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Author	菊澤, 研宗(Kikuzawa, Kenshu) 橋本, 倫明(Hashimoto, Noriaki)
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Fungibility and Complementarity between Corporate Governance and Corporate Social Responsibility: The Agency Theoretical Approach to Corporate Social Responsibility

By

Kenshu Kikuzawa
Noriaki Hashimoto

Abstract

In Japan, corporate governance problems and social responsibility problems have emerged after the bubble economy collapsed in the 1990s. Since then, many Japanese companies have been interested in corporate social responsibility (CSR) as well as corporate governance. However, what relationship is there between corporate governance and CSR activity? How much should companies expend their resources to the activity? Still nobody give definitive answers to the problems. In order to explain the Japanese situation and clear up the theoretical relation between them, firstly, we will briefly describe the problems of corporate governance and CSR which have emerged in Japan. Secondly, we will explain how the corporate governance problems can be analyzed based on the agency theory. We will also give an account of the relationship between corporate governance and CSR and the value of the firm theoretically. Finally, based on the formal agency model, we will prove that there is not only fungibility but also complementarity between corporate governance and CSR.

Key Words

corporate governance, CSR, agency theory, monitoring, bonding, fungibility, complementarity, the value of the firm

1. Introduction

Japan has made a rapid development until 1980s since the end of World War II. However, after the bubble economy collapsed in Japan in the 1990s, many corporate scandals were uncovered. Since then, all of us Japanese have paid a lot of attention to the corporate governance[1] problems.

Relating to the corporate governance problems, now, most Japanese companies seem to be more interested in corporate social responsibility (CSR) activity. However, the range of the activity is so broad that many companies can not exactly know how much they have to

[1] For corporate governance, see Charkham(1994), Tirole (2005), Gordon and Roe (2004), and Kikuzawa (2004).

expend their resources to the activity. Moreover, they do not know the relationship between CSR and the value of the firm. Therefore, they begin to be skeptical of the positive effects.

What relationship is there between corporate governance and CSR activity and the value of the firm? If there is such a relationship, how much should they expend their resources to CSR activity? Still nobody give definitive answers to the problems.

In order to explain the Japanese situation and clear up the theoretical relation between them, in this paper, we will explain as follows: Firstly, we will briefly describe the problems on corporate governance and CSR activity which have emerged in Japan. Secondly, we will explain how the corporate governance problems can be analyzed using the agency theory. We will then give an account of the relationship between corporate governance and CSR and the value of the firm theoretically.[2] Finally, based on the formal agency model, we will prove that there is not only fungibility but also complementarity between corporate governance and CSR.

2. The problems of Corporate Governance and CSR which have emerged in Japan

Before the bubble economy in the 1980s, most Japanese did not know about corporate governance problems. After the bubble economy collapsed in the 90s, the Japanese economy declined and many corporate scandals were uncovered in Japan. For example, (1) a close relationship between a company and a fixer at a stockholders' meeting; racketeers who extort money from company by threatening to cause trouble at the stockholder's meeting. (e.g. Ajinomoto, Nomura Securities, Dai-Ich Kangyo Bank), (2) dishonest accounting, (3) statements by window dressing, (4) illegal loans or bad loans by a bank.

Are such corporate behaviors justified from an ethical point of view? If they are not justified, then who has to control these corporate behaviors? We Japanese began to take notice of such problems as corporate governance problems at the end of the 20th century.[3]

After it entered the 21st century, in another meaning, Japanese all still continue to be interested in corporate governance problems because they begin to think that there is a close relationship between corporate governance system and the value of the firm. Therefore, in order to increase the value of the firm, most Japanese companies try to reform their corporate governance systems. In addition, in order to make Japanese firms more efficient, corporate laws relating to the corporate governance system were reformed dramatically by Japanese government.

Parallel to this, now, most Japanese companies are more interested in CSR activity. They try to do a variety of social contributions and produce products considering environmental problems. Nevertheless, the range of the activity is so broad that many companies do not exactly know how much and what range they have to expend their resources to such activities. In the meantime, some companies begin to be skeptical of the positive effects brought by CSR activity.

Is there a relationship between corporate governance and CSR and the value of the firm? If there is any relation, what relationship is there between them? How much do they have to expend their resources to CSR activity? Now, many Japanese companies are annoyed

[2] For positive agency theory, see Jensen and Meckling (1976), Fama and Jensen (1983), Jensen (1998, 2000), Furubotn and Richter (2005).

[3] For Japanese corporate governance, see Kikuzawa (2004).

by such problems. Based on the agency theory, we would like to resolve these problems as follows.

