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**THE RELATIONSHIP BETWEEN BOARD OF DIRECTORS AND CASH HOLDING – EMPIRICAL RESEARCH IN LISTED FIRMS ON VIETNAM STOCK EXCHANGE**

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**Abstract**

This research focuses on 202 listed firms on Vietnam Stock Exchange to find out the determinant of cash holding in 2010-2016 period in this country. The results show that CEO dual, firm size, state owner negatively influence to cash holding ratio, while the number of board of director, financial leverage positively impact to cash holding.

**Key Words:** Boar of director, Cash holding, Vietnam

**Introduction**

There are a number of researches related to conflicts between managers and shareholders which are come from the differential interests of control and ownership problems. The companies' cash holding is one of them (agency cost). Jensen (1986) believes that companies' managers tend to hold a huge amount of cash reserve to achieve their own purposes base on shareholders' expenses. They can use fund's sources inefficiency by purchasing or investing in low effective projects Jensen & Meckling (1976). Kim et al.(1998); Opler et al.(1999) suggests that internal sources are the most effectively and least costly fund compared to external sources of companies which are related to transaction cost and issues of asymmetric information. Ferreira & Vilela (2004) reports that in Europe, companies experience constrains in accessing external fund compared to US, therefore they support keeping a large amount of cash policy. On the other hand, in companies that could lend money from bank easily because of good credit history, they have lower level of financial difficulty. As a result, they show the fewer cash holdings (Pinkowitz & Williamson, 2001). In addition, Drobetz et al. (2010) finds out that in case of highly asymmetry information, companies tend to increase their cash holdings, particularly in firms with growth potential position.

Harford et al. (2008) argue that in companies which have cash-rich holdings, they show the unprofitable merger and acquisitions if they have ineffective governance board. Dittmar & Mahrt-Smith (2007) find that in nations which have poor minority shareholder protection have double levels of cash holdings compared to others from higher protection shareholders mechanism. Kalcheva & Lins (2007) reports that low level shareholder protection combined with less effective governance is often lead to higher cash holdings proportion. Moreover, Dittmar & Mahrt-Smith (2007) conclude that in companies have good governance quality could decrease the risk of ineffective manage in available cash, therefore, they could improve the contribution of surplus cash holding to company value.

## **2. Literature review**

### **Duality of chairman and CEO**

One of the most effective ways to measure the quality of company monitoring is the board of director structure (Brickley et al.,1997). Fama & Jensen (1983), Jensen (1986b) believe that combining the chairman and CEO could negatively affect to firms' performance. The reason is that CEO could acquire special information about the firm, therefore they might keep critical information which is directly related to management quality or companies' benefits. In addition, withholding information improve the discretionary power of CEOs, particularly in case of who are both CEO and chairman of company (Brockmann et al., 2004) Therefore, CEO duality tends to limit the scope of supervision to hide the activities which are arising from managerial opportunism (Lipton & Lorsch, 1992; Goyal & Park, 2002). Moreover, in companies have dual leadership structure, Kim et al. (2009) find out strong evidence that firm value is more likely destroyed by diversification plans. Regarding to disclosure issue, Gul & Leung (2004) report that there is lower level of voluntary disclosures in CEO duality firms; the reason is that in these companies, such leaders would prefer keeping confidential information for themselves. In the same vein, Boubaker et al. (2015) research the relationship between cash holding ratio and the board of directors in France, with data was collect from 2001 to 2007. The results show that, in companies which have CEO is also chairman would have higher level cash holding ratio. We are going to develop the first hypothesis:

*H1. In companies have CEO is also the chair of the board of directors have the higher level of cash holdings*

