



FINANCIAL SOUNDNESS INDICATORS FOR FINANCIAL SECTOR STABILITY IN BANGLADESH

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Abbreviations

ADB	–	Asian Development Bank
BB	–	Bank of Bangladesh
DMC	–	developing member country
FI	–	financial institutions
FSI	–	financial soundness indicators
GDP	–	gross domestic product
IMF	–	International Monetary Fund
MFI	–	microfinance institutions
PCB	–	private commercial banks

Foreword

Since the outbreaks of the Asian financial crisis in the late 1990s and the global financial turmoil in 2007, assessing the strengths and weaknesses of a financial sector based on a set of financial indicators has increasingly become important. The assessment is needed to mainly identify any potential problems that may lead to vulnerability in the financial sector that can result in a financial crisis. It is expected that by doing so, a set of strategic policies and regulations, as well as actions, can be implemented to prevent the crisis.

Shortly after the Asian financial crisis in 1997, the Asian Development Bank (ADB) helped central banks of selected developing member countries (DMCs) to identify, compile, and analyze about 30 monetary and financial statistics and macroprudential indicators to identify potential problems in the financial sector to prevent another crisis. This was followed by an initiative on an early warning system, with a prototype developed to detect the region-wide economic and financial vulnerabilities among members of the Association of Southeast Asian Nations (ASEAN), the People's Republic of China, Japan, and the Republic of Korea.

The development and analysis of a set of financial indicators should help policy makers to identify the strengths and vulnerabilities of a financial system so that they can take preventive actions to avert a crisis. The International Monetary Fund (IMF) has initiated a number of initiatives in this area. In 1999, it initiated the collection and assessment of financial stability indicators by the joint IMF–World Bank Financial Sector Assessment Program, which was mainly to monitor financial system fragility. Following broad consultations in 2000, the IMF, in collaboration with the International Accounting Standards Board (IASB), the Bank for International Settlements (BIS), the Basel Committee for Banking Supervision (BCBS), and other international and regional organizations, published a compilation guide on financial soundness indicators (FSIs), which were based on aggregate bank balance sheet and income statement information and aggregate indicators of financial statements of nonfinancial firms and nonbank financial markets.

The FSIs consist of two sets of indicators: core and encouraged indicators. The core indicators consist of 12 indicators to measure potential vulnerabilities of deposit-taking institutions, which cover capital adequacy, asset quality, earnings and profitability, liquidity, and sensitivity to market risks. The encouraged indicators are collected on a country-by-country basis to assess the soundness of other financial sectors such as other players (other financial corporations), borrowers (households and nonfinancial corporations), and related markets (securities and real estate). Currently, about 96 countries have reported regularly their FSIs to IMF, which maintains the database.

This report is the outcome of the regional technical assistance project, Strengthening Institutional Capacity to Compile and Analyze Financial Soundness Indicators for Investment Climate Assessment (RETA 7743), which is supported by the Investment Climate Facilitation

Fund under the Regional Cooperation and Integration Financing Facility. This report describes the development of FSIs for Bangladesh and analyzes FSIs to identify the key challenges faced by the financial sector that must be addressed to support the financial sector stability in the country.

A large number of FSIs are not available yet for Bangladesh, notably for institutions outside the formal banking sector such as nonbank financial institutions, insurance companies, and microfinance institutions. The key core indicators of FSIs can be calculated regularly from the existing data but others are still not readily available, including for encouraged indicators. The systematic disclosure system of financial data from the existing financial institutions to the central bank and Ministry of Finance needs to be improved to ensure a smooth process of data processing and availability. The FSI system in Bangladesh requires further improvement in terms of coverage, frequency, timeliness, and quality to make the indicators more useful and widely available.

The results of this study can be used to strengthen the institutional and statistical capacities of Bangladesh to routinely collect, compile, analyze, and disseminate internationally comparable FSIs that will help improve the country's financial surveillance, investment climate assessment, and policy-making process in the financial sector that is key for financial sector stability and performance.

The author of this report is Dr. Selim Raihan, Professor, Department of Economics, University of Dhaka, Bangladesh and the Executive Director, South Asian Network on Economic Modeling (SANEM). The insights contained in this report are also the results of the collaborative efforts of many. In particular, we would like to express our appreciation to the government and nongovernment institutions for their contributions and participations in various workshops and seminars held in Bangladesh conducted under the project.

Guntur Sugiyarto, as the project leader, edited the report with the help from Josef T. Yap and John West. Douglas Brooks, as the direct manager in preparing the report, provided insightful comments and suggestions throughout the various versions of the drafts. Eric Suan helped organize the day-to-day project implementation, as well as prepare this publication, while Modesta De Castro provided administrative assistance. To ensure the accuracy and consistency of the report, Teri Temple acted as the copy editor/proofreader. ADB's Department of External Relations (DER) helped in publishing the report, while Joe Mark Ganaban did the design, layout, and typesetting of the publication.



Rana Hasan
Director
Development Economics and Indicators Division
Economic Research and Regional Cooperation Department

Executive Summary

This report describes the development of financial soundness indicators (FSIs) for Bangladesh and analyzes how FSIs can be useful for identifying the key challenges to support financial sector stability in the country.

During 2001–2012, Bangladesh maintained healthy GDP growth of 5.9% per annum. From 2000 to 2011, its trade orientation increased remarkably, with the import to GDP ratio rising from 19.2% to 31.6%, and the export to GDP ratio up from 14.0% to 22.9%, driven by spectacular growth in garment exports. Bangladesh is now the world's second-largest garment exporter, after the People's Republic of China. Bangladesh's balance of payments also benefited from remittance inflows, as they rose from \$2.5 to \$12.8 billion from 2002 to 2012. Inflation, however, also picked up from less than 2.0% in 2001 to around 10.0% in 2012, and the exchange rate of the Bangladeshi taka moved up gradually over the same period.

The structure of Bangladesh's banking system has changed significantly. In 2001, state-owned commercial banks (SCBs) accounted for 46.5% of bank deposits, while private commercial banks (PCBs) had only 34.8%. By 2010, the situation had swung around, with the PCBs advancing to 58.8% by capturing the market share of SCBs, whose share dropped to 28.5%. Under the Basel-II, Bangladesh's banks were instructed to maintain the minimum capital requirement at 10.0% of the risk-weighted assets, and after the supervisory review process, the banks were directed to maintain an even higher level. The new Basel-III regulatory framework will be fully implemented in 2019, with a phase-in period beginning in 2013.

The overall trend over the last decade has shown that banks have become more capable of covering possible risks to protect depositors and creditors, but SCBs and state development banks have not been able to meet the adequate capital requirements. From 2007 to 2011, Tier 1 capital to risk-weighted assets showed an improvement and since 2000 the nonperforming loan ratio has also been declining for all banks. The share of bank loans to the private sector increased from 91.0% in 2002 to 96.0% in 2011, driven by loans to the manufacturing sector that corresponded with the declining loans to the public sector. The return on assets of banks increased gradually from 2000 to 2011, but the trends differed across types of bank, with the ratio of private banks higher than those of state banks. The return on equity ratio for all banks showed a fluctuating and inconsistent trend, but the ratio for private banks was mostly higher than other banks. The overall banking sector experienced a rise in interest margin to gross income ratio from 2007 to 2011, and an increase in the liquid assets to total assets ratio between 2000 to 2011. Private and foreign commercial banks showed consistently high liquidity ratios.

A large number of FSIs are not available yet for Bangladesh, notably outside the formal banking sector including nonbank financial institutions, insurance companies, and microfinance institutions. Recent developments in Bangladesh's financial sector include some automation and

technological development, but, looking ahead, a big challenge for Bangladesh will be to improve the coverage, frequency, timeliness, and quality of FSIs to make them more available to a wider audience. At the macro level, the country also needs to improve its investment climate condition, especially in the areas of infrastructure, telecommunication, electricity, transport, access to land, tax payment compliance, labor education, enforcement contracts, and macroeconomic stability.

1. Introduction

FSIs are a set of indicators compiled to monitor the health and soundness of financial institutions and markets, and of their corporate and household counterparts. FSIs include both aggregated information on financial institutions and indicators that are representative of markets in which financial institutions operate. The development of these indicators is coordinated by the International Monetary Fund (IMF), with the support of its member countries and other international organizations.

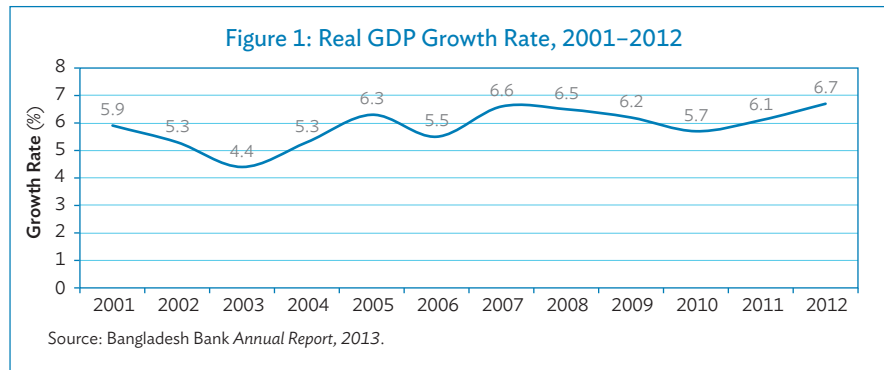
The main objective of developing the FSI system is to ensure the availability of internationally comparable data on the stability of financial systems for a large number of countries so that potential vulnerability can be detected and crisis can be avoided. FSIs of all participating countries are available on the home page of the IMF.

Against this backdrop, this paper reviews the available FSIs of Bangladesh and highlights the problems associated with it. The organization of the paper is as follows: section II provides a brief overview of the economy of Bangladesh; section III analyzes the trends in the available FSIs in Bangladesh; section IV discusses recent developments in the financial sector in Bangladesh; and finally, section V concludes. Appendix 1 presents a review on the availability of FSIs of Bangladesh.

