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# Corporate Governance by Investors and the Role of Women\*

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The paper examines the hypothesis that “The disciplining of management by investor governance of corporations promotes an active role for women in the corporation. The variables used to measure “active role” for women are three: the proportion of women among regular employees, the proportion of managers who are women and the number of positive action policies. The four used as measures of investor governance are: managers answering that investors’ word carried more weight than that of their banks (a dummy variable counted as 1), the number of investor relations (IR) measures, the number of measures to reform shareholders general meeting procedures and the number of measures to reform board structures.

The results show that there is a significant positive correlation between the proportion of women in management and the existence of positive action policies on the one hand and the strength of investor governance. This means that where investors’ influence is strong, many positive action measures are taken, resulting in a higher proportion of female managers, the hypothesis thereby being supported. Thus it becomes apparent that the disciplining of managers by investors creates an environment in which it is easier for women to be active, and thereby produces more women managers.

## I. Introduction

The gender gap is greater in Japan than in any other advanced industrial country whether it be measured in terms of wages, participation or form of employment. One thesis holds that this gender gap is a function of individual worker choice, an alternative argues that it is caused by discrimination in the treatment of women on the part of corporations. The two theses are not mutually incompatible. The latter one can be subdivided into two: the arguments respectively from what might be called statistical discrimination and that from irrational discrimination.

The former, statistical discrimination, arises when, given imperfect information about a particular worker’s ability or propensity to give up a job, people use a person’s sex or race as a means of giving a best estimate of those characteristics. In other words firms behave in such a way as to maximize profit, given the information available.<sup>1</sup> Early studies of the

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\* The paper is a comprehensive revision of Chapter 9, “Are Women Active in Progressive Firms?: Corporate Governance and Management Reform and the Role of Women” in Kawaguchi (2008). The paper on which it is based was previously presented at the West Japan Labour Study Group (*Kansai Rodo Kenkyukai* in Osaka) and at the 2008 meeting of the International Association for Feminist Economics (Turin University, Italy). I would like to acknowledge the helpful comments received from participants on those occasions and also the many ideas gained from discussions with Daiji Kawaguchi. The responsibility for errors which remain is mine.

<sup>1</sup> However, when discrimination influences the worker’s investment in human capital there is a possibility of two equilibria, one in which the firm discriminates and one in which it does not, with profit being greater in the latter case (Coate and Loury 1993).

wage effects of statistical discrimination are those of Phelps (1972), Arrow (1973), and of statistical discrimination in recruitment and promotion, those of Doeringer and Piore (1971), Thurow (1975).

By contrast, the “irrational discrimination” hypothesis assumes firm behavior which is inefficient and not conducive to maximizing profits. Becker (1957) showed theoretically the possibility that employers could, if they had discriminating tastes, discriminate against women and blacks, even at the cost of diminishing profits. Kawaguchi (2008) responded to that by differentiating six different sources of discrimination besides an inherent taste for it: fixed stereotyped ideas, biased perceptions, sexual harassment, inadequate work-life balance policies, and inadequate information concerning worker characteristics.

In this paper we shall use the term “irrational discrimination” to mean discrimination which sacrifices profits.

The purpose of the present paper is to argue that discrimination against women is irrational from the point of view of corporate governance. If gender discrimination is irrational, in firms where investors exercise firm discipline over managers, those managers ought not to be allowed to discriminate against women. This leads to the hypothesis that “Where management is disciplined by investor governance, women are enabled to play a more active role.”

There are many existing field studies of gender discrimination, but none which deal with it from the viewpoint of corporate governance. The hypotheses tested in previous studies have been the following:

- (i) Firms with a high proportion of female employees have higher profits.
- (ii) Firms with a high proportion of female employees have a higher growth rate.
- (iii) Firms producing for highly competitive markets have a higher proportion of female employees.
- (iv) Firms producing for highly competitive markets have a lower gender wage gap.

Examples of the first type of study are: Sano (2005), Kodama, Odaki, and Takahashi (2005) and Kawaguchi (2007). Sano (2005) used the Nikkei Economic Electronic Databank System (hereafter NEEDS) and *Shushoku shikiho, Joseiban* [Quarterly company handbook for female students] published by Toyo Keizai, Inc. to look for a correlation between the female proportion in the labor force and the sales margin (profit/sales). Sano found that there was a negative correlation when estimated by the ordinary least squares (hereafter OLS) method, but a positive correlation when the estimation was by the median regression or by the fixed effect model method.

