Indian Journal of Fundamental and Applied Life Sciences ISSN: 2231– 6345 (Online)
An Open Access, Online International Journal Available at www.cibtech.org/sp.ed/jls/2015/01/jls.htm
2015 Vol.5 (S1), pp. 3141-3149/Kaveh and Mahmoodi
Research Article

INVESTIGATING THE CORRELATION BETWEEN THE LEVEL OF CORPORATE GOVERNANCE WITH CASH RISK

Rasool Kaveh and *Abdollah Mahmoodi
Department of Public Administration, Mahabad Branch, Islamic Azad University, Mahabad, Iran
**Author for Correspondence*

ABSTRACT
The aim of this research is the examination of correlation between the levels of corporate governance with cash risk in Iran banks which has been done in descriptive-correlative method. This paper has been done in timespan of 90-92 and among Iran banks. Also, in this paper, 7 indices, for corporate governance, have been identified and used and also the ratio index of volatile deposits has been used for determining the cash risk. For analyzing data resulted from Kolmogorov–Smirnov test, the Durbin-Watson, Chow, Hasmen and Regression tests have been used. The results show that corporate governance determines 48% of the changes in cash risk. Also, the results show that among the components of corporate governance, the rate of outside directors in board of directors, average number of shares outstanding by the members of board of directors, the amount of stock concentration of bank stocks and the amount of bank float stocks in bourse have a significant and inverse correlation with bank cash risk and the stocks of bank main shareholder has a direct and significant correlation with cash risk.

Keywords: *Corporate Governance, Cash Risk, Bank Float Stocks, Concentration of Bank Stocks*

INTRODUCTION
Governance separation from management leads to generalization of agency problem. For solving interests confliction raised from agency problem, some mechanisms such as corporate governance mechanisms have been offered. In recent years, corporate governance has become a main and dynamic aspect of business and consideration in it is increasing, progressively (Hassas, 2006). Corporate governance is a set of corporate internal and external controlling mechanisms which determines that a corporate how and by whom should be run. Corporate governance system that regards to the balance among social and economic aims and individual and social aims causes to persuade effective using of resources and answering commitment of corporates about fulfilling assistance task for managing resources. Considering to effective corporate governance and increasing effectiveness in contracts among beneficiaries in order to improve answering culture and arising information transparency in corporate and economic units which all or part of their capitals are provided by people lead to effective allocation of resources and at last economic growth and development (Ghalibaf and Rezaei, 2007).
Corporate governance is a set of procedures which is implemented for acquiring confidence than to effective usage of corporate assets and lack of applying them opposed to beneficiaries' aims. The powerful structure of corporate governance would lead to a better supervision of management, in time production of accounting information and acceleration in identifying bad news for informing board of directors and doing necessary measures. Conservatism, also, would be followed by all above mentioned interests (Garsia *et al.*, 2005). Moreover, banking industry by nature has systemic, comprehensive and continuum risks and this is precisely the thing that is interpreted as Domino-effect in banking literature which always is in ambush of banks and any banks cannot be safe of its risks. Basically, banking occurs partially in non-confidence terms and so far in anywhere of the world, a model has not identified for zeroing the risks and bank losses resulted from it. The principle subject is that driving the relevant risks in an acceptable level and moreover minimizing the losses resulted from dangers (Central Bank of I.R.B, 2012). Hence, the problem which is considered by many of researches in this industry is that how they can decrease the expecting risks in banking industry.
Studying various and valid texts show that the first and oldest concept of corporate governance has been taken from Latin term "Gubenare" in the means of conducting which usually is applied for conducting a

ship. Examining the existence literature shows that there is not any consistency definition about corporate governance. There are considerable differences in definition based on considered country. Even in US or United Kingdom reaching to a unit definition is not easy (Jalali, 2008). International Accountants Federation in the year of 2004 has defined corporate governance as: "corporate governance is responsibilities and applied methods by board of directors and inside directors in the purpose of determining strategic direction which is a guarantee for achieving to aims, controlling risks and responsibly consuming resources (Hassas, 2006). Organization for Economic Co-operation and development (1988) defines corporate governance as: corporate governance is a system to control and conduct the business corporate. The structure of corporate governance determines salary dividing and responsibilities among the members of board of directors, managers, shareholders and other beneficiaries (OECD, 1999). In wisdom perspective, corporate governance includes a set of relations among corporate management, board of directors, shareholders and beneficiaries. In macroeconomic perspective, appropriate corporate governance, the level that corporate are run in a free and honesty space, is important for drawing market-confidence attention, capital effectiveness, renewing industrial structures of countries and finally general treasure of society (Sina, 2008).

