The Effect of Institutional Ownership on Corporate Governance Quality in Financial Institutions

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Abstract

Institutional ownership is a significant characteristic of CG for financial institutions, because institutional investors are the main players in financial markets. In this study, we use a two-steps system Generlazied Methods of Moments with an unbalanced sample of US financial institutions for the period from 2013 to 2018 to study the effect of institutional ownership on governance score and sub-scores developed by Institutional Shareholder Services. The findings show that there is a high negative impact on the main score, shareholder's rights and compensation structure. This implies that institutional owners exercise their power as controlling and more informed shareholders to benefit at the expense of minority shareholders which eventually affects the governance score. The results are supported by two robustness tests.

On the other hand, the results show that while institutional ownership percentage has a negative effect on CG, the change of ownership has a positive effect on the governance score. To investigate this matter, the study includes both graphs and additional analysis in which the governance score is divided into high and low scores. The findings show that institutional ownership has a U-shaped effect on governance scores, where it has a negative effect on institutions with low scores, but a positive effect on institutions with high scores. This implies that institutions with high quality of governance have strong shareholders rights and are able to reduce the agency costs caused by controlling shareholders, hence resulting in a higher governance score.

Keywords: Corporate governance, Institutional ownership, Generalized methods of moments.

1. Introduction

The green report of the European commission showed that financial institutions that failed during the crisis were mainly owned by institutional shareholders (European Commission, 2010). One of the very important aspects of corporate governance is the institutional ownership. Studies show that the presence of institutional investors is beneficial to the quality of corporate governance. This benefit stems from their monitoring power and aim to increase firm value. Their monitoring power also helps in mitigating agency problems (Choi, Choi, Chung, & An, 2020; Hartzell & Starks, 2003; Huddart, 1993). However, these studies were conducted on non-financial firms.

We use a two-steps system Generlazied Methods of Moments (GMM) with an unbalanced sample of US financial institutions for the period from 2013 to 2018 to study the effect of the percentage change of institutional ownerhsip on ISS governance score and sub-scores. This method addresses several issues including hetrogeneity and endogeneity. It also eliminates the impact of time-invariant variables by instrumenting the lagged values of the depedent variable.

The results show that institutional ownership has a significant and negative effect on the main score of corporate governance, shareholders rights and compensation structure. This implies that instituions use their power as large and controlling shareholders to benefit on the expense of minority shareholders, which eventually leads to reducing the quality of corporate governance. These findings are confirmed using two robustness checks.

The remainder of the paper is organized as follows. Section 2 reviews related literature, Section 3 represents the data and variables, Section 4 discusses the empirical methodology and Section 5 represents the robustness test, Section 6 concludes.

2. Literature Review

Institutional ownership is a key component of CG. However, many important issues related to the institutional environment remain unexplored despite their importance (Kumar & Zattoni, 2018). The main importance of studying CG and the institutional environment stems from their contribution in alleviating the agency problems associated with listed firms (Aslan & Kumar, 2014; Kumar & Zattoni, 2018; Schiehll, Ahmadjian, & Filatotchev, 2014). Also, the number of institutional shareholding in the recent decades has grown rapidly due to financial globalization, which further highlights the importance of studying institutional ownership (Hartzell & Starks, 2003; Sakawa & Watanabel, 2020).

The most important role of institutional investors is their monitoring role that helps in reducing the agency problem. Choi, Choi, Chung, and An (2020) examined the relationships between institutional ownership and the capital structure. They found that the level of debt decreased when the level of institutional ownership increased. This result implies that institutional investors help to reduce agency costs by substituting for the external debt monitoring role. Also, The monitoring power of institutional investors enables them to play increasingly important roles in corporate management (Choi et al., 2020). Their monitoring power stems from their motivation to monitor corporate management because they benefit from monitoring by increasing firm value. The institutional shareholders are exercising monitoring power with the aim to increase firm value (Huddart, 1993). Hartzell and Starks (2003) show that the institutional investor serve as a monitoring role in mitigating the agency problem.

In addition, Sakawa and Watanabel (2020) found that the monitoring role of institutional shareholders functions effectively in Japanese corporations. They also show that institutional shareholders play an important role in enhancing firm performance and CG mechanisms. Also, McCahery et al. (2016) found that investor horizon is an important aspect, where long-term investors intervene more intensively than short-term investors. This implies that the long-term orientation of institutional investors provides them stronger incentives to monitor.

