

Bond market analysis of Bangladesh

by

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BRAC University

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To

Mr. Riyashad Ahmed

Assistant Professor, BRAC Business School

BRAC University

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Subject: Submission of internship report on “Bond market analysis of Bangladesh”

Dear Sir,

It is with great pleasure that I am submitting my internship report on **“Bond market analysis of Bangladesh”**. The report was part of the requirement for the completion of Bachelors in Business Administration at BRAC University

I have prepared the report on the bond market of Bangladesh according to the guidelines provided by you throughout my internship. I believe the insights gained by reading this report would be useful in getting a good grasp about the bond market in Bangladesh.

I hope that you will appreciate my instructive and comprehensive approach. Thank you for encouraging me for working on this interesting topic. Kindly accept my report and oblige thereby.

Sincerely yours,

Safwan Ahmed

ID: 15104097

BRAC Business School.

Letter of Endorsements:

This is to certify that Safwan Ahmed, ID: 15104097, BRAC Business School, BRAC University has completed this report on “**Bond market analysis of Bangladesh**” for the purpose of completing BBA internship program. I accept this report as a final internship report.

I wish him every success and prosperity in his career and life.

Mr. Riyashad Ahmed
Assistant Professor,
BRAC Business School
BRAC University

Acknowledgement:

I would like to start this report by acknowledging my gratefulness to the Almighty Allah. I would like to express heartfelt gratitude to every single person who has assisted me in the preparation of this internship report. I wish to thank them for their support, guidance and belief in every step.

Firstly, I would like to take the opportunity to say my gratitude towards Mr. Riyashad Ahmed, Assistant Professor, BRAC Business School, for his endless support, inspiration and guidance during the course of completing this report. I am also thankful to him for contributing his valuable time while viewing my report and making all the necessary corrections. Moreover, I am grateful to BRAC University and BRAC Business School in particular for allowing us the opportunity to research about an area and gained valuable information while doing so.

Executive Summary

The capital market has always been a few steps behind in development compared to GDP growth of our nation. One would expect that the capital market - stocks, bonds and options would start flourishing as the economy grows. However, that has not been the case for the Bangladesh capital market more so the bond market. The paper provides a comparison between the bond market of Bangladesh with the neighbouring countries such as India, Pakistan and Srilanka.

This paper dives into the bond market of Bangladesh and perfects to analyse the limited number of bonds available in the market. It aims to figure out any correlation with the Dhaka Stock Exchange by analysing the correlation coefficient between the prices of bonds and the index numbers. This helps to understand whether the stocks at DSE are affecting the bond prices or not.

The paper also talks about the reasons for the failure of bond market in Bangladesh through a thorough of the bonds performance and investors sentiments. Several reasons such as lack of understanding of the bond market, too much reliance on bank savings account and poor accountability and corporate governance has eroded people's trust in capital markets.

Suggestions have also been provided based on the specific problems in the bond market such as improving financial literacy, encouraging and promoting investments in bonds. If implemented accordingly, the Bangladesh bond market is likely to flourish in the upcoming years.

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Organization Overview of Marico Bangladesh Limited

Marico Bangladesh Limited is amongst the top 3 FMCG MNC companies and a trusted brand in beauty and wellness space in Bangladesh. It is an Indian multinational company that was established in 1971 by Harsh Mariwala and has since grown to one of the strongest brands in both Indian and Bangladesh. The company touches the lives of 1 out of every 2 Bangladeshis with an array of brands in various categories, including hair nourishment, edible oil and male grooming, through a strong distribution network that reaches more than 790,000 outlets throughout the country. Its flagship brand, *Parachute* completed its journey of 12 successful years in Bangladesh, with an ever-growing base of loyal consumers in October 2013. The PCNO (Pure Coconut Natural Oil) segment includes the Parachute Coconut Oil, which is one of the strong brands in Bangladesh with strong recognition across the nation. The brand has been amongst top 10 most trusted brands continuously since 2009 and was awarded the title of "Best Brand" by Bangladesh Brand Forum and Nielsen in 2011. Over the years, the company has strengthened its brand portfolio, most notably through the expansion of its VAHO (Value Added Hair Oil) segment.