One of main approaches of Basel Committee is cash risk of banks. In economic crisis, lack of cash usually has further destructive effects on institutes and specially finance institutes and banks; hence, Basel Committee on Banking Supervision represents standard rules and frames for cash management such as the rate of cash covering. Cash is the capacity and amount of bank ability in paying its payments in given maturity and it is clear that this capacity has a direct relation with the amount of cash which is in control of bank.

In accordance with the principles of Basel Committee in severe crisis, the banks should be able to fulfill their cash needs without referring to central bank and government (Safdari *et al.,* 2012). A research is done by Gerard and James (2006), with doing a field study in 150 countries of the world; they offer that variety is occurred in types of deposits and minimizing concentration is occurred in one resource of deposits, so that variation in banks' assets in the entire world causes risk management in banks to improve and finally profitability and value added of shareholders to increase.

Garsia *et al.,* (2005) examine the correlation between the structures of corporate governance with conservatism and show that the corporate with a structure of powerful corporate governance will represent more conservatism accounting information. Bix *et al.,* (2004) examine the relation between board of directors' supervision and accounting quality specially the issue of interest quality and show that the corporate with lower outside members of board of directors in comparison to the corporate with higher outside members have smaller size and higher interest. Ann *et al.,* (2002) in China examine the relationship between corporate evaluation and corporate governance and find that the corporate which benefit from higher governance have higher value, too.

Akram (2011) in her master's degree thesis in title of "ranking the effectiveness of selected banks from Iran bank system" by using of data covering analysis method, use cash risk as one of research inputs and show that business private banks benefit from effective privileges than to governmental banks. Abbas (2011) shows that the relationship between effectiveness and the rate of leverage risk is significant. He shows that the structure of governance has not any effect on the structure of capital and effectiveness.

Regarding to the existence of private banks beside governmental banks and intensifying competition for drawing Iran capitals and keeping customers for a long time, awareness of banks' business features among costumers is for collecting plans and determining target markets which causes many of banks by increasing cash risks to intensify crisis conditions more than before. Among them determining appropriate governance on corporate leads to decrease the risk level of bank activities beside the expenses of bank agency, therefore; it is important that banks have a self-conscious from governance conditions and know their importance and effectiveness. Considering to the mentioned cases and the importance of this issue, the main problem which are followed in this research, is clarifying the relationship between the structure of corporate governance and cash risk of Iran banks till by this way a part of risks which currently are expected for banks can be identified and controlled.

