

# Managerial Control inside the Firm\*

Shinichi Hirota

Kohei Kawamura

Waseda University

University of Oxford

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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 the long-term viability of a 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 diminishes 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 behaviour, such as restructuring aversion, survival motive, and excessive risk aversion.

## 1 Introduction

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

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In empirical studies over the last few decades, however, there seems to have been disappointingly limited evidence supporting the effectiveness of shareholder governance.<sup>1</sup> In addition, we often 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>2</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 the cooperation from his workers, he must take into account the effect of his decisions on their future, and this will in turn affect his decisions. We show that when a short-sighted manager needs to motivate workers it may be beneficial for him to pursue the long-run viability of the firm while relinquishing 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 they make decisions that serve the interest of shareholders, even if there is no explicit shareholder governance. We argue that this implicit control mechanism may be substituted 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 maintain the status-quo and may avoid restructuring even if the latter would maximize firm value. In such a case some external governance is necessary to achieve increased 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 upon labour market conditions and other worker-related variables. Since they vary significantly according to country, our model may help to explain international 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 decisions require consensus from all members of the management team who may have different tenures, and show that the

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<sup>1</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>2</sup>One answer would be that product market competition disciplines management (Schmidt, 1997). Our paper offers an alternative explanation.

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 influence on managerial decisions (implicit control). More importantly, our focus is to identify when such worker influence is desirable and when it is not, from the shareholders' perspective.

The rest of this paper proceeds as follows. Section 2 presents a model of managerial decision making in the absence of shareholder governance. Section 3 discusses several implications of the model. Section 4 concludes.

## 2 Model

### 2.1 Setting

Let us consider a firm that consists of one manager, one worker, and its shareholders. The manager, worker, and shareholders all are 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>3</sup> The shareholders also live for both periods. The firm operates in the current period, utilizing the assets in place and the labour force. It yields current revenue  $a$  if the worker provides effort ( $E = e$ ), 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 both in their effect on the future operation of the firm and in 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 and the firm value in the next period is  $V(> 0)$ .<sup>4</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 a 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 specify whether  $V$  or  $K$  is greater. When  $V > K$  we can say that the firm is in a relatively stable environment, where worker

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<sup>3</sup>The difference in time horizon captures the situation whereby the manager is likely to leave the firm earlier than the workers because of, for example, his age or tenure.

<sup>4</sup>We ignore discount rates without loss of generality. Also, the two-period structure is used 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 onwards.

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

Table 1: Projects

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.

Note that while worker effort determines the current revenue  $a$ , the manager's 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>5</sup>

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

$$U^M = \gamma(a - w) - \Omega m + Z \quad (1)$$

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 the worker.<sup>6</sup> The intensity of worker monitoring is represented by  $m$ , the probability that the manager can detect worker shirking. The non-negative cost parameter  $\Omega$  represents the difficulty inherent in monitoring the worker. We assume that  $\gamma(a - w) > \Omega m$ , so that it always is 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, then  $Z = z > 0$ . If he implements Project-A or -R, then  $Z = 0$ .

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>7</sup> Moreover, the manager's compensation

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<sup>5</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 chapter.

<sup>6</sup>We make the assumption that the manager cannot provide worker incentives through a contract on the revenue  $a$ . This may seem arbitrary given that  $a$  perfectly reflects the worker's effort. However, while for simplicity the firm is assumed to employ only one worker in our model, we primarily concern large firms with diverse shareholders, which typically have a number of workers whose individual outputs are very difficult to measure. If the revenue is a function of the efforts of many workers, incentive contracts on the revenue should be ineffective to induce individual effort because of the free-rider problem.

<sup>7</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 US firms is 59. This evidence suggests that reputational concerns of managers are less significant in Japan than in the US.

depends on the current profit  $a - w$ , but not on the manager's project choice itself or on future firm value. Here, we 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 normally be verifiable, and many firms do adopt earnings-based compensation such as executive bonuses. In contrast, it would hardly be possible to completely verify the manager's decision itself, as it typically involves very complex processes that are not observable to those outside the firm. On the other hand, it might seem odd to assume that firm value itself is not contractible because in reality we do observe stock-based compensation such as managerial shareholding or stock options. However, except for in the US and the UK they are not observed so frequently, and in other countries even if adopted they typically account for only a small fraction of total managerial compensation.<sup>8</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 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 his 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 a better position to observe managerial behaviour than the shareholders via insider information and daily interactions with the manager (Hansmann, 1996, Ch.5). After observing the manager's project choice and monitoring intensity the worker chooses an effort level that is  $E = e$  or  $E = 0$ . If he exerts effort ( $E = e$ ) he receives 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>9</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 given by  $H$  if he leaves the firm during or after the current period. On the other hand, if he continues to work for the same firm his utility is  $H + r$ . In other words, the worker receives rents, denoted by  $r(> 0)$ , if the firm operates and the worker stays during the next period. Such rents would be available if there is a joint surplus from the current firm-worker match and he has bargaining power to extract

