

The Effect of Corporate Governance on Quality of Information Disclosure : Evidence from Treasury Stock Announcement in Taiwan

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ABSTRACT

In order to provide investing reference for judging whether the information disclosure is true or not, this paper investigates the effect of corporate governance on quality of information disclosure with an example of the third-purpose treasury stock announcement in Taiwan. With a sample of the listed companies that made the first treasury stock announcement between 2000 and 2003, this paper adopts the logistic regression model to empirically examine the effect. With control variables of the firm size, operating performance and debt ratio, the dependent variable of the model is the quality of information disclosure, and the independent variables include variables of the ownership structure and director board structure. As the results shown, the significant relation between corporate governance and quality of information disclosure is supported. Besides the variable of directors holding is significantly positive to the quality of information disclosure, the significantly negative variables are the separation of control rights and cash flow rights, and management holding.

Keywords: *Corporate Governance, Treasury Stock, Quality of Information Disclosure*

INTRODUCTION

The OECD Principles of Corporate Governance set out a framework for good practice which have been designed to assist governments and regulatory bodies in both OECD countries and elsewhere in drawing up and enforcing effective rules, regulations and codes of corporate governance. In parallel, they provide guidance for stock-exchanges, investors, companies and others that have a role in the process of developing good corporate governance. The principles cover six main areas: (1)an effective institutional and legal framework to support good corporate governance practices, (2)a corporate governance framework that protects and facilitates the exercise of shareholders' rights, (3)equal treatment of all shareholders, including minority and foreign shareholders, (4)the role of stakeholders in corporate governance, (5)timely, accurate and transparent disclosure mechanisms, (6)board structures, responsibilities and procedures.

For the investors and market managers' reference, in 2004, a information disclosure evaluation system has been established in Taiwan. It makes an objective evaluation on listed companies' information transparency and announces the information disclosure evaluation results annually. With a five-scale rating, the system announces the transparency of each listed company but does not verify the accuracy of the information. If the information disclosed by the listed companies is not true that will damage the stockholders' benefits. The transparency of information disclosure is a must, but the quality of information is the key point. Since stock prices reflect all available information about the assets, information is crucial to stock investors.

Among the various kinds of information disclosure, this paper focuses on the announcement of

treasury stocks in Taiwan to verify the accuracy of the announcement. Several theories from the finance literature are discussed to explain why firms make treasury stock announcements: (1) information signaling hypothesis, (2) dividend hypothesis, (3) free cash flow hypothesis, (4) wealth transfer hypothesis, and (5) financial leverage hypothesis. Listed companies have been permitted to repurchase their shares since August 2000 in Taiwan. According to the regulations, listed companies are allowed to make repurchase announcement for any of the following purposes: (1) providing shares as incentives, (2) converting bonds to shares, and (3) protecting company creditability and equity. The regulations provide listed companies an option to execute their repurchase announcements without any buy-back obligations. Since it is difficult to verify the first and the second purposes, this paper focuses on the third one to verify the quality of the disclosure. For the third purpose, when stock prices are undervalued, listed companies have the rights to announce the repurchases in order to make the earning per share (EPS) and stock prices go up. According to Netter and Mitchell (1989), the number of treasury stock announcements tends to rise when the stock price is falling. If the repurchases announced by the companies whose stock prices are undervalued, the information disclosure is accurate. Otherwise, listed companies might disclose inaccurate information to expropriate outside investors. By using event study methodology, this paper identifies whether stock prices bear negative cumulative abnormal return (CAR) or not to verify the under-valuation of stocks. If the negative CAR significantly exists, the quality of information disclosure is good. Otherwise, the quality is not good that might induce problems of corporate governance.

Corporate governance is referred to behaviors, mechanisms or a comprehensive index of corporate governance that includes ownership structure, board composition, and transparency of information disclosure. The goal of this paper is to investigate the effect of corporate governance on quality of information disclosure with an example of the third-purpose treasury stock announcement in Taiwan. This paper adopts the logistic regression model to empirically examine the effect. With control variables of the firm size, operating performance and debt ratio, the dependent variable of the model is the quality of information disclosure, and the independent variables include variables of the ownership structure and director board structure.

The rest of the paper is organized as follows. Section II discusses related literature. Section III describes the sample and the definitions of variables. Section IV presents the results of the empirical analysis. Section V concludes with a brief summary.

