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PHILIP C. BROWN

Practical Constraints
on Early Tokugawa Land Taxation:
Annual Versus Fixed Assessments
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The late sixteenth- and early seventeenth-century in Japan is often depicted as a period of increased samurai control over the rural population. Rural administration was standardized, the daimyo's and landed retainers' (*kyūnin*) grasp of the land tax base was extended, and land taxation was rationalized. Repeated land surveys and land taxation based on annual crop inspections were prominent instruments of the new rural control system. Because laws defined clear standards of land valuation and taxation, and because survey and tax documents are quite detailed, the samurai class appears to have exercised rigorous control over the peasants' agricultural resources.

The impression of great administrative control of the peasantry is so strong that it has obscured the need for close consideration of the impact a simultaneous process, the urbanization of the samurai class, may have had on the ability of administrators to tax agriculture. While rusticated, the early sixteenth-century samurai possessed their own base of power, largely free of extensive dependence on their overlord. From their rural headquarters they could directly oversee and tax their subjects. This independent financial base made it easy for them to form alliances with other samurai in opposition to the daimyo. However, once resident in the daimyo's capital, retainers were subjected to his direct oversight and control.¹ In addition, they were separated from their domains. Could daimyo pursue samurai ur-

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1. Urbanization of samurai was not the *sine qua non* of stable daimyo rule, but it was one of the most common devices to secure the peace in each domain. Rusticated samurai remained a

banization without sacrificing some measure of control over the rural population, a population now freed of any direct, day-to-day oversight by the samurai class?

This essay explores changing patterns of samurai control of the peasantry in the context of land tax assessment procedures.² It attempts to illuminate the relationship between three land tax assessment systems and the rigor of land taxation in late sixteenth- and early seventeenth-century Japan. Three questions lie at its heart: 1) Did one system raise more revenues than another? 2) Did one take a greater share of agricultural income than another? 3) Is there a pattern which leads to some preliminary conclusions regarding the impact of samurai urbanization on rural control?

While these questions go to the heart of the issue of samurai control of the countryside, answers to them also bear on how we explain patterns of economic development in Tokugawa Japan. The more any system is seen as confiscatory, the greater stress that will be placed on elite spending (governmental and private) as a stimulus to growth. Conversely, the less ruthless the tax system, the more opportunity we will see for increases in the peasants' average standard of living and the greater role we are likely to assign their activities in fostering economic growth and transformations. Although the present case study can not definitively resolve these political and economic issues, it can shed light on them and raise questions about current understandings of the link between tax systems, land tax levels, early seventeenth-century economic growth, and administrative control of the countryside.

Contrary to current characterizations, this study indicates that in Kaga domain annual crop inspections (*kemi*) were an *inefficient* device for levying land taxes. Land tax rates declined with its adoption, and they were far from confiscatory. The relatively stable assessments of the systems that preceded and followed annual inspections resulted from more successful tax-generating mechanisms. Annual inspections left a substantially greater proportion of agricultural income in the hands of villagers than the other assessment procedures and, I believe, provided incentives for peasants to reclaim new lands and participate in a rural commercial network.

In marked contrast to standard interpretations, Kaga land tax rates declined with the late sixteenth-century *introduction* of the annual inspection system of tax assessment, not with its maturity or old age. The decline in

prominent part of domain administration in a few cases, most notably the domains of Satsuma and Tosa.

2. I have explored the extent to which Tokugawa land surveys were an effective means of registering land in another essay, "The Mismeasure of Land: Land Surveying in the Tokugawa Period," *Monumenta Nipponica*, Vol. 42, No. 2 (Summer 1987), pp. 115–55. I conclude that land survey techniques were not very precise and included a high degree of error. This conclusion parallels those drawn from the following data.

Kaga land tax rates began prior to the Tokugawa peace, while the expenses of the war in Korea still drained the domain treasury. Throughout the time it was employed, domain officials tinkered with the inspection system to improve land tax revenues. Ultimately, they gave up on annual inspections altogether. These considerations indicate that the decline in tax rates was unintentional and therefore its causes are to be found in the practical problems of implementing annual inspections, not just in the corruption of the mature system.

Effective implementation of annual inspections required officials who knew agriculture and village conditions well, and who had adequate time to conduct investigations. These requirements made regular crop inspections difficult to implement under the best of circumstances. The seventeenth-century removal of samurai from the land greatly exacerbated these problems. Once samurai were relocated in the cities, their knowledge of agriculture and village conditions was limited, and the time pressures on tax assessors increased. Urbanization of the samurai did much to secure the Pax Tokugawa, but it did so at a cost to the revenue-raising capabilities of rulers.

