Investigating the relationship of the effect of government ownership and main shareholders on finance structure of companies

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Abstract:
Investigating the relationship of funding as a criterion for capital structure and the extent of ownership of governmental companies and main shareholders as ways of corporate governance is the aim of this study. The effects of capital structure along with assessing the kind of funding and debit structure is assessed and the effect of criterion related to corporate governance on debit structure intensity as research hypotheses is considered. Working on research hypotheses is done with analyzing the regression and using the information comes from 102 adopted companies in security exchange from 1385 to 1389.

Data collection among adopted companies in Tehran security exchange, according to the way of screening (deletion) has been chosen, that is, all the companies have been considered and then the companies which were not related to our study, have been eliminated. The result of study suggests that there is a positive and meaningful relationship between the extent of government ownership and funding with regard of debit, and also there is a negative and meaningful relationship between shareholders and debit.

Key words: corporate governance, capital structure, main shareholders, the extent of governmental ownership

Introduction
Since corporate governance is an important and challenging issue in our society, it must be paid special attention because the movement to provide backgrounds for this issue is necessary. The abundant effects of corporate governance are the importance of subject which is made obvious in previous related study up to now. This study is aimed at investigating the relationship between corporate governance criterion and capital structure. The extent of government ownership which can be called the government interference in decision making of board of directions, and also main shareholders introduce as a corporate governance criterion. Also, the debit level as a capital structure has been considered. A good corporate governance can act as a decreasing factor of agency expenditure related to separation of ownership from management can be created. Modares and Abdollah Zadeh (1387) stated that capital outlays depend on the
kind of capital structure and decrease the optimal capital structure of these expenditures and cause the increase in company value. Setting balance between the profits come from debit, like decreasing tax costs and agency costs by debit which has controlling role and the costs come from debit, like bankruptcy costs and costs come from agency can make capital structure which maximize the company value. Miller and Modigliant's study (1958) was about this concept that the characteristics of corporate governance effect on company performance, but it must be paid attention that the studies which are done show that there is a meaningful relationship between capital structure and corporate governance. Khaleghi Moghadam (1385) stated that corporate governance in micro level, obtaining the company goals in macro level consider optimal allocating optimal society profit. It is tried in investigating company capital structure to determine the combination of finance resources in funding of activities and required investment.

Ahmadpour, and et. al (1388) suggested, in their study, that appointing the capital structure is aimed at determining the combination of company finance resources in order to maximize the shareholder's wealth. Since the company capital cost is considered as capital structure, choosing of capital structure causes decreases in company capital structure and increases in market value. The policy of presence of debit in company is considered as an internal controlling mechanism and it causes decrease related to agency issues between manager and shareholders. Myers (1977) stated that the debit can result in undesired effects, for example it can be pointed to managers' ignorance of positive projects which must be done but because of provided debit, it will not be performed.

