



The Postwar Japanese Political Economy in an Exchange Perspective*

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Abstract. Early postwar Japan represented a Coasian social contract between an unproductive majority and a productive minority. The contract was possible and enforceable due to the American Occupation of Japan. It was socially desirable because it induced economic growth. It was self-enforcing due to specific Japanese conditions. However, the contract became socially undesirable as Japanese economy matured and the initial conditions changed, contributing to an increase in rent seeking. It also became unenforceable because the distribution of surpluses became more difficult as economic growth declined. As contractual enforcement mechanisms weakened, dynamic rent seeking activities further reduced Japanese economic growth rate (JLE# D72).

Key Words: American occupation of Japan, postwar Japanese political economy, Coasian contract, dynamic rent seeking

1. Introduction

I propose a hypothesis to explain the early growth and subsequent slowdown of postwar Japan from a political exchange perspective. I argue that a Coasian social contract emerged in the Japanese political market under the American Occupation. The contract persisted until early 1970s due to the unequally apportioned, multi-member electoral district system for the lower house of the Japanese legislature, the Diet. However, since the 1970s this governance system has hampered Japan's ability to implement much needed structural reforms to the economy.

The Coase theorem asserts that parties to an externality may spontaneously reach a socially desirable agreement, provided that the transaction costs are negligible. An analogy applies to the postwar Japanese political setting: due to specific conditions, the majority coalition and minority coalition reached an implicit social contract that was both socially desirable and self-enforcing. Specifically, I argue that this contract was socially desirable given Japan's demographic and historical conditions at that time. Further, I maintain that it was self-enforcing due to Japan's unique electoral district system. Finally, I argue that the contract became undesirable and unenforceable when the Japanese economy matured and economic growth slowed.

Since 1955, Japan's electoral system consistently elected conservative Liberal Democratic Party (LDP) representatives from many rural and semi-rural districts to the lower house.

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Because the proportion of Japanese living in rural and semi-rural districts during the early postwar years was much larger than today, LDP politicians elected from these districts represented a large number of Japanese constituents (an encompassing group). These constituents were, by and large, not experts on the economic policy management. However, given Japan's electoral system, they could elect their representatives who could, in turn, dominate a majority position in the Diet. By contrast, economic and political elites who knew how to manage the economy were largely dismantled by the leadership conducted by the Occupation forces. They were forced to seek a new arrangement rather than trying to restore old status quo. To promote their preferred economic policies, they needed to offer something in turn to the new democratic majority.

Given this situation, my argument is that the less policy-oriented majority benefitted more through an implicit management contract with the more policy-oriented minority than by directly taking a portion of wealth from the elite minority. Subsidies extracted through the political market exceeded the benefits of an one-time taking of the minority's wealth. As long as the elite minority was better off after their subsidy payments, they could also gain through this contract. However, time-inconsistency was an obstacle for this contract; majority agenda-setters might change as a result of a general election, which could void the previous contract. Unequal apportionment in a multi-member system alleviated this problem by assuring the continuity of LDP regime. The contract worked well in the beginning. However, as the Japanese economy grew it became unsustainable.

The paper is organized as follows. In Section 2, I briefly describe the postwar Japanese political economy. In the following section, I propose an analytical framework to explain how a Coasian solution could emerge in Japan's political market. Several issues are analyzed: the effect of an unequally apportioned electoral system in a multi-member electoral district system, the resultant incentive structure, and the dynamic problem it created. In Section 4, I analyze postwar Japanese political economy using this framework. Finally, I offer a concluding comment.

2. Postwar Japan

This section provides a brief description of the postwar Japanese political economy, in order to provide a historical context for the argument. Particularly, I describe the American Occupation of Japan and the emergence of LDP. Unique Japanese electoral system is mentioned while tracing Japan's economic growth.

2.1. The American Occupation of Japan, 1945–1952

The Allied Forces (mainly the United States) occupied Japan between 1945 and 1952 as a result of the Pacific War. Occupation policy began with a series of political purges and reforms (see Masumi 1983, Schaller 1985, Cohen 1987). The old guard was removed from public office while land reform, labor reform, and de-concentration of economic powers (zaibatsu) were initiated, which dismantled the ruling prewar political elites.

Japanese democracy began in 1947 with a new constitution. Postwar Japan was established as a parliamentary democracy fused with a U.S.-style committee structure. Japan adopted a

bicameral legislature consisting of the House of Representatives (the lower house) and the House of Councillors (the upper house). The majority party coalition in the lower house effectively had the power to form the executive branch by selecting the prime minister, who, in turn, nominated the other ministers that comprised the cabinet. An independent judiciary and autonomous local governments were also established.¹

Political reforms fundamentally changed the rules of game in Japan, opening up economic and political opportunities. However, because the destruction of old political network weakened structural mechanisms that maintained the political equilibrium, instability emerged during very early postwar years. Only when occupation policies were reversed in the face of a communist threat, was it possible for the conservative resurgence to re-establish political stability (see Schaller 1985).

2.2. The LDP and Japanese Electoral System

The LDP was formed in 1955 when Japan's two conservative parties merged. It dominated the Diet and the executive branch until 1993; while no longer the ruling party, it remains the largest party in Japan. Although politics within the LDP has been dynamic due to factions, the LDP regime itself was very stable for two decades after its formation. The stability of the regime, measured by its majority share in the lower house of the Diet, diminished during the 1970s, but regained during the 1980s. It then declined again, ultimately leading to a loss of its majority position in 1993.

For the lower-house election, Japan used a multi-member district system with single, non-transferable voting from the 1947 general election up to the 1993 general election. Only Japan used this method. Each district elected several representatives while each voter cast one vote for one candidate. Japan was divided into more than 118 electoral districts that elected 467 lower-house members in 1958.² This system resulted in an unequal apportionment in the lower house, where per capita representations among districts became widely divergent. Yet, the divergence was consistent, always favoring rural over urban districts. The difference between the highest per capita representation and the lowest reached 1:3.55 in 1963 (see Wada 1996:11). The Japanese court declared this system to be constitutional.

It should be noted that no other democracies except France have tolerated such excessive mal-apportionment (Wada 1996). Although Japan reformed its electoral system for the lower-house election and adopted a new hybrid single-member district system mixed with proportional representation system in 1994, the single-member districts of the new system manifest exactly the same problem.

2.3. Economic Growth

The economy of postwar Japan may be divided into three characteristic periods: the catch-up period of 1950s and 1960s, the post-catch-up period of the 1970s and 1980s, and the recession period of the 1990s and on. During the catch-up period, the economy grew at an average annual rate of about 10 percent in real terms. After the oil shock of 1973, growth slowed to an average annual rate of about 4 percent through 1991. Growth slowed

further during the 1990s, to an average annual rate of about 1 percent, although there were often times with a negative growth rate. Japanese economic performance has gone from exceedingly good to phenomenally bad within four decades.

