Department of Finance & Banking
Term Paper
On

"Valuation Analysis of Islamic Banks in Bangladesh"

Present as part of the Curriculum of MBA (Final)
Session :2020 – 2021

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Letter of Transmittal

May 15, 2023

MD. IMRAN IBNE RAZZAK
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Subject: Submission of a project Paper titled "Valuation Analysis of Islamic Banks in Bangladesh".

Dear Sir,

I am pleased to present my project paper on " **Valuation Analysis of Islamic Banks in Bangladesh**"prepared in accordance with the MBA program requirements. For me, the report is extremely valuable as it has helped me gain practical experience with one of the crucial financial sectors withhigh potentials: the Islamic or Shariah based Banking Sector.

In completing the report, I have tried my best to provide every available detail regarding the topic I focused on, avoiding unnecessary amplification of the report. I hope that this internship report will meet the standards of your judgments.

Sincerely

.....
Jony Datta
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Supervisor's Certificate

This is to certify that this project paper on "**Valuation Analysis of Islamic Banks in Bangladesh** "is a bona fide record. It is done by **Jony Datta** as a partial fulfillment of the requirement of MBA degree from the Department of Finance & Banking, Govt. Titumir College, Dhaka.

The project paper has been prepared under my guidance and is a record of a bona fide work carrying out successfully.

.....

MD. IMRAN IBNE RAZZAK

Lecturer

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Student's Declaration

I hereby declare that the project paper entitled "**Valuation Analysis of Islamic Banks in Bangladesh "** has been prepared by me under the supervision of **MD. IMRAN IBNE RAZZAK** Lecturer Department of Finance & Banking Govt. Titumir College, Dhaka.

I also declare that all the information embodied in this study is original and neither this report nor any part of this report has been submitted elsewhere for the award of any other degree or any other purpose.

.....

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Executive Summary

Islamic banking started its journey in Bangladesh in 1983. Currently, there are now ten fully operational Islamic banks. According to Bangladesh Bank, by the end of June 2021, the Islamic banking sector accounted for 27.26 percent of the total banking sector in Bangladesh. The project paper titled "**Valuation Analysis of Islamic Banks in Bangladesh**" is prepared with an objective to analyze and understand the Shari'ah based banks or Islamic Banks of Bangladesh.

For the study, I have used 5 years' information (2017-2021) of 7 banks and four methods to conduct the analysis. The methods include – Dividend Discount Model (DDM), Free Cash Flow to Equity (FCFE), Residual Income Valuation and Relative Valuation.

At first, we have a theoretical overview of the methods used and describe the related assumptions. Then we get a look at our analysis for each method separately and finally, an overall observation derived from the analysis is presented.

I used these results and conclude with our findings and recommendations. The analysis shows that most of these banks are overvalued. But when it comes to peer-to-peer comparison, there is scope of further development, which implies that in near future, new service arrivals and high competition are inevitable. However, some banks are undervalued as per every method of analysis. These banks are comparatively stable but are struggling to catch and hold a bigger presence in the market.

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Chapter 1: Introduction

1.1 Introduction

Islamic banking started its journey in Bangladesh in 1983, which is considered a prominent center of it in South Asia. In Bangladesh, there are now ten fully operational Islamic banks. According to Bangladesh Bank, by the end of June 2021, the Islamic banking sector accounted for 27.26 percent of the total banking sector in Bangladesh (Development of Islamic Banking in Bangladesh: Current Status, Challenges and Prospects, 2022). Despite being relatively new, it's flourishing fast with time and more people are getting attracted to the Shari'ah based banking system and services. However, detailed quantitative research on Islamic banking of Bangladesh is very inadequate. This thesis, therefore, attempts to focus on the valuation analysis for an in-depth view of the actual value this sector holds.

1.2 Objectives of the Study

General Objective:

Valuation analysis of the Islamic Banks in Bangladesh.

Specific Objective:

- To present the overall status of the Islamic Banking sector
- To assess the performance and intrinsic value of Shari'ah based banks
- To Identify the over/under valuating aspects of these banks
- To make a comparison between calculated and actual intrinsic value

1.3 Methodology

The report is a combination of theoretical analysis and quantitative tools and methods. Various valuation methods have been used to conduct the analysis which will be discussed in detail in chapters ahead.

1.3.1 Data Source

The methodology of this report is collective. The data used here is mostly secondary data. The sources include published information of the banks, as well as past articles, news reports, and research works on similar topics that were publicly available.

1.3.2 Sample Size and Period

Given the nature of the project, the best available data was secondary. Considering that, I have taken 5 years' financial information for 7 among the 10 Islamic Banks. This information will be covering year 2017 to 2021.

1.3.3 Variables

The following variables will be focused on in this paper –

1. Risk-free rate
2. Market Returns
3. Beta
4. CAPM
5. WACC
6. Terminal Growth Rate
7. Share Price
8. Number of share outstanding
9. Residual Income
10. Book Value per Share
11. Earnings per share
12. Price-Earning (P/E ratio)

1.4 Scope of the Study

This paper attempts to find out the actual value that the Islamic Banking sector of Bangladesh holds. It will help investors as well as analysts to look at some important indicators of the sector's potential (growth, fair value, performance patterns and relationships with various elements etc.) and conduct further relative analysis.

1.5 Limitations

Everything has its limitations, so does a report. While conducting research and preparing the report, I faced several limitations.

- Lack of experience
- Inadequate available information for some banks
- Analysis based on secondary data

This analysis simply integrates the insight gained from the data acquired after analyzing the industry, market, and company. This study only focuses on the implementation of various models and does not seek to provide any recommendations.

Furthermore, the capital market is highly volatile, and a large shift in economic conditions or information may alter the conclusion of this study's findings.

As a result, the study's findings can be considered exploratory rather than definitive. In the latter scenario, a more in-depth investigation is required.

Despite all these limitations, the best effort was given to prepare a standard report with the data available and submit the report within the timeframe.

Chapter 2: Literature Review

For any country's economic prosperity, an important element is the efficiency of the financial institutions working in and for it. Bangladesh is no different. However, the banking industry in Bangladesh, is more similar to a ticking time-bomb. One of the biggest challenges currently facing our nation is reforming the banking sector with a special emphasis on curbing bad loans and controlling the dollar exchange rate. Also, the sector is going through rapid change regarding technology and regulations as well.

The journey of Islamic banking started with the aim of conducting banking business in accordance with Islamic Shariah in Muslim countries all over the world. The journey of the Islamic Bank in Bangladesh began in the 1980s with the establishment of Islami Bank Bangladesh Limited. At present, a total of 10 full-fledged Islamic banks are operating in Bangladesh. According to Bangladesh Bank, at the end of June 2021, in terms of deposits, BDT 3,27,94,300,00,00,000 or 27.26 percent of the entire banking sector of Bangladesh was under the Islamic banking sector. (Hossan, 2022)

According to Omran (Omran, Examining the effects of Islamic Beliefs and Teachings on the Valuation of Financial Institutions in the United Arab Emirates, 2009), the interest in Islamic fund has been developing for a few a long time. The interesting trend within the last few years is the developing intrigued of non-Muslims in Islamic monetary items and teach. The interface of non-Muslims is clearly not due to religion but it is established within the truth that numerous of the tall chance endeavors taken by conventional monetary teach are not permitted at all beneath Islamic fund. In any case, the variety of Islamic money related items fizzled to develop at the same rate as the development in intrigued in Islamic fund. The fact remains that there are not numerous items that comply with Islamic laws that can retain the massive flow of reserves. (Omran, 2011)

Valuation in the finance industry is determining the fair value of an asset or a company (Hitchner, 2010). Investor's expectation from investment is that the compensation for the risk is higher than the original cost that they invested in (Koller, 2010). Thus, there is a need to define fair value for an asset. There are multiple uses for valuation in the industry. According to (Hitchner, 2010),

financial planning and reporting, investment evaluation for company merger/acquisition and buyout agreements, being the most used purposes.

In general, the methodology of bank valuation is extremely complicated and understudied. A multitude of valuation strategies are used in practice, and no single method significantly outperforms the others. In fact, because each strategy has different advantages and disadvantages, there are benefits to examining multiple ways at the same time. However, even a preliminary study indicates the need for more inventive ways to detect changes in bank performance and regulatory environment. Banks incurred losses in the past as a result of the financial crisis, which drastically reduced their economic value. As a result, both shareholders and customers lost faith in successful bank operations.

Nevertheless, if banks consider the growth of their economic value as a crucial part of their business strategy, the confidence in further banking system development will be regained. For that purpose, banks should monitor management decisions and regulation framework through their impacts on the economic value of the bank. (Deev, 2011)

However, because there is no unique universal framework for bank valuation, it allows for the formation, refinement, and adaptation of diverse ways of determining the worth of banks and financial institutions. Most approaches to bank valuation emphasize financial organizations' substantial reliance on market interest rates.(Copeland Thomas, 1994) Each approach reflects greater or lesser degree of accuracy depending on the method of determining resources for owners, the discount factor, for example, approaches to defining the rate of growth and methods of measurement. (Omran, 2009) was the first to investigate the financial performance of Islamic financial institutions in the United Arab Emirates in comparison to traditional financial organizations. His findings show that the return on equity of Islamic financial institutions fell behind the UAE stock markets from 2001 to 2005.

