

*Full Length Research Paper*

# From the lens of an Appraiser Manager: Influence of the effect of different financing methods of firms accepted in Tehran Stock Exchange on their share yield

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This study review the effect of various methods of financing on share yield of accepted firms in the Stock Exchange of Tehran during 2006 to 2010. For this reason, the firms which were financed through loan or increased capital have been selected and based on noted data on financial statements of them. The effect of two given financing methods (loan and increased capital) on return of their equities following recognition normality of studied variables was analyzed by Kolmogorov-Smirnov test, correlation analysis and regression analysis. The state of accepted firms in Stock Exchange of Tehran compared to the effect of various financing methods on their return rate of equalities during the given years has been reviewed. The results of the research show that it is not possible to claim that financing through increased capital has positive influence on share yield of accepted firms in the Stock Exchange of Tehran. On the other hand, it could be claimed that, financing through loan has positive influence on share yield of accepted firm in the Tehran Stock Exchange.

**Key words:** Financing, share yield, loan, increased capital, Tehran Stock Exchange.

## INTRODUCTION

The increasing development and complexity of economic activities as well as the fast evolution of commercial transactions in the modern world whether internal or international trade and demand of commercial and production companies to maintain capacity by developing activities and investment designed to hold or increase competitive power internally and in the world have increased demand of these firms for financial resources. The capability of firms to determine potential financial resources in order to invest and provide suitable programs include the main factors of development in firms. In this situation, it is necessary to benefit from techniques of financial managers in management of firms. Providing right financial policy strengthens firm's

capability in reaching strategic aims.

## CONCEPTUAL FRAMEWORK

### Main resources and structure of financing

The supply of financial resources is the most important issue in financial management. The awareness of financial managers on various methods of financing (provision) leads to the continuity of firms, makes the financial structure of firms to be flexible law and facilities current process. In some cases supply of financial resources goes along with charge payment and

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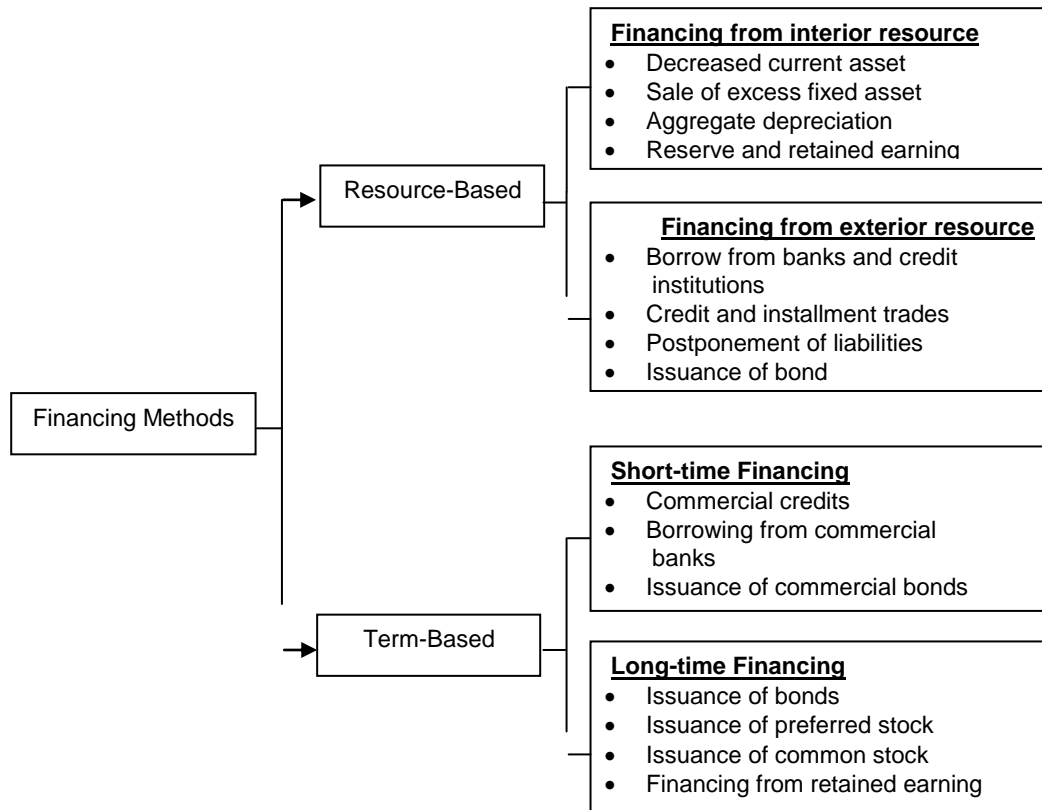