The LDP's stability from 1955 until 1993 suggests that long-term political contracts were more feasible in Japan than in other representative democracies that were subjected to frequent regime changes. Because political time-horizon was extended in a stable regime, myopic political incentive to take must have been reduced. Growth-inducing social investments must have been provided. Indeed, the growth in both public and private investment expenditures was thought to be an important source of Japan's rapid growth during the high-growth period (Denison and Cheng 1976). However, thereafter, even though the overall share of Japanese public investment in GDP has remained the same or even increased, the Japanese economic growth rate has continuously declined.

The implications are: (1) the decline was caused by a decline in the productivity of capital expenditures; (2) it was caused by an increase in pork-barrel government investments rather than growth-inducing investments; or, (3) it was caused by a combination of (1) and (2). I argue that (2) should not be overlooked. Not only deadweight losses increased in the process of seeking pork-barrel government investments, but there incurred real opportunity costs in terms of such investments.

3. The Analytical Framework

The theory of public choice focuses on a time-inconsistency problem to explain the failure of a Coasian solution to political contracts in a representative democracy.³ Because electoral cycles inevitably alter political property rights in the legislature, politicians tend to be myopic and political contracts tend to be reneged. As a result, good social investments will be under-supplied whereas pork-barrel investments will be over-supplied. A corollary of this proposition is that some institutions that enforce durable political contracts must emerge in a representative democracy. I propose here a variant of such a governance structure.

3.1. *The Time-Inconsistency Problem and the Implicit Social Contract*

Consider a representative democracy consisting of two constituency groups—one with relatively knowledgeable and productive members who generally reside in urban areas and another with relatively less knowledgeable and unproductive members who generally reside in rural areas. The population of the latter group is assumed to be larger than that of the former. Thus those delegates representing less productive members can dominate the majority coalition. Further, assume that social investments can be divided into two categories—one that induces economic growth (growth-inducing investment) and one that does not (pork-barrel investment).

The ruled party wishes to increase the amount of growth-inducing investments in order to increase their income over the long run. The ruling party wishes to increase pork-barrel investments in order to create direct and immediate income transfers. Can the two groups in this society work out a Coasian social contract?

For instance, the ruled can propose to the ruler: "If you allow me to make growth-inducing investments, I will pay you a subsidy." In turn, the ruler says: "I will let you invest as long as I retain the right to take a portion of the returns from your investments." Since the ruling constituents are not adept at managing the economy and their representatives are concerned with catering to the interests of their clients for reelection, they see the possibilities that their income may increase by allowing productive members to make growth-inducing investments. The ruled also sees the possibilities that their income may increase even after their subsidy payments. A mutually beneficial contract can be drawn between them.⁴

However, for such a contract to be durable, several conditions must be met. First, there must exist no pre-existing, deeply entrenched, political arrangements between any members of the two groups that have pre-specified the distribution of surpluses. The existence of such contracts will prevent new contracts from being drawn.⁵ Second, there must exist a stable majority coalition. From the ruler's perspective, their majority position must be secure in order to assure the right to receive subsidies. From the perspective of the ruled, they also need an assurance that the contract will not be arbitrarily changed or reneged. They must expect the original contract to be honored whatever the election results. Both groups need a stable majority.

It then follows that such a social contract will be stable and socially desirable as long as the original majority coalition remains relatively stable, and as long as the economy generates enough surpluses to be divided among them. The problem is creating a stable majority coalition. In the next section, I consider the unequal apportionment in a multi-member electoral system as a mechanism to induce such stability by protecting the majority.

3.2. *Unequal Apportionment as a Stability-Inducing Mechanism*

Social stability may enhance the stability of the majority coalition. A stable majority coalition, in turn, may be sustained by controlling the selection of its members, and such selection can be maintained by creating a bias in the electoral district system. If the electorate is naturally divided into demographically discriminating classes, the bias can function as an effective screening mechanism.

I consider three factors that determine the characteristics of an electoral district and the ability to build a coalition across districts. One is the relative homogeneity of constituents within and across districts. Another is the degree of social dynamics across districts. The last is the bias in representation among districts, taking the form of unequal per capita representation across districts in a multi-member electoral system.

Assume a political economy with two electoral districts, A and B. A is a rural district, populated by voters with relatively homogeneous and static preferences. B, an urban district, has twice as many voters as A, with relatively diverse and dynamic preferences. The society is a representative democracy. It has a unicameral legislature and no local governments. It uses a multi-member electoral system, which means that each district elects several representatives. The legislature is composed of six members. A and B each elects three members. Note that, like Japan, the electoral system of this society is biased because B elects only three representatives, despite the fact that B has twice as many voters as A. The ruling party holds a majority position with four legislators. The power base of the party

resides in A because it holds all three seats in A while it holds only one seat from B. The party has been successively winning elections in A because it has been distributing local benefits to constituents in A. What would be the effects of this biased electoral system?

First, consider how the majority coalition sustains its position in this society. Assuming simple majority rule, a coalition requires at least four members. There are three general strategies for achieving a minimum majority: getting one candidate elected in A and three candidates in B, two in A and two in B, and three in A and one in B. Given the demographic characteristics of A and B, what would be the easiest and most stable strategy for a party to achieve and sustain a majority?

The easiest strategy is to try to get all three candidates in A elected and at least one candidate in B elected. Because per capita representation in A is higher than that in B and A's constituents are more homogeneous than B's, it should be easier for politicians to create "selective incentives" in A than in B (Olson 1965, Atlas et al. 1995). Further, A's constituents should have more incentives than their counterparts in B to support politicians who provide benefits for them (Atlas et al. 1995). Per capita income transfer in A is likely to be greater than that in B, because A's constituents are likely to be net-subsidy recipients while B's constituents are likely to be net-subsidy providers. Once selective incentives are established in A, they will remain more effective and stable in A than in B because A has more uniform and stable constituents than B.

Alternatively, a party could target B either by promoting a popular ideology or by establishing sub-constituency groups in B. However it would be more costly for a party to develop such relations in B than in A, because B consists of more diverse groups than A. Simultaneously satisfying divergent constituents is not easy; some groups will be alienated by the party's policies (Fiorina 1989). Also, because B's constituents have dynamic preferences, the emerging coalition may be unstable. The party that achieves majority by securing three seats from A and at least one seat from B, therefore, will be more stable.