Development of the Tokugawa Land Tax System: An Overview

Scholars have extensively debated the degree to which Tokugawa land taxation was confiscatory. Many Japanese historians, especially the Marxists, argue that land taxation left little or no “surplus labor” in the hands of the peasantry through the early eighteenth century. To these scholars, the early Tokugawa era represents the “first stage” of Tokugawa feudalism, the stage characterized by confiscation of the total surplus of the peasantry through land taxation. It was only in the second stage of Tokugawa feudalism, characterized by less confiscatory land taxes, that peasants could begin to accumulate a surplus.³ The majority of recent studies of land tax systems attempt to expand upon this interpretation.⁴

3. Among students of the very early Kinsei era, Araki's work has been the key argument to which they have felt compelled to respond. See Araki Moriaki, *Bakuhan taisei shakai no seiritsu to kōzō* (Tokyo: Ochanomizu Shobo, 1959), pp. 117–52. On the transition from the “first stage” to the “second stage,” Oishi Shinzaburō's study of the Kyōhō Reforms is most frequently cited. See his *Kyōhō kaikaku no keizai seisaku (zōhō han)* (Tokyo: Ochanomizu Shobo, 1976), pp. 121–67. See also Sasaki Junnosuke, “Bakuhan sei no kōzōteki tokushitsu,” *Rekishigaku kenkyū*, No. 245 (September 1960), pp. 8–21; Asao Naohiro, “‘Bakuhan sei dai ichi dankai’ ni okeru seisanryoku to kokudaka sei,” *Rekishigaku kenkyū*, No. 264 (April–May 1962), pp. 51–55. While these authors disagree how long this “first stage of Japanese feudalism” lasted, discussion takes place within a general agreement that the tax system effectively took virtually all the peasants' surplus.

4. A slew of more recent articles have attempted to place a third type of assessment system, the *domen* system, into this two-stage format. See for example Tanaka Seiji, “Kinsei

Only a few scholars, notably Takeyasu Shigeji and Hayami Akira, argue that the early Tokugawa land tax system lacked the capacity to confiscate all of the surplus produced by peasants. Nonetheless, in their counter-arguments they do not directly analyze land tax mechanisms and rates.⁵ Of the members of the Quantitative Economic History Group, only Nishikawa Shunsaku's research bears directly on the impact of land taxation.⁶ Nishikawa found that without the financial contributions of non-agricultural activities, Choshu villages would have been unable to pay the land tax. These conclusions may not apply to earlier times when markets were less developed, but they (and Thomas C. Smith's study of farm family by-employments) do indicate a need for caution in assessing the economic impact of land tax rates.⁷ Agriculture was not the sole source of income for Tokugawa peasants.

In the late sixteenth century, the land tax system was converted from one based on the complex and often apparently arbitrary tax systems of the Sengoku period to one based on annual yield samples of the harvest. The new system was called the *kemi* or annual inspection system of tax assessment.

In principle, the inspection process was straightforward. Tax assessors went to each village and took three or four samples from each grade of

zenki no chōsohō o megutte," *Nihonshi kenkyū*, No. 176 (April 1977), pp. 120–40; Nakaguchi Hisao, "Kinsei shoki sohō no kenkyū," *Chihōshi kenkyū*, No. 145 (February 1977), pp. 35–52. The *domen* system was introduced in some regions to adjust for increases in yields which occurred after officials initially set the official productivity estimates (*today*, *kokumori*). It was largely used over a short period and was often replaced later by the fixed tax rate system.

5. Takeyasu Shigeji contends that from the very beginning of the Tokugawa era the land tax system permitted peasants to accumulate a surplus. This surplus resulted from deficiencies in the land survey process. See Takeyasu Shigeji, *Kinsei tochi seisaku no kenkyū* (Osaka: Osaka Furitsu Daigaku Keizai Gakubu, 1962). Hayami Akira argues that the economic and demographic growth in seventeenth-century Japan would not have been possible if there had been "complete confiscation" of the labor surplus of peasants. See Hayami Akira, "Nihon keizai shi ni okeru chūsei kara kinsei e no tenkan," *Shakai keizai shigaku zasshi*, Vol. 37, No. 1 (April 1971), pp. 95–105.

6. Nishikawa Shunsaku, "Seisan, shōhi to shotoku katoku," in Shinbō Hiroshi *et al.*, *Sūryō keizaishi nyūmon* (Tokyo: Nihon Hyōronsha, 1975), pp. 151–54, and 165–66.

Other members of the group generally explain eighteenth- and nineteenth-century economic transformations through factors other than land tax changes. See, for example, the essays by these historians in Nishikawa Shusaku *et al.*, eds., *Nihon keizai no hatten* (Tokyo: Nihon Keizai Shinbunsha, 1976); Shinbō *et al.*, *Sūryō keizaishi nyūmon*; and Shinbō Hiroshi and Yasuba Yasukichi, eds., *Kindai ikōki no Nihon keizai* (Tokyo: Nihon Keizai Shinbunsha, 1979).

7. Thomas C. Smith, "Farm Family By-Employments in Preindustrial Japan," *Journal of Economic History*, Vol. 29, No. 4 (December 1969), pp. 687–715, discusses the breadth and local structure of by-employments in Choshu, too.

paddy. Dry fields were not usually sampled. Once harvested and threshed, the yields from the cuttings were averaged and multiplied by the basic domain tax rate, usually 40 per cent or 50 per cent of the average sample yield per *tan* (about one-quarter acre; 993 square meters). The percentage taken as tax depended on official estimates of peasant production costs.⁸ The average tax per *tan* was then converted to a percentage of the village's assessed value (*muradaka*) to calculate the village tax rate.

