THE CROSS SECTION OF EXPECTED STOCK RETURNS
IN BANGLADESH

PREPARED FOR

Dr. Tanbir Ahmed Chowdhury
Professor
Department of Business Administration
East- West University

PREPARED BY

Md. Wahiduzzaman
ID No. 2008-1-10-018
East West University

Date of Submission: 18th August, 2011

EAST WEST UNIVERSITY

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PREFACE

Project course is a part of the BBA program for its completion. Its main objective is to gather the practical knowledge. Because, only the theoretical knowledge cannot serve all the purpose. We the students of the Business Administration Department of East West University Bangladesh got a great opportunity to take this experience arranged by the university authority. After completing the project, the students have to submit a report based on their work to complete their work. It is much better if the students get theoretical and practical lesson simultaneously. But it is impossible in the context of our country in conventional education system. Thanks to the department that it at least facilitates us with a little practical experience. This experience will help us to take proper decisions in any complex situation of practical and real life. This report contains the overall information and analysis of cross sectional variables effect on expected stock return in Bangladesh with further recommendations to improve it.

August 18, 2011

To
Dr. Tanbir Ahmed Chowdhury
Professor
Department of Business Administration
East- West University

Subject: **Submission of Internship Report.**

Dear Sir,

It is my pleasure to submit the report on "The Cross Section of Expected Stock Returns in Bangladesh" as a part of my Project Report under BUS 498 in summer 2011.

I have enjoyed preparing this project report which enriched my practical knowledge of the theoretical concept. I tried to reflect the practical operational aspects which are complementary to the theoretical lessons.

I tried my level best to present this assignment without any errors. I hope that you like what I have attempted and presented.

Sincerely Yours

18/08/2011

Md. Wahiduzzaman
ID No: 2008-1-10-018
East West University

ACKNOWLEDGEMENT

It really was a great challenge for me to prepare the report. First of all, I thank the Almighty, who has provided me the brilliant opportunity to build and complete this report successfully with good health & sound mind. I am grateful & thankful to my family members, my parents- without the support of whom this product could never exist.

My course instructor, Dr. Tanbir Ahmed Chowdhury, Professor, Department of Business Administration, East West University helped me all the way through. He gave me proper guidelines & directions about this project report. I really want to express our gratitude to him for giving valuable advice and time, which helped immensely in preparing this report.

I also express my warm gratitude and cordial thanks to my another supervisor Dr. Sarwar Uddin Ahmed, Professor, Independent University for his kind help and introducing me to different section of finance where I received generous information. His direction, critical comments, criticism, generous patience greatly helped me in improving the research capability, writing skills. It would have been quite impossible to carry on the dissertation and give it a final shape without his encouragement

EXECUTIVE SUMMARY

The Capital Asset pricing Model posits that expected returns on securities are positively and linearly related to the amount of market risk as measured by their market beta coefficients while early testes of the model find evidence supporting a positive relation between average stock returns and beta. Several studies have uncovered empirical evidence that runs counter the central of the prediction CAPM model. Most prominent among variables that seem to explain the average returns are size, book to market –equity, leverage, and earnings –price ratio. Although the ability of these variables to describe the cross-section of expected returns has been extensively examined in other markets, such published work not available on the emerging Bangladeshi stock market. The purpose of the present study is to investigate the ability of beta, size, book-to-market-equity, leverage, and earnings-price ratio to capture the cross-sectional variation in returns in Bangladesh.

This study uses prices and financial data of 24 companies listed in the Dhaka Stock Exchange (DSE) for the period 2000-2008. The sample does not include banking, insurance, finance and investment firms; as of high leverage which is normal for this firms does not have the same meaning as for non financial firms. Since returns data in the DSE stocks are not available, so that we take monthly trade information from DSE for the sample of companies by using trading price, and information on right share, bonuses and dividends.

After analyzing the cross sectional variables in Bangladeshi stock market, the key findings are-
- Average returns and β are positively related.
- Lack of evidence of strong negative relation between size and average return.
- Positive relation between average returns and BE/ME ratio.
- Positive E/P effect.
- Negative relation between leverage asset to market equity and average return.
- Positive relation between leverage asset to book equity and average return.

The positive β-effect and positive E/P effect found in this study have practical implications for investor in the Bangladeshi stock market. The most important message is that higher market risk may result in higher average returns. On the contrary, stocks of firms with low market risk may produce higher average returns. This implies that fundamental analysis that is based on the widely used positive relation between market risk and returns may not work in Bangladesh. Since market risk does not seem to be compensated by the market. The positive E/P effect implies that stocks with higher earnings-price ratio tend to produce higher average returns.

TABLE OF CONTENTS

List of Table

I

INTRODUCTION

PART

ABSTRACT

This study investigates the ability of market beta, size, book-to-market equity, leverage and earnings-price-ratio to explain the variation in expected returns in the small stock market of Bangladesh. The results show that, central predication of the Capital Asset Pricing Model, the relation between average returns and beta is strongly positive. Earnings –price ratio shows·a reliable positive relation with average returns. Market beta and earnings-price are strongly related to returns jointly as well. Firm size, ratio of a firm's book value of common equity (BE), to its market value (ME), and leverage are not related to average returns in any significant manner.

1.0 Introduction:

The Capital Asset Pricing Model of Sharpe (1964), Linter (1965), and Black (1972), also known as SLB (Sharpe-Linter-Black) model, shaped the think about average returns and risk. According to their theory, the efficiency of the market portfolios implies that -

1. Expected return on securities is a positive linear function of their market βs (the slope in the regression of securities on the market's return) that measures the market risk.
2. Market βs satisfy to describe the cross section of expected returns.

Early test of the model [Black, Jensen and Scholes (1972), Fama and Macbeth(1973)] find evidence supporting a positive relation between average stock return and β.

There are Several empirical contradiction of the SLB model by Sharpe-Linter-Black. Test using more recent data [Reinganum (1981), Lakonishok and Shapiro (1986),Fama and French (1992)] find that the relation between average returns and β is either weak or does not exist. These results have raised the question whether the CAPM is valid description of risk and returns in the cross-section.

In addition to the evidence that the CAPM does not seem to capture the cross section variation of returns, studies have also uncovered several empirical anomalies which indicate that some fundamental variables are related to returns. Contradictions are describe as follows-

1.1 Size Effect:

The most prominent factor is the size effect documented by Banz (1981). He finds that market equity, ME (number of shares times market price per share); can be added to the explanation of the cross-section of average returns provided by the market βs. Average returns on small stocks of firm or low ME are too high then their β estimates; and average returns on large stocks are too low. The means, firm size in negatively related to average return, significantly even when β is encluded as an explanatory variable. This phenomenon is know as 'size effect' in finance literature.

1.2 Leverage:

Another contradiction of the β model is the positive relation between leverage and average return, documented by Bhandari (1988). It is considerable that the leverage is associated with risk and expected return. Leverage is defined as two ways; the book value total asset divided by the book value of common equity and the the book value total asset divided by the market value of common equity. But in the SLB model, leverage risk should be captured by the market β. Bhandari finds, that leverage helps explain the cross-section of average stock returns in test that include size (ME) as well as β. These findings suggest that highly levered firms have higher average returns and vice versa.

1.3 Book Equity to Market Equity (BE/ME):

Stattman (1980) and Rosenberg, Reid, and Lanstein (1985) find that average returns on U.S. stocks are positively related to the ratio of a firm's book value of common equity, BE, to its market value, ME. Chan, Hamao, and Lakonishok (1991) find that book-to-market equity, BE/ME, also has a strong role in explaining the cross-section of average returns on Japanese stocks.

1.4 Earning Price (E/P):

Earning- price (E\P) has also been found to be an important variable to captures cross-section return variation. Base (1983) shows that earrings-price ratio help to explain, the cross section of average returns on U.S. stocks; in tests that also include size and market β. E/P is likely to be higher (prices are lower relative to earnings) for stocks with higher risk and expected returns, whatever the unknown source of risk. It means high E/P stocks generate, on average, high returns then low E/P stocks but it should be reverse situation. Evidence on an E/P effect has also show in Reinganum (1981) Cook and Rozeff (1984), Jafte, and Keim and Westerfield (1989). On the other hand Ball (1978) argues on E\P that E/P is a catch-all proxy for unnamed actors in expected returns. Balls proxy argument for E/P might also apply to size (ME), leverage and Book-to- market equity. All the variables can be regarded as different ways to predict stock prices. Moreover, since E/P, ME,

leverage and BE/ME are all scaled version of price, it is reasonable to expect that some of then are redundant for describing average returns. So, Fama and French (1992) try to examine the relation between average return and β, size, BE/ME, leverage and E/P using data for the 1962-1990 period of NYSE AMEX and NASDAQ stocks. Their result is inconsistent with the central prediction of the CAPM and SLB model.

Their findings are-

- ➢ Size has strong negative relation with average return.
- ➢ BE/ ME ratio is significantly positively related with average return.
- ➢ Leverage as measured by-
    - ✓ Total asset market equity is strongly positively related with average return.
    - ✓ Total asset to Book equity is strongly negative to average return.
- ➢ E/P shows positive relation with average return.

Their findings of absence of related between average return and β; directly calls into question the validity of the CAPM in capturing cross-sectional variation in average return. Fama and French provide strong evidence that size and BE/ME combine to capture variation in average returns that is related to β, BE/ME, leverage and E/P.

Another concept we can find that, Black, Jensen and Scholes (1972) and Fama and Macbeths (1973) supported SLB model predict the relation between β and average return. During the pre 1969 period, even when β is used alone to explain average return. But relation between β and average return disappears during the more recent 1963-1990 period. It supported by Reinganum (1981) Lakonishok and Shapiro (1986) and Fama and French (1992).

In short Fama and French (1992) suggest that whatever the economic causes underlie, the main result is that, the size (ME) and Book-to-market equity (BE/ME), provide a simple and powerful characteristics of cross section of average stock returns for the 1963-1990 period.

The study of cross section of expected return stock by Latith P. Samarakoon (1997) on Sri Lankan stock market carries out an investigation of the Fama and French (1992) type.

The result of this study do not support the central prediction of the Sharpe-linter-Black model, widely known as the Capital Asset Pricing Model, that average stock returns are positively related to market β in Sri Lanka during the October 1991 to September 1997 period. Instead, average stock returns and β are found to be strongly negatively related. Earnings-price ratio (E/P) shows a strong positive relation with average returns. These results are robust to inclusion of size, BE/ME and leverage, and E/P dummy in Fama-Macbeth regressions. Size, BE/ME and leverage, are not related to average returns in any significant manner.

The key finding that average returns and β are negatively related, adds further evidence against the SLB model (Reinganum (1981), Lakonishok and Shapiro (1986) and Fama and French (1992). This result is much more damaging than Fama and French (1992) finding of no relation between average returns and β. The lack of evidence of a strong negative relation between average returns and size, and a positive relation between average returns and BE/ME ratio, however, is inconsistent with previous results on the Us market (Banz (1981), Stattman (1980), Rosenberg, Reid and Lanstein (1985), Fama and French (1992)). The ability of E/P ratio to capture cross-sectional variation of expected returns independent of the effect of β supports Ball (1978) argument that E/P is a proxy for omitted risk factors.

Although the ability of these variables to describe the cross-section of expected returns has been extensively examined in other markets, such published work not available on the emerging Bangladeshi stock market. The purpose of the present study is to investigate the ability of beta, size, book-to-market-equity, leverage, and earnings-price ratio to capture the cross-sectional variation in returns in Bangladesh.