Next, consider how the situation changes if the bias is reduced. One example of a less-biased electoral system is a proportional representation system. For instance, if B could elect six rather than three members, what would happen? The society now has a nine-member legislature, in which three members are elected from A and six from B. Per capita representation in A and B are equalized. A majority-seeking party must secure at least five members. There are four general strategies for a party to achieve majority; getting one candidate elected in A and four in B, two in A and three in B, three in A and three in B, and all five in B. We ask the same questions holding the demographic characteristics of A and B constant.

Politicians and voters in both A and B should have the same incentives in terms of the effect of per capita representation. However, divergent degrees of homogeneity and social dynamics still remain. This difference should exert the same influences as before. It is therefore still easier and more stable to establish selective-incentives in the rural district than in the urban district. The easiest strategy for a party to achieve and sustain majority is to get as many candidates elected as possible in A and to secure the remainder necessary for achieving a majority from B. The party could target B to achieve the majority. However, the resulting coalition will be unstable due to the reasons explained in the first example.

What effect does reducing the electoral bias have upon social stability in this society? In general, instability may result. Several reasons account for this. First, it becomes increasingly uncertain for any majority coalition to sustain its position. This increase in the relative importance of B reduces incumbency advantages of a majority member from B because B is a diverse and dynamic district. Second, an increase in the relative importance of B is also likely to reduce incumbency advantages in A. The party's policies to gain more approval among B's voters are likely to alienate some voters in A either by reducing the amount of pork-barrel spending available for A's constituents or by ideologically offending some of A's voters. Third, an increase in the relative importance of B will increase opportunism among candidates because the strategic options available to each candidate will increase due to increased interdependencies among candidates. This society should be less stable than before *ceteris paribus*, although rural members still function as the mechanism to induce stability.

Finally, consider the case where both per capita representation and social characteristics are equalized between the two districts. No distinction between rural and urban districts exists. What remains the same is the fact that both politicians and voters seek their own interests. Because no strategies are structurally advantageous, self-seeking actors must resort to other means—political entrepreneurship. Incumbents become less sure of keeping their incumbencies. Any combination of five members can propose the same or even a slightly better platform to constituents. A strategic calculation of voters can easily change the status quo. There is no easy way for a party to maintain the majority. Politics will be fragmented and the majority coalition will be unstable, unless alternative stability-inducing institutions are developed.

I propose that the degree of heterogeneity and the social dynamics of constituents in electoral districts are a positive function of economic growth; the more economy grows, the more diverse and mobile the constituents will become. One implication here is that the stability of the majority coalition will deteriorate as the growth takes place, *ceteris paribus*.

I also propose that the authority cannot artificially impose and enforce district characteristics without incurring a considerable cost. For example, a growing underdeveloped country is likely to have a natural "dual" structure where the poor and the rich coexist together in contiguous regions because of on-going urbanization. By establishing electoral districts according to these regions, a bias is naturally and easily installed without incurring huge political costs. Contrarily, in a matured democracy, any attempt to gerrymander is likely to incur huge political costs.

Finally, I propose that a multi-member electoral system can be considered as a hybrid system of an unequally expanded single-member district system. For instance, suppose that delegates of a six-member legislature are elected from two multi-member districts, A and B, where A elects three members and B three members. Further suppose that B, an urban district, has twice as many voters as A, a rural district. If the status-quo party has already established selective incentives in A, each candidate in A may be able to segment A's electorates by employing an independent "personal vote" strategy (Cain, Ferejohn, and Fiorina 1987). A successful segmentation, in effect, enables A to have three single-member districts. If, on the other hand, B's electorate cannot be segmented due to their heterogeneity and dynamics, B will remain as a multi-member district. This hypothetical society actually is

said to have three over-represented single-member districts and one multi-member district. Such a system must be valuable for incumbent party.

The description above shows that when a developing democratic society encompasses an electorate that can be naturally divided into discriminating classes, establishing a bias in the multi-member, electoral district system may induce the stability of majority coalition. The following hypothesis emerges: Assume two constituency groups in a society—a majority group with lesser economic management skills and minority group with greater economic management skills. Provided that there are no pre-existing political contracts to distribute rents between them, the electoral bias may structurally induce a political equilibrium; thus, establishing a condition for promoting a mutually beneficial contract.

However, alternative contracts that could defeat the original contract are always possible by rearranging the winners and losers of rent distribution.⁶ Granted this possibility, I argue that the political party system induces stability by restricting the domain of the coalition set.⁷ In the following section, I posit such an argument.

3.3. The Role of Political Party in a Biased Electoral System

In a democracy, the foremost concern of a politician must be getting elected (Downs 1957). The next foremost concern of a parliamentary politician belonging to majority party must be maintaining the majority; only the majority party can monopolize both the legislative and executive branches. The incentive to maintain the majority, particularly when combined with a biased, multi-member, electoral district system, establishes the majority party as a stability-inducing institution.

Given a biased electoral system, the incumbent majority party is likely to target rural (over-represented) districts to sustain its majority because the net benefit of adopting this strategy far exceeds that of the alternatives. The party's willingness to adopt this strategy induces stability by restricting the domain of possible coalition sets; the party will always favor rural over urban candidates.

Take a situation where the party targets rural districts. The incumbent party will develop "relational" capital with specific clients in specific districts (Goldberg 1980). The party will pay a "premium" for those clients in order to gain their loyalty (Shepsle and Weingast 1981, Cain, Ferejohn, and Fiorina 1987, Wintrobe 1998). Such capital is not only person-specific, but region-specific; the value of the capital will dissipate when the majority coalition changes. Both party and clients have an incentive not to deviate from this contractual arrangement. The majority party system thus helps induce stability by its own incentive to maintain durable political contracts.

Consider also a multi-member district system. Multi-member districts where selective incentives are easily established and remain effective are extremely valuable for the party. The party has a strong incentive to monitor the behavior of individual politicians to reduce a potential "vote division" problem (see Ramseyer and Rosenbluth 1993). Because members of the same party must compete in a multi-member district in order to maintain the majority, votes will be wasted if candidates of the same party do not coordinate each other's strategies. To avoid this vote division problem, the party must carefully select candidates and regulate their campaign strategies. This requirement reinforces the need for central

management of local-benefit distributions as a means to monitor individual opportunism. The incumbents will prefer this central management by their party to their individual freedom in the campaign. This reinforces the majority party as a stability-inducing institution.

A stable majority coalition is generated by a biased electoral system that is partially self-enforcing. In the following section, I further analyze the incentive structure of a political system that meets the above conditions.

