

The relationship between return on equity based on changes in asset efficiency and rewards of executives based on financial constraints on companies listed in Tehran Stock Exchange

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ABSTRACT

It has been always a question that how the companies can finance their activities in order to have the maximum positive impact on earnings, investment performance and the efficiency of its shareholders and reduce the risk of the company to the possible minimum level. Several factors including the assets and industry type and amount of remuneration paid to directors have influences on the financing and its efficiency in the company. The purpose of this study was to evaluate the effect of return on equity based on changes in asset efficiency to rewards of the executives based on financial constraints. The methodology used in this research is library and analytical – causal based on panel data analysis (panel data). In this study, the financial data of 106 companies listed in Tehran Stock Exchange during the period 2008 to 2013 were studied (636 firm - years). The research models are derived from *Gabay's* and *Lander* (2008) and the moderator variables of the study are from Richard et al. (2014). Confirming this hypothesis, the results show that the stock return based on changes in asset efficiency is in a significant and inverse connection with reward executives based on financial constraints on companies.

KEY WORDS: return on equity, return on assets, financial constraints, rewards of managers

1) INTRODUCTION

If management remuneration is less than the desired level, the management transferred some part of the coming years profit to the current period and in some cases, for the mentioned purpose the management may transfer some part of the current year to the future periods (Lemmon, 2010). In Western countries, the executive bonus plan is often long term plan and lasts several years and emphasis on investments efficiency in companies with an increased efficiency of corporate accounting (Pagano and Leptin, 2008).

In Iran however the bonus plans are profit-based and reward management in less than a year; therefore Iranian leaders may have a greater incentive to manipulate earnings (Lip Sun, 2012).

Financing and investment decisions of companies both are forward-looking decisions and are always associated with risk (Richardson, 2006). Making decision on financing, the company applies the required funds in current time to be able to meet its obligations towards suppliers operating funds, so as to increase the efficiency of existing companies to a relatively high level (Ortiz, 2007). Finance resources of companies in connection with doing investment or not doing investment according to their financial policy are divided in internal and external financing resources of company. In internal financial resources, the enterprises finance themselves from the earning profits that is they use of profits in mainly company's operating activities to make it more efficient instead of dividing the profits among shareholders, and in external financing, they finance themselves from debt and equity. The use of internal and external funding sources have different effects on productivity, accounting performance and investment efficiency according to fluctuations related to the the payment of bonuses to directors (Girard et al., 2010). Therefore, the question is how to finance companies to maximize the positive impact on profit, investment efficiency and return to shareholders and reduce the risk of the company to a minimum possible level. Several factors, including the activities, assets and industry type and amount of remuneration paid to directors of finance and efficiency of its influence in the company. For example, the nature of the activities may be such that cash flows provide easy entrance, in such a situation using of debt rather than equity is less expensive and profits to increase (Bichok and Green Stein, 2005).

Halook et al (2009) concluded that there is a significant relationship between payment of bonuses to directors and increasing or decreasing the corporate debts and productivity of the investments.

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2. Theory and History

Efficiency, simply stated, is an investor's total income during the investment period. Rate of return indicates to the rate of increase or decrease in investment wealth and is shown as a percentage of initial investment (Barakov and Paliva, 2010). But in general, efficiency is the whole benefits which are awarded to a stock over a period. Use of financial instruments for motivation and payment of bonuses to directors were initialized in European companies. The companies of the early twentieth century paid bonus based on usual earnings. After that, US companies with European companies have adjusted the incentive and bonus schemes based on their income. Today, the use of financial instruments for the motivation is common in companies and 97% of joint stock companies in the United States implement such plans (Namazi and Sirani, 2004). In Iran, usually after the financial statements were prepared the proposed remuneration to the Board of Directors will be informed to the shareholders according to their knowledge and taking into consideration the performance of managers, modify and approve the proposed bonus. In the Commercial Code, after determining the job of the Board of Directors, reward and punishment is intended for members of the Board of Directors. The reward is part of Article 134 of the Commercial Code "If the reward is predicted in constitution The General Assembly could approve that a certain proportion of the company's net profit allocated as a reward to the members of the Board of Directors", section 241 is explained further in this case. The Trade Rule has recommended use of financial instruments for reward and pointed out that the payment of bonuses to directors is possible only with the approval of the shareholders. In law, in addition to the bonus, a series of punitive measures has been considered for the Board of Directors which included in 142, 143 and 258 of the Commercial Code (Qalibafasland Rezaei, 2007).

