J. Basic. Appl. Sci. Res., 2(3)3114-3119, 2012

ISSN 2090-4304
Journal of Basic and Applied Scientific Research
www.textroad.com

An Examination on the Effects of Different Financing Methods on the Stock Yield and Price in the Companies Registered in Tehran Stock Exchange

Seyyed Nasser Saidi [1], Seyyed Hadi Edrispour[2]

[1]Assistant Professor, Educational Vice Dean of Economics and Management Faculty of Khoramshahr Marine Sciences and tactics University
[2]Senior Expert of Accounting at Islamic Azad University, Emirate Branch

ABSTRACT

This study aims at examining the impact of different financing methods on the stocks yield and price of the companies registered in Tehran Stock Exchange within the years 2005-2009. Based on the results achieved by the tests conducted to examine the research models, it is found that retained-profit financing has positively significant effect on the stock price and the impact of financing variable is positively significant on the stock price through equity financing. Furthermore, debt financing variable is not significantly effective on the stock price. All retained-profit, equity and debt financings have had positive and significant effect on the stock yield. Durbin-Watson tests, F statistics for the total significance of regression models as well as their determination coefficient are truly indicative of the adequate research methods.
KEYWORDS: Financing, Stock Exchange, Securities, Stock Yield, Stock Price, Retained Profit, Debt.

1. INTRODUCTION

To choose an adequate method is one of the significant issues in modern financial theory as a matter of principle which has not only been proposed within the past years but it has been a focus of attention by the researchers since a few recent decades. The need to finance is resulted from the fact that the capital value of the companies is firstly reduced for external factors including exchange rate, inflation and bank interest rate. Secondly, operational mechanism in the companies will arouse a feeling of necessity to some funds for purchasing new assets, increasing the factory's capacity, employment of new manpower and purchasing raw materials, and such funds are brought up in the form of financial resources. The owners of a profit-making entity are usually encountered with two kinds of risks including Business Risk and Financial Risk. Business risk is dependent on the operational nature of that profit-making entity and the Financial Risk depends on its financing methods. Business risk is directly related to an ambiguity in connection with the power to produce acceptable yield for long-term investments by the entity. To gain acceptable yield is relevant to the ambiguities in relation to the demands for the goods produced by the profit-making entity and its management capability to show an accurate reflection upon unexpected occurrences. Thus, business risk is generally related to the ambiguities in long-term profitability of the profit-making entity and its current value at the time of dissolution [in case its operation is not profitable] (Shabahang, 2003). Making decisions about financing is basically of great importance for two groups. The first group consists of the managers or directors of the companies. An access to low-cost, low-risk and long-term capital resources is a crucial issue for the companies, because any funding involves in some charges which should be paid by the company through the returns on its investment, and the non-payment of such funds will result in serious problems. The second group involved in this issue includes the financiers and/or the stockholders. Since this group is seeking more profits and lower risks, this issue is a matter of great importance to them. They wish financial decisions to be made in a way to reach an increase in the company's profitability and value. Consequently, the investors react to the financial decisions of the companies in the shade of which they may minimize their investment risk and maximize the resulted yield. Therefore, we can mention three main reasons why the managers are motivated for financing including debt reimbursement, investments in new projects and compensation of operational cash flows (Richardson, 2008). On the other hand, there has been always a concern among the economists, investors and the companies' managers as to what kind of relationship exists between different financing methods and the stock yield and if we can change the stock value in the market by altering the capital structure and/or in other words is there any optimum capital structure? This study is conducted to examine the relationship between different methods of financing and the stock yield and price of the companies which are operating in Tehran Stock Exchange. Indeed, the main research question is stated as "which kind of long-term and short-term relationships exist between different financing methods including retained-profit, equity and debt financing (as the most important internal and external financing in the companies) and the stock yield and price for the period 2005-2009 in the companies registered in Tehran Stock Exchange?". Nowadays, the performance of stock exchange in developed countries is used as a criterion for the evaluation of the policies as well as financial, economic and commercial changes in these countries.