The issue of banks and financial institutions valuation have been written relatively few comprehensive theoretical and methodological work. The valuation is carried out by experts and expertise for different purposes and with varying degrees of methodological accuracy of the estimate of input factors. A significant shift in valuation theory and practice came when R. C. Merton (1973), introduced the risk-neutral valuation model for financial assets. Bank valuation

under this model can be interpreted as determining the value of a call option on the value of bank assets.

Meton (2009) in the context of the financial crisis makes the promotion of a market valuation of banks and their components. It states that banks and entities that oppose the use of market valuation, are trying to hide the fall in prices. Equally critical views on issues of aid are implied, saying that the government is trying to solve complex problems easily. He also indicated a need to boost trade in the securities market in order to restore the market's inherent function of establishing prices. The lack of market information for investors is to blame for the use of derivatives. (Eva, 2010)

Nonetheless, the unique characteristics of banking may be effectively recognized in bank valuation. The insertion of additional variables in the model should respect missing attributes in valuation. Adams and Rudolf (2011) proposed a valuation model for banks derived from Merton's (1973) structural model of a firm, Black-Scholes pricing model and concept of matched maturity marginal value of funds (MMMVF). Applying the MMMVF transfer pricing framework and dividend discount model, the proposed model divides the bank's economic value into three separate values: the value of deposit business, the value of loan business and the value of asset liability management. To acquire each value the special valuation procedures are performed separately. However, the model has a few shortcomings:

(1) it is abstracted from taxes, reserve requirements, minimum capital requirements and other regulatory factors, and

(2) it does not include non-cash items in valuation (depreciation, amortization, etc.).

It is worth mentioning, that each approach is suitable in a specific range of situations. For example, an application of income and contingent claim approaches is limited for banks functioning in emerging markets, due to the lack of information for calculations of the discount factor and the market return.

A simple yet systematic approach that augments summary measures of profitability with signals related to components of profitability, growth, and prudence can be used to screen bank stocks. The findings in Partha Mohanram's study contrast with decline in returns to fundamentals-based trading strategies for non-financial firms. It is possible that returns to the BSCORE-based trading

strategy used in various studies could also decline over time once investors' attention is sufficiently focused on bank fundamentals. However, one of the interesting findings from his studies is that hedge returns are rarely negative and in fact peak around the financial crisis.

Some studies show that there are valuable signals relating to profitability, risk, and growth embedded in past financial reports that can serve as barometers of a bank's condition in addition to commonly used summary profitability metrics such as ROE. Thus, an overemphasis on ROE frequently comes at the risk of overlooking key performance indicators that provide a more detailed picture of predicted future success.(Partha Mohanram, 2017)

As for the banking industry of Bangladesh, a formal structure or a combination of structures to evaluate banks is very important given the potential economic growth we are expecting. For Islamic Banking, given the increasing market and growth, the importance is higher. But as we see, there is no specific lead regarding this. In my thesis, we'll be focusing on the various valuation methods we can use from the perspective of Bangladesh's Islamic Banking sector.

Chapter 3: Overview of Valuation

3.1 Valuation Methods

A total of four valuation techniques are used in this study to derive the intrinsic values of the banks. They are – DDM valuation, FCFE Valuation, Residual Income Valuation and Relative Valuation.

3.1.1 Dividend Discount Model (DDM)

DDM is a quantitative strategy utilized for predicting the cost of a company's stock based on the hypothesis that its present-day cost is worth the entirety of all of its future profit installments when reduced back to their display esteem.

It attempts to compute the reasonable value of a stock irrespective of the winning showcase conditions, taking into account profit payout variables and advertised expected returns. If the value obtained from the DDM is greater than the current exchanging cost of offers, the stock is undervalued and eligible for acquisition, and vice versa.

This model is based on the premise that the current price of a stock is the sum of the stock's future dividend payments. A stock is classified as overvalued or undervalued based on whether its DDM is greater than its current trading price.

$$V_0 = \frac{D_1}{(1+r)^1} + \frac{D_2}{(1+r)^2} + \ldots + \frac{D_n}{(1+r)^n} + \frac{P_n}{(1+r)^n}$$

Where,

V0 = Fundamental Value or Intrinsic Value

D1 = Dividends expected to be received at the end of year i, [i = 1 to n]

Pn = Price Expected upon sale at the end of the year n or termninal value

r = Required return on equity

n = Length of the holding period

3.1.2 Free Cash Flow to Equity (FCFE) Valuation

The company's present value is estimated using the proper discount rate, which is the rate of return for an investor. This model is used to evaluate shares, bonds, and projects within the organization that may have an impact on cash flow.

This model relies on the free cash flow, which is a measure that window dressing and accounting policies involved in reported earnings. Free cash flow is the true measure of cash left for the investors in the company.

Free cash flow valuation is a business valuation method in which the value of the business is the present value of its free cash flow. Free cash flows are projected into the future and then discounted at the appropriate cost of capital. There are two assessment approaches using free cash flow. The first one involves discounting the planned free cash flow (FCF) at the weighted average cost of capital to find the total value of the company. The second one involves discounting future cash flow to equity (FCFE) at the required return of equity to find the value of the business equity. In this study, we'll be using FCFE.

$$\text{Intrinsic Value of Business} = \frac{FCFE_1}{(1+r)^1} + \frac{FCFE_2}{(1+r)^2} + \cdots + \frac{FCFE_n}{(1+r)^n} + \frac{\text{Terminal Value}}{(1+r)^n}$$

Where,

r = required rate of return

n = length of the holding period

3.1.3 Residual Income Valuation

Residual income valuation (RIV) is an equity valuation approach or method that appropriately accounts for the cost of capital, the word 'Residual' refers to any excess cost of opportunity measured against the book value of the shareholders' equity and the income generated by a company after taking into account the true cost of capital is then the residual income.

The Discounted Residual Income model is a valuation methodology that uses the discount of residual cash flow to analyze a firm. The residual cash flow is the value after payment to suppliers and payment to preferred shareholders and bondholders. Because the risk level is not the same, this valuation model employs different discount rates than other models.

$$V_0 = BV_0 + \left\{ \frac{RI_1}{(1+r)^n} + \frac{RI_2}{(1+r)^{n+1}} + \cdots \right\}$$

where:

BV=Present book value

RI=Future residual income

r=Rate of return

n=Number of periods

3.1.4 Relative Valuation

A relative valuation model is a business valuation method that assesses a company's financial worth by comparing its value to that of its competitors or industry peers.

Absolute value models attempt to identify a firm's intrinsic worth solely on its expected future free cash flows discounted to their present value, with no reference to another company or industry average. Investors may use relative valuation models, like absolute value models, to determine whether a company's stock is a good purchase. The relative valuation model differs from the absolute valuation model in that it compares a company's value to the value of its industry peers or competitors in the market to assess financial worth. The financial worth is then used to determine if the company's shares is a worthwhile investment for investors. The valuation approach entails calculating various ratios and multiples to compare it to that of a comparable company. Analysts appreciate this approach because it provides information on how the market is now valuing stocks at multiple levels, including individual stocks, alternative industries, and the overall market. The valuation model is adequate if it includes a good set of comparable entities in terms of risk, size, and industry, and if there is no valuation extreme in the industry or market as a whole.

There are many different types of relative valuation ratios, such as price to free cash flow, enterprise value (EV), operating margin, price to cash flow for real estate and price-to-sales (P/S)

for retail. Among these, the price-to-earnings (P/E) ratio is a prominent relative valuation multiple. It is presented as a company's share price as a multiple of its earnings and is computed by dividing the stock price by earnings per share (EPS). A company with a high P/E ratio is overvalued because it is trading at a greater price per dollar of earnings than its peers. A company with a low P/E ratio, on the other hand, is trading at a lower price per dollar of EPS and is considered undervalued. This paradigm can be applied to any multiple of price to determine relative market value.

Chapter 4: Valuation Models and Forecast

4.1 Forecasting Financial Performances

In order to derive the intrinsic value of the Islamic Banks, some assumptions were made to build up a forecast regarding the banks' financial positions and performances. For this, real time information for the years 2017-2021 were used to forecast performance and positions of the years 2022-2026. A brief overview of the key significant factors for our bank's financial forecasting model has been discussed below.

4.1.1 Investment Rates Assumptions

Islami banks operate in a different setting compared to traditional commercial banks. Rather than lending on interests. They invest on clients' business or expenditures and projects and share profits and losses. However, while comparing the inherent incomes from these investments with commercial lending rates, it was found that the difference is not very significant and follow similar trends. So, the investment rates were assumed to be consistent with ongoing market trends. Bank wise assumption figures are shown in appendix 1.

4.1.2 Deposit Rate Assumptions

The overall banking sector itself has been experiencing slow growth in deposit mobilization for the past few years. However, after the pandemic, thanks to online monetary services and some banks grasping the market through mobile apps, situation is getting better. As for Islamic banks, their previous records regarding sharing profits with depositors show a positive trend, which implied a positive trend in the future as well. Bank wise assumptions will be shown in appendix.

4.1.3 Operating Expense Assumptions

With competitions increasing as well as market shares, Islamic banks are showing an upward trend of operating costs. We also have to consider the costs from expenses regarding Shari'ah supervisory committees.

