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Structural Sources of Popular Revolts and the Tōbaku Movement at the Time of the Meiji Restoration

YOSHIO SUGIMOTO

I. Guiding Framework

TURBULENT years before and after the Meiji Restoration in 1868 have been one of the most extensively written pages of Japanese history. Much work has been carried out on the revolutionary samurai and the aspiring merchants who implemented the upheaval. Curiously, however, revolts and rebellions which erupted at more *popular* levels, such as peasant uprisings and urban mass disturbances during this period, have drawn little scholarly attention. According to the literature survey of Irwin Scheiner,¹ no work on Japanese peasant uprisings has been published in English since Hugh Borton's study in 1938.²

This paper is an attempt to address itself to this unexplored area by posing three interrelated questions in sequence:

(1) In which areas did popular revolts take place? What structural characteristics were associated with the *presence or absence* of grass-roots turbulence in different areas?

(2) What structural factors affected the different *frequency and magnitude* of popular revolts in different areas?

(3) What were the relationships between (a) these popular revolts initiated by farmers and urban masses and (b) the anti-Tokugawa pro-Restoration *tōbaku* movement organized primarily by the samurai class?

Certainly, some of these questions have been raised and discussed in many Japanese historical studies.³ However, these works have focused their analysis mainly on several villages or, at the most, on only a few feudal domains. They have tended to draw generalizations about the entire nation from observations about a limited number of selected spatial entities without making systematic cross-sectional com-

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¹ Irwin Scheiner, "The Mindful Peasant: Sketches for a Study of Rebellion," *Journal of Asian Studies* 32 (August, 1973), 581-582.

² Hugh Borton, "Peasant Uprisings in Japan of the Tokugawa Period," *Transactions of the Asiatic Society of Japan*, Second Series, 16 (May, 1938), 1-219.

³ Notable works in the field include: Kokushō

Iwao, *Hyakushō ikki no kenkyū* (A study of peasant uprisings) (Tokyo: Iwanami Shoten, 1928); Horie Eiichi, *Meiji ishin no shakai kōsei* (Social configurations of the Meiji Restoration) (Tokyo: Yūhikaku, 1954); Hani Gorō, *Meiji ishin kenkyū* (A study of the Meiji Restoration) (Tokyo: Iwanami Shoten, 1956); Aoki Kōji, *Meiji nōmin sōjō no nenji-teki kenkyū* (A chronological study of peasant disturbances in the Meiji Period) (Tokyo: Shinseisha, 1967); Shōji Kichinosuke, *Yonaoshi ikki no kenkyū* (A study of *yonaoshi* uprisings) (Tokyo: Azekura Shobō, 1970). For a comprehensive bibliography, see the citations at the end of Scheiner's article.

parisons among all the areas across Japan. In order to address myself to the existing vacuum in the area, I want to analyze the above three questions by assembling quantitative data covering all the regions of Japan at the time and by focusing on statistical relations among variables measured numerically.

The three questions I have raised are connected directly with a few general theoretical issues in political sociology and some long-standing debates among Japanese historians. I want to take up three of them:

Issue 1: *Improvement or Deterioration?* In the sociological tradition, two competing positions exist regarding general structural conditions conducive to political disturbances. On the one hand, there are studies which have demonstrated that the *improvement of life conditions* of the masses give rise to political strains and frustrations against the existing power structure. Crane Brinton, for example, contended that there is "some indication that by the twentieth century one can risk the generalization: the more prosperous the peasants, the more discontented."⁴ Using the French Revolution as the research setting, Gilbert Shapiro and Philip Dawson demonstrated that the bourgeoisie in areas with ennoblement opportunities were more radical than the bourgeoisie in areas lacking such opportunities.⁵ In a similar vein, Edward Mitchell, in his controversial paper on South Vietnam, showed that insurgent areas under the control of the NLF were those provinces where many peasants owned their own land, the distribution of landholdings was equal, and land redistribution had been carried out successfully.⁶

On the other hand, there are works which have shown that the *deterioration of social situations* tends to lead to political instability. In attributing the origin of the Spanish Civil War to the failure of agrarian reform preceding it, Edward Malfakis argued that revolutionary Southern Spain was the region where the reform had been most unsuccessful. Here there were more landless workers, a higher proportion of tenant farmers, and a more unequal distribution of land ownership.⁷ Bruce Russett also found that nations with a more equal pattern of land distribution tend to be stable democracies, while those with a more unequal pattern tend to be unstable democracies or dictatorships.⁸ These apparently contradictory findings call for more research dealing with different societies and different historical periods.

Issue 2: *Economic or Political Factors?* More recently, the question has also been raised whether economic or political conditions account more convincingly for collective violence. In a polemical article written by David Snyder and Charles Tilly, the authors attempted to challenge and refute what they called the expectation-achievement model of collective violence.⁹ Drawing evidence from their French data for the period from 1830 to 1960, they disputed the relative deprivationist argument which accounts for collective violence and other forms of acute protest as a mani-

⁴ Crane Brinton, *The Anatomy of Revolution* (New York: Vintage Books, 1965), 60.

⁵ Gilbert Shapiro and Philip Dawson, "Social Mobility and Political Radicalism: The Case of the French Revolution," in William O. Aydelotte, et al. (eds.), *The Dimensions of Quantitative Research in History* (Princeton: Princeton University Press, 1972), 159-191.