***Corresponding Author:** Seyyed Nasser saidi, Assistant Professor, Educational Vice Dean of Economics and Management Faculty of Khoramshahr Marine Sciences and tactics University. E-mail: saidinasser@yahoo.com

Perseverance of stock exchange in any country is regarded as the continuance of its economic development. Stock exchange is considered as significant economic elements by which financial facilities are collected and used to realize economic development goals of the countries. As the stock exchange's business is flourishing and public investment is increasing in manufacturing sectors, the conditions necessary to raise employment and production will be improved while financial power of the companies will also increased and the investors will gain a desirable yield by making new investment and initiating long-term projects. The decisions about financing are originally of great importance for two subgroups of economic entities. The first group includes the company itself or its managers and the second one involved in this issue are financiers or stockholders. Therefore, an access to low-cost, low-risk and long-term capital resources is a crucial issue for the companies, because any funding requires involves in some charges which should be paid by the company through the returns on its investment and the non-payment of such firms will result in serious problems. Since this group is seeking more profits and lower risks, this issue is a matter of great importance to them. They wish financial decisions to be made in a way to result in an increase in the company's profitability and value. Consequently, the investors react to the financial decisions of the companies in the shade of which they may minimize their investment risk and maximize the resulted yield. At the most, applicable and practical purposes of this investigation are summarized as follows:

- To identify the methods of short-term and long-term financing
- To evaluate the relationship between retained-profit, equity and debt and the stock yield and price for the companies registered in Tehran Stock Exchange

In this regard Hypotheses are as below:

- First hypotheses: There is a significant different between shares price of the companies which have provided financially through shares spread and the companies have used long term facilities.
- Second hypotheses : There is a significant different between shares return of the companies which have provided financially through shares spread and the companies have used long term facilities.
- Third hypotheses: There is significant relation between shares return and financing through debt.
- Fourth hypothesis: There is a significant relation between shares price and financing trough accumulated profit.
- Fifth hypothesis: There is a significant different between shares price of the companies which have provided financially through shares spread and the companies have used long term facilities
- Sixth hypothesis: There is a significant relation between shares price and financing through debt.

2. REVIEW OF LITERATURE

Previous studies have been conducted on the capital structure in different scopes of this concept which has resulted in the following theories in this respect, all of which are indicative of the significance of this subject.

Traditional Theory: according to this theory, it is believed that there is an ideal capital structure and the company value may be increased through making desirable use of debts (Vafadar, 1999).

Capital Structure Theory – No Taxes: investigations conducted by Miller and Modigliani (MM) in 1958 show that there is no significant relationship between the capital structure and the companies' value. Lack of income tax, lack of bankruptcy and agency expenses, existence of a full contestable market and absence of informational inconsistency, all are the hypotheses proposed by theses two researchers. With regard to the fact that such assumptions may not be visualized in the real world. Their theory was fraught with problems which resulted in another complementary theory presented by them (Riahi Belkaui, 1999).

Capital Structure Theory and Corporate - Personal Taxes: considering the tax, MM model may be modified. The value of the companies with earning leverage is defined as the cash flow value of the companies without earning leverage (owners' equity value) beside current value of tax saving in constant cash flow of the company. Not only the company's taxes, but personal taxes are effective on the company value (Ibid).

Static Trade-off Theory: based on this theory, tax advantage of the debt will increase the value an indebted company. On the other hand, probable bankruptcy expenses as a result of non-performance of duly debt liabilities will decrease the value of the indebted company. Hence, capital structure of the company is indeed as a balance between debt tax advantages and probable bankruptcy expenses resulted by the debt itself. At the most, while neutralizing each other, these two factors lead to an optimum use of debt in capital structure (Brealey & Myers, 2004).

Pecking Order Theory of Financing Choice: in this theory, the companies develop a hierarchy which has been resulted by inconsistent information, in providing their required financial resources. Accordingly, the companies prefer internal financing methods over external ones and in case they would require external financing, they will give priority to borrowing rather than issuing shares. Here, no optimized composition of various debts and stocks has been already defined and it doesn't exist at all, for there are two kinds of possessory rights including internal and external. The former is a high priority and the latter, a low priority. As a result, the debt ratio in any company reflects its cumulative needs to external financing (Brealey & Myers, 2004).

