96-F-1

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January 1996

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This version: October 1995
(Previous versions 1993/10, 1994/3, & 1995/2)

* I would like to thank Masahiko Aoki, Thomas Hellman, Yoshitsugu Kanemoto, Ikuo Kume, Chiaki Moriguchi, Akira Morita, Michio Muramatsu, James Murdock, Kohsuke Ohyama, Tadashi Sekiguchi and Barrry Weingast, and participants of the World Bank Conferences for their valuable comments and helpful discussions for earlier versions.

1. Introduction

In this paper, we attempt to present an abstract model of government-business relationship and to identify institutional structures that determine the nature as well as the outcome of government-business relationship in different societies. In designing and implementing economic policies, natures and means of interactions within the government and those between the government (especially the Administration) and the private business sector play important, and sometimes critical, roles. However, there seem to be distinctive differences in different countries, such as in US and in Japan, both in the way how the government itself is organized and in the way how such interactions occur, and these differences seem to be institutionalized in each society. We try to capture such institutional differences across societies and attempt to identify their relative merits in coordinating interests of various political actors in the private sector, inducing their innovation incentives and directing their investments to certain activities. By doing so, we hope that our analysis will shed some lights on analytical comparisons of workings of government-business relationship across different societies.

At the same time, we believe these institutional structures play key roles in promoting economic development and in encouraging industrialization of the society. As has been stressed by several proponents of the *Developmental State View*[1], there is an emerging view that a *strong* government, which relies heavily upon direct state intervention over the use of competitive market mechanism may have an advantage in industrializing a developing economy possibly at the cost of repressing democracy. However, these views seem conjectural, expressing the authors' beliefs without providing a useful analytical framework that would help understand what constitutes a strong government and how strong governments have such an advantage over a democratic government. We hope that the following analysis, though it is also tentative and conjectural, will fill in this lacuna.

The model we provide below may be considered as an attempt to do so, i.e., providing an analytical framework to scientifically evaluate the validity of the view that a difference in the government regimes and institutional differences is sometimes critical in promoting industrialization. For that, we attempt to examine, with the help of economic theories such as incentive theory and contract theory, relative merits and demerits of institutional structures behind government-business relationship in achieving desirable resource allocations, possibly depending upon the parameters surrounding the economy, especially the difference in the stage of economic

[1] See, e.g., the writings of C. Johnson [1982], R. Wade [1990] and A.H. Amsden [1989].

development. In particular, we examine their impact on economic development in both post-war and contemporary Japan as well as in other East Asian countries.

This paper is organized as follows. In section 2, a model of typical government-business relationship will be formulated with an emphasis on *ex ante* policy rules and *ex post* negotiation to revise them. Several extreme forms of government are identified. Extent of the government's bargaining power, defined by the government's ability in exerting its power over the private sector, reflects the difference between the degree of functional separation of powers within the government as well as the relative size of litigation costs of the government with respect to that of the private sector. Jurisdictionally centralized *vs.* decentralized government is defined by the relative level within the government (typically within its administrative branch) where the main activity of coordinating public interests takes place. In section 3, *ex post* negotiation to coordinate interests among the government (again its administrative branch) and various private groups will be discussed, using the theory of bargaining, and main factors that dictate the bargaining outcome will be identified. In section 4, *ex ante* incentives of the government and private firms will be analyzed in view of the different institutional structures, using contract and incentive theories. In section 5, relative merits and demerits of different regimes of the government will be discussed and evaluated, though our evaluations are of preliminary nature, in view of various criteria. In section 6, a brief historical account is made on government business relationship in the post-war Japan, arguing that it may have contributed to the success of industrialization in 1950's and 60's. Section 7 concludes the paper.

2. Model of Government-Business Relationship

What is the government and what does the government do in relation to the business sectors? In this section, we present an abstract model of government activities which, we hope, enables us to analyze the roles and the consequences of different institutional regimes that determine the outcome of the government-business relationship. By so doing, we hope to be able to identify how typical governments interact with the private sector and what institutional factors determine the outcome of such interactions.

A Model of Government-Business Relationship:

We begin by formulating the various activities of the government in an extremely simplified form:

(1) Government, especially legislative and administrative branches by negotiating with private sectors to coordinate their interests, decides its policy and determines a (*ex ante*) rule to implement it, which determines a set of alternative *ex post* actions $Y^{ea} = \{y_1, ..., y_n\}$[2] that private firms can employ,

(2) Private firms carry out (*ex ante*) investments, x, such as product development and plant construction in view of the desired *ex post* action, y, in the set of alternative actions,

(3) Uncertainties that are difficult to foresee *ex ante* (or states of nature which will be denoted as s), such as a change in external economic conditions or a technological breakthrough, are unfolded and become fixed,

(4) In view of developments in (2) and (3), government and some selected parties in the private sector who have power to influence decisions (*insiders*, for short) negotiate over (*ex post*) rules, or a new set $Y^{ep}(x,s)$ of *ex post* actions, to implement after coordinating their interests,

(5) A dispute may occur between government and private firms and/or among private firms concerning the validity of the *ex post* rules or the lawfulness of private firm's action, which will be settled through certain channels depending upon institutional structure of the society.

(6) Private firms perform their (*ex post*) business activity under the *ex post* implementation rule, or choose a particular y from $Y^{ep}(x,s)$, and a society's outcome, z(x,y,s), is determined.

An example may help readers understand (1) - (6) above[3]. During the late 1980's and early 90's, with the foreign diplomatic pressure and the general public's cry for deregulation behind, the Ministry of Finance (MOF) laid out a plan to liberalize regulated deposit rates and other bank activities in Japan. MOF's publicly stated position at that time was to let the market mechanism decide the winner of competition, by not providing public rescue to those financial institutions who cannot outlive the process of deregulation. Bank of Japan's (BOJ) retiring president publicly announces as late as Fall of 1994 that bankruptcies of small banks with financial difficulties are unavoidable and possibly desirable. This is the stage (1).

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[2] This set may be contingent upon observable and verifiable information signaled by realization of uncertainties in (3).

[3] Readers not familar with Japanese economy may imagine instead the Saving and Loan (S&L) incidents in the US during the 80's, whose story is rather similar to the following accounts. For the detail of the S&L incidents, interested readers are referred to, e.g., Kane [1993].

With such government announcement private banks had alternatives over various actions of x, ranging from (a) keeping their financial position slim anticipating severe competition in the future to (b) expanding their business aggressively, accepting the risk of holding excessively bad loans and hoping MOF and BOJ would come in for help when things turn bad. This is the stage (2). In early 90's, stock market crashed and land prices, which were the crucial element in the healthiness of Japanese financial institutions who must hold properties as collateral, started to decline drastically. Financial difficulties appeared in many banks, and collapse of credit system is feared widely. This is the stage (3) or unfolding of a particular state of nature, s.

The government starts to rescue some selected banks[4] with the help of private financial institutions' voluntary cooperation. The *ex ante* principle of not helping those banks who would fall in financial difficulties are abandoned and the banking industry starts to look for public rescues. This is the stage (4). There may be no explicitly written new *ex post* rule and the proposed new rule may be disputed in the media and/or courts (stage 5), but those precedence that are accumulated as emergency measures would act as a *de facto* new rule. Private banks decide their new business policies, y, based on the development (1) - (5). This is (6), which determines the ultimate social outcome (denoted as $z = z(x,y,s)$) such as whether or not a particular bank with financial difficulty is rescued by a concerted effort of public as well as private sectors.

Chronological order of (4)-(6) may vary across societies depending upon institutional structures. In fact, the typical chronological order in the US may be better approximated as (4)' private firm takes an action which may be beyond conventional interpretation of law (with respect to the *ex ante* rule) or improper (violating the society's value system) by the government, (5)' courts decide the appropriateness of the firm's action and/or lobbying activities and election results change the government's rulings, and (6)' new *ex post* rule is set in lieu of the court's verdict.[5]

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[4] A typical example is as follows. In December of 1994, BOJ announced a rescue plan for two small regional banks in Tokyo which were burdened by large amount of bad loans. The rescue plan consisted of establishment of new special bank financed by (a) investment of 20 billion yen (about 200 million US dollars) by the BOJ, (b) the same amount of investment by other large city banks, and (c) 40 billion yen gift from the Deposit Insurance Corporation. In addition, another new institution, which would help collect these banks' bad loans, was created by a low-interest loan (of estimated 100 billion yen) from Tokyo Municipal government and private financial institutions.

[5] Several recent developments in the US telecommunication regulation seem to be better approximated in the latter framework.

Nonetheless, in the text to follow we shall employ the chronological ordering we set out in the beginning of this section. When the negotiation in (4) between the government and selected parties of business sector takes place, they anticipate the subsequent developments of (5) and (6). As long as we use subgame perfect equilibrium as a solution concept, which presumes an equilibrium outcome under rational expectation, to analyze stages (4)-(6), the result we obtain is likely to remain qualitatively unaffected even if we change the chronological order.

Functional Separation of Powers and Jurisdictional Partition:

The way the government-business relationship functions depends upon the structure and the nature of the government itself. For that purpose, we classify governments from two different viewpoints.

First, we classify governments, especially its administrative branch, in view of how easily it can implement its preferred policies through (4)-(6). We shall call a government with *large* bargaining power if it can implement its favorite policies relatively easily, while a a government with *small* bargaining power if it cannot. We view that the strength of the government stems from its relative bargaining power against the private sector. In the following, we discuss two institutional factors that determine the relative strength of the government's bargaining power.

One institutional factor that determines the relative bargaining power of the government is the functional separation of power. In any democratic government, its authorities are functionally allocated according to the different functions of the government, described as (1), (4) and (6) above. In one extreme from this viewpoint is a *functionally separated* government with rigid *separation of powers*; of legislation, administration and judicature. In this type of government, different functions of the government are controlled by the separate and independent body; the legislature is mainly responsible for the activity (1), the administrative body for (4), and the courts for (5). As we shall explain in the sections to follow, in such a government policies are likely to be implemented based upon explicitly written laws and legislations enacted by the legislature, and the implemented policies are constantly checked through judicial processes, or on *rule-based* manner. Such a government tends to have relatively small bargaining power as private sectors can resort to other branches if policies which are not acceptable for them are chosen by a branch of the government.

