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Mei Yan, Mabel HUI

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**An Analysis
of the Change in Financial Position
of the Construction Industry in Hong Kong**

A final year project

Prepared for

Dr. Helen Kwok (Project Supervisor)

In a Partial Fulfillment of
The Requirement for the Degree of
The Bachelor of Business Administration (Hon)

Prepared by

Alex, Tse Shun Kwon

Mabel, Hui Mei Yan

Department of Accounting and Finance
Lingnan College

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Abstracts

The purpose of this report is to find out the relationship between Hong Kong construction industry and the market condition of Hong Kong in the past 5 years (1993-97).

Prior research showed that construction industry is an important contributor to the economic development of Singapore by helping to establish the infrastructure required for sustaining socioeconomic development (Ofori 1988). Although a number of researches were on the prediction of solvency, none was related to the construction industry in Hong Kong. Recently, Hong Kong has been facing economy difficulty, concern is aroused in the healthiness of Hong Kong business. Construction industry, being an important industry, deserves to study.

To determine the relationship between market condition and the industry, we use the Capital Asset Pricing Model (CAPM). The results of CAPM showed that the financial performance of construction companies follow the movement of the market. We determine the change of financial position of Hong Kong construction companies by using the industrial average of the construction sector in Hong Kong and applying financial statement analysis techniques. We found from the financial statement analysis that most construction companies were not profitable and most of them had high gearing ratios. Questionnaires are sent to 22 listed construction companies to identify the possible factors that affect the

their performance. According to the view of these construction companies, their performance was much affected by the economic condition.

These results are consistent in the way that the construction companies are not profitable during the periods. Long Debtor's Day and high gearing position are norms in construction industry. Most sample companies in our study follow these norms. The result shows that most sample companies follow the market to grow but the growth rate is not as rapid as the market. We recommend that the construction companies should better control their debt and expenses with great care so as to improve profitability and financial leverage. Through value management to achieve an effective management of change.

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Chapter 1 Introduction

1.1 Rationale

During the past few decades, Hong Kong has established itself as a commercial centre.

The quality and efficient urban infrastructure, utility services and transportation systems all combine to create a comfortable business environment in Hong Kong

(Walker, 1990). Such an environment is an essential element to Hong Kong achieving

its economic status. Hong Kong's reputation as a commercial centre has partially been

contributed by the construction industry. Turin (1969) developed a model to explore

the relationship between construction and economic development. He mentioned that

as basic infrastructure is completed, more attention is then paid to the development of

manufacturing and commerce which in turn, stimulate more construction work.

Economic development essentially begins with the construction of basic infrastructure

in transport, mining, communications, housing and agriculture (United Nations Centre

on Transnational Corporation, 1989).

In Singapore's economy, construction industry plays an important role (Ofori, 1988).

It has established the infrastructure required for sustaining socioeconomic

development while being a major contributor to the overall economic growth of Singapore in most years. In fact, Field and Ofori (1988) asserted that the industry should not simply be perceived as providing infrastructure and solutions to problems of shelter, but also as a potentially leading sector in the change process which stimulates the economy and alleviates unemployment. A strong relationship appeared between construction industry and the economic environment.

In Hong Kong, the contribution of the Industry section to the Gross Domestic Product (GDP) has dropped from 20.9% in 1992 to 15.5% in 1996. However, there was a slight rise in the construction portion of the Industry section from 5.1% to 5.8% during the period (Census and Statistics Department Hong Kong Special Administrative Region, 1998). With the construction of Airport Core Project, such an increase can easily be understood.

With the completion of infrastructure projects, and the economic downturn, it is difficult to be optimistic on the prospect for the construction industry. The local government's previous interventions to cool high property prices and the banks' policy on mortgage loan have also affected the construction industry. Important as the construction industry in relation to the Hong Kong economy, it would be worthwhile

to see how sensitive is the industry to the change of the economic environment of Hong Kong.

1.2 Objectives

To investigate the change in the construction industry, we evaluate the change and trend in the financial position¹ of the Hong Kong construction companies by comparing them with the overall performance of the construction industry. Our objectives are:

- A) To find out the relationship between the construction industry and the economic environment of Hong Kong.
- B) To make recommendations with the aim to improve the performance of construction companies.

The prediction of solvency in Hong Kong construction companies will not be included in this study.

¹ 'Financial position' represents the profitability, liquidity and solvency of a company. (see Appendix A for detail)

1.3 Organization of Chapter

In chapter 2, we will review the literature on the usefulness of financial ratio, ratio classification and discuss the methods we will use in performing analysis. In Chapter 3, we will investigate the changes in financial position of the construction industry from 1993 to 1997; evaluate the relationship between Hong Kong construction industry and the economic environment and identify the possible factors that affect the financial performance of construction companies in Hong Kong. Findings and conclusion are presented in Chapter 4 and 5, respectively. Finally, recommendations on how to improve the performance of construction companies will be given in Chapter 6.

Chapter 2 Literature Review

2.1 Construction Industry as an Important Area for Study

The construction (and infrastructure) plays an important role in economic development. There is evidence to suggest that infrastructure is a more important consideration in selecting regions or states. It is no doubt that today's infrastructure investment will serve as a bridge to the future (Bamberger, Blazer and Peterson, 1985).

Important as the role of construction industry play in the economy, lots of studies were suggested in vaulting and predicting the performance of construction companies in relation to the economic condition. Mason and Harris (1979) point out 'construction is recognized as a high-risk business. Whilst the smaller firms have always been considered as a potential risk, the large companies were regarded as being reasonably secure. However, under the poor economic climate, many large firms are known to have trimmed their scope of operations and operating costs in order to avert insolvency.

Langford, Iyagba and Komba (1993) apply 3 techniques – the ratio analysis approach, Z model and Resultant model – to three construction companies which are failed within 1988 to 1993 to test whether the theoretical predictions prescribed in the techniques are applicable to the construction industry. It conclusion on the ratio analysis approach indicated that whether the firm is in trouble of one form or another is clear under ratio analysis.

2.2 Ratio Analysis Approach

Beaver et al. (1970) found that financial ratios could be formed to superior risk forecasts. Lev (1974) commented that financial ratios are indicators or symptoms that can be used to reflect a company's economic or financial condition, in other words, financial ratios can be regarded as indicators of firm weaknesses. Horrigan (1965) indicated that it is no doubt that accounting information can be analyzed without converting into financial ratios and hence the use of accounting ratios is justifiable.

(Aksu Celal 1996)

In 1993, Langford D, Iyagba R., and Komba D.M., mentioned in their study “Prediction of Solvency in Construction Companies” that, ratio analysis, through

comparison, should enable the analyst to look at the operating performance in terms of:

- a) whether the firm is utilizing its assets,
- b) whether its profit margins are in line with assets,
- c) whether there is excessive investment in fixed assets
- d) whether the business is adequately financed,
- e) whether there are signs of liquidity strains,
- f) whether collection of receivables is efficient.

If the performance of a business, as measured by its ratios is compared with industry's average over a long period of time, it will show a trend. This may be a divergence from the industry's average indicating areas worthy of attention by the managers of the company.

Key ratios for analysis

An analyst cannot rely on one ratio alone, this is particularly so in construction companies (Trmari, 1964). Tamari observed that a large proportion of successful companies have at least one weak ratio, some two or three. He concluded that. Different schools had suggested different classification method. Pinches, Mingo, and Caruthers (1973) attempted to develop an empirically based classification of financial

ratios resulted in seven classifications of ratios across industries. The study suggested the existence of common ratio classifications and offered an empirical basis for grouping financial ratios. According to their findings, financial ratios can be represented by seven factors – Return on Investment, Financial Leverage, Capital Turnover, Short-Term Liquidity, Cash Position, Inventory Turnover, and Receivables Turnover.

However, the underlying factors, which determine the profitability and solvency vary from one industry to another. For example, the factors that affect a retailing business may be different from those affecting a construction industry. Mason and Harris (1979) using discriminant analysis for 40 failed construction companies in the UK, found six ratios that produced high discriminating powers. These are as follows:

- a) Profitability measured by profit to assets.
- b) Profitability measured by profit to capital.
- c) Working capital position, which is the ratio of debtors to creditors.
- d) Financial leverage, which is the ratio of current liabilities to current assets.
- e) Quick asset position which is equal to the logarithm to base ten of the age of debt.

In our research, we will adopted the Profitability ratio (included profit to asset &

profit to capital) and Short-term Solvency (Current ratio). Since there is difficulty in determining the age of debts from all or the sample companies, we will not adopt the “Quick asset position” that mentioned above. Instead, we will look into the Long term Solvency ratio, Asset utilization ratio and earning ratio. The reason for looking into long-term solvency ratio, asset utilization ratio and earning ratio is because:

- a) Traditionally, financial ratios were classified into four categories. Kieso, Donald E. (1995) classified financial ratios into four categories, namely, liquidity (short-term solvency), activity (turnover or efficiency), profitability, and coverage (capital structure or leverage). So we would also like to other type of ratio apart from its profitability and short-term leverage.
- b) Earning ratios were often considered as an indicator of profitability. Since our research is focus on listed construction companies. The ratio may indicate the amount of profit put back into the company. The long-term prospects of a company can then be assessed.

The financial ratio of our research is than classified into five categories. Their respective definitions are as follows:

Profitability ratios and Earnings ratios- measure the degree of success or failure of a company for a given period of time.

Short-term Solvency Ratios- measure a company's ability to repay short-term obligations

Long-term Solvency Ratios- measures the degree of protection for long-term investors and creditors.

Asset Utilization Ratios- measures how a company makes use of its assets.

2.3 Other Analytical Approach

Apart from ratio analysis, we will also use common size income statement, common size balance sheet, cash flow statement (in index number trend series) to compare and contrast the performance of different sample construction company with the aim of generalizing the industrial trend. Capital Asset Pricing Model (CAPM) developed by Sharpe W.F. (1964) will also be used to determine the relationship between the construction industry and the economic condition of Hong Kong. Appendix B would show the detail of CAPM.

Chapter 3 Methodology

3.1 Sample Selection

As the financial statement of private companies are unavailable to the public, only those of the construction companies listed in the Hong Kong Stock Exchange (HKSE) are used in this research. The classification of industrial type for each company is based on the computer database package – Sequencer. With reference to this database package, companies which engage in general construction and demolition work, construction and repair of buildings, civil engineering; installation of fixtures and fittings, building and completion work are included under the category of construction companies. 32 companies were exacted. From this list only companies that meet the following criteria are chosen:

- 1) Companies with five consecutive years of operation financial statements (1993-97) for evaluation, so that a high degree of representation can then be achieved.
- 2) Companies in that are still listed in the HKSE in 1998

Only the 22 listed construction companies that met the above requirements were used

in our research.

3.2 Financial Data Analysis

The financial performances of the 22 sample companies are studied by analyzing their financial statements and comparing them with the industrial average. Capital Assets Pricing Model (CAPM) is used to evaluate the relationship between the performance of construction industry and the Hong Kong environment. The following explains the procedures involved in carrying out the analysis.

Procedure 1: Industrial averages calculation

The financial statement of the 22 sample companies (1993 to 1997), their earnings per share, and price earning ratios of each sample were collected from the computer software packages -Sequencer database and microfilm in the Lingnan College Library.

Ratio analyze are performed on the financial statements to obtain industrial averages of the construction sector. These ratios are classified into 5 main categories –profitability ratios, short-term solvency ratios, long-term solvency ratios, assets utilization ratios and earning ratios. (See Procedure 2 for details of the ratio calculation.)

Means, median, standard deviation and inter-quartile range are generated from the calculated ratios. These are used as industrial averages or standards to evaluate the financial performance of each sample company. Where the standard deviation of a ratio is relatively large, indicating that the distribution of data is dispersed, the median instead of the mean will be used. The use of median in the situations mentioned above is to avoid the effect of extreme values.

Procedure 2: Financial statement analysis of each sample company

We use the financial statements of each sample company to perform the following analysis:

1) Comparative analysis and common size financial statement

We compare the company's current performance with its past performance to obtain proportion of such changes during the five-year period. To determine whether the company appears to be growing or declining.

Common size income statement and common size balance sheet of each company are constructed by putting these statements on a common percentage basis. This is achieved by dividing the various components of the income statement by the net

sales, and dividing the components of the balance sheet by the total assets, respectively.

When performing the above analyses the following items and the reasons for selecting them are as follow.

a) Income statements items:

- ‘Turnover’ was chosen with the aim of finding out the company’s stability because it is the item which directly affects the income of company.
- ‘Trading profit’ was chosen because it is generated form normal business operations. The effects of non-operating income like interest income, interest payable, exceptional profits, etc., are eliminated.
- ‘Profit before tax’ was chosen so as to see the proportion of profit between operating and non-operating profit. This gives an indication on the healthiness of companies’ finance.
- ‘Net income’ was chosen with the aim of comparing the profitability of each sample company and its income trend.

b) Balance sheet items:

- ‘Debtors’ including trade debtors and miscellaneous debtors, was chosen since this item would directly affect the cash flow of a company. A company would close down even though its business is profitable because of the lack in cash and too much credit sales.
- ‘Current liability’ was chosen as it would affect the liquidity of a company.
- ‘Net current assets’ (working capital is the current assets over current liabilities) was chosen. Working capital is generated to a great extent through events that occur during the operating cycle of a business. The amount of and changes in working capital from period to period are significant measures of a company’s ability to pay its debts as they mature.
- ‘Long term debt’, if any, was also chosen. The amount of debts of each company was compared as it helps in the analysis of long-term solvency ratio and finding out the leverage crisis.

2) Ratio analysis.

Profitability ratios, short-term solvency ratios, long-term solvency ratios, asset utilization ratios, and earnings ratios were calculated based on the 22 sample

companies. These are compared with the computed industrial averages. The performance trend based on the ratios of each company is also analyzed.

Profitability Ratios

$$\text{Net Profit Margin} = \frac{\left(\begin{array}{l} \text{Net income excluding minority interest, extraordinary items} \\ \text{and loss or profit from subsidiary accounts} \end{array} \right)}{\text{Sales}}$$

$$\text{Return on Assets (ROA)} = \frac{\left(\begin{array}{l} \text{Net income excluding minority interest, extraordinary items} \\ \text{and loss or profit from subsidiary accounts} \end{array} \right)}{\text{Average Total Assets}}$$

$$\text{Return on Equity (ROE)} = \frac{\left(\begin{array}{l} \text{Net income excluding minority interest, extraordinary items} \\ \text{and loss or profit from subsidiary accounts} \end{array} \right)}{\text{Average Equity}}$$

$$\text{Return on Capital Employed (ROCE)} = \frac{\left(\begin{array}{l} \text{Profits before interest and tax and extraordinary items} \end{array} \right)}{\text{Total Equity}}$$

Short Term Solvency Ratios

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current Liabilities}}$$

$$\text{Quick Ratio} = \frac{\left(\begin{array}{l} \text{Current assets} - \text{Total value of stock} \end{array} \right)}{\text{Current Liabilities}}$$

$$\text{Net Working Capital to Total Assets} = \frac{\text{Net Working Capital}}{\text{Total Assets}}$$

Long Term Solvency Ratios

$$\text{Total Debt to Total Assets} = \frac{\text{Total debt}}{\text{Total assets}}$$

$$\text{Total Debt to Total Equity} = \frac{\text{Total debt}}{\text{Total equity}}$$

Asset Utilization Ratios

$$\text{Debtors' Days} = \left(\frac{\text{Average debtors}}{\text{Sales}} \right) \times 365 \text{ days}$$

$$\text{Sales to Total Assets} = \frac{\text{Sales}}{\text{Average total assets}}$$

Earnings Ratios

$$\text{Dividend Payout} = \frac{\text{Dividend paid}}{\text{Net income}}$$

$$\text{Interest Cover} = \frac{\text{Profits before interest, tax and extraordinary items}}{\text{Interest expense}}$$

$$\text{Earning per share (EPS)} = \frac{\text{Net income}}{\text{No. of share outstanding}}$$

$$\text{Price Earning Ratio (PE)} = \frac{\text{Price per share}}{\text{EPS per share}}$$

3) Cash flow statement analysis

We analyze the cash receipts and cash payments of each sample company during the period to determine its efficiency in terms of cash flow management. The following items were used to perform analysis.

- ‘Operating activities’ was chosen to see the sample companies’ trend on this item. We compared the trading profit with operating cash flow from operating activities so as to see the contribution of trading profit toward cash of a company.
- ‘Cash flow before financing activities’ and ‘Cash flow after financing activities’ are compared with the aim of finding out the amount of financing activities of construction companies in general.
- ‘Cash position’ (Cash increase or decrease) of our sample companies was evaluated.