Several attributes of the inspection system encourage scholars to argue that it appropriated virtually all of the peasantry's agricultural surplus. First, inspections apparently provided domain authorities with detailed knowledge of how much rice peasants produced. Based on that knowledge, officials presumably could calculate more accurately the proportion of crops that they could take as taxes. Second, annual inspections appear to be highly rational. In principle they permitted authorities to raise taxes to take advantage of any increases in yields or to lower them when yields fell. Inspections forced peasants to share increased yields with domain lords and landed retainers. Conversely, inspections provided a rational mechanism for reducing tax rates to limit peasant protests of heavy taxes when yields fell. While the domain treasury shared the costs of crop shortfalls, it never sacrificed more revenues than it deemed absolutely necessary. Third, and perhaps most importantly, the model farm budgets upon which land taxes were based contained no provision for peasants to retain any more of their income than was required for the continued cultivation of their land. In principle, there was no provision for peasants to accumulate any real profit from farming. Together, these features mark the inspection system as confiscatory.⁹

8. Standard descriptions of this process for the *bakufu* lands are found in Andō Hiroshi, ed., *Bakufu kenji yōryaku* (Tokyo: Kashiwa Shobo, 1966), pp. 212–13; Oishi Shinzaburō *et al.*, eds., *Jikata hanrei roku* (Tokyo: Kondō Shuppansha, 1969), Vol. I, pp. 143–66. For Kaga domain, see Oda Kichinojō, *Kaga han nōsei shi kō* (Tokyo: Toe Shoin, 1929), pp. 358–66. In fact, there were several varieties of *kemi*. In some cases dry field crops were inspected. Reductions in fixed tax rates (*jōmen*) were also based on sample cuttings. The basic steps outlined here are consistent with these variations. Sasaki Junnosuke, *Daimyō to hyakushō* (Tokyo: Chūō Kōronsha, 1974), p. 22, and *Bakuhan kenryoku no kisō kōzō* (Tokyo: Ochanomizu Shobo, 1964), pp. 101–10, present data from seventeenth-century Kaga domain budgets.

9. To the extent they treat this problem, Western scholars generally accept the picture of increased revenue-raising capabilities of late sixteenth- to early seventeenth-century land taxation although they do not necessarily characterize it as confiscatory. Mary Elizabeth Berry, *Hideyoshi* (Cambridge: Harvard University Press, 1982), p. 121, discusses Hideyoshi's oft-cited edict that two-thirds of actual yields were to go to the domain lord. This dictum is generally considered to mark the beginning of the *kemi* system. In addition to Berry, see John Whitney Hall, "Hideyoshi's Domestic Policies," in John Whitney Hall, Nagahara Keiji, and Kozo Yamamura, eds., *Japan Before Tokugawa: Political Consolidation and Economic Growth, 1500–1650* (Princeton: Princeton University Press, 1981), p. 220. Kozo Yamamura, "Returns

In stark contrast to the argument for the rational effectiveness of the early inspection system, explanations for its abandonment in the late seventeenth and early eighteenth centuries stress its *ineffectiveness*. It grew so problem-ridden that it had to be abandoned. Following Oishi Shinzaburō's study of the *bakufu's* Kyōhō reforms, the main body of historical opinion concludes that inspectors were increasingly corrupt and that the only way to deal effectively with improbity was for authorities to establish fixed tax rates and keep them there by no longer allowing frequent rate reductions.

Many daimyo replaced annual inspections with the *jōmen* or "fixed" tax rate system in the late seventeenth and early eighteenth centuries. Since corrupt inspection practices were seen to lie at the heart of the deteriorating efficacy of annual inspections, the new system reduced their number by eliminating the need to inspect each village every year. Now, tax rates were to remain in effect for some time, usually five to ten years. Peasants could request tax reductions in the case of severe crop failures, but they were forced to cope with relatively minor crop shortfalls on their own. To set the new "fixed" tax rate officials reviewed the taxes of previous years and took new sample cuttings in order to calculate an appropriate yield against which taxes were assessed.

By reducing the frequency of inspections administrators did not intend to sacrifice their ability to keep pace with improvements in yields. In principle, the tax rate was to be reevaluated every few years.¹⁰ Based on these evaluations, land taxes would be raised or lowered as appropriate. As further assurance that the domain would not sacrifice revenues in the event that yields increased, officials frequently set the "fixed" tax rates above the average of previous years.¹¹

In practice, administrators failed to adjust tax rates regularly. This development clearly marks an administrative inability to raise tax rates to stay abreast of increasing yields. For most Japanese scholars, it marks the dawn of a new stage in Tokugawa economic development, the stage in which the

on Unification: Economic Growth in Japan, 1550–1650," pp. 354–55 of the same volume is skeptical that tax system reforms at this time effectively increased land tax rates. Yamamura is fighting the general tendency to emphasize the weight of the late sixteenth-century tax burden. Berry and Hall are more nearly representative.