### **Independence of the board of directors**

Fama & Jensen (1983)conclude that independent directors getting their personal interests due to their own human capital, which are closely related to reputation themselves as a unique independent expert in the labor market. Thus, the independent external directors do not have any financial interests in the company other than the amount of money they get linked to their positions (Rosenstein & Wyatt, 1990; Adams et al., 2010) Furthermore, in the market of directors, independent directors are valued by their firms' performance in the past, as a result, this forces them to make the best efforts of management (Yermack, 2004). Similarly, Kim et al., (2007) argue that independent directors could improve the minority shareholders protection policy to strengthen their rights over the company. In companies having high risk of expropriating outside investors, controlling shareholders could prefer increasing independent directors in the boardroom (Anderson & Reeb, 2004). Therefore, to decrease the risk of expropriation, independent directors expect to keep lower level of cash holdings. Similarly, Boubaker et al. (2015) report that firms with higher independent directors would have lower cash holding level. Therefore, we assume the hypothesis 2.

*H2. The independent directors would decrease the level of cash holdings*

### **Size of the board of directors**

The more member of the board of directors the more knowledge and skills the companies achieved. However, board size also implies the potential agency cost and considerable loss of productivity (Steiner, 1972). The author believes that the problems arise from the difficulties in cooperating between individual opinions, and the time of making decision because of free rider

problem in a large group. Furthermore, Lipton & Lorsch (1992) document that in a small group of director. It is easier for them to release high-quality decision as well as monitoring strategies. Jensen (1993) reports that in companies with large member of directors, they tend to avoid criticize management decisions, therefore, CEOs have more chances to dominate the board of directors. Regarding to firm value, Eisenberg et al. (1998) conclude that large board of directors negatively influenced to firm value in Finland, and Mak & Kusnadi (2005) find the similar results in Singapore and Malaysia's firms. However, Boubaker et al. (2015) concludes that there is not significant relationship between cash holding and the board size. Hence, base on the literature above, we develop the hypothesis that:

*H3. The larger board of directors the higher cash holding levels*

### **The concentration on business of the board of directors**

In companies have multiple directorships outside might negative affect the quality of the board of directors, because they could not have enough time to perform their duties in both companies (Fich & Shivdasani, 2006; Pritchard et al. 2003). In addition, Jiraporn et al. (2009) document that if a director is involved more than one companies, he or she is likely to miss board of director's meeting than others. Ahn et al. (2010) show that in merger and acquisitions, firm value might destroyed by board busyness. In the same vein, Chen & Chen (2012) report that in firms which have lower multiple directorships the more efficiency in investment decisions as a signal of less influence agency cost.

*H4. The levels of cash holdings are higher in case of busyness of the board of directors*

### **3. Data and methodology**

#### *Sample and data sources*

We collect data from 351 listed firms in Ho Chi Minh City Stock Exchange (HOSE) in period of 2010-2016. We remove companies that do not have enough financial statement and governance data in that period. The final data consists of 1414 observations from 202 companies. The data is collected from financial statements, annual statements; share prices are extracted from stock exchanges website ([www.hsx.vn](http://www.hsx.vn)).

#### *Methodology and models*

We are going to follow the model of Boubaker et al. (2015) on the relationship between board of directors and cash holding in French's listed firms. The characteristics of board's directors tend to increase agency costs which are influenced to cash holding (in a positive way). This research also considers the state ownership (ST.OWN) as a control variable because in Vietnam, government prefers to get cash payout to solve budget deficit yearly. Therefore, to test our hypotheses, we estimate an OLS regression model to investigate the relationship between cash holding ratio and board of directors; the model is:

$$HL.CASH_{i,t} = \beta_0 + \beta_1 DL.CEO_{i,t} + \beta_2 IN.BRD_{i,t} + \beta_3 SIZ.BRD_{i,t} + \beta_4 FS.BRD_{i,t} + \beta_5 ST.OWN_{i,t} + \beta_6 FI.SIZE_{i,t} + \beta_7 LEV_{i,t} + \beta_8 DIV_{i,t} + \varepsilon_{i,t}$$