3. The Agency Theoretical Approach to the problem of Corporate Governance

3.1 The Agency Theory

So far, the corporate governance problems have been seen as one of the agency problems. According to Jensen and Meckling (1976) who have mainly developed the positive agency theory,[4] an agency relationship is defined as a contract under which one as the principal engages another person as the agent to perform some service on his behalf. The relationship involves delegating some decision-making authority to the agent. If both of the principal and the agent are utility maximizers, there is conflict between their interests, and also there is an asymmetry of information between them, the agent will not always act in the best interests of the principal. This is called an agency problem or a moral hazard problem.[5]

However, the principal can limit the divergences from his interest by establishing appropriate incentive institutions for the agent and by building monitoring systems designed to limit the aberrant activities of the agent. In addition, in some situations, it will pay the agent to expend resources to guarantee that he will not take certain actions that would harm the principal. The behavior of the agent is called bonding.

It is generally impossible for the principal or the agent at zero cost to ensure that the agent will make optimal decisions from the principal's viewpoint. In the agency relationship, the principal and the agent always have to incur positive monitoring costs and positive bonding costs. In addition, there will be some gap between the agent's decisions and those decisions that would maximize the welfare of the principal. The reductions in welfare experienced by the principal due to this gap are also a cost of the agency relationship, and this cost is called the residual loss.

As mentioned above, according to Jensen and Meckling (1976), agency costs[6] are defined as the sum of (1) the monitoring cost by the principal, (2) the bonding cost by the agent, (3) the residual loss. According to the agency theory, a variety of institutions are explained as the institutions designed in order to economize these costs.

3.2 Corporate Governance as Monitoring

Let us consider the public corporations based on the agency theory as discussed above. In public corporations, generally there is a separation of ownership and control.[7] In such a firm, the firm's top management may or may not own a substantial part of the shares of the company which they run, but in either case, there are outside-stockholders. Therefore, the relationship between the outsiders and management is an agency relationship as described above. In this relationship, the outside-stockholders act as the principal and the firm's top

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[4] There are two kind of agency theory. That is, positive agency theory and normative agency theory (principal-agent theory). The former is interested in explaining the reality. The latter is interested in building mathematical models. For these two kinds of agency theory, see Jensen (1983).

[5] For agency problems, see Arrow (1985).

[6] For further details, see Jensen and Meckling (1976) p.308.

[7] For a separation of ownership and control, see Berle and Means (1932).

management team acts as the agent. There is not only an asymmetry of the information between them, but also a conflict of interests between them.

Under these conditions, a manager does not always act in the best interests of the outside-stockholders. He can act not considering the interest of the outsiders. Therefore, the agency problems will emerge in public corporations. This can be considered as corporate governance problems that we had in Japan in 1990s.

However, the outsiders can monitor the behavior of the manager. In practice, it is usually possible for the outsiders to observe the behavior of the manager to a certain extent. This can be done, for example, by having the books audited by an external auditor, or by installing a board of directors, through the establishment of incentive compensation systems.

Such monitoring systems can be considered as corporate governance systems. By spending money on monitoring, the outside-stockholders can reduce consumption on-the-job, the consumption of perquisites, the expenditures of non-pecuniary benefits by the manager. The more they spend on monitoring, the better they can govern the manager's behavior and the more they can reduce inefficient consumption. As a result, such monitoring can raise the value of the firm. We can say that the monitoring system is a type of corporate governance system in public corporations.

3.3 Self-Governance as Bonding

However, if the manager consumes less at his own initiative, the value of the firm will increase and it will be the manager who captures the increase, not the outside equity holders. Hence, it is in the interest of the manager to bind himself. This behavior is bonding. This is also called a kind of self-governance. The manager can have the books audited by an external auditor, or he can install a board of directors spontaneously.

However, bonding is not without cost. By spending money on bonding, the manager can reduce the inefficient consumption and he can get the increase of the value of the firm. The more he spends on bonding, the more the value increase and it is the manager who can capture the increase, not the outside-stockholders.

Bonding and monitoring are in essence almost the same thing, fungible and complementary. Bonding means that the manager takes the initiative to bind himself and to be monitored. In contrast, monitoring means that the outsiders take the initiative. Next, from this point of this view, we will analyze the Japanese situation after the collapse of the bubble economy in the 1990s.

4. The relationship between Corporate Governance and CSR in Japan

4.1 Corporate Governance as Monitoring in Japan

In Japan, the Commercial Code was amended in 2003.[8] The Japanese government intended to make the stock market more active by reforming corporate laws. In Japan, the possibility opened for corporate governance by the stock market or by equity buyers like those in the U.S. As a result, foreign investors like pension funds such as CalPERS (California Public Employees' Retirement System) have been very active even in Japan.

