Analysis of Financial Products of Capital Market in Bangladesh: Present Status and Future Development

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Abstract

The performance of existing financial products is an important issue in the capital market to increase the new products for reducing the risk of dependency on common stocks. The research aims are to evaluate the growth and development of existing financial instruments and to recommend for introducing new financial instruments in the capital market of Bangladesh. The data are taken from the Dhaka stock exchange for the year 1977 to 2010 for interpretation of development and the data from 2003 to 2010 are taken for analysis and hypothesis test. There are only five products traded including three types of bonds. The average growth rate of market capitalization of common stocks, treasury bonds, mutual funds, corporate bonds & debentures are 71.02%, 124.74%, 99.85% and 105.41% respectively. The growth of market capitalization of all products is high. There is lot of scope in the market for absorbing the new products. The share of common stocks, treasury bond, corporate bond, debentures, mutual funds to total market capitalizations are 87.73%, 12.25%, 0.24%,0.17% and 0.83% respectively. The market is common stock based. The corporate bond market is very small. So, there should be increased new financial instruments in the capital market to reduce the dependency on share only. The proposed financial instruments are various types of preferred stock, bond, SWAP, option, futures, and forwards as recommendation.

Keywords: financial products, capital market, market capitalization, option, swap

1. Introduction

The capital market is one of the driving forces of an economy. Capital market is the institution that provides a channel for the borrowing and lending of long-term funds for more than one year. It is designed to finance long term investments by business, governments, and households. Capital market consists of two segments: securities segment and non-securities segment. The securities segment is concerned with the process by which firm distributes securities to the public through the primary market and then those securities are traded in the secondary markets. The non securities segments are those where banks and other financial institution provide the long term loan. In the world capital market there are many financial instruments such as-Forward, Futures, Option: Put option, Call option, Spread, Straddle, Strip, Multi-period option: Interest Rate Caps, Floor, Collar, Compound option, Swaps- Commodity Swaps, Interest Rate swaps, Currency Swaps, Variants, Hybrid securities, Synthetic Securities, Zero coupon Bond, Repo, Reserve Repo, Junk bond, Floating rate Preferred Stock, Equity warrant, Putt able common Stock.

The existing instruments of the capital market of Bangladesh are Shares, debentures, mutual fund, and Treasury Bond: 5-year,10-year,15-year,20-year, NSD Certificate (3year&5year), REPO and REVERSE REPO,US Dollar Premium bond, US dollar investment bond, Wages Earners Development bond in the capital market of Bangladesh.

Like in any other countries, a well developed tradable bond market is critical to ensure stability and efficiency of the financial market in Bangladesh. An efficient bond market is important for managing public debt and bank liquidity and for efficient conduct of monetary policy. So far the bond market has played a limited role in the economy. The country's financial sector is dominated by the commercial banks.

Thus the debt market in Bangladesh is characterized by excessive reliance on bank deposits, government dominated debt instruments, non- existent corporate bond, high and risk free interest rates, absences of market based yield curve, primary auctions based activity, lack of product variation.

Now, **31 FIs** (Financial Institutions) are operating in Bangladesh while the maiden one was established in 1981. Out of the total, 2 is fully government owned, 1 is the subsidiary of a SOCB, 13 were initiated by private domestic initiative and 15 were commenced by joint venture initiative.

2. Literature Review

Bangladesh Enterprise Institute (2003), conducted detail research on *Improving the Investment Climate in Bangladesh under World Bank.* Bangladesh firms tend to have reasonable access to formal finance compared to other low-income countries. In 2001 credit to the private sector amounted to about 27 percent of GDP in Bangladesh. Although this ratio was lower than those in some countries in the region, it compares favorably with the average for low income countries (24 percent of GDP). It was only fractionally lower than the ratios in India (29 percent) and Pakistan (28) percent despite their higher per capita income. Other measures confirm this assessment of finance in Bangladesh. For example, nearly 66 percent of their investment capital, on average, came from retained earnings, while about 30 percent of working and investment capital came from banks. Consider national level data on nonperforming loans. Some estimates put the share of nonperforming industrial loans at around 40 percent. Since banks will have to provision for non performing loans, the large number of such loans could ultimately increase the cost of capital to entrepreneurs. The problems of financial climate are poor access to credit and high cost of borrowing. For solving these, development of secondary market for debt market and enhancement the enforcement authority and institutional capacity of the Securities and Exchange Commission are recommended. (World Bank, (2003), Washington).