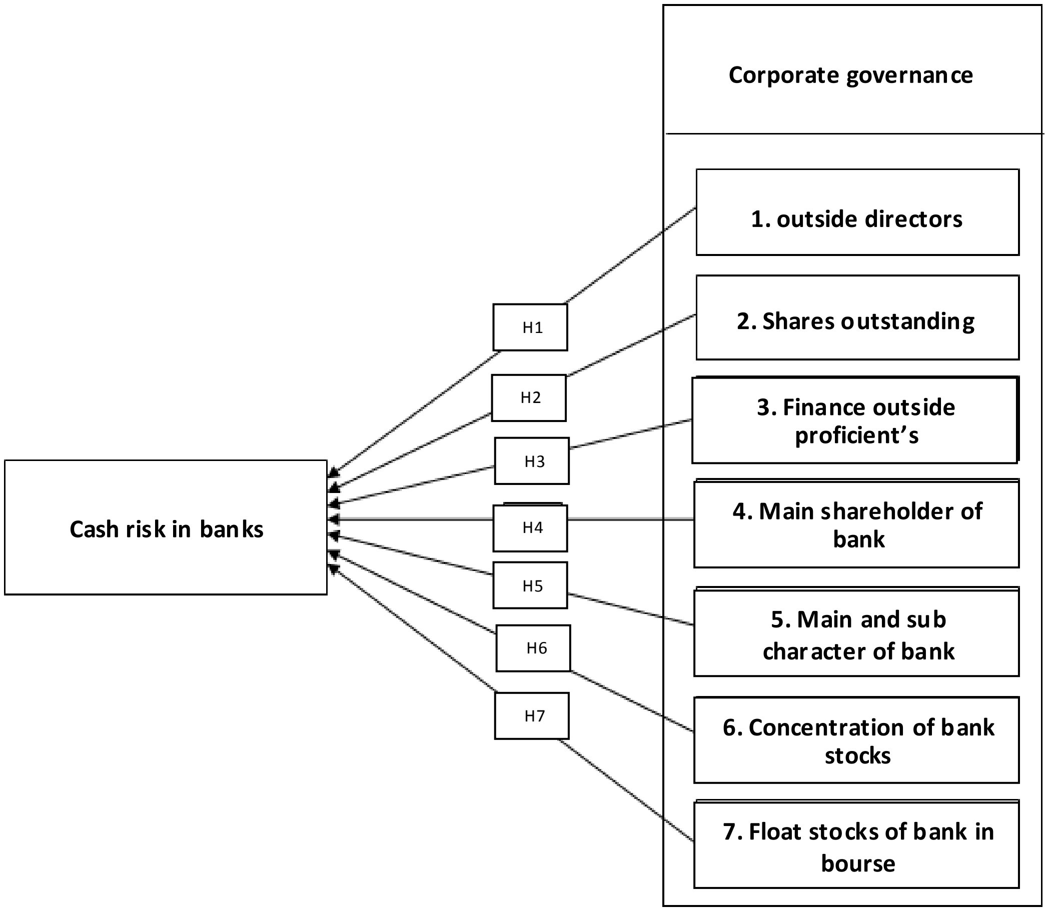

Figure 1: Conceptual model of research

MATERIALS AND METHODS

Methodology

This paper is descriptive-analytical with applicable approach and in methodology of research perspective is correlative. Statistical sample of this research is active banks of Iran from 2012 to 2013 which their report on board of directors' activity is provided by Securities and Exchange Organization based on new represented sample. In this paper, by using of library and field methods, the required information for corporate such as board of directors structure, shareholders, accounting interest, market value and … will be collected from finance statements, report of board of directors' activity, and corporate meetings and information banks of accepted banks in securities bourse and other relevant software such as Tadbirpardaz and Rahavard-e Novin and also for governmental banks via obtained information from central bank. In the next stage by using of collected data and introduced statistical models, some required data will be built. In this paper, among variety factors related to corporate governance, 4 factors, the rate of outside directors in board of directors (A), the average of shares outstanding of board of directors' members (B), the amount of stocks belonged to the main shareholder of bank (C), and the amount of bank's float stocks in bourse, are used as independent variables. Regarding to the hypothesis of research, for measuring the amount of relation or degree of correlation in required dependence and independence variables, the multiple regression models is estimated by using of combined data as follows:

$$Risk_{it} = \alpha_{it} + \beta_{1it} A_{it} + \beta_{2it} B_{it} + \beta_{3it} D + \beta_{4it} G_{it} + \varepsilon_{it} \qquad (1)$$

Where $i = 1, 2, \dots, N$ and $t = 1, 2, \dots, T$ are representative of cross-sectional units (15 private banks) and time (4 years), respectively. Risk $_{it}$ is cash risk and above mentioned variables which defined as

Indian Journal of Fundamental and Applied Life Sciences ISSN: 2231– 6345 (Online)
An Open Access, Online International Journal Available at www.cibtech.org/sp.ed/jls/2015/01/jls.htm
2015 Vol.5 (S1), pp. 3141-3149/Kaveh and Mahmoodi
Research Article

dependence variables are bank i in the year of t. α_{it} Is $y-intercept$ of i segment in t year and β_{it} is sensitivity coefficient of any corporate governance variables than to cash risk.
The short-term nature for many money market instruments reveals that for replacing losses result from funding, it is necessary to find quickly some resources for refunding. Hence the following proportion is the index of banks cash risk as dependence variable of research:

$$Cash\,risk = \frac{visual\ deposits + saving\ deposits + other\ short-term\ deposits}{all\ bank\ deposits}$$

RESULTS AND DISCUSSION
Results
Kolmogorov–Smirnov test is used for examining the normality of dependence variables distributions. This test is done for dependence variables. Outputs for K-S test for this variable in SPSS software are described in table 1. Regarding to the table and Z-statistics of Kolmogorov–Smirnov test, null hypothesis (H0) is confirmed because the significant level for all variables is more than 0.05, so it can be said by validity of 95% the mentioned variables in above models benefit from normal distribution.