**Review of literature**

Each of the vast changes in today world and the challenges occurring in the society can lead companies through bankruptcy or bear great amount of costs, so paying attention to the capital desirable structure and also suitable criteria for corporate governance can make companies free of the costs. Corporate governance can be treat as corporate direction through the ideal goals and achieve the ideals while the phrase “corporate governance” is the sign of leading company towards the stockholders and directors’ desire. According to Ahmad Badri, there is variety of meaning for corporate governance the most significant of which could be the expansion of the meaning’s incurrence. In one hand the system could be considered as the relation between the directors and stockholders. Kumar basis (2004), found that the corporate governance is affected by the corporate operation and also stated that the ownership structure as a provocative element controls agency costs which is made by the severance of ownership from governance. Johnson (1986) stated in spite of the great amount of free cash flow in the companies system, most of the company’s activities leads to the non-optimized activities. Moreover, the corporate debt structure can be considered as a control system of agency costs. As it was stated before, the existence of too much free cash flow can be used for non-optimized activities. The studies of Gruseman and Hart showed corporate debt acts as an element decreasing corporate agency costs and controlling free cash flow in a company. Van et al. (2002), in their studies about the relation between corporate governance and its capital structure in China concluded that, the companies’ strict rules
prevents them from organizing debt structure in a desirable manner. Asady et al (1389) stated maximizing the corporate costs implicates using the utilized capital resources and receiving suitable revenue and risk. The most important element in the field of corporate governance is reassuring from stockholders’ authentic governance in corporate directing and increasing its value. So, one of the important issues in connection with it is having the knowledge of capital and ownership structure for codifying the needed strategies in decreasing agency costs. Akhtar (2005) studied the effective elements on the capital structure of multicultural and domestic companies in Australia and concluded; growth opportunities, profitability and corporate size are the determinant elements of the corporate debt amount in all the studied companies. Huwang and song (2006) in their studies on 1200 Chinese companies concluded, only some of the elements of capital structure are dependent on debt ratio. They illustrated that the debt ratio decreases with the increase of profitability and the proportion of corporate governance ownership while increases with the growth of company size. The cost of bankruptcy for the innovative companies possessing high amount of technology in their properties is so small. Philipeh et al (2003) concluded, the more innovative companies’ posses more utilized capital structure because, innovation is considered as a special capital resource and is less vulnerable to bankruptcy. Kuan et al. (2007) in their study with the title of “capital structure and corporate governance in China” concluded that the size of the company has positive and meaningful relation with the corporate property (fixed assets to the total assets ratio). Yung beyun (2007) scrutinized the Compression ratio of debt and corporate governance standards and concluded the suitable method in corporate governing decreases companies’ information asymmetry and also leads to the increase in the ratio of company’s debt. Moreover, the impact of company’s expanse was considered in the research in Korea and it was found that the effect of corporate governance is greater in more expanded companies. Ramiz et al (2010) with regard to their study about whether corporate governance is effective on capital structure? Concluded there is a weak positive relation between the capital structure and corporate governance.

Statement of the problem and research hypotheses
It should be noted that the elements of corporate governance have a great effect on companies’ progress and leading them to the ideal level so, the impact of corporate governance various elements make it possible to catch the utilized structure of the capital. In the recent study accessing to the appropriate finance is considered which could be attained by the balance between the propagation of the shares and financial securing through the debt. Hasas Yeganeh (1387) stated, different patterns of corporate governance are the explanatory of the fact that a unit and similar pattern is not useful for all countries and each of the companies should use a suitable pattern according to its economical, social, cultural and political structure. So selecting a suitable pattern of corporate governance is one of the most fundamental challenges in the economical market. The goal of specifying capital structure of each company is the increase of their stockholders’ profit. The policy of debt existence in the company is considered as an interior
control system which decreases agency issues such as the one occurred because of the existence of cash flow, presented by Johnson (1986) between the stockholders and company managers. According to him it is possible that the managers possessing notable amount of free cash flow use it in unnecessary activities. Izadineya and resaeyan (1389) in their study scrutinized “the relation between some of the corporate governance controlling tools and economical and financial elements of activities evaluation. The results of their study are the indicator of the existence of positive and meaningful relation between them. So the main question is whether the mechanisms of corporate governance have any effect on the debt structure of the company?

Kumar in his study scrutinized the relation between the rate of government ownership and also the main stockholder and the payed debt by using multivariate regression equation:

\[
\text{Debt Intensity} = \alpha + \beta_1(\text{CGIns}) + \beta_2(\text{MIns}) + \beta_3(\text{Age}) + \beta_4(\text{DI}) + \beta_5(\text{Insale}) + \beta_6(\text{Tan}) + \varepsilon
\]

The variables of the equation are as follow:

- **Debt intensity**
- **\(\alpha\)**: Constant coefficient
- **\(\beta_1(\text{CGIns})\)**: the rate of government ownership
- **\(\beta_2(\text{MIns})\)**: the main stockholder
- **\(\beta_3(\text{Age})\)**: age of the company since its foundation
- **\(\beta_4(\text{DI})\)**: the intensity of distribution structure
- **\(\beta_5(\text{Insale})\)**: gross sales
- **\(\beta_6(\text{Tan})\)**: the ratio of fixed assets to total assets
- **\(\varepsilon\)**: Error coefficient

According to the mentioned elements and the regression equation the study hypothesis includes:

1. **Hypothesis 1**: there is a meaningful relation between the governance ownership ratio and financial securing by use of debt.

2. **Hypothesis 2**: there is a meaningful relation between the main stockholder and financial securing by use of debt.