⁶ Edward Mitchell, "Inequality and Insurgency: A Statistical Study of South Vietnam," *World*

Politics 20 (April, 1968), 421-438.

⁷ Edward E. Malfakis, *Agrarian Reform and Peasant Revolution in Spain* (New Haven: Yale University Press, 1970).

⁸ Bruce Russett, "Inequality and Instability," *World Politics* 16 (April, 1964), 442-452.

⁹ David Snyder and Charles Tilly, "Hardship and Collective Violence in France, 1830 to 1960," *American Sociological Review* 37 (October, 1972), 520-532.

festation of the accumulation of individual dissatisfactions and frustrations. Specifically, they concentrated their attack on the economic explanations represented by James C. Davies,¹⁰ Ivo K. and Rosalind L. Feierabend,¹¹ and Ted Robert Gurr,¹² who argued that expressions of discontent intensify when people experience economic hardship after periods of economic well-being. As an alternative, they proposed a political explanation in which they contended that "collective violence results from changes in the relations between groups of men and the major concentrations of coercive power in their environments."¹³ Using a year-to-year fluctuation in collective violence as the method of analysis, they demonstrated that economic explanations are untenable and offered evidence supporting the thesis that collective violence is a direct effect of political change.

It is important to note that both the proponents and critics of the expectation-achievement model have used the argument that changes in *economic* conditions give rise to individual frustrations conducive to collective violence. On the one hand, the conventional proposition of relative deprivation attributed the rise of insurgent spirits to the deterioration of economic situations after a period of prosperity. On the other, Snyder and Tilly, too, used price and production indices as the "indicators of deprivation," demonstrated that those economic variables are not associated with the changing levels of disorders, and thereby refuted the argument based on the notion of relative deprivation.

Issue 3: *Conjunction or Disjunction between Popular and Samurai Revolts?* In Japanese historiography there have been two competing arguments about connections between popular revolts and the *tōbaku* movement organized by the samurai class. Such scholars as Hani Gorō,¹⁴ Tanaka Akira, Shibahara Takuji, and Ikeda Takamasa¹⁵ argued that peasant uprisings contributed positively and significantly to the upsurge of the *tōbaku* movement which brought down the Tokugawa regime. Conversely, Kokushō Iwao,¹⁶ Mōri Toshihiko,¹⁷ Fujino Tamotsu,¹⁸ and Hugh Borton¹⁹ maintained that these two types of rebellion were essentially separate, lacking mutual support of any significance.

Generally, the former group tended to base their argument on evidence drawn from Chōshū, the most influential *han* leading the *tōbaku* movement. In contrast, the latter position was inclined to rely more heavily on data dealing with Satsuma and other more minor domains participating in the movement. Clearly, analysis of data drawn from all parts of the nation is in critical need in order to examine the competing positions derived from these piecemeal studies about a small number of feudal domains.

¹⁰ James C. Davies, "Toward a Theory of Revolution," *American Sociological Review* 26 (February, 1962), 5-19.

¹¹ Ivo K. and Rosalind L. Feierabend, "Aggressive Behaviors within Politics, 1948-1962: A Cross-National Study," *Journal of Conflict Resolution* 10 (September, 1966), 249-271.

¹² Ted Robert Gurr, "A Causal Model of Civil Strife: A Comparative Analysis Using New Indices," *American Political Science Review* 62 (December, 1968), 1104-1124.

¹³ Snyder and Tilly, *op. cit.*, 520.

¹⁴ Hani, *op. cit.*

¹⁵ See articles written by Tanaka Akira, Shiba-

hara Takuji, and Ikeda Takamasa in *Iwanami Kōza Nihon rekishi: Kindai I* (Tokyo: Iwanami Shoten, 1962).

¹⁶ Kokushō, *op. cit.*

¹⁷ Mōri Toshihiko, *Meiji ishin seiji-shi josetsu* (An introduction to political history of the Meiji Restoration) (Tokyo: Mirai-sha, 1967).

¹⁸ Fujino Tamotsu, "Bakumatsu ishin-ki ni okeru shohan no kōzō to sono dōkō (Structure and trend of small domains at the end of the Tokugawa period and at the time of the Restoration)," *Shirin* 46 (1963).

¹⁹ Borton, *op. cit.*

II. Selection and Measurement of Variables

In past studies of the Restoration, the French Revolution has often been cited as the paradigm case of bourgeois revolution. Being the first civil revolution in world history, it may justifiably serve as a pivotal point of comparison with subsequent revolutionary transformations in other parts of the world. Therefore, I want to extract as a point of departure the following propositions from the pioneering work of Alexis de Tocqueville entitled *The Old Régime and the French Revolution* to set up a few pegs on which to hang my analysis.²⁰

Citation 1: It is a singular fact that this steadily *increasing prosperity*, far from tranquilizing the population, everywhere promoted the spirit of unrest. . . . [T]hose parts of France in which the improvement in the standard of living was most pronounced were the chief centers of the revolutionary movement (p. 175).

Citation 2: [T]he creation of offices kept pace with the ever *growing financial difficulties* of the central power and all these posts carried with them exemption from taxation or other privileges. . . . [C]entury by century the sale of offices was denounced with ever increasing vehemence (pp. 104-105).