B. McGuire, Paul & John D. Conroy, (2002), conducted research on *Fostering Financial Innovation for the poor*. Considering financial innovation in terms of this hierarchy helps our understanding of the respective roles of policy direction (as embodied in the legal and regulatory framework) and of market forces (as seen in the behavior of actors in the financial marketplace). The policy decisions of governments, monetary authorities and regulators may effect change and stimulate innovation within all four domains. However, the top (i.e. systemic) level is where policy exerts its greatest and potentially most fruitful influence on innovation. By contrast, market forces operate with increasing influence at the successive lower levels, within 'rules of the game' determined primarily in the systemic domain.

Bepari, M. Khokon (2008) conducted research on Bangladesh Stock Market Growing? Key indicators based Assessment. This paper focuses on the growth of Bangladesh stock market over time. The market trends in terms of market capitalization, market liquidity, market concentration, number of listings, volatility in the market index and foreign portfolio investment were considered. The study finds that key indicators are significantly correlated. Stock market growth index is constructed considering market capitalization ratio; turn over ratio, value traded to GDP ratio and volatility in market index. The findings of the study suggest that although Bangladesh stock market is growing over time, the growth has not yet assumed any stable and obvious trend. It is concluded that Bangladesh stock market is still at an early stage of its growth path with a small market size relative to GDP and is characterized by poor liquidity and high market concentration.

Jahur, (2009) conducted study on bond market development of Bangladesh. The poor stage of bond market in Bangladesh can be attributed to some important factors such as risk & return factor, liquidity & government policy related factor, issue management factor and investment policy factor in order of magnitudes.

Rahman and Moazzem (2011) studied on 'Capital Market of Bangladesh: Volatility in the Dhaka Stock Exchange (DSE) and Role of Regulators'. Over the last few years, the capital market of Bangladesh has witnessed a haughty growth which is not in line of development in the real sector of the economy. Although, the Securities and Exchange Commission (SEC) of Bangladesh has tried to correct the irregular behavior observed in the market, very often it is argued that lack of proper and firm decisions from the regulator's side has contributed to make the market more unstable rather than to reduce it. The paper attempts to identify the casual relationship between the observed volatility in the country's major bourses namely the Dhaka Stock Exchange (DSE) and the regulatory decisions taken by the SEC empirically. Using Vector Auto-regressive (VAR), statistically highly significant relationship was found between decisions taken by the regulatory authority and market volatility, although the direction of causality is in reverse order than theoretically and empirically expected.

Ross LEVINEAND SARAZERVOS (2012) studied on 'Stock Markets, Banks, and Economic Growth. Do well-functioning stock markets and banks promote long-run economic growth?' This paper shows that stock

market liquidity and banking development both positively predict growth, capital accumulation, and productivity improvements when entered together in regressions, even after controlling for economic and political factors. The results are consistent with the views that financial markets provide important services for growth, and that stock markets provide different services from banks. The paper also finds that stock market size, volatility, and international integration are not robustly linked with growth and that none of the financial indicators is closely associated with private saving rates.

Zahid Ahmad, Ather Azim Khan and Anam Tariq (2011) studied on 'Stock market development and economic growth: A comparative study of Pakistan and Bangladesh' .This paper examined the relationship between stock market development and economic growth of two Asian developing countries, that is, Pakistan and Bangladesh, after the liberalization period of 1990s. The relationship measured were in terms of size (market capitalization), liquidity (total value of stocks traded and stock turnover ratio) and volume (total number of companies listed in the stock exchange of each of the country). The study of comparative analysis was done with the help of tables and charts. The econometric results of the study by employing the regression analysis showed that Pakistan stock markets contribute to the economic growth in terms of the large size of its stock market. Bangladesh economic growth was found to be comparatively better than economic growth of Pakistan. The study revealed that the stock markets in Pakistan and Bangladesh do not play a major role in the economic growth but rather, these financial institutions are the driving forces for the economic growth of the country.

