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Examining the Relationship between Financial Ratios and Stock Returns of Companies Listed on Tehran Stock Exchange (Chemical, Biotechnology Products and Non-metallic Minerals Industry)

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ABSTRACT
In order to make their economic decisions, the investors of the market need information and part of the required information is provided through the company's financial reports. Financial ratios derived from the financial statements and analyzing them are considered as an important tool for assessing and making decision for investors. The study examines the relationship between the rate of earnings before interest and taxes, total debt to earnings before interest and taxes, stock market price to book value, dividends and earnings per share in non-metallic minerals industry and chemical products industries with stock returns in Tehran Stock Exchange. The population of the study consisted of 15 companies and to test the hypothesis, E-views software was used. The results showed that only the ratio of total debt to earnings before interest and taxes have a positive and significant relationship with stock returns, but other ratios have a significant relationship with stock returns.
Keywords: financial ratios, return on equity, stock portfolios, financial reports

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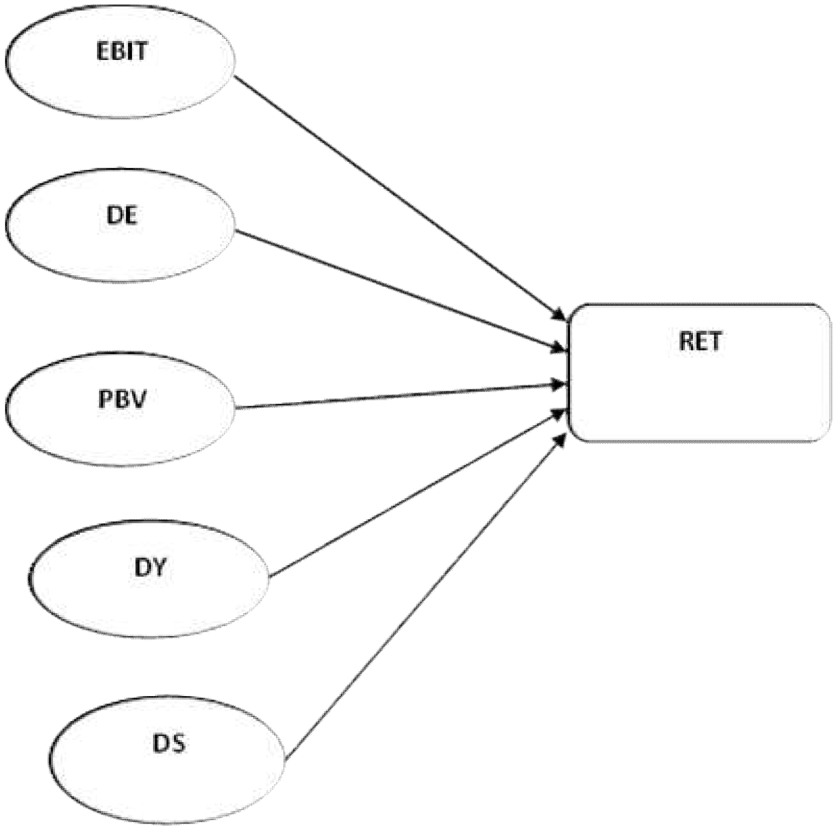
INTRODUCTION

Today, due to the expansion of economic activities, the development of financial markets and stimulating investment in capital markets, especially the stock exchange by natural and legal persons are treated as the most important tool to make the right decisions and reach expected gain and efficiently use of financial resources, access to correct and timely information and its detailed and realistic analysis [1-3]. In most developing or developed countries, stock exchange is one of the pillars of the economy, including economic development indicators in the country because the Stock Exchange leads financial resources for achieving the goals of economic development [4-5]. In Iran, for purposes of economic development within the framework of the second and third development programs, privatization policies and the transfer of their shares to the public are being realized. In most studies in our country, it has been tried to examine the factors influencing stock return in Tehran Stock Exchange. An efficient market is important for economic growth. Enough information in market and quick and timely reflection of information on the price of securities are closely related to market performance. In an efficient market, market information is the main determinants of price. In such a market, price of securities is close to its intrinsic value [6-10]. One of the main consequences of an efficient market is optimal exploitation of the available resources for achieving the best efficient market. One of the most important functions of the capital market is financing companies and institutions, and capital market should have features that require companies to fund their capital.