**Operational definition of variables**

**Dependant variable**

The debt structure is the scale of capital structure which is the indicator of the companies’ debt structure. Debt structure is calculated by dividing the total borrowings of long-term debt to assets.

**Independent variable**

The ratio of government ownership

Represents the percentage of a company's stock possessed by the state companies so it indicates the ratio of government ownership on the desired company and calculated by scrutinizing the structure of company stockholders and evaluating the ratio of state companies to the total stockholders.

Main stockholder
The main stockholder is the one possessing at least 50% plus one share of the company, and the company is specified by zero if possessing main stockholder or by the number one if not.

**Control variable**
The age of the company

The age of the company is the indicator of the years since its establishment and it is calculated by deducting the year of its foundation of its financial year.

**Distribution structure**
It means the distribution costs of the company's gross sales which is the indicator of the structure intensity. As in most of the companies the ratio of distribution costs to the sale is very low so, the variable rate is also low.

**Gross sales**
The gross sales are the company's total sales during the fiscal year.

**The ratio of fixed assets to total assets**
It is calculated by dividing tangible fixed assets to total assets.

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**Methodology**
The present methodology is descriptive with regard of functional goal and its operation, and also it is a correlation way in the aspect of investigating the relationship of variables.

The current study is aimed at investigating the relationship of debit structure intensity and corporate governance. Considering this issue, that potential shareholder, irresponsible managers, the level of ownership of governmental firms, and main shareholders are as variables of corporate governance. The researchers have assessed each research hypothesis by considering these criteria according to debit structure intensity.

In this study, the descriptive statistics have been used to describe data and the multi variable regression statistical strategy has been used to analyze hypotheses. Also, in this research, SPSS software has been applied to analyze the data. The use of this software results in improvement of obtained result accuracy. The steps of research include investigating the research hypotheses of regression model, meaningful independent variables, and fitting linear model for data.

**Data analysis and Data sample**
The subjects include adopted companies in Tehran security exchange except investment firms, banks, and insurance firms. Also the period of this study is from 1385 to 1389. 101 firms out of all the firms have been chosen according to screening strategy, also the firms which have following characteristics have been selected as sample:

1. Fiscal year of intended companies end in late Esfand.
2. All the required information is available.
3. All the fiscal statements of companies are accessible for all these intended year.
4. The companies which have been accepted in security exchange before 1385.
5. The companies which have not changed own fiscal year. And also their stocks have been transacted permanently.
6. Investment companies, banks, and also insurance firms have not included in intended firms and only the productive companies have been considered.

In this study, the data have been gathered quantitatively, through available information in security exchange and also by using of accessible software, and by considering that debit structure intensity which is computable, distribution structure intensity, and fixed assets ratio to total assets have been extracted out of available data in provided fiscal statements by companies which are in security exchange site.

**Research findings**

Descriptive statistics: descriptive statics include indexes which are used to describe the data analysis better. These indexes which are provided by software include: maximum and minimum to determine the least and the most amount of observation, medium, and mean as central indexes and standard deviation and the scope of changes are used to assess the dispersion.

**Table 1: the descriptive statics of research quantitative variable**

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Bias</th>
<th>Dispersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debit structure</td>
<td>0.08</td>
<td>2.28</td>
<td>0.56</td>
<td>0.24</td>
<td>1.93</td>
<td>9.70</td>
</tr>
<tr>
<td>The extent of government ownership</td>
<td>0</td>
<td>91</td>
<td>14.08</td>
<td>23.14</td>
<td>1.84</td>
<td>2.38</td>
</tr>
<tr>
<td>The active period of company from its establishment</td>
<td>8</td>
<td>53</td>
<td>31.90</td>
<td>11.97</td>
<td>-0.22</td>
<td>-1.20</td>
</tr>
<tr>
<td>Distribution structure</td>
<td>0</td>
<td>0.13</td>
<td>0.02</td>
<td>0.02</td>
<td>2.76</td>
<td>10.98</td>
</tr>
<tr>
<td>Gross sale</td>
<td>13184</td>
<td>94290078</td>
<td>2332637</td>
<td>9266937</td>
<td>7.66</td>
<td>62.37</td>
</tr>
<tr>
<td>Fixed assets ratio to total assets</td>
<td>0.02</td>
<td>0.90</td>
<td>0.27</td>
<td>0.17</td>
<td>1.04</td>
<td>0.92</td>
</tr>
</tbody>
</table>
First hypothesis examination
It must be examined as follows:
If the above-mentioned model be a meaningful model with depended variable, it can be accepted that the level of government ownership is effective on debit structure, so the following hypotheses will be reviewed:

\[ H_0: \alpha_1 = 0 \]
\[ H_1: \alpha_1 \neq 0 \]

