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The Effect of Board of Directors on Valuation the Stock in Initial Public Offerings

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Abstract: This study examine the effect of board of directors structure and the percent board of directors as a non-obligation on valuation the stock in initial public offering in the Tehran Stock Exchange during the years 1391-1390. In this study, we examined the size of the board and the board of directors shall not be used as independent variables and its effect on an initial public offering value. The results of the regression analysis of the 81 companies obtained during the years 1391-1390.

Key words: Underpricing, Initial public offerings, the percent board of directors of the non-bound and number of board of directors members

INTRODUCTION

Significant progress has been made in recent years in establishing corporate governance through legislation, regulation and voluntary actions of companies in developed and developing countries. Investors and shareholders have gained more awareness on the necessity and significance of corporate governance and have become more interested in establishing this system in their companies. Some empirical studies have suggested a positive relationship between corporate governance and the efficiency of companies. In a general sense, corporate governance is a guidance and control system-a system which determines, controls and guides the relationship between the company and its stakeholders (Badri, 2012).

In advancing the goals of corporate governance, several factors are influential, among which the role of the board of directors and the functions of the main committees of the board of directors are undeniable. The present article is concerned with the role of the board of directors among the influential factors and studies its effect on underpricing in Initial Public Offerings (IPOs). The term IPO, the spread of which dates back to the 1990's booming market, refers to the state when a company decides to offer its shares to the public for the first time in franchise history (Haghbin, 2008).

Underpricing refers to a state when the company which offers its shares sets the price of its shares surprisingly below the market price so that, the first IPO investors will gain a significant profit just by exchanging shares in the 1st day. Therefore, IPOs are described with their initial extraordinary returns caused by underpricing.

One of the main factors in improving the economic efficiency is corporate governance which includes a set of relationships among company management, board of directors, shareholders and other stakeholder groups. Corporate governance provides a structure through which the goals of the institution are set and the means to achieving these ends and monitoring the performance are determined. This system creates the necessary motivation in order to realize the goals of the institution in management and provides the structure for effective monitoring so that, companies utilize resources with more effectiveness. In fact, corporate governance as a social mechanism helps monitoring and controlling the behavior of managers and is the monitoring tool of the shareholders which lead to the decrease of information asymmetry and as a result, reduction of costs in the economic aspect in economic relations and contracts.

According to signaling theory, the company issuing new shares, due to underpricing, signals buyers about the high return of the first day of those shares and use it as a strategy to overcome information asymmetry between the company issuing new shares and the investors. Thus, the better a share is its IPO will have more underpricing because offering shares below the market price is the cost good companies are willing to take which can be compensated for by the returns from the subsequent offerings of shares with higher price in the second issuing

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(Haghbin, 2008). On the other hand, the more effective and efficient the mechanisms of corporate governance are in a company, due to information asymmetry and also the reduction of agency costs, underpricing is expected.

Corporate governance mechanisms can be divided into two categories of internal and external. Internal mechanisms refer to the size of the board of directors, the ratio of duty-non-duty members and so on and external mechanisms include all the rules, regulations and requirements which the company must adhere to in its operations and structure, such as the rules related to the financial structure of the company or the methods of rewarding and encouraging management. It should be noted that this study emphasizes only on the internal mechanisms of corporate governance including the size of the board of directors and the percentage of non-duty board members. Thus, considering all the above, the main issue addressed in the present article is the effect of internal mechanisms of corporate governance (including the size of the board of directors and the percentage of non-duty board members) on the pricing of IPO shares in Tehran's Stock Exchange.

Corporate governance: Today, corporate governance has drawn lots of attention in the business world. Corporate governance is the foundation of the company's relationships with stakeholder groups. Like most of the controversial issues now, there are several definitions in regard with corporate governance, differing mainly on the views on the width of the company's relationships with stakeholder groups. At the micro level, corporate governance is concerned with the realization of the goals of the company and at the macro level, it is concerned with effective allocation of the society's resources. The history of corporate governance in its current sense dates back to the 1990s and the occurrence of financial scandals in some big companies. Despite the differences, it seems that the main foundations of corporate governance have been on the convergence path in developed and developing countries. In order to plan an optimal company governance system, attention to internal and external factors along with economic, social, political and cultural factors of each country seems necessary.