Kodama, Odaki, and Takahashi (2005) used the same *Quarterly Company Handbook* and *Kigyo Katsudo Kihon Chosa* (Basic Survey of Japanese Business Structure and Activities) for the years 1992 to 2000 to correlate the proportion of female employees with returns to capital employed (ordinary profit/capital employed). They found a significantly positive correlation using the least squares method, but no significant positive correlation using the fixed effect model, in fact a significant negative correlation with some model variations.

Kawaguchi (2007) used the Basic Survey of Japanese Business Structure and Activities for 1992 and for the years 1995 to 1999 to look for a relation between the proportion of female employees and operating profit on sales. Kawaguchi found a positive correlation both by the least squares, and by the fixed effect model methods.

Thus, looking for a relation between female employment and profit, all three studies using data obtained in Japan showed a tendency for there to be a positive correlation, but with differences according to the method used: Sano finding a negative and Kodama, Odaki and Takahashi, and Kawaguchi a negative correlation using least squares, while with the fixed effect model, Sano and Kawaguchi found a positive correlation but Kodama, Odaki and Takahashi a non-significant one.<sup>2</sup>

As for studies in other countries, Hellerstein, Neumark, and Troske (2002) used American cross-sectional data for the 1980s to estimate the relation between the proportion of female employees and operating profit on sales. They found positive relations both at the factory and at the corporate level.<sup>3</sup>

Studies of the second type, investigating the relationship between the proportion of female employees and corporate growth include the above mentioned study of Sano (2005) and Kawaguchi (2007). Sano found a negative correlation between the proportion of women employees in 1992 and growth in sales from 1992 to 2001. Kawaguchi found that the higher a firm's female employment in 1992, the lower was its growth in both output and employment, 1992-1999. Both studies contradict the irrational discrimination hypothesis.

Foreign studies include that of Hellerstein, Neumark, and Troske (2002) who compared 1990 factory-level data for the proportion of female employees with, for the period 1990 to 1995, growth in sales, growth in employment and whether or not there had been a change of factory ownership, the latter being included on the assumption that discriminating against women would cause low profitability and hence make a change of ownership more likely. They found no correlation of any of the variables with female employment. As with studies in Japan, while not actually finding negative correlations, they found nothing to support the irrational discrimination hypothesis.

The third type of study is exemplified in Kawaguchi (2007). He found that the higher the level of concentration in an industrial sector, the lower was the proportion of female employment.

As for overseas studies, Ashenfelter and Hannan (1986) compared 1976 data on banks

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<sup>2</sup> Kodama, Odaki, and Takahashi (2005) conclude that the "taste discrimination" hypothesis is not supported and that there must be a third factor which affects both the proportion of female employees and profits. They suggest that this factor is the system of re-employing women who return to work after raising a family.

<sup>3</sup> Corporate work-life-balance (hereafter WLB) policies are expected both to promote the role of women and increase corporate results, and analyses of the relationship have been conducted by Wakisaka (2006a, 2006b, 2007), and Abe and Kurosawa (2006). They both find a positive correlation. For a survey of the foreign literature on the effects of WLB policies and corporate results, see Matsubara and Wakisaka (2005a, 2005b, 2006).

in the two states of Pennsylvania and New Jersey. He also found a negative correlation between the level of concentration in an industry and the proportion of female employees. These studies go to confirm the irrational discrimination hypothesis.

Black and Strahan (2001) is representative of the fourth type of study. They analysed American bank data, looking for the effect on gender wage differentials of deregulation. They discovered that whereas deregulation led to a 12% reduction in male wages, the reduction for women was only 3%. This suggests that intensified competition had the effect of forcing bank managements into more egalitarian policies.

Again, Black and Brainerd (2004) used American data from 1976 to 1993 to estimate the effect on gender wage differentials of the increase in imports resulting from globalization. They found that in industries with a high degree of concentration, the differential decreased the higher the proportion of imports in consumption became. Their interpretation was that the level of concentration correlated with the level of oligopoly rent. That rent had been distributed with priority to male employees. Increased competition with imports reduced that rent and made it less possible to discriminatingly privilege men, i.e. discriminate against women. This study, therefore, supports the irrational discrimination hypothesis.

The present paper differs from existing studies in the following two respects. First, it examines the irrationality or otherwise of management discrimination against women, by looking at the hypothesis that institutional and foreign investors, pressing for more efficient management should make it difficult for managers to continue to discriminate<sup>4, 5</sup>. In this paper the strength of investor pressure on managers is measured by the perceptions of managers themselves, as well as by reforms designed to favor investors, in, for instance, board structure, the handling of shareholders general meetings and investor relations.