Procedure 3: Beta calculation

We apply the Capital Assets Pricing Model (CAPM) to identify the relationship between the expected return of sample construction company and the market during the 5-year period (1/1/1993 - 31/12/97). Recall that the CAPM model is expressed as

the following mathematical formula:

$$k_{it} = k_{RF} + \mathbf{b}_i (k_{Mt} - k_{RF}) + e_i \quad \text{Equation 3.1}$$

where

k_{it} = expected return on security i

k_{RF} = risk-free rate of return

k_{Mt} = expected return of market

\mathbf{b}_i = beta

e_i = residual return on security i

It is assumed that the mean of residual (e_i) on security i is zero and is an independent variable.

We define the variables in the CAPM as follows:

Expected return of each sample company (k_{it})

We calculate the monthly-expected return for each sample company from 1/1/1993 to 31/12/1997. The formula used to determine the expected return for each sample company is expressed mathematically as follows:

$$k_{it} = (P_t * Q_t - P_{t-1} * Q_{t-1} + D) / P_{t-1} * Q_{t-1}$$

where

k_{it} = expected return for sample company i

P_t = share price per share at the last trading-date of the
month

P_{t-1} = share price per share at the first trading-date of the
month

D = Total dividend for the month

Risk-free rate (k_{RF})

The Hong Kong Dollar Interest Rates in the Monthly Statistics Bulletin published by the Hong Kong Monetary Authority (from 1993 to 1997) is adopted as our risk-free interest rate.

Beta (b_i)

We use simple regression analysis to estimate the value of Beta for each sample company from the period.

Expected return of the market (k_{Mt})

The monthly-expected return of market for the period is calculated by using the Hengseng Price Index. The expected return of the market is expressed mathematically as follows:

$$k_{Mt} = (I_t - I_{t-1}) / I_t$$

where

k_{Mt} = expected return of the market at the time period of t

I_t = Hengseng price index at the last trading-date of the
month

I_{t-1} = Hengseng price index at the first trading-date of the
month

Simple regression analysis

Simple regression analysis was used to estimate the value of beta (b_i). Recall the simple regression model in mathematical expression as follows:

$$k_{it} = a + b_i k_{mt} + e_i \quad \text{Equation 3.2}$$

where

k_{it} = dependent variable

b_i = slope

a = y-intercept

e_i = residual

k_{mt} = independent variable

In fact, the above simple regression formula takes in the form of CAPM. Hence, equation 3.2 is equivalent to equation 3.1. The assumptions for the regression are as follows:

- a) k_{it} is a dependent variable for any period of t
- b) a and k_{mt} are independent variables
- c) The mean of e_i is assumed to be zero for any period of t and is an independent variable
- d) a and b_i are unbiased estimators of the true parameters

To estimate the value of beta (b_i), we were going to estimate a straight line that best fits the relationship between k_{it} (dependent variable) and k_{mt} (independent variable).

The method of least squares had been used to estimate the best-fit straight line. For simplicity, we used k_{it} (dependent variable) and k_{mt} (independent variable) to perform the simple regression analysis.

We used the statistics package called SPSS to perform regression analysis. The results of the regression produced the following information:

- a) Regression coefficient of slope
- b) Regression coefficient of constant
- c) Standard error of slope

- d) Standard error of constant
- e) Standardized coefficient beta
- f) T-value for slope
- g) T-value for constant
- h) Two-tailed observed significance level (p-value)
- i) 95% Confidence interval for regression coefficient of slope
- j) 95% Confidence interval for regression coefficient of constant
- k) Adjusted R Square

The definition for each item is shown in Appendix C.

In our research study, we used the unstandardized coefficients of slope to determine the relationship between the expected return of each sample and the market.

Hypothesis testing

The null hypothesis represents that regression coefficient of slope (Beta: b_i) is equal to zero. The alternative hypothesis represents that regression coefficient of slope (Beta: b_i) is not equal to zero. The hypothesis testing is set as follows:

$$H_0: b_i = 0 \text{ (Null hypothesis)}$$

$$H_a: b_i \neq 0 \text{ (Alternative hypothesis)}$$

Level of significance: 0.05

We apply the CAPM to determine whether there is a relationship between the expected of return of our sample companies and the market. In fact, the regression coefficient of slope (Beta: b_i) can be used to show whether such relationship exists

From the results of the simple regression, we may decide whether to accept H_0 . If the p-value is greater than 0.05, we will accept H_0 . If the p-value is smaller than 0.05, we will accept H_a .

3.3 Questionnaires Investigation

Questionnaires were mailed to the 22 sample companies on 16 January 1999. The collection period was 3-week time 16-31 January 1998. Reminders were sent at the end of the period. The questionnaires aimed to sollicitude the opinion from the management level of the sample companies on how the economic environment of Hon Kong affects their companies' performance. The results are used to supplement our analysis of the financial reports.

Pilot test

A pretest with was carried out before the formal data collection in order to identify the confusing questions and ambiguous wordings. As a result, trial questionnaires were sent to 3 construction companies not withstanding the fact whether they are listed or unlisted. All questions with problems were identified and corrected to come up with the final version of the questionnaire.

Questionnaire design

The questionnaire is designed with reference to the information needed to achieve the objectives of the research. Both multiple choice and close-end questions are included in the questionnaire. Some questions are designed to give the respondents a chance to express own opinions so that more information could be obtained.

The questionnaire is divided into three sections totaling 29 questions. The sample of questionnaire is showed in the Appendix G. Section 1 seeks to determine the project sources of the respondent company. The aims are to identify:

- A) Whether or not government projects will stabilize the financial performance of construction company.
- B) To what extent is the company's financial performance stabilized by ongoing

long-term construction contracts.

Section 2 and Section 3 try to identify the possible factors that may affect the profitability of a construction company in the present and in the future, respectively.

Recommendations were then made based on the identified factors. Recommendation on the way to improve the construction company's performance will be made.

Response rate

22 questionnaires in total were sent to our sample companies. 3 were received. When identifying the factors that affected the profitability of construction companies during the 1993 to 1997, questionnaires from two listed companies not away the samples were also used as references

3.4 Limitations on Field Study

Sample selection

In order to maximize our sample size, we use accounting information for 5-year period. A longer period of study will better indicate the effect of Hong Kong economy toward the construction industry. It would also better reveal the trend of company's

performance. As only 22 listed companies met our requirements and were selected as our sample. It may not represent the whole picture of the construction industry in Hong Kong. Had more time and resources been available, a 10-year period would have been conducted and all listed construction companies would have been included

Evaluating the expect return of market

The limitation comes from using Hengseng Price Index (HSPI). Hengseng Price Index is a capitalization-weighted index, which is composed of the 33 largest and most actively traded company stocks in Hong Kong. Since HSPI is not representative the whole picture of company stocks in Hong Kong, it may not be a perfect tool in evaluating security return. However, HSPI is the best available tool in Hong Kong.

Questionnaire investigation

Small sample size as well as a low response rate affects the objectivity of our study.

Although 2 reminders were sent, only 3 questionnaires were received. In order to improve our results, questionnaires of 2 more listed construction companies, which are not chosen as our sample companies, are used as references in our study.

Chapter 4 Findings

4.1 Sample of Companies Industry Averages

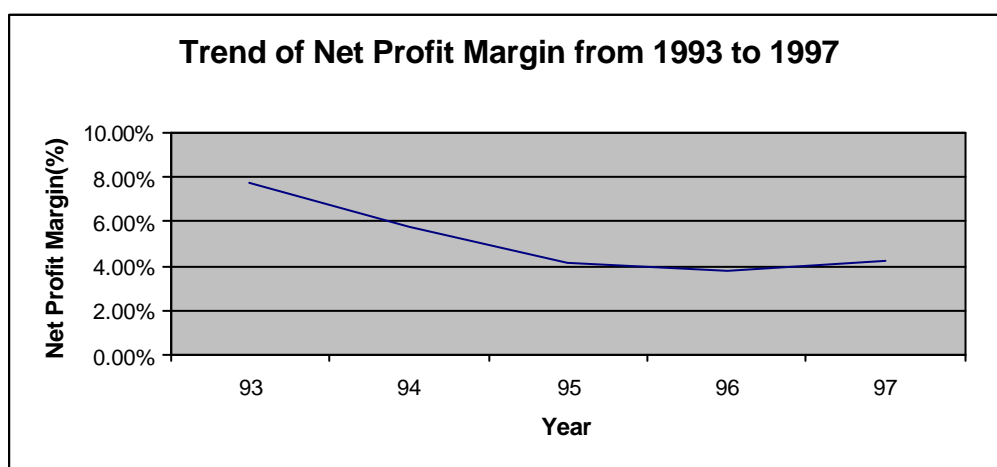
Appendix D shows the industry averages of the sample companies for five categories of financial ratios

Profitability Ratio

Net Profit Margin

Figure 4.1 shows the trend of net profit margin from 1993 to 1997. The net profit margin of the industry generally decreased over the five-year period with a slight increase starting from 1996. Overall, the net profit margin of sample industry average was low.

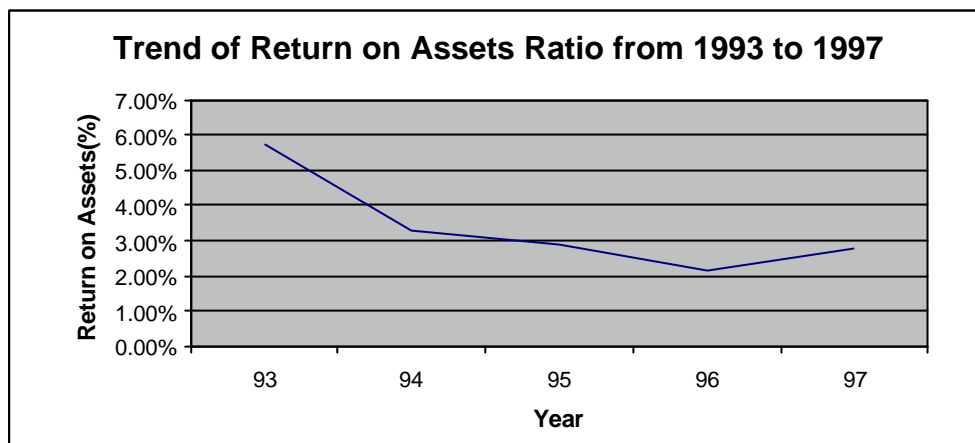
Figure 4.1



Return on Assets

Figure 4.2 shows the trend of Return on Assets Ratio from 1993 to 1997. The Return on Assets decreased sharply during the first two years of the period but it showed a slight increase from 1996 to 1997.

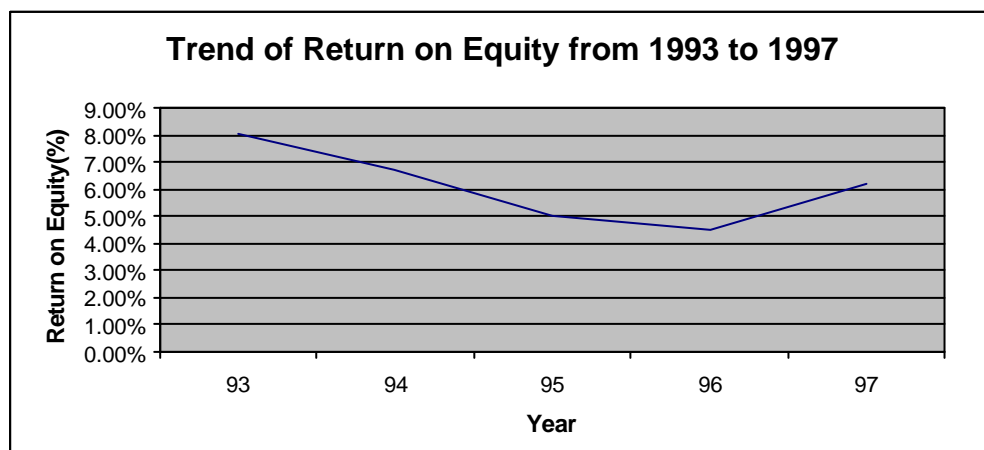
Figure 4.2



Return on Equity

Figure 4.3 shows Trend of Return on Equity from 1993 to 1997. Return on equity decreased steadily from 1993 to 1996 but improved after 1996. In 1997, the ratio increased to 6.19%.

Figure 4.3

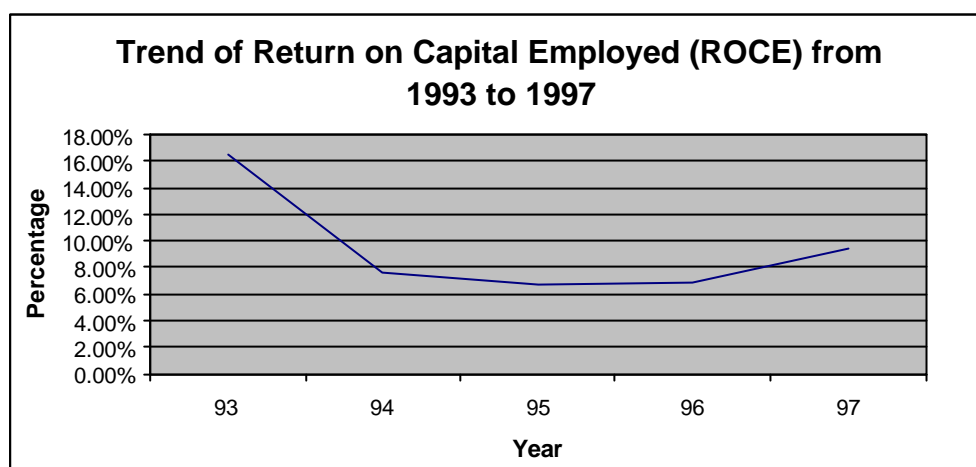


Return on capital employed (ROCE)

Figure 4.4 shows the trend of Return on Capital Employed (ROCE) from 1993 to 1997.

The ROCE decreased sharply from 1993 to 1994 and stabilized to 1996. Similar to the other profitability ratios, the ROCE started to rise after 1996.

Figure 4.4



Overall, the profitability ratios of the sample companies in the industry consistent with each other. We found that the performance of profitability ratios declined from 1993 to 1996. However, there was a slight improvement after 1996. The net profit margin improved provided that extra-ordinary profits and subsidiary profits were taken into account. The return on assets was low and was consistent with the net profit margin. It indicated the industry was not profitable as expected in the five-year period.

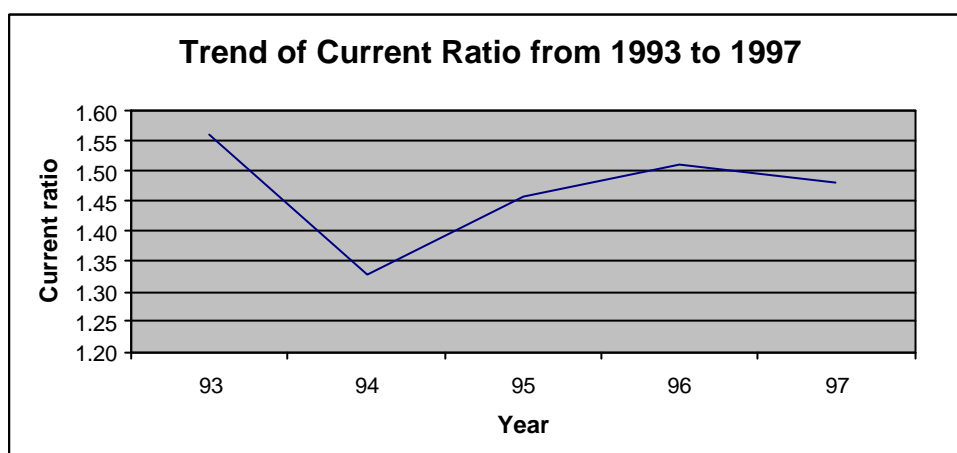
Short-term Solvency Ratios

Current Ratio

Figure 4.5 shows the trend of Current Ratio from 1993 to 1997. The Current Ratio decreased sharply from 1993 to 1994 and steadily increase from 1994 to 1996.

However, it started to decline from 1996 to 1997.

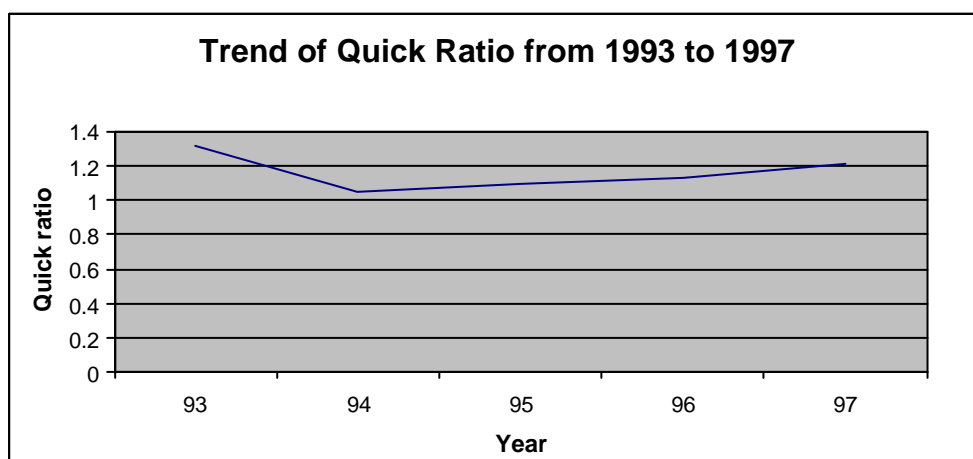
Figure 4.5



Quick Ratio

Figure 4.6 shows the trend of Quick Ratio from 1993 to 1997. After a sharp decrease from 1993 to 1994, the quick ratio shows a steady increase for the rest of the period.