Today's investors and market elements pay attention to corporate governance mechanisms more than ever and follow its related news. Results of studies suggest that the companies with proper corporate governance mechanisms enjoy more investment returns. In summary, it can be concluded that the corporate governance system is the control and guidance system of a company. This system defines the relationship between the company and its stakeholders. Corporate governance at the macroeconomic level, leads to optimized allocation of resources and at the micro level, leads to the realization of the goals of the company (Badri, 2012). In corporations, the necessity to use a proper system and mechanism in order to adjust the goals of the stakeholders with the ambitions of the company, on one hand and monitoring and controlling the aspirations and decisions of the managers, on the other is felt. Thus, using th corporate governance system is a good solution in order to collaborate and coordinate the aspirations of the company and managers with the interests of the stakeholders from every aspect. Using tools such as planning business rules, statues, internal regulations, auditing and predicting is a good method for improving and strengthening the structure of corporate governance in corporations.

Board of directors and its responsibilities: Board of directors is one of the internal corporate governance mechanisms which has significant effects on the performance of the company and adhering to the rights of the stakeholders of the economic institution. The role of the board of directors in companies in monitoring the management of the company in order to achieve its designated goals and guiding the executive management is very crucial, so much so that in some cases, proper corporate governance is measured through the combination and performance of the board. In addition to the strategic guidance of the company, the board has the important responsibilities of monitoring managerial performance and achieving the proper efficiency for the shareholders, obeying rules and regulations and at the same time preventing dependencies of interests and maintaining a balance between the expectations from the company. Article VI of corporate governance defined by the Organization for Economic Cooperation and Development (2004) considers the board of directors responsible for fiduciary, including the two elements of care and loyalty. The responsibility for professional care requires the members of the board to fulfill their duties based on complete information in good faith and with enough care and perseverance. Loyalty is also very important due to the emphasis on the effective implementation of other corporate governance principles of this organization in equal treatment of shareholders, monitoring transactions with dependent people and planning policies regarding the determination of salaries of the main executive managers and the members of the board (Rahbari, 2011).

The company should have an efficient board in accordance with the characteristics mentioned below and the responsibilities of the board and executive managers must be determined clearly.

- The chairman of the board and the CEO must not be the same person. Duties, powers and responsibilities of the chairman of the board and the CEO must be laid down clearly and explicitly and must not have overlaps
- The number and the combination of the board must be in such a way so that analyzing and studying the various aspects of the company for logical decision-making will be possible. In large companies, the number of the members of the board must be at least seven
- The majority of the board members must be outside directors. Whether the members of the board become inside directors needs the approval of the board of directors and the stakeholder manager does not have a say in it. At least one financial outside member who is expert in financial reporting must be in the board
- In large companies, at least two members and in other companies at least one member of the board must be independent managers
- The inside members of the board cannot be the CEO or an inside board member of another company but can be outside members of up to three other companies. Outside members of the board can be outside board members of up to four other companies
- The board shall have a secretariat responsible for holding board meetings, collecting information, conducting analyses demanded by board members and ensuring that the board is fulfilling its designated duties

In a study using the data from 4 years of 160 companies, Lefort concluded that increasing the number of board members increases the value of the company. When the ratio of outside and inside board members are calculated, it is the ratio of outside members only which affect the value of the company.

Management independence: Board members must be independent and non-executive. In order to help decide on the independence of the members, the board uses management independence standards. Management independence standards are in accordance with the corporate governance rules of the stock exchange and all of the rules, regulations and procedures related to management independence must be enforced based on time conditions. If the board determines that a manager based on the defined management independence standards, does not have an important relationship with the company, meets the criteria for independence in order to work in the board and its committees.

