

EQUITY MARKET PERFORMANCE IN BANGLADESH: AN EVALUATION

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1. Introduction

With the rapid transformation of economic structure, policy and institution on a global scale in the recent past, the role of securities markets as intermediary between the investor and entrepreneur is getting increasing importance. However, literature on equity markets of developing countries has not been extensive. Wai and Patrick (1973) is a widely referred paper on this issue who favors its development rather with caution. Drake (1980, 1977, 1985) supports the stock market development. Although Samuels (1981) and Samuels and Yacout (1981) appear to be supportive of stock market development but indicate that they are inefficient and may result in increasing inequality in income and wealth distribution. Calamanti (1983) and Parkinson (1984) emphasize the limited role of an equity market in raising new capital in a developing economy. It is generally agreed that an equity market under general equilibrium plays a very important role in an economy in collecting and allocating funds in an efficient manner. In order to ensure these economic activities in developed economies an equity market has or should have a significant link to the overall economy (Baumol, 1965). The equity market also reflects investors' attempt to forecast economic trends. It is evident that the equity market and economic activity move in a similar cyclical pattern (Moore, 1975). It is also recognized that the stock price index is a major component of the leading indicators of the economy (Zarnowitz and Boschan, 1975). If the major problem in the process of development is to increase the level of savings and to channel those savings into productive investments, then the mechanism of the capital market is a crucial intermediary element in the process of growth. But it is not an easy task to establish an adequate and efficient capital market. Efficient operation of the capital market is required to meet at least two basic requirements. First, it should support industrialization through savings mobilization, investment fund allocation and maturity transformation. Secondly, it must be safe and efficient in discharging the above role. In a developing economy such conditions usually do not prevail due to prevalence of informal credit markets that tend to limit the capacity to mobilize financial savings, a low degree of ownership-management separation associated with the drawbacks of informational asymmetry and a low level of accumulated financial assets making maturity transformation more difficult. Of course, these conditions differ widely from economy to economy.

Substantial economic underpinnings consistent with market economy and liberalization have been witnessed in Bangladesh over the last few years, but the development of stable and efficient capital markets has not been attained. Although equity market records an increasing trend both in terms of number of the companies listed in the stock exchange and their market capitalization, a careful investigation into its performance casts doubt about its adequacy, efficiency and effectiveness. In the following sections an attempt has been made to evaluate the performance of equity markets in Bangladesh.

2. Relative Shares of Securities in Fund Mobilization

In recent years optimism about an expeditious upgrading of the equity segment of capital markets of Bangladesh has been observed among some quarters. This may, perhaps, originate mainly from the persistent accumulation of bank deposits and heavy oversubscription rate of corporate securities over the past few years. Within a general framework, the significance of a stock market stems from its perceived classical role of allocating funds to the most productive sectors of the economy. Thus it is imperative that a stock market has or should have important links to the overall economy in which it works (Ando and Modigliani, 1963). According to the life cycle theory of Ando and Modigliani households project their resources or wealth over their expected life time and decide consumption flows that best suit their preferences. Part of the household wealth is held in the form of stocks. An increase in stock prices produces corporate gains resulting in higher wealth, which in turn results in additional consumption expenditures (see Bhatia, 1972). In Bangladesh, households are the largest group of shareholders although stock as a percentage of overall household wealth has always been small in the portfolio composition of stock investors (Ahmed et al., 1993), not to speak of the general public. Naturally, the impact of stock price changes on the household consumption should be insignificant. Another factor that might lead to this outcome is the pattern of distribution of stockholders in Bangladesh across wealth classes. The distributions of stockholding in Bangladesh are skewed in the direction of the relatively wealthy (Ahmed et al., 1993), who, it is argued, are less sensitive to the increases in stock prices when undertaking consumption decision, because of lower marginal propensities to consume (Arenas, 1965). Recognizing the highly skewed ownership structure of Bangladesh companies, of late, the authorities have reserved 55 percent of Initial Public Offerings (IPOs) for the minimum lot of Tk.5,000.00, all capital gains on disposal of securities and dividend income up to Tk 30,000 have been tax exempt, restriction on sale of shares at a premium has been withdrawn and so on.

An understanding of the equity market performance may be conceived by examining its relative contribution in resource mobilization. The extent to which the equity markets have been successful in mobilizing additional resources can be directly analyzed with reference to the share of corporate security issues to funds mobilized by other investment opportunities available like the banking system and various other government saving schemes.¹ Table-1 presents the share of corporate securities in Bangladesh. As can be

1. Government savings schemes include Bangladesh Savings Certificates, Defense Savings Certificates, Bonus Savings Certificates, 8-year Bangladesh Savings Certificates, Wage Earners' Development Bond and Savings Tickets which usually provide interest rates varying from 10 to 15% in recent years depending on scheme.

seen, the proportion of funds raised via the stock markets are small relative to banking system as well as government saving schemes. The increasing popularity of the equity markets since 1982-83 ensued due to different tax incentives offered and denationalization policy adopted by government. The corporate bond market, came into being as a new investment vehicle since 1987 and this market has not yet been broad based. Only eleven companies have outstanding corporate bonds (partly redeemable and partly convertible) listed with Dhaka Stock Exchange (DSE) in June 1997. The attractiveness of bank deposits was magnified due to high interest rates until 1991. Government saving schemes were specially attractive due to high interest rates and tax exemption of income from this source. However, after 1991 interest rates on government saving schemes and bank deposits have been reduced significantly. Besides, tax benefits on government saving

Table 1: Funds mobilized by banking system, government saving schemes and stock markets in Bangladesh - (In million taka)

Year	Corporate securities*	Bank deposits (time deposits)	Govt. saving instruments	Total of col. 3 and 4	Ratio (col. 2 as % of col. 5)
(1)	(2)	(3)	(4)	(5)	(6)
1975-76	137.5	5147.0	424.3	5571.3	2.47
1976-77	230.5	7670.0	485.3	8155.3	2.83
1977-78	281.3	9169.0	512.7	9681.7	2.91
1978-79	365.0	12352.0	609.3	12961.3	2.82
1979-80	405.8	15131.0	654.3	15785.3	2.57
1980-81	528.1	21497.0	1086.1	22583.1	2.34
1981-82	726.5	25366.0	1062.3	26428.3	2.75
1982-83	1001.5	32639.0	1212.6	33851.6	2.96
1983-84	1586.6	48359.0	1414.0	49773.0	3.19
1984-85	2059.7	63024.0	1553.0	64577.0	3.19
1985-86	2653.0	74102.0	1913.4	76015.4	3.49
1986-87	3149.6	90903.0	2381.2	93284.2	3.38
1987-88	3663.7	113603.0	3600.4	117203.4	3.13
1988-89	4539.2	136174.0	4504.6	140678.6	3.23
1989-90	5361.1	159289.0	5831.5	165120.5	3.25
1990-91	5586.6	178807.0	8663.6	187470.6	2.98
1991-92	6020.3	202686.0	13206.1	215892.1	2.79
1992-93	8201.7	224730.0	26925.9	251655.9	3.26
1993-94	11673.0	252359.0	25822.4	278181.4	4.20
1994-95	19438.0	290330.0	27822.1	318212.1	6.11
1995-96	23052.4	312310.0	34614.7	346924.7	6.64
1996-97	26907.4	337700.0	31551.2	369251.2	7.28
	(June '97)	(Feb '97)			

*Figures are for calendar years.