The VAHO segment now consists of several popular brands:

- *Parachute Beliphool Lite*
- *Parachute Advansed,*
- *Parachute Cooling Hair Oil*
- *Nihar Naturals.*

Marico Bangladesh Limited also leads the powdered hair dye market with the *Hair Code* brand. The company continued to diversify its portfolio with the introduction of Saffola Active (a healthy edible oil) and Set Wet Deodorants in 2013.

Their journey in Bangladesh is as follow:

- Incorporated in 1999
- Started operations in 2000
- Marico Bangladesh listed on Dhaka and Chittagong Stock Exchange in 2009

- Launched Haircode Hair Dye in 2009 and achieved a market share of over 15% in its first year
- Launched Parachute Advanced Cooling Hair Oil in 2011
- Started bottling at Mouchak, near Gazipur in 2002 and copra crushing manufacturing in Mahona, Bhavanipur in 2012
- Launched Saffola Active Edible Oil, Livon Silky Potion, Set Wet Deodorants and Livon
- Launched Nihar shanty Badam amla and Hair Code Keshkala in 2014

Vision, Mission & Values

Vision

“Transform in a sustainable manner, the lives of all those we touch, by nurturing and empowering them to maximize their true potential”

Mission

“Make a difference”

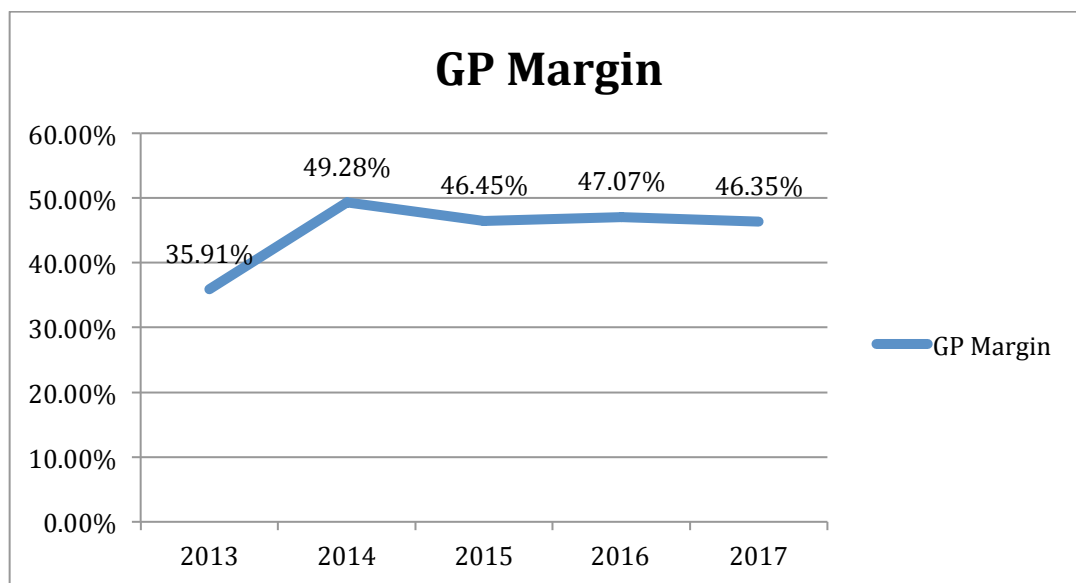
Values

- | | |
|-----------------------------|--------------------|
| • Consumer Centric | • Excellence |
| • Transparency and Openness | • Boundarylessness |
| • Opportunity Seeking | • Innovation |
| • Bias for Action | • Global Outlook |