Ailham Riachi and Armin Shoppingpascher (2014) have examined the relationship between executive compensation and return on equity and found that by increasing the return on equity the reward of managers also increased. The main problem is identifying the effect of rewarding executives. Plan of bonus to administrators is a complex process that several groups including the members of the Board, remuneration committee, remuneration consultants and others involved in its totality. As a result, management bonus plan is associated with a number of visible and non-visible factors. Jensen and Murphy (1990) believe that despite the lack of substantial uniformity of procedures between the companies, most packages of CEO compensation includes 5 main components which are: salary, annual bonus, paid through long-term incentive plans, stock grant non-trade and non-trade award. In addition, CEOs often predetermined set of plans retirement benefits, fringe benefits and payments related to discontinuation receive. Chenari and Hajiha (2012) believe that the results of the study on the impact of senior managers' incentives to create wealth for shareholders suggests that there is a significant relationship between the sensitivity of pay for performance and shareholder added value; but not between the sensitivity of pay for performance and pay for managers. The overall result is that although rewarding managers of Iranian companies leads in creating added value for shareholders the performance payment does not have sufficient efficiency. About the effect of the growth rate of fixed assets on returns on equity, Karimi and Darabi (2010) writes: The results in this regard have confirmed that there is a negative correlation between the increase in the growth rate of fixed assets and return on equity. In this study, the relationship between the growth rate of fixed assets and return on equity for the period 2004 to 2008 for the companies listed in Tehran Stock Exchange were examined. The results indicate that there is a negative correlation between the increase in the growth rate of fixed assets with returns on short-term and long-term equity.

3. Research models

Research models derived from *Gabay's* and *Lander* (2008) and adjusted variables of Richard et al. (2014) are estimated as follows:

The model of research hypotheses:

$$\begin{aligned} \ln(\text{Bonus} / \text{TA})_{i,t} * \text{WIndex}_{i,t} = & \alpha_0 + \beta_1 \text{SRV}_{i,t} * \text{ROA}_{i,t} + \beta_2 \ln(\text{ABS} / \text{TA})_{i,t} + \beta_3 \text{BookLeV}_{i,t} \\ & + \beta_4 \text{SRiSK}_{i,t} + \beta_5 \text{OperIncom}_{i,t} + \beta_6 \ln(\text{Salary} / \text{TA})_{i,t} + \beta_7 \text{CEO}_{i,t} + \beta_8 \text{Boardsize}_{i,t} + \varepsilon_{i,t} \end{aligned}$$

4. Research Methodology

This study is a classification based on the objective of applied research. The aim of applied research is to develop an applied knowledge in a particular field. The methodology used in this study is solidarity. The study objective is to determine the relationship between variables. To this end, in terms of scale variables, suitable indicators are used (Sarmad, 2002, p. 172). The study has been done comparative – inductive in which the theoretical material and the literature are collected through library and Internet research and either reject or confirm inductive reasoning and research hypotheses using appropriate statistical methods, inductive reasoning is used in generalizing the results. This research, in terms of the nature and content, is of the correlation research and analyze, modification and classification the collected data are done by Excel software and are entered in SPSS 20 and

Minitab 16 and Eviews 7 software on the basis of examined variables; and then the final analysis was performed with the help of these software.