That \( \alpha_i \) is coefficients of regression line that this hypothesis can be rewritten as follows:

**H0:** there is no meaningful relationship between ownership of governmental companies and debit structure intensity.

**H1:** there is a meaningful relationship between ownership of governmental companies and debit structure intensity.

That, after determining the best regression line, the individuals will suggest own ideas about hypothesis examination according to the meaningful consideration of regression line.

**Table 3:** the regression table between the level of government ownership and debit structure intensity

<table>
<thead>
<tr>
<th>Regression statistics</th>
<th>Correlation coefficient</th>
<th>Determination coefficient</th>
<th>Regulated determination coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.310</td>
<td>0.096</td>
<td>0.087</td>
</tr>
</tbody>
</table>

**Table 4:** variance analysis

<table>
<thead>
<tr>
<th></th>
<th>Free degree</th>
<th>The sum of squares</th>
<th>The mean of squares</th>
<th>F-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>0.607</td>
<td>5</td>
<td>0.121</td>
<td>10.199</td>
<td>0.000</td>
</tr>
<tr>
<td>Error</td>
<td>5.686</td>
<td>478</td>
<td>0.012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6.293</td>
<td>483</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 5:** the parameter assessments

<table>
<thead>
<tr>
<th></th>
<th>assessment</th>
<th>Standard deviation</th>
<th>F-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The model is meaningful statistically according to variance analysis table and it can be said that about 9.6% debit structure intensity will be clarified according to this model.

\[ y_{it} = 0.6943 + 0.0006A_{it} - 0.0001E_{it} - 1.1397F_{it} + 0.0097G_{it} - 0.1379H_{it} + \epsilon_{it} \]

But, though increase in the level of government ownership results in increasing the debit structure intensity, according to above-mentioned model and the probable amount (P-value=0.010) and the comparison of it with meaningful level (\( \alpha=0.05 \)), it is acceptable that null hypothesis, that

Table 2: descriptive statistics of research quantitative variables (main shareholders)

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Percent</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main share holders</td>
<td>241</td>
<td>%48</td>
<td>%49.6</td>
</tr>
</tbody>
</table>
is, "there is no meaningful relationship between ownership of governmental companies and debit structure intensity." Will be rejected 5% and with 95% confidence:

There is a meaningful relationship between ownership of governmental companies and debit structure intensity.

**Second hypothesis examination**

The model must be considered as follows:

\[ y_{it} = \alpha_0 + \alpha_1 B_{it} + \alpha_2 E_{it} + \alpha_3 F_{it} + \alpha_4 G_{it} + \alpha_5 H_{it} + \epsilon_{it} \]

If the above model be a meaningful model with depended variable, it is acceptable that main shareholder is effective on debit structure intensity, so we have:

\[
\begin{align*}
\text{H}_0: & \quad \alpha_1 = 0 \\
\text{H}_1: & \quad \alpha_1 \neq 0
\end{align*}
\]

That, \( \alpha_i \) is coefficients of regression line. That this hypothesis can be rewritten as follows:

H0: there is no meaningful relationship between main shareholder and debit structure intensity.

H1: there is a meaningful relationship between main shareholder and debit structure intensity.

That, after determining the best regression line, the researchers will offer own opinions to examine hypothesis according to meaningful examination of regression line.

