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## Managerial control inside the firm

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Discussion Paper No. 635

**MANAGERIAL CONTROL INSIDE THE FIRM**

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# Managerial Control inside the Firm<sup>1</sup>

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### **Abstract**

This paper proposes an implicit control mechanism of managers inside the firm. We argue that the need to motivate workers may make it beneficial for a self-interested, short-sighted manager to pursue long-run viability of the firm. When the firm is in a stable environment, this implicit control mechanism may not contradict shareholder value maximization. However, when the firm needs restructuring, this mechanism damages firm value. We discuss when external governance is desirable, and when it is not. Our model also offers economic explanations for some related issues in managerial behavior such as restructuring aversion, survival motive, and excessive risk aversion.

Keywords: corporate governance, worker incentives, autonomous management, restructuring, corporate survival, managerial risk aversion.

*JEL* classification: G34; J41

## I. Introduction

In modern corporations, managerial discipline is crucial for good corporate performance. Since Berle and Means (1932), a great deal of effort has been made on investigating managerial discipline and it has been the central issue in corporate governance debates. Especially in the economic literature, it has been argued that governance mechanisms by shareholders, such as the board of directors, executive stock-based compensation, takeover threats, monitoring by large shareholders, are necessary to control managers effectively and to ensure efficient operation of the firm (Shleifer and Vishny, 1997).

In empirical studies for the last few decades, however, there seems to have been disappointingly limited evidence for the effectiveness of shareholder governance.<sup>2</sup> In addition, we can observe firms that continue to perform fairly well even if they appear to have very weak governance mechanisms (Allen and Gale, 2000; Vives, 2000). Natural questions then arise: is it possible that firms operate efficiently without governance? If so, how are managers controlled in those firms?<sup>3</sup>

This paper studies the possibility that managers can be controlled *internally*. We propose a model based on the simple idea that, if a manager needs cooperation of his workers, he must take into account the effect of his decisions on their future, and this will in turn affect his decisions themselves. We show that when a short-sighted manager needs to motivate workers, it may be beneficial for him to pursue long-run viability of the firm while giving up his own self-interests. We call this mechanism “implicit control inside the firm”. Under certain conditions, managers are controlled internally in such a way that he makes decisions that serve the interest of shareholders, even if there is no explicit shareholder governance. We argue that the implicit control mechanism may substitute for external governance mechanisms.

We also point out that the implicit control mechanism does not always work well. In particular, we show that it damages shareholder wealth when the firm needs restructuring. Without external pressure, the manager is inclined to the status-quo and may avoid restructuring even if it maximizes firm value. In this case, some external

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<sup>2</sup> See, e.g., Core, Guay and Larcker (2003) for executive compensation, Hermalin and Weisbach (2003) for board of directors, Holderness (2003) for blockholders. Becht, Bolton and Roell (2002) provide an extensive overview.

<sup>3</sup> One answer would be that product market competition disciplines management (Schmidt, 1997). Our paper offers an alternative answer.

governance is necessary for higher firm value. This is consistent with the empirical evidence that external governance does indeed facilitate restructuring (Denis, Denis and Sarin, 1996; Kang and Shivdasani, 1997; Berger and Ofek, 1999).

Our model also suggests that the intensity of the implicit control depends on labor market conditions and other worker-related variables. Since they vary significantly according to countries, our model may also help to explain cross-country differences in corporate governance. Moreover, we are able to offer economic explanations for managers' reluctance to conduct restructuring (Baron and Kreps, 1999; Grinblatt and Titman, 2001), their survival motive (Radner, 1996), and their risk aversion (Stulz, 1984; Smith and Stulz, 1985), which have usually been attributed to management psychology.

The influence of subordinates on managerial decision making is discussed by Allen and Gale (2000, Ch. 12). They assume that managerial decision requires consensus from all members of the management team with different tenures, and show that the equilibrium decision sequentially exhibits a longer time horizon than the remaining tenure of each member. Unlike Allen and Gale (2000), we explicitly model the interaction between a decision maker (manager) and his subordinate (worker), which gives rise to the influence on managerial decision (implicit control). More importantly, our focus is to identify when such worker influence is desirable or not from the shareholder's perspective.