Citation 3: [T]he barriers between the French nobility and other classes, though easily traversed, were always fixed and plain to see; so conspicuous, indeed, as to exasperate those against whom they were erected. . . . The envy with which the newly made nobleman inspired his former equals intensified their sense of being unfairly treated. . . . [F]ar from asking that the ways of *access to the privileged class* should be more widely open to commoners, (the bourgeoisie constantly demanded) that they be narrowed (p. 89).

Broadly, these propositions point to (1) economic prosperity and improvement in the standard of living, (2) financial conditions of government, and (3) class relations, social mobility and rigidity in stratification. I will use these three dimensions—*economic, governmental, and stratificational*—as the guiding theoretical framework for the selection of explanatory variables of popular revolts. I also propose to deal with the entire nation as the subject of investigation and employ regional variations of these variables as the basis of quantitative analysis.

1. Unit of Analysis

As the unit of analysis, I use a feudal domain or *han* which was both a regional administrative and a territorial unit until a few years after the Restoration. Politically, it was governed by *daimyō* at the top of the local hierarchy and was semi-autonomous against the central Shogunate government seated in Edo during the Tokugawa period. With the establishment of the Imperial government subsequent to the Restoration, it nominated the *daimyō* as prefectural governors and established a few dozen prefectures. Though minor mergers and splits took place after the Restoration, the administrative structure and territorial boundaries of the *han* system throughout the nation virtually remained intact until the end of 1871 when old administrative entities were merged into three *fu* and seventy *ken*. On the eve of this major reorganization (known as *hai-han chi-ken*), there were three *fu*, one *shi*, forty-one *ken*, and two hundred and sixty-five *han*. The total number of cases for analysis is consequently three hundred and ten. It should be noted that the values of

²⁰ Citations are from the translation by Stuart Gilbert (Garden City: Doubleday, 1955).

some variables for different domains are not available. Accordingly, the number of cases fluctuates in the following argument depending on how many missing cases there are for a particular analysis.

2. Data on Explanatory Variables

It is no surprise that data on the proposed explanatory variables covering all the domains are extremely scarce, even if one takes the Tocquevillian framework very liberally. Fortunately, the Meiji government made some efforts to collect data on the economic, governmental, and stratificational characteristics of each domain just after the collapse of the Tokugawa regime. Kure Fumisato, a statistician in the Meiji period, put these materials together and reported them in two issues of *Tōkei Shūsei* (Journal of Statistics).²¹ According to Ōhashi Ryūken, a leading statistical analyst of Japanese class structures, these publications are the most comprehensive quantified information about structural variables at the domain level at the starting point of Japanese modernization.²² From these tables I want to construct several variables on the basis of the three dimensions culled from the Tocquevillian argument.

As for data on economic conditions, three indices are reported for each domain in a table entitled *Fu-han-ken shōkatsu narabini koku-daka* (Prefectural jurisdiction and rice production capacity). The table was originally compiled on the basis of reports from local governments filed in the years of 1869 and 1870. All of these indices are measured in terms of *koku* (i.e., a standard amount of rice corresponding to approximately one hundred eighty liters).

(1) The first of the indices is *hōdaka* which the Shogunate government used as the official value of any given domain. It is essentially the total of rice yield assessed at the beginning of the Tokugawa period on the basis of land registers drawn up for every plot of land in the nation; the fields thus registered were called *honden*. *Hōdaka* remained constant between 1614 and 1868 in most domains. I use H to symbolize this measure.

(2) The second index available in the data is *kusadaka* which is an updated estimate of the annual yield of each domain. Primarily for taxation purposes, domain governments conducted land surveys at some intervals to obtain a current measure of annual yield, whose value changed rapidly as a consequence of an improved agricultural technology in *honden* and the increase in areas under cultivation (*shinden*). Importantly, evidence tends to indicate that the fluctuations of *kusadaka* derived primarily from the latter rather than the former. *Kusadaka*, then, indicates the level of agricultural productivity of a given domain recorded by its officials. I use K as a symbol for this measure. It represents taxable production capacity at the time of the Restoration.

(3) The third index pertinent to this study is *gen-kokudaka* which is, in essence, the size of the total revenue of each *han* government. It consists of two components: (a) regular taxation drawn from land tax, mostly feudal dues, and (b) additional taxation derived from commercial tax, such as levies imposed on merchant guilds

²¹ 5 (January, 1882), 9–22; and 8 (April, 1882), 97–107, both reported by Kure Fumisato.

²² Ōhashi Ryūken, *Nippon no kaikyū kōsei* (Jap-

anese class composition) (Tokyo: Iwanami Shoten, 1971), 10.

and sales taxes. I use G to represent this measure. It indicates the level of government revenue capacity.²³

In regard to social stratification, a table of the composition of social classes compiled under the heading of *Jinin-hyō* is available. It was constructed on the basis of reports filed by almost all prefectural governments under instructions issued in June, 1869 from the Treasurer of the new Meiji government. The table breaks the population of each domain into nine stratificational categories: nobles, descendants of the samurai class, private soldiers (*sotsu*), Shinto priests, Buddhist monks and nuns, commoners, two outcaste categories (*eta* and *hinin*), and criminals under sentence of death.