Table 1: Kolmogorov–Smirnov test

Variable		Kolmogorov–Smirnov	Significant level	Result
RISK	The rate of volatile deposits	0.6697	0.4696	Normal distribution

Durbin Watson statistics beside critical amounts in the error level of 1% is shown in table 2. Regarding to the calculated amount of Durbin Watson statistics, the regression model of current research is larger than critical amount in error level of 0.01. So, lack of consecutive and serial correlation of remainders in regression models are confirmed in the significant level of 0.01.

Table 2: Errors' independence test

Statistics	Critical amounts (error level of 0.01)		Durbin Watson statistics
	Du	**Dl**	
Estimated amounts	1.978	1.498	2.018

One of the most important issues which we are faced in econometrics is the issue of heteroscedasticity. Heteroscedasticity means that in estimating regression model the amounts of error sentences have unequal variances. White test is used for estimating heteroscedasticity in this research. The findings resulted from this test are described as following table:

Table 3: Findings resulted from heteroscedasticity

Statistics	White statistics	P-value	Test Result
Estimated amounts	2.621	0.242	Lack of inequality

The findings resulted from White test (F-statistics) is shown in table 3. These results represent that F-statistics of regression model in error level of 0.05 is not significant, finally the null hypothesis based on existence of heteroscedasticity among model data are failed in the error level of 0.05. For this reason the regression model can be used.
Regarding to the table 4, the amount of Tolerance and Variance Inflation Factor (VIF) for all independence variables are more than 0.05 and also VIF is so close to 1 (very lower than 2), finally the hypothesis for non-existence of collinearity among dependence variables is confirmed.

Table 4: Collinearity test among dependence variables

Variable		Tolerance	VIF
A	The percentage of outside directors	0.643	1.555
B	The average of shares outstanding for the board of directors' members	0.719	1.390
D	The percentage of stocks for main shareholder	0.692	1.445
G	The percentage of corporate's float stocks in bourse	0.756	1.322

After examining classic hypothesizes in next section the findings resulted from regression models fitting of research and consequently the research hypothesizes are examined and tested.
The results related to Chow test for regression model of research are shown in table 5.

Table 5: Chow Test (Limmer)

Statistics	F-statistics	Probability	Test Result	
Estimated amounts	**284.001	0.000	Failing of Null hypothesis	Panel model

***significant level in 1%*

Table 6: Hasman Test

Statistical indices	x^2 statistics	Probability	Test Result	
Estimated amounts	**281.012	0.0000	Failing of Null hypothesis	Panel with fixed effects

***significant level in 1%*

Table 7: Summary for the results of hypothesizes examination

Hypothesis	Hypothesis description	Examination result	Relation type	Coefficient
1	There is a significant relationship between the rate of outside directors in board of directors and cash risk of banks	confirmed	Inverse	0.97
2	There is a significant relationship between the average of shares outstanding for board of directors and cash risk of banks	Confirmed	Inverse	0.59
3	There is a significant relationship between presence of outside finance proficient in bank's board of directors and cash risk of banks	Failed	-	-
4	There is a significant relationship between the amount of stocks for main shareholder of bank and cash risk of banks	Confirmed	Direct	0.16
5	There is a significant relationship between being main or sub character of banks and cash risk of banks	Failed	-	-
6	There is a significant relationship between the amount of concentration of bank stocks (the amount of stocks for second main shareholder of corporate to the shareholder above than 1% or the structure of stocks distribution) and cash risk of banks	Confirmed	Inverse	0.84
7	There is a significant relationship between the bank's float stocks in bourse and cash risk of banks	Confirmed	Inverse	0.74

Regarding to the significant level, Chow test's results shows that null hypothesis (combined model) is failed (significant level is lower than 5%). In other words, there are individual or social effects and we should use of panel data method for estimating regression model of research which in following the Hasman test is used for determining the type of panel model (with random effects or fixed effects).

