of monetary, trade and fiscal areas of the national economy having access of all concerned BB people for further policy analysis; EXP Online Monitoring System; Online CIB - credit information on borrowers are being collected online replacing the earlier paper based processes within seconds as opposed to days; Bangladesh Automated Clearing House - reducing the cheque clearing time to one day and in some cases to a couple of hours only ; Enterprise Resources Planning; Bangladesh Electronic Fund Transfer Network; National Establishment of a National Payment Switch; Environmentally harmful incineration of non re-issuable damaged bank notes is being phased out, restoring instead of shredding.

Source: Based on BB 2012

5.2 Implementation Status of Green Banking by Commercial Banks in Bangladesh

5.2.1 Green Governance

Bangladesh Bank's initiatives have made significant change in regard to the creation of green governance frameworks in commercial banks till date. In response to the circular of 'Policy Guideline for GB' as of December 2012, 47 banks of the country have formulated environmental policies, high level committee to oversee the green activities of banks and have posts or cells related to GB (Habib et al.2013) whereas Habib et al.(2011) found that as of June 2011, only 16 percent, 12 percent and 4 percent banks had environmental policy, GB cell and/or posts, and separate committee respectively. However, most of the policy documents are replications of BB's policy guidelines. A few banks have well designed and customized policy documents. According to the BIBM survey, 75 percent banks have formulated one or more sector specific environmental policy guideline; 95 percent have green office guide as claimed from the GB cells; 65 percent banks have claimed that they have formulated some kind of green strategic planning (Habib et al.2013)

5.2.2 In-house Environment Management Performance

The survey also found that only a few banks have notable initiatives in regard to resource inventory preparation and savings of paper, water and power etc. Practically, a very limited number of banks are found to have provision of maintaining inventory of the resource use or consumption of energy and power. These are mainly maintained in terms of expenditure amount (Habib et al. 2013) which is not meaningful. Banks generally do not declare or strategize any target of the reduction of the resource use.

Box-5.2: Some Examples of In-house Green Activities

Use of paper on both sides for internal consumption; Introduction of e-statement for customers; Use of online communication; Arrangement for using daylight; Using energy saving bulbs; Use of Eco Font for printing light impression on both sides of the paper; Using sensor lighting equipment for saving electricity; Common use of table stationeries; Video/Audio conferencing; Efficient use of printer cartridges, Sharing electronic files, voice mail and e-mail instead of paper memos; Use of solar energy/ renewable energy.

Source: Based on BB 2012

5.2.3 Paperless Banking

Paperless banking plays crucial role in promoting green banking. Paperless banking means digitized banking such as online banking, internet banking, mobile/SMS banking, use of ATMs, etc. It allows customers doing transactions at any branch/ ATM of the bank, any point of sales (POS), paying utility bills, transferring funds from one account to another, requesting check books, getting online bank statement, etc. Online banking facilitated by intranet connectivity and internet banking is virtual banking -anytime banking anywhere of the globe using the bank website.

Banks are generally aware of the necessity of adopting online banking to serve their customers. According to BB (2012) data, over 41 percent bank branches of the country have online banking facilities. Internet banking and SMS banking are mainly offered by FCBs and a few PCBs (Table-5.1). Over 95 percent ATMs (out of around 5000 ATMs) in the country are owned by the PCBs. If the shared ATMs are considered, the number of ATMs of the banks would be over 50000 (Habib et al. 2013). Other than some scattered initiatives[30], banks generally do not have specific strategies to popularize online statement to save papers.

Table-5.1 : Online Banking Activities of Banks

	Branches facilitated with Online banking	Accounts facilitated With Internet Banking	Accounts facilitated with SMS Banking
SOB	5%	0.00%	0.01%
SB	5.28%	0.00%	0.00%
PCB	92.24%	2.62%	7.73%
FCB	100%	35.71%	39.64%
Total	41.05%	1.22%	3.20%

Source: Habib et al. 2013

30. Green financing is divided into direct and indirect. Financing for installation of ETP, biogas plant, bio-fertilizer plant, solar energy, HHK, etc. are termed as direct financing and financing to projects having ETP is termed as indirect green financing.

5.2.4 Branches / SME Centers/ ATMs powered by Solar Energy

As a move towards GB banks have been adopting clean energy. As of December 2012, a total of 375 branches/SME centers/ATMs of different banks were powered by solar energy. More specifically, 26 banks have been using solar power in their 214 branches; The IBBL has the largest no. of 23 solar-powered branches followed by AAIBL and Sonali Bank Ltd. (BB 2012)

Table 5.2: Branches / SME Centers/ ATMs powered by Solar Energy

Banks	No. of Branches Powered by Solar Energy		No. of Solar-powered ATMs	
	No. of Banks	No. of branches	No. of Banks	No. of branches
SCBs	2	21	1	8
DFIs	2	22	0	0
PCBs	21	169	5	150
FCBs	1	2	3	3
Total	26	214	9	161

Source: Based on BB 2012

5.2.5 Environmental Risk Mitigation

Clearance from the DoE is one of the requirements for obtaining finance from commercial banks for the industrial units. Banks have been complying with the requirements. However, it is obvious that the arrangement is hardly playing any role in environmental protection. The ERM guideline requires banks to establish and maintain a database of NPLs that are due to environmental reasons and to have a reporting system on an annual basis. The study did not find any preparation of banks in this regard.

Table-5.3 Environmental Risk Rating (ERR) and Financing by Banks

Year	No. of Projects rated	No. of rated projects financed	Amount disbursed to rated projects (BDT in millions)
2011	4394	4315	270951.14
2012	12088	11165	703633.21
Increase (%)	175.10	158.75	159.69

As per the ERM guideline banks have been doing environmental risk rating since 2011. Table-5.3 shows that banks rated 4394 and 12088 projects in 2011 and 2012 showing an increase of 175%. Likewise, from the year 2011 to 2012 the number of rated projects financed and amount of financing to them increased by 158.75% and 159.69% respectively.

5.2.6 Green Products or Financing

Though on a limited scale, 80 percent banks of the country have some initiatives related to financing environment friendly projects (Habib et al. 2013). Some banks have financed reasonably good amount in solar, bio-gas, bio-fertilizer, ETP and HHK projects in recent years. A few banks[31] have specially designed project for the vulnerable areas affected by climate change.

Table – 5.4: Green Finance by Bank Group

Table – 5.4: Green Finance by Bank Group

Figures in million Taka

Bank Group	Direct Green Finance	Indirect Green Finance	Total
SCBs	3513.10	2994.15	6507.25
PCBs	5623.74	173187.17	178810.91
FCBs	881.28	76517.03	77398.31
DFIs	1803.36	6401.70	8205.06
Total	11821.48	259100.05	

Source: Based on BB 2012

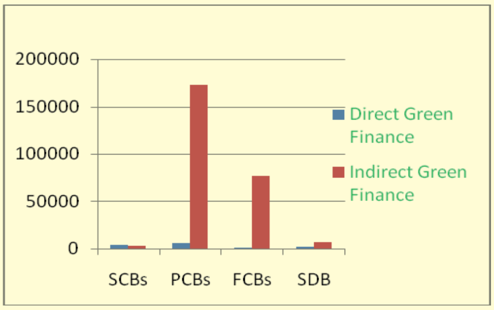


Figure 5.1 : Green Finance by Bank Group

Table-5.4 shows that the amount of total green financing[32] during 2012 was BDT 270921.53 million divided into BDT 11821.48 and BDT 259100.05 in the forms of direct and indirect green financing respectively. Figure-5.1 shows that the PCBs hold a dominant position (66%) both in the direct as well as indirect green financing. However, of total green financing about 96%t is in the form of indirect green finance which is a passive form (BB 2012).

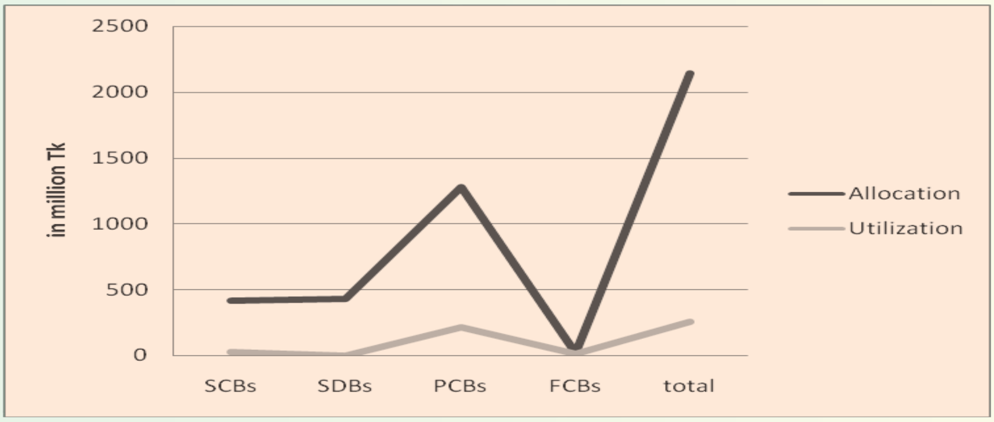
5.2.7 Creation of Climate Risk Funds

Banks allocated BDT 2145 million in 2012 as climate risk fund of which BDT 259 million was utilized which is only 12 percent. Though all banks are supposed to create climate risk fund, the published data of BB indicate that 19 percent banks have no allocation for the fund. Moreover, of all banks, 72 percent have not utilized the fund in 2012. Of the banks, 6 percent have no allocation for climate risk fund; however, have reported certain volumes as utilization. According to the BB policy document[33], the fund should mainly be used to cover additional risk premium and to meet emergency expenditure in the climate risk

31. FIs should finance the economic activities of the flood, cyclone and drought prone areas at the regular interest rate without charging additional risk premium. However, FIs should assess their environmental risks for financing the sectors in different areas for creating a Climate Change Risk Fund. The fund could be created as part of FIs' CSR expenditures.
32. HSBC has undertaken some environmental initiatives in 2012 that include HSBC-Daily Star Climate Award 2012; Rainwater Harvesting Program; Marking the World Environment Day 2012 ; HSBC Climate Championship; and Carbon Neutrality
33. SCB's 'Climate4Classrooms' and '3000 miles to go' campaigns to raise nationwide awareness on climate change issues with British Council; HSBC's week-long environmental awareness campaign - to familiarize students with the concept of water efficiency

prone areas. The basic target is to ensure regular financing. The fund could be created as part of CSR expenditure; however, it is obviously not simply about performing some philanthropic activities.

Figure-5.2: Allocation and Utilization of Climate Risk Fund by Bank Groups

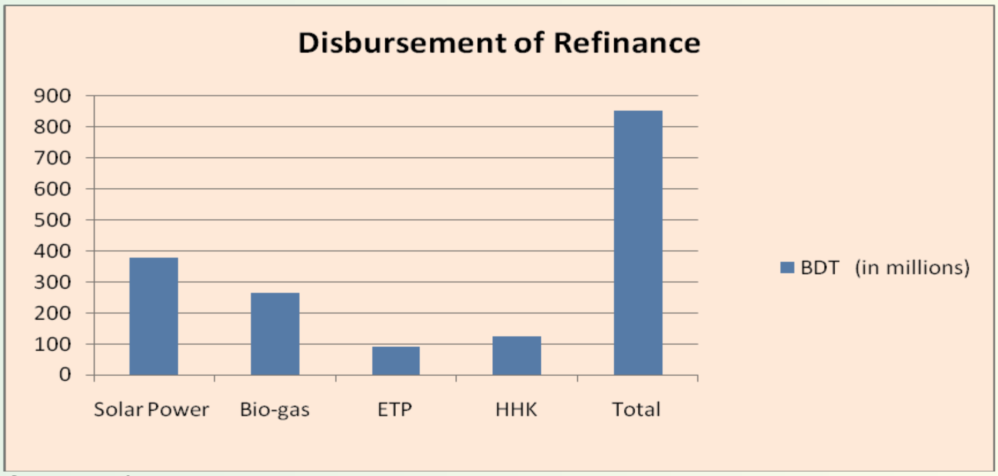


Source: Based on BB 2012

5.2.8 Utilization of Refinancing Facilities

By December 2012, 27 banks and 1 Financial Institution have signed the participation agreement with BB to avail the refinance facility for Solar Energy, Biogas and ETP and availed a total of BDT 854.46 million which is 43% (approx) of the total refinance fund whereas Habib et al.(2011) found that up to June 2011 the amount of refinance availed by five participatory banks was less than 7% of available funds. The figure shows that refinancing for financing solar power and solar equipments holds the major portion of the total refinance followed by Bio-gas and HHK.

Figure: 5.3: Disbursement of Refinance



Source: BB 2012

5.2.9 Training, Development and Promotional Activities

All the banks in the country have some sort of training arrangement for their employees. Most of the banks offer at least one session on green banking in every training course conducted by their training institutes. According to the BIBM study, on an average only 2 training programs were organized per bank in 2012(Habib et al.2013). Banks mostly rely on BIBM and BBTA for educating their employees about green banking. The awareness of GB is still limited in the head offices of the banks; more specifically, the awareness is Dhaka- centric; most of the bankers in the rural areas have not clear understanding of this. A BIBM survey team called to the PABX of the head offices of all banks to get connected with Green Cell and found that 37 percent were aware of having such cell in the bank; 28 percent were not aware but anyhow managed to connect; and 35 percent were found having no idea about such a cell in the bank and failed to connect (Habib et al.2013). In contrast, a few banks have initiatives for awareness development of consumers as well.

Green marketing or promotional activities are yet to get popularity in the banking community. According to the BB (2012) information, only 11 percent of the allocated funds for green marketing and training were utilized by banks in 2012. Sponsoring of green events[32] by a few banks could prove to be very effective for green awareness in the country. A few initiatives[33] of banks are really inspiring and replicable. It is encouraging that 4 percent banks have organized training programs for their customers for awareness development. However, some banks are using slogans[34] as part of their green marketing and awareness activities. In regard to bank-NGO linkages, there are very limited instances for green causes; about 52 percent banks have NGO-linkage and only 12 percent banks were found to have linkages with NGOs to promote green initiatives (Habib et al.2013).

5.2.10 Waste Management by Banks

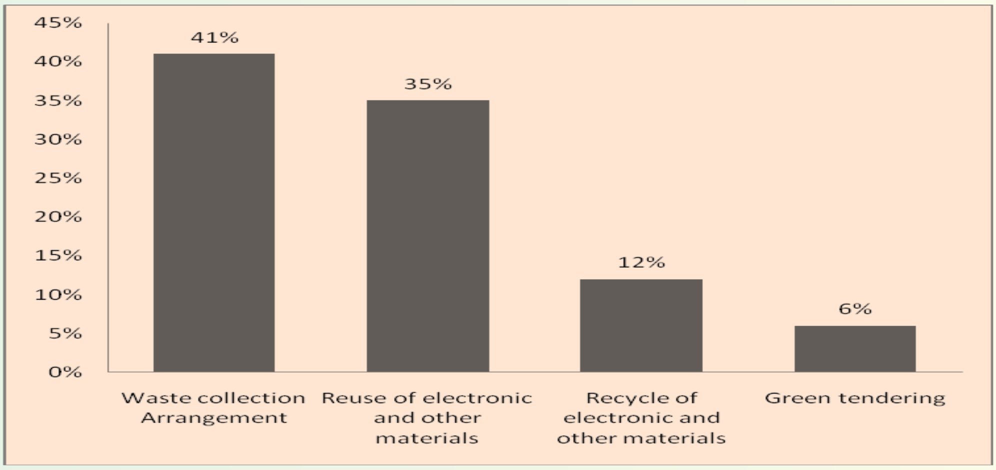
Though there are some scattered activities, generally banks do not have concrete waste management policies or strategies. Some banks have arrangements for waste collection, reuse and recycle of electronic goods and other materials and green tendering (Figure-5.4). However, a few banks have some inspiring initiatives for in-house waste management and financing[35]. Habib et al.(2013) found that among the banks surveyed, 15 percent banks have arrangements with NGOs to distribute their used PCs to schools.

---

34. Like, Save paper, save trees; Conserve energy, conserve natural resources; Turn off the tap when not needed; Always use a cloth bag; Reduce, reuse and recycle; Digitize yourself; Think before you press the button; Everything has two sides; Be paperless- kick the habit; Use car pools to go to work; Unplug electronic devices while not in use.

35. For example, HSBC recycles used papers to make envelope for re-use. DBBL has financed a project that produces quality organic fertilizer from fruits and vegetables wastes.

Figure-5.4: Bank with Waste Management Arrangements



(Source: Habib at al. 2013)

5.2.11 Disclosure and Reporting of Green Activities

Generally, banks do not publish separate reports of their green activities or CSR programs. Notable exceptions are two FCBs that have published Corporate Sustainability Report and Green Banking Report covering some environmental issues[36]. All the banks report following a prescribed format of the BB. Banks report their CSR and green initiatives in their annual financial reports in accordance with the directive of the BB. Some banks also disclose relevant information through their web sites. Banks generally do not use comprehensive standard reporting formats such as the GRI and third party evaluation is absent.

6. Challenges and Recommendations for Effective Implementation of Green Banking Practices in Bangladesh

The implementation of green banking in Bangladesh is still in an elementary stage. The banking sector of the country has been facing a number of challenges in implementing this. Some of the challenges are discussed hereunder.

Some of the challenges are due to the developing nature of the country and include the lack of enforcement of the environmental laws, inability to adopt modern technology from the traditional ones, shifting red industries to appropriate location, unawareness of the end-users, etc. The Department of Environment (DoE) is not duly shouldering its responsibility. Clearance from the DoE is one of the requirements for obtaining finance from commercial banks for the industrial units. Banks have been complying with the requirements. However, it

36. HSBC publishes Corporate Sustainability Report; and SCB published Green Banking Report.

is obvious that the arrangement is hardly playing any role in environmental protection because the certificate can be managed any way. Besides, as a developing country we do not afford to adopt modern technologies abandoning the technologies currently in use. Moreover, lack of political commitment of the government and the bureaucratic complexity is also responsible for the delay in shifting the red industries such as tanneries, pharmaceuticals, chemicals, etc. to an appropriate location. The consumer group in Bangladesh is very vulnerable. They are mostly unaware of green practices and are hesitant to pay extra for cleaning up industrial hazards.

Some challenges are banking sector specific and include the reluctance of bank board of directors and top management; lack of awareness and motivation to formulate policy documents, strategic plan, sector specific environmental guidelines; lack of technical hand, etc. Most of the directors and senior people of the bank do not have right attitude and understanding of the concept of green banking. They generally want to perform their responsibility simply by taking environmental clearance certificate which is not an effective measure in most of the cases. The ERM guideline requires banks to establish and maintain a database of NPLs that are due to environmental reasons and to have a reporting system on an annual basis. No preparation of banks in this regard is found (Habib et al.2013). A very limited number of banks are found to have provision of maintaining inventory of the resource use or consumption of energy and power. These are mainly maintained in terms of expenditure amount, not in terms of quantity (Habib et al.2013) which is not serving the desired objective. To make it meaningful, it is important that these data should be maintained in terms of the use of units and should be expressed in relation to the attributes like number of employees, number of branches etc.

The time frame as per the policy guideline for green banking of Bangladesh Bank is applicable for all banks irrespective of bank size. This suffers from the problem of ‘one size fits all’. The large banks especially the State-Owned Commercial Banks (SCBs) dominated by rural branches cover about half of the bank branches of the country. Moreover, most of the branches of SCBs do not have online banking facilities. As a result, they are facing more difficulty in following the policy guideline, especially in preparing the inventory of utilities, doing paperless banking and the like. The new banks may lack of skilled manpower in formulating green policies, strategies, and other documents. It is to see whether the new banks of the country can comply with the timeline given by BB. Moreover, the absence of coordination amongst the commercial banks, Bangladesh Bank, DoE, law enforcing authorities, other government agencies, environmental NGOs, and the end-users is another challenge in pursuing GB in Bangladesh.

The challenges faced by the commercial banks can be overcome by the active participation of all stakeholders. The prevailing environmental laws are more than enough but their effective enforcement is urgent. Dedicated political commitment can mitigate the industrial pollution. The electronic as well as print media can play vital role in raising awareness among the end-users. Moreover, more training, workshop, seminars, etc. can be arranged to educate people about GB. The deadline for implementation of different phases of GB should be commensurate with the size and capacity of different banks. Finally, it is strongly recommended that Bangladesh Bank , commercial banks, government agencies and other stakeholders should work together to achieve the vision of green banking and green economy in Bangladesh.

REFERENCES:

Bandyopadhyay, R., (undated), 'Global Movement of Non-Financial Reporting and Government's Role (undated), India: http: / /www. iodonline.com/Art icles/Going%20Beyond%20CG%20

Sustaibility.pdf (accessed 02.10.2012)

Bangladesh Bank (2011) 'Annual report on Green Banking'. Dhaka: Bangladesh Bank

Bangladesh Bank (2012) 'Annual report on Green Banking'. Dhaka: Bangladesh Bank

Bank Sarasin (2006) 'Sustainability Report 2006'.
http://www.sarasin.ch/internet/iech/en/nachhaltigkeitsbericht_2006.pdf (accessed 12 May 2010).

Bank Track (2010) 'Close the Gap- Benchmarking Credit Policies of International Bank'. A Bank Track Report. Netherlands: Bank Track.

Bhat, Vasanthakumar N. (2008) 'The Rise of Corporate Stakeholders', E-Journal: The Greening of US Corporations, 13 (3): 7-8.

Binger, Albert (2003) 'Global Public Goods and Potential Mechanisms for Financing Availability', Fifth Session on Development Policy meeting, University of the West Indies, April, Jamaica.

Business Issues Bulletin (2009)'China's Green Credit Policy- Lessons for Vietnam', No-27, October. Vietnam: Chamber of Commerce and Industry.

http://www.ifc.org/ifcext/mekongpsdf.nsf/AttachmentsByTitle/BIB-30-EngVn/$FILE/BIB-30-Eng-Vn.pdf (accessed May 2010).

European Commission (EC) (1997), 'The Role of Financial Institutions in Achieving sustainable Development', Report to the European Commission by the Delphi International Limited in association with Ecologic GMBH.

Federal Reserve Bank of Atlanta (2009) 'Green Partners in Community and Economic Development'. A Special Issue, Vol-19, No-2, November. USA: Green Primer.

Goth, Greg (2008) 'US Banker. Banker and Source Media Inc.
http://www.us-banker.comhttp://www.sourcemedia.com (accessed 9 April 2010).

Habib, Shah Md. Ahsan (2010) 'Green Banking Initiative: Opportunities for Bangladesh', Bank Parikrama, Vol XXX & XXXVI, September 2010-March 2011, BIBM, Dhaka.

