# Review of Relationship Between Increase of Capital and Shares 

# Return in Automotive and Cement Industries at Tehran Stocks Exchange 

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#### Abstract

This study is intended to consider relationship between Increase of capital and Shares return in Automotive and Cement industries at Tehran Stocks Exchange. Statistical population under this study consists of any related companies to Automotive and Cement industries which were accepted in Tehran Stocks Exchange during 2005 to 2010. The Statistical population has been divided to experimental and control group, while experimental group faced with increase in capital the other group was not; 27 companies from first group and 12 companies of second group were chosen as statistical samples under this study. Student's T-test and paired T-test were utilized in order to test hypotheses of this study and 19SPSS software was applied for analyzing data. Results have indicated increase in capital is not positive factor to increase in shares return. On the other hand, there is no impact of increasing in capital on shares return in the companies of Automotive and Cement industries which were accepted at Tehran Stocks Exchange.


Keywords: financial resources; financial managers; economic policy.
JEL Classification: G29

## 1. Introduction

Nowadays factors such as rapid growth of general price index, raising in exchange rate, inadequacy of financial resources in banks and increasing in prices of loans and credits have caused companies want to increase their capital through issuing ordinary shares in order to perform developed projects. Meantime, Tehran Stocks Exchange has played relatively useful role to attract small capital and lead them to productive activities since its revivification in 1989. Although, maintaining the process or playing more effective role in this field strongly depend on developing

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relative consistency in shares price, communicating logical connection between shares price and shares return and prevention from damages to investors which are not logic. Evidently accepted company in Tehran Stocks Exchange have required to capital in order to keep on their activities, but there is a point that must be considered by financial managers from those companies, they shall have chosen a resource by careful review and analysis; therefore, the resource must involve lower costs as well as considering to economic policy which is logic in applying supplied funds. As it mentioned above, relationship between Increase of capital and Shares return in Automotive and Cement industries which are accepted at Tehran Stocks Exchange would be discussed in this study.

## 2. Literature and Background

There are deferent ideas about selecting a strategic to issue new shares which are ordinary, ( Chandra, 2001) in order to supply financial resource in a company. The followers of these ideas can be divided into three groups in general; this categorization is based on their view about impact of issuing new ordinary shares on efficiency and wealth of shareholders; so that, in accordance to practical and scientific reasons, they have treated issuing new ordinary shares as a positive, natural and negative factor on shareholder's wealth respectively (Angelo \& Masulis, 1980).
First group believe that the process of issuing new ordinary shares has no impact on shareholder's wealth (Scott, D. 1988). This group has emphasis on theoretical grounds in shares pricing after dividing profit or issuing new shares and they also expressed that there is no relationship between structures of company's capital with company's value. As per theoretical grounds in stock dividend pricing and subscription privilege, new value, which is equal with reduced sum from primary shares price, has been developed for shareholder. Investors' treatment and somehow demand and supply mechanism in a semi efficient market might have determined shares price, this process is based on shareholders knowledge of company's real value. Conversely, this group understand that paying any earning to shareholder or changing in structure of capital has not affected on company's value; therefore, if the issuance of new shares and the payment of stock dividend has no impact on total value of a company it won't impact on shareholder wealth who owns a part of the company. (Clifford \& Smith, 1977)

Second group believe that the issuance of new shares will caused increase in shareholder wealth. In most business plans which are provided for the process of issuing new shares, the managers shall have defended from selling new shares as a reasonable way to supply financial resource of the company. They have stated that issuance of new shares can be utilized by paying attention to specific conditions of getting loan and impossibility of applying it forever (Myers, \& Majluf, 1984). This
new financial resources are going to invested in projects of the investment company, which will bring reasonable efficiency for company and then shareholder. Whereas, if the new shares have sold only to present shareholder, their ownership would not be change in company, it means their right of ownership and their right of controlling present shareholder would be saved. Also price of each company's shares in market may have been reduced by issuing new shares, the value of new shares has covered this reduced price (Lucas, 1990).

Reducing shares price will cause increase in demand of buying shares and subsequently their price. Involving low-income people into the company's shareholder is a kind of social purpose of issuing new shares.
Third group believe that the issuance of new shares will reduce shareholder wealth, they mean, this process has ended in raising the number of company's shares and subsequently increase in supplying shares will result from additional number of shares, in other words it causes stock watering ${ }^{1}$. Whereas, if parts of new shares which are issued, have been exposed on public sales instead of selling to present shareholders, they would lose some rights to control the company. This group has stated that even if obtained new resources have been invested in profitable projects they would be link to risk.
In recent years, managers of companies, which are accepted in Tehran Stocks Exchange, usually have been applying the issuance of new shares as available tool to financing. Additional needs to financial resources and liquid deficiency, passing limitation in granting bank facilities to the company and macroeconomic policy making based on attracting liquidity to stock exchange, are apparent reasons to show how financing is critical.

