The Influence of Corporate Governance on Long-term Employment: A Study Using Data on Japanese Listed Firms

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Abstract

This paper examines two hypotheses: the firm governance structure influences union formation, and the presence of labour unions fosters long-term employment practices.

Results show that unionised firms have an average employee tenure 4.7 years longer than that of non-unionised firms, and that the influence of labour unions on long-term employment practices is underestimated.

Key Words: Corporate Governance, Labor Unions, Long-term Employment

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1. Introduction

Abegglen (1958) argued that Japanese employment practices consist of three components: long-term employment, seniority-based payment, and enterprise unions. This seminal work has since directed public attention to the distinctiveness of Japanese employment systems and has prompted much speculation about them. However, their reputation has not been constant over business cycles. In good business conditions, especially in the 1980s, they were praised as a driving force, enabling managers to have their own long-term managerial perspectives by enhancing labour relations. In contrast, after the bubble burst in the 1990s, they were severely criticised for producing inefficiency in the economy. Even today, their bad reputation remains almost unchanged although long-term employment is strongly supported by quite a few people.

One major criticism is that employment practices restrict an increase in job opportunities for women or the elderly, now regarded as potential additions to the workforce essential for offsetting labour shortages caused by low birthrates and longevity. This may be because practices have historically been designed and implemented mainly for male, regular employees. At any rate, Japanese employment practices demand examination before they are significantly changed or replaced with other systems.

In recent years, controversy around corporate governance reforms has renewed interest in employment practices. It has often been pointed out that the feature of Japan's corporate governance known as cross-shareholding causes low profitability and fails to reflect shareholders' concerns. In contrast, it has been recognised that such features of corporate governance in some ways complement Japanese employment practices. Aoki (1994) argues that there is some institutional complementarity between the main-bank system or cross-shareholding—both of

which are regarded as main features of Japanese firms' governance structure—with Japan's business and employment practices. He also argues that the practices enable managers of Japanese firms to have a long-term perspective: the governance structure's stability from such features allows the firms to do without cutbacks and to continue their human resource development programs even when they are facing a downturn. Given this, we can assume that the recent corporate governance reforms, mainly intended for shareholders, influence current labour practices. However, there have been few studies that tried to examine this relationship quantitatively, although many scholars have pointed out its importance.(1)

This paper examines the relationship between two components of Japanese employment systems, long-term employment and labour unions, in the context of the corporate governance structure. First, we examine the influences of the corporate governance structure on union formation. Next, we examine the influence of labour unions on long-term employment practices, as measured by average employee tenure. As for the relationship between features of corporate governance and labour unions, Freeman and Medoff (1984) argue that one of the reasons for the decline in the level of union density is managers' hostile attitude toward labour unions. However, the question of what type of managers would be hostile to labour unions remains unsettled. We examine the type(s) of managers or shareholders that influence union formation.

The framework of 'Voice or Exit' may lead to a better understanding of how long-term employment and union formation should be linked. On the basis of this framework, Freeman and Medoff (1984) verify the hypothesis that by complaining to a manager on behalf of union members (Voice), a labour union curbs employee turn-

(1) Among the few studies, Abe (2002) examines the influences of shareholding by the ten largest shareholders and by financial institutions on the speed of employment adjustment in Japan.

over (Exit). Iverson and Currivan (2003) analyzes the influences of union participation and job satisfaction on turnover rate on the basis of the framework using the data on teachers in public schools. They conclude that both union participation and job satisfaction negatively affect turnover rate. We examine whether labour unions influence long-term employment by investigating whether curbing turnover raises the average tenure of employees. In this case, we have to consider the possibility that simultaneity occurs in the relationship between average employee tenure and union formation. We deal with such an endogeneity problem by using information on the features of corporate governance as instrument variables in our estimation.

The paper proceeds as follows. We review the existing literature in Section 2. In Section 3, we describe the data used for our estimation and explain empirical strategy. In Section 4, we report the estimation results and discuss them. Section 5 concludes the paper.