LITERATURE REVIEW

With reference to the previous related literature, many studies focus on the effect of corporate governance on firm value or operating performance, and only few papers study the problems of information disclosure. The relation between corporate governance and information disclosure has seldom been discussed.

Ownership structure

La Porta et al. (1999) firstly studied the issue of ultimate control. They argued that when large shareholders would effectively control corporations, they tried to expropriate wealth by seeking personal benefits at the expense of minority shareholders. The findings suggest that ownership and control can be separated to the benefit of the large shareholders. Both cash flow rights and voting rights are critical to corporate governance of a firm. Since incentives to expropriate vary with cash flow rights, controlling shareholders and managers with less than full ownership of the cash flow rights of the firms who control corporate assets can potentially expropriate outside investors.

According to La Porta et al. (1999) and Claessens et al. (2000), control is enhanced through pyramid

structures and cross-holdings among firms in all East Asian countries, i.e., voting rights frequently exceed cash flow rights via pyramid structures and cross-holdings. The separation of ownership and control in particular is usually associated with family ownership. Similarly, Taiwanese listed companies are typical of family-controlled companies that are generally owned and managed through blood and marriage ties (Yeh, Lee, and Woitdke, 2001). Through pyramid structures and cross-holdings, the controlling family enhances its control on the listed company. The direct control rights come from the shares directly owned by the family group, and the indirect control rights are given via pyramid structures and cross-holdings among firms controlled by the family group.

Strong evidences have been found that the separation of ownership and control is negatively associated with firm value and operating performance. Ordinarily, ROA (Return on Assets) and ROE (Return on Equity) are proxies for operating performance, and Tobin's Q or equity market value is for the firm value. Morck et al. (1988) examine the relation between managerial ownership and Tobin's Q. The evidence shows that the relationship is significantly non-monotonic. Pound (1991) and Black (1992) suggest that institutional investors can become monitors of management and increase value.

Board composition

The issues of the board composition include independent board directors and number of seats held by controlling groups. Cadbury (1992) and Mehran (1995) suggest that independent directors and supervisors can increase the efficiency and operating performance of a firm. Chaessens et al. (2000) argue that a controlling family is able to elect board directors and appoint management. Yeh et al. (2001) find that a positive valuation effect exists when controlling families hold less than 50% of a firm's board seats.

Transparency of information disclosure

Brounen, Cools and Schweitzer (2001), Credit Lyonnais Securities Asia (2001) and Standard & Poor's Company (2002) establish the information disclosure evaluation systems separately via different constructs and variables. To follow the international trend, the information disclosure evaluation system of Taiwanese listed companies was established in 2004. But the system only announces the transparency rating of firms and the accuracy of the information is not verified. As to the relation between corporate governance and information quality, Goodwin and Seow (2002) pointed out that the mechanism of corporate governance would affect the quality of financial reports and auditing.

DATA AND METHODOLOGY

Sample construction

All data of the corporate governance and control variables are from the Data Bank of TEJ (Taiwan Economic Journal). The sample companies are selected from those companies listed on Taiwan Stock Exchange Corporation (TSEC) and also made treasury stock announcements of the third purpose between August 2000 and December 2003. To avoid analytical bias, the financial companies and those firms that already made a share repurchase during the sample period are excluded. As the result, the data of 96 Taiwanese listed companies, with a sample of 143, during 2000-2003 period are used in the study.

Variable construction

This paper adopts logistic regression model to examine the relation between the corporate governance and quality of information disclosure. The dependent variable of the model is the quality of the information disclosure, and the independent variables include variables of the ownership structure and

board composition. The other factors that might affect the information quality, several control variables, such as firm size, operating performance and debt ratio, are used for control in the analysis.

1. Quality of information disclosure

This paper uses the quality of treasury stock announcement (the third purpose) as a proxy variable of quality of information disclosure. A dummy variable is set equal to 1 when the 30-day CAR of pre-announcement is significantly negative that represents the quality of the information disclosure is good. If the quality of the information disclosure is not good, the dummy variable is set equal to 0.

Event study and market model are adopted to estimate the expected stock return of each sample company. The event day ($t=0$) is the announcement date of treasury stock, and the estimation period is the period of 91 to 210 transaction days advanced ($t=-210$ to $t=-91$). This paper employs methodology of generalized conditional heteroskedasticity (GARCH) instead of ordinary least square (OLS) to estimate the regression coefficients. After estimating the expected stock return of each company, the abnormal return is computed by subtracting the expected stock return from the actual daily stock return. CAR is the cumulative stock returns of 30 days pre-announcement ($t=-1$ to $t=-30$).