The second difference is that existing studies have generally used the proportion of female employment as their measure of discrimination against women (or its obverse, the degree to which women have an active role). In this paper, we use as additional measures,

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<sup>4</sup> There is an alternative to the hypothesis that an increasing strength of shareholder voice enforces more efficient management, namely that firms with more efficient management are likely to reduce the proportion of their shares held by “stable shareholders” and as a consequence the weight of foreign shareholding increases. Miyajima, Haramura, and Enami (2003) have shown that in the latter half of the 1990s, the pattern of shareholding in firms with a high level of earning power showed an increase foreign ownership and a reduction in the holdings of banks and insurance companies. They explain this as resulting from the facts that the banks and insurance companies had disposed of their more valuable shares first in order to maximize the receipts, while the more profitable firms, becoming less dependent on the banks, were more inclined to sell the reciprocal holdings they had in the banks.

<sup>5</sup> Yonezawa and Miyazaki (1996) showed that the higher a firm’s proportion of foreign ownership, the higher the productivity, and Miyajima et al. (2002) showed that the rate of productivity growth was also higher. Again, Horiuchi and Hanazaki (2004) showed that the same relationship applied when comparing industrial sectors, and Miyajima and Kuroki (2004) found that firms with a high proportion of ownership by foreign shareholders and by domestic institutional investors had a higher return on capital employed and a higher Tobin’s q.

the proportion of women in management and positive action policies.<sup>6</sup> The use of the single measure of proportion in total employment is dangerous since it is possible for firms to discriminate against women in job postings, training, assessment and promotion, even when they have high proportions of female employees.

If one uses the model of Becker (1957) the above problem does not arise, at least theoretically, because all workers are considered as equal in ability and lacking in human capital investment, thus making a gender disproportion in recruitment in itself a sign of discrimination. But there are obviously many other ways to discriminate besides in recruitment, so multiple measures are necessary.

The structure of this paper is as follows. Section II looks at the relationship between corporate governance and an active role for women in historical perspective, and explains the logic underlying the hypothesis that subjecting managers to investor discipline will promote the role of women. Section III introduces the data used for the study and Section IV explains the variables used in the model. Section V discusses the results of the estimation and Section VI offers conclusions.

## **II. Corporate Governance in Japan and the Role of Women**

Here we establish the historical facts of the relation between corporate governance and an active role for women, and explain the logic underlying the hypothesis that subjecting managers to investor discipline will promote the role of women.<sup>7</sup>

Firms mobilized their capital in post-war Japan primarily by indirect finance. As a result, the main-bank system functioned as the mechanism for disciplining management. Generally, a firm's main bank was the bank which provided the highest proportion of the firm's bank finance, and usually held the highest proportion of the firm's shares. It would interfere very little with management in normal times, but when the firm faced a crisis, would send executives into the firm to rescue it. The relation is described by Aoki (1994) as "contingent governance."

Traditional Japanese firms, in order to avoid having investors interfere in management, promoted reciprocal cross-holdings. In this way they minimized the proportion of their shares which were bought and sold in the market, and were able to prevent institutional investors and foreign investors from getting large shareholdings.

This uniquely Japanese system of corporate governance had the advantage that it allowed managers to concentrate on long-term objectives without bothering too much about profit levels in the short term. It is what made possible the long-term development of human capital through the strategy of lifetime employment.

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<sup>6</sup> We use the term to refer to policies planning deliberate action to promote an active role for women, what is known in America as affirmative action.

<sup>7</sup> For further elaboration of the argument, see Kawaguchi (2008, chap. 6).

That employment system of building human capital for the long term through lifetime employment was a system which excluded women. In return for offering workers stable employment prospects, the firms required of their workers a flexible pattern of working. In a Japanese firm which frequently required overtime working, weekend working, trips, and postings away from home, it was hard to be a fully functioning employee without the backing of a full-time housewife. Work conditions in Japanese firms did not allow women to go on working after marriage and having children. Most women would leave their jobs when they married and had children. And since it would not be rational for the firm to offer the same training and job allocation as they gave men to women who had a high separation rate, women received less advantageous treatment in recruitment, training, posting and promotion.

However, recent changes in the socio-economic environment have raised the productive potential of women. In the first place there has been a notable increase in female educational levels. The proportion of female age groups going to university in 1990 was 15.2%, but in 2007 had risen to 40.6%—a higher rise than that for men which was from 33.4% to 53.5%.<sup>8</sup> This increase in female university enrolments meant, not only an increase in the potential work ability of women, but also a stronger propensity to seek employment.