During the Tokugawa period, the population was stringently divided into several groups along rigorous class lines. At the top of the hierarchy were the *Shōgun* and *daimyō*, who wielded unchallenged powers over the rest of the society. They held the leadership of the feudal mechanism which many historians label as *bakuhau taisei*, a system based on a balance of power between the central Shogunate government and local feudal governments across the nation. On equal or even higher footing, the Emperor and court nobles (*kuge*) also enjoyed the highest level of prestige, although they had very little actual power in hand. The rest of the society was divided into samurai, farmers, craftsmen, and merchants in descending order of formal status. Outcaste groups labelled as *eta* and *hinin* formed the bottom of the class structure. These class positions which were inherited over generations formed a durable and stable framework for the Tokugawa feudal system.

From the nine class categories of the stratification data mentioned above, one can distinguish between the ruling and ruled strata. It would be reasonable to assume that the superordinate stratum was composed of nobles and ex-samurai who occupied the highest ranking positions. In addition, their soldiers (*sotsu*) and Shinto and Buddhist priests who served, respectively, as the military wing of the ruling class and as the spiritual legitimators of the political system can be regarded as part of this stratum. For the present investigation, death-sentenced prisoners can be eliminated from analysis since they were not part of the population which could be politically activated. Therefore, the absolute number of people who belonged to the subordinate stratum can be computed as the sum total of commoners and the two outcaste groups.

One can, then, measure the relative size of the subordinate stratum to the superordinate stratum by dividing the value of the absolute size of the subordinate stratum by that of the superordinate stratum. I use the symbol of RS to indicate this measure.

Among these four measures—that is, *hōdaka* (H), *kusadaka* (K), *gen-kojudaka* (G), and the relative size of the subordinate stratum (RS)—only the latter three describe the situations at the time of the Restoration. Furthermore, as far as K and G are concerned, one should naturally expect greater values in the areas where the population size was larger. It will be necessary, therefore, to standardize these measures into per capita scores. As to K, the reasonable population base will be the total number of people in the subordinate stratum since they formed the segment of society which engaged in actual economic production. In regard to G, the underlying population to be considered will be the entire population of a given domain because the per capita score obtained in this way can represent the governmental

²³ Scores reported in the data for this index are the mean average scores of 1864 through 1868.

financial capacity to spend money on the average individual in the domain. The idea can be translated into the following equations: $KP = K/L$ and $GP = G/T$ (where $KP =$ per capita *kusada*ka, $L =$ number of people in the subordinate stratum, $GP =$ per capita *gen-ko*kudaka, and $T =$ total population). In summary, then, I have established three explanatory variables to be examined: Variable 1 (KP): per capita production capacity; Variable 2 (GP): per capita governmental revenue; Variable 3 (RS): relative size of the subordinate stratum. Respectively, they correspond to the economic, governmental, and stratificational dimensions which I set out on the basis of the Tocquevillian model.

Admittedly, however, these indicators are all static. They provide a cross-sectional picture of the social conditions of different areas just after the downfall of the Tokugawa regime, but do not indicate anything about how each domain had undergone transformations during the Tokugawa period to arrive at these states. In other words, these indicators provide no information about preceding changes over time. To cope with this problem, I want to draw two base lines which the Tokugawa government used at the beginning of its rule to establish measures comparable across different *han*:

(1) The first of these is *hō*daka (H) which I have already discussed above. It is the total annual yield in a *han*, produced in officially registered land in the early seventeenth century. A ratio of *kusada*ka to *hō*daka (that is, K/H), therefore, indicates "the growth in taxable capacity, in so far as this was known to and recorded by the domain."²⁴ With this qualification, I label this index as CK, that is, the change in *kusada*ka.

Because information about the revenue size of each domain at the outset of the Tokugawa period is unavailable, I would also like to use *hō*daka as its substitute. This procedure will be justified partly because the empirical correlation between H and G at the time of the Restoration was 0.9345 ($N = 263$, $SIG. = 0.001$), indicating that they were almost interchangeable. It is reasonable to assume that such a high degree of association existed in the early phase of the Tokugawa regime as well. With this reasoning, I divide *gen-ko*kudaka by *hō*daka (i.e., G/H) and obtain the amount of change in government revenue. I label this variable as CG.

(2) The second base line worthy of attention is the 1649 regulation on military service which limited the number of men under arms to approximately twenty-two for every thousand *ko*ku.²⁵ This means that the ratio of the warrior population to *hō*daka did represent the legally ideal size of the samurai class defined by the Tokugawa regime at the outset of its rule. In theory, the ratio should have remained constant across domains. In practice, it is true, this general rule was not implemented rigorously. Especially in some of the relatively powerful *tozama*, the number of samurai to *hō*daka exceeded the prescribed ratio. In contrast, the number tended to be much less than that ordained by this rule in *tenryō* or even *fudai* fiefs. Furthermore, some portions of the upper segment of commoners were gradually able to cross the boundary to form the lower elements of the samurai class toward the end of the Tokugawa regime, owing to the accumulation of wealth over the decades. From the foregoing stratification data, I add the number of samurai to that of *sotsu*

²⁴ W. G. Beasley, "Feudal Revenue in Japan at the Time of the Meiji Restoration," *Journal of Asian Studies* 19 (May, 1968), 259.