3.4. The Incentive Structure in a Stable Pork-Barrel Society

Consider a society where a large number of rural, unproductive constituents can politically dominate a smaller number of urban, productive constituents. The ruling coalition, dominated by the unproductive, finds it beneficial to delegate the brokerage functions to their politicians who in turn offer a management contract to the ruled party. The contract specifies that the ruling coalition receive a portion of the profits from economic growth in return for the ruled receiving residuals from growth-inducing investments. What enforces this contract?⁸ First, I analyze the incentives of the ruling coalition. Then, I proceed to explain the incentives of the minority coalition and the incentives of politicians.

3.4.1. The Incentives of the Ruling Coalition. In a free, democratic, mixed economy, the market system is likely to play the largest role in resource allocation. Because the market makes all participants interdependent (encompassing) with one another, a ruling coalition that takes too much from market participants will eventually reduce their own receipts from their market income as well as from their subsidy income by decreasing overall market activities. As long as the market is an important source of the ruling coalition's income, the coalition should have an incentive to constrain pork-barrel activities.⁹

The stability of the regime reinforces the incentive of the ruling coalition to opt for growth-inducing public investments. A stable regime expands the expected time-horizon of rulership.¹⁰ Such an expansion makes growth-inducing investments rather than pork-barrel investments an attractive option for the ruler, provided that the present discounted value (long-term gains) of the per capita subsidy is greater than immediate per capita benefit (short-term gains) that would exist had the ruler engaged in an outright taking. This means that as long as the rate of economic growth is expected to be high, this contract will be durable. The corollary is that when the growth slows the contract is likely to be reneged.

The ruling coalition should have incentives to regulate activities that redistribute income or wealth from the productive sector. The fact that their number is large suggests that unregulated redistribution activities (free entry) will quickly dissipate available rents due to an increased competition. Further, a greater than average share in subsidy benefits to specific districts will attract migration of subsidy recipients into these districts. The resulting increase in the population of these districts reduces per capita subsidy benefits in these districts. Incumbent constituents therefore have an incentive to regulate the distribution of pork-barrel spending across districts to equalize the per capita benefit.

3.4.2. The Incentives of the Minority Coalition. The ruled can directly reap pecuniary gains from growth-inducing investments by acting as the residual claimant/capital owners of

productive assets. Further, given information asymmetries that favor the ruled in economic management, the ruled can reap non-pecuniary benefits as well. As long as the rate of economic growth is high, and as long as net-residuals are positive, the ruled will find this contract beneficial. The exit from this political regime should be costly since migration dissipates their human capital. Moreover, the ruling coalition retains ultimate power to attenuate their property rights. The only choice for them is to remain in this regime while making the best out of the situation. However, when the size of ruling coalition decreases and the ruled establishes their own political network, the distinction between the ruling coalition and the ruled will blur. When this happens, the original contract will be hard to identify and enforce.

3.4.3. *The Incentives of Politicians.* Each politician has an incentive to disproportionately increase the distribution of pork-barrel spending to his or her own district. However, each politician realizes that doing so increases external costs for other members, causing instability in their party, which could lead to a situation of no local benefits at all. Moreover, the vote division problem in a multi-member district system reinforces the incentive of the party to monitor pork-barrel spending.

Politicians have an incentive to coordinate their pork-barrel spending because unregulated spending will unevenly affect the selective incentive structures in their districts. The party targets rural and semi-rural districts to sustain its majority because selective incentives in these districts are more easily manipulated than in other districts. A greater rate of local benefit distribution to specific districts will cause an increase in population in those districts. This weakens selective incentives in these districts by reducing per capita distribution benefits.

Finally, to minimize the transaction costs of rent distribution, the party needs to maintain the original coalition. Provided sustaining a majority requires some urban representatives, the party must prefer the reelection of original politicians from the same urban districts. If rural politicians renege on the distribution of subsidies, the probabilities of reelection for those urban politicians may be reduced, jeopardizing the continuity of a comparable majority. Thus party members have an incentive to honor the contract.

3.5. *The Dynamic Problem*

When the above implicit social contract is enforced in an underdeveloped society, economic growth is likely to take place. Because the contract specifies a post-Coasian division of the surplus, unregulated rent-seeking activities are minimized, inducing an “efficient” form of rent seeking (Tullock 1980). Further, it can take full advantage of scale economies and inter-industrial increasing returns through the provision of growth-inducing investments because the society is still at a developmental stage. Rapid growth will result, generating enough surpluses to promote political stability.

However, growth will alter the necessary conditions required to enforce the contract. Any subsequent slowdown due to the exhaustion of scale economies will further alter the conditions underlying the original contract. First, demographic changes caused by urbanization will weaken encompassing characteristics of the ruling party by reducing their relative

proportion in the population. If the electoral bias continues to favor the ruling coalition, they will increase redistribution activities. They can shift and disperse the costs of their takings to a larger minority. “Static” rent seeking cost, equivalent to static deadweight losses due to income redistributions, will rise (Tullock 1984).

Second, growth will weaken the stability of majority coalition by increasing the diversity of politics.¹¹ Diversity fragments politics, altering both demand for, and supply of, political resource allocations and political brokerage markets. New multiple subcontracts will develop within the coalition, blurring the distinction between the ruling coalition and the ruled, which generates instability in the original coalition, further weakening the original contract. “Dynamic” rent seeking, equivalent to actively seeking or protecting favors from government, will rise and its costs will increase (Tullock 1984). Existing contractual enforcement mechanisms becomes inadequate for this complex nexus of contracts.¹²

Third, the slowdown of growth will weaken the rationale of the original contract for both the ruling coalition and the ruled. A cooperative division of the surplus between the two groups presupposes high economic growth. However, an economic slowdown reduces both subsidies and residuals. The ruling party’s incentive to increase subsidies rises, while the incentive of the ruled to retain residuals also increases. Moreover, sub-groups in both parties have a greater incentive to engage in rent seeking, while the politicians’ incentive to cater to diversified interests also increases.

In sum, economic growth produces a complex rent-seeking society. To regulate such a complex nexus of political contracts, new institutions must develop. However, the vested interests of all fragmented groups in this society have path-dependencies; that is, they have been aligned according to a pre-existing electoral bias. Entrenched interests are apt to resist fundamental reforms of their political structure (Olson 1983). Thus, as economic growth slows, the bias is likely to produce more social bads than social goods.

4. A Descriptive Analysis of the Postwar Japan

The American Occupation dismantled the old regime, opening new economic and political opportunities for the Japanese. I describe here the effect of the unequal apportionment upon Japanese income redistribution and upon public investment expenditures. The theory postulated above suggests that true ruling coalition of postwar Japan was made up of rural and semi-rural constituents. Because the ruling coalition retained the right to receive subsidies from Japanese economic growth, they received a proportionately greater share of income redistribution and public investment allocation.