Initial public offering: Given the importance of initial offerings in Tehran Stock Exchange and the capital market surpassing rival markets and the execution of Article 44 of the constitution, discussion and analysis of IPOs seem necessary. IPO refers to selling shares to public investors. Generally companies are formed as private equity companies and then after periods of continuous beneficial operation, they become public equity companies. When the shares of these companies are offered to the public, an IPO occurs. In the privatization process, when shares are offered to public investors, the term public offering is used. Public offerings are not limited to shares and may include selling any forms of security to investors. Practically, IPO refers to the public offering of shares to the public in a competitive and fair manner and differs from private placing in which shares are offered to special groups and targets through direct marketing.

Aram interprets the IPO as the turning point when the company turns public and describes it in this way: "companies are normally established as private equities. Then, when they feel the need to grow, they become public equities. It is customary in the world that 20% of its whole shares and in Iran that 5% of its whole shares are offered to other holders and new investors are in. In the world, the main targets of expansion are considered to be family firms in which IPOs occur due to the increase in capital. On the other hand are Secondary Public Offerings (SPOs) which is financially logical, referring to the state when the company needs public funding in order to grow. SPOs have more economic justification compared with IPOs.

In another sense, IPOs, the spread of which dates back to the booming market of the 1990s, refers to the state where a company decides to offer its shares to the public for the first time since its establishment and the interesting point is that the companies which enter the stock exchange market are not newly established companies and have at least three years of experience thus, the term initial in this definition refers to the offering of the shares for the first time to outside shareholders through stock exchange when the company has realized in its operation process that entering the stock exchange market helps them greatly in terms of raising funds whether through shareholders or by borrowing, reducing financing costs and even reducing tax costs.

Grey studied founders, investors and underpricing in IPOs. One of the main events in a company's life is when it experiences its IPO. By studying the role of asymmetry in pricing of IPOs, signaling theory examines two distinct types of contrast at the time of the IPO adverse selection and moral hazard. Empirical results suggest that there is an organized relationship between respecting rights and

underpricing. Salim and Samer studied the rights of shareholders and the effect of underpricing in IPOs. They report in their study that politicians must consider supporting shareholders as a global issue. The present article seeks to investigate a complementary relationship between the shareholders' rights and board independence on one hand and reduction of valuation in underpricing on the other.

Klaus examines the legal aspect of corporate governance. With a comparative analysis based on research in 33 countries and by leaning on the economic literature of countries, he suggests that corporate governance in a company has various supporters, including the board, investors and even supervisors and workers who seems to be in harmony at high levels of adherence to corporate governance in spite of the disagreements. The question of which company to monitor and control the corporate governance system has become a key issue for legislation and scientific associations in all new industrial states.

Studying the effects of corporate governance, Denis concluded that companies with corporate governance can predict the benefits of the IPOs more accurately and realistically.

Bernard evaluated corporate governance in Brazil using three studies conducted in 2004, 2006 and 2009 on corporate governance in order to evaluate corporate governance in Brazil. They listed the main elements of corporate governance as the following:

- Board structure
- Ownership
- Board performance
- Dependent sections transactions
- Shareholders' rights
- Disclosing and calculating a proper indicator on a large scale

They concluded that corporate governance elements improved significantly from 2004-2009 which is in turn caused by two factors:

- Through the registration of new companies using corporate governance at high levels and
- Improvement of corporate governance in companies which had already been registered

Nita and Anna analyzed the clerical method of pricing in the structure of IPOs. Pricing in IPOs deeply affects the activities of the initial and secondary capital markets. They have analyzed the pricing of 207 companies which used the clerical method in pricing of the IPO from April 2004 to August 2009 and concluded that in previous methods, investors only paid attention to their fundamental decisions which can be misleading, instead of paying attention to companies with higher information and credit. The results suggest that share issuers must investigate the amount of information available to the public and its effects before deciding on the pricing of new shares. Thomas examined the quality of the role of management in IPOs in newly established companies. They assumed that management quality may affect IPO characters through two channels:

- Confirmation channel: where companies are faced with high-quality management. As a result, they will face the reduction of information asymmetry in the IPO and this is easier
- Competence channel: where companies choose better and more competent managers and take on the most difficult projects with higher abilities

Based on the regression model, it was concluded that high-quality management affecting the IPO aspects in companies can act as a complement in market evaluation and IPO operations.