3. Problem Statement

The capital market of Bangladesh is small, inefficient and underdeveloped. Of the total financial system, the 'non securities' sector accounts for more than ninety percent of the financial activities in the countries. But this bank based system is virtually on the verge of collapse due to huge nonperforming loans and colossal volume of classified and default loans. So, we are concerned with 'securities segment' because the securities market can develop the national economy. The rate of institutional investment is very low in Bangladesh. The capital market has not yet attained the credibility as an reliable avenue for investment from the side of the general public. The main problems of capital market of Bangladesh are; serious dearth of risk free assets in the secondary market to individual buyers, absence of varied tradable financial Instruments.

The availability of low financial instruments in market, the capital in the market is low comparatively to the developed country and the investors – both institutions and individual are not attracted to invest in capital market in Bangladesh. Introduction of new instruments of finances will provide the opportunities to the companies for getting required fund at lower cost. The introduction of new financing sources will increase the investor's participation in the future offering of companies. This will raise more funds. The research aims are to evaluate the growth and development of existing financial instruments and to recommend for introducing new financial instruments in the capital market of Bangladesh. The traditional instruments are not attractive to the investors. So, it is assumed that new instruments will increase the attraction of investors and volume of capital market and will reduce the dependency on bank based credit.

4. Methodology

4.1 Objectives

1) To evaluate the growth and development of existing financial instruments in the capital market of Bangladesh.

2) To recommend policies for introducing new financial instruments in the capital market of Bangladesh.

4.2 Collection of Data

• The primary data were colleted from the interview with the executives of DSE, CSE, BB (Bangladesh Bank), BSB(Bangladesh Shilpo Bank), ICB(Investment Corporation of Bangladesh), prospective investors, stockbrokers, government officials, and other professionals.

• Secondary data were collected from the following Sources: Publications of Securities and Exchange Commission, Dhaka stock Exchange (DSE) Chittagong Stock Exchange (CSE), Stock market Report on Newspaper, Bangladesh Bank, Bangladesh Bureau of Statistics, Bangladesh Economic Review, Books and Journal, Internet Website.

4.3 Sample Design

The data are taken from the Dhaka stock exchange for the year 1977 to 2010 for interpretation of development and the data from 2003 to 2010 are taken for analysis and hypothesis test.

4.4 Analysis of Data

Both qualitative and quantitative analysis will be conducted in the research. Numeric data are analyzed with statistical tools and hypothesis tests are done.

5. Analysis and Result

5.1 Product Development

Historically, DSE started trading activities in 1976 with only 9 companies. In 1977, the ICB was established in order to give institutional support to the stock exchange. In 1979, the first ICB unit Fund came to the market. The SEC (Securities and Exchange commission) is established in 1993 and CSE was established in 1995. The Central depository system was introduced in 2004. The debenture, Treasury bond, corporate bond came to market in 1987, 2005, 2007 respectively.

5.1.1 No. of Products

Now, only five categories of products are traded in the market. These are common share, mutual fund, debenture, Treasury bond, and corporate bond which were introduced in the market in 1977, 1980,1987,2005,2007 respectively.

The **corporate bond and debenture** market is regulated by the SEC although the market is small. Fixed income securities first came into existence in 1987 with the floatation of debenture by two companies. As on November, 2011, only eight debentures exist in the Dhaka stock exchange. No new debenture was issued after 1999. Besides these, ten debentures already went to maturity.

The **corporate bond market** is not mentionable feature. Only three corporate bonds are trading in the capital market. First corporate bond is floated in 2007 by the Islami bank Bangladesh limited named as IBBL Mudaraba perpetual bond. Then in 2010, ACI zero coupon bond is introduced in the market.