2. Ownership structure

(1) Cash flow rights, control rights and separation

Following La Porta et al. (1999), this paper traces the chain of ownership to find who has the most voting (control) rights. To define the ultimate control of a controlling group, this paper uses the commonly used cutoff, 10% ownership, above which the controlling group is assumed to have effective control. This paper defines the controlling group as the largest shareholder and people related by blood or marriage. Summarizing all the direct and indirect ownership, cash flow rights and control rights of a controlling shareholder are calculated.

Control rights of the controlling group is the sum of three types of ownership: the direct ownership of the controlling group, indirect shareholdings through cross-shareholding and pyramid structures, and shareholdings of corporate entities controlled by the controlling group. By identifying the owners of corporate entities that are immediate shareholders of a company, this paper uses total ownership of each controlling group as the unit of analysis. The separation of managerial ownership and control is computed as the difference between control rights and cash flow rights, i.e., cash flow rights are subtracted from control rights.

(2) Management holding

There are two different viewpoints about the effects of management holding on firms, namely "convergence-of-interest effect" (Jensen and Meckling, 1976) and "entrenchment effect" (Jensen and Ruback, 1983). The former refers to higher the management holding higher the firm value; the latter refers to higher the management holding lower the firm value.

Morck et al. (1988) suggest that the convergence-of-interest effect is dominant at both low levels and high levels of managerial ownership, but the entrenchment effect is dominant at medium levels of managerial ownership. But Shleifer and Vishny (1997) argue that large shareholders address the agency problem in that they have both a general interest in profit maximization, and enough control over the assets of the firm to have their interest respected. This paper defines the management holding as the percentage of shares held by the management.

(3) Ownership of board members

Excluding the ownership of the controlling group, this paper stresses that more the ownership held by other board members better the corporate governance is. This paper defines the ownership of board members as the percentage of shares held by board members other than held by the controlling group.

(4)The next large stockholder

This paper suggests that when the next large stockholder exits, excluding the controlling group, he or she will protect himself or herself benefit to monitor the controlling group and thus to improve the corporate governance. This paper sets the dummy variable equal to 1 when the company exists the next large stockholder with more than 5% shareholding, and 0 otherwise.

3. Board composition

(1)Board size

The optimal board size is not concluded yet. When the size is too small or too big, the board might operate without scale economics or efficiency. This paper uses the number of board member as the proxy variable for the board size.

(2)Percentage of board seats held by controlling group

Since a controlling group is able to elect board directors and appoint management, more the board members controlled by the controlling group, more the potential of expropriating outside investors is. A controlling group includes the family group, and firms controlled by the family group. This paper uses the percentage of board seats held by controlling group to represent the control power of the group.

4. Control variables

To control for other factors that might affect the information quality, several control variables, such as firm size, operating performance and debt ratio, are used. Firm size is measured as the log of market value of equity. As to the operating performance, EPS is most useful proxy variable. This paper uses the annual EPS one year prior to the treasury stock announcement.

Debt ratio is defined as the ratio of total liabilities to total assets. The debt ratio is a crucial control variable since capital structure is one of the main reasons (financial leverage hypothesis) why companies make treasury stock announcement. This paper uses both the first order and the second order of debt ratio to present the effects of debt ratio on the strategy of announcement. Moderate debt ratio can increase the firm value via tax shield, and high debt ratio increases the possibility of bankruptcy.

Empirical model

This paper adopts the logistic regression model to examine the relation between the corporate governance and quality of information disclosure. The dependent variable of the model is the quality of information disclosure (Q), and the independent variables include cash flow rights ($CASH$), separation of cash flow rights and control rights ($BIAS$), management holding (MGT), ownership by board members ($HOLD$), the next large stockholder ($NEXT$), board size ($NUMBER$), and percentage of board seats held by controlling group ($RATIO$). Control variables include firm size ($SIZE$), operating performance (EPS), the first order of debt ratio ($DEBT$), and the second order of debt ratio ($DEBT^2$). The logistic regression model is shown as follows:

$$Q = f(CASH, BIAS, MGT, HOLD, NEXT, NUMBER, RATIO, SIZE, EPS, DEBT, DEBT^2) \quad (1)$$

EMPIRICAL ANALYSIS

Descriptive Statistics

The sample consists of 96 Taiwanese companies that are listed on Taiwan Stock Exchange Corporation (TSEC) and also made the treasury stock announcements of the third purpose between August 2000 and

December 2003, resulting in a total sample of 143. This paper eliminates companies whose primary business is financial services. Table 1 shows the distribution of the sample companies across industries. The industrial classification is based on company code issued by TSEC. The industry of electron has the largest share of companies in the sample, 22.38 percent, followed by textiles with 13.99 percent.