We can explain the relation between average return and other variables as follows:

```
                        ┌─────────────────┐
                        │  Average Return │
                        └─────────────────┘
           ┌──────┬─────────┼──────────┬──────────┐
           ▼      ▼         ▼          ▼          ▼
      ┌──────┐ ┌──────┐ ┌──────────┐ ┌──────┐ ┌──────┐
      │  β   │ │ Size │ │ Leverage │ │BE/ME │ │ E/P  │
      └──────┘ └──────┘ └──────────┘ └──────┘ └──────┘
        ▲   ▲   ▲    ▲    ▲      ▲    ▲    ▲    ▲
        └───┘   └────┘    └──────┘    └────┘    └───
```
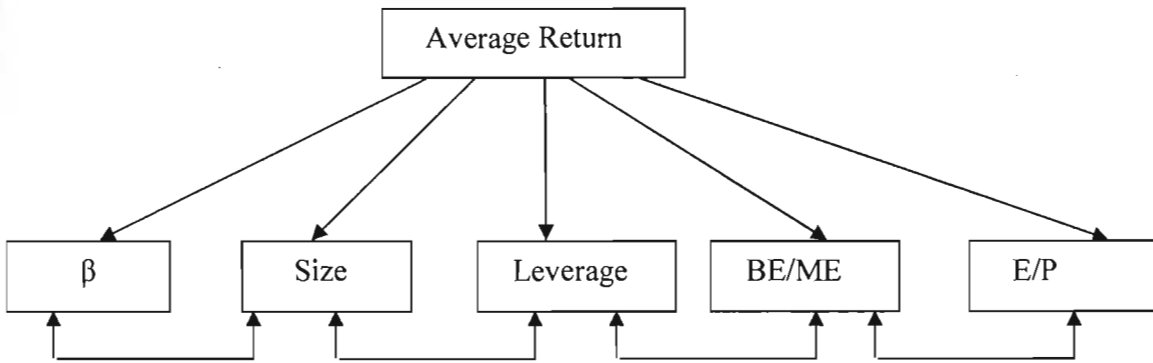
2.0 Rationale of the Study:

The project program is very helpful to bridge the gap between the theoretical knowledge and real life experience as part of Bachelor of Business Administration (BBA) program. This project report has been designed to have a practical experience through the theoretical understanding.

Project program is essential for every student, especially for the students of Business Administration, which helps them to know the practical life theory. For this reason a student takes the project program at the last stage of the degree, to launch a career with some practical experience.

3.0 Objectives of the research

3.1 Broad objective

The broad objective of research is to find out the ability of market beta predict expected return and the ability of market beta, book to market equity leverage and earnings Price ratio to explain the cross-sectional variation of expected return in the small stock market of Bangladesh.

3.2 Specific objective

1. To understand the stock market overview in Bangladesh.
2. To understanding the theory of CAPM (Capital Asset Pricing Model).
3. Understanding cross sectional variable to predict the expected return.
4. To find out the relationship between average return and cross sectional variable.
5. To examine the CAPM result with cross-sectional variable result whether they extract same result or not.

4.0 Studies on cross-section variation of expected stock return

Over the time, financial researchers have attempted to develop the meaningful asset pricing models for investors. The capital asset pricing model (CAPM) develop by Sharpe (1964), and Black (1972) is widely used then by portfolio managers , institutional investors financial manors and individual investors to predict asset returns several other research also support their theory like Fama and Macbeth (1973) and Black, Jensen and Scholes (1972)

After their research; several other research find the evidence that raise question about the validity of Capital Asset Pricing Model. They demonstrated that other variables can also predict the average return from stocks. Several studies are held over the time in different stock markets around the world, to provide evidence on different cross-sectional variables. We can divide these studies in some area-

4.1 International cross-section survey:

There are a number of studies on the theory of cross section survey, which contradict with central CAPM theory. Researchers, on support to their theory; try to explain the cross-sectional variable and try to show that β has stock relationship or no relationship with expected stock returns. For Example:

> Banz (1981) discovered that small firm's average returns were higher than large firm on the New York stock Exchange from 1926 to 1975.

> Basu (1983) worked on New York stock Exchange market and found that E/P has positive relation with expected stock return.

> Stattman (1980) and Rosen berg, Rcid and Lunstic (1983) works on BE/ME and try to find out the positive relation. Between BE/ME and average return.

> Reinganum (1981). Look and Rozcft (1984), Jaffe and Keim and Western field (1985) has also been show the evidence of E/P effect.

> Reinganum (1981), Lakonshok and Shapiro (1986) have show that and average returns has week relation.

> Fama and French (1992) try to provide that size and BE/ME combine to capture variation in average returns that is related to β, BE/ME leverage and E/P on US. Stock Market.

4.2 Asian survey on cross section (excluding south Asian):

> Christopher Gan, Baidinglta, Zhaohnli and Yaognag Lin works on Fama French cross section of expected stock return.

> Isa, Phan and Yang works on Malaysian stock market.

> Chan, Tama and Lakanishok (1991) report a significantly positive relation between book to market ratio and expected returns in the Japanese market

4.3 South Asian survey on cross section of expected stock return:

There are several works in our south Asian region. The works are describes as follows.

➢ The cross section of expected stock returns in Sri Lanka by Latith P.Samarakoon (1997). He tries find out the ability to market β, Book-to-market equity, leverage and earrings-price-ratio to explain cross sectional variation in expected stock return.

➢ Bhandani (1988) works on leverage as variable to explain expected return.

4.4 Bangladesh:

There is not enough work to explain the cross section variation impact on Bangladeshi stock market (DSE).

Some work has been done to this section most important one is An empirical testily of (APM and other cross sectional variable by Mostafizur Rahman, Azizul Baten and Ashraful Alam (2004).

In the light of these empirical results which are mostly based on the US data examination of the ability fundamental variables to describe average returns in a small market such as the Bangladeshi market provide useful comparative evidence. This paper carries out an investigation of the Fama and French (1992) type. Specifically, it asks the question as to whether market β is related to average returns in a manner postulated by the CAPM and whether size, BE/ME, leverage, and E/P have power to capture cross-sectional return variation either individually or jointly. There has not been published work on the relation between any of these fundamental variables and stock returns with reference to the Bangladesh market. It is hoped that the present study will severe to fill this void and stimulated further studies on the issues raised.

5.0 Literature Review:

5.1 CAPM and Cross sectional Variable:

Capital Asset pricing Model posits that expected returns on securities are positively and linearly related to the amount of market risk as measured by their market beta coefficients while early testes of the model find evidence supporting a positive relation between average stock returns and beta several studies have uncovered empirical evidence that runs counter the central of the prediction CAPM model. Most prominent among variables that seem to explain the average returns are size, book to market –equity, leverage, and earnings –price ratio.

5.2 Efficient Market Hypothesis:

The efficient market Hypothesis (EMH) asserts that financial markets are "Informationally efficient" or that prices on traded assets (e.g. stocks, bonds, or property) already reflect all known information, and instantly changes to reflect new information. Therefore, according to theory, it is impossible to consistently outperform the market by using any information that the market already knows, except through lack, information or news in the EMH is defined as anything that may affect prices that is unknowable in the present and thus app ears randomly in future.

Under the efficient market hypothesis, any time you buy and sell securities, you're engaging in a game of chance, not skill. If markets are efficient and current, it means that prices always reflect all information, so there are no way you'll ever be able to buy stock at a bargain price. The theory has been met with a lot of opposition; theory is that many investors base their expectations on past prices, past earrings, track records and in other indicators. Because stock prices are largely based on investor expectation, many believe it only makes sense to believe that past prices influence future prices.

5.3 Anomalies and Market Efficiency:

Anomalies are empirical result that seem to be inconsistent with maintained theories of asset- pricing behavior. They indicate either market inefficiency (profit opportunities) or inadequacies in the underlying asset-pricing model. After they are documented and analyzed in the academic literature, anomalies often seem to disappear, reverse, or

attenuate. This raise the question of whether profit opportunities existed in the past but have since been arbitraged away, or whether the anomalies were simply statistical aberrations the attention of academics.

Surveys of the efficient markets literature date back at least to Fama(1970), and there are several recent updates, including Fama (1991) and Keim and Ziemba (2000), that stress particular areas of the finance literature. By their nature, surveys reflect the views o and perspectives of their authors, and this one will be no exception. My goal is to highlight some interesting findings that have emerged from the research of many people and to raise questions about the implications of these findings for the way academics and parishioners use financial theory.

At a fundamental, level anomalies can only be defined relative to a model of normal return behavior. Fama (1970) noted this fact early on pointing out those tests of market efficiency also jointly test a maintained hypothesis about equilibrium expected asset returns. Thus whenever someone concludes that a finding seems to indicate market inefficiency, it may also be evidence that the underlying asset-pricing is inadequate.

5.4 The Dhaka Stock Exchange (DSE): A Brief Descriptions:

On April 28, 1954 the DSE was first incorporated as the East Pakistan Stock Exchange Association Limited. However , formal trading began in 1956 with 196 securities listed on the DSE with a total paid up capital of about Taka 4 billion (Chowdhury,1994). On June 23, 1962 it was renamed as Dhaka Stock Exchange (DSE) Limited. After 1971, the trading activities of the Stock Exchange remained suppressed until 1976 due to the liberation war and the economic policy pursued by the then government. The trading activates resumed in 1976 with only 9 companies listed having a paid up capital of Taka 137.52 million on the stock exchange (Chowdhury, 1994). The Dhaka Stock Exchange is registered as a public limited Company and its activities are regulated by its Articles of Association and its own rules, regulations and by –laws along with the securities and Exchange Ordinance, 1969; the companies Act, 1994; and the Securities and Exchange Commission Act, 1993.

Trading is done through automated on-line system every day expect Friday and other government holidays. There are four markets in the system:

(1) **Public Market:** Only trading of market lot share is done here through automatic matching.

(2) **Spot Market:** Spot transactions are done here through automatic matching which must be settled within 14 hours

(3) **Block Market:** A place where bulk quantities of shares are traded though pick and fill basis.

(4) **Odd Lot Market:** Odd lot scripts are traded here based on pick and fill basis. All transactions in public market of a day, after netting, are settled and cleared through the DSE clearing House due on 3rd and 5th working day respectively, calculated from data of trading. Members shall be allowed to carry out transaction of foreign buyers and /or seller involving a custodian bank to be settled directly between the member through the custodian bank within the fifth day subsequent to the trading day, i.e., T+5 in respect of the transactions carried out on each trading day with intimation to the clearing house.

Data and methodology are discussed in the nest section. This section provides details of measuring accounting variables, market β, and asset pricing tests employed. This followed by an analysis of empirical results. The paper concludes with conclusions and implications.

D

DATA AND

METHODOLOGY

6.0 Data and Methodology:

This study uses price and financial data of 24 companies listed on the Dhaka stock exchange (DSE) for the period 2000 to 2008. The sample does not include banking, insurance, finance and investment firms. As Fama and French (1992) point out high leverage which is normal for these firms does not have the same meaning as for non-financial firms. Since returns data on the DSE stocks are not available, this study computes monthly returns for the sample of companies by using trading prices, and information on rights, bonuses and dividends. So the returns used are monthly returns adjusted for capital change and dividends. The source for the trading price data is the DSE, while financial data are extracted from the published annual reports. Although there are many stocks listed on the DSE, most stocks do not trade frequently. In order to ensure a reasonable sample size, those stocks which have traded at least twice a month during the sample period have been included in the sample. Further this study excludes those firms whose book values are negative. This results in a total of 88 stocks. Once the 19 financial firms included in it are excluded in it are excluded, the final sample contains 24 stocks.

The financial years of companies listed on the DSE on the end either in December or March. The CSE requires every listed company to publish a summarized profit and loss account and a balance sheet before the expiry of three months from the end of each financial year even if the figures are provisional or subject to audit. The DSE also requires each company to publish audited along accounts along with certain other information which is typically included in an annual report before the expiry of six months from the close of the financial year. Therefore, it can take up to June of the following year in case of December –end financial years, and the following September in the case of March-end financial years before the final accounting figures becomes available to the public. Since accounting data which are employed un this study as explanatory variables must be available before the returns which the accounting variables are used to explain, this study matches the accounting data for the financial years ending December of calendar year t-1, and march of calendar year t+1. this ensures a gap

between the financial yearend and returns of nine months for December- end companies and six months for March – end companies.