The primary market of **government securities** is regulated by the ministry of finance and Bangladesh bank. The government securities are traded in two places –over the counter segment and the organized segment at the stock exchange. The CDBL (Central Depository Bangladesh Limited) provides the depository function for all securities including government securities and corporate bond and debentures. The OTC (over the counter) segment of the secondary market in the government securities is regulated by Bangladesh Bank while the stock exchange traded segment is regulated by Securities and Exchange Commission (SEC). Primary dealer of government securities are regulated by Bangladesh Bank. Trading of government treasury bonds stated in December 2005 at DSE. As in November 2011, 221 treasury bonds are traded in the market with the name of 5-years Treasury bond, 10-years Treasury bond, 15- years' treasury bonds, and 20- years' Treasury bond.

The common stocks are traded in DSE and CSE. The Dhaka stock exchange started it operation in 1977 with only 9 companies' share capital. Presently as on November 2011, the numbers of common share are 232 in DSE which are gradually increased. The numbers of companies issued share are 192,234,247,218 in 1995, 2000, 2005, and 2010 respectively.

The Dhaka stock exchange introduced Mutual funds operation in 1980.Now, as on November 2011, the numbers of Mutual funds share are 37 in DSE which are gradually increased. The numbers of Mutual funds are 1,3,9,10,15 in 1980, 1985, 1998, 2000, and 2005 respectively.

5.2 Market Development

5.2.1 Growth and Development of Corporate bond and Government Bond

Debenture

1									
Year	2003	2004	2005	2006	2007	2008	2009	2010	Х
No. of corporate bond and debentures	8	8	8	8	9	9	9	10	
No. of unit of corporate bond and debentures(ml)	0.41	0.41	0.41	0.41	3.41	3.41	3.41	4.75	
Issued capital of corporate bond and debentures(ml)	289	140	140	140	3140	3140	3140	4476	

Table 1. Corporate bond and debenture

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Growth of Issued capital	year to	48.44	0.00	0.00	2142.86	0.00	0.00	42.55	
of corporate bond and	year								
debentures(ml)	growth								
Market					4165	2764	2969	3922	
capitalization-Corporate									
bond									
Value of	517.47	517.47	575.696	576	576	576	576	576	
debentures(Market									
capitalization)									
Total market	517.47	517.47	575.696	576.	4741	3340	3545	4498	1475.13
capitalization of									
corporate bond and									
debentures									
Growth of total market	base	0	11.25	11.31	816.19	545.45	585.06	769.23	
capitalization of	year								
corporate bond and	2003								
debentures									
Growth of total market	year to	0	11.25	0.05	723.09	-29.55	6.14	26.88	105.41
capitalization of	year								
corporate bond and	growth								
debentures									
Share of debentures to	0.53	0.23	0.25	0.18	0.08	0.05	0.03	0.0002	0.17
total market									
capitalization(%)									
Share of Corporate bond					0.55	0.26	0.16	0.001	0.24
to total market									
capitalization(%)									
Total share of corporate	0.53	0.23	0.25	0.18	0.63	0.31	0.19	0.0012	0.29
bond and debentures									
Growth of Total share of	year to	-56.60	6.96	-27.64	252.81	-50.00	-40.45	-99.36	-2.04
corporate bond and	year								
debentures	growth								
Growth of Total share of	base	-56.60	-53.58	-66.42	18.49	-40.75	-64.72	-99.77	
corporate bond and	year								
debentures	2003								

Source: Dhaka Stock Exchange. www.dsebd.org/

Now we shall see the growth of the debenture market. From the table-1, it is shown that only 8 number of debenture with the 409000 units exist in the market. Average market capitalization is tk.55, 85, 90,566. The total value (market capitalization), tk.576000000 continues for last five years. The average growth of debenture (market capitalization) is 1.88% and the growth rate is steady over the period. The share of debenture to total market capitalization is decreasing continuously. The average market share is only 0.13%. The growth rate of debenture to total capitalization is decreasing which is -34.66 % (average).