Another factor that determines the relative bargaining power of the government is the size of and the relative magnitude (between the government and private sector) of litigation costs. Even if powers are functionally separated within the government, whether or not private sector can resort to the check-and-balance mechanism, especially to the judiciary process, is another matter. If litigation costs are large, especially for private sector in comparison with that for the government, private sector cannot effectively utilize the rescue from the judiciary process, and the government will have relatively large bargaining power. Bargaining power of a functionally separated government is small only if litigation cost is non-significant for private firms.

In the other extreme is a *non-separated* government where either the government activities of (1), (4) and (5) are all carried out by a single decision-making body or the private sector finds it difficult to appeal to other branches of the government because of institutional reasons, such as high litigation costs. Needless to say, even if different functions of the government were nominally controlled by separate bodies, when institutional factors make the preferences of these bodies essentially identical, we shall call such a government where the power is concentrated, for example at the hand of the President, and those in power can implement their preferred policy in different branches of the government. In this type of government, policies may be implemented even if the written laws explicitly prohibit such policies, as laws and rules are written with large room for discretion. Private firms follow the government policies either because the government has omnipotent power, i.e., on *authority-based* manner, or because they fear the government's unfavorable treatment in future, or on *relation-based* manner. These governments have relatively large bargaining power.

Second, we classify governments, again especially its administrative body, in view of the level of the government where the main action of the stage (4) activity will take place. The administrative branch usually consists of many bodies such as ministries and bureaus. They are sometimes classified into the *upper government*, such as the Presidential office and the Prime Minister's office, whose main responsibility is to coordinate policies over various sections of the administrative branch, and the *lower government*, such as ministries and bureaus that oversees certain government activities and/or those private sectors under their jurisdiction, whose main responsibility is to make policy decisions and to implement them within their jurisdictions.

From this viewpoint, we identify two extreme types. In one extreme is a government with *central jurisdictional power*, or a *jurisdictionally centralized* government, where all decisions concerning various sectors across the society are controlled or coordinated by the executive office, such as the Presidential office or the Prime Minister's office (i.e., the upper government). In particular, negotiations for policy revisions in the stage (4) takes place in an integrated form at the level of the upper government among the executive office, relevant bodies of the lower government and concerned parties of private sector. The other extreme is a government with *decentralized jurisdictional powers*, or a *jurisdictionally decentralized* government. In this type of government, usually the jurisdiction of each ministry and bureau is clearly and mutually exclusively defined, i.e., jurisdiction is strictly partitioned, and authorities on the jurisdiction is delegated to ministries and bureaus. Negotiations in the stage (4) takes place in a fragmented way at the level of the lower government between the private sector and the ministry in charge.

Being key participants at the bargaining table, the motivation as well as the preference of bureaucrats of this branch at the table play an important role in drafting the agreement. Because this branch of the government is organized as a hierarchy, bureaucrats have a natural interest in their own promotion which may be made more likely by their contribution to the ministry they belong. It follows that bureaucrats in a jurisdictionally decentralized government often find the sources of their power in close relationship with and strong supports from corporate executives/professionals in the industry under their jurisdiction, thereby achieving a contribution to an increase in the ministry's political power.

On the other hand, in a jurisdictionally centralized government, political power is concentrated at the central executive office[6]. In such a government, bureaucrats at ministries and bureaus look for promotion opportunities and sources of their power in the executive office's endorsements of their policies. They would spend more time and other resources in persuading senior officers and/or in lobbying for the support of the executive office, rather than in collecting relevant industry data and/or in fostering information network with corporate executives of their jurisdiction.

It follows that, in a government with central jurisdictional powers, major decision makings for policy revisions are made at the higher level by bureaucrats with wider perspectives but with relatively little access to information about individual industries. In a jurisdictionally decentralized government, however, negotiations for revisions are made at lower levels of individual ministry and/or bureau in a segregated manner. In addition, such a government tends to have a stricter jurisdictional partition and the interests of relatively few parties in the private sector, e.g., incumbent firms in the industry of which the ministry is in charge, will be reflected in the bargaining table. The voices of outsiders, such as consumers, buyers of the product and potential entrants,

[6] A notable example may be the US government where top layer of each department is filled by political appointees.

seldom affect policy revisions.[7] It does not imply, however, that there is no coordination across different sectors of the society by a jurisdictionally decentralized government, because there are other means for such coordination; political parties occasionally play such a role in the legislative branch and/or bureaucrats find the source of their power in this coordination.[8]

Type of Governments:

With these two dimensions together, we shall classify four typical types of government. First type is an *authoritarian* government, where the functional powers are hardly separated and jurisdictional powers are centrally held. In such a government, there is a powerful central office that controls the entire economy whose power is checked neither by the legislative body nor by the judicature branch of the government. This type of government is not only able to exert strong bargaining power over private sectors but also, as an organization, strictly controlled by the central executive office. This type is sometimes criticized as non-democratic and/or repressive because of its dictatorial or totalitarian nature. Several East Asian governments during the heyday of their economic development have been criticized based upon this characteristics.

Second type is a *rule-based* government, where there is a relatively strong central office which controls the lower governments irrespective of their jurisdictional powers but the separation of functional power is strict and the government's bargaining power is relatively small, being able to exert only a limited power over private sectors. This type of government is probably closest to what many people ordinarily view as a democratic government, because power of each functional branch, such as legislature,

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[7] In contemporary Japan, for example, the power structure that controls each individual industry is often dominated by the triad of politicians, bureaucrats and business people, sometimes called a policy community, which hold a tight nexus that effectively controls and practically determines many critical policy decisions. A policy community, consisting of an industry association of the industry in question, a government agency in charge, and a relevant sub-committee of the Policy Research Committee of the Liberal Democratic Party (until the LDP controlled the Japanese politics), acts as an exclusive policy making institution. Three additioanl instutional features, a) the "Nawa-bari" of government agencies, which is an agreement of demarcation for exclusive administrative jurisdictions among various government ministries, b) the "Zoku" members of the parliament, who act essentially for the interest of firms in each individual industry, and c) the existence of industry associations, integrate diverse interests of member firms and acts for the industry as a whole, contribute to fragmentation of policy decisions.

[8] See our discussion of Japanese case in section 7.

administration and judicature, is mutually checked by other branches while administrative decisions are made by the top executive office in a centrally coordinated manner. Among the governments of advanced economies, the US government is probably the closest to this type.

Third type is a *relation-based* government, where either functional powers are not clearly separated or litigation cost is high, while coordination for policy revisions are carried out in the level of the lower government. This type of government may not resemble the textbook democracy because the separation of legislative, administrative and judicial functions within the government is not sufficiently clear. However, the check and balance mechanism among different branches of the government, such as ministries and bureaus who compete each other with their jurisdictional authorities behind, may contribute for the voice of minorities heard within the government. There is a good reason to believe that the post-War Japanese government is of this type.[9]

Fourth type is a relatively fragmented and possibly disorganized government, where government's bargaining power is probably the smallest due to the rigid functional separation of power, while coordination for policy revisions/implementations take place at the lower government level in a segregated manner. In such a government, it is relatively difficult to coordinate decision makings among different branches and, even if coordination can be made, it is relatively difficult for the government to commit to a certain policy philosophy.

There are other characteristics of governments which are of importance in the discussion to follow. For example, there are wide varieties of side payments potentially available between the government and private business, which enable the private business in bending the government's decision by offering its price. This possibility ranges from the mere briberies to the lobbying for political rents in the congress. Easiness of making side payments differ depending upon the institutional structures of the governments. Another important factor is the motivation of bureaucrats. Bureaucrats' have their own preferences to determine their actions. By some historical and cultural reasons, some governments seem to have better disciplined bureaucrats with high moral. Institutional structures within the government also affect

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[9] Strict jurisdictional partition of the Japanese government is well known as the "Nawabari". See, e.g., Okuno-Fujiwara [1993]. Its legislature is heavily controlled by the administrative branch, as most of the legislations are written and prepared by the bureaucrats, while litigation cost is significantly high. For example, it will take average of 10 years to get the final verdict from the Supreme Court for administrative suits. See Miyazaki [1986].

the preference of bureaucrats, as influencing activities[10], such as lobbying for their own promotion, and securing better political resources are sometimes effective means to improve their positions within the government organization.

We shall analyze merits and demerits of these different types of governments, especially the first three types in the rest of the paper.

3. *Ex Post* Negotiations

In this section, we shall analyze how *ex post* negotiations among insiders take place in stage (4). As we stressed in the previous section, what we analyze is a negotiation game in (4) anticipating future developments in (5) and (6). Put another way, implicit in the following is an analysis of a subgame perfect equilibrium of the game consisting of the stages (4)-(6).

Ex Post Negotiation and Default Outcome:

Among (1)-(6), important for our later discussions are the stages (1) and (4), as they tend to contradict each other. To explain, we shall first consider how the decision in the stage (4) is made. Given the *ex ante* choice, x, as well as the unfolded state of nature, s, a negotiation in (4) by insiders yields an *ex post* policy rule $Y^{ep}(x,s)$. The situation in (4) is then depicted in Figure 1. If the *ex ante* rule were to prevail or if $Y^{ea} = Y^{ep}(x,s)$, private firms would choose the action y_0 from Y^{ea} that maximizes their payoff from Y^{ea}. The resulting outcome, $z(x,y_0,s) = z_0$, will be evaluated by the government as g_0 and by the private firms as f_0. This payoff vector, $P_0 = (g_0,f_0)$, will be sometimes referred to as the *default* payoff. On the other hand, if the negotiation in (4) were to result in a new set, $Y^1 = Y^{ep}(x,s)$, private firms would choose an action y_1 which results in a payoff vector, $P_1 = (g_1,f_1)$. It should be noted that both the default payoff, P_0, and a payoff (or payoffs) realized by a policy revision, P_1, depend upon the *ex ante* rule and, more importantly, on the realized state of nature, s. Thus, the decision in (4) will effectively determine the choice of the *ex post* action, y, in the stage (5) and, consequently, the ultimate outcome z(x,y,s) and its associated payoffs. In order to explain the decision in (4), therefore, it is easier to think the stage (4) as if the government and private firms negotiate over the choice of y itself.