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<sup>8</sup>For example, Kubo and Saito (2006) find that presidents in Japanese firms typically hold a very small percentage of the company's stocks or its stock options, compared to their counterparts (CEOs) in US firms.

<sup>9</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.

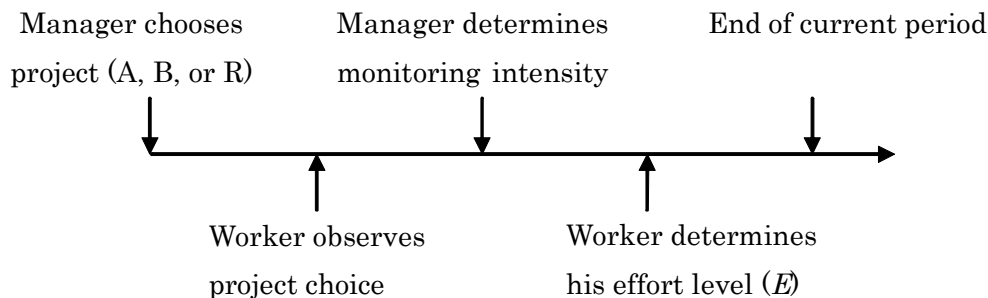


Figure 1: Timing

part of it. For example,  $r$  can be generated through search and hiring costs (Pissarides, 2000), or from the incumbent worker's firm-specific skills that make him more productive than a newly hired worker (Hashimoto, 1981).

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 cannot intervene in the manager's project choice.<sup>10</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  $(V, 0, \text{ or } K)$ . 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 upon the relative values of  $V$  and  $K$ . The timing of the model is summarized in Figure 1.

## 2.2 Worker Incentive 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 ( $E = e$ ), he can work for 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

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

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<sup>10</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 from interfering with the management of one another.

which simplifies to

$$m \geq \frac{e}{w+r} \equiv \underline{m}.$$

Second, suppose that the manager chooses Project-B or -R. In this case the worker cannot enjoy rents  $r$ , whether or not he exerts effort. The IC constraint with Project-B or Project-R is

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

which can be written as

$$m \geq \frac{e}{w} \equiv \bar{m}.$$

Note that when Project-B or Project-R is implemented, eliciting worker effort requires more intensive monitoring ( $\bar{m} > \underline{m}$ ) than when the manager implements Project-A.

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 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

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

From (5) we can see that Project-A is likely to be chosen when the worker can receive large rents by staying in the firm. Recall that Project-A generates 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 by Project-B.

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

## 2.3 Implicit Control Mechanism

Intuitively what (5) means is that the manager's preference for Project-A comes from the monitoring-saving effect of this project. When the manager implements Project-A the worker does not have to leave the firm, and he receives  $r$  as long as he exerts effort. On the

other hand if Project-B or Project-R is chosen the worker loses rents regardless of his effort. Therefore, the return for effort is higher with Project-A than with Project-B or Project-R, and consequently the manager needs to monitor the worker less 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-term viability of the firm.

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

Our argument is based upon the simple idea that *current* worker performance (motivation) is affected by a firm's *future* prospects. In our model, if the worker knows that the firm continues to operate, he is more willing to exert effort to stay in the firm for the future rents and less worker monitoring is necessary. We adopt this particular modelling approach because of its expositional simplicity and clear economic intuition. In fact, the relationship between the firm's future prospects and current worker performance can be modeled differently, to obtain qualitatively the same results as ours. For example, productivity enhancing cooperation among workers will be encouraged when the firm continues to operate or grow. Deferred compensation can be used to provide incentives effectively only when the firm is able to pay in the future. Therefore, the scope for the implicit control mechanism we propose may well be much wider than the simple setting presented above.