2. Previous Studies

Many studies have been made on Japanese employment practices from many points of view since Abegglen (1958) more than half a century ago. Hashimoto and Raisian (1995) and Clark and Ogawa (1992) characterise Japan's long-term employment practices as a main feature of its labour market. Ono (2009) studies the prevalence of long-term employment in Japan and discovers that less than 20% of all workers surveyed enjoy the benefit of an 'implicit, long-term employment contract'. He also points out that Japan's labour mobility has been lower than that of the U.S.: core workers are still protected by the long-term employment system although the proportion of core workers has declined. Shimizutani and Yokoyama (2009) examine Japan's long-term employment system focusing on employee tenure. Using the publicly available survey data from 1990 to 2003 on wage structure from the Basic Survey on Wage Structure provided the Ministry of Health, Labour,

and Welfare, they conclude that the impacts of employee attributes on average tenure have changed, given that average tenure increased in the 1990s, the period of economic depression. Ariga and Kambayashi (2009) study the popular theory that within periods of economic depression Japanese firms tend to hoard their workers as well as make wage adjustments; they study whether those practices changed in the 1990s.

Some recent studies focus on the relationship between features of corporate governance and Japanese employment practices. Jacoby et al (2005) show that corporate governance plays a key role in determining the HR executive's role and the balance of power between various stakeholders using the data both of Japan and US firms. Abe and Hoshi (2007) examine whether the ownership of firms by financial institutions or foreign investors affects the introduction of such systems as seniority-based payment, performance-related wages, and irregular working hours. Abe and Shimizutani (2007) study whether the origin of firm managers—promoted from inside or invited from outside—is related to their employment practices. The results show that firms whose managers have been invited from the outside are more likely to conduct layoffs while firms whose managers have been promoted from the inside are likely to curb new hires, or to find it necessary to restructure. Urasaka and Noda (2001), and Noda (2007) reveal that the employment adjustment for firms whose managers are large shareholders (hereafter, owner-managed firms) is faster than for firms whose managers have been internally promoted. They then argue that this is because owner-managed firms are likely to put more importance on the benefits to shareholders and creditors than to employees.

As for works examining the relationship between managers and unions, there are some previous studies, which focus on the influence of managers' actions on unions' behavior. Gatman et al (1976) argue with a popular belief that managers' actions affect unions' voting behavior and verify that even managers' campaign

against unions' sake has no significant effect on unions' behavior. On the contrary, Dickens (1983) reveals that managers' resistive actions have influences on unions' behavior using the same dataset as Dickens (1983) uses. Freeman and Kleiner (1990) reveal managers' resistance to unions' decisions is a major determinant of the decline in unionization rate. Rebitzer (1994) shows that the decline in union participation rate is caused by increased resistance of managers to unions in their firms who are afraid of being forced to accept pay raise by them. However, Matsuura and Noda (2013) is the only paper which focuses on the influence of corporate governance on union formation on the basis of our survey.

In addition, there has been increased interest in family firms in the analyses of ownership structure and business conditions. According to Bertrand and Schoar (2006), advantages of owner-managed family firms are that the firms can have long-term perspectives, avoid suffering from the principal-agent problem, and provide opportunities for prospective successors to take part in management. They also point to disadvantages such as nepotism or difficulty responding to a new situation due to being tied to outdated conventions. Abe (2006) studies the relationship between corporate governance and personnel and human resource management systems using the data on listed Japanese family firms and owner-managed firms. Examining the hypothesis that family firms and owner-managed firms are likely to introduce the performance-based pay system, he reveals that family firms and owner-managed firms are less likely to have complaint processing systems for employees, verifying the hypothesis. Using data on Japanese medium-sized firms, Matsuura and Noda (2013) reveal that firms with presidents long in office have a lower probability of having labour unions.

3. Hypotheses, Data and Empirical Strategy

3. 1. Hypotheses

Our two hypotheses based on our literature review are as follows.

Hypothesis 1: Features of corporate governance influence union formation.

Hypothesis 2: Union formation raises average employee tenure.

3. 2. Data and Variables

The sample consists of the firms listed on the first section of the Tokyo Stock Exchange (excluding those with the Nikkei industry code classifications for banking, insurance, and securities, and other credit companies and holding companies) in FY 2013.[(2)] Our data is mainly from the Nikkei Telecom 21 provided by *Nihon Keizai Shimbun.* Other data is obtained from the Nikkei Needs-Financial QUEST 2.0. The matched sample consists of 1,387 firms.

In order to test the first hypothesis, we use five measures of corporate governance: (1) owner management, (2) management tenure, (3) foreign ownership, (4) financial institution ownership, and (5) ownership concentration, defined as the percentage of the firm's combined common equity owned by the ten largest shareholders.