5- Variables and How to Measure Them

5-1) Dependent Variables:

Rewarding executives based on financial constraints ($Ln(Bonus/TA)_{i,t} * WWindex_{i,t}$) according to Research Kidman et al (2009), how to calculate rewarding executives based on financial constraints are as follows:

The financial limits, first, will be calculated as follows:

In this study, we have considered an indicator for foreign financial constraints ($Cons_{i,t}$) of companies active in the Tehran Stock Exchange based on Wited and Wu (2006), that will take the name of WW. Compared with the index Kaplan - Zynglz (1997), (Index KZ, the calculation of financial constraints), Vyt and Wu said that the indicators provided by them is compatible with the specifications related to financial constraints. WW index is compiled as follows:

$$WWindex_{i,t} = -0.091CashFlow_{i,t} - 0.062DIVPOS_{i,t} + 0.021TLTD_{i,t} - 0.044Size_{i,t} + 0.102ISG_{i,t} - 0.035SG_{i,t}$$

In index WW: $CashFlow_{i,t}$ is equal to cash flows obtained from operating activities divided by net cash flows from the company's book value of total assets on company i at the end of the year t.

$DIVPOS_{i,t}$ = Dummy variable that if firm i in year t, pay cash dividends it will be equal to 1, otherwise it will be zero.

$TLTD_{i,t}$ = The ratio of long-term debt to total book value of assets.

$Size_{i,t}$ = natural logarithm of the book value of total assets.

$ISG_{i,t}$ = the industry sales growth rate in this study, the calculation formula is as follows:

$$ISG_{i,t} = \frac{IS_{i,t} - IS_{i,t-1}}{IS_{i,t-1}}$$

$ISG_{i,t}$ = Industry i sales growth in year t

$IS_{i,t}$ = Net sales of industry i in year t

$IS_{i,t-1}$ = Net sales of industry i in year t-1.

Sales growth rate ($SG_{i,t}$) = growth performance is also a decisive factor. According to the findings of Becker et al. (1998), Cheung and Kalapoor (2003), Raynolds and Francis (2000), Murray (2006), sales growth is used as an indicator for value growth opportunities. Sales growth is calculated using the following model:

$$SG_{i,t} = \frac{S_{i,t} - S_{i,t-1}}{S_{i,t-1}}$$

$SG_{i,t}$ = Sales growth i in year t

$S_{i,t}$ = Net sales of firm i in year t

$S_{i,t-1}$ = company i's net sales in year t-1

In each fiscal year, the company was calculated and classified based on index WW. Therefore, the companies which values are calculated from median value of index WW, all lower companies are located in tier companies with financial constraints otherwise are placed in a raw with companies without financial constraints. The financial constraints rate will be calculated as follows:

$$-GWWindex_{i,t} = WW_{i,t} - WW_{i,t-1} / WW_{i,t-1}$$

$-GWWindex_{i,t}$ = rate of decline of financial constraints.

$WW_{i,t}$ = rate of decline of the company's financial constraints in the current year

$WW_{i,t-1}$ = rate in the previous year, the company's financial constraints.

And finally rewarding managers based on financial constraints will be calculated as follows:

$$Ln(Bonus/TA)_{i,t} * WWindex_{i,t} = Bonus_{i,t-1} + (Bonus_{i,t-1} * -GWWindex_{i,t})$$

Where $Ln(Bonus / TA)_{i,t} * Windex_{i,t}$ is executives rewards based on financial constraints, $Bonus_{i,t-1}$ is the remuneration paid to directors during the year prior, $-GWindex_{i,t}$ and is growth rate reduction of financial constraints.

5-2) independent variables:

Return on equity based on changes in asset returns ($SRV_{i,t} * ROA_{i,t}$): According to Dimmitro and Voprim Jane (2008), return on equity based on changes in asset efficiency is calculated as follows:

Return on equity is the ratio of total profits (losses) from investments in a given period to the initial investment has been spent to get this benefit. Profit in a year for the owner of the share is created due to two factors: (1) increase the price per share (2) Paid Cash Dividends. The return period, then, will be calculated according to the following formula:

$$r_s = \frac{DPS + p_1 (1 + \alpha + \beta) - p_0 - (1000 \times \alpha)}{P_0 + (1000 \times \alpha)}$$

r_s : return on equity

P_0 : stock price at the beginning of the month

DPS: dividends were paid in per share

α : The percentage of cash received from the capital increase

p_1 : stock price at the end of each month

β : the percentage of increase in capital from the reserves.