Bargaining with No Side Payments:

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[10] See Milgrom and Roberts [1988] and [1992].

Then how does the negotiation in (4) determine the bargaining outcome y, or the bargaining *payoff* outcome, (g,f) ? This depends critically upon the availability of side payments between the two parties. It is natural to think that there is no possibility of side payments, or of money (payoff) transfer, between the government and private firms, as explicit bribery is prohibited in any democratized country. If side payments are not allowed and if litigation cost is negligible[11], the *ex ante* rule would prevail even *ex post* if and only if there is no action y_i which assures a payoff higher than the default payoff to both government and private firms. It is rather straightforward to see why. If such y_i exists, since y_i Pareto improves y_0, both parties should agree to revise the rule so that y_i be chosen by firms. On the other hand if no such y_i exists, by employing a new *ex post* rule (which would produce payoff of P_2 in the Figure 1, for example), at least one negotiating party (firms, in this case) will be worse off under the hypothetical new rule and they would not agree to the revision. Even if the party (in this case, the government) who will benefit by the revision forces the new rule, the opposing party can bring the case to the court and secure the payoff, P_0.

It is worth emphasizing that if litigation cost is negligible, as we assumed in this subsection, P_0 is equal to the *disagreement* payoff, $P^D = (g^D, f^D)$, the payoff vector when negotiation leads to disagreement. Any agreement must provide at least as large a payoff as the disagreement payoff for each party, i.e., any agreement must be *individually rational.*

To sum up, if side payments are impossible and litigation cost is negligible, even if some unforeseeable events occur, the *ex ante* rule will prevail *as long as no Pareto improving revision of policy rule exists.* If there are several Pareto improving revisions exists, but there is a revision which Pareto dominates all other alternatives, this revision will be chosen. Finally, if there are several Pareto improving revisions, none of which is Pareto dominated by another, it is the bargaining that determines which revision will be chosen. We shall discuss how we can predict the bargaining outcome for this case in the next sub-section.

<u>Bargaining Power:</u>

What happens if there are plural individually rational Pareto improving revisions, none of which is Pareto dominated by another. Suppose P^D is as in Figure 2 and sticking to the *ex ante* rule produces the payoff of $P_0 = P^D$ while revising it to a new rule 1 yields the payoff of P_1 and revising it to yet another new rule 2 yields the payoff of P_2,

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[11] An important caveat to which we shall address shortly.

which are both feasible and individually rational (and no other choice exists), but neither Pareto dominates the other. In this case, the relative bargaining power of the two parties will determine which of the two alternatives will be chosen by the negotiation.

In our setup, there are two factors that affect their bargaining powers. First, the disagreement payoff partly determines the strength of their bargaining power, as it is the payoff that each negotiating party can assure itself without the help of other parties. The lower is the disagreement payoff, the less advantageous the strategic position of the party becomes and the weaker is his bargaining power. Second, such factors like bargaining skills and/or those implicit in the bargaining rule may influence the bargaining outcome.

In the following, however, we shall use the theoretical prediction of the Nash Bargaining Solution, which assumes the equal bargaining skills and/or the symmetric bargaining rule. Under this Bargaining Solution, an outcome is chosen from the set of individually rational outcomes so as to maximize the *Nash Product,* $(g_1 - g^D) \times (f_1 - f^D)$.[12] In Figure 2, two iso-Nash product curves are depicted and, under the assumed situation, P_2 gives larger Nash product than P_1 and should be chosen by the negotiation. It follows that the higher is the bargaining member's disagreement payoff, the larger his bargaining power becomes and he can assure a larger payoff at the bargaining table.

Litigation Costs and Functional Separation of Power:

What determines the bargaining power, or the disagreement payoff, of the bargaining members at the negotiating table in the stage (4) ? Litigation costs play critical roles, if the cost is non-negligible. Suppose side payments are not allowed and consider the case of Figure 3 where a revision may produce a payoff vector $P_1 = (g_1, f_1)$ instead of $P_0 = (g_0, f_0)$. Clearly, such revision would not be agreed if the judiciary branch were independent from the administrative branch and litigation cost were negligible, as firms would oppose such a revision and would bring the case to the court if the government (administrative branch) insisted on it. However, suppose it costs c_f for firms to take the case to the court (even if they can win the case), they can assure themselves only a payoff (or their *disagreement* payoff) of $f^D = f_0 - c_f$. Similarly, for the government its disagreement payoff is $g^D = g_0 - c_g$ where c_g is its respective litigation cost. It follows that the *ex ante* rule will remain effective only if there exists no policy

[12] For the details as well as the justifications of the Nash Bargaining Solution, see, e.g., Kreps [1990] and Osborne and Rubinstein [1990].

revision that provides a payoff vector that Pareto dominates the disagreement payoff, $P^D = (g^D, f^D) = (g_0 - c_g, f_0 - c_f)$, that is, only if there exists no policy revision which is individually rational. If litigation cost is high as in the case of Figure 3, P_1 Pareto dominates P^D even if it does not Pareto dominates P_0, a revision will be agreed to implement the payoff outcome of P_1.

Note that the litigation costs in our framework may consist of two factors. Functional separation of powers and the actual litigation costs. When functional powers within the government are not strictly separated, the private sector cannot win the default outcome even if it can bring the case to the court. The court being controlled by the same group who controls the administrative branch, judiciary process is not the last resort for the private sector. Put another way, with functionally non-separated government, litigation cost for private sector is prohibitively high.

An extreme, but important, case for the following discussion is a situation where the government has an absolute bargaining power, a regime of government-business relationship we call *predatory* in the following sections. This can be approximated where $g^D = g_0 > -\infty$ but $f^D = -\infty$, i.e., while the government incurs no litigation cost even if the firms bring the case to the court to assure the default outcome, they must pay prohibitively high litigation cost to defend it. In this case, private firms will have no bargaining power, and any negotiation will result in the outcome (or adoption of a new rule) which provides the largest payoff to the government. Needless to say, among other types, the authoritarian government has a relatively large bargaining power and is potentially predatory.

When powers are functionally separated but the litigation costs do matter, relative costs between the government and private sectors become important. If the cost is relatively high for the private sector but low for the government, the situation is similar to what we have discussed, with the extreme case of a predatory government. When the costs for two parties are of similar size but large, the set of individually rational payoff outcomes expands and the *ex post* renegotiation becomes more likely to yield outcomes that are different from the default outcome. In other words, such a government produces more flexible *ex post* policy revisions.

We should add two more remarks. First, we have assumed so far that the autonomous court will always enforce the default outcome. This is not necessarily the case when some state of nature that had not been anticipated at the time of choosing the *ex ante* rule has realized. For example, if some structural change occurred in the society, the *ex ante* rule may be found inappropriate by an autonomous court and policy revision may be accepted, especially when the revision is found to improve the society's welfare. As we discuss below, there is a good reason to believe that independent court of a functionally separated government tends to honor such revision and, hence, have *ex post* flexibility against structural change of the society. On the other hand, courts, which are controlled by the same group as the administrative branch, are likely not to admit such revisions and hence *ex post* inflexible.

Second, with a jurisdictionally decentralized government, *ex post* negotiation is carried out in a segregated manner, between an individual ministry/bureau and the members who have stakes in the destiny of the rule. Members at the bargaining table are fewer with relatively similar interests. It follows that revisions that *Pareto* improve insiders are more likely to exist and an agreement for a revision is more likely to be made, allowing more flexible adjustments of their polices. On the other hand, a government with centralized jurisdictional powers must take into account the possible implications on other bargaining tables and/or the diverse interests of bargaining participants, making it more difficult to reach an agreement. In short, a jurisdictionally centralized government is less likely to reach an agreement in the *ex post* bargaining.

Bargaining with Side Payments:

If side payments are possible in stage (4), however, the result may be critically different, as a part of a player's payoff can be transferred to other parties in the form of (monetary) transfer, which enlarges the set of feasible payoffs. For example, without side payments suppose there is only one possible *ex post* rule revision, yielding the payoff of P_1 in Figure 4. The possibility of side payments enlarges the set of feasible payoffs from a singleton set, $\{P_1\}$, to all payoff vectors southwest of the line AP^*P_1B. This line has a slope of -1 and represents all the payoffs, (g,f), whose sum is $g+f = g_1+f_1$. It follows that a revision of the *ex ante* rule takes place if and only if the total payoff under a revision, g_1+f_1, exceeds the default payoff, g_0+f_0. In Figure 4, for example, an agreement with a revision (and hence enforcing P_1) with transfer of t^* from the government to private firms would assure the payoff vector of P^*, which Pareto dominates $P_0 = P^D$. The actual size of the transfer, or t^*, depends upon the bargaining power of respective players.

Under the Nash Bargaining Solution, the transfer will be $t^*=[(g_1-g_0)-(f_1-f_0)]/2$. This solution would assure the ultimate outcome of $(g^*,f^*)=(g_0+[(g_1+f_1)-(g_0+f_0)]/2, f_0+[(g_1+f_1)-(g_0+f_0)]/2)$, which maximizes the Nash product $(g_1-g_0+t)\times(f_1-f_0-t)$ for any t. That is, the surplus generated by the bargaining agreement, $(g_1+f_1)-(g_0+f_0)$, is equally divided by the two parties.[13]

If we compare two regimes with the same litigation costs, but one with side-payments and the other without side-payments, it is easier to come to agreement with side-payments because monetary compensation is an extra means to expedite a compromise. Such a regime achieves as large a total payoff (for insiders) as, and sometimes a strictly larger total payoff than, the latter regime, possibly at the cost of outsiders. This difference arises because side payments permit more flexible *ex post* adjustments of policy rules. One should note, however, the resulting payoff outcome for the government with side-payments may be less than that without side-payments. Figure 1 exhibits such a case as P_1 will be chosen without side-payment while P^* will be chosen with side-payments.

Long-Term Relationship between Government and Business Sector:

As we shall argue later in section 6, contemporary Japanese government has implemented its policies through a long-term interdependent relationship with incumbent firms. There are four aspects of this regime which are worth emphasizing in view of the *ex post* negotiation.