Guo and Platikanov (2019) found that institutional ownership has a positive association with firm performance in China. They also found that this association enhanced after 2005, when the legal and institutional foundation of the capital markets in China has strengthened. They believe that this significant change suggests that the external legal and corporate governance environment is important to enhance the monitoring role of institutional investors.

2.1. Institutional Ownership and CG

Researchers found that a small number of institutional investors can play a significant role in the quality of CG (Bushee, Carter, & Gerakos, 2014; Gillan & Starks, 2003). Aggarwal, Erel, Ferreira, and Matos (2011) found that institutional ownership leads to strong CG and firms with higher institutional ownership are more likely to terminate poorly performing Chief Executive Officers (CEOs). They also show that institutional investors encourage good CG in their international portfolio.

However, Bushee et al. (2014) found that institutional investors prefer an alternative approach which is to invest in firms with existing good governance mechanisms. Similarly, Chung and Zhang (2011) found that shares held by institutions increases with the quality of governance. In addition, surveys by McCahery et al. (2016) and McKinsey and Company (2000) showed that institutional investors perceive CG as important as the financial indicators in evaluating investment decisions.

The institutional investors investing in firm with good CG for at least three reasons: first, reducing monitoring costs (Bushee & Noe, 2000; Chung & Zhang, 2011). Second, decrease the risk of undiversified investments (Bushee et al., 2014). Third, better transparency of disclosure (McCahery et al., 2016).

Researchers believe that there are two ways in which institutional investors can exercise their monitoring role and affect CG. The first is direct intervention which has the benefit of correcting managerial actions. Large shareholders (including institutional investors) have more incentive to be involved in direct monitoring activities (McCahery et al., 2016). Ssecond, they can express their dissatisfaction with managerial behaviour by exercising the exit threat and sell their shares (Gillan & Starks, 2003; McCahery et al., 2016). This gives institutions the benefit of disciplining the management. Therefore, the institutional investors are believed to be able to improve CG practices and maintain the interests of shareholders in firms with low CG quality.

In addition, institutional shareholders (as large shareholders) might exercise their power on the expense of minority shareholders. The early literature on ownership concentration and CG focused on controlling shareholder and minority shareholders (Shleifer & Vishny, 1986). The classic principal–agent conflicts rise from the separation of management and owners (Fama & Jensen, 1983; Jensen & Meckling, 1976; Shleifer & Vishny, 1997). However, controlling shareholders may benefit on the expense of minority shareholders via tunnelling

activities. Also, institutional shareholders being well-informed investors might take advantage from less informed investors. This results in a different type of agency conflict which is principal−principal agency conflicts. Ducassy and Guyot (2017) find that the usual principal-agency theory is debateable when the legal framework offers little protection of minority shareholders, and when ownership structure is complex and heterogeneous in nature.

Previous studies that focused on the effect of large and controlling shareholders on tunnelling activities and leverage decisions include Buchuk, Larrain, Muñoz, and Urzúa (2014), Liu and Tian (2012) and Qian and Yeung (2015). These studies found that firms with concentrated ownership give excess control rights to controlling shareholders, who in turn use high leverage to gain their own benefits from resources and facilitate tunnelling. On the other hand, Zhang, Yang, Strange, & Zhang (2017) investigate how the trading activities of foreign institutional investors affect the tunnelling activities of controlling shareholders. They find an inverted U-shaped relationship between foreign institutional investors and tunnelling. Although large trading by institutional investors provides market discipline to management which limits tunnelling, but they may use their private knowledge to gain trading profit at the expense of uninformed investors and indirectly support tunnelling, which is the cause of the U-shape relationship. On the other hand, Solarino and Boyd (2020) find that institutional investors can mitigate the tunnelling activities in concentrated ownership.

On the other hand, Barroso Casado, Burkert, Dávila, & Oyon (2016) examine the effect of the presence of more than one large shareholder. They find that having several large shareholders result in higher shareholder protection. Also, Lagasio (2018) study the corporate governance of banks and find that controlling shareholder enhance the performance of banks.