So, finally, it is said that there is no remarkable growth in the debenture and the market share is very low.

Corporate bond

From the table-1, it is shown that the total units of corporate bond is 4.34 million market capitalization is tk. 3812 million in 2010. The average growth rate is 8.43%. The share of corporate bond to total capitalization is reducing continuously. The average market share is 0.226% which is insignificant to total capitalization. The growth rate of share to total capital is negative. The average growth rate of corporate bond to total capitalization is -39.54%. So, finally, we can tell from the appendix, the corporate bond market is very small.

Government bond

Table 2. Government bond

			Outstanding (bl.)							Market capitalization(ml.)	Growth of Market capitalization (%)	Growth of Market capitalization (%)	Share of Govt. bond to total market capitalization (%)	Growth of share of Govt. bond to total market(%)	Growth of share of Govt. bond to total market(%)	Total Market capitalization(ml.)
Year	No. of treasury	No. of unit of	5- year	10- year	15- year	20- year	total	Growth	Growth							
	bond	treasury	•													
		bond														
2003		(ml)	0.2	0.1			0.3	h			haas waan			haaa		97586.61
2003			0.2	0.1			0.3	base year 2003	year to year		base year 2003	year to year		base	year to	97586.61
								2005	growth		2005	growth		year 2003	year growth	
2004			6.7	3.4			10.1	3266.67	3266.67			gronur		2005	Brown	224922.74
2005	18	0.13	9.5	6.9			16.4	5366.67	62.38	11588.64			4.96			233542.94
2006	34	0.45	28.5	32.6			61.1	20266.67	272.56	44825	286.80	286.80	13.86	179.32	179.32	323368
2007	61	1.21	62.4	72.4	6	3	143.8	47833.33	135.35	122403	956.23	173.07	16.23	227.09	17.10	753955
2008	111	2.42	102.4	120.3	21	13.5	257.2	85633.33	78.86	243403	2000.36	98.85	22.97	362.92	41.53	1059530
2009	151	3.56	144.7	164.8	36.8	26.6	372.9	124200.0	44.98	357313.	2983.30	46.80	18.93	281.50	-17.59	1887177
2010	186	4.2								422213.	3543.34	18.16	0.12	-97.58	-99.37	3471109
X							32.92			115179.5		124.74	12.25		24.20	

Source: Dhaka Stock Exchange. www.dsebd.org/

From the table-2, the total outstanding of Treasury bond is Tk.372.9 billion in 2009 and the market capitalization is Tk. 357313 million in 2009. The average market capitalization is tk. 88826.77 million. The growth rate of market capitalization is decreasing trend. The share of government bond to total market capitalization is 18.93 percent in 2009 and the average share of government bond to total capital is 13.715%. The growth of share of government to total market capitalization is slightly increasing.

5.2.2 Growth and Development of Share

Table 3. Common shares

Year	Total no. of companies	Growth of Total no. of companies	Total no. of shares(ml)	Growth of Total no. of shares	Total issued capital of shares (ml)	Growth of Total issued capital of shares (ml)	Growth of Total issued capital of shares (ml)	Total market capitalization of shares(ml.)	Growth of Total market capitalization of shares(ml.)	Growth of Total market capitalization of shares(ml.)	Total market capitalization(ml)	Shares to total capitalization of share capital	Growth of Shares to total capitalization of share	Growth of Shares to total capitalization of share
2003	248		1077.92		45370.46	base	year to	96405.54	base	year to	97586.61	98.79	year to	base
						year	year		year	year			year	year
						2003	growth		2003	growth			growth	2003
2004	237	-4.44	1113.91	3.34	48996.41	7.99	7.99	223359.07	131.69	131.69	224922.74	99.30	0.52	0.52
2005	247	4.22	1227.02	10.15	55631.30	22.62	13.54	219857.20	128.05	-1.57	233542.94	94.14	-5.20	-4.71
2006	255	3.24	1546.05	26.00	71745.00	58.13	28.97	276429.00	186.74	25.73	323368.00	85.48	-9.19	-13.47
2007	266	4.31	1886	21.99	88063.00	94.10	22.74	621579.00	544.75	124.86	753955.00	82.44	-3.56	-16.55
2008	276	3.76	2428	28.74	122497.00	169.99	39.10	797009.00	726.73	28.22	1059530.00	75.22	-8.76	-23.86
2009	236	-14.49	4167	71.62	156831.00	245.67	28.03	1508255.00	1464.49	89.24	1887177.00	79.92	6.25	-19.10
2010	218	-7.63	12335	196.02	216487.00	377.15	38.04	3001334.00	3013.24	98.99	3471109.00	86.47	8.19	-12.47
x							25.49			71.02		87.72	-1.68	

