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Wage analysis of employer-employee matched data

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Stakeholder-Oriented Corporate Governance and Firm-Specific Human Capital: Wage analysis of employer-employee matched data

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Abstract

Theories of economic institutions predict that complementarity exists between the nature of corporate governance of a firm and the nature of its human capital investment. The complementarity theory insists that the commitment of a firm and its employees to invest in firm-specific human capital will be reinforced by the commitment of the firm to adopt stakeholder-oriented corporate governance. Using employer-employee matched data from the headquarters of large Japanese firms, this paper investigates the relationship between the wage-tenure profile of a firm and the nature of its corporate governance. Analysis of the wage-tenure profiles shows that firms with stakeholder-oriented corporate governance invest in firm-specific human capital more heavily than those with shareholder-oriented corporate governance.

Key words: stakeholder oriented corporate governance, firm specific human capital investment, wage-tenure profile, employer-employee matched data

JEL classification: J24, J31, G34, M53

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I. Introduction

Economists have been attracted by the relationship between corporate governance and human capital. Their main interest is that corporate governance, the way a firm is owned and controlled, is interrelated with human capital investment, the way employees are trained and paid. Comparing Japanese and British companies, Dore (1973) argued that corporate governance is interrelated with human capital accumulation.

The relation between corporate governance and human capital investment has also attracted attention from business and political arenas. Since the 1990s, the view has been advanced—that shareholder-oriented corporate governance is essential to effectively motivate not only managements but also employees, and increase their efficiency.

Theories of economic institution, developed by Aoki (1988) and Aoki and Okuno (1996), provide the theoretical basis for the complementarity between corporate governance and human capital investment. According to their theories, the firm is a nexus of contracts, and the nature of a firm's subsystem such as human capital or corporate governance is not determined independently but in relation to other subsystems because of their complementarity.

If the human capital investment of a firm is firm specific, a commitment by the employer and employees is required to sustain a long-term human capital investment program. The theory of complementarity predicts that the commitment to firm-specific human capital investment will be reinforced by another commitment by the firm to adopt stakeholder-oriented corporate governance, because the stakeholder oriented corporate governance also includes a commitment on the part of shareholders and managements to refrain from ex post exploitation of stakeholders' quasi-rents.

The purpose of this paper is to test the theory of complementarity between corporate governance and human capital investment by empirical analysis. Using employer-employee matched data from the headquarters of large Japanese firms, this paper investigates the relationship between the wage-tenure profile and the nature of the corporate governance of the firm. The findings of wage analyses are consistent with the theory of complementarity between stakeholder-oriented corporate governance and firm-specific human capital investment.

The next section briefly explains the theory of complementarity between corporate governance and human capital investment. Section III surveys the existing empirical literature that analyzes the relation between corporate governance and human capital investment. Section IV describes the data used in this study, and section V provides the results of the analysis of wage-tenure profiles. Section VI shows the conclusion of this study and proposes further discussion.

II. Theory of Complementarity between Corporate Governance and Human Capital Investment

Theories of economic institutions have developed since the 1980s on the basis of contract theories, finance theories, and human capital theories. The theory of complementarity between corporate governance and human capital enables economists to explain the variety of firms across various environments. The theory of complementarity, developed by Aoki (1988) and Aoki and Okuno (1996) insist that a firm is a composite of several subsystems and the nature of a subsystem is not determined independently but in relation to other subsystems.

Each subsystem of the firm contains various contracts, many of which are, however, imperfect or implicit. The enforcement of these contracts is not necessarily guaranteed by laws, so there is room for opportunism or ex post exploitation. For example, once the employees of a firm agree to invest in firm-specific human capital, the employer can exploit the return on investment by reducing the wage of trained employees to the pre-trained level.

In order to secure firm-specific human capital investment, a commitment to long-term cooperation is helpful, but not fully effective. In this case, the decision of the firm to adopt stakeholder-oriented corporate governance will reinforce the commitment to human capital investment, because stakeholder-oriented corporate governance includes the commitment not to exploit the stakeholders' rents.

The theory of complementarity between corporate governance and human capital, therefore, will lead to an empirical prediction that firms with stakeholder-oriented corporate governance tend to invest more in firm-specific human capital because they have an advantage in committing not to exploit firm-specific investment by the employees. In contrast, firms with shareholder-oriented corporate governance will have

difficulty in committing to long-term cooperative contracts with employees, and therefore their human capital investment tends to be more in general skills.

Next, we need to know what differences will be empirically observed in wage-tenure profiles when human capital investment is general or firm specific. Human capital theory maintains that the cost of general human capital investment is financed by employees, and the return on the investment is attributed to them (Becker 1964). Where the human capital is general, therefore, the firm's wage-tenure profile will have three characteristics, as shown in Figures 1 and 2. First, the wage during the training period is lower compared to firms without training, because training costs are deducted from gross productivity. Second, the wage-tenure profile has a steep slope in the early career of employees, when training costs decrease and productivity increases along with the tenure. Third, the wage-tenure profile in their later career will be saturated and not necessarily grow as long as senior workers acquire little additional skill.