A second change is the development of governmental policies to make working compatible with running a family. Successive measures have been taken to deal with the decline in the birth rate. Listed in the order of enactment or adoption, the Parental Leave Act (1991), the Basic Direction for Future Child Rearing Support Measures (the Angel Plan) (1994), the New Angel Plan (1999), the Measures to Facilitate the Rearing of the Next Generation (2003) and the Basic Law for Social Measures to Counter the Declining Birthrate (2003). These measures have been designed to make working more compatible with family responsibilities, by improving child care services, creating parental leave systems, and flexible working systems. The measures to counter the declining birth rate have the possibility of facilitating the employment of women and reducing the likelihood that pregnancy and childbirth will mean that women leave their jobs.

Again, the decline in the birth rate means smaller numbers of young workers coming into the labor market. Firms will become increasingly unable to recruit enough good workers if they continue to concentrate on recruiting men.

Thus, the need to increase the scope of women's work activity is obviously there, but unless firms change their established employment practices it is not going to happen. In order to deploy female labor effectively, in the first place they have to introduce employment practices which make the combination of working and enjoying family life possible for women; they need, for instance, to reduce endemic overtime working, reduce the length of the working day, make it easier to take time off for childbirth and child care, and take fam-

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<sup>8</sup> From the annual statistical compilations of the Ministry of Education, Culture, Sports, Science and Technology, *Gakko Kihon Chosa* (Basic Survey on Schools). [http://www.mext.go.jp/b\\_menu/toukei/001/07073002/007/ssh26.xls](http://www.mext.go.jp/b_menu/toukei/001/07073002/007/ssh26.xls), (accessed November 16, 2007).

ily circumstances and spouse's job into account when planning job transfers.

They need, also, to treat men and women equally, in respect to recruitment, job posting, training and personnel assessment. Hitherto these are matters in which the gender criterion has been regularly used. This is part of the firm culture; gender bias is built into the employee mentality and firms' personnel practices. Equal treatment for both sexes requires a reconstruction of that employee mentality, in particular of the mentality of management. It requires a revolutionary change to expose the gender bias in personnel policies and establish conventions of equality.

Such a revolution might become possible if there is powerful governance by investors. For the following reasons, First, investors, as compared with main banks, are pursuing profit in the short term. And they are constantly demanding that managers manage efficiently, in sharp contrast to main banks which in normal times rarely interfered. Pressed by investors to manage efficiently, managers should seek positively to exploit female labor with its potentially enhanced productivity.

Secondly, in order to promote an active role for women, there is a need for a considerable revolution in employment practices in Japanese firms and it is reasonable to suppose that such a revolution would be more easily accomplished in those firms where the composition of the stakeholders has been substantially changed from banks to institutional investors, including foreigners. Where governance systems have not changed, firms are more likely to be hidebound in existing practices, making reform difficult to accomplish.

Thirdly, foreign investors do frequently take up the question of expanding the role of women as part of their demands for the improvement of management practices. They see the fact that women managers and directors are so extremely rare in Japan as an indication of the general insiderist exclusiveness and inefficiency of Japanese firms, and this also means that increased power to the foreign investors serves to promote the role of women.

### **III. The Data**

The data used for this research are drawn from the Research Report on Corporate Governance, Social Responsibility and Human Resources Strategies carried out by the Japan Institute for Labor Policy and Training. This was a questionnaire survey addressed to 2531 firms (quoted on both the first and second stock markets of Tokyo, Osaka and Nagoya) between the 6th and the 21st of October, 2005. Schedules were sent and received by post and the response rate was 17.8%.

The questionnaire was divided into three parts, the first dealing with the general managerial stance, corporate social responsibility, investor relations, etc., the second with personnel policies for regular workers, and the third, "About your firm," asking about numbers of employees, their length of tenure and general business performance. The first section was to be answered by a corporate planning manager, and the others by a human resources manager.