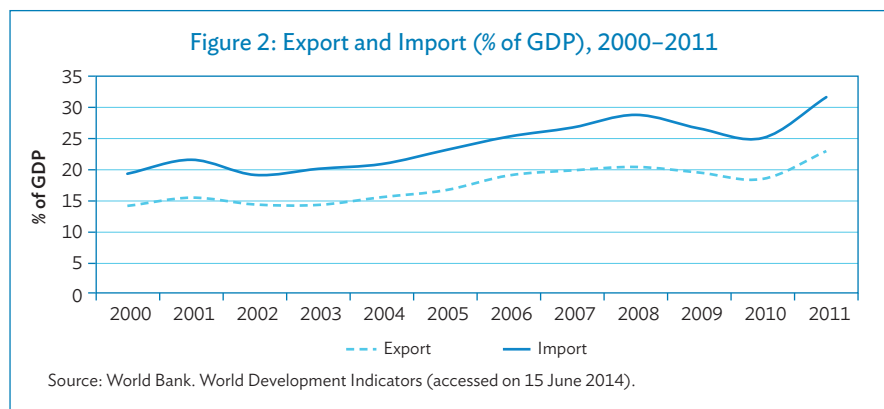
2. The Economy and Financial System of Bangladesh

2.1 Macroeconomic Environment

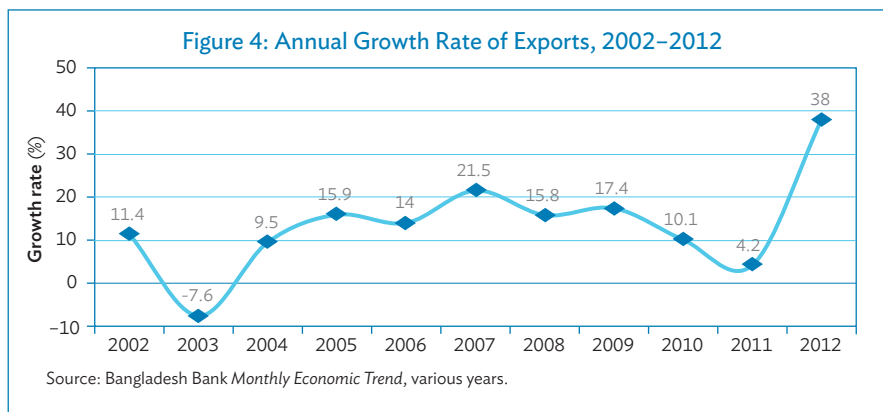
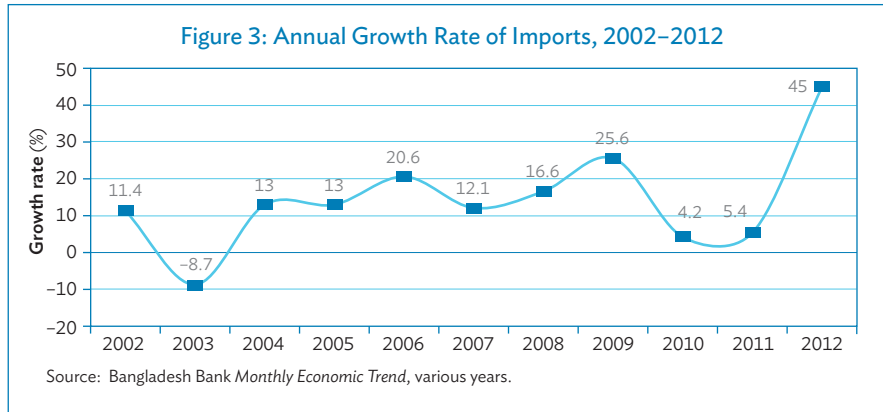
Bangladesh has been able to maintain healthy rates of growth in real GDP during 2000s (Figure 1). The average growth rate from 2001–2012 was 5.9%. Since 2005 (except for the years 2006 and 2010) the growth rates have been over 6.0%. Bangladesh has been considered as one of the high-growth countries in recent years.



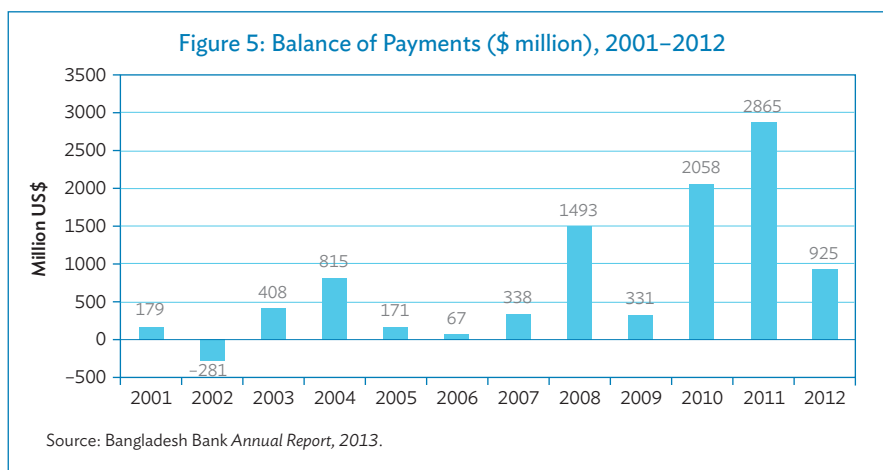
During the 2000s, Bangladesh's trade orientation increased quite remarkably (Figure 2). In 2000, Bangladesh's import to GDP ratio was 19.2%, which increased to 31.6% in 2011 indicating a 64.6% rise in that ratio during that time. Also the export to GDP ratio increased from 14.0% to 22.9%, indicating a 63.6% rise during the same period. Imports and exports as a percent of GDP only declined during 2008 and 2010 due to the global economic crisis. Bangladesh's remarkable export performance has primarily been driven by the spectacular growth performance of the ready-made garment industry. In recent years, Bangladesh has turned into the second-largest exporter of wearing apparel in the world after the People's Republic of China.



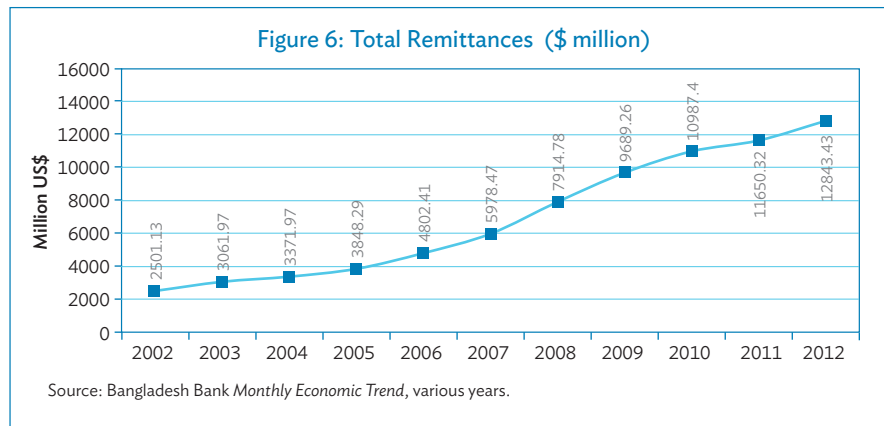
Except for 2003, the growth rates of imports and exports have been positive (Figures 3 and 4). Also, during the global economic crisis, the growth rates slowed down. However, except for those years, the growth rates of imports and exports have been very high. In 2012, both imports and exports experienced high growth, at 45.0% and 38.0% respectively, partially due to the low growth in the preceding 2 years.



From 2001 to 2012, Bangladesh maintained surpluses in the balance of payments in all years except in 2002 (Figure 5). This has been mainly due to the high growth in exports and remittances.



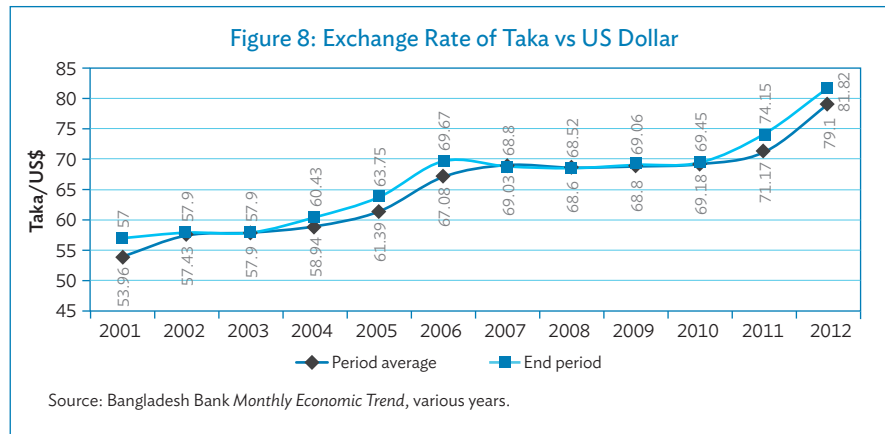
Bangladesh experienced a sharp rise in the inflow of remittances during the 2000s. In 2002, the remittance was only \$2,501 million, but by 2012 it had already increased to \$12,843.4 million (Figure 6). The large inflow of remittances has been helpful in maintaining a stable balance of payments as well as exchange rate stability. Studies indicate a positive poverty alleviation effect of remittances in Bangladesh (Raihan et al., 2009 Raihan and Uddin 2010).



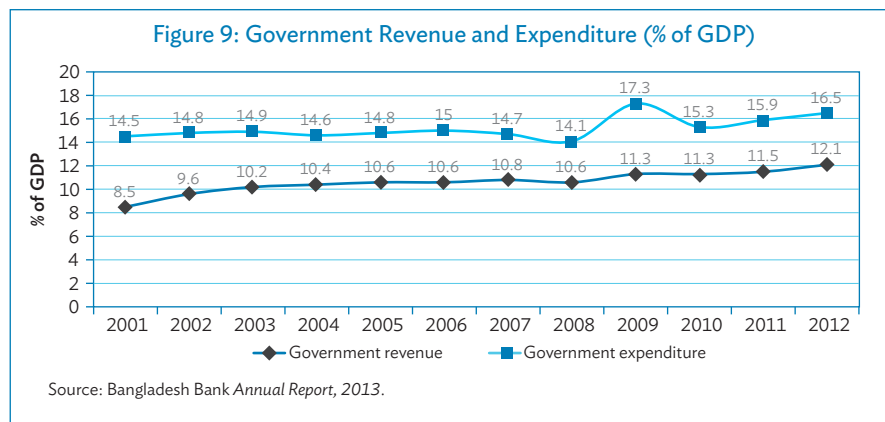
The decade of the 2000s saw a gradual rise in the inflation rate except the year 2009 (Figure 7). The two measures of inflation (point-to-point and monthly average) moved in the same direction except the year 2012. In 2001, the 12-month average inflation rate was only 1.9%, which increased to 9.9% by 2008. It fell to 6.7% in 2009 and after that started to rise. By 2012, the 12-month average inflation rate stood at 10.6%. A similar pattern could be observed in the case of point-to-point inflation rate.



Bangladesh has in general been able to maintain a stable exchange rate against the dollar during 2000s. Before the introduction of the floating exchange rate in 2003, the exchange rate remained at around 57 taka per US dollar (Figure 8). However, the introduction of the floating exchange rate increased the exchange rate to 68–69, taka which remained stable until 2010. This was largely due to the high growth performances of exports and remittances. Since 2011, the exchange rate started to increase and in 2012, it stood at 81.8 taka per US dollar.



Bangladesh has a low government revenue to GDP ratio (Figure 9). Despite some improvements during the 2000s, by 2012, the ratio was only 12.1%, much lower than the averages for the developing countries and South Asian countries. Also, government expenditure as percent of GDP increased from 14.5% in 2001 to 16.5% in 2012.



2.2 Financial Sector Structure and Trends

The financial system of Bangladesh is comprised of three broad fragmented sectors: formal, semiformal, and informal. The sectors have been categorized in accordance with their degree of regulation. The formal sector includes all regulated institutions like banks, nonbank financial institutions, insurance companies, capital market intermediaries like brokerage houses, merchant banks, etc., and microfinance institutions (MFIs). The semiformal sector includes those institutions that are regulated but do not fall under the jurisdiction of the central bank, insurance authority, Securities and Exchange Commission, or any other enacted financial regulator. This sector is mainly represented by specialized financial institutions like House Building Finance Corporation (HBFC), Palli Karma Sahayak Foundation (PKSF), Samabay Bank, Grameen Bank, etc; nongovernment organizations (NGOs); and discrete government programs. The informal sector includes private intermediaries that are completely unregulated.