[8] By these reforming corporate laws, Japanese corporations can choose legally one of two type top management organizations: The traditional Japanese style or the American style based on committees considering the interest of stockholders.

Now, on one hand, Japanese companies are always exposed to the menace of the hostile takeover. On the other hand, the outside-stockholders, in particular foreign investors try to monitor the behavior of the manager as much as possible.

Under such monitoring systems, Japanese companies cannot help considering the interest of stockholders. If they ignore the interest of the stockholders, they will in some ways have to bear a lot of monitoring cost.

For example, if a company continues to ignore the interest of stockholders, the capital costs will increase, so the value of the firm will be depreciated. In addition, if most Japanese companies continue to ignore the interests of the stockholders, the companies will be obligated to include many independent directors in the board by changing laws. In this case, it will be very expensive for them to find independent directors who are for them.

4.2 CSR as Bonding in Japan

Essentially a company is always passive in terms of building monitoring systems as corporate governance systems. In other words, on building monitoring systems, the company depends on outside-stockholders' behavior and government policy. In addition, following them costs a great deal for the company.

In order to avoid incurring such monitoring costs and to be positively related to the problem, now Japanese companies seem to begin to engage in bonding activity positively. They try to do more than what the existing law requires. They seem to bind themselves to do business more efficiently.

For example, in order to bind themselves, they try to spend resources on forming a reputation where they will never behave dishonestly. Like Sony and Toyota, the positive activity relating to accountability and transparency can be a kind of bonding activity.

Also, like European companies, there are some companies becoming interested in the activity relating to fare trade that tries to deal with products made in developing countries. Such activities indicate that the companies always try to do business not from a local viewpoint, but from a global viewpoint.

Like Toyota, there are some companies engaging actively in the movement relating to environmental problems. Such companies will form the reputation that they do not seek just short-term profits.

If these reputations are formed by the bonding activities, Japanese companies will be appreciated by the stock market, and they can transact with other companies efficiently without falling into "the prisoner dilemma." [9] Therefore, forming a variety of these positive reputations under the guise of CSR is very important to companies.

The corporate governance system based on corporate laws is just an external way that makes companies do business effectively. In contrast, forming reputation by binding themselves is an internal way that makes companies do business effectively. We can regard such a forming of reputation as a type of CSR activity.

4.3 The relationship between Corporate Governance and CSR and the value of the firm

According to the agency theory, CSR as bonding and corporate governance as monitoring are in essence almost the same thing. So, the relationship is fungible. However, both of them are not always equal. Thus, more generally, they are not perfectly fungible but

[9] For the prisoner dilemma, see Kreps (1986).

partly complementary.

CSR as bonding means that the manager takes the initiative to bind himself and to be monitored. In contrast, corporate governance as monitoring means that the outsiders take the initiative. In this meaning, we can say that the relationship between corporate governance and CSR is not only fungible, but also complementary.

And both of them can improve the value of the firm because they can reduce the inefficient on-the job consumption, the consumption of the perquisites, the expenditures of the non-pecuniary benefits by managers.

If the relationship is valid, Japanese companies will have to spend their resources in CSR in range of the concept of "bonding activity" that the manager takes the initiative to bind himself and to be monitored. It is inefficient for corporations to take part in CSR activity more than the concept of bonding. Engaging in such excessive CSR activities is to lose sight of the primary purpose as a firm.

5. A formal analysis of fungibility and complementarity between corporate governance and CSR.

We will prove theoretically fungibility and complementarity between Corporate governance and CSR and the value of the firm based on Jensen and Meckling (1976), Douma and Schreuder (1991).[10]

5.1 The Agency model on Moral Hazard and Corporate Governance

By definition, V is the value of the firm, which is the market value of the cash flows generated by the firm. Suppose that C is the current market value of the stream of the manager's consumption on-the-job, which is related to non-pecuniary aspects of his entrepreneurial activities such as the kind and amount of charitable contributions, personal relations ("love," "respect," etc.) with employees, a larger than optimal computer to play with, purchase of production inputs from friends, etc.

If an owner-manager engages in consumption on-the-job, he will not be maximizing the value of the firm. The more he spends as consumption on-the-job, the lower the value of the firm. If he spends $1 million as consumption on-the-job, he will lower the value of the firm by $1 million. In Figure 1, the present value of on-the-job consumption C is plotted against the value of the firm V.