Habib, Shah Md. Ahsan (2011), 'Responsibilities of Banks in Environmental Protection in US Economy: Lessons for Bangladesh Banking Sector', Germany: Lap Lambert.

Habib, Ahsan S. M., Ullah, Md. Shahid, and Rahman, Tahmina (2011), 'An Impact Evaluation of Green Initiatives of Bangladesh bank', Banking Research Series 2011, Page: 01-38, BIBM.

Habib, Ahsan S. M., Ullah, Md. Shahid., Rahman, Tahman., Zareen, Antara and Faisal, Nur Al (2013), ' Development of Green Banking in Bangladesh: Status and Prospects', Paper presented in Research Workshop, BIBM.

Harvey, Fiona (2007) 'Carbon Offsetting: Corporations Make a Mark on Green Gauge', The Financial Times, June 7. http://www.ft.com/cms/s/1/ (accessed 20 April 2010).

IBT (2008) 'IBT Market Pulse Survey'. http://www.usgbc.org/ShowFile.aspx?DocumentID=4277 (accessed June 24, 2010).

Javelin Strategy and Research (2009) 'Consumers Think Green, But Don't Act that Way',Credit Union Journal, January 5.

http://adobe.americanbanker.com/index.php?option=com_content&view=article&id=23 (accessed 30 March 2010).

Morrissey, O. TeVelde, D. and A. Hewitt (2002) 'Defining International Public Goods: Conceptual Issues', in M. Ferroni and A. Mody (eds) International Public Goods: Incentives, Measurements and Financing, Washington D C: Kluwer Academic Publishers.

Pramanik, Alok Kumar, Nikhil Chandra Shil, and Bhagaban Das (2008) 'Corporate Environmental Reporting: An Emerging Issue in the Corporate World', International Journal of Business and Management, 3 (12): 146-154.

Reuters (2010) 'UK Unveils Energy Market Reforms, Green Bank'.

http://uk.reuters.com/article/idUKLDE62N2E120100324?loomia_ow=t0:s0:a54:g12:r3:c0.483528:b32677232:z3 (accessed 12 May 2010).

Weber, Olaf (2005) 'Sustainability Benchmarking of European Banks and Financial Service Organizations', Corporate Social Responsibility and Environmental Management, 12: 73–87.

Welford, Richard (2004) 'Business and Environmental Protection: A View from Asia', Human Ecology Review, 11 (3): 285-287.

Zeitlberger, Jurgen (2007) Sustainability in the Banking Sector. USA: VDM.

A Study on Regulatory Compliance in Preparing Financial Statements of Listed Non-Bank Financial Institutions

Md. Mahabbat Hossain[1]

Maksuda Khatun

Abstract

Non-bank financial institutions (NBFIs) prepare their financial statements complying with the requirements of different regulators. The study is conducted to illustrate the present status of compliance with the regulatory requirements in preparing the financial statements (FSs) of listed NBFIs in Bangladesh and analyzes the effectiveness of regulatory initiative in this regard. A list of 120 disclosure items has been selected consulting the related regulations. The study covered 20 non-bank financial institutions, which are listed on DSE up to 2008 and data have been collected from the annual reports of the concern firms for the years 2008 and 2011. The results show that the industry average total disclosure score of 2011 is 83.17% that was 56.17% only in 2008. This improvement has been possible because of regulatory initiatives in this regard. It indicates that the firms are very much reluctant to comply if the regulators do not push them. Therefore, to ensure full compliance with all requirements it is important to strengthen the capacity of the regulators for close supervision and monitoring. This type of regulatory initiative may be taken for other industries also that could improve disclosure level of the firms.

Keywords: Annual Report, Compliance, Financial Statement, Disclosure, NBFIs

Introduction

Non-bank financial institutions (NBFIs) are to prepare their financial statements (FSs) in regular basis. They prepare these financial statements. Different regulators impose requirements for preparing financial statements of NBFIs to protect the interest of different stakeholders. Because, there are different types of stakeholders like management, shareholders, lenders, suppliers, customers, government agencies, employees, researchers, etc. To provide sufficient information NBFIs are to prepare and present a complete set of financial statements including balance sheet, income statement, statement of changes in

1. The Authors of this Paper are the Lecturers of Bangladesh Institute of Bank Management (BIBM).

equity, liquidity statement, cash flow statement and some notes to the financial statements (BB 2009). Notes are considered as parts and parcel of the FSs. Financial position (i.e., assets, liabilities and owner's equity) of the entity are disclosed in the balance sheet whereas income statement provides information regarding revenues, expenses, gains, losses, etc. Owner's right on business assets and its changes are presented in the statement of changes in equity and maturity analysis of assets and liabilities is shown in the liquidity statement. Accounting policies and principles and some details of financial statements are shown in the notes to FSs. Box 1 summarizes the components of a complete set of FSs along with the nature of information.

Box 1: Components of a Complete Set of FSs and Nature of Information

S/N	Name of Statement	Nature of Information
i)	Balance Sheet	Financial Position
ii)	Income Statement	Financial Performance
iii)	Statement of Changes in Equity	Owner's right
iv)	Cash Flow Statement	Cash inflow and outflow
v)	Liquidity Statement	Maturity analysis of assets and liabilities
vi)	Notes to FSs.	Explanation of FS items and policies

Source: BB 2009

It is more important that the provided information should be relevant, reliable, comparable and consistent for pragmatic decision making of the users. International Accounting Standard Board (IASB) presents the framework for the preparation and presentation of financial statements (Box 2). To ensure the quality of information regulators impose some requirements for preparing financial statements. There are different regulatory authorities to regulate the reporting aspects of the listed NBFIs in Bangladesh like the Registrar of Joint Stock Companies and Firms (RJSCF), Bangladesh Bank (BB), Securities and Exchange Commission (SEC), etc. In the previous studies Karim (1995), Hossain (1999), Akhtaruddin (2005), Hossain et al. (2006) found that the disclosure levels of Bangladeshi listed companies are generally poor which ultimately raises the question on accounting transparency. On the contrary, Hossain (2011) stated that listed banking companies are complying with most of the regulations and, in some cases, they are proactive to comply with the regulations. Likewise, Hossain (2012) said that the average compliance rate is 88.11% considering all required aspects of financial statements of Islamic banks. Nevertheless, there is no, so far, extensive study on the disclosure aspect of listed NBFIs of Bangladesh. Therefore, through the present study, the researches depict the status of regulatory compliance of NBFIs for preparing and presenting their financial statements.

Box 2: Framework for the Preparation and Presentation of Financial

The IASB Framework was approved by the IASC Board in April 1989 for publication in July 1989, and adopted by the IASB in April 2001. This Framework sets out the concepts that underlie the preparation and presentation of financial statements for external users. The Framework deals with (a) the objective of financial statements; (b) the qualitative characteristics that determine the usefulness of information in financial statements; (c) the definition, recognition and measurement of the elements from which financial statements are constructed; and (d) concepts of capital and capital maintenance.

The users of financial statements include present and potential investors, employees, lenders, suppliers and other trade creditors, customers, governments and their agencies and the public. They use financial statements in order to satisfy some of their different needs for information. Financial statements can meet not all of the information needs for the users; rather they meet needs which are common to all users. The management of an entity has the primary responsibility for the preparation and presentation of the financial statements of the entity. The objective of financial statements is to provide information about the financial position, performance and changes in financial position of an entity that is useful to a wide range of users in making economic decisions. Financial statements also show the results of the stewardship of management, or the accountability of management for the resources entrusted to it. In order to meet the objectives, financial statements are prepared on the accrual basis of accounting. They are also prepared on the assumption that an entity is a going concern and will continue in operation for the foreseeable future. Some attributes make the information provided in financial statements useful to users. The four principal qualitative characteristics are understandability, relevance, reliability and comparability.

Financial Statements portray the financial effects of transactions and other events by grouping them into broad classes according to their economic characteristics. These broad classes are termed the elements of financial statements. The elements directly related to the measurement of financial position are assets, liabilities and equity. Profit is frequently used as a measure of performance or as the basis for other measure, such as return on investment or earnings per share. The elements directly related to the measurement of profit are income and expenses. An item that meets the definition of an element should be recognized if it is probable that any future economic benefit associated with the item will flow to or from the entity and the item has a cost or value that can be measured with reliability. A number of different measurement bases are employed to different degrees and in varying combinations in financial statements like (a) historical cost, (b) current cost, (c) realizable (settlement) value, (d) present value, etc. The measurement basis most commonly adopted by entities in preparing their financial statements is historical cost.

There are two concept of capital – financial and physical concept. Under a financial concept of capital, capital is synonymous with the net assets or equity of the entity. This concept is adopted by most entities in preparing their financial statements. Under a physical concept of capital, such as operating capability, capital is regarded as the productive capacity of the entity based on, for example, units of output per day. Under financial capital maintenance concept a profit is earned only if the financial amount of the net assets at the end of the period exceeds the financial amount of net assets at the beginning of the period, after excluding any distributions to, and contributions from, owners during the period. Under physical capital maintenance concept a profit is earned only if the physical productive capacity of the entity (or the resources or funds needed to achieve that capacity) at the end of the period exceeds the physical productive capacity at the beginning of the period, after excluding any distributions to, and contributions from, owners during the period.

Source: IASB 2006

Statements

Objectives of this Study

The main objective of this study is to illustrate the present status of compliance with regulatory requirements in preparing the financial statements of listed NBFIs in Bangladesh. It also analyzes the effectiveness of regulatory initiative in this regard. Thus, the specific objectives of the study are;

a) to depict the regulatory compliance status of listed NBFIs of Bangladesh in preparing financial statements and

b) to depict the effectiveness of regulatory initiative regarding reporting compliance.

To accomplish the above objectives the paper has been structured as follows. In the next part of the paper, regulatory framework for preparing the financial statements of listed NBFIs is presented. After that previous papers, in this regard, have been studied and summarized and then the paper presents methodology of the study. Subsequently, paper expresses the findings of the study followed by conclusion.

Regulatory Framework for Financial Reporting

As a company NBFIs are licensed by the Registrar of Joint Stock Companies and Firms (RJSCF). On the other hand, as a player of a financial system NBFIs are regulated by Bangladesh Bank (central bank of Bangladesh). All of the listed companies are to follow the guidelines and instructions of Securities and Exchange Commission (SEC). There are two stock exchanges in Bangladesh i.e., Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE). Sometimes they impose some requirements for their listed firms. The Institute of Chartered Accountants of Bangladesh (ICAB) and the Institute of Cost and Management Accountants of Bangladesh (ICMAB) are two professional accountancy bodies in Bangladesh. ICAB adopts the International Accounting Standard (IAS) and the International Financial Reporting Standard (IFRS), which are to be followed by the Bangladeshi firms. Some important provisions regarding financial statements under different laws and regulations have been presented below:

A company is to incorporate in Bangladesh under the Companies Act 1994. The main provisions of the Companies Act 1994, regarding financial reporting, are laid down in the sections 181 to 185 and 192. Among others, section 185 is one of the most important regarding preparation and presentation of financial statements. Part I and Part II of Schedule XI under this section present the form of balance sheet and profit and loss account. The limited banking companies and insurance companies are to follow Schedule XII under section 192 for preparing their statements. For doing business, the NBFIs are to get license under the Financial Institutions Act 1993. The main provisions regarding financial reporting are stated in sections 11, 12 and 23 of this Act. As per section 23 of this Act, the directors of every financial institution shall submit to the Bangladesh Bank a copy of the profit and loss account and balance sheet prepared in accordance with the Companies Act 1994.

For preparing the financial statements of non-bank financial institution, the provisions of first schedule under section 38 of the Bank Companies Act 1991 will be applicable (Bangladesh Bank, 2009). The main provisions of the Bank Companies Act 1991, regarding disclosure, have been laid down in section 2 and 18 and sections 36 to 42 (Hossain 2011). The most important matters regarding disclosure of information are stated in section 38 of the said Act. Prescribed form of balance sheet, profit and loss account, cash flow statement, statement of changes in equity, liquidity statement and some instructions for preparation of financial statements are stipulated in the first schedule under section 38.

Once a company is listed on stock market, it has to follow the provisions of the Securities and Exchange Ordinance 1969. Section 11 of the ordinance states that the companies have to prepare and furnish the prescribed statements and Rule 12 of the Securities and Exchange Rules (SER) 1987 states the name of these statements. According to SER 1987, companies must prepare and submit a balance sheet, profit and loss account, cash flow statement and notes to the accounts (Rule 12). It is also stated in this rule that the financial statements of an issuer of a listed security shall be prepared in accordance with requirements laid down in the Schedule of this rules and the International Accounting Standards (IAS) as adopted by the Institute of Chartered Accountants of Bangladesh (Hossain 2011). The Part I and II of the Schedule of SER 1987 prescribe detailed guidelines for preparation of balance sheet and profit and loss account (Hossain and Hossain 2010).

Up to 2001, International Accounting Standards (IASs) were issued by International Accounting Standard Committee (IASC). Since inception in 2001, the International Accounting Standard Board (IASB) is issuing accounting standard as International Financial Reporting Standard (IFRS). Analyzing applicability in Bangladesh ICAB adopts IAS and IFRS as BAS and BFRS respectively. IAS 30 was the most important accounting standard for preparing financial statements of banks and similar financial institutions. This standard demonstrates how a financial institution would prepare their FSs. In August 2005, IASB issued IFRS 7 that supersedes IAS 30. ICAB adopted it as BFRS 7 and made it effective from on or after January 1, 2010. BFRS 7 requires disclosure of qualitative and quantitative information about exposure to risks arising from financial instruments, including credit risk, liquidity risk and market risk.

Both DSE and CSE have issued regulations namely Listing Regulations and regulation 36 is mainly related with disclosure (Hossain and Hossain 2010). According to this regulation, the company shall make available the financial statements to the stock exchange. Compliance with the IAS/IFRS has been mandatory through SEC notification (no. SEC/Section-7/SER/03/132 dated 22nd October, 1997). Department of Financial Institutions and Market (DFIM) of Bangladesh Bank has issued a circular (No. 11, dated December 23, 2009) requiring NBFIs to comply with the First Schedule of the Bank Companies Act 1991 for preparing their financial statements. Therefore, NBFIs are to prepare their financial statements according to the prescribed format given by BB.

Literature Review

Different researchers have conducted several studies to show the disclosure status of firms of Bangladesh (e.g. Alam 1991; Akter ahd Hoque 1993; Ahmed and Nicholls 1994; Nicholls and Ahmed 1995; Ahmed and Kabir 1995; Karim 1996; Hossain and Taylor 1998; Saha and Rahman 2000; Hossain 2001; Rahman 2002; Akhtaruddin 2005; Islam 2006; Ahmed and Dey 2009; Ahmed 2009; Hossain 2011; Hossain 2012; etc.). Some of them are related with mandatory disclosure aspect and some of them are related with voluntary disclosure aspect. Nevertheless, there is a dearth of research which is exclusively on disclosure status of NBFIs of Bangladesh. Akhtaruddin (2005) states that companies in general are not responded adequately to the mandatory disclosure requirements of the regulatory bodies. He shows that companies, on average, disclose 44% of the items of information. Huang (2006) opines that enhanced accounting disclosure leading to better transparency and stronger market discipline in the banking sector, accounting disclosure is important for banking organizations compared to not-financial firms, transparency and disclosure is an important ingredient of banking sector stability. These aspects are also applicable for NBFIs.

Some empirical studies, like Ahmed and Nicholls 1994 (Bangladesh), Karim 1995 (Bangladesh), Hossain 1999 (India, Pakistan and Bangladesh), Owusu-Ansah 2000 (Zimbabwe), Joshi and Ramadhan 2002 (Bahrain), Ahmed 2005 (India), Akhtaruddin 2005 (Bangladesh), Hossain, Cooper, and Islam 2006 (Bangladesh), Islam 2006 (India, Pakistan, Bangladesh and Sri Lanka), Samaha and Stapleton 2008 (Egypt), Hossain 2008 (India), Ahmed 2009 (Bangladesh), etc., found that the companies of developing countries are not following the mandatory accounting standards while preparing their financial statements. Reaz and Arun (2006) think that full compliance of disclosure with proper and effective audit is very important to maintain accountability and bring about transparency of firms. Karim (1995), Hossain (1999), Akhtaruddin (2005), Hossain et al. (2006) found that the disclosure levels of Bangladeshi listed companies are generally poor which ultimately raises the question on accounting transparency in Bangladesh. Compared to India, Sri Lanka, Pakistan, Thailand and Malaysia, corporate governance (CG) in practice and philosophy have until now remained relatively under-developed in Bangladesh (Nurunnabi 2009). Ahmed (2011) investigated the compliance of mandatory disclosure requirements in Bangladesh in respect of relevant statutory regulations and accounting standards. This study reveals that there is no company with 100 percent compliance.

Bhuiyan and Tuhin (2011) state that some of the companies in Bangladesh have started to realize the importance of voluntary disclosures in addition to the mandatory disclosures in the annual reports. Pandit, Hossain and Khatun (2011) show that the average regulatory disclosure compliance is 67.34%. On the contrary, Hossain (2011) states that banking companies are complying with most of the regulations. In some cases they are proactive to comply with the regulations (Hossain 2011). The present study concentrates on mandatory disclosure of non-bank financial institutions for items of information required by the

Banking Companies Act 1991, which covers most of the requirements of other laws and regulations.

Research Design and Methodology

To illustrate mandatory disclosure compliance status of NBFIs a list of required items of FSs (see Appendix I) has been prepared based on the BB circular. On December 23, 2009, BB issued a circular (DFI Circular No. 11) mentioning that some of the financial institutions are not complying with BB guidelines. To ensure harmonization and disclosure compliance, BB prescribed a format of a complete set of financial statements considering the prevailing regulations. Therefore, the study gives emphases on this circular for preparing the disclosure checklist. There are 120 items in the disclosure checklist categorized as (a) disclosure of information in balance sheet, (b) off balance sheet items, (c) disclosure of information in profit and loss account, (d) disclosure of information in cash flow statement, (e) statement of change in equity, (f) liquidity statement, (g) information in the notes to balance sheet, (h) information in the notes to profit and loss account (i) highlights of prescribed items and (j) general information. Through comparison between the data of 2008 (i.e. before issuance of BB circular) and 2011 (i.e. after issuance of BB circular), the effectiveness of regulatory initiative will be analyzed.

The study focuses on the listed NBFIs of Bangladesh. There are two stock exchanges in Bangaldesh – DSE and CSE. DSE is older than other is and most of the companies listed on CSE are also listed on DSE. As per DSE (2012) there are 21 NBFIs in Bangladesh and one of the firms was listed in 2009. Thus, following all inclusive sampling technique, we have covered 20 non-bank financial institutions, which are listed on DSE up to 2008 (see Table 1). As a source of data, we have considered annual reports of the concern firms. Bozzolan, Favotto and Ricceri (2003) said that annual reports are considered an important source of company information by external users. Besides, annual reports are regularly published by the firms for different types of stakeholders. In the study, items are numerically scored on a dichotomous basis. Score "1" is assigned if a company discloses an item in its annual report whereas score "0" is assigned for non-disclosure of a particular items. To summarize and process data Microsoft Office Excel 2007 has been used. Total disclosure score (TDS) for a company is expressed as follows:

$$TDS_i = \sum_{j=1}^{n} d_{ij}$$

Where,

TDS = the total disclosure score;

i = company (1, 2, 3, …….,20)

j = required item (1, 2, 3, …………,120)[1]

d = one if the item is disclosed; zero, if the item is not disclosed.

1. Based on DFI Circular No. 11, dated December 23, 2009, Bangladesh Bank.

Table 1: List of Sample Companies

SL	Name of the organization	Short Name	Year of Listing*
1.	Investment Corporation of Bangladesh	ICB	1977
2.	IDLC	IDLC	1992
3.	United Leasing	UL	1994
4.	Uttara Finance and Investments Limited	UFIL	1997
5.	Midas Financing Limited	MFL	2002
6.	First Lease Finance & Investment Limited	FL	2003
7.	Prime Finance & Investment Limited	PFIL	2005
8.	People’s Leasing and Financial Services Ltd.	PLFS	2005
9.	Islamic Finance and Investment Limited	IFIL	2005
10.	Premier Leasing & Finance Limited	PL	2005
11.	Industrial Promotion and Development Co.	IPDC	2006
12.	Lanka Bangla Finance	LB	2006
13.	Bangladesh Industrial Finance Company Limited	BIFC	2006
14.	Phoenix Finance	PF	2007
15.	Union Capital Limited	UC	2007
16.	Bangladesh Finance and Investment Co. Ltd.	BFIC	2007
17.	International Leasing	IL	2007
18.	Delta Brac Housing Finance Corporation Limited	DBH	2008
19.	National Housing Finance and Investments Limited	NHF	2008
20.	FAS Finance & Investment Limited	FAS	2008

*Source: DSE 2012

Results and Discussion

One of the objectives of the study is to depict the regulatory compliance status of listed NBFIs of Bangladesh in preparing financial statements. Table 2 presents the compliance status of the firms for preparing their financial statements in 2008. The average compliance score is 56.17% whereas the highest and the lowest score are 75.00% and 41.67% respectively. Though average disclosure score for BS items is 80.00% but the firms did not disclose OBS items accordingly (average score is 6.00% only). Only four firms (FAS, UFIL, ICB, and BFIC) have prepared their profit and loss (PL) account as per regulatory requirement. On the other hand, none of the firms has prepared their CFS disclosing all required information (though average score is 88.75%) but all of the firms have prepared

SCE in 2008. Result shows that only one firm (NHF) has prepared LS in 2008. Industry average score of NBS and NPL are 46.77% and 59.58% respectively. The average score for highlights with prescribed items (HL) is 30.23% and highest and lowest score in this respect are 50% and 9.09% respectively. The highest GI score is 85.71% and the lowest GI score is 28.57% with mean value 57.14%. It indicates that the compliance status of NBFIs in preparing financial statements was not satisfactory in 2008.