Source: Dhaka Stock Exchange. www.dsebd.org/

From the table-3, the total issued capital of share is Tk.216487 million in 2010 and the market capitalization of share is Tk. 3001334 million in 2010. The average growth rate of issued capital and market capitalization of share are 25.49 percent, 71.02 percent respectively. The average percentage of share to total market capitalization is 87.72 percent. The growth rates of percentage of share to total market capitalization are 8.18%, 6.24% in the year 2010, 2009 respectively but average growth is -1.679%.

5.2.3 Growth and Development of Mutual Fund

Table 4. Development of mutual fun	Development of mutual fund	L
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Year	Total no. of Mutual fund	Growth of Total no. of Mutual fund	Total no. of Mutual fund(ml)	Growth of Total no. of Mutual fund	Total issued capital of Mutual fund (ml)	Growth of Total issued capital of Mutual fund (ml)	Growth of Total issued capital of Mutual fund (ml)	Total market capitalization of Mutual funds(ml.)	Growth of Total market capitalization of Mutual fund(ml.)	Growth of Total market capitalization of Mutual fund(ml.)	Total market capitalization(ml)	Shares to total capitalization of Mutual fund	Growth of Shares to total capitalization of Mutual fund	Growth of Shares to total capitalization of Mutual fund
						base	year to		base	year to			year to	base
						year	year		year	year			year	year
2003	11		73.25		395	2003	growth	663.6	2003	growth	97586.61	0.68	growth	2003
2004	11	0	73.25	0	395	0	0	1046.2	57.66	57.66	224922.74	0.47	-21.49	-31.60
2005	13	18.18	161.25	120.14	735	86.08	86.08	1521.4	129.26	45.42	233542.94	0.65	18.63	2639.75
2006	13	0	161.25	0	735	86.08	0	1537	131.62	1.03	323368.00	0.48	-17.61	-30.10
2007	14	7.69	190	17.83	866	119.24	17.82	5232	688.43	240.40	753955.00	0.69	21.86	3115.10
2008	16	14.29	325	71.05	3116	688.86	259.82	15778	2277.64	201.57	1059530.00	1.49	79.52	118.99
2009	19	18.75	450	38.46	4816	1119.24	54.56	18064	2622.12	14.49	1887177.00	0.96	-53.20	40.76
2010	31	63.16	2075	361.11	21066	5233.16	337.42	43064	6389.45	138.40	3471109.00	1.24	28.34	82.44
х			<u> </u>				107.96			99.85		0.83	8.01	

Source: Dhaka Stock Exchange. www.dsebd.org/

From the table-4, the total issued capital of Mutual fund is Tk.21066 million in 2010 and the market capitalization of Mutual fund is Tk. 43064 million in 2010. The average growth rate of issued capital and market capitalization of Mutual fund are 107.96 percent, 99.85 percent respectively. The average percentage of Mutual fund to total market capitalization is 0.83 percent. The growth rate of percentage of Mutual fund to total market capitalization is 8.01%.

5.3 Comparative Share of Products to Total Market Capitalization

The comparative share of products to total market capitalization is presented in figure 1.