The rest of this paper proceeds as follows. Section II presents a model of managerial decision making in the absence of shareholder governance. Section III discusses several implications of the model. Section IV concludes.

## **II. Model**

### **A. Setting**

Let us consider a firm that consists of one manager, one worker, and shareholders. The manager, worker, and shareholders are all assumed to be risk neutral. The model involves two periods. While the manager lives only for the current period, the worker

lives for both the current and next periods.<sup>4</sup> The shareholders also live for both periods.

The firm operates in the current period, utilizing the assets in place and the labor force. It yields current revenue  $a$  if the worker provides effort ( $e = \bar{e}$ ), and 0 if he shirks ( $e = 0$ ).

Before the current period production takes place, the manager chooses among three types of project. These projects are different in their effect on the future operation of the firm and the private benefits the manager enjoys (See Table 1). The project choice does not affect the current performance of the firm. With one of the projects called Project-A, the firm continues to operate in the next period, which gives the next period firm value  $V (> 0)$ .<sup>5</sup> From Project-A the manager obtains no private benefits. Another project, called Project-B, forces the firm into bankruptcy at the end of the current period, so that the firm value in the next period becomes 0. Project-B, however, gives the manager private benefits denoted by  $z$ . Project-B represents activities that hurt the firm value but benefit the manager, such as investment in his “pet” project. The other project is restructuring plan called Project-R. While Project-R gives the post restructuring firm value  $K (> 0)$  in the next period, there are no private benefits for the manager. In addition, with Project-R the worker must be replaced at the end of the current period. We do not a priori specify whether  $V$  or  $K$  is higher than the other. When  $V > K$ , we can say the firm is in a relatively stable environment where worker replacement is unnecessary. In contrast,  $V < K$  would correspond to situations where the firm needs restructuring so as to adjust itself to a large environmental shift.

	Project-A	Project-B	Project-R
Next period firm value	$V$	0	$K$
Manager’s private benefit	0	$z$	0

**Table 1**

Note that while worker effort determines the current revenue  $a$ , the manager’s

<sup>4</sup> The difference in time horizon captures the situation where the manager is likely to leave the firm earlier than the workers because of, e.g. his age or tenure.

<sup>5</sup> We ignore discount rates without loss of generality. Also, the two period structure is only for simplicity. The firm can continue to operate thereafter, in which case we consider  $V$  as the net present value of the future dividend stream of the firm from the next period onward.

project choice (A, B, or R) affects the future value of the firm. These assumptions highlight the notion that the manager's decisions have important consequences on the firm's performance beyond his tenure.<sup>6</sup>

The manager's utility is assumed to take the following form:

$$\gamma(a - w) - \Omega m + Z. \quad (1)$$

It consists of three components: managerial compensation, disutility of worker monitoring, and private benefits. First, the manager receives a fraction  $\gamma(> 0)$  of the firm's current profit, which is revenue  $a$  minus a constant wage  $w$ . Second, he has to elicit worker effort in the current period by monitoring them. The intensity of worker monitoring is represented by  $m$ , the probability that the manager can detect worker shirking.<sup>7</sup> The non-negative cost parameter  $\Omega$  represents the difficulty of worker monitoring. We assume that  $\gamma(a - w) > \Omega m$ , so that it is always better for the manager to induce worker effort than to let him shirk. Third,  $Z$  is the private benefits the manager enjoys. If he chooses Project-B,  $Z = z > 0$ . If he implements Project-A or -R,  $Z = 0$ .