10. Again, for standard descriptions of the *jōmen* system, see Andō, ed., *Bakufu kenji yōryaku*, pp. 93, 148, and 212; Oishi *et al.*, *Jikata hanrei roku*, Vol. I, pp. 188–91.

11. In stressing the long-term weaknesses of fixed tax assessments, Western studies have tended to gloss over its revenue-raising accomplishments, temporary though they may have been. Japanese studies are more cognizant of this accomplishment. The most well-publicized instance is the case of the *bakufu* Kyōhō Reforms. See Furushima Toshio, "Bakufu zaisei shūnyū no dōkō to nōmin shūdatsu no kakki," in Furushima Toshio, ed., *Nihon keizai shi taikai* (Tokyo: Tokyo University Press, 1975), Vol. 4 (*Kinsei, ge*), Graph I, between pp. 14 and 15.

rural population had the opportunity to accumulate an agricultural surplus. For Susan Hanley and Kozo Yamamura, too, the failure of domain lords to reevaluate yields periodically is one of several significant factors that help to explain eighteenth-century economic growth.¹²

In spite of the broad consensus in the evaluation of the inspection and fixed assessment systems, their relative performance deserves further investigation. The stark contrast between the strongly positive evaluation of the early Kinsei inspection system and its negative evaluation a century later begs us to ask if the contrasts have not been overstated. Was the inspection system ever as effective a revenue-raising device as has been claimed? Were the tax administrators of the late sixteenth century so much more honest than those a century later?

The claim that the inspection system enabled tax assessors to confiscate virtually all of the labor surplus of peasants during the late sixteenth and early seventeenth centuries raises serious questions about the source of the rapid economic and population growth that characterized even rural Japan at this time. Can confiscatory taxes on the main sector of the economy be reconciled with rapid and widespread economic, including agricultural, growth? By default, those who accept the argument for confiscatory land taxes see the samurai class as the principal engine of seventeenth-century growth. Could they alone have been responsible for the widespread economic expansion that supported Japan's rapid seventeenth-century population increase?

Finally, at least one prominent historian has indicated that the effectiveness of early Tokugawa land taxation needs more careful study. Miyagawa Mitsuru notes that after Toyotomi Hideyoshi's land surveys and the adoption of the inspection system of assessment, land tax rates in many areas *fell* from their late sixteenth-century peaks.¹³ Are these cases extraordinary? Are they common? Some assessment is in order, not only to further our understanding of Tokugawa economic development, but also to better comprehend the administrative costs of samurai urbanization.

Land Taxation in Early Kaga Domain

Kaga domain is significant as a case study in which to start to analyze these questions for three reasons. First, it was the second largest domain in Japan. Only the Tokugawa house held more land.

12. Susan B. Hanley and Kozo Yamamura, *Economic and Demographic Change in Pre-industrial Japan, 1600–1968* (Princeton: Princeton University Press, 1977), pp. 117–18.

13. Miyagawa Mitsuru, *Taikō kenchi ron* (Tokyo: Ochanomizu Shobo, 1977), Vol. I, pp. 370–71, suggests that this phenomenon raises the possibility of an early Kinsei peasant-based surplus in at least parts of Japan.

Second, reasonably good tax rate data for the domain are available. These data cover the period from 1580, prior to the adoption of the *kemi* system, to the mid-seventeenth century, when it was abandoned in favor of the *jōmen* system. The development of an inspection system of tax assessment and its abandonment for the *jōmen* system were a central part of the well-documented maturation of domain administration.

Third, Kaga domain earned a prominent reputation for its efficient administration and therefore the discovery of problems in utilizing inspections here suggests that they were as bad or worse elsewhere. Kaga took the lead in developing a number of innovations in agricultural administration and was a model for other domains.¹⁴ Based on this exemplary reputation, we would anticipate that the land tax system in Kaga domain successfully raised adequate revenues based on consistently high tax rates, yet that was not the case.

The following analysis spans the period from the formation of the domain in 1581 until the adoption of the *jōmen* system in the third quarter of the seventeenth century. I begin with a discussion of the institutional development of the land tax system. I then analyze tax data to evaluate the revenue-raising abilities of these systems before finally considering the implications of the patterns discovered.