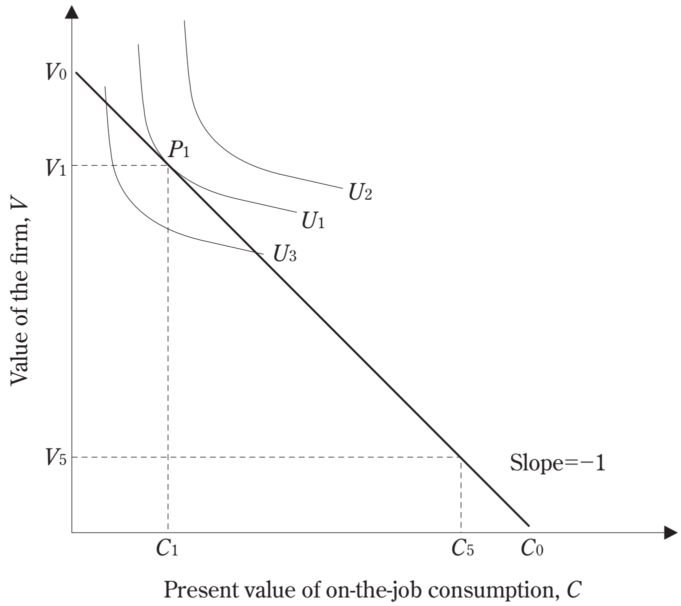
The sum of the two variables, the value of the firm and the present value of on-the-job consumption, is constant. If the owner-manager decides to consume C_5 in the form of perquisites, the value of the firm will be V_5. The line V_0C_0 represents all possible combination of V and C. This line gives the set of combination of V and C that the owner-manager can choose from and is called the budget constraint.

In Figure 1, the budget constraint V_0C_0 has slope -1. An owner-manager who is interested only in maximizing the value of the firm, not in any form of expenditures on non-pecuniary benefits, would not consume anything on the job. In this case, the value of the firm then would be V_0 which is the maximum market value of the firm.

The values of C and V chosen by an owner-manager depend on his utility function U. In Figure 1, all points on curve U_3 represent points of equal utility to the owner-manager. All

[10] On this formal model, we refer to Jensen and Meckling (1976), Douma and Schreuder (1991).

Figure 1 The value of the firm and present value of on-the-job consumption



points on curve U_1 also represent points of equal to him. Points on curve U_1, however, represent a higher level of utility than points on curve U_3. Points on curve U_2 represent a still higher level of utility, but the owner-manager cannot reach this level. He can maximize his utility by choosing point P_1 where his on-the-job consumption is C_1 and the value of the firm is V_1. At this point, the owner-manager utility of an additional dollar of on-the-job consumption is equal to the marginal utility of an additional dollar of wealth.

The curves U_1, U_2 and U_3 in Figure 1 are called indifference curves because these curves represent points of equal utility to the owner-manager. Thus, he is indifferent among the points lying on the same indifference curve. Since we are still dealing with an owner-manager who owns all the stocks in the firm, we need only the information in Figure 1 to determine his trade-off between the value of his firm and his consumption of non-pecuniary benefits.[11]

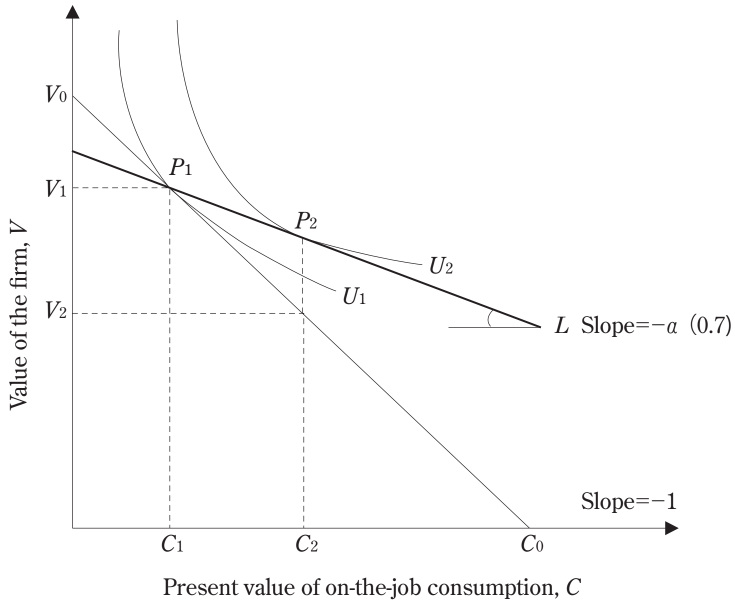
Now, suppose that the owner-manager owns a fraction α ($0<\alpha<1$) of the stocks himself, and then he sells a fraction $(1-\alpha)$ of his stocks to outsiders.[12] For example, α could be equal to 0.7. In this case, it means that the owner-manager sells 30% of the equity to outsiders and he retains 70% for himself.