6.1 Measuring accounting variables:

This study employs size, book-to-market equity (BE/ME), leverage and earnings-price (E/P) ratio as fundamental explanatory variables which are based on accounting data. Size is measured as the total market value of common shares at the end of September of calendar year t. Book equity (BE) is measured as the book value of common equity plus balance sheet deferred liabilities, minus def erred expenditure at the end of each financial year. Leverage is defined as book leverage and market leverage. Book leverage is the book assets (A) divided by book equity , while market leverage is book assets divided by market equity at the end of financial year, where earnings are defined as the after-tax net income before extraordinary items, but after exceptional items and minority interest, less preferred dividends. As in Fama and French (1992), E/P is defined for positive earnings only; E takes the value of earnings when they are positive, and E takes a value of 0 when they are negative. An additional dummy variable, called EPD is used to differentiate between positive and negative earnings. EPD is 0 when earnings are positive and 1 when earnings are negative.

6.2 Measuring market βs:

The market βs which are used to explain returns from October of calendar year t to September of Calendar Year t +1 are calculated by using monthly stock returns data for 24 months preceding October of calendar year t. in order to adjust for the nonsynchronous trading problem, which is severe in the Bangladeshi stock market , individual stock β are estimated as the sum of the slopes in the regression of the lagged, contemporaneous, and lead returns on the market portfolio. Fama and French (1992) also employ the same method but use only the lagged and contemporaneous market returns. However, use of the lead market returns is necessary for Bangladeshi stocks since the coefficient on lead market returns is statistically significant for a fair number of stocks.

The returns on the All share Price index, which represents all the stocks listed on the DSE, are used to proxy for market returns.

6.3 Asset – pricing tests

In formal tests, this study uses the Fama and MacBeth (1973) cross-sectional regression approach to test the relation between returns, and β, size BE/ME, leverage, and E/P. as discussed in the previous sections, these explanatory variables are measured for each individual stock. Each year period from October 2000 to September 2008, the cross-section of returns on stocks is regressed on the explanatory variables. Then, the average of the time-series of slopes of monthly regressions and the associated t-statistics of time-series of slopes are used to the test the significance of such variables in explaining average returns in the cross –section. The cross-sectional regression for each month t takes the following form-

$$R = \alpha + \beta X + \dot{e}$$

Where,

R= return for stock

α= regression intercept

β=regression slope

X=explanatory variables

e= regression error

N=number of variables in the regression.

The Fama-MacBeth (FM) cross-sectional regression approach used here, how-ever, differs from the manner it is applied in previous tests in an important way. Previous tests use size and beta-sorted portfolios to estimate market β because portfolio β are considered more precise. Since there are only 24 stocks in the sample, portfolios will not include a reasonable number of stocks. As a result, this study uses individual stock β in regressions. This means, all the hypothesized variables are measured with respect to each stock.

6.4 Methods of Data Collection:

Certain Methods and techniques have been utilized to collect data for this research paper. Both primary and secondary sources were chosen as effective means of collecting data relevant for this report. The report was fully exploratory in nature. Data have been collected from both primary and secondary sources.

✓ **Primary Sources of Data**

- Annual reports of the company.

- Dhaka Stock Exchange- All Price share Index.

- Trade Information.

✓ **Secondary Sources of Data**

- Past Research Work.

- Different textbooks

7.0 Testable Hypothesis:

To study whether the cross sectional variable is experimental in Dhaka Stock Exchange (DSE) or not, the following hypotheses have been formulated.

Hypothesis 1

Ho: Return and size are not negatively related.

H1: Return and size are negatively related.

Hypothesis 2

Ho: Return and Asset to Book Equity are not positively related.

H1: Return and Asset to Book Equity are positively related.

Hypothesis 3

Ho: Return and Asset to Market Equity are not positively related.

H1: Return and Asset to Market Equity are positively related.

Hypothesis 4

Ho: Return and β are not positively related.

H1: Return and β are positively related.

Hypothesis 5

Ho: Return and book equity to market equity is positively related.

H1: Return and book equity to market equity is not positively related.

Hypothesis 6

Ho: Return and EP are not negatively related.

H1: Return and EP are negatively related.

8.0 Research Design:

The type of design that I will use in this research is called conclusive research design. Because I will try to find out, whether there is any significant deviation between CAPM and cross –section prediction or there is any other anomalies that affect the average stock market return that deviate from central prediction and my data analysis will be quantitative and my finding will help the investors in decision making.

A

ANALYSIS AND

REPORTING

9.0 Dependent and Independent variable:

I can consider average return as a dependent variable and different measure rules which can explain expected average stock return in Bangladesh as Independent variable. I.e. size, beta (β), BE/ME, Leverage, EP, EPD.

10.0 Empirical Result and Findings:

10.1 Relationship between size and return:

The most prominent factor is the size effect documented by the many researchers. In several studies, it has shown that size and return have negative related even after β is included as an explanatory variable.

From this concept the following hypotheses have been formulated-

Ho: Return and size are not negatively related.

H1: Return and size are negatively related.

We assign the level to signification, α = 0.05

So, the regression model,

Table 1:

Dependent Variable: RETURN Method: Least Squares Sample: 1 216 Included observations: 216				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	298.2802	28.62542	10.42012	0.0000
SIZE	-1.65E-08	1.13E-08	-1.454568	0.0147
R-squared	0.009790	Mean dependent var		286.3282
Adjusted R-squared	0.005163	S.D. dependent var		404.0455
S.E. of regression	403.0012	Akaike info criterion		14.84497
Sum squared resid	34755724	Schwarz criterion		14.87622
Log likelihood	-1601.257	Hannan-Quinn criter.		14.85760
F-statistic	2.115767	Durbin-Watson stat		0.324372
Prob(F-statistic)	0.147254			

The regression equation is, return(Y) = 298.28-1.165E- 08*(X)

Form, table, we can say that, return and size are negatively related and it is not significant in this model i.e. P value is 0.014753<0.05. So we can reject Ho and accept H1.

The interpretation of the equations is it the size increase by 1, the return will decrease by -1.16E-08

Interpretation of R square:

9.79% of the total variation is dependent variable "Return" can be explained by the independent variable 'size'.

Interpretation for multiple standard error of the estimate:

The typical error that we have made to fit the regression model is 403.0012.

10.2 Relationship between Return and market β:

According to the Capital Asset Pricing Model, it assumes that market β s are positively related with average return.

From this concept the following hypotheses have been formulated for Bangladeshi stock market -

Ho: Return and β are not positively related.
H1: Return and β are positively related.

We assign the level to signification, $\alpha = 0.05$
So, the regression model,

Table 2:

	Dependent Variable: RETURN Method: Least Squares Sample: 1 216 Included observations: 216			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	231.9417	26.50046	8.752365	0.0000
BETA	156.8696	23.67074	6.627154	0.0000
R-squared	0.170283	Mean dependent var		288.3258
Adjusted R-squared	0.166405	S.D. dependent var		403.9996
S.E. of regression	368.8573	Akaike info criterion		14.66791
Sum squared resid	29115916	Schwarz criterion		14.69917
Log likelihood	-1582.135	Hannan-Quinn criter.		14.68054
F-statistic	43.91916	Durbin-Watson stat		0.315924
Prob(F-statistic)	0.000000			

The regression equation is, return(Y) = 231.94+156.86*(X)

Form, table, we can say that, return and beta are positively related and it is significant in this model i.e. P value is 0.00<0.05. So we can reject Ho and accept H1.

The interpretation of the equations is it the size increase by 1, the return will increase by - 156.86.

Interpretation of R square:

17.02% of the total variation is dependent variable "Return can be explained by the independent variable 'β'.

Interpretation for multiple standard error of the estimate:

The typical error that we have made to fit the regression model is 368.85.

3 Relationship between Return and leverage:

Another contradiction of the β model is the positive relation between leverage and average return, documented by Bhandari (1988). It is considerable that the leverage is associated with risk and expected return. Leverage can be measured in two ways-

1. Asset to Book Equity.
2. Asset to Market Equity.

3.1 Relationship between return and Asset to Book Equity

From this concept the following hypotheses have been formulated for asset to book equity-

Ho: Return and Asset to Book Equity are not positively related.

H1: Return and Asset to Book Equity are positively related.

We assign the level to signification, $\alpha = 0.05$

So, the regression model,

Table 3:

Dependent Variable: RETURN Method: Least Squares Sample: 1 216 Included observations: 216				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	229.7879	35.09072	6.548395	0.0000
A_BE	15.79155	6.007645	2.628575	0.0092
R-squared	0.31277	Mean dependent var		288.3258
Adjusted R-squared	0.26750	S.D. dependent var		403.9996
S.E. of regression	398.5594	Akaike info criterion		14.82281
Sum squared resid	33993811	Schwarz criterion		14.85406
Log likelihood	-1598.863	Hannan-Quinn criter.		14.83543
F-statistic	6.909409	Durbin-Watson stat		0.311555
Prob(F-statistic)	0.009196			

The regression equation is, return(Y) = 229.78+15.79155 (X)

Form, table, we can say that, return and asset to book equity are positively related and it is significant in this model i.e. P value is 0.0092<0.05. So we can reject Ho and accept H1.

The interpretation of the equations is it the size increase by 1, the return will increase by -6.79155.

Interpretation of R square:

31.77% of the total variation is dependent variable "Return can be explained by the independent variable 'a_be'.

Interpretation for multiple standard error of the estimate:

The typical error that we have made to fit the regression model is 398.5594.

10.3.2 Relationship between return and Asset to Market Equity

The hypotheses have been formulated for asset to market equity-

Ho: Return and Asset to Market Equity are not positively related.

H1: Return and Asset to Market Equity are positively related.

We assign the level to signification, $\alpha = 0.05$

So, the regression model,

Table 4:

<table>
<tr><td colspan="5">Dependent Variable: RETURN
Method: Least Squares
Sample: 1 216
Included observations: 216</td></tr>
<tr><td>Variable</td><td>Coefficient</td><td>Std. Error</td><td>t-Statistic</td><td>Prob.</td></tr>
<tr><td>C</td><td>322.9125</td><td>31.38426</td><td>10.28899</td><td>0.0000</td></tr>
<tr><td>A_ME</td><td>-22.31051</td><td>10.05324</td><td>-2.219236</td><td>0.275</td></tr>
<tr><td>R-squared</td><td>0.22496</td><td colspan="2">Mean dependent var</td><td>288.3258</td></tr>
<tr><td>Adjusted R-squared</td><td>0.17929</td><td colspan="2">S.D. dependent var</td><td>403.9996</td></tr>
<tr><td>S.E. of regression</td><td>400.3616</td><td colspan="2">Akaike info criterion</td><td>14.83183</td></tr>
<tr><td>Sum squared resid</td><td>34301941</td><td colspan="2">Schwarz criterion</td><td>14.86308</td></tr>
<tr><td>Log likelihood</td><td>-1599.838</td><td colspan="2">Hannan-Quinn criter.</td><td>14.84446</td></tr>
<tr><td>F-statistic</td><td>4.925009</td><td colspan="2">Durbin-Watson stat</td><td>0.347519</td></tr>
<tr><td>Prob(F-statistic)</td><td>0.027521</td><td colspan="2"></td><td></td></tr>
</table>

The regression equation is, return(Y) = 322.91-22.3105(X)

Form, table, we can say that, return and asset to market equity are negatively related and it is significant in this model i.e. P value is 0.275>0.05. So we can accept Ho.

The interpretation of the equations is it the size increase by 1, the return will decrease by 22.3105.

Interpretation of R square:

22.49% of the total variation is dependent variable "Return can be explained by the independent variable 'A/ME'.

Interpretation for multiple standard error of the estimate:

The typical error that we have made to fit the regression model is 400.3616.

From this analysis, the contradictory situation arises relative to previous studies. Leverage should have the positive relation with market return. But asset to market equity have negative relation with return though asset to book equity have positive relation with market return.