Table 2: Disclosure of Information by Firms in 2008 (%)

	BS	OBS	PL	CFS	SCE	LS	NBS	NPL	HL	GI	Total
IPDC	87.50	0.00	92.31	91.67	100	0.00	48.39	58.33	40.91	57.14	60.83
UL	81.25	40.00	69.23	91.67	100	0.00	54.84	50.00	13.64	42.86	54.17
PLFS	62.50	0.00	84.62	91.67	100	0.00	38.71	58.33	13.64	57.14	49.17
FL	81.25	0.00	92.31	91.67	100	0.00	41.94	75.00	9.09	71.43	55.00
DBH	75.00	0.00	92.31	91.67	100	0.00	48.39	75.00	18.18	71.43	57.50
BIFC	100	0.00	84.62	91.67	100	0.00	61.29	58.33	50.00	57.14	66.67
NHF	81.25	0.00	61.54	83.33	100	100	35.48	41.67	9.09	42.86	45.00
MFL	87.50	0.00	76.92	75.00	100	0.00	22.58	33.33	9.09	42.86	41.67
IFIL	87.50	0.00	53.85	91.67	100	0.00	35.48	41.67	31.82	57.14	50.00
FAS	75.00	0.00	100.00	91.67	100	0.00	51.61	75.00	36.36	57.14	61.67
LB	81.25	0.00	84.62	91.67	100	0.00	45.16	50.00	31.82	57.14	55.83
UC	62.50	0.00	61.54	91.67	100	0.00	45.16	58.33	36.36	28.57	50.83
PF	81.25	0.00	69.23	91.67	100	0.00	29.03	41.67	36.36	57.14	50.00
UFIL	87.50	0.00	100.00	91.67	100	0.00	70.97	58.33	22.73	71.43	65.00
PFIL	81.25	0.00	69.23	91.67	100	0.00	54.84	75.00	40.91	71.43	61.67
IDLC	75.00	0.00	69.23	91.67	100	0.00	41.94	58.33	36.36	71.43	55.00
ICB	93.75	80.00	100.00	91.67	100	0.00	61.29	91.67	50.00	71.43	75.00
PL	62.50	0.00	61.54	75.00	100	0.00	45.16	50.00	27.27	42.86	47.50
BFIC	81.25	0.00	100.00	91.67	100	0.00	61.29	66.67	40.91	85.71	66.67
IL	75.00	0.00	61.54	75.00	100	0.00	41.94	75.00	50.00	28.57	54.17
Mean	**80.00**	**6.00**	**79.23**	**88.75**	**100**	**5.00**	**46.77**	**59.58**	**30.23**	**57.14**	**56.17**
Max	**100**	**80.00**	**100**	**91.67**	**100**	**100**	**70.97**	**91.67**	**50.00**	**85.71**	**75.00**
Min	**62.50**	**0.00**	**53.85**	**75.00**	**100**	**0.00**	**22.58**	**33.33**	**9.09**	**28.57**	**41.67**

Source: Researchers' own analysis

Table 3: Disclosure of Information by Firms in 2011 (%)

	BS	OBS	PL	CFS	SCE	LS	NBS	NPL	HL	GI	Total
IPDC	100	100	100	100	100	100	90.32	100	100	85.71	88.33
UL	100	100	100	100	100	100	90.32	75.00	75.00	85.71	83.33
PLFS	100	100	92.31	91.67	100	100	77.42	58.33	58.33	57.14	73.33
FL	100	100	100	100	100	100	87.10	83.33	83.33	71.43	83.33
DBH	93.75	100	100	100	100	100	80.65	83.33	83.33	71.43	80.83
BIFC	100	100	100	100	100	100	80.65	91.67	91.67	57.14	82.50
NHF	100	100	100	100	100	100	80.65	83.33	83.33	42.86	80.00
MFL	93.75	100	100	100	100	100	77.42	75.00	75.00	71.43	78.33
IFIL	93.75	100	100	100	100	100	90.32	83.33	83.33	85.71	84.17
FAS	100	100	100	100	100	100	87.10	91.67	91.67	71.43	85.00
LB	93.75	0	84.62	100	100	100	87.10	100	100	57.14	79.17
UC	100	100	100	100	100	100	87.10	100	100	42.86	85.00
PF	100	100	100	100	100	100	80.65	100	100	85.71	85.83
UFIL	100	100	100	100	100	100	80.65	100	100	57.14	84.17
PFIL	100	100	100	100	100	100	90.32	100	100	71.43	87.50
IDLC	100	100	100	100	100	100	90.32	75.00	75.00	71.43	82.50
ICB	100	100	100	91.67	100	0	83.87	100	100	85.71	85.00
PL	100	100	100	100	100	100	90.32	91.67	91.67	71.43	85.83
BFIC	100	100	100	100	100	100	80.65	91.67	91.67	71.43	83.33
IL	100	100	100	100	100	100	87.10	91.67	91.67	85.71	85.83
Mean	**98.75**	**95.00**	**98.85**	**99.17**	**100**	**95.00**	**85.00**	**88.75**	**88.75**	**70.00**	**83.17**
Max	**100**	**100**	**100**	**100**	**100**	**100**	**90.32**	**100**	**100**	**85.71**	**88.33**
Min	**93.75**	**0**	**84.62**	**91.67**	**100**	**0**	**77.42**	**58.33**	**58.33**	**42.86**	**73.33**

Source: Researchers' own analysis

Observing the poor compliance status in preparing the financial statements, the Department of Financial Institutions and Market (DFIM) of Bangladesh Bank has issued a circular (No. 11, dated December 23, 2009). After issuing this circular most of the NBFIs have reformatted their financial statements. Now NBFIs try to prepare their FSs according to the prescribed forms. Table 3 summarizes the disclosure score of listed non-bank financial institutions (NBFIs) of Bangladesh in 2011. The highest, lowest and industry average total disclosure score (TDS) of NBFIs have been increased from the year 2008 to 2011. In 2011, most of the NBFIs have prepared their BS, OBS, PL, CFS, SCE and LS according to the forms prescribed by the regulators. However, they are not sufficiently conscious for disclosing information in the notes and presenting highlights with prescribed items. All of the listed NBFIs have prepared statement of changes in equity (SCE) in 2011 (Table 3). The industry average disclosure score is 99.17% in case of CFS with minimum score 91.97% and maximum score 100%. The highest, lowest and average disclosure score under PL are 100%, 84.62% and 98.85% respectively. In case of BS, the highest, lowest and average disclosure score are 100%, 93.75% and 98.75% respectively. Only one firm (LB) did not disclose off-balance sheet items (score = 0%) similarly another firm (ICB) did not prepare liquidity statement in 2011. Average score for each NPL and HL is 88.75% whereas average score for NBS is 85%. Seventy percent score is obtained by the industry in case of general information (GI), that is the lowest score group of information. People's Leasing and Financial Services Ltd (PLFS) got the lowest total disclosure score (TDS) and IPDC got the highest TDS considering the financial statements of 2011. The industry average TDS of 2011 is 83.17% that was 56.17% only in 2008. Obviously, compliance status in preparing the financial statements of listed NBFIs of Bangladesh has improved over the period. One of the major reasons may the regulatory initiatives. It proves that close supervision and monitoring is essential and only enactment of regulation is not sufficient for ensuring compliance.

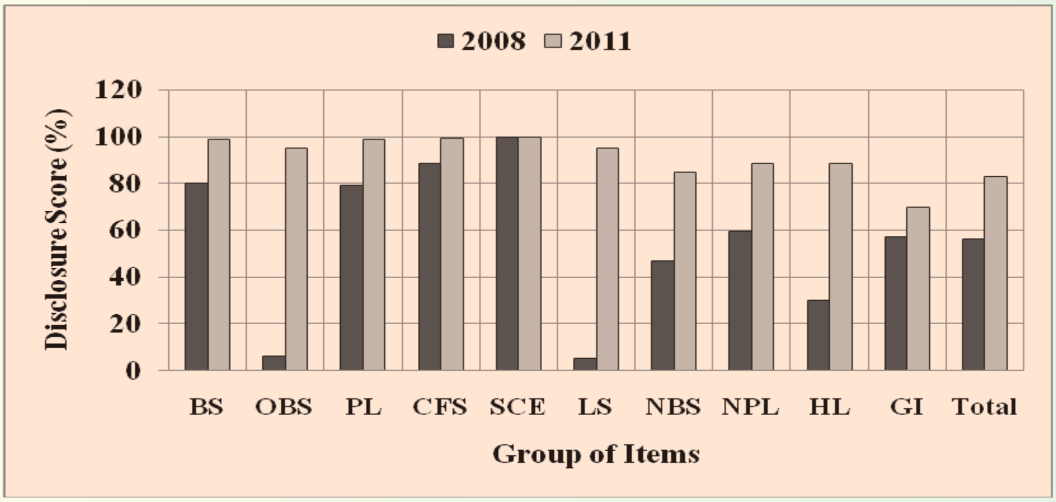
Table 4: Comparative Disclosure Score of the Industry (%)

Group of Item	Mean			Max			Min			CV	
	2008	2011	Ave.	2008	2011	Ave.	2008	2011	Ave.	2008	2011
BS	80.00	98.75	89.38	100	100	100	62.50	93.75	78.13	0.123	0.026
OBS	6.00	95.00	50.50	80.00	100	90.00	0.00	0.00	0.00	3.262	0.235
PL	79.23	98.85	89.04	100	100	100	53.85	84.62	69.23	0.197	0.038
CFS	88.75	99.17	93.96	91.67	100	95.83	75.00	91.67	83.33	0.070	0.026
SCE	100	100	100	100	100	100	100	100	100	0.000	0.000
LS	5.00	95.00	50.00	100	100	100	0.00	0.00	0.00	4.472	0.235
NBS	46.77	85.00	65.89	70.97	90.32	80.65	22.58	77.42	50.00	0.254	0.055
NPL	59.58	88.75	74.17	91.67	100	95.83	33.33	58.33	45.83	0.250	0.130
HL	30.23	88.75	59.49	50.00	100	75.00	9.09	58.33	33.71	0.466	0.130
GI	57.14	70.00	63.57	85.71	85.71	85.71	28.57	42.86	35.71	0.269	0.198
	56.17	83.17	69.67	75.00	88.33	81.67	41.67	73.33	57.50	0.148	0.042

Source: Researchers' own analysis

Required information of a complete set of financial statements of NBFIs has been categorized into ten groups in the disclosure checklist (Appendix I). Table 4 shows comparative scores of the industry for the year 2008 and 2011. In most of the cases disclosure score have been improved in 2011 compare to 2008. Considering the coefficient of variation (CV), it is clear that the variations of disclosure among the firms have also been reduced in recent year i.e. disclosure status of the industry as a whole has been improved. Mean disclosure score of OBS and LS have been improved drastically (Graph 1). Similarly, NBS and HL scores have also been increased from 46.77% to 85.0% and 30.23% to 88.75% respectively (Table 4). On the other hand, there is no change in case of mean disclosure under SCE. The disclosure scores of other groups of items (i.e. BS, PL, CFS and NPL) have been improved in 2011. Table 4 also depicts that maximum scores under different disclosure categories, like OBS, CFS, NBS, NPL, HL, etc. have been increased in the recent year. Minimum disclosure level under several groups of items have also been enhanced in this year. Total disclosure score (TDS) is increased by 27% (83.17% - 56.17%) in 2011 over 2008. Two years average mean disclosure score is 69.67% (Table 4).

Graph 1: Average Disclosure Score (Mean) of the Industry (%)



Source: Researchers' own analysis

Table 5: Non-Disclosed Items in 2008 (N=20)

S/N	Items	Group
21	Undrawn formal standby facilities, credit lines	OBS
44	Effects of exchange rate changes on cash and cash-equivalent	CFS
63	Bills purchased and discounted-maturity grouping	NBS
69	Borrowings from other banks-nature of repayment	NBS
93	Total Capital	HL
94	Capital surplus/deficit	HL
105	Cost of fund	HL
106	Interest earning Assets	HL
107	Non -interest earning Assets	HL

Source: Researchers' own analysis

Table 6: Least Disclosed Items in 2011 (<=3, N=20)

S/N	Items	Group	Firms	
			No.	%
52	Conversion of foreign currency transaction.	NBS	1	5
63	Bills purchased and discounted-maturity grouping	NBS	3	15
120	Reconciliation of books of accounts-inter-bank and inter-branch transactions with explanation.	GI	1	5

Source: Researchers' own analysis

Total nine items have not been disclosed by any of the firms in 2008 (Table 5). Out of these non-disclosed items one item under OBS, one item under CFS, two items under NBS and five items under HL group. On the contrary, there is no such non-disclosed item in 2011 (Table 6). At least one of the selected firms discloses an item of the checklist in 2011.It is also an indication of improvement disclosure status of NBFIs in 2011. Majority of the companies' (65%) scores were in the range 61-80 in the year 2008 whereas 90% companies' scores were in the range 101-120 in the year 2011 (Table 7). The credit for this improvement goes to the regulatory authority for their supervisory initiatives.

Table 7: Total Disclosure Score (TDS) of the Firms

Disclosure Score	Year 2008		Year 2011	
	No. of Company	Percentage	No. of Company	Percentage
0-20	0	0	0	0
21-40	0	0	0	0
41-60	6	30	0	0
61-80	13	65	0	0
81-100	1	5	2	10
101-120	0	0	18	90
Total	**20**	**100**	**20**	**100**

Source: Researchers' own analysis

Conclusion

Accounting information should be relevant, reliable, comparable and consistent for pragmatic decision making of the users. To ensure these, regulators impose some requirements for preparing financial statements that may protect the interest of stakeholders. The present study depicts the regulatory compliance status of NBFIs for preparing and presenting their financial statements. The result shows that compliance status of NBFIs in preparing financial statements was not satisfactory in 2008 but the status has been improved in 2011. Most of the selected firms have prepared their BS, OBS, PL, CFS, SCE and LS according to the forms prescribed by the regulators though they are not sufficiently conscious for disclosing information in the notes and presenting highlights with prescribed items. The industry average TDS of 2011 is 83%, with SD 3.49, that was 56%, with SD 8.31, only in 2008. The result is also supports the previous findings of Karim (1995), Hossain (1999), Akhtaruddin (2005), Hossain et al. (2006), Hossain (2011) Hossain (2012) etc. That means the compliance status was not satisfactory in the previous year but the situation is improving in recent year. Considering SD, it is also clear that the variations of disclosure among the firms have also been reduced in recent year. Although there are nine items that had not been disclosed by any of the firms in 2008 there is no such item in 2011. This type of improvement has been possible because of regulatory initiatives in this regard. It is also been proved that close supervision and monitoring is essential and only enactment of regulation is not sufficient for ensuring compliance. The firms are very much reluctant to comply if the regulators do not push them. Besides, there is no specific provision for them who are not preparing the financial statements complying with all requirements. Therefore, to ensure full compliance with all requirements it is important to strengthen the capacity of the regulators for close supervision and monitoring. The regulators, to review the compliance status of firms on regular basis, may establish a separate review cell. The accountancy professional body, e.g. ICAB, may prepare a disclosure checklist, which will be circulated among the auditors. Auditors may consider the checklist while auditing the FSs of a firm. This type of regulatory initiative may be taken for other industries also that could improve disclosure level of the firms.

Reference

Ahmed, H. 2011. "Financial Disclosure Practices in Bangladesh", Journal of Finance and Banking, Vol. 9, No. 1, pp. 47-66.

Ahmed, H. 2005. "Corporate Voluntary Reporting Practices in India", The Cost and Management, Vol. XXXIII, No. 5, September- October, pp.73-79.

Ahmed, A. A 2009 "Corporate Attributes and the Extent of Disclosure: A Study of Banking Companies in Bangladesh", Paper presented at the 5th International Management Accounting Conference, Universiti Kebangsaan Malaysia, (19-21 October, 2009). Kuala Lampur, Malaysia.

Ahmed, A. A. and Dey, M. M. 2009. "An Empirical Analysis of Performance Measurement of the Disclosure in Financial Reporting: A Study of Banking Sector in Bangladesh", paper presented at the 2nd COMSATS International Business Research Conference, COMSATS Institute if Information Technology, 14 November 2009, Lahore, Pakistan.

Ahmed, M.U., and Kabir, M.H. 1995. "External Financial Reporting as envisaged in Companies Act 1994: A Critical Evaluation", Journal of Business Studies, Dhaka University, Vol. 16, No. 1, cited in Akhtaruddin, M. 2005. "Corporate Mandatory Disclosure Practices in Bangladesh", International Journal of Accounting, Vol. 40, pp. 399-422.

Ahmed, K., and Nicholls, D. 1994. "The Impact of Non-financial Company Characteristics on Mandatory Compliance in Developing Countries: The Case of Bangladesh", The International Journal of Accounting, Vol. 29, No. 1, pp. 60-77.

Akhtaruddin, M. 2005. "Corporate Mandatory Disclosure Practices in Bangladesh", International Journal of Accounting, Vol. 40, pp. 399-422.

Akter, M. and Hoque, M. 1993. "Disclosure Practices in Bangladesh: A Case Study of the Banking Sector", Dhaka University Journal of Business Studies, Vol. 14, No. 2, pp. 29-42.

Alam S.A.K.M. 1991. "Disclosure Practices in Bangladesh: A Case Study of the Banking Sector", Journal of Business Studies, Vol. 14, No. 2, pp. 21-28.

Bangladesh Bank. 2009. "Preparation of Financial Statement", DFI Circular No. 11, dated December 23, 2009.

Bhuiyan, M.B. and Tuhin, M.H. 2011. "Users' Perceptions on Voluntary Disclosures in Corporate Annual Reports in Bangladesh", Journal of Finance and Banking, Vol. 9, No. 1, pp. 213-224.

Bozzolan, S., Favotto, F. and Ricceri, F. 2003. 'Italian annual intellectual capital disclosure'. Journal of Intellectual Capital, Vol. 4, No. 4, pp. 543-558.

Dhaka Stock Exchange (DSE). 2012. Monthly Review, January 2012, Vol. 27, No. 01.

Hossain, M. 2001. "The Disclosure of Information in the Annual Reports of Financial Companies in Developing Countries: the Case of Bangladesh", Unpublished MPhil Thesis, The University of Manchester, UK.

Hossain, M. 2008. "The Extent of Disclosure in Annual Reports of Banking Companies: The Case of India", European Journal of Scientific Research, Vol.23 No.4, pp.659-680.

Hossain, M. A. and Taylor, P.J. 1998. "Extent of Disclosure in Corporate Annual Reports in Developing Countries: A comparative Study of India, Pakistan and Bangladesh", A paper presented to the Cardiff School Business School Conference in Financial Reporting (held in 6-7 July, 1998).

Hossain, M.A, Cooper, K, and Islam, K.S. 2006. "Compliance with IASs: The Case of Bangladesh, paper presented at the Seventh Asian Accounting Association Conference, 17th-19th September, Sydney, Australia.

Hossain, M.A. 1999. "Disclosure of Financial Information in Developing Countries: A Comparative Study of Non-financial Companies in India, Pakistan and Bangladesh", Unpublished PhD Dissertation", The University of Manchester.

Hossain, M.A. and Hossain, M.M. 2010. "A Review of Corporate Financial Reporting Regulations in Bangladesh", BUBT Journal, Vol. 3 (January – December), pp. 175-187.

Hossain, M.M. 2011. "Disclosure Requirements in Annual Reports by the Listed Banking Companies: Cases from Bangladesh", The Bangladesh Accountant, Vol. 69, No. 42, July – September 2011, pp. 22-43.

Huang, R. 2006. "Bank Disclosure Index: Global Assessment of Bank Disclosure Practices", World Bank, September 2006.

International Accounting Standard Board (IASB). 2006. International Financial Reporting Standards (IFRSs), IASB, UK.

Islam, M. 2006. "Compliance with Disclosure Requirements by Four SAARC Countries-Bangladesh, India, Pakistan and Sri Lanka", Journal of American Academy of Business, Cambridge, Vol. 10 No. 1, pp. 348-356.

Joshi, P.L. and Ramadhan, S. 2002. "The adoption of international accounting standards by small and closely held companies: evidence from Bahrain", International Journal of Accounting, Vol. 37, No. 4, pp. 429-440.

Karim, A.K.M.W. 1996. "The Association between Corporate Attributes and the Extent of Corporate Disclosure", Journal of Business Studies, University of Dhaka, Vol. 17, No. 2, pp. 89-124, cited in Akhtaruddin, M. 2005. "Corporate Mandatory Disclosure Practices in Bangladesh", International Journal of Accounting, Vol. 40, pp. 399-422.

Karim, A.K.M.W. 1995. "Provision of Corporate Financial Information in Bangladesh", Unpublished PhD Thesis, The University of Leeds, UK.

Nicholls, D and Ahmed, K. 1995. "Disclosure Quality In Corporate Annual Reports of Non-Financial Companies in Bangladesh", Research in Accounting in Emerging Economies, Vol. 3.

Nurunnabi, M. 2009. "The perceived need for and impediments in achieving accounting transparency in developing countries: A field investigation", Paper presented at the BAA (British Accounting Association) Annual Conference, University of Dundee, Scotland, UK, 21-23 April, Available at: http://www.baa.group.shef.ac.uk/events/conference/BAA%20Conference%202009%20-%20detailed%20schedule.pdf)

Owusu-Ansah, S. 2000. "'Noncompliance with corporate annual report disclosure requirements in Zimbabwe", Research in Accounting in Emerging Economies, Vol. 4, pp. 289-305.

Pandit, A.C, Hossain, M.M. and Khatun, M. 2011). "Disclosure Requirements of Banks: Bangladesh Perspective", Banking Research Series 2011, A Compilation of Roundtable & Workshop Keynote Papers, BIBM.

Rahman, M.S. 2002. "Financial Reporting Practices in Banks and Financial Institutions: An Appreciation" Bank Parikrama, Vol. XXVII, No. 4

Reaz, M. and Arun, T. 2006. "Corporate Governance in Developing Economies: Perspective from the Link between Board Ownership and Financial Performance", Corporate Governance: An International Review, Vol. 15, No. 6, pp.1453–1468.

Saha and Rahman 2000. "Financial Reporting Practices in Banks and Financial Institutions: Implementing The New Formats of Financial Statements in Compliance With IAS-30", The Bangladesh Accountant, July-September, pp. 11-17.

Samaha, K. and Stapleton, P. 2008. "Compliance with International Accounting Standards in a National Context: Some Empirical evidence from the Cairo and Alexandria Stock Exchanges', Afro-Asian Journal of Finance and Accounting, Vol. 1, No. 1, pp. 22-41.