Hasman test tests the null hypothesis based on consistency of random effect estimations against to contrary hypothesis based on inconsistency of random effect estimations.

The results related to Hasman test are shown in table 6. The results represent that x^2 statistics of Hasman test for model is obtained equal to 281.021 which is in confidence level of 99% which is representative of confirming H_1, so, considering to Hasman test the regression model fitting of this research using panel data model will be appropriate in the method of fixed effects. The results of hypothesis test are shown in table 7.

After the regression test of hypothesizes and confident of their validity, the findings resulted from regression equation fitting are shown in table 8. The amount of statistics (F) is equal to 765.14 which is represented the significant level of total regression model. As determined in the bottom of table 8, determination coefficient and adjusted determination coefficient of the above mentioned model are 8.52% and 1.48%. So, we can find that in the mentioned regression equation, the extent of 1.48% of variable changes in the rate of in-examined volatile deposits is revealed by the mentioned independence variables. In table 8, positive (negative) figures in the column of coefficient amount is representative of direct (inverse) effect of any variables on the rate of volatile deposits of corporate.

Table 8: Findings resulted from regression equation fitting

Variable		**Variable coefficient**	**Coefficient amount**	**t-statistics**	**Significant level**
Fixed figure		B0	0.522	2.873	0.004
A	The percentage of outside directors	β_1	-0.968	-2.231	0.046
B	The average of shares outstanding for the board of directors' members	β_2	-0.593	-2.532	0.016
D	The percentage of stocks for main shareholder	β_3	0.156	3.111	0.028
G	The percentage of corporate's float stocks in bourse	β_4	-0.743	-2.921	0.017
Determination coefficient		0.528		F-statistics	765.14
Adjusted determination coefficient		0.481		Significant (P-Value)	000.0
			Durbin Watson Statistics		2.018

In order to examine the effect of any of these variables on dependence variable one statistical test has been done. In this equation, positive and negative figures among variables coefficients are representative for direct (inverse) effect of these variables on the rate of volatile deposits of corporate. Regarding to the represented information in previous section and also mentioned cases, obtained cross-sectional regression model related to the relation between corporate governance and cash risk in private banks of country is as follows:

$$Risk = 0/552 - 0/968A - 0/593B + 0/156D - 0/743G + \varepsilon$$

Where A is the percentage of outside directors, B is the average of shares outstanding for the board of directors' members, D is the percentage of stocks for main shareholder and G is the percentage of corporate float stocks in bourse and ε is error rate. Also, the results represent that all corporate governance variables on the rate of volatile deposits in confident level of 95% have a significant effect on cash risk of bank (significant level is lower than 0.05).

Conclusion

The results show that there is a significant relation between outside managers in board of directors and cash risk of banks. In definition the members of board of directors are the shareholders and except management relationship has not any other work relation with corporate and the relationship among outside members with corporate is never an employing relation. Outside directors are as one of important members of an inessential structure who, in natural way, regulate and discipline the corporate and also make favorable the interests of managers and shareholders from controlling perspective. In some banks with one main shareholder usually there are managerial shareholders with governing relationship to the main shareholder in corporate so that better controlling conditions are provided in corporate. In the field of banking in central bank, I.R.I makes some constraints for maximum governance of a group on the bourse of country private banks' stocks which avoid from concentration of bank governance. Also consideration on increasing cash risk for bank can be in confliction with shareholders' interests; hence the results are consistence with expectations and among country private banks the growth of outside members in board of directors lead to decrease in bank risk like cash risk. In rational examination of this issue we can say that as much as the control conditions intensify on bank operations and the short-term aims in bank replace with long-term duration, cash risk which threats the activities of bank in long term is decreased and the effort of bank is going toward drawing more long-term deposits.