²⁵ John Whitney Hall, *Government and Local Power in Japan 500 to 1700* (Princeton: Princeton University Press, 1966), 371.

and call the score thus obtained the size of the feudal class. Unevenness in the spatial distribution of the feudal class relative to the initially addressed taxable value (H), then, points to discrepancy between the *original ideal* of the Tokugawa government and the *actual pattern* developed at the end of its regime in each *han*. The discrepancy represents the degree to which the system of stratification *deviated* from the theoretical model which the central government wanted to establish at the beginning of its regime. Interestingly, the extent of deviation differed markedly from one *han* to another. For brevity, I call this indicator the change in the relative size of the feudal class and give it the label of CF. The change here means the degree of deviation from the initially fixed theoretical norm.

Thus, I have three additional variables to be incorporated into the analysis: Variable 4 (CK): change in production capacity; Variable 5 (CG): change in government revenue; Variable 6 (CF): change in the relative size of the feudal class.

These variables which all describe dynamic change during the Tokugawa period correspond respectively to Variables 1, 2, and 3, which are static descriptions of concurrent social conditions at the time of the Restoration.

3. Data on Dependent Variables

The most comprehensive and reliable source of information about popular revolts in feudal and Meiji Japan is an impressive collection compiled by a Japanese historian, Aoki Kōji, under the title of *Hyakushō ikki sōgō nempyō* (Comprehensive chronological tables of peasant uprisings).²⁶ From this data source, I take two types of revolts of the highest intensity as the subject of my inquiry: (1) *hyakushō ikki* or peasant uprisings and (2) *toshi sōjō* or popular disturbances of urban masses.²⁷ According to Aoki's tabulation, the yearly total of the frequencies of these two types of revolts ten years before and after the Restoration (1868) displays a pattern which I have summarized graphically in Figure 1. As expected, the years close to 1868 generally show high levels with the peak being 1866. Based on this fluctuation curve, I choose to focus my analysis on the central range between 1865 and 1871, respectively three years before and after the Restoration year. During these seven years, 475 peasant uprisings and 70 urban disturbances broke out, amounting to 545 popular revolts in total.²⁸ In analyzing the regional distribution of these revolts, I find it necessary to make three considerations:

(1) First of all, there were revolts which erupted in more than one domain simultaneously over the same issue with mutual organizational connections. While Aoki treats each of these revolts as one case, I want to count separately the revolts taking place in different domains, because my unit of analysis is a domain. The total number of revolts computed this way is 563. Notably, 127 of them broke out in the estates under the direct control of the Shogunate government. Eliminating them from the analysis, the number of cases to be studied is 436.

(2) Second, one should expect numerous revolts in areas where there are many people who may be potentially rebellious. Areas with more peasants, for example, are likely to have more peasant uprisings than those with less. Accordingly, I trans-

²⁶ Tokyo: Sanichi Shobō, 1971.

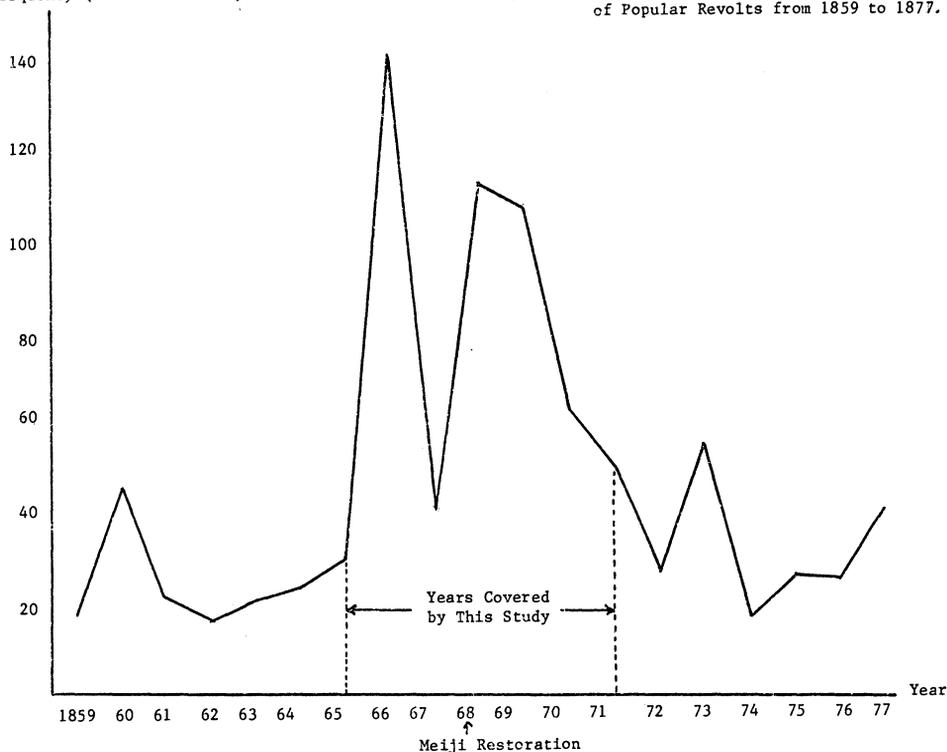
²⁷ More concrete categories of these revolts are discussed later in this paper.

²⁸ The figures also include those cases which

erupted at the end of the Tokugawa period (*bakū matsu*) but whose exact years of eruption are unknown.