During the first years of their rule in budding Kaga domain the Maeda did not implement an annual inspection system of tax assessment. The tax

14. This was a role that Kaga played in introducing the “fixed” rate system of land tax assessment. While it was not the first administration to make this transition, it was among the first. Hanley and Yamamura argue, in line with the descriptions that appear in survey histories, that the *jōmen* system was widely employed only after the *bakufu* introduced it during the Kyōhō Reforms (pp. 24, 117). This widely accepted contention is, however, undocumented, and the evidence regarding the spread of the *jōmen* system is contradictory. I have been unable to locate *any* study that analyzes the spread of the *jōmen* system from its first domain-wide use in some domains in the mid-seventeenth century, e.g., Kaga domain (1652); Matsue domain (1687) (Kodama Kota, *Kinsei nōmin seikatsu shi (Shinkōban)* (Tokyo: Yoshikawa Kōbunkan, 1977), p. 40; Okayama domain (1654) (Kanai Madoka, *Hansei* (Tokyo: Shibundo, 1966), pp. 58–59; Matsuyama domain (permanently used from 1679; Suga Kikutarō, “Matsuyama han ni okeru jōmensei no kenkyū [part] I,” *Shakai keizai shigaku zasshi*, Vol. 11, No. 8 (November 1941), pp. 53, 55–56, Sasaki, *Daimyō to hyakushō*, pp. 327–29); Tōdō domain (1652) (Sasaki, *Daimyō to hyakushō*, p. 315). Furthermore, Shinbō Hiroshi cites Hondo Toshiaki’s (1744–1820) observation that the implementation of the *jōmen* system was limited to areas south to the Kansai region; in regions to the north, it was not possible to successfully introduce this tax assessment system (“Kyōhō ki o chūshin to suru bakufu chōsō yōshiki no henshitsu ni tsuite,” *Mita gakkai zasshi*, Vol. 41, Nos. 11–12 (December 1948), p. 60. If this observation is reasonably accurate, then the spread of the *jōmen* system was largely limited to the southern half of Japan. In order to test the extent to which the transition to the *jōmen* system was the turning point in Tokugawa economic history that it is often thought to have been, a fuller accounting of the pattern of its growth is essential. Evidence presented here clearly indicates that the assumption of *bakufu* leadership is not to be accepted readily.

system which they employed differs somewhat from those generally discussed in survey literature and it is therefore worthwhile to consider this early system in some detail. This assessment system provides a useful benchmark for evaluating both the *kemi* and *jōmen* systems' effectiveness.

The Development of Kaga Domain's Land Tax System

The Maeda revised the existing land tax system shortly after they entered Noto province in 1581. Land surveys conducted in 1582 and 1583 were used to calculate an assessed tax value for each village.

Authorities valued land at just over three bales (*hyō*) of rice per *tan*.¹⁵ This valuation is uniform throughout all extant documents. Kaga domain did not follow the common practice of assigning different values to different grades of fields.¹⁶ In general, it was not, even indirectly, based on evaluation of soil fertility or the crop yields achieved in each village. The source of this valuation is unknown. Late sixteenth-century values remained the official standard for all but two counties of the domain until the Meiji era.¹⁷ Since it did not vary with changing yields or the price at which peasants bought and sold land, assessed value represents little more than a consistent index against which to measure land tax rates.¹⁸

15. See the Nishiumi district tax calculation in Philip Carlton Brown, "Domain Formation in Early Modern Japan: The Development of Rural Administration and the Land Tax System in Kaga *Han*, 1581–1631" (Ph.D. diss., University of Pennsylvania, 1981), pp. 199–201. This work contains detailed analyses of the development of administrative principles and structures, land surveys, land tax rates and payment, retainer fiefs, etc., through 1631. Full documentation of the descriptions of conditions in Kaga domain which follow can be found in this work. Limitations of space preclude detailed citations below. In the sixteenth century, bales were commonly used to measure volumes of grain in Kaga domain. Depending on the year, a bale was one third to one half of a *koku* (1.6 to 2.5 bushels). *Koku* became the standard unit of measure in the seventeenth century.

16. Instead of adjusting the assessed value to soil quality, surveyors reduced the area measured. This occurred only for a few lower quality dry fields. This practice was called *hatake ori*. A fuller description of this process appears in Brown, "The Mismeasure of Land," pp. 142–44.

17. There were some variations from the principle of valuation stated here. In Etchu province, the size of a *tan* was one-fifth larger than in other parts of the domain. In Nomi and Enuma counties (southern Kaga province) the assessed value per *tan* was somewhat greater than in other parts of the domain, 1.7 *koku* per *tan* as opposed to the more common 1.5 *koku* per *tan*. The size of a *tan* in all three provinces of the domain was 360 *bu* per *tan* until 1616–1620 when the size of a *tan* in Kaga and Noto provinces was reduced to 300 *bu*. In spite of the "reduced" size of the *tan* in these areas, the very limited evidence available suggests that the assessed value of villages was not altered.

18. If the *koku* per *tan* (*kokumori*, *today*) estimates were ever a direct reflection of yields in standard Japanese land survey practices, they soon were outdated. In part, it was the change in the yields per *tan* which sparked some domains to resort to the *domen* system of tax assessment.

The assessed value was, in principle, the revenue due to the lord. The format in which taxes were stated presumed that all of the produce of the land was the daimyo's, to do with as he pleased. Nothing in the tax bills suggests that the peasants had a right to any part of the yield. In practice, the tax due was much less than the assessed value. Reductions in the amount due were made to provide salaries for local officials and to compensate for land lost from cultivation due to natural causes. The largest reduction in village taxes was an exemption, called *men*, which the lord deigned to grant the peasants for their sustenance. After all of these reductions were made, the remainder was the tax actually due.