Capital Structure Theory and Market's Duly Reflection: as per this theory, the economic entity proceeds to issue shares under circumstances when stock market value would be high compared to its book value, capital cost would be low and the investors would be assured of incoming profit to the company (Mashayekh & Shahrokhi, 2006).

Free Cash Flow Hypothesis: based on this hypothesis, payment of interest to the stockholders is a reducing factor to the company free cash flow. Furthermore, since the interest and the debt principle is among the company's permanent commitments and should be duly paid, an increase in borrowing will also cause free cash flow to be decreased. However, it should be notified that for preventing the managers' personal goals to be realized, the effect of debt is more than the payment of dividend, for if the company cannot pay its debts on due dates, it will enter into bankruptcy, while since the company has no legal liability for the payment of dividend to the stockholders, a decrease or even non-payment of this dividend, will cause fewer problems for the managers. Consequently, it may be concluded that since the debt will reduce the opportunity to waste the resources of the company by the managers, financing through borrowing (instead of stocks), will increase the company value (Bagherzadeh, 2003)

The most remarkable studies conducted inside and outside the country in this field are as follows:

Bivan & Danbolt (2002) reexamined the findings of Rajan and Zingales on the capital structure of business entities in England in their joint investigation under the title "capital structure and its determining factors in England capital market". They retest the sensitivity of explanatory variables studied by Rajan and Zingales to different debt standards and its constitutive components. The results so achieved show that the findings reported by Rajan and Zingales as the results of their investigation are strongly dependent on the leverage definition or debt ratio. Hadlock and James (2002) started evaluating the banking system to regularize financing of the companies. They reported that the selection of the kind of financing (capital or debt) will be basically made considering the stock market value of the companies. McNulty et al. (2002) as the investigators who found out the significance of proper assessment of capital cost, noted that if the company makes use of inaccurate rates to discount cash flows, it might reject a project by mistake and or invest in a business which is not appropriate. Lara and Mesquita (2003) examined in an investigation, the relationship between the capital structure and the companies' profitability in Brazil using mult0variate regression model. The results achieved by this study are indicative of a direct relationship between profitability and short-term debts and owners' equity and also its reverse relationship with long-term debts. Namazi and Shirzadeh (2004) investigated the effect of capital structure on the profitability of the companies in different industries which have been registered in Tehran Stock Exchange. The sample under study consisted of 108 companies from different industries. The data related to the average leverage factor and owners' equity within a five-year period was collected and tested as centralized and annually. Then, the data about the average leverage factor and return on assets within the same five-year period was also collected and examined. To test the hypotheses, simple regression model and correlation coefficient was applied. The results shows that in general, there is a positive but statistically weak relationship between the capital structure and the company's profitability; the relationship between the capital structure and profitability is also dependent on the industry and an optimum capital structure can be determined in different industries. Darabi Baratali (2005) concluded by his study that there is no correlation between the capital structure and the company value and all other factors effective on the company value should be taken into consideration to increase this value. Heshmati (2006) was studying the factors effective on the changes in earning leverage of the companies. For this purpose, he has used the data related to 164 companies registered in stock exchange within the period 2000-2004. The results of this study indicates that there is a correlation between profitability, financial deficit, stock yield and the ratio of stock value to book value of the company's assets, and the capital structure (earning leverage). Aameri (2007) has emphasized in his investigation - under the title "an examination of the factors effective on the capital structure of the companies registered in Tehran Stock Exchange" – the factors effective on the capital structure and especially on debts. This study was conducted using the data of the companies registered in Tehran Stock Exchange within the period 2000-2005 and also making use of the data related to the audited financial statements. By this investigation, he concluded that there is no correlation between the development opportunities and short-term debts; however, it is correlated with long-term debts. A correlation exists also between short-term debts and the company's size, but there id no correlation between long-term debts and the company's size.

3. METHODOLOGY

In this investigation, the kind of regression models estimation is Ordinary Least Squares (OLS). In case some problems including difference variance and autocorrelation of regression residuals will be occurred while implementing OLS model, Generalized Least Squares (GLS) will be applied to modify this model. It contains all the features mentioned for OLS model and the only difference is that it can modify the autocorrelation and dissimilarity variance of the residuals by weighing regression residuals' variance and by doing so, it can improve the results.