However, there in not any certain evidence about the effectiveness of outside directors' role on corporate operations and in various conditions can be different, we can offer to the results of same researches which are the same of this research and say that regarding to one of tasks of outside directors (non-administrative) is supervision on other members of board of directors and without supervision role, it is possible that outside directors abused from their position via acquiring full control, relevant profitable designs in short-term and also creating special condition of salary and allowances and job security. So, the existence of outside directors beside inside members is emphasized. Other research results, also, show this issue partially. Among them we can suggest Chang and San (2008) which show that there is a negative significant relationship between optional accruals and board of directors' independence. Lowler *et al.*, (2002) provided some data which show that board of directors' independence is a main factor in increasing supervision role of board of directors. U (2006) shows that board of directors independence generally is seen as basic factor for protecting from shareholders' interests, because outside members that has not any relationship with corporate except their own place, can operate as better supervisions. In these researches, we can say that regarding difference of in-examined society and research space the results are obtained as the same researches.

These results are consistence with the researches which are done in the field of agency expenses and informational asymmetry. For example, Lafound and Wats (2008) show that informational asymmetry and agency expenses of inside members (like directors) and outside investors of corporate causes to conservatism. Considering to this issue that the directors and investors' interests are not in the same direction and increasing the interests of one group causes decreasing interests in another group, the theory of agency for decreasing this gap is suggested. In large corporates which are controlled directly by directors and indirectly by investors, directors are under pressure about short-term interests which this issue may be not profitable for other investors.

The results show that there is a significant relationship between the average of shares outstanding for board of directors and cash risk of banks. The most important task for board of directors' members is approving finance statements of corporate which confirms (rejects) the inside directors operations of corporate and hence, their trends about inside directors is most important. It is expected that based on agency theory as much as the average of shares outstanding for board of directors go up, regarding to decreasing in agency expenses, supervision on bank activities is increased and relevant risks is decreased. Obtained results can be consistence with the research of Aghaei and Challaki (2010) in private corporate of country which shows that if governing increases supervision, it may correlate with lower using of managers from optional accruals. Also this research is consistence with the research of Park and et al (2008) who say that institutional investors have both motivation and power for effecting on corporate policy by working for best interests of shareholders and because the institutional owners own large part of stocks, so, unlike to the shareholders, minority has actively a lot motivation for controlling and effecting on management in order to obtain long-term interest from their investing. Also Black *et al.*, (1994) reach approximately to the same results showing that when governing on corporate's stocks be concentrated among a few investors (especially institutional investors), the problems for the separation of governance and control are decreased. When the stocks which institutions are their owner are increased, existing from corporate has further expenses because major selling of stocks usually needs to major researches.

The results show that there is a significant relationship between the stocks of corporate main shareholder and cash risks of banks.

The main shareholder of bank is representative for the existence of major institutional governance in bank which can change the board of directors' behavior than other cases. This issue in Iran is partially controlled by the sever rules offered by central bank for ownership of institutional shareholders but in some banks especially half-private banks such status is governed form government. Obtained results in this section can be compared with the research of Bandsen and Volfenzon (2000) which think that small shareholders know better major shareholders as a sign of supervision environment. Their thoughts are consistence with the perspective that concentration of ownership is a supervising feature of corporate governance. This perspective, however, is not considered in this research, it is explanatory for the view of shareholders on the existence of major shareholder ownership for creating process stability in bank. Also, based on developed agency frame by Jensen and McLing (1976), it is expected that the existence of major shareholders lead to a lower opportunistic interest management. Uniz (2006) examines the issue that whether institutional investors have effect on manipulation behaviors of directors interest, and find that as much as the stocks are further in the hand of institutional shareholders, the interest of directors are lowered and hence it can be thought that its occurring, also, causes the bank activities to constraint for maximizing interest and growing cash risk in bank by endangering bank's cash.