If he decides to spend an additional \$1 on-the-job consumption, the value of the firm will be reduced by \$1. However, the personal wealth of the owner-manager will be reduced by only $\alpha\times$\$1 and the wealth of the outsiders will be reduced by $(1-\alpha)$ \$1. The fractional owner-manager will now spend an amount on consumption such that the marginal utility of an additional \$1 of on-the-job consumption is equal to the marginal utility of an additional

[11] On this part of formal agency model, see Jensen and Meckling (1976) pp.315–316, Douma and Schreuder (1991) p.82.

[12] On the following part of formal agency model, see Jensen and Meckling (1976) pp.317–319, Douma and Schreuder (1991) p.82.

Figure 2 The value of the firm and present value of on-the-job consumption



$\alpha \times \$1$ of personal wealth. Therefore, he will increase his consumption of non-pecuniary benefits.

How much more the owner-manager will increase his consumption of non-pecuniary benefits depends on the set of possible combinations of personal wealth and on-the-job consumption that he can choose from. This set depends on the price that he can make for the stocks that he sells to the outsiders, and this price depends on whether or not the outsiders know in advance that the owner-manager will spend more on on-the-job consumption after he has sold the stocks.

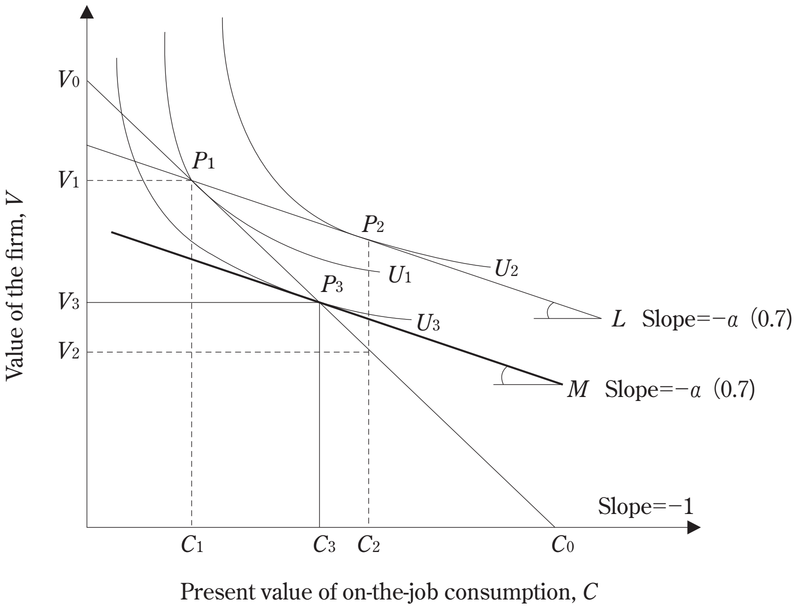
In this case, the equity buyers do not know that the owner-manager will spend more after he has sold the stocks. Therefore, there is an asymmetry of information between the equity buyers and the owner-manager. In addition, suppose that there is a conflict between the owner-manager's interest and the equity buyer's interest.

In this case, the equity buyers will be willing to pay $(1-\alpha)V_1$ for a fraction $(1-\alpha)$ of the stocks. The budget constraint now facing the owner-manager has a slope of $-\alpha$ because he can get \$1 of on-the-job consumption for $\alpha \times \$1$ of personal wealth. The budget constraint must also pass through point P_1. At this point, the owner-manager consumes C_1 and his personal wealth is V_1 in Figure 2. That means that he will have $(1-\alpha)\ V_1$ in cash and another αV_1 in stocks. So, the budget constraint now facing the manager must be line L in Figure 2. Line L passes through point P_1 and has slope $-\alpha$.

At point P_2, there is an indifference curve U_2 in Figure 2 tangent to the budget constraint L. At this point, the manager will consume C_2 in form of perquisites. The value of the firm is reduced to V_2. Thus, the outside stockholders, who paid $(1-\alpha)V_1$ for their stocks, hold the stocks that have only a value of $(1-\alpha)V_2$.

This is an agency problem. One of the agency problems is the corporate governance problem. This problem can be resolved by symmetrising the unevenly distributed

Figure 3 The value of the firm and present value of on-the-job consumption



information between management and stockholders or by balancing the conflicting interests between them. These orientations of solution can be the essence of the corporate governance system.

5.2 Symmetrizing of Unevenly Distributed Information

Suppose that the equity buyers are not so naive as to assume that the owner-manager will not increase his consumption of perquisites.[13] Suppose, instead, that they expect the manager to increase his consumption as soon as he has sold stocks. Suppose, moreover, that they know the exact shape of the manager's indifference curves.