And changes in asset returns will be calculated as follows:

$$GROA_{i,t} = \frac{ROA_{i,t} - ROA_{i,t-1}}{ROA_{i,t-1}}$$

$GROA_{i,t}$ = Growth rate of return on assets of firm i in year t

$ROA_{i,t}$ = return on assets of firm i in year t

$ROA_{i,t-1}$ = Return on assets is firm i in year t-1.

$$ROA_{i,t} = \frac{\text{Net profit for the current period}}{\text{The total book value of assets}}$$

Finally, based on the fluctuation of return on assets and conflict between two variables, the return on equity and changes in return on assets will be achieved.

3-5 control variables:

3-5-1 Ratio of book value of current assets ($Ln(ABS / TA)_{i,t}$): According to Fan et al. (2006), the book value of current assets will be calculated as follows:

$$Ln(ABS / TA)_{i,t} = \frac{\text{Current assets}}{\text{The total book value of assets}}$$

3-5-2) book value of financial leverage ($BookLeV_{i,t}$): relatively high ratio of financial leverage are likely to show an increase in the amount of cash accumulated debt to the company, and will be more likely to cause bankruptcies financial companies. Relatively high financial leverage indicates that the increase in the debt level will decrease cash. Accordingly, companies with assets of more cash can these assets to reduce their debt levels, cash flow coverage and more. Le (2007) and Wave (2000) concluded that there is a negative relationship between financial leverage and cash assets. Ferreira and William (2004) showed that companies with higher debt less have ability to save cash. In this study, we will fallow Zang (2011) to calculate the financial leverage ratio and the financial leverage ratio ($Lev_{i,t}$) will be calculated as follows:

$$BookLeV_{i,t} = \frac{\text{Book value of total liabilities}}{\text{The total book value of assets}}$$

3-5-3) Corporate Risk ($SRiSK_{i,t}$):

How do I calculate the risk assessment is as follows (Halok et al., 2009):

$$AnDisp_{i,t} = R_f + [E(R_m) - R_f] * \beta_i$$

R_{it} : Rate of return on company i during t.

R_{ft} : Rate of return risk safe during t.

β_i : Securities market beta (systematic risk) of companyi.

R_{mt} : Rate of portfolio return during t.

It should be noted that to measure of systematic risk a portfolio of securities and market data on the rate of return on the stock is used. Stock Exchange uses the following formula to measure the actual efficiency (Yan et al., 1995).

3-5-4) operating income ($OperIncom_{i,t}$) is equal to the company's net income that the related data is extracted annual income statement of companies and is measured as follows (Jiang Lee and Perit Esker, 2008).

$$OperIncom_{i,t} = \frac{\text{Net income for the year}}{\text{The total book value of assets}}$$

3-5-5) Ration of Sales ($Ln(Salary/TA)_{i,t}$):

Sale of the company's performance is considered as a determining factor. According to Ozkan (2011), the proportion of sales is used as an indicator for value growth opportunities. Of sales, will be calculated using the following formula:

$$Ln(Salary / TA)_{i,t} = \frac{\text{Net sales in the current year}}{\text{Book value of current assets}}$$

3-5-6) Ratio of institutional investors ($CEO_{i,t}$): According to Askarobot (2001) it will be calculated as follows:

$$CEO_{i,t} = \frac{\text{The number of shares in the hands of institutional investors}}{\text{The total number of company shares}}$$

3-5-7) Size of Board of Directors ($Boardsize_{i,t}$):

It is the number of managers who attend board meetings. The variable is used to control the size of the potential effects on earnings management board (Vermilia, 2008).