4.1. Unequal Apportionment and the LDP

Table 1 presents the share of popular votes the LDP received and the majority share of LDP in the lower house for each general election. Both have declined over time. Notable are the facts that the popular vote share was consistently lower than the majority share, and the rate of decline in the former was greater than that in the latter. Both shares measure the encompassing characteristics of the LDP. The decline in these shares is indicative of a political

Table 1. Transitions of lower-house LDP share and LDP popular votes share.

Year	Majority seat share (%)	Popular vote share (%)
1955	65.10	47.50
1958	63.82	44.17
1960	64.45	41.87
1963	63.17	38.48
1967	58.64	35.64
1969	62.35	32.32
1972	57.84	33.30
1976	51.66	30.35
1989	51.08	30.04
1980	57.14	34.92
1983	51.08	30.84
1986	59.57	34.57
1990	56.64	33.56
1993	43.64	24.34

Source: Various editions of *Syugin Giin Sousenkyo Ichiran* (Almanac of lower-house general election).

Notes: The majority share is calculated by the number of LDP lower-house representatives elected at a general election divided by the total number of seats in the lower house. The popular vote share is calculated by the number of votes the LDP received divided by the total number of eligible voters.

party whose base and encompassing characteristics have decreased. A lower popular vote share and a greater decline in that share indicate a bias in the Japanese electoral system in the lower house.

Japan has 47 local regions called prefectures, each of which was divided into electoral districts. There were 118 districts in 1958; the number increased over time. Table 2 summarizes the minimum and maximum numbers of eligible Japanese voters per representative across lower house electoral districts for the period 1958 to 1993. For example, in 1958 the Gumma 2nd district, which had 234,033 eligible voters, could elect 3 representatives, while Tokyo 1st district which, had approximately 3.7 times more voters, could elect only 4 representatives. The number of voters per representative in the former district was 78,011 while it was 216,053 in the latter; thus, the factor difference between them was 2.77. The table reveals that the factor difference did not diminish, indicating continual existence of electoral bias in the postwar Japan.

Table 3 summarizes the relation between “over-represented” districts and the LDP.¹³ Column 1 shows the percentage of LDP representatives elected from over-represented districts that are generally rural and semi-rural districts.¹⁴ It shows that the LDP has been a rural-based party; more than two-third of its members are from rural and semi-rural districts. Column 2 shows the percentage of voters in Japan represented by politicians from over-represented districts. For example, in 1958, about 72% of LDP politicians in the lower

Table 2. Minimum and maximum numbers of voters per representative in terms of number of eligible voters among Japanese lower-house electoral districts.

Year	Minimum	Maximum	Factor difference
1958	78,011.00	216,053.50	2.770
1960	76,161.67	229,906.33	3.019
1963	75,596.33	268,319.25	3.549
1967	75,189.67	263,133.60	3.500
1969	77,964.67	337,243.00	4.325
1972	79,172.00	394,950.00	4.989
1976	80,404.33	281,082.33	3.496
1979	81,096.33	314,004.00	3.872
1980	81,375.33	321,351.33	3.949
1983	81,860.00	360,889.67	4.409
1986	104,170.75	304,673.25	2.945
1990	105,682.00	336,061.50	3.180
1993	106,688.50	358,162.50	3.357

Source: Various editions of *Syugin Giin Sousenkyo Ichiran* (Almanac of lower-house general election).

Notes: The number of total eligible voters in a district is used partly because we do not have data for district population. Reapportionment took place in 1955, 1967, 1972, 1976, and 1986. One can see the effect of reapportionments. However, the factor difference indicates that the effect of reapportionment was a temporal phenomenon.

house were elected from rural and semi-rural districts, and they represented about 60% of total eligible voters in Japan. In 1990, the figures change to approximately 68% and 48% correspondingly.

Column 3 in the table shows the percentage of LDP representatives elected from “very over-represented” districts, which were almost exclusively rural districts.¹⁵ We observe again over one-third of the LDP representatives are elected from very over-represented districts. Column 4 shows the percentage of eligible voters in Japan represented by politicians from these districts. For example, in 1958, about 35% of LDP politicians in the lower house were elected from very over-represented districts, and they represented about 27% of total eligible voters in Japan. In 1990, the figures change to 30% and 18% respectively.

Two implications are indicative of these data. First, the LDP was a rural-based party. Second, the encompassing characteristics of LDP declined over time. Although rural and semi-rural members continued to dominate the LDP, they began to represent a smaller portion of the Japanese electorate. If these LDP members continued to dominate Japanese legislature, the theory postulated above suggests that they must have acquired proportionately greater shares of local benefits for their constituents than other LDP members.

Table 3. Percentage of over-represented districts and their voters.

Year	Column 1	Column 2	Column 3	Column 4
1958	72.48	59.86	35.24	26.52
1960	73.42	58.76	31.56	23.54
1963	76.95	58.30	33.56	22.28
1967	74.13	52.69	36.01	21.60
1969	70.76	49.57	33.22	19.24
1972	75.70	53.01	37.32	20.08
1976	69.32	48.48	35.61	18.56
1979	73.08	50.37	33.85	17.03
1980	70.79	50.07	32.30	18.08
1983	75.39	50.39	34.62	17.17
1986	71.19	49.96	34.44	20.47
1990	68.06	48.21	29.86	18.10

Source: Various editions of *Syugiin Giin Sousenkyo Ichiran* (Almanac of lower-house general election).

Notes: (1) Percentage of LDP politicians elected from over-represented districts. (2) Percentage of voters who are represented by (1). (3) Percentage of LDP politicians elected from above means over-represented districts. (4) Percentage of voters who are represented by (3). Table 4: Transfers as a percentage of total prefecture revenue, 1957–1990.

4.2. Local Subsidies and the LDP

Table 4 summarizes budgetary transfers to each prefecture from the central government for selected years from 1957 to 1990, showing government transfers as a percentage of total prefecture revenue.¹⁶ For large metropolitan prefectures such as Tokyo and Osaka, transfers are a relatively small percentage of their revenues, although they pay a larger share of taxes. For medium-sized metropolitan prefectures such as Hiroshima, they account for almost half of their revenues. For rural prefectures such as Tottori, transfers supplied more than two-thirds of their revenues.

The table suggests that rich prefectures have consistently subsidized poor prefectures. However, because a prefecture generally encompasses both rich and poor districts within itself, the relation between subsidy distribution and political representation is a little blurred; prefecture-based data have limitations. By breaking down the data into districts, a much clearer relation could be revealed. Unfortunately, such data are not available.