Terry studied the development of corporate governance research through qualitative methods in the form of a review of previous research. This article provides a bird's eye view of the qualitative studies on corporate governance published in critical publications from 1986 through 2011. This study was conducted on a sample of 78 studies on corporate governance and suggests that qualitative studies on corporate governance have improved significantly since the 1990s.

Ghaemi and Shahriari examined the relationship between the elements of corporate governance including board combination, ownership structure and information disclosure in studying the performance of 77 of the companies accepted in Tehran Stock Exchange during 2005-2013. The results of their study suggested that there is no significant relationship between board combination and the financial performance of companies while there is a significant relationship between information disclosure and financial performance of companies. In studying the effect of institutional shareholders as one of the criteria of corporate governance on the returns of shareholders from companies accepted in Tehran Stock Exchange, using 5 year data (2008-2013) from 90 analyzed companies, Modarres concluded using the regression model that while the percentage of institutional ownership in companies accepted in Tehran Stock Exchange is high, there is no significant relationship between institutional shareholders and share returns whereas according to the

obtained results from studies in other countries, this relationship was found to be either negative or positive as well.

Hassas Yeganeh studied the relationship between corporate governance and performance of companies accepted in Tehran Stock Exchange. Using 1 year data from 90 companies through a questionnaire containing 25 criteria of corporate governance criteria, adapted from the provisions of the corporate governance system at three levels of transparency of information, board structure and ownership structure, they concluded that there is no relationship between the quality of corporate governance and company performance.

By studying the effect of financial and non-financial factors on short-term performance of IPO of shares to Tehran Stock Exchange in the 3 month return of IPOs during 2004-2008 for 56 companies using multivariate regression analysis, Yaghubnezhad and Tajiknia concluded that IPO positively affects short-term returns in Tehran Stock Exchange.

Izadinia and Rasaeian studied the relationship of some monitoring tools of corporate governance and the economic and financial criteria for performance evaluation. To this end, 89 companies of the population for which the necessary information for the analyzed 6 years period (2002-2007) was available were selected. Based on performance evaluation criteria of previous studies, several performance evaluation criteria including the annual rate of return on assets and return on equity as financial criteria for performance evaluation and added market value as the economic criterion for performance evaluation were chosen. Then, the information on independent variables including the two criteria of monitoring tools of corporate governance which are the Percentage of Non-Executive Directors (PNED) and percentage of institutional investors were studied. The multivariate regression analysis was used in order to test the hypotheses. The regression analysis used in the present article used combined data. Statistical analyses are performed by four multivariate models. Results suggest that monitoring tools of corporate governance significantly correlates with all the performance evaluation criteria.

MATERIALS AND METHODS

The present study is applied research the goal of which is to expand the applied knowledge of a specific field. In addition, it is a correlational study in design. The goal of the present study is to determine the degree of the relationships among the variables. To this end, based on the measures of variables, proper indicators are chosen.

Sampling: The population of the study consists of all the companies accepted in Tehran Stock Exchange which offered their shares for the first time since March 20, 1996 and which meet the following conditions:

- They are not among investment companies and financial intermediaries
- Their fiscal year ends in March 19

Finally, based on Cochran formula and after eliminating outlier observations, the final sample consists of 81 companies.