Figure 1. Division of financing methods.

commitment. The evaluation of various financing interacts with evaluation of related financial charges. Thus, it is necessary that, both categories be taken account of systematically (NikuMaram and Colleges, 2009:129 cited in Zeinali et al., 2012). Figure 1 shows decision making tree related to various financing methods:

### Pyramidal order of financing hypothesis

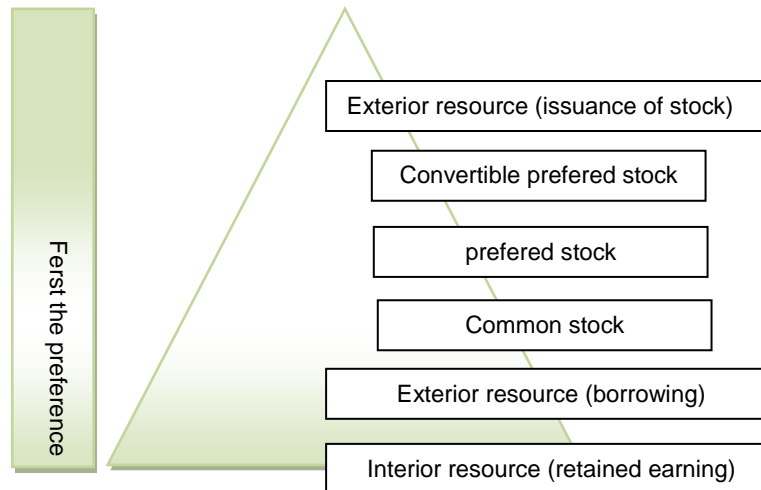
The research conducted by Donaldson in 1961 is a confirmation of more reception of interior funds in the firms. If interior resource is not adequate for firms' investment, then firms' trend toward commercial exterior financing such as the borrowing, convertible securities (Issuance of securities) and finally issuance of stock will be considered. Myers (1984) introduced such hierarchy as pyramidal order of financing (Figure 2).

### Research background

Donaldson (1961) observed in their research on "operation of financing in great firms" that management supports interior financial resource, as new resource

funds and puts aside exterior ones; and if there is more demand for exterior financing resources, they use borrowing. When price to profit rate is high and with suitability of common stock sale time, they resort to issuance of stocks, making supplied investments charges to include investment in inventory and other current wealths, from interior resources. Kurwar (1983) and Skit and Molnz (1986) (cited in Zeinali et al., 2012) conclude in their research that moderately while firms issue stock, decrease stock cost and proceed to redeem it at the same time leads to increase in costs.

Myers and Majulf (1984) reviewed effect of new stock issue on real and inherent value of equity by asymmetrical data and found that, when price of equity is high, lower value is obtained by new shareholders. Smith (1977) reviewed the impact of new stock issue on price and return of stock and found that it has negative impact on stock price. In recent studies, significant abnormal negative return is created as a result of financing announcement. Research shows that average of 3% of stock price of industrial firms which issue seasonal common stock has been decreased. Most thoric explanations indicate that this decline is as a result of negative data taken through new stock issue announcement in the market. Antoniou et al. (2002) reviewed in a research the



**Figure 2.** Pyramidal order of financing hypothesis.

impact of pyramidal rates on capital structure under deterministic factors of firms' capital structure and found that firms set influential factors on capital structure to obtain optimum one.

Other research has been conducted by Mateus and Balla (2002) on selection of optimum capital structure; they use regression method hybrid data for 55 firms from 1995 to 1999 and conclude that, return of firm has direct relation with pyramid. Richardson and Sloan (2003) studied relation of exterior financing with future share yield. They found that, future return forecast of stocks depends on capital structure mostly.

## Research objectives

### Main objective

To study the effect of financing methods of firms accepted in Tehran Stock Exchange on share yield.

### Minor objects

A: effect of investment increase of firms accepted in Tehran Stock Exchange on share yield.

A-1: effect of investment increase by issuance of stock on share yield in firms accepted in Tehran Stock Exchange.

A-2: Effect of investment increase by stock dividend on share yield in firms accepted in Tehran Stock Exchange.