Where the human capital investment is firm specific, the wage-tenure profile should have a different form. As Hashimoto (1981) points out, where firm-specific human capital investment is financed and owned by the firm, as shown in Figure 3, trained employees can demand wage increase, even threatening to quit and, thus, damage the human capital. Hashimoto therefore argues that firm-specific human capital should be accumulated through shared investment by both employers and employees, as shown in Figure 4. In addition, in order to prevent employees from shirking and quitting, both employers and employees can agree that the wage will be increased in the later career years of the employees (Lazear 1979). The wage-tenure profile in the firms with firm-specific human capital will then have the following three characteristics: First, the wage paid during the training period is higher than the wage paid by firms with general training because the training cost is shared by the firms and employees. Second, the wage-tenure profile has a flatter slope in the early career years, when training costs and productivity gain are shared. Third, the wage-tenure profile in the later career years will not be saturated and may continue to grow because of the deferred payments. The empirical analysis of this paper investigates whether firms with stakeholder-oriented corporate governance have wage profiles with the characteristics of the firm-specific investment.

III. Existing Empirical Literature

There exists literature on the relationship between corporate governance and human capital—Gospel and Pendleton (2003), Jacoby (2005), and Konzelmann *et al.* (2006), for example. However, empirical analysis of the relationship is limited and mainly focuses on employment adjustment in Japan. Abe (2002), using data on listed firms in the chemical, iron and steel, electronic manufacturing, and retail and wholesale industries for the period 1978 to 1995, finds that the presence of large shareholders and high degrees of cross shareholding slow down the speed of employment adjustment. Noda (2006) analyzes the panel data on the listed Japanese firms in the electric and machinery industries and finds that firms with insider top management tend to adjust their employment more slowly. Noda (2007) also finds that an increase in the ratio of insider appointment as executive officers tends to lower the probability of employment adjustment. Similarly, Abe and Shimizutani (2007), with a dataset of large Japanese firms, find that outside directors are more inclined to implement layoffs and voluntary or early retirement, while insiders are more likely to decrease new hiring and protect incumbent employees.

There are few studies on the relationship between corporate governance and human resource management practices. Examining the data on 58 listed Japanese companies, Abe and Hoshi (2004) find that firms with non-traditional Japanese-style ownership structures (especially high foreign ownership) seem to have more non-traditional human resource management practices. On the basis of the questionnaire data for Japanese companies, Hoshi (2007) finds that a firm that regards its employees as important stakeholders tends to consider training as an obligation of the firm. Using the same data set, Abe (2007) finds that firms with concentrated shareholders tend to retain the practice of traditional lifetime employment. He also finds that firms with high foreign shareholding tend to believe that each employee should take the initiative to undergo training in the near future.

Existing empirical literature on employment adjustment and human resource management practices implies that there could be a link between the corporate governance of a firm and its human capital. In order to test for the complementarity between stakeholder-oriented corporate governance and firm-specific human capital

investment, the most effective way should be to analyze wage profiles across firms with different corporate governance orientations. There is no existing literature, however, which compares the wage profiles of firms with different corporate governance orientations.

IV. Data

1. Employer-Employee Matched Data

The data used in this study is constructed from the questionnaires titled "Management Strategy, Corporate Governance, and Human Resource Management for the New Century," administered by the Japan Institute for Labor in 1999. The first wave of the survey was sent to the headquarters of Japanese firms that employ more than 1,000 workers, asking respondents about their business strategies and corporate governance. The second wave of the survey, with questions on wages and other personnel and human resource topics, was sent to employees of the headquarters' five divisions (the sales planning division, the personnel division, the management planning division, the general affairs division, and the accounting division). Employer-employee matched data is then constructed by combining the first and second waves of the survey. The matched data contains information on 3,491 employees from 522 firms.

The advantage of this data set is that it can match the data of the corporate governance of a firm and the data of the wage and other personnel information of individual employees of the firm. Another advantage is that the employees in this data set are homogeneous because the second set of the questionnaires were sent to comparable employees of comparable divisions of the headquarters of each firm.

2. Variables Representing Corporate Governance Orientation

The stakeholder-oriented corporate governance, modeled by Aoki (1988) and Aoki and Okuno (1996), and the neoclassical shareholder-oriented corporate governance have some contrasting features. In firms with stakeholder-oriented corporate governance, shareholders' control over the firm is limited explicitly or implicitly. Executive officers and board directors are often promoted from the employee ranks and emphasize the interest of employees. Employees play central roles of the residual claimer, and

therefore share the risk and returns of the business with the shareholders.

In order to measure the stakeholder orientation of the corporate governance of each firm, this study constructs five variables from the headquarters survey. The variables representing the stakeholder orientation of corporate governance are the ratio of stable shareholders, the absence of stock option plans for the management, profit sharing plans in which the wage level of the firm moves up and down with medium- and long-term business performance, compulsory retirement age for board directors, and monopoly over major management positions by insider employees.