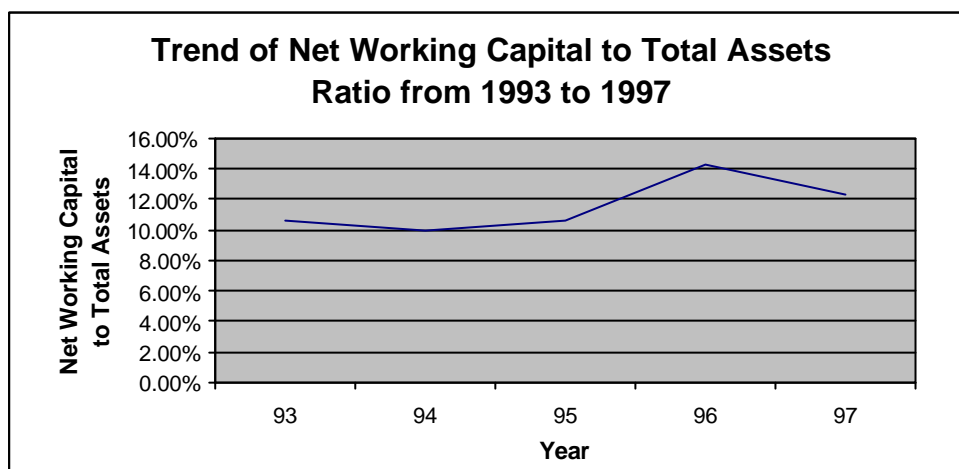
Figure 6



Net Working Capital to Total Assets

Figure 4.7 shows the trend of Net Working Capital to Total Assets Ratio from 1993 to 1997. The Net Working Capital to Total Assets was quite stable from 1993 to 1995. There was a sharp increase from 1995 to 1996; however, the ratio started to decline from 14.28% in 1996 to 12.25% in 1997.

Figure 4.7



To summarize, the trend shows steady improvement after 1995. The difference between current ratio and quick ratio for the sample industry was low. On average, this difference was only about 0.31.

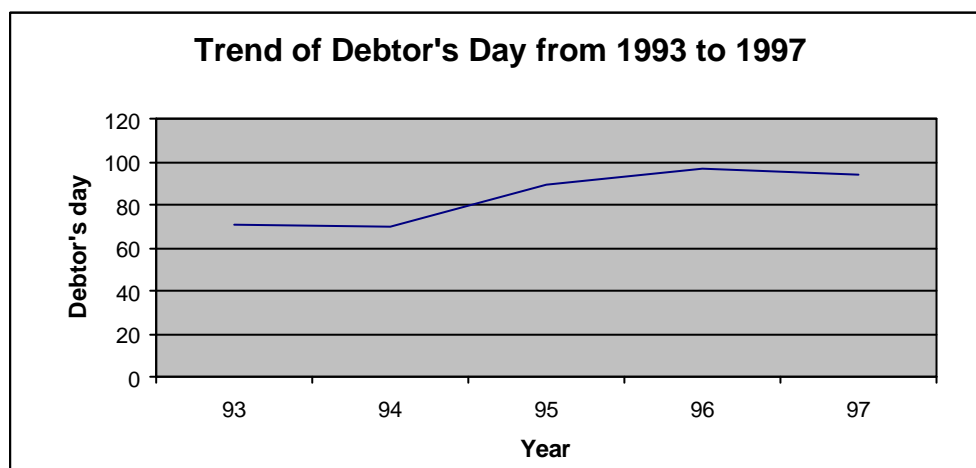
Asset Utilization RatiosDebtor's Day

Figure 4.8 (in the next page) shows the trend of Debtor's Day from 1993 to 1997.

There was a significant increase in Debtor's Day over the period of approximately

32.41%. In 1995, the Debtor's Day was over 90 days. It is the norm for construction industry to have longer debtor's collection period because contractors in the industry are usually paid in accordance with the percentage of completion on the work. Contractors usually receive the final payment from the debtors after the occupation permit is granted from the Buildings Department. In accordance with the Buildings Ordinance and regulations, an occupation permit will only be issued after the Buildings Department has completed a final check on the properties. Therefore, it is not rare for construction companies with Debtor's Day over 90 days.

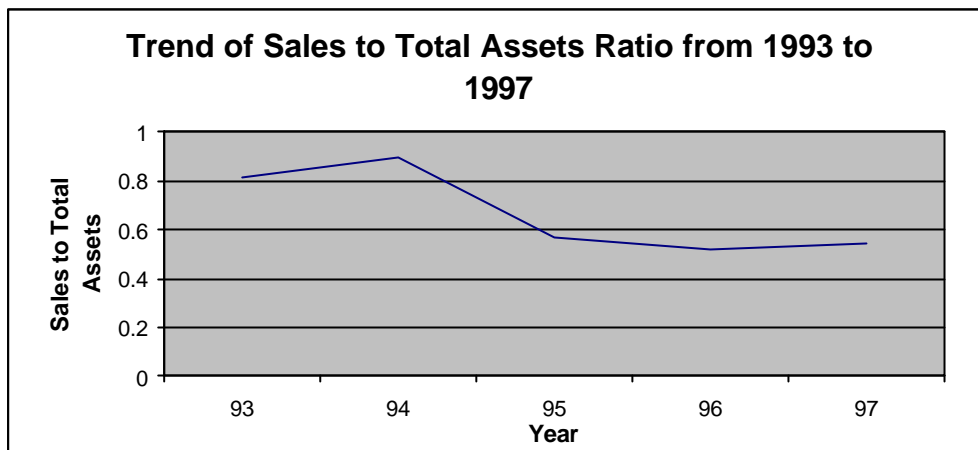
Figure 4.8



Sales to Total assets

Figure 4.9 (in the next page) shows the trend of Sales to Total Assets Ratio from 1993 to 1997. Sales to Total assets was quite stable from 1993 to 1994 but appeared a steady decline after 1994. Over the past five years, the Sales to Total assets was below one.

Figure 4.9



The trend of each kind of assets utilization ratios described above was quite different from each other. Debtor's Day increased at an accelerated rate while Sales to Total Assets ratio decreased steadily.

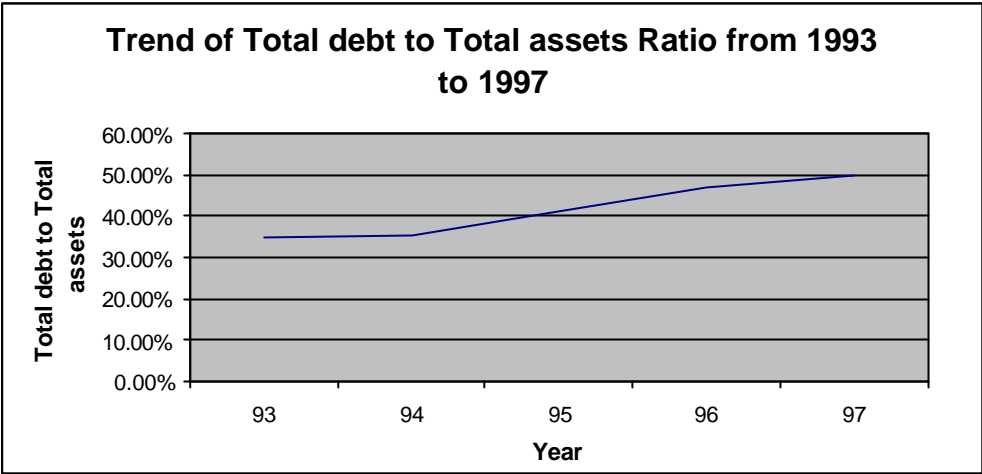
Long Term Solvency Ratio

Total debt to Total assets

Figure 4.10 (in the next page) shows the trend of Total Debt to Total Assets Ratio from 1993 to 1997. Total debt to Total assets of the industry increased during the period.

The growth rate was approximately 42.44%. In 1997, this ratio was 49.81%.

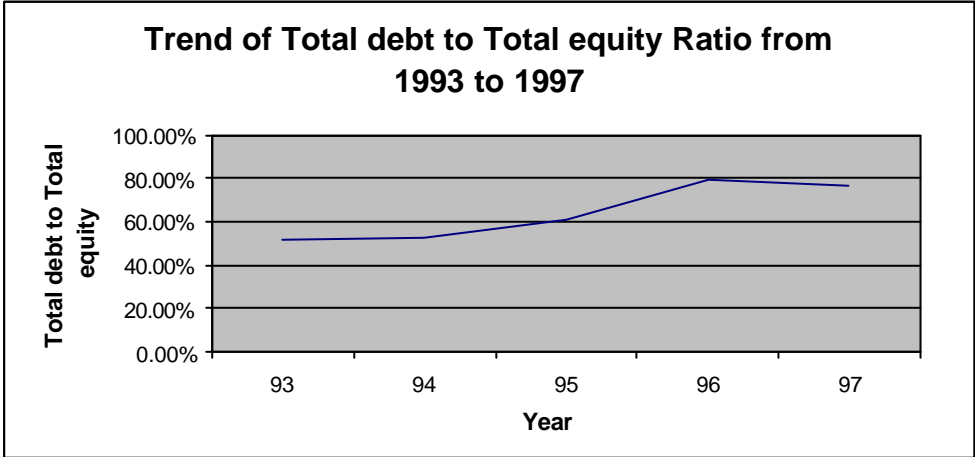
Figure 4.10



Total debt to Total equity

Figure 4.11 shows the trend of Total Debt to Total Equity Ratio from 1993 to 1997. There was a moderate increase from 1993 to 1995, a significant increase from 1995 to 1996. However, a slight decline occurred starting from 1996.

Figure 4.11



The trend of long-term solvency ratios described above shows an increasing use of debt in the industry. As construction industry is a capital-intensive industry, it is

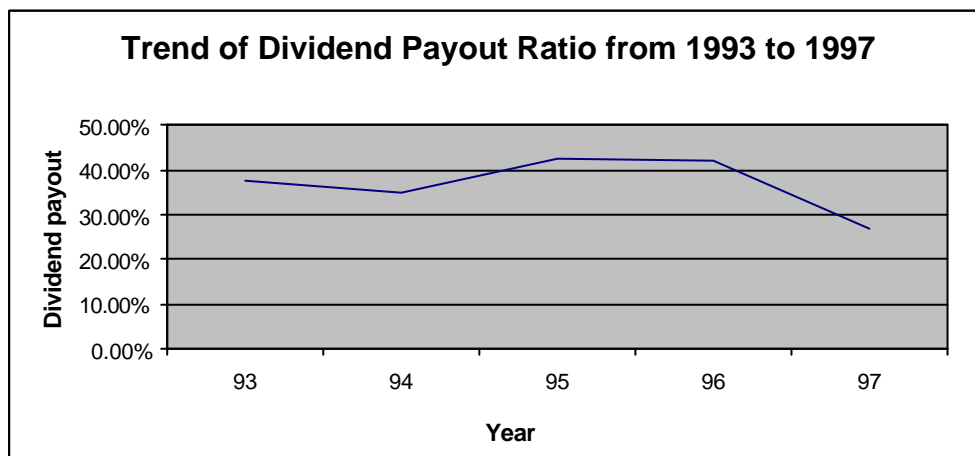
normal for construction companies to finance construction work by means of debt. In our study, most companies follow this norm.

Earning Ratios

Dividend Payout

Figure 4.12 shows the trend of Dividend Payout Ratio from 1993 to 1997. The dividend payout of the industry fluctuated during the period. The ratio increased from 1994 to 1995, stabilized from 1995 to 1996 and decreased sharply from 1996 to 1997. The difference of the dividend payout ratio between 1993 and 1997 was 10.76%.

Figure 4.12

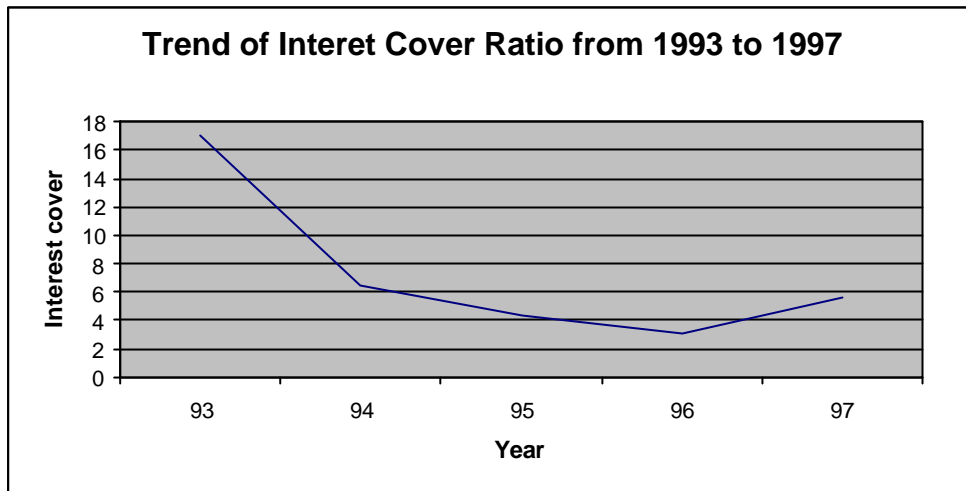


Interest Cover

Figure 4.13 (in the next page) shows the trend of Interest Cover Ratio from 1993 to 1997. The Interest Cover dropped sharply from 1993 to 1996. Starting from 1996, there was a slight increase. However, the interest cover in 1997 was still low. The

figure was decreased by 5.67 times when compared with 1993.

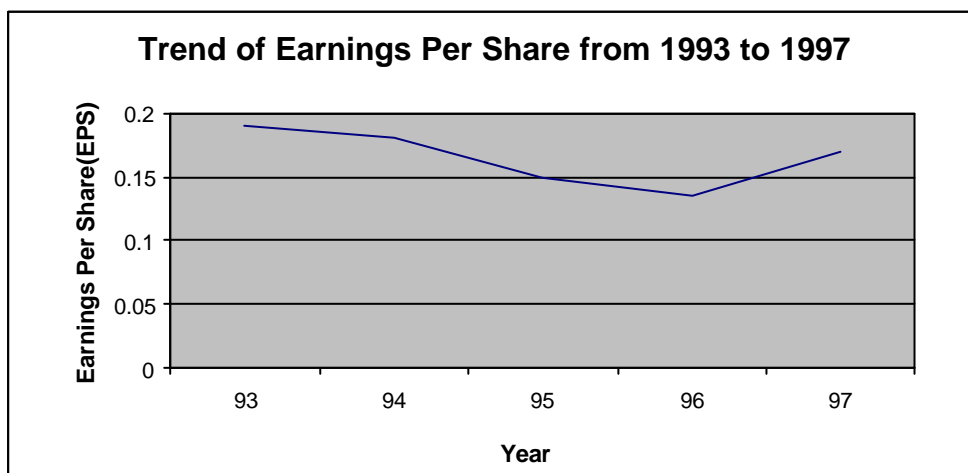
Figure 4.13



Earnings Per Share (EPS)

Figure 4.14 shows the trend of Earning Per Share from 1993 to 1997. Changes in earnings per share during the period were not significant. The average EPS from 1993 to 1997 was about \$0.165.