It seems that if changes of shareholders wealth during different periods in which companies capital have been increased by issuing new shares, can be measured by acceptable criteria and if a reasonable comparison can be conducted between changes in shareholders wealth against changes in companies capital, assuming that other affecting factors on shareholders wealth are constant, implications of the management decisions based on increase in company capital will be tested practically.

According to the arguments given above, by using theoretical debates and performance of market, as a method of measuring shareholders wealth, in this study is tried to answer the question, whether there is any relationship between increase in capital and shares return in Automotive and Cement industries which are accepted at Tehran Stocks Exchange?

[^1]Following general model has been applied to calculate total return for each share in this research.

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total return =
payable cash devidend+subscription privilege benefits+bouns shares benefits+(final price-opening price)
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In 1997 Hajivand in a research: "Analytic experiment about the influence of information transmission related to increase in capital on shares price of companies which accepted Tehran Stocks Exchange" had concluded that companies has been utilizing increase in capital as the most important financial resource to financing and then it makes increase in the risk of future management and reduce in future shares return greatly.

In 1999 Taheri in a research: " Reviewing rate of justifiability in applying of using methods of capital to financing and its impact on return for companies accepted in Tehran Stock Exchange" had found that increase in capital expressed in a way which without proper returns and high capital cost, Tehran Stock Exchange will be faced with the risk and also an overview on the shares price of companies which had attempted to increase in capital has been shown that shareholders have obtained unusual returns after announcing date of increase in capital.

In a research "Implication of increase in capital on shares price and risk of companies which are accepted in Tehran Stock Exchange" that had been conducted by Abdulrahmanian in 2003, he found that shares price in companies have reduced after the process of increase in capital. In fact the process of supplying new shares contains new information, such as reduce in expected profit or increase in risk; however, it will show negative view of company's future to investors.

In 2006 Ahmadi has considered different aspects of increase in capital and effective factors on the process of determining shares price in market since increase in capital and also he has paid attention to existence or non-existence of the relationship between Price Elasticity of Demand for shares and price changing, it made him to conclude that there is a positive relationship between Price Elasticity and volume of transactions.

Myers and Majluf in 1990 have attempted to compare shares return before and after the process of increase in capital and through this way, they have provided reasonable strategies for the companies in order to issue new shares. Companies have been divided into two groups by them: over-value and low- value; and then have stated that the process of issuing new shares require a delay at low-value's companies which have lower market's value than the real value until their shares price reach to real price in market. Conversely, issuing new shares must be accelerated in over-value's companies which have higher market's value than real value.

## 3. Research Method

Since this study seek to review the relationship between increase in capital and shares return in Automotive and Cement industries which are accepted in Tehran Stocks Exchange; therefore, the method if this research is causal- comparative. Beside the fact, the present study is ex post facto which means it has been conducted through analyzing past information like financial statements from companies (Hafeznia, 2006, p. 67).

Because financial reports from joined companies in Tehran Stocks Exchange are greatly reliable, to conduct this study the reports are used as main information resource. Given reports were obtained through Tehran Stocks Exchange website; including basic financial statements of companies which are examined during 2005 to 2010.

### 3.1. Research Hypotheses

## Original Hypothesis

Increase in capital affects shares return in Automotive and Cement industries which are accepted in Tehran Stocks Exchange.

First Secondary hypothesis: Mean of shares return in companies which have accomplished to increase in capital only one time in 2010, is different from mean of shares return in companies which have not increased their capital.

Second secondary hypothesis: Mean of shares return in companies which have carried out increase in capital for two years sequentially, 2008 and 2009, are so different from mean of shares return in companies which have not increased their capital during this two years.

Third secondary hypothesis: Mean of shares return in companies which have carried out increase in capital for two years discretely, 2005 and 2007, are so different from mean of shares return in companies which have not increased their capital during this two years.
Forth secondary hypothesis: Increase in capital of companies which have conducted this process for only one time in 2010 is made to increase in shares return at those companies.

Fifth secondary hypothesis: Increase in capital of companies which have conducted this process for two sequence years of 2008 and 2009 is made to increase in shares return at those companies.
Sixth secondary hypothesis: Increase in capital of companies which have conducted this process for two years of 2005 and 2007 discretely is made to increase in shares return at those companies.

### 3.2. Statistical population

Statistical population under this study consists of any related companies to Automotive and Cement industries which are accepted in Tehran Stocks Exchange till end of 2010 that included 78 companies.

Statistical population is containing experimental and control group. Companies that have increased their capital between the years 2005 to 2010, are determined as experimental group to check impact of increase in capital on shares return and Companies that have not increased in capital between the years 2005 to 2010, are set as control group in order to compare their return with the companies which have increased the capital.

## 4. Results

In order to conduct testing of first to third hypotheses, Student's T-test is applied to compare means of two separate groups, one group which has increased their capital and the other which has not. Paired T-test has been used for forth to sixth hypotheses.