The first variable, the ratio of stable shareholders, is the ratio of voting rights held by friendly stable shareholders. The variable is constructed based on the answer of the firm's headquarters, and takes continuous value from 0 to 1, taking 1 when all of the shares are held by friendly stable shareholders and 0 when there is no stable shareholder. Stable shareholders are usually trading partners, employee stock ownership plan funds, financial institutions, and group companies of the same *keiretsu*. They often submit the proxy for their shares to the CEO of the firm. The ratio of stable shareholders can represent the restraint of shareholders and the stakeholder orientation in corporate governance.

The second variable, the absence of stock option plans for the management, takes 1 when the firm has no stock option plan for the management and 0 when the firm has stock option plans. Stock option plans for the management are considered a good remedy for agency problems between the shareholders and management. The existence of stock option plans, therefore, implies that the management is strongly motivated by the interest of shareholders.

The third variable, profit sharing, is constructed based on the answer of the firm's headquarters. The variable takes 1 if the firm has a wage policy to couple the wage and the medium- and long-term business performance of the firm. If the wages of the employees are determined by the market rate, the employees have no stake in the firm's performance. In contrast, if the wages of employees increase or decrease along with the ups and downs in the medium- and long-term business performance, the risk and return of the business are attributed to the employees. In this case, the employees are stakeholders, and their role comes closer to that of the residual right claimer or the owner of the firm.

The fourth variable takes 1 if the firm has a compulsory retirement age for board directors. The rule that board members, including the CEO, must retire at a certain age has the effect of decreasing the power of the directors and the CEO. A typical manner of corporate control under this rule is that each of the board members stays in power for two to four years only and the continuous need for new board members are met by promotion of insider employees.

The fifth variable, monopoly over major management positions by insider employees, takes 1 if major management positions such as the managers of planning, finance, sales, personnel, production, and purchasing are monopolized by the employees who rose through the ranks after joining the firm upon graduation. Prohibiting outsiders from occupying any of the important management positions means that outside shareholders have little access to the management of corporate operations.

These five variables will represent the stakeholder orientation of the firm's corporate governance. Each variable takes 1 when the governance is stakeholder oriented and 0 when the governance is shareholder oriented.

3. Wages, Attributes, and Subjective Productivity of Employees

This research collects data on wages of employees and attributes such as tenure, experience, education, sex, and the industry and division they are working for from questionnaires to employees.

We also construct a qualitative variable of the subjective wage-productivity difference (SWPD) of each employee. The variable is based on the answer to a question asking the employees to compare their wage and productivity. The variable takes three qualitative stages; takes 1 when the employees consider that their wage is higher than their productivity, takes 2 when their wage is equal to their subjective productivity, and takes 3 when their wage is lower than their subjective productivity.

V. Empirical Specification and Results

1. Empirical Specification

The analysis of this study is performed by estimating the wage equation, which includes the effects of corporate governance on human capital accumulation. The wage

takes the semi-logarithmic form with the common explanatory variables of tenure, tenure squared, experience, experience squared, sex, education level, industry, and occupation. Then, we add the five variables that represent stakeholder-oriented corporate governance: CG_1 for the ratio of the stable shareholders, CG_2 for the absence of stock option plans for the management, CG_3 for profit sharing with the wage reflecting business performance, CG_4 for compulsory retirement age for board directors, and CG_5 for monopoly over major management positions by insider employees. The wage equation includes these five variables, the interaction of each of the five variables and the tenure, and the interaction of each of the five variables and the tenure squared. The empirical specification is therefore as follows:

$$\begin{aligned}\ln(\text{wage}) = {} & \beta_1 \text{ten} + \beta_2 \text{ten}^2 + \beta_3 \text{exp} + \beta_4 \text{exp}^2 \\ & + \gamma_1 CG_1 + \gamma_2 CG_2 + \gamma_3 CG_3 + \gamma_4 CG_4 + \gamma_5 CG_5 \\ & + (\gamma_{11} CG_1 + \gamma_{12} CG_2 + \gamma_{13} CG_3 + \gamma_{14} CG_4 + \gamma_{15} CG_5)*\text{ten} \\ & + (\gamma_{21} CG_1 + \gamma_{22} CG_2 + \gamma_{23} CG_3 + \gamma_{24} CG_4 + \gamma_{25} CG_5)*\text{ten}^2 \\ & + \zeta X + \varepsilon_i\end{aligned}$$

where *wage* represents the annual wage, *ten* represents the tenure, *exp* represents the experience since the employee graduates from school, and *X* represents other attributes of employees, such as education level, industry, occupation, and sex.

We also estimate an ordered logit model to explain a subjective wage-productivity difference (SWPD). As noted in the previous section, the SWPD takes three qualitative stages. The explanatory variables of the ordered logit are the same as the wage equation.

$$\text{SWPD} = F(z), \quad F = 1, 2, \text{ or } 3$$

$$\begin{aligned}z = {} & \beta'_1 \text{ten} + \beta'_2 \text{ten}^2 + \beta'_3 \text{exp} + \beta'_4 \text{exp}^2 \\ & + \gamma'_1 CG_1 + \gamma'_2 CG_2 + \gamma'_3 CG_3 + \gamma'_4 CG_4 + \gamma'_5 CG_5 \\ & + (\gamma'_{11} CG_1 + \gamma'_{12} CG_2 + \gamma'_{13} CG_3 + \gamma'_{14} CG_4 + \gamma'_{15} CG_5)*\text{ten} \\ & + (\gamma'_{21} CG_1 + \gamma'_{22} CG_2 + \gamma'_{23} CG_3 + \gamma'_{24} CG_4 + \gamma'_{25} CG_5)*\text{ten}^2 \\ & + \zeta' X + \varepsilon_i'\end{aligned}$$

The ordered logit model captures the tenure profile of SWPD of employees working for firms with different corporate governance orientation.