Figure 4.14

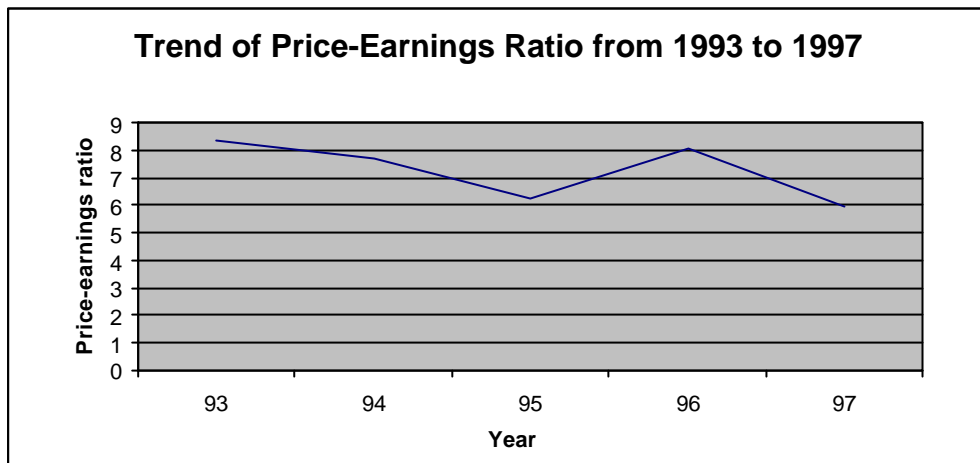


Price-Earnings Ratio (P/E)

Figure 4.15 (in the next page) shows the trend of Price-earning Ratio from 1993 to

1997. The P/E ratio was dynamic with peaks in 1993 and 1996 and with valley in 1995 and 1997. There was a sharp decrease from 1996 to 1997. On average, the P/E ratio averaged at 7.267.

Figure 4.15



Overall, the earning ratios show a decline from 1993 to 1997. In particular, dividend payout dropped sharply.

4.2 Result from Financial Statement Analysis

4.2.1 Common-size balance sheet analysis

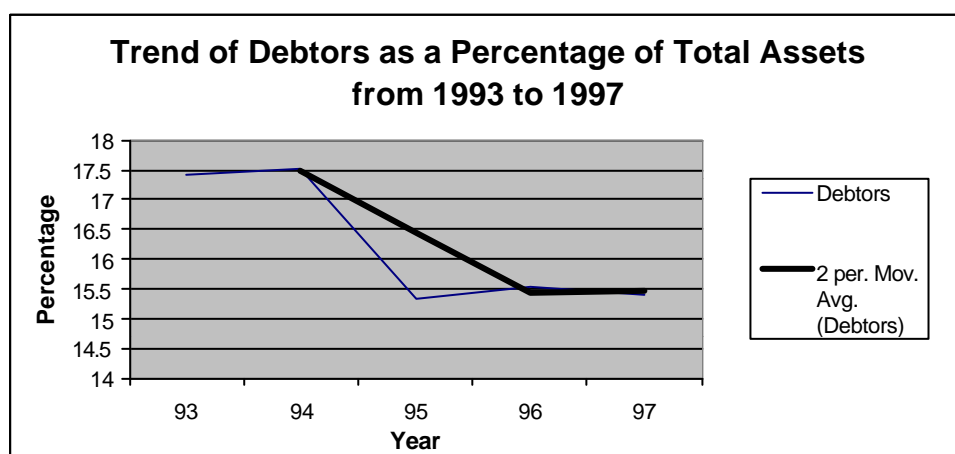
The leverage of most sample companies (68%) deteriorated due to the steady increase of current liabilities and long-term liabilities as a percentage of total assets. Poor management on debt could explain the increasing trend on Debtor's Day experienced by most sample companies (73%).

Again, we used the median of common-size balance sheet figures to perform the following analysis.

Debtors

Figure 4.16 shows the trend of debtors as a percentage of total assets. Debtors as a percentage of total assets decreased steadily from 1993 to 1995 and remained stable thereafter. This trend was quite different from the results of ratio analysis and income statement analysis. Results of ratio analysis showed an increasing trend in Debtor's Days for most of the sample companies (73%). In fact, debtors were one of the important assets of the sample companies. Debtors as a percentage of total assets remained at 16% (median) of total assets from 1993 to 1997. The significant amount of debtors explains why most sample companies had increased Debtor's Days.

Figure 4.16

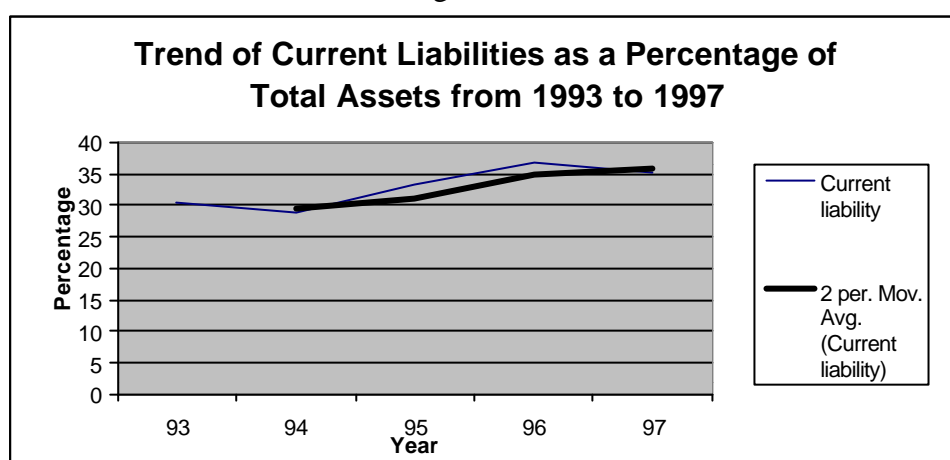


“2 per. Mov. Avg.” represents 2 periods moving average.

Current liabilities

Figure 4.17 shows the trend of current liabilities as a percentage of total assets increased steadily during the period. This increase directly affected the leverage of most sample companies. Ratio analysis of sample companies showed that over 68% had increased in both total debt to total assets and total debt to total equity ratios.

Figure 4.17

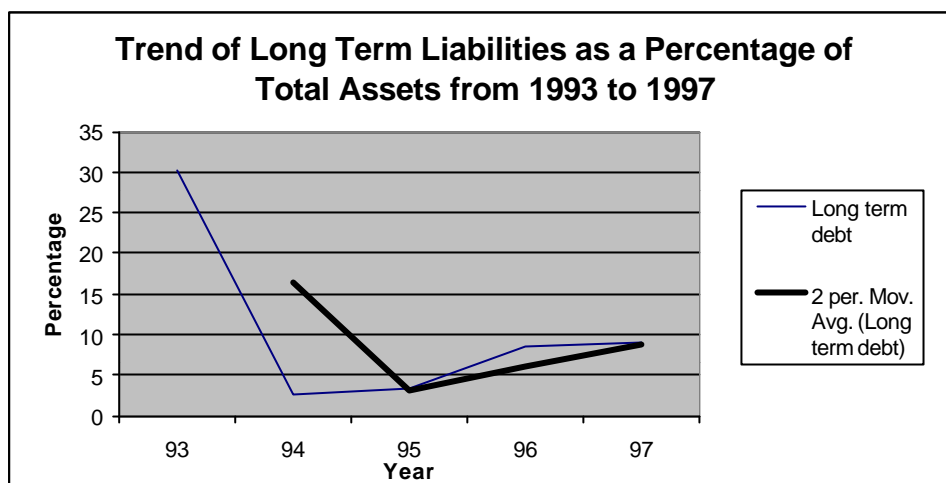


“2 per. Mov. Avg.” represents 2 periods moving average.

Long-term liabilities

Figure 4.18 (in the next page) shows the trend of long-term liabilities as a percentage of total assets. The proportion of long-term liabilities increased steadily after a significant decrease between 1993 and 1994. This explains the reason behind leverage deterioration of most sample companies (68%). The increase of long-term liabilities was consistent with the increase in gearing ratios for most of the sample companies (68%).

Figure 4.18

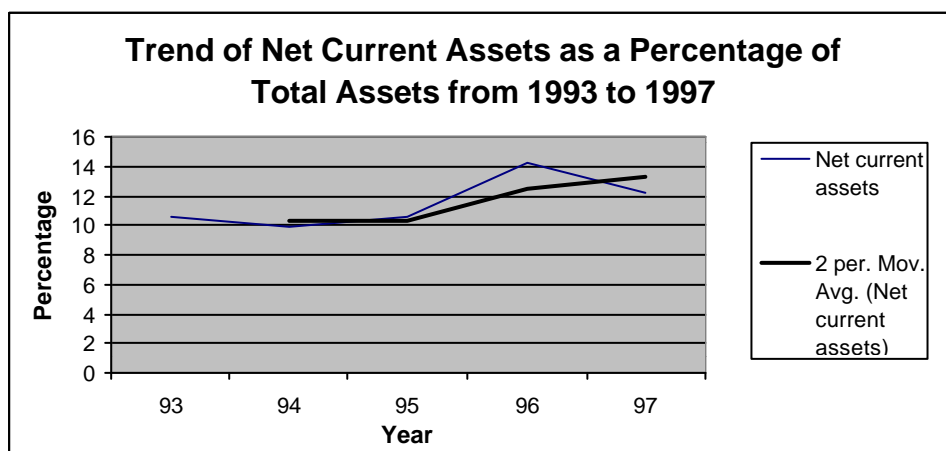


“2 per. Mov. Avg.” represents 2 periods moving average.

Net current assets

Figure 4.19 shows a steady increase in net current assets as a percentage of total assets over the past five years. However, the 2-period moving average shows that the trend of net current assets was stable from the period 1996 to 1997. In fact, only half of sample companies experienced decreasing trend on the ratio of net working capital to total assets.

Figure 4.19



“2 per. Mov. Avg.” represents 2 periods moving average.

4.2.2 Common-size income statement analysis

Although sales of most of the sample companies increased. We performed trend analysis on sales of sample companies. For analysis on trading profits, profits before taxation and net income, we used the median of common-size figures among the sample companies.

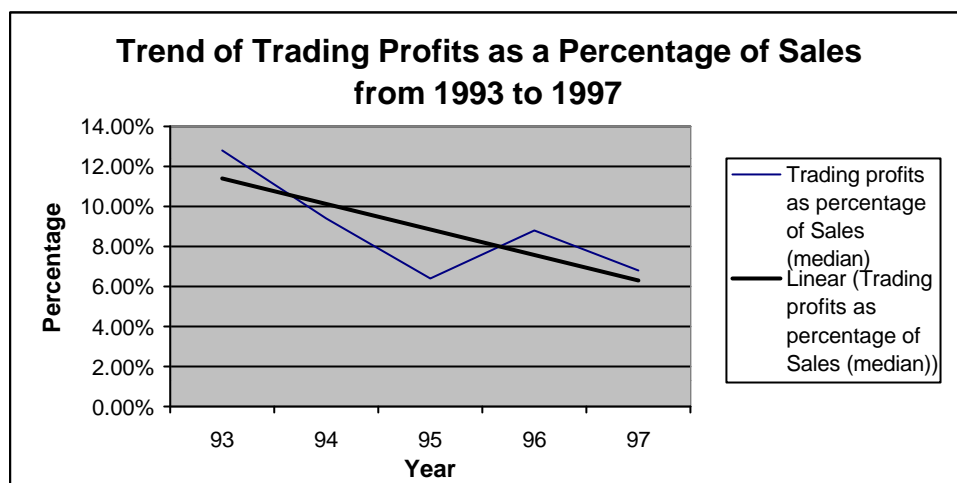
Sales analysis

Approximately 68% of the sample companies with increasing trend on sales. For instance, we found the growth rate of sales of a sample company was 693.18% from 1996 to 1997. The remaining 32% of sample companies indicated a decrease on sales. In our sample, we found the largest decreasing rate on sales of a sample company was -70.94% (From the period 1996 to 1997). This result was quite different from the indication of sales to total assets ratio which indicated that around 73% of sample companies were decreasing on this ratio and their ability to generate sales by using assets were weakened.

Trading profits analysis

Figure 4.20 (in the next page) shows the trend of trading profits as a percentage of sales. The figure decreased for most of the sample companies.

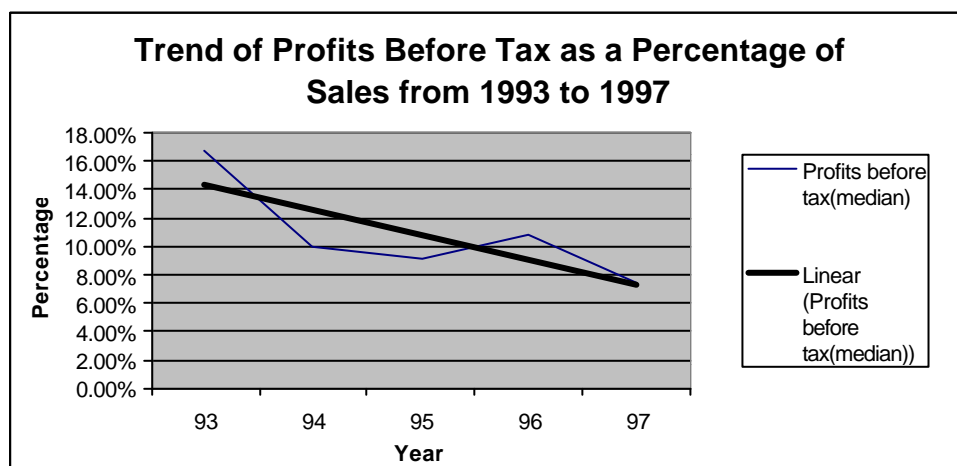
Figure 4.20



Profits before taxation analysis

Profits before taxation as a percentage of sales decreased during the period was consistent with the trend of trading profits as a percentage of sales. Figure 4.21 showed that profits before taxation was dropped by 2 times during the past five years.

Figure 4.21

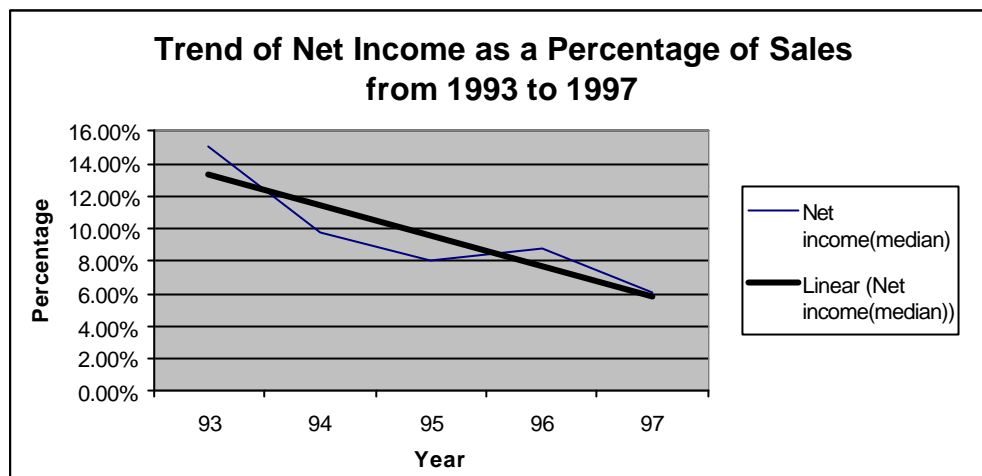


Net income analysis

Figure 4.22 (in the next page) shows the trend of net income as a percentage of sales for sample companies. Similarly, net income as a percentage of sales for sample

companies decreased.

Figure 4.22



4.2.3 Ratio Analysis for sample companies

Appendix D shows the financial ratios of the sample companies.

Profitability performance of sample companies

Net Profit Margin

Approximately 64% of the sample companies decreased in net profit margin. In contrast, only 36% of the sample companies increased in net profit margin. It indicated that the net profit margin for most companies in our sample deteriorated.

Return on Assets

73% of the sample companies decreased in return on assets. 27% of the sample companies increased on return on assets. It showed that the ability of the sample

companies to generate returns from assets was unsatisfactory.

Return on Equity

Nearly 55% of the sample companies decreased in return on equity. 45% of the sample companies increased in return on equity. It indicated that the ability of sample companies to generate returns from shareholders' equity was less than satisfactory.

Return on Capital Employed

Approximately 71% of the sample companies decreased in return on capital employed. The remaining 29% of the sample companies improved in return on capital employed ratio. It indicated that most sample companies might not utilize the capital employed to generate returns.

Profitability performance as compared with industry averages

Compared to the industry averages, we found that there were few sample companies with profitability ratios above the sample industry average continuously over the five-year period. Table 4.1 (in the next page) summarizes how many sample companies with profitability ratios above the industry averages continuously over the over the five-year period.

Table 4.1

		No. of companies
Net Profit Margin	5-yrs above average	5
Return on Assets (ROA)	5-yrs above average	6
Return on Equity (ROE)	5-yrs above average	5
Return on Capital Employed (ROCE)	5-yrs above average	3

The profitability of the sample companies was unsatisfactory since the profitability ratios of most of the sample companies dropped.

Short-term Solvency performance of sample companies

Current ratio

Half (50%) of the sample companies decreased in current ratio and another half (50%) of the sample companies increased in current ratio. The performance of this ratio was average.

Quick ratio

Quick ratio of the sample companies deteriorated. Approximately, 59% of the sample companies decreased in quick ratio. The remaining 41% of the sample companies increased in quick ratio. It would be danger for sample companies if they didn't have

sufficient highly liquidated current assets like cash to meet short-term obligations.