Where: *HL.CASH*: Cash holding ratio; *DL.CEO*: CEO duality; *IN.BRD*: Independence of the board of directors; *SIZ.BRD*: Size of the board of directors; *FS.BRD*: The concentration on

*business of the board of directors; ST.OWN: State ownership; FI.SIZE: Firm size; LEV: Financial leverage; DIV: Dividend payout ratio; i, t: firm i at time t.*

*Explanation of variables*

Variable name	Code	Measurement	Variable type	Predicted sign
Cash holding ratio	HL.CASH	Cash to net assets ratio	Dependent variable	
CEO duality	DL.CEO	Dummy variable. It equals 1 if the CEO is also chairman, and 0 otherwise	Independent variable	+
Independence of the board of directors	IN.BRD	The number of independent directors/ the total of director on the board		-
Size of the board of directors	SIZ.BRD	Natural logarithm of the number of directors on the board		+
The concentration on business of the board of directors	FS.BRD	The number of directors work for another firms/ the total of director on the board		+
State ownership	ST.OWN	Dummy variable. It equals 1 if the state holds the large number of firm's share; otherwise, 0	Control variables	-
Firm size	SIZE	Natural logarithm of total assets		+
Financial leverage	LEV	Total debt to total assets ratio		-
Dividend payout ratio	DIV	Total dividend to total assets ratio		+

#### 4. Empirical results and discussion

The Table 1 provides statistics for the sample companies under the research. It included the mean, median, standard deviation, kurtosis, skewness, minimum and maximum. The results show that, on average, the chair of the board of directors is also CEO takes nearly 32% of the sample. On average, the proportion of independent directors is 17.35%. Moreover, the average number of director board is between five and six, implying that in Vietnam listed companies, they tend to maintain small boards. The number of board members work outside is nearly 50% of the firms. In addition, state owner accounts for more than 60% the total firms of the sample. The

table 1 is also show that, the average firm size is 12, standard deviation is 0.57; leverage and dividend, on average, is 0.49 and 565.033 VND, respectively. Turning to our main variable in the analysis, cash holding ratio, has a mean of 39.3%, median of 6.1% and standard deviation of 38.8%.

**Table 1. Descriptive statistics**

	Mean	Median	Standard Deviation	Kurtosis	Skewness	Minimum	Maximum
HL.CASH	0.393	0.0610	0.388	3.715	1.733	0.000	83.815
DL.CEO	0.318	0.000	0.473	-0.963	0.877	0.000	2
IN.DIR	0.173	0.000	0.230	0.757	1.238	0.000	1
SIZ.DIR	5.840	5	1.364	1.532	1.386	3	11
FS.DIR	0.463	0.477	0.311	-1.077	-0.021	0.000	1
ST.OWN	0.613	1	0.487	-1.7832	-0.468	0.000	1
SIZE	12.149	12.074	0.573	2.285	1.048	11.082	15.002
LEV	0.496	0.508	0.215	-0.792	-0.020	0.006	0.971
DIV	565.033	358	812.281	21.823	3.719	0.000	8888.889

Table 2 presents the pairwise correlation coefficients between different variables. As can be seen from the table, the significant negative correlation between cash holding ratio and dual CEO is inconsistent with our hypothesis. The negative correlation between independent variable and independent directors is match with our hypothesis that the independent directors decrease the level of cash holdings ratio. However, the correlation shows the contrary results with our hypothesis, with firm size and dividend are negatively influence to cash holding ration; financial leverage is positively affect to cash holding.