2. Descriptive Statistics

Table 1 shows the descriptive statistics of the data set. The average ratio of stable

shareholders is 63 percent. Of the sampled employees, 73 percent are working for firms with no stock option plan for management. Eighty one percent of the sampled employees work for firms with a profit-sharing wage policy. Half of the sampled workers belong to firms with a compulsory retirement age for board members. Seventy four percent of the sampled workers work for firms in which all major management positions are exclusively occupied by insiders.

The average annual wage is 6,150,000 yen, average experience 15.5 years, and average tenure 13.5 years. As for their education, 15 percent of them are high school graduates, 14 percent are politech or junior college graduates, and 69 percent university graduates. Males comprise 74 percent and females 26 percent of the sampled employees. The report of subjective wage-productivity difference indicates that 38.4 percent of the sampled employees indicate that their wage is lower than their productivity, 55.3 percent that their wage is equal to their productivity, and 6.3 percent that their wage is higher than their contributions.

3. The Estimation of Wage Equation with Corporate Governance Variables

Table 2 provides the estimation results of the estimation of the wage equations with the corporate governance variables. Figure 5 shows two wage-tenure profiles, the triangular dot line is calculated with all of the five corporate governance variables assumed to be 1 and the square dot line, with the corporate governance variables assumed to be 0. They show that the effects of the corporate governance variables are generally consistent with the theoretical predictions.

The intercept coefficient of “stable shareholders” is positive and significant, while the intercept coefficients of other governance variables are insignificant. This result implies that the wage level of new graduates hired by firms that are owned by stable shareholders is 7.6 percent higher than that of their counterparts hired by the firms with no stable shareholders.

The coefficients of all of the interaction terms of the five corporate governance variables and the tenure are negative, and four of the five coefficients are significant. These negative interaction coefficients mean that wage growth is slower during the employees’ earlier career years in firms where the corporate governance is stakeholder oriented. That is, these firms have a relatively more firm-specific human capital

investment and, therefore, share more of the cost of and return on human capital investment than shareholder-governed firms do.

The coefficients of the interaction terms of stakeholder-oriented corporate governance variables and the tenure squared are positive, and four of the five coefficients are significant. These positive coefficients indicate that wage-tenure profiles of firms with stakeholder-oriented corporate governance saturate more gradually than those of firms with a shareholder-oriented approach. The wage growth rate in firms where corporate governance is stakeholder oriented is higher than the rate in firms with shareholder-oriented corporate governance with tenures of 17 years and more. This result implies that wage-tenure profiles of firms with stakeholder-oriented corporate governance are characterized by deferred payments.

The estimated wage-tenure profiles show that in firms with stakeholder-oriented corporate governance the wage is relatively higher in the freshman year. However, wage growth is slow in the early career years, but will continue and saturate rather slowly in the later career years. These characteristics of estimated wage-tenure profiles are consistent with firm-specific human capital investment shared by both employees and firms with stakeholder-oriented corporate governance.

4. Subjective Wage-Productivity Difference

Next, we will reinforce the above results by observing the tenure profile of the subjective wage-productivity differences (SWPD). The wage analysis of this paper does not necessarily guarantee that firms with stakeholder-oriented corporate governance invest in firm-specific human capital. If the cost of and return on human capital investment are shared by the employers and employees, this should generate a gap between the productivity of workers and the wages they receive, especially in the post-trained period. A supplementary analysis of subjective wage-productivity differences (SWPD) in the tenure profile is shown in Table 3 and Figure 6. Figure 6 shows two subjective wage-productivity differences, the triangular dot line is calculated with all of the five corporate governance variables are assumed to be 1 and the square dot line is calculated with these variables to be 0. The estimation results show that in firms with stakeholder-oriented corporate governance employees with tenures of 0 to 25 years tend to feel that their productivity is higher than their wages.

V. Conclusion and Discussion

The empirical analysis of this paper finds that wage-tenure profiles of firms with stakeholder-oriented corporate governance are characterized by shared investments in firm-specific human capital. This is consistent with the prediction of the theories of economic complementarities that stakeholder-oriented corporate governance can reinforce the commitment that is needed to sustain shared investments in firm-specific human capital.

The results of this paper support the theory of complementarity among the subsystems of economic institutions. This implies that a legal or environmental change that makes a small difference in one subsystem of the economy may affect other subsystems and bring the economy to a totally different equilibrium. At any rate, changes in corporate finance or corporate governance will certainly influence the way human capital is accumulated. A shift to shareholder-oriented corporate governance, for example, may lead to general human capital investments financed mainly by employees.