The financial market in Bangladesh is mainly of three types:

- (i) Money market: The primary money market is comprised of banks, financial institutions, and primary dealers as intermediaries; and savings and lending instruments, and treasury bills as instruments. There are currently 15 primary dealers (12 banks and 3 financial institutions) in Bangladesh. The only active secondary market is the overnight call money market, participated by the scheduled banks and financial institutions. The money market in Bangladesh is regulated by Bank Bangladesh, the central bank of Bangladesh.
- (ii) Capital market: The primary segment of the capital market is operated through private and public offerings of equity and bond instruments. The secondary segment of the capital market is institutionalized by two stock exchanges—the Dhaka Stock Exchange and the Chittagong Stock Exchange. The instruments in these exchanges are equity securities (shares), debentures, corporate bonds, and treasury bonds. The capital market in Bangladesh is governed by the Securities and Exchange Commission (SEC).
- (iii) Foreign exchange market: Toward liberalization of foreign exchange transactions, a number of measures have been adopted since the 1990s. The Bangladeshi currency, the taka, was declared convertible in current account transactions (as of 24 March 1994), based on Article VIII of the IMF Articles of Agreement (1994). As the taka is not convertible in the capital account, resident-owned capital is not freely transferable abroad. Repatriation of profits or disinvestment proceeds on nonresident foreign direct investment (FDI) and portfolio investment inflows are permitted freely. Direct investments of nonresidents in the industrial sector and portfolio investments of nonresidents through stock exchanges are repatriable abroad, as also are capital gains, profits, and dividends. Investment abroad of resident-owned capital is subject to prior BB approval, which is allowed only sparingly. Bangladesh adopted the floating exchange rate regime on 31 May 2003. Under the regime, BB does not interfere in the determination of the exchange rate, but implements the monetary policy prudently for minimizing extreme swings in the exchange rate to avoid adverse repercussions on the domestic economy. The exchange rate is being determined in the market on the basis of market demand and supply forces of the respective currencies. In the forex market, banks are free to buy and sell foreign currency on the spot and also in the forward markets. However, to avoid any unusual volatility in the exchange rate, BB intervenes by buying and selling foreign currencies whenever it deems necessary to maintain stability in the foreign exchange market.

After independence, the banking industry in Bangladesh started with six state commercialized banks, two state-owned specialized banks, and three foreign banks. In the 1980s, the banking industry significantly expanded with the entry of private banks. Currently, banks in Bangladesh are primarily of two types:

- (i) Scheduled banks: banks that get a license to operate under the Bank Company Act of 1991 (amended in 2003); and
- (ii) Nonscheduled banks: banks that are established for a special and definite objective and operate under the acts that are enacted for meeting those objectives. These banks cannot perform all the functions of scheduled banks.

There are 52 scheduled banks in Bangladesh that operate under full control and supervision of BB, which is empowered to do so through Bangladesh Bank Order of 1972 and the Bank Company Act of 1991. Scheduled banks are classified into the following types:

- (i) State-owned commercial banks (SCBs): There are four SCBs which are fully or majority owned by the Government of Bangladesh.
- (ii) Specialized banks (SDBs): There are four specialized banks established for specific objectives like agricultural or industrial development. These banks are also fully or majority owned by the Government of Bangladesh.
- (iii) Private commercial banks (PCBs): There are 30 private commercial banks that are majority owned by private entities.
- (iv) Foreign commercial banks (FCBs): Nine FCBs are operating in Bangladesh as branches of banks that are incorporated abroad.

The insurance sector in Bangladesh emerged after independence with two nationalized insurance companies—one life and one general—and one foreign insurance company. The mid-1980s saw the entry of private sector insurance companies and the further expansion of the industry. At present, 62 companies are operating under the Insurance Act of 2010. Of these, 18 are life insurance companies (including one foreign company and one state-owned company), and 44 are general insurance companies (including 1 state-owned company). Insurance companies in Bangladesh provide the following services: (i) life insurance, (ii) general insurance, (iii) reinsurance, (iv) microinsurance, and (v) Takaful Islamic insurance.

The member-based microfinance institutions (MFIs) constitute a rapidly growing segment of the rural financial market (RFM) in Bangladesh. Microcredit programs (MCP) in Bangladesh are implemented by various formal financial institutions (nationalized commercial banks and specialized banks), specialized government organizations, and NGOs. The growth in the MFI sector, in terms of the number of MFIs as well as total membership, was phenomenal during the 1990s and continues until today. Despite the fact that more than a thousand institutions are operating microcredit programs, only 10 large MFIs and Grameen Bank represent 87.0% of total savings of the sector and 81.0% of total outstanding loans of the sector. Through the financial services of microcredit, poor people are engaging themselves in various income-generating activities and around 30 million poor people have directly benefited from microcredit programs. Credit services of this sector can be categorized into six broad groups: (i) general microcredit for small-scale self-employment-based activities, (ii) microenterprise loans, (iii) loans for ultra-poor, (iv) agricultural loans, (v) seasonal loans, and (vi) loans for disaster management. As of 10 October 2011, 599 institutions have been licensed by the Microcredit Regulatory Authority (MRA) to operate microcredit programs. However, Grameen Bank is out of the jurisdiction of the MRA as it is operated under a distinct legislation, the Grameen Bank Ordinance of 1983.

There are two stock exchanges in Bangladesh—Dhaka Stock Exchange Limited (DSE) and Chittagong Stock Exchange Limited (CSE). DSE is the country's primary bourse considering its ample contribution to the capital market. The Bangladesh capital market is gradually growing strong and registered significant growth in 2010. Because of the slower pace of investment activities, reduced

interest rate on deposits and saving certificates, and increasing enthusiasm among the people, the capital market was flooded with huge liquidity. Due to a growing number of ordinary investors in the capital markets, a limited supply of securities, and investors' expectation for more profit, at times a situation of overheating is created, making the market volatile. However, market monitoring has been strengthened and various steps have been taken to maintain market stability and to establish a transparent and vibrant capital market. The primary regulator of the stock market is the Securities and Exchange Commission (SEC). However, BB, as a regulator of the banking sector, regulates the scheduled banks and nonbank financial institutions for stock market activities. As a regulatory stance, BB instructed banks to (i) establish separate subsidiaries in the form of either a merchant bank or brokerage house or both in order to continue their brokerage or merchant banking activities, and (ii) not provide any marginal loan. As of this writing, 25 banks have established separate merchant banks or brokerage houses and 1 bank is in the process of doing so.

3. Financial Soundness Indicators in Bangladesh

3.1 Structure of the Banking System in Bangladesh

During 2001 and 2010, the share of asset holdings by the SCBs and PCBs changed significantly (Table 1). During this period, the percent share of asset holdings by the SCBs declined by 38.7% while for PCBs, it increased by around 69.0%. Expansion of the private commercial banks reduced the role of the SCBs substantially. The SCBs lost market share due to (i) weak balance sheets that would not support rapid credit growth; (ii) slow growth of SCBs' traditional borrowers and their high NPLs; and (iii) the SCBs' unresponsive business processes (World Bank 2010). In general, loans and advances constituted the major portion of total assets and their growth played a major role in the corresponding asset holdings of the SCBs and PCBs (BB 2013). Rapid increases in traditional trade and working capital lending, increased term loans to industry, and lending to larger agricultural firms and small and medium enterprises (SMEs) were the main sources of private banks' credit growth. In addition, SCB sector's overall loan growth was limited administratively while one the SCB awaited privatization and the others participated in the restructuring program. The market shares of foreign banks and SDBs did not change that much during the period under consideration (World Bank 2010).

Table 1: Percentage of Asset Holdings by Four Types of Banks

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
SCBs	46.5	45.6	41.7	39.6	37.4	32.7	33.1	31.1	28.6	28.5
SDBs	11.8	11.4	10.2	9.7	9.7	7.8	7.3	6.7	6.6	6.1
PCBs	34.8	36.2	40.8	43.5	45.6	47.7	51.4	54.2	57.4	58.8
FCBs	6.9	6.8	7.3	7.2	7.3	11.8	8.2	8.0	7.4	6.6
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank Annual Report, various years.

During 2001 and 2010, the percent share of deposit holdings by SCBs in total deposits decreased by 44.8%, while that for PCBs increased by 66.9% (Table 2). The main reason was market share of SCBs had been consistently captured by the PCBs during those years. The interest rate offered by the PCBs also remained significantly higher than that of the SCBs. On the other hand, deposit shares of SDBs and FCBs remained more or less the same even though FCBs paid the lowest interest rate to the depositors (Mujeri and Younus 2009).

Table 2: Percentage of Deposit Holding by Four Types of Banks

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
SCBs	50.9	50.3	41.7	42.8	40.0	35.2	32.6	29.7	28.6	28.1
SDBs	5.7	5.8	10.2	5.7	5.8	5.4	5.4	5.3	5.3	4.9
PCBs	36.5	36.9	40.8	44.3	47.0	51.3	53.5	56.6	59.1	60.9
FCBs	6.9	7.0	7.3	7.2	7.2	8.1	8.5	8.4	7.0	6.1
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank Annual Report, various years.

3.2 Trend in Core Indicators

The following is the description of selected FSIs according to the list of FSIs as described in Appendix 1.

A.1 Capital Adequacy

Capital adequacy focuses on the total position of banks' capital and the protection of depositors and other creditors from potential shocks due to losses that a bank might incur. It helps absorb all possible financial risks like credit risk, market risk, operational risk, residual risk, core risk, credit concentration risk, interest rate risk, liquidity risk, reputation risk, settlement risk, strategic risk, environmental and climate change risk, etc. There are three indicators of capital adequacy: (i) regulatory capital to risk-weighted asset; (ii) regulatory Tier 1 capital to risk-weighted asset; and (iii) nonperforming loans net of provisions to capital.