3. Data and Sample

3.1. Sample

The data covers the period from 2013 to 2018. It includes publicly listed financial institutions in US markets. The data was collected from Bloomberg. The selection of financial institutions is based on the Global Industry Classification System (GICS), which includes banks, insurance, and diversified financial companies.

3.2. Corporate Governance Quality Score

Governance Scores created by the Institutional Shareholding Services (ISS) and the four sub-scores (Board, Audit, Shareholders and Compensation). The main governance score is assigned by ISS to the institution’s governance practices and it ranges from 1 to 10. The main sub-score is divided into four sub-scores which are: Board that represents the structure of the board of director, Audit that represents the audit process, Shareholders that represents the shareholder rights at the institution, and Compensation that represent the compensation practices.

3.3. Institutional Ownership

To represent the ownership of institutions, we use a different measurement that that usuall ownership percentage used in other studies. We use a dummy variable that classifies the ownerhsip into four values: 1 if ownership percentgae is lower than 20%, 2 if the percentage is between 20% and 50%, 3 if the percentage is between 50% to 75% and 4 if the percentage is

higher than 75%. We have drown the 20% threshold from the percentage to be considered an associate, and the 75% thereshold from the percentage that provides extraordinary resolution vote. This measurement will highlight the ownership level and thus will provide and enlaged and clearer image of the effect of CG on institutional ownership.

We also add other variables to represent institutional ownership which are the percentage change of ownership in comparison to the last period, and the ppercentage ratio of float shares held by institutions to the number of float shares outstanding.

In addition, we construct a variable to capture the controlling power of institutional ownership, which considered a shareholder as controlling when the ownership exceeds 20%. However, the description statistics showed that 97% of institutional shareholders were controlling shareholders, and thus it was eliminated from the analysis.

3.4. Control variables

We use various control variables drawn from literature of institutional ownership. The most commonly used control variable is the firm size and leverage to capture firm characteristics. There are also other control variables that are relevant and common to institutional ownership, which are sales growth, return on assets (ROA), firm age, market to book ratio and board size. In our study, we use leverage, sales growth, and market to book ratio which are the most suitable according to the descriptive statistics and Pearson correlation. Also, the other control variables (firm size, ROA, firm age, and board size) were excluded from the analysis because they decreased the model fitness.

In addition, we include year and industry fixed effects in the regressions. We have run the Hausman test and the results show that random effects do not apply to the data. The industry fixed effects ware included to account for potential endogeneity.

3.5. Descriptive Statistics

The descriptive statistics of the variables used in the analysis are provided in table 1. The table shows that all ISS scores (ranging from 1 to 10) have a mean average of around 5, except for the ISS score of audit practices, which suggests that US financial institutions suffer from relatively low scores of audit practice.

On average, the institutional ownership measured as dummy variable (ranging from 1 to 4) is 3.25. This implies that most financial institutions own more than 50%, which confirms the proposition that they are mostly large and controlling shareholders. With respect to other variables, the percentage change of institutional ownership averages 4% increase each year, and percentage of float shares held by institutions averages 75% to total float shares.

Table 1: Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation	Skewness	
						Statistic	Std. Error
ISSGove	2103	1	10	5.42	2.703	.040	.053
ISSShareholder	2103	1	10	5.37	2.880	.078	.053
ISSBoard	2103	1	10	5.83	2.803	-.199	.053

ISSAudit	2103	1	10	2.09	2.370	2.723	.053
ISSCompensation	2103	1	10	5.25	2.912	.064	.053
InstiutionalOwnership	2103	1	4	3.25	.854	-.777	.053
FloatShares	2103	1.20	100	75.15	23.70100	-.523	.053
IncreaseDecrease	2103	1	2	1.36	.479	.599	.053
ownershipchange	2103	-18.56	172.55	4.1700	16.17458	7.448	.053
Leverage	2103	.00	94.31	18.9230	22.16868	1.764	.053
MtoB	2103	-3.35	21.17	1.8272	2.10156	5.058	.053
SalesGrowth	2103	-99.20	347.89	11.9592	34.09267	6.118	.053
Valid N (listwise)	2101						

4. Methodology and Results

We use two-steps system Generlazied Methods of Moments (GMM) to study the effect of the percentage change of institutional ownerhsip on ISS governance score and sub-scores. Studies that used GMM to study institutional ownership include (Choi et al., 2020; Pucheta-Martínez & Chiva-Ortells, 2019).