10.4 Relationship between return and book to market equity:

Stattman (1980) and Rosenberg, Reid, and Lanstein (1985) find that average returns on U.S. stocks are positively related to the ratio of a firm's book value of common equity, BE, to its market value, ME. Chan, Hamao, and Lakonishok (1991) find that book-to-market equity, BE/ME, also has a strong role in explaining the cross-section of average returns on Japanese stocks.

From this concept the following hypotheses have been formulated for Bangladeshi stock market-

Ho: Return and book equity to market equity is positively related.

H1: Return and book equity to market equity is not positively related.

We assign the level to signification, $\alpha = 0.05$

So, the regression model,

Table 5:

Dependent Variable: RETURN
Method: Least Squares
Sample: 1 216
Included observations: 216

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	287.9910	27.56840	10.44641	0.0000
BE_ME	2.120536	6.913349	0.306731	0.7593
R-squared	0.00439	Mean dependent var		288.3258
Adjusted R-squared	-0.04231	S.D. dependent var		403.9996
S.E. of regression	404.8534	Akaike info criterion		14.85414
Sum squared resid	35075947	Schwarz criterion		14.88540
Log likelihood	-1602.247	Hannan-Quinn criter.		14.86677
F-statistic	0.094084	Durbin-Watson stat		0.318856
Prob(F-statistic)	0.759347			

The regression equation is, return(Y) = 287.99+2.12(X)

From, table, we can say that, return and be to me are positively related and it is significant in this model i.e. P value is 0.7593>0.05. So we can accept Ho.

The interpretation of the equations is it the size increase by 1, the return will increase by 2.1205

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Interpretation of R square:

4.39% of the total variation is dependent variable "Return can be explained by the independent variable 'Book equity to Market equity'.

Interpretation for multiple standard error of the estimate:

The typical error that we have made to fit the regression model is 404.8354.

10.5 Relationship between return and EP:

Earning- price (E\P) has also been found to be an important variable to captures cross-section return variation. Baso (1983) shows that earrings-price ratio help to explain, the cross section of average returns on U.S. stocks; in tests that also include size and market β.

From this concept the following hypotheses have been formulated for Bangladeshi stock Market-

Ho: Return and EP are not negatively related.
H1: Return and EP are negatively related.

.

We assign the level to signification, $\alpha = 0.05$.
So, the regression model,

Table 6:

Dependent Variable: RETURN Method: Least Squares Sample: 1 216 Included observations: 216				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	288.9286	27.51661	10.50015	0.0000
EP	58.91891	69.96432	0.842128	0.4007
R-squared	0.03303	Mean dependent var		288.3258
Adjusted R-squared	-0.01354	S.D. dependent var		403.9996
S.E. of regression	404.2731	Akaike info criterion		14.85127
Sum squared resid	34975462	Schwarz criterion		14.88253
Log likelihood	-1601.938	Hannan-Quinn criter.		14.86390
F-statistic	0.709180	Durbin-Watson stat		0.317050

The regression equation is, return(Y) = 288.92+58.91*(EP)

Form, table, we can say that, return and EP are positively related and it is not so significant in this model i.e. P value is 0.4007>0.05. So we can accept Ho.

The interpretation of the equations is it the EP increase by 1, the return will increase by - 58.91891.

Interpretation of R square:

3.3% of the total variation is dependent variable Return can be explained by the independent variable 'EP'.

Interpretation for multiple standard error of the estimate:

The typical error that we have made to fit the regression model is 404.2713.

11.0 Regression Model:

The regression equation is-

Y= a+b1x1+b2x2+b3x3+b4x4+b5x5

Table 7:

Dependent Variable: RETURN				
Method: Least Squares				
Sample: 1 216				
Included observations: 216				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	218.1824	39.40560	5.536839	0.0000
SIZE	-1.27E-08	9.92E-09	-1.284388	0.2004
BETA	178.2811	23.00113	7.750970	0.0000
A_BE	19.47029	5.416064	3.594916	0.0004
A_ME	-24.70638	9.886359	-2.499037	0.0132
BE_ME	-3.675929	7.160177	-0.513385	0.6082
EP	31.77073	73.41211	0.432772	0.6656
EPD	-181.6791	92.92336	-1.955150	0.0519
R-squared	0.280363	Mean dependent var		288.3258
Adjusted R-squared	0.256145	S.D. dependent var		403.9996
S.E. of regression	348.4377	Akaike info criterion		14.58113
Sum squared resid	25253034	Schwarz criterion		14.70614
Log likelihood	-1566.762	Hannan-Quinn criter.		14.63163
F-statistic	11.57639	Durbin-Watson stat		0.370567
Prob(F-statistic)	0.000000			

The regression equation is-

Y = 218.1824 -1.27E-08 (x1) + 178.2811(x2) + 19.47029 (x3) -24.70638(x4) - 3.675929(x5) + 31.77073(x6) - 181.6791(x7)

Interpretation:

➢ If the size is increase by 1, the return will decrease by -1.27E-08.

➢ If the Beta is increase by 1 , the return will increase by 178.2811.

➢ If the A_BE is increase by 1 , the return will increase by 19.47029.

➢ If the A_ME is increase by 1 , the return will decrease by 24.70638.

- ➤ If the BE_ME is increase by 1 , the return will decrease by 3.675929.
- ➤ If the EP is increase by 1 , the return will increase by 31.77073.
- ➤ If the EPD is increase by 1 , the return will decrease by 181.6791.

Interpretation for R square:
28.03% of the total variation in dependent variable "Return" can be explained by the independent variables.

Interpretation for Multiple S.E. of the estimate:
The typical error that we have made to fit the regression model is 348.4377.

Global test:

Ho: $\beta 1 = \beta 2 = \beta 3 = \beta 4 = \beta 5 = \beta 6 = 0$
H1: Not all β's are equal to zero.

Level of significance, $\alpha = 0.05$

ANOVA
Table 8

	Sum of Squares	df	Mean Square	F	Sig.
Regression	9838334.098	7	1405476.300	11.576	.000
Residual	25253033.588	208	121408.815		
Total	35091367.686	215			

a Predictors: (Constant), BETA, A/ME, SIZE, EP, A/BE, EPD, BE/ME
b Dependent Variable: RETURN

Since our P value is 0.000 which is less than α (0.05), So Ho is rejected.
So, Regression model is valid and significant.

12.0 Correlations

Table 9:

	SIZE	BE/ME	A/BE	A/ME	EP	EPD	BETA
SIZE	1	.040	-.098	-.025	.076	-.092	-.042
BE/ME	.040	1	.057	-.458(**)	.345(**)	-.156(*)	-.127
A/BE	-.098	.057	1	-.033	.132	-.148(*)	-.162(*)
A/ME	-.025	-.458(**)	-.033	1	-.085	.057	.032
EP	.076	.345(**)	.132	-.085	1	-.492(**)	-.136(*)
EPD	-.092	-.156(*)	-.148(*)	.057	-.492(**)	1	.145(*)
BETA	-.042	-.127	-.162(*)	.032	-.136(*)	.145(*)	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

There are strong correlations among some of the independent variable.

At 0.05 significant level,

✓ BE/ME and A/ME are negatively correlated (-0.458).

✓ BE/ME and EP are positively correlated (0.345).

✓ EPD and EP are negatively correlated (-0.492).

13.0 Limitations:

The research also has the limitation of the practice the concept at the market. our market is not efficient like the USA and other European markets. And the efficient market hypotheses are unveiled and debated. The investors have lacking of the relevant education and also they went for the investment without the concern of the expert. And then availability the information is toughest for prepare a research on the specific topic.

C

CONCLUSION AND

IMPLICATION

Conclusion and Implications:

The result of this study does not support entirely the central predication of the Sharpe-Lintner-Black model. Widely known as the Capital Asset pricing Model or SLB, that average stock returns are positively related to market β in Bangladesh during the October 1999 to July 2009 period. Average stock returns and β are found to be strongly positively related. Earnings- Price ratio (E/P) shows a strong positive relation with average returns. These results are robust to inclusion of size. BE/ME, and leverage asset to market equity, are not related to average returns in any significant manner and related negatively.

The key finding, that average returns and β are positively related, adds further evidence for the SLB model (Reinganum 1981). Lakonishok and Shapiro (1986) and Fama and French (1992). This result is much more damaging than Fama and French (1992) finding of no relation between average returns and β. The lack of a evidence of strong negative relation between average returns and size, and a positive relation between average returns and BE/ME ratio, however, is consistent with previous result on the US market (Banz (1981), Stattman (1980),Rosenberg, Reid and and Lanstein (1985). Fama and French (1992). The ability of E/P ratio to capture cross-sectional variation of expected returns independent of the effect of β supports Ball (1978) argument that E/P is a proxy for omitted risk factors.

The positive b-effect and positive E/P effect found in this study have practical implications for investor in the Bangladeshi stock market. The most important message is that higher market risk may result in higher average returns. On the contrary, stocks of firms with low market risk may produce higher average returns. This implies that fundamental analysis that is based on the widely used positive relation between market risk and returns may not work in Bangladesh. Since market risk does not seem to be compensated by the market. The positive E/P effect implies that stocks with higher earnings-price ratio tend to produce higher average returns.

Several caveats are order. The result of this study is based on a small sample size and a short sample period, although the data set are of high quality. While the results are robust to alternative techniques for estimating individual stock β, further work is necessary to asses the effect of β estimation procedures on these of results. The findings of this study may be appropriately considered the first evidence on the cross-sectional variation of expected returns in Bangladesh. Further work that takes into account longer time periods, larger sample sizes, and more precise estimates of β, remains to be done.

R

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A

APPENDIX

List of the Company and calculation of cross sectional variables:

1. British American Tobacco Bangladesh

2. Apex Spinning & Knitting Mills

3. Aftab automobailes

4. AMBEE Pharmacuticals

5. Anlima Yarn Dyeing

6. Apex footwear limited

7. Apex Tannery Ltd.

8. Atlas Bangladesh Ltd.

9. Bangladesh Welding Electrodes Ltd

10. Bata shoe

11. Beximco pharmaceuticals

12. Beximco Synthetics

13. Beximco Textile Ltd.

14. Confidence cement

15. Eastern Lubricant Benders Ltd.

16. Fu-Wang Ceramic Industry Ltd.

17. Modern Industries

18. National Tea Company

19. National tubes Ltd.

20. Padma Oil Company Ltd.

21. Prime Textile Spinning Mills Ltd.

22. Singer Bangladesh Ltd.

23. Standard Ceramic Ltd.

24. Usmania Glass Sheet Factory Ltd.

Apex Spinning & Knitting Mills

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		84000000	123480000	122640000	130200000	167160000	256200000	214200000	256200000	214200000
BE/ME		1.830875393	1.376844785	1.65096346	1.707669624	1.492823624	1.109034742	1.527138875	1.416103357	1.921369818
Leverage	Book leverage	1.723522886	1.988081319	1.85363913	1.903604936	2.266194752	2.415472213	2.492540489	2.549225819	2.474527622
	Market Leverage	3.191387702	2.758367258	3.07348812	3.257111513	3.383029062	2.678842603	3.687692754	3.48997532	4.624884351
EP		0.288171571	0.229856414	0.23869012	0.245989516	0.225876591	0.184208837	0.223587316	0.191097799	0.309956895
EPD		0	0	0	0	0	0	0	0	0

Aftab automobailes

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		104391.5	123640	138252	138252	196138	199566	219376	239187	258997
BE/ME		0.01360264	0.012285668	0.01205769	0.014827995	0.021189163	0.020107	0.021879	0.02365	0.025422
Leverage	Book leverage	3.732394366	4.533245556	5.31133773	4.010243902	3.052454283	3.563071	3.374782	3.186494	2.998206
	Market Leverage	0.050770417	0.05569395	0.06404247	0.059463878	0.064678951	0.068406	0.071565	0.074723	0.077882
EP		0.001024988	0.001528632	0.00180106	0.003565952	0.001891525	0.003094	0.003471	0.003848	0.004225
EPD		0	0	0	0	0	0	0	0	0