**Table 2. Correlation result**

	HL.CASH	DL.CEO	IN.DIR	SIZ.DIR	FS.DIR	ST.OWN	SIZE	LEV	DIV
HL.CASH	1								
DL.CEO	-0.0528*	1							
IN.DIR	-0.0266	-0.0087	1						
SIZ.DIR	0.1083*	-0.0333	-0.0802	1					
FS.DIR	-0.0521	0.0295	0.1130*	0.0113	1				

ST.OWN	-0.0328	0.1155*	0.0372	0.0478	0.0451	1		
SIZE	-0.1124*	-0.0156	-0.1104*	0.2850*	0.0938*	0.1545*	1	
LEV	0.1385*	0.0548*	-0.0593*	-0.0391	-0.0575*	0.0566*	0.2926*	1
DIV	-0.014	-0.0217	0.0305	-0.1253*	-0.0681*	-0.0718*	-0.0959*	-0.0477 1

Note: \* indicates two-tailed statistical significant at 5% level

In the table 3, we conduct the regression analysis to examine the effectiveness of the board of directors to cash holding. For estimation methods, we follow Sabri et al. (2013) and using t-statistics for the pooled results. In this research, the dependent variable is corporate cash holdings ratio. The independent variables are governance variables; and control variables include firm size, financial leverage and dividend payout ratio.

**Table 3. Characteristics of the board of directors and firms' cash holdings**

DL.CASH	Coef.	Std. Err.	t	P>t	[95% Conf.Interval]	
DL.CEO	-0.6268693	0.2160484	-2.9	0.004	-1.05068	-0.20306
IN.DIR	-0.2856082	0.4387471	-0.65	0.515	-1.14628	0.575063
SIZ.DIR	3.363335	0.500253	6.72	0.000	2.38201	4.34466
FS.DIR	-0.1797541	0.325318	-0.55	0.581	-0.81792	0.458409
ST.OWN	-0.6805765	0.2124328	-3.2	0.001	-1.0973	-0.26386
SIZE	-0.6948837	0.0845298	-8.22	0.000	-0.8607	-0.52907
LEV	3.857451	0.4894399	7.88	0.000	2.897337	4.817564
DIV	0.0045868	1.241164	0.00	0.997	-2.43015	2.439325
_cons	12.83737	2.226176	5.77	0.000	8.470371	17.20436
Number of obs = 1,411						
Prob > F = 0.0000						
R-squared = 0.4862						

The results show that, dual CEO (DL.CEO), the number of directors (SIZ.DIR), state owner (ST.OWN), firm size (SIZE) and financial leverage (LEV) significant influence to cash holding ration (with p-value is smaller than 0.05). Firstly, cash holdings tend to be lower in firms with CEO is also the chairman board of directors. Therefore, this is not consistent with our

hypothesis 1 (reject  $H_1$ ). This means that, in companies have two functions which are hold by different people would have higher cash holdings.

Secondly, the size of board of directors positively influences on dependent variable, this means that in the companies have higher number of directors, this leads to higher cash holding. Thus, this is going to accept  $H_3$ . The regression result also shows the negative coefficient of independent directors, state owner, firm size and cash holding.

The estimation of the regression also includes the variable IN.DIR, FS. DIR and DIV. The results show that there are non-significant positively coefficient for those variables. Thus, independent director, the concentration on business of board of director and dividend payout ratio do not have any impact on the level of cash holding in listed firms on Vietnam stock exchange. Therefore, we are going to reject  $H_2$  and  $H_4$ .

## 5. Conclusion and suggestions

This research investigates the role of governance-related variables on cash holding in Vietnam's listed firms. The results show that in firms which have dual CEO have lower level cash holding ratio. This result is contrary with Sabri et al. (2013), Gul and Leung (2004) and Brockmann et al. (2004). They argue that in companies which have one person keep both CEO and chairman would negatively influence to companies' performance. In addition, they also want to keep confidential information for themselves. The reason is that they want to limit the monitoring mechanism to hide activities that may benefit for their own.

Additional analysis reveals that the number of board of director significantly affects to cash holding. This supports for the notion that in a large of member, it difficult to cooperate with other and it takes longer time to make the decision. This finding confirms our hypothesis which support the idea that size of board positive influence to cash holding.