Variables: To test the hypotheses in accordance with Chahine and Filachetov's (2011) study, the following regression model is used:

$$\text{Ln}(1+\text{Uderpricing}) = \beta 0+\beta\ 1\text{PNED}_{i,t}+\beta 2\text{NBD}_{i,t}+\beta 3\text{LnAsset}_{i,t}+\beta 4\ \text{Age}_{i,t}+\beta 5\text{Debt ratio}_{i,t}+\beta 6\text{Loss dummy}_{i,t}+\beta 7\text{Founder Ownership}_{i,t}+\beta 8\text{Current Asset}_{i,t}+\beta 9\text{Internet dummy}_{i,t}+\varepsilon_{i,t}$$

Dependent variable: Underpricing which is calculated as follows: underpricing (first day returns) = (final price of the 1st day of offering the final price of the offering in the stock exchange method)/(the final price of the offering in the stock exchange method).

Independent variables:

- PNED
- Number of Board Directors (NBD)

Control variables:

- L_n asset; natural logarithm of the sum of all the assets
- Age; the difference between establishment date and the date of the IPO
- Debt ratio; the ratio of long-term debt to the sum of all assets
- Loss dummy; if the company's fiscal year prior to the IPO has been unprofitable, it equates one, if not, zero
- Founder ownership; ownership percentage of institutional shareholders
- Current assets; the ratio of current assets to all assets
- Internet dummy; if the company has a website related to its commercial operations, it equates one, if not, zero

Descriptive statistics: Table 1 shows the descriptive statistics of the variables during the period of the study. All the observations after the adjusting for ineligible companies and eliminating outlier data was equal to 81

Table 1: Descriptive statistics for the variables of the study

Variables	Mean	Median	SD	Min.	Max.
Underpricing	5120	3815	4374	1000	22000
PNED	0.6605	0.6000	0.1763	0.2000	0.8000
NBD	5.036	5.000	0.270	3.000	7.000
L_n Asset	11.708	11.978	0.877	10.202	13.845
Age	17.1	18.0	6.1	7.0	28.0
Debt ratio	0.23671	0.19496	0.16058	0.11230	0.75556
Loss dummy	0.8711	0.0000	0.3421	0.0000	1.0000
Founder ownership	0.4891	0.4431	0.3421	0.0000	0.9510
Current asset	0.5711	0.5243	0.2413	0.0986	0.9949
Internet dummy	0.4978	0.5071	0.3671	0.0000	1.0000

companies. The descriptive statistics for dependent variables and the independent variable were calculated using the data from 81 companies during the period of the study (2005-2014) including mean, median, standard deviation, minimum and maximum which are listed in Table 1.

RESULTS AND DISCUSSION

Hypothesis testing

Hypothesis 1: There is a significant negative relationship between PNED and underpricing in IPOs. In the present article the following regression model was used in order to test hypotheses 1 and 2:

$$Ln(1+Uderpricing) = \beta0+\beta\ 1PNED_{i,t}+\beta2NBD_{i,t}+\beta3LnAsset_{i,t}+\beta4Age_{i,t}+\beta5Debt\ ratio_{i,t}+\beta6Loss\ dummyi_{,t}\ \beta7Founder\ Ownership_{i,t}+\beta8Current\ Asset_{i,t}+9Internet\ dummy_{i,t}+\varepsilon_{i,t}$$

Having tested the hypotheses and ensuring of their relationships, the amount of F statistic (14.781) shows the significance of the whole regression model. As shown in the lower part of Table 5, the coefficient of determination and the adjusted coefficient of determination of the above model are 68.9 and 64.7, respectively. Therefore, it can be concluded that in the regression model, only around 64.7% of underpricing of the analyzed companies are explained by dependent and control variables.

In Table 2, the positive/negative numbers in the amount of coefficients column represents the degree of the direct/reverse effect of each of these variables on the underpricing of the companies.