The GMM is a dynamic panel approach which introduces temporal dependecy by lagging the dependent variable. The advatnages that this estimator holds advantages over other methods is that is addresses several issues including: hetrogeneity by haveing two equations that each one adopts instrumental variables to remove the correlation between explanatory variables and residuals, endogeneity by drawing instrumental variables from the data itself, and eliminates the impact of time-invariant variables by instrumenting the lagged values of the depedent variable (Akbar, Kharabsheh, Poletti-Hughes, & Shah, 2017; Altunbas, Binici, & Gambacorta, 2018; Pucheta-Martínez & Chiva-Ortells, 2019; Saeed, Mukarram, & Belghitar, 2019; Zona, Gomez-Mejia, & Withers, 2015).

Because our sample is unbalanced, we apply system GMM instead of difference GMM, where difference GMM subtracts the previous observation from the contemporaneous one thereby magnifies gaps in an unbalanced panel. Difference GMM was developed by Arellano and Bond (1991) and later improved by Arellano and Bover (1995) and Blundell and Bond (1998) by developing the system GMM. System GMM uses othogonal deviations, instead of subtracting observations from the contemporaneous one, it subtracts the average of all future available observations of a variable, no matter how many gaps in is computable for all observations except the last for each individual, so it minimizes data loss.

The diagnostic tests imployed to study the success of the GMM estimator in producing unbiased, consistent and efficient results inlcude: The Wald 2 test which shows the model fitness, the Arellano-Bond test AR (2) which shows whether a second-order serial correlation exists, and the Hansen test of overidentifying restrictions which examines the appropriateness of the employed instumental variable.

The following model is estimated using two-steps system GMM:

$$ISSGove_{i,t} = \beta_0 + \beta_1 InstitutionalOwnership_{i,t} + \beta_2 OwnershipChange_{i,t} + \beta_3 FloatShares_{i,t} + \beta_4 Leverage_{i,t} + \beta_5 SalesGrowth_{i,t} + \beta_6 MtoB_{i,t} + \gamma_t + \delta_i + \epsilon_{i,t} \quad (1)$$

Where $ISSGove_{i,t}$ is either the main governance score developed by ISS or one of the four sub-scores (Board structure, shareholder rights, audit practices and compensation strcuture). $InstitutionalOwnership_{i,t}$ is the institutional ownership dummy variable that takes the values of 1, 2, 3 or 4, $ControllingInstitutes_{i,t}$ is a dummy variables that indicates whether the institutional shareholders are contolling shareholders, $FloatShares$ is the percentage of float shares helb by institutions, and $Increase/decrease_{i,t}$ is adummy variable that shows whether ownership has increased or decreased compared to last year. $Size_{i,t}$, $Leverage_{i,t}$, $SalesGrowth_{i,t}$, $ROA_{i,t}$, $Age_{i,t}$, $MtoB_{i,t}$ and $BoardSize_{i,t}$ are the control variables. γ_t is the year fixed effect, δ_i is the industry fixed effect, and $\epsilon_{i,t}$ is the error term. The industry and year fixed effects address endogeneity.

Table 2 reports the estimation results for the system GMM that studies the effect of institutional ownership on the main ISS score and four sub scores. We perform three tests to check the validity and reliability of the GMM models. The Wald test statistics for all models are significant (P-value less than 0.001 level), which provides evidence that all explanatory variables included in the models are significant. The AR (2) tests of autocorrelation assess validity of the lagged instruments. The results show that the AR (2) statistics are not significant in any model, which shows that there is no second-order serial correlation. Furthermore, the insignificant results of Hansen test of over-identification indicate that the instruments we used in the analysis are valid. Overall, these tests support the validity and reliability of the instruments in our models, and confirm the model fitness.