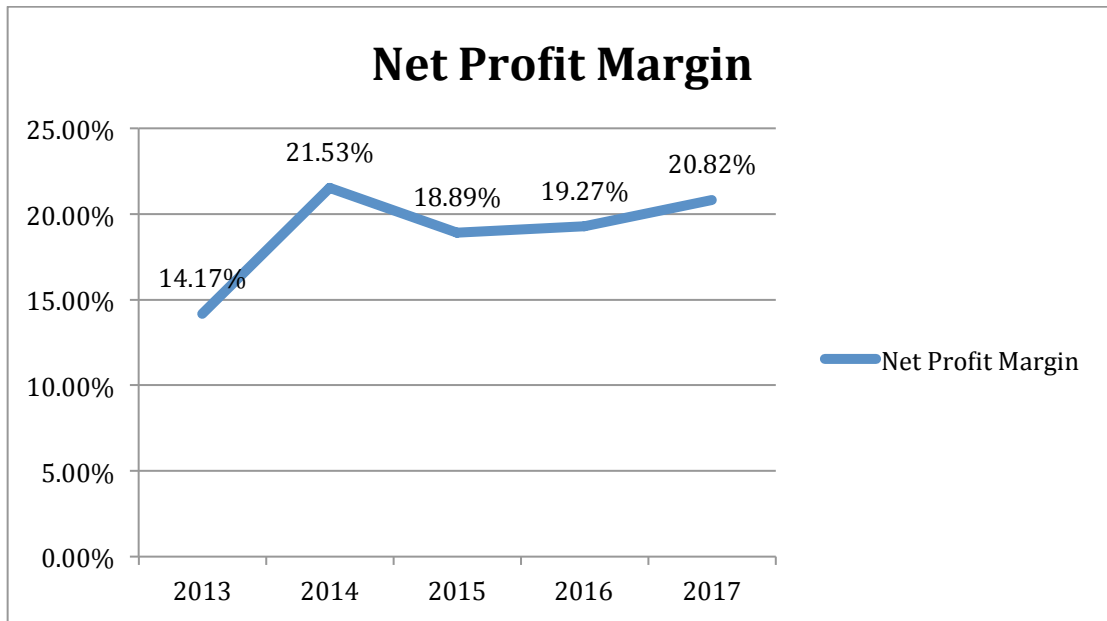
Analysis of Past 5 years performance

Details	2013	2014	2015	2016	2017
Profitability Ratios					
GP Margin	35.91%	49.28%	46.45%	47.07%	46.35%
Net Profit Margin	14.17%	21.53%	18.89%	19.27%	20.82%
ROE	27.49%	81.21%	78.54%	82.75%	91.15%
Liquidity Ratio					
Current Ratio	3.10	1.42	1.60	1.62	1.42
Earnings Per share	27.53	43.99	42.69	44.89	45.72

The profitability of the company has grown significantly over the last 5 years with GP reaching 3205 million BDT in 2017 up from 2197 million BDT in 2013. They have not only generated higher gross profit but also generated a greater level of efficiency in their operations with GP margin reaching 46.35% in 2017 up from 35.91% in 2013.



Moreover their net profit has also grown from 867 million BDT in 2013 to 1440 million BDT in 2017. They have increased their efficiency also with net profit margin increasing to 20.82% in 2017 from 14.17% in 2013.



Overall, the profitability of Marico has improved over the years and their recent launch of various new product lines only indicate an even better profitability in the near future.

The current ratio of Marico in 2014 has taken a significant dip from its 2013 value of 3.10. However, the company has maintained a stable current ratio of an average of 1.50 since 2014. An average current ratio of 1.50 to 1.60 can be considered stable and Marico's profitability ratios since 2014 indicates that they have generated higher returns every year pointing to the fact that they had sufficient liquid assets with them to manage the operations smoothly.

My Responsibility as an Intern

I was assigned as a Supply-chain intern in Marico Bangladesh Limited. It is one of the leading FMCG MNC's in Bangladesh with a large range of product lines and therefore working in the supply chain department was always going to be an interactive and knowledgeable journey.