First, such relations are likely to produce repetitive interactions between the government and incumbent private firms. In this regime, therefore, the negotiation in stage (4) becomes only a part of their long-term relationship or, in the terminology of the repeated game literature, only a single *stage* of the entire repeated game that is their true concern. As the well known *Folk Theorem* illustrates, any convex combination of individually rational payoffs of the stage game can be approximated as an average payoff of a Nash equilibrium outcome of the repeated game *if discount factors of players are sufficiently close to zero or players are sufficiently patient.*

This fact can be explained using Figure 3, assuming feasible policy revisions produce either P_1 or P_2. In Figure 3, the area within the triangle, $P_1P_2P^D$, forms the set of all convex combination of feasible payoffs. Since P^D is the disagreement payoff, the shaded area represents the set of individually rational portion of feasible payoffs. Any individually rational payoff vector such as P^{**}, which is the midpoint of P_1 and P_2, can be approximated as an average equilibrium payoff of the repeated game by a self-enforceable agreement, such that (i) in every odd period P_1 will be realized and in every even period P_2 will be realized as long as all players abide to this agreement, and (ii) all

[13]. If we assume asymmetric bargaining power between the two parties, the ultimate payoff is favored for the party with a larger bargaining power. See also Roth [1979].

players will permanently choose the disagreement outcome once any player deviates from this agreement. Such an agreement will be a (subgame perfect) Nash equilibrium if discount factors are close to 1. Put in other words, long-term closed relationship enables payoff averaging, an incomplete form of side payments. It follows straightforwardly that long-term relationship, even without side payments, permits a limited *ex post* flexibility. The extent of flexibility is more compared with the case without long-term relationship and without side payments, but less compared with the case with side payments.

Second point, which is critical for the following discussion, is the fact that the size of the disagreement payoff may be heavily affected by the repeated game nature of the situation. In the repeated game, penalty of disagreement may be made much larger than a mere one-shot game. In order to see it, note that the relevant penalty of choosing disagreement in a particular stage game consists of not only the cost of the immediate litigation process but also the payoff difference between two ensuing subgames, one after agreement and the other after disagreement. The additional penalty, payoff difference of the two ensuing subgames, can be as large as the difference of keeping the agreement forever and perpetuating the disagreement outcome, as the example of the agreement in the previous paragraph indicates. In other words, a breakdown of negotiation in a particular stage game may imply the breakdown of the relationship between the government and the private firms forever, so that the subsequent hostile relationship would mean a continuous battle in the court, providing a prohibitively high penalty for disagreement. To sum up, the repetitive nature of the game amplifies the penalty associated with the disagreement substantially compared with the case when the game is played as a one-shot game, contributing to the flexibility of the bargaining oucomes.

Third important aspect of this regime is those institutional arrangements which assure the rigidity of bargaining members, such as entry regulations. When entry is free and members of the industry change over time, long-term agreement that calls for intertemporal tradeoffs is likely to be non-self-enforceable. That is, any intertemporal agreement that forces an immediate sacrifice by a member in exchange for promised benefits in the future is unlikely to be enforced either because new entrants oppose to provide the promised benefits to the incumbent or an incumbent, anticipating such developments, finds the agreement non-credible. In this respect, if a threat of new entry exists, the nature of government-business relationship, which is always potentially repetitive in nature, will become a one-shot game.

It follows that, in order to maintain a closed long-term relationship between the government and private incumbent firms, and to maintain the self-enforcing property of long-term agreements, it is critical that new entry be effectively limited. Strict entry regulations based upon clear legal basis may be one possibility. Even if entry regulation is neither strict nor based upon clear legal basis, if litigation cost is substantial, entry may be effectively blockaded. For example, a petition to new entry to a regional trucking industry in Japan was held up for more than five years, because the government office simply ignored the petition by refusing to formally receive it.[14] Since litigation cost for administrative suits in Japan is extremely high, the applicant could do nothing other than waiting.

Fourth important aspect of this regime, which may be unique in Japan, is the existence of additional bargaining forum, such as industry associations, which facilitates the bargaining.[15] Although we have not stressed so far, *ex post* bargaining in reality is likely to take place with more than two participants, each with independent preferences. This is so because private firms have heterogeneous, sometimes diametrically opposite, interests and it is difficult to coordinate their interests even if they belong to the same industry. Industry associations, which themselves are a forum of coordinating interests among member firms, can aggregate such heterogeneous interests with the help of long-term implicit agreement which trades immediate costs for future benefits.

Needless to say, facilitation of bargaining process using industry associations is likely to be achieved at the cost of those who are left out of the bargaining process, such as consumers, because it is likely to create semi-cartel behaviors. If bargaining takes place at the lower governments in a seggregated manner, overall society's interests will tend to be undervalued. It also imply that individual industry's interests will be reflected more strongly than otherwise and accumulated insiders' vested interests become likely to be reflected strongly in the bargaining oucome. It also follows that policy decisions that require coordination of interests across industries tend to be difficult, unless the society has relatively uniform interests.

4. *Ex Post* Incentive of Government and Private Firms

In this section, we extend our analysis to the stages (1) and (2), and analyze

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[14] Interested readers are referred to Okuno-Fujiwara [1992].

[15] Industry associations play the role of an intermediary by coordinating member firms' interests and by acting as subordinates of the government agency in charge in implementing its policy. To make this role effective, industry associations accept ex-bureaucrats of the agency in their top position.

incentives of the government in writing *ex ante* rules as well as investment incentives of the private sector.

Incentive of Government:

In writing an *ex ante* rule in stage (1), the relevant branch of the government must be fully conscious of the possible developments in stages (4)-(6). It follows that a functionally non-separated government with large litigation costs (government with relatively large bargaining power) and a government with strict separation of powers with negligible litigation costs (government with small bargaining power) are likely to write fundamentally different *ex ante* rules. We start with the case of the former government; a government whose legislature, administration, and judicature branches are controlled by a single agency and/or litigation cost is significant for private firms but negligible for the government.

For such governments, there is little incentive to write a narrowly defined *ex ante* rule, as writing such rules will restrict their powers to implement better *ex post* rules when unexpected contingencies arise. It is to their interest to write a broadly defined rule that leaves room for *ex post* discretion, of which they can exploit advantage through negotiations where the government has a large bargaining power thanks to the asymmetric litigation cost. By so doing, the government can realize those outcomes which fit to its preference better.

At the same time, if such a government is jurisdictionally decentralized as well, it has an additional incentive to leave more room in drawing an *ex ante* rule. Being less scared of opposition against *ex post* policy revisions by parties who have no immediate concern to its constituency, a jurisdictionally decentralized government is more confident that any *ex post* revisions will reflect the government's (or the ministry's) interest. It means that such a government may find it even more advantageous to write *ex ante* rules in vague language, leaving many things in *ex post* renegotiation and discretion.

On the other hand, if the government is of separation of powers and litigation cost is negligible, its incentive is quite different. First of all, the branch which is responsible for stage (1), usually the legislative branch, may have a different preference from that of branches which are responsible in (4) and (6), the administrative and the judiciary branches. It follows that the legislative branch has little incentive to write an *ex ante* rule that leaves room for *ex post* reinterpretations. It is more likely to write a stricter rule with less opportunities for *ex post* bargaining, which has a better chance of surviving *ex post* renegotiation, securing the outcomes which this branch likes more.

Moreover, if the judiciary branch is autonomous and independent from the rest of the government, it is likely to deliver rulings which reflect aggregate interest of the society. Hence, even if the legislative branch and the administrative branch of the government are controlled by the same decision unit, it is not of their interests to write an *ex ante* rule with room for discretion. Writing such rules would result only in the outcomes which may be undesirable for these two branches of the government, by increasing the possibility of reinterpretation by courts.

To sum up, the extent to which *ex ante* rules leave room for *ex post* discretion is likely to be determined by the type of the government. A jurisdictionally decentralized government and/or a government with large bargaining power is likely to write rules with a large room for discretion, while a jurisdictionally centralized and/or functionally separated government is likely to write stricter rules.

Hold Up Problem:

Recent developments in contract theory and transaction economics revealed the fact that commitments to contracts provide better *ex ante* incentives but *ex post* renegotiation would facilitate adjustments for unraveled uncertainties and newly revealed information. More specifically, if players expect the outcome of the game to be mainly determined by *ex post* negotiations, *ex ante* incentive will deteriorate and the hold-up problem will emerge. *Ex post* negotiations would allocate a share of returns to those players at the bargaining table according to their bargaining power, whether or not they had contributed to make such returns possible. Thus, a part of returns for *ex ante* efforts may be captured by those free riders who are not responsible for these *ex ante* efforts. Anticipating less than full returns to be appropriated, sub-optimal level of *ex ante* efforts are chosen, the well-known *hold-up problem.*[16]

On the other hand, in order to provide a proper incentive for *ex ante* efforts, it is not sufficient to write an agreement that promises to appropriate full returns to the investor, because the agreement may be invalidated by *ex post* renegotiations. What is important is a commitment to this agreement or the belief that the agreement will not be changed by a renegotiation. This is not a problem in a world with full of uncertainties, because a contingent contract is available in such a world, i.e., all players agree with and commit *ex ante* to a (possibly complex) contingent plan according to which the returns will be allocated appropriately for each contingency. Writing a full contingent plan

[16] For the hold-up problem and contract theory in general, see, e.g., Grossman and Hart [1986] and Milgrom and Roberts [1992].

that leaves no room for any Pareto improving revision in any contingencies, players expect the plan to remain unchanged even after renegotiations. Contingent contracts may not be practical in the real world, however. Many contingencies are difficult to fully describe *ex ante*, because identifying each contingency and spelling them out fully requires prohibitively high costs, and because some contingencies are not verifiable by third parties, notably by courts, making agreements not enforceable from legal viewpoints.

It follows that, in many real world situations, more widely used are relatively simple contracts which must call for inefficient solutions if unspecified contingencies occur. Renegotiation will be called for in such contingencies in order to find and implement more efficient solutions. Writing government laws and legislations is no different and *ex ante* rules which are written in stage (1) is likely to be relatively simple, leaving many decisions for *ex post* renegotiation in stage (4). It follows that overall social efficiency of the private firms' *ex ante* investment decisions is likely to be affected by the hold-up problem.