This paper investigates only Vietnam publicly listed companies undeniably has is limitations. Hence, in future, this study could be further extended to examine the relationship between governance variables and the different level of cash holding in East Asian nations.

## References

- Adams, R. B., Hermalin, B. E., & Weisbach, M. S. (2010). The Role of Boards of Directors in Corporate Governance: A Conceptual Framework and Survey. *Journal of Economic Literature*, 48(1), 58–107. <https://doi.org/10.1257/jel.48.1.58>
- Ahn, S., Jiraporn, P., & Kim, Y. S. (2010). Multiple directorships and acquirer returns. *Journal of Banking & Finance*, 34(9), 2011–2026. <https://doi.org/10.1016/J.JBANKFIN.2010.01.009>
- Anderson, R. C., & Reeb, D. M. (2004). Board Composition: Balancing Family Influence in S &

- P 500 Firms. *Administrative Science Quarterly*, 49(2), 209. <https://doi.org/10.2307/4131472>
- Boubaker, S., Derouiche, I., & Nguyen, D. K. (2015). Does the board of directors affect cash holdings? A study of French listed firms. *Journal of Management and Governance*, 19(2), 341–370. <https://doi.org/10.1007/s10997-013-9261-x>
- Brickley, J. A., Coles, J. L., & Jarrell, G. (1997). Leadership structure: Separating the CEO and Chairman of the Board. *Journal of Corporate Finance*, 3(3), 189–220. [https://doi.org/10.1016/S0929-1199\(96\)00013-2](https://doi.org/10.1016/S0929-1199(96)00013-2)
- Chen, S. S., & Chen, I. J. (2012). Corporate governance and capital allocations of diversified firms. *Journal of Banking and Finance*, 36(2), 395–409. <https://doi.org/10.1016/j.jbankfin.2011.07.013>
- Dittmar, A., & Mahrt-Smith, J. (2007). Corporate governance and the value of cash holdings. *Journal of Financial Economics*, 83(3), 599–634. Retrieved from <https://ideas.repec.org/a/eee/jfinec/v83y2007i3p599-634.html>
- Drobtz, W., Grüninger, M. C., & Hirschvogel, S. (2010). Information asymmetry and the value of cash. *Journal of Banking and Finance*, 34(9), 2168–2184. <https://doi.org/10.1016/j.jbankfin.2010.02.002>
- Eisenberg, T., Sundgren, S., & Wells, M. (1998). Larger Board Size and Decreasing Firm Value in Small Firms. *Cornell Law Faculty Publications*. Retrieved from <https://scholarship.law.cornell.edu/facpub/393>
- Erich N Brockmann, James J Hoffman, David D Dawley, & Charles J Fornaciari. (2004). The Impact of CEO Duality and Prestige on a Bankrupt Organization. *Journal of Managerial Issues*, 16(2), 178. <https://doi.org/10.2307/40604453>
- Fama, E. F., & Jensen, M. C. (1983). Separation of Ownership and Control Separation of Ownership and Control. *Journal of Law and Economics*, 26(2), 301–325. <https://doi.org/10.1086/467037>
- Ferreira, M. A., & Vilela, A. S. (2004). Why do firms hold cash? Evidence from EMU countries. *European Financial Management*, 10(2), 295–319. <https://doi.org/10.1111/j.1354-7798.2004.00251.x>
- Fich, E. M., & Shivdasani, A. (2006). Are busy boards effective monitors? *The Journal of Finance*, 61(2), 689–724.
- Goyal, V. K., & Park, C. W. (2002). Board leadership structure and CEO turnover. *Journal of Corporate Finance*, 8(1), 49–66. [https://doi.org/10.1016/S0929-1199\(01\)00028-1](https://doi.org/10.1016/S0929-1199(01)00028-1)
- Gul, F. A., & Leung, S. (2004). Board leadership, outside directors' expertise and voluntary corporate disclosures. *Journal of Accounting and Public Policy*, 23, 351–379. <https://doi.org/10.1016/j.jaccpubpol.2004.07.001>
- Harford, J., Mansi, S. A., & Maxwell, W. F. (2008). Corporate governance and firm cash holdings in the US. *Journal of Financial Economics*, 87(3), 535–555. <https://doi.org/10.1016/J.JFINECO.2007.04.002>