The results show that the level of institutional ownership is negatively and significantly related to the main ISS score that represents the quality of corporate governance. This implies that institutional investors of financial institutions do not play their monitoring role effectively. This finding is not in line with the literature which proposes that institutional investors' monitoring power help in reducing agency costs (Choi et al., 2020; Hartzell & Starks, 2003; Huddart, 1993). However, it is worth mentioning that these studies were conducted on non-financial firms. On the other hand, our evidence supports the studies conducted on financial institutions which show that these institutions with more institutional ownership suffered the most during the crisis (Erkens, Hung, & Matos, 2012b; European Commission, 2010). This might be justified by the institutional shareholders behaviour in pressurising management to deliver short-run performance (Andreou, Antoniou, Horton, & Louca, 2016; Erkens et al., 2012a).

When categorizing the governance score into four sub-scores that represent shareholders rights, board structure, audit practices and compensation structure, it becomes obvious that the significant negative coefficient of the main score is due primarily to the significantly negative effect (-5.29 significant at 5%) that institutional investors have on shareholders rights. This might be a result of the institutions exercising their power as large shareholders on the expense of minority shareholders by performing tunnelling activities. Also, institutions are well informed investors of financial institutions and can take advantage of the less well-informed investors. The coefficients of the institutional ownership on the board and audit scores are not significant, and the compensation score is only 10% significant.

Table 2: GMM Institutional ownership and ISS governance scores

Dependent Variable: Institutional Ownership					
	Main Score	Shareholders Score	Board Score	Audit Score	Compensation Score
Ownership	-2.809***	-2.389**	-0.680	-1.573	-1.483*
	(7.050)	(3.128)	(6.238)	(10.120)	(6.183)
Ownership Change	0.543***	0.288**	0.196	0.095	0.316**
	(0.204)	(0.161)	(0.162)	(0.210)	(0.161)
Float Shares	0.519*	0.032	0.006	-0.229	0.334**
	(0.317)	(0.099)	(0.283)	(0.330)	(0.176)
Leverage	-0.017	0.084	-0.056	0.003	0.023
	(0.146)	(0.068)	(0.175)	(0.269)	(0.172)
Sales Growth	0.055	0.014	0.059	0.039	0.020
	(0.164)	(0.059)	(0.073)	(0.064)	(0.070)
M-to-B	0.984	2.066	-1.472	0.202	1.547
	(2.194)	(1.682)	(1.00)	(1.453)	(1.919)
Wald Test (P-value)	245.24	357.01	505.59	32.06	226.29
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AR (2) Test (P-value)	0.144	0.270	0.584	0.278	0.206
Hansen Test (P-value)	0.886	0.138	0.102	0.121	0.512
Number of Instruments	15	15	15	15	15
Observations	2103	2103	2103	2103	2103

This table represents the results of the System GMM that studies the effect of the institutional ownership on the ISS governance main score and four sub-scores. Definitions and sources of all variables are detailed in Appendix A. Year and industry fixed effects are included in all regressions. t-statistics based on robust standard errors are provided in parentheses. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

The positive and significant coefficient of the effect of ownership change on the main governance, shareholders rights and compensation score indicate that the increase in institutional ownership leads to improve the quality of corporate governance. Also, the results show that the ratio of float shares held by institutional investors to the total outstanding float shares have a positive effect of the governance score. These results contradict the previous finding. This contradiction implies that while a very high institutional ownership is bad for the quality of corporate governance, a slight increase in the ownership is beneficial. This finding is line with Zhang, Yang, Strange, & Zhang (2017) who found that, although large trading by institutional investors provides market discipline to management, they may use their private knowledge to gain trading profit at the expense of uninformed investors, which caused a U-shape relationship between institutional investors and tunnelling.

5. Robustness Test

In this section we perform two test to check the robustness of our results. In the first test, we use the same methodology and same variables but with alternative measurements of institutional ownership. We replace the dummy variable that represent institutional ownership in the main analysis with the ownership percentage. We also replace the percentage change of ownership used in the main analysis with a binary variable that shows an increase or decrease in the ownership. The significant Wald test statistics across all models confirm the model fitness, the Hansen test and AR (2) test confirm the validity of the instrumental variables used and the nonexistence of second-order serial correlation.

The results in table 3 support the findings of the main analysis, where a high institutional ownership has a negative effect on the governance score, but the increase in the ownership has a positive effect. However, the size of the effect differs in the robustness check. The institutional ownership coefficient is (-2.81) in the main analysis and (-0.03) in the robustness test. This is due to the different measurements of the variables used in these models, where the institutional ownership effect in the main analysis was zoomed by using a dummy variable that divides the percentages into four groups, instead of the constant variable used in the robustness check.