Private Firm's Incentives:

Hold-up problems that occur in the government business relationship appear in different forms depending upon the type of a government. In the rest of this sub-section, we shall discuss such differences.

We start with an authoritarian government with the extreme case of a predatory government. With a predatory government, who has infinite power against private sector at the bargaining table in (4), the government can choose any revision it likes as long as the private firms' payoff outcome is at least as large as the individually rational level. If side-payments are allowed, any payoff that exceeds the firm's individually rational payoff level, a kind of quasi-rent, will be taken away by the government in the form of monetary transfer (with side-payments with predatory government, P_1' in Figure 1 will be chosen). For firms in this regime, there is no incentive for making risky investments because neither innovation nor risk-taking will result in any extra profit, unless such investments are promoted by the government itself. It follows that, under such a regime, firms will have a strong incentive to carry out only those investments that the government likes most. In this sense, a predatory government has a power to implement its preferred policy, both from *ex ante* and *ex post* viewpoints.

Hold-up problems in the sense we described above appears in a straightforward form in a relation-based government with relatively large, but not infinite, litigation costsm, where an incomplete form of side-payments exist. Recall that, with side-payments, a part of returns from investment may be taken away by the government in the form of monetary transfer and an investment incentive is reduced (though not as much as that under a predatory government). A well known example in Japan is that financial institutions have little incentives to develop novel financial products because the Ministry of Finance, being a benevolent supervisor of the banking industry as a whole, would not allow the product to be marketed until the inventor's rivals become ready to release similar products.

Both authoritarian and relation-based governments, whose functional powers are not well-separated, an additional problem may exist for private firms' incentives for innovation. Note that, in these governments, private firms will find it difficult to secure the default outcome through judiciary processes, as the ultimate result tends to be dictated by the preference of the administrative branch of the government. Bureaucrats in this branch, either being controlled by those in power of an authoritarian government or having stakes in the power structure of the ministry for which they work in a jurisdictionally decentralized government, tend to ignore structural changes that occur in the society for the sake of past decisions made by those in power or people who held the same positions before. Private firms, anticipating such predilections by the administrative branch, will not invest in innovative activities to meet the novel situation created by structural changes.

On the other hand, rule-based government with a strict functional separation government is likely to provide a larger incentive in promoting private firms' *ex ante* investment. Future business environments are relatively clear and investors feel assured to receive full returns from their investment as long as it satisfies the *ex ante* rule. In addition, a relatively autonomous judiciary branch may assure private firms in making innovative and risk-taking investments whose results are not allowed to utilize under the *ex ante* rule, because they might be rewarded if courts find the resulting innovation welfare improving, especially when there is a structural change in the business environment.

To sum up, strict rules with less room for discretion, together with an autonomous judiciary process that assures a relatively inexpensive avenue to guarantee the default outcome, provide a power to commit to an *ex ante* rule, and private investments that are consistent with the rule are more likely to be efficiently carried out. Such a regime is probably most effective in inducing innovative and risk-taking investments by private firms. On the other hand a predatory government, which can enforce its preferred revision in the renegotiation table, is most suited in directing private firms' investments to the direction the government likes most. A relation-based government seems to be somewhat in-between of the two governments.

5. Types of Government and Its Performance

The Role of Government:

The primary economic role of the government is to promote the economics welfare. Traditional economic theory has emphasized the market sustaining role of the government. This role of the government is to *sustain* the market mechanism, by correcting market failurs, by controlling economy's aggregate demand, and by maintaining and improving income equality in the society, using coercive measures such as regulation, taxation and public goods provision or using macroeconomic policies that manage the aggregate demand. The background philosophy is that the government is called in when and only when the market cannot solve the problem well, and the government is to constantly holding up the working of the market. Recently another role of the government has attracted research attentions, which is to *guide* the market mechanism. The guiding role of the government is to help the economy move toward a certain direction by providing incentives and by coordinating private activities. It includes helping the private sector to industrialize in developing economies using, e.g., industrial policies, and promoting innovative activities, such as R&D, of the private sector in developed economies.

The role to guide the economy may be further classified into two roles. One is the *coordination in macro resource allocation*, which is to provide various incentives to private firms in directing resources toward a particular industry, such as an exportable industry or a high-tech industry, from other sectors of the economy. Another role is the *coordination in micro coporate strategies*, which is to help private firms improve their products by disseminating information about a new method of quality control, training workers to obtain work abilities in new jobs, and to promote standardization of their products and their informational exchange, etc.[17]

Among the roles of the government to sustain the market mechasnim, there are several policy measures that would promote economic growth and, hence, wold complements the guiding role. They include those measures which provide proper incentive systems, especially to innovation and product/process improvements to the private sector, by establishing an appropriate property right systems such as a patent system, and by providing pecuniary and non-pecuniary incentives for R&D.

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[17] See, e.g., the chapter of Okazaki in this volume.

It is probably worth emphasizing that these two basic roles of the government, sustaining and guiding roles, are often mutually conflicting with each other. This is so partly because these two roles represent two different views about the relative ability of government and private sector. Those who support the guiding role emphasizes that the government has better ability in steering the economy, citing the fact that the private sector often fails in coordinating its activities and the government can solve it by rendering its resources. On the other hand, critics of this view stresses the possibility of government failure, basing their argument that there is no guarantee that an active government can solve the coordination failure which the private sector cannot.[18] Hence, they call for more limited role of the government in promoting private firms' activities in a certain direction.

In addition, in providing these two roles performances of the government may differ depending upon different institutional arrangements within the government. In this section, we attempt to analyze the comparative advantage of each type of the government in pursuing such roles from a theoretical viewpoint. Some of the evaluations we provide are preliminary in their nature and further research, in both theoretical analysis and case studies, is necessary.

Authoritarian Government:

An authoritarian government has a natural advantage in its guiding role. Having a large bargaining power, it has means to guide and even to force the private sector to act in the way it prefers in achieving a certain goal. Being *ex post* flexible, it can easily and freely adjust its policies to achieve the same goal when some unforeseen events make its original plan unworkable.

There are several important reservations for this ability of a government with a large bargaining power. If side-payments are possible in the form of outright bribery or political contributions, these governments such as predatory governments will take away from firms all the benefits in excess of their individually rational payoffs. Any profit that would have been accruable to the private sector in other regimes would be taken away, and proper investment incentives of firms will be severely hampered.

Government's guiding roles include coordination in macro resource allocation as well as coordination in micro coporate strategies. For an authoritarian government to successfully carry out such roles and improve social welfare, there is an important

[18] One may view that Okazaki paper in this volume emphasizes the guiding role while Matsuyama paper emphasizes the sustaining role.

precondition. Government bureaucrats must have at least as much knowledge and analytical capabilities as, and preferably better ones compared with, the private sector. Otherwise, the market mechanism, based upon competitive pressures through which firms intensively look for cost reduction, new products, innovation in organizational form, etc., would find a better solution.

Being jurisdictionally centralized, an authoritarian government can coordinate interests of industries across the society and, hence, it is probably more able for coordination in macro resource allocation. However, individual firms' and their cooperative initiatives are relatively more effective in coordinating organizational innovations and corporate and/or intercorporate strategies.

It follows that for authoritarian, especially predatory, governments to successfully coordinate the private activities, the quality of bureaucracy in terms of analyzing, designing and implementing an appropriate economic plan as well as the social system and the bureaucratic culture that maintains the moral disciplines within the government are essential. This type of government may be more effective, especially in view of the lack of its ability in coordinating micro coporate strategies, with the private sector which is controlled by a few dominant conglomerates, who can pursue the role of micro coordination by themselves, than that which is supported by networks of numerous small and medium independent firms, where coordination failures among firms are numerous and complicated.

Needless to say, an authoritarian government is not very effective in its sustaining role. Their policy being prone to discretionary revisions which are likely to be dictated by the government's presuppositions, for private firms future business environments are not well-articulated in advance and incentives for innovative activities are severely limited.

Another, and probably critical, deficiency of an authoritarian government is in its non-economic aspect. With a limited functional seperation of powers and the concentration of powers within the government, this government lacks transparency in decision makings and is prone to rent-seeking activities. If a particular group, such as the landlord class, of the society dominates the government, the interest of other groups may be seriously contained. Only when it is controlled by a disciplined group who aims for the society's overall well-beings, this government can attain a desirable goal.

Relation-based Government:

This government has many similarities with authoritarian government in its ability in fulfilling the complementary roles. Having a large bargaining power, such a government is again more effective for guiding roles. Its strength lies especially in its ability in coordinating micro coporate strategies. Power of each ministry being restricted within its jurisdiction, government has natural interests in promoting such coordination within its jurisdiction, which can be a specific industry (like manufacturing industry for the Ministry of International Trade and Industry) or a certain aspect of business activities (such as labor relations for the Ministry of Labor). Being less connected to the central executive office of the government, career bureaucrats of the ministry has relatively large influence over decision-makings, jurisdiction-specific knowledge is better accumulated within each ministry and is better reflected in policy decisions.

A relation-based government is not normally very effective in coordination in macro resource allocation, as the demarcation of jurisdictional partition often impedes such coordination. However, coordination of macro resource allocation is often carried out by a negotiation between relevant ministries and bureaus in such a government. If, and only if, these different governmental bodies in the administrative branch have a uniform policy target as well as an agreed upon plan to achieve it, this role can be effectively realized as we shall see for the case of Japan in the next section. For both guiding roles, however, relative superiority of government's knowledge and ability with respect to the private sector is again essential for its effectiveness.

A relation-based government, too, cannot coordinate innovative activities of private firms well. However, at least compared with an authoritarian government, this type of government can promote its sustaining role to some extent. Powers being less concentrated and held by various ministries and bureaus of the lower government, it cannot drastically revise the original policy as doing so often requires a support from other ministries, which have some but minor stakes in the jurisdiction. Furthermore, bargaining for revisions being made in lower levels of the government, voices of private firms are relatively well heard and new business, which is unallowable by the *ex ante* rule, may be permitted by the government if it is found suited to the interests of both the ministry and the firm. Coordination in micro coporate stragegies, such as helping improvement of work environment and/or promoting product standardization, also helps innovative activities of the private sector.