APPENDIX-I: Disclosure Checklist

S/N	Disclosure Items	Disclosure Status		
		Yes	No	N/A
A	**Disclosure of Information in Balance Sheet (BS)**			
1.	Cash in hands			
2.	Balance with other bank and financial institutions			
3.	Money at call and short notice			
4.	Investment in shares and securities			
5.	Loans, advances and lease			
6.	Fixed assets including land, building, furniture and fixture			
7.	Other assets			
8.	Non-banking assets			
9.	Total assets			
10.	Borrowings from other banks, financial institutions and agents			
11.	Deposits and other acconts			
12.	Other liabilities			
13.	Paid up Capital			
14.	Statutory Reserve			
15.	Other Reserve			
16.	Surplus in Profit and Loss A/C			
B	**Off Balance Sheet Items (OBS)**			
17.	Contingent liabilities			
18.	Documentary credits and short term trade-related transactions			
19.	Forward assets purchased and forward deposits placed			
20.	Undrawn note issuance and revolving underwriting facilities			
21.	Undrawn formal standby facilities, credit lines			
C	**Disclosure of Information in Profit and Loss Account (PL)**			
22.	Interest income			
23.	Interest paid on deposits and borrowings etc.			
24.	Net Interest Income			
25.	Total operating income			
26.	Total operating expenses			

S/N	Disclosure Items	Disclosure Status		
		Yes	No	N/A
27.	Profit and (loss) before provision			
28.	Total provision			
29.	Profit and (loss) before tax			
30.	Provision for income tax			
31.	Net profit and (loss) after tax			
32.	Profit available for appropriation			
33.	Retained surplus			
34.	Earning per share			
D	**Disclosure of Information in Cash Flow Statement (CFS)**			
35.	Cash flows from operating activities			
36.	Operating profit before changes in operating assets and liabilities			
37.	Increase/Decrease in operating assets and liabilities			
38.	Net cash from operating activities			
39.	Cash flows from investing activities			
40.	Net cash from investing activities			
41.	Cash flows from financing activities			
42.	Net cash from financing activities			
43.	Net increase/decrease in cash			
44.	Effects of exchange rate changes on cash and cash-equivalent			
45.	Cash and cash -equivalents at beginning period			
46.	Cash and cash equivalents at end of period			
E	**tatement of Changes in Equity (SCE)**			
47.	Preparation and presentation of statement of changes in equity separately			
F	**Liquidity Statement (LS)**			
48.	Preparation and presentation of liquidity statement separately			
G	**Information in the Notes to Balance Sheet (NBS)**			
49.	Cash in hand in local & foreign currency			
50.	Balance with BB in local & foreign currency			
51.	Details of CRR and SLR			
52.	Conversion of foreign currency transaction.			
53.	Balance with other banks & financial institutions-in Bangladesh and outside Bd.			

S/N	Disclosure Items	Disclosure Status		
		Yes	No	N/A
54.	Balance with other banks and financial institutions-Maturity grouping			
55.	Money at call on short notice-Institutions wise			
56.	Investments-Details of Govt. & others			
57.	The market price of dealing securities and marketable investment securities			
58.	Loans and Advances-maturity grouping			
59.	Loans and Advances-in Bangladesh & outside Bangladesh			
60.	Loans and Advances-Concentration			
61.	Loans and Advances-Classifications			
62.	Bills purchased and discounted- in Bangladesh & outside Bangladesh			
63.	Bills purchased and discounted-maturity grouping			
64.	Details of Fixed assets including premises, furniture and fixtures			
65.	Other assets in detailed			
66.	Non-banking assets in detailed			
67.	Borrowings from other banks- in Bangladesh & outside Bangladesh			
68.	Borrowings from other banks-Analysis by security			
69.	Borrowings from other banks-Nature of repayment			
70.	Deposits and other accounts-Maturity grouping			
71.	Other liabilities in detailed			
72.	Other liabilities-Provisions			
73.	Interest Suspense Account			
74.	Paid up Capital in detailed			
75.	Capital surplus/deficiency			
76.	Statutory Reserve			
77.	Other Reserve in detailed			
78.	Surplus in Profit and Loss A/c-Movement			
79.	Contingent liabilities in detailed			
H	**Information in the Notes to Profit and Loss Account (NPL)**			
80.	Income and expenses in detailed			
81.	Interest income in detailed			
82.	Interest paid on deposits and borrowings etc in detailed			
83.	Investment income in detailed			

S/N	Disclosure Items	Disclosure Status		
		Yes	No	N/A
84.	Commission, exchange and brokerage in detailed			
85.	Other operating income in detailed			
86.	Directors' fees in detailed			
87.	Provision against lease, loans and advances			
88.	Provision for diminution in value of investments in detailed			
89.	Other provisions in detailed			
90.	Appropriations in detailed			
91.	The transactions between the bank and its related parties.			
I	**Highlights with Prescribed Items (HL)**			
92.	Paid up Capital			
93.	Total Capital			
94.	Capital surplus/deficit			
95.	Total Assets			
96.	Total Deposits			
97.	Total Loans and Advances			
98.	Total Contingent Liabilities and Commitments			
99.	Credit Deposit Ratio			
100.	Percentage of classified loans against total loans and advances			
101.	Profit after tax and provision			
102.	Amount of classified loans during current year			
103.	Provisions kept against classified loan			
104.	Provision surplus/deficit			
105.	Cost of fund			
106.	Interest earning Assets			
107.	Non-interest earning Assets			
108.	Return on Investment (ROI)			
109.	Return on Asset (ROA)			
110.	Incomes from Investment			
111.	Earnings per Share			
112.	Net income per Share			
113.	Price Earnings Ratio			

S/N	Disclosure Items	Disclosure Status		
		Yes	No	N/A
J	**General Information (GI)**			
114.	Significant accounting principles			
115.	Events after balance sheet date.			
116.	Names of the members of the audit committee			
117.	Educational qualification of the members of Audit Committee			
118.	The number of meetings of the audit committee held			
119.	Detailed information regarding financial and management of the fund raised for staff pension.			
120.	Reconciliation of books of accounts-inter-bank and inter-branch transactions with explanation.			

Implementing Basel III in Bangladesh: Benefits, Challenges, Options and Opportunities

Md. Shahin ul Islam[1]

Md. Ala Uddin[2]

Mohammad Shahriar Siddiqui[3]

Abstract

Strong debate exists regarding macroeconomic implications of the new bank regulatory standards on capital and liquidity, known as Basel III, issued by Basel Committee on Banking Supervision. This paper discusses the benefits, challenges, options and opportunities of implementing higher capital ratios and liquidity standards in the banking industry of Bangladesh. As discussed, benefits would stem from lower probability of banking crises emanated from more stringent capital holdings while costs would be in the form of higher lending rates premia over deposit rates due to higher capital levels on aggregate output, reduced profitability, shadow banking possibility. We conclude that a rigorous quantitative impact study could be conducted before implementing the new framework for increasing the resilience of the banking sector without impeding economic growth of Bangladesh.

Keywords: *Basel III, Capital Conservation Buffer, Common Equity Tier 1, Countercyclical buffer, ICAAP, Liquidity standards*

JEL Classification: *G 21, G 28, E58*

1. Introduction

The Basel Committee on Banking Supervision (BCBS) released a number of proposals on liquidity risk measurements, standards, and monitoring in December 2010 as well as regulatory framework for more resilient banks and banking systems in the same year (revised in June 2011) with the aim of improving the resilience of the financial system expecting that they will bring notable benefits by reducing both the frequency and intensity of financial crises, thereby lowering their very large economic costs.

1. Deputy General Manager, BBTA, Bangladesh Bank.
2. Joint Director, Financial Stability Department, Bangladesh Bank.
3. Jonit Director, Financial Stability Department, Bangladesh Bank.

Note : *The views and opinions expressed in this paper are those of the authors, and not necessarily represent those of the Bangladesh Bank. All errors and omissions remain authors' own.*

Compared to Basel II with its major focus on credit and operational risks, the Basel III requirements have the coverage of a wider range of areas including the banks’ capital, liquidity and risk management. The global economic crisis in late 2000s has created an opportunity for BCBS to make fundamental restructuring of the approach to risk and regulation in the financial sector. The Committee has collectively reached an agreement on reforms to ‘strengthen global capital and liquidity rules with the goal of promoting a more resilient banking sector”, which is being referred to as “Basel III” (BCBS, 2011). The technical challenges of Basel III implementation involve availability, completeness, quality and consistency of data to calculate the new ratios.

Basel III in its current form makes a number of challenges to banks across the globe on many fronts, making preparation crucial. Most banks are aware of the increased capital requirements, but the Committee also focused on measures to strengthen banks’ liquidity positions. The Committee has proposed two minimum standards to achieve that goal, namely liquidity coverage ratio (LCR) and net stable funding ratio (NSFR)[1].

The necessity of fixing the gaps with Basel II in the form of Basel III came to light during the financial crisis. Importantly, Basel III does not jetty on Basel II, rather its basis is the essence of Basel II – the link between the risk profiles and capital requirements of individual banks, i.e., Basel III is an enhancement of Basel II. The enhancement could be identified primarily in four areas: (i) augmentation in the level and quality of capital; (ii) introduction of liquidity standards; (iii) modifications in provisioning norms; and (iv) better and more comprehensive disclosures.

The ratios of risk-weighted assets (RWA) and loans to total assets vary across business models and countries, which make it difficult to identify the factors that influence the extent of lending spreads consistently.

2. Review of literature

Rigorous impact studies in the context of developing Asian countries are few in number. Parcon-Santos and Bernabe (2012) in the context of Philippines conclude that the higher capital requirements imposed by Basel III may have an initial temporary negative impact on the economy in the sense that once adjustment is completed, real GDP would return to its baseline. In the context of Bangladesh no such research study is found exploring challenges of implementing the new framework.

This paper reviews the works conducted on the macroeconomic impacts of new regulatory framework in the global context and discusses the shortcomings in Bangladesh economy and the banking sector of Bangladesh towards implementing the framework. This paper is arranged into nine sections. Section 1 discusses the theoretical aspects, Section 2 literature

1. The LCR is designed to enhance the short-term liquidity position of banks by ensuring that they earry sufficient high-quality liqiuid assets. the second measure, NSFR promotes longer-trem liquidity resilience by encouraging banks to obtain more stable funbding on an ongoing basis. See BCBS (2010b) for details.

review, Section 3 methodology, Section 4 covers Basel III framework and roadmap, Section 5 domestic macroeconomic environment, Sector 6 Bangladesh banking sector existing scenario, Section 7 multifaceted impacts of Basel III, section 8 options towards implementing Basel III and section 9 makes conclusion and policy recommendation. The paper concludes that a rigorous quantitative study is plausible before proceeding to introduce the new capital and liquidity framework. Besides, banks should be allowed reasonable time to get them prepared for implementing the framework.

3. Methodology

This paper applies a consultative approach to discuss the benefits, challenges, options and opportunities in implementing Basel III in Bangladesh. To this end, findings of a number of studies conducted in the context of advanced as well as emerging economies have been reviewed. In this regard, Basel III framework as well as domestic macroeconomic environment has been critically discussed. Moreover, multifaceted impact of the framework has been raised to give insights about underlying challenges in implementing the Basel III framework in Bangladesh. In sum, the paper made suggestions on the basis of theoretical discussion only; no quantitative/econometric studies have been taken into account.

4. Basel III framework and roadmap

4.1 Basel III capital calculation in brief

In Basel III, capital consists of two Tiers[2]; the first Tier is composed of two sub-Tiers. Common Equity Tier 1 (CET1) capital and additional Tier 1 capital. Likewise Basel I and Basel II, the components of CET1 capital are certain elements of the capital/shareholders' equity accounts (common stock and retained earnings). However, CET1 in Basel III includes revaluation reserves that were formerly only included in Tier 2 in Basel I and Basel II. Additional Tier 1 capital, on the other hand, consists of preferred stock and instruments that are technically liabilities, but which convert to common stock or are written down as the bank deteriorates below pre-arranged thresholds of solvency, liquidity, or profitability. The components of Tier 2 capital, as in Basel I and Basel II, are certain unsecured liabilities that are subordinated to depositors and general creditors of the bank, and general provisions. In computing the amount of CET1, Additional Tier 1, and Tier 2 capital, certain assets are required to be deducted from each relevant component. The important ones include goodwill and other intangible assets, certain equity and debt investments in other financial institutions, net deferred tax assets, and other items. Unlike Basel I and Basel II, there are no deductions that are made from the sum of Tier 1 and Tier 2 in the final calculation of regulatory capital. There are also no limits placed on allowable Tier 2 capital in the final calculation of regulatory capital; nor is there a separate limit

2. Basel III abolishes the concept of Tier 3 capital (Refer to Basel III master document, "A Global Regulatory Framework for More Resilient Banks and Banking Systems" (December 2010, revised in June 2011)

applied to allowable subordinated debt as a percentage of Tier 1 capital.

Basel III also requires the introduction of a "leverage ratio," which is a simple ratio of CET1 to total assets including off-balance sheet items (not risk-weighted). This ratio is needed as a backstop to the ratios that use risk-weighted assets in the denominator, in order to avoid the situation of a bank having a very low capital requirement due to a large percentage of low risk-weighted assets in its asset mix.

All elements in Basel III are net of the associated regulatory adjustments and are subject to some specific restrictions. Common Equity Tier 1 and Tier 1 capital must be at least 4.5 percent and 6.0 percent of risk-weighted assets (RWA) respectively at all times. Total Capital (Tier 1 Capital plus Tier 2 Capital) must be at least 8.0 percent of RWA. However, banks' will need to maintain an additional 2.5 percent of RWA as capital conservation buffer. National regulatory authorities have the right to set higher percentages if they deem it necessary or prudent. Retained earnings and other comprehensive income include interim profit or loss. Dividends are removed from CET1 in accordance with applicable accounting standards. Regulators may consider appropriate audit, verification or review procedures. Basel III also makes many changes to the calculation of RWA. However, with one exception, these changes pertain to securitizations, trading and derivative activities, and counterparty credit risk that are currently not relevant in Bangladesh.

4.2 BCBS roadmap on Basel III implementation

As stated in BCBS (2011), Basel III capital recommendations will be a full regulatory requirement as of 1 January 2019. Recommended national implementation by member countries was 1 January 2013. Member countries have been required to essentially translate the rules into national laws and regulations before this date. As of 1 January 2013, banks are required to meet the new minimum requirements in relation to risk-weighted assets (RWAs) of 3.5 percent Common Equity Tier 1/RWAs; 4.5 percent Tier 1 capital/RWAs, and 8.0 percent total capital/RWAs. Phased-in period for the minimum Common Equity Tier 1 and Tier 1 requirements spans 1 January 2013 to 1 January 2015. Noteworthy that Bangladesh Bank (BB) has not yet circulated the guidelines on Basel III.

5. Domestic macroeconomic environment

During the initial phase of recent global financial crisis (GFC) Bangladesh economy experienced minor stress; however, after the recession the economy turned around. Average growth rate during the last three years remained over 6 percent, which was higher than the growth recorded globally. For instance, in 2011 world GDP recorded a growth of 3.2 percent, which was moderately lower than 4.7 percent growth recorded in 2010.

Inflation in Bangladesh remained moderately higher than the world level during the last couple of years. At end December 2012, world inflation level was 3.5 percent, as opposed to 4.5 percent inflation recorded at end December 2011. On the other hand, inflation (12-month average basis) in Bangladesh was 10.62 percent at end June 2012 as opposed to 8.80 percent inflation recorded at end June 2011. Noteworthy that point-to-point inflation crossed double digit in March 2011(10.49 percent), which again returned to single digit in April 2012.

With the overcoming of the global recession, Bangladesh export situation recovered considerably. However, sovereign debt crisis in euro zone, the main export market of Bangladesh, creating adverse impact on the exports of the country. Mentionable that Bangladesh recorded an export growth of 41.5 percent in FY2011 which, however, stood at nearly 6 percent in FY2012. In FY2012, there was a negative import growth of 1.5 percent as opposed to a sizeable positive growth of 51.5 percent recorded in FY2011. Noteworthy that though both exports and imports were in rising trend during the past couple of years; however, net exports were in declining trend.

Both current account and capital account were in surplus during the last three fiscal years while financial account demonstrated sizeable deficit. Taka-US$ weighted average exchange rate remained more or less stable during the last few months indicating stability of Bangladesh currency.

Workers' remittance is on a satisfactory trend. At end December 2012, remittance inflow was US$14.18 billion, which was US$12.17 billion at end December 2011. Increased remittance flow and export receipts contributed to increment in international reserve, standing at a satisfactory level of US$ 12.75 billion at end December 2012, significantly higher than the level of US$ 9.63 billion recorded at end December 2011. Importantly, the current level is equivalent to meeting more than four months' import payments[3].

The capital market was sound during the recent global financial crisis; however, it demonstrated major price correction after the crisis and the trend is still continuing. Noteworthy that the DSE general index reached a peak level of 8918.51 on 05 December 2010 and began to decline thereafter with moderate fluctuation.

In sum, compared to a number of advanced economies, particularly the US and the euro zone, overall macroeconomic situation of Bangladesh seems to be more or less stable and therefore implementation of Basel III could be thought of. However, actual implementation would necessitate conduction of prior study well ahead.

6. Bangladesh banking sector existing scenarios

6.1 Capital adequacy

Over the last couple of years Bangladesh Banking Sector maintained a capital adequacy ratio marginally higher than the minimum requirements stipulated in the relevant circulars and guidelines. Details are given in the following table:

3. Bangladesh Bank Board Meeting presentation on selected macroeconomic indicators on 20 January 2013 Retrieved 28 February 2013.

Table 1: CAR and Tier 1 capital ratio of the banking industry

Indicators (%)		31/12/2010	31/10/2011	31/12/2012	31/12/2013
CAR	Minimum requirement	9.0	10.0	10.0	10.0
	Maintained	9.3	11.4	10.5	11.5
Tier -1 ratio	Minimum requirement	4.5	5.0	5.0	5.0
	Maintained	6.7	8.8	8.1	9.0

Source: Financial stability reports, 2010, 2011 and DOS, Bangladesh Bank.

6.2 Progress of Internal Capital Adequacy Assessment Process

The Internal Capital Adequacy Assessment Process (ICAAP) entails forward-looking strategies and processes that shall reflect all the risks an institution is or could be exposed to in order to ensure internal capital and liquidity adequacy on an ongoing basis. The main purpose of ICAAP is to ensure that the bank's overall capital position is adequate in relation to the level of risk it takes or is subject to. It should also ensure that the systems are in place to quantify and monitor those risks, as well as, the extent and depth of the process should be proportional to the nature, size and complexity of the bank's business processes.

Supervisory Review Evaluation Process (SREP) of Bangladesh Bank (BB) includes dialogue, popularly known as SRP-SREP dialogue, between BB and a bank's SRP team. The dialogue includes BB reviews of the banks' ICAAP and determines additional capital over required minimum amount. A well-defined reporting format has been developed by BB to get the information for calculation of adequate capital on annual basis. Information of a bank's ICAAP is counterchecked with the information available with various departments of BB. In the SRP-SREP dialogue the information of Inspection Departments are treated as reference for determining adequate capital. Banks are instructed to charge their capital on the 15 different sources of risk that banks usually face under SRP of the Basel II process document disseminated by BB. The dialogue confirms banks' need for additional capital that will ensure their adequate capital, considering all the material risks considered under the SRP[4]. The first ever SRP-SREP dialogue in Bangladesh has been initiated but no yet completed[5].

6.3 Development of an effective framework

The history of Basel II implementation in Bangladesh is not too long. In 2009, implementation of Basel II has begun in a parallel arrangement with Basel I. As of 1

4. Refer to Financial Stability Report 2011
5. Refer to BB Annual Report 2011-12.

January 2010, the framework has been made mandatory for the scheduled banks. Needless to say successful implementation of Basel II requires a rich pool of skilled manpower. However, it is apprehended that such manpower is still scant in the banking sector though the matter is crucial for implementing the new frameworks in Bangladesh. Most of the banks consider Basel II as a mere regulatory reporting requirement as opposed to very essence of the implementation of the same as a framework in their business process. If there is no effective system in place, introduction of the new requirements, capital as well as liquidity standards, will bring no significant change in the banking sector of Bangladesh.

6.4 Business process automation

Effective implementation of Basel III capital and liquidity frameworks is largely dependent on business process automation of banks or automated banking system.

Banking sector is composed of 4 different bank clusters namely state-owned commercial banks (SCBs), state-owned development banks (SDBs), private commercial banks (PCBs) and foreign commercial banks (FCBs). Though all the FCBs and most of the PCBs are in a better position to implement the advanced framework; however, banks pertaining to the other two clusters seems to be not well prepared in this area, which may impede homogenous or even implementation of the new frameworks. As long as business process remains manual it may be difficult for banks to effectively implement the new framework. On the other hand, in the absence of expected level of automation of banks, it may be difficult for Bangladesh Bank to collect correct, timely and reliable data from them, which may serve as an impediment for the Bank in monitoring the performance of the banks accurately. Indeed, banks with poor business process automation and lacking appropriate management information system (MIS) may undermine the progress of banks in other bank clusters when industry performance would be evaluated.

7. Multifaceted impacts of Basel III

7.1 Benefits of the new framework

There is a greater uncertainty about the precise degree of the impact of Basel III. Higher capital and liquidity requirements may significantly contribute to the decline in the probability of banking crises (BCBS, 2010). Parcon-Santos & Bernabe (2012) in the context of Philippines conclude that the impact of Basel III will be positive, though modest, and reduce the probability of a crisis. Noteworthy, a number of factors could lead to a higher estimate of net benefits of implementing Basel III. For instance, in addition to reducing the probability of banking crises, higher capital and liquidity standards, by making the financial system more resilient, can reduce the amplitude of the business cycle. Countercyclical capital buffer schemes could considerably contribute to enhancing these effects.

7.2 Impacts on GDP

One major criticism against Basel III has been that it will hurt growth. A number of studies tried to assess the macroeconomic impacts of implementing Basel III.

The BCBS and the Financial Stability Board (FSB) have set up a group to assess the macroeconomic effects of the transition to higher capital and liquidity requirements.

The MAG (2010a) in their Interim Report concludes that overall a 1 percentage point increase in the target ratio of tangible common equity (TCE) to risk-weighted assets would result in a decline in the level of GDP by a maximum of about 0.19 percent from the baseline path after four and a half years, which is equivalent to a decline in the annual growth rate of 0.04 percentage points over this period. As stated in MAG (2010a) these results apply to any increase in target capital ratios whether its source be higher regulatory minima, required buffers, changes in the definition of capital, the application of a leverage ratio, or some other change in standards.

MAG (2010b) in the global context views that the strengthened capital requirements have possibility to have a relatively modest impact on growth. The Report projects that GDP would decline by 0.22 percentage points below its baseline level in the 35th quarter after the commencement of implementation. Thereafter a recovery of growth towards baseline will take place, which implies that annual growth rates will decline by 0.03 percentage points for 35 quarters, followed by a period during which there will be 0.03 percentage point higher annual growth. If banks choose to implement the new requirements ahead of the schedule set out by supervisors, the impact on the overall level of GDP will be somewhat greater resulting in a greater impact on growth rates. Roger and Vitek (2012) estimate that in the absence of any monetary policy response, if permanent synchronized global increase in capital requirements takes place by 1 percentage point, a peak reduction of nearly 0.5 percentage points in GDP will take place. Out of this reduction around 0.1 percentage points would stem from international spillovers. They also find that losses in emerging market economies would be somewhat compared to those in advanced economies. Hopefully, monetary policy intervention could largely offset the adverse impact of higher capital requirements.