Source: Calculated from various issues of DSE Monthly Reviews, Bangladesh Bank Bulletin, Economic Survey of Bangladesh, 1997 and Directorate of National Savings, Ministry of Finance, Government of Bangladesh.

schemes have lately been withdrawn totally. This might have reflected in a higher share of corporate securities in recent years.

Government bonds in Bangladesh are not traded on the stock exchanges of the country. Rather the government regulates its markets through certain specified bank counters. The exclusion of these bonds from the trading of the stock exchanges deprives them of these businesses. The physical separation of the two markets does not encourage investors to make direct comparisons between government bonds as riskless assets and equities as risky assets. This is not compatible with the investment efforts of rational investors. They tend to hold a portfolio combining different types of assets consistent with their perceptions of expected returns and risk. This segmentation of the markets is unlikely to be conducive for securities market development.

Table-2 contains the ratio of new equity issues to gross domestic investment along with some activity ratios. Drake (1980) has suggested that the ratio of new issues to gross capital formation can provide a measure of the financial development, while Kitchen (1993) has suggested the use of various activity ratios as an indicator of financial development. In Bangladesh, the share of new equity issues to gross domestic investment is a fraction of 1 percent². This share shows an increasing trend in recent years. The turnover/GDP ratio of listed securities is also very low representing less than 1 percent in general although it has shown an increasing trend. This may, perhaps, be due to various incentives for encouraging equity investment and financial market liberalization policy declared by government together with lowering down the interest rates and withdrawal of tax benefits from different debt securities. The ratio of stock transactions to GNP in developing countries is usually a fraction of 1 percent with the exceptions of Taiwan, Singapore, Korea and Brazil. The ratio on the larger stock markets in developed countries frequently exceeded 10 percent, although low values were also recorded on the smaller European markets (Wai and Patrick, 1973, Table II).

Similar results can be obtained if the ratio of new equity to national saving is considered as Table-3 presents. In general, then, it may be concluded that the equity market has not been able to provide a strong alternative to the banking and various government saving schemes for mobilization of funds for the period under consideration in spite of adopting various measures including tax incentives favoring the development of equity markets. The contribution of the equity markets to financial development represented by the ratio of new issues to gross investment as well as to national saving has not been significant.

2. The gearing effect of new equity needs to be taken into consideration in measuring its contribution. That is, if the ratio of debt and equity is 3 to 1, then every Tk. 1 raised in new equity means total investment of Tk. 4.

Table 2: Ratio of new equity issues to gross investment and listed securities turnover to GDP (In million taka)

Year	GDP	Gross investment	New issues*	Turnover of listed securities	Turnover/GDP ratio (%)	New issues/gross investment ratio (%)
1985-86	466,230	58,850	194	34.3	0.007	0.33
1986-87	539,200	69,490	81	152.4	0.028	0.12
1987-88	597,140	74,310	265	120.8	0.020	0.36
1988-89	659,600	85,190	303	154.3	0.023	0.36
1989-90	737,570	94,430	239	187.7	0.025	0.25
1990-91	834,390	95,960	158	100.4	0.012	0.14
1991-92	906,500	109,850	167	261.0	0.028	0.15
1992-93	948,065	128,370	115	403.6	0.043	0.09
1993-94	1,030,365	158,882	143	2,442.9	0.237	0.09
1994-95	1,170,261	194,614	992	4,660.8	0.398	0.51
1995-96	1,301,600	221,272	1,252	8,199.1	0.630	0.57
1996-97	1,402,580	243,768	1,832	35,413.5	2.525	0.75

*Figures are for calendar years.

Source: Estimated from Economic Survey of Bangladesh, Ministry of Finance, Government of Bangladesh various issues DSE Fact book 1994 and DSE Monthly Review-various issues.

Table 3: Ratio of saving to GDP and new equity to national saving

Year	Ratio of saving to GDP (as percent)	Ratio of new equity to national saving (as percent)
1985-86	3.22	0.72
1986-87	3.52	0.26
1987-88	2.97	0.77
1988-89	2.70	0.49
1989-90	2.73	0.35
1990-91	4.13	0.17
1991-92	5.85	0.14
1992-93	7.00	0.08
1993-94	7.50	0.09
1994-95	8.20	0.54
1995-96	7.50	0.63
1996-97	7.70	0.91

Source: Derived from Bangladesh Bureau of Statistics, Statistical Yearbook of Bangladesh, -various issues, Economic Survey of Bangladesh (1996-97). Ministry of Finance, government of Bangladesh, DSE Fact Book, 1994 and DSE Monthly Review-various issues.

Much of the constraints associated with the equity markets are concerned with the overall development of the country and hence investment in equities is likely to continue to be some highly risky affairs for a great many potential investors with pronounced risk aversion attitudes. The continuous increase in various government bond and bank

deposits has taken place while their respective yield was falling. In fact, the rate of interest ranges from 14 to 19 percent for different savings instruments in 1990, had already been lowered down to 6 to 13 percent since 1995. Nonetheless, this low rate of interest and other policy measures could not produce remarkable change in the ratio of new equity. The attitude of general investors behind such a trend reflects enunciated a risk aversion tendency rather than irrationality. In the presence of forceful structural, legal and other limitations, measures aiming at increasing the relative contribution of equities will most likely be of negligible use. On the other hand, mechanisms that design to force industrial corporations to resort to the new issue market are of questionable effectiveness, in view of the relative difficulties to institute and execute them. Under these situations equity markets of Bangladesh are likely to be restrained, despite enthusiastic efforts for its rapid development. Accordingly, transformation of short term deposits into instruments of long term debt and ownership need to be entrusted to a set of different institutions pending the eventual development of the capital markets of Bangladesh. This deviation in focus has substantial policy oriented implications.

3. Equity Market Activities in DSE

In order to offer shares for a public subscription in Bangladesh a company must apply to the SEC for approval. The company so approved is then eligible to apply for listing on the stock exchange. The stock exchange may list the security for dealings on the exchange floor if it is satisfied after making such inquiry at it deems necessary to fulfill the conditions prescribed for this purpose. Application for allotment of shares can be submitted in prescribed form when a public offer is made by any company which is obtainable from the bankers to the issue, stock exchanges and the company office. Only one application in one name is permissible. If the applicant is allotted a share, he receives an allotment letter. He can either retain the allotment letter until a share certificate is issued or dispose of the allotment within renunciation period through broker signing the 'form of renunciation' usually attached at the back of the allotment letter. However, the investor receives the share certificate in exchange of the allotment letter subsequently.