Table 5 shows the per capita representation by prefectures for selected years between 1960 and 1990. This table and Table 4 reveal that more populous, under-represented prefectures received relatively smaller portions of transfers in their revenues. They also reveals that less populous, over-represented prefectures received relatively larger portions of transfers. A prefecture having a higher concentration of LDP representatives, generally containing several biased districts, received relatively more transfers from the central government.

Table 4. Transfers as a percentage of total prefecture revenue, 1957–1990.

Prefect	1957	1960	1970	1980	1990	Change
Hokkaido	58.7	64.1	63.3	59.0	53.9	−4.9
Aomori	70.7	71.1	72.3	64.6	64.3	−6.4
Iwate	70.4	85.7	71.9	63.7	62.0	−8.5
Miyagi	65.8	66.2	55.7	51.6	44.6	−21.1
Akita	73.0	71.4	69.8	61.9	59.1	−13.8
Yamagata	70.3	71.4	70.8	61.4	57.3	−13.0
Fukushima	65.4	66.8	64.0	56.3	51.6	−13.8
Ibaraki	60.7	56.3	48.5	46.3	38.9	−21.8
Tochigi	61.2	60.3	47.2	43.8	38.0	−23.2
Gumma	60.6	60.0	48.2	46.2	39.2	−21.4
Saitama	52.4	49.8	31.6	37.4	27.3	−25.1
Chiba	57.7	50.9	39.2	41.6	28.5	−29.2
Tokyo	15.4	14.2	12.9	12.1	7.4	−8.0
Kanagawa	22.9	17.4	15.7	21.2	14.6	−8.3
Niigata	60.4	64.1	63.6	59.2	53.6	−6.7
Toyama	52.7	52.8	55.4	52.1	46.4	−6.3
Ishikawa	64.5	62.8	49.6	51.0	46.8	−17.7
Fukui	66.3	67.9	58.9	55.6	48.9	−17.4
Yamanashi	69.9	78.8	63.1	60.5	48.1	−21.8
Nagano	59.8	66.0	55.3	53.7	45.4	−14.3
Gifu	55.3	56.5	50.3	53.0	44.9	−10.4
Shizuoka	40.8	40.0	30.7	37.6	28.9	−11.9
Aichi	29.4	31.8	18.2	21.9	14.5	−15.0
Mie	59.5	64.4	52.3	55.3	43.2	−16.3
Shiga	59.1	61.5	47.9	46.2	39.0	−20.0
Kyoto	50.4	47.7	29.7	39.8	31.7	−18.7
Osaka	18.7	15.7	15.1	20.8	14.0	−4.7
Hyogo	34.5	36.6	30.8	40.8	32.7	−1.8
Nara	64.4	72.1	55.2	55.1	45.0	−19.4
Wakayama	64.4	60.5	55.0	58.9	53.0	−11.4
Tottori	74.2	73.1	68.2	62.2	61.5	−12.6
Shimane	66.2	73.1	69.2	67.4	63.8	−2.4
Okayama	57.7	61.3	49.4	54.1	42.6	−15.1
Hiroshima	58.1	51.5	40.3	48.0	40.9	−17.2
Yamaguchi	52.2	54.2	52.5	52.6	51.1	−1.1
Tokushima	66.5	72.2	66.9	60.9	54.6	−11.9
Kagawa	62.4	65.3	55.8	53.0	43.7	−18.7

(Continued on next page.)

Table 4. (Continued.)

Prefect	1957	1960	1970	1980	1990	Change
Ehime	64.7	62.8	59.8	60.0	53.6	−11.2
Kochi	68.3	69.4	68.4	65.6	60.2	−8.1
Fukuoka	47.2	44.8	51.5	47.5	41.5	−5.7
Saga	68.1	72.9	70.0	64.6	58.9	−9.2
Nagasaki	65.2	62.5	66.9	65.6	61.3	−3.9
Kumamoto	69.8	68.2	66.2	61.5	56.9	−12.9
Oita	68.2	70.0	68.8	62.8	59.0	−9.2
Miyazaki	61.4	67.2	72.1	65.6	64.9	3.5
Kagoshima	75.8	77.1	75.4	67.6	63.6	−12.2

Source: Chihou Zaisei Tokei Nenpou.

Note: Okinawa prefecture is excluded.

Table 5. Ratio of population (100,000) to number of representatives in Diet by prefecture, selected years.

Prefect	1960	1970	1980	1990
Tokyo	3.587	2.925	2.642	2.644
Osaka	2.897	3.313	3.191	3.166
Kanagawa	2.648	3.909	3.646	3.966
Aichi	2.214	2.693	2.818	3.005
Saitama	1.870	2.974	3.620	3.753
Hokkaido	2.290	2.356	2.541	2.454
Chiba	1.774	2.590	2.983	3.084
Hyogo	2.170	2.457	2.561	2.828
Fukuoka	2.109	2.119	2.382	2.514
Shizuoka	1.969	2.207	2.482	2.628
Ibaragi	1.706	1.787	2.161	2.389
Hiroshima	1.820	2.030	2.285	2.371
Kyoto	1.993	2.250	2.510	2.539
Niigata	1.628	1.574	1.638	1.905
Miyagi	1.937	2.021	2.306	2.489
Nagano	1.524	1.505	1.609	1.662
Fukushima	1.709	1.622	1.703	1.759
Gifu	1.820	1.954	2.187	2.302
Gumma	1.578	1.659	1.865	1.969
Tochigi	1.514	1.580	1.809	1.940
Okayama	1.670	1.707	1.889	1.934

(Continued on next page.)

Table 5. (Continued.)

Prefect	1960	1970	1980	1990
Kumamoto	1.856	1.700	1.796	1.850
Mie	1.650	1.714	1.891	2.005
Kagoshima	1.785	1.572	1.636	1.800
Nagasaki	1.956	1.744	1.774	1.742
Yamaguchi	1.780	1.679	1.759	1.740
Ehime	1.668	1.576	1.698	1.702
Aomori	2.039	2.040	2.217	2.165
Iwate	1.811	1.714	1.803	1.786
Nara	1.562	1.860	2.434	2.764
Yamagata	1.651	1.533	1.572	1.798
Oita	1.771	1.651	1.769	1.777
Akita	1.670	1.551	1.593	1.767
Shiga	1.686	1.780	2.174	2.452
Miyazaki	1.892	1.752	1.934	1.969
Ishikawa	1.622	1.670	1.869	2.319
Toyama	1.722	1.717	1.849	1.874
Wakayama	1.670	1.738	1.833	1.818
Kagawa	1.532	1.513	1.676	1.716
Saga	1.886	1.676	1.752	1.763
Yamanashi	1.564	1.524	1.626	1.716
Tokushima	1.694	1.582	1.675	1.679
Kochi	1.710	1.574	1.688	1.669
Fukui	1.883	1.860	1.995	2.052
Shimane	1.778	1.548	1.581	1.564
Tottori	1.498	1.423	1.523	1.550

Source: *Chihou Zaisei Toukei*.