Angelini et al.(2011) find that each percentage point increase in the capital ratio results in a median 0.09 percent decline in the level of steady state output, relative to the baseline while the impact of the new liquidity regulation is at 0.08 percent.

In Bangladesh, capital adequacy requirement is now 10 percent of risk-weighted assets. Compared to other south Asian peers the country's industry capital adequacy ratio is still far behind the progress made by other neighboring countries, for example India and Pakistan. Hence, if the new framework is imposed banks initially might get tremendous pressure in maintaining minimum capital adequacy ratio.

Slovik and Cournède (2011) find that medium-term impact of Basel III implementation on GDP growth is in the range of −0.05 to −0.15 percentage point per annum. Economic output is mainly impacted by a rise in bank lending spreads as banks pass a rise in bank funding costs, due to higher capital requirements, to their customers. These effects on GDP growth assume no active response from monetary policy intervention.

The capital requirements effective as of 2019 (7 percent for the common equity ratio, 8.5 percent for the Tier 1 capital ratio) could increase bank lending spreads by about 50 basis points.

Sheng in BIS (2012) points out that though Basel III has made tremendous progress, the rules are very relevant for advanced markets. He reminds that there should be thinking on to what extent the banking rules should fit more with emerging markets conditions and that though the whole set of Basel III rules is not crucial the key rests on implementation which is indeed a difficult issue. Caprio (2013) on a discussion on Basel III points out that there has been an increase in the complexity of regulation and reminds that the Basel Committee has established a task force on simplifying regulation.

7.3 Progress of banks in implementing Basel II and preparedness for Basel III

An important portion of the banks in Bangladesh have been implementing Basel II framework successfully. Nevertheless, data reveal that banking industry capital adequacy ratio is not still minimum requirement of capital adequacy ratio (CAR) of 10.0 percent (Table 2). For instance, minimum CAR requirement as at both end December 2012 and December 2013 was 10.0 percent against which banking industry maintained CAR of 10.5 percent and 11.5 percent respectively. Besides, progress of state-owned commercial banks (SCBs) and specialised development banks (SDBs) seems to be not satisfactory. Ironically, SDBs have been maintaining a negative CAR for long.

It is noteworthy that Bangladesh Bank released Basel III 'Action Plan/Roadmap' and 'Phase-in Arrangements' thereof on March 31, 2014 vide BRPD Circular No. 07 (Table 3 and Table 4 respectively). As evident from Table 4, there will be no increased minimum requirement with respect to minimum CAR[6], however, there are two buffer requirements–'capital conservation buffer' and 'counter cyclical buffer'. 'Capital conservation buffer' has been fixed and will be in force from January 2016 starting at 0.625 percent, will gradually increase and will be 2.50 percent from January, 2019 onward. This requirement will be over the minimum CAR requirement of 10.0 percent. In addition, there will be a countercyclical capital buffer requirement that ranging between zero and 2.5 percent to total risk weighted assets. This will be implemented through an extension of the capital conservation buffer (see BCBS, 2011 for details). It is apprehended that the two additional buffer requirements will put banks into increased challenges of fulfilling the regulatory requirement. Furthermore, there will be two liquidity standards that will come into force from January 2016. In sum, the enhanced liquidity and capital requirement will be very much challenging for the banks to comply with.

6. Total Regulatory Capital to risk-weighted assets (RWA)

Table 2 Capital to Risk Weighted Assets Ratio (CAR) by Type of Banks

(Percent)

Bank types	2009	2010	2011	2012	2013
SCBs	9.0	8.9	11.7	8.1	10.8
SDBss	0.4	- 7.3	-4.5	-7.8	-9.7
PCBs	12.1	10.1	11.5	11.4	12.5
FCBs	28.1	15.6	21.0	20.6	20.3
Total	**11.6**	**9.3**	**11.4**	**10.5**	11.5

Source: Bangladesh Bank (Annual Report 2012-13 and DOS).

Table 3 Basel III Action Plan/Roadmap

A	Deadline
Issuance of Guidelines	June 2014
Capacity Building of Banks	June-Dec 2014
Commencement of Basel III Implementation	July 2014
Initiation of Full Implementation of Base III	January 2019

Table 4 Basel III Phase-in Arrangements

	July 2014	2015	2016	2017	2018	2019
Mini mum Com mon Equity Tier-1 (CET-1) Capital Ratio	4.00%	4.50%	4.50%	4.50%	4.50%	4.50%
Capital Conservation Buffer	-	-	0.625%	1.25%	1.875%	2.50%
Mini mum CET-1 plus Capital Conservation Buffer	4.00%	4. 5%	5.125%	5.75%	6.375%	7.00%

	July 2014	2015	2016	2017	2018	2019
Minimum T-1 Capital Ratio	5.00%	5.50%	5.50%	6.00%	6.00%	6.00%
Minimum Total Capital Ratio	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Minimum Total Capital plus Capital Conservation Buffer	10.00%	10.00%	10.625%	11.25%	11.875%	12.50%
Phase-in of deductions from CET1	*Not Applicable*					
Phase-in of deductions from Tier 2 Revaluation Reserve (RR)						
RR for Fixed Assets	*20%*	*40%*	*60%*	*80%*	*100%*	*100%*
RR for Securities	*20%*	*40%*	*60%*	*80%*	*100%*	*100%*
RR for Equity Securities	-	*50%*	*100%*	*100%*	*100%*	*100%*
Leverage Ratio	3%	3%	3%	3% Readjustment	Migration to Pillar 1	
Liquidity Coverage Ratio	June 2014 to June 2015 on test basis	≥100% (From Sep.)	≥100%	≥100%	≥100%	≥100%
Net Stable Funding Ratio		> 100% (From Sep.)	>100%	>100%	>100%	>100%
Countercyclical Capital Buffer	-	-	Countercyclical capital buffer regime will be effective from Jan 2016			

Pertinently, it is apprehended that that higher capital requirements under Basel III are going to be enforced in a time when credit demand in the economy will be on the rise. It is mentionable that Bangladesh economy is now in a transforming phase; Bangladesh will shift further from agriculture to industry and services, and therefore, we need to increase our investment in infrastructure that will place increased demands on credit. In addition, financial inclusion, driven by the Bangladesh Bank will contribute to moving a large number of low income households into the formal financial system and a good portion of them will need credit.

7.4 Impact on lending rate and credit growth

There has been much conjecture concerning the increase in the cost to banks and borrowers due to more stringent regulations[7]. Higher capital requirements, by raising banks' marginal cost of funding, lead to higher lending rates. Large banks around the globe would on average need to increase their equity-to-asset ratio by 1.3 percentage points under the Basel III framework (Cosimano & Hakura, 2011). Besides, the largest banks would raise their lending rates with a view to increasing their equity-to-asset ratio needed to achieve the new Basel regulation of a 7 percent equity to new risk-weighted asset ratio. Given an estimated elasticity of loan demand with respect to the loan rate for the group of largest banks, the increase in lending rates would cause loan growth to decline in the long run (Cosimano & Hakura, 2011).

Chun, et al. (2012) find that the required lending spreads to keep return on equity (ROE) from falling vary from 0.1 basis points for real estate and mortgage banks to 9.1 basis points for commercial banks. They also find that NSFR increases lending spreads by 20.0 basis points for the commercial banks of the countries considered if they want to keep ROE at the pre-regulation level.

BCBS (2010) finds that each 1 percentage point increase in the capital ratio could raise loan spreads by 13 basis points. The report also outlines that in terms of liquidity standard, the additional cost of meeting the liquidity standard amounts to around 25 basis points in lending spreads assuming no change in risk-weighted assets; however, when fall in risk-weighted assets and the corresponding lower regulatory capital needs associated with the higher holdings of low-risk assets are taken into account the cost would be 14 basis points or less.

7.5 Impact on profitability

Basel III necessitates higher and better quality capital though the cost of equity capital is high. There is a possibility that the loss absorbency requirements on the non-equity regulatory capital will raise its cost. The average Return on Equity (RoE) of the banking system for the last three calendar years has been nearly 20 percent. Implementation of Basel III is expected to result in a decline in Bangladeshi banks' RoE in the short-term. However, the expected benefits arising out of a more stable and stronger banking system will materially offset the negative impact of a lower RoE in the medium to long term. It is also reasonable to assume that investors will perceive the benefits of having less risky and more stable banks, and will therefore be willing to trade in higher returns for lower risks.

7.6 Impact of liquidity Standards

The LCR requirements creates disincentives to banks to lend and/or borrow on the unsecured money market and produces incentives to banks to submit eligible assets which are not included in the definition of liquid assets. Moreover, it may raise the spread between interest rates on the secured and the unsecured money market (Schmitz, 2011).

7. See Norton Rose (2010).

The introduction of two liquidity ratios to address the short-term as well as long-term maturity of liquidity and funding may motivate banks to switch from sourcing shorter-term funding arrangements to longer-term funding arrangements with the consequent impact on the pricing and margins that are achievable. However, investor may be less attracted by bank debt or equity issuance given that dividends are likely to be reduced to allow firms to rebuild capital bases. Basel III might compel banks to carry a larger proportion of sovereign debt in their investment portfolios which are low yielding. As an alternative measure Banks may choose to term-out their deposits to reduce potential cash outflows in a 30-day period. The LCR requirement could materially affect the earnings capability of a bank's investment portfolio and net interest margin.

7.7 Shadow banking possibility

Strong capital requirements on banks may drive credit intermediation into the shadow banking system, which would diminish macroeconomic impact but would raise financial stability issues (MAG, 2010a). Some banks might be tempted to shift some of their activities to the shadow banking system with a view to lessening their capital requirements.

Currently Basel II capital adequacy framework is mandatory for the banks and non-bank financial institutions. The insurance sector is still not subject to Basel II capital requirement. Hence, if capital and liquidity regulation are tightened in line with Basel III for banks and non-bank financial institutions, banks might have incentive to switch their business to less regulated activities.

7.8 Impacts on Islamic Banks

Basel III liquidity risk requirements may affect Islamic banks in Bangladesh due to the lack of a developed Islamic money market and the lack of liquid Islamic investment instruments with short term maturities. The liquidity standards do not take into account the typical nature of this industry. Needless to say, for being compliant in LCR, Islamic banks do not have plentiful Shariah compliant short term instruments. Besides, there are no adequate longer term liabilities that Islamic banks could withdraw at short term for complying with the NSFR requirement. Besides, unlike conventional banks Islamic banks cannot invest in government bonds.

Islamic bond market in Bangladesh still is in a preliminary stage. Its development may require time. From this point of view, Islamic banks may face difficulty in maintaining high quality liquid assets.

Albeit the above apprehensions, Basel III, in the long-run, may not penalize the Islamic banks. The majority of Islamic banks here maintain capital adequacy ratio considerably higher than the current regulatory minimum.

7.9 Monetary policy intervention

Parcon-Santos & Bernabe (2012) in the context of Philippines predicts that Basel III implementation will have a small and temporary negative impact on GDP for which optimal approach for monetary policy will be not to respond. However, if the negative impact is significant and enduring, appropriate monetary policy intervention may be resorted to for dampening any contractionary impact of the reforms. The same finding seems to hold in the context of Bangladesh though rigorous works on tracing macroeconomic impact of Basel III in Bangladesh are still lacking. The policy makers could examine the impact quantitatively and if it is found that the implementation poses lasting negative impact on output then monetary policy could be applied to dampen any contractionary impact of the reforms.

7.10 Countercyclical capital buffer

A critical element of the Basel III framework is a countercyclical capital buffer which requires banks to build up a higher level of capital in good times that could be run down in times of economic slowdown, consistent with safety and soundness considerations. However, an important challenge is to identify the point of inflexion in an economic cycle which should trigger the release of the buffer. Tightening too early or too late may be costly in macroeconomic terms. The point of inflexion therefore needs to be judiciously identified. It also necessitates long series data on economic cycles, a better database and more refined statistical skills in analyzing economic cycles.

The Basel Committee has taken in cognizance that no single variable can fully capture the dynamics of the economic cycle. Appropriate calibration of the buffer requires country specific judgment backed by a broad range of other simple indicators used in financial stability assessments.

7.11 Impact of length of the implementation period

The length of the phase-in period of the new requirements may serve as an important determinant in banks' responses to new capital and liquidity standards. Banks may resort to lessening credit supply in order to raise capital ratios and fine tune asset composition and holdings quickly. On the other hand, long transition period could considerably allow mitigating the impact, allowing banks added time to adapt by retaining earnings, issuing equity, changing composition of liability and the like. If banks are allowed time to use these adjustment mechanisms, they would be able to mitigate any adverse impacts on lending conditions and, eventually, on aggregate activity (MAG, 2010a).

8. Options: Do we need Basel III?

The importance of Basel III for us is that Bangladesh is a small and open country and thus need to integrate with the rest of the world. Deviations from global regulatory standards will hurt us by way of perception as well as in actual practice. If there is a perception that lower-standard regulation prevails, Bangladeshi banks will be exposed to global competitive disadvantage (for instance, higher funding costs). Besides, the international linkage will require more tightened risk management systems and a sufficient buffer to withstand any external shocks.

Taking the macroeconomic reality into account Bangladesh could adopt only a diluted version of Basel III to balance the benefits against the presumed costs. It is often argued that Basel III is designed as a corrective for advanced economy banks which had gone astray, often times taking advantage of regulatory gaps and regulatory looseness, and that Bangladeshi banks which remained sound throughout the crisis should not be burdened with the "difficult" obligations of Basel III. Bangladesh should transit to Basel III because Bangladesh integrates with the rest of the world, and we cannot afford to have a regulatory deviation from global standards. Lower standard regulatory regime will put banks in Bangladesh at a disadvantage in global competition and deviation from Basel III will also hurt us in actual practice risk management systems to withstand shocks from external systems, especially as they deepen their links with the global financial system going forward.

9. Conclusion

The implementation of Basel III in Bangladesh may bring benefits in the form of reduced crisis probability, reduced amplitude of business cycle, and enhanced resilience of the financial sector. However, there is a possibility that the framework may impose cost on output, raise lending rate, slower credit growth, impact profitability, encourage shadow banking activities, adversely impact the Islamic banking industry as well as necessitate monetary policy intervention.

Choosing the length of implementation period requires judicious decision. The implementation could be commenced earlier; however, phased-in period could be longer. Besides, rigorous study, preferably quantitative in nature, on cost and benefit of this framework could be conducted so as to increase the resilience of the banking sector without hurting growth prospect of the country. The standards will be a full regulatory requirement as of 1st January 2019. Though national authorities were required to begin implementation as of 1st January 2013; however, for a country like Bangladesh more rigorous and careful examination of costs and benefits seem plausible.

References

Angelini, P., Clerc, L., Cúrdia, V., Gambacorta, L., Gerali, A., Locarno, A., et al. (2011, February). BASEL III: Long-Term Impact on Economic Performance and Fluctuations.

BCBS. (2010a). An assessment of the long-term economic impact of stronger capital and liquidity requirements. Basel Committee on Banking Supervision, Bank for International Settlements.

BCBS. (2011). Basel III: A global regulatory framework for more resilient banks and banking systems. Bank for International Settlements, June.

BCBS. (2010b). Basel III: International framework for liquidity risk measurement, standards and monitoring. Bank for International Settlements, December.

Caprio, G. (2013, November). Retrieved May 18 May, 2014, from Social Science Research Network: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2350564

Chun, S. E., Kim, H., & Ko, W. (2012). The Impact of Strengthened Basel III Banking Regulation on Lending Spreads: Comparisons across Countries and Business Models, March. Retrieved from http://www.bis.org/events/bokbisimf2012/session6_lending_spreads.pdf

Cosimano, T. F., & Hakura, D. S. (2011). Bank Behavior in Response to Basel III: A Cross-Country Analysis. (I. Institute, Ed.) IMF Working Paper , WP/11/119.

Hideshima, H. (2012). Dealing with global and domestic systemic importance. Basel Committee on Banking Supervision , Workshop 5.

MAG. (2010b). Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements, Final Report. Macroeconomic Assessment Group, Bank for International Settlements, December.

MAG. (2010a). Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements, Interim Report. Macroeconomic Assessment Group, Bank for International Settlements, August.

Norton Rose. (2010, October). An introduction to Basel III - its consequences for lending. Retrieved from http://www.nortonrose.com/knowledge/publications/31077/an-introduction-to-basel-iii-its-consequences-for-lending

P Angelini, L Clerc, V Cúrdia, L Gambacorta, A Gerali, A Locarno, R Motto, W Roeger, S Van den Heuvel and J Vlček. (2011). BASEL III: Long-term impact on economic performance and fluctuations. Retrieved from http://abc

Parcon-Santos, H. C., & Bernabe, J. E. (2012). The Macroeconomic Effects of Basel III Implementation in the Philippines: A Preliminary Assessment. Bangko Sentral ng Pilipinas Working Paper, October . Bangko Centran Ng Philipinas (BSP).

Roger, S., & Vitek, F. (2012). The Global Macroeconomic Costs of Raising Bank Capital Adequacy Requirements. International Monetary Fund Working Paper, WP/12/44.

Schmitz, S. W. (2011). The Impact of the Basel III Liquidity Standards on the Implementation of Monetary Policy. Working Paper.

Sheng, A. (2012). BIS Papers No 62. Financial sector regulation for growth, equity and stability (p. 41). Mumbai, India: Bank for International Settlements.

Slovik and Cournède. (2011, February). Macroeconomic Impact of Basel III. Economics Department Working Paper No.844 . Organisation for Economic Co-operation and Development.

Slovik, P. (2012). Systemically Important Banks and Capital Regulations Challenges. OECD Economics Department Working Paper No. 916 .

Slovik, P., & Cournède, B. (2011, February). Macroeconomic Impact of Basel III. OECD Economics Department Working Papers No. 844 .

The LCR is designed to enhance the short-term liquidity position of banks by ensuring that they carry sufficient high-quality liquid assets. The second measure, NSFR promotes longer-term liquidity resilience by encouraging banks to obtain more stable funding on an ongoing basis. See BCBS (2010b) for details

Basel III abolishes the concept of Tier 3 capital (Refer to Basel III master document, “A Global Regulatory Framework for More Resilient Banks and Banking Systems” (December 2010, revised in June 2011)

Bangladesh Bank Board Meeting presentation on selected macroeconomic indicators on 20 January 2013 Retrieved 28 February 2013.

Refer to Financial Stability Report 2011

Refer to BB Annual Report 2011-12.

Total Regulatory Capital to risk-weighted assets (RWA)

See Norton Rose (2010).

The Impact of Private Sector Credit on Output and the Price Level in Bangladesh

Dr. Sayera Younus[1]
Nazmun Nahar Mily[1]

Abstract

This study examines the relationship if any among private sector credit with output as proxies by the industrial production and the price level (CPI) in Bangladesh. In many developed and developing countries, private sector credit has played a critical role by efficiently allocating resources for investment and is considered to be an engine of economic growth. Impulse Response Functions and Variance Decompositions derived from Vector Auto regression (VAR) and Granger Causality tests are used to examine the relationship for Bangladesh. The outcomes of the econometric results suggest that private sector credit has positive and significant effect on economic growth however, it is also inflationary. This result is consistent with the conventional belief that when an economy starts to grow it creates immediate additional demand for financial services and helps grow a better financial system. At the stage, the positive impact of financial development on economic growth could be modest or negligible. As development proceeds, a better and well functioning financial system is established where it can contribute to a greater extent to income growth. The policy implication of the findings is that careful attention is required while expanding private sector credit so that much of the credit goes for productive investment rather than consumption purposes because of its impact on inflation in Bangladesh.

Key Words: Private Sector Credit, Output and the Price Level

JEL Classification: E50, E51

I. Introduction

The intention of this paper is to identify whether private sector credit (PSC) has any causal relationship with output and the price level in Bangladesh. A World Bank study (Barth and Calari, 2006) estimated that a doubling of the ratio of private sector credit to GDP can add two percentage points to long term economic growth. In many developed and developing

1. The authors of this paper are Dr. Sayera Younus, Deputy General Manager, Monetary Policy Department and Nazmun Nahar Mily, Joint Director, Research Department respectively of Bangladesh Bank, H.O, Dhaka. The authors would like to thank an anonymous referee for his valuable comments and suggestions on the earlier version of this paper. However, any remaining errors are the author's own.

countries, private sector credit has played a critical role and is considered to be the engine of economic growth and development (e.g., Barth and Calari, 2006; Levine, 1997; Levine and Renelt, 1992; King and Levine, 1993a and 1993b) by providing resources for investment to the private sector. Historically, economists who have focused on banks e.g., Bagehot (1873) and Schumpeter (1912) emphasized the critical importance of the banking system on economic growth and highlighted circumstances when banks can actively spur innovation and future growth by identifying and funding productive investments (Levive and Zervos, 1998).

A country like Bangladesh, where fiscal dominance is at work, it is very difficult to support private sector due to various reasons that includes excessive government borrowings from the banking system to support budgetary expenditure and to finance debt of the public sector. To find out the impact of the borrowing from the banking system by the Government and by the other public sector is not the intention of this study though it has significant implication for the macroeconomic stability of our country, the present study has concentrated on whether private sector credit growth as measure of financial development expedite economic growth and also on inflation in Bangladesh due to its importance in policy making.

The plan of the paper is as follows: after introduction in section-I, section-II discusses the related literature on private sector credit, inflation and economic growth. In section-III an overview of the financial structure is analyzed followed by the methodology, model specification and empirical results in section-IV. Section-V concludes the paper with recommendations.

II. Literature Review

Rajan and Zingales, (1998); Beck, Levine, and Loayza, (2000); and Levine, Beck, and Loayza, (2001), Arestis and Demetriades (1997), Beck and Levine, (2000) who evoked the link between financial development and growth have emphasized the importance of the private sector credit. According to the proponents of this view, financial sector plays a fundamental role in the allocation of savings to productive enterprises, favoring economic efficiency and capital accumulation. In that context, rapid credit growth can, then, be simply the result of a financial deepening that will eventually benefit the economy (Giovanni, Ariccia and Hollar, 2003).