Stock exchange is the legal platform for trading in the secondary market. Only listed stocks are eligible for trading on the exchange floor. Public companies having paid up capital of Tk. 10.0 million or more are required to be listed on the stock exchange. No company with an issued and paid up capital of less than Tk. 1.0 million is listed on the stock exchange while companies with paid up capital between Tk. 1.0 million and 10.0 million can exercise their option for listing. The advantages of listing are increasing security's

prestige, more publicity through media, raising security's marketability and easy accessibility to bank loans, tax concession etc. In spite of these advantages many companies do not prefer to be listed due to required disclosure of information, cost and necessary procedural formalities attached to listing process, retaining control and so on. Trading is conducted by the broker-members of the stock exchanges in Bangladesh. An investor can buy or sell shares on the exchange floor only through a broker when he approaches a broker to execute his order. DSE brokers are allegedly taking unnecessary long time to execute the order which often goes against the interest of the investor. In order to execute an order to buy or sell securities on behalf of his client, a broker is supposed to provide services at the time of executing a sell order as well as provide services and funds for a buy order. He charges a commission for such services which is 1 percent of the total value of the transaction. Thus, the stock markets in Bangladesh predominantly operate through the agents without any responsible market makers. The members of the DSE do not operate margin accounts for general investors. There is no provision in the Bye-laws of the Exchange for undertaking market making roles.

Trading takes place six days a week on the exchanges of Bangladesh. The market operates through 'an open outcry' with broker-members seated around a table with no access to outsiders. Dealing prices are recorded with a chalk on a black board by a member of the stock exchange staff. By the standards of large stock exchanges in developed countries, the technology is simple and not subject to technological failure. For a market of this size, the trading arrangements can, by and large, serve the purpose. Although the stock exchange brokers must carry out trading of the listed stocks on the floor of the exchange in principle, off floor transactions are carried out through a kerb market in Bangladesh, notably during recent times. Such trading is conducted during floor trading hours as well as beyond trading hours among large number of interested investors assembled outside the stock exchange. These transactions usually take place through physical delivery of share certificates, very often at a distorted price. This has caused fraudulent practices frequently that entrap people through trading on the false certificates. The unregulated kerb market has exacerbated the stock market manipulation and inflicted extensive damage to the overall market development efforts. In view of the growing size of the market, frequent allegations about the market manipulation, and recent upsurges followed by sharp downswings, credibility of the system as a whole has been brought into question. It is expected that computerization of the trading system and introduction of a central depository system (CDS) can bring improvement of the situation. Since physical delivery of share certificates is not permitted under CDS people will be discouraged to go

to the kerb market and thereby the dominance of this market is expected to be reduced to a large extent. Order flows are generated, although at least partially, by subtle interactions of human activities on the floor, including behavior of the rivals, floor atmosphere, floor gossips and so on. All these can hardly be held by computer implying 'overshooting' or 'undershooting' in prices if traders are just reacting to price moves on the screen without well understanding the reasons behind such moves. The system, therefore, needs to combine the advantages of the technology - efficiency, accuracy and speed - with those of human interaction, visibility and information exchangeability on the trading floor so that better market coordination with less price volatility can be ensured.

Very little research has been conducted on the ownership and trading patterns on DSE. The widespread view is that most of the equities are tightly held by the families, relatives and friends. The shares of Multinational Companies (MNCs) are owned by foreign parents and government who usually tend to decline to sell their shares in the local markets. Different informal estimates suggest that between 50-70 percent of equity is tightly held by families, relatives and friends. Institutions appear to be less dominant in stock exchange trading, although no reliable figures are available. According to informal estimates this share accounts for about 20 percent (Bichitra, 1996). Anyway, all these estimates should be treated with caution.

Yearwise market capitalizations and turnovers are presented at Table 4. Market capitalizations also include corporate bonds which are very limited in number and issue

Table 4: Market capitalization, turnover and P/E multiples

(In million Taka)

Year	Market capitalization (year end)	Turnover	Turnover:market capitalization (%)	P/E multiples (average)
1984	2,256	10	0.44	-
1985	3,493	32	0.92	-
1986	5,731	48	0.82	10.30
1987	12,671	178	1.40	28.91
1988	13,557	130	0.96	8.07
1989	15,351	174	1.13	25.53
1990	11,486	195	1.69	12.09
1991	10,397	116	1.11	8.02
1992	12,299	438	3.55	8.87
1993	18,099	579	3.19	7.70
1994	41,771	4,288	10.26	23.12
1995	56,518	5,673	10.04	23.97
1996	168,106	30,131	17.92	86.07

Note: P/E Multiples are estimated at the end of December each year.

Source: Compiled from DSE monthly Review- various issues.

of preference shares has not yet been sponsored by any company. It appears that the ratio between market capitalization and turnover has been below 4 till 1993. However, rapid growth of turnover is observed in 1994 since then it is more than 10. The Table gives the impression that the Bangladesh markets maintain a low ratio of market capitalization and turnover in general compared with other emerging markets. Besides, total market capitalization of DSE was \$1.04 billion while it was \$ 127.51 billion for India \$12.26 billion for Pakistan \$ 191.78 billion for South Korea and \$ 199.28 billion in Malaysia (Emerging Stock Market Fact Book IFC, 1995). Those low figures suggest a small share of equity markets and a low level of market activity.

Price-earnings (P/E) multiples are contemplated as criteria for investment decisions. One of the common traditional indexes for investment decision is the dividend yield. A yield emphasizes the dividend rate, however, P/E multiple goes one step further and underscores the relationship between the potential profit per share and share price. Highest P/E multiple is observed in 1996 by 1987 and the lowest in 1993 as Table 4 indicates. This is consistent with the general price rise and general price fall respectively in these years. But the P/E multiples display substantial volatility suggesting its weak relevance to the market realities of Bangladesh. Thus it should not be considered an absolutely proper measure for investment decision rather attention need to be paid to other measures like price book ratios (PBRs).

Table 5 provides the statistics of annual volume and value of transactions in DSE. It is to be kept in mind that a considerable volume of transactions will be 'forced sales' for meeting some investors' need for cash. The rest may be considered in response to the changing risk (market and unique) perceptions of the investors. As Table 5 shows, transactions, both in terms of volume and value, have recorded a phenomenal upsurge in most of the years except 1987-88 and 1990-91. The average annual rate of increases in value is much higher than that of volume. The years 1986-87, 1993-94 and 1996-97 recorded an increase of more than 300% of their respective preceding years in terms of value although the rate of increases is less than 200% in terms of volume. The implication is that in the years of rapid upswing in the stock market, the price of stock rises more than the volume. In most cases these situations are explained in terms of the existence of stock price manipulation as a major factor. If we take the yearly average of 13 years under consideration, the volume is small compared to other emerging markets. It is about Tk. 4,014 million or about US \$ 90 million at the prevailing official exchange rate.

Table 5: Trends of transaction volume

(Figures in thousand)

Year	Volume		Value	
	No. of shares and debentures	Annual growth (%)	Amount in Taka	Annual growth (%)
1984-85	380	-	22,510	-
1985-86	670	76.32	34,375	52.71
1986-87	1,929	187.91	152,445	343.47
1987-88	1,077	-44.17	120,877	-20.71
1988-89	1,666	54.69	154,366	27.70
1989-90	2,693	61.64	187,783	21.65
1990-91	2,251	-16.41	141,289	-24.76
1991-92	3,824	69.88	261,077	84.78
1992-93	4,319	12.94	400,608	54.59
1993-94	11,560	167.65	2,442,873	505.26
1994-95	25,947	124.45	4,660,800	90.79
1995-96	44,799	72.66	8,199,095	75.92
1996-97	119,313	166.33	35,435,534	331.92
Average	16,956	77.82	4,014,971	128.61

Source: Compiled from DSE Monthly Review various issues.