Table 1. Descriptive Statistics

Variable	Number of observations	Mean	Standard deviation	Minimum	Maximum
Proportion of women among regular employees	376	0.266	0.234	0	1
Proportion of women among managers	361	0.016	0.031	0	0.25
Number of positive action policies	334	2.695	2.718	0	10
Measures to promote the taking of annual paid holidays	429	1.655	1.339	0	7
Measures to improve the regulation of work hours	402	4.609	2.530	0	12
Stakeholders with hitherto an important influence					
Banks' voice stronger than investors'	425	0.369	0.483	0	1
Investors' voice stronger than banks'	425	0.355	0.479	0	1
Voice of both weak	425	0.275	0.447	0	1
Number of IR measures	433	3.624	2.212	0	9
Number of measures to reform shareholders general meeting procedures	450	2.351	1.493	0	7
Number of measures to reform board structures	441	1.397	1.037	0	1
Number of employees					
1-99	450	0.044	0.206	0	1
100-299	450	0.124	0.330	0	1
300-499	450	0.118	0.323	0	1
500-999	450	0.216	0.412	0	1
1000-1999	450	0.160	0.367	0	1
2000-4999	450	0.200	0.400	0	1
More than 5000	450	0.138	0.345	0	1
Industry					
Construction	450	0.089	0.285	0	1
Food products	450	0.049	0.216	0	1
Textiles	450	0.038	0.191	0	1
Chemicals	450	0.067	0.250	0	1
Pharmaceuticals	450	0.031	0.174	0	1
Glass and ceramics	450	0.027	0.161	0	1
Metal	450	0.058	0.234	0	1
Machinery	450	0.073	0.261	0	1
Electrical equipment	450	0.076	0.265	0	1
Transport equipment	450	0.051	0.220	0	1
Precision machinery	450	0.013	0.115	0	1
Other products	450	0.040	0.196	0	1
Electricity, gas	450	0.022	0.148	0	1
Transport	450	0.031	0.174	0	1
Information, communications	450	0.062	0.242	0	1
Retail trade	450	0.100	0.300	0	1
Wholesale trade	450	0.033	0.180	0	1
Finance	450	0.069	0.254	0	1
Services	450	0.071	0.257	0	1
Has union	442	0.722	0.449	0	1



These data were integrated with data from NEEDS. In this paper we have not used any business indicators, but the industrial sector divisions are taken from NEEDS.

Table 1 shows descriptive statistics. For the detailed questions and cross-tabulations, please see JILPT (2007).

#### IV. Experimental Models

The purpose of the analysis was to test the hypothesis that “the greater the say investors had in the management of the firm, the more active would be the role of women” and the hypothesis that “the greater the say investors had in the management of the firm, the more earnestly the firm would pursue WLB policies.” Such policies are a prerequisite for women to play an active role.

The dependent variables were three proxies for feminine activity, and the two variables for WLB promotion. The independent variables were the four which were used as proxies for “investor say,” the power of investors to influence managers. We explain below how those variables were constructed.

##### 1. Proxies for Feminine Activity

We used three dummy variables to indicate feminine activity:

- ❖ The proportion of women among regular employees
- ❖ The proportion of women in the ranks of management
- ❖ The number of positive action policies.

Table 1 shows that while the mean proportion of women among employees is 26.6%, among managerial staff (section chief and above) it is a mere 1.6%.

Strictly speaking, the questions about positive action policies were not concerned with actual levels of feminine activity, but rather with whether or not the company is creating the conditions which would enable women to play a greater role in the future. “Number of positive action policies” was measured by the number of “yes” answers to the following questions.

*Does your company carry out positive action policies? Would you please check the relevant item for each of the following (a) to (f).*

- (a) Establishing a section or appointment of a particular manager specifically responsible for positive action programs (promotion infrastructure)*
- (b) Carrying out surveys and analysis of problems arising*
- (c) Making plans to utilize women’s abilities*
- (d) Seeking actively to recruit and promote women*
- (e) Education and training designed to make it possible to employ women in sections where they are in a tiny minority*
- (f) Providing a consultation and advice service specifically for women*

- (g) *Adoption of regulations to curb sexual harassment*
- (h) *Establishing programs to make it easier to combine work and family life (over and above legal requirements).*
- (i) *Propaganda work among men*
- (j) *Improving the work environment and atmosphere*

The average number of policies ticked was 2.7. For firms which ticked any of them the average was 3.8. The most commonly chosen policy was rules to prevent sexual harassment, followed by positive attempts to recruit and promote women.

## 2. Variables Relating to Policies for Improving the Work-Life Balance

We measured the approach to WLB with the following two variables:

- ❖ The number of policies directed at persuading employees to take their paid holidays
- ❖ The number of policies designed to regulate working hours.

For the former we used the following question.

*Does your firm pursue any of the following policies designed to promote the actual taking of paid holidays? Please tick those which you are following.*

1. *Encouraging taking the holiday in a single continuous span of days*
2. *Instituting the practice of shutting the firm down for a period*
3. *Planning the incidence of individual holidays*
4. *Forward planning of the work load and ways of getting through it*
5. *Reviewing the designation of key essential personnel and making sure that they have substitutes*
6. *Insisting that the taking of holidays is never reflected in performance assessments*
7. *Making the handling of their subordinates' holiday arrangements an element in the performance assessment of managers.*
8. *No particular measures*

As Table 1 shows, the average score was 1.7, the most frequent choice being “encouraging the taking of continuous holidays” followed by “forward planning of the work load and ways of getting through it.”

The question for “better regulation of working hours” was as follows.