First, we include a dummy variable that indicates whether a firm is owner-managed. Owner-managers are said to be able to have long-term perspectives thanks to their stable positions. It may be that they seek better labour relations with employees, giving a favorable blessing to labour unions. On the contrary, it can be assumed that they would avoid labour unions because they regard those

(2) We define FY2013 as the period from March 2013 to February 2014, because we cannot obtain the data on firms that close the fiscal year in March 2014, which is ordinarily included in FY2013 when studying this issue.

organisations as a potential threat to the freedom of their managerial decisions; some managers avoid intervention from outside stakeholders, known as entrenchment. In our study, we assume that an owner-manager is president of the firm. In addition, as Izumida (1998) does, we define a firm as owner-managed if its manager is one of the ten largest shareholders.(3) We create the dummy variable 1 if a firm is an owner-managed and 0 if it is not.

For management tenure, we predict both signs of the influence on union formation. Managers with long tenure may approve of labour unions as promoting long-term relationships, and otherwise may avoid them, fearing labour unions' intervention. Using the data on Japanese small and medium-sized family firms, Noda and Matsuura (2013) find that longer tenure as a manager or a president is related to a lower probability of a firm being unionised. We define this variable as the length of years from when a manager begins to function as president to the closing date of the period studied.

Ownership structure is also a key component of corporate governance. Using questionnaire data about who managers value more, employees or shareholders, Tanaka (2006) argues that although many still pay more attention to employees, they increasingly emphasise shareholders' stakes, perhaps because they feel more pressure from shareholders. This implies that ownership structure also influences the formation of labour unions through changes in the relationship between managers and employees.

Among various types of shareholders, we focus on ownership by two institutional investors: foreign investors and financial institutions. In general, foreign investors are assumed to place more importance on short-term profitability, unlike traditional Japanese shareholders. Thus, they are more likely to urge managers to exhibit

(3) Izumida (1997) set several other standards to define an owner-managed firm. However owing to data limitation, we use only one.

profit-oriented behaviour in place of fostering long-term, harmonious labour relations. Thus, we assume that an increase in shareholding by foreign investors holds back union formation.

In contrast, financial institutions such as banks and securities and insurance companies are assumed to attach more weight to long-term relationships with their customer companies, supporting managers in having long-term, harmonious labour relations. The institutional complementarity between factors for corporate governance stability, such as the main-bank system and stable labour relations also makes their actions mentioned above more reasonable. From this point, we assume that an increase in the rate of shareholding by financial institutions promote union formation. In addition, we add to these two factors the rate of shareholding by the 10 largest shareholders. We assume the higher this rate becomes, the more intention of a particular shareholder tends to be reflected to managerial decisions. However, this assumption may make opposite expectation of the influence. It is undetermined whether it supports union formation enabling managers to have long-term perspectives through making ownership structure more stable or it holds back unionization of firms pressing managers by boosting particular shareholders' influence for seeking for profit.

As for the second hypothesis, few studies have been conducted although it has been pointed out that there is a complementarity between Japanese labor practices and firms' corporate governance. However, Freeman and Medoff (1984) argue that the existence of labor unions in firm is associated with their decreased turnover rate based on "Voice-Exit" framework. As for this mechanism, we have to point to the endogeneity problem; union formation of a firm is determined simultaneously with its turnover rate. In other words, other than the causal relationship mentioned in the hypothesis above, we have to consider the reverse causality between them. To overcome this, we introduce two-stage least-squares estimation. For this

purpose, we utilize variables on features of corporate governance as instruments since we can hardly assume average tenure of employees a firm directly affects its turnover rate although longer tenure of employees may have some influence on union formation.

3-3. Empirical Methodology

To test our hypotheses, we use two-stage least-squares estimation

$$UNION=\gamma\times REIGN+\theta\times OWNER+x\delta+\varepsilon \quad (1)$$

$$TENURE=\alpha\times UNION+x\beta+\epsilon' \quad (2)$$

REIGN denotes tenure as president; *OWNER* as the dummy variable indicating 1 if a firm is an owner-managed firm and 0 if not; *UNION* as the dummy variable indicating 1 if a firm has a labour union or 0 if not; *TENURE* as average employee tenure; x is a vector of component effects on dependent variables; and ε and ϵ' are error terms.