Considering independent and dependent variables, research models are explained as follows:

$$R_i = \beta_0 + \beta_1 E_i + \beta_2 S_i + \beta_3 D_i + \varepsilon_i$$

$$P_i = \beta_0 + \beta_1 E_i + \beta_2 S_i + \beta_3 D_i + \varepsilon_i$$

Where E indicates retained-profit financing, S as equity financing, D as debt financing, P is the stock price and R as the stock yield. The variables are calculated as below:

$E = (C_1 - C_0) - A$ $S = (C_1 - C_0) - B$ $D_t = d_t - d_{t-1}$

In the above equations, C_0 is indicative of capital rate before its increase, C_1 shows the capital rate after its increase, A is the percentage of capital increase by receivables and reserves, B is the percentage of capital increase by cash capital of the stockholders, d_t indicates debt financing in the period t and d_{t-1} is debt financing within the period t-1.

Dependent variables are stock price and stock yield. The stock price means the stock price at the end of the fiscal year (PFY) and the normal return is calculated by the following equation:

$$R = \frac{MV_1 - MV_0 + P - B}{MV_0}$$

Where MV_1 is the company's market value at the end of year, MV_0 is the company's market value at the beginning of year, P is indicative of approved dividend and B shows the percentage of capital increase by cash capital of the stockholders.

The companies under study were selected considering two following limitations:

a) The companies which do not have the data related to the variables used in this study were left out.
b) Some companies which have been recently registered in stock exchange and consequently they had not the data related to the past years, have been also left out.

Thus, the sample is selected from all the companies active in Tehran Stock Exchange which are working in industries other than investment, financial brokerage and service industries. Industries including investment, financial brokerage, banking, credit and service institutions have been omitted from the sample considering the specific nature of their activities and for the lack of necessary information to calculate some of the research variables.

4. RESULTS

The results of the model estimation generated by dependent variables of stock price and yield are shown in tables (1) and (2).

Table (1): the results of estimation model generated by dependent variable of stock price

variable	Variable Coefficient	t Statistics	Significance
Intercept	1.01	25.53	Significant
Retained-profit Financing	0.18	2.46	significant
Equity Financing	0.27	3.96	Significant
Debt Financing	0.09	1.18	Insignificant
$\overline{R}^2$	Adjusted Determination Coefficient	0.05	
$D.W$	Durbin-Watson Statistics	1.83	
F	Fisher F statistics	5.52	

Table (2) : the results of estimation model generated by dependent variable of stock yield

variable	Variable Coefficient	t Statistics	Significance
Intercept	0.10	2.13	Significant
Retained-profit Financing	0.61	7.67	significant
Equity Financing	0.66	8.34	Significant
Debt Financing	0.63	7.54	Insignificant
$\overline{R}^2$	Adjusted Determination Coefficient	0.31	
$D.W$	Durbin-Watson Statistics	1.43	
F	Fisher F statistics	44.62	

Taking the resulted so achieved into consideration, it is found that intercept has a positive and significant effect on the dependent variable. Furthermore, retained-profit financing variable and equity financing variable are positively and significantly effective on the stock price and the impact of debt financing variable on the stock price is insignificant. Additionally, Durbin-Watson Statistics is equal to 1.83 in this model which indicates the lack of an autocorrelation in the model. F Fisher Statistics which is applied to reject simultaneous null hypothesis of the coefficients, is significant and shows that in fitted model, null hypothesis is rejected simultaneously for all