The manager's utility function (1) implies that he is interested only in the compensation, private costs, and benefits realized in the current period. In other words, he has no reputational concerns for his future career.<sup>8</sup> Moreover, the manager's compensation depends on the current profit  $a - w$ , but neither on the manager's project choice itself nor on future firm value. Here we implicitly assume that the current profit is contractible between the shareholders and the manager while project choice and future firm value are not. The current profit would be verifiable and we normally do observe earnings-based compensation such as executive bonuses. In contrast, it would be hardly possible to completely verify the manager's decision itself as it typically involves very complex processes which are not even observable to those outside the firm. On the other hand it might look odd to assume that firm value itself

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<sup>6</sup> Alternatively we can let the project choice affect the current revenue as well as the future firm value. This does not change the nature of the implicit control mechanism illustrated in this paper.

<sup>7</sup> For simplicity we assume that it is too costly to fully induce the worker's effort by means of wage, which implies that the manager has to elicit worker effort by monitoring them. Giving incentives by means of wage (as in shirking models of efficiency wages) does not alter the qualitative results of this paper, but makes the model more complex.

<sup>8</sup> This would be the case where the manager is close to the end of his career. Kaplan (1994) reports that CEO's age is higher in Japan than in the US: the median CEO age for Japanese firms is 66 whereas that for the US firms is 59. This evidence suggests that reputational concerns of managers are less significant in Japan than in the US.



is not contractible, because in reality we do observe stock-based compensation such as managerial shareholding or stock options. However except for the US and UK, they are not so frequently observed, and in other countries even if adopted they typically account for only a small fraction of the total managerial compensation.<sup>9</sup> Since we are interested in why certain firms perform well even in the absence of shareholder governance, we focus on the case where no stock-based compensations are available.

Now the nature of the agency problem in our model is clear from the manager's utility function. Since he is concerned only with the current profits, not with the company's future, there is no guarantee that this short-sighted manager chooses the project that maximizes the future value of the firm. In what follows we will explore how this agency problem can be mitigated *internally*.

The worker's current period utility is given by the wage minus effort,  $w - e$ . We assume that the worker is able to observe the manager's project choice and monitoring intensity. This assumption means that the worker is in the better position to observe managerial behaviour than the shareholders, through insider information and daily interaction with the manager (Hansmann, 1996, Ch.5). After observing the manager's project choice and monitoring intensity, the worker chooses an effort level  $e = \bar{e} > 0$  or  $e = 0$ . If he exerts effort ( $e = \bar{e}$ ), he receives the wage  $w$  and stays at the firm in the next period as long as the firm continues to operate and restructuring does not occur.<sup>10</sup> If the worker shirks ( $e = 0$ ), he will be caught with probability  $m$ . If caught shirking, he is dismissed immediately without being paid and the worker will not be employed by the same firm in the next period.

The worker's next period utility is denoted by  $H$  in the case where the worker stays in the same firm as in the current period. However, if the worker leaves the firm during or after the current period, he must find another job in the next period with a search cost  $s$ , so that his next period utility is given by  $H - s$ .<sup>11</sup>

In order to focus on the situation where there is no effective shareholder governance, we assume that the shareholders are completely passive, that is, they

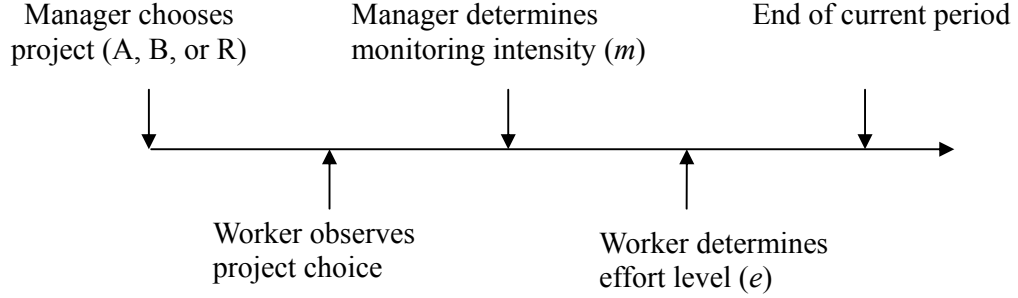
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<sup>9</sup> For example, Kubo and Saito (2004) find that presidents in Japanese firms typically hold a very little amount of the company's stocks or its stock options, compared to their counterparts (CEOs) in the US firms.