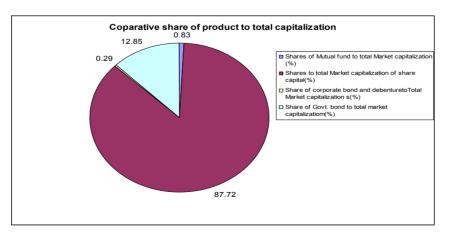


Figure 3. Comparative share of products to market capitalization

The average share of corporate bond &debentures and government Treasury bond, Share capital, mutual funds to total market capitalization are 0.29% and 12.85%, 87.72%, 0.83% respectively. The contribution of mutual fund, corporate bond and debenture are not significant. The market is mainly share capital based. Now, the growth rates of products are compared with t-test.

5.4 Hypothesis test-1

Ho.: There are no differences of the growth rates among the financial products.

Table 5. Paired samples test

			Paired	l Differer	ices		t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Con Interval Differ	of the			
					Lower	Upper			
Pair 1	Growth of market capitalization of share - Growth of market capitalization of mutual fund	-871.49	1281.72	484.44	-2056.89	313.89	-1.799	6	.122
Pair 2	Growth of market capitalization of share - Growth of market capitalization of treasury bond	-766.81	601.91	269.18	-1514.19	-19.43	-2.849	4	.046
Pair 3	Growth of market capitalization of share - Growth of market capitalization of corporate bond and debentures	493.88	843.58	318.84	-286.30	1274.07	1.549	6	.172
Pair 4	Growth of market capitalization of mutual fund - Growth of market capitalization of treasury bond	467.84	1351.76	604.52	-1210.59	2146.28	.774	4	.482
Pair 5	Growth of market capitalization of mutual fund - Growth of market capitalization of corporate bond and debentures	1365.38	2071.03	782.77	-550.00	3280.77	1.744	6	.132
Pair 6	Growth of market capitalization of treasury bond - Growth of market capitalization of corporate bond and debentures	1408.55	1197.84	535.69	-78.76	2895.87	2.629	4	.058

From the table 5, it is seen that the calculated value of t for the pairs 2 and 6 are -2.84, 2.62 respectively which are greater than the table value (2.13) of t at 5% significance level. It means that the differences are significant. So, the growth of market capitalization of Treasury bond is more than the growth rate of capitalization of share and corporate bond and debenture.

From the table -5, it is also observed that the calculated value of t of pairs 1, 3, 4, 5 are lower than the table value (1.94). So, the differences are not significant. So, there are no significant difference between the growth rates of market capitalization of share and mutual fund, share and corporate bond, mutual fund and corporate bond.

Finally, it is said that the growth rate of government bond is more and significant.

6. Product Market Development and Recommended Strategies

The percentage of average market capitalization of common stock, mutual fund, Treasury bond and corporate bond are 87.72%, 0.83%, 12.85%, 0.29%. So, the operation of market is totally share oriented. Therefore, any distortion or falling of share price causes the destruction of capital market.

The growth of market capitalization of government bond is more than share and corporate bond but it is traded in over the counter market and within the institutional investors and it is beyond the individual investors. The corporate bond market is not significant in terms of size. So, there should be increased new financial instruments and corporate bond in the market to reduce the dependency on share only.

The proposed financial instruments are various types of bond, SWAP, Option, Futures.

Bond: There are lots of scopes to develop the bond market with various features like dual currency bond, convertible bond, and income bond.

SWAP: Like the developed market, the SWAP will be introduced to minimize the risk of dependency on share capital only. The currency swap, commodity swap, interest rate swap will be effective.

Option: The derivatives instruments are the vital products in the capital markets. The Chittagong Stock Exchange proposed to SEC for introducing derivatives products but it is not implemented yet. There is a large field of financial products in this area such as call option, put option, multi period option, spread, and straddle.

Futures: it is a derivative product with a feature of depending on any fundamental products which will enrich the capital market of Bangladesh.

Preferred stocks: Characteristics of preferred stock is specified between the common stock and bond.