Most of critical policy decisions being made at the lower level of the government at each individual ministry, interests of outsiders are not well reflected in the public policy. Consumers, potential new entrants to the industry and users of the product produced by the industry may find such a government frustrating because of this reason. Moreover, rents may be created and accrued by the firms and bureaucrats (e.g., in the form of ex-bureaucrats obtaining post-retirement jobs).

Rule-based Government:

Having a small bargaining power, this type of government is likely to be inferior for guiding roles. Its strength lies in its capability in achieving its sustaining roles. Hold-up problems and other incentive problems for innovation are least serious with this government because future business environments are most transparent, partly reflecting its inability in revising *ex ante* policies and partly reflecting its ability in providing multiple routes, such as legislature and judiciary branches, to private firms for their voices heard in the government.

Among the guiding roles, this type of government implements coordination of macro resource allocation by traditional coersive policy measures, such as taxation and public good provision, with the legislative branch as the major forum of cordinating interests of the society. Resulting resource allocation tends to be more of a compromise of various interest groups than of a directed public intervention.

We should note that, compared with other types of government, rule-based governments does not necessarily solve rent-seeking problems better. In the case of rule-based government, decision of *ex ante* rules are more critical and rent-seeking activities tend to concentrate in political forum instead of administrative arena. In fact, in the US where the government is considered to be closer to rule-based, policy decisions seem to be influenced more heavily by lobbying activities in the Congress.

In short, various types of government have relative merits (and demerits) in pursuing different goals. There is one more critical element in the relative effectiveness of different types of the government; internal and external conditions of the economy such as developmental stages of the economy relative to the rest of the world. This is so because actively guiding roles of the government are effective if it is simply to follow a successful precedent. With such a precedents, possible lack of relevant information, knowledge and ability of bureaucrats in comparison with that of private firms presents less problems, while government's coordination (of firms' coordination failures) may work more effectively. Pursuing an economic development through industrialization is one such example because there are several successful precedents. In a developed economy, however, the sustaining role of the government is more important as a source of growth because such an economy must seek its source of economic development in innovative ideas, which is better left for the private sector.

We shall provide a brief historical account of government-business relationship in

Japan in order to illustrate this last point, taking industrial policy as an example.

6. Government-Business Relationship in Japan: A Historical Perspective

Industrial Policy in Japan had its heyday in 1950's and early 60's. In those days, its typical policy would come in three steps. First, those industries, with high probability of technological advance and demand expansion in the future, are discovered or identified. In order to make such forecasts, private information exchange networks and/or government committees and councils were utilized to facilitate and encourage the exchange of information.

Second, in order to promote these industries, several assisting measures were employed. The government intervened resource allocation directly by issuing licenses and approvals, provided incentives to affect corporate decisions in the form of financial assistance such as low interest loans, subsidy payment and preferential taxes, and employing indicative measures such as announcing long-term economic plans and provision of information. Funds and materials are allocated (not by power but by providing various incentives) across industries/sectors after careful coordination among MITI, MOF, Bank of Japan, banking industry, and major manufacturing industries. At the same time, MITI promoted tie-ups and mergers of private firms, provided various form of assistance, and applied administrative guidances[19] in order to achieve intended resource allocations.

Third, information concerning new business opportunities were shared by all firms in the same industry and strong desires were generated among private firms to take advantage of those advantageous policy measures, before other firms start the same, in order to gain a strong foothold within the industry as quickly as possible. The so-called *excess competition* sprang as firms rushed for expansion of equipment and investments which far surpassed the firm's capacity. Together with pressures to maintain job opportunity for those employees who insisted their job security, Japanese firms came to set their targets not on profits but on "share" (of the market).

Even if firms found their new business to be in trouble and massive dismissals in the work force became inevitable, responsibility also fell on the hands of the ministry or

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[19] Means to realizes its policy objectives through the subject's "voluntary" cooperation. Through the closed and long-term relationship between the agency in charge and the industry association in question, information is exchanged on daily basis, and administrative and other related activities are implemented behind a curtain.

the bureau, whose jurisdiction covers the firms' activities, that endorsed the business and conceived the policy measures concerned. In such instances, the government could not help but extend assistances to relieve these enterprises when they were caught in fateful situations. As a matter of fact, the government employed various measures to avoid the occurrence and actualization of such systemic risks, typical examples being various measures enacted after the oil shocks in 1973 and 1979. However, firms that anticipated such government responses, actually strengthened their move towards excess competition.

To sum up, the post-war Japanese industrial policy utilized the government 'management' of private firms' competition with the help of the relation-based policy implementation on one hand and government provision of various incentive mechanisms to realize the intended macro resource allocation on the other hand.[20] This system has its roots in the tightly regulated and controlled economic system during the war.

During the period of 1940-45, Japanese government-business relationship was drastically restructured to promote the planned economy, which was instituted for the execution of the Sino-Japanese and the Pacific wars, by moving to a controlled and/or a regulated economy, which was introduced to implement it. In this system, in order to execute the Goods Mobilization Plan, which was drawn by the Planning Board and other related government agencies, every economic activity (ranging from production, distribution, pricing, consumption, etc.) of all aspects of the nation (such as trade, fund allocation, labor employment, transportation, equipment formation, etc.) was controlled by the government. To facilitate the working of this system, several institutional reforms were enacted to induce corporate objectives from pursuit of profit toward cooperation for war efforts. For example, influence of shareholders on corporate management was minimized by introducing a ceiling on dividend and regulations on executives' compensation, and by reforming commercial law to contain the power of general meeting. Moreover, Japanese economy was reorganized into an unified vertical hierarchy, which consisted of the Central Planning Bureaus, Control Associations in each industry, and each individual firm and plant. As a result, firms became a puppet institution which simply implements the government's orders, and their daily activities were totally bound by the controlling bureaucracy. The post-war Japanese government-business relationship regime was strongly influenced by the

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[20] For fuller accounts of the post-war Japanese industrial poilcy, see Komiya, *et. al.* [1988] and Itoh, *et. al.* [1991].

legacy of this war-time system at least until 1960's.[21]

Despite its historical origin and many criticisms against it, the relation-based nature of Japanese government may have contributed to the social welfare of the country. In particular, there is a good reason to believe that a part of the "success" of Japanese economy in the first-half of the post-war period may be ascribed to the very fact that the relation-based regime dominated designs and implementations of public policies in Japan. We shall discuss some of the reasons.

First of all, in order to reconstruct the economy which had been destroyed during the war and achieve an industrialization with strong emphasis on heavy and high-tech industries, two alternative routes existed for the post-war Japan. One was to rely mainly on the market mechanism to determine resource allocations with the government taking only the sustaining roles. The other was to utilize discretionary governmental interventions and/or to coordinate corporate activities in achieving the industrialization and other policy goals. Needless to say, the latter was the route chosen.

The latter alternative of a government guided industrialization is inferior in inducing incentives for innovations and inventions in the private sector, but it has some ability in inducing innovations. Japanese bureaucrats often set out self-imposed rules in applying their policies in order to assure its fairness and to counter political pressures. These rules, being adopted as a self-imposed control, tend to provide advantages to larger and older enterprises. The typical example is the MOF/BOJ's convoy policy for banking industry. Under this policy, permits for new branches and lendings from the BOJ were granted according to the market share of each bank, a sort of *performance-based criterion.*[22] These rules aggravated the excess competition as, the larger the firm's share, the better treatment the firm obtained from the government. The excess competition also provided an incentive to win and expand. However, the rule of competition was less clear and not committed by the government, and the distribution of efforts' return was determined after negotiation among the concerned parties. Consequently, the incentives were directed towards incremental improvements so that firms can win over their rivals, and not towards a invention of truly drastic novel products. As is often stated, the post-war "success" of Japanese manufacturing has its roots in its ability in improving production process, thereby cutting production costs, and providing quality improvements of existing products, but not in its ability of introducing truly innovative new products or designing completely novel concepts.

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[21] For the details of this war-time developments, see Okazaki and Okuno [forthcoming].

[22] See the Introduction of this volume as well as the World Bank [1993].

More importantly, the period of reconstruction and high-growth in the post-war Japan was unique in the following sense. The closure of the country for almost two decades during the two wars had made its technology and industrial structure obsolete, far behind the industrialized nations. To reconstruct and industrialize, the country did not need any drastic innovations. What was important was to coordinate the public and private business in order to catch up with the advanced nations' industrial structure as well as their technology. This strategy required the knowledge about the kind of industries which had high potential in growth and about the necessary policy prescriptions in promoting them. Compared with corporate executives, bureaucrats had a better access to these knowledge immediately after the war as the country was still essentially closed and, by negotiation and fine-tuning, they could coordinate and encourage the private sector's effort.

Moreover, Japanese in these hard days had unanimous desire in promoting economic growth. Bureacrats were no exception, as exemplified by the cooperative dfforts between MOF and MITI in directing funds and other resources into growing industries. In other words, despite the fact that the Japanese government is of jurisdictionally decentralized nature, coordination in macro resource allocation was effectively carried out through joint efforts by several ministries who coordinate their policies to achieve the goal of industrialization and high economic growth.[23]

Second, this was the period of social disruption and large-scale structural transformation, with three drastic reforms (land, labor and economic reforms) ordered and implemented by the occupation force in the late 1940's, Korean War boom and reconstruction in 1950's, the high economic growth with the real GNP growing at more than 10% annually in 1960's, and the oil crisis and subsequent recession in early 1970's. For example, work force moved from rural to urban areas at the rate of 800-1,200 thousand a year on average, making the ratio of work force in agricultural sector from 50.0% (in 1950) to mrer 19.7% (in 1970). Industrial structure transformed drastically so that the heavy and chemical industry's production share in the manufacturing sector changed from 43.6% (in 1950) to 63.6% (in 1970).