If the Sig. amount calculated by the software program is below the the assumed confidence level (0.5 in the present study), the significance of the variable is confirmed and its respective hypothesis is verified. In addition in accordance with the amount of t statistic, if the amount of the statistic is higher than the amount in the t student table with the confidence level of 5%, the respective hypothesis is verified. Given the above, it can be concluded that in the above equation, variables are significant at the confidence interval of 95%.

Table 2: Results of the regression equation fit

Variables	Variable coefficient	Coefficient value	t statistic	Sig. level
Constant	β_0	5.5074	5.5070	0.0000
PNED	β_1	-3.2150	-2.1410	0.0030
NBD	β_2	-1.0980	-2.3880	0.0020
L_n Asset	β_3	1.7360	2.8470	0.0014
Age	β_4	2.3110	2.6010	0.0037
Debt ratio	β_5	2.6410	0.5880	0.5610
Loss dummy	β_6	1.2100	0.1580	0.8750
Founder ownership	β_7	2.0120	2.8710	0.0040
Current asset	β_8	2.8910	2.3420	0.0075
Internet dummy	β_9	-1.4210	-2.3800	0.0180
Coefficient of detemination	0.689	F statistic	14.7810	-

Adjusted coefficient of determination; 0.647; Sig. (p-value); 0.000; Durbin-Watson statistic; 2.089

According to Table 2, the significance level of the variable PNED is equal to .003 which is lower than the designated significance level in the present study ($p<0.05$) in addition, the absolute value of the t statistic regarding this variable is -2.141 which is bigger than the t statistic obtained from the table with the same degree of freedom. Therefore, at the confidence interval of 95%, the obtained coefficient for the above variable in the above regression model is significant. On the other hand, given the negativity of the coefficient, it can be concluded that PNED correlates negatively with underpricing; thus, hypothesis 1 is verified. This result is in line with Chahine and Filachetov, Hessan.

There is a significant negative relationship between NBD and underpricing in IPOs. If the sig. amount calculated by the software program is below the the assumed confidence level (0.5 in the present study), the significance of the variable is confirmed and its respective hypothesis is verified. In addition, in accordance with the amount of t statistic, if the amount of the statistic is higher than the amount in the t student table with the confidence level of 5%, the respective hypothesis is verified. Given the above, it can be concluded that in the above equation, variables are significant at the confidence interval of 95%.

According to Table 2, the significance level of the variable NBD is equal to 0.002 which is lower than the designated significance level in the present study ($p<0.05$) in addition, the absolute value of the t statistic regarding this variable is -2.388 which is bigger than the t statistic obtained from the table with the same degree of freedom. Therefore, at the confidence interval of 95%, the obtained coefficient for the above variable in the above regression model is significant. On the other hand, given the negativity of the coefficient (-1.098), it can be concluded that NBD correlates negatively with underpricing; thus, hypothesis 2 is verified. This result is in line with Chahine and Filachetov, Hassen.

CONCLUSION

Results showed that there is a significant inverse relationship at 95% confidence level between the

underpricing in initial public offerings with board of directors of the non-bound and the number of board of directors members.

SUGGESTIONS

Based on the results of the study, several implications are suggested for these findings: legislative bodies such as Tehran Stock Exchange organization, auditing organization, Iran's official accounting community, etc., should pay attention to the relationships among corporate governance mechanisms, board structure and underpricing of companies in IPOs.

It is suggested that legislative bodies such as the auditing organization and stock exchange organization to require companies to disclose more of their ownership structure, corporate governance structure and other financial information before IPOs in order to increase transparency of reporting and decision-making environment in order for the investors to make optimized decisions.

Based on the findings, actors of capital market, decision-makers, financial analysts and potential and actual investors of the stock exchange are advised to pay special attention to the relationships between underpricing of companies in IPOs and corporate governance mechanisms, especially board structure which has been addressed in the present article in their analysis of investment plans in financial assets and securities because considering these important factors leads to optimized investment selection with minimum risk and maximum return in addition to multiplying the transparency of the decision-making environment and the obtained results.

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