A.1.1 Regulatory Capital to Risk-Weighted Assets

This indicator (Table 3) is calculated using total regulatory capital as the numerator and risk-weighted assets as the denominator. Data are compiled in accordance with the guidelines of either Basel-I or Basel-II. It measures the capital adequacy of deposit takers. Capital adequacy and availability ultimately determine the degree of robustness of financial institutions to withstand shocks to their balance sheets. Under Basel-II, banks in Bangladesh were instructed to maintain the minimum capital requirement (MCR) at 10.0% of the risk-weighted assets (RWA). Under the supervisory review process (SRP), banks were directed to maintain a level of "adequate" capital which was higher than the minimum required capital and sufficient to cover all possible risks in their businesses (BB 2013). Between 2000 and 2011 (June), the ratio of capital to risk-weighted assets steadily increased and met the condition of adequate capital ratio in 2008. Despite a slight reduction in 2010, the overall increasing trend of the ratio over the 11 years proved that banks were becoming more capable to cover the possible risks and protect the depositors and creditors. Moving toward a high capital to

Table 3: Regulatory Capital to Risk-Weighted Assets, BB data

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total	6.7	6.7	7.5	8.4	8.7	5.6	6.7	9.6	10.1	11.6	9.3	11.4
SCBs	4.4	4.3	4.1	4.3	4.1	-0.4	1.1	7.9	6.9	9.0	8.9	11.7
SDBs	3.2	3.9	6.9	7.7	9.1	-7.5	-6.7	-5.5	-5.3	0.4	-7.3	-4.5
PCBs	10.9	9.9	9.7	10.5	10.3	9.1	9.8	10.6	11.4	12.1	10.1	11.5
FCBs	18.4	16.8	21.4	22.9	24.2	26.0	22.7	22.7	24.0	28.1	15.6	21.0

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank Annual Report, various years.

risk-weighted assets ratio meant the economy was moving toward a sounder financial environment. However, SCBs and SDBs could not meet the adequate capital requirement during the period under consideration. Therefore, these banks were not in a situation to protect their depositors and creditors from possible risks. In contrast, during these years, PCBs and FCBs maintained the adequate level of capital to risk-weighted assets (greater than 10.0%). The capital adequacy ratio (CAR) of SCBs declined from 4.1% in 2004 to -0.4% in 2005. In contrast, FCBs maintained 28.1% CAR in 2009, which was the highest during the period under consideration (BB 2006a). Therefore, the overall improvement of capital to risk-weighted assets (for all banks) only reflects the improvement of PCBs and FCBs.

Meanwhile, there are some discrepancies between the BB data and the IMF data. Table 4 presents the data from the IMF. Apart from 2009 and 2010, there were variations in all other estimates. For example, in 2006, this ratio for the SCBs was 1.1% according to the BB data but -2.1% according to according to the IMF data.

Table 4: Regulatory Capital to Risk-Weighted Assets, IMF data

Bank Type	2006	2007	2008	2009	2010	2011 (June)	2011 (December)
Total (unadjusted)	5.6	9.3	10.4	11.7	9.3	9.7	11.3
SCBs	-2.1	7.3	7.9	9.0	8.9	9.5	11.7
SDBs	-4.5	-5.0	-3.3	0.4	-7.3	-7.1	-4.5
PCBs	9.0	10.4	11.2	12.1	10.1	10.4	11.5
FCBs	24.5	22.8	23.8	28.1	15.6	17.1	21.0

Note: IMF = International Monetary Fund, SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: International Monetary Fund. 2012 Financial Soundness Indicators. <http://fsi.imf.org>

A.1.2 Regulatory Tier 1 Capital to Risk-Weighted Assets

This indicator is compiled in accordance with the guidelines of either Basel-I or Basel-II. It measures the capital adequacy of deposit-takers based on the core capital concept of the Basel Committee on Banking Supervision (BCBS). During 2007 and 2011, Tier 1 capital to risk-weighted assets (purest capital ratio) showed an increasing trend, which suggested improvement of financial soundness of the banks during that time. In 2007, the ratio was 7.8%, which by 2011 increased to 8.8% (Table 5) (BB 2011; BB 2012a).

Table 5: Regulatory Tier 1 Capital to Risk-Weighted Assets

Year	%
2007	7.79
2008	5.42
2009	8.93
2010	6.68
2011	8.80

Source: Bangladesh Bank Annual Report, various years.

A.1.3 Nonperforming Loans Net of Provisions to Capital

This indicator (Table 6) is calculated by taking the value of nonperforming loans (NPLs) less the value of specific loan provisions as the numerator and capital as the denominator. Capital is measured as total capital and reserves in the sectoral balance sheet; for cross-border consolidated data, total regulatory capital can also be used. This FSI is a capital adequacy ratio and is an important indicator of the capacity of bank capital to withstand losses from NPLs. Table 8 suggests that during 2007 and 2011, the financial soundness

Table 6: Nonperforming Loans Net of Provisions to Capital (%)

Year	%
2007	76.60
2008	47.91
2009	30.82
2010	20.58
2011	13.75

Source: Bangladesh Bank Annual Report, various years.

improved quite dramatically. In 2007, the nonperforming loans net of provisions to capital was as high as 76.6%, which came down to 13.8% by 2011.

A.2 Asset Quality

The asset composition of all commercial banks shows the concentration of loans and advances. The high concentration of loans and advances indicates vulnerability of assets to credit risk, especially because of having significant portions of nonperforming assets. There are two indicators of asset quality: (i) nonperforming loans to total gross loans and (ii) sectoral distribution of loans to total loans.

A.2.1 Nonperforming Loans to Total Gross Loans

This indicator is calculated by using the value of NPLs as the numerator and the total value of the loan portfolio (including NPLs before the deduction of specific loan-loss provisions) as the denominator. The loan amount recorded as nonperforming should be the gross value of the loan as recorded in the balance sheet, not just the amount that is overdue. This FSI is often used as a proxy for asset quality and is intended to identify problems with asset quality in the loan portfolio.

A large NPL in a bank gives a bad signal about asset quality. Since 2000, the ratio of NPLs to total loans for all the banks had been declining (Table 7). This ratio was high in the early 2000s and then started to decline. This higher ratio was mainly attributable to large NPLs of SCBs and SDBs. During the 1970s and 1980s, SCBs and SDBs disbursed a significant amount of loans under directed credit programs without proper supervision and follow-up. This eventually resulted in a huge booking of poor-quality assets that constituted a major part of the portfolio of these banks. In the past, the SCBs suffered from large NPLs, reflecting not just their ineffective procedures for identifying borrowers, poor risk management, and weak collections, but pressures to make loans and reduce debt service payments by certain sectors (World Bank 2010). Also, the recovery of problem loans and inadequate loan provisioning for SCBs were predicaments. Moreover, these banks were not historically involved in canceling the accumulated bad loans because of the poor quality of underlying collateral. Therefore, overall asset quality of the SCBs was poor during this period. During 2006–2011, NPL to total loans of the SCBs deteriorated gradually. The recent reported reduction in the SCBs' NPLs is mainly due to reduction in the pressure of making loans. Internal restructuring of these banks to strengthen the loan recovery mechanism, recovery drive and write-off measures helped to achieve this recovery (World Bank 2010; BB 2012b; BB 2013).

Table 7: Nonperforming Loans to Total Loans by Types of Banks (%), BB data

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total	34.9	31.5	28.0	22.1	17.6	13.6	13.2	13.2	10.8	9.2	7.3	6.1
SCBs	38.6	37.0	33.7	29.0	25.3	21.4	22.9	29.9	25.4	21.4	15.7	11.3
SDBs	62.6	61.8	56.1	47.4	42.9	34.9	33.7	28.6	25.5	25.9	24.2	24.6
PCBs	22.0	17.0	16.4	12.4	8.5	5.6	5.5	5.0	4.4	3.9	3.2	2.9
FCBs	3.4	3.3	2.6	2.7	1.5	1.3	0.8	1.4	1.9	2.3	3.0	2.9

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank Annual Report, various years.

There are some discrepancies between the BB data and the IMF data. Table 8 presents the data for this indicator from the IMF. Especially in the case of SDBs, for the years between 2006 and 2008, the discrepancies are very large. For example, in 2006, the BB data showed a very high ratio (33.7%), which according to the IMF data was much lower (14.3%). In the case of FCBs, the differences are also large for those 3 years.

Table 8: Nonperforming Loans to Total Loans by Types of Banks (%), IMF data

	2006	2007	2008	2009	2010	2011	2011
Total	12.8	14.5	11.2	9.0	7.3	7.1	6.1
SCBs	22.8	29.0	28.0	20.1	15.7	14.1	11.3
SDBs	14.3	13.5	11.7	24.1	24.1	21.8	24.6
PCBs	4.9	5.4	5.1	4.0	3.1	3.5	2.9
FCBs	2.8	2.9	3.7	2.2	3.0	3.1	3.0

Note: IMF = International Monetary Fund, SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: International Monetary Fund - FSI Online, 2012.

BB also provides information on the ratio of net nonperforming loans to total loans. Nonperforming loans net of impairments is called the net nonperforming loan (NNPL). The ratio of NNPL to net total loans shows a drastic decline (Table 9). NNPL ratios of SCBs and SDBs was reduced sharply during 2000 and 2011. In 2005, the ratios for SCBs and SDBs reached 13.2% and 22.6%, respectively. But their nonperforming portfolios were still high after adjustment of actual provision and interest expense in 2005 (BB 2006a). After 2005, NNPL of both SCBs and SDBs declined further but SDBs' nonperforming portfolios were still high after adjustment of actual provision and interest suspense, whereas the SCBs had excess provision against their NPLs in 2011. Moreover, FCBs and PCBs had lower nonperforming loan portfolios throughout the period of 2000 to 2011. NNPL of FCBs and PCBs showed a steep decline over the years. This decline meant excess provision against their NPLs (BB 2013).

Table 9: Ratio of Net Nonperforming Loans to Net Total Loans by Types of Banks (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total	28.8	25.6	22.6	18.8	9.8	7.2	7.1	5.1	2.8	1.73	1.3	1.3
SCBs	34.1	32.8	30.1	28.3	17.6	13.2	14.5	12.9	5.9	1.9	1.9	2.0
SDBs	54.6	54.5	48.0	38.3	23.0	22.6	23.6	19.0	17	18.3	10.0	13.5
PCBs	15.5	10.5	10.5	8.3	3.4	1.8	1.8	1.4	0.9	0.45	0.0	0.2
FCBs	-0.1	-0.3	-0.4	0.1	-1.5	-2.2	-2.6	-1.9	-2.0	-2.3	-1.7	-1.5

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank Annual Report, various years.

A.2.2 Sectoral Distribution of Loans to Total Loans

This indicator is calculated using lending to each of the institutional sectors reported in the sectoral balance sheet of the deposit-takers as the numerators and total gross loans as the denominator. This FSI is an asset quality indicator. It provides information on the distribution of loans (including NPLs and before the deduction of specific loan-loss provisions) to resident sectors and to nonresidents. Lack of sectoral diversification in the loan portfolio signals the potential existence of an important vulnerability in the financial system. Table 10 presents the sector-wise distribution of loans to total loans for the period between 2002 and 2011. This suggests that over time the share of the public sector in total loans has declined while that of the private sector has increased. By 2011, the private sector accounted for a 96.3% share of the total distributed loans. In the private sector, manufacturing companies and commerce and trade dominated in terms of larger share of the total distributed loans. These two sectors accounted for more than 70.0% of the distributed loans.

Table 11 presents similar data from the IMF. Although the data of the Bangladesh Bureau of Statistics (BBS) and IMF do not match because of the difference in level of aggregation, the IMF data also suggests that industry and trade accounted for more than 70.0% of the distributed loans.