4.2 Valuation Models and Assumptions

4.2.1 Cost of Equity Assumption

We arrived at our cost of equity-based on an adjusted CAPM approach using build-up method. Given the operational structures of Shari'ah based banks being different from commercial banks, this approach works effectively. The equation for this method can be written as follows:

$$\mathbf{Re = Rf + ERP + Rs + Rc}$$

Where**,**

Re = Expected rate of return of the company

Rf = Risk-free rate of return

ERP = Equity risk premium

Rs = Size premium

Rc = Specific company risk

Our discount rate for the DCF valuation is the cost of equity, which is roughly 15%. To calculate an adjusted cost of equity, we employed the CAPM technique, which was adjusted for some extra non-diversifiable risks not covered by beta. The risk-free rate has been set at 10-year Treasury bond cut-off rates, which experts believe accurately expresses the risk-free return expected for the forecasted period. We believe the Bangladesh capital market risk premium is 1.5 percent because the Bangladesh government pays a reasonably high return given the country's inflation rate. We have included a risk premium of 2.5 percent to account for regulatory and credit risk uncertainty.

4.2.2 Terminal Growth Assumption

For terminal growth rate, we considered long term GDP growth and the overall growth of the industry, to arrive at the rate we used for this research.

Chapter 5: Valuation Analysis and Findings

5.1 Valuation Analysis

The outcomes from the models used and the findings from them are going to be discussed in this chapter. We have tried to calculate the intrinsic value and also, estimate a probable or target price 6 months ahead using forecast and available market information.

5.1.1 Dividend Discount Model (DDM)

Amongst the banks evaluated in this study, ICB Islamic Bank Bangladesh doesn't have enough earnings to pay dividends as per regulations. Other than that, rest of the banks are overvalued.

	Intrinsic Value per share	Market value Per share	Outlook
Al-Arafah Islami Bank Ltd	16.0	25.2	Overvalued
Export Import (Exim) Bank of Bangladesh Limited	10.5	11.2	Overvalued
ICB Islamic Bank Limited	-	4.7	n/a
Islami Bank Bangladesh Limited	17.9	32.5	Overvalued
Shahjalal Islami Bank Ltd.	4.44	19.6	Overvalued
Social Islami Bank Limited	3.44	12.8	Overvalued
Union Bank Limited	(1.70)	10	Overvalued

5.1.2 Free Cash Flow to Equity Model (FCFE)

It is difficult to use FCFE for the valuation of a financial organization since it is difficult to assess net capital expenditure and non-cash working capital for a bank. As a result, the relevance of this valuation model is minimal or it does not fit the process. However, by characterizing reinvestment in regulatory capital differently, we computed a probable estimate of cash flow for equity for the bank in next six months.

The cash flow to equity is the amount left over for equity investors after debt payments have been fulfilled and regulatory capital reinvestment demands have been met. The cash flow result is depicted in the table below.

	Cost of Equity	Estimated Value per share	Market value Per share	Outlook
Al-Arafah Islami Bank Ltd	14.1%	13.7	25.2	Overvalued
Export Import (Exim) Bank of Bangladesh Limited	16.4%	23.3	11.2	Undervalued
ICB Islamic Bank Limited	15.4%	(7178)	4.7	Overvalued
Islami Bank Bangladesh Limited	14.6%	7.9	32.5	Overvalued
Shahjalal Islami Bank Ltd.	14.9%	9.4	19.6	Overvalued
Social Islami Bank Limited	14.9%	(11.3)	12.8	Overvalued
Union Bank Limited	15.9%	(86)	10	Overvalued

5.1.3 Residual Income Valuation

According to the calculation, both the terminal value and the surplus equity converted to present value result in the present value of excess equity at a value reduction. The values of equity are in BDT millions.

	Beginning Book Value of Equity	Calculated value of Equity	Intrinsic Value per share	Market value Per share	Outlook
Al-Arafah Islami Bank Ltd	24,025.5	24,687	23.18	25.2	Overvalued
Export Import (Exim) Bank of Bangladesh Limited	31,221	23,690.8	16.37	11.2	Undervalued
ICB Islamic Bank Limited	(12,054)	(6562)	(9.87)	4.7	Overvalued
Islami Bank Bangladesh Limited	64,561	65,537	40.71	32.5	Undervalued
Shahjalal Islami Bank Ltd.	19,803	11,671	13.75	19.6	Overvalued

Social Islami Bank Limited	19,237	9,837	9.99	12.8	Overvalued
Union Bank Limited	10,010	(3,999)	(7.16)	10	Overvalued

The calculation and buildup of the model are shown in Appendix. From the outcome of the calculation, we came to derive a 6-month target price for all 7 banks. For Al-Arafah, ICB Islamic Bank, Shahjalal Islami Bank, Social Islami Bank and Union Bank Limited, we see a drop in the value with ICB having the most declining price. The picture is opposite for Exim Bank and Islami Bank, each showing a potential growth of 46% and 25% respectively in share price within six months, based on their per share price as of June 22, 2022.

5.1.4 Relative Valuation

For peer-to-peer comparison, all the sampled banks' price to earnings ratio (p/e ratio) and price to book value (p/b or p/bv) were used to derive the value per share of the banks individually. These prices are compared to their per share value as on June 22, 2022.

	Market value Per share	P/E Ratio	Outlook	P/BV ratio	Outlook
Al-Arafah Islami Bank Ltd	25.2	31.4	Undervalued	38.2	Undervalued
Export Import (Exim) Bank of Bangladesh Limited	11.2	13.6	Undervalued	16.3	Undervalued
ICB Islamic Bank Limited	4.7	2.6	Overvalued	(15.2)	Overvalued
Islami Bank Bangladesh Limited	32.5	34.0	Undervalued	27.3	Overvalued
Shahjalal Islami Bank Ltd.	19.6	18.4	Overvalued	14.4	Overvalued
Social Islami Bank Limited	6.1	9.7	Undervalued	13.2	Undervalued
Union Bank Limited	10	(14.3)	Overvalued	10.9	Undervalued

5.2 Overall Position

After conducting analysis from different angles with different methods, we can derive a side-by-side comparison for all the 7 banks to get an overall picture, which will be as follows –

	DDM	FCFE	Residual Income Valuation	Relative valuation
Al-Arafah Islami Bank Ltd	Overvalued	Overvalued	Overvalued	Undervalued
Export Import (Exim) Bank of Bangladesh Limited	Overvalued	Undervalued	Undervalued	Undervalued
ICB Islamic Bank Limited	n/a	Overvalued	Overvalued	Overvalued
Islami Bank Bangladesh Limited	Overvalued	Overvalued	Undervalued	Undervalued
Shahjalal Islami Bank Ltd.	Overvalued	Overvalued	Overvalued	Overvalued
Social Islami Bank Limited	Overvalued	Overvalued	Undervalued	Undervalued
Union Bank Limited	Overvalued	Overvalued	Overvalued	Overvalued

To get a better insight of the situation, we have tried to estimate the per share price for each bank in next 6 months, which shows us the following outcomes. The model used is shown in appendix.

	Market value per share	Estimated value per share	Impact on Price
Al-Arafah Islami Bank Ltd	25.2	25.0	Stable
Export Import (Exim) Bank of Bangladesh Limited	11.2	16.5	Increase
ICB Islamic Bank Limited	4.7	(727)	Decrease
Islami Bank Bangladesh Limited	32.5	38.8	Increase
Shahjalal Islami Bank Ltd.	19.6	13.4	Decrease
Social Islami Bank Limited	12.8	9.7	Decrease
Union Bank Limited	10.1	(6.2)	Decrease

Chapter 6: Conclusion

This study shows us that while most other banks are overvalued, EXIM bank is undervalued in most cases, making it the most prospectus when it comes to further investment, leading to more development. Social Islami Bank, Al-Arafah and Islami Bank Bangladesh are undervalued when it comes to residual income valuation and peer-to-peer valuation, implying possibility of further improvement if environment and economy supports.

From the estimation of prices for six months, we can see EXIM bank and Islami Bank Bangladesh to have a potential of price increase, which implies their growing performance in the market. While Al-Arafah Islami Bank shows to be in a stable position, the rest are in a comparatively vulnerable position, especially ICB Bank is in the most vulnerable position considering its decreasing performance and declining direction of price.

Islamic banking has become a point of interest in our country very recently. This might be giving them a momentary uplift, but as we can see, most of them are deemed to be in better positions than they actually are, while the rest are not getting enough reach respective to their performance.

These banks should be more aware of their performance and stability in the long run, and prepare for a stronger competition.