coefficients. Adjusted determination coefficient is 0.05 in the model which means that explanatory variables are explaining 5 percent of the changes in the dependent variable. With regard to the results achieved by estimating the second model through dependent variable of stock yield, it is seen that all the variables of the model, have positive and significant effect on the dependent variable. Also, the effects of independent variables including retained-profit financing, equity financing and debit financing are approximately equal. Meanwhile, Durbin-Watson statistics is also equal to 1.43 showing the lack of autocorrelation in the model. F Fisher Statistics which is applied to reject the simultaneous null hypothesis of the coefficients is significant indicating that in a fitted model, null hypothesis is simultaneously rejected for all coefficients. Adjusted determination coefficient is also equal to 0.31 in the model which means that explanatory variables explain 5 percent of the changes in the independent variable and this model holds more explanatory power than the model with the independent variable of stock price. Regarding to the insignificant effect of debt financing on the dependent variable of stock price (first model) and the impact of all other variables on the stock price and also considering the significant effect of all independent variables in the second model on the stock yield, it may be claimed that all hypotheses except the sixth one are accepted.

5. Conclusion

In the model with the dependent variable of stock yield, all financing methods are directly effective on the stock yield; as the companies' capitals are increased by these methods, their stock yield will be improved. Thus, it may be concluded that these companies could averagely improve their capital structure at a higher level so that they could increase their returns by this capital structure and financing method. Furthermore, in the model with the dependent variable of stock price, it was showed that all financing methods except the debit financing are positively effective on the stock price. Therefore, it can be summarized that in case the company's goals are to increase the stock price, it would be better to seek its financing through retained-profit and equity methods. Thus, it can be stated as further suggestion from later studies that since two variables including yield and price have been applied as dependent variables in this study, it can be repeated for all other variables. In addition, there was little opportunity in the present investigation for studying the relationship between different financing methods. Finally, with regard to the fact that the variables of this investigation are considered for the entire stock exchange market, it can be examined separately in different industries.

REFERENCES

- Bagherzadeh, S., (2003). "An explanation as to the capital structure model in the companies registered in Tehran Stock Exchange". Financial Studies; vol. 16: 23-47
- Bevan, Al., and J., Danbolt (2002). "Capital Structure and Its Determinants in the UK": A Decompositional Structure. Applied Financial Economics 12. pp. 159-170.
- Booth, L., V., Aivazian and A., Demirguc-kunt (2001). "Capital Structure in Developing Countries". Journal of Finance 56(1). pp. 87-130.
- Brealey, R., and M., Stuart (2005). "Fianacial Management (vol. 1) ". Translated and quoted by Saied Bagherzadeh, Tehran, Zarinkoob Pub.
- Jahankhani, A., and N., Yazdani (1995). "An examination on the effect of the companies' industry type, size, business risk and operational leverage degree on the level of financial leverage application in the companies registered in Tehran Stock Exchange". Management Studies; vol. 17 & 18: 169-186
- Jensen, M., and W., Meckling (1976). "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure", Journal of Financial Economics 3. pp. 305-360.
- Lara, J.E., and J.M.C., Mesquita (2003). "Capital Structure and Profitability: The Brazilian case", Vancouver: Academy of Business and Administration Sciences Conference, July 11-13, 2003.
- Malekipour, M., (1996). "An analytical study on the use of financial leverage on the profitability in the companies registered in Tehran Stock Exchange". MA Thesis in Accounting; Shahid Beheshti University
- Mashayekh, M., and S.S., Shahrokhi (2006). "The factors effective on the capital Structure". Accountant; vol. 21, Issue 176: 13-19
- Myers, S., and N.S., Majluf (1984). "Corporate Financing and Investment Decisions When Firms Have Information That Investors Don't Have", Journal of Financial Economics 13. pp. 187-221.
- Namazi M., and J., Shirzadeh (2005). "The study on the relationship between the capital structure and the profitability in the companies registered in Tehran Stock Exchange (emphasizing the kind of industry)". Accounting and Auditing Studies; vol. 42: 75-95
- Rajan R.G., and L., Zingales (1995). "What Do We Know about Capital Structure?" Some Evidence from International Data. Journal of Finance 50(5). pp. 1421-1460.

- Riahi Belkaui, A. (1999). "Capital Structure-Determination, Evaluation and Accounting ", First Edition, Quorum Books, London.
- Vafadar, M., (1999). "An investigation on the effect of the capital increase on the volume of transactions and the stock price in the companies registered in Tehran Stock Exchange". BA Thesis, Islamic Azad University, Central Tehran.