## 3 Implications

### 3.1 Managers May Do Well without Governance

According to the standard view, 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. However, in reality it appears that managers may do well without governance. For example, while governance mechanisms like those described above are said to be very weak in Germany, France, and Japan (and in the US and UK before the 1960s), many firms in those economies do seem to perform fairly efficiently, and their shareholders historically have received high rates of return (Hansmann, 1996; Allen and Gale, 2000). This seems to be 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  $(1 - \gamma)(a - w) + V$ . This all suggests that a self-interested and short-sighted manager pursues the long-term viability of the firm, even in the absence of shareholder governance.

As long as this implicit control mechanism works well, external governance becomes less important in controlling managers. If this is the case, it even may be beneficial for the shareholders to allow the firm to be autonomous because the expected benefits of governance would be smaller than the costs of external governance.<sup>11</sup> In this sense, the absence of external controls can be considered to be a consequence of the shareholders' optimal decision, not as a failure of corporate governance.

It also should be noted that there only is limited evidence that 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 be controlled effectively by mechanisms other than external governance, as we have discussed above.

### 3.2 Restructuring Aversion

So far, we have focused on the possibility that autonomous managers may maximize the shareholders' value. However, corporate managers sometimes do appear to make decisions that are not aligned with the interests 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 the threat of external intervention. Jensen (1993) argues that corporations largely have failed to exit and implement downsizing in a timely manner.

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 economics literature. The most commonly proposed answer is that there are institutional obstacles that intervene with management and discourage restructuring, such as trade unions, Employee Stock Ownership Plans (ESOPs), or various influence activities by workers.<sup>12</sup> However, in many countries union membership

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<sup>11</sup>In order to monitor and discipline managerial decisions, shareholders would have to incur significant costs (the costs for information acquisition, intervention, administration of the board, etc.).

<sup>12</sup>For example, United Airlines, which has strong unions and large ESOPs, recently faced tremendous difficulty exerting wage cuts and layoffs even while the company was on the verge of bankruptcy. See

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

Another possible explanation for managerial reluctance to conduct restructuring is management psychology. In particular, it is sometimes argued that managers tend to have a sense of loyalty towards their subordinates, especially through long-term social relationships, and avoid taking actions that hurt them (Baron and Kreps, 2001; Grinblatt and Titman, 2001).<sup>13</sup> This could well be a valid psychological answer but it certainly is interesting to ask whether there are circumstances in which purely self-interested managers behave as if they are emotionally attached to their workers.<sup>14</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 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 mechanisms (ownership structure, debt, bank monitoring) matter particularly when firms need restructuring (Denis, Denis and 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

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Milgrom (1988), and Meyer, Milgrom and Roberts (1991), Booth (1995) for employee activities that directly affect managerial decisions.

<sup>13</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>14</sup>Another possible (somewhat tautological) explanation for managers' reluctance to conduct restructuring would be that a manager's utility depends positively on firm size (Baumol, 1959; Marris, 1964).

$K$  is more likely to be higher than its status-quo value  $V$ .

### 3.3 Corporate Survival

It has been pointed out that corporate managers tend to pursue corporate survival itself, rather than shareholder value maximization (Radner, 1996). Based on extensive interviews of US CEOs, Donaldson and Lorsch (1983, p. 7) observed that “corporate executives are primarily 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 economics perspective. Although we assume that the manager’s interest is limited only to his tenure (current) period, he may implicitly be induced to seek the long-term 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 spurred by his need to motivate (monitor) workers.

### 3.4 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 the worker’s job security and makes it more difficult to elicit worker effort.

In addition to the framework developed in Section 2, consider *Project-C*. The manager’s private benefit with this project is assumed to be 0, as with 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 Project-C generates the firm value  $V_C$  in the next period.

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

$$\begin{aligned} & (1 - \pi)(w - e + H + r) + \pi(w - e + H) \\ & \geq (1 - m) [(1 - \pi)(w + H + r) + \pi(w + H)] + mH \end{aligned} \tag{6}$$

From (6) we obtain the manager's monitoring intensity

$$\frac{e}{w + (1 - \pi)r} \equiv m_C$$

which is higher than that with Project-A ( $\underline{m}$ ). Therefore the manager will never choose Project-C because it gives rise to higher monitoring costs associated with bankruptcy risk. If  $(1 - \gamma)V_C > V$ , the autonomous management fails to choose the project that maximizes the shareholders' value.

This suggests that managerial risk aversion may be attributed not only to the managers' own risk preference, but also to the effect of their decisions on worker motivation. When risky projects generate higher firm value, autonomous managers under the implicit control mechanism will diminish the shareholders' value.