B: effect of loan on share yield of firms accepted in Tehran Stock Exchange.

B-1: effect of short-term loan on share yield of firms accepted in Tehran Stock Exchange.

B-2: Effect of long-term loan on share yield of firms accepted in Tehran Stock Exchange.

## METHODOLOGY

The method used in this research is analytic–descriptive with applied approach. In this research, data extracted from financial statements of firms accepted in Tehran Stock Exchange during 2005 to 2009 are subjected to the hypotheses to know effect of various financing methods on stocks return in the give years. The analysis of liability rate (short and long term-loan) increased capital percent (stock dividends and issuance of stock) and share yield rate.

### Statistical society

The accepted firms in Tehran Stock Exchange consist of statistical society of this research.

The statistic sample of present research has been extracted by deletion sampling:

1. The firms whose financial year leads to end of Esfand.
2. The firms which have continuous activity during the research period.
3. The firms which were funded during 2005 to 2009 through increased financing investment.
4. The firm which were funded through loan during 2005 to 2009.

In this research, in order to collect required data on theory issues, method of library has been used; to also collect required financial data, the audited financial statements of sample firm and software system provided by "Islamic studies research and Development Management of Exchange as well as Rahavad software system (provided by Novin Idea firm) were used. The required rates and calculation estimated as various

financing methods of stocks rate in the given years would be reviewed.

### Hypothesis

**Hypothesis A:** Financing through capital increase has positive effect on share yield of accepted firms in Tehran Stock Exchange.

This hypothesis consists of two sub-hypotheses:

Sub-hypothesis A-1: financing has positive effect on share yield of accepted firms in Tehran Stock Exchange through increased capital using issuance of stock method.

Sub-hypothesis A-2: financing has positive effect on share yield of firms accepted in Tehran Stock Exchange through increased capital by stock dividends method.

**Hypothesis B:** Financing has positive effect on share yield of firms accepted in Tehran Stock Exchange through loan.

This hypothesis has two sub-hypotheses:

Sub-hypothesis B-1: financing has positive effect on share yield of firms accepted in Tehran Stock Exchange through short-term loan.

Sub-hypothesis B-2: financing has positive effect on share yield of firms accepted in Tehran Stock Exchange through long-term loan.

### Variables

Independent variables include methods of financing, which are divided into:

1. Financing through short-term loan.
2. Financing through long-term loan.
3. Financing through increased capital from retained earning.
4. Financing through increased capital from issuance of stock.

Dependent variables include share yield.

The share yield is calculated by the following equation:

$$r_{it} = \frac{D_t + p_t(1 + \alpha + \beta) + (p_{t-1} + c\alpha)}{p_{t-1} + c\alpha} \times 100 \quad (1)$$

Where  $p_t$ ,  $p_{t-1}$  mean share cost at the beginning and end of a period  $t$ ;  $\alpha$ , increased capital percent from issuance of stock;  $\beta$ , increased capital percent from retained earning; and  $c$ , nominal amount paid by investor for increased capital from cash investment and changes.

### MODEL TEST RESEARCH HYPOTHESIS

In order to test the variables of this research, correlation and regression analysis is used. In this research we try to confirm the relationship between the two variables. It is notable to say that, if both correlation coefficient test and regression coefficient are significant, the hypothesis is affirmed.

#### The first hypothesis (sub-hypothesis A-1)

"Financing has positive effect on share yield of firms accepted in Tehran Stock Exchange through increased capital by issuance of stock method"

#### Correlation coefficient significant test

The result of Pearson correlation test for the given hypothesis, which is calculated by SPSS software is provided in Table 1.

In Table 1, if the significant level calculated (sig) is higher than 0.05 during all the years, then hypothesis  $H_0$  is not rejected, and the linear relation between increased capital percent from issuance of stock and share yield of firms is not affirmed. Also, calculated correlation coefficient indicates a negative relation between increased capital percent from issuance of stock and share yield of firms.

#### Regression coefficient significant test

In Table 2, the hypothesis was tested along with the results of the research data. In Table 2, if the significant level of calculated test (sig) in all research years is higher than 0.05, then hypothesis  $H_0$  is not rejected and there is relation between increased capital percent from issuance of stock and share yield of firms.

If both correlation coefficient and regression coefficient tests are confirmed significant, the sub-hypothesis is affirmed; one can claim that, financing through increased capital with issuance of stock has positive effect on share yield in Tehran Stock Exchange.