The results show that there is a significant relationship between the amounts of concentration of bank's stocks (the amount of stocks for second main shareholder of corporate to the shareholder above than 1% or the structure of stocks distribution) and cash risks of banks. This issue typically shows the ownership frequency and also shows the quality of ownership of other shareholders except main shareholder. As much as the frequency is further and other people and corporate show their power in the field of bank decisions, it is expected to be evidence of different behavior from bank in the field of cash risk. Hence, in comparison with other researches we can suggest the research of Sue *et al.,* (2010) showing that ownership frequency decreases the motivation and ability of shareholders to supervise on managerial operation which this issue is unlike the above hypothesis results and moreover in this research it can be seen that the findings resulted from this hypothesis with 4th hypothesis of research is in confliction and ownership frequency has a different effect on cash risk that to centralized ownership. Also, Lee (2009) believes that the structure of centralized ownership can be considered as a method for creating a supervision mechanism that is consistence with above mentioned words. In examination of other researches, there are not cases against obtained results, so that, for example, Ramsi and Blayer (1993) result that increasing the ownership of major shareholders provides sufficient motivation for supervising on directors and also Nesbit (1994), Del Georsio and Howkinz (1999) and Hartzed and Stark (2003) find evidences that based on it the supervised corporate can constraint directors' behavior via institutional investors and institutional investors have opportunity, resources and supervision ability to regulate and to have effect on directors which this issue is decreased in ownership frequency. The results show that there is a significant relationship between the amounts of bank's float stocks in bourse and banks' cash risk. The results for examining this hypothesis show that as much as bank's float stocks go up, cash risk become lower; regarding to the conditions of country banks' ownership that the float stocks for majority of banks are lower than 20% which don's create a powerful role in corporate governance and only add the supervising sensitivity, its weaker effect than to other research variables is partially thoughtful. It is suggested that obstacle rules about the activity in securities bourse market are not operated for floating of corporate' stocks in the field of banking industry.

REFERENCES

Abbas Zade Amiri Reza (2010). The relationship between the structure of capital and effectiveness of governmental and private banks using data covering analysis technic. Higher Institute of Iran Banking Sciences.

Ahmed A and Duellman S (2007). Evidence on the role of accounting conservatism in corporate governance. *Journal of Accounting and Economics* 411-437.

Central Bank of IRI (2013). Available: www.cbi.ir.

Denis DK and McConnell JJ (2003). International corporate governance. *Journal of Financial and Quantitative Analysis* **36**.

French Eugene F Fama and Kenneth R (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics.*

García Lara J, García Osma B and Penalva F (2009). Accounting conservatism and corporate governance. *Review of Accounting Studies* 161-201.

Greuning Hennie Van (1999). Analyzing Banking Risk: A Framework ,…World Bank, Sonja Brajovic Bratanovic.

Hassas Yeganeh Yahya and Javad Salimi M (1991). A model for ranking corporate governance in Iran. *Accounting Studies* 1-36.

James R, Barth Gerard Caprio Jr and Ross Levine (2006). Reassessing the Rationale and Practice of Bank Regulation and Supervision around the Globe. *Seminar on Current Developments in Monetary and Financial Law, Washington D.C*.

Levine Ross (2002). Bank-based or market-based financial systems: which is better?. *National Bureau of Economic Research*, Massachusetts Avenue 1050.

Masoumnia Gholamali and Ahmad Baharvandi (2008). Juridical examination of covering the exchange assets risk contracts. *Scientific and Research Journal of Islamic Economic*.

Mehdizadeh Sajjad (2013). Estimating the contractional non-current receivables of banks on economic growth using feedback strategy. *The Conference of Exchange and Monetary Policies*.

Mirzaei Ali (2012). A method for facing with challenges expected for implementing Basel agreements in developing countries. Economic News.

Momeni Hassan Mormezi Mansour (2007). Raising the quality of finance affairs services by applying QFD and AHP. *Accounting and Auditing Examinations* 105-124.

Perotti E and Oijen P (1999). Privatization, Political Risk and Stock Market Development in Emerging Economies, University of Amsterdam and Tinbergen Institute, Amsterdam.

Shleifer A and Vishny RW (2012). A survey of corporate governance. *Journal of Finance* **737** 997.

Shleifer Andrei Robert W Vishny (No Date). A Survey of Corporate Governance. The American Finance.

Yang Jianping, Hong-Zhong, Huang Li-Ping, He Shun-Peng Zhu and Dunwei Wen (2011). Risk evaluation in failure mode and effects analysis of aircraft turbine rotor blades using Dempster–Shafer evidence theory under uncertainty. Engineering Failure Analysis.