<sup>10</sup> Our results still hold even if the worker may leave the firm that continues to operate without restructuring, as long as the probability of leaving is strictly less than one.

<sup>11</sup> We can consider  $s$  as the loss of firm specific human capital which is no use in the new firm.

cannot intervene into the manager's project choice.<sup>12</sup> The shareholders simply receive a fraction of the profit  $(1 - \gamma)(a - w)$  as dividends in the current period and obtain the next period firm value ( $V$ , 0, or  $K$ ). Hence, the shareholders' value of the firm is higher with Project-A than Project-B. Whether Project-A is preferred to Project-R (restructuring) depends on the values of  $V$  and  $K$ . The timing of the model is summarized in Figure 1.



**Figure 1**

## **B. Worker Incentives and Managerial Decision**

The above discussion suggests that there is an interaction between worker incentive and the manager's project choice. In particular, we will show that less monitoring is necessary to elicit worker effort with Project-A than Project-B or -R. To see this, let us first consider the case where the manager implements Project-A so that the firm continues to operate in the next period. Then if the worker exerts effort, he can stay at the same firm in the next period. If he shirks, he will be dismissed with probability  $m$ . Thus, the worker incentive compatibility (IC) constraint is given by

$$w - e + H \geq (1 - m)(w + H) + m(H - s), \quad (2)$$

which simplifies to  $m \geq \frac{e}{w + s} \equiv \underline{m}$ .

Second, suppose that the manager chooses Project-B or -R. In this case, the worker has to pay a search cost  $s$  in the next period to find a new job, whether or not he provides effort. The IC constraint with Project-B or Project-R is

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<sup>12</sup> This would be the case especially when shareholders are widely dispersed and the free-rider problem prevents their collective action, or when cross shareholding discourages participating parties to interfere into the management of one another.

$$w - e + H - s \geq (1 - m)(w + H - s) + m(H - s), \quad (3)$$

which can be written as  $m \geq \frac{e}{w} \equiv \underline{m}$ . Note that when either Project-B or -R is implemented, eliciting worker effort requires more intensive monitoring ( $\bar{m} \geq \underline{m}$ ).

Which project does the manager choose? First, note that the manager never chooses Project-R. With Project-R, his utility is given by  $\gamma(a - w) - \Omega \bar{m}$ , which is always lower than the manager's utility with Project-A  $\gamma(a - w) - \Omega \underline{m}$  and that with Project-B  $\gamma(a - w) - \Omega \bar{m} + z$ . The implications of avoiding Project-R will be discussed later.

Let us focus on the choice between Project-A and Project-B. The manager implements Project-A if

$$\gamma(a - w) - \Omega \underline{m} \geq \gamma(a - w) - \Omega \bar{m} + z, \quad (4)$$

which can also be written as  $\Omega(\bar{m} - \underline{m}) \geq z$  or

$$\Omega \left( \frac{e}{w} - \frac{e}{w + s} \right) \geq z. \quad (5)$$

From (5) we can see that Project-A is likely to be chosen when the worker's search cost  $s$  is large. Recall that Project-A gives higher firm value than Project-B. This indicates that the autonomous manager may choose Project-A in accordance with the shareholders' interest, despite the private benefits he can enjoy with Project-B.

The importance of worker influence is captured by  $\Omega$ , the difficulty of inducing worker effort. The more difficult worker monitoring is, the more likely it is that (5) holds. If worker effort required for production can be elicited without any costs for the manager ( $\Omega = 0$ ), (5) never holds so that manager chooses Project-B unless some external incentive is given.

### C. Implicit Control Mechanism

Intuitively, what (5) means is that the manager's preference for Project-A comes from monitoring-saving effect of this project. When the manager implements Project-A, the worker does not have to leave the firm, so that he need not incur a search cost as long as he provides effort. On the other hand, if Project-B or -R is chosen the worker must find another job with a search cost whether or not he shirks. Therefore, the return to effort is higher with Project-A than Project-B or -R. Consequently, the manager finds

it easier to elicit worker effort when he implements Project-A. We call this an “implicit control mechanism”, through which the short-sighted manager is induced to choose a project that ensures the long-run viability of the firm.