6. Findings

6-1. Normal test data

The first step to start the process of hypothesis testing is checking the data normalization. In this study, it is evaluated through the Kolmogorov-Smirnov test (K-S).

The results of the normality of the dependent variable

Variables	The number (N)	statistic (KS)	level of significance (Sig)
Payment to executives based on financial constraints	636	2.607	0.000

Due to the variable remuneration for executives is based on the importance of financial constraints K-S statistic is less than 05/0, the variable remuneration based on financial constraints managers do not have a normal distribution. Therefore, it is necessacary to normalize the variable before testing the hypothesis. The study has used Johnson function to normalize the data transfer and areanalyzed by 16 Minitab Software.

Normality of the dependent variable after normalization process

Variable	The number (N)	statistic (K-S)	level of significance (Sig)
Reward executives based on financial constraints	636	0.861	0.448

Since the Kolmogorov-Smirnov statistical significance level of normalized data for the dependent variable (448/0) is higher than 05/0 indicates that variable pay to reward executives based on financial constraints of the process of normalization, is normally distributed.

7 - Result of the test hypothesis:

The purpose of this study was to test the hypothesis of whether there is a significant relationship between the return on assets and return on equity based on changes in executive bonuses based on corporate financial constraints, or not?

Chow and Hausman test results for the model

Test	Statistic	Statistics Value	degree of freedom	P-Value
Chow	<i>F</i>	2.4764	(105.522)	0.0000
Hausman	χ^2	20.4222	8	0.0089

According to the Chow test results and the P-Value (0000/0) that is less than the level of acceptable error 05/0, panel data is applied for fitness of the regression model. Also, according to results of the Hausman test and P-Value (0089/0), which is less than 05/0, it is necessary to use fixed effects to estimate the model.

The results of tests related to the assumptions of the statistical model

Jarque-Bera		Breusch-Pagan		Durbin-Watson	Ramsey	
χ^2	P-Value	<i>F</i>	P-Value	D	<i>F</i>	P-Value
1.6971	0.5245	23.7231	0.0000	2.12	10.1468	0.9651

In studying the assumptions of the classical regression, the Jarque - bera test results suggests that the residues from the research model is in 95% of the normal distribution, because the probability of this test (5245/0) is greater than 05/0. Also, due to the importance of cutting Pagan test (0000/0), which is smaller than 05/0, model variance difference is hard to say. Generalized least squares estimation (GLS) to solve this problem in the estimation of in these hypotheses. In testing Solidarity remains in the model that has been applied by use of Watson Camera (DW) statistics the Camera - Watson was 2.12 and as it is between 5.1 and 5.2 we can conclude the remaining are independent of each other. In addition, according to the level of code testing (9651/0) that is larger than 05/0, the linearity of the model has been confirmed and the model error is not specified. According to the results, the research model are estimated using panel data and as the fixed effects.

The results of the study hypothesis using fixed effects

The dependent variable: reward executives based on financial constraints				
Views: 636 years - company				
Variable	coefficient	Statistic t	P-Value	Relationship
fixed component	0.0226	1.6948	0.0907	meaningless
Return on equity based on changes in return on assets	-0.0911	20.9530	-0.0000	negative
Book value ratio of current assets	-0.0032	-2.1620	0.0311	negative
Book value of financial leverage	0.0012	0.2606	0.7945	meaningless
Corporate Risk	0.0326	6.5248	0.0000	Positive
Operating income	-0.0044	-1.4814	0.2012	meaningless
Sales ratio	-0.0096	-1.6034	0.1094	meaningless
The proportion of institutional investors	-3.6505	-0.0590	0.9529	meaningless
The Board of Directors	-0.0025	-0.4120	0.6804	meaningless
Determining factor model				0.8409
Statistics <i>F</i> (P-Value)				24.4326 (0.0000)