AMBEE Pharmacuticals

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		80000000	91000000	99000000	91900000	95900000	93600000	92560000	95900000	95900000
BE/ME		0.64275785	0.580764626	0.543857576	0.602229293	0.581445328	0.581193226	0.596512208	0.519093	0.498309
Levera ge	Book levera ge	2.341041815	2.45990534	2.507142541	3.04246612	3.251549683	3.808716506	6.035796629	3.8788	4.087884
	Marke t Levera ge	1.527972475	1.445822231	1.363528465	1.83226222	1.890598373	2.213600235	2.970857444	2.065607	2.123943
EP		0.316339688	0.013962615	0.04602196	0.064232557	0.056472732	0.038879049	0.053979894	0.033193	0.025433
EPD		0	0	0	0	0	0	0	0	0

Anlima Yarn Dyeing

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		205479700	219773940	187611900	150089520	153663080	105420020	98272900	153663080	153663080
BE/ME		1.123001284	1.111507274	1.283737396	1.563430864	1.425813969	1.905041282	1.864226079	1.0129633	0.8753464
Levera ge	Book levera ge	1.813634329	1.711176025	1.657779278	1.715728486	1.748369915	1.826528952	1.780362296	1.8462942	1.8789356
	Marke t Levera ge	1.853185137	1.759879347	2.024121098	2.616443313	2.492850247	3.479613056	3.318997821	2.1220721	1.9984788
EP		0.159298369	0.170674412	0.111451912	0.058269625	0.0002569	-0.0885180	-0.0884545	-0.173781	-0.231794
EPD		0	0	0	0	0	1	1	1	1

Apex footwear limited

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		138750000	159000000	150375000	150000000	153750000	153750000	153750000	196500000	214500000
BE/ME		1.155459459	1.011176101	1.07395511	1.093773333	1.239921951	1.428195122	1.630900813	1.4414042	1.4780408
Leverage	Book leverage	4.330576347	4.844206572	4.96093402	5.54905343	6.189893935	5.484491199	7.068725548	8.6529599	10.237194
	Market Leverage	5.003805405	4.898345912	5.32782045	6.069406667	7.674985366	7.832923577	11.52839024	12.35633	14.782745
EP		0.074183784	0.050025157	0.05466334	0.094133333	0.280143089	0.295596748	0.324656911	0.2761178	0.2725942
EPD		0	0	0	0	0	0	0	0	0

Apex Tannery Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		2196.5412	2362.2	2882.646	2878.38	3240.329	3493.145	3753.521	4013.896	4274.271
BE/ME		2.695601612	2.526035052	2.0789927	2.09041	1.846726	1.60304	1.359353	1.115666	0.87198
Leverage	Book leverage	2.641445702	2.314563432	2.35558151	2.47682	2.432487	2.388158	2.343829	2.299499	2.25517
	Market Leverage	7.120285292	5.84666836	4.89723677	5.17757	4.492137	3.806706	3.121276	2.435845	1.750414
EP		-0.065557614	0.10329354	0.08811349	0.07817	0.053698	0.029228	0.004757	-0.01971	-0.04418
EPD		1	0	0	0	0	0	0	1	1

Atlas Bangladesh Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		20103	20325	28125	4213 1.3	68715	95298 .75	12188 2.5	14846 6.3	17505 0
BE/ME		0.06332 3882	0.06824 1082	0.0383 2889	0.06 095	0.048 446	0.035 941	0.023 435	0.010 929	0.010 929
Leverage	Book leverage	2.14061 2726	2.37418 8897	3.6345 0835	2.01 324	1.810 454	1.607 667	1.404 881	1.202 095	0.999 308
	Market Leverage	0.13555 1908	0.16201 722	0.1393 0667	0.12 271	0.087 71	0.087 71	0.087 71	0.087 71	0.087 71
EP		0.00651 644	0.01564 5756	0.0241 0667	0.02 101	0.011 104	0.014 804	0.011 703	0.008 602	0.005 501
EPD		0	0	0	0	0	0	0	0	0

British American Tobacco Bangladesh

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		420000 0000	624000 0000	624000 0000	619200 0000	111822 00000	111822 00000	111822 00000	111822 00000	111822 00000
BE/ME		0.4594 70238	0.3584 59295	0.4157 88942	0.4772 39341	0.3129 29477	0.3009 2692	0.3212 13894	0.3581 11999	0.4603 05575
Leverage	Book leverage	2.1620 88245	2.1019 65784	2.5935 72496	2.8274 09237	2.2952 02199	2.7715 1329	2.7708 13725	2.4476 01602	2.2032 01285
	Market Leverage	0.9012 18095	0.6784 58974	0.8717 91987	1.0542 46932	0.5782 2441	0.6301 67945	0.6750 02951	0.7189 8401	0.8932 34963
EP		0.1134 74048	0.1401 14904	0.1588 44231	0.1407 14632	0.0602 12838	0.0208 26134	0.0323 35587	0.0714 50251	0.1492 35213
EPD		0	0	0	0	0	0	0	0	0

Bangladesh Welding Electrodes Ltd

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		11250	6500	7020	5824	5824	5824	5824	5824	5824
BE/ME		0.12266 6667	0.22	0.2055 5556	0.31 216	0.336 195	0.360 234	0.384 272	0.408 31	0.408 31
Leverage	Book leverage	1.86014 4928	1.72307 6923	1.7193 3472	1.60 946	1.575 077	1.540 692	1.506 308	1.471 924	1.437 539
	Market Leverage	0.22817 7778	0.37907 6923	0.3534 188	0.50 24	0.529 533	0.556 662	0.583 791	0.610 92	0.638 049
EP		0.00053 3333	0.00153 8462	0.0018 5185	0.00 24	0.002 919	0.003 434	0.003 949	0.004 464	0.004 979
EPD		0	0	0	0	0	0	0	0	0

Bata shoe

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		1169561 916	1277854 686	1237244 897	1291391 282	1241576 608	1241576 608	1241576 608	1241576 608	1241576 608
BE/ME		0.408500 243	0.44328 014	0.515215 517	0.647029 208	0.665414 883	0.708633 485	0.778665 504	0.848697 522	0.918729 541
Leverage	Book leverage	3.314440 117	3.19457 423	3.059987 346	2.504279 449	2.761341 319	2.499369 73	2.500165 872	2.500962 014	2.501758 157
	Market Leverage	1.134586 552	1.18234 563	1.330273 267	1.409048 927	1.571499 019	1.503531 485	1.648638 673	1.793745 86	1.938853 048
EP		0.164750 177	0.16846 791	0.218325 394	0.237916 367	0.142951 702	0.166432 191	0.223121 197	0.279810 203	0.336499 209
EPD		0	0	0	0	0	0	0	0	0

Beximco pharmaceuticals

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		2960325000	2190375000	1824427500	2021251500	5155412625	5544266284	5590025654	6744464833	21123114172
BE/ME		1.261619639	1.886546943	2.41511156	2.326810257	0.94638816	1.238422832	1.433325065	1.23097856	0.496925469
Leverage	Book leverage	1.43749446	1.526785105	1.5227527	1.728870152	1.790420515	1.604691431	1.498444242	1.44873426	1.418122371
	Market Leverage	1.827753858	2.903734688	3.70674702	3.971898866	1.67949627	1.974198103	2.131030021	1.77233023	0.701585255
EP		0.134544239	0.18342969	0.18728069	0.11114071	0.063889315	0.08824644	0.084196136	0.05234928	0.025817276
EPD		0	0	0	0	0	0	0	0	0

Beximco Textile Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		1093400	1025200	781000	844800	771056	771056	771056	771056	771056
BE/ME		0.013940 004	0.016629 926	0.01847 503	0.012 44	0.0123 49	0.0122 63	0.0121 76	0.0120 89	0.0120 02
Leverage	Book leverage	3.674583 388	3.458560 619	3.87012 267	5.624 41	6.3004 62	6.9765 19	7.6525 76	8.3286 33	9.0046 9
	Market Leverage	0.051223 706	0.057515 607	0.07150 064	0.069 95	0.0778 06	0.0856 67	0.0935 28	0.1013 88	0.1092 49
EP		0.002312 969	0.001763 558	- 0.00279 001	- 0.004 64	- 0.0012 8	0.0020 91	0.0054 59	0.0088 26	0.0121 94
EPD		0	0	1	1	1	0	0	0	0

Confidence cement

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		494855	973750	646475	311125	311125	311125	311125	311125	311125
BE/ME		0.011902 476	0.007095 25	0.01044 124	0.020 64	0.0195 32	0.0184 27	0.0173 21	0.0162 15	0.0151 1
Leverage	Book leverage	1.287606 112	1.439716 312	1.42014 815	1.468 46	1.7061 05	1.9437 47	2.1813 89	2.4190 31	2.6566 74
	Market Leverage	0.015325 701	0.010215 148	0.01482 811	0.030 31	0.0333 24	0.0363 42	0.0393 6	0.0423 78	0.0453 97
EP		0.002978 65	0.001630 809	0.00034 185	0.000 55	- 0.0007 7	- 0.0021	- 0.0034 3	- 0.0047 6	- 0.0060 8
EPD		0	0	0	0	1	1	1	1	1

Beximco Synthetics

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		519780 000	405210 000	309540 000	253575 000	454387 500	221760 000	292189 590	424077 018.8	793144 481.5
BE/ ME		1.0726 67721	1.4984 09701	2.0078 31359	2.5063 64543	1.7832 97516	3.7176 23327	3.0335 36332	2.0062 40129	2.5440 08489
Leve rage	Book lever age	2.5410 15474	2.3345 52838	2.3327 44385	2.1449 12052	2.2718 82582	2.1975 17692	2.3629 26029	2.7317 27187	1.4811 3952
	Mark et Leve rage	2.7256 65278	3.4981 16621	4.6837 5733	5.3759 31515	3.9063 87196	7.9849 81227	7.1610 84647	5.4805 00704	3.7680 31513
EP		0.1637 26019	0.1224 53461	0.0947 6489	0.1145 51001	0.1245 84825	0.1104 75194	0.2490 46385	- 0.0838 70152	0.0238 10671
EPD		0	0	0	0	0	0	0	1	0

Eastern Lubricant Benders Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		14512.4	15705.2	15904	17742.9	15307.6	15904	17742.9	19581.8	21420.7
BE/ME		0.033006257	0.031518223	0.0318159	0.0288	0.033578	0.038356	0.043134	0.047912	0.052689
Leverage	Book leverage	3.45302714	3.046464646	4.53754941	4.55773	3.243191	3.243191	3.243191	2.585921	2.191559
	Market Leverage	0.1139715	0.096019153	0.1443662	0.13126	0.1089	0.086537	0.064173	0.041809	0.019446
EP		0.003789862	0.002292234	0.00226358	0.00163	0.002025	0.002025	0.002025	0.002025	0.002025
EPD		0	0	0	0	0	0	0	0	0

Fu-Wang Ceramic Industry Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		356250	640500	390750	405750	316110	316110	316110	316110	316110
BE/ME		0.009855439	0.006135831	0.01025976	0.00985	0.01303	0.016207	0.019384	0.022561	0.025738
Leverage	Book leverage	1.24181145	1.307124682	1.40209529	1.54652	1.599175	1.651826	1.704477	1.757128	1.80978
	Market Leverage	0.012238596	0.008020297	0.01438516	0.01524	0.020838	0.026437	0.032036	0.037635	0.043235
EP		0.002647018	0.001039813	0.00058605	0.000078	0.000905	0.001026	0.001147	0.001268	0.001389
EPD		0	0	0	0	0	0	0	0	0