Table 10: Sector-Wise Distribution of Loans to Total Loans (%), BB data

Sector	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
1. Public sector	9.07	7.80	4.40	6.16	5.78	4.56	3.57	4.05	3.84	3.71
Government	0.89	1.01	0.74	0.29	0.26	0.25	0.22	0.24	0.08	0.10
Autonomous and semi-autonomous bodies	0.92	1.03	0.19	0.19	0.06	0.33	0.04	0.81	0.83	0.35
Financial institutions	0.06	0.05	0.01	-	-	0.01	-	0.01	-	-
Nonfinancial public enterprises	6.98	5.83	3.39	5.64	5.39	3.91	3.27	2.98	2.92	3.26
a) Nationalized sector corporations	6.63	5.61	3.3	5.52	5.31	3.85	3.23	2.96	2.91	3.24
b) Others n.e.c	0.34	0.21	0.09	0.12	0.07	0.06	0.04	0.02	0.02	0.02
Local bodies	0.07	0.09	0.07	0.04	0.03	0.01	0.01	0.01	-	-
Others	0.02	0.01	-	-	0.04	0.04	0.02	-	-	-
2. Private sector	90.93	92.20	95.6	93.84	94.22	95.44	96.43	95.95	96.16	96.29
Agriculture and professionals	10.05	9.86	9.62	9.23	9.12	7.79	7.09	6.61	6.19	6.40
Manufacturing companies	32.69	35.40	39.17	37.30	39.00	41.19	41.33	42.43	40.65	41.48
Commerce and trade	26.63	27.75	28.26	28.70	27.30	26.95	27.8	27.02	29.07	29.15
Transport and storage companies	1.68	1.92	2.13	1.70	1.44	1.18	0.92	0.95	1.03	1.15
Construction companies	1.81	1.70	2.09	2.15	2.28	2.34	21.12	2.26	2.38	2.28
Private trust funds and non-profit organizations	0.01	0.03	0.05	0.03	-	-	-	-	-	-
Financial institutions	0.85	1.24	1.66	2.11	2.19	1.92	2.05	1.74	2.42	2.17
Professional and self-employed persons	2.95	3.12	2.35	1.73	1.91	1.73	1.62	1.44	0.88	0.90
Others n.e.c	8.87	11.20	10.35	10.89	15.15	12.34	13.51	13.50	13.55	12.77

-- = zero.

Source: Bangladesh Bureau of Statistics. Various years. Statistical Yearbook of Bangladesh. Dhaka.

Table 11: Sector-Wise Distribution of Loans to Total Loans (%), IMF data

Sector	2006	2007	2008	2009	2010
Oil and gas	1.8	0.8	0.9	1.6	0.7
Industry (other)	32.2	34.5	36.0	36.4	35.5
Agriculture	8.2	7.7	6.8	6.9	5.7
Forestry	2.4	2.1	1.8	0.5	0.0
Trade	22.1	24.3	24.0	26.6	37.6
Construction	4.1	3.4	3.3	3.6	7.0
Households	3.3	4.7	4.8	4.7	6.8
Other	26.0	22.6	22.5	19.7	6.7

Note: IMF = International Monetary Fund.

Source: International Monetary Fund. 2012 Financial Soundness Indicators. <http://fsi.imf.org>

A.3 Earnings and Profitability

A strong earnings and profitability profile of a bank reflects its ability to support present and future sound operation, absorb future contingent shocks, and strengthen resilience. More specifically, this determines the capacity to absorb losses by building an adequate capital base, finance its expansion, and pay adequate dividends to its shareholders. Although there are various indicators of earnings and profitability, the most representative and widely used indicator is return on assets (ROA), which is supplemented by return on equity (ROE), interest margin, and ratio of noninterest expenses to gross income or assets (BB 2013).

A.3.1 Return on Assets (ROA)

This indicator is calculated by dividing net income before extraordinary items and taxes (as recommended in the FSI Guide) by the average value of total assets (financial and nonfinancial) over the same period. This FSI is an indicator of bank profitability and is intended to measure deposit-takers' efficiency in using their assets. Return on assets for all types of banks increased gradually during 2000 and 2011 (Table 12). However, the trend of ROA varied by type of bank. For example, the ROA of SCBs and SDBs showed a fluctuating trend. During 2000 and 2005, ROA of the SCBs deteriorated to a negative figure in 2005, and after that it rose to 0% due to huge provisions and underperformance (BB 2006a). SCBs did not have net income after provision and taxation (BB 2007). However, in recent years, the ROA of the SCBs has increased. The ROA of SDBs was negative for most of the years during 2000 and 2008. The negative earning of SDBs was found after adjustment of provision for bad debt and taxation (BB 2013). The ROA of PCBs had been higher than those of SCBs and SDBs. During 2000 and 2005, PCBs had an inconsistent but satisfactory trend, but during 2005–2011, PCBs showed a consistent positive trend (BB 2006a, 2010a, 2010b, 2012b). The ROA of FCBs had been consistently strong during 2000 and 2011.

Table 12: Return on Assets by Types of Banks (%), BB data

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 (December)
Total	0.0	0.7	0.5	0.5	0.7	0.6	0.8	0.9	1.2	1.4	1.8	1.5
SCBs	0.1	0.1	0.1	0.1	-0.1	-0.1	0.0	0.0	0.7	1.0	1.1	1.3
SDBs	-3.7	0.7	0.3	0.0	-0.2	-0.1	-0.2	-0.3	-0.6	0.4	0.2	0.1
PCBs	0.8	1.1	0.8	0.7	1.2	1.1	1.1	1.3	1.4	1.5	2.1	1.6
FCBs	2.7	2.8	2.4	2.6	3.2	3.1	2.2	3.1	2.9	3.2	2.9	3.2

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank Annual Report, various years.

There are some discrepancies between the data of BB and IMF. The IMF data on ROA are presented in Table 13. Especially in the case of SCBs and SDBs, for the years 2006 and 2007, the IMF data showed much higher losses than reported in the BB data. The ROA of SCBs and SDBs showed a weak trend during 2006–2011 (Table 13). Net interest margins for SCBs were always compressed during that period. This contributed significantly to weak growth in ROA of the SCBs. Moreover, the increasing number of loss-making branches worsened the situation (IMF 2013).

Table 13: Return on Assets by Types of Banks (%), IMF data

	2006	2007	2008	2009	2010	2011 (June)	2011 (December)
Total	-2.1	1.1	1.6	1.4	1.8	1.3	1.5
SCBs	-9.2	-0.3	1.2	1.0	1.1	0.6	1.3
SDBs	-0.9	-0.6	-0.6	-0.6	0.2	-0.3	0.0
PCBs	1.5	1.9	1.9	1.6	2.1	1.6	1.6
FCBs	3.3	3.2	2.9	3.2	2.9	3.6	3.2

Note: IMF = International Monetary Fund, SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: International Monetary Fund - FSI Online, 2012.

A.3.2 Return on Equity (ROE)

This indicator is calculated by dividing net income before extraordinary items and taxes by the average value of capital over the same period. Capital is measured as total capital and reserves

as reported in the sectoral balance sheet; for cross-border consolidated data, Tier 1 capital can also be used. This FSI is a bank profitability indicator and is intended to measure deposit-takers' efficiency in using their capital. ROE means the bank's ability to convert its equity into net earnings. A low ROE represents lack of managerial efficiency and requires close monitoring of the activities of banks, both by the regulators and the equity holders (BB 2007). In 2000–2011, the ROE ratio for all banks showed a fluctuating and inconsistent trend (Table 14). Negative and inconsistent ROE of the SCBs and SDBs had a major effect on it. The ROE of SCBs increased during 2000 and 2003 but declined to –6.9% in 2005. The main reason was the massive loss of Agrani Bank due to huge operating expenses (BB 2006a). In 2006, it started to increase again and reached 26.1% in 2009. In 2010, it dropped to 18.4% as owners' equity increased at a comparatively higher rate than after-tax profit (BB 2012b).

Table 14: Return on Equity by Types of Banks (%), BB data

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total	0.3	15.9	11.6	9.8	13	12.4	14.1	13.8	15.6	21.7	21.0	17.0
SCB	1.7	2.4	4.2	3.0	-5.3	-6.9	0.0	0.0	22.5	26.1	18.4	19.7
SDB	-68.0	12.3	5.8	-0.6	-2.1	-2.0	-2.0	-3.4	-6.9	-171.7	-3.2	-0.9
PCB	17	20.9	13.6	11.4	19.5	18.1	15.2	16.7	16.4	20.9	20.9	15.7
FCB	27.3	32.4	21.5	20.4	22.5	18.4	21.5	20.4	17.8	22.4	17.0	16.6

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank Annual Report, various years.

The ROE of the SDBs worsened during 2000–2011 despite some improvements in 2001 and 2002. The huge loss (–68.0%) of SDBs in 2000 was mainly due to new provisions added by debiting “loss” in their books of accounts. The sharp rise in 2001 was mainly attributed to booking of net profit amounting to 1.0 billion taka in 2001 against a net loss of 5.2 billion taka in 2000 by the SDBs. After 2002, the ROE of SDBs further deteriorated and eventually declined to –2.0% in 2005. This was mainly due to the operating loss incurred by Bangladesh Krishi Bank (BKB) and Rajshahi Krishi Unnayan Bank (RAKUB) in 2005 (BB 2006a). The ROE of the PCBs and the FCBs remained satisfactory. In the early 1990s, during the liberalization phase, FCBs earned unusually huge profits and this profit gain continued at a moderate rate until 2004 (BB 2006b). The ROE for FCBs was 18.4% in 2005, which increased to 21.5% in 2006. This indicated better performance of FCBs probably due to their technological advantage, product differential capability, and/or high human resource quality (BB 2007). Since 2009, ROE of the FCBs had been showing a gradual decline due to an increase in equity. The ROE of the FCBs in 2009 stood at 22.4%, which declined to 17.0% in 2010 as two FCBs incurred net losses (BB 2012b, 2013). After 2004, ROE of the PCBs began to show signs of maturity and challenged the dominance of FCBs. Both the efficiency and earning potential of the PCBs started to increase after 2004 (BB 2006b). The ROE of the PCBs started to increase and reached a strong and healthy figure in 2010 (BB 2012b, 2013).

Again, there are some discrepancies between the BB data and the IMF data. The IMF data are presented in Table 15. The discrepancies are very prominent for the years 2006, 2007 and 2008. Especially in the case of SCBs, the figures differ widely for the years 2006 and 2007. During 2000 and 2006, ROE showed diverse and inconsistent figures, especially for SCBs and SDBs. Net interest margins for SCBs were always constrained during that period. Therefore, like ROA, ROE was also affected by the squeezed net interest margin. Moreover, the increasing number of loss-making branches worsened the situation (IMF 2013).

Table 15: Return on Equity by Types of Banks (%), IMF data

	2006	2007	2008	2009	2010	2011 (June)	2011 (December)
Total	-64.0	19.8	25.0	19.5	21.0	15.5	16.8
SCBs	1262.5	-9.4	35.6	24.9	18.4	10.0	18.5
SDBs	24.7	16.6	21.0	-19.9	-3.2	-5.1	-0.9
PCBs	24.8	26.7	24.3	18.9	20.9	15.6	15.7
FCBs	21.5	20.6	18.5	18.9	17.0	20.2	16.6

Note: IMF = International Monetary Fund, SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.
Source: International Monetary Fund -FSI Online, 2012

A.3.3 Interest Margin to Gross Income

This indicator is calculated by using net interest income as the numerator and gross income as the denominator. It is a profitability ratio, which measures the relative share of net interest earnings (i.e., interest earned less interest expenses) within gross income. In the case of banks with low leverage, this FSI will tend to be higher. Table 16 shows that the overall banking sector in Bangladesh experienced a rise in interest margin to gross income during 2007–2011. In 2007, the ratio was 21.2%, which increased to 23.3% in 2011.