In contrast, Lucas (1988) states that economists 'badly overstress' the role of the financial system, and Robinson (1952) argued that banks respond passively to economic growth. In addition to that a vast number of literatures have documented that episodes of financial distress are likely to follow the periods of strong credit expansion. Goldfajn and Valdes (1997) and Drees and Pazarbasioglu (1998), in their study stated that strong credit growth was observed before most banking crises. (for example bank crises in Argentina in 1980; Chile in 1982; Sweden, Norway, and Finland in 1992; Mexico in 1994; and Thailand, Indonesia, and Korea in 1997). The major reasons behind some of the cases were fast credit growth that was stimulated by the deregulation of the financial sector reduction in banks’ reserve requirements following reforms and by various degrees of capital account liberalization that provided the liquidity to fund the strong credit demand.

Several econometric studies have confirmed the existence of a link between rapid credit growth and banking system fragility. Demirgüç-Kunt and Detragiache (1997) found evidences supporting the idea that an increase in the lending activities leads to banking crises. For example, according to their estimates, in the case of Mexican crisis during 1994, a 10 percent increase in the initial value of lagged credit growth increased the probability of a crisis by 5½ percent. Kaminsky and Reinhart (1999) found that the growth rate of the bank credit to the private sector ratio accelerated markedly as banking crises or twin crises (banking and currency crises) approached, remaining well above the growth rate recorded in tranquil times. Finally, Landerretche et al. (1999) examined a large number of episodes of lending expansion and found that the probability of having a banking crisis significantly increased after such episodes.

A study by Levine and Zervos (1999) used the value of loans made by commercial banks and other deposit-taking banks to the private sector divided by GDP, and controlling for other variables estimated the credit growth relationship for a 49 countries over the periods from 1976 to1993. This paper found a strong, positive link between financial development and economic growth and the results suggested that financial factors were an integral part of the growth process.

Holla et al. (2003) conducted a study on 15 Central and Eastern Europe and Balkans countries and found that these countries are waking up. In some countries bank credit to the private sector has been rising considerably faster than GDP for a few years, with the result that the Bank Credit to the Private Sector ratio has increased at an average pace of some 2½ percentage points of GDP per year; in others, the bank credit to the private sector ratios has started rising only more recently; finally, in a third group of countries there is still no clear increase in the BCPS ratio, but credit to some sectors, notably to households, has accelerated sharply. They attributed the differences due to differences in primarily overall financial deepening, the speed of privatization, crowding-in forces, and overall progress toward market institutions.

Coricelli, Fabrizio and Masten, Igor (2004) using quarterly data from 1993.Q1 to 2003.Q2 found evidence that the development of credit markets played a significant role in affecting both growth and volatility in Central-Eastern Europe countries. It is found that progress in credit market development, through the convergence of the depth and efficiency of credit markets towards the level prevailing in advanced market economies could have a major impact on growth and would sharply reduce output volatility in Central-Eastern Europe countries.

The macroeconomic implication of fast bank credit growth is not straight forward because unlike demand for money, literature on demand for credit is scarce. If demand is rising faster than supply or, more generally, then the economy may be overheating which would result in macroeconomic instability. According to the Modigliani-Miller theorem, at face value, this would imply that the output elasticity of credit is indeterminate, as firms’ production decisions are not be affected by the structure of their balance sheets (Carlo et al, 2003). At the empirical level, however, several macro econometric models do include demand for credit equations. However, there is no presumption that the elasticity of credit with respect to output should be equal to one, i.e., that the "credit velocity" should be constant. A recent model following this approach is presented in Calza, Gartner and Sousa (2003), who find an elasticity of credit demand to GDP well above one.

Most of the empirical studies show that financial services have an independent, positive effect on growth and implying that the more intermediation that is done by banks, more credit goes to the private sector the greater is the economic growth, other things remaining the same.

III. An Overview of the Financial Structure in Bangladesh

The financial system of Bangladesh consists of Bangladesh Bank (BB), the central bank, 4 State Owned commercial banks (SOCBs), 4 government owned specialized banks, 39 domestic private banks, 9 foreign banks and 31 non-bank financial institutions (NBFIs) as of August 2013. The financial system also contains insurance companies, stock exchanges and various co-operative banks, Microfinance Institutions (MFIs) and credit rating agencies. Besides, three state owned development financial institutions namely House Building Finance Corporation (HBFC), Ansar-VDP Unnayan Bank and Karma Shangsthan Bank are operating in Bangladesh. Among them the commercial banks, NBFIs and MFIs are widely engaged in the private sector credit disbursement.

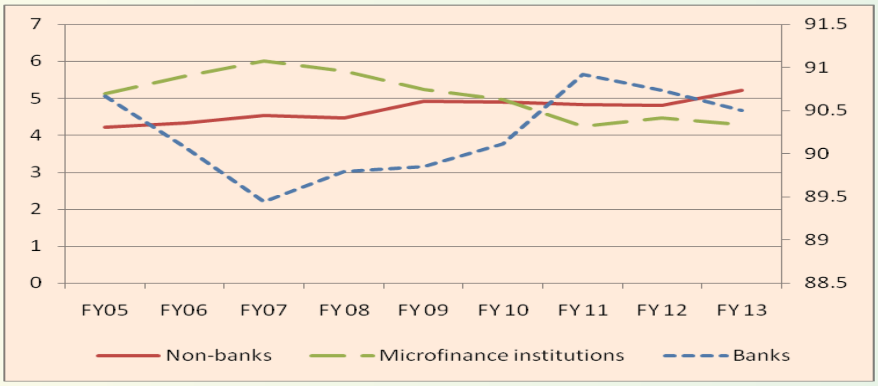
III.1 Trend Analysis

After independence in 1971, the State was given the leading role in the development process in Bangladesh, which was reversed in 1975 and various measures were undertaken to facilitate the private sectors. Various supportive measures were undertaken in favor of privatization in agriculture, private investment, foreign investment, trade liberalization, exports etc. In order to facilitate private sector development, the government has to create an environment which is conducive to investment, fiscal, trade, monetary and financial development such as, good law and order situation, strong physical and infrastructural facilities, suitable macroeconomic policies that are essential for development of the private sector.

A very smooth access to the private sector credit is very essential to create an environment that generates employment; expands opportunities for people to earn income and improve standards of living. It has been argued that a dynamic private sector can develop a tax base necessary to finance socio-economic program which are crucial to making development justly sustainable. In the following paragraphs recent trends in private sector development in Bangladesh has been analyzed.

Historical data show that Chart-1 scheduled banks provide the significant amount of credit of about 91 percent credit to the private sector while the shares of non-bank financial institutions is increasing over time. For example, it went up slightly from 4.2 percent in FY05 to 5.2 percent in FY13 while the share declined for microfinance institutions from 5.1 percent in FY05 to 4.3 percent in FY13.

Chart-1: Share in Private Sector Credit in Bangladesh



Source: Bangladesh Bank Quarterly, BB

Table-1: Trends in Private Sector Credit in Bangladesh

Institutions	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13*
Outstanding (in billion Taka)									
Banks	1107.4	1309.7	1507.7	1901.4	2179.3	2707.6	3407.1	4079.0	4521.6
Non-banks	51.5	63.0	76.6	94.7	119.2	147.4	181.3	216.1	260.6
Microfinance institutions	62.5	81.3	101.3	121.5	127.0	149.6	159.1	200.62	213.95
Total	**1221.4**	**1454.0**	**1685.6**	**2117.6**	**2425.5**	**3004.6**	**3747.5**	**4495.7**	**4996.2**
Growth (in percent)									
Banks	17.01	18.27	15.12	26.11	14.61	24.2	25.8	19.7	10.9
Non-banks	28.11	22.33	21.59	23.63	25.87	23.6	23.0	19.2	20.6
Microfinance institutions	17.92	30.08	24.60	19.90	4.57	17.8	6.3	26.1	6.6
Total	**17.49**	**19.04**	**15.93**	**25.60**	**14.54**	**23.9**	**24.7**	**20.0**	**11.1**

Source: Bangladesh Bank Quarterly, CEU, BB *=Provisional

In the above Table-1, recent trend in private sector credit is shown. It can be seen from the Table-1 that credit given by the NBFIs is the highest in growth terms among MFIs and Banks. Overall the total growth rate of the private sector credit decreased to 11.1 percent in June, 2013 from 17.49 percent in FY05.

In disaggregated level an analysis of trends of the credit to private sector by banks showed that bank lending toward productive purposes increased substantially due to central banks directives to increase lending in the productive sectors e.g. agriculture, SMEs sector and other industry and service sector, while decreased lending in the miscellaneous purposes e.g., credit card, flat purchases.

Bank advance by economic purposes shows that credit to construction sector is the highest followed by the transport and communications which increased by 20.6 percent and 14.3 percent respectively in FY13. Credit to miscellaneous purposes also increased by 4.6 percent in FY13.

Table -2: Bank Advances (Private Sector) by Economic Purposes Growth rate (in percent)

Sectors	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13*
a. Agriculture	-5.08	6.86	-3.57	12.49	11.8	13.2	25.8	4.5	9.5
b. Industry (othe r than working capital)	-10.19	23.64	23.36	23.99	21.2	20.2	29.6	15.8	12.5
c. Working capital financing	-18.69	15.85	11.93	22.77	7.3	7.8	20.6	15.0	11.0
d. Construction	-10.51	17.46	21.84	11.15	23. 3	26.4	33.0	32.4	20.6
e. Transport and Communication	0.89	41.09	52.75	39.57	-9.4	-1.5	43.5	59.0	14.3
f. Storage	-8.33	17.95	-27.17	-22.39	20.5	1.8	-9.0	72.4	-35.1
g. Trade	-9.41	11.66	13.90	29.80	15.3	31.9	26.0	21.4	8.9
h. Miscellaneous	-11.06	23.76	17.15	35.99	12.5	34.9	11.9	36.9	4.6
Grand Total	**-10.79**	**16. 08**	**14.95**	**25.15**	**14.6**	**23.4**	**25.0**	**21.4**	**10.5**

Source: Bangladesh Bank Quarterly, CEU, BB   *=Provisional

III.2 Trend in Investment and Private Sector Credit in South Asian Countries

It would be useful to see where Bangladesh stands compared to her neighboring countries. From Table-3 it can be seen that in 2012 in terms of fixed capital formation (in U.S dollars) India ranked the top among four followed by the Bangladesh, Pakistan and Sri Lanka.

Table-3: Fixed Capital Formation/Investment (Billion US Dollars)

Period	Bangladesh	India	Pakistan	Sri Lanka
2000	10.11	102.21	10.47	4.27
2001	10.27	111.70	10.83	3.32
2002	10.92	121.80	11.62	3.40
2003	11.97	150.84	12.87	3.78
2004	13.17	213.72	14.29	4.52
2005	13.73	250.07	18.97	5.61
2006	14.84	304.45	25.70	6.79
20 07	16.86	413.68	29.64	8.14
2008	19.17	379.42	26.48	9.86
2009	21.49	432.50	26.24	10.35
2010	24.63	500.62	23.92	12.78
2011	25.92	490.92	23.70	15.56
2012	28.45	531.69	23.22	17.22

III.3. Private Sector Credit in South Asian Countries

In the following Table-4 comparing private sector credit to GDP ratio reveal that in 2012 Bangladesh takes the highest position followed by India, Sri Lanka and Pakistan while in growth terms (Table-5) Sri Lankan's private sector credit is growing faster followed by Bangladesh, India and Pakistan. In Pakistan, high fiscal deficit and difficult business climate contribute to sharp decline in private sector credit growth.

Table-4: Private Sector Credit/GDP (In Percent)

Period	Bangladesh	Pakistan	Sri Lanka	India
	PSC/GDP	PSC/GDP	PSC/GDP	PSC/GDP
2001	27.78	21.78	28.11	29.08
2002	30.15	21.67	27.63	32.81
2003	30.17	24.6	28.92	32.06
2004	32.13	28.74	30.62	35.60
2005	33.81	28.65	32.9	39.26
2006	36.16	28.94	33. 97	43.33
2007	37.29	29.66	33.26	45.17
2008	39.21	29.84	28.94	49.02
2009	41.51	23.54	24.76	49.17
2010	47.05	20.29	26.61	44.82
2011	49.39	18.34	30.64	50.60
2012	49.60	16.40	31.10	48.70

Source: International Financial Statistics, IMF, September, 2013

Period	Pakistan	India	Sri Lanka	Bangladesh
2002	5.27	21.53	14.29	16.93
2003	24.27	9.67	16.59	10.11
2004	35.15	30.57	21.46	17.96
2005	14.87	26.20	26.04	17. 49
2006	18.48	27.55	23.73	19.04
2007	16.62	20.42	19.20	15.93
2008	18.81	22.26	7.27	25.60
2009	-1.87	12.11	-6.39 .	19.23
2010	37.61	12.27	24.77	28.02
2011	10.04	30.26	34.46	19.06
2012	2.49	14.30	17.51	16.66

Source: International Financial Statistics, IMF, September, 2013

III.4. Inflation Scenario in South Asian Countries

We need to see the inflation scenario in Bangladesh compared to her neighboring countries. It can be seen fromTable-6 that in 2012 Pakistan experienced highest average rate of inflation. In case of Bangladesh the rate of inflation remained much below two digit level in most of the years.

Table-6: Trend in Inflation Rate in South Asian Countries

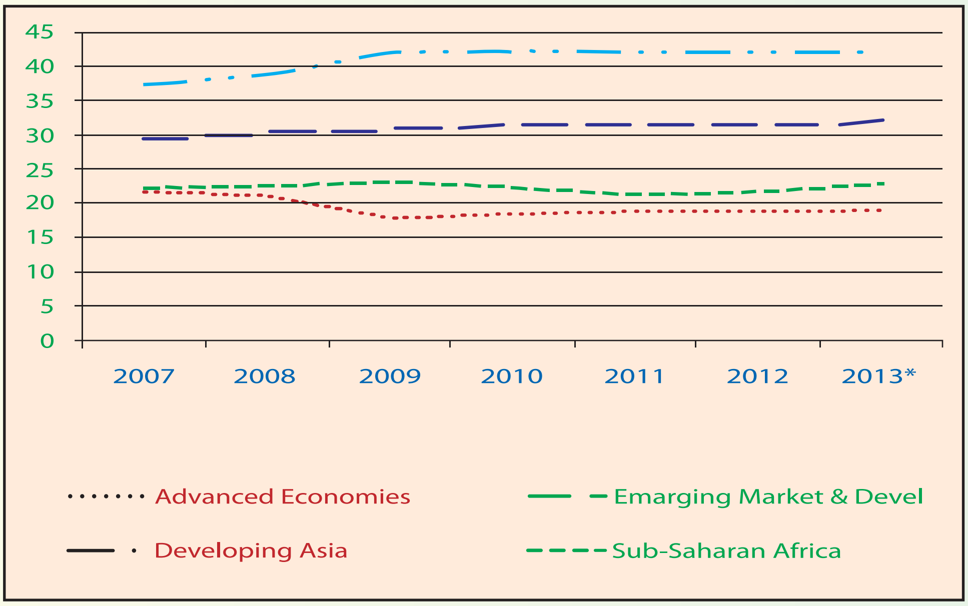
period	Pakistan	India	Sri Lanka	Bangladesh
2001	**4.4**	**3.8**	**14.2**	**1.9**
2002	2.5	4.3	9.6	3.7
2003	3.1	3.8	9.0	5.4
200 4	4.0	3.9	9.0	6.1
2005	9.3	4.0	11.0	7.0
2006	8.0	6.3	10.0	6.8
2007	7.8	6.4	15.8	9.1
2008	10.8	8.3	22.4	8.9
2009	17.6	10.9	3.5	5.4
2010	10.1	12.0	6.2	8.1
2011	13.7	8. 4	6.7	10.7
2012	11.0	10.4	7.5	8.7

Source: World Economic Outlook, IMF, October, 2013

III.5. World Investment and Savings as percent of GDP

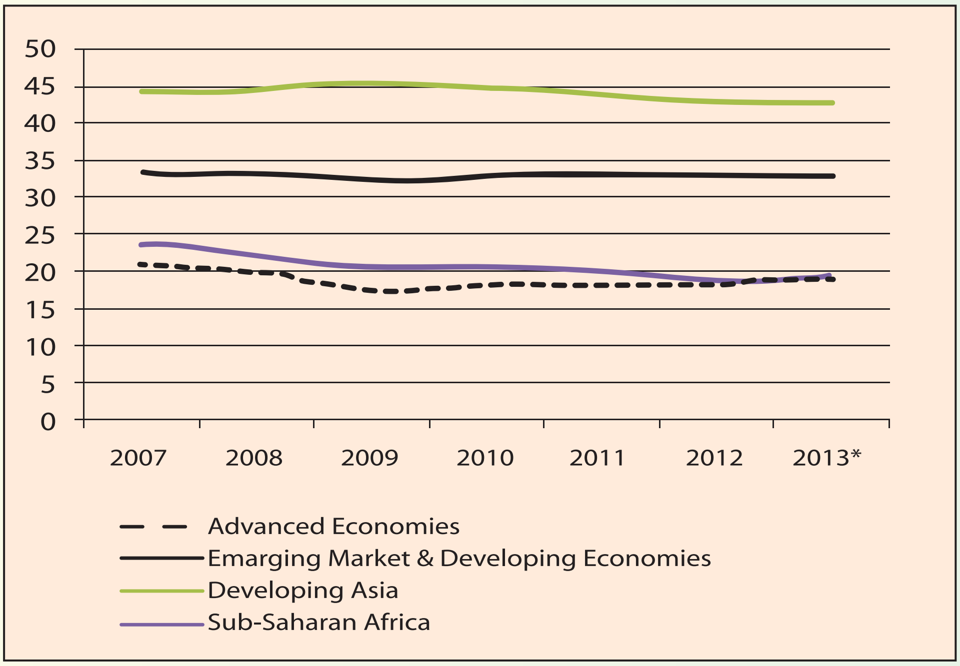
If we look at the world savings and investment as percent of GDP in Chart-2, we can see that Developing Asia's savings and investment is the highest followed by the emerging market and developing economies followed by the Sub-Saharan Africa. Advanced economies ranked fourth among group of four. Savings and Investment in Developing Asia's increased sharply since late 1990s.

Chart 2: Trends of Savings as percent of GDP of the Countries as Group



Source: World Economic Outlook, April, 2013 *= Provisional

Chart 3: Trends in Investment as percent of GDP of the Countries as Group



Source: World Economic Outlook, April, 2013 *= Provisional

IV: Model Variables, Methodology, and Empirical Results

An attempt has been made to examine empirically the nexus among private sector credit with output and price level in Bangladesh. To investigate the responses of the output and the price level to the private sector credit, a VAR approach and Granger causality tests are used for Bangladesh based on the monthly data for the period from 2000:6 to 2013:6. The responses of the output due to the innovations in the private sector credits are analyzed by the impulse response functions (IRFs) derived from VAR model. The IRFs show the dynamic response of each variable in the system to shock from each variable in the system. All data are in log form. The descriptions of the variable are given in the appendix. The model comprises of the following variables:

IV.1 Model Variables, Preliminary Data Analysis and Methodology

LPSC=log of claims on the private sector credit by Banks;

LIPI=log of Industrial Production Index;

LCPI=log of Consumer Price index (1995=100);

In order to make the residual white-noise all the series required to be identified properly. A series of unit root tests, such as Augmented Dickey-Fuller (DF, 1981), Phillips-Perron (PP, 1988) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS, 1992) are used to determine the order of integration (d) for each series. In order to decide the autoregressive parameters (p) and moving average parameters (q), autocorrelation and partial autocorrelation functions are used. The lag lengths of the unrestricted VARs are decided based on Akaike Information Criterion (AIC) that are reported in Table-7.

Table-7: The Results of Identification

Name of the Variable (all in natural logarithmic form)	Identified as ARIMA (*p, d, q*)
1. Credit to the private sector (LPSC)	lpc = ARIMA(1,1,1)
2. Industrial production index (LIPI)	lipi = ARIMA(3,1,0)
3. Consumer Price Index (LCPI)	lcpi=ARIMA(6,1,0)

Vector Autoregression (VAR)

Sim's (1980) unrestricted vector autoregression (VAR) model and Granger Causality tests (1969) are used to analyze the results. If we assume the dynamics of Z_t = is a P^{th} order Gaussian vector auto-regression process, we could write: $Z_t = c + F_1 Z_{t-1} + F_2 Z_{t-2} + \ldots + F_p Z_{t-p} + e_t$, where $e_t \sim$ iid, $N(0,W)$ and F_i is a 3x3 coefficients matrix. A vector autoregressive (VAR) model is an appropriate econometric technique when we are interested in dynamic relationships among variables in the presence of possible feedback among the variables and ambiguity about the exogeneity of the right hand side variables (Sims, 1980 and Enders, 1995). Vector autoregression has become quite popular as noted by Keating (1992, page 37) because of the inability of macroeconomists to agree on the correct structural model of the economy. As noted by Fackler and McMillin (1989), among others, “A VAR technique is well suited to an examination of the channels through which a variable operates since few restrictions are imposed on the way the variables interact” (Fackler and McMillin, 1989:p.995).

This study uses an unrestricted VAR model to derived IRFs. The IRFs show the dynamic response of each variable in the system to shocks from each variable in the system. This study is mostly interested in the responses of the output and the price level due to private sector credit shock. If the responses are significant to a private sector credit shock we would conclude that private sector credit has a significant impact on output and the price level.

Hafer and Sheehan (1991) argued that VAR results could be very sensitive to the choice of lag length. Therefore, Akaike's Information Criterion (AIC) is used to select the lag length for the VAR model. Lag orders of one through twelve are used.[2] A lag order of 4 produces the minimum AIC. Q-statistics are used to see if VAR residuals of each equation are white noise at this minimum AIC, and it turns out that Q-statistics show white noise residuals for each equation at lag order four. Therefore, a lag of four is used to estimate a three-variable VAR model.