Complementarity of economic subsystems, as discussed in this paper, could be operating in other subsystems of the economy as well. Development of new good-quality data sets will certainly help promote empirical analysis in order to examine whether complementarities among economic subsystems exist and, thus, enrich our understanding of the economy and economics.

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Figure 1. Wage and Productivity with No Training

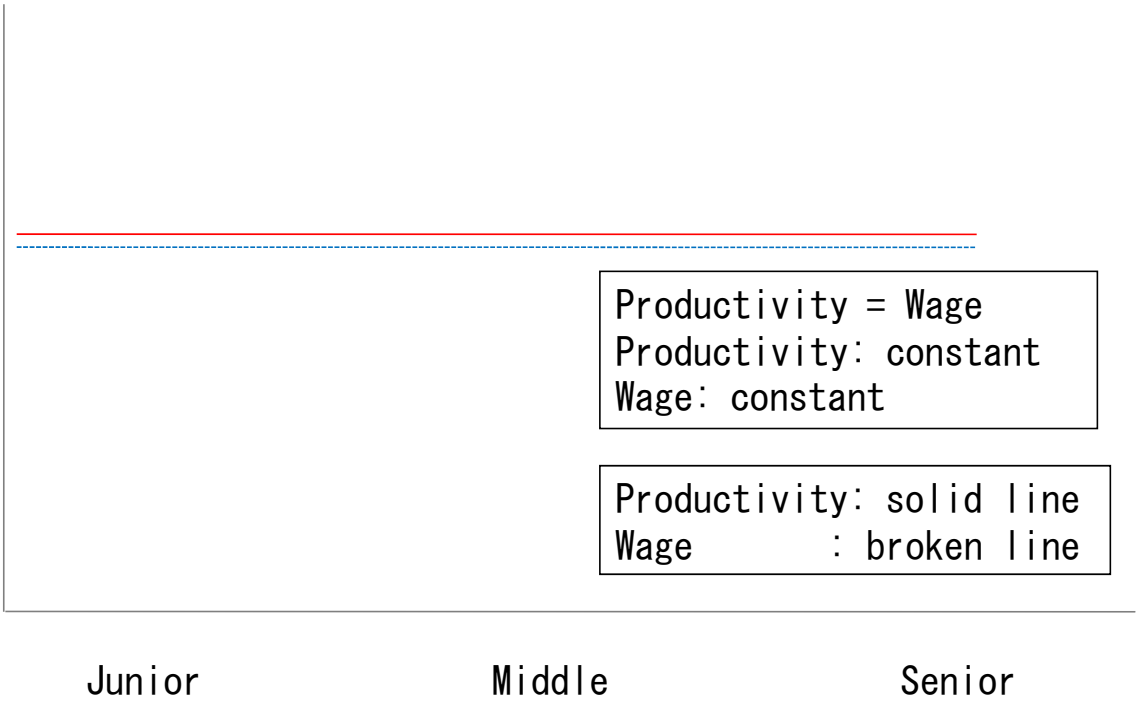

Figure 2. Wage and Productivity with General Training

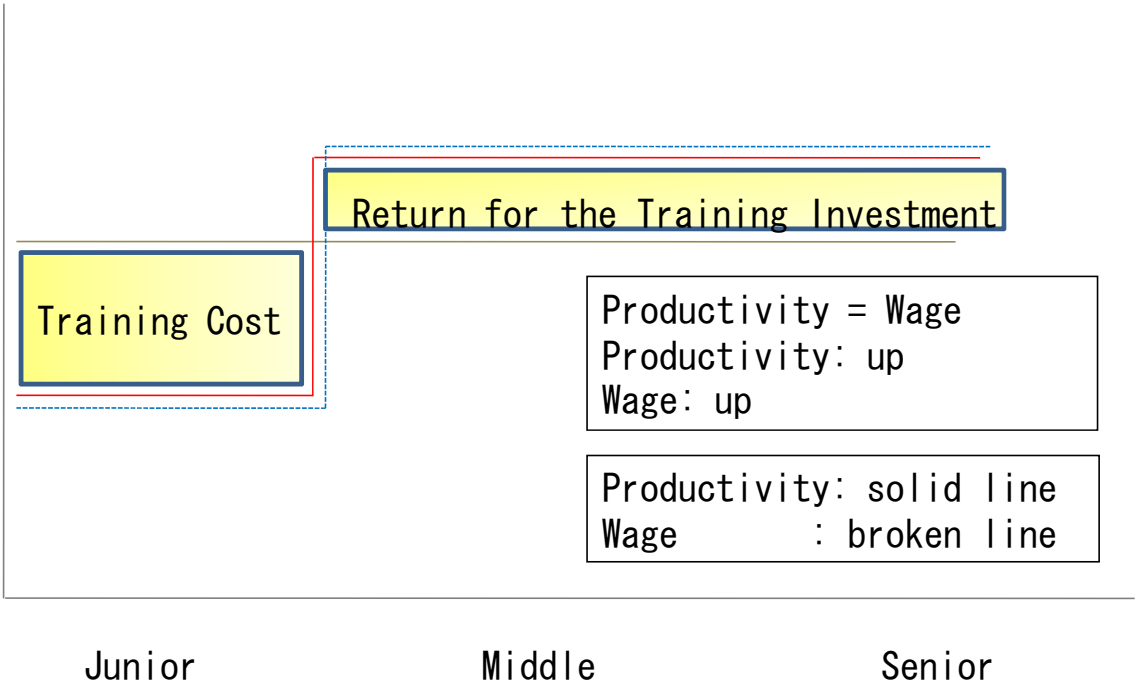

Figure 3. Wage and Productivity with Firm-Specific Training

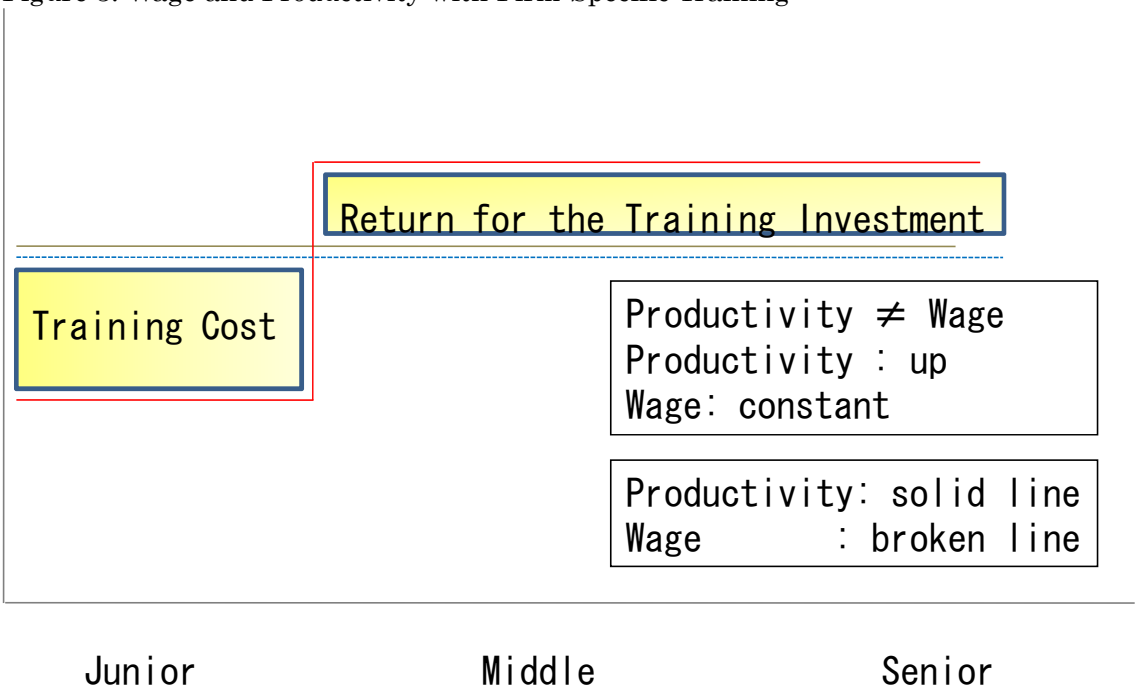

Figure 4. Wage and Productivity with Firm-Specific Training by Shared Investment

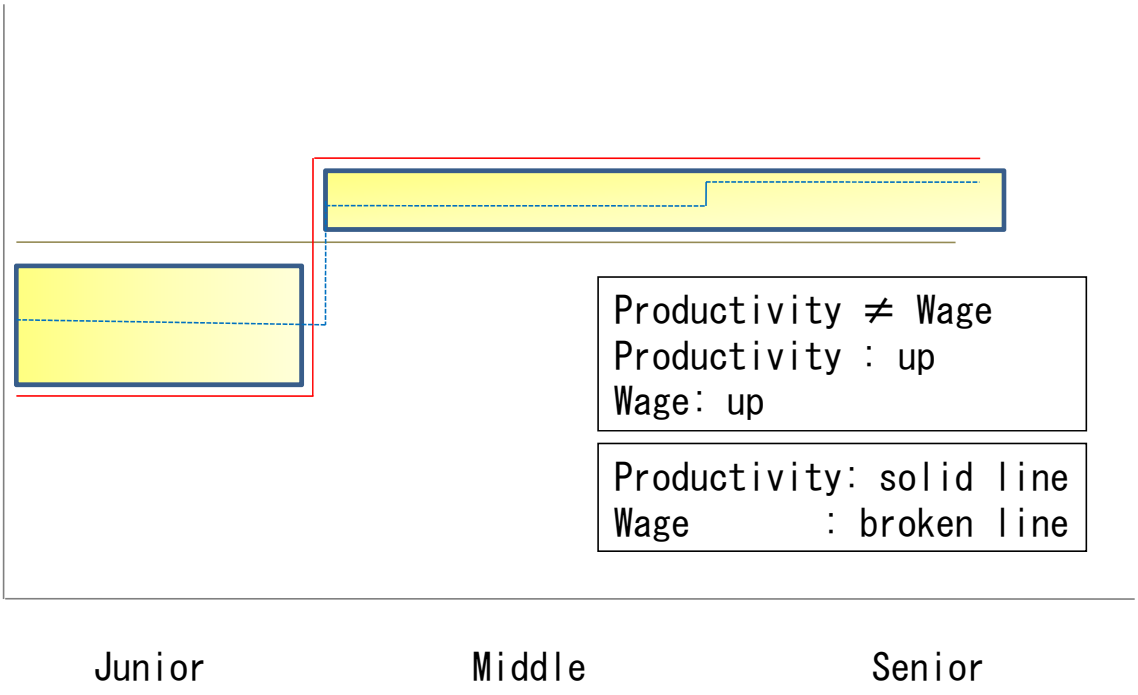

Table 1. Descriptive Statistics					
Variables	N	Mean	Std. Dev.	Min	Max
Corporate Governance					
Stable Shareholders	3491	0.63	0.29	0	1
Lack of Stock Option	3491	0.73	0.44	0	1
Profit Shareing	3491	0.81	0.39	0	1
Compulsory Retire of Directors	3491	0.50	0.50	0	1
Monopoly of Management by Insiders	3491	0.74	0.44	0	1
Personnel Attributes					
Annual Wage	3491	615	275	250	1800
Subjectibe Wage-Producitivity Gap	3477	2.32	0.59	1	3