Table 16: Interest Margin to Gross Income (%)

Year	%
2007	21.19
2008	21.86
2009	21.24
2010	23.73
2011	23.30

Source: Bangladesh Bank Annual Report, various years.

Net interest margin of all deposit-takers varied from 2.0% to 3.0% during 2002–2011 (Table 17). It rose to 3.0% in 2011 from 2.6% in 2002, which is favorable for the whole sector. On the other hand, both PCBs and FCBs saw marginal declines for both in 2002–2006, suggesting a fall in the share of interest income on deposit-takers' gross (BB 2006b, 2007, 2011, 2012a). Data for different categories of banks are not available since 2007.

Table 17: Net Interest Margin (%)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total	2.65	2.70	2.17	2.19	1.84	-	-	2.6	3.1	3
SCBs	1.25	1.47	1.00	1.56	1.15	-	-	-	-	-
SDBs	2.25	1.48	1.12	0.86	0.89	-	-	-	-	-
PCBs	3.88	3.71	3.27	2.58	2.21	-	-	-	-	-
FCBs	7.11	6.76	3.84	4.74	2.89	-	-	-	-	-

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank *Financial Sector Review* and Bangladesh Bank *Financial Stability Report*, various years.

A.3.4 Noninterest Expenses to Gross Income

This indicator is a profitability ratio, which measures the size of administrative expenses within gross income—that is, it measures the efficiency of deposit takers' use of resources. Table 18 suggests that during 2007–2011, the ratio of noninterest expenses to gross income fluctuated around 20.0–22.0%. In 2007, this ratio was 20.3%, which increased to 21.5% in 2011.

Table 18: Noninterest Expenses to Gross Income (%)

Year	%
2007	20.3
2008	19.4
2009	20.8
2010	21.9
2011	21.5

Source: Bangladesh Bank Annual Report, various years.

Noninterest income in 2005 was 1.8% of total assets employed, which increased to 2.5% in 2006 (Table 19). This indicated that banks diversified their sources of income and emphasized nonfunded sources of income such as fees and commissions. Noninterest income to total assets for both PCBs and FCBs were higher compared to that of SCBs and SDBs. The ratio was very low for SDBs because they were less exposed to opportunities for diversification of commercial activities. Thus their rate of earnings from noninterest sources was lower (BB 2007). In contrast, FCBs raised the most revenue, despite their low asset–liability base, in case of noninterest income (e.g. bills, commission, brokerage fees). Noninterest income worked as a major income source for FCBs (BB 2006b).

Table 19: Noninterest Income to Total Assets (%)

Banks	2005	2006	2007	2008	2009	2010	2011
Total	1.8	2.5	–	–	3.0	3.4	2.87
SCBs	–	2.0	2.4	2.9	–	–	–
SDBs	–	0.6	0.8	0.8	–	–	–
PCBs	–	2.8	3.1	3.1	–	–	–
FCBs	–	4.1	3.8	3.6	–	–	–

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank Financial Sector Review and Bangladesh Bank Financial Stability Report, various years.

A.4 Liquidity

A.4.1 Liquid Assets to Total Assets

This indicator is calculated by using the core measure of liquid assets as the numerator and total assets as the denominator. The ratio can also be calculated using the broad measure of liquid assets as the numerator. This FSI is a liquid asset ratio, which provides an indication of the liquidity available to meet expected and unexpected demands for cash. The level of liquidity indicates the ability of the deposit-taking sector to withstand shocks to their balance sheet. Table 20 suggests that the overall banking sector in Bangladesh has been able to increase this ratio during 2007–2011. In 2007, the ratio was 16.8%, which increased to 19.3% in 2011.

Table 20: Liquid Assets to Total Assets (Liquid Asset Ratio) (%)

Year	%
2007	16.76
2008	18.14
2009	20.20
2010	17.33
2011	19.27

Source: Bangladesh Bank Annual Report, various years.

A.4.2 Liquid Assets to Short-Term Liabilities

This indicator is calculated by using the core measure of liquid assets as the numerator and short-term liabilities as the denominator. The ratio can also be calculated by taking the broad measure of liquid assets as the numerator. This FSI is a liquid asset ratio and is intended to capture the liquidity mismatch of assets and liabilities, and provides an indication of the extent to which deposit takers can meet the short-term withdrawal of funds without facing liquidity problems. Between 2000 and 2011, PCBs and FCBs showed consistently high liquidity ratio (Table 21). Generally, FCBs had the highest liquidity ratio, followed by PCBs. This situation of constant surplus of liquidity justified the creation of effective demand for credit at lower costs and made the money market volatile (BB 2013). As PCBs and FCBs have been facing persistent excess liquidity, the liability management by both banks was considered inefficient (Sayeed et al. 2012). Since 2008, SCBs also have been facing high excess liquidity ratio.

Table 21: Liquid Assets to Short-Term Liabilities (Liquidity Ratio) by Types of Banks (%), 2000–2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Liquid Asset												
Total	26.1	25.3	27.2	24.7	23.4	21.7	21.5	23.2	24.8	20.6	23.0	26.5
SCBs	26.5	25.7	27.3	24.4	22.8	20.0	20.1	24.9	32.9	25.1	27.2	34.7
SDBs	16.2	15.3	13.7	12.0	11.2	11.2	11.9	14.2	13.7	9.6	21.3	12.3
PCBs	24.8	24.2	26.3	24.4	23.1	21.0	21.4	22.2	20.7	18.2	21.5	23.9
FCBs	34.7	34.1	41.6	37.8	37.8	42.5	34.4	29.2	31.3	31.8	32.1	30.5
Excess Liquidity												
Total	7.5	6.7	8.7	9.9	8.7	5.3	5.1	6.9	8.4	9.0	6.0	9.3
SCBs	6.5	5.7	7.3	8.4	6.8	2.0	2.1	6.9	14.9	17.6	8.2	15.7
SDBs	9.9	8.9	6.9	5.8	4.7	6.2	3.8	5.6	4.9	7.1	2.3	2.5
PCBs	6.8	6.2	8.5	9.8	8.8	5.1	5.6	6.4	4.7	5.3	4.6	7.0
FCBs	14.8	14.3	21.8	21.9	21.9	23.6	16.4	11.2	13.3	21.8	13.2	11.8

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank Annual Report, various years

A.5 Sensitivity to Market Risk

A.5.1 Net Open Position in Foreign Exchange to Capital

The net open position in foreign exchange should be calculated based on the recommendation of the BBS. Capital should be total regulatory capital or Tier 1 capital as net open position in foreign exchange in a supervisory concept. This FSI is an indicator of sensitivity to market risk, which is intended to show deposit-takers' exposure to exchange rate risk compared with capital. It measures the mismatch of foreign currency asset and liability positions to assess the vulnerability to exchange rate movements. Table 22 shows that this ratio increased sharply to 9.4% in 2011 from a low figure of 1.1% in 2008.

Table 22: Net Open Position in Foreign Exchange to Capital

Year	%
2008	1.06
2009	0.84
2010	0.33
2011	9.38

Source: Bangladesh Bank Annual Report, various years.

3.3 Trend in Encouraged Indicators

B.1 Deposit-Takers

B.1.1 Bank Capital to Assets

This indicator is the ratio of capital to total assets, without the latter being risk-weighted. Capital is measured as total capital and reserves as reported in the sectoral balance sheet; for cross-border consolidated data, Tier 1 capital can also be used. It indicates the extent to which assets are funded by other than their own funds and is a measure of capital adequacy of the deposit-taking sector. It complements the capital adequacy ratios compiled based on the methodology agreed to by the BCBS. Also, it measures financial leverage and is sometimes called the leverage ratio. The ratio had a fluctuating trend during 2000–2008. However, it increased from 3.5% in 2000 to 6.5% in 2008 (Table 23).

Table 23: Bank Capital to Assets Ratio (%), 2000–2008

Year	%
2000	3.5
2001	3.5
2002	4.1
2003	3.2
2004	4.3
2005	4.7
2006	3.3
2007	4.6
2008	6.5

Source: World Development Indicators, online version, accessed on 15 June 2014.

B.1.8 Spread between Reference Lending and Deposit Rates

This indicator is the difference (expressed in basis points) between the weighted average loan rate and the weighted average deposit rate, excluding rates on loans and deposits between deposit takers. It is an indicator of earnings and underlying profitability of the deposit-taking sector. It can also be used as a gauge of competitiveness within the sector. High spreads are unfavorable for the economy since these indicate institutional inefficiencies or a certain degree of monopoly power on the part of financial intermediaries. Conversely, too-low spreads are unlikely to be sustainable in the absence of adequate noninterest income, thereby putting pressure on the intermediaries' investment fund base and rendering them vulnerable to shocks (BB 2006b). The indicator hovered between 5.0%–7.0% during 2000–2011 (Table 24), and showed some decline during 2000 and 2005. On the other hand, the weighted average lending rate showed a gradual decline over the last 11 years, from 13.7% in 2000 to 13.0% in 2011. The spread between lending and deposit rates is the measure of the intermediation cost of banks, which declined slowly over the years (BB 2008a).

The data from WDI on the spread between lending and deposit rates differ from the BB data (Table 25).

Table 26 presents monthly weighted average interest rates on commercial lending and deposits (3 months to less than 6 months), and the spread. The spread was 3.8% in 2000–2001, and increased to 5.0% in February 2011.

Table 27 presents monthly weighted average interest rate spreads for different categories of banks. SDBs showed the lowest spread among all the bank categories. Conversely, the spread for FCBs was the highest among all bank groups over the same period. FCBs' average spread was almost double than that of the other banks. This necessitates closer monitoring and actions to further reduce this spread (BB 2012a). Both PCBs and SCBs followed a rather similar and stable path (i.e., about 6.0%) (BB 2006b). Chowdhury and Islam (2007) stated that deposit and loan advances of SCBs are less sensitive to interest changes than those of SDBs. Therefore, SDBs should not make abrupt changes in lending or deposits by following the SCBs. If SCBs change their lending rate, their deposit or loan and advances will be affected less than those of SDBs. Moreover, deposits of SCBs have higher volume and higher volatility than those of SDBs. However, SDBs offer higher deposit rates and charge higher lending rates than SCBs, which is why the interest rate spread of SDBs was higher than that

Table 24: Weighted Average Deposit and Lending Rates (%), 2000–2011

Year	Deposit Rate	Lending Rate	Spread
2000	7.08	13.75	6.67
2001	6.75	13.42	6.67
2002	6.49	13.09	6.00
2003	6.25	12.36	6.11
2004	5.56	10.83	5.27
2005	5.56	11.24	5.68
2006	6.19	12.12	5.93
2007	6.77	12.75	5.98
2008	7.31	12.31	5.00
2009	6.33	11.44	5.11
2010	6.07	11.19	5.12
2011	7.52	12.99	5.47

Source: Bangladesh Bank Annual Report, various years.