Also important is that autonomous managers never conduct restructuring that involves downsizing. Project-R makes it harder for the manager to elicit worker effort, while giving him no private benefits. However, Project-R would be more valuable for the shareholders than Project-A when  $K$  (post-restructuring value) is larger than  $V$ . In that case the implicit control mechanism illustrated above biases managerial decisions toward the status-quo, and this bias conflicts with shareholders’ value maximization.

### III. Implications

#### A. Managers May Do Well without Governance

According to the standard view on corporate governance, external governance mechanisms, such as the board of directors, executive equity-based compensation, takeovers, monitoring by large shareholders, or debt, are essential in ensuring the alignment of interests between managers and shareholders. In reality, however, it appears that managers may do well without governance. For example, while governance mechanisms as above are said to be very weak in Germany, France, and Japan (and the US and UK before the 1960s), many firms in those economies do seem to perform fairly efficiently and their shareholders have historically received high rates of return (Hansmann, 1996; Allen and Gale, 2000). This seems a puzzle unsolved by the standard view.

Our model offers an explanation for this puzzle. We have shown that the implicit control mechanism within the firm may mitigate managerial moral hazard. In the model, when (5) holds, the manager autonomously chooses the project for the survival of the firm (Project-A) while giving up his private benefits (Project-B). If  $V > K$ , this project choice yields the highest return for the shareholders  $(1 - \gamma)(a - w) + V$ . These suggest that a self-interested and short-sighted manager pursues the long-run viability of the firm even in the absence of shareholder governance.

As long as this implicit control mechanism works well, external governance would become less important in controlling managers. If this is the case, it may be even beneficial for the shareholders to leave the firm autonomous, because the

expected benefits of governance would be smaller than the costs of external governance.<sup>13</sup> In this sense, the absence of external control can be considered as a consequence of shareholders' optimal decision, not as a failure of corporate governance.

It should also be noted that there is only limited evidence that the external governance mechanisms have significantly positive effects on corporate performance (Vives, 2000; Becht, Bolton and Roell, 2002; Core, Guay and Larcker, 2003; Hermalin and Weisbach, 2003; Holderness, 2003). This may suggest that corporate managers can effectively be controlled by other mechanisms than external governance, as we have discussed above.

## **B. Restructuring Aversion**

So far we have focused on the possibility that autonomous managers may maximize shareholders' value. However, corporate managers do sometimes appear to make decisions that are not aligned with the interest of shareholders. The most important conflict between management and shareholders seems to arise when the firm needs restructuring. It is commonly observed that managers tend to avoid restructuring even if it increases shareholders' value. Donaldson (1994) reports that rapid restructuring rarely occurs in large organizations without threat of external intervention. Jensen (1993) argues that corporations have largely failed to exit and implement downsizing timely.

Why do managers tend to be reluctant to undertake restructuring and/or layoffs? Although it seems to be an important issue in corporate governance debates, it is not easy to find satisfactory answers in the economic literature. The most common answer would be that there are institutional obstacles that intervene into management and discourage restructuring, such as trade unions, Employee Stock Ownership Plans (ESOPs), or various influence activities by workers.<sup>14</sup> However, in many countries union membership has been constantly declining and the power

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<sup>13</sup> In order to monitor and discipline the managerial decisions, shareholders would have to incur significant costs (the costs for information acquisition, intervention, administration of the board, etc.).

<sup>14</sup> For example, the United Airlines, with its strong unions and wide ESOPs, recently faced tremendous difficulty in wage cuts and layoffs even while the company was on the verge of bankruptcy. For institutional employee activities that affect managerial decisions, see Milgrom (1990), and Meyer, Milgrom and Roberts (1994), Booth (1995).

exercised by unions has been said to be much weaker than the past. Moreover, in most firms employees own only a tiny fraction of the whole company stocks even under ESOPs, so that the influence they can exercise through ESOPs is severely limited.