In the supply chain department, I was assigned to monitor and manage the packaging materials required to in the production of the products. The packaging materials mainly included the following:

- Bottle
- Cap
- Carton
- Labels

The product lines included the consumer favourite Parachute Hair Oil which had several SKUs such as Parachute 100ml, 200ml Easy Jar, 500ml Easy Jar etc. Therefore each of these different categories had different requirements for bottles, caps and labels.

I was tasked with preparing daily stock reports of the available stocks at the warehouse. I was provided with a stock report from the warehouse and therefore had to compile a stock report of the products that are currently running. One of my regular activity was to watch over the excel file and place orders for packaging materials required for production in the upcoming 3-4 days.

Afterwards, I had to contact the vendors that supply the materials and ask for deliver of a certain type of material.

Challenges faced during the internship

The biggest challenge for supply chain at Marico Bangladesh that I faced during my internship was the lack of space in the warehouse to store the huge quantity of packaging materials required. Therefore, it was crucial to order goods at the most appropriate time i.e. not too early so that the delivery vehicle is not unloaded, however, not too late that the production facility at the factory has to sit idle due to shortage of materials. Therefore,

coordinating with the vendors to supply the packaging materials so that it reaches the warehouse at the most appropriate time was the biggest challenge.

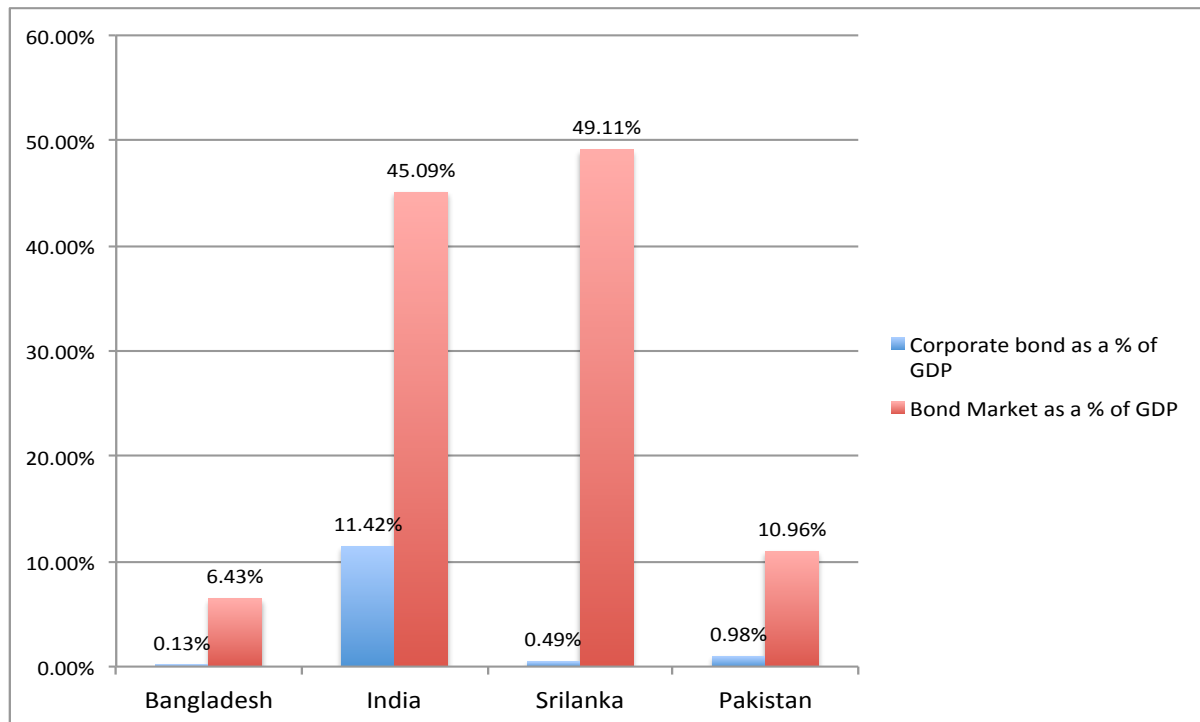
Another big challenge was with the sheer volume of packaging materials required as several different products were running simultaneously. Therefore keeping track of the different types of materials was a challenge in itself.