In this case, the equity buyers will have a look at Figure 3 and try to find a point P_3 such that P_3 lies on V_0C_0 and the indifference curve passing through P_3 has at point P_3 a slope of $-\alpha$: that is, the indifference curve is tangential at P_3 to a line through P_3 with slope $-\alpha$.

The equity buyers will soon find out that there is one and only one such point P_3. Thus, they will know that at point 3 the marginal utility for the owner-manager of spending an additional \$1 on on-the-job consumption is equal to the marginal utility of $\alpha \times 1\$$ of personal wealth. Therefore, they are willing to pay only $(1-\alpha)\ V_3$ for the equity, not $(1-\alpha)V_1$. If they pay $(1-\alpha)V_3$, the owner-manager's budget constraint becomes line M with slope $-\alpha$. He will then decide to reduce on-the-job consumption from C_2 to C_3. The value of the firm will be V_3 and the outside equity buyers will neither gain nor lose from buying the stocks.

Now, the personal wealth of the owner-manager is V_3. Of this amount, he has a fraction $(1-\alpha)$ in cash and a fraction α in stocks. On one hand, his wealth is reduced by V_1-V_3. On the other hand, the present value of his on-the-job consumption is increased by C_3-C_1.

[13] On the following part of formal agency model, see Jensen and Meckling (1976) pp.318–319, Douma and Schreuder (1991) p.82.

The result is a decrease in his level of utility because he is now on indifference curve U_3, while he started on indifference curve U_1. It is clear that only the disclose of information does not raise the value of the firm, but outsiders can buy the stocks for a fair price. Therefore, it is clear that no owner-manager would ever sell a fraction of the stocks of his company unless there are other motivating factors. There are some possibilities. The manager might prefer to have a portion of his wealth in cash instead of in stocks because he can use the cash for other things. Otherwise, the manager might see an opportunity for investment that he cannot finance from his own personal wealth.

5.3 Balancing the Conflicting Interests

We can balance the conflicting interests by controlling the behavior of the owner-manager through corporate governance as monitoring and CSR as bonding.

5.3.1 Corporate Governance and the value of the firm

Without corporate governance as monitoring, with the outside equity of $(1-\alpha)$, the value of the firm will be V_3 and the manager's consumption of perquisites C_3 in Figure 4. By incurring monitoring costs, the outside stockholders can restrict the manager's consumption of perquisites to amounts less than C_3.

Suppose that the monitoring reduces C at a decreasing rate. Since the monitoring by outsiders reduces the value of any given claim on the firm to them, the equity buyers will take this into account in determining the maximum price that they will pay for any given fraction of the firm's equity. Therefore, given positive monitoring activity, the value of the firm might be given by *S* curve in Figure 4.[14] The vertical difference between V_0C_0 and *S* is *MB*, the current market value of the future monitoring costs.

If it is possible for outsiders to impose the reductions in the owner-manager's consumption *C* of perquisites, the owner-manager will voluntarily enter into a contract with the outsiders which give them the rights to restrict his consumption of non-pecuniary items to C_4. For example, the owner-manager might have to accept an outsider as one of the board of directors. He finds this desirable because it will cause the value of the firm to rise to V_4. That is, P_4 on the U_4 curve is a higher level of utility than P_3 on the U_3 curve. Given the contract, the optimal monitoring cost on the part of the outsiders is the amount *MB* (P_5-P_4). The entire increase in the value of the firm that is accrued will be reflected in the owner-manager's wealth. This is the effects of corporate governance as monitoring.

5.3.2 Fungiblity between CSR and Corporate Governance

Suppose that the owner-manager could expend resources to guarantee to the outsiders that he would limit his activity which cost the firm C_3 in Figure 4. We can call these expenditures "bonding costs."

Such bonding behaviors[15] would take such forms as the firm forming an honest reputation that the firm never behaves dishonestly. These things impose costs on the manager because he limits his activity to take full advantage of some profitable opportunities as well as limiting his ability to harm the stockholders while making himself better off.