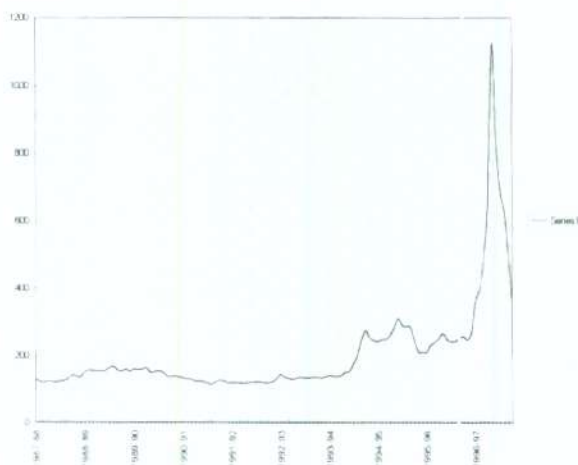
4. Stock Price Indexes

Markets always try to discover true values despite efforts to conceal or distort them. Bangladesh's capital market is not an exception. The efforts to force investment at high levels than could be supported has usually been reflected in the poor performance of stocks. The industrial performance is poor and as such capital markets could only reflect such performance. A useful tool for studying the overall price behavior of market is a price index. Both the DSE and Bangladesh Bank (BB) maintain share price indexes of the shares listed with DSE. The BB's 'Index of Ordinary Shares of Companies Listed in the DSE Ltd.' provides share price index taking different financial years as a base for different periods. Both indexes rely on DSE's published price quotations to track prices of the shares of listed companies. Although the two indexes do not always yield exactly the same figures, they tend to agree in general.

DSE remained inactive during the First Five Year Plan (FFYP) period (1973-78) due to government socialist policy adopted at that time. Although it resumed its operation in the face of a very unfavorable condition in 1976, it did not get momentum for a considerable time. Initially, equity prices were hesitant and could not gain much ground. Its operational activities were also expanding very slowly. In terms of annual index it declined from 100 in 1978-79 to 99.48 in 1979-80. During the Second Five Year Plan (SFYP) period (1980-

85) the price index rose steadily. By and large, the period was free from violent fluctuations in equity prices though there were notable rises in prices in the face of a favorable situation in the industrial sector primarily due to government policy support for private sectors and denationalization. The Third Five Year Plan (TFYP) (1985-90) started with an optimistic note. This was mainly as a result of the announcement of New Industrial Policy of 1986, relaxation of the rules of import of raw materials and machineries, larger size of TFYP and larger allocation to the private sectors and so on. The opening year of the plan period (1985-86) witnessed a moderate rise in equity prices and the trend was considerably accentuated in the year 1987-88 when the DSE all share price index doubled within a year. Anticipations among investors for raising profits and dividends, emergence of a new class of investors, hedge against inflation, denationalization and holding company policy of the government, downward revision of interest rates, incentive schemes for export promotion, growth prospects of certain industries, exemption of income tax on dividends of individual shareholders, and reduction of corporate tax are the possible factors attributable for such rising price. However, since July 1987 the stock markets of Bangladesh were experiencing a bearish condition. Declining trends in most stock prices and the market index as well as the volume of transactions are the evidences supporting the bearish market. According to many knowledgeable stock market experts the damage was caused to the stock market due to political unrest, natural calamities and unprecedented floods in 1987 and 1988. It is believed by many that the market overreacted in this period without considering much of the economic fundamentals (Seok and Park, 1992). TFYP (1985-90) period, in general, may be regarded as a period of rising stock prices although the rise was by no means steady. The Fourth Five Year Plan (FFYP) (1990-95) experienced fall in prices in its initial years which deepened in 1991 and continued during most parts of 1992. The stock price of Bangladesh underwent dramatic behavior. A sharp increase in general is observed for the periods of 1987-89 and 1993-96 associated with rapid fall following these periods. The aggregate behavior of stock prices reflects tone and temperament of the industrial sectors and related policies. The price rise that followed the bear market of early 1990s may be considered as an extension of ongoing reform policy of the government and firm commitment for liberalization and private sector development. Macroeconomic factors such as growth of the economy, increased flow of foreign exchange, deregulation of the market, lowering of interest rates; microeconomic factors such as changing corporate and financial strategies with introduction of fiscal and other incentives; institutional factors, specially establishment of Securities and Exchange Commission (SEC), are considered relevant to this.

Figure 1: Stock price trends in DSE



While prices appear to be violent particularly during 1987-88 and 1996-97, there have been periods of sufficiently long duration in which the direction of the changes has shown a remarkable consistency. The most serious event in the stock market of Bangladesh occurred in 1996 when the market behavior was abnormally irrational. The price index prepared by BB has shown an increase from 240 in January 1996 to 1,122 points in the first week of November of the same year, more than four times increase in the index within 11 months. But it dropped to 850 points in December 1996 and again to 352 points in April 1997 as the Figure-1 shows. Fluctuations in share prices are usual phenomena throughout the world. But the speed and magnitude as well as lack of effective measures to combat such abnormality by the concerned authorities in this case are surprising. This abnormal price rise has taken place ignoring all micro and macro economic fundamentals. The price of shares of a company, having negative worth, increased three to four times. Even share price of a closed company also increased. The abnormal rise in share prices created an urge for mindless gambling among the various segments of people. Some people took the situation to become rich overnight. Suddenly the market started experiencing nightmares as the overpriced share market began sliding toward its rational level every day and subsequently crashed. The alarming fluctuation created a serious tension among inves-

tors and ultimately resulted in forced closure of floor trading for several days. It is difficult to segregate any single factor responsible for this price upheaval rather a combination of some factors including some policy issues might have contributed to such development. The likely candidates that might have some bearing on it are price manipulation on the exchange, lack of proper implementation of a circuit breaker, withdrawal of lock-in system³, absence of institutional traders on the exchange, lack of aggressive campaigning about the grave consequences of abnormal market behavior and so on.

It is possible that a temporary supply of or demand for an extraordinary large amount of securities takes place sometimes. This may upset the balance between demand and supply. In order to stabilize the market, it is necessary to conduct some price supporting activities. Such activities are specially needed when the market is dominated by speculation and rumor. A circuit breaker implying a price limit and trading halt may work to stabilize the market especially when investors behave rather irrationally. The implication of the withdrawal of lock-in system is noteworthy because experience shows that countries undertaking reform programs are prone to excessive foreign funds that ultimately prove unsustainable usually resulting in recession, crisis in the financial markets and capital flight. In the light of the experience of successful liberalization programs undertaken by East Asian countries in 1960s and 1970s, for sustainable behavior of foreign funds, appropriate regulations of cross-border transaction of financial capital need to be pursued in the context of liberalization and stabilization policies currently being pursued in Bangladesh. Wide and effective campaigning through mass media against irrational market behavior and their consequences can produce favorable results vis-a-vis legal measures should be instituted and executed effectively by the authorities concerned in order to contain manipulation of stock prices.