Note: Prefectures are listed in descending order of 1990 population.

Again, because I used prefecture-based data, the relation between per capita representation and subsidies is a little blurred.

The two tables show that prefectures with LDP strongholds were consistently over-represented and received proportionately greater shares of budgetary transfers from central government throughout the period in question. This is compatible with the proposition above—a stronger coalition in the legislature can obtain a greater distribution of local benefits because they are the net-subsidy receivers.

4.3. Public Fixed Investment Expenditures

Table 6 shows the ratio of Japanese public fixed investment expenditures to GDP for the period 1958–1992. During the late 1950s and 1960s, the ratio was around 6% to 8%. In the

Table 6. Public fixed investment as a share of Japanese GDP.

Year	Percentage	Year	Percentage
1958	5.96	1976	10.56
1959	6.18	1977	11.24
1960	6.27	1978	11.92
1961	6.65	1979	11.79
1962	7.58	1980	11.61
1963	7.46	1981	11.16
1964	7.68	1982	10.63
1965	8.14	1983	9.93
1966	8.22	1984	9.20
1967	7.82	1985	8.27
1968	7.75	1986	8.31
1969	7.79	1987	8.70
1970	8.06	1988	8.47
1971	9.44	1989	8.46
1972	10.09	1990	8.56
1973	9.50	1991	8.79
1974	10.58	1992	9.82
1975	11.13		

Source: GDP data are obtained from *Kokumin Keizai Keisan Nenpou*, while investment data are from *Gyousei Tousei*.

1970s, it increased to 9% and then to 11%, perhaps due to a slowdown in economic growth. After this period, the ratio decreased, but remained higher than that in the high-growth period. In the case of England, France, Germany, and the United States, the comparable figures have been much lower than those in Japan. Further, the ratio in other nations consistently declined over the same period. For example, in 1990 Japan spent about 8.6% of its GDP for public fixed investments; the same figure for England, France, Germany, and the United States was about 2% to 3%. Japan spends too much public fixed investments (see Katz 1998, and Yoshida 1998).

The distribution of public fixed investment expenditures among prefectures for the period, 1960 to 1990, reveals the following characteristics. First, the distribution across prefectures is highly correlated to the distribution of population across prefectures; the more populous the prefecture, the more benefits it has received.¹⁷ Second, the distribution was, however, not strictly based on prefecture population; some prefectures obtained proportionately greater shares of investments than other prefectures.¹⁸ Third, those prefectures that received proportionately greater shares of the distribution tended to be a mixture of a few large metropolitan prefectures and many small rural prefectures. For instance, the top ten recipients of investment expenditures on a per capita basis in 1990 were Yamagata, Toyama, Tokyo, Nagano, Saga, Okinawa, Fukui, Tottori, Hokkaido, Kochi, and Shimane, in ascending order. Only Tokyo in this list was a large metropolitan prefecture. This suggests that Japanese public

investment decisions are a mixture of genuine national economic policy and rent seeking schemes.¹⁹ Japanese public investment expenditures must have been used as subsidy payments to ruling coalition members.

4.4. *Discussion*

Puzzles emerge: First, how can we explain the pattern of subsidy distribution across different localities in postwar Japan? Second, why does Japan keep on spending such a large share of GDP on public fixed investments? Third, what determines the distribution of public fixed investments across different Japanese localities?

The following two theses are common in explaining Japan: (1) Local autonomy in postwar Japan is illusory; and, (2) the actual agenda setter in postwar Japan has been a coalition of powerful economic and political elites. Underlying these theses is a public-interest view of the government. I argue that both of these views cannot explain earlier growth and subsequent slowdown of the Japanese economy.

Many students of Japan believe that Japanese local governments are controlled by the central government. They assert that the true agenda setters in postwar Japan have been the economic and political elites, such as high-ranking central bureaucrats, senior LDP politicians, and large financial and industrial group leaders. They argue that the LDP mainly represents the interest of big businesses, though it needs to cater to the interests of farmers and small businesses to win elections. They point out the existence of strong ties between the LDP and big businesses in campaign finances. They describe elite bureaucrats as a neutral actor to promote public interests.

Taking this “impartial elite” view of central government, how could Japanese patterns of subsidy, and public investment distribution, be explained? One possible explanation might be that Japanese government was concerned with maintaining equity more than promoting economic efficiency. This means that in Japan equity concerns always took precedent over efficiency concerns, even though Japanese economic performance might deteriorate. This is implausible. Further, the distribution patterns imply that the elites volunteered to implement these policies even though they had to pay higher taxes and higher opportunity costs in terms of public investment expenditures. This is clearly irrational. These views are therefore not only based on an altruistic view of government but on an implausible view of government.

An alternative for interpreting these distribution patterns is that rural areas actually were very adept at extracting rents from rich metropolitan areas by using their agent, the LDP, to control the central government apparatus to their advantage. Constituents in those areas enjoyed an unequal apportionment. In this view, the true agenda setter in postwar Japan was the coalition of rural and semi-rural constituents and the LDP politicians who represented them. The members of this coalition used the electoral bias to obtain a proportionately greater share of representation in the legislature; and as a result, they received a proportionately greater share of subsidies and public investments. The central government did not dominate local governments. Rather, it was controlled by a legislature dominated by rural representatives. This is why Japanese patterns of income redistribution and public investments emerged.

This alternative view also explains the growth and subsequent slowdown of the Japanese economy without invoking a behavioral inconsistency, together with why Japan appeared to be an elitist state. In this view, Japan's earlier growth occurred precisely because the elites lost their power to set the agenda. They were forced to make a deal with new political entrants who came to dominate the legislature. They were allowed to pursue developmental policies in return for their subsidy payments. Further, because this implicit social contract was stable and self-enforcing, dynamic rent-seeking activities were suppressed while growth-inducing investments were encouraged. The supposed elites were actually a minority that was politically just a residual claimant of economic growth; yet, they continued to manage the economy. This is why Japan appeared to be an elitist state. The specific conditions Japan faced and unequal apportionment made this political contract socially desirable and self-enforcing.

However, with changing economic and social conditions this governance structure began to deteriorate and became susceptible to rent seeking activities. The ruling coalition, still protected by unequal apportionment, actually became a small minority in terms of its size. It increased its takings. Indeed, the data in Tables 4–6 suggest that the share of income transfers from the central government to rural and semi-rural areas, as well as the share of public investment allocated to rural and semi-rural areas remained the same or even increased, despite the fact that relative sizes of these areas in terms of population declined. With the original contract weakened and fragmentation of politics progressing, dynamic rent-seeking activities also increased. As a consequence, Japan's economic growth slowed.