Experience	3491	15.5	9.4	0	52
Tenure	3491	13.5	8.9	0	49
High School Grad	3491	0.15	0.35	0	1
Politech Grad	3491	0.14	0.34	0	1
University Grad	3491	0.69	0.46	0	1
Graduate School	3491	0.02	0.13	0	1
Foreign MBA	3491	0.00	0.04	0	1
Others	3491	0.00	0.06	0	1
Occupations					
Sales Division	3491	0.16	0.36	0	1
Personnel Division	3491	0.21	0.40	0	1
Planning Division	3491	0.21	0.40	0	1
General Affairs Department	3491	0.19	0.39	0	1
Accounting Section	3491	0.22	0.41	0	1
Industry					
Construction	3491	0.11	0.31	0	1
Manufacturing	3491	0.40	0.49	0	1
Electricity, Gas, Heat Supply and Watar	3491	0.02	0.15	0	1
Transport and Communications	3491	0.11	0.31	0	1
Wholesale	3491	0.06	0.24	0	1
Retail Trading	3491	0.10	0.29	0	1
Finance and Insurance	3491	0.08	0.27	0	1
Real Estate	3491	0.01	0.09	0	1
Service	3491	0.13	0.33	0	1
Sex					
Male	3491	0.74	0.44	0	1
Female	3491	0.26	0.44	0	1

Table 2. Wage Equasion with Corporate Governance Variables

	Coef.	t-value		Coef.	t-value	
Experience	0.0438	15.30	***	0.0443	15.58	***
Experience Squared	-0.0006	-9.00	***	-0.0006	-9.18	***
Tenure	0.0505	8.11	***	0.0437	10.66	***
Tenure Squared	-0.0011	-6.14	***	-0.0010	-6.88	***
Stable Shareholders	0.0760	2.17	**			
Stable Shareholders * Tenure	-0.0146	-3.04	***	-0.0056	-2.35	**