Modern Industries

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		5850000	4810000	6175000	3412500	2080000	1950000	5167500	8385000	11602500
BE/ME		-3.8359620	-7.1992629	-7.782637	-17.826224	-29.768000	-31.596630	-12.013644	7.56934	27.15233
Lever age	Book lever age	-1.573533565	-0.85825 9602	-0.5274 3421	-0.38402 0063	-0.39095 1503	-0.44084 2547	-0.42666 7564	-0.41 249	-0.398 32
	Market Lever age	6.036015043	6.17883 659	4.1048 2915	6.84562 7839	11.6378 4471	13.9291 3897	5.12583 2608	-3.67 747	-12.48 08
EP		-2.317933846	-2.53390 3742	-2.1747 9028	-3.74335 707	-0.52185	0.15590 4103	-0.09038 81	-0.33 66	-0.582 97
EPD		1	1	1	1	1	0	1	1	1

National Tea Company

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		547965000	535425000	462000000	455400000	719400000	458700000	382800000	382800000	382800000
BE/ME		0.407526371	0.399332738	0.42843155	0.447294462	0.28628644	0.475090865	0.571146821	0.571146821	0.571146821
Leverage	Book leverage	3.457142732	3.772131017	3.83425344	3.918255341	4.01463972	4.056162639	4.017325094	4.017325094	4.017325094
	Market Leverage	1.389686181	1.498171342	1.72025571	1.84573805	1.23719259	2.057659738	2.530874867	2.530874867	2.530874867
EP		-0.052949285	0.001585582	0.02362369	0.051324396	0.01493411	0.059638395	0.073575021	0.073575021	0.073575021
EPD		1	0	0	0	0	0	0	0	0

National tubes Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		191152.5	208732.5	181968.75	191250	191250	191250	191250	191250	191250
BE/ME		0.003175475	0.003732049	0.00450627	0.0057	0.009746	0.013793	0.017841	0.021888	0.025935
Leverage	Book leverage	10.66062603	8.940949936	7.93902439	6.28349	3.837983	3.837983	3.837983	3.837983	3.837983
	Market Leverage	0.033852552	0.033368067	0.03577537	0.03581	0.037407	0.039001	0.040596	0.042191	0.043786
EP		0.001668825	0.00140371	0.00082432	0.00244	0.004669	0.006902	0.009135	0.011367	0.0136
EPD		0	0	0	0	0	0	0	0	0

Padma Oil Company Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		50470	49490	122255	101381	164150	164150	164150	164150	164150
BE/ME		0.108420844	0.131824611	0.0584925	0.07557	0.046988	0.018409	0.075566	0.046988	0.018409
Leverage	Book leverage	15.41465643	20.19865113	19.9397287	20.1612	22.13017	24.09913	26.0681	28.03706	30.00602
	Market Leverage	1.671270061	2.662679329	1.16632449	1.52351	1.039842	0.556173	0.072504	-0.41116	-0.89483
EP		0.021795126	0.026166902	0.00713263	0.00746	0.004587	0.004587	0.004587	0.004587	0.004587
EPD		0	0	0	0	0	0	0	0	0

Prime Textile Spinning Mills Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		178585	295400.6	300061	338070	304148.4	304148.4	304148.4	304148.4	304148.4
BE/ME		0.058263572	0.035622812	0.03538281	0.03159	0.035427	0.039262	0.043098	0.046934	0.05077
Leverage	Book leverage	2.726189332	2.992682695	2.3632853	2.46292	2.350905	2.238888	2.126872	2.014855	1.902839
	Market Leverage	0.158837528	0.106607773	0.08361966	0.07781	0.083285	0.088764	0.094242	0.099721	0.1052
EP		0.002922978	0.001692617	0.00109644	0.00082	0.001006	0.001196	0.001385	0.001575	0.001765
EPD		0	0	0	0	0	0	0	0	0

Singer Bangladesh Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		2182206	2068774.5	2296053	2625960	2625960	2625960	2625960	2625960	2625960
BE/ME		0.001279439	0.001311404	0.00116243	0.00096	0.000713	0.000465	0.000218	0.000218	-0.000288
Leverage	Book leverage	2.309455587	2.639882049	2.59835144	2.97621	4.511218	6.046227	7.581235	9.116244	9.116244
	Market Leverage	0.002954808	0.003461953	0.0030204	0.00286	0.003216	0.003574	0.003931	0.004289	0.004646
EP		0.000588854	0.000564102	0.00059624	0.00049	0.000302	0.000302	0.000302	0.000302	0.000302
EPD		0	0	0	0	0	0	0	0	0

Standard Ceramic Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		63815.4	64753	67536.5	67390	83505	99620	115735	131850	147965
BE/ME		0.016798453	0.016632434	0.01563599	0.01157	0.01273	0.00976	0.00679	0.00382	0.00085
Leverage	Book leverage	2.180970149	2.250696379	2.14867424	1.99149	1.978363	1.965233	1.952103	1.938972	1.925842
	Market Leverage	0.036636925	0.037434559	0.03359665	0.03127	0.025184	0.019102	0.013021	0.006939	0.000858
EP		0.000109691	7.72165E-05	0.00011845	0.00089	0.000647	0.000647	0.000647	0.000647	0.000647
EPD		0	0	0	0	0	0	0	0	0

Usmania Glass Sheet Factory Ltd.

Variables		2000	2001	2002	2003	2004	2005	2006	2007	2008
Size		72016	128450	217087.5	123875.5	309837.5	309837.5	309837.5	309837.5	495799.5
BE/ME		0.037005665	0.021751654	0.01342316	0.025864679	0.010912172	0	0.010912	0.010912	0.010912
Leverage	Book leverage	2.641651032	2.664638511	2.19800961	2.092384519	2.09198462	#DIV/0!	2.091985	2.091985	2.091985
	Market Leverage	0.097756054	0.057960296	0.02950423	0.054118853	0.022828095	0	0.054119	0.054119	0.054119
EP		0.003707509	0.003705722	0.00253354	0.004754774	0.002068826	0	0.002069	0.002069	0.002069
EPD		0	0	0	0	0	0	0	0	0

Data presented in excel sheet:

Year	Company	Size	BE/ME	A/BE	A/ME	EP	EPD	RETURN	Beta
2000	Aftab automobailes	104391.5	0.013603	3.732394	0.05077	0.001024988	0	185.75	(0.08)
2001	Aftab automobailes	123640	0.012286	4.533246	0.055694	0.001528632	0	220	(0.08)
2002	Aftab automobailes	138252	0.012058	5.311338	0.064042	0.001801059	0	246	(0.08)
2003	Aftab automobailes	138252	0.014828	4.010244	0.059464	0.003565952	0	298	(0.08)
2004	Aftab automobailes	196138	0.021189	3.052454	0.064679	0.001891525	0	349	(0.08)
2005	Aftab automobailes	199566	0.020107	3.563071	0.068406	0.00309355	0	355.1	(0.08)
2006	Aftab automobailes	219376	0.021879	3.374782	0.071565	0.003470589	0	390.35	(0.08)
2007	Aftab automobailes	239187	0.02365	3.186494	0.074723	0.003847629	0	425.6	(0.08)
2008	Aftab automobailes	258997	0.025422	2.998206	0.077882	0.004224669	0	460.85	(0.08)
2000	AMBEE Pharmacuticals	80000000	0.642758	2.341042	1.527972	0.316339688	0	40	-0.09237
2001	AMBEE Pharmacuticals	91000000	0.580765	2.459905	1.445822	0.013962615	0	45.5	-0.09237
2002	AMBEE Pharmacuticals	99000000	0.543858	2.507143	1.363528	0.04602196	0	49.5	-0.09237
2003	AMBEE Pharmacuticals	91900000	0.602229	3.042466	1.832262	0.064232557	0	45.95	-0.09237
2004	AMBEE Pharmacuticals	95900000	0.581445	3.25155	1.890598	0.056472732	0	47.95	-0.09237
2005	AMBEE Pharmacuticals	95900000	0.560661	3.460633	1.948935	0.048712907	0	49.95	-0.09237
2006	AMBEE Pharmacuticals	95900000	0.539877	3.669717	2.007271	0.040953082	0	51.95	-0.09237
2007	AMBEE Pharmacuticals	95900000	0.519093	3.8788	2.065607	0.033193257	0	53.95	-0.09237
2008	AMBEE Pharmacuticals	95900000	0.498309	4.087884	2.123943	0.025433432	0	55.95	-0.09237
2000	Anlima Yarn Dyeing	205479700	1.12300	1.81363	1.85318	0.15929836	0	115	0.23428
2001	Anlima Yarn Dyeing	2197739	1.111	1.711	1.759	0.17067	0	123	0.234

			40	507	176	879	4412			282
2002	Anlima Yarn Dyeing	187611900	1.283737	1.657779	2.024121	0.111451912	0	105	0.234282
2003	Anlima Yarn Dyeing	150089520	1.563431	1.715728	2.616443	0.058269625	0	84	0.234282
2004	Anlima Yarn Dyeing	153663080	1.425814	1.74837	2.49285	0.0002569	0	86	0.234282
2005	Anlima Yarn Dyeing	153663080	1.288197	1.781011	2.369257	-0.057755825	0	88	0.234282
2006	Anlima Yarn Dyeing	153663080	1.15058	1.813653	2.245664	-0.11576855	0	90	0.234282
2007	Anlima Yarn Dyeing	153663080	1.012963	1.846294	2.122071	-0.173781275	0	92	0.234282
2008	Anlima Yarn Dyeing	153663080	0.875346	1.878936	1.998478	-0.231794	0	94	0.234282
2000	Apex footwear limited	138750000	1.155459	4.330576	5.003805	0.074183784	0	185	0.176863
2001	Apex footwear limited	159000000	1.011176	4.844207	4.898346	0.050025157	0	212	0.176863
2002	Apex footwear limited	150375000	1.073955	4.960934	5.32782	0.054663342	0	200.5	0.176863
2003	Apex footwear limited	150000000	1.093773	5.549053	6.069407	0.094133333	0	200	0.176863
2004	Apex footwear limited	153750000	1.239922	6.189894	7.674985	0.280143089	0	205	0.176863
2005	Apex footwear limited	160500000	1.368131	5.484491	7.503502	0.283165109	0	213	0.176863
2006	Apex footwear limited	178500000	1.404768	7.068726	9.929916	0.279641457	0	238	0.176863
2007	Apex footwear limited	196500000	1.441404	8.65296	12.35633	0.276117804	0	263	0.176863
2008	Apex footwear limited	214500000	1.478041	10.23719	14.78274	0.272594152	0	288	0.176863
2000	Apex Spinning & Knitting Mills	84000000	1.830875	1.723523	3.191388	0.288171571	0	100	0.30745
2001	Apex Spinning & Knitting Mills	123480000	1.37684	1.98808	2.75836	0.22985641	0	147	0.30745
2002	Apex Spinning & Knitting Mills	122640000	1.650963	1.853639	3.073488	0.238690117	0	146	0.30745
2003	Apex Spinning & Knitting Mills	130200000	1.70767	1.903605	3.257112	0.245989516	0	155	0.30745
2004	Apex Spinning & Knitting Mills	167160000	1.492824	2.266195	3.383029	0.225876591	0	199	0.30745
2005	Apex Spinning & Knitting Mills	256200000	1.109035	2.415472	2.678843	0.184208837	0	305	0.30745
2006	Apex Spinning & Knitting Mills	214200000	1.527139	2.49254	3.687693	0.223587316	0	255	0.30745
2007	Apex Spinning &	256200000	1.416	2.549	3.489	0.19109	0	305	0.307