5. Conclusion

I proposed the hypothesis that the early postwar Japanese political economy represented a Coasian social contract between the majority coalition and the minority. The contract was socially beneficial and self-enforcing due to specific conditions that prevailed in Japan at that time. The conditions include the American occupation, Japan's unique electoral system, as well as simple demographic characteristics. The social contract explains the earlier growth. Further, I posited the problem of sustaining the contract in a dynamic setting. Economic growth itself weakened the conditions for contractual enforcement, resulting in a dynamic rent-seeking society, reinforced by the bias in electoral system.

The framework offered in this paper is a synthesis of many previous theories. However, the story offered here is fresh. No one has stated that the actual agenda setter of postwar Japan may have been the coalition of rural and semi-rural constituents and the LDP delegates who represented them. Most scholars on Japan still tend to endorse an elite-dominance view of Japan. It is important to test this theory. Future empirical work will determine whether the social contract may have more explanatory power.

The framework I developed has implications for current Japanese economic demise. Most economists focus either on the demand side or on the supply side of Japanese economy to explain the recent Japanese economic downturn: Those who emphasize the demand side stress the importance of bad debts accumulated in the Japanese financial sector while those who emphasize the supply side stress the need to restructure Japan's business sector. Yet, my framework suggest that the problem is not only economic but also political; no Coasian

solution is possible at this moment in Japan because it would impose heavy costs upon some groups. This explains why much needed structural reforms have been delayed for so long.

Finally, the framework also has a certain universal quality. For instance, it may be used to explain the so-called North-South problem. In this global era, negotiations between poor and rich nations often fail; a Coasian contract cannot be drawn, or even if it were drawn, it cannot be enforced. My framework provides a partial explanation for this. That is, without a subsidy payment from the North to the South under a stable Southern rulership, that makes the North merely as a residual claimant of world economic growth, the problem cannot be resolved. Yet, even if that were implemented subsequent economic growth of the South will create a new problem of instability.

Notes

1. Whether the Japanese court is independent is an issue that requires theoretical and empirical investigations. Ramseyer and Rosenbluth (1993) argue, for instance, that it is not independent because the majority party can influence the court through personnel affairs. Also, whether Japanese local governments are autonomous is an issue that requires theoretical and empirical investigations.
2. The number of districts and the number of seats in the lower house were altered to adjust to demographic changes.
3. For instance, see Crain and Tollison (1993), Crain and Oakley (1995), Besley and Coate (1998), and Crain (1999).
4. Besley and Coate (1998) and Crain (1999) have argued that a representative democracy, which is likely to be subjected to electoral cycles, tends to generate a time-inconsistency problem that makes it difficult to sustain a durable political contract. A group that does not directly benefit from a growth-inducing investment will not agree to make such an investment unless the groups which can leap direct benefits of such an investment promises to compensate the former group. However, because the electoral cycle tends to weaken any commitment made by previous regime compensation promise is not credible. As a result, a Coase solution between the two groups tends to fail. I combine their approach with Olson's (1993) idea of rulership.
5. This idea is derived from Buchanan and Tullock (1962) and Buchanan (1975). These scholars were concerned with the emergence of mutually beneficial social contract at the constitutional stage from the initial condition. I am concerned here with a post-constitutional distribution rule from a sort of initial condition. The American Occupation created something similar to the initial condition for the Japanese, while the Occupation Forces acted ultimately as the enforcer of the rules of game.
6. The point is explained by considering a cash distribution game. If 3 persons, A, B, and C, are to divide \$100 cash by using a simple majority rule, any initial majority coalition will be defeated by another majority coalition by changing the distribution of prizes.
7. The essence of the argument is derived from Shepsle and Weingast (1981).
8. My basic philosophy here is derived from Cowen et al. (Cowen, Glazer, and McMillan 1988). These authors argue that the availability of political rents are the driving force promoting the provision of public goods.
9. See Olson (1993). Also see North and Weingast (1989:806); "Because the state has a comparative advantage in coercion, what prevents it from using violence to extract all the surplus? Clearly it is not always in the ruler's interest to use power arbitrarily or indiscriminately; by striking bargain with constituents that provides them some security, the state can often increase its revenue." However, North and Weingast noted that this alone is insufficient to honor the contract.
10. The argument is essentially derived from Olson (1993). He analyzed the incentive structure of a stationary ruler in contrast to that of a roving bandit. He concludes that a stationary ruler has more incentive to provide public goods than a roving bandit due to an expanded time-horizon of ruling.
11. During the 1970s when the catch-up was supposedly completed, Japanese society began to be characterized as a mass-middle class society. Politics is said to have become pluralistic (Inoguchi 1983, Muramatsu and Klaus 1987).

12. Tullock (1984) proposes that the tradition of the rules of law in the west has functioned as a constraint upon dynamic rent seeking, because this tradition is incompatible with detailed regulations. In the case of Japan, the tradition of the rules of law has been much weaker, and consequently, bureaucrats create many detailed regulations. Thus, if Tullock's argument is correct, Japan may be much more susceptible to dynamic rent seeking.
13. The over-represented district is defined as one whose apportioned number of seats are greater than if it were apportioned strictly based on the proportional representation.
14. Data reveal that all major city districts are under-represented.
15. A very over-represented district is defined as one whose over-representation is above the means of all over-represented districts at each general election time.
16. Transfers are defined as the sum of (1) allocation taxes (chihou koufuzzei), (2) transfer taxes (chihou jyouyozzei), and (3) treasury disbursements (kokoshisyutukin). There are three main sources of general revenue for a local government; local taxes (chihouzei), transfers from central government, and borrowing (chihousai). From 1949 to 1990, these three sources accounted for about 75% of local government revenues on average, within which transfers were the most important.
17. I calculated Pearson's correlation coefficient between the percentage share of eligible voters and the percentage share of public investment expenditures across prefectures.
18. Assuming a prefecture P has X% of total Japanese eligible voters in a given year, strictly proportionate distribution of public investment expenditures should yield X% of total investment to that prefecture in that year. If this prefecture received Z% of the investment in the given year, Z/X yields a deviation from the proportionate distribution. I calculated this measure across prefectures for the period 1960 to 1990.
19. Meyer and Naka (1999) have attempted to empirically estimate the relation between per capita investment expenditure across prefectures and LDP representative concentrations across prefectures as well as at the Diet for the period 1957–1993. The result is not conclusive perhaps due to our use of aggregated data.

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