#### The second hypothesis (sub-hypothesis A-2)

"Financing has positive effect on share yield in firms accepted in Tehran Stock Exchange through increased capital by stock dividends method"

#### Correlation coefficient significant test

The result of Pearson correlation test for the given

**Table 1.** Correlation coefficient test between increased capital percent variables from issuance of stock and share yield percent.

Year	2005	2006	2007	2008	2009
Pearson Correlation Coefficient	-0.244	-0.130	-0.006	-0.089	-0.413
Significant	0.130	0.596	0.976	0.744	0.071
Affirmation-relation type	NO	NO	NO	NO	NO

**Table 2.** Liner regression analysis of share yield percent on increased capital percent from issuance of stock

Year	2005	2006	2007	2008	2009
R <sup>2</sup>	0.059	0.017	0.000	0.008	0.170
Significant	0.130	0.596	0.976	0.744	0.071
Rejection or Affirmation for H <sub>0</sub>	Affirmed	Affirmed	Affirmed	Affirmed	Affirmed

**Table 3.** Correlation coefficient test between increased capital percent variables from stock dividends and share yield percent

Year	2005	2006	2007	2008	2009
Pearson Correlation Coefficient	-0.113	-0.061	-0.018	-0.175	-0.360
Significant	0.575	0.809	0.941	0.587	0.341
Affirmation-relation type	NO	NO	NO	NO	NO

**Table 4.** Liner regression analysis of share yield percent on increased capital percent from stock

Year	2005	2006	2007	2008	2009
R <sup>2</sup>	0.059	0.017	0.000	0.008	0.170
Significant	0.130	0.596	0.976	0.744	0.071
Rejection or Affirmation for H <sub>0</sub>	Affirmed	Affirmed	Affirmed	Affirmed	Affirmed

hypothesis, which is calculated by SPSS software is provided SPSS software is provided in Table 3.

In Table 3, if the significant level of calculated test (sig) in all research years is higher than 0.05, thus, hypothesis H<sub>0</sub> is not rejected, and the linear relation between increased capital percent from stock dividend and share yield of firms will not be affirmed. Also calculated correlation coefficient in Table 3 indicates a negative relation between increased capital percent from stock dividend and share yield of firms.

#### **Regression coefficient significant test**

In Table 4, the hypothesis was tested along with the results of the research data.

In Table 4, if the significant level of calculated test (sig) in all research years is higher than 0.05, hypothesis H<sub>0</sub> is not rejected and one cannot claim that there is relation

between increased capital percent from stock dividend and share yield of firms. If both correlation coefficient and regression coefficient tests are significant, the sub-hypothesis is affirmed; thus one cannot claim that, financing through increased capital with stock dividend has positive effect on share yield in Tehran Stock Exchange.

#### **The third hypothesis (sub-hypothesis B-1)**

"Financing has positive effect on share yield of firms accepted in Tehran Stock Exchange through short-term loan"

#### **Correlation coefficient significant test**

The result of Pearson correlation test for the given

**Table 5.** Correlation coefficient test between short-term loan percent and share yield percent

Year	2005	2006	2007	2008	2009
Pearson Correlation Coefficient	0.752	0.564	0.696	0.385	0.630
Significant	0.000	0.001	0.000	0.020	0.000
Affirmation relation type	- YES Direct	- YES Direct	- YES Direct	- YES Direct	- YES Direct

**Table 6.** Liner regression analysis of share yield percent on short-term loan.

Year	2005	2006	2007	2008	2009
R <sup>2</sup>	0.566	0.318	0.469	0.148	0.397
Significant	0.000	0.001	0.000	0.020	0.001
Rejection or Affirmation for H <sub>0</sub>	Rejected	Rejected	Rejected	Rejected	Rejected

**Table 7.** Correlation coefficient test between long-term loan percent and share yield percent.

Year	2005	2006	2007	2008	2009
Pearson Correlation Coefficient	0.752	0.564	0.696	0.385	0.630
Significant	0.000	0.001	0.000	0.020	0.000
Affirmation relation type	- YES Direct	- YES Direct	- YES Direct	- YES Direct	- YES Direct

hypothesis, which is calculated by SPSS software is provided in Table 5.

In Table 5, if the significant level of calculated test (sig) in all research years is lower than 0.05, then H<sub>0</sub> is rejected, and the linear relation between short-term loan and share yield of firms is affirmed.