	Knitting Mills	00	103	226	975	7799			45
2008	Apex Spinning & Knitting Mills	2142000 00	1.921 37	2.474 528	4.624 884	0.30995 6895	0	255	0.307 45
2000	Apex Tannery Ltd.	2196.54 12	2.695 602	2.641 446	7.120 285	- 0.06555 7614	1	144.1 3	- 0.261 5
2001	Apex Tannery Ltd.	2362.2	2.526 035	2.314 563	5.846 668	0.10329 354	0	155	- 0.261 5
2002	Apex Tannery Ltd.	2882.64 6	2.078 993	2.355 582	4.897 237	0.08811 349	0	189.1 5	- 0.261 5
2003	Apex Tannery Ltd.	2878.37 88	2.090 413	2.476 816	5.177 567	0.07816 9003	0	188.8 7	- 0.261 5
2004	Apex Tannery Ltd.	3240.32 88	1.846 726	2.432 487	4.492 137	0.05369 8254	0	212.6 2	- 0.261 5
2005	Apex Tannery Ltd.	3493.14 516	1.603 04	2.388 158	3.806 706	0.02922 7506	0	215.5	- 0.261 5
2006	Apex Tannery Ltd.	3753.52 056	1.359 353	2.343 829	3.121 276	0.00475 6758	0	285	- 0.261 5
2007	Apex Tannery Ltd.	4013.89 596	1.115 666	2.299 499	2.435 845	- 0.01971 3991	1	285.7 5	- 0.261 5
2008	Apex Tannery Ltd.	4274.27 136	0.871 98	2.255 17	1.750 414	- 0.04418 4739	1	332.3 333	- 0.261 5
2000	Atlas Bangladesh Ltd.	20103	0.063 324	2.140 613	0.135 552	0.00651 644	0	134.0 2	- 0.128 89
2001	Atlas Bangladesh Ltd.	20325	0.068 241	2.374 189	0.162 017	0.01564 5756	0	135.5	- 0.128 89
2002	Atlas Bangladesh Ltd.	28125 .	0.038 329	3.634 508	0.139 307	0.02410 6667	0	187.5	- 0.128 89
2003	Atlas Bangladesh Ltd.	42131.2 5	0.060 952	2.013 24	0.122 712	0.02100 5785	0	187.2 5	- 0.128 89
2004	Atlas Bangladesh Ltd.	68715	0.048 446	1.810 454	0.087 71	0.01790 4904	0	229.0 5	- 0.128 89
2005	Atlas Bangladesh Ltd.	95298.7 5	0.035 941	1.607 667	0.087 71	0.01480 4023	0	270.8 5	- 0.128 89
2006	Atlas Bangladesh Ltd.	121882. 5	0.023 435	1.404 881	0.087 71	0.01170 3142	0	312.6 5	- 0.128 89
2007	Atlas Bangladesh Ltd.	148466.	0.010	1.202	0.087	0.00860	0	354.4	-

		25	929	095	71	2261		5	0.128 89
2008	Atlas Bangladesh Ltd.	175050	0.010 929	0.999 308	0.087 71	0.00550 138	0	396.2 5	- 0.128 89
2000	Bangladesh Welding Electrodes Ltd.	.11250	0.122 667	1.860 145	0.228 178	0.00053 3333	0	11.25	- 0.168 96
2001	Bangladesh Welding Electrodes Ltd.	6500	0.22	1.723 077	0.379 077	0.00153 8462	0	6.25	- 0.168 96
2002	Bangladesh Welding Electrodes Ltd.	7020	0.205 556	1.719 335	0.353 419	0.00185 1852	0	6.75	- 0.168 96
2003	Bangladesh Welding Electrodes Ltd.	5824	0.312 157	1.609 461	0.502 404	0.00240 3846	0	5.6	- 0.168 96
2004	Bangladesh Welding Electrodes Ltd.	5824	0.336 195	1.575 077	0.529 533	0.00291 8956	0	5.78	- 0.168 96
2005	Bangladesh Welding Electrodes Ltd.	5824	0.360 234	1.540 692	0.556 662	0.00343 4066	0	5.275	- 0.168 96
2006	Bangladesh Welding Electrodes Ltd.	5824 .	0.384 272	1.506 308	0.583 791	0.00394 9176	0	4.965	- 0.168 96
2007	Bangladesh Welding Electrodes Ltd.	5824	0.408 31	1.471 924	0.610 92	0.00446 4286	0	4.655	- 0.168 96
2008	Bangladesh Welding Electrodes Ltd.	5824	0.408 31	1.437 539	0.638 049	0.00497 9396	0	4.345	- 0.168 96
2000	Bata shoe	1169561 916	0.408 5	3.314 44	1.134 587	0.16475 0177	0	108	2.887 998
2001	Bata shoe	1277854 686	0.443 28	3.194 574	1.182 346	0.16846 7911	0	118	2.887 998
2002	Bata shoe	1237244 897	0.515 216	3.059 987	1.330 273	0.21832 5394	0	114.2 5	2.887 998
2003	Bata shoe	1291391 282	0.647 02	2.504 27	1.409 04	0.23791 636	0	119.2 5	2.887 99
2004	Bata shoe	1241576 608	0.665 415	2.761 341	1.571 499	0.14295 1702	0	114.6 5	2.887 998
2005	Bata shoe	1241576 608	0.708 633	2.499 37	1.503 531	0.16643 2191	0	110.0 5	2.887 998
2006	Bata shoe	1241576 608	0.778 666	2.500 166	1.648 639	0.22312 1197	0	105.4 5	2.887 998
2007	Bata shoe	1241576 608	0.848 698	2.500 962	1.793 746	0.27981 0203	0	100.8 5	2.887 998
2008	Bata shoe	1241576 608	0.918 73	2.501 758	1.938 853	0.33649 9209	0	96.25	2.887 998
2000	Beximco pharmaceuticals	2960325 000	1.261 62	1.437 494	1.827 754	0.13454 4239	0	66.9	- 0.974

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2001	Beximco pharmaceuticals	2190375000	1.886547	1.526785	2.903735	0.18342969	0	49.5	-0.97408
2002	Beximco pharmaceuticals	1824427500	2.415112	1.522753	3.706747	0.187280694	0	41.23	-0.97408
2003	Beximco pharmaceuticals	2021251500	2.32681	1.72887	3.971899	0.11114071	0	39.72	-0.97408
2004	Beximco pharmaceuticals	5155412625	0.946388	1.790421	1.679496	0.063889315	0	92.1	-0.97
2005	Beximco pharmaceuticals	5544266284	1.238423	1.604691	1.974198	0.08824644	0	57.8	-0.97408
2006	Beximco pharmaceuticals	5590025654	1.433325	1.498444	2.13103	0.08419 6136	0	53.7	-0.97408
2007	Beximco pharmaceuticals	6744464833	1.230979	1.448734	1.77233	0.05234928	0	58.9	-0.97408
2008	Beximco pharmaceuticals	21123114172	0.496925	1.418122	0.701585	0.025817276	0	167.7	-0.97408
2000	Beximco Synthetics	519780000	1.072668	2.541015	2.725665	0.163726019	0	173.26	-0.2882
2001	Beximco Synthetics	405210000	1.49841	2.334553	3.498117	0.12245 3461	0	135.07	-0.2882
2002	Beximco Synthetics	309540000	2.007831	2.332744	4.683757	0.09476489	0	103.18	-0.2882
2003	Beximco Synthetics	253575000	2.506365	2.144912	5.375932	0.11455 1001	0	80.5	-0.2882
2004	Beximco Synthetics	454387500	1.783298	2.271883	3.906387	0.12458 4825	0	144.25	-0.2882
2005	Beximco Synthetics	221760000	3.717623	2.197518	7.984981	0.11047 5194	0	64	-0.2882
2006	Beximco Synthetics	292189590	3.033536	2.362926	7.161085	0.24904 6385	0	76.66	-0.2882
2007	Beximco Synthetics	424077018.8	2.00624	2.731727	5.480501	-0.08387 0152	1	96.75	-0.2882
2008	Beximco Synthetics	793144481.5	2.544008	1.48114	3.768032	0.02381 0671	0	164.5	-0.2882
2000	Beximco Textile Ltd.	1093400	0.013	3.674	0.051	0.00231	0	124.2	-

Year	Company								
			94	583	224	2969		5	0.030 13
2001	Beximco Textile Ltd.	1025200	0.016 63	3.458 561	0.057 516	0.00176 3558	0	116.5	-0.030 13
2002	Beximco Textile Ltd.	781000	0.018 475	3.870 123	0.071 501	-0.00279 0013	1	88.75	-0.030 13
2003	Beximco Textile Ltd.	844800	0.012 436	5.624 405	0.069 946	-0.00464 3703	1	96	-0.030 13
2004	Beximco Textile Ltd.	771056	0.012 349	6.300 462	0.077 806	-0.00127 6172	1	87.62	-0.030 13
2005	Beximco Textile Ltd.	771056	0.012 263	6.976 519	0.085 667	0.00209 1359	0	79.24	-0.030 13
2006	Beximco Textile Ltd.	771056	0.012 176	7.652 576	0.093 528	0.00545 889	0	70.86	-0.030 13
2007	Beximco Textile Ltd.	771056	0.012 089	8.328 633	0.101 388	0.00882 642	0	62.48	-0.030 13
2008	Beximco Textile Ltd.	771056	0.012 002	9.004 69	0.109 249	0.01219 3951	0	54.1	-0.030 13
2000	British American Tobacco Bangladesh	4200000 000	0.459 47	2.162 088	0.901 218	0.11347 4048	0	105	0.453 294
2001	British American Tobacco Bangladesh	6240000 000	0.358 459	2.101 966	0.678 459	0.14011 4904	0	104	0.453 294
2002	British American Tobacco Bangladesh	6240000 000	0.415 789	2.593 572	0.871 792	0.15884 4231	0	104	0.453 294
2003	British American Tobacco Bangladesh	6192000 000	0.477 239	2.827 409	1.054 247	0.14071 4632	0	103.2	0.453 294
2004	British American Tobacco Bangladesh	1118220 0000	0.312 929	2.295 202	0.578 224	0.06021 2838	0	186.3 7	0.453 294
2005	British American Tobacco Bangladesh	1118220 0000	0.300 927	2.771 513	0.630 168	0.02082 6134	0	177.6	0.453 294
2006	British American Tobacco Bangladesh	1118220 0000	0.321 214	2.770 814	0.675 003	0.03233 5587	0	113	0.453 294
2007	British American Tobacco Bangladesh	1118220 0000	0.358 112	2.447 602	0.718 984	0.07145 0251	0	172	0.453 294
2008	British American Tobacco Bangladesh	1118220 0000	0.460 306	2.203 201	0.893 235	0.14923 5213	0	186.3 7	0.453 294
2000	Confidence cement	494855	0.011 902	1.287 606	0.015 326	0.00297 865	0	260.4 5	0.368 234
2001	Confidence cement	973750	0.007 095	1.439 716	0.010 215	0.00163 0809	0	512.5	0.368 234
2002	Confidence cement	646475	0.010 441	1.420 148	0.014 828	0.00034 1854	0	340.2 5	0.368 234
2003	Confidence cement	311125	0.020	1.468	0.030	0.00055	0	163.7	0.368