Table 25: Spread between Reference Lending Rate and Deposit Rate, World Development Indicators Data (%), 2000–2010

Year	%
2000	6.94
2001	7.34
2002	7.83
2003	8.17
2004	7.64
2005	5.91
2006	6.22
2007	6.82
2008	6.72
2009	6.39
2010	5.85

Source: World Development Indicators, Online version accessed on 15 June 2014.

Table 26: Monthly Weighted Average Rate of Interest on Commercial Lending and Deposits (3 months to less than 6 months)

Year	Deposit Rate (%)	Commercial Lending Rate (%)	Spread
2000-01	8.85	12.62	3.77
2001-02	9.12	13.02	3.90
2002-03	7.51	12.24	4.73
2003-04	6.38	11.16	4.78
2004-05	5.51	10.52	5.01
2005-06	5.77	11.06	5.29
2006-07	6.51	12.28	5.77
2007-08	7.23	12.63	5.41
2008-09	7.97	13.36	5.39
2009-10	7.34	12.75	5.41
2010-11(Feb)	7.55	12.51	4.96

Source: Bangladesh Bank Annual Report, various years.

Table 27: Monthly Weighted Average Interest Rate Spread for Different Bank Groups

	5-Mar	5-Jun	5-Sep	5-Dec	6-Mar	6-Jun	6-Sep	6-Dec	7-Mar	7-Jun	8-Mar
SCBs	4.80	5.14	5.08	5.41	5.26	5.37	5.37	5.63	5.76	6.04	5.85
SDBs	3.67	5.25	3.56	3.66	3.34	3.64	3.26	3.18	2.96	2.94	2.88
PCBs	5.30	7.93	5.10	5.07	5.22	5.05	4.55	5.44	5.52	5.70	5.36
FCBs	7.83	3.58	8.34	7.87	8.25	8.52	9.25	8.12	8.86	8.76	9.02

Note: SCBs = state-owned commercial banks, SDBs = specialized development banks, PCBs = private commercial banks, FCBs = foreign commercial banks.

Source: Bangladesh Bank. 2008. Financial Sector Review. 3(2). June. Dhaka.

of SCBs. Mujeri and Younus (2009) stated that the higher the noninterest income as a ratio of total assets of banks, the lower the interest rate spread. Similarly, market share of a bank's deposits, statutory reserve requirement, and National Savings Directorate (NSD) certificate interest rate affect the interest rate spread. The analysis in terms of bank groups shows that the interest rate spread is significantly influenced by operating costs and classified loans of state-owned commercial banks and specialized banks, while inflation, operating cost, market share of deposit, statutory reserve requirement, and taxes are important for the PCBs (Rayhan 2011).

B.2 Other Financial Corporations

B.2.1 Assets to Total Financial System Assets

This indicator is calculated using other financial corporations' (OFCs) financial assets as the numerator and total financial system assets as the denominator. The latter is the total of financial assets owned by deposit takers, OFCs, nonfinancial corporations, households, the general government, and the central bank. This FSI measures the relative importance of OFCs within the domestic financial system. Data are only available for 2010 and 2011. In 2010, this ratio was 5.5%, which declined to 4.7% in 2011 (Table 28).

Table 28: Asset to Total Financial System Assets (%)

Year	%
2010	5.52
2011	4.70

Sources: Bangladesh Bank. Financial Stability Reports 2010 and 2011. Dhaka.

B.2.2 Asset to Gross Domestic Product

This indicator is calculated using OFCs' financial assets as the numerator and gross domestic product as the denominator. It measures the importance of OFCs compared to the size of the economy. Data are only available for 2010 and 2011. In 2010, this ratio was 7.4%, which declined to 3.5% in 2011 (Table 29).

Table 29: Asset to Gross Domestic Product (%)

Year	%
2010	7.44
2011	3.50

Sources: Bangladesh Bank. Financial Stability Reports 2010 and 2011. Dhaka.

B.3 Nonfinancial Corporations Sector

The following encouraged indicators are unavailable:

1. For deposit-takers
 - a. Large exposures to capital
 - b. Geographical distribution of loans to total loans
 - c. Gross asset position in financial derivatives to capital
 - d. Gross liability position in financial derivatives to capital

- e. Trading income to total income
 - f. Personal expenses to noninterest expenses
 - g. Spread between highest and lowest interbank rates
 - h. Customer deposits to total (noninterbank) loans
 - i. Foreign-currency-denominated loans to total loans
 - j. Net open position in equities to capital
2. Nonfinancial corporations
 - a. Total debt to equity
 - b. Return on equity
 - c. Earnings to interest and principal expenses
 - d. Net foreign exchange exposure to equity
 - e. Number of applications for protection from creditors
3. Households
 - a. Household debt to gross domestic product
 - b. Household debt service and principal payments to income
4. Market liquidity
 - a. Average bid-ask spread in the securities market
 - b. Average daily turnover ratio in the securities market
5. Real estate market
 - a. Residential real estate prices
 - b. Commercial real estate prices
 - c. Residential real estate loans to total loans
 - d. Commercial real estate loans to total loans

4. Recent Developments in the Financial Sector of Bangladesh

Recent developments in the financial sector of Bangladesh include some automation and technological developments. The banking sector experienced remarkable progress with respect to automation in the last several years. For the proactive and forward-visioning approach of BB, several automation initiatives have been implemented in the banking sector. These initiatives include the following:

- (i) To create a disciplined environment for borrowing, the automated Credit Information Bureau (CIB) service provides credit-related information for prospective and existing borrowers. With this improved and efficient system, risk management will be more effective. Banks and financial institutions may furnish credit information to the CIB database 24/7 around the year. They can access credit reports from the CIB online instantly.
- (ii) The L/C Monitoring System has been introduced for preservation and use of all necessary information regarding L/Cs by the banks through the BB website. This system allows the authorized bank users to upload and download their L/C information.
- (iii) In terms of article 36(3) of Bangladesh Bank Order 1972, all scheduled banks are required to submit a Weekly Statement of Position at the close of business every Thursday to the Department of Off-site Supervision. This statement is now submitted online using the web upload service of the BB website within 3 working days after the reporting date, which is much more time- and labor-efficient than the earlier manual system.
- (iv) The e>Returns service has been introduced. It is an online portal service for scheduled banks to submit electronic returns using a predefined template for the purpose of macroeconomic analysis through related BB departments.
- (v) The Online Export Monitoring System is used for monitoring the export of Bangladesh. Through this service, banks are able to issue export reports.
- (vi) The Bangladesh Automated Clearing House (BACH) has replaced the outdated manual clearing system, and allows interbank checks and similar type of instruments to be settled in an instant manner.
- (vii) Electronic fund transfer (EFT) has been introduced, which now facilitates banks in making bulk payments instantly with less paper and labor.

- (viii) The initiation of mobile banking has been one of the most noteworthy advancements in banking. Through this system, franchises of banks through mobile operators can provide banking service to even the most remote corners of the country.
- (ix) Almost every commercial bank is now using its own core banking solution that has made banking faster and efficient. Usage of plastic money has increased in daily life transactions. Full or partial online banking is now being practiced by almost every bank.

Inauguration of internet trading in both of the bourses (DSE and CSE) in the country is the most significant advancement for capital markets in the last several years. Microfinance institutions submit their reports to the regulator through the online report submission tools for MFIs.

Through the Central Bank Strengthening Project, there have been several notable achievements in the institutional development of BB:

- (i) The implementation of enterprise resource planning (ERP) has been a big step in automation of the operational structure of BB.
- (ii) The establishment of an enterprise data warehouse, which is under process, will bring the whole banking and FI industry under a single network through which data sharing, reporting, and supervision will usher in a new horizon.
- (iii) Bangladesh Bank now possesses an informative and resourceful website regarding economic and financial information.
- (iv) An internal networking system with required online communication facilities has been developed and is available to the officers of BB.
- (v) BB has hosted a number of international seminars on different economic and financial issues over the last several years.

The Microcredit Regulatory Authority (MRA) was established in 2006 to bring NGO-MFIs under supervision. Due to the proactive role of MRA, the MFI sector is now in good shape in terms of accountability and regulation.

In order to regulate the insurance industry, the Insurance Development and Regulatory Authority (IDRA) was established in 2011. In 1 year, IDRA has taken a number of appreciable steps to regularize this industry.

After the massive crash of local bourses in 2010–2011, the executive body of SEC was redesigned in full and some good results have come after that.

Banking and financial institution industries have experienced some regulatory developments over the last few years:

- (i) Full implementation of the Basel-II (international capital adequacy standard) accord has been in effect in both banking and FI industries.

- (ii) Guidelines on environmental and climate change risk management for banks and FIs have been circulated. Policy guidelines on green banking have also been issued.
- (iii) Guidelines on stress testing for banks and FIs have been issued, which is aimed at assessing the resilience of banks and FIs under different adverse situations.
- (iv) A number of policy initiatives for financial inclusion have been undertaken.
- (v) Banks have been asked to build up their separate risk management units for comprehensive and intensive risk management.
- (vi) Banks have been instructed to create a separate subsidiary for capital market operations; capital market operations of banks are now minutely monitored.
- (vii) Supervision has been intensified to increase the participation of banks in corporate social responsibility (CSR).
- (viii) Due to the efficient and timely action of BB, the foreign exchange reserves of Bangladesh did not face any adversity during the global financial turmoil of 2007–2009.
- (ix) To meet international standards on antimoney-laundering (AML) and combating financing of terrorism (CFT) issues, guidelines for money changers, insurance companies, and postal remittance have already been circulated.

SEC has updated Public Issue Rules, 2006 and Mutual Fund Rules, 2001. Apart from that, a number of asset management companies (AMCs), merchant banks, and mutual funds have gained permission from the SEC, which has increased the participation of institutional investors. The trend of capital market research has been upward, which indicates the potential of analytic investment decision making. The Insurance Act of 2010 was formulated to meet the rising demand of insurance industry to a better shape. Apart from that, several initiatives have been undertaken by IDRA for prohibiting malpractice in the industry regarding insurance commission, agents, premiums, etc. and corporate governance issues.

5. Conclusion and Further Development

There is still room for improving FSIs system in Bangladesh. Key core indicators can be calculated regularly but for many others, including encouraged indicators, some work still needs to be done. This includes a systematic disclosure system of financial data from the existing financial institution to the Central Bank of Bangladesh and the Ministry of Finance of Bangladesh.

The new Basel-III regulatory framework, which represents a substantial change from the current framework, will be fully implemented in 2019, with a phase-in period beginning in 2013 (IMF 2012). Adoption of the Basel-III Accord will have an impact on the compilation of the current FSIs measuring capital adequacy, leverage, and liquidity. Under Basel-III, the existing definition of total regulatory capital has been tightened, particularly for Tier 1 capital. A new capital conservation buffer has been established above the regulatory minimum capital requirement, which will be introduced in 2016 and will increase annually until 2019. A new leverage ratio will supplement risk-based capital requirements. Two new internationally harmonized global liquidity standards have been introduced as a complement to capital requirements: liquidity coverage ratio and net stable funding ratio.