Another possible explanation for the reluctance to conduct restructuring would be management psychology. In particular, it is sometimes argued that managers tend to have the sense of loyalty toward their subordinates especially through long-term social relationship and avoid taking actions that hurt them (Baron and Kreps, 2001; Grinblatt and Titman, 2001).<sup>15</sup> This could well be a valid psychological answer, but it is certainly interesting to ask whether there are circumstances in which purely self-interested managers behave as if they were emotionally attached to their workers.<sup>16</sup>

Our model is able to offer an economic explanation for managerial restructuring aversion. According to the model, the manager tries to avoid restructuring (Project-R), because he recognizes that restructuring reduces the worker's incentives to provide effort. In fact, Donaldson (1994, Ch.5) reports the case where a US steel company Armco (now merged into AK Steel) failed to restructure voluntarily despite the immediate financial crisis in 1984. To confront the problem, Armco's COO Robert Boni proposed a general sell-off of its operating units and tried to convince the CEO Harry Holiday at the annual strategy meeting. Holiday, however, rejected the sell-off plan; he stated "There will be a morale problem if we do this." This statement seems to fit our model in that the manager's concern for worker incentives (motivation) can discourage restructuring.

Our model suggests that when restructuring achieves higher firm value than the status-quo ( $K > V$ ), the implicit control mechanism contradicts the interest of the shareholders by biasing the manager's project choice away from the desirable restructuring. In this case, external governance is necessary for the shareholders to enjoy higher firm value. This seems to be consistent with the empirical evidence indicating that corporate governance mechanism (ownership structure, debt, bank monitoring) matters particularly when firms need restructuring (Denis, Denis and

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<sup>15</sup> Baron and Kreps (2001) suggest that "If the employer and employee have a long-term social relationship, it can be hard (to say the least) for the employer to be as hard-edged as is sometimes warranted" (p.85). Grinblatt and Titman (2001) state that "Managers generally find it unpleasant to layoff employees, and similarly, find it rewarding to offer their employees good career opportunities" (p. 607).

<sup>16</sup> Another possible (somewhat tautological) explanation for managers' reluctance to conduct restructuring would be that managers' utility depends positively on firm size (Baumol, 1959; Marris, 1964).

Sarin, 1996; Kang and Shivdasani, 1997; Berger and Ofek, 1999). Our model also suggests that corporate governance becomes a more serious issue in mature industries or low-growth economies, where the firm's restructuring value  $K$  is more likely to be higher than its status-quo value  $V$

### **C. Corporate Survival**

It has been pointed out that corporate managers tend to pursue corporate survival itself, rather than shareholders' value maximization (Radner, 1996). Based on extensive interviews to the US CEOs, Donaldson and Lorsch (1983, p. 7) observed that "corporate executives are primary concerned with long-term corporate survival". This may look puzzling from an economic point of view since a manager's interest in the firm should be limited to his tenure. From their interview research, Donaldson and Lorsch (1983) attributed the survival motive to management psychology: managers are attached to the corporation in which they have invested so much of themselves psychologically and professionally.

In contrast, our model enables us to understand managers' inclination for corporate survival from an economic perspective. Although we assume that the manager's interest is limited only to his tenure (current) period, he may implicitly be induced to seek for long-run viability of the firm because choosing Project-A for survival makes it easier to elicit worker effort.

From his interviews with the CEO's of leading companies around the world, Garten (2001, p.170) asserts that "creating value today rests on establishing strong links with a wide range of constituencies, which requires taking a long-term view". Garten's claim seems to support our story: although a self-interested manager has a limited horizon, he may have a long-term view through the need to motivate (monitor) workers.

### **D. Risk Aversion**

Our model also can be extended to explain managerial risk aversion (Stulz, 1984; Smith and Stulz, 1985; Tufano; 1996). In particular, we are able to show that even risk-neutral managers may try to avoid risky projects because the possibility of

bankruptcy threatens worker's job security and makes it more difficult to elicit worker effort.