Frequency (Number of Cases)

Figure 1: Yearly Fluctuations of Frequency of Popular Revolts from 1859 to 1877.



late the absolute number of revolts into a per capita measure by dividing the former by the total number of people in the subordinate stratum (L) for each domain. I call the score thus obtained the per capita frequency of revolts.

(3) Finally, in the above frequency computation, each case has been weighted equally. No consideration has been given to the different levels of intensity among the different types of revolts. There is every reason to suspect that an insurrection involving one hundred villages, for example, is a much more significant incident than a land dispute within a village involving a dozen people. In his chronological tables, Aoki classifies the mode of revolts into several categories. I want to give different weights to them because they represent different levels of intensity:

(a) *hōki* = massive regional insurrection, involving at least an entire domain (weight = 9);

(b) *uchikowashi* = rebellion involving widespread property damage (weight = 8);

(c) *gōso* = mass demonstration and confrontation with authorities (weight = 7);

(d) *osso* = direct appeal to an office higher than those governing the populace directly (weight = 6);

(e) *shūso* = appeal of complaints or demands to a nearby office (weight = 5);

(f) *fuon* = unrest ranging from a disorderly rally to minor violence (weight = 4);

- (g) *chōsan* = collective desertion to another domain (weight = 3);
- (h) boundary disputes (weight = 2); and
- (i) other minor disputes (weight = 1).

Using the principle applied to the frequency counts, I have aggregated the intensity scores of individual revolts to acquire the total magnitude score for each domain, divided this aggregate measure by the number of people in the subordinate stratum (L), and obtained a per capita magnitude of revolts for each domain.

Hence, I have established the per capita frequency of popular revolts, and their per capita magnitude, as the two dependent variables to be included in the following analysis.

III. Analysis and Findings

Confining myself to this limited number of variables, I would now like to examine the three questions I raised at the beginning of the paper. It is important to note that at least one case of popular revolt erupted in 151 domains during the period under investigation, approximately a half of all the domains. The rest remained unaffected by expressions of popular outrage. My first task is to inquire into which variable accounts for the differentiation between the two types of *han*, that is, turbulent and peaceful domains. To carry out this task, I have constructed a dummy variable which takes the value of one for the former and zero for the latter.

The result of the correlational analysis between this variable and explanatory variables discussed in the previous section is presented in Column 1 of Table 1. Throughout this study, I will apply one-tailed tests of significance and use a critical level of $p = 0.05$.²⁹ With these criteria, one can make the following observation:

Finding 1: The presence of popular revolts was associated with a low revenue capacity of the han government. Conversely, areas which recorded no popular revolt were those with a high budgetary capacity.

As the table indicates, there is no other explanatory variable which displays significant relations with the presence or absence of revolts.

Focussing on 151 turbulent domains, I shall now proceed to examine the second question: what are the correlations of the per capita frequency and magnitude of popular revolts with the six explanatory variables? Columns 2 and 3 of Table 1 show the result of this analysis. They lead to the following finding:

Finding 2: As far as turbulent domains were concerned, those with a higher frequency and magnitude of popular revolts were those (1) which had a higher degree of production capacity, (2) whose relative size of the feudal class increased less, and (3) whose revenue capacity decreased more.

²⁹ A one-tailed test of significance assumes that we can hypothesize the direction of influence of an explanatory variable on a dependent variable in the population before we examine the relationship in the sample between the two variables. If the relationship in the sample is strong enough, we can infer that it is unlikely that the hypothesized direc-

tional relationship does not exist in the population. When we say that the relationship is significant at a critical level of $p = 0.05$, the degree of association between the two variables in the sample is so strong that the probability that we are in error in inferring the relationship in the population from the relationship in the sample is less than 5 percent.

TABLE 1—CORRELATIONS BETWEEN POPULAR REVOLTS AND STRUCTURAL VARIABLES

Dependent Variables	All Domains	Turbulent Domains Only	
	Presence or Absence of Popular Revolts (1)	Per Capita Frequency of Popular Revolts (2)	Per Capita Magnitude of Popular Revolts (3)
<i>Economic</i>			
Per Capita Production Capacity (KP)	-0.0452 (N = 302) SIG = .217	0.4279* (N = 151) SIG = .001	0.3512* (N = 151) SIG = .001
Change in Production Capacity (CK)	0.0325 (N = 266) SIG = .299	0.0324 (N = 124) SIG = .361	0.0626 (N = 124) SIG = .245
<i>Governmental</i>			
Per Capita Revenue (GP)	-0.2000* (N = 297) SIG = .001	0.0752 (N = 148) SIG = .182	0.1093 (N = 148) SIG = .093
Change in Revenue (CG)	-0.0466 (N = 263) SIG = .226	-0.3063* (N = 122) SIG = .001	-0.2813* (N = 122) SIG = .001
<i>Stratificational</i>			
Relative Size of Subordinate Stratum (RS)	0.0849 (N = 302) SIG = .070	-0.1193 (N = 151) SIG = .072	-0.1223 (N = 151) SIG = .067
Change in Relative Size of Feudal Class (CF)	-0.0024 (N = 263) SIG = .485	-0.2790* (N = 124) SIG = .001	-0.2229* (N = 124) SIG = .006

SIG. means the result of an one-tailed test of significance.

Coefficients with an asterisk are significant at a critical level of $p = 0.05$.