Net Working Capital to Total Assets

Half (50%) of the sample companies decreased in net working capital to total assets.

Short-term solvency performance as compared with industry averages

Table 4.2 summarizes how many sample companies with short-term solvency ratios above the sample industry average consecutively over the five-year period.

Table 4.2

		No. of companies
Current ratio	5-yrs above average	3
Quick ratio	5-yrs above average	5
Net working capital to total assets	5-yrs above average	6

Overall, the short-term solvency of the sample companies was satisfactory. Over 50% of the sample companies decreased in quick ratios.

Long-term Solvency performance of sample companies

Total debt to total assets

Approximately 68% of the sample companies increased in total debt to total assets

ratio. 32% of the sample companies decreased in total debt to total assets ratio. It indicated that over half of sample companies relied on debt to finance. We found that some sample companies had very high total debt to total assets ratio.

Total debt to total equity

Same as total debt to total assets ratio, around 68% of the sample companies increased in total debt to total equity. It indicated that most of the sample companies were high in leverage.

Long-term solvency performance as compared with industry averages

Table 4.3 summarizes how many sample companies with long-term solvency ratios above the sample industry average consecutively over the five-year period.

Table 4.3

		No. of companies
Total debt to total assets	5-yrs above average	7
Total debt to total equity	5-yrs above average	8

The long-term solvency performance of the sample companies was unsatisfactory. Most sample companies had high gearing ratios. It indicated that most sample companies relied on debt. It would be danger for sample companies with high gearing ratios if they could not repay interest payment on debt.

Assets utilization performance of sample companies

Debtor's Days

Approximately 73% of the sample companies increased in Debtor's Days. Debtor's Days was defined as how many days to collect amount due from account receivables.

Sales to total assets

Nearly 73% of the sample companies decreased in sales to total assets ratio. The remaining 27% of the sample companies improved in sales to total assets ratio. It indicated that the ability of sample companies to generate sales in relation to total assets deteriorated.

Assets utilization performance as compared with industry averages

Table 4.4 summarizes how many sample companies with assets utilization ratios above the sample industry average consecutively over the five-year period.

Table 4.4

		No. of companies
Debtor's Day	5-yrs above average	8
Sales to total assets	5-yrs above average	9

The performance of the sample companies in terms of assets utilization deteriorated.

Most sample companies experienced an increase in Debtor's Days.

Earnings performance of sample companies

Dividend layout

Nearly 64% of the sample companies decreased in dividend layout. 9% of the sample companies didn't pay dividend consecutively over the five-year period. The remaining 27% of the sample companies increased in dividend payout.

Interest cover

1 sample company with zero interest cover ratio as this sample company did not have interest payment from 1993 to 1997. Nearly 64% of the sample companies decreased in interest cover ratio. The remaining 32% of the sample companies improved in interest cover ratio. It indicated that the ability of sample companies to repay interest deteriorated.

Earnings per share

Approximately 41% of the sample companies decreased in earnings per share. 59% of the sample companies increased in earnings per share.

Price-Earnings

Nearly 68% of the sample companies decreased in price-earnings ratio. 32% of the

sample companies increased in price-earnings ratio. It indicated that the expectation of investors on returns of our sample companies was changed and their willingness to pay for stocks of sample companies reduced.

Earnings performance as compared with the sample industry averages

Table 4.5 summarizes the number of sample companies with earnings ratios above the average consecutively over the past five-year period. Nearly less than 30% of the sample companies with earnings ratios above the sample industry average continuously from 1993 to 1997.

Table 4.5

		No. of companies
Dividend payout	5-yrs above average	5
Interest cover	5-yrs above average	3
Earnings per share	5-yrs above average	6
Price-earnings ratio	5-yrs above average	4

The earnings performance of the sample companies was less than satisfactory. Over half of sample companies improved in earnings per share, due to the decline in profitability of the sample companies, their ability to repay interest and dividend weakened.

4.2.4 Cash flow statement analysis

General implication

After analyzing all cash flow statements of sample companies, we found that 16 sample companies had great burden on interest payment. The main sources of interest payment were came from short-term loans and long-term loans. We also found that 3 sample companies highly relied on either short-term or long-term debt financing. However, we still found that there were 11 companies that had repaid large amount of borrowings during the accounting periods 1993 to 1997.

In addition, there were 5 sample companies resulted in huge cash outflow from investing activities. Results from the cash flow statement analysis showed that these companies highly relied on debt to finance investing activities. The investing activities performed by these companies included acquisition of intangible or tangible assets.

One interesting finding in cash flow statement analysis was that one company in our sample did not have any financing activities over the five-year period. The cash flow statement of this sample company showed that there was no interest payment during the above accounting periods.

In the following, we highlighted information of cash position of sample companies.

Net cash flow from operating activities

Nearly 59.1% of the sample companies experienced a decrease in net cash flow from operating activities. There were 10 sample companies with negative cash flow from operating activities in one accounting period. In contrast, there were 4 sample companies with positive cash flow from operating activities in all accounting periods during 1993 to 1997. Table 4.6 summarizes how many sample companies resulted in negative cash flow from operating activities.

Table 4.6

No. of accounting periods with negative cash flow from operating activities	No. of companies
1	10
2	2
3	3
4	2
5	1
Total	18

Even over half of the sample companies experienced a decrease in on net cash flow from operating activities, only one sample company experienced negative cash flow from operating activities during the five-year period.

Net cash flow before financing

Approximately 63.64% of the sample companies experienced a decrease in net cash

flow before financing. Table 4.7 summarizes how many accounting periods for sample companies with negative cash flow before financing from 1993 to 1997.

Table 4.7

No. of accounting periods with negative cash flow before financing	No. of companies
1	5
2	4
3	4
4	7
nil	2
Total	22

Net cash flow after financing

There were 59.09% of sample companies with decreasing trend on net cash flow from operating activities. Table 4.8 summarizes how many accounting periods with negative cash flow after financing.

Table 4.8

No. of accounting periods with negative cash flow after financing	No. of companies
1	3
2	7
3	11
4	1
Total	22

4.3 Bata Calculation

4.3.1 Results of simple regression analysis

Appendix E shows the results of simple regression analysis. It shows that most regression coefficients of slope (b_i) are positive and some of regression coefficients of slope (b_i) are greater than one. Besides, the results show that there is one sample company in which the regression coefficient of slope (b_i) of this company is negative.

Result of simple regression analysis shows that linear relationship exists in 18 sample companies. Most of the sample companies have regression coefficients of slope (b_i) which are close to one. As Beta (b_i) shows the relationship between the assets return and the market return, in other words, the expected return for a security will be high if the value of Beta for that security is high. Results of the simple regression analysis shows that the expected return of most of the sample companies are not high.

Besides, the results show that there are only 6 sample companies in which the regression coefficients of slope of these companies are greater than one. It can be concluded that most companies in our sample are response to the market even the betas of our sample companies are not high.

4.3.2 Hypothesis Testing

The results show that the p-value for 18 out of 20 sample companies is smaller than 0.05 level of significance. It means that the regression coefficient of slope (Beta: b_i) for these companies is significantly different from zero. Hence, H_0 of these 18 sample companies has been rejected at the significant level of 0.05. In addition, the regression coefficient of slope for these 18 sample companies all fall within the 95% confidence interval. It can be concluded there is a linear relationship between the expected return of these 18 sample companies and the market.

The results show that the p-value for the remaining 4 sample companies is greater than 0.05 level of significance. It means that the regression coefficient of slope (Beta: b_i) is not significantly different from zero. Hence, H_0 of these 4 sample companies has been accepted at the significant level of 0.05. It can be concluded that there is no linear relationship between the expected return of these 4 sample companies and the market.

4.3.3 Implication indicated by the CAPM

The trend of the market return as indicated by Hengseng price index was moving upward during the period 1/1/1993 to 31/12/1997. The 18 sample companies with insignificant regression coefficients of slope did follow the trend of the market

although their securities expected returns as indicated by their regression coefficients of slope did not as high as expected. Besides, the 4 sample companies with significant regression coefficients of slope indicated that their main operation activities might not be construction-based. As most of the sample companies followed the movement of the market, we concluded that the returns of construction industry followed the trend of the market. Hence, if the movement of the market was moving upward, expected returns of companies in construction industry would follow the upward trend of the market and vice versa.

4.4 Result of Questionnaire Analysis

The information received from the questionnaires was analyzed. Over 80% of their profits of the 3 companies were derived from the government construction project during the past 5 years. The contract size of each project was over HK\$30 million on average. When matching the questionnaires with the financial performance of the company, it was found that there was no relationship between the financial performance of construction companies and their participating in government construction.

The duration of contract directly affects the profitability of a construction company because the profit they earn is in proportion to the percent of project completion. A greater proportion of long-term contract is assumed, to some extent, safe the profit of the company from the economic down turn. The majority of these companies' contract duration was less than 2 years. When matching with the financial performance of the respondents, it was found that most of their performance was less than satisfactory. Except for one responding company that had improving profitability, other responding companies were not profitable. Besides, all the gearing of the responding companies were deteriorating while their earnings abilities were declining.

Factors affecting the profitability in the past five year

When considering the factors that affected the profitability of construction companies during the past five years, questionnaires form two of the non-sample listed construction companies no awry the sample were also used as references. The following are factors, agreed by most of the respondents, that affected the profitability of their companies.

- Increase of housing supply by Housing Authority
- Government policies to cool property prices
- The bank prime lending rate

- Increased cost of labour and materials due to inflation.

From the above factors, it can be observed that from the companies' point of view, their profitability was mainly affected by the government policies like cooling property policy, and economic factors like inflation and bank prime lending rate.

The following are those factors that most of the respondents only agreed a little when considering their adverse impacts on companies' profit.

- Political uncertainty caused by sovereignty transformation
- Shortage of quality and skilled labour in the construction market
- The performance of newly-recruited project managers
- Inaccurate estimation of the project prices
- Losses caused by the delay in finishing projects
- Progress affected by bad weather

We can see that none of the above were economic factors

Factors that will affect the profit in the coming year

Most of the respondents believed that the following factors will greatly affect the profitability of construction companies in the coming year.

- Government's policy to freeze land sales.

- The bank prime lending rate
- Downturn of construction industry intensified competition
- Decrease in property demand due to the economic down turn

It can be observed that the economic situation and government policy is still the major concern and worry of the construction company.

Most of the respondents believed that following are the factors that will only have little impact on their profit.

- Fluctuation of construction material prices
- Inaccurate estimation of the project prices
- Losses caused by the delay in finishing projects
- Progress affected by bad weather

None of the economic factors are included.

As observed, the factors that affected the performance of construction companies in the past five years, as well as the factors that worried by the construction company as future threaten are included economic factors and government policy. That is, the construction industry is sensible to the Hong Kong economic environment.

Chapter 5 Conclusions

Analysis of the financial statement analysis shows that although the turnover of most of the sample construction companies was increasing and leverage was deteriorating.

Both long-term and short-term liabilities were the main causes of this phenomenon as there was a steady increase on total debt during the past five years (1993-1997) which affect the leverage of the construction industry.

The expenses of the sample companies were very high resulting in low net income in spite of increases in turnover. Thus, trading profits and profits before taxation were also pulled down. The sales to assets ratio showed that the majority (73%) of the sample companies were weak in using assets to generate sales.

16 sample companies had heavy interest payment burden. More than half of the sample companies experienced a decrease in cash flow during 1993-1997. 18 sample companies even had occasional negative cash flows from operating activities during the period. Net cash flows before and after financing were also decreasing.

The profitability of the construction industry (represented by our sample companies)

was declining on general. However, a satisfactory result was achieved in the short-term solvency ratio, especially after 1995. For the asset utilization ratios, the Debtor's Day ratio was increased at an accelerated rate (40.6%), on the other hand, the sales to total assets ratio declined steadily after 1994. The burden of long term debt was increased, which was supported by the evidences of rising total debt to total assets ratio, and the increasing total debt to total equity ratio. The earning ratios were decreased during the past 5 years especially in the performance of dividend payout ratio.

The overall performance of sample companies in respect of profitability was unsatisfactory. The majority of the companies were declining on the profitability ratios. For short-term solvency, nearly half of the sample companies could keep their short-term liquidity position at a reasonable level. Nearly three fourth of the sample companies experiencing a deterioration in assets utilization performance. The gearing ratio of them was also high. The earning performance of sample companies was less than satisfactory. That is, their ability to repay interest and dividend had been reduced.

Resulting from the regression analysis, most of the coefficients of slope of the sample companies were positive. After hypothesis testing, 4 out of 22 companies were rejected where regression coefficients of slope for these 4 companies were significant. We

conclude that linear relationship exists between the market and the other 18 companies with insignificant regression coefficients of slope. Therefore, those 18 companies follow the change of the market.

An analysis of the questionnaire as agreed by most of the respondents shows that external factors such as government policy, bank landing rate, and the economic downturn affected the performance of construction companies in the past and in the future. Project sources are not related to the financial performance of construction companies.

To conclude, all the results of analysis show that construction companies are not profitable during the periods. Results show that long Debtor's Days and high gearing position are norms in construction industry. Most sample companies in our study follow these norms.

The weak profitability position of construction companies is supported by our results of simple regression analysis. Most sample companies have regression coefficients of slope which is less than one. Results show that most sample companies do follow the market to grow but the growth rate is not as rapid as the market. The main reasons why

construction companies are not profitable are reflected in the results of financial statement analysis where construction companies have long Debtor's Day and high gearing position.

Again, the result of questionnaire investigation is consistent with the results of financial statement analysis and simple regression analysis. Most respondents believe that the bank prime lending rate is one of the factors that affect the profitability of a company. In addition, most respondents support the norm of long Debtor's Day as construction works are always long-term based where the payback period is long in construction industry. The reason why the bank prime lending rate may affect the profitability of construction companies is that construction companies highly rely on debt financing. If there is an increase in the bank interest rate, there will be an increase in interest payment that reduces the profits of a company.

Chapter 6 Recommendations

Based on the results from financial statements analysis and the results of Capital Assets Pricing Model we recommend the following to the construction companies to help them to improve their performance.

Firstly, we recommend the construction companies to control their expenses. Our analysis showed that the trend of sales is opposite to the trend as indicated by the profitability ratios. This phenomena is due to the large amount of expenses. Controlling expenses would help to improve profitability.

Secondly, we suggest that the credit management policies adopted by the construction companies could be improved. The industry averages of our sample companies indicate that Debtor's Day was increasing. This means that most of the sample companies were experiencing long collection periods (see Appendix C). One sample company even had over 400 days of Debtor's Day. Receipts from debtors directly affect cash flows from operating activities. If the construction companies can minimize the number of collection days from debtors, it would greatly improve their cash flows from operating activities.

Thirdly, sufficient working capital should be maintained by the construction companies to meet short-term obligations, in particular, interest payments. Our study shows that 21 out of 22 of the companies raised funds by means of short-term and long-term loans. Such practice follows the norm that construction companies rely on debt financing. Thus, sample companies may not have sufficient working capital to repay short-term obligations. From the cash flow statement analysis, we find that the majority of the sample companies (16 out of 22) suffered from heavy interest burden. If there is a shortage of working capital, the company risks the danger of going bankrupt.

Lastly, the construction companies should reduce the amount of debt. Appendix D shows that nearly half of the sample companies had gearing ratios over 50%. Although it is the norm that construction companies finance construction projects by means of loans, it is unwise for a company to rely so much on debt financing. Reducing debt not only reduces the burden on interest, but also improves the leverage of the company. Instead of borrowing from banks, public listed construction companies may raise additional funds by issuing new shares.

In respect of the result of questionnaires, the following recommendations are made.

Government attitude on construction industry

Government should adopt a non-intervening policy towards the property market. As observed from the questionnaires, the government policies of cooling property prices and freezing land sales were considered evils as they had direct impact on the profitability of the construction industry. In fact, the intervention of Hong Kong Government will damage the reputation of Hong Kong as a free market.

Balancing debt and equity

Bank lending rates are directly related to the profit of construction companies because construction companies are always financed by bank loan. It would be important to balance the use of debt and equity to finance its investments. Too much reliance on debt can be risky to the company because if not enough profit is made to cover the interest and principal payments, the company may be faced into bankruptcy.

Bank lending policy

Banks play an important role in helping the construction industry during economic downturns. As showed in the questionnaires, all the respondents agreed that bank lending rates significantly affect the profit of construction companies. Thus, if banks relax their lending policies and/or lower the interest rates to construction companies, it

would help the construction industry to survive during recessions.

Management of construction companies

More effort should be placed on project management as well as the quality of the overall management of construction company. As predicted by most of the respondents, the competition in the construction industry would intensify due to the downturn of the economy. As a result, it would be important for companies to carefully review their plans, long-term development and the borrowing/lending policies.