*Has your company adopted policies to improve the regulation of working hours? Please tick the policies which you have adopted.*

1. *Introduction of the check system (using time card, IC card, record of computer booting, etc.)*
2. *Making overtime dependent on prior instruction from superior*

3. *Setting days for leaving work at a fixed time (No overtime days, etc.)*
4. *Regular workshop/office patrols to check on overtime*
5. *Increasing the numbers on flextime or discretionary work hours*
6. *Encouraging the taking of alternative holidays*
7. *Establishing an advice center in the firm*
8. *Special health checks for workers doing a particularly large amount of overtime*
9. *Educational and diffusion work regarding appropriate work hours*
10. *Surveys of the actual state of overtime working*
11. *Establishing a special committee or working party to regulate work hours*
12. *Making a formal agreement on working hour control within the Management-Labor Committee framework*

As Table 1 shows, firms' average implementation score was 4.6. The most frequent choice was "educational and diffusion work regarding appropriate work hours," followed by "making overtime dependent on prior instruction from superior" and "surveys of the actual state of overtime working."

### 3. Variables Designed to Measure Strength of Investor Role in Corporate Governance

The relative power of stakeholders has a great influence on corporate governance. In the case of the typical Japanese firm, banks were strong and investors were weak. Banks interfered in management very little as long as things went well. The main bank would intervene to rebuild management structures when the firm suffered a crisis. By contrast, investors, since they place considerable importance on short-term profits, constantly demand the improvement of managerial efficiency. Hence, the relative power of banks and investors greatly influences the character of management. We used three dummy variables to indicate this:

- ❖ Banks' voice more powerful than that of investors
- ❖ Investors' voice more powerful than that of banks
- ❖ Voice of both investor and bank weak

We determined the assignment of those variables in the light of answers to the following question.

*About your firm's stakeholders:*

1. *Omitted.*
2. *Would you please choose, from among the following eight alternatives, the three whose influence on your management has in the past been greatest and is likely in future to be greatest, and number them 1 to 3 according to the strength of that influence.*
  1. *Customers (consumers)*
  2. *Employees*
  3. *Suppliers*
  4. *Government*
  5. *The bank(s) you deal with*
  6. *The firm(s) you deal with*
  7. *Other financial institutions*
  8. *Other*

- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| 3. <i>Individual investors</i>    | 7. <i>Group firms</i>             |
| 4. <i>Institutional investors</i> | 8. <i>Others (please specify)</i> |

For the first dummy variable, firms scored 1 if they put “the bank(s) we deal with” ahead of individual or institutional investors. For the second, if they put either individual or institutional shareholders ahead of the bank, and for the third, if they included none of the three (banks, individual or institutional investors) in their first three.<sup>9</sup>

Where investors’ influence is great we would expect their pressure for management efficiency to reduce the degree of irrational female discrimination. Hence one would expect the “investors’ voice stronger than banks” dummy to correlate positively with an enhanced role for women and WLB policies.

Next, in order to measure the extent to which management gave weight to investors’ interests we used the following proxy measures:

- ❖ The number of investor relations (IR) measures
- ❖ The number of measures to reform shareholders general meeting procedures
- ❖ The number of measures to reform board structures

The question we used to make up the IR measure was:

*What investor-relations programs does your firm currently carry out? Please tick those which apply.*

- (a) *Making information pamphlets such as Annual Securities Reports available at all the firm’s facilities.*
- (b) *Putting your annual report up on your home page as investor information*
- (c) *Holding regular meetings with analysts within Japan*
- (d) *Holding regular meetings with analysts overseas*
- (e) *Hiring investor-relations consultants*
- (f) *Establishing an investor-relations section within the firm with a team specialized in providing information to analysts and investors*
- (g) *Creating an information disclosure document in English*
- (h) *Holding discussion meetings for investors apart from the shareholders general meeting*
- (i) *Giving shareholders special privileges*

As Table 1 shows, the average number of items ticked was 3.6. The most frequently chosen items were meetings with analysts within Japan, the establishment of an IR section, and making the Annual Securities Reports available.

For reform of the shareholders general meeting, the question was as follows:

<sup>9</sup> In including individual as well as institutional investors in the “investors’ voice stronger than banks” dummy we had in mind, not minor or floating shareholders, but individual shareholders whose opinion firms’ take account of, and they also are likely to press managers to be more efficient.

*We would like to ask about how you handle your annual general meetings of shareholders. Would you please tick the items which describe your practice.*

- (a) We try to avoid the favorite days when all other firms have their meetings*
- (b) We schedule meetings for Saturdays and Sundays*
- (c) We give early notice of the date of the shareholders general meeting*
- (d) We disclose the names of those proposed for directorships before the meeting*
- (e) We provide simultaneous translation into English at the shareholders general meeting*
- (f) We don't try to get the meeting over quickly; we encourage lively discussion*
- (g) We send out notice of the meeting by electronic mail*
- (h) We allow voting on shareholders general meeting resolutions by electronic mail*

As Table 1 shows, the average number of items ticked was 2.4. The most frequently chosen items were: advance disclosure of candidate directors, followed by encouraging lively discussion.