5. Returns to Equity Investment

With the resumption of DSE activities since 1976, the structure of the Bangladesh financial markets has changed and the number of listed securities has been increasing gradually. Naturally, the functions of stock markets are getting increasing importance in a freer market economy. It is, therefore, worthwhile to study the Bangladesh stock markets with the objective to clarify whether or not the asset pricing model works there. This insinuates that the risk-return relationship for the stocks listed on the DSE is to be examined.

3. Under lock-in system a foreign investor in shares can't sell his shares within a certain period of time. This was introduced in view of the significant impact of the foreign funds on the relatively small market of Bangladesh. However, with the change of government policy, this was abolished in the budget of 1996-97.

The hypotheses that there should be excess return (risk premium) for the riskiness of security holding although a risk spectrum may be distorted with the change of socio-economic conditions.⁴ The American evidence confirms the notion that common stocks are appropriately priced relative to other less risky securities in the sense of their rates of return being higher than on other securities. Ibbotson and Sinquefeld (1976) have found that U.S. common stocks returned 8.5 percent per year compounded annually over the period, 1926-74, whereas 3.6 percent for corporate bonds, 3.2 percent for long term government bonds, and 2.2 percent for U.S. treasury bills, a rate which is approximately equal to the rate of inflation. Excluding dividends, common stocks returned 3.5 percent per year and the inflation adjusted stock returns were 6.1 percent per year, subscribing the notion that common stocks were good hedges against inflation.

Investors receive return on common stock investment in three forms: cash dividend, capital gain (loss), and distribution of capital in the form of rights offering and bonus shares. If the holding period is reasonably long (say 5 years or longer) then an investor would be expected to receive in all these forms. The overall returns one gets in the long run is called 'investment return'. If instead the holding period is short, say a month or greater, most of the investor's return will be in the form of price appreciation (capital gain) or depreciation (capital loss). As the stock prices are highly unpredictable, the short term common stock returns are 'speculative' in nature. Speculative return is thus distinguishable from investment return in that the former is highly unpredictable whereas, the latter is reasonably predictable (Malkiel, 1981). However, common stocks are generally viewed as long term investment vehicles. The rate of return on equity during an investment period is defined as the growth rate of the total market value of the stock from the beginning to the end of the period. It can be calculated as a ratio dividing the sum of the capital gain ($P_t - P_{t-1}$) and the dividend (D_t) by the amount of the initial investment (P_{t-1}) as Equation (1) shows.

$$R_t = \frac{(P_t - P_{t-1}) + D_t}{P_{t-1}} \quad \dots\dots\dots [1]$$

There are no ready-made return figures of stocks traded in DSE. Using the above formula we have calculated the average annual market rate of return from the market index prepared by BB and annual interest rate on time deposit for a period of 17 years from 1980 to 1996 at Table-6. The Table brings out that the average market rate of return for the period is 28.40 percent while the corresponding interest rate on time deposit is 10.81

4. For instance, risk spectrums may be distorted with the change of an inflation rate and fixed return investment may become less attractive than some equities.

percent. The average yearly rate of return of these years is found considerably higher than the average yearly rate of interest on time deposit (considered as riskless). In some years negative returns on stocks are also observed. The rate of interest varies from 5.00 percent to 14.00 percent while the rate of stock returns varies from -7.97 percent to 113.78 percent during the period under consideration. Thus, the variation for stock returns is also higher than that of interest rates. In terms of standard deviation it is 3.41 for interest rates and 30.45 for stock returns. This subscribes the finance theory that higher risk is associated with higher return and low risk with low return. It appears that stock investment in Bangladesh is attractive although fluctuations in returns are observed. This is what we mean by risk. Of course, after tax returns on various government bonds with a maximum

Table 6: Year wise rates of return from equity and rate of interest on time deposit

(Figures in %)

Year	Nominal equity return (%)			Rate of interest ²
	Change in index	Dividend yield ¹	Total	
1978-79=100				
1980-81	3.41	14.45	17.86	8.25
1981-82	5.09	16.85	21.94	14.00
1982-83	4.96	15.10	20.06	14.00
1982-83=100				
1983-84	9.98	21.57	31.55	14.00
1984-85	26.30	10.63	36.93	14.00
1985-86	13.31	16.56	29.86	14.00
1986-87	104.92	8.86	113.78	14.00
1986-87=100				
1987-88	37.65	6.76	44.41	13.25
1988-89	12.02	2.65	14.67	13.25
1989-90	-11.25	3.28	-7.97	13.25
1990-91 ³	-13.31	2.98	-10.33	10.50
1991-92	11.36	4.86	16.22	10.00
1992-93	4.81	5.46	10.27	8.50
1993-94	77.47	5.26	82.73	6.00
1994-95	-14.26	5.49	-8.77	5.00
1995-96	27.82	4.79	32.61	5.50
1996-97 ⁴	30.75	6.21	36.96	6.25
Yearly average	19.47	8.93	28.40	10.81
Standard deviation	30.23	5.66	30.45	3.41

1. Dividend yields are estimated through aggregating all the dividends paid during a year on all equity stocks and dividing them by the aggregate prices of all equity stocks at the start of the year.

2. Time Deposit interest rate is as at the end of June of the previous year and therefore the figures represent the return for making deposit on 1 July and lending them for 1 year.

3. We have considered the minimum rate set by the monetary authority from 1990 since then individual banks have been allowed to decide the interest rates on deposits.

4. Estimated as on 30 April 1997.

investment limit sometimes may be higher than equity investment in Bangladesh.⁵ When we look into the annual rate of return, we find that a rising tendency is followed by a falling one resulting in periodical fluctuation. Consequently, changes in rates of return do not move in one direction as is expected.

Under certain assumptions Capital Asset Pricing Model (CAPM) for security i would take the form as follows:

$$E(\tilde{R}_i)R_f + E(\tilde{R}_m - R_f) = \frac{\text{cov}(\tilde{R}_i, \tilde{R}_m)}{\text{var}(\tilde{R}_m)} \quad \text{.....} \quad [2]$$

Substituting β_i for $\frac{\text{cov}(\tilde{R}_i, \tilde{R}_m)}{\text{var}(\tilde{R}_m)}$, Equation (2) can be restated as

$$E(\tilde{R}_i) = R_f + \beta_i (E(\tilde{R}_m) - R_f) \quad \text{.....} \quad [3]$$

where $E(\tilde{R}_i)$ = expected return on security i .

R_f = riskless rate of return,

$E(\tilde{R}_m)$ = expected return on the market portfolio, and

β_i = beta coefficient which measures the systematic risk of security i .