Effective management of change through Value Management (VM)

Value Engineering (synonymous with the terms Value Management and Value analysis) is a function-oriented, systematic team approach to provide value in a product, system or service. Often, improvement is focused on cost reduction; however, other improvements such as customer-perceived quality and performance are also paramount in the value equation (The Society of American Value Engineers, 1995). Fong and Shen's study (1996) shows that VM has a low level of application in Hong Kong's construction industry. The concept of VM is applicable to the construction industry because it focuses in the following areas:

1. It requires active participation of client in projects so that clients' needs can be

formulated.

2. During VM workshops, clients' requirements are examined in full so that all possible solutions are considered thoroughly.
3. The search for value is a role ideally suited to cost consultants in satisfying clients' requirements and offers them a much better image than being merely 'cost cutter'.
4. Creativity is an essential ingredient in value management. By having a multi-disciplinary team approach, it tries to break away from the usual habitual thinking pattern.
5. As the end users know best what are critical in the finished buildings that can be easily overlooked by the design team.
6. Contractors, being experts in buildability or constructability, can offer great contribution to building designs.

As a result of changing economic environment, changing social trends and increasing competition, more changes are yet to come by Hong Kong construction companies. Only those companies who can successfully manage change survive. With the downturn of Hong Kong economy, value management can be an effective tool to help construction companies manage changes.

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Appendix A

Meaning of Financial Position

For the sake of clarity it is perhaps useful to define what is meant by the financial position through out the study. The term “financial position” represents the profitability, liquidity and solvency of a company.

It can be inferred that balance sheet can reflect the financial position of a company at a particular point of time. "The balance sheet provides information about the nature and amounts of investments in enterprise resources, obligations to creditors, and the owners' equity in net resources. The balance sheet provides a basis for (1) computing rates of return, (2) evaluating the capital structure of the enterprise, and (3) assessing its liquidity and financial flexibility. In order to judge enterprise risk and assess future cash flows, one must determine enterprise liquidity and financial flexibility by analyzing balance sheet." (Kieso & Weygant, 1995, p.190).

In 1971 APB Opinion No.19 made it mandatory that a 'statement of changes in financial position' be presented as an integral part of the financial statements and that it be covered by the auditor's opinion. The Board concluded that

...information concerning the financial and investing activities of a business enterprise and the changes in its financial position for a period is essential for financial statement users, particularly owners and creditors, in making economic decisions. When financial statements purporting to present both financial position (balance sheet) and results of operations (statement of income and retained earnings) are issued, a statement summarizing changes in financial position should also be presented as a basic financial statement for each period for which an income statement is presented.

And Kieso & Weygant (1995, p.1230) observed: "Through the 1960s and 1970s, the statements presented the change in working capital as an adequate approximation for cash flow."

Appendix B

Capital Asset Pricing Model (CAPM)

Sharpe (1964) developed an equilibrium model to value assets called Capital Asset Pricing Model (CAPM). In connection with the CAPM, the following assumptions are adopted:

1. Investors are risk-averse.
2. There are no taxes or transaction costs.
3. Investors can borrow and lend at the same risk-free interest rate.
4. Returns are normally distributed.
5. Investors have homogenous expectations.

Mathematically, the CAPM is expressed as follows:

$$r_i = k_{RF} + \mathbf{b}_i(k_M - k_{RF}) + e_i$$

where

k_M = expected return of market

k_{RF} = risk-free rate of return

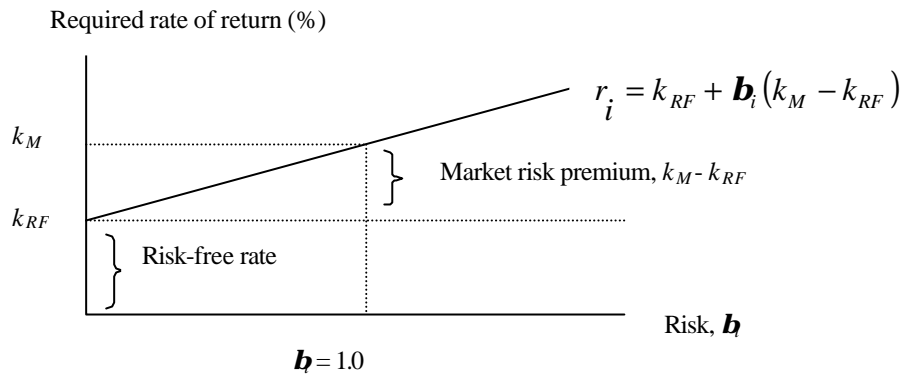
\mathbf{b}_i = beta

r_i = expected return on security i

e_i = residual return on security I

The e_i is assumed to have zero mean and is an independent variable.

The CAPM can be expressed graphically as follows:



Given $b_i = 1.0$, the return on the portfolio is the risk-free rate plus the market risk premium.

Provided that the market is efficient, an investor will purchase a particular security in which the return of such security is higher than the return predicted by the CAPM while an investor will sell a particular security if the return of such security is lower than that of the return predicted by the CAPM (Terry J Watsham, 1993).

The beta is used to measure the risk of an individual asset, in other words, beta is the covariance of the asset return with the market return. (Terry J Watsham, 1993) The beta for the CAPM is defined as follows:

$$b_i = \frac{\text{cov}(r_i, k_m)}{\text{var}(k_m)}$$

The beta of the security shows the relationship between asset's return and the market's return. The larger the beta, the larger the return to be expected. Terry J Watsham (1993) described the implication of beta as follows:

“An important result of this model is that as beta of asset i is the covariance of assets i with the market portfolio divided by the variance of the market portfolio, beta indicates the contribution of asset i to the riskiness of a portfolio as a proportion of the total risk of that portfolio.”

From CAPM the important characteristics determining the inclusion of a security in a portfolio is not its correlation of returns with other securities, but the relationship between the asset's returns and those of the market portfolio; the beta of the security" (Terry J Watsham, 1993)

Hence, we believed that beta may be an appropriate indicator to show how an individual security to response to the market. In our research study, we analyzed beta for each sample company in order to see how each sample company to be responded to the market.

Appendix C

Definition of Simple Regression (Using SPSS Software Package)

- a) Regression coefficient of slope is defined as the slope of the least-squares line.
- b) Regression coefficient of constant is defined as the intercept of the least-squares line
- c) Standard error of constant is the estimated standard error of the constant.
- d) Standard error of slope is the estimated standard error of the slope.
- e) Standardized coefficients beta is defined as the following formula

$$B_1 \frac{S_x}{S_y}$$

where

- B_1 = regression coefficient
- S_x = standard deviation of the independent variable
- S_y = standard deviation of the dependent variable

- f) T-value for slope is referred to the standardized regression coefficient of slope.
- g) T-value for constant is referred to the standardized regression coefficient of constant.
- h) Two-tailed observed significance level (p-value) is referred to the level of significance to determine whether we do accept the null hypothesis.
- i) 95% Confidence interval for regression coefficient of slope is referred to 95% confidence that the regression coefficient of slope will fall within this interval.
- j) 95% Confidence interval for regression coefficient of constant is referred to 95% confidence that regression coefficient of constant will fall within this interval
- k) The sample R squared attempts to optimistically estimate how goodness the model fits the population.

Appendix D

Sample Industrial Averages

Profitability Ratios

Table A1

Company No.	Net Profits Margin				
	93	94	95	96	97
1	8.06%	5.79%	3.95%	2.01%	4.42%
2	12.86%	6.92%	8.43%	3.82%	2.87%
3	-17.46%	-4.40%	3.31%	-4.51%	6.21%
4	5.38%	4.49%	40.77%	18.22%	1.23%
5	-0.71%	2.53%	5.17%	24.86%	5.46%
6	7.44%	5.73%	3.56%	3.22%	2.53%
7	53.55%	57.98%	56.15%	54.94%	50.77%
8	0.11%	1.59%	1.68%	-5.13%	-3.00%
9	5.93%	3.69%	5.01%	4.75%	4.15%
10	1.99%	6.35%	4.37%	13.92%	21.42%
11	16.91%	10.73%	5.38%	14.60%	-36.07%
12	26.64%	22.55%	18.57%	19.69%	16.72%
13	15.83%	10.12%	26.76%	24.35%	28.13%
14	10.48%	-9.15%	-3.99%	-0.71%	3.00%
15	-7.62%	-15.60%	-17.89%	-23.56%	10.16%
16	2.55%	4.48%	1.55%	3.02%	-121.87%
17	18.29%	8.38%	6.26%	3.79%	4.30%
18	15.94%	39.57%	-15.37%	47.71%	43.36%
19	16.67%	8.86%	0.09%	1.27%	-0.04%
20	3.02%	0.74%	1.51%	1.39%	2.09%
21	-9.60%	-10.80%	-13.17%	-20.81%	-12.43%
22	32.43%	22.64%	39.40%	33.57%	31.11%
Mean	9.94%	8.33%	8.25%	10.02%	2.93%
Standard deviation	15.11%	16.14%	18.17%	19.10%	33.34%
Median	7.75%	5.76%	4.16%	3.81%	4.23%
Lower quartile	2.13%	1.83%	1.52%	1.30%	1.45%
Upper quartile	16.49%	9.80%	7.89%	19.32%	15.08%

Table A2

Company No.	Return on Assets				
	93	94	95	96	97
1	14.71%	10.39%	5.90%	2.16%	6.30%
2	7.43%	4.21%	2.28%	1.91%	0.97%
3	-22.95%	-6.95%	6.04%	-9.57%	14.48%
4	0.66%	0.39%	1.98%	2.15%	0.62%
5	-0.45%	1.84%	3.06%	13.43%	1.46%
6	23.68%	13.04%	8.53%	7.40%	7.44%
7	12.80%	13.49%	10.13%	11.44%	10.62%
8	0.16%	1.81%	2.10%	-6.12%	-3.75%
9	7.98%	4.72%	6.31%	6.21%	4.13%
10	1.07%	3.67%	1.90%	3.70%	4.92%
11	13.72%	8.75%	2.91%	4.57%	-28.55%
12	7.11%	6.44%	4.14%	3.74%	3.27%
13	2.96%	1.42%	3.33%	2.07%	2.42%
14	21.94%	-9.91%	-6.77%	-1.23%	5.43%
15	-0.39%	-0.26%	-0.20%	-0.25%	0.76%
16	3.16%	4.54%	1.38%	1.61%	-23.29%
17	15.03%	9.52%	6.19%	3.18%	3.11%
18	6.54%	2.71%	-0.88%	1.15%	1.19%
19	21.19%	8.59%	0.04%	0.50%	-0.02%
20	4.93%	1.08%	2.85%	2.42%	3.27%
21	-10.26%	-10.67%	-12.94%	-20.61%	-11.71%
22	3.89%	2.89%	5.46%	8.21%	9.81%
Mean	6.13%	3.26%	2.44%	1.73%	0.59%
Standard deviation	10.61%	6.43%	4.93%	7.06%	10.07%
Median	5.74%	3.28%	2.88%	2.15%	2.76%
Lower quartile	0.76%	1.17%	1.51%	0.66%	0.66%
Upper quartile	13.49%	8.05%	5.79%	4.36%	5.30%

Table A3

Company no.	Return on Equity				
	93	94	95	96	97
1	22.04%	15.98%	8.89%	3.29%	10.12%
2	25.03%	10.34%	4.97%	6.74%	5.44%
3	-50.97%	-16.76%	12.96%	-18.53%	27.81%
4	0.80%	0.47%	2.42%	2.64%	0.81%
5	-0.54%	2.37%	4.22%	38.17%	5.80%
6	56.02%	31.78%	28.86%	23.98%	23.79%
7	20.69%	24.94%	19.44%	21.85%	19.05%
8	0.29%	3.22%	3.11%	-8.04%	-5.39%
9	18.35%	9.60%	13.89%	14.78%	12.58%
10	3.02%	8.81%	5.07%	10.48%	11.43%
11	21.12%	14.80%	6.63%	12.47%	152.05%
12	10.64%	9.98%	6.80%	6.66%	5.78%
13	4.93%	2.59%	7.20%	4.54%	5.25%
14	53.84%	-19.79%	-14.34%	-3.56%	17.36%
15	-0.43%	-0.28%	-0.21%	-0.27%	0.81%
16	8.54%	13.96%	3.87%	3.48%	-47.89%
17	36.94%	24.12%	17.49%	10.17%	10.74%
18	7.19%	2.92%	-0.92%	1.18%	1.22%
19	48.32%	14.02%	0.07%	1.32%	-0.06%
20	7.56%	1.54%	4.56%	4.40%	6.58%
21	-14.56%	-16.03%	-21.18%	-38.05%	-22.45%
22	5.61%	4.66%	9.97%	17.64%	20.88%
Mean	12.93%	6.51%	5.63%	5.24%	11.90%
Standard deviation	23.45%	12.93%	10.41%	15.17%	35.15%
Median	8.05%	6.73%	5.02%	4.47%	6.19%
Lower quartile	1.35%	1.74%	2.59%	1.22%	0.92%
Upper quartile	21.81%	14.01%	9.70%	11.97%	16.17%

Table A4

Company no.	Return on Capital Employed				
	93	94	95	96	97
1	25.35%	17.98%	9.75%	5.55%	14.22%
2	19.25%	6.97%	6.25%	7.08%	4.32%
3	48.18%	-9.06%	16.91%	-12.69%	30.53%
4	1.33%	2.38%	3.26%	2.78%	2.44%
5	16.88%	35.72%	20.51%	20.14%	8.07%
6	47.12%	31.90%	24.42%	20.87%	24.12%
7	24.87%	18.39%	18.64%	18.27%	15.50%
8	0.91%	2.84%	-1.77%	-24.02%	-1.81%
9	19.72%	13.71%	10.74%	15.45%	9.29%
10	5.60%	3.41%	5.18%	8.73%	9.38%
11	16.16%	13.59%	7.20%	17.76%	27.40%
12	11.28%	10.17%	8.34%	8.32%	9.37%
13	2.78%	3.52%	6.26%	4.19%	20.96%
14	38.40%	-27.75%	-16.59%	0.32%	19.24%
15	1.59%	2.95%	4.80%	3.66%	3.61%
16	13.99%	16.14%	2.33%	9.03%	-48.45%
17	22.88%	19.20%	14.08%	13.65%	9.43%
18	17.68%	8.44%	29.24%	6.61%	10.83%
19	29.44%	17.71%	2.85%	2.33%	7.40%
20	5.54%	1.26%	4.16%	4.04%	6.37%
21	-16.14%	-22.97%	-22.37%	-43.92%	-21.84%
22	2.34%	3.44%	7.11%	9.66%	13.45%
Mean	16.14%	7.72%	7.33%	4.45%	7.90%
Standard deviation	15.76%	14.83%	11.65%	14.88%	16.65%
Median	16.52%	7.70%	6.69%	6.85%	9.38%
Lower quartile	3.47%	2.87%	3.49%	3.00%	4.83%
Upper quartile	24.37%	17.31%	13.24%	12.65%	15.18%

Short-term Solvency Ratio

Table A5

Company no.	Current Ratios				
	93	94	95	96	97
1	1.73	1.80	1.91	1.84	1.82
2	1.15	3.48	1.17	1.36	1.46
3	1.23	1.24	1.37	1.86	1.78
4	1.04	0.40	0.80	1.59	1.50
5	1.46	1.13	1.11	0.93	1.19
6	1.75	1.52	1.24	1.43	1.21
7	1.39	1.65	1.71	1.99	2.00
8	1.55	1.17	3.17	1.64	1.86
9	1.69	1.22	1.50	1.28	1.12
10	1.57	1.38	1.11	1.08	1.01
11	2.89	1.68	1.55	1.38	0.24
12	1.23	1.43	1.58	1.63	1.66
13	2.23	1.28	1.48	2.03	1.53
14	1.83	2.41	1.43	1.32	1.35
15	0.98	0.36	0.24	1.10	2.28
16	1.03	1.05	0.91	1.00	1.07
17	0.82	1.04	1.09	1.11	1.46
18	3.04	1.06	3.41	4.65	4.46
19	1.24	1.20	1.35	1.07	1.00
20	2.97	2.82	1.79	1.79	1.63
21	2.53	2.32	2.14	1.74	1.43
22	1.82	4.95	5.64	5.28	2.60
Mean	1.69	1.66	1.71	1.78	1.62
Standard deviation	0.66	1.03	1.12	1.09	0.80
Median	1.56	1.33	1.46	1.51	1.48
Lower quartile	1.23	1.14	1.13	1.15	1.19
Upper quartile	1.83	1.77	1.77	1.82	1.81