Next, the questions for obtaining the number of measures to reform board structures were as follows.

*Has your firm carried out any of the following measures to reform the board of directors? Please tick the items which apply.*

- (a) Transfer to the legal category of "Company with Committees"*
- (b) Introduction of the Executive Officer system*
- (c) Appointment of external directors*
- (d) Introduction of a stock option system*
- (e) Made disclosure of individual directors' emoluments*

As Table 1 shows, the average number of ticked items was 1.4 with the adoption of the executive officer system and appointment of external directors being the items most frequently chosen.

## **V. Estimation Results**

### **1. Influence of Investors and Management Reform**

First we wanted to test whether the three objective measures of investor influence which we had chosen—number of IR measures, number of measures to reform shareholders general meeting procedures and number of measures to reform board structures—were appropriate as measures of investor influence. Accordingly we used the OLS method to see how, as dependent variables, these were predicted by the dummies for “investors’ voice stronger than banks’,” “voice of both weak,” employee numbers, union presence and industrial sector.

Table 2. Strength of Investor Influence and Management Reform

Independent variables	Number of IR measures (1)	Number of measures to reform shareholders general meeting procedures (2)	Number of measures to reform board structures (3)
Investors' voice stronger than banks'	1.150*** (0.236)	0.714*** (0.168)	0.269** (0.127)
Voice of both weak	0.481* (0.248)	0.537*** (0.177)	0.299** (0.133)
R <sup>2</sup>	0.341	0.230	0.121
Number of observations	405	419	413

*Notes:* 1. All models use as independent variables, in addition to the one specified, dummies for the number of employees, the presence or absence of a union, and industry.

2. The figure in brackets is the standard error.

3. The level of significance is shown as \*=10%, \*\*=5% and \*\*\*=1%.

If these three objective indicators are valid, there should be a positive correlation with “investors’ voice stronger than banks’.” The results are shown in Table 2.

Table 2 shows that firms in which the investors’ voice is stronger than banks’ score 1.15 points more on number of IR measures, 0.71 points more on number of measures to reform shareholders general meeting procedures and 0.27 points more on number of measures to reform board structures than the firms where the banks’ voice is stronger than investors’. And even those firms which say that the voice of both investor and bank is weak have higher scores on numbers of those measures of reforms than those in which the banks’ voice is stronger than investors’. One may hypothesize that this is because they are anticipating the day when they will be seeking to mobilize capital from the market.

These results suggest that it is indeed appropriate to use the numbers of policies for promoting investor relations, reforms of shareholders general meeting and board reforms as proxy measures for the influence of investors.

## 2. Investor Governance and an Active Role for Women

Table 3 examines the relation between investor governance and the role of women. Unexpectedly when we estimate the relation between the strength of investor governance and the proportion of women in the regular labor force (models [1] to [4]) we find not a single significant coefficient. However, with the exception of model (1) the signs are all in the expected direction.

Let us look next at the relation of the strength of investor governance to the proportion of women in management (models [5] to [8]). Here all the coefficients not only have the expected sign, but are also significant at the five percent level; there is a higher proportion of female managers the stronger the influence of investors.

The same applies to positive action policies (models [9] to [12]), though the relation

Table 3. Strength of Investor Governance and Extent of Feminine Activity (OLS)

Model number	Independent variable (X)	X coefficient	Standard error	R <sup>2</sup>	Number of observations
Dependent variable: Proportion of women among regular employees					
(1)	Investors' voice stronger than banks'	-0.027	0.029	0.222	357
(2)	Number of IR measures	0.008	0.006	0.236	361
(3)	Number of measures to reform shareholders general meeting procedures	0.006	0.008	0.214	372
(4)	Number of measures to reform board structures	0.003	0.012	0.209	366
Dependent variable: Proportion of women among managers					
(5)	Investors' voice stronger than banks'	0.014	0.004 ***	0.301	341
(6)	Number of IR measures	0.002	0.001 ***	0.296	347
(7)	Number of measures to reform shareholders general meeting procedures	0.002	0.001 **	0.275	358
(8)	Number of measures to reform board structures	0.005	0.001 ***	0.288	352
Dependent variable: Number of positive action policies					
(9)	Investors' voice stronger than banks'	0.701	0.367 *	0.219	311
(10)	Number of IR measures	0.303	0.074 ***	0.265	320
(11)	Number of measures to reform shareholders general meeting procedures	0.507	0.101 ***	0.265	329
(12)	Number of measures to reform board structures	0.316	0.135 ***	0.211	325

Notes: 1. In all models, in addition to the independent variable tested (X), dummy independent variables were used for number of employees, industry and presence or absence of unions. In models (1), (5) and (9), the “voice of both weak” dummy was also added as the independent variable.  
 2. The level of significance is shown as \*=10%, \*\*=5%, \*\*\*=1%.

to the “investors’ voice stronger than banks” dummy fails to reach the five percent significance level.