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Appendix

1. Assumption of Investment Rates

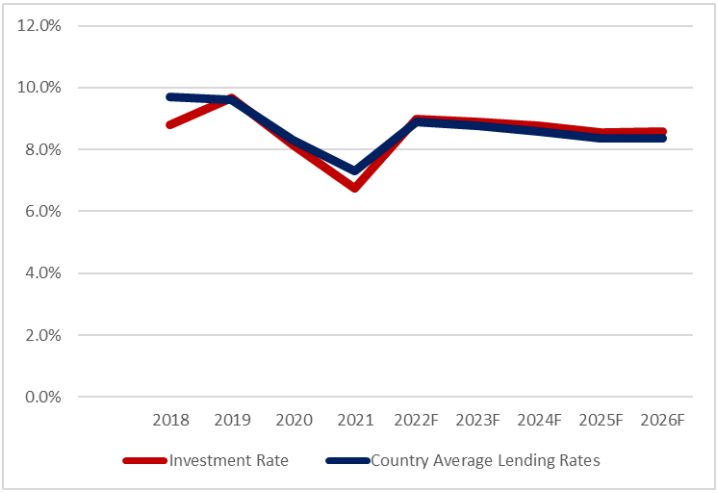

Figure 1: Assumption of Investment Rates; Al-Arafah

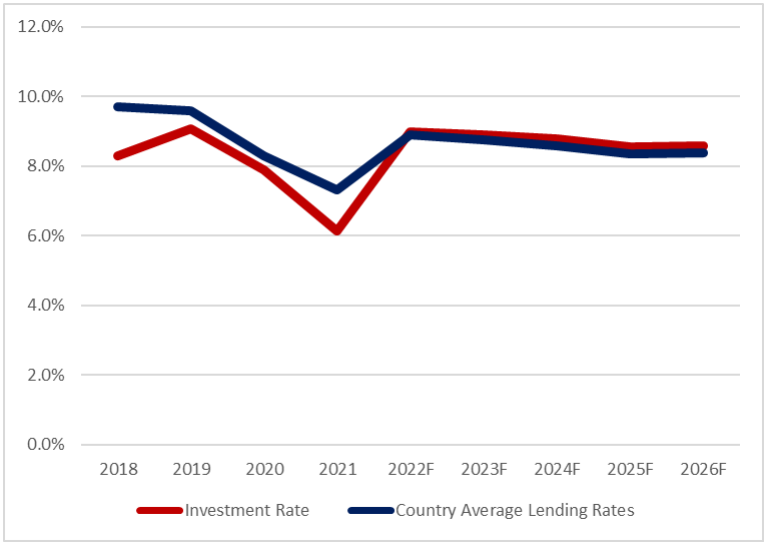

Figure 2: Assumption of Investment Rates; EXIM Bank

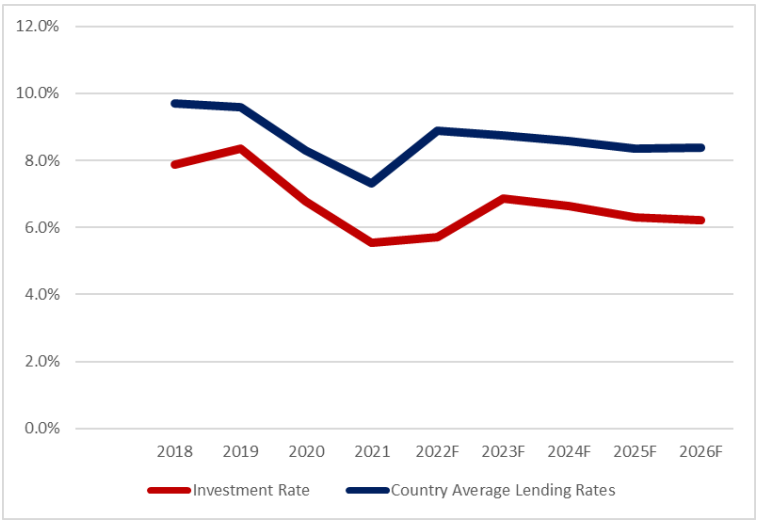

Figure 3: Assumption of Investment Rates; Islami Bank

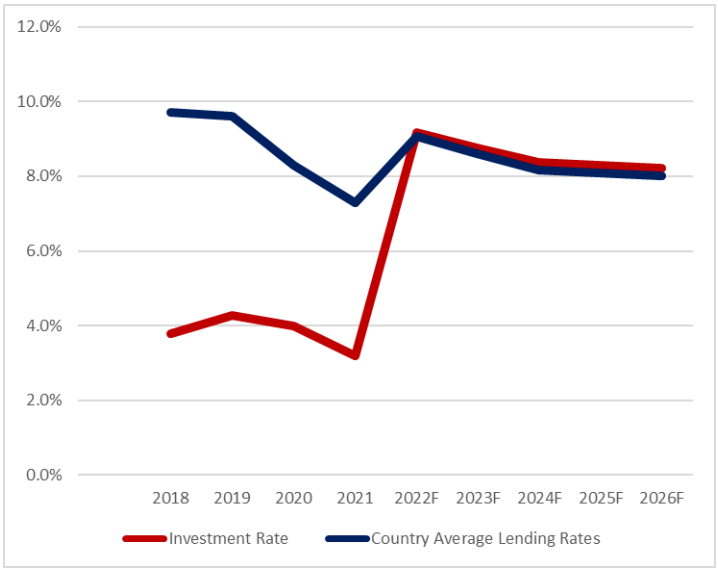

Figure 4: Assumption of Investment Rates, ICB Bank

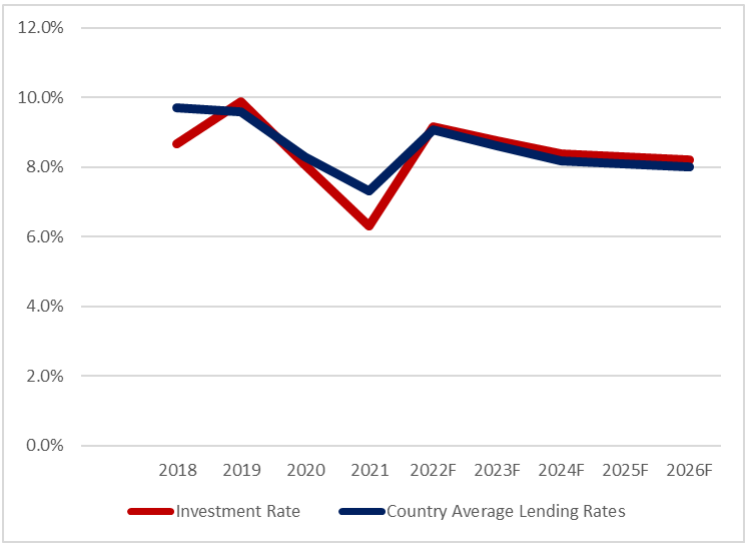

Figure 5: Assumption of Investment Rates; Shahjalal Islami Bank

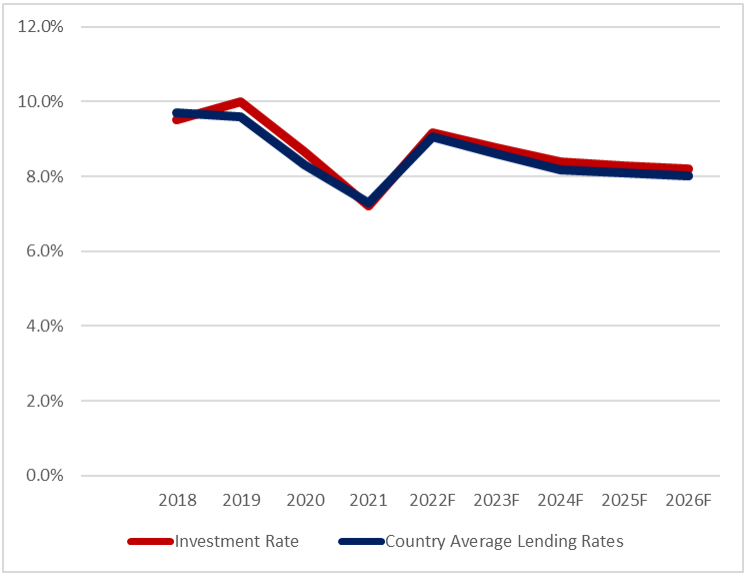

Figure 6: Assumption of Investment Rates; Social Islami Bank

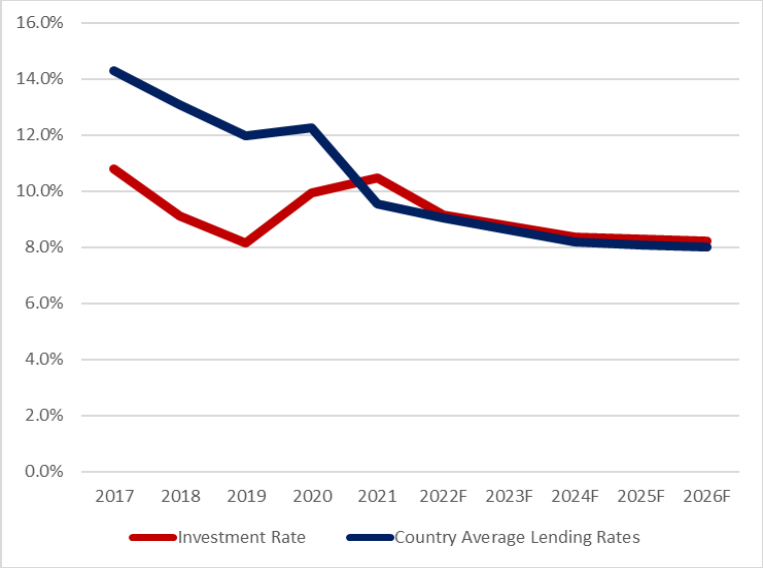

Figure 7: Assumption of Investment Rates; Union Bank

2. Assumption of Deposit rates

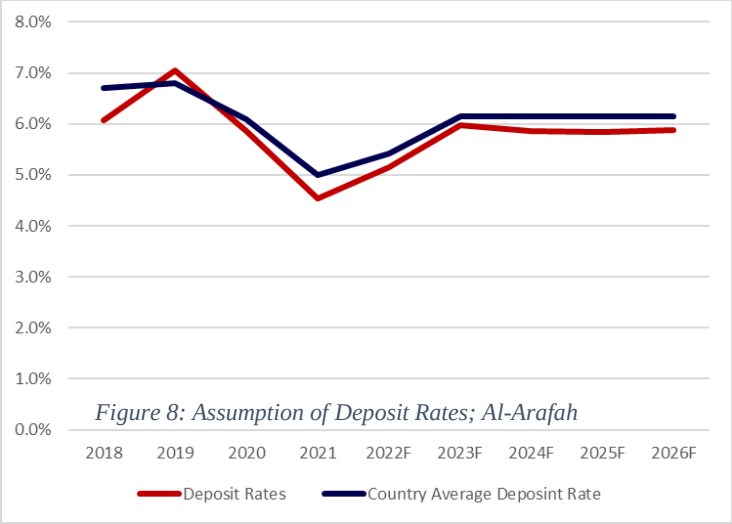

Figure 8: Assumption of Deposit Rates; Al-Arafah