Year	Company								
			638	463	306	2832		5	234
2004	Confidence cement	311125	0.019532	1.706105	0.033324	-0.000774608	1	178.9	0.368234
2005	Confidence cement	311125	0.018427	1.943747	0.036342	-0.002102049	1	194.05	0.368234
2006	Confidence cement	311125	0.017321	2.181389	0.03936	-0.00342949	1	209.2	0.368234
2007	Confidence cement	311125	0.016215	2.419031	0.042378	-0.00475693	1	224.35	0.368234
2008	Confidence cement	311125	0.01511	2.656674	0.045397	-0.006084371	1	239.5	0.368234
2000	Eastern Lubricant Benders Ltd.	14512.4	0.033006	3.453027	0.113972	0.003789862	0	146	0.094932
2001	Eastern Lubricant Benders Ltd.	15705.2	0.031518	3.046465	0.096019	0.002292234	0	158	0.094932
2002	Eastern Lubricant Benders Ltd.	15904	0.031816	4.537549	0.144366	0.002263581	0	160	0.094932
2003	Eastern Lubricant Benders Ltd.	17742.9	0.0288	4.55773	0.131264	0.001634457	0	178.5	0.094932
2004	Eastern Lubricant Benders Ltd.	15307.6	0.033578	3.243191	0.1089	0.002025138	0	154	0.094932
2005	Eastern Lubricant Benders Ltd.	15904	0.038356	3.243191	0.086537	0.002025138	0	158	0.094932
2006	Eastern Lubricant Benders Ltd.	17742.9	0.043134	3.243191	0.064173	0.002025138	0	159	0.094932
2007	Eastern Lubricant Benders Ltd.	19581.8	0.047912	2.585921	0.041809	0.002025138	0	173	0.094932
2008	Eastern Lubricant Benders Ltd.	21420.7	0.052689	2.191559	0.019446	0.002025138	0	145	0.094932
2000	Fu-Wang Ceramic Industry Ltd.	356250	0.009855	1.241811	0.012239	0.002647018	0	142.5	0.025881
2001	Fu-Wang Ceramic Industry Ltd.	640500	0.006136	1.307125	0.00802	0.001039813	0	213.5	0.025881
2002	Fu-Wang Ceramic Industry Ltd.	390750	0.01026	1.402095	0.014385	0.000586052	0	130.25	0.025881
2003	Fu-Wang Ceramic Industry Ltd.	405750	0.009853	1.546523	0.015238	0.000783734	0	135.25	0.025881
2004	Fu-Wang Ceramic Industry Ltd.	316110	0.01303	1.599175	0.020838	0.000904748	0	105.37	0.025881
2005	Fu-Wang Ceramic Industry Ltd.	316110	0.016207	1.651826	0.026437	0.001025763	0	90.67	0.025881
2006	Fu-Wang Ceramic Industry Ltd.	316110	0.019384	1.704477	0.032036	0.001146777	0	122	0.025881
2007	Fu-Wang Ceramic Industry Ltd.	316110	0.022561	1.757128	0.037635	0.001267792	0	122.6433	0.025881
2008	Fu-Wang Ceramic Industry Ltd.	316110	0.025738	1.80978	0.043235	0.001388806	0	130.9583	0.025881

2000	Modern Industries	5850000	-3.83596	-1.57353	6.036015	-2.317933846	1	45	1.612534
2001	Modern Industries	4810000	-7.19926	-0.85826	6.178837	-2.533903742	1	37	1.612534
2002	Modern Industries	6175000	-7.78264	-0.52743	4.104829	-2.174790283	1	47.5	1.612534
2003	Modern Industries	3412500	-17.8262	-0.38402	6.845628	-3.74335707	1	26.25	1.612534
2004	Modern Industries	2080000	-29.768	-0.39095	11.63784	-0.52185	1	16	1.612534
2005	Modern Industries	1950000	-31.5966	-0.44084	13.92914	0.155904103	0	5.75	1.612534
2006	Modern Industries	5167500	-12.0136	-0.42667	5.125833	-0.090388195	1	4.5	1.612534
2007	Modern Industries	8385000	7.56934	-0.41249	-3.67747	-0.336680493	1	14.75	1.612534
2008	Modern Industries	11602500	27.15233	-0.39832	-12.4808	0.582972791	1	25	1.612534
2000	National Tea Company	547965000	0.407526	3.457143	1.389686	-0.052949285	1	830.25	3.804493
2001	National Tea Company	535425000	0.399333	3.772131	1.498171	0.001585582	0	811.25	3.804493
2002	National Tea Company	462000000	0.428432	3.834253	1.720256	0.023623688	0	700	3.804493
2003	National Tea Company	455400000	0.447294	3.918255	1.845738	0.051324396	0	690	3.804493
2004	National Tea Company	719400000	0.286286	4.01464	1.237193	0.014934115	0	1090	3.804493
2005	National Tea Company	458700000	0.286286	4.01464	1.237193	0.014934115	0	1170	3.804493
2006	National Tea Company	382800000	0.475091	4.056163	2.05766	0.059638395	0	1231	3.804493
2007	National Tea Company	382800000	0.571147	4.017325	2.530875	0.073575021	0	1121	3.804493
2008	National Tea Company	382800000	0.571147	4.017325	2.530875	0.073575021	0	1034	3.804493
2000	National tubes Ltd.	.191152.5	0.003175	10.66063	0.033853	0.001668825	0	509.74	-0.02005
2001	National tubes Ltd.	208732.5	0.003732	8.94095	0.033368	0.00140371	0	556.62	-0.02005

2002	National tubes Ltd.	181968.75	0.004506	7.939024	0.035775	0.000824317	0	485.25	-0.02005
2003	National tubes Ltd.	191250	0.005699	6.283486	0.035812	0.002436601	0	510	-0.02005
2004	National tubes Ltd.	191250	0.00974	3.83798	0.03740	0.00466928	0	534.75	-0.02005
2005	National tubes Ltd.	191250	0.013793	3.837983	0.039001	0.006901961	0	559.5	-0.02005
2006	National tubes Ltd.	191250	0.017841	3.837983	0.040596	0.009134641	0	584.25	-0.02005
2007	National tubes Ltd.	191250	0.021888	3.837983	0.042191	0.01136732	0	609	-0.02005
2008	National tubes Ltd.	191250	0.025935	3.837983	0.043786	0.0136	0	633.75	-0.02005
2000	Padma Oil Company Ltd.	50470	0.108421	15.41466	1.67127	0.021795126	0	103	-0.71839
2001	Padma Oil Company Ltd.	49490	0.131825	20.19865	2.662679	0.026166902	0	101	-0.71839
2002	Padma Oil Company Ltd.	122255	0.058492	19.93973	1.166324	0.007132633	0	249.5	-0.71839
2003	Padma Oil Company Ltd.	101381	0.075566	20.16121	1.52351	0.007457019	0	206.9	-0.71839
2004	Padma Oil Company Ltd.	164150	0.046988	22.13017	1.039842	0.004587268	0	335	-0.71839
2005	Padma Oil Company Ltd.	164150	0.018409	24.09913	0.556173	0.004587268	0	374	-0.71839
2006	Padma Oil Company Ltd.	164150	0.075566	26.0681	0.072504	0.004587268	0	356	-0.71839
2007	Padma Oil Company Ltd.	164150	0.046988	28.03706	-0.41116	0.004587268	0	335	-0.71839
2008	Padma Oil Company Ltd.	164150	0.018409	30.00602	-0.89483	0.004587268	0	458	-0.71839
2000	Prime Textile Spinning Mills Ltd.	178585	0.058264	2.726189	0.158838	0.002922978	0	46.75	-0.09323
2001	Prime Textile Spinning Mills Ltd.	295400.6	0.035623	2.992683	0.106608	0.001692617	0	77.33	-0.093

									23
2002	Prime Textile Spinning Mills Ltd.	300061	0.035 383	2.363 285	0.083 62	0.00109 6444	0	78.55	- 0.093 23
2003	Prime Textile Spinning Mills Ltd.	338070	0.031 591	2.462 921	0.077 806	0.00081 6399	0	88.5	- 0.093 23
2004	Prime Textile Spinning Mills Ltd.	304148. 4	0.035 427	2.350 905	0.083 285	0.00100 6088	0	79.62	- 0.093 23
2005	Prime Textile Spinning Mills Ltd.	304148. 4	0.039 262	2.238 888	0.088 764	0.00119 5777	0	70.74	- 0.093 23
2006	Prime Textile Spinning Mills Ltd.	304148. 4	0.043 098	2.126 872	0.094 242	0.00138 5466	0	78	- 0.093 23
2007	Prime Textile Spinning Mills Ltd.	304148. 4	0.046 934	2.014 855	0.099 721	0.00157 5154	0	85.26	- 0.093 23
2008	Prime Textile Spinning Mills Ltd.	304148. 4	0.050 77	1.902 839	0.105 2	0.00176 4843	0	92.52	- 0.093 23
2000	Singer Bangladesh Ltd.	2182206	0.001 279	2.309 456	0.002 955	0.00058 8854	0	1313	1.564 19
2001	Singer Bangladesh Ltd.	2068774 .5	0.001 311	2.639 882	0.003 462	0.00056 4102	0	1244. 75	1.564 19
2002	Singer Bangladesh Ltd.	2296053	0.001 162	2.598 351	0.003 02	0.00059 6241	0	1381. 5	1.564 19
2003	Singer Bangladesh Ltd.	2625960	0.000 96	2.976 209	0.002 858	0.00049 2391	0	1580	1.564 19
2004	Singer Bangladesh Ltd.	2625960	0.000 713	4.511 218	0.003 216	0.00030 2366	0	1778. 5	1.564 19
2005	Singer Bangladesh Ltd.	2625960	0.000 465	6.046 227	0.003 574	0.00030 2366	0	1977	1.564 19
2006	Singer Bangladesh Ltd.	2625960	0.000 218	7.581 235	0.003 931	0.00030 2366	0	2175. 5	1.564 19
2007	Singer Bangladesh Ltd.	2625960	0.000 218	9.116 244	0.004 289	0.00030 2366	0	2374	1.564 19
2008	Singer Bangladesh Ltd.	2625960	- 0.000 28	9.116 244	0.004 646	0.00030 2366	0	2572. 5	1.564 19
2000	Standard Ceramic Ltd.	63815.4	0.016 798	2.180 97	0.036 637	0.00010 9691	0	108.9	- 0.035 86
2001	Standard Ceramic Ltd.	64753	0.016 632	2.250 696	0.037 435	7.72165 E-05	0	110.5	- 0.035 86
2002	Standard Ceramic Ltd.	67536.5	0.015 636	2.148 674	0.033 597	0.00011 8454	0	115.2 5	- 0.035 86
2003	Standard Ceramic Ltd.	67390	0.015 7	1.991 493	0.031 266	0.00089 034	0	115	- 0.035

									86
2004	Standard Ceramic Ltd.	83505	0.012 73	1.978 363	0.025 184	0.00064 6668	0	142.5	- 0.035 86
2005	Standard Ceramic Ltd.	99620	0.009 76	1.965 233	0.019 102	0.00064 6668	0	170	- 0.035 86
2006	Standard Ceramic Ltd.	115735	0.006 79	1.952 103	0.013 021	0.00064 6668	0	197.5	- 0.035 86
2007	Standard Ceramic Ltd.	131850	0.003 82	1.938 972	0.006 939	0.00064 6668	0	225	- 0.035 86
2008	Standard Ceramic Ltd.	147965	0.000 85	1.925 842	0.000 858	0.00064 6668	0	227	- 0.035 86
2000	Usmania Glass Sheet Factory Ltd.	72016	0.037 006	2.641 651	0.097 756	0.00370 7509	0	205.7 6	- 0.011 11
2001	Usmania Glass Sheet Factory Ltd.	128450	0.021 752	2.664 639	0.057 96	0.00370 5722	0	367	- 0.011 11
2002	Usmania Glass Sheet Factory Ltd.	217087. 5	0.013 423	2.198 01	0.029 504	0.00253 3541	0	620.2 5	- 0.011 11
2003	Usmania Glass Sheet Factory Ltd.	123875. 5	0.025 865	2.092 385	0.054 119	0.00475 4774	0	353.9 3	- 0.011 11
2004	Usmania Glass Sheet Factory Ltd.	309837. 5	0.010 912	2.091 985	0.022 828	0.00206 8826	0	885.2 5	-0.011
2005	Usmania Glass Sheet Factory Ltd.	309837. 5	0.010 912	2.091 985	0.054 119	0.00206 8826	0	884	- 0.011 11
2006	Usmania Glass Sheet Factory Ltd.	309837. 5	0.010 912	2.091 985	0.054 119	0.00206 8826	0	889	- 0.011 11
2007	Usmania Glass Sheet Factory Ltd.	309837. 5	0.010 912	2.091 985	0.054 119	0.00206 8826	0	911	- 0.011 11
2008	Usmania Glass Sheet Factory Ltd.	495799. 5	0.010 912	2.091 985	0.054 119	0.00206 8826	0	234	- 0.011 11