Testing first secondary hypothesis:
According to the obtained tables and values for sig and testing statistics, we can accept null hypothesis because of value of sig is equal to 0.05 . On the other hand, there is no difference between mean of shares return in companies which have accomplished to increase in capital only one time in 2010 with mean of shares return in companies which have not increased their capital. This capital increasing has not led to change in companies' shares return in comparison with companies do not increase their capital.

Testing second secondary hypothesis:
As the value of sig would be more than 0.05 we concluded that the null hypothesis is acceptable, as for the obtained tables and values for sig and testing statistics. In other word, there is not any difference between mean of shares return which is related to the companies have carried out increase in capital for two years of 2008 and 2009 sequentially and mean of shares return in companies which have not increased their capital during this two years. This capital increasing has not led to change in companies' shares return in comparison with companies do not increase their capital during the given years.
Testing third secondary hypothesis:
As for the obtained tables and values for sig and testing statistics, since the value of sig would be more than 0.05 we have accepted the null hypothesis. On the other hand, there is no difference between Mean of shares return in companies which
have carried out increase in capital for two years discretely, 2005 and 2007and Mean of shares return in companies which have not increased their capital during this two years. it means that the process of increasing in capital during the discrete years has not led to change in companies' shares return in comparison with companies do not increase their capital in that time.

Testing forth secondary hypothesis:
As regards to the sig and testing statistics' values, because of sig's value that is more than 0.05 , the null hypothesis can be accepted. It means that increase in capital of companies which have conducted this process for only one time in 2010 is not lead to increase in shares return at those companies.
On the other hand, increase in capital has not made any positive change in shares return compared with the time before capital increasing and this capital increasing has not affected increase in return.

Testing fifth secondary hypothesis:
In accordance with the sig and testing statistics' values, the value of sig is more than 0.05 and so, the null hypothesis can be accepted.
Increase in capital of companies which have conducted this process for two sequence years of 2008 and 2009 is not made to increase in shares return at those companies.

Increase in capital for two times sequentially has not made any positive change in shares return compared with the time before capital increasing.

Testing sixth secondary hypothesis:
As regards to the sig and testing statistics' values, because of sig's value that is more than 0.05 , the null hypothesis can be accepted.

It means that increase in capital of companies which have conducted this process for two years of 2005 and 2007 discretely is not made to increase in shares return at those companies.

Increase in capital for two times discretely has not made any positive change in shares return compared with the time before capital increasing.

## 5. Discussion and Conclusion

Following statements are obtained results from testing the given hypotheses:
Increase in capital only one time has not led to any changes in shares return that belong to the companies which have accomplished to increase in capital in comparison with the companies which have not;

If the companies have carried out increase in capital for two years sequentially it would not lead to any changes in shares return, in comparison with those have not increased their capital,
If the companies have carried out increase in capital for two years discretely it would not lead to any changes in shares return, in comparison with those have not increased their capital,

Increase in capital only one time has not made any positive change in shares return compared with the time before capital increasing and this capital increasing has not affected increase in return;
Increase in capital for two times sequentially has not made any positive change in shares return compared with the time before capital increasing;

Increase in capital for two times discretely has not made any positive change in shares return compared with the time before capital increasing;

Generally obtained results from those hypotheses have indicated that increase in capital cannot be positive factor to increase in shares return. These results which are obtained from secondary hypotheses can make a conclusion about the original hypothesis, so that the null hypothesis has been accepted. It means that increase in capital of the companies related to Automotive and Cement industries which were accepted in Tehran Stocks Exchange during 2005 to 2010 has not affected their shares return. Obtained results from testing the original hypothesis is confirmed by group of researchers such as Miler \& Modigilani, 1961, which have believed company's value has not been impressed by any changes in capital structure

## 6. References

Chandra. P. (2001). Financial management, theory and practice. With Thomson ONE - Business School Edition 1st-Year Printed Access Card.

Scott, D. (1988). Basic financial management. Prentice Hall.
Clifford, J. \& Smith, G. (1977). Alternative methods for raising Capital: Rights Versus under written Offerings. Journal of Financial Economics, 5. pp. 273-307.

Lucas, D. (1990). Equity issues and stock price Dynarnics. Journal of Finance. pp. 1019-1040.
Angelo, H. \& Masulis, R. ( 1980). Optimall capital structure under corporate and personal taxation. Journal of Financial Economics. 8, pp. 3-29.
Myers, S. \& Majluf, N (1984). Corporate Financing and Investment Decisions when Firms Have Information that Investors do not have. Journal of Financial Economics. 13, pp. 187-221.


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[^1]:    ${ }^{1}$ Watered stock: shares of stock of a corporation which have been issued at a price far greater than true value. In this case, the actual value of all shares is less than the value carried on the books of the corporation.