Table 1. The sample of Taiwanese listed companies by industry

Industry	Number of sample	Number of company	Percentage %
Cement	5	3	3.50
Food	6	4	4.20
Plastic	4	4	2.80
Textiles	20	13	13.99
Electric Machinery	8	5	5.59
Electric Appliance	9	6	6.29
Chemical	6	5	4.20
Iron	9	5	6.29
Rubber	1	1	0.70
Electron	32	25	22.38
Construction	18	13	12.58
Transportation	8	4	5.59
General Merchandise	7	2	4.90
Others	10	6	6.99
Total	143	96	100%

As shown in Table 2, the mean, median, and standard deviation values of summary statistics are displayed. Quality of information disclosure, measured by a dummy variable, is the dependent variable with a sample mean of 0.7, i.e., the quality of information disclosure of 70% sample is good. The means of cash flow rights, separation, management holding, ownership of board members, and percentage of board seats held by controlling group are 14.09%, 5.2%, 0.66%, 20.99% and 43.6% respectively. The next large stockholder and board size are 0.28 and 8.22 on average, respectively.

Regarding the statistics of the control variables, the sample means of firm size, EPS, and debt ratio are 8.08 (ln of million), \$0.9, and 38.7% respectively.

Table 2. Statistics of corporate governance and control variables

Variable	Mean	Std.	Minimum	Maximum
1. Quality of information disclosure (1:good ,0:bad) Q	0.70	0.46	0.00	1.00
2. Variables of corporate governance				
Cash flow rights (%) CASH	14.09	11.26	0.04	63.46
Separation (%) BIAS	5.20	26.53	1.00	32.40
Management holding (%) MGT	0.66	1.60	0.00	8.06
Ownership of board members (%) HOLD	20.99	11.69	4.59	62.33
The next large stockholder (1:yes, 0:no) NEXT	0.28	0.45	0.00	1.00
Board size NUMBER	8.22	4.52	3.00	26.00
Percentage of board seats (%) RATIO	43.60	25.61	0.25	100.00
3. Control variables				
Firm size (ln of million) SIZE	8.08	1.12	5.78	11.26
Operating performance (\$) EPS	0.90	1.29	-2.22	5.40
Debit ratio(%) DEBT	38.70	13.87	3.54	67.50

Correlation analysis

Table 3 provides the correlation matrix for the variables. The variable of cash flow rights CASH is

significantly correlated with separation BIAS (-0.1834, $p < 0.05$), ownership of board members HOLD (0.5146, $p < 0.01$), and board size NUMBER (-0.2842, $p < 0.01$) respectively. Besides, board size NUMBER is significantly negatively correlated with the management holding (-0.1851, $p < 0.05$). Since all the significant coefficients are below or near 0.5, the problem of autocorrelation does not exist.

Results of logistic regression

The dependent variable of the logistic model is the quality of information disclosure (Q), and the independent variables include cash flow rights (CASH), separation of cash flow rights and control rights (BIAS), management holding (MGT), ownership of board members (HOLD), the next large stockholder (NEXT), board size (NUMBER), and percentage of board seats held by controlling group (RATIO). Control variables include firm size (SIZE), operating performance (EPS), the first order of debt ratio (DEBT), and the second order of debt ratio (DEBT²). Table 4 displays the coefficients and statistics of the logistic regression model. The Pearson χ^2 and likelihood R^2 of the model are 1.07 (p value = 0.2458) and 0.11 respectively, indicating well fitting of the model.

The significant negative coefficients include the separation of cash flow rights and control rights (BIAS) and management holding (MGT), with the values of -0.0169 and -17.1737 respectively at the 10% significant level. The significant negative coefficients mean that the corporate governance variables and the information disclosure quality are negatively correlated, i.e., more the separation and management holding worse the information disclosure quality is. On the other hand, the ownership of board members other than controlling group (HOLD) is significantly positive correlated with the information disclosure quality, with the value of 3.4201 at the 10% significant level. More the ownership held by other board members better the corporate governance is. All the signs of the significant coefficients are as expected.