Introduction to the bond market

Bond market serves as one of the best alternative source of investment for investors around the world while serving as one of the easier routes to ensuring finance for a business. In fact, the global bond market, which stands at \$100 trillion, is considerably larger than the global stock market, which is valued at \$64 trillion.

Bangladesh has seen significant economic growth over the years; however, the bond market has yet to flourish in Bangladesh capital market, which has showed very little signs of growth. The lack of a flourishing bond market has deprived Bangladeshi investors and companies of various benefits that they could have reaped had their been a developed bond market. Bond markets serve as a source of long-term finance for companies with sound financial capabilities. Moreover, it also provides investors with a stable source of long-term income compared to the unstable and volatile returns of the stock market. Also considering the high volatility of the Dhaka Stock Exchange, a stable bond market would serve the necessities of a general investor very well. The bond market in Bangladesh is comprised mainly of Treasury bonds issued by the Government of Bangladesh with 221 T-bonds and only one corporate bond that has been currently floating in the market. Our research focuses on performance of 3 corporate bonds out of which 2 have matured.

Bangladesh bond market size when compared with the neighbouring countries market is significantly lower as shown in the graph below:



As the chart above shows, Bangladesh corporate bond as a percentage of GDP is the lowest among the countries of South Asia while the bond market overall is also very small compared to GDP at 0.13% and 6.43% respectively. India leads the way in corporate bond market with a size of INR 21,144,414,702,340, which represents about 11.42% of their GDP. The Indian capital market has developed significantly over the last decade and their developments have not only been focused on the stock market but also on the bond market. On the contrary, Bangladesh's bond market has not developed as compared to its GDP.

Objective of the Study

The paper aims to shed light on the following matters:

- Current state of the bond market in Bangladesh
- Key factors that have been dragging down bond market improvement over the years.
- Figure out correlation with the index of the Dhaka Stock Exchange and whether index movements have any effect on the prices of the bonds.
- Lastly, provide some suggestions based on the factors hindering the growth of bond market performance.

Literature review

Various researches have been conducted on bond markets however, very few research has been carried out on the Bangladesh bond market. Alam, Islam and Chy (2014) found out that only 5% of their respondents opted for investment in corporate bonds while 97.37% of the respondents found the bond market too inefficient. According to Alam et. al (2014)'s survey, 67.5% and 57.5% of their respondents thought inefficient market regulation and lack of actions against market manipulators few of the strongest reason to avoid investment in bond market and their subsequent below-par development.

Jahur and Kadir (2010) found the market in Bangladesh to be very inefficient with respect to number of issues, volume of trade, number of participant, long-term yield curve, interest rate policy etc. Jahur and Kadir (2010) identified some key factors hindering the growth and development of bond Market in Bangladesh such as risk and return factor, liquidity and government policy, management issues, macro-economic variables and regulatory issues.

Methodology

The main source of information for the research paper has been secondary data that is available on the Internet. The price fluctuations and DSEX index values have been gathered from the DSE Annex Building Library. Various qualitative data has been gathered from the Internet, which has enabled to compile this research paper.

Terminologies

Variable	Description
DSEX	The broad index of Dhaka Stock Exchange comprising all equities
Tenure	The length of time until maturity
Coupon Rate	The rate of income generated by the investor per year
Correlation-Coefficient	The relation between 2 components to help explain their movements.

Limitations

One of the main shortcomings of this paper is the lack of qualitative information from general investors and professionals about the bond market. Another key limitation that was the little amount of information provided regarding the T-bond and their price fluctuations in the market. The lack of information regarding the price movements of T-bonds did not allow to find its relation with the equity index and the other bond prices.

Analysis of Bond performance

The Treasury bond market is summarised below:

Variable	Obs	Mean	Std. Dev.	Min	Max
Tenure	277	14.12635	5.200536	2	20
CouponRate	277	.1063758	.0200541	.0444	.1595
Outstanding	277	5009.842	7321.152	30	30000

The minimum tenure for T-bond starts from 2 years with maximum tenure reaching 20 years. The coupon rate of the bonds also ranges from 4.44% to 15.95%. The average coupon rate in T-bond market is 10.63% per annum, which is a healthy return considering the savings rate at a bank is in single digits.