Clearly, the high economic capacity on the part of the masses and the demographic and economic degradation of the governing class account for the areal variation of grass-roots disorders.

These observations set the stage for the inquiry into the third question posed at the outset of the paper: what were the connections between these popular revolts and the anti-Tokugawa movement organized by the feudal class?

While the map of pro- and anti-Shogunate domains changed rapidly on the closing days of the Tokugawa period, it is possible to pinpoint the hard-core members of each camp. It will be reasonable to use the following distribution as the basis for analysis:³⁰

³⁰ See *Nihon rekishi daijiten, bekkān: Nihon rekishi chizu* (Tokyo: Kawade Shobō, 1969), chart

42. Small domains whose *hōdaka* were below fifty thousand *ko* are not included.

(1) *Anti-Tokugawa Domains (Tōbaku-ha)*: Hirosaki, Kubota, Honjō, Shinjō, Utsunomiya, Tatebayashi, Kurobane, Takada, Matsushiro, Maruoka, Kanazawa, Fukui, Ōgaki, Nagoya, Tsu, Hikone, Tottori, Okayama, Kōchi, Hagi, Chōfu, Fukuoka, Saga, Kurume, Ōmura, Satowara, and Kagoshima (N = 27)

(2) *Pro-Tokugawa Domains (Sabaku-ha)*: Morioka, Sendai, Yamagata, Shōnai, Yonezawa, Nakamura, Nihonmatsu, Aizu, Nagaoka, Tanagura, Taira, and Kuwana (N = 12)

Clearly, the *sabaku-ha* were clustered in the Tōhoku area while the *tōbaku-ha* were spread over the nation. On the basis of this distribution, I set up a dichotomous dummy variable and assigned the value of one to the first group and zero to the second. Table 2 shows the correlations of this variable with the frequency and magnitude of popular revolts. Unequivocally, it shows that the samurai movement to overthrow the Tokugawa regime was strongly and negatively correlated to the grass-roots revolts at the mass level. This observation can be summarized in the following way:

Finding 3: Domains which propelled the samurai-initiated anti-Tokugawa movement were those with the low frequency and magnitude of popular revolts. Conversely, domains which defended the existing regime were those with the high frequency and magnitude of popular revolts.

On this basis, it is clear that the two types of turbulence were independent of each other. There is no systematic evidence that indicates interactions between them. On the statistical basis, then, it is impossible to sustain the thesis that the *tōbaku* movement was supported and buttressed by popular revolts at the lower levels.³¹ The finding indicates that it was rather the scarcity of popular turmoil which strengthened the warrior-class protests against the existing government. The samurai class in those domains which were busy in coping with rural and urban commoners' turbulence were in defence of the status quo, supporting the persistence and maintenance of the Tokugawa regime.

The natural question is: Which explanatory variables that I used in the analysis of popular revolts will account for the variation in the anti- and pro-Tokugawa movements across different domains? Maintaining the dichotomous dummy variable

TABLE 2—CORRELATIONS BETWEEN THE TŌBAKU MOVEMENT AND POPULAR REVOLTS

	Tōbaku Movement (Tōbaku-ha = 1, Sabaku-ha = 0)	
	All Domains	Turbulent Domains Only
Per Capita Frequency of Popular Revolts	-0.4082* (N = 37) SIG. = 0.006	-0.5177* (N = 29) SIG. = 0.002
Per Capita Magnitude of Popular Revolts	-0.3719* (N = 37) SIG. = 0.012	-0.4829* (N = 29) SIG. = 0.004

³¹ Supporting the point, Figure 1 shows a drastic decline in the number of cases of revolt in 1867 (one year before the Restoration) when the anti-

Tokugawa movement organized by the samurai reached its peak.

TABLE 3—CORRELATIONS BETWEEN THE TŌBAKU MOVEMENT AND STRUCTURAL VARIABLES

Explanatory Variables	Dependent Variable:		N	Sig.
	Tōbaku-ha = 1	Sabaku-ha = 0		
<i>Economic</i>				
Per Capita Production Capacity (KP)	-0.2977*		37	0.037
Change in Production Capacity (CK)	0.3110*		35	0.035
<i>Governmental</i>				
Per Capita Revenue (GP)	0.1611		35	0.178
Change in Revenue (CG)	0.3241*		34	0.031
<i>Stratificational</i>				
Relative Size of Subordinate Stratum (RS)	-0.1651		37	0.167
Change in Relative Size of Feudal Class (CF)	-0.0643		34	0.359

as the dependent variable, Table 3 is constructed to examine how those explanatory variables correlate with it. On the basis of the table, one can make the following observation:

Finding 4: Anti-Tokugawa domains were characterized by (1) lower economic productivity, (2) greater increase in productivity, and (3) greater increase in governmental financial power. Pro-Tokugawa domains had opposite characteristics.

This finding suggests at least two points. On the one hand, as far as the masses in *tōbaku* domains were concerned, their economic conditions were improving but still remained at lower levels than *sabaku* domains. It appears that peasants and urban commoners in these economically developing but still underdeveloped areas directed their activities toward non-political spheres, and were politically quiet and peaceful. On the other hand, the administrations of these anti-Tokugawa domains accumulated and attained a high financial capacity, which allowed for a great degree of political autonomy vis-a-vis the central government. To sum up in broad terms, the high productivity of the masses under the weakening *han* government made popular revolts rampant, and the ruling warriors defensive of the existing institutional arrangements. In contrast, the low productive capacity under increasingly powerful local government tranquilized the masses, and enabled the samurai class to challenge the central power.