With these large-scale social transformations, many people and firms would have lost their economic base for living and social unrest would have occurred, had the transformation been completely dictated by the market force. Especially, small banks with base in declining industries and small plants in rural area may have been

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[23] For the detail, see, e.g., Okuno-Fujiwara [1994]. The aspect of Japanese bureaucracy emphasized by Aoki [1988], who coined the word *breauplurasim* for this aspect.

eliminated by larger urban competitors. With the emerging contemporary economic system, which emphasized the long-term relationship such as stable long-term employment, failures of these banks and firms may have created a chain reaction of bankruptcies and resulting unemployment in the region, which might have led to political and/or social chaos. In order to direct smooth transition, assisting those afflicted by economic changes and providing help to the declining industries were indispensable. The relation-based regime seemed to have contributed significantly as it has an advantage in taking account of *ex post* considerations flexibly.

Third, bureaucrats of this period had relative autonomy from political influence and their quality and morals were high. This reflected the fact that during the war time bureaucrats controlled and dominated the policy decisions with parliaments transformed into a puppet institution. Moreover, as is well known, the quality and motivation of Japanese bureaucrats at that time were high as they inherited the moral of classic bureaucrats in the pre-war period. These characteristics of the Japanese bureaucracy at that time seemed to have contributed to its success in containing rent-seeking activities.

8. Concluding Remarks

In this paper, we have presented a theoretical model to consider the nature of government-business relationship in view of institutional structures behind it, analyzed the possible advantage of various types of government, and examined aspects of government-business relationship in the post-war Japan.

We have identified three major types of government, authoritarian, relation-based, and rule-based, based upon its capabilities in directing private business activities and the level of government where main coordination activities take place. We have argued that a government with a large bargaining power, such as an authoritarian and a relation-based government, is relatively more effective in its actively guiding roles, such as coordinating macro resource allocation and coordinating micro coporate strategies. On the other hand, a government with a small bargaining power, such as a rule-based government has relative advantage in providing its roles of sustaining market mechanism such as providing clear business environments.

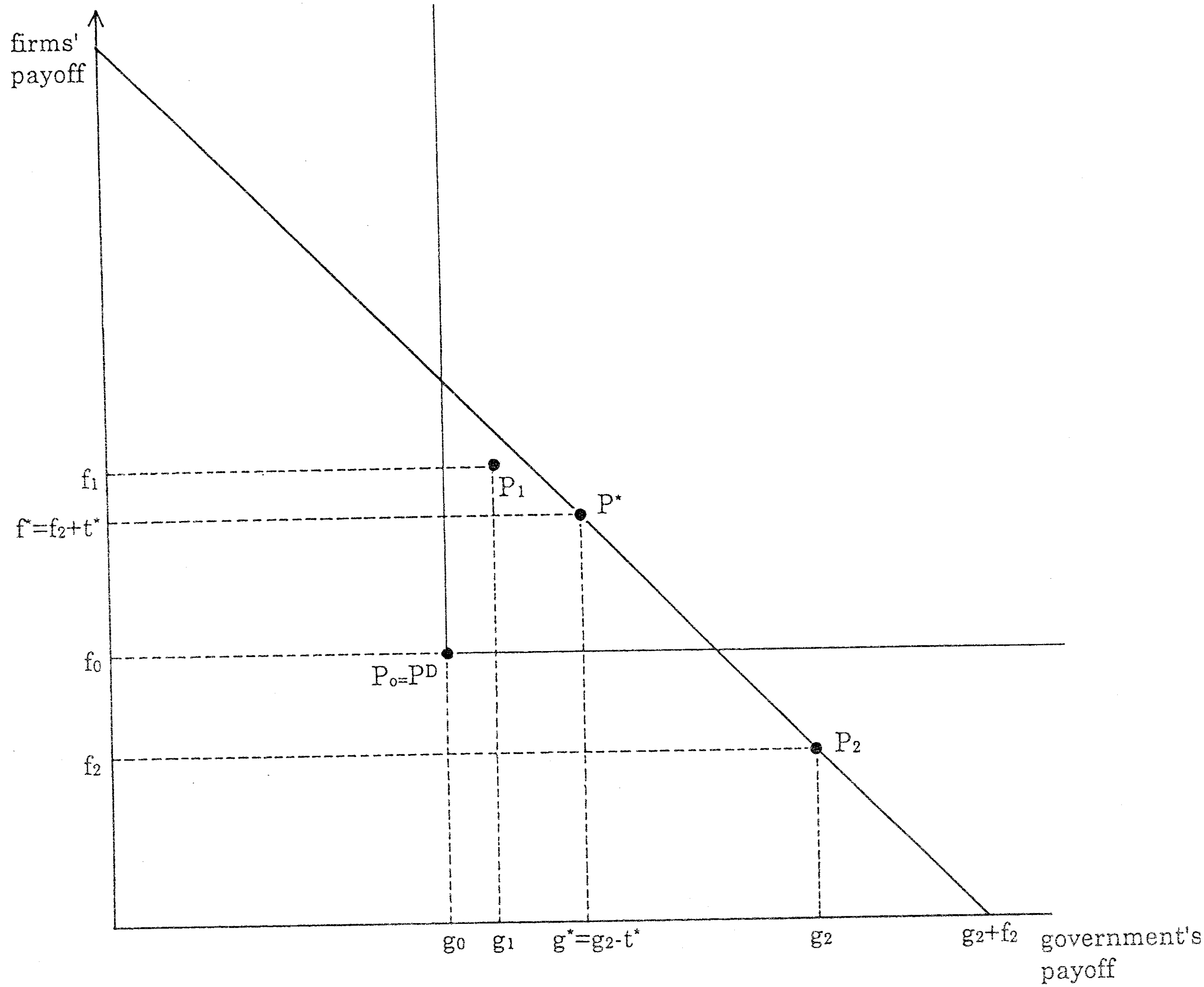
We have also identified the government regime in Japan to be roughly described as relation-based with a long-term repeated nature of government-business relationship and government agencies being endowed with relatively large discretion. We have also argued that, compared with an alternative rule-based government, this relation-based regime may well have contributed to the "success" of Japanese economy in the first half of the post-war period. At the same time, we have also emphasized that this positive appraisal depends heavily upon the external conditions of Japanese economy as well as the trait of its bureaucratic system at the time.

We should emphasize that the external conditions, which other East Asian countries faced at the time they started their economic development, had a great deal of similarities with that in the post-war Japan. Industrialization being the ultimate goal of their economic policy, they tried to translate preceding successful examples like post-war Japan, but faced with potential social disturbances which industrialization caused, etc. Although the current author has little detailed knowledge about the regimes of government-business relationship in these societies, casual impression suggests that regimes of many East Asia countries, such as China, Korea, Taiwan and Singapore, in 1970's and/or 80's are likely to be characterized as authoritarian. The governments of these countries in these time periods were controlled strongly either by the military groups and/or by parties that had an asymmetrically strong political power in the society. Some governments were even criticized as repressive. Nonetheless, our discussion in the text suggests that an authoritarian government had the ability in effectively achieving

industrialization by directing private resources to desirable sectors, given their economic environments.

This suggests that institutional structures behind the government-business relationship can have a significant impact on whether or not the country can successfully achieve economic development. In fact several economists as well as political scientists, including late Y. Murakami, conjectured that the developmentalism, the industrialization strategy which places higher priority to industrialization than full democratization of the society, may be more effective than the classical economic liberalism, which places strong preferences on democratization over industrialization. According to Murakami, for example, a successful industrialization would naturally lead to democratization of the society, while the reverse does not necessarily follow. Further serious research to examine these conjectures may be valuable for designing policies to help industrialize developing countries as well as to help facilitate transitions of ex-socialist regimes to market economies. Undoubtedly, fuller understanding of institutional arrangements behind government-business relationship is an important requirement of such research.

Finally, we should emphasize that our assessment of government-business relationship in contemporary Japan is quite different. With Japan now being one of the leading countries in the world in terms of the share of GDP, together with its preeminence in high-tech industries and a large investment in research and development activities, the advantage of relation-based governments in guiding the private sector has diminished significantly, if not completely disappeared. With the country now matured both in terms of economic affluence as well as of diversity of social values and preferences, the public's unanimous desire for economic growth at the cost of public intervention no longer exists. Other forms of government must be sought to meet the country's new environments and her developmental stage. For this new regime, a rule-based government is one candidate, but it is certainly not necessarily the only candidate. Other east-Asian countries will soon face a similar problem, if not already.


firms' payoff
f_1
$f^*=f_2+t^*$
f_0
f_2
P_1
P^*
$P_0=P^D$
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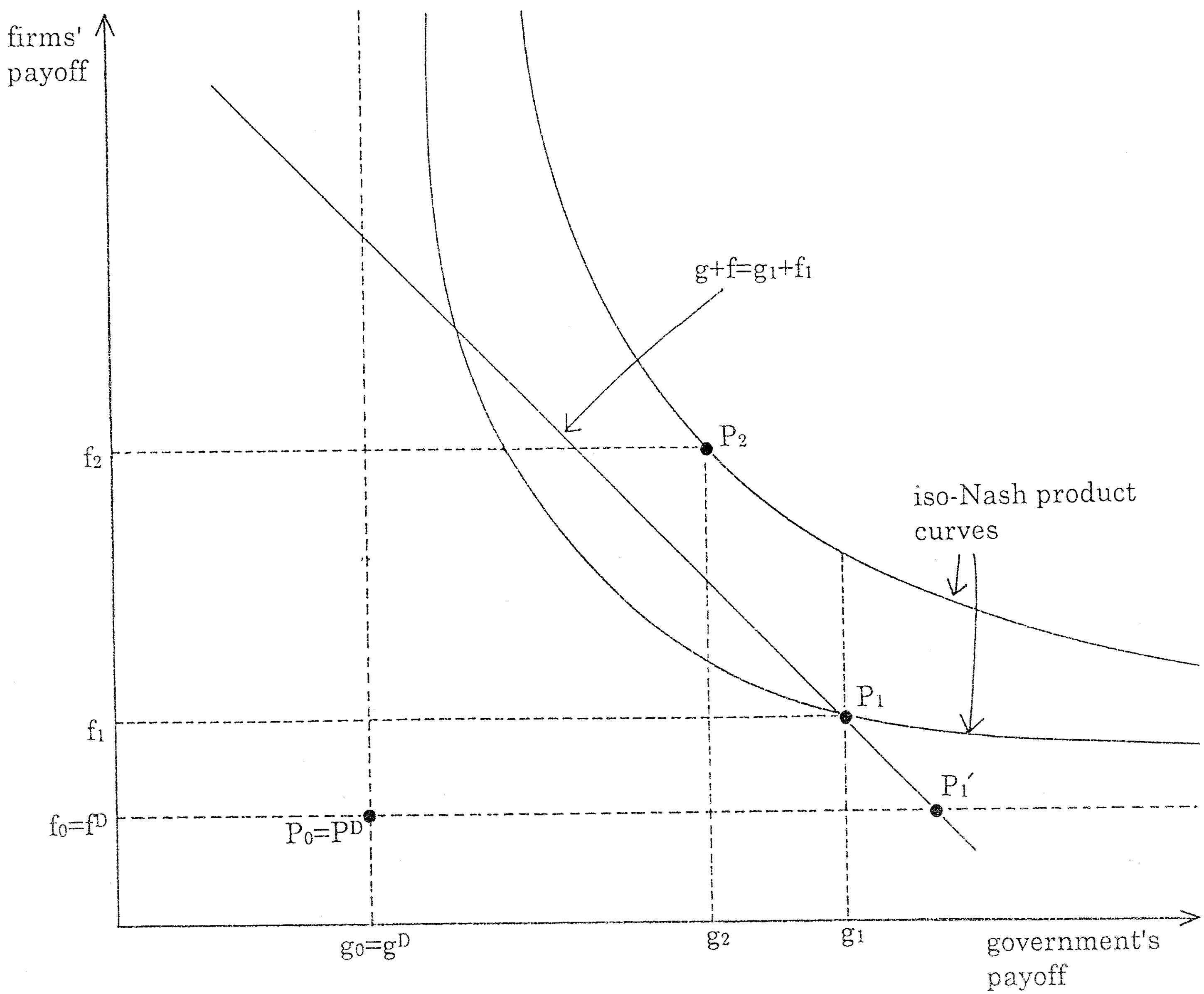
g_2
g_2+f_2
government's payoff