According to Equation (3) in equilibrium, the expected rate of return from a security is made up of the riskless rate plus the risk premium multiplied by the beta coefficient of the relevant security or portfolio. For riskless investment, therefore, β_i would be equal to zero and the investor's return is R_f . When $\beta_i > 0$, investors' expected earnings would be higher than R_f i.e., $(E(\tilde{R}_m) - R_f) > 0$. This represents a risk premium. Thus, the relationship may be described by equation (4) assuming a risk-averse investor, who holds a diversified holding which approximates to the market index. When $E(R_i)$ is substituted by $E(R_m)$, then the value of β_m is 1 and the coefficient of market risk does not appear in this relationship

5. For long term government bonds with relatively high interest rates, options are usually open to individuals only with certain maximum limit. This is aimed at encouraging the small savers who are justifiably feeling too exposed to the risk of market manipulation and other abuses. However, interest rates on bank deposits and various government bonds have been reduced significantly in recent times.

Table 7: Estimated return on ordinary shares listed with DSE

(Percent per annum)

Year	Total nominal return ¹	Annual inflation rate ²	Real return ³
1980-81	17.86	12.33	4.93
1981-82	21.94	16.08	5.05
1982-83	20.06	10.14	9.01
1983-84	31.55	9.51	20.13
1984-85	36.93	11.20	23.14
1985-86	29.86	9.82	18.25
1986-87	113.78	10.32	93.79
1987-88	44.41	11.43	29.60
1988-89	14.67	8.02	6.16
1989-90	-7.97	9.32	-15.81
1990-91	-10.33	8.84	-17.61
1991-92	16.22	5.07	10.62
1992-93	10.27	1.38	8.77
1993-94	82.73	1.77	79.56
1994-95	-8.77	5.22	-13.29
1995-96	32.61	4.07	27.43
1996-97	36.96	5.74 ³	29.53

1. Data source of this column is Table-6.

2. Inflation rates are estimated from the Consumer Price Index of middle class families at Dhaka. Data have been used from Bangladesh Bank Economic Trends - various issues.

3. Estimated as on 30 April 1997 from Bangladesh Bank Economic trends, June 1997.

4. Real returns have been calculated through the following formula $\left(\frac{1+r}{1+i} - 1 \right) \times 100$ where r is nominal return and i is an annual inflation rate

as market risk is represented by 1. Treasury bills are assumed as riskless. These rates are lower than that of long term government securities. It is

$$E(R_m) = R_f + \text{risk premium} \quad [4]$$

notable that long term government securities are more subject to inflation risk and lower return when the investor is forced to sell before maturity.

The yearly returns on equity investment in Bangladesh have been shown in Table 7. In estimating annual return on equities for the period from 1980-81 to 1996-97, changes in the stock price index prepared by BB and dividend yields have been considered. The sum of the two represents the nominal return for each year receivable for an investment in the index at the beginning of the year. This may be considered as a proxy for the return attainable by the 'average' equity market investor. The nominal returns are converted to real returns through inflation adjustment. Out of 17 years the rate of real return is negative for 3 years and the rest 14 years is positive.

Table 8: Estimated real return on treasury bills in Bangladesh

(Percent per annum)

Year	Nominal yield ¹	Annual inflation rate	Real rate ²
1980-81	6.00	12.33	-5.64
1981-82	8.50	16.08	-6.53
1982-83	8.50	10.14	-1.49
1983-84	8.50	9.51	-0.93
1984-85	8.50	11.20	-2.43
1985-86	9.00	9.82	-0.73
1986-87	9.00	10.32	-1.20
1987-88	8.00	11.43	-3.06
1988-89	8.00	8.02	0.00
1989-90	8.00	9.32	-1.21
1990-91	7.50	8.84	-1.20
1991-92	7.50	5.07	2.31
1992-93	7.00	1.38	5.54
1993-94	4.25	1.77	2.43
1994-95	4.00	5.22	-1.16
1995-96	3.50	4.07	-0.58
1996-97	3.50*	5.74	-2.09

*Rates of interest on treasury bills are fixed up through auctions from 25 October 1995. However, we considered here the previous rate.

1. The rates quoted are at the end of June of the previous year and accordingly the figures represent the return for buying treasury bills on July 1 and holding them for one year.

2. Real returns have been calculated through the following formula $\left(\frac{1+r}{1+i} - 1 \right) \times 100$ where r is a nominal yield and i is an annual inflation rate.

Table 8 shows the real rate of return on treasury bills of Bangladesh. In four years out of 17 the real rates of return were positive and the rest 13 years were negative. Table 9 provides arithmetic mean giving the average return, standard deviation measuring the riskiness of equity investment and the geometric mean. If the real returns of risky securities are compared with the corresponding return on riskless treasury bill, higher returns for risky securities are observed. The difference between the two constitutes a risk premium - reward for risk taking in equity investment. Only three out of 17 years of investment results of DSE stocks, the risk premium was negative and the rest was positive. It is evident from these results that higher risk in equity investment is associated with a higher rate of return and lower risk in treasury bills associated with a lower rate of return. If we compare nominal return of risky securities with corresponding return on riskless treasury bills, we also find similar results. Table 9 provides arithmetic mean giving the average return, standard deviation measuring the riskiness of equity investment and also the geometric mean of real returns. This Table shows that higher risk in equity investment is associated with a higher real rate of return and lower risk in treasury bills associated with a lower real rate return.

Table 9: Estimated Real return and risk premium in Bangladesh

(Figures in percent)

Year	Equity shares	Treasury bills	Risk premium
1980-81	4.93	-5.64	10.57
1981-82	5.05	-6.53	11.58
1982-83	9.01	-1.49	10.50
1983-84	20.13	-0.93	21.06
1984-85	23.14	-2.43	25.57
1985-86	18.25	-0.73	18.98
1986-87	93.79	-1.20	94.99
1987-88	29.60	-3.06	32.66
1988-89	6.16	00	6.16
1989-90	-15.81	-1.21	-14.60
1990-91	-17.61	-1.20	-16.41
1991-92	10.62	2.31	8.31
1992-93	8.77	5.54	3.23
1993-94	79.56	2.43	77.13
1994-95	-13.29	-1.16	-12.13
1995-96	27.43	-0.58	28.01
1996-97	29.53	-2.09	31.62
Arithmetic mean	18.78	-1.06	19.83
Standard deviation	28.70	2.73	28.38
Geometric mena	16.87	1.80	17.49

6. Discussion

The implications of these results are substantial. That is to say, the price changes of stocks listed on the DSE - reflecting a less developed country - are likely to conform to the general stock price behavior predicted in the finance theory. The findings of this study are expected to deepen the insights of the academics, investors, investment analysts, policy makers and other interested parties. One possible implication arises with the CAPM application is the issue of calculating the cost of capital. A popularly accepted method of calculating cost of capital depends on the CAPM theory to defend the use of a beta. Our empirical analysis shows this method may bring forth good results in practice. Of course, introduction of a well designed accounting system and availability of accurate and adequate information in time can make it better. It appears to be a good example of a theoretically elegant model that gives a good answer for asset pricing. Anyhow, theories and methods that are dependent on the CAPM require careful attention and scrutiny when they are applied to the analysis of actual problems.