Table A6

Company no.	Quick Ratio				
	93	94	95	96	97
1	0.99	1.10	0.98	0.87	0.72
2	0.27	3.41	1.10	1.33	1.41
3	0.71	0.54	0.73	1.16	1.15
4	0.87	0.36	0.77	1.56	1.49
5	1.06	0.97	0.68	0.79	1.08
6	1.51	1.25	0.97	1.04	0.98
7	1.28	0.52	0.49	0.67	0.76
8	1.35	0.92	2.78	1.43	1.77
9	1.39	0.95	1.18	1.01	0.85
10	1.51	1.29	1.04	1.00	0.95
11	2.15	0.72	0.80	0.53	0.15
12	1.21	1.42	1.57	1.61	1.64
13	2.11	1.19	1.38	1.91	1.48
14	1.58	2.04	1.21	1.17	1.14
15	0.98	0.36	0.24	1.10	2.28
16	1.03	0.70	0.58	0.65	0.25
17	0.82	1.04	1.09	1.11	1.46
18	3.04	1.06	3.41	4.65	4.46
19	1.10	0.89	1.15	0.91	0.73
20	2.59	2.01	1.37	1.31	1.28
21	2.16	1.66	1.61	1.48	1.42
22	1.82	4.93	5.59	5.20	2.56
Mean	1.43	1.33	1.40	1.48	1.36
Standard deviation	0.66	1.05	1.18	1.17	0.89
Median	1.31	1.05	1.10	1.13	1.21
Lower quartile	1.00	0.76	0.77	0.93	0.87
Upper quartile	1.76	1.39	1.38	1.47	1.49

Table A7

Company no.	Net Working Capital to Total Assets				
	93	94	95	96	97
1	25.66%	27.82%	29.73%	30.46%	31.87%
2	8.81%	35.60%	8.25%	20.96%	26.16%
3	10.18%	10.14%	15.82%	40.83%	38.98%
4	0.26%	-7.63%	-1.47%	5.55%	7.11%
5	6.94%	2.75%	2.60%	-1.57%	5.97%
6	39.82%	30.33%	15.73%	22.84%	13.35%
7	10.97%	11.69%	10.91%	15.13%	14.21%
8	23.77%	7.55%	39.06%	18.72%	25.85%
9	29.58%	9.75%	22.24%	13.42%	4.30%
10	17.18%	11.66%	4.52%	3.01%	0.37%
11	54.97%	30.63%	27.99%	23.77%	-275.86%
12	3.54%	7.84%	10.28%	13.02%	11.15%
13	9.05%	3.55%	6.47%	8.98%	7.41%
14	44.35%	55.13%	26.19%	21.76%	24.08%
15	-0.14%	-3.05%	-6.26%	0.78%	7.88%
16	1.94%	2.91%	-4.47%	-0.17%	2.98%
17	-7.85%	1.89%	4.18%	5.72%	21.03%
18	14.88%	0.37%	7.53%	8.92%	7.33%
19	9.00%	4.98%	6.29%	1.67%	0.04%
20	50.28%	48.78%	32.54%	35.74%	31.70%
21	46.75%	40.57%	38.61%	26.96%	16.37%
22	8.61%	28.27%	27.59%	28.01%	24.11%
Mean	18.57%	16.43%	14.74%	15.66%	2.11%
Standard deviation	18.23%	17.64%	13.69%	12.26%	63.08%
Median	10.58%	9.95%	10.59%	14.28%	12.25%
Lower quartile	7.36%	3.07%	4.96%	5.59%	6.25%
Upper quartile	28.60%	29.82%	27.24%	23.54%	24.10%

Long-term Solvency Ratios

Table A8

Company no.	Total Debt to Total Assets				
	93	94	95	96	97
1	35.23%	34.83%	32.52%	36.36%	38.79%
2	69.03%	47.95%	58.38%	78.30%	81.99%
3	55.36%	50.10%	46.61%	47.52%	49.82%
4	15.40%	16.99%	18.42%	15.60%	27.71%
5	16.31%	22.39%	25.19%	53.73%	55.06%
6	53.52%	62.32%	74.15%	62.51%	70.87%
7	30.90%	36.07%	36.24%	35.64%	26.81%
8	43.07%	44.57%	18.11%	29.56%	30.09%
9	49.02%	50.46%	56.18%	56.77%	68.74%
10	60.11%	56.35%	64.03%	61.94%	49.81%
11	31.49%	47.79%	61.26%	65.14%	374.45%
12	26.79%	32.68%	34.82%	38.13%	31.55%
13	23.94%	33.39%	33.63%	32.23%	29.17%
14	54.79%	39.46%	60.99%	69.09%	67.96%
15	7.59%	6.45%	8.23%	7.63%	6.18%
16	59.29%	66.59%	57.55%	48.98%	54.66%
17	60.11%	57.64%	66.07%	68.26%	71.10%
18	7.61%	6.46%	3.25%	2.47%	2.12%
19	51.73%	32.47%	34.15%	39.75%	53.23%
20	28.42%	29.57%	42.25%	46.87%	53.15%
21	30.63%	30.70%	40.41%	45.01%	45.33%
22	34.71%	25.78%	49.25%	47.08%	49.59%
Mean	38.41%	37.77%	41.90%	44.94%	60.83%
Standard deviation	18.21%	16.50%	19.49%	19.74%	73.00%
Median	34.97%	35.45%	41.33%	46.97%	49.81%
Lower quartile	27.19%	29.85%	32.80%	35.82%	30.45%
Upper quartile	54.47%	49.56%	58.17%	60.65%	64.74%

Table A9

Company no.	Total Debt to Total Equity				
	93	94	95	96	97
1	54.40%	53.43%	48.19%	57.14%	63.51%
2	167.58%	56.00%	113.48%	197.29%	200.40%
3	112.59%	97.71%	86.69%	87.05%	99.38%
4	16.42%	19.50%	19.96%	17.85%	32.34%
5	19.24%	29.95%	34.34%	96.00%	112.13%
6	113.96%	152.57%	224.08%	136.13%	201.42%
7	49.33%	52.02%	49.19%	49.27%	37.66%
8	75.53%	79.85%	22.22%	42.25%	43.39%
9	87.99%	93.56%	102.79%	114.17%	112.64%
10	85.80%	82.37%	110.59%	101.39%	84.20%
11	44.34%	87.06%	124.80%	175.88%	-143.46%
12	34.01%	42.40%	45.48%	53.79%	42.74%
13	30.75%	49.55%	51.05%	46.86%	47.19%
14	120.84%	65.45%	157.39%	215.97%	213.18%
15	8.21%	6.88%	8.97%	8.26%	6.58%
16	158.39%	203.21%	113.03%	79.95%	91.51%
17	109.75%	105.57%	125.07%	146.77%	132.86%
18	8.21%	6.89%	3.35%	2.53%	2.17%
19	82.64%	43.51%	56.68%	78.80%	80.98%
20	38.14%	40.87%	72.74%	86.03%	106.35%
21	45.39%	46.90%	64.23%	76.20%	72.96%
25	39.42%	32.28%	55.70%	53.18%	61.49%
Mean	68.31%	65.80%	76.82%	87.40%	77.35%
Standard deviation	46.68%	46.25%	53.30%	57.83%	76.48%
Median	51.86%	52.73%	60.45%	79.38%	76.97%
Lower quartile	35.04%	41.25%	46.16%	50.25%	42.90%
Upper quartile	104.31%	85.89%	112.42%	110.97%	110.68%

Table A10

Company no.	Total Debt to Equity				
	93	94	95	96	97
1	54.40%	53.43%	48.19%	57.14%	63.51%
2	222.90%	92.15%	141.69%	397.36%	500.97%
3	142.32%	114.22%	94.33%	87.05%	99.38%
4	18.22%	20.51%	22.69%	19.20%	38.39%
5	19.49%	30.35%	35.32%	219.27%	214.90%
6	115.15%	166.75%	294.42%	173.89%	252.94%
7	51.81%	70.56%	68.50%	68.64%	45.71%
8	75.64%	80.54%	22.25%	42.34%	43.41%
9	98.51%	103.61%	131.11%	137.92%	246.47%
10	149.58%	131.52%	190.40%	167.42%	101.01%
11	45.87%	91.55%	158.12%	186.92%	-136.44%
12	39.64%	52.31%	58.63%	71.38%	53.31%
13	39.07%	71.26%	73.64%	71.15%	62.53%
14	124.30%	65.84%	157.70%	225.53%	213.69%
15	8.21%	7.01%	8.97%	8.26%	6.58%
16	166.70%	219.58%	138.19%	96.23%	121.65%
17	154.85%	144.33%	204.78%	224.79%	255.76%
18	8.24%	6.91%	3.36%	2.53%	2.17%
19	108.02%	48.21%	77.56%	118.41%	112.81%
20	39.70%	42.50%	74.06%	88.22%	113.45%
21	45.39%	46.90%	71.52%	88.87%	83.18%
22	54.35%	42.09%	109.17%	98.08%	107.44%
Mean	81.02%	77.37%	99.30%	120.48%	118.31%
Standard deviation	59.27%	53.06%	72.32%	91.75%	127.03%
Median	54.37%	68.20%	75.81%	92.55%	100.19%
Lower quartile	39.66%	43.60%	50.80%	69.27%	47.61%
Upper quartile	122.02%	100.75%	140.81%	172.27%	190.68%

Performance Ratios

Table A11

Compnay no.	Debtor's Day				
	93	94	95	96	97
1	63.99	63.19	73.19	89.24	60.32
2	36.85	37.95	89.58	50.06	90.40
3	66.32	47.89	44.10	49.51	55.69
4	27.48	29.24	42.21	26.31	46.46
5	37.97	58.47	85.75	89.24	218.89
6	74.46	109.80	94.02	86.42	67.68
7	21.40	45.87	77.48	70.77	66.73
8	136.29	142.58	113.75	108.29	78.71
9	68.19	68.78	55.02	54.21	57.54
10	40.80	66.38	83.85	103.87	102.19
11	194.88	140.83	183.03	326.50	131.06
12	83.18	71.21	90.48	127.54	136.85
13	120.17	171.09	295.28	460.20	438.24
14	78.78	172.06	126.88	135.47	126.43
15	254.43	338.01	222.96	224.56	28.43
16	83.80	114.78	112.54	125.98	248.67
17	122.49	89.94	111.95	117.99	111.24
18	1.86	18.81	34.44	62.48	39.95
19	80.05	80.80	121.53	118.57	104.35
20	22.60	32.72	49.46	76.74	98.49
21	100.17	125.60	130.54	121.40	120.15
22	56.13	25.77	21.84	34.60	33.84
Mean	80.56	93.26	102.72	120.91	111.92
Standard deviation	58.79	71.70	63.98	100.22	91.31
Median	71.33	70.00	90.03	96.56	94.45
Lower quartile	38.67	46.37	59.56	64.55	58.24
Upper quartile	96.08	122.90	119.58	124.83	124.86

Table A12

Company no.	Sales to Total Assets				
	93	94	95	96	97
1	1.83	1.79	1.49	1.07	1.43
2	0.58	0.61	0.27	0.50	0.34
3	1.31	1.58	1.83	2.12	2.33
4	0.12	0.09	0.05	0.12	0.51
5	0.64	0.73	0.59	0.54	0.27
6	3.18	2.28	2.39	2.30	2.94
7	0.24	0.23	0.18	0.21	0.21
8	1.51	1.13	1.25	1.19	1.25
9	1.35	1.28	1.26	1.31	0.99
10	0.54	0.58	0.44	0.27	0.23
11	0.81	0.82	0.54	0.31	0.79
12	0.27	0.29	0.22	0.19	0.20
13	0.19	0.14	0.12	0.08	0.09
14	2.09	1.08	1.70	1.72	1.81
15	0.05	0.02	0.01	0.01	0.07
16	1.24	1.01	0.89	0.53	0.19
17	0.82	1.14	0.99	0.84	0.72
18	0.41	0.07	0.06	0.00	0.00
19	1.27	0.97	0.42	0.40	0.57
20	1.63	1.46	1.89	1.74	1.57
21	1.07	0.99	0.98	0.99	0.94
22	0.12	0.13	0.14	0.24	0.32
Mean	0.97	0.84	0.81	0.76	0.81
Standard deviation	0.78	0.62	0.71	0.70	0.79
Median	0.82	0.89	0.57	0.52	0.54
Lower quartile	0.30	0.25	0.19	0.22	0.21
Upper quartile	1.34	1.13	1.26	1.16	1.19

Table A13

Company no.	Turnover to Stock				
	93	94	95	96	97
1	6.40	7.17	4.89	2.98	3.24
2	0.95	67.42	7.28	24.59	12.12
3	5.50	5.20	6.81	7.31	6.58
4	8.59	17.45	20.72	36.62	313.86
5	9.48	17.39	5.32	11.06	6.85
6	19.04	12.35	10.53	10.51	16.67
7	6.61	0.88	0.87	0.96	1.05
8	14.66	10.06	19.32	21.82	45.17
9	10.53	9.63	7.83	9.76	8.06
10	30.11	19.79	13.49	9.13	9.37
11	2.90	1.62	1.15	0.54	7.27
12	73.92	142.46	79.97	34.76	55.61
13	15.97	14.06	8.55	7.41	12.63
14	10.29	9.82	10.49	16.09	10.97
15	N/A				
16	4141.17	3.97	6.06	3.98	0.76
17	10.71	8.16	6.27	3.62	1.77
18	N/A				
19	16.90	9.20	8.59	9.03	6.30
20	14.46	6.59	9.79	7.76	8.16
21	9.83	5.43	5.68	13.20	196.80
22	N/A	93.99	61.73	49.44	49.43
Mean	232.00	23.13	14.77	14.03	38.63
Standard deviation	946.78	36.22	20.02	13.12	78.17
Median	10.53	9.72	8.19	9.45	8.76
Lower quartile	7.60	6.30	5.97	6.47	6.51
Upper quartile	16.44	17.40	11.27	17.52	23.79

Earning Ratios

Table A14

Company no.	Dividend Payout				
	93	94	95	96	97
1	47.94%	61.86%	67.66%	85.70%	67.55%
2	35.81%	36.04%	33.59%	717.34%	34.94%
3	0.00%	0.00%	0.00%	47.54%	42.68%
4	0.00%	33.63%	93.60%	74.23%	44.35%
5	47.53%	19.72%	26.69%	24.29%	30.54%
6	57.12%	45.95%	43.01%	47.09%	50.26%
7	83.65%	68.72%	63.58%	59.58%	56.87%
8	7.13%	39.10%	41.58%	0.00%	0.00%
9	50.63%	54.12%	55.00%	90.73%	48.91%
10	50.51%	21.09%	55.93%	45.69%	32.29%
11	26.20%	16.79%	0.69%	0.00%	0.00%
12	39.52%	39.29%	51.96%	50.01%	43.83%
13	25.03%	24.24%	50.09%	12.73%	20.79%
14	39.27%	0.00%	0.00%	0.00%	21.05%
15	0.00%	0.00%	0.00%	0.00%	0.00%
16	43.93%	40.76%	45.53%	52.56%	0.00%
17	5.62%	61.71%	27.90%	23.23%	0.00%
18	25.26%	45.02%	10.57%	32.47%	19.17%
19	47.08%	45.17%	38.62%	44.42%	21.25%
20	60.96%	0.00%	56.08%	35.21%	38.84%
21	0.00%	0.00%	0.00%	0.00%	0.00%
22	28.12%	12.94%	805.96%	39.55%	23.03%
Mean	32.79%	30.28%	71.27%	67.38%	27.11%
Standard deviation	23.25%	22.18%	166.13%	147.73%	20.92%
Median	37.54%	34.84%	42.29%	41.98%	26.78%
Lower quartile	11.60%	13.90%	14.60%	15.35%	4.79%
Upper quartile	47.84%	45.13%	55.70%	51.92%	43.55%

Table A15

Company no.	Interest Cover				
	93	94	95	96	97
1	115.12	22.33	62.32	3.33	7.30
2	28.96	7.42	4.34	2.87	2.98
3	13.80	-2.72	5.46	-4.80	90.91
4	1.87	2.10	2.30	3.06	1.55
5	115.08	65.55	23.14	13.44	3.58
6	374.49	25.03	11.26	8.52	11.86
7	11592.50	148.61	26.57	40.43	267.29
8	1.54	4.45	-2.26	-71.55	-216.34
9	N/A	34.24	6.92	6.43	9.08
10	1.74	1.33	1.10	1.74	1.67
11	23.56	11.93	1.48	2.32	-6.77
12	10.21	7.61	4.39	4.40	5.99
13	12.12	4.67	4.61	2.31	22.89
14	97.00	-42.65	-13.85	0.07	5.67
15	4.82	10.70	15.56	8.12	7.57
16	11.36	5.56	1.83	3.04	-7.18
17	9.42	6.17	4.07	2.12	2.67
18	N/A				
19	20.16	24.46	1.96	0.67	3.15
20	593.46	6.44	10.60	9.75	39.10
21	-717.10	-195.69	-65.13	-19.41	-7.34
22	87.00	5.51	10.69	6.62	7.18
Mean	619.86	7.29	5.59	1.12	12.04
Standard deviation	2593.05	58.67	21.99	19.62	79.43
Median	16.98	6.44	4.39	3.04	5.67
Lower quartile	8.27	4.45	1.83	1.74	1.67
Upper quartile	101.52	22.33	10.69	6.62	9.08