Figure 8: Assumption of Deposit Rates; Al-Arafah

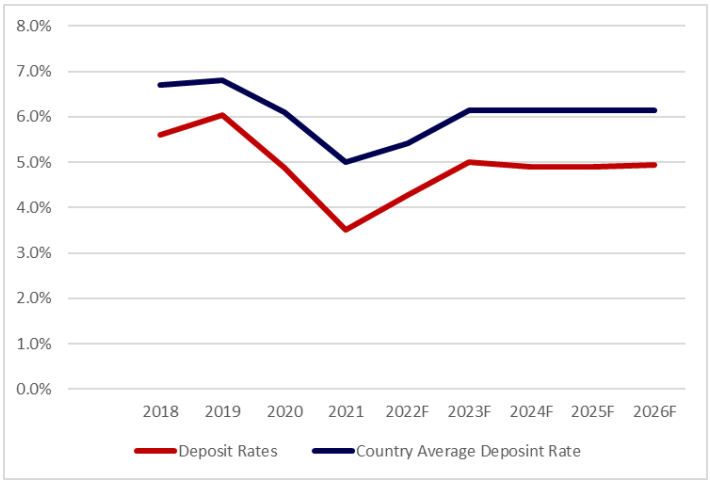

Figure 9: Assumption of Deposit Rates; EXIM Bank

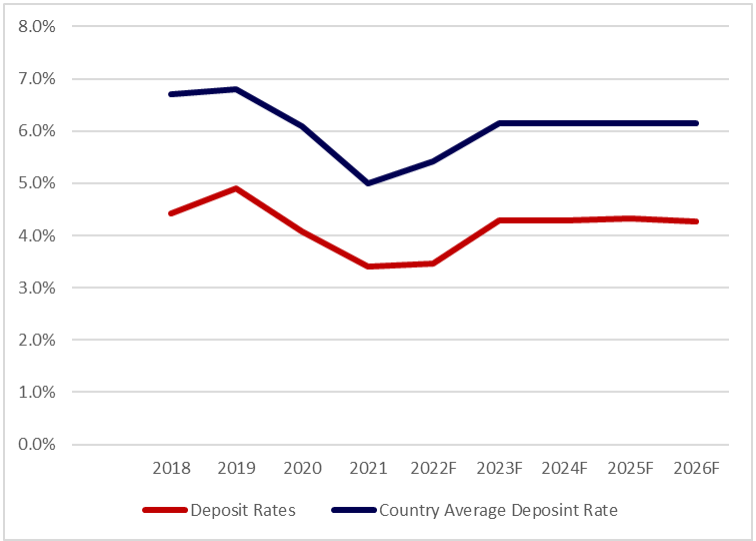

Figure 10: Assumption of Deposit Rates; Islami Bank

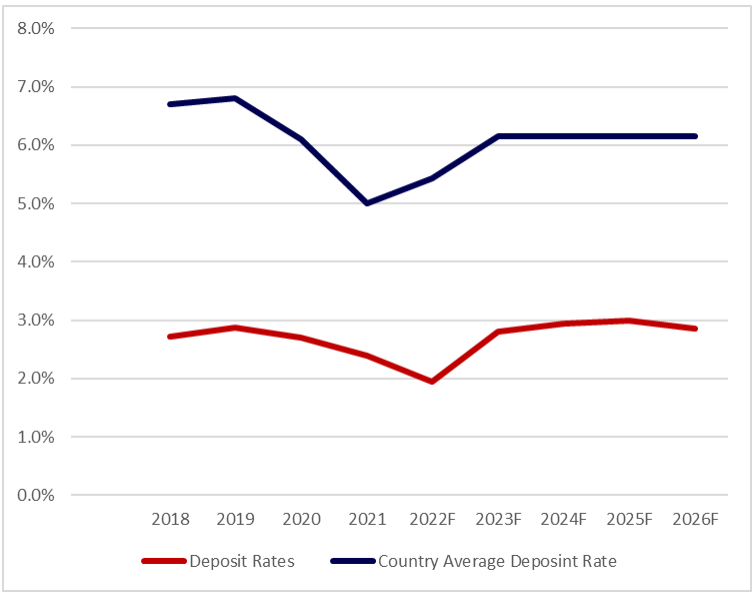

Figure 11: Assumption of Deposit Rates; ICB Bank

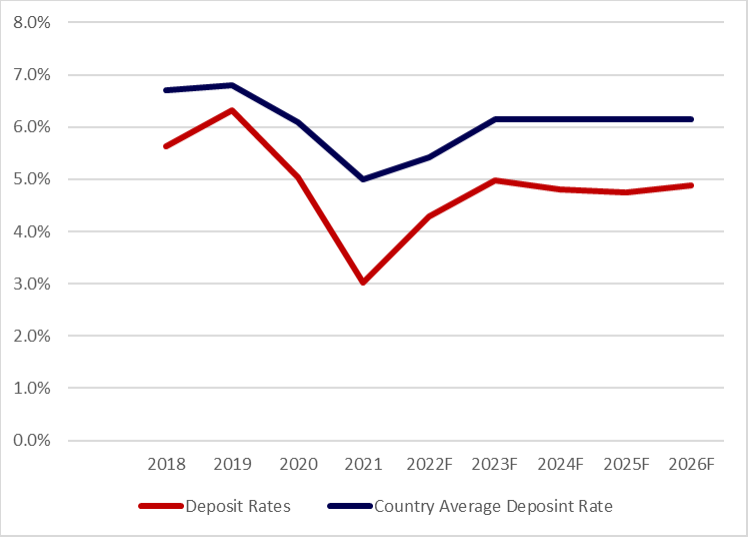

Figure 12: Assumption of Deposit Rates; Shahjalal Islami Bank

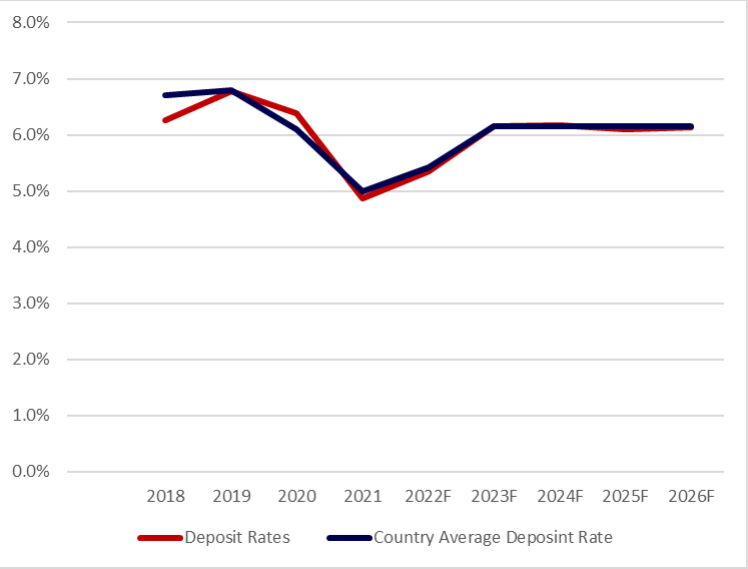

Figure 13: Assumption of Deposit Rates; Social Islami Bank

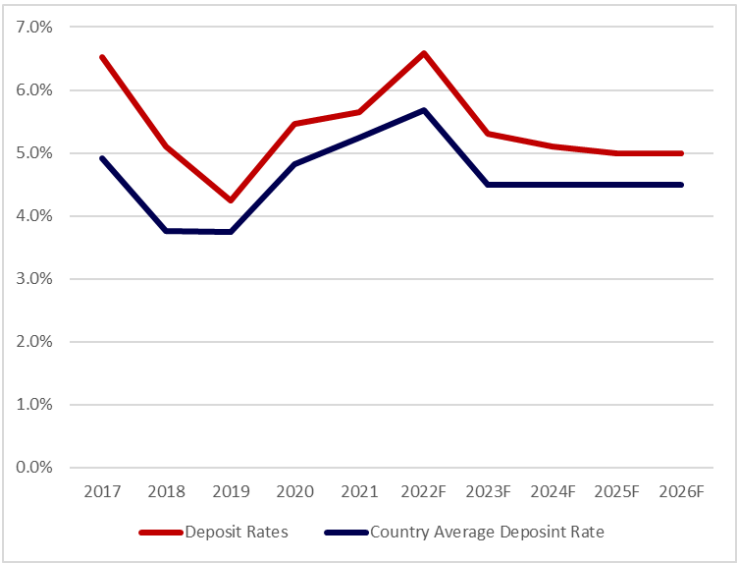

Figure 14: Assumption of Deposit Rates; Union Bank

3. Valuation of Al- Arafah Islami Bank

Particulars	Dividend Discount Model (DD		
	2022F	2023F	2024F
Dividend Payout Ratio	0.30	0.30	
Dividend Payment	0.90		
PV Factor			
Present Value of Dividend Payment			
PV of DDM			
PV of DDM Stage 2 From 2025-2035			
Terminal Value Using H Mod			
Present Value of Te			
Target			