It is clear from the above that the results are rather different depending on whether one uses the proportion of women in the total regular labor force or the proportion of women in management or the number of positive action policies as the index of an active role for women. Strong investor governance does not make for a high proportion of women in the labor force, but it does bring the enthusiastic promotion of positive action and the promotion of women to the ranks of management.

This result can be interpreted as follows. There are multiple ways in which female labor can be utilized. Becker (1957) envisaged the situation in which firms take advantage of lower female wage rates to hire a larger proportion of women and thereby increase profits. But a different way of utilizing female labor power is to invest in their human capital, place them in important posts, and promote them in the same way as men, in other words to treat them as part of the firm’s core labor force. It seems that in firms with strong investor influence, women are not employed chiefly as cheap labor, but are treated as part of the core labor force.

Table 4. Strength of Investor Governance and WLB Policies (OLS)

Independent variable (X)	X coefficient	Standard error	R <sup>2</sup>	Number of observations
Dependent variable: Number of measures to encourage taking annual paid holidays				
(1) Investor voice stronger than banks'	0.274	0.154 *	0.214	404
(2) Number of IR measures	0.023	0.032	0.247	409
(3) Number of measures to reform shareholders general meeting procedures	0.180	0.044 ***	0.258	424
(4) Number of measures to reform board structures	0.061	0.061	0.232	417
Dependent variable: Number of measures to regulate work hours				
(5) Investor voice stronger than banks'	0.066	0.292	0.262	378
(6) Number of IR measures	0.200	0.059 ***	0.329	384
(7) Number of measures to reform shareholders general meeting procedures	0.382	0.082 ***	0.325	397
(8) Number of measures to reform board structures	0.394	0.112 ***	0.301	393

Notes: 1. In all models, in addition to the independent variable tested (X), dummy independent variables were used for number of employees, industry and presence or absence of unions. In models (1) and (5), the “voice of both weak” dummy was also added as the independent variable.

2. The level of significance is shown as \*=10%, \*\*=5%, \*\*\*=1%.

### 3. Investor Governance and the Work-Life Balance

Finally, we looked at the relationship between investor-dominated corporate governance and the number of WLB measures. If investor governance promotes an active role for women, in firms where investors have great influence there should be more WLB policies designed to make it easier for women to play an active role.

Table 4 shows results generally in line with the hypothesis. The measures of the relation to the strength of investor governance all show a positive coefficient. However, the only coefficient which reaches the one percent level of significance is that between the number of measures to promote the taking of annual paid holidays as the dependent variable with reform of shareholders general meeting procedures as the independent. If measures to regulate work hours be taken as the dependent variable, all the coefficients are positive at the one percent level with the exception of the “investors’ voice stronger than banks” dummy.

## VI. Conclusion

This study has used the Research Report on Corporate Governance, Social Responsibility and Human Resources Strategies (Japan Institute for Labor Policy and Training 2005) to test the hypothesis that the disciplining of management by investors serves to promote an active role for women in the enterprise. The variables used to measure “active role” for women are three: the proportion of women among regular employees, the proportion of managers who are women and the number of positive action policies. As measures of investor governance we had both subjective measures of managers’ perceptions and objective



measures. The subjective measure was a dummy variable counted as 1 if managers said that investors' word carried more weight than that of their banks. And as objective measures we constructed three variables from the number of investor relations measures, the number of measures to reform shareholders general meeting procedures, and the number of measures to reform board structures.

The results of our estimation showed that the proportion of women in management and the number of positive action policies had a significantly positive relation with investor governance. This indicates that where investor influence is strong, positive action policies are adopted and female managers are common, thus confirming the hypothesis.

Finally, in order to confirm the truth of the hypothesis from another angle we analyzed the relation between investor governance and policies to promote work-life balance, assuming that if investor influence were strong, WLB policies would be promoted in order to give a more active role for women. The estimation produced the expected results. Where investor influence is strong there are more efforts to ensure that annual paid holidays are taken and that work hours are made more appropriate.

Thus it is clear that the disciplining of management by investors creates a work environment in which it is easier for women to play an active role and breeds a larger number of female executives.

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