Figure 1


firms'
payoff
g+f=g1+f1
P2
f2
iso-Nash product
curves
P1
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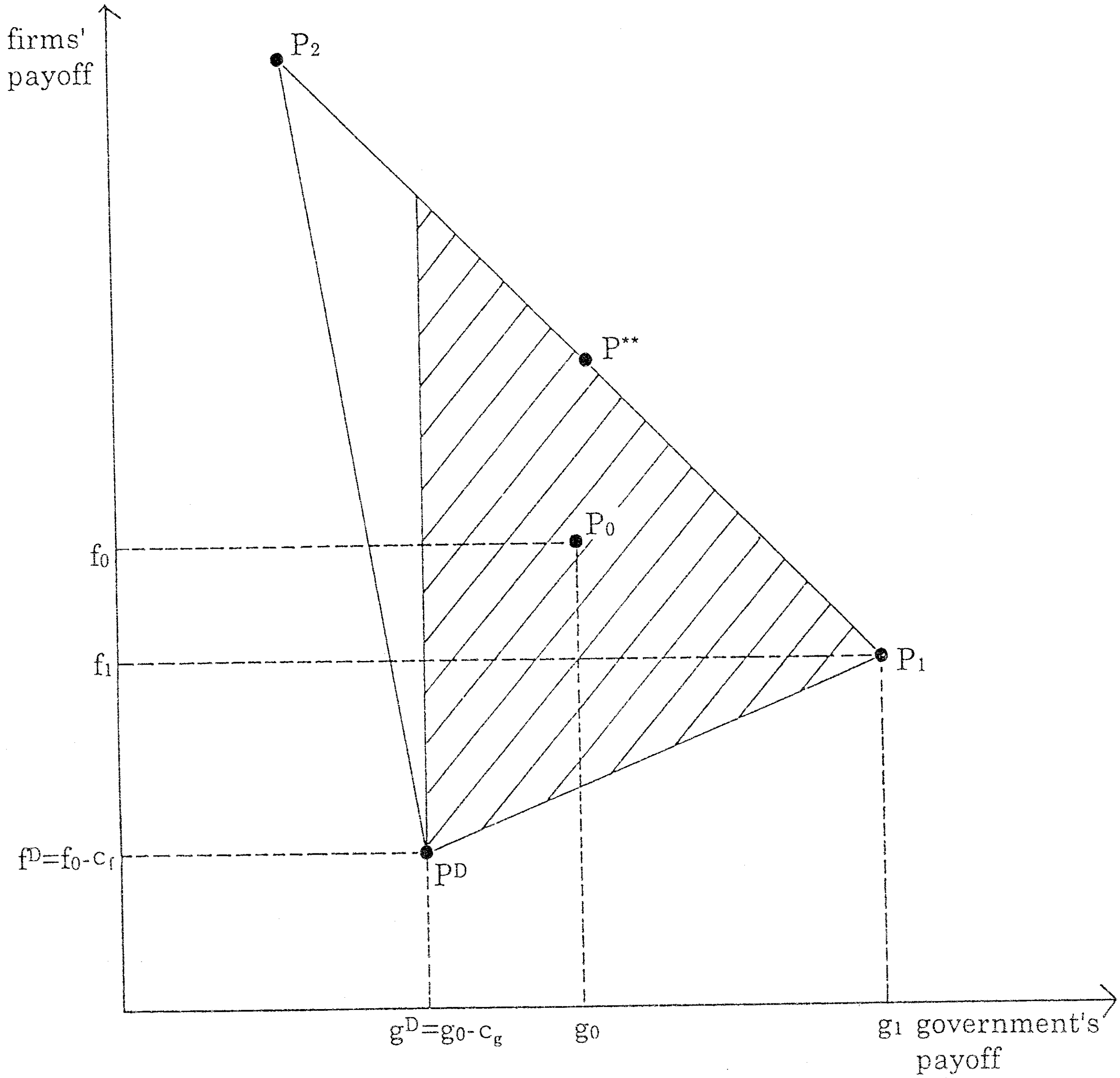
government's
payoff

Figure 2


firms' payoff
P2
P**
P0
P1
PD
f0
f1
fD=f0-cf
gD=g0-cg
g0
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government's payoff

Figure 3

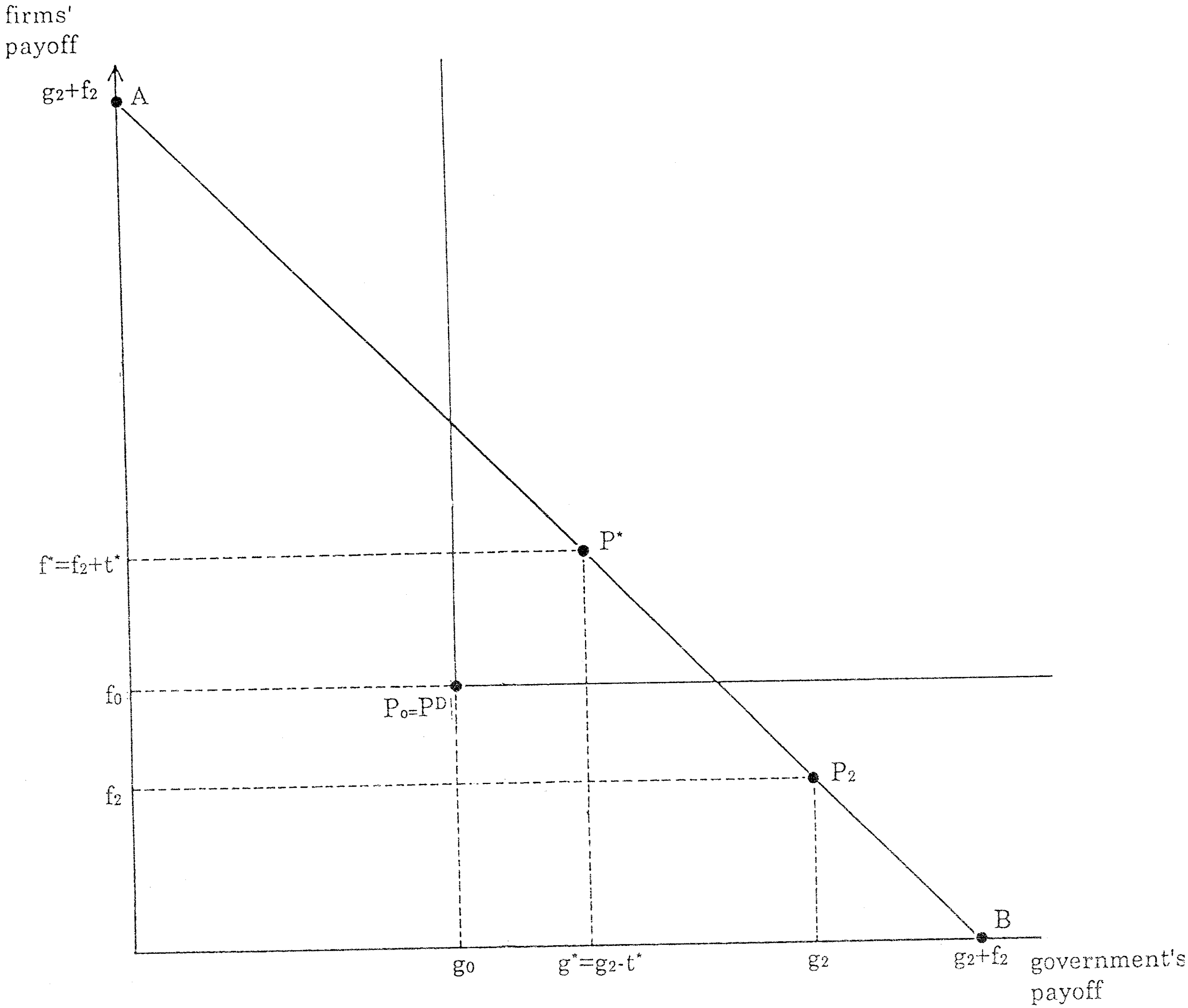
firms' payoff
g_2+f_2
A
$f^*=f_2+t^*$
P^*
f_0
$P_0=P^D$
f_2
P_2
B
g_0
$g^*=g_2-t^*$
g_2
g_2+f_2
government's payoff

Figure 4

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