Table 1: DDM Calculation; Al-Arafah

Particulars		2022F	2023F	2024F	2025F	2026F
Net Earnings		3,188	1,781	3,363	4,528	5,133
Plus: Dep. & Amortization		915	122	122	122	122
Reinvestment in Regulatory Capital		(4,496)	(6,952)	(5,013)	(7,441)	(8,237)
Minus: Capital Expenditure		(931)	(1,089)	(941)	(1,256)	(1,071)
Add: Net Borrowing		70,772	(15,489)	561	11,230	12,274
FCFE		**69,448**	**(21,628)**	**(1,909)**	**7,183**	**8,221**
PV Factor		0.95	0.88	0.77	0.67	0.59
Present Value of FCFE		**66,260**	**(18,956)**	**(1,466)**	**4,836**	**4,850**
PV of FCFE	(10,735)					
Terminal Value	42,860					
Present Value of Terminal Value	25,288					
Equity Value	14,552					
Number of Outstanding Share	1,065					
Target Price(6 Months)-BDT	**13.7**					

Table 2: FCFE Valuation; Al-Arafah

Excess Return Model Assumptions:	
Cost of Equity Determination (Build Up Approach)	
On the Run Cut off Yield on 10yr Treasury Bo	8.1%
Plus: Equity Risk Premium	6.0%
Cost of Equity	**14.1%**
Terminal Growth Rate	2.5%

Particulars (BDT in Million)	2022F	2023F	2024F	2025F	2026F
	1	2	3	4	5
Net Income	3,188	1,781	3,363	4,528	5,133
Less: Equity Cost	3,388	3,792	4,018	4,264	4,643
Excess Equity Return	**(199)**	**(2,011)**	**(655)**	**265**	**490**
Present Value	(175)	(1,545)	(441)	156	253
Present Value of TV					2,239
Beginning BV of Equity	24,026	26,895	28,498	30,239	32,931
Cost of Equity	14.1%	14.1%	14.1%	14.1%	14.1%
Equity Charge	3,388	3,792	4,018	4,264	4,643
Net Income	3,188	1,781	3,363	4,528	5,133
Terminal Value (TV)					4,330

BV of Equity currently invested	24,025.5
PV of Equity excess Return	662.0
Value of equity (mn BDT)	24,687.5
No of Share (mn)	1,064.9
Value per Share	**23.2**

Table 3: Residual Income Valuation; Al-Arafah

Price to Book Value Multiple	EXIM	ICB	IBBL	Shahjalal Ba	SIBL	Union	Average	AL-Arafa
P/BV	0.50	-0.30	0.80	1.10	0.70	7.36	**1.69**	
BV/Share								22.56
Value Per Share								**38.204**

Price to Earnings Multiple	EXIM	ICB	IBBL	Shahjalal Ba	SIBL	Union	Average	AL-Arafa
P/E	11.3	0.00	15.77	5.08	23.39	7.36	**10.48**	
EPS								2.99
Value Per Share								**31.387**

Table 4: Relative Valuation; Al-Arafah

Valuation Methods	Estimated Value	Weights
Discounted Cash Flow Valuation:		
Residual Income Model	23.18	0.8
FCFE	13.7	0.00
DDM	29.4	0.10
Relative Valuation:		
P/E (Peer-Peer)	31.39	0.05
P/BV (Peer-Peer)	38.2	0.05
Sector P/E	33.8	0.00
Sector P/BV	15.8	0.00
P/E (Historical)	30.6	0.00
Average	**27.0**	
Weighted Average	**25.0**	
Target Price	**24.97**	
Currrent Price	**25.20**	
Target Price	**24.97**	
Expected Capital Gain	**-0.92%**	
Target Holding Period	**6-moth**	
5 Yr. Avg. Dividend Yield	2.9%	
Total 6 Month Return	**1.98%**	

Table 5: Estimation of price per share after 3 months; Al-Arafah

4. Valuation of Exim Bank Limited

	Dividend Discount Model (DDM)			
Particulars	2022F	2023F	2024F	2025
Dividend Payout Ratio	0.30	0.30	0.6	
Dividend Payment	0.55	0.44		
PV Factor				
Present Value of Dividend Payment				
PV of DDM				
PV of DDM Stage 2 From 2025-2035				
Terminal Value Using H Model				
Present Value of Ter				
Target				

Table 6: DDM Valuation, EXIM Bank

DCF Valuation (FCFE Method)						
Particulars		2022F	2023F	2024F	2025F	2026F
Net Earnings		2,672	2,131	4,027	5,585	5,976
Plus: Dep. & Amortization		345	254	337	400	421
Reinvestment in Regulatory Capital		9,652	(12,024)	(13,913)	(8,592)	(9,466)
Minus: Capital Expenditure		8	8	(8)	22	6
Add: Net Borrowing		37,501	(2,692)	15,265	13,215	14,444
FCFE		**50,178**	**(12,323)**	**5,707**	**10,630**	**11,381**
PV Factor		0.95	0.86	0.74	0.63	0.54
Present Value of FCFE		**47,511**	**(10,587)**	**4,213**	**6,742**	**6,202**
PV of FCFE	6,569					
Terminal Value	49,799					
Present Value of Terminal Value	27,137					
Equity Value	33,706					
Number of Outstanding Share	1,448					
Target Price(6 Months)-BDT	**23.3**					

Table 7: FCFE Valuation; EXIM Bank

Particulars (BDT in Million)	2022F	2023F	2024F	2025F	2026F
	1	2	3	4	5
Net Income	2,672	2,131	4,027	5,585	5,976
Less: Equity Cost	5,117	5,511	5,826	6,217	6,816
Excess Equity Return	**(2,445)**	**(3,380)**	**(1,799)**	**(632)**	**(840)**
Present Value	(2,101)	(2,495)	(1,141)	(344)	(393)
Present Value of TV					(3,157)
Beginning BV of Equity	31,221	33,626	35,544	37,931	41,586
Cost of Equity	16.4%	16.4%	16.4%	16.4%	16.4%
Equity Charge	5,117	5,511	5,826	6,217	6,816
Net Income	2,672	2,131	4,027	5,585	5,976
Terminal Value (TV)					(6,743)

BV of Equity currently invested	31,221.2
PV of Equity excess Return	(7,530.5)
Value of equity (mn BDT)	23,690.8
No of Share (mn)	1,447.6
Value per Share	**16.4**

Table 8: Residual Income Valuation; EXIM Bank

Price to Book Value Multiple	Al - Arafah	ICB	IBBL	Shahjalal Bank	SIBL	Union	Avera
P/BV	1.10	0.50	-0.30	0.80	1.10		
BV/Share							
Value Per Share							

Price to Earnings Multiple	Al-Arafah	ICB
P/E		
EPS		

Table 9: Relative Valuation; EXIM Bank

Valuation Methods	Estimated Value	Weights
Discounted Cash Flow Valuation:		
Residual Income Model	16.37	0.8
FCFE	23.3	0.00
DDM	18.9	0.10
Relative Valuation:		
P/E (Peer-Peer)	13.58	0.05
P/BV (Peer-Peer)	16.3	0.05
Sector P/E	20.9	0.00
Sector P/BV	16.3	0.00
P/E (Historical)	16.9	0.00
Average	**17.8**	
Weighted Average	**16.5**	
Target Price	**16.47**	
Currrent Price	**11.20**	
Target Price	**16.47**	
Expected Capital Gain	**47.09%**	
Target Holding Period	**6-moth**	
5 Yr. Avg. Dividend Yield	2.9%	
Total 6 Month Return	**49.99%**	

Table 10: Estimation of price per share after 6 months; EXIM Bank

5. Valuation of ICB Islamic Bank Limited

Table 11: FCFE Valuation; ICB Bank

Excess Return Model Assumptions:	
Cost of Equity Determination (Build Up Approach)	
On the Run Cut off Yield on 10yr Treasury Bo	7.9%
Plus: Equity Risk Premium	**7.5%**
Cost of Equity	**15.4%**
Terminal Growth Rate	2.5%

Particulars (BDT in Million)	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**
	1	2	3	4	5
Net Income	137	2,341	119	(1,195)	(1,408)
Less: Equity Cost	(1,855)	(1,900)	(1,468)	(1,446)	(1,666)
Excess Equity Return	**1,992**	**4,241**	**1,587**	**250**	**259**
Present Value	1,726	3,186	1,033	141	127
Present Value of TV					1,006
Beginning BV of Equity	(12,054)	(12,346)	(9,537)	(9,394)	(10,828)
Cost of Equity	15.4%	15.4%	15.4%	15.4%	15.4%
Equity Charge	(1,855)	(1,900)	(1,468)	(1,446)	(1,666)
Net Income	137	2,341	119	(1,195)	(1,408)
Terminal Value (TV)					2,059