To estimate IRFs, orthogonalization of the VAR residuals is required. Cholesky decomposition is used to orthogonalized the residuals. Cholesky ordering requires the variables to order in a particular way where variables placed higher in the ordering have contemporaneous impacts on the variables lower in the ordering, but the variables lower in the ordering do not have a contemporaneous impact on the variable higher in the ordering. Therefore Sims correctly stated, “... in the Cholesky ordering, …due to the cross-equation residual correlation when a variable higher in the ordering changes all the variables lower in the ordering are assumed to change”. Therefore, it is important to decide proper ordering of the variables. Because this study is mainly interested in examining the impact of private sector credit on output and the price level therefore PSC variables is placed first followed by output and the price level.[3]

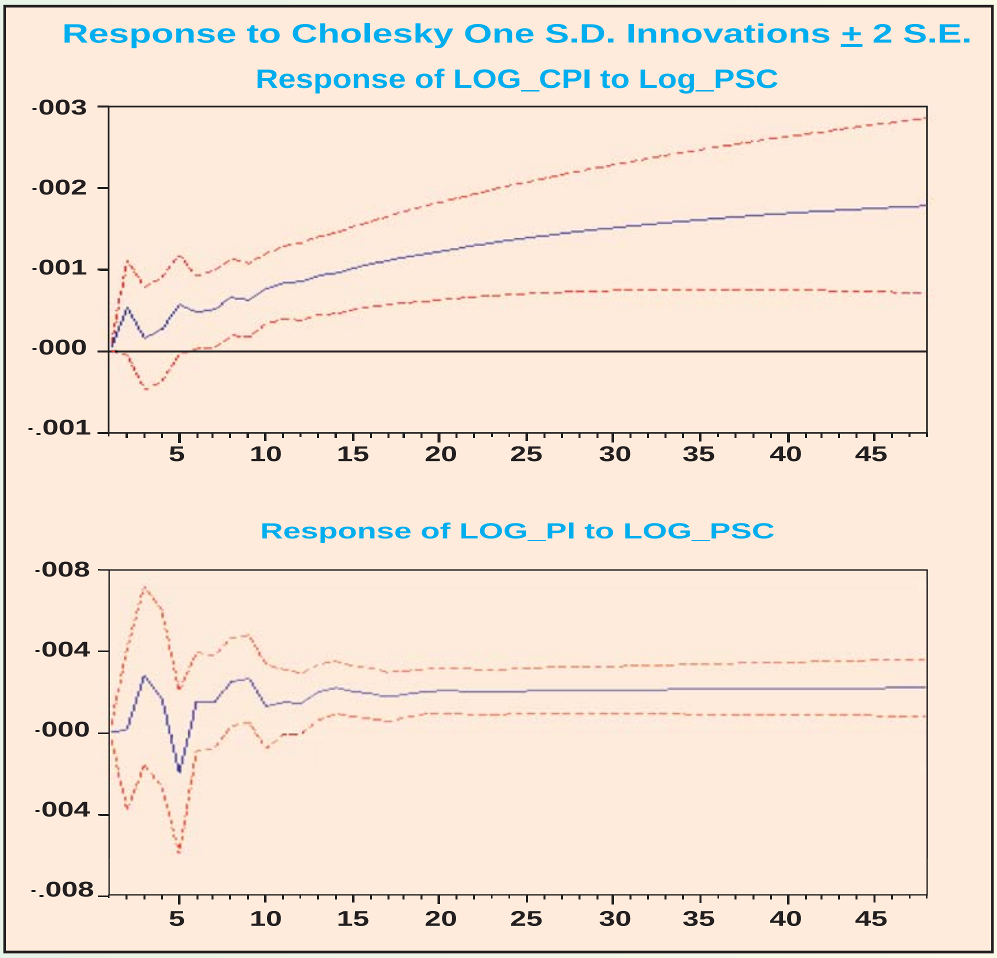
V. Empirical Results

Impulse Response Functions (IRFs): The IRF shows the response of each variable in the system due to a shock from each variable in the system. A two-standard-deviation confidence interval is reported for each IRF. A confidence interval containing zero indicates lack of significance. The IRFs showing the response of the price level and the output due to innovation (shock) to private sector credit is shown in Chart-4.

The Impulse Response Functions (IRFs) of the price level (log_CPI) and the industrial production (log_PSC) of chart-4 indicate that shock to private sector credit have a statistically significant

2. The Maximum lag length of four is used to preserve degrees of freedom.
3. Switching the ordering between the price level and the exchange rate are also attempted. However, policy conclusions remain the same for both the orderings.

Chart-4: Response of the price level and the industrial production due to private sector credit shock



impact on the price level and the industrial production. The top panel shows the response of the log of CPI due to shock to log of private sector credit. IRFs of the price level become significant and positive from the 8th month and remain significant thereafter.

The IRFs of the industrial production become significant and positive from the 8th month and then become insignificant which become significant again from 13th month and remain significant thereafter. The result of pair-wise Granger Causality tests, as reported in Tables -8 supports the finding of VARs analysis that private sector credit causes industrial production and the price level.

Granger Causality Test

Granger causality tests support the hypothesis that there is one-way causality from private sector credit to the price level and the output.

Table-8 Pair-wise Granger Causality Tests

Sample: 2000:6- 2013:6

Lags: 2			
Null Hypothesis:	Obs	F - Statistic	Prob.
LOG_PSC do es not Granger Cause LOG_CPI	155	6.47	0.00
LOG_CPI does not Granger Cause LOG_PSC		0.6 7	0.51
LOG_PSC does not Granger Cause LOG_IPI	153	27.49	0.00
LOG_IPI does not Granger Cause LOG_PSC		0.00	0.99

Variance Decompositions (VDCs): In order to know the impacts of shocks to PSC, VDCs at time horizon of 4 to 48 are computed. The estimates of the forecast error variance are considered significant if the point estimate is at least two times as large as its standard error. Twenty-five hundred bootstrap simulations are used to construct the standard errors for VDCs. Because, this study is mostly concerned with the forecast error variance in CPI and Y explained by PSC, VDCs of only price level and output are reported. In Table-9, point estimates and the standard errors of price level, and output due to a shock in the private sector credit are shown.

Table-9 shows that an innovation to PSC explains significant portions of the forecast error variance in the price level from 12 time horizons and thereafter. On the other hand, an innovation to PSC explains significant portion of forecast error variance of output from time horizons 16 and remain significant thereafter. Private sector credit explain 14.89% of the variation in the price level at time horizon 12 which increased to 41.13% at time horizon 24 and then 70.68% at time horizon 48 while significant portion of forecast error variance of output explained by private sector credit at time horizon 16 is 7.53% which increased to 22.17% at time horizon 48. However, most of the variations in the forecast error in the output are explained by output itself which is 94.51% at time horizon 4 which decreased to 73.10 percent at time horizon 48 months.

Table–9 Forecast Error Variance Explained by Innovation to private sector credit (PSC):

Sample Period: 2000:6 to 2013:6

Lag 4	Variance Decomposition of logCPI			Variance Decomposition of logI PI		
Months	Private Sector Credit (PSC)	Price Level (CPI)	Output (IPI)	Private Sector Credit (PSC)	Price Level (CPI)	Output (IPI)
4	2.63 (3.00)	93.08*** (4.58)	4.29 (3.71)	1.71 (2.87)	3.78 (3.25)	94.51*** (4.21)
8	7.68 (4.99)	84.71*** (6.88)	7.61 (5.90)	3.67 (2.91)	5.09 (3.66)	91.24*** (4.53)
12	14.89*** (7.44)	76.24*** (8.88)	8.86 (7.43)	5.41 (3.43)	5.05 (3.68)	89.54*** (4.79)
16	23.77*** (9.83)	67.41*** (10.44)	8.81 (8.17)	7.53*** (3.93)	5.05 (3.66)	87.42*** (5.02)
20	32.81*** (11.71)	58.87*** (11.56)	8.32 (8.50)	9.35*** (4.40)	5.03 (3.64)	85.61*** (5.25)
24	41.13*** (12.99)	51.22*** (12.25)	7.65 (8.61)	11.24*** (4.93)	5.00 (3.61)	83.76*** (5.55)
28	48.39*** (13.78)	44.67*** (12.59)	6.94 (8.60)	13.16*** (5.49)	4.96 (3.59)	81.88*** (5.89)
32	54.56*** (14.22)	39.16*** (12.70)	6.27 (8.53)	15.03*** (6.04)	4.92 (3.58)	80.05*** (6.25)
36	59.73*** (14.41)	34.59*** (12.65)	5.68 (8.46)	16.87*** (6.59)	4.87 (3.57)	78.25*** (6.64)
40	64.05*** (14.46)	30.78*** (12.51)	5.17 (8.38)	18.68 (7.13)	4.82 (3.57)	76.49*** (7.02)
44	67.66*** (14.42)	27.62*** (12.32)	4.72 (8.31)	20.45*** (7.64)	4.77 (3.58)	74.78*** (7.40)
48	70.69*** (14.32)	24.97*** (12.11)	4.34 (8.25)	22.17*** (8.12)	4.72 (3.59)	73.10*** (7.77)

Note: Asterisks (***) indicate significance of the point estimate. Numbers in each cell are point estimates. Point estimates are considered significant if they are twice as large as the standard error. Numbers in the parenthesis are standard errors.

VI. Conclusion and Recommendations

The purpose of this study is to examine the response of the output and the price level due to shock in the private sector credit. The impulse response functions (IRFs) and variance decompositions derived from a three variable VAR model with Cholesky decompositions and Granger causality tests show that private sector credit contribute to the recent trend of economic growth as in the case of other developed and developing countries. The IRFs, VDCs and Granger Causality tests suggests that the response of the output as proxies by the industrial production is significant and positive due to private sector credit shock in level. This result is consistent with the conventional believe that when an economy starts to grow it creates immediate additional demand for financial services and helps grow a better financial system. At this stage the positive impact of financial development on economic growth could be modest. As development proceeds a better and well functioning financial system is established and a well developed financial system can contribute at a greater extent to income growth.

During the decade of 2000 Bangladesh economy grows at a faster rate than 90 and 80s. We have seen on average 6.2 percent growth during this decade. It has been found from the empirical results of this study that private sector credit helped to increase output as well as inflation. The increase in inflation is much higher and positive than increase in output. Therefore, we need to be careful about the strong private sector credit growth which fuelled inflation much higher which in turn would have adverse impact on much needed economic growth in Bangladesh.

References

Arestis, P. and P. Demetriades (1997), "Financial Development and Economic Growth: Assessing the Evidence," The Economic Journal, 107, 783-799.

Beck, Thorsten, Aslí Demirgüç-Kunt, and Ross Levine (2001), "Law, Politics, and Finance," World Bank, Working Paper 2585

________, Ross Levine, and Norman Loayza, (2000), "Finance and the Sources of Growth," Journal of Financial Economics 58, pp. 261-300.

Calza, A., C. Gartner, and J. Sousa, (2003), "Modeling the Demand for Loans to the Private Sector in the Euro Area", Applied Economics 35, pp. 107-117.

Cooley, Thomas; LeRoy, Stephen(1985)"Atheoretical Macroeconomics: A Critique," Journal of Monetary Economics, (November), pp.283-308.

Cottarelli Carlo, Ariccia Giovanni Dell and Hollar Ivanna Vladkova (2003)"Early Birds, Late Risers, and Sleeping Beauties: Bank Credit Growth to the Private Sector in Central and Eastern Europe and the Balkans", IMF Working Paper, WP/03/213.

Demirgüç-Kunt, Aslí, and Enrica Detragiache, 1997, "The Determinants of Banking Crises: Evidence from Developing and Developed Countries", World Bank Working Paper No. 1828.

Demetriades, P. O. and K. A. Hussein (1996), "Does financial development cause economic growth? Time-series evidence from 16 countries," Journal of Development Economics, 51, 387-411.

Enders, Walter, "Applied Econometric Time Series," John Wiley and Sons, INC, New York

Engle, Robert; Granger, C.W.J., (Mar., 1987) "Co-integration and Error Correction: Representation, Estimation, and Testing" Econometrica, Vol.55, Issue 2, pp. 251-276.

Fackler, James, S. (1990),"Federal Credit, Private Credit, and Economic Activity,"Journal of Money, Credit and Banking, Volume 22, Issue 4, (November), pp.444-464.

Fischer, Stanley (December 1993), "The Role of Macroeconomic Factors in Growth," Journal of Monetary Economics, , 32(3), pp. 485-511.

Fase, M. M. G. and R. C. N. Abma (2002), "Financial environment and economic growth in selected Asian countries," Journal of Asian Economics, 210, 1-11.

Fry, M. J. (1997), "In Favor of Financial Liberalization," The Economic Journal, 107:442, 754-770.

Gourinchas, Pierre-Olivier, Rodrigo Valdes, and Oscar Landerretche, (October, 1999), "Lending Booms: Some Stylized Facts," .

________, 2001, "Lending Booms: Latin America and the World," Economica, pp. 47-99 (Spring).

Goldfajn, Ilan, and Rodrigo O. Valdés, (1997), "Capital Flows and the Twin Crises: The Role of Liquidity," IMF Working Paper /97/87 (Washington: International Monetary Fund).

Granger, "Investigating Causal Relations by Econometric Models and Cross-Spectral Methods", Econometrica, 37, pp.429-430.

Greenwood, Jeremy and Jovanovic, Boyan(October 1990), "Financial Development, Growth, and the Distribution of Income," Journal of Political Economy, , 98 (5, Pt. 1), pp. 1076-1107.

Greene, W. H. (2000), "Econometric Analysis," Fourth edition, Prentice-Hall, Inc.

Gurley, J. G. and E. S. Shaw (1955), "Financial Aspects of Economic Development," The American Economic Review, 45:4, 515-538.

Hafer, R.W.; Sheehan, Richard G (January 1991)"Policy Inference Using VAR Models," Economic Inquiry, 29, 1, , pp.44-52.

Hamilton D. James. (1994) "Time Series Analysis", Princeton University Press, Princeton, (New Jersey).

Italy. Hardy, Daniel C., and Ceyla Pazarbasioglu (1991), "Leading Indicators of Banking Crises: Was Asia Different?" IMF Working Paper 98/91 (Washington, International Monetary Fund).

Jappelli, T. and M. Pagano (1994), "Savings, Growth and Liquidity Constraints," Quarterly Journal of Economics, 109:1, 83-109.

Kaminsky, Graciela L., and Carmen M. Reinhart(1999), "The Twin Crises: The Causes of Banking and Balance-of-Payments Problems," American Economic Review, Vv89, N.3, pp. 473-500

Keating, J (1992)"Structural Approaches to Vector Autoregressions," Federal Reserve Bank of St.Louis, Review, (September/October), pp.37-57.

King, R. and R. Levine (1993a), “Finance and Growth: Schumpeter Might be Right,” Quarterly Journal of Economics, 108:3, 717-737.

King, R. and R. Levine. (1993b), “Finance, Entrepreneurship and Growth: Theory and Evidence,” Journal of Monetary Economics, 32, 513-542.

King, Robert G. and Levine, Ross (August 1993a), “Finance and Growth: Schumpeter Might Be Right,” Quarterly Journal of Economics, , 108(3), pp. 717-38.

_____ (December 1993b), “Finance, Entrepreneurship, and Growth: Theory and Evidence,” Journal of Monetary Economics, , 32(3), pp. 513-42.

Klein, Michael and Giovanni Olivei, 1999, “Capital Account Liberalization, Financial Depth, and Economic Growth”, NBER Working Paper 7384.

Levine, Ross (June 1997), “Financial Development and Economic Growth: Views and Agenda,” Journal of Economic Literature, , 35(2), pp. 688-726.

Levine, Ross and Renelt, David (September 1992), “A Sensitivity Analysis of Cross-Country Growth Regressions,” American Economic Review, , 82(4), pp. 942-63.

Lucas, Robert E.(July 1988) “On the Mechanics of Economic Development,” Journal of Monetary Economics, 22(1), pp. 3-42.

Levine, R. (1997), “Financial Development and Economic Growth: Views and Agenda,” Journal of Economic Literature, 35:2, 688-726.

Levine, R. (1999), “Law, Finance and Economic Growth,” Journal of Financial Intermediation, 8, 8-35.

Levine, R. (2003), “More on Finance and Growth: More Finance, More Growth?” Federal Reserve Bank of St. Louis REVIEW, 85:4, 31-46.

Levine, R. and S. Zervos (1998), “Stock Markets, Banks and Economic Growth,” American Economic Review, 88:3, 537-559.

Levine, R., N. Loayza and T. Beck (2000), “Financial Intermediation and Growth: Causality and Causes,” Journal of Monetary Economics, 46, 31-77.

Luintel, K. B. and M. Khan (1999), “A quantitative reassessment of the finance-growth nexus: evidence from a multivariate VAR,” Journal of Development Economics, 60, 381-405.

McKinnon, Ronald(1973), Money and Capital in Economic Development, Washington, Brookings Institution

Rahman, Habibur (2003), “Three essays on role of financial intermediation in economic growth”, an unpublished dissertation, Western Michigan University,.

Rajan, R. G. and L. Zingales (1998), “Financial dependence and growth,” American Economic Review, 88, 559-586.

Rajan, Raghuram G. and Zingales, Luigi(September 1996), “Financial Dependence and Growth,” National Bureau of Economic Research Working Paper Series No. 5758,.

Rajan, Raghuram G. and Luigi Zingales, (1998), “Financial Dependence and Growth,” American

Economic Review, Vol. 88, Number 3, pp. 559-586 (June).

Schumpeter, J. A. (1911), "The Theory of Economic Development: An Inquiry into Profits, Capital, Interest, and the Business Cycle," Cambridge, MA: Harvard University Press [reprint].

Shan, J. Z., A. G. Morris and F. Sun (2001), "Financial Development and Economic Growth: An Egg-and-Chicken Problem?" Review of International Economics, 9:3, 443-454.

Shaw, E.S. (1973), "Financial Deepening in Economic Development," Oxford University Press, London.

Sims, C. A. (1980), "Macroeconomics and Reality," Econometrica, 48:1, 1-48.

Sims, C. A. (1986), "Are Forecasting Models Usable for Policy Analysis?" Federal Reserve Bank of Minneapolis Quarterly Review, pp. 2-16.

Rousseau, P. L. and P. Wachtel (2002), "Inflation thresholds and the finance-growth nexus," Journal of International Money and Finance, 21, 777-793.

Xu, Zhenhui (2000), "Financial Development, Investment and Economic Growth," Economic Inquiry, 38:2, 331-344.

World Economic Outlook, Spillovers and Cycles in the Global Economy, IMF, April 2007

Variable List

The data period for this paper is from 2001:6 to 2012:6. Descriptions of the variables used in this paper appear below.

LCPI (1995=100) = the log of consumer price index (CPI); the cost of living index of middle income families in Dhaka is used as a price variable. Then the log of CPI is used as a price variable. The seasonally unadjusted monthly data on consumer price index are available from various issues of Economic Trends, a Bangladesh Bank publication.

Source: Bangladesh Bureau of Statistic (BBS) & Bangladesh Bank Research Department

LPSC=Log of monthly private sector credit is as the financial development variable. Seasonally unadjusted monthly data are available from the online version of the International Financial Statistics (IFS), IMF website (www.imf.org).

Source: Economic Trends, Bangladesh Bank, Statistics department

IPI (1995=100) = Industrial production is also used as output variable. The seasonally unadjusted monthly data of the industrial production also available from the online version of the International Financial Statistics (IFS), IMF website (www.imf.org)

Source: Bangladesh Bureau of Statistic (BBS)

Cumulative Index of Papers Published in Previous Issues of Thoughts on Banking and Finance

Volume 1 Issue 1 (July-December, 2012)

Articles:

Volume 2 Issue 1 (January-June, 2013)

Articles:

Main Coverage of BBTA Journal

The Main Coverage of BBTA Journal is based on identifying the issues and questions emerged due to applications of monetary and macro-financial policy steps and measures and their practical implications on different markets aiming at help the policy makers. The thrust areas are:

(a) To review the current monetary policy framework of Bangladesh Bank to ensure continuing effectiveness of monetary policies: The monetary policy framework needs to evolve as market deepening and changes in degree of openness affect existing transmission channels and open up new ones monetary targeting retains relevance in less advanced, less open economies while inflation targeting is the more typical framework in advanced open economies. The linkages between prices and the various monetary variables utilized in the monetary policy framework need to be reviewed from time to time, to ensure relevance in the evolving market context.

(b) To review the linkages between price variables and monetary variables evolving with time in the Bangladesh economy: Review linkages between real sector growth variables (GDP,GNP), price variables (CPI, WPI, asset prices, interest rates, exchange rates) and monetary variables (M2, M3, credit growth, bop trade, current and capital account balances and so forth), examining the trends of correlations, leads and lags, examining the trends of correlations between real sector and financial sector prices, to ascertain the likelihood of inflation targeting being a suitable option for Bangladesh.

(c) To review the present regulatory and supervisory framework to identify needs of changes for enhancing financial sector resilience and stability: techniques of risk-based integrated supervision and regulation of banks and financial institutions need to be strengthened in line with Basel core principles to ensure solvency, liquidity, capital adequacy and sound risk management in banks and financial institutions of Bangladesh.

(d) To develop appropriate measures to further deepen financial markets in Bangladesh: financial markets in Bangladesh are shallow, with little in secondary market activity other than modest extent of trade in treasury bills and bonds. Liquid secondary markets in financials assets are important for increasing availability of funds for long term investments.

(e) To create opportunities and spaces for broader financial inclusion and access: large segments of population and of economic activities still remain unserved or underserved by financial market. Proactive thrust on fuller financial inclusion is important for rapid poverty eradication with inclusive growth.