Table 3. Correlation matrix for the variables

Variable	Q	CASH	BIAS	MGT	HOLD	NEXT	NUMBER	RATIO	SIZE	EPS	DEBT
Q	1										
CASH	-0.1094 (0.1935)	1									
BIAS	-0.1537* (0.0668)	-0.1834** (0.0283)	1								
MGT	-0.1271 (0.1304)	0.1216 (0.1479)	-0.0146 (0.8631)	1							
HOLD	0.0105 (0.9009)	0.5146*** (< 0.0001)	0.0497 (0.5554)	0.2982 (0.1405)	1						
NEXT	0.0689 (0.4136)	-0.1341 (0.1104)	-0.2746 (0.7815)	0.2401 (0.7019)	0.1410* (0.0929)	1					
NUMBER	0.0258 (0.7599)	-0.2842*** (0.0006)	0.0182 (0.8295)	-0.1851** (0.0269)	0.0309 (0.7414)	0.0347 (0.6805)	1				
RATIO	-0.1019 (0.2258)	0.4763*** (< 0.0001)	-0.1107 (0.1882)	0.1395* (0.0965)	-0.0070 (0.9340)	-0.2482*** (0.0028)	-0.2168** (0.0100)	1			
SIZE	0.1075 (0.2012)	-0.3034*** (0.0002)	0.0003 (0.9975)	-0.0426 (0.6132)	-0.2702*** (0.0011)	-0.0240 (0.7761)	0.3287*** (< 0.0001)	-0.0450 (0.5933)	1		
EPS	0.1215 (0.1484)	0.1001 (0.2343)	-0.0688 (0.4145)	-0.0891 (0.2901)	0.1337 (0.1114)	0.0088 (0.9171)	-0.0826 (0.3267)	-0.1509* (0.0720)	0.2739*** (0.0009)	1	
DEBT	0.0489 (0.5617)	0.0699 (0.4062)	-0.0302 (0.7208)	0.1575* (0.0603)	-0.0833 (0.3227)	-0.3302** (0.0290)	-0.0700 (0.4061)	0.0928 (0.2704)	-0.1081 (0.1989)	0.0260 (0.7575)	1

This table provides coefficients of correlation (p-value in parentheses) of various variables.

* Significant at the 10% level.

** Significant at the 5% level.

*** Significant at the 1% level.

Table 4. Coefficients of logistic regression model

Variable	Expected sign	Coefficient
Intercept		-0.8679
Cash flow rights (CASH)	+	-3.3471
Separation (BIAS)	-	-0.0169*
Management holding (MGT)	-	-17.1737*
Ownership of board members (HOLD)	+	3.4201*
The next large stockholder (NEXT)	+	0.2919
Board size (NUMBER)	+	-0.0587
Percentage of board seats (RATIO)	-	0.3516
Firm size (SIZE)	+	-0.0250
Operating performance (EPS)	+	0.0272
The first order of debt ratio (DEBT)	+	9.5063*
The second order of debt ratio (DEBT ²)	-	-10.9487
Pearson χ^2		1.07
likelihood R^2		0.11

* Significant at the 10% level.

**Significant at the 5% level.

***Significant at the 1% level.

CONCLUSION

This paper adopts logistic regression model to examine the relation between the corporate governance and quality of information disclosure. The sample consists of 96 Taiwanese companies that are listed on Taiwan Stock Exchange Corporation (TSEC) and those which made treasury stock announcements of the third purpose between August 2000 and December 2003, resulting in a total data of 143. The dependent variable of the model is the quality of information disclosure, and the independent variables include variables of ownership structure and board composition. To control for other factors that might affect the information quality, several control variables, such as firm size, operating performance and debt ratio, are used.

This paper finds the evidence that the separation and management holding are significantly negatively correlated with the information disclosure quality, and ownership of board members other than the controlling group (HOLD) is significantly positive correlated with the information disclosure quality. In conclusion, the relation between information disclosure quality and ownership structure is verified, but the relation between the information quality and board composition is not supported.

Since stock prices reflect all available information about the assets, inaccurate information disclosure might cause investors to make wrong investment decisions thus damage their benefits. If stock investors realize the correlation between the information disclosure quality and corporate governance mechanisms, they could judge the accuracy of the information that companies disclose. Besides the information disclosure evaluation system, the establishment of disclosure system of corporate governance including ownership structure and board composition is suggested.

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