BV of Equity currently invested	(12,054.1)
PV of Equity excess Return	5,492.6
Value of equity (mn BDT)	(6,561.5)
No of Share (mn)	664.7
Value per Share	**(9.9)**

Table 12: Residual Income valuation; ICB Bank

Price to Book Value Multiple	Al-Arafah	EXIM	IBBL	Shahjalal	SIBL	Union	Avera
P/BV	1.1	0.5	0.8	1.1	0.7		
BV/Share							
Value Per Share							

Price to Earnings Multiple	Al-Arafah	EX
P/E		
EPS		

Table 13: Relative Valuation; ICB Bank

Valuation Methods	Estimated Value	Weights
Discounted Cash Flow Valuation:		
Residual Income Model	-9.87	0.8
FCFE	(7,175.23)	0.10
DDM	-	0.00
Relative Valuation:		
P/E (Peer-Peer)	2.60	0.00
P/BV (Peer-Peer)	(15.2)	0.05
Sector P/E	2.3	0.00
Sector P/BV	(13.0)	0.05
P/E (Historical)	1.9	0.00
Average	**(900.8)**	
Weighted Average	**(726.8)**	
Target Price	**(726.83)**	
Currrent Price	**4.70**	
Target Price	**(726.83)**	
Expected Capital Gain	**-15564.44%**	
Target Holding Period	**6-moth**	
5 Yr. Avg. Dividend Yield	2.9%	
Total 6 Month Return	**-15561.54%**	

Table 14: Estimation of price per share after 6 months; ICB Bank

6. Valuation of Islami Bank Bangladesh Limited

Table 15: DDM Valuation; Islami Bank

Particulars		DCF Valuation (FCFE Method) 2022F	2023F	2024F	2025F	2026F
Net Earnings		5,464	2,613	9,139	12,634	14,769
Plus: Dep. & Amortization		683	474	911	1,270	1,449
Reinvestment in Regulatory Capital		67,724	(8,613)	(73,764)	(14,505)	(15,768)
Minus: Capital Expenditure		(820)	(857)	(1,107)	(1,171)	(1,035)
Add: Net Borrowing		(25,896)	4,869	40,314	10,050	8,510
FCFE		**47,155**	**(1,514)**	**(24,508)**	**8,277**	**7,925**
PV Factor		0.95	0.87	0.76	0.66	0.58
Present Value of FCFE		**44,915**	**(1,321)**	**(18,661)**	**5,500**	**4,595**
PV of FCFE	(9,887)					
Terminal Value	38,925					
Present Value of Terminal Value	22,568					
Equity Value	12,681					
Number of Outstanding Share	1,610					
Target Price(6 Months)-BDT	**7.9**					

Table 16: FCFE Valuation; Islami Bank

Excess Return Model Assumptions:	
Cost of Equity Determination (Build Up Approach)	
On the Run Cut off Yield on 10yr Treasury Bo	8.1%
Plus: Equity Risk Premium	6.5%
Cost of Equity	**14.6%**
Terminal Growth Rate	2.5%

Particulars (BDT in Million)	2022F	2023F	2024F	2025F	2026F
	1	2	3	4	5
Net Income	5,464	2,613	9,139	12,634	14,769
Less: Equity Cost	9,426	10,144	10,487	11,665	13,299
Excess Equity Return	**(3,962)**	**(7,531)**	**(1,349)**	**969**	**1,470**
Present Value	(3,457)	(5,734)	(896)	562	744
Present Value of TV					6,301
Beginning BV of Equity	64,561	69,479	71,831	79,896	91,089
Cost of Equity	14.6%	14.6%	14.6%	14.6%	14.6%
Equity Charge	9,426	10,144	10,487	11,665	13,299
Net Income	5,464	2,613	9,139	12,634	14,769
Terminal Value (TV)					12,454

BV of Equity currently invested	64,561.3
PV of Equity excess Return	976.1
Value of equity (mn BDT)	65,537.4
No of Share (mn)	1,610.0
Value per Share	**40.7**

Table 17: Residual Income Valuation; Islami Bank

Price to Book Value Multiple	Al-Arafah	EXIM	ICB	Shahjalal	SIBL	Union	Avera
P/BV	1.1	0.5	-0.3	1.1	0.7		
BV/Share							
Value Per Share							

Price to Earnings Multiple	Al-Arafah	EX
P/E		
EPS		

Table 18: Relative Valuation; Islami Bank

Valuation Methods	Estimated Value	Weights
Discounted Cash Flow Valuation:		
Residual Income Model	40.71	0.8
FCFE	7.9	0.00
DDM	31.4	0.10
Relative Valuation:		
P/E (Peer-Peer)	33.96	0.05
P/BV (Peer-Peer)	27.3	0.05
Sector P/E	41.1	0.00
Sector P/BV	32.4	0.00
P/E (Historical)	31.1	0.00
Average	**30.7**	
Weighted Average	**38.8**	
Target Price	**38.77**	
Currrent Price	**32.50**	
Target Price	**38.77**	
Expected Capital Gain	**19.28%**	
Target Holding Period	**6-month**	
5 Yr. Avg. Dividend Yield	2.9%	
Total 6 Month Return	**22.18%**	

Table 19: Estimation of price per share after 6 months; Islami Bank

7. Valuation of Shahjalal Islami Bank Limited

Dividend Discount Model (DDM)				
Particulars	2022F	2023F	2024F	202F
Dividend Payout Ratio	0.30	0.30	0.1	
Dividend Payment	0.47	0.64		
PV Factor				
Present Value of Dividend Payment				
PV of DDM				
PV of DDM Stage 2 From 2025-2035				
Terminal Value Using H Model				
Present Value of Ter				
Target				

Table 20: DDM Valuation; Shahjalal Islami bank

DCF Valuation (FCFE Method)						
Particulars		2022F	2023F	2024F	2025F	2026F
Net Earnings		1,326	1,812	2,009	2,813	2,890
Plus: Dep. & Amortization		442	394	423	537	593
Reinvestment in Regulatory Capital		(11,092)	(9,787)	14,049	(5,403)	(5,701)
Minus: Capital Expenditure		(331)	(427)	(391)	(439)	(469)
Add: Net Borrowing		7,032	1,808	(13,990)	6,702	5,404
FCFE		**(2,623)**	**(6,200)**	**2,100**	**4,210**	**2,718**
PV Factor		0.95	0.87	0.76	0.66	0.57
Present Value of FCFE		**(2,496)**	**(5,396)**	**1,591**	**2,776**	**1,560**
PV of FCFE	530					
Terminal Value	12,905					
Present Value of Terminal Value	7,407					
Equity Value	7,937					
Number of Outstanding Share	849					
Target Price(6 Months)-BDT	**9.4**					

Table 21: FCFE Valuation; Shahjalal Islami bank

Excess Return Model Assumptions:	
Cost of Equity Determination (Build Up Approach)	
On the Run Cut off Yield on 10yr Treasury Bo	7.9%
Plus: Equity Risk Premium	7.0%
Cost of Equity	**14.9%**
Terminal Growth Rate	2.5%

Particulars (BDT in Million)	2022F	2023F	2024F	2025F	2026F
	1	2	3	4	5
Net Income	1,326	1,812	2,009	2,813	2,890
Less: Equity Cost	2,949	3,126	3,369	3,692	4,128
Excess Equity Return	**(1,623)**	**(1,315)**	**(1,360)**	**(879)**	**(1,238)**
Present Value	(1,413)	(996)	(897)	(505)	(618)
Present Value of TV					(5,116)
Beginning BV of Equity	19,803	20,996	22,627	24,793	27,726
Cost of Equity	14.9%	14.9%	14.9%	14.9%	14.9%
Equity Charge	2,949	3,126	3,369	3,692	4,128
Net Income	1,326	1,812	2,009	2,813	2,890
Terminal Value (TV)					(10,242)

BV of Equity currently invested	19,803.0
PV of Equity excess Return	(8,132.4)
Value of equity (mn BDT)	11,670.6
No of Share (mn)	848.6
Value per Share	**13.8**

Table 22: Residual Income Valuation; Shahjalal Islami Bank

Price to Book Value Multiple	Al-Arafah	Export Import	ICB Islami Ban	Islami Bank B	SIBL	Union Bank	Avera
P/BV	1.10	0.50	-0.30	0.80	0.70		
BV/Share							
Value Per Share							

Price to Earnings Multiple	Al-Arafah	Ex
P/E		
EPS		

Table 23: Relative Valuation; Shahjalal Islami bank

Valuation Methods	Estimated Value	Weights
Discounted Cash Flow Valuation:		
Residual Income Model	13.75	0.8
FCFE	9.4	0.00
DDM	8.0	0.10
Relative Valuation:		
P/E (Peer-Peer)	18.42	0.05
P/BV (Peer-Peer)	14.4	0.05
Sector P/E	17.7	0.00
Sector P/BV	17.3	0.00
P/E (Historical)	14.3	0.00
Average	**14.2**	
Weighted Average	**13.4**	
Target Price	**13.44**	
Currrent Price	**19.60**	
Target Price	**13.44**	
Expected Capital Gain	**-31.43%**	
Target Holding Period	**6-moth**	
5 Yr. Avg. Dividend Yield	2.9%	
Total 6 Month Return	**-28.53%**	