**Table 6: regression table between main shareholder and debit structure intensity**

<table>
<thead>
<tr>
<th>Regression statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.448</td>
</tr>
<tr>
<td>Determination coefficient</td>
<td>0.200</td>
</tr>
<tr>
<td>Regulated determination coefficient</td>
<td>0.192</td>
</tr>
</tbody>
</table>

**Table 7: covariance analysis**

<table>
<thead>
<tr>
<th></th>
<th>Free degree</th>
<th>The sum of the squares</th>
<th>The mean of the squares</th>
<th>F-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1.261</td>
<td>5</td>
<td>0.252</td>
<td>23.964</td>
<td>0.000</td>
</tr>
<tr>
<td>Error</td>
<td>5.031</td>
<td>478</td>
<td>0.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6.293</td>
<td>483</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 8: parameter assessments**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Standard deviation</th>
<th>F-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to variance analysis table, the model is meaningful statistically and it can be said that according to this model, about 20% of debit structure intensity will be clarified through this model.

\[ y_{it} = 0.7764 - 0.00012A_{it} + 0.0003E_{it} - 1.2173F_{it} + 0.0053G_{it} - 0.0513H_{it} + \epsilon_{it} \]
But, though increasing the main shareholder results in decreasing debit structure intensity, according to above model and the probable amount (P-value=0.000) and its comparison with meaningful level (α=0.05), it is acceptable that null hypothesis, that is, "there is no meaningful relationship between main shareholder and debit structure intensity.", will be rejected 5% and with 95% confidence:

There is a meaningful relationship between main shareholder and debit structure intensity.

The summary of obtained results from hypotheses examination is in table5.

Table 9

<table>
<thead>
<tr>
<th>Hypothesis number</th>
<th>The probable amount of model</th>
<th>F-value</th>
<th>The determination coefficient of model</th>
<th>The probable amount of variable</th>
<th>The amount of variable coefficient</th>
<th>The result of examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number 1</td>
<td>0.000</td>
<td>10.199</td>
<td>0.096</td>
<td>0.010</td>
<td>0.0006</td>
<td>Hypothesis acceptance</td>
</tr>
<tr>
<td>Number 2</td>
<td>0.000</td>
<td>23.964</td>
<td>0.200</td>
<td>0.000</td>
<td>-0.0012</td>
<td>Hypothesis Acceptance</td>
</tr>
</tbody>
</table>

Discussion and conclusion

The examination of third and forth hypotheses showed that there is meaningful relationship between debit structure intensity and the level of ownership of governmental companies and also between debit structure intensity and main shareholder, the result of examination of these hypotheses corresponds with Bourcherding & et. al. (1982) Valu (2010)'s findings.

Limitations

Some of the research limitations are potential and others come from environmental conditions and research time limitation. The research included the following-mentioned limitations. They must be paid attention in result interpretations and its generalization.

- The lack of controlling of some factors which have effects on research results including the effect of variables like economical factors, political conditions, the world economic status, rules, and etc. is out of researchers' control, and it may effect on investigating the relationships.
- The research sample have been selected among adopted companies in Tehran security exchange and sample companies are not necessarily representative of all active economical sections in the country, so the data generalization must be done accurately.

Further research
By considering to the presence of government ownership having a positive relationship with debit structure and according to the studies which have been done, these companies have more effects and by comparing with other companies, they have more debit in own capital structure, the level of governmental ownership has a strong supervising role in order to prevent any misuse. According to research results, the presence of main shareholder has negative relationship with debit structure intensity, also with regard to studies which have been performed, it became obvious that the majority of companies which have main shareholder are smaller than other companies, so if they intend to expand their own activities, it is suggested that to make balance in their own capital structure and also between the debit ratio and stock distribution.
References
3- Chen, Yinghong. "Voting power, control rents and corporate governance: An integrated analysis", Department of Economics, School of Economics and Commercial Law, Gotereborg University, ISSN 1651-4289.
4- Gellatly, Guy. (2003), "Growth history, knowledge intensity and capital structure in small firms", Micro-Economic Analysis Division, ISSN: 1703-0404.
5- Jiraporn, Pornsiti., Chul Kim, Jang. and Sang, Young, "Does Corporate Governance Affect Capital Structure?".
9- Qian, Yanmin., Tian, Yao. and Wirjanto, Tony. (2007), "Capital Structure and Corporate Governance in China".
10- Rehman, Ramiz and Raoof. (2010), "Does corporate governance lead to a change in the capital structure?", American Journal of Social and Management Sciences, Lahore Business School, University of Lahore, Pakistan, ISSN Print: 2156-1540.
11- Sykes, J. (2009), "Minority shareholders and their rights", London EC4M 7RD.
13- Wong, Kit Pong. (2009), "On the neutrality of debt in investment intensity", School of Economics and Finance, University of Hong Kong.