Also, the results of the effect on the institutional ownership on the four sub-scores showed that the negative effect on the main score was driven by the negative effect on shareholders rights. However, this analysis shows that the institutional ownership has a significantly negative effect not only on shareholders rights, but on the board and audit scores as well. In addition, the control variables in the main analysis were insignificant across all the models, but shows slight significance in some of the models in this robustness test.

Table 3: GMM Institutional ownership alternative measures

Dependent Variable: Institutional Ownership					
	Main Score	Shareholders Score	Board Score	Audit Score	Compensation Score
Ownership Percentage	-0.031*** (0.010)	-0.016** (0.006)	-0.018** (0.007)	-0.033** (0.014)	0.005 (0.009)
Increase/Decrease	0.179** (0.094)	-0.013 (0.068)	0.181* (0.108)	0.031 (0.095)	0.013 (0.127)
Leverage	0.033*** (0.0125)	0.014 (0.010)	-0.025 (0.019)	-0.066*** (0.021)	0.057*** (0.015)
Sales Growth	-0.001* (0.001)	-0.000 (0.001)	0.002* (0.001)	-0.002 (0.002)	-0.002* (0.001)
M-to-B	-0.177* (0.095)	-0.120** (0.050)	-0.344** (0.127)	-0.144 (0.128)	-0.117* (0.073)
Wald Test (P-value)	30.06 (0.000)	17.34 (0.008)	27.22 (0.000)	26.41 (0.000)	22.00 (0.001)
AR (2) Test (P-value)	0.721	0.202	0.548	0.350	0.275
Hansen Test (P-value)	0.122	0.115	0.323	0.726	0.593
No. of instruments	20	20	20	20	20

Observations	1,661	1,661	1,661	1,661	1,661

This table represents the results of the System GMM that studies the effect of alternative measurements for institutional ownership on the ISS governance main score and four sub-scores. Definitions and sources of all variables are detailed in Appendix A. Year and industry fixed effects are included in all regressions. t-statistics based on robust standard errors are provided in parentheses. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

In the second robustness test, we perform an ordinary least square regression instead of a system GMM. We use the same variables and measurements used in the main analysis but lag the independent and control variables with one year. We performed the same analysis with two and three years lagging which resulted in the same findings.

This robustness check is aimed to account for any lagged effect that institutional shareholders might have on corporate governance. The R squared values are relatively low in all models, this might be due to the omitted variable issue that was accounted for in the system GMM.

The results of the linear regression in table 4 are mainly in line with the main analysis but with few differences. The main finding that institutional ownership has a significant and negative effect on the main score, while the ownership change has a positive effect stands the same in this analysis as well. This finding further confirms that a high institutional ownership is not beneficial for financial institutions, but a slight increase in the ownership in not harmful.

However, the linear regression models show that institutional ownership has a negative and significant impact on board score instead of shareholders' score. Another difference is that the float shares variable has no significant impact on the main governance score.

Table 4: Linear regression (1 year lag)

	Dependent Variable: Institutional Ownership				
	Main Score	Shareholders Score	Board Score	Audit Score	Compensation Score
Ownership	-0.669***	-0.038	-0.912***	0.053	-0.607***
	(0.117)	(0.124)	(0.115)	(0.115)	(0.132)
Ownership Change	0.012***	0.003	0.018***	0.007	0.007*
	(0.003)	(0.004)	(0.003)	(0.005)	(0.004)
Float Shares	-0.001	-0.017***	-0.008**	0.002	0.015***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Leverage	-0.007**	-0.008**	-0.014***	0.005	0.001
	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)
Sales Growth	0.000	-0.001	-0.001	0.003	0.003
	(0.001)	(0.001)	(0.002)	(0.003)	(0.002)
M-to-B	-0.084**	-0.081**	-0.069**	-0.075**	-0.009
	(0.031)	(0.034)	(0.029)	(0.032)	(0.033)
R Squared	0.085	0.050	0.160	0.044	0.031
Observations	1756	1756	1756	1756	1756