In addition to the framework developed in Section II, consider Project-C. The manager's private benefit with this project is assumed to be 0, as in Project-A. However, with Project-C there is a probability  $\pi (> 0)$  that the firm goes bankrupt and the next period firm value becomes 0. However, if the firm survives, it generates the value  $V_C$  in the next period.

The worker's IC constraint with Project-C is given by

$$\begin{aligned} (1-\pi)(w-e+H) + \pi(w-e+H-s) \geq \\ (1-m)[(1-\pi)(w+H) + \pi(w+H-s)] + m(H-s) \end{aligned} \quad (6)$$

From (6) we obtain the manager's monitoring intensity  $\frac{e}{w+(1-\pi)s} \equiv m_C$ , which is higher than that with Project-A ( $\underline{m}$ ). This indicates that the manager will never choose Project-C because it gives rise to higher monitoring costs associated with bankruptcy risk. Hence, if  $(1-\pi)V_C > V$ , the autonomous management fails to choose a project that maximizes the shareholders' value.

This suggests that managers' risk-averse decisions observed in reality may be attributed not only to their own risk preference, but also to the effect of their decisions on workers' motivation. When risky projects generate higher firm value, autonomous managers controlled by the implicit mechanism will deteriorate shareholders' value.

## E. Cross-country Difference in Corporate Governance

In contrast to the standard economic literature on corporate governance, our model explicitly illustrates a role of worker-related factors in managerial control. As we have seen, (5) implies that Project-A is more likely to be chosen when  $s$  is larger. Thus, the implicit control mechanism may work more effectively when the dismissed worker incurs larger losses (e.g., higher search cost, loss of specific human capital). If this is the case, the manager's decision is more likely to be consistent with firm value maximization. In contrast, if  $s = 0$  where the worker is indifferent between staying and leaving, the manager chooses Project-B for any  $z > 0$ .

These results may offer an insight into cross-country differences in corporate governance. In the countries with more rigid labor markets and higher degree of long-term employment, such as Germany, France, and Japan, the implicit control



mechanism is more likely to be effective and may substitute for the external governance mechanisms than in the US.<sup>17</sup> This may explain that shareholder intervention and governance appear to have been relatively weak in Germany, France, and Japan compared to the US.<sup>18</sup>

#### IV Conclusions

This paper has explored the possibility that managers may be disciplined *internally* even in the absence of external governance. We have proposed an implicit control mechanism where a self-interested, short-sighted manager may nevertheless take into account the long-term consequences of his decisions, through the need to motivate workers. When the firm is in a stable environment, this mechanism can lead to shareholders wealth maximization and may substitute for external governance mechanisms. However, when restructuring is needed, this implicit control mechanism will contradict the interest of the shareholders. The result of our model suggests the possibility that firms perform well and shareholders receive high rate of return even in the absence of external governance mechanisms. It is also consistent with the empirical evidence that when firms need restructuring, shareholder governance is indeed effective.

The model also offers economic explanations for managerial restructuring aversion, survival motive and excessive risk aversion, which have often been attributed to management psychology. Finally, our model may provide an insight into cross-country difference of corporate governance. Since the implicit mechanism is more likely to be effective when workers have a larger stake in the firm, the need for the external governance may vary according to labor market conditions and other labor-related variables of each country.

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<sup>17</sup> According to OECD's (1993) report, Germany, France, and Japan have the higher degree of long-term employment (measure by tenure and retention rates) than the US.

<sup>18</sup> One may argue that especially in Japan and Germany, banks and interlocking shareholdings played significant roles in corporate governance (Sheard, 1989; Berglof and Perotti, 1994; Aoki and Patrick, 1994; Osano, 1996). However, empirical evidence on their effect on corporate performance is mixed: some find significant positive effects on corporate performance (Cable, 1985; Kaplan and Minton, 1994; Kang and Shivdasani, 1995), whereas others find insignificant or negative effects (Edwards and Fisher, 1994; Weinstein and Yafeh, 1998; Hanazaki and Horiuchi, 2000).

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