Tenure	Summary of Coupon Rate		Freq.
	Mean	Std. Dev.	
2	.05015	.00419325	4
5	.0857	.01996583	32
10	.10069365	.01498958	63
15	.11090899	.0159597	89
20	.11582584	.01655097	89
Total	.10637581	.02005409	277

The coupon rate comparison according to the tenure of the bond is summarised above. The chart indicates the heavy portion of long-term bonds issued by the government and the subsequent rise in coupon rates with the increase in tenure of the bond. Therefore, a rising coupon rate indicates a rising yield curve - an upward sloping curve - an indicator of a healthy and growing economy.

The chart below shows a small summary of the prices of 3 corporate bonds that are analysed in this paper.

Variable	Obs	Mean	Std. Dev.	Min	Max
ACIbond	729	878.2257	86.22264	750	1175.5
BRACBankBond	358	1044.161	34.65209	925.5	1200
IBBLMudaraba	933	964.7366	30.95753	874	1031.25

BRAC Bank and IBBL issued their bonds at a par value of 1,000 BDT. The standard deviation of the bond prices is extremely high with deviations of as high as 86 for ACI bond. On the other hand, the standard deviation for BRAC Bank's bond and IBBL Mudaraba Bond has been 34.65 and 30.95. The high standard in the bond prices shows the lack of stability in the almost non-existent bond market.

The returns for the bonds are tabulated as follows.

Name	Return generated per annum
ACI Zero Coupon Bond	0 since the bond is zero coupon
BRAC Bank Bond	12.5%
IBBL Mudaraba Bond	profit earned by Mudaraba Fund at the weight 1.25 plus equivalent to 10% of declared dividend.

ACI's Zero Coupon Bond had an additional option, which allowed investors to convert 20% of the bond at face value in a predetermined conversion strike price. The investor could have executed the convertibility option assuming that the market value of ACI stock was higher than the conversion strike price on the conversion date.

Correlation with DSEX

	ACIbond	BRACBankBond	IBBLMudaraba	DSEX
ACIbond	1.0000			
BRACBankBond	-0.0122	1.0000		
IBBLMudaraba	0.1236	0.0132	1.0000	
DSEX	0.2419	-0.2620	0.0726	1.0000

The chart above shows the correlation between the corporate bond prices and the Dhaka Stock Exchange's index. The DSEX index has positive correlation with bond prices of ACI and IBBL indicating a healthy equity market eventually boosts alternative markets as people start investing in other securities. Therefore, a healthy stock market is required for an eventually successful bond market. It is also noted that ACI bond has the highest positive correlation with the stock market. It was probably due to the fact that the investor had the option to convert 20% of the bond at face value at a predetermined conversion strike price. Thus, a rising stock market index might have led to a rising share price of ACI, which increased the demand for its bond.

Bank Fixed Deposit rate

	1 year - 2 years	2 years - 3 years	3 years+
Fixed Deposit rate	6.75%	6.78%	6.64%

Fixed deposit at a bank was the only reasonable comparison with a bond market due to the long-term nature of the investment. We can see that fixed deposits have a return of just over 6.75% for over 1 year. While the 2-3 years return slightly increased at 6.78%, the 3 years+ return fell to a surprisingly 6.64%. This shows a sharp contrast with the bond market as the coupon payments in for a bond rises as the tenure increases. A 5-year bond has an average coupon rate of 8.57%, which is significantly higher than a fixed deposit rate.

Reasons for sub-standard performance

Lack of knowledge: One of the prime reasons for the underdevelopment of the bond market in Bangladesh is the lack of understanding of bond market itself. The general investors are not educated and do not possess the financial literacy required to understand the mechanisms of a bond. The average investor has very limited knowledge about investing in stocks and many investors are a victim of herding in Bangladesh. In spite of having an underdeveloped stock market, the public is still yet to learn the basics of investing, while the bond market is close to non-existent.