This table represents the results of the linear regression that studies the effect of the institutional ownership on the ISS governance main score and four sub-scores. All

independent variables are lagged for one year. Definitions and sources of all variables are detailed in Appendix A. Year and industry fixed effects are included in all regressions. t-statistics based on robust standard errors are provided in parentheses. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

6. Conclusion

This study was conducted with the premise that institutional shareholders increase the quality of corporate governance by performing their monitoring role to reduce agency cost. However, we provide evidence that this proposition mainly applies to non-financial firms and may not be applicable to financial institutions. The results show that while a slight increase of institutional ownership is not harmful, an excessive ownership leads to reducing the quality of corporate governance of financial institutions.

Using system GMM to study the effect of institutional ownership on corporate governance score and its four sub-scores developed by ISS, we find that there is a high negative impact on the main scores. The subsiding models show that the negative impact is driven by the negative effect of institutional ownership on the scores of the shareholder's rights and compensation structure. This implies that institutional owners exercise their power as controlling and more infirmed shareholders to benefit on the expense of minority shareholders which eventually effects the governance score. The results are supported by two robustness test which are alternative measurements of independent variables and a linear regression with lagged independent variables.

The presence of institutional investors may enhance corporate governance quality especially for non-financial firms, but a very high ownership may worsen the quality of governance and increase agency issues for financial institutions, especially ones with less developed governance framework. Thus, regulators should be alert to potential adverse effects of institutional ownership on different sectors.

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Appendix A: List of Variables

Variable	Definition	Database
Institutional Ownership		
Institutional ownership dummy	Institutional Ownership Dummy variable: Takes the value of 1 if ownership percentgae is lower than 20%, takes the value of 2 if the percentage is between 20% and 50%, takes the value of 3 if the percentage is between 50% to 75% and takes the value of 4 if the percentage is higher than 75%.	Author's calculations
Controlling ownership	Takes the value of 1 if the institutional investors are the controlling shareholders in the firm and 0 othersise. A shareholder is considered controlling when the ownership exceeds 20%.	Author's calculations
Institutional ownership % Increase or decrease	A dummy variable that takes the value of 1 if the ownership has increased compared to last year, and takes the value of 0 if the percentage has decreased.	Author's calculations
Institutional ownership % change	Percentage change of shares held by institutional owners from the previous filing to the current filing.	Bloomberg
Floats shares held by institutions	Percentage ratio of freely traded shares held by institutions to the number of Float Shares Outstanding.	Bloomberg
New institutional buyers	Number of open market institutional buyers of a security that did not have a long position in the previous filing that have a long position in the current filing.	Bloomberg
Institutional selloffs	Number of open market institutional sellers of a security that had a long position in the previous filing that do not have a long position in the current filing.	Bloomberg
Corporate Governance Quality Score		
ISS Governance Score	Overall score assigned by ISS to the company's governance practices. The score ranges from 1 to 10.	Bloomberg
ISS Board	Score assigned by ISS to the structure of the company's board of directors. The score ranges from 1 to 10 and is a component of ISS's Governance Score.	Bloomberg
ISS Shareholders	Score assigned by ISS to shareholder rights at the company. The score ranges from 1 to 10 and is a component of ISS's Governance Score.	Bloomberg

ISS Audit	Score assigned by ISS to the company's audit process. The score ranges from 1 to 10 and is a component of ISS's Governance Score.	Bloomberg
ISS Compensation	Score assigned by ISS to the company's compensation practices. The score ranges from 1 to 10 and is a component of ISS's Governance Score.	Bloomberg
Control Variables		
Firm Size	the log of total assets in billion US dollars.	Bloomberg
Leverage	The ratio of total debt to total assets.	Bloomberg
Sales Growth	The percentage increase or decrease of sales by comparing current period with same period prior year. Calculated as {(Sales from Current Period - Sales from Same Period Prior Year) * 100 / Sales from Same Period Prior Year}	Bloomberg
ROA	The percentage of the firm’s net income to its average total assets	Bloomberg
Firm Age	The time between the year of establishment of the firm and the present time.	Author’s calculations
Market to Book	Market capitalisation to the book value of equity.	Author’s calculations
Board Size	Number of directors on the company's board, as reported by the company.	Bloomberg