Capital market theory hypothesizes a number of assumptions including existence of

a riskless asset, perfect market, absence of transaction cost and so on. Apparently, conditions in Bangladesh are further away from which idealized vision of the world than in leading developed economies. Thus, the cost of capital for speculators is likely to be higher because of repression and market imperfection in Bangladesh like other LDCs. Information plays a very important role in security markets. Economic theory of choice postulates that the decision maker seeks the best option out of available alternatives in order to attain optimum results. Information influences security price formation and thereby the optimal portfolio selection. The results of this study may raise some questions about adequacy, nature and content of information set postulated by the capital market theory. Information set about a company available in Bangladesh is generally inadequate and after a relatively longer time lag than those of advanced economies. Thinness and discontinuity in trading and above all the less developed nature of the Bangladesh markets tends to lead lower degree of market efficiency. But information is likely to flow rapidly among the small number of market makers who all are acquainted with each other in such smaller markets. This fact has a special role in making the market efficient.

The contents of financial statements published by the companies of Bangladesh include a typical annual report and account that usually present the accounting information in the form of a comparative Balance Sheet and a comparative Manufacturing, Profit and Loss Account of two years - current year and previous year - supplemented with a yearly Schedule of fixed assets. Announcements are made by the companies through press for declaration of dividend, right offer or other affairs. Besides, some press reports are there. Companies Act and Securities and Exchange Rules (SER) of Bangladesh have provided some rules for disclosure of company information. Although it is not precise in some occasions, the contents, timing and quality of these statements does not fit the essence of these rules in most cases. Although it has been stipulated in the SER to provide interim information to the stock exchange and shareholders within one month after the end of first six months of accounting year, shareholders in most cases, do not get any interim information from the company on its financial performance (Ahmed et al., 1993). In the same study it has been revealed that more than 50 per cent of the companies fail to hold annual general meeting (AGM) within nine months after the end of their accounting year. It implies that shareholders and other users of information do not formally get information on corporate performance in due time. The qualitative aspect of information depends mainly on the intention of the company rather than on rules.

The investigation of the accounts of Bangladeshi companies has revealed that in general, public enterprise accounts are out-of-date, incomplete, poorly designed, not

properly consolidated, and invariably produced in English. The accounts of quoted and other companies are only better in comparison. Banks tend rigidity to follow the prescribed formats, with both its merits and its inadequacies. The accounts which our initial overview indicates as best are those of the multinationals. Even here, there are deficiencies, and we suspect the accounts would not compare well with the accounts prepared by the parent company in the country of origin. Nevertheless, the multinationals stand out in comparison to other categories. Although the multinational use Bangladeshi accounting expertise, apparently no 'transfer of technology' to improve the standard of other categories of entities is observed (Parry and Khan, 1984). The type of information provided in the annual reports is purely historical and does not deal explicitly with risk considerations nor future cash flows associated with equity holders' which has long been of great deal of interest to the investors, security analysts and accountants. With the establishment of Securities and Exchange Commission, it is expected that it will come forward with concrete measures to promote accurate and timely information dissemination. This may accelerate the development process of the stock markets.

Capital market theory is likely to contribute substantially to explaining the behavior of relatively efficient markets, and can be a powerful tool of analysis. The use CAPM to allocate resources to projects of developing countries may lead to a misallocation of resources because of the market imperfections and distortions are likely to be greater in these countries. Its applicability in less efficient capital market seems to be much less certain. Market imperfections may be dominant in developing markets, particularly during their formative stages. Nevertheless, capital market theory may tend to be increasingly relevant with the development of markets and environment. In case of a developing market like Bangladesh the efficient market hypotheses may be, a priori, suspect for a variety of reasons. Errunza (1977) in his paper has commented: "...However, at present, it is doubtful whether substantial insight could be gained from application of CAPM to the developing markets. This is because many of the LDC markets are not very active and available LDC stock market indexes are of doubtful quality, consistency or reliability.' The presumed 'inefficiency' implied by such markets might stem from structural as well as institutional issues such as the following: i) in developing economies, capital markets have difficulty in detecting and discriminating among investment opportunities; ii) composition of outputs may respond sluggishly to changes in relative prices; iii) a dichotomy exists in financial activities between organized and centrally controlled banks, acting loan windows at subsidized interest rates, and private and unorganized money markets catering largely to demands outside government control; iv) the capital markets are 'fragmented' in terms

of information and communication; v) temporal horizons are short; vi) investment preference is given to physical assets rather than financial assets (Shaw, 1973). This may result in lack of financial development, particularly in capital markets, consequent upon certain market imperfections such as transaction costs, lack of timely information, costs of acquiring new information, and possibly greater uncertainty about the future (Goldsmith, 1969; Mason, 1972; Shaw, 1973). If some or all of these factors are operative, it is likely to suspect that they may be reflected in market mechanisms. In general, the principle seems to survive, although not entirely unscathed. The inefficiencies, even in organized markets, mean that the risk is not proportional to the variance of return. Risk estimates may be extremely hazy because of lack of information (Kitchen, 1993). Errunza (1977) has pointed out 'portfolio suppression' (political and economic instability, monetary and fiscal policies which result in high and unstable rates of inflation, interest rate controls, lack of capital market institutions, high transaction costs, etc.) as obstacles to foreign portfolio investment in the securities of developing countries. The study of Gandhi et al (1980) on Kuwait stock markets has observed substantial scope for gains through diversification. Agmon and Lessard (1977) have reported in a study of four stock markets in Latin America over the period 1958-68 that risk could be diversified away to the level of about 16 percent to 30 percent in these countries, whereas 70 percent of the risk can be diversified away in the U.S.A. by holding a diversified portfolio. Obviously, diversification in these countries does reduce risk, but not to the same extent as in developed countries.

7. Concluding Observations

This paper has attempted to investigate the Bangladesh securities markets. It is thus substantially explaining the behavior of less efficient developing market like Bangladesh. The ex post analysis based on results of the past seventeen years has documented the gains in real terms from the equity investment in Bangladesh. The risk premium for such investment is also higher, indicating the substantial advantage to the investors over riskless investments in bank deposits and treasury bills. However, it is likely that the results may differ for different time periods but the similar trend can be found if reasonably long time period is considered. Recently, the increased public interest in the stock investment in Bangladesh accompanied with larger volume of stock issue and stock trading augurs well for the optimism about its growing role in financial markets than hitherto. Efforts to speed up the development of equity segments of the market, although laudable, may not lead to immediate tangible results in the face of the apparent riskiness of market manipulation, structural weaknesses of the markets, political vulnerability and other

abuses. Closer official supervision of trading in particular and market development in general may be of help in the absence of which investors are likely to justifiably feel too exposed to various market abuses undesirably.