### 3.5 International Differences in Corporate Governance

In contrast to the standard economics literature on corporate governance, our model explicitly incorporates a role of worker-related factors in managerial control. As we have seen, (5) implies that when the worker receives higher rents  $r$ , Project-A is more likely to be chosen. On the other hand in the absence of such rents ( $r = 0$ ), the worker is indifferent between staying and leaving and the manager chooses Project-B for any  $z > 0$ .

One of the important sources of such rents is a joint surplus due to labour market frictions. When search and hiring costs are high, workers staying in the same firm are likely to be better off than those who move from one firm to another. In other words, in countries with less flexible labour markets or a higher degree of long-term employment, such as Germany, France, and Japan, workers may receive higher rents by staying in the same firm. Therefore, in these countries the implicit control mechanism we propose may be more effective than in the US, and under certain conditions substitute for external governance mechanisms.<sup>15</sup> This might explain why shareholder intervention and governance appear to have been relatively weak in Germany, France, and Japan compared to in the US.<sup>16</sup>

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<sup>15</sup>According to OECD's (1993) report, Germany, France, and Japan have a higher degree of long-term employment (measured by tenure and retention rates) than the US.

<sup>16</sup>One may argue that, especially in Japan and Germany, banks and interlocking shareholdings have 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 have found significant positive effects on corporate performance (Cable, 1985; Kaplan and Minton, 1994; Kang and Shivdasani, 1995), whereas others have found insignificant or negative effects (Edwards and Fisher, 1994; Weinstein and Yafeh, 1998; Hanazaki and Horiuchi, 2000).

## 4 Conclusion

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, whereby a self-interested, short-sighted manager may nevertheless take into account the long-term consequences of his decisions through his need to motivate workers. However, we have also argued that, when the firm requires restructuring, this implicit control mechanism will contradict the interests of the shareholders. We also offer possible insights into international differences in corporate governance. Since the implicit mechanism is more likely to be effective when workers have a larger stake in the current firms for which they are working, the need for external governance may vary according to labour market frictions and other labour-related variables in each country.

Our argument is based upon the simple idea that there is an important link between the firm's future prospects and current worker performance. We have focused on worker monitoring to represent the link, but this is not the only modelling approach to obtain similar insights as ours. Instead of worker monitoring, we could introduce other features such as cooperation among workers or deferred compensation, which would be facilitated when the firm continues to operate and perform well in the future. This indicates that the scope for the implicit control mechanism we have proposed may well be much wider than the simple setting presented in this paper.

## References

- [1] Allen, F. and D. Gale (2000), *Comparing Financial Systems*. MIT Press, Cambridge, MA.
- [2] Aoki, M. and H. Patrick (eds.) (1994), *The Japanese Main Bank System: Its Relevance for Developing and Transforming Economies*. Oxford University Press, New York/Oxford.
- [3] Baron, J. and D. Kreps (1999), *Strategic Human Resources: Frameworks for General Managers*. John Wiley and Sons, New York.
- [4] Baumol, W. (1959), *Business Behavior: Value and Growth*. Macmillan, New York.
- [5] Becht, M. P. Bolton and A. Roell (2002), "Corporate Governance and Control." NBER Working Paper No. 9371.
- [6] Berger, P. and E. Ofek (1999), "Causes and Effects of Corporate Refocusing Programs." *Review of Financial Studies*12, 311-345.