Stable Shareholders * Tenure Squared	0.0005	3.90	***	0.0003	3.47	***
Lack of Stock Option	-0.0259	-1.12				
Lack of Stock Option * Tenure	-0.0024	-0.73		-0.0054	-3.42	***
Lack of Stock Option * Tenure Squared	0.0001	0.61		0.0001	2.04	**
Profit Shareing	0.0284	1.11				
Profit Shareing * Tenure	-0.0101	-2.86	***	-0.0068	-3.87	***
Profit Shareing * Tenure Squared	0.0003	2.77	***	0.0002	2.97	***
Compulsory Retire of Directors	0.0227	1.10				
Compulsory Retire of Directors * Tenure	-0.0065	-2.26	**	-0.0037	-2.67	**
Compulsory Retire of Directors * Tenure Squared	0.0002	2.04	**	0.0001	1.87	*
Monopoly of Management by Insiders	-0.0111	-0.49				
Monopoly of Management by Insiders * Tenure	-0.0084	-2.50	**	-0.0098	-5.70	***
Monopoly of Management by Insiders * Tenure Squared	0.0002	2.24	**	0.0003	3.71	***
Female	-0.2355	-21.42	***	-0.2346	-21.34	***
Constant	5.6501	131.36	***	5.7036	347.82	***
Sample size	3491			3491		
F-value	305.38			350.9		
Prob > F	0.00			0.00		
Adj R-squared	0.77			0.77		

Note: ***, **, and * represent the significance at the level of 1%, 5%, and 10% respectively.
All specifications are controlled for the industry, occupation, and educational level but the coefficients are suppressed.