References

- Agmon, T. and Lessard, D.R. (1977), 'Financial Factors and the International Expansion of Small-Country Firms,' in Agmon, T. and Kindleberger, C.P. (Eds.), *Multinationals from Small Countries*, MIT Press: Cambridge, Mass.
- Ahmed, M.F.; Khan, Harun-ar-Rashid and Islam, Md. Sadiqul (1993), *Industrial Financing Through Capital Market in Bangladesh: A Study on the Demand Side*, Asia Foundation and Bureau of Economic Research, University of Dhaka: Dhaka.
- Ando, A. and Modigliani, F. (1963), 'The Life Cycle Hypothesis of Saving: Aggregate Implication and Tests', *American Economic Review*, Vol. 53, No.1, pp. 55-84.
- Arena, J. (1965), 'Post War Stock Market Changes and Consumer Spending', *Review of Economics and Statistics*, Vol. 47, No. 4, pp. 379-91.
- Bangladesh Bank, *Economic Trends* (various issues), Bangladesh Bank: Dhaka.
- (1996), *Bangladesh Bank Bulletin*, September-December, Bangladesh Bank: Dhaka.
- , *Index Numbers of Stock Exchange Share Prices* (various issues), Bangladesh Bank: Dhaka.
- Bangladesh Bureau of Statistics (1993), Ministry of Planning, Government of Bangladesh, *Statistical Yearbook of Bangladesh*, Bangladesh Bureau of Statistics: Dhaka.
- Baumol, W. (1965), *The Stock Market and Economic Efficiency*, Fordham University Press: New York.
- Bhatia, K. (1972), 'Capital Gains and the Aggregate Consumption Function', *American Economic Review*, Vol. 62, No. 13-15, pp. 866-72.
- Bichitra (National Weekly of Bangladesh) (1996), Vol. 28, 29 November (in Bengali). Calamanti, A. (1983), *The Securities Market and Underdevelopment*, Finatrica: Giuffrè, Milan.
- Dhaka Stock Exchange (DSE), *DES Factbook* (various issues), DSE: Dhaka.
- *DSE Monthly Review* (various issues).
- Drake, P. J. (1977), 'Securities Market in Less Development Countries', *Journal of Development Studies*, Vol. 13, No. 2, pp. 74-91.
- (1980), *Money, Finance and Development*, Martin Robertson: Oxford.
- (1985), 'Some Reflections on Problems Affecting Securities Markets in Less Developed Countries', *Savings and Development*, Vol. IX, No. 1, pp. 5-14.
- Errunza, V.R., (1977), 'Gains from Portfolio Diversification into Less Developed Countries' Securities', *Journal of International Business*, Vol. 8, No. 2, pp. 83-99.
-

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- Gandhi, D.K., Saunders A., and Woodward, R.S. (1980), 'Thin Capital Markets: A Case Study of the Kuwaiti Stock Market', *Applied Economics*, Vol. 12, pp. 341-49.
- Goldsmith, R.W. (1969), *Financial Structure and Development*, Yale University Press: New Haven.
- Ibbotson, R.G. and Sinquefeld, R.A. (1976), 'Stocks, Bonds, Bills and Inflation: Year-by-Year Historical Returns (1926-1974)', *The Journal of Business*, Vol. 49, No. 1, pp. 11-47.
- International Finance Corporation (IFC) (1995), *Emerging Stock Market Factbook*, IFC: Washington, D.C.
- Kitchen, R. (1993), *Finance for the Developing Countries*, Wiley and Sons: New York.
- Malkiel, B.G. (1981), *A Random Walk Down Wall Street*, W.W. Norton and Company: New York.
- Mason, Robert T. (1972), 'The Creation of Risk Aversion by Imperfect Capital Markets', *American Economic Review*, Vol. 62, pp. 77-88.
- Ministry of Finance, Government of Bangladesh, *Economic Survey of Bangladesh* (various issues), Dhaka.
- Moore, G.H. (1975), 'Stock Prices and the Business Cycle', *Journal of Portfolio Management*, Vol. 1, No. 3, pp. 59-64.
- Parkinson, J.M. (1984), 'The Nairobi Stock Exchange in the Context of Development of Kenya', *Savings and Development*, vol. VIII, No. 4, pp. 363-72.
- Parry, M. and Khan, F. (1984), *A Survey of Published Accounts in Bangladesh*, The Institute of Chartered Accountants of Bangladesh and The United Nations Department of Technical Cooperation for Development, Dhaka.
- Samuels, J.M. (1981), 'Inefficient Capital Markets and Their Implications', in Derkindereen, F.G.J. and Crum, R.L. (Eds.), *Risk, Capital Costs and Project Financing Decisions*, Martinus Nijhoff: Boston/The Hague/London, pp. 129-48.
- and Yacout, N. (1981), 'Stock Exchanges in Developing Countries', *Savings and Development*, Vol. V, No. 4, pp. 217-32.
- Seok, M.C. and Park, I. (1992), Report on the Dhaka Stock Exchange (unpublished), The Asia Foundation, Dhaka.
- Shaw, Edward S. (1973), *Financial Deepening in Economic Development*, Oxford University Press: New York.
- Wai, U.T. and Patrick, H.T. (1973), 'Stock and Bond Issues and Capital Markets in Less Developed Countries', *IMF Staff Papers*, July.
- Zarnowitz, V. and Boschan, C. (1975), 'Cyclical Indicators: An Evaluation of New Leading Indexes', *Business Condition Digest*, pp. v-xix.
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Abstract

Although substantial economic underpinnings consistent with market economy and liberalization have been witnessed in Bangladesh over the past few years, development of efficient and vibrant capital markets has not yet been attained. This study has attempted to explore the potential impediments behind this and analyze the situation in terms of capital market theory. Generally, the share of new equity to national savings is less than 1% in Bangladesh. The impressive increase in various government bonds and bank deposits has been in sight while the respective yield decreases. It suggests that efforts to speed up the development of the equity segments of the capital markets, although laudable, may not lead to immediate tangible results in the face of various structural, institutional and legal constraints. Even within such developing market frameworks, the equity market behavior, by and large, appears to be consistent as the capital market theory postulates. The ex post analysis based on the results of past seventeen years has documented the gains in nominal and real terms from equity investment. The risk premium associated with such investment is higher indicating the substantial advantage over the riskless investment in treasury bills.

ÉVALUATION DE LA PERFORMANCE DU MARCHÉ BOURSIER AU BANGLADESH.

Résumé

Bien que dans ces dernières années on ait assisté à une évolution importante de l'économie du Bangladesh vers le marché et la libéralisation, on n'a pas encore réussi à développer un marché des capitaux efficace et animé. Cet étude a essayé d'identifier les obstacles potentiels qui en empêchent le démarrage et d'analyser la situation d'après la théorie des marchés des capitaux. En général, au Bangladesh, l'apport de capitaux propres frais par rapport à l'épargne nationale est inférieur à 1%. Récemment, il y a eu une augmentation substantielle de plusieurs obligations d'État et des dépôts bancaires et, en même temps, une chute de leurs rendements respectifs ce qui semble indiquer que tout effort pour accélérer le démarrage du segment capitaux propres du marché des capitaux, bien que louable, pourrait ne pas donner de résultats concrets immédiats à cause des nombreuses contraintes d'ordre structurel, institutionnel et juridique. Bien que dans ce cadre de marché en voie de développement, la performance du marché des capitaux propres semble évoluer de manière cohérente avec les postulats de la théorie du marché

des capitaux. L'analyse ex-post basée sur les résultats des dix-sept dernières années a documenté les gains engendrés par les investissements en valeurs mobilières à revenu variable en termes réels et nominaux. La prime de risque plus élevée qui caractérise ce type d'investissement démontre l'avantage important qu'il implique par rapport à l'investissement sans risque en bons du trésor.