The model is estimated using the software 7 Eviews as follows:

$$\begin{aligned} \ln(\text{Bonus} / \text{TA})_{i,t} * \text{WVindex}_{i,t} = & 0.0226 - 0.0911 \text{SRV}_{i,t} * \text{ROA}_{i,t} - 0.0032 \ln(\text{ABS} / \text{TA})_{i,t} \\ & + 0.0012 \text{BookLeV}_{i,t} + 0.0326 \text{SRISK}_{i,t} - 0.0044 \text{OperIncom}_{i,t} - 0.0096 \ln(\text{Salary} / \text{TA})_{i,t} \quad \text{In} \\ & - 3.6505 \text{C EO}_{i,t} - 0.0025 \text{Boardsize}_{i,t} + \varepsilon_{i,t} \end{aligned}$$

studying the significance of the entire model with respect to the F statistical probability is smaller than 05/0 (0000/0) with 95% level of confidence, the Significance of the model is confirmed. Determining factor model suggests that 09/84 percent of the rewards to executives are based on financial constraints by variables that are discussed in the model. The coefficients between the results, since the probability of t-statistics for variable rate of return on equity based on changes in asset efficiency (-0/0000) is smaller than 05/0, as a result there is a significant relationship between stock returns based on changes in asset efficiency and reward executives based on financial constraints Companies and it is confirmed by with 95 percent confidence level.

Therefore, the research hypothesis is accepted and we can say with 95% confidence that there is a significant relationship between the return on equity based on changes in asset efficiency and reward executives based on corporate financial constraints. The negative coefficient of the variable (-0/0911) implies the existence of an inverse relationship between stock returns based on changes in asset efficiency and reward executives based on the company's financial constraints, so that the when return on equity increased by 1 unit changes in returns on assets, the reward executives based on financial constraints Companies also decrease by 0/0911 unit. Thus, according to the analysis made in connection with the hypothesis of this study we can conclude that there is an inverse relationship between stock returns based on changes in asset efficiency and reward executives based on financial constraints Companies.

RESULTS

The bonus plan hypothesis discussed the role of accounting options in compensation plans (Katanz and Blatt, 2008). Managers enjoy additional bonuses based on their performance on an ongoing basis in addition to its established rights. Data Financial Statements, in particular, net profit and its proportions such as accounting efficiency, often has been used to measure management performance (Aofak and Yarmak, 2000). The managers select accounting methods and the exercise of the powers of the accounting estimates compensation benefits to improve their own incentives (Chalmers et al., 2006). Previous authors have interpreted this so as those managers whose bonuses is determined based on profit are increasingly motivated for selecting accounting methods by profit, so to increase the investments will be profitable. There are different views on how to pay bonuses to managers and reward to managers in connection with the performance of an investment company and ultimately increase or decrease the risk of the company (Bibchok and Fried, 2004). Fabozzi and Kodary (2007), in his study concluded that the rewards of managers will also increase and decrease with increasing efficiency and reducing risk and accounting. The study of the relationship of these factors in our country enjoyed of great importance. Since most of the empirical research in this field is mainly limited to the United States and other developed countries where similar structural have characteristics, respecting to the effect of the bonus issue managers, risk and return accounting is important in developing countries. Therefore, the study of the relationship between bonuses to the managers, risk and return of corporate accounting in our country could be a major step towards creating a platform for future research. Therefore, the result of this research which is examined the Tehran Stock Exchange listed companies examined it is important to us and could pave the way for resolving many of the questions in this area. Attracting investors in our capital markets given the emerging capital markets of advanced countries is of great importance from the view point of management in order to identify the relationships such as: the impact of changes in stock returns based on the return on assets to reward executives based on financial constraints can be essential in achieving the ultimate goal of business. The significance of the model with respect to the F statistical probability is less than 0/05 (0/0000), therefore the model is significant with 95% approval. Determining factor model suggests the 09/84 per cent of the remuneration of managers according to financial constraints is discussed by variables in the model. In studying the significance of the coefficients due to the results, since the probability of t-statistics for variable rate of return on equity based on changes in asset returns are less than 0/05 (-0/0000), as a result there is a significant relationship between stock returns based on changes in asset efficiency and rewards to executives based on financial constraints Companies, then the 95 percent confidence level is confirmed and the research hypothesis is accepted. We can say with 95% confidence there is a significant relationship between the return on equity based on changes in asset efficiency and reward executives based on corporate financial constraints. The negative coefficient of the variable (-0/0911) implies the existence of an inverse relationship between stock returns based on changes in asset efficiency and rewards to executives based on the company's financial constraints; so that when the return on equity based on changes in returns on assets increased by 1 unit, the reward executives based on corporate financial constraints have