Therefore, theoretical as well as empirical research papers, reviews, case studies etc. challenging the present paradigms, assumptions and on-going changes in the Bangladesh financial market are encouraged. **The thematic coverage includes but is not restricted to**:

Papers on Monetary Policy and Macroeconomics:

1. Uncertainty and Risk around the BB's Macroeconomic Forecasts
2. Thresholds or Dates in Monetary Policy Communications
3. Market Expectations for Monetary Policy in Bangladesh
4. When Did Inflation Persistence Change?
5. Expectations, Markets and the "Political Economy" of Bangladesh
6. Monetary Policy and Economic Growth in Bangladesh Perspective
7. Cooperation, Conflict, and the Emergence of a Modern Bangladesh Bank
8. The Limitations of Foreign-Exchange Intervention: Lessons from other central banks
9. Monetary Policy Tightening and Long-Term Interest Rates
10. Policy Rules in Macroeconomic Forecasting Models
11. Conducting Monetary Policy when Interest Rates Are Near Zero
12. Price Stability: Issues and Challenges
13. Inflation, Inflation Expectations, and Monetary Policy
14. Central Bank Independence: The Key to Price Stability?
15. Monetary Policy in an Interdependent World
16. Economic Forecasts and Monetary Policy
17. Expectations, Communications, and Monetary Policy
18. What Is the Right Inflation Rate?
19. Not as Easy as It Looks: Regulating Effective Corporate Governance
20. Electronic Money and the Future of Central Banks
21. Monetary Policy Rules and Stability: Inflation Targeting versus Price-Level Targeting
22. Money Growth and Inflation: How Long is the Long Run?
23. Money Growth and Inflation: Does Fiscal Policy Matter?
24. Accelerating Money Growth: Is M2 Telling Us Something?
25. Is noninflationary growth an oxymoron?
26. Inflation targets: the next step for monetary policy
27. A Monetary Policy Paradox
28. Central Bank Independence determinants and issues
29. Skepticism about the direction of inflation: causes, costs and cures
30. The M2 slowdown and depository intermediation: implications for monetary policy
31. What monetary policy can and cannot do
32. Central bank accountability

33. Do Excess Reserves Reveal Credit Crunches
34. Price stability and regional diversity
35. CRR and Monetary Control
36. Velocity and Monetary Targets
37. How Inflationary Is an Extended Period of Low Interest Rates?
38. Liquidity in Frictional Asset Markets
39. The Cost of Inflation: A Mechanism Design Approach
40. Central Bank Independence and Inflation
41. Monetary Policy, Endogenous Inattention, and the Volatility Trade-off
42. Monetary policy in a world without perfect capital markets
43. Sterilized intervention, non-sterilized intervention, and monetary policy
44. Forward-looking versus backward-looking Taylor rules
45. Endogenous Money Supply and the Business Cycle
46. Interest rate rules vs. money growth rules: a welfare comparison in a cash-in-advance economy
47. In Defense of Zero Inflation
48. The Effects of Disinflationary Policies on Monetary Velocity
49. Monetary Policy under Rational Expectations with Multi-period Wage Stickiness and an Economy-wide Credit Market
50. Designing Monetary Policy under Rational Expectations: Analysis and Practical Implications
51. Monetary Policy Regimes: A Synthesis of the Monetary Control and Rational Expectations Literatures
52. Optimal Simple and Implementable Monetary and Fiscal Rules
53. Gold, Fiat Money, and Price Stability
54. External Constraints on Monetary Policy and the Financial Accelerator
55. The Optimal Degree of Discretion in Monetary Policy
56. Monetary Policies for Developing Countries: The Role of Corruption
57. Inflation Targeting in Emerging Market Economies
58. Transmission Mechanism of monetary policy in the Euro Area and U.S.
59. Monetary Transmission of monetary policy in the Euro Area: Does the Interest Rate Channel Explain it All?
60. A New Measure of Monetary Shocks: Derivation and Implications
61. Monetary Policy and the Volatility of Real Exchange Rates
62. The Mirage of Exchange Rate Regimes for Emerging Market Countries
63. Financial Liberalization, Asset Prices and Exchange Rates
64. Anticipations of monetary policy in financial markets
65. Money Targeting in a Modern Forecasting and Policy Analysis System: an Application to Bangladesh
66. Forecasting and Monetary Policy Analysis in Low-Income Countries: Food and non-Food Inflation in Bangladesh

67. The Monetary Transmission Mechanism in the Tropics: A Narrative Approach
68. Monetary Policy in Low Income Countries in the Face of the Global Crisis
69. The Changing Role of Capital in the Private Business Sector: Evidence for Bangladesh
70. Alternative Strategies for Aggregating Prices in the CPI
71. Credit Easing: A Policy for a Time of Financial Crisis
72. Business Cycles and Monetary Policy: Bangladesh Perspective
73. Wealth, Economic Infrastructure, and Monetary Policy
74. Is current fiscal policy an obstacle to sound monetary policy? Country perspective
75. Fiscal Multipliers under an Interest Rate Peg of Deterministic vs. Stochastic Duration
76. Inflation and Output in New Keynesian Models with a Transient Interest Rate Peg
77. Optimal Fiscal Policy when Public Capital is Productive: a Business-Cycle Perspective
78. Policy Responses to Aid Surges in Countries with Limited International Capital Mobility: The Role of the Exchange Rate Regime
79. Are Cyclical Fluctuations in Productivity Due More to Supply Shocks or Demand Shocks?
80. Modeling Sterilized Interventions and Balance Sheet Effects of Monetary Policy in a New-Keynesian Framework
81. The Political Economy of External Discipline: Constraint versus Incentive Effects of Capital Mobility and Exchange Rate Pegs
82. Updated Policy Projections and Improvement in the Unemployment Rate in Bangladesh
83. Slow Employment Recoveries, Monetary Policy, and Expected Inflation
84. Costly Capital Reallocation and the Effects of Government Spending
85. The Importance of Fiscal Sustainability: Preconditions for Stability in the Financial System and in Prices.

Papers on Financial Inclusion:

1. Developing an Inclusive Financial System: An Important Component for Economic and Social Progress
2. Sustainable Growth & Inclusive Economic Development
3. Mapping the Invisible Markets to build a Roadmap to Financial Inclusion
4. How to build a shared vision for the future of financial inclusion and develop a common roadmap
5. Can the world achieve global financial inclusion by 2020?
6. Country financial inclusion strategy

7. Model of low-cost and inclusive financial systems
8. Financial inclusion as an important development priority: Priority focus areas to achieving financial inclusion
9. The need of comprehensive financial inclusion index: necessary tools and modalities
10. Robust and independent tools to measure progress in financial inclusion
11. Trends and Roadmap to full financial inclusion in Bangladesh: Opportunities and obstacles
12. Developing an action-oriented blueprint for reaching new and underserved financial markets
13. Financial inclusion under Islamic perspectives
14. Technology-enabled business models: analyze the potential of new technology-intensive channels to reach new customers
15. Global goal of universal access to basic transaction services as an important milestone toward full financial inclusion
16. Financial Inclusion and Development of electronic Payment Systems & Infrastructure
17. Role of Payment Systems as a catalyst on the supply side of financial inclusion
18. Agency Banking as a part of Inclusive Banking: Model and Framework
19. Different approaches towards delivery of payment services to the unbanked and under-banked customers using innovative methods
20. The issues of Bangladesh payments industry to scale up and become more vibrant to manage with less cash
21. Development of remittance services with innovative payment channels
22. Models of prepaid payment instruments (PPIs)
23. The importance of other financial services in enhancing Financial Inclusion
24. Challenges in Agricultural Inclusion and Delivery of Financial Services to the unbanked people
25. E-finance, E-banking, E-commerce and E-governance: Role of mobile banking Integration in deepening the financial markets
26. Financial Inclusion and Women Empowerment: the necessary tools
27. Financial inclusion around the world: the country experience of India
28. Financial inclusion around the world: the country experience of Pakistan
29. Financial inclusion around the world: the country experience of Sri Lanka

Papers on Green Banking

1. Sustainable green economy, green growth and green banking for ensuring inclusive economic development
2. The challenges of developing an economic framework for green growth strategy
3. An analytical framework for inclusive green growth strategy: synergies and trade-offs
4. Blueprint for a Green Economy: Prerequisites for transition towards a Green Economy

5. Green growth as an essential component of sustainable development: policy instruments
6. Macro prudential policy framework for green finance towards a whole financial system stability
7. Simplifying processes in transaction banking services for the poor
8. Principles for easy access to finance for green SMEs (Small and Medium Enterprises)
9. Development of green banking products: access to markets and technology
10. Access to Finance and Green Economic Development in the SAARC countries
11. Islamic Finance and Its Implications on Sustainable Economic Growth
12. The Role of the Islamic financial services in increasing access to financial services
13. Access to green financial services: Inclusion and Empowerment
14. Consumer Behavior, Sustainable Development and green economic principles
15. Role of the Banking Sector in Promoting Green Industry in Bangladesh
16. Bangladesh's national policy on sustainable development and Bangladeshi green credit policy
17. Bangladesh Bank's philosophy and approaches in promoting green economy
18. Development of key indicators for environmental and social accounting that better reflect progress towards a green economy
19. Green banking and green credit: regulation and practices in Bangladesh
20. Green banking and green credit: regulation and practices in India
21. Green banking and green credit: regulation and practices in Pakistan
22. Green banking and green credit: regulation and practices in Sri Lanka
23. Green technology: specific solutions for pressing ecological and social challenges
24. Reducing information asymmetry - a key pre-requisite for sustainable financing
25. Green industrial policies: sunrise and sunset industrial policies with an environmental goal
26. Human Capital: Implications of Green Growth Policies for Labor Markets and Job
27. Natural Capital: Managing Resources for Sustainable Growth
28. Physical Capital: The Role of Infrastructure in Green Growth Strategies

Papers on Corporate Social Responsibility

1. Corporate Social Responsibility and Sustainability issues
2. Different dimensions of corporate social responsibility
3. Corporate Social Responsibility Initiatives in the banking sector of Bangladesh
4. Linkage between CSR and Financial Performance of the bank companies
5. How do bank companies communicate their social responsibility? An analysis of social responsibility reports of banks
6. The organizational dynamics of a corporate responsibility index
7. Consumers perceptions about fairness and unfairness prices

8. CSR Practices in the Asian Countries: A Systematic Literature Review
9. CSR Practices in Bangladesh: Shifting from philanthropy to strategic CSR in the banking sector
10. CSR Practices in India: Shifting from philanthropy to strategic CSR in the banking sector
11. CSR Practices in Pakistan: Shifting from philanthropy to strategic CSR in the banking sector
12. CSR Practices in Sri Lanka: Shifting from philanthropy to strategic CSR in the banking sector
13. Ethical dimension of Corporate Social Responsibility and Business Ethics
14. Sense-making and sense-giving: corporate social responsibility and internal communications
15. Developing Financial and Social Impact Indicators for CSR programs in Bangladesh: A Decision Making and Evaluation Tools using the Balanced Scorecard
16. Digital reflections of corporate foundations and their CSR communication strategies
17. Developing a Corporate Governance Disclosure Index for Financial Institutions in Bangladesh
18. Does corporate governance model of interest-free banks provide better protection against financial crisis?
19. Corporate Social Responsibility in Islamic Banking: Towards developing a comprehensive Shari'ah index for poverty alleviation

Banking and Finance Legal Infrastructure

1. The role of morality in defining ethics in finance and banking: looking beyond legality
2. South Asian Financial Markets: An Overview
3. Regulatory Structure of Indian Financial market
4. Regulatory Structure of Pakistan Financial market
5. Regulatory Structure of Sri Lanka Financial market
6. Regulatory Structure of Bangladesh Financial market
7. Regulatory Structure of Nepal & Bhutan Financial market
8. Regulatory Structure of Afghanistan Financial market
9. Regulatory Structure of Maldives Financial market
10. Financial Market Regulatory challenges in India
11. Financial Market Regulatory challenges in Pakistan
12. Financial Market Regulatory challenges in Sri Lanka
13. Financial Market Regulatory challenges in Afghanistan
14. Financial Market Regulatory challenges in Nepal
15. Financial Market Regulatory challenges in Bangladesh
16. Financial Market Regulatory challenges in Maldives

17. Financial Market Regulatory challenges in Bhutan
18. Financial Sector Reforms in South Asian Countries
19. Regulatory Reforms towards access to Financial market in South Asia
20. Integration of South Asian Financial Market

Islamic Banking and Finance

1. Islamic banking system: concept and operational methodology
2. Islamic Financial Instruments used by the Islamic banks
3. The sources of uses of funds in Islamic banks
4. Islamic banking product to help the international trade
5. Compare the customer deposits between Islamic and conventional bank
6. Study on How do Islamic bank cooperate with conventional bank in international trade
7. Study on How do Islamic bank cooperate with central banks in conventional environment
8. The function of commercial banking: Compare the Islamic and conventional banks
9. Structure of Islamic bank : compare with the conventional bank
10. Customer relationship between the conventional and Islamic banks
11. Profit and Loss sharing mechanism of Islamic Bank
12. Interbank transaction of Islamic bank – current system and proposals
13. Corporate governance, accounting and Risk management in Islamic banking
14. Islamic bank and corporate social responsibility
15. Islamic banking and poverty alleviation
16. Corporate Social Responsibility of Islamic Banks
17. Performance of Islamic bank and conventional bank in a selected country
18. Measuring the productivity of Islamic banking
19. Islamic Banks performance in MSME lending
20. Measuring the performance of Islamic Banks
21. Investigating the Customer Relationship Management in Islamic banks
22. Consumer behavior for Islamic credit cards
23. Customer perception of Islamic banking windows in Conventional Banks
24. Investigating the CRM activities in Islamic Banks
25. Islamic mortgage system as a solution for current credit crises
26. Measuring the effect of credit crises in Islamic Banking
27. Challenges faced by the Islamic banks
28. Knowledge Management in Islamic banks
29. Role and responsibilities of Shari'ah Boards in Islamic banks
30. Fiscal policy in Islamic economy
31. Inflation in Islamic economy
32. How Islamic economy can reduce the inflation

33. Opportunity cost from Islamic Economics perspectives
34. How Islamic economic system can reduce the unemployment
35. Poverty alleviation in Islamic economy
36. Islamic economic model as solution for global economic crises
37. International trade under Islamic economic model
38. Foreign exchange depreciation and appreciation in Islamic economic model
39. How the Islamic economic models contribute to the productivity increase
40. Contribution of Islamic economy for financial stability and macroeconomic gains
41. Islamic finance system and economical growth
42. Development or Growth of Islamic capital markets around the world
43. The products and instruments in Islamic capital market
44. Compare Value at Risk between Sukuk and conventional bonds
45. Credit Risk Management in Islamic and Conventional Banks: An Analysis
46. Derivatives instrument used in Islamic Finance
47. Financial engineering in Islamic finance industry: Country comparison.
48. How corporate governance is different from conventional banking and Islamic banking
49. How Islamic banks can help Economic Development
50. Islamic Banking Theories and Practices : country analysis
51. Islamic banking windows/ system into Conventional Banking Systems
52. Islamic Finance: As an alternative social responsible and ethical investing.
53. Legal and ethical issues in Islamic banking
54. Liquidity Risk Management in Islamic and Conventional Banks: an analysis
55. Micro Financing in Islamic finance industry: country developments.
56. Murabaha Financing vs. Conventional leasing: cash flow and risk analysis
57. Faith, values, and economic development.
58. Role of Islamic principles in the microeconomic institutions, exchange and market discipline.
59. Effects of Islamic principles on the macro economy and its management - fiscal, monetary and financial policies.
60. Implications of Islamic economic values and institutions for inclusive economic growth, poverty reduction, sustainable development and economic stability.
61. The impact of the global financial crisis on Islamic finance, and the lessons to be learned.
62. The need for entrepreneurship development.
63. Women and their participation in entrepreneurship and the labor force in the OIC region and in the Islamic financial industry: its determinants, challenges, and current state.
64. Knowledge economy and its relationship to inclusive economic growth.
65. Investment in human capital and the challenges of human capital flight.
66. Islamic microfinance: Concept and operational procedures

67. The use of Islamic banking and finance to remove barriers of access to financing.
68. Access of micro, small and medium enterprises to financial services: role of Islamic finance
69. Reforming public sector resource mobilization and allocation based on genuine Islamic economics and finance principles.
70. Resilience of Islamic financial services industry.
71. The challenges of authenticity, financial product development, competition and sustainability.
72. Enhancing the effectiveness of legal, regulatory and support infrastructure for Islamic finance.
73. Comprehensive human development in Islamic finance: strategies and policies
74. Ethics and morality in Islamic economics and finance
75. An Islamic finance view of the global financial crisis and the European sovereign debt crisis
76. Democracy and transparency in governance of Islamic financial institutions - critique of the Western and Islamic models of corporate and financial governance
77. The effects of competition on the development of Islamic finance industry
78. Status of credit rating agencies in the Islamic finance industry
79. Sovereign wealth funds and their potential role in the development of Islamic finance industry
80. Financial literacy and awareness program modalities in Islamic finance

Call for Research Papers

BBTA Journal
Thoughts on Banking and Finance

Thoughts on Banking and Finance is a half-yearly peer reviewed journal of Bangladesh Bank Training Academy devoted to the examination and critical analysis of economic, banking and financial issues. The journal publishes original empirical, methodological, policy and theoretical papers, contemporary and historical case studies, conference reports, and book reviews that address the topical issues of the relevant areas. The journal seeks to serve a broad range of economists, banking and finance professional in academia and industries. While the journal welcomes divergent views on economic, banking and financial topics, the journal also publishes views from research scholars on other disciplines such as law, management studies, public policy, ethics, information science, environmental and societal challenges concerning sustainable development and sustainable future.

Submission of Manuscripts

Submissions of Manuscripts are invited on significant, original, and previously unpublished research on all aspects of economic, banking and financial issues from both within Bangladesh and overseas. BBTA will not accept any paper which, at the time of submission, is under review for or has already been published, or accepted for publication in a journal or to be presented at a seminar or conference. Papers will be subject to blind peer review. Selection criteria include accuracy and originality of ideas, clarity and significance of results and quality of presentation. Papers will be judged based on the usual measures of quality with consideration of the relevance to the theme. For complete instructions for authors, please see the following guidelines.

Manuscripts of papers may be sent to the Executive Editor: Md. Abdul Awwal Sarker, General Manager, Bangladesh Bank Training Academy, Mirpur-2, Dhaka-1216, Bangladesh. E-mail: awwal.sarker@bb.org.bd Authors submitting ‘Book Reviews’ or ‘Case Studies’ should submit them to the same address.

Guidelines for the Paper Contributors

BBTA Journal Thoughts on Banking and Finance is published twice in a year by Bangladesh Bank Training Academy (BBTA), Mirpur, Dhaka. It is a refereed journal and publishes articles in the areas of economics, central banking, commercial banking and finance as well as problems of economic development, in particular of Bangladesh and also other developing countries. While sending papers for publication in the Journal, the contributors are requested to follow the following rules:

Submission Criteria:

1. Articles should be typed in double space on one side of A4 size paper with generous margin and should not usually exceed 6000 words (including footnotes, tables and graphs). Each article should have an abstract within approximately 150 words. The article should be sent in duplicate, along with a soft copy in MS word to the editor and at the mail address: awwal.sarker@bb.org.bd
2. The author should not mention his name and address on the text of the paper. A separate sheet bearing his full name, affiliation, mailing address and telephone number should be sent along with the main paper.
3. Articles submitted for publication in the journal must not have been accepted for publication elsewhere.
4. Tables, graphs and maps may be used in the article. The title and sources of such tables, etc. should be mentioned.
5. If the Editorial Board is of the opinion that the article provisionally accepted for publication needs to be revised, shortened or particular expressions therein need to be deleted or rephrased, such requested to recast any article in response to the comments made thereon by the reviewers.
6. The numbering of the footnote will be consecutive, and the footnotes themselves will be placed at the end of the article.
7. Articles, not accepted for publication, will not be returned to the author.
8. A token honorarium of BDT 10,000.00 will be paid for each published article.

References:

In the list of the references at the end of the article, the entry in the case of articles should be in the following manner:

Siddique, H.G.A, “Export Potentials of Readymade Garments Industry: A Case study of Bangladesh”. The Dhaka University Studies, VOL. 2 No. 1, 1982, pp.1, 66-67

In the case of books, the following order should be observed: author, title, place of publication, name of publisher, date of publication and page number. For example: Hye, Hasnat abdul, Integrated Approach to Rural Development, Dhaka University Press Limited, 1984, pp. 3-4.

References cited in the text should be by the author’s last name, the year of publication and the page number of the cited work, for example, (siddique, 1982:72).

Page Setup:

Paper size: A4, top & bottom margin: 2” (two inches), left & right margin: 1.5” (one point five inches), header & footer: 1.6”(one point six inches), font name: Times New Roman, font size for the title of the article: 16 bold, font size for the caption of the paragraph: 12 bold, font size for general text: 11 and font size for the abstract, footnote and references: 10

Book Review:

New books (on economics, central banking, commercial banking and finance and as well as recent economic development) will be reviewed in the journal on request. Authors/ publishers may send two copies of each book to the editor for the purpose of review.

All communications should be addressed to the Executive Editor of the Journal:

Md. Abdul Awwal Sarker

General Manager
Bangladesh Bank Training Academy &
Executive Editor
Thoughts on Banking and Finance
Mirpur-2, Dhaka-1216
Telephone: 8054247, 01720983278, Fax: 8032110
E-mail: awwal.sarker@bb.org.bd

A Short Introduction to
Bangladesh Bank Training Academy (BBTA)

Bangladesh Bank Training Academy (BBTA) is a training wing of central bank of Bangladesh, Bangladesh Bank pursues tasks of capacity building and human capital development in order to prepare skilled human resources in central bank as well as for commercial banks. BBTA organizes different training courses, training workshops, conferences, seminars and other related activities on main topics of economics, banking and finance, financial sector development, human resources development and macroeconomic management. It was established in 1977.

BBTA's Mandate

The purpose of the Academy is to undertake training activities for enabling the officials of central bank and the banking sector to perform their jobs efficiently well-equipped with the latest knowledge of economic, financial and banking developments. To this end, BBTA extends its all-out efforts to facilitate training to personnel engaged in the financial sector. It also works to modernize its library and information center to collect, systematize and disseminate information in the financial arena. Recently, a plan has been adapted to reorganise BBTA library as a Knowledge Management Centre (KMC). This new role puts more weight on BBTA for knowledge creation and application. Since information is important to create new knowledge for educating staff and professionals, we hope that it would contribute to the creation of knowledge and disseminate knowledge for use by others.

BBTA's Strategic Objectives

Bangladesh Bank has adopted its 5-year Strategic Plan 2010-2014 and bestowed responsibilities upon BBTA (Strategy # 13, Objective 13.2) to adopt all-out efforts to enhance professional excellence and grooming of the officers of Bangladesh Bank. To fulfill the target of the plan document, BBTA has been employing its full capacity to providing need-based training to the officials both from central bank and commercial banks; continuously striving to diversify the contents of its courses in order to ensure their consistency with evolving training needs; facilitating the practical application aspects of knowledge of economics, banking and finance; and developing training as a scientific discipline.

In order to achieve the above mentioned strategic objectives, BBTA has introduced the following initiatives.

1. Building and enhancing training capacities of the trainers;
2. Improving quality, efficiency, impact and cost-effectiveness of training programs;
3. Linking training with real-world cases and experiences;

4. Building training partnership programs with the public and private sector domestic and overseas training institutions;
5. Building and maintaining the BBTA financial institutions information system,
6. Utilization of the Internet for dissemination of the Academy's biannual Journal 'Thoughts on Banking and Finance';
7. Building a database on trainers and training institutions in the field of banking and finance; as well as
8. Facilitating the digitization of BBTA documents.

Organization

The Executive Director is the head of the Academy. There are six wings to look after the administration, training, publication and research programs of the Academy.

Location

The Academy is located in Mirpur-2, Dhaka-1216, Bangladesh.

Mailing Address

Bangladesh Bank Training Academy (BBTA)
Mirpur-2, Dhaka-1216, Bangladesh.
Telephone: 88-02-8032801-10
Fax: 88-02-8032110
Web: www.bb.org.bd

Published by General Manager, Department of Communications and Publications, Bangladesh Bank, Head Office, Dhaka, Bangladesh. website: www.bb.org.bd
Printed by Perform Color Graphics (Pvt.) Ltd. 180, Fakirapool, Dhaka-1000.
DCP-10-2014-1000