As the first step, we estimate Equation (1) to examine whether features of corporate governance influence union formation. As mentioned above, *UNION* is a binary explained variable. We assume *UNION* is a linear dummy variable,(4) and we use *REIGN* and *OWNER* as instruments. The results of the Sargan over-identification test show that among five variables produced for features of corporate governance, only two variables, *REIGN* and *OWNER* are appropriate for instruments. This implies that there is a possibility of reverse causality because the three remaining variables may change as managers' attitudes toward long-term management influence investors' decisions to purchase stocks. As the second step, we estimate

(4) Angrist (2001) points out that employing a non-linear model for instrumental variable estimation produces biased estimators.

Equation（2）to examine whether the existence of labour unions raises average employee tenure. The expected sign of γ *and* θ is both positive and negative. α is expected to be positive based on the assumptions brought by the 'Voice or Exit' framework.

Descriptive statistics are shown in Table 2. *TENURE* for unionised firms is 16 years and for non-unionised firms is 10.3 years, about 6 years shorter. Although this seems to indicate that unionised firms prefer long-term employment to non-unionised firms, we have not controlled for attributes such as firms' number of employees, age, or industry. Next, we examine our hypotheses considering these factors and the potential endogeneity between union formation and average employee tenure.

4. Results and Discussion

Table 3 lists the results of a probit estimation for Equation（1）using *UNION* as a dependent variable.(5)

Column [1] shows *OWNER* is negatively significant; the marginal effect shows that the probability of firms being unionised is lower by 12.3% for owner-managed firms. This result shows that owner-managers are likely to discourage unionisation. As noted, this is probably due to owner-managers' hostile attitude toward labour unions. This result is consistent with those obtained in previous studies like Matsuura and Noda (2013): firms whose managers ascended as founders are less likely to be unionised. Another explanation for the result is the stronger power of owner-managers than of internally promoted managers. Owner-managers, in our definition, are those who occupy the position of large shareholders. This provides owner-managers with preferred positions to their counterparts

（5）The coefficients from this probit estimation have been transformed into marginal effects of variables, evaluated at the sample means of the independent variable.

in the managerial decision-making process. In that case, as Villalonga and Amit (2006) argue, there is a possibility that owner-managers consider the firms as their own as a result of ineffective monitoring by other stakeholders. Then, this free hand in management may urge owner-managers to pressure their employees into giving up unions. *TENURE* is not significant.

The differences in the influences of ownership variables are distinctive. First, *FOREIGN* is negatively significant and shows that a 1% increase in this rate decreases the probability of firms being unionised by 0.40%. Second, *FINANCIAL* is positively significant at the 10% significance level and shows that a 1% increase in this rate increases the probability of firms being unionised by 0.42%. A 1% increase in *10 LARGEST* significantly increases the same probability by 0.33%. The sign and magnitude of these three variables are based on the result of Column [1].

The result of *FOREIGN* suggests that an increase in foreign ownership boosts foreign shareholders' influence over management. Owing to the profit-oriented stakeholders, managers are forced to put more emphasis on them and less on building stable labour relations. This results in inhibiting unionisation. The result of *FINANCIAL* suggests that increased institutional ownership allows managers of firms to apply long-term managerial perspectives without being bothered by impatient shareholders and thus to pursue better labour relations. In that case, managers are likely to recognise labour unions as a key factor for success and to approve their formation. The result of *10 LARGEST* indicates that an increase in this rate enables managers to focus on keeping stable relations with large shareholders without taking care of the variation in shares among minority shareholders too much. As the case of financial institutions, managers are likely to appreciate labour unions.

Table 4 lists the results of two-stage least-squares (2SLS) specification as well as ordinary least-squares estimation (OLS). As a result of Hansen's J-test for

over-identification, we show that among such instruments as the dummy variables for owner-manager firms, management tenure, and the rate of ownership by foreign shareholders, financial institutions, and the ten largest shareholders, only two dummy variables, for owner-managed firms and for management tenure, are appropriate instruments for our purpose. Second, we conduct the Wu-Hausman test for endogeneity. As a result, the hypothesis that either of these two variables is endogenous is rejected at a 1% significance level. In addition, the fact that Cragg-Donald F-statistic obtained is 14.11 rejects the hypothesis that these variables are weak.