#### **Regression coefficient significant test**

In Table 6, the hypothesis was tested along with the results of the research data.

In Table 6, if the significant level of calculated test (sig) in all research years is lower than 0.05, then hypothesis H<sub>0</sub> is rejected and one can claim that there is relation between short-term loan and share yield of firms.

If both correlation coefficient and of regression coefficient tests are significant, the sub-hypothesis is affirmed; thus one can claim that, financing through short-term loan has positive effect on share yield in Tehran Stock Exchange.

#### **The fourth hypothesis (sub-hypothesis B-2)**

"Financing has positive effect on share yield of firms accepted in Tehran Stock Exchange through long-term loan"

#### **Correlation coefficient significant test**

The result of Pearson correlation test for the given hypothesis, which is calculated by SPSS software is provided in Table 7. In Table 7, if the significant level of calculated test (sig) in all research years is lower than 0.05, then hypothesis H<sub>0</sub> is rejected, and the linear relation between long-term loan and share yield of firms is affirmed.

#### **Regression coefficient significant test**

In Table 8, the hypothesis was tested along with the results of the research data.

In Table 8, if the significant level of calculated test (sig) in all research years is lower than 0.05, then hypothesis H<sub>0</sub> is rejected and could be claimed that there is relation between long-term loan and share yield of firms.

If both correlation coefficient and of regression coefficient tests are significant, the sub-hypothesis is affirmed, thus one can claim that, financing through long-term loan has positive effect on share yield in Tehran Stock Exchange.

## **DISCUSSION AND CONCLUSION**

From the analysis of the hypotheses, the following

**Table 8.** Liner regression analysis of share yield percent on long-term loan

Year	2005	2006	2007	2008	2009
R <sup>2</sup>	0.566	0.318	0.469	0.148	0.397
Significant	0.000	0.001	0.000	0.020	0.001
Rejection or Affirmation for H <sub>0</sub>	Rejected	Rejected	Rejected	Rejected	Rejected

Source: Zeinali et al., 2012.

**Table 9.** Comparison of research results with other results.

Main hypothesis	Result	Consistent result in other research
First hypothesis	Rejected	Smith (1977), Kurwor (1983), Skit and Molnz (1986). Dan and Michelson (2000), Myers and Majluf (2001), Richardson and Sloan (2003), Novravsh (2005).
Second hypothesis	Accepted	Margaret (1998), Bentstwart and Glasman (2001), Mateus and Balla (2002), Izadinia (2009).

Source: Zeinali et al., 2012.

conclusions are made. As observed in Table 9, the results of the research show that, firms which proceed to increase capital in Tehran Stock Exchange for financing do not have good share yield. This result (result of first hypothesis) is consistent with the results of Smith (1977), Kurwor (1983 cited in Zeinali et al., 2012), Skit and Molnz (1986 cited in Zeinali et al., 2012), Dan and Michelson (2000 cited in Zeinali et al., 2012), Myers and Majluf (2001), Richardson and Sloan (2003) and Novravsh (2005 cited in Zeinali et al., 2012). But firms which proceed to loan in the Tehran Stock Exchange for financing have good share yield. This result is consistent (result of second hypothesis) with the results of Margaret (1998 cited in Zeinali et al., 2012), Bentstwart and Glasman (2001 cited in Zeinali et al., 2012), Mateus and Balla (2002) and Izadinia (2009).

## RECOMMENDATIONS

In this research, recommendations are given to legislator agencies, Tehran Stock Exchange, firms management, shareholder, banks, creditor, credit institutions, students, authors and educational centres as follows:

- 1) Financing through increasing of stock dividend and issuance of stock will cause decline of any share temporarily and this decline would have negative impacts on cost share yield of that year. If the gross change of capital belonging to common stock is higher compared to other financial supply tools, it means that common stock is expensive resource of financial supply and causes increased capital charges of firm. Thus it is better that the
- 2) Firms use the resources which have more profitable investment opportunities.
- 3) In the long-term loan that is nearly constant, if the result of these loans is higher than interest cost, the

borrower firm will benefit from these loans. Based on the research finding, by considering positive impacts of financial supply though loan (long-term, short-term loan) on share yield of firms and negative effect of financial supply through increased capital (stock dividend and issuance of stock) on shareholders, creditor and investors, it is recommended that decision should be taken with caution on using financing methods for successful investments of firm.

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