Table 24: Estimation of price per share after 6 months; Shahjalal Islami Bank

8. Valuation of Social Islami Bank Limited

Dividend Discount Model (DDM)				
Particulars	2022F	2023F	2024F	202F
Dividend Payout Ratio	0.30	0.30	0.1	
Dividend Payment	0.50	0.38		
PV Factor				
Present Value of Dividend Payment				
PV of DDM				
PV of DDM Stage 2 From 2025-2035				
Terminal Value Using H Model				
Present Value of Ter				
Target				

Table 25: DDM Valuation; Social Islami bank

DCF Valuation (FCFE Method)						
Particulars		2022F	2023F	2024F	2025F	2026F
Net Earnings		1,088	1,253	1,266	2,329	2,355
Plus: Dep. & Amortization		457	315	339	482	535
Reinvestment in Regulatory Capital		(4,070)	(6,702)	(2,199)	(4,826)	(5,320)
Minus: Capital Expenditure		(237)	(286)	(366)	(199)	(314)
Add: Net Borrowing		4,421	303	(1,965)	1,155	1,614
FCFE		**1,659**	**(5,118)**	**(2,926)**	**(1,059)**	**(1,129)**
PV Factor		0.95	0.87	0.76	0.66	0.57
Present Value of FCFE		**1,579**	**(4,454)**	**(2,217)**	**(698)**	**(648)**
PV of FCFE	(8,018)					
Terminal Value	(5,363)					
Present Value of Terminal Value	(3,078)					
Equity Value	(11,096)					
Number of Outstanding Share	985					
Target Price(6 Months)-BDT	**-11.3**					

Table 26: FCFE Valuation; Social Islami bank

Excess Return Model Assumptions:	
Cost of Equity Determination (Build Up Approach)	
On the Run Cut off Yield on 10yr Treasury Bo	7.9%
Plus: Equity Risk Premium	**7.0%**
Cost of Equity	**14.9%**
Terminal Growth Rate	2.5%

Particulars (BDT in Million)	2022F	2023F	2024F	2025F	2026F
	1	2	3	4	5
Net Income	1,088	1,253	1,266	2,329	2,355
Less: Equity Cost	2,864	2,986	3,153	3,351	3,705
Excess Equity Return	**(1,776)**	**(1,733)**	**(1,888)**	**(1,023)**	**(1,350)**
Present Value	(1,546)	(1,313)	(1,245)	(587)	(675)
Present Value of TV					(5,581)
Beginning BV of Equity	19,237	20,051	21,178	22,508	24,883
Cost of Equity	14.9%	14.9%	14.9%	14.9%	14.9%
Equity Charge	2,864	2,986	3,153	3,351	3,705
Net Income	1,088	1,253	1,266	2,329	2,355
Terminal Value (TV)					(11,171)

BV of Equity currently invested	19,237.4
PV of Equity excess Return	(9,400.0)
Value of equity (mn BDT)	9,837.4
No of Share (mn)	984.9
Value per Share	**10.0**

Table 27: Residual Income Valuation; Social Islami Bank

Price to Book Value Multiple	Al-Arafah	Export Import	ICB Islami Ban	Islami Bank B	Shahjalal	Union Bank	Average	City Bank
P/BV	1.10	0.50	-0.30	0.80	1.10	0.70	**0.65**	
BV/Share								20.36
Value Per Share								**13.233**

Price to Earnings Multiple	Al-Arafah	Export Import	ICB Islami Ban	Islami Bank B	Social Isla	Union Bank	Average	City Bank
P/E	12.91	11.3	0.00	15.77	5.08	7.36	**8.74**	
EPS								1.10
Value Per Share								**9.653**

Table 28: Relative Valuation; Social Islami Bank

Valuation Methods	Estimated Value	Weights
Discounted Cash Flow Valuation:		
Residual Income Model	9.99	0.8
FCFE	(11.3)	0.00
DDM	6.1	0.10
Relative Valuation:		
P/E (Peer-Peer)	9.65	0.05
P/BV (Peer-Peer)	13.2	0.05
Sector P/E	12.5	0.00
Sector P/BV	14.3	0.00
P/E (Historical)	10.1	0.00
Average	**8.1**	
Weighted Average	**9.7**	
Target Price	**9.74**	
Currrent Price	**12.80**	
Target Price	**9.74**	
Expected Capital Gain	**-23.91%**	
Target Holding Period	**6-moth**	
5 Yr. Avg. Dividend Yield	2.9%	
Total 6 Month Return	**-21.01%**	

Table 29: Estimation of price per share after 6 months; Social Islami Bank

9. Valuation of Union Bank Limited

Dividend Discount Model (DDM)				
Particulars	2022F	2023F	2024F	202F
Dividend Payout Ratio	0.30	0.30	0.0	
Dividend Payment	(0.38)	(0.64		
PV Factor				
Present Value of Dividend Payment				
PV of DDM				
PV of DDM Stage 2 From 2025-2035				
Terminal Value Using H Model				
Present Value of Ter				
Target				

Table 30: DDM Valuation; Union Bank

DCF Valuation (FCFE Method)						
Particulars		2022F	2023F	2024F	2025F	2026F
Net Earnings		(699)	(1,188)	(1,982)	(1,100)	(1,372)
Plus: Dep. & Amortization		-	-	-	-	-
Reinvestment in Regulatory Capital		(7,645)	(9,382)	17,099	(254)	1,481
Minus: Capital Expenditure		(2,759)	(5,249)	(4,646)	(7,993)	(14,292)
Add: Net Borrowing		4,823	7,465	(10,409)	2,212	1,643
FCFE		**(6,280)**	**(8,355)**	**62**	**(7,134)**	**(12,541)**
PV Factor		0.95	0.86	0.74	0.64	0.55
Present Value of FCFE		**(5,956)**	**(7,209)**	**46**	**(4,584)**	**(6,952)**
PV of FCFE	(18,700)					
Terminal Value	(53,220)					
Present Value of Terminal Value	(29,505)					
Equity Value	(48,204)					
Number of Outstanding Share	559					
Target Price(6 Months)-BDT	**-86.2**					

Table 31: FCFE Valuation; Union Bank

Excess Return Model Assumptions:	
Cost of Equity Determination (Build Up Approach)	
On the Run Cut off Yield on 10yr Treasury Bo	7.9%
Plus: Equity Risk Premium	**8.0%**
Cost of Equity	**15.9%**
Terminal Growth Rate	2.5%

Particulars (BDT in Million)	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**
	1	2	3	4	5
Net Income	(699)	(1,188)	(1,982)	(1,100)	(1,372)
Less: Equity Cost	1,591	1,491	1,321	943	743
Excess Equity Return	**(2,290)**	**(2,679)**	**(3,303)**	**(2,043)**	**(2,116)**
Present Value	(1,976)	(1,995)	(2,122)	(1,133)	(1,012)
Present Value of TV					(7,748)
Beginning BV of Equity	10,011	9,381	8,312	5,933	4,679
Cost of Equity	15.9%	15.9%	15.9%	15.9%	15.9%
Equity Charge	1,591	1,491	1,321	943	743
Net Income	(699)	(1,188)	(1,982)	(1,100)	(1,372)
Terminal Value (TV)					(16,197)

BV of Equity currently invested	10,010.5
PV of Equity excess Return	(14,010.0)
Value of equity (mn BDT)	(3,999.4)
No of Share (mn)	558.9
Value per Share	**(7.2)**

Table 32: Residual Income Valuation; Union Bank

Price to Book Value Multiple	Al-Arafah	Export Import B	ICB Islami Ban	Islami Bank Ba	Shahjalal	SIBL	Average Union	
P/BV	1.1	0.5	-0.3	0.8	1.1	0.7	**0.65**	
BV/Share								16.78
Value Per Share								**10.910**

Price to Earnings Multiple	**Al-Arafah**	Export Import B	ICB Islami Ban	Islami Bank Ba	Social Islar	SIBL	Average	Union
P/E	12.91	11.3	0	15.77	5.08	23.39	**11.41**	
EPS								(1.25)
Value Per Share								**-14.270**

Table 33: Relative Valuation; Union Bank

Valuation Methods	Estimated Value	Weights
Discounted Cash Flow Valuation:		
Residual Income Model	-7.16	0.8
FCFE	(86.2)	0.00
DDM	(3.1)	0.10
Relative Valuation:		
P/E (Peer-Peer)	-14.27	0.05
P/BV (Peer-Peer)	10.9	0.05
Sector P/E	(14.1)	0.00
Sector P/BV	11.7	0.00
P/E (Historical)	(11.5)	0.00
Average	**(14.2)**	
Weighted Average	**(6.2)**	
Target Price	**(6.21)**	
Currrent Price	**10.10**	
Target Price	**(6.21)**	
Expected Capital Gain	**-161.44%**	
Target Holding Period	**6-moth**	
5 Yr. Avg. Dividend Yield	2.9%	
Total 6 Month Return	**-158.54%**	

Table 34: Estimation of price per share after 6 months; Union Bank