CONCEPTUAL MODEL



Factors that have been used in the research model included: liquidity, financial leverage and profitability. The research model includes:

$LYB_p = \beta EBIT\ R + \beta\ DE\ R + \beta\ PBV + \beta DY + \beta DS + \varepsilon$

LYB = return on equity
EBIT = interest before earnings and taxes
DE = ratio of debt to earnings before interest and taxes
PBV = ratio of market value to book value
DY = dividends per share
DS = earnings per share
β= sensitivity
€ = margin of error

Hypotheses

First hypothesis: there is significant and positive between the earnings before interest and taxes and stock returns of companies listed on Tehran Stock Exchange.

Second hypothesis: there is a positive and significant relationship between the ratio of total debt to earnings before interest and taxes and stock returns of companies listed in Tehran Stock Exchange.

Third hypothesis: there is a positive and significant relationship between the stock market price to book value and stock returns of companies listed in Tehran Stock Exchange.

Fourth hypothesis: there is a positive and significant relationship between dividends and stock returns of companies listed in Tehran Stock Exchange.

Fifth hypothesis: there is a positive and significant relationship between the earnings per share and return on equity of listed companies in Tehran Stock Exchange.

Statistical population

The study included all companies in non-metallic minerals and chemical industries listed on the Stock Exchange in Iran during 2002-2007.

Research Methodology

In this research, stock 2 software and informational sites for Tehran Stock Exchange including sena.ir and rdis.ir and irbourse.com were used to collect data.

Hypothesis testing

In this section, corresponding regression assumptions underlying the model have been separately presented and necessary models and tests are presented to confirm or disprove them.

Test hypotheses in the full version:

Optimization model is a kind of mixed data model. Therefore, the ordinary least squares method is used for its estimation. So the results were reported in the table below.

Table 1: (hypotheses)

Durbin- Watson stat	Probability (F-statistic)	F-statistic	Adjusted R-squared	R-squared	p-value	coefficient	variable
2.185028	0.0008	1-617796	042.526	0.431231	0.0927	0635-0/	**C**
					0.0037	0.350	**EBIT**
					0.421	0.030	**DTE**
					0.000	0.074	**MTB**
					0.001	0.000	**DIVR**
					0.016	0.490	**EPS**

As shown in Table 4-6, all variables except financial leverage have significant relationship with stock returns of companies, non-metallic minerals and chemical products listed in the Tehran Stock Exchange. The coefficient of determination shows that 42 percent of the dependent variable changes are explained by the independent variables. Because of the large sample size, there is no need for normality test.

First hypothesis

The results of the integrated model show that the p number of the variable is equal to 0037/0. Therefore, with 95% confidence, one can say that the null hypothesis is rejected, and as a result, the research hypothesis is confirmed.

Second hypothesis

The results of the integrated model show that the p number of the variable is equal to 0/421. Therefore, with 95% confidence, one can say that the null hypothesis is not rejected, and as a result, the second hypothesis is not confirmed.

Third hypothesis

The results of the integrated model show that the p number of the variable is equal to 0/000. Therefore, with 95% confidence, one can say that the null hypothesis is rejected, and as a result, the third hypothesis is confirmed.

Fourth hypothesis

The results of the integrated model show that the p number of the variable is equal to 0/001. Therefore, with 95% confidence, one can say that the null hypothesis is rejected, and as a result, the fourth hypothesis is confirmed.

Fifth hypothesis

The results of the integrated model show that the p number of the variable is equal to 0/016. Therefore, with 95% confidence, one can say that the null hypothesis is rejected, and as a result, the fifth hypothesis is confirmed.

Conclusion

First hypothesis results

The results of the integrated model show that the p number of the variable is equal to 0/300. Therefore, with 95% confidence, one can say that the null hypothesis is rejected, and as a result, the hypothesis is confirmed. The significance of variable coefficient (0/35) at 95/0 percent indicates that earnings before interest and taxes have meaningful and positive relationship with stock returns.

Second hypothesis results

The second hypothesis stated that there is a significant relationship among the ratio of total debt to earnings before interest and taxes and stock returns for non-metallic minerals and chemical products listed in the Tehran Stock Exchange. The lack of significance of variable coefficient (0/421) at 95% indicates that this ratio has not significantly correlated with stock returns.

Third hypothesis result

According to the results, it can be acknowledged that the ratio of relationship with stock returns is positive and significant. The significance of variable coefficient (0/740) at 95% shows that there is a positive and significant relationship between the ratio of market value to book value and stock returns.

Forth hypothesis result

According to the results, it can be acknowledged that dividends have a significant relationship with stock returns.

Fifth hypothesis

According to the results, it can be acknowledged that earnings per share could be significantly correlated with stock returns. The significance of variable rate of earnings per share (49/0%) at 95% shows that earnings per share has a significant relationship with stock returns (P = 0/01%).

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