Table A16

Company no.	Earning Per Share				
	93	94	95	96	97
1	0.18	0.18	0.14	0.06	0.09
2	0.61	0.61	0.35	0.35	0.22
3	0.01	0.01	0.08	0.08	0.12
4	0.37	0.37	0.73	0.68	0.47
5	0.19	0.58	0.38	0.38	0.46
6	0.15	0.12	0.13	0.13	0.16
7	2.51	3.78	4.40	4.40	5.66
8	0.30	0.06	0.10	0.10	0.03
9	0.14	0.14	0.14	0.14	0.18
10	0.99	0.99	2.36	1.20	1.32
11	0.12	0.12	0.10	0.08	-1.89
12	2.23	2.72	2.11	2.11	2.86
13	0.20	0.20	0.19	0.29	0.42
14	0.15	0.07	-0.01	-0.01	0.06
15	0.04	0.04	0.03	0.06	0.15
16	0.21	0.21	0.30	0.12	-1.40
17	0.21	0.18	0.16	0.16	0.10
18	0.28	0.16	0.85	0.85	0.42
19	0.19	0.23	0.13	0.13	0.49
20	0.04	0.01	0.03	0.03	0.04
21	0.14	-0.06	-0.05	-0.05	-0.03
22	0.18	3.35	0.41	0.41	0.90
Mean	0.43	0.64	0.59	0.53	0.49
Standard deviation	0.66	1.11	1.06	1.00	1.45
Median	0.19	0.18	0.15	0.14	0.17
Lower quartile	0.14	0.08	0.10	0.08	0.07
Upper quartile	0.30	0.53	0.40	0.40	0.47

Table A17

Company no.	Price Earning				
	93	94	95	96	97
1	9.89	5.20	4.53	9.82	6.96
2	2.48	3.09	4.47	3.67	5.86
3	57.14	125.71	7.38	5.63	5.98
4	30.65	16.67	6.97	12.65	7.23
5	5.77	2.88	2.98	3.73	3.58
6	5.94	9.85	6.43	7.93	8.14
7	8.60	9.59	9.63	13.11	12.15
8	4.06	19.05	4.46	3.66	15.03
9	8.10	8.24	6.50	8.18	5.90
10	11.22	6.27	2.37	7.51	4.46
11	21.30	7.56	8.60	8.65	0.00
12	8.78	7.91	12.19	17.00	16.15
13	17.44	7.07	6.08	6.93	4.33
14	4.93	9.13	0.00	0.00	7.88
15	29.00	7.50	9.86	17.90	2.47
16	6.84	7.18	3.82	9.66	0.00
17	7.64	6.56	3.89	5.10	9.52
18	5.74	12.18	1.67	1.63	3.92
19	8.06	9.40	9.76	15.94	3.55
20	18.33	72.86	10.93	11.11	9.87
21	4.55	0.00	0.00	0.00	0.00
22	16.82	1.99	13.82	17.07	10.35
Mean	13.33	16.18	6.20	8.49	6.52
Median	8.35	7.74	6.26	8.06	5.94
Standard Deviation	12.52	28.44	3.81	5.45	4.45
Lower Quartile	5.81	6.34	3.84	4.07	3.67
Upper Quartile	17.29	9.79	9.37	12.27	9.18

Appendix E

(~ Please refer to the Excel file for Appendix E ~)

Results of Simple Regression Analysis

Company no.1

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-0.00662927	0.014899204		-0.444941	0.658018	-0.03645327	0.023194725
a	KM Dependent Variable: KJ	0.00460835	0.166461502	0.003635084	0.027684	0.978009	-0.328600554	0.337817247

Company no. 2

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	0.02534735	0.021734107		1.166248	0.248288	-0.018158189	0.068852897
a	KM Dependent Variable: KJ	0.60286828	0.242824524	0.309944769	2.482732	0.015953	0.116802183	1.088934379

Company no. 3

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	0.01022464	0.027139317		0.376746	0.707737	-0.044100606	0.064549887
a	KM Dependent Variable: KJ	0.6760424	0.303214284	0.280966015	2.229586	0.029661	0.069093059	1.282991736

Company no. 4

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	0.01005198	0.018628435		0.539604	0.591536	-0.027236882	0.047340847
a	KM Dependent Variable: KJ	1.50010684	0.208126369	0.687379184	7.207673	7.75E-10	1.083496645	1.916717035

Company no. 5

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.01139483	0.013406781		0.84993	0.398859	-0.015441758	0.03823142
KM		0.64909735	0.149787394	0.494554039	4.333458	5.91E-05	0.349265305	0.948929401
a	Dependent Variable: KJ							

Company no. 6

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.01568665	0.01865671		0.840805	0.40391	-0.021658814	0.053032114
KM		0.60222918	0.208442277	0.354702285	2.889189	0.005423	0.184986629	1.019471734
a	Dependent Variable: KJ							

Company no. 7

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.23075193	0.081537464		2.830011	0.006384	0.067536965	0.3939669
KM		1.21745317	0.910978094	0.172840086	1.336424	0.18663	-0.606067628	3.040973958
a	Dependent Variable: KJ							

Company no. 8

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.03714929	0.046362318		0.801282	0.426239	-0.055654971	0.129953557
KM		1.20622428	0.517983447	0.292408132	2.328693	0.023382	0.169367753	2.243080811
a	Dependent Variable: KJ							

Company no. 9

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.01198484	0.017348587		0.690825	0.492431	-0.022742132	0.046711809
KM		0.56399593	0.193827255	0.356909864	2.909786	0.005121	0.17600852	0.951983336
a	Dependent Variable: KJ							

Company no.10

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.0408637	0.018923804		2.159381	0.034968	0.002983589	0.07874381
KM		0.20261223	0.211426387	0.12484787	0.958311	0.341884	-0.220603672	0.625828127
a	Dependent Variable: KJ							

Comapany no. 11

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.00445448	0.022235865		0.200329	0.841924	-0.040055442	0.0489644
KM		0.94485687	0.248430419	0.44678306	3.803306	0.000346	0.447569352	1.442144386
a	Dependent Variable: KJ							

Company no. 12

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.06993857	0.024178953		2.892539	0.005373	0.021539134	0.118338001
KM		1.1765301	0.270139585	0.496430797	4.355267	5.48E-05	0.635786962	1.717273232
a	Dependent Variable: KJ							

Company no. 13

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		-0.00825277	0.015877576		-0.519775	0.605198	-0.040035191	0.023529653
KM		1.14908081	0.177392373	0.647893154	6.477622	1.99E-08	0.793991389	1.504170222
a	Dependent Variable: KJ							

Company no. 14

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		-0.01099265	0.02027562		-0.542161	0.589785	-0.051578713	0.029593415
KM		0.6885695	0.226529564	0.370689972	3.039645	0.00355	0.235121304	1.14201769
a	Dependent Variable: KJ							

Company no. 15

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		-0.00341134	0.01967773		-0.17336	0.862972	-0.042800597	0.035977917
KM		0.79872044	0.21984963	0.430558715	3.633031	0.000595	0.358643593	1.238797297
a	Dependent Variable: KJ							

Company no. 16

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.00167323	0.016017363		0.104463	0.917162	-0.030389009	0.033735464
KM		0.6128478	0.178954146	0.410116698	3.424608	0.001136	0.254632158	0.971063449
a	Dependent Variable: KJ							

Company no. 17

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		-0.00510287	0.01507571		-0.338483	0.736221	-0.035280186	0.025074439
a KM		0.58254191	0.168433514	0.413492955	3.458587	0.001024	0.245385603	0.919698226
Dependent Variable: KJ								

Company no. 18

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.00901051	0.009831643		0.916481	0.36321	-0.01066966	0.028690683
a KM		0.30602557	0.109844123	0.343553272	2.785999	0.007199	0.086148672	0.525902478
Dependent Variable: KJ								

Company no. 19

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.01380019	0.018556665		0.743678	0.460073	-0.023345015	0.050945389
a KM		0.97322316	0.207324522	0.524711214	4.694202	1.68E-05	0.558218033	1.388228278
Dependent Variable: KJ								

Company no. 20

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		-0.00951735	0.017568437		-0.54173	0.59008	-0.044684397	0.025649699
a KM		0.70083845	0.196283533	0.424496999	3.570541	0.000724	0.30793427	1.093742635
Dependent Variable: KJ								

Company no. 21

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.12308843	0.098190186		1.253572	0.215027	-0.073460582	0.319637446
KM		-0.54489834	1.097030797	-0.065082009	-0.496703	0.621276	-2.740844082	1.651047407
a	Dependent Variable: KJ							

Company no. 22

Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)		0.03162449	0.01582488		1.998403	0.050368	-5.24475E-05	0.063301429
KM		1.08130666	0.176803618	0.626145042	6.115863	8.55E-08	0.727395767	1.435217561
a	Dependent Variable: KJ							

Appendix F

Letter to Invite Questionnaire Completion

Room 510 Hall C (HC 510)
Southern Student Hostel
Lingnan College
Tuen Mun

6 February 1999

The Financial Controller
XXX Ltd.
XXX Building 22 XXX Street
Kowloon, Hong Kong

Dear Sir/Madam

Invitation to Complete a Questionnaire

We are final year Accounting students of the BBA (Honours) programme of Lingnan College. In fulfillment of the graduation requirements, we are conducting a research project on how construction companies are adapting to change of the economic environment of Hong Kong.

In order to identify the possible factors that affect the financial performance of construction companies in Hong Kong, we would like to invite some listed construction companies to participate our study. We would greatly appreciate if you would take a few minutes to complete the enclosed questionnaire. Your valuable opinion will be a great contribution to the success of our research project. All information collected will be kept strictly confidential and will only be used in this research project.

May we express our heartfelt thanks you in advance for your efforts in completing the questionnaire. Our returning date is extended to 15th February 1999. If you have any questions, please feel free to contact Mabel at 92240040 or Alex at 92279953.

Yours faithfully

Hui Mei Yan, Mabel
Tse Shun Kwong, Alex

Appendix G

The Questionnaire

Section 1: Project sources

第一部分：工程來源

Please tick the appropriate answer
請「✓」出合適的答案

1. Has your company participated in any government construction project in the past 5 years?
貴公司於過去五年曾否參與政府建設？

Yes
曾參與

No (Please go to Q4)
不曾參與 (請到問題四)

2. Please indicate the proportion of gross profits derived from government construction projects and private construction projects in the past five years
請列出貴公司於過去五年中從政府工程及私人工程所得的營業額比列。

Government construction projects : Private construction projects

	政府工程	私人工程	共
1993:	_____ %	_____ %	= 100%
1994:	_____ %	_____ %	= 100%
1995:	_____ %	_____ %	= 100%
1996:	_____ %	_____ %	= 100%
1997:	_____ %	_____ %	= 100%

3. Please identify the categories of construction work that your company was involved in government projects during the past 5 years by circling the related contract size. (You can choose more than one option.)
請「✓」出貴公司過去五年曾參與政府建設項目的工作類型及圈出工程之預算費用 (可選多於一項)

A: under HK\$6 million

B: HK\$6 to HK\$30 million

C: over HK\$30

Building
樓宇建築

A B C

Port work
碼頭建設

A B C

Road and drainage 道路及渠務工程	A	B	C
Site formation 地基工程	A	B	C
Water works 水塘及水務工程	A	B	C
Others (Please specify) 其他 (請說明)	A	B	C

4. What is the proportion of contracts and subcontracts completed by your company in the past year?

請粗略列出貴公司過去一年進行工程方式之比例。

- | | |
|--|-------|
| | % |
| • Done by all contractors
由自己公司負責所有工序 | _____ |
| • Done by Labour only subcontractors
外判工序，使用他們的勞工 | _____ |
| • Done by fee subcontractors
外判工序，使用他們的工人並機器 | _____ |

Total: 100%

5. On average, what is the proportion of the different projects undertaken by your company?

請按於合約上列明之工程持續時間，分配貴公司現有公程之比例

- | | |
|---|-------|
| | % |
| • Less than 6 months
少於半年 | _____ |
| • 6 months to Less than a year
半年至少於一年 | _____ |
| • 1 to 2 years
一至兩年 | _____ |
| • 3 to 4 years
三至四年 | _____ |
| • 5 to 6 years
五至六年 | _____ |
| • 7 years of above
七年或以上 | _____ |

Total: 100%

Section 2: Factors affecting profits

第二部分：影響公司盈利之因素

Listed below are factors that may affect the profitability of a construction company. Please circle the appropriate number, which shows the extent each of these factors negatively affect your company's profit during the PAST 5 YEARS.

(1=*slightly affect*; 6=*greatly affect*; 0=*not applicable*)

以下是一些可影響建築公司盈利的因素。請圈出在過去五年中，貴公司盈利有多大部分是受著這些因素打擊。

(0 = 不適用 ; 1 = 少受該因素影響 ; 6 = 很受該因素影響。)

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6. <i>Political uncertainty caused by sovereignty transformation</i>
因回歸引起的政治不明朗 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |
| 7. <i>Increasing housing supply by Housing Authority</i>
房屋署增加樓宇供應 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |
| 8. <i>Government policies to cool property prices</i>
政府打擊樓價措施 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |
| 9. <i>The bank prime lending rate</i>
銀行給予公司的貸款利率 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |
| 10. <i>Decrease in suitable contract</i>
適合貴公司的建築工程減少 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |
| 11. <i>Fluctuation of the cost of construction materials</i>
建築材料的價變動 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |
| 12. <i>Increased cost of labour and materials due to inflation</i>
由通漲所引起的工人工資及材料成本上升 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |
| 13. <i>Shortage of quality and skilled labour in the construction market</i>
勞工市場缺乏有質素及技能的工人 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |
| 14. <i>The performance of newly-recruited project managers</i>
新聘之建築工程管理人 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |
| 15. <i>Inaccurate estimation of the project prices</i>
工程價格常預計失誤 | 1 | 2 | 3 | 4 | 5 | 6 | 0 |

16. <i>Losses caused by the delay in finishing projects</i> 常因完工日延誤而引起損失	1	2	3	4	5	6	0
17. <i>Progress affected by bad weather</i> 受惡劣天氣影響	1	2	3	4	5	6	0
18. Others (Please specify) 其他 (請說明)							
a) _____	1	2	3	4	5	6	0
b) _____	1	2	3	4	5	6	0
c) _____	1	2	3	4	5	6	0

Section 3: Factors affecting future profits 第三部分：影響公司未來盈利之因素

Listed below are the factors that may affect the future profitability of a construction company. Please circle the appropriate number, which shows the extent each of these factors negatively affect your company's profit in the COMING YEAR.

(1=*slightly affect*; 6=*greatly affect*; 0=*not applicable*)

以下是一些可影響建築公司盈利的因素。請預計未來一年貴公司盈利有多大部分是受著這些因素打擊。

(0 = 不適用 ; 1 = 少受該因素影響 ; 6 = 很受該因素影響。)

19. <i>Government's policy to freeze land sales</i> 政府凍結賣地之政策	1	2	3	4	5	6	0
20. <i>The bank prime leading rate</i> 銀行給予公司的貸款利率	1	2	3	4	5	6	0
21. <i>Decrease in suitable contract</i> 適合貴公司的建築工程減少	1	2	3	4	5	6	0
22. <i>Downturn of construction industry intensified competition</i> 建築業市淡令業內競爭加劇	1	2	3	4	5	6	0
23. <i>Fluctuation of construction material prices</i> 建築材料的價變動	1	2	3	4	5	6	0
24. <i>Shortage of quality and skilled labour in the construction market</i> 勞工市場缺乏有質素及技能的工人	1	2	3	4	5	6	0
25. <i>Decrease in property demand due to the economic downturn</i>	1	2	3	4	5	6	0

因經濟不境引致物業需求減少

26. <i>Inaccurate estimation of the project prices</i> 工程價格預計失誤	1	2	3	4	5	6	0
27. <i>Losses caused by the delay in finishing projects</i> 因完工日延誤所引起的損失	1	2	3	4	5	6	0
28. <i>Progress affected by bad weather</i> 受惡劣天氣影響	1	2	3	4	5	6	0
29. Others (Please specify) 其他 (請說明)							
a) _____	1	2	3	4	5	6	0
b) _____	1	2	3	4	5	6	0
c) _____	1	2	3	4	5	6	0

~ End. ~
完

Thanks for your cooperation.
多謝合作

~~ 請沿背面之虛線摺疊，撕開雙面膠紙之封條。黏貼妥當後便可寄出。~~
~~ Please fold and seal using the sticker provided here ~~