- Jensen, M. C. (1986a). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76(2), 323–329. <https://doi.org/10.2307/1818789>
- Jensen, M. C. (1986b). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76(2), 323–329. <https://doi.org/10.2307/1818789>
- Jensen, M. C. (1993). the Modern Industrial Revolution , Exit , and the Failure of Internal Control Systems the Failure of Internal Control Systems. *Journal of Finance*, 48(3), 831–880. <https://doi.org/10.1111/j.1540-6261.1993.tb04022.x>
- Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Jiraporn, P., Davidson, W. N., DaDalt, P., & Ning, Y. (2009). Too busy to show up? An analysis of directors' absences. *Quarterly Review of Economics and Finance*, 49(3), 1159–1171. <https://doi.org/10.1016/j.qref.2008.08.003>
- Kalcheva, I., & Lins, K. V. (2007). International Evidence on Cash Holdings and Expected Managerial Agency Problems. *Review of Financial Studies*, 20(4), 1087–1112. <https://doi.org/10.1093/rfs/hhm023>
- Kim, C.-S., Mauer, D. C., & Sherman, A. E. (1998). The Determinants of Corporate Liquidity: Theory and Evidence. *The Journal of Financial and Quantitative Analysis*. <https://doi.org/10.2307/2331099>
- Kim, K. A., Kitsabunnarat-Chatjuthamard, P., & Nofsinger, J. R. (2007). Large shareholders, board independence, and minority shareholder rights: Evidence from Europe. *Journal of Corporate Finance*, 13(5), 859–880. <https://doi.org/10.1016/j.jcorpfin.2007.09.001>
- Kim, K. H., Al-Shammari, H. A., Kim, B., & Lee, S. H. (2009). CEO duality leadership and corporate diversification behavior. *Journal of Business Research*, 62(11), 1173–1180. <https://doi.org/10.1016/j.jbusres.2008.10.017>
- Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *The Business Lawyer*, 48(1), 59–77. <https://doi.org/10.1007/BF02603097>
- Mak, Y. T., & Kusnadi, Y. (2005). Size really matters: Further evidence on the negative relationship between board size and firm value. *Pacific-Basin Finance Journal*, 13(3), 301–318. <https://doi.org/10.1016/J.PACFIN.2004.09.002>
- Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of Financial Economics*. [https://doi.org/10.1016/S0304-405X\(99\)00003-3](https://doi.org/10.1016/S0304-405X(99)00003-3)
- Pinkowitz, L., & Williamson, R. (2001). Bank power and cash holdings: Evidence from Japan. *Review of Financial Studies*, 14(4), 1059–1082. <https://doi.org/10.1093/rfs/14.4.1059>
- Pritchard, A. C., Ferris, S. P., & Jagannathan, M. (2003). Too Busy to Mind the Business? Monitoring by Directors with Multiple Board Appointments. *J. Finance*, 58(3), 1087–1111. Retrieved from <http://repository.law.umich.edu/articles>

Rosenstein, S., & Wyatt, J. G. (1990). Outside directors, board independence, and shareholder wealth. *Journal of Financial Economics*, 26(2), 175–191. [https://doi.org/10.1016/0304-405X\(90\)90002-H](https://doi.org/10.1016/0304-405X(90)90002-H)

Steiner, I. D. (1972). *Group process and productivity*. New York.

Yermack, D. (2004). Remuneration, retention, and reputation incentives for outside directors. *Journal of Finance*, 59(5), 2281–2308. <https://doi.org/10.1111/j.1540-6261.2004.00699.x>