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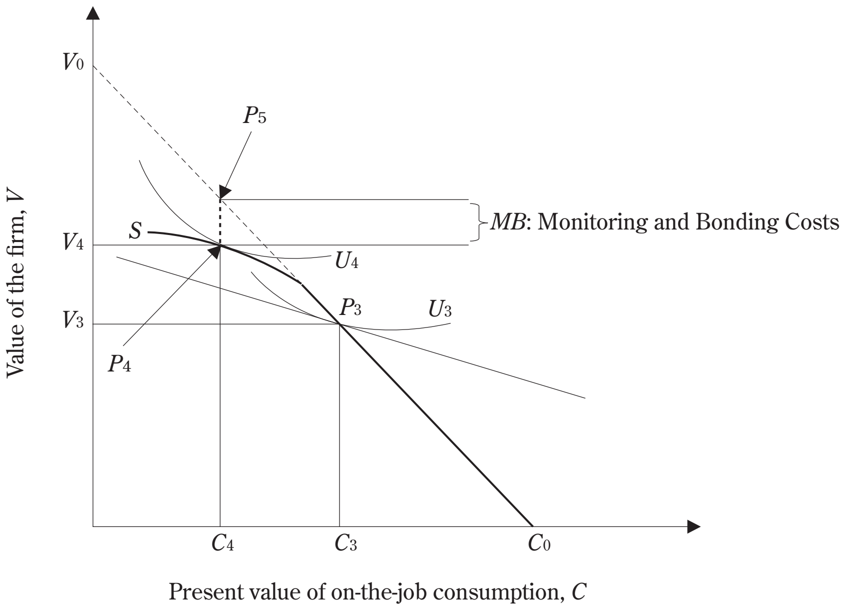
[14] On the following part of formal agency model, see Jensen and Meckling (1976) pp.323–325, Douma and Schreuder (1991) pp.84–86.

[15] On an analysis of bonding expenditures, see Jensen and Meckling (1976) pp.325–325, Douma and Schreuder (1991) pp.86–87.

Figure 4 Fungiblity between monitoring and bonding costs



If the incurrence of the bonding costs were entirely under the control of the manager, and if they yielded the same opportunities set S curve in Figure 4, the manager would incur them in amount *MB*. This would limit his consumption of perquisites from C_3 to C_4, and the solution is the same as if the outside stockholders had performed the monitoring as corporate governance.

The manager finds it in his interest to incur these costs as long as the net increments in his wealth which they generate (by reducing agency costs and therefore increasing the value of the firm) are valuable more than the perquisites given up. This optimum occurs at point P_4 in both cases under assumption that the bonding expenditures yield the same opportunity set as the monitoring costs. P_4 on the U_4 curve is a higher level of utility than P_3 on the U_3 curve. So, it will pay the owner-manager to engage in bonding activities and to write contracts which allow monitoring as long as the marginal benefits of each are greater than their marginal cost.

In this way, we can say that there is fungibility between corporate governance as monitoring and CSR as bonding and the value of the firm.

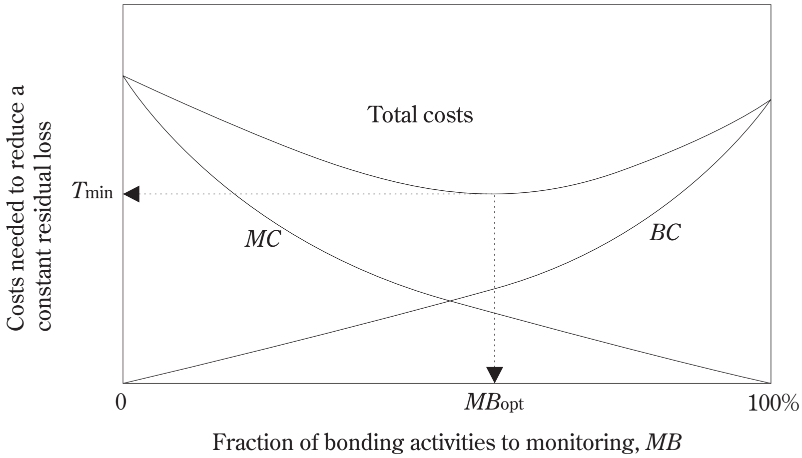
5.3.3 Complementarity between CSR and Corporate Governance

As mentioned above, CSR as bonding means that the manager takes the initiative to bind himself and to be monitored, whereas corporate governance as monitoring means that the outsiders take the initiative. In this meaning, we can say that the relationship between corporate governance and CSR are fungible.

However, this would be plausible only if bonding costs yielded the same opportunities set as monitoring costs. In fact, both costs are not always equal. Thus, more generally, they are not perfectly fungible but partly complementary. We will prove this as follows.

Suppose that the amount of agency costs (residual loss) which monitoring or bonding

Figure 5 Complementarity between bonding and monitoring



activities can economize is constant. If capital markets are efficient, the prices of assets such as outside equity will reflect the monitoring and bonding costs, and the owner-manager will bear these costs. Thus, from the owner-manager's standpoint the optimal fraction of bonding activities (versus monitoring) which he engages in is that (MB_{opt}) which results in minimum total costs (T_{min}) in Figure 5.

Consider the function (*MC*), Monitoring costs, in Figure 5. When (*MB*), fraction of bonding activities to monitoring, is zero, the monitoring costs the owner-manager bears is at maximum since the residual loss is reduced only by monitoring. As (*MB*) increase to 100 percent, bonding reduces more residual loss and hence the monitoring costs he bears is less.