In some instances, domain authorities recognized variations in the average quality of the land in different villages. Instead of varying assessed values for many different grades of paddy and dry field, authorities set different exemption rates (*men*) for villages. The range of variation was narrow, from 30 per cent for highly productive villages to 40 per cent for villages with low fertility.¹⁹

This tax assessment system, called the *sonmen* (literally, "loss exemption") system, showed much of the stability in tax rates ascribed to the later *jōmen* system. Changes in exemption rates (and hence, tax levels) were infrequent. Instead, fluctuations in the tax due from 1583 to 1594 were closely correlated with changes in the amount of land temporarily lost from cultivation and then later recultivated. The frequency of such adjustments suggests that some kind of inspection of village land took place often, but that inspections only recorded major alterations in the area of arable land. Like all later land surveys, these surveys eschewed inspection of crop yields. None of the extant records indicates that crop yields were sampled. In effect, the *sonmen* system assumed that villages produced both stable and relatively high crop yields.

By 1595, if not slightly earlier, procedures for assessing taxes changed. *Men*, used prior to this time to indicate the portion of assessed value exempt from taxation, now came to signify the exact opposite. It came to represent the *tax rate*, the proportion of assessed value which was due as tax to the daimyo or landed retainer. At first, the use of the term *men* was dropped altogether. Taxes due were stated simply as "x bales out of 100" ("hyaku hyō ni tsuki x hyō"). Later the term *men* was reinstated, but with the meaning of "tax rate", e.g., "men mitsu san bu" (*men*, 33 per cent). This form was used throughout the Tokugawa era.²⁰

19. Tagawa Shoichi, "Kaga han shōki zeisei no ichi kōsatsu," *Hokuriku shigaku*, No. 24 (November 1975), p. 55.

20. For the earliest examples see Sakai Seiichi, "Kaga han shōtō ni okeru kenchi ni tsuite," in Sakai Seiichi, ed., *Kinsei Etchu no shakai keizai kōzō*, Chihōshi Kenkyū Sōsho No. 4 (Tokyo: Meichō Shuppan, 1975), p. 12; Sakai, "Kaga han shōki ni okeru men ni tsuite," in the same volume, p. 20; Nihon Jōmin Bunka Kenkyūjo, ed., *Oku Noto Tokikuni ke*

Simultaneous with the change in the form of tax bills, tax assessments came to rely on crop inspections. Late sixteenth- and early seventeenth-century documents reveal that inspections became widespread at this time. At least one major landed retainer, Yokoyama Nagachika, adopted the inspection system. In 1598, the daimyo, Maeda Toshinaga, sent instructions to his tax agents (*daikan*) which specified inspection procedures.²¹ Other regulations issued in 1615 discuss peasant appeals of inspection results.²²

Yet within 25 years, domain authorities were once again tinkering with the land tax assessment procedure. Ordinances issued in 1627 and 1631 expressed officials' frustration with the inspection process, revealing that they had given up hope of using the original system effectively. The 1627 ordinances required that tax officials modify assessments based on inspections. After inspection, each village's tax rates were to be compared with those charged in neighboring villages. If tax rates based on inspections were lower than in nearby villages, they were to be disregarded and taxes raised to the level of the highest local land tax rates.²³ Authorities issued instructions reinforcing and extending this procedure in 1631.²⁴ These ordinances marked the beginning of the end to domain reliance on annual inspections.

Uniformity of village taxation was a goal of tax rate comparisons, but equally if not more important, uniformity was to be achieved by increasing taxes. Domain officials avoided any indication that differences in village rates might be the result of excessively high taxes. They only provided for increased tax levels in order to achieve rough parity between villages. Clearly, they felt many inspection-based tax rates were too low.

By mid-century, domain leadership took further steps to increase its revenues and those of its retainers. These efforts were part of a far-reaching series of reforms known as the *Kaisaku hō*. Through these reforms, domain authorities removed all remaining control of villages from the hands of landed retainers and concentrated it in the central administration. Increasing and stabilizing domain revenues was an essential prerequisite to replacing independent retainer taxation of villages with domain stipends. Officials chose fixed tax assessments as the means to achieve these goals.

monjo (n.p., 1954), Vol. I, p. 12; Nakajima Chōshi Henshū Inkaï, ed., *Nakajima chōshi* (Nakajima, Ishikawa Prefecture: Nakajima-machi Yakuba, 1966), *Shiryō hen*, p. 413.

21. Fukuoka Chō Shi Hensan Inkaï, eds., *Fukuoka chō shi* (Takaoka, Toyama Prefecture: Fukuoka-machi Yakuba, 1969), p. 1209; Heki Ken, ed., *Kano komonjo* (Tokyo: Meichō Shuppan, 1973), p. 890.