reduced the amount of 0/0911. Thus, according to the analysis done in connection with the hypothesis of this study we can conclude that there is a significant and inverse relationship between return on assets and return on equity based on changes and rewards to executives based on financial constraints Companies. Result of the study is consistent with the results of RiachiandSteinbacher(2014).

REFERENCES

- Anderson and et (2009). "Cash corporate Governance and firm Diversification "Financial Management , 29 (1) ,5022
- Gerardi, K., Rosen, H.S., Willen, P.S., 2010. The impact of deregulation and financial innovation on consumers: the case of the mortgage market. *J. Finance* 65, 333–360
- Hallock, K., Clayton, C., Madalozzo, R., 2010. CEO pay for performance heterogeneity: examples using quantile regression. *Financ. Rev.* 45, 1–19..
- Jensen, M.C., and K.J. Murphy ,(1990), "Performance Pay and Top-Management Incentives." *Journal of Political Economy* 98 (2):225
- Lambert, R.A., C. Leuz and R. Verrecchia, (2007). 'Information Asymmetry, Information Precision, and the Cost of Capital', Working Paper (University of Pennsylvania and University of Chicago).
- Lambert. R. A. (1982). "Managerial Incentives in Multiperiod Agency Relationship", Working Paper, Stanford University.
- Mehran, H., Morrison, A., Shapiro, J. (2011). Corporate governance and banks: What have we learned from the financial crisis? FRB of New York Staff Report No. 502.
- Murphy, K.J. (1985). "Corporate performance and managerial remuneration: an empirical analysis", *J. Acc. Econ.* 7(1-3): 11-42.
- Namazi, M. and J. Moradi. (2006). "Experimental Study of factors in determining the remuneration of the board of listed companies in Tehran Stock Exchange" *Accounting Studies*, No. 10 and 11.
- Namazi, Muhammad and Mohammad Sirani (2004), "An empirical investigation to determine the structures of important contracts, indicators and parameters of CEO compensation in Iran", *Journal of Accounting and Auditing Review*, Vol. XI, No. 36, pp. 94 65
- Ofek, E., Yermack, D., 2000. Taking stock: equity-based compensation and the evolution of managerial ownership. *J. Finance* 55, 1367–1384.
- Ortiz-Molina, H., 2007. Executive compensation and capital structure: the effects of convertible debt and straight debt on CEO pay. *J. Account. Econ.* 43, 69–93.
- Ozkan, A. (2001), " Determinants of capital structure and adjustment to long run target: evidence from UK company panel data", *Journal of Business Finance & Accounting*, Vol. 28, pp. 175-98.
- Sajadi, Hussain and Mohammad Sadegh Zarezadeh Mehrizi. (2011), "The relationship between bonus plan for managers and economic criteria to evaluate the performance of companies listed on Tehran Stock Exchange", *Journal of Financial Accounting Research*, Vol. III, No. IV, pp. 54-41.
- Skarabot, J., 2001. Asset securitization and optimal asset structure of the firm. University of California Berkeley Working Paper.
- Vermilyea, T.A., Webb, E.R., Kish, A.A., 2008. Implicit recourse and credit card securitizations: what do fraud losses reveal? *J. Bank. Financ.* 32, 1198–1208.
- Zhang, J. (2011). The Relationship Between Working Capital Management And The Corporate Cash Holdings, University of Eastern Finland, Faculty of Social Sciences and Business Studies, Master's thesis: 67 p. Available at: <http://epublications.uef.fi>