Table 4 lists the results using both OLS estimation and 2SLS estimation. Column [2] and Column [4] are the results of 2SLS estimation. Column [2-1], the result of the first-stage estimation using *UNION* as a dependent variable, shows *OWNER* is negatively significant. This indicates that owner-managed firms are less likely to be unionised. Column [2-2], the second-stage estimation using *TENURE* as a dependent variable, shows *UNION* is positively significant. This result indicates that unionised firms are likely to have longer average employee tenure, in particular, approximately 4.7 years longer than non-unionised firms, controlling for other variables and dealing with potential endogeneity.(6) In addition, we conduct the same estimation as in Column [4] except we exclude industry dummies for the robustness check. The obtained result shown in Column [4] is almost the same as that in Column [2]. The impact of labour unions on average employee tenure stated above almost corresponds to the gap in average tenure between males and females.(7) Considering this, we can conclude that the influence

(6) The result of OLS estimation shown in Column [1] indicates the coefficient of union dummy is positively significant but is much smaller than that of 2SLS. In other words, there is underestimation. This is probably ascribable to failing to treat potential endogeneity between unionisation and average employee tenure, as stated.

(7) Shimizutani and Yokoyama (2009) reveal average tenure of regular employees

of labour unions on average employee tenure is still large.

5. Conclusion

In this paper, we establish and examine two hypotheses. The first is that features of corporate governance influence the formation of labour unions. As a result, we reveal that several features of corporate governance influence firms' unionisation. In particular, owner-managed firms and firms with more foreign investment are less likely to be unionised. In contrast, more ownership by financial institutions or by the ten largest shareholders increases the probability of firms being unionised. Also, the obtained result shows that the existence of labour unions raises average employee tenure substantially. In other words, labour unions play an important role in maintaining Japanese long-term employment practices.

In recent years, it has been proposed that the traditional Japanese corporate governance should be reformed as quickly as possible. However, as Aoki (1994) argues, features of corporate governance have some complementarity with employment practices. We show that this currently holds, shedding light on the mechanism of union formation and the influence of labour unions on average employee tenure. Thus, our obtained results indicate the possibility that recent reforms of corporate governance, which put more importance on shareholders' interests, will cause significant changes in long-term employment practices, interfering with union formation. We should reform corporate governance in the context of Japanese employment practices, keeping in mind that they are inextricably linked.

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from 15 to 65 years in private firms both for males and females using the data from the Basic Survey on Wage Structure provided the Ministry of Health, Labour, and Welfare. The number for males is 14.05 years, and the number for females is 9.42 years.

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Table 1　Definitions of Variables

variables	definitions
UNION	Equals 1 if a firm has a labour union and 0 otherwise
REIGN	The length of years from when a manager of a firm started his or her career as a president to the latest closing date
OWNER	Equals 1 if a manager of a firm is included in the 10 largest shareholders and 0 otherwise
DURATION	The length of years from when a firm was found to the latest closing date
FOREIGN	The rate of the number of shareholdings by foreign investors to that of total stocks issued
FINANCIAL	The rate of the number of shareholdings by financial institutions to that of total stocks issued
10 LARGEST	The rate of the number of shareholdings by the 10 largest shareholders to that of total stocks issued
AGE	Average age of employees
ROA	The rate of current profits to total assets
SALES	Sales (in logarithm)
EMPLOYEES	The number of employees (in logarithm)

Table 2 Descriptive Statistics

	Union			Non-union		
Variable	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
TENURE	1037	15.993	3.598	582	10.349	5.126
ROA	1040	0.042	0.042	585	0.074	0.079
AGE	1037	40.803	2.966	582	38.417	4.560
SALES	1040	11.205	1.504	585	10.007	1.525
EMPLOYEES	1040	6.906	1.371	585	5.796	1.414
10 LARGEST	1024	0.126	0.332	573	0.469	0.500
REIGN	1040	6.336	7.361	584	9.949	9.895
FOREIGN	1040	0.139	0.120	585	0.132	0.134
FINANCIAL	1040	0.254	0.114	585	0.165	0.097
10 LARGEST	1040	0.435	0.147	585	0.504	0.151
Manufacture	1040	0.639	0.480	585	0.285	0.452
Construction	1040	0.055	0.228	585	0.058	0.234
Wholesales	1040	0.140	0.348	585	0.232	0.423
Services	1040	0.074	0.262	585	0.320	0.467
Estate	1040	0.007	0.082	585	0.060	0.237
Transport	1040	0.058	0.233	585	0.022	0.148
Telecom	1040	0.007	0.082	585	0.015	0.123
Energy	1040	0.015	0.123	585	0.000	0.000
Other Industries	1040	0.005	0.069	585	0.007	0.082