- [7] Berglof, E. and E. Perotti (1994), "The Governance Structure of the Japanese Financial Keiretsu." *Journal of Financial Economics* 36, 259-284.
- [8] Berle, A. and G. Means (1932), *The Modern Corporation and Private Property*. Macmillan, New York.
- [9] Booth, A. (1995), *The Economics of the Trade Union*. Cambridge University Press, Cambridge, UK.
- [10] Cable, J. (1985), "Capital Market Information and Industrial Performance: The Role of West German Banks." *Economic Journal* 95, 118-132.
- [11] Core, J., W. Guay and D. Larcker (2003), "Executive Equity Compensation and Incentives: A Survey." *Federal Reserve Bank New York Economic Policy Review* 9, 27-50.
- [12] Denis, D., D. Denis and A. Sarin (1997), "Agency Problems, Equity Ownership, and Corporate Diversification." *Journal of Finance* 52, 135-60.
- [13] Donaldson, G. (1994), *Corporate Restructuring: Managing the Change Process from Within*. Harvard Business School Press, Cambridge, MA.
- [14] Donaldson, G. and J. Lorsch (1983), *Decision Making at the Top*. Basic Books, New York.
- [15] Edwards, J. and K. Fisher (1994), *Banks, Finance and Investment in Germany*. Cambridge University Press, Cambridge, UK.
- [16] Garten, J. (2001), *The Mind of the CEO*. Basic Books, New York.
- [17] Grinblatt, M. and S. Titman (2001), *Financial Markets and Corporate Strategy* (2nd ed.). McGraw-Hill/Irwin, Columbus.
- [18] Hanasaki, M. and A. Horiuchi (2000), "Is Japan's Financial System Efficient?" *Oxford Review of Economic Policy* 16, 61-73.
- [19] Hansmann, H. (1996), *The Ownership of Enterprise*. Belknap Press, Cambridge, MA.
- [20] Hashimoto, M. (1981), "Firm-Specific Human Capital as a Shared Investment." *American Economic Review* 71, 475-482.
- [21] Hermalin, B. and M. Weisbach (2003), "Board of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature." *Federal Reserve Bank New York Economic Policy Review* 9, 7-26.

- [22] Holderness, C. (2003), "A Survey of Blockholders and Corporate Control." *Federal Reserve Bank New York Economic Policy Review* 9, 51-64.
- [23] Jensen, M. (1993), "The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems." *Journal of Finance* 48, 831-880.
- [24] Kang, J. and A. Shivdasani (1997), "Corporate Restructuring during Performance Declines in Japan." *Journal of Financial Economics* 46, 29-65.
- [25] Kaplan, S. (1994), "Top Executive Rewards and Firm Performance: A Comparison of Japan and the United States." *Journal of Political Economy* 102, 510-546.
- [26] Kaplan, S. and B. Minton (1994), "Outside Intervention in Japanese Companies: Its Determinants and its Implications for Managers." *Journal of Financial Economics* 36, 225-258.
- [27] Kubo, K. and T. Saito (2006), "The Relationship between Financial Incentives for Company Presidents and Firm Performance in Japan." *Japanese Economic Review*, forthcoming.
- [28] Marris, R. (1964), *The Economic Theory of Managerial Capitalism*. Macmillan, London.
- [29] Meyer, M., P. Milgrom and J. Roberts (1991), "Organizational Prospects, Influence Costs, and Ownership Changes." *Journal of Economics and Management Strategy* 1, 9-35.
- [30] Milgrom, P. (1988), "Employment Contracts, Influence Activities, and Efficient Organization Design." *Journal of Political Economy* 96, 42-60.
- [31] OECD (1993), *Employment Outlook*. OECD, Paris.
- [32] Osano, H. (1996), "Intercorporate Shareholdings and Corporate Control in the Japanese Firm." *Journal of Banking and Finance* 20, 1047-1068.
- [33] Pissarides, C. (2000), *Equilibrium Unemployment Theory* (2nd ed.). MIT Press, Cambridge, MA.
- [34] Radner, R. (1996), *Economic Survival*. Nancy Schwartz Memorial Lecture, Northwestern University.
- [35] Schmidt, K. (1997), "Managerial Incentives and Product Market Competition." *Review of Economic Studies* 64, 191-213.

- [36] Sheard, P. (1989), "The Main Bank System and Corporate Monitoring and Control in Japan." *Journal of Economic Behavior and Organization* 11, 399-422.
- [37] Shleifer, A. and R. Vishny (1997), "A Survey of Corporate Governance." *Journal of Finance* 52, 737-783.
- [38] Smith, C. and R. Stulz (1985), "The Determinants of Firms' Hedging Policies." *Journal of Financial and Quantitative Analysis* 26, 391-405.
- [39] Stulz, R. (1984), "Optimal Hedging Policies." *Journal of Financial and Quantitative Analysis* 25, 127-140.
- [40] Tufano, P. (1996), "Who Manages Risk? An Empirical Examination of Risk Management Practices in the Gold Mining Industry." *Journal of Finance* 51, 1097-1137.
- [41] Vives, X. (2000), "Corporate Governance: Does It Matter?" In: X. Vives (ed.), *Corporate Governance: Theoretical and Empirical Perspectives*. Cambridge University Press, Cambridge, UK.
- [42] Weinstein, D. and Y. Yafeh (1998), "On the Costs of a Bank-Centered Financial System: Evidence from the Changing Main Bank Relations in Japan." *Journal of Finance* 53, 635-672.