In contrast, when (*MB*) is zero, the bonding costs (*BC*), is at minimum since the residual loss is reduced only by monitoring. As (*MB*) increase to 100 percent, bonding reduces more residual loss and hence the bonding costs increase.

As (*MB*) increase, (*MC*) decrease rapidly, (*BC*) increase rapidly, since the rational owner-manager substitutes bonding for monitoring on the institutions where there is the difference between marginal monitoring and bonding costs. As long as marginal bonding costs are less than marginal monitoring costs in installing institutions, monitoring is replaced by bonding. Therefore, when marginal bonding costs are equal to marginal monitoring costs (MB_{opt}) in Figure 5, total costs is at minimum, (T_{min}).

For example, the owner-manager may be required to produce detailed financial reports as a means of monitoring. He himself can produce them at lower costs than outsiders since he has more information on the corporation for his own internal decision making purposes. If so, he will agree in advance to incur the cost of producing such reports testified by an independent outside auditor. This means that monitoring will be replaced by bonding.

On the other hand, the owner-manager may be required to form a type of top management organization as a means of monitoring. He can form such organization by trial and error. However, this activity as bonding by himself involves higher costs than by outsiders since it is difficult for him to form the organization outsiders' desire, on bounded information and knowledge. Outsiders can have him form the desirable organization at lower costs by theirselves or corporate laws. This means that monitoring will be not replaced by bonding.

In Figure 5, the owner-manager can minimize the total costs at some point (T_{min}) with a mixture of both monitoring and bonding. Therefore, in this meaning, we can say that there is not only fungibility but also complementarity between corporate governance as monitoring and CSR as bonding.

How much should corporations expend their resources to CSR activity? CSR activity will have to be done in the range of the concept of bonding activity. Moreover, they should engage in CSR activity as bonding unless CSR expenditures exceed those of corporate governance as monitoring.

6. Conclusion

In this paper, firstly, we briefly described the situation on corporate governance problems and CSR activity which have emerged in Japan. Next, we explained how corporate governance problems could be analyzed based on the agency theory.

We analyzed the relationship between corporate governance and CSR and the value of the firm based on the agency formal model developed by Jensen and Meckling. As a result, we made it sure that there was not only fungibility but also complementarity between corporate governance as monitoring and CSR as bonding.

In conclusion, CSR activity will have to be done in the range of the concept of bonding activity as a self-governance. It is inefficient for corporations to take part in CSR activity more than the concept of bonding. Engaging in such excessive CSR activities is to lose sight of the primary purpose as a firm.

References

Arrow, K.J. (1985). “The Economics of Agency,” in *Principals and Agents: The Structure of Business,* ed. By J.W. Pratt and R. Zeckhauser. Boston: Harvard Business School Press.

Berle, A.A. and G.C. Means (1932). *The Modern Corporation and Private Property*. New York: Commerce Clearing House.

Charkham, J. (1994). *Keeping Good Company: A Study of Corporate Governance in Five Countries*. Oxford: Claredon Press.

Douma, S. and H. Schreuder (1991). *Economic Approaches to Organizations*. London: Prentice Hall International.

Fama, E.F. and M.C. Jensen (1983). “Separation of Ownership and Control,” *Journal of Law and Economics*, Vol.26, 301–325.

Furubotn, E.G. and R. Richter (2005). *Institutions And Economic Theory: The Contribution of the New Institutional Economics (second edition).* Ann Arbor: University of Michigan Press.

Gordon, J.N. and M.J. Roe (2004). *Convergence and Persistence in Corporate Governance*. Cambridge, NY: Cambridge University Press.

Jensen, M.C. (1998). *Foundations of Organizational Strategy.* Boston: Harvard University Press.

Jensen, M.C. (2000). *The Theory of the Firm: Governance, Residual Claims, and Organizational Forms.* Boston: Harvard University Press.

Jensen, M.C. (1983). “Organization Theory and Methodology,” *The Accounting Review,* Vol.VII, No.2, 319–339.

Jensen, M.C. and W.H. Meckling (1976). “Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics,* No.3, 305–360.

Kikuzawa, K. (2004). *Comparative Corporate Governance: Organizational Economics Approaches* (in Japanese). Tokyo: Yuhikaku.

Kreps, D.M. (1986). "Corporate Culture and Economic Theory," in *Perspectives on Positive Political Science,* ed. by Alt and Shepsle. Cambridge, NY: Cambridge University Press.

Tirole, J. (2005). *Theory of Corporate Finance*. Princeton, NJ: Princeton University Press.