Lack of promotion: It has been seen that the issuers of bond prefer to issue the significant number of bonds in private placements. Islami bank's Mudaraba bond issued 50%, BRAC Bank issued 90% and ACI issuing 40% of their bonds at private placements. This indicates that institutions do not prefer to issue bonds to the public but instead opt for the easier and cheaper route of issuing bonds to an institute.

	Bonds Issued		
	Private Placement	Public Offering	Total Issued
IBBL Mudaraba Bond	1,500,000	1,500,000	3,000,000
BRAC Bank Bond	2,700,000	300,000	3,000,000
ACI 20% Zero Coupon Bonds	801,510	534,340	1,335,850

Savings account dominance: Another key factor in the underdevelopment of bond market has been the general notion in Bangladesh, which has always been saving their money in bank accounts, which offer a very small and fixed rate of interest in a hassle free manner - a feature preferred by the public in Bangladesh. The concept of investing in capital markets is still in developing stage in Bangladesh and most people avoid investing in capital market due to rumours of it being rigged and manipulated by the big players in the market. Therefore, people's attention has mostly been towards the savings account at banks instead of stocks and bond.

Dominance of banks: High concentration of banks is also a key reason why bond market has not flourished. There are 58 scheduled banks in Bangladesh – a number too high considering the size of the economy. High concentration of banks in the financial system has made it very difficult for other alternatives to flourish such as the bond market. This reasoning is supported by Rajan and Zingales’s (2003) “interest group” theory of financial development that banks appear to oppose corporate debt market development as a potential force for their own disintermediation.

Recommendations

The bond market in Bangladesh lacks several key fundamentals that are essential in order for the market to flourish.

Firstly, the general investors in a market need to be educated about the features and mechanisms of a bond. An educated group of investors will eventually take the capital market towards an “emerging capital market” tag with sound investment and valuation techniques. An educated group of investors will also reduce the tendency of herding in the market, which has led to several collapses in the market.

Another key reason for the underdevelopment of the bond market was the low promotion of the market itself. As we saw before, the 3 corporate bonds were mostly issued at private placements with IBBL and BRAC issuing 50% and 90% of their outstanding bonds at private placements. This indicates the low effort that they put into promoting the security to the general investor. Therefore, the government should encourage promotion of bonds issued by themselves and the corporations.

In the analysis section, it was seen that IBBL Mudaraba bond’s standard deviation was the lowest among the three bonds that were compared. One of the key reason for this could be the Islamic law – Shariah - followed by the bank which made the investors feel more secure and

also satisfied due to the income generated being “halal”. The IBBL Muadaraba bond has been floating since 2007 and recent reports have been that another issue is likely to be underway. This tells us that the bond has been successful for the company and the comparatively low standard deviation also indicates a slightly higher investor confidence in the bond. Therefore, flotation of such Islamic bonds should be encouraged in the market.

Bangladesh has a Muslim majority population where people might refrain from investing in fixed interest earnings due to interest being haram. Therefore Islamic bonds such as Sukuk should be encouraged in the market. Sukuk has been every successful in Malaysia as reported by The Star in 2018 and Bangladesh being a Muslim majority can also have their fair share in the Islamic bond market. This would help remove the “interest” barrier that hinders a lot of people from investing in the bond market.

Finally, increased support and security is required from the Government of Bangladesh, Bangladesh Securities & Exchange Commission & the Dhaka Stock Exchange to make the bond market flourish. A healthy and growing economy is always big boost to the development of a market be it stock market or bond market.

Conclusion

The bond market of Bangladesh would eventually develop if the right regulations are in place and when general investors in the economy are financially literate. To achieve these 2 objectives, the government would need to invest heavily in regulations and training and development of investors. A developed bond market would bring several benefits to the economy as it would act as an alternate source of capital for the firms and also provide great passive income for the general investors.

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