Table 3. Subjective Wage Productivity Difference						
Variables	(1)Ordered Logit			(2)Ordered Logit		
	Coef.	Std. Err.		Coef.	Std. Err.	
Experience	0.078	0.027	***	0.081	0.027	***
Experience Squared	-0.002	0.001	***	-0.002	0.001	***
Tenure	-0.133	0.058	**	-0.163	0.038	***
Tenure Squared	0.004	0.002	**	0.005	0.001	***
Stable Shareholders	-0.092	0.322				
Stable Shareholders * Tenure	0.039	0.044		0.029	0.022	
Stable Shareholders * Tenure Squared	-0.002	0.001		-0.002	0.001	**
Lack of Stock Option	0.128	0.213				
Lack of Stock Option * Tenure	-0.004	0.030		0.011	0.014	
Lack of Stock Option * Tenure Squared	0.000	0.001		0.000	0.001	
Profit Shareing	0.389	0.239	*			
Profit Shareing * Tenure	0.015	0.033		0.061	0.016	***
Profit Shareing * Tenure Squared	-0.001	0.001		-0.002	0.001	***
Compulsory Retire of Directors	0.005	0.189				
Compulsory Retire of Directors * Tenure	0.027	0.027		0.027	0.013	**
Compulsory Retire of Directors * Tenure Squared	-0.001	0.001		-0.001	0.001	*
Monopoly of Management by Insiders	-0.157	0.210				
Monopoly of Management by Insiders * Tenure	0.048	0.031		0.028	0.016	*
Monopoly of Management by Insiders * Tenure Squared	-0.001	0.001		-0.001	0.001	
Female	-0.342	0.101	***	-0.341	0.101	***
Constant						
_cut1	-2.843	0.406				
_cut2	0.454	0.401				
Sample size	3477			3477		
F-value (LR chi2)	169.95			166.24		
Prob > F (Prob > chi2)	0.00			0		
Adj R-squared (Pseudo R2)	0.03			0.03		
Log likelihood	-2935.59			-2937.45		
Note: ***, **, and * represent the significance at the level of 1%, 5%, and 10% respectively.						
All specifications are controlled for the industry, occupation, and educational level but the coefficients are suppressed.						
The Specification (1) and (2) are estimated by Ordered Logit.						
"Subjective Wage Productivity Difference" in coloum (1) and (2) is based on the answer to the questionnaire asking the employees to compare their wage and productivity. The variable takes 3 when the employees consider that their wage is higher than their productivity, takes 2 when their wage is equal to their subjective productivity, and takes 1 when their wage is lower than their subjective productivity.						

Figure 5. Wage-Tennure Profiles with Corporate Governance Variables

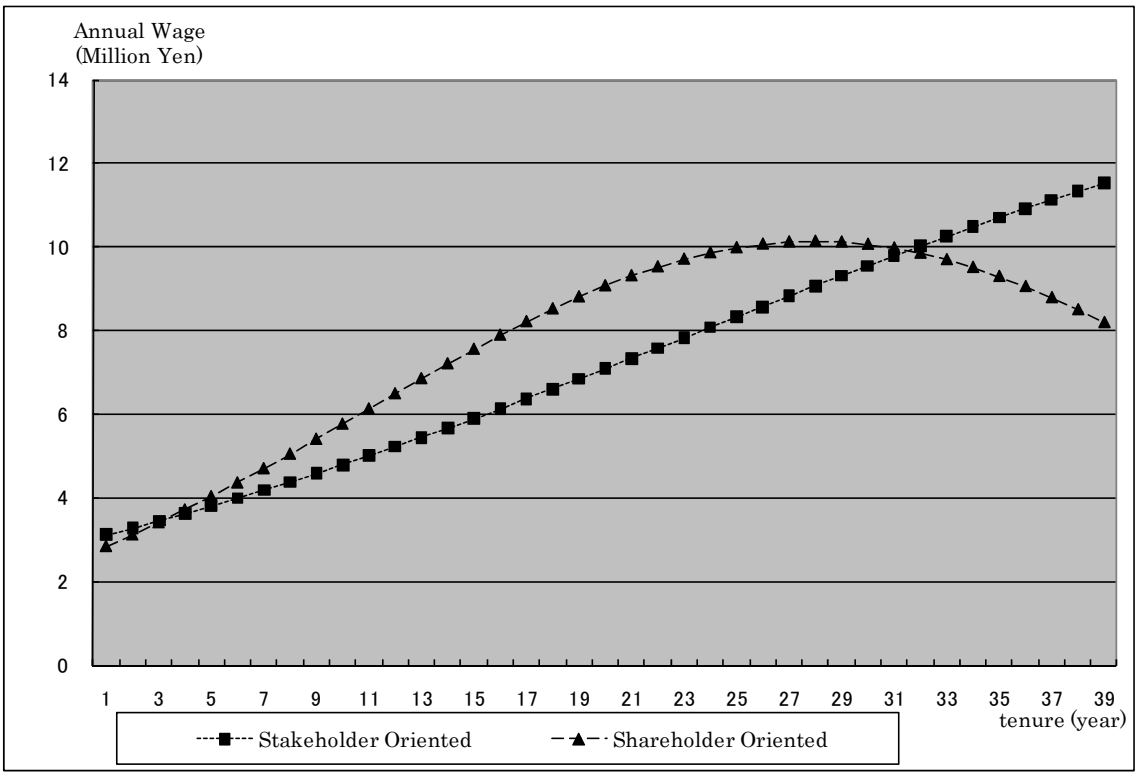

Figure 6. Subjective Wage Productivity Difference