Table 3　Probit Estimates of the Formation of Union

	[1]	[2]	[3]	[4]	[5]	[6]
ROA	-0.49	-0.666	-0.564	-0.567	-0.681	-0.626
	[0.296]+	[0.290]*	[0.300]+	[0.281]*	[0.278]*	[0.287]*
AGE	0.025	0.023	0.028	0.023	0.022	0.026
	[0.005]**	[0.005]**	[0.005]**	[0.005]**	[0.005]**	[0.005]**
DURATION	0.007	0.007	0.008	0.008	0.009	0.009
	[0.001]**	[0.001]**	[0.001]**	[0.001]**	[0.001]**	[0.001]**
SALES	0.024	0.023	0.035	-0.009	-0.007	-0.001
	[0.023]	[0.022]	[0.023]	[0.018]	[0.018]	[0.018]
EMPLOYEES	0.12	0.109	0.116	0.138	0.135	0.137
	[0.023]**	[0.024]**	[0.023]**	[0.020]**	[0.020]**	[0.020]**
OWNER	-0.123	-0.133		-0.11	-0.131	
	[0.047]**	[0.046]**		[0.045]*	[0.045]**	
REIGN	-0.001	-0.001		-0.001	-0.001	
	[0.002]	[0.002]		[0.002]	[0.002]	
FOREIGN	-0.401		-0.388	-0.302		-0.289
	[0.140]**		[0.142]**	[0.129]*		[0.131]*
FINANCIAL	0.421		0.481	0.588		0.646
	[0.193]*		[0.186]**	[0.173]**		[0.169]**
10 LARGEST	0.327		0.336	0.34		0.355
	[0.120]**		[0.119]**	[0.114]**		[0.113]**
Industry Dummy	yes	yes	yes	no	no	no
Log Likelihood	-522.28	-530.99	-529.68	-558.25	-568.39	-565.03
Observations	1371	1371	1396	1387	1387	1412

+ significant at 10%; * significant at 5%; ** significant at 1%

Table 4 OLS and IV Estimates of the Influence of Union on Tenure

	[1] OLS	[2] IV		[3] OLS	[4] IV	
		[2-1]	[2-2]		[4-1]	[4-2]
UNION	*TENURE*	*UNION*	*TENURE*	*TENURE*	*UNION*	*TENURE*
UNION	1.165		4.735	1.491		4.312
	[0.177]**		[1.398]**	[0.181]**		[1.340]**
ROA	-7.01	-0.371	-5.502	-8.226	-0.391	-7.008
	[1.201]**	[0.182]*	[1.480]**	[1.241]**	[0.182]*	[1.459]**
AGE	0.623	0.019	0.543	0.685	0.021	0.615
	[0.023]**	[0.003]**	[0.040]**	[0.023]**	[0.003]**	[0.041]**
DURATION	0.036	0.005	0.016	0.047	0.006	0.027
	[0.004]**	[0.001]**	[0.009]+	[0.004]**	[0.001]**	[0.010]**
SALES	0.172	0.015	0.076	0.085	-0.01	0.09
	[0.091]+	[0.014]	[0.109]	[0.082]	[0.012]	[0.089]
EMPLOYEES	0.268	0.061	0.058	0.462	0.092	0.196
	[0.102]**	[0.015]**	[0.142]	[0.096]**	[0.014]**	[0.162]
OWNER		-0.12			-0.133	
		[0.031]**			[0.032]**	
REIGN		-0.001			-0.001	
		[0.001]			[0.001]	
Industry Dummy		yes	yes	no		no
Cragg-Donald F-statistic		-	14.41**	-		15.09**
Wu-Hausman test		-	8.58**	-		5.31*
Sargan test		-	0.368	-		0.313
Observations		1387	1387	1387		1387

+ significant at 10%; * significant at 5%; ** significant at 1%