IV. Implications and Limitations

These findings provide some clues to the three theoretical issues under consideration:

(1) As for the first issue, there is little question that every step of the analysis has given credence to the improvement thesis. As far as popular revolts were concerned, it is clearly the case that the economic strength of the masses (KP) and the governmental and demographic decline of the ruling class (CG and CF) intensified the political activities of the subordinate class. It would be fair to conclude that their

improved conditions, rather than their degraded situations, provoked and facilitated popular revolts.

The *tōbaku* movement also shows a similar pattern. An increase in revenue (CG), prompted by an increase in production capacity at the mass level (CK), made it possible for a domain government to acquire political autonomy and independence from the control of the central power. Furthermore, compared with *sabaku* domains, anti-Tokugawa regions were characterized by a relatively low per capita production capacity (KP). Evidently, the *tōbaku* movement represented a strong and improved governmental position of the ruling samurai class in a given domain, both against its subordinate stratum and the Tokugawa regime at the national center.

(2) My findings provide an inconclusive answer to the second issue regarding political versus economic explanations. Throughout the analysis of turbulent areas (Findings 2 and 4), two variables have been consistently noteworthy in accounting for both popular and samurai revolts. They are (a) per capita production capacity (KP) and (b) change in governmental revenue (CG). The former points to the attained *level* or *state* of economic conditions, and the latter reflects *alterations* of governmental capacity to counteract or repress popular revolts. The level of governmental revenue can be regarded, among other things, as a manifestation of the governmental capacity to repress anti-governmental collective actions. Interestingly, Snyder and Tilly specifically used the size of the national budget as an index of the "government's repressive capacity."³² In this light, the change in governmental revenue can be interpreted as an indicator of the change in governmental potentials in suppressing popular protests against the institutional structures of society.

According to Ernest Nagel, one can distinguish between two types of relations of functional dependence.³³ On the one hand, there are relations stating a *concurrent* interdependence between two or more instantaneous states. Typically, these relations are formulated in such a way that a variation in any magnitude is concurrent with variations in the others. On the other hand, there are relations demonstrating how a change in a magnitude per unit of time is associated with other magnitudes. These relations may be labelled as dynamical laws, since "they formulate the structure of a *temporal* process and are generally explained on the assumption that a 'force' is acting on the system under consideration." Applying this dichotomy to the two relations under consideration, one may say that the relation between revolts and concurrent per capita production capacity falls into the former category, and that between revolts and change in governmental revenue into the latter. In short, high per capita production capacity was a *simultaneous contextual condition* favorable to popular revolts and unfavorable to the samurai movement. In contrast, a great increase in governmental revenue was an *antecedent generative factor* serving as a force to give rise to the samurai movement and to bring down popular revolts.

In the analysis of determinants of presence or absence of popular revolts, significantly associated with it was only the level of the revenue capacity of the *han* government (GP) (Finding 1). On this point, the political explanation is clearly more convincing than the economic explanation, since GP is a contemporary and static variable of a political nature.

³² Snyder and Tilly, *op. cit.*, 528.

York: Harcourt, Brace and World, 1961), 77-78.

³³ Ernest Nagel, *Structure of Science* (New

In net evaluation, then, it can be said that economic conditions simply formed a static context (KP) conducive to revolts at the time of the Restoration, whereas political factors provided both a static environment (GP) and a dynamic force (CG).

(3) As to the third issue, my analysis unequivocally supports the disjunction thesis and refutes the conjunction thesis. Inevitably, the disjunction between the samurai-level movement and the popular-level revolts made the Meiji government heavily dependent on the values and interests of the upper strata, as the samurai class took the hegemony of its formation. It appears that the new government was able to embody autocratic and undemocratic characteristics, as popular-level political groups failed to press their representatives and ideology into the elite structure in the beginning years of the Meiji period.

Constrained primarily by the paucity of available data, this study has left some important problems unsolved. For example: (i) Both theoretically and substantively, there is every reason to suspect that such structural transformations as industrialization and urbanization had a significant impact on popular revolts. Definitely, development of handicrafts, geographical mobility from rural areas to cities, and many other variables along this line require investigation, though any estimated values of these variables in different *han* throughout the nation during the period are not available at the moment. (ii) Based on the model of regional variation, this study has not incorporated temporal fluctuations of popular revolts into analysis. It will be worthwhile to examine, for instance, how the past history of popular revolts affected their changing levels around the time of the Restoration. Some preliminary research on this problem has been carried out using the method of time-series analysis.³⁴ (iii) It also demands rigorous examination of how the disjunction between popular and samurai movements influenced the subsequent development of "conflict forces" in the Meiji period. So far, virtually no systematic cross-regional work has been done to look into how the lack of coordination between the two types of movement conditioned the way the *jūyū minken* movement, tenancy disputes, and labor strikes developed in later years. These questions remain as key areas to be explored in future research.

³⁴ Yoshio Sugimoto, "Economic Fluctuations and Popular Disorders in Pre-War Japan (1773-1929)," Paper read at the 46th Congress of the Australian

New Zealand Association for the Advancement of Science, held at the Australian National University in January 1975.