Bangladesh will have to adopt Basel-III at a certain point in time. However, Basel-II may still be in force for some institutions (e.g., small banks). Not all banks within an economy would adopt Basel-III so internal issues of aggregation may arise. Therefore, it is pertinent to examine how to address issues of data aggregation while implementing Basel-II and Basel-III simultaneously. There is also a need to study possible revisions to the FSI Guideline to adapt it to the Basel-III standards.

Frequency and timeliness of data should be improved. There is a need to move to a quarterly reporting basis. Cost issues must also be considered, as well as the trade-off between frequency and timeliness and accuracy. More frequent and timely data may be subject to revisions, especially those indicators based on national account statistics. A compromise may be the publication of preliminary data, with the metadata clearly indicating that they may be subject to revision. The possibility of reporting individual FSIs based on different consolidation approaches for different frequencies can be considered.

In the case of encouraged FSIs, there are concerns about the quality of such indicators and the difficulty in constructing them. Also, the frequency of these data is not reliable. Therefore, more work is needed before including these indicators in the FSI set.

Appendix : Availability of Financial Soundness Indicators of Bangladesh

1. Core Indicators

Table A1 presents the availability, frequency, source, and description of the core FSIs and comments on the quality of data and suggestions for improvement. All core FSIs are available. However, their frequency and coverage differ. BB and IMF are the two major sources of data for core FSIs.

Table A1: Availability, Frequency and Coverage, Source, and Description of Core Financial Soundness Indicators

	Financial Soundness Indicators	Availability	Frequency and Coverage	Source	Description	Comment
A.1	Capital Adequacy					
A.1.1	Regulatory capital to risk-weighted asset	Yes	Annual (2000–2011)	BB	Disaggregated by SCB, SDB, PCB, and FCB	For the years between 2006 and 2008 there are some small discrepancies between IMF data and BB data (Table 5 and Table 6).
			Annual (2006–2011)	IMF	Disaggregated by SCB, SDB, PCB, and FCB	
A.1.2	Regulatory Tier 1 capital to risk-weighted asset	Yes	Annual (2007–2011)	BB	Aggregated	Published data not available before 2007 (Table 7). BB should provide data by four categories of banks.
A.1.3	Nonperforming loans net of provisions to capital	Yes	Annual (2007–2011)	BB	Aggregated	Published data not available before 2007 (Table 8). BB should provide data by four categories of banks.
A.2	Asset Quality					
A.2.1	Nonperforming loans to total gross loans	Yes	Annual (2000–2011)	BB	Disaggregated by SCB, SDB, PCB, and FCB	For the years between 2006 and 2008 for SDBs and FCBs, there are large discrepancies between IMF data and BB data (Table 9 and Table 10).
			Annual (2006–2011)	IMF	Disaggregated by SCB, SDB, PCB, and FCB	
A.2.2	Sectoral distribution of loans to total loans	Yes	Annual (FY) (2001–2002 to 2010–2011)	BB	Aggregated	(Table 12) BB should provide data by four categories of banks.
			Annual (2006–2010)	IMF	Aggregated	Published data not available before 2006 (Table 13).
A.3	Earnings and Profitability					
A.3.1	Return on asset	Yes	Annual (2000–2011)	BB	Disaggregated by SCB, SDB, PCB, and FCB	For the years between 2000 and 2008, there are some discrepancies between IMF data and BB data—large discrepancies for SCBs and slight discrepancies for SDB, PCB and FCB (Table 14 and Table 15).
			Annual (2006–2011)	IMF	Disaggregated by SCB, SDB, PCB, and FCB	
A.3.2	Return on equity	Yes	Annual (2000–2011)	BB	Disaggregated by SCB, SDB, PCB, and FCB	During 2006 and 2009, there are large discrepancies between IMF and BB data. For SCBs and SDBs, discrepancies are very large (Table 16 and Table 17).
			Annual (2006–2011)	IMF	Disaggregated by SCB, SDB, PCB, and FCB	
A.3.3a	Interest margin to gross income	Yes	Annual (2007–2011)	BB	Aggregated	Published data not available before 2007 (Table 18). BB should provide data by four categories of banks.
A.3.3b	Net interest margin	Yes	Annual (2002–2011)	BB	Disaggregated by SCB, SDB, PCB, and FCB up to 2006; aggregated data since 2009.	Published data unavailable for 2007 and 2008 (Table 19). BB should provide data by four categories of banks since 2007.
A.3.4a	Noninterest expenses to gross income	Yes	Annual (2007–2011)	BB	Aggregated	Published data not available before 2007 (Table 20). BB should provide data by four categories of banks since 2007.
A.3.4b	Noninterest income to total asset	Yes	Annual (2006–2011)	BB	Disaggregated by SCB, SDB, PCB, and FCB	Aggregated data available for the years 2006, 2009, 2010, and 2010. Disaggregated data is available for the years between 2006 and 2008 (Table 21). BB should provide data by four categories of banks since 2009.

Table A1: continued

	Financial Soundness Indicators	Availability	Frequency and Coverage	Source	Description	Comment
A.4	Liquidity					
A.4.1	Liquid assets to total asset	Yes	Annual (2007–2011)	BB	Aggregated	Published data not available before 2007 (Table 22). BB should provide data by four categories of banks.
A.4.2	Liquid assets to short-term liabilities	Yes	Annual (2000–2011)	BB	Disaggregated by SCB, SDB, PCB, and FCB	See Table 23.
A.5	Sensitivity to Market Risk					
A.5.1	Net open position in foreign exchange to capital	Yes	Annual (2008–2011)	BB	Aggregated	Published data not available before 2008 (Table 24). BB should provide data by four categories of banks.

Note: BB = Bangladesh Bank, SCB = state-owned commercial banks, SDB = specialized development banks, PCB = private commercial banks, and FCB = foreign commercial banks

2. Encouraged Indicators

Table A2 presents the availability, frequency, source, and description of the encouraged FSIs and relevant comments. Not all the encouraged FSIs are available. Out of the 27 encouraged FSIs, data are available for only 4 FSIs.

Table A2: Availability, Frequency and Coverage, Source, and Description of the Encouraged Financial Soundness Indicators

	Financial Soundness Indicators	Availability	Frequency and Coverage	Source	Description	Comment
B.1	Deposit Takers					
B.1.1	Bank capital to assets	Yes	Annual (2000–2010)	WDI	Aggregated	Published data not available from BB (Table 25). BB should provide data by four categories of banks.
B.1.2	Large exposures to capital	No	None	None	None	BB can compile this data by four categories of banks.
B.1.3	Geographical distribution of loans to total loans	No	None	None	None	BB can compile this data by four categories of banks.
B.1.4	Gross asset position in financial derivatives to capital	No	None	None	None	BB can compile this data by four categories of banks.
B.1.5	Gross liability position in financial derivatives to capital	No	None	None	None	BB can compile this data by four categories of banks.
B.1.6	Trading income to total income	No	None	None	None	BB can compile this data by four categories of banks.
B.1.7	Personal expenses to noninterest expenses	No	None	None	None	BBS can collect this data through the Household, Income and Expenditure Survey (HIES), which is currently not available.
B.1.8a	Spread between reference lending and deposit rate	Yes	Annual (2000–2010)	BB	Aggregated (weighted)	There are discrepancies between WDI data and BB data (Table 26 and Table 27).
		Yes	Annual (2000–2008)	WDI	Aggregated	
B.1.8b	Monthly weighted average interest rate on commercial lending and deposits	Yes	Annual, financial year (2000–01 to 2010–11)	BB	Aggregated (monthly weighted)	See Table 28. BB should provide data by four categories of banks.
B.1.8c	Monthly weighted average interest rate spread for different bank groups	Yes	Monthly, for some months during 2005 and 2008	BB	Disaggregated by SCB, SDB, PCB, and FCB	Published data not available for SCB, SDB, PCB, and FCB for the years before 2005 and after 2008 (Table 29).
B.1.9	Spread between highest and lowest interbank rate	No	None	None	None	BB should provide data by four categories of banks.
B.1.10	Customer deposits to total (noninterbank) loans	No	None	None	None	BB should provide data by four categories of banks.

Table A2: continued

	Financial Soundness Indicators	Availability	Frequency and Coverage	Source	Description	Comment
B.1.11	Foreign currency denominated loans to total loans	No	None	None	None	BB should provide data by four categories of banks.
B.1.12	Net open position in equities to capital	No	None	None	None	BB should provide data by four categories of banks.
B.2	Other Financial Corporations					
B.2.1	Assets to total financial system assets	Yes	Annual (2000–2010)	BB	Aggregated	Published data not available before 2010
B.2.2	Assets to gross domestic product	Yes	Annual (2000–2010)	BB	Aggregated	Published data not available before 2010 (Table 31). BB should provide data by four categories of banks.
B.3	Nonfinancial Corporations Sector					
B.3.1	Total debt to equity	No	None	None	None	BB should provide data by four categories of banks.
B.3.2	Return on equity	No	None	None	None	BB should provide data by four categories of banks.
B.3.3	Earnings to interest and principal expenses	No	None	None	None	BB should provide data by four categories of banks.
B.3.4	Net foreign exchange exposure to equity	No	None	None	None	BB should provide data by four categories of banks.
B.3.5	Number of applications for protection from creditors	No	None	None	None	BB should provide data by four categories of banks.
B.4	Households					
B.4.1	Household debt to gross domestic product	No	None	None	None	BBS can collect this data through the HIES, which is currently not available.
B.4.2	Household debt service and principal payments to income	No	None	None	None	BBS can collect this data through the HIES, which is currently not available.
B.5	Market Liquidity					
B.5.1	Average bid–ask spread in the securities market	No	None	None	None	SEC can compile this data.
B.5.2	Average daily turnover ratio in the securities market	No	None	None	None	SEC can compile this data.
B.6	Real Estate Market					
B.6.1	Residential real estate prices	No	None	None	None	BBS can collect this data through the survey, which is currently not available.
B.6.2	Commercial real estate prices	No	None	None	None	BBS can collect this data through the survey, which is currently not available.
B.6.3	Residential real estate loans to total loans	No	None	None	None	BBS can collect this data through the survey, which is currently not available.
B.6.4	Commercial real estate loans to total loans	No	None	None	None	BBS can collect this data through the survey, which is currently not available.

Note: BB = Bangladesh Bank, SCB = state-owned commercial banks, SDB = specialized development banks, PCB = private commercial banks, and FCB = foreign commercial banks

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Financial Soundness Indicators for Financial Sector Stability in Bangladesh

Financial soundness indicators (FSIs) are compiled to monitor the health and soundness of financial institutions and markets, and of their corporate and household counterparts. With support from the Investment Climate Facilitation Fund under the Regional Cooperation and Integration Financing Facility, this report describes the development of FSIs for Bangladesh and analyzes FSIs to identify key challenges to financial sector stability in the country. A large number of FSIs are not yet available for Bangladesh, notably outside the formal banking sector including nonbank financial institutions, insurance companies, and microfinance institutions. Another key challenge for Bangladesh is the improvement of coverage, frequency, timeliness, and quality of FSIs and to make them more available to a wider audience.

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