22. Heki Ken, comp., *Kaga han shiryō* (Osaka: Seibundō, 1970), Vol. II, p. 288–89. Hereafter cited as *Shiryō*.

23. *Shiryō*, Vol. II, pp. 550–52. These regulations governed *mitate kenchi* (literally “inspection surveys”), wasteland surveys, and tax rates.

24. *Shiryō*, Vol. II, p. 632.

Tax reform was an essential element in the foundation of centralized domain administration.

In 1651, domain authorities initiated intensive investigations of the productive capabilities of each village. These investigations were undertaken by samurai officials called *kaisaku bugyō* (“Reform Magistrates”). They were appointed especially for the purposes of enacting the reforms of the *Kaisaku hō*. The *kaisaku bugyō* were assisted by a newly restructured and highly motivated corps of district peasant officials called *tomura* (literally “ten villages”). The *tomura* were prominent landholders who were very knowledgeable about agriculture and conditions in their districts. Their assistance was critical to the success of rural reforms.²⁵

Repeated reevaluations by the *kaisaku bugyō* and *tomura* were finally completed in 1656. Tax bills, called *mura goin*, were distributed to all the domain’s villages. They specified the new assessed value of each village, its new tax rate, and other miscellaneous taxes (*komononari*). Officials reviewed these bills in 1670 and issued new ones with generally minor adjustments.²⁶

The tax bills issued in 1670 formed the base for all land taxes thereafter. Never again did domain officials repeat the exhaustive reevaluations of 1651–1656 or base village tax assessments on regular inspections. All later adjustments in tax rates and assessed values were made on a case-by-case basis. Exceptionally dutiful land tax officials (*kaisaku bugyō*) or district administrators (*tomura*) occasionally increased tax rates on established fields (*honden*). In response to peasant claims of hardship, tax officials temporarily lowered tax rates, too. With the exception of newly reclaimed or assarted lands, authorities calculated all later tax adjustments by explicitly adding to or subtracting from the assessed values and tax rates listed in the *mura goin*.²⁷

Changes in Land Tax Rates

How effective were these three systems of tax assessment in raising revenues? Did their revenue-raising capabilities conform to standard evaluations?

25. While the *kaisaku bugyō* was originally a temporary expedient, it later became a permanent fixture of domain administration. The designation “ten villages” refers to the original size of the district which *tomura* administered, but by the mid-seventeenth century, they more commonly supervised several dozen villages.

26. “Ka-No-Etsu san ka koku taka mononari chō” (ms. 7021), Kanazawa City Library, Kanazawa, Japan, contains copies of all of the 1670 *mura goin* (thereafter cited as “1670 *mura goin*”). Each 1670 *goin* notes the changes in all assessed values and taxes made after the 1656 *goin*.

27. Tax assessments for reclaimed land (*shinden*) were handled separately from taxes on *honden*. In theory, these lands were inspected annually by a class of *tomura* with specific responsibility for overseeing the recording and taxation of these lands.

Table 1
 Characteristics of Source of Land Tax Data
 Kaga Domain, 1582–1656

Source	Unit of Compilation	Scope	Information Provided	
			Tax Assessed	Tax Paid
Tax receipts (1582–1594)	Village	Noto*	yes	yes
Tax bills (1595–1636)	Village	Noto, Etchu*	yes	no
1605 fief transfer	Village	Noto	yes	no
1634 register	Province	Domain	no	yes
1646 registers	Village	Domain	no	yes
1656 <i>goin</i>	Village	Domain	yes	yes

*Most tax *receipts* are from villages in Noto, a few from Etchu. Etchu tax *bills* are much more numerous than tax receipts from the province.