7. Conclusion

The performance of existing financial products is an important issue in the capital market to increase the new products for reducing the risk of dependency on common stocks. There are only five products are traded including three types of bonds. The average growth rate of market capitalization of common stocks, treasury bonds, mutual funds, corporate bonds & debentures are 71.02%, 124.74%, 99.85% and 105.41% respectively. The growth of market capitalization of all products is high. The share of common stocks, treasury bond, corporate bond, debentures, mutual funds to total market capitalizations are 87.73%, 12.25%, 0.24%, 0.17% and 0.83% respectively. So, the market is common stock based. The government bonds are traded among the institutional investors. The corporate bond market is very small. There is lot of scope in the market for absorbing the new products. So, there should be increased new financial instruments in the capital market to reduce the dependency on share only. The proposed financial instruments are various types of preferred stock, bond, SWAP, option, futures, and forwards. There are lots of research scopes in this field to study the products which will be effective for this market.

References

- Ahmad, Zahid et al. (2012). Stock market development and economic growth: A comparative study of Pakistan and Bangladesh. *African Journal of Business Management*, 6(8), 2985-2989. Retrieved from http://www.academicjournals.org/AJBM
- B., McGuire Paul & John, D. Conroy. (2004). Fostering Financial Innovation for the poor. FDC. Retrieved from *jbao.atu.edu/Fall2008/Bepari,%20Mollik.doc*
- Chaudhury, M., & Miyan Allimullah. (2010). Development of Capital Market in Bangladesh. Retrieved from http://people.mcgill.ca/files/mohammed.chaudhury/CapMarketsBD.pdf
- Chittagong Stock Exchange Ltd. (2004). CSE-30 Company Profile. Chittagong: CSE.
- Dhaka Stock Exchange. (2011). Monthly Review, 26(5). Dhaka, Bangladesh: Dhaka Stock Exchange Limited.
- Fabella, R., & Madhur, S. (2003). Bond Market Development in East Asia: Issues and Challenges. Asian Development Bank, Manila: ADB.
- Finance Ministry. (2011). Bangladesh Economic Review-2010. Dhaka: Economic Wing.
- International Organization of Securities Commissions. (2002). The Development of Corporate Bond Markets in Emerging Market Countries. May, USA.
- Jahur, M. S. (2009). Development of Bond Market in Bangladesh: Issues, Status and Policies. *Portfolio, 3*, July-September. Chittagong: Chittagong Stock Exchange.
- Kothari, C. R. (2005). Research Methodology. New Delhi, India: New age International pvt. Ltd.
- Levine, Ross & Sara Zervos. (2012). Stock Markets, Banks, and Economic Growth. *The American Economic Review*, 88(3), 537-558.
- Marshall John, F., & Vipul, K. Bansal. (2003). *Financial Engineering*. New Delhi,India: Prentice Hall of India Pvt. Ltd.
- Mu, Yibin. (2007). South Asia Bond Markets and Bangladesh. World Bank, Dhaka.
- Mukherjee, A., & Faruqe, G. (2009). Capital Market In Bangladesh-Trend sand Practices, Bangladesh.

Rashid, M. (2008). The Potential of the Bangladesh Capital Market. Monthly Review, The Daily Star, 3(5), May.

Securities and Exchange Commission. (2011). Annual Report 2009-10. Dhaka, Bangladesh.

Rahman, Md. Tariqur & Khondker Golam Moazzem. (2011). Capital Market of Bangladesh: Volatility in the Dhaka Stock Exchange (DSE) and Role of Regulators. *International Journal of Business and Management*, 6(7). http://dx.doi.org/10.5539/ijbm.v6n7p86

The Annual Report. (2005/2006/2007/2008). Bangladesh Bank, Dhaka, Bangladesh.

- World Bank. (2003). *Improving the Investment Climate in Bangladesh*. Washington. Retrieved from http://www.undp.org/ods/publications.html
- Yewar, S. (2005). Debt Market in Bangladesh-Problems and Prospects. Paper Presented in the National Conference, AIMS, Dhaka.