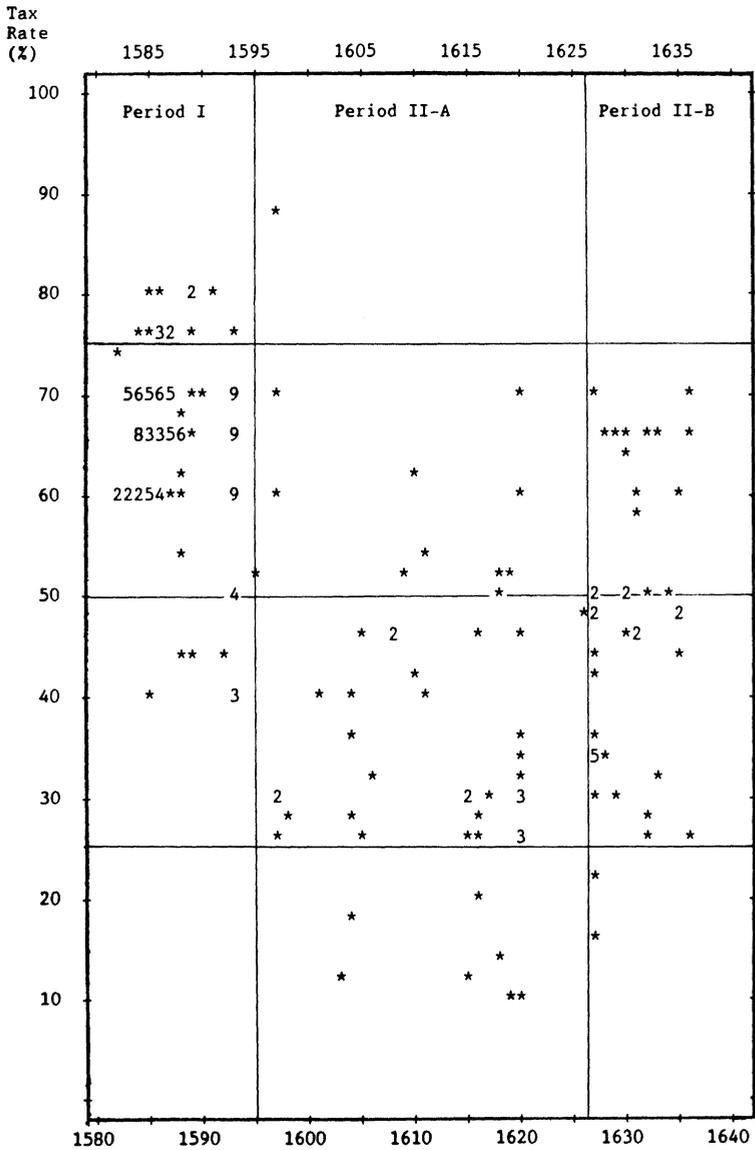
Sources: For tax receipts and bills (N = 187), see Brown, "Domain Formation in Early Modern Japan," pp. 209, 212, 217, and 271. All other sources are found in notes 26, 28, 36, and 42. The fief transfer document is dated 1605, but comparison of the data in this document for three villages with earlier data suggests that the data are from about 1588 or somewhat later. See note 29.

To analyze trends in land tax rates, data from four types of sources have been utilized. The characteristics of these sources are summarized in Table 1. A graphic summary of tax rates for 239 cases from 1582 to 1636 is presented in Figure 1 and summary descriptive statistics are presented in Table 2. Each asterisk in Figure 1 represents one case. Numerals represent multiple cases. Data entered for 1593 are all from the roster transferring villages from Kaga domain to a *bakufu* retainer, Hijikata Kawachi no kami.²⁸ The actual date of the data in this document is uncertain.²⁹ Since

28. Nanao Shishi Hensan Inkaï, ed., *Nanao shishi* (Kanazawa: Nanao Shiyakusho, 1971), *Shiryō hen*, Vol. II, 122–30. Data for Kumagi-gumi, a group of seven villages, has not been used in this research since it was not possible to determine the assessed values of each village.

29. The document is dated 1605, but comparison of the data in this document for three villages with that from 1604 and earlier suggests that the data are from about 1588 or somewhat later, and not from 1605. Tax documents for Tokikuni from 1604 show tax rates of 28 per cent and 45 per cent as opposed to the 65 per cent recorded in the transfer document; 1604 Yawata-shimo tax rates were 35 per cent as opposed to 70 per cent. The data in the transfer document for Yawata-shimo come much closer to the 1589 rates of 80 per cent and the reported rate for Innai of 60 per cent is much closer to its rates of 65 per cent, 62.1 per cent, and 60 per cent for 1587, 1588, and 1590 respectively. (Tokikuni: *Oku Noto Tokikuni ke monjo*, Vol. I, p. 12; Innai: Kigoshi Ryūzō, "Kaga han seiritsuki no kokudaka to men," *Nihonkai Bunka*, Vol. 5 (March 1978), p. 13 and "Noto-kuni monjo," Early Modern Manuscript Collection, Kanazawa City Library (transcription kindly provided by Mr. Kigoshi Ryūzō); Yawata-shimo: Nanao Shishi Hensan Inkaï, *Nanao shishi* (Kanazawa: Nanao Shiyakusho, 1968–74), *Shiryō hen*, Vol. II, p. 440–41.) The form for stating taxes assessed is also consonant with that of the *sonmen*, not *kemi*, assessments.

Figure 1



Each asterisk represents one village. Numerals represent multiple cases. For example, "3" represents three villages in the same year having the same tax rate. Data for 1593 do not actually come from that year. See text for explanation.

Table 2
Assessed Tax Rates: Summary Characteristics

Period	Mean	Median	Standard Deviation	Range
Whole	55.3	60.0	16.6	77.7
I	64.7	60.0	7.8	40.0
II	41.0	40.0	16.2	77.7
II-A	36.7	31.5	16.4	77.7
II-B	46.2	47.5	14.4	53.5

there were no data actually ascribable to 1593, I have used that year to display this data.

Contrary to common images of increased tax collections, tax documents spanning the transition to the inspection system in the mid-1590s indicate that there was a significant *fall* in assessed tax rates. Literary evidence presented above indicated official dissatisfaction with the inspection system within three decades of its implementation. Statistical evidence suggests that problems began even earlier.

Assessed tax rates prior to 1595 were frequently in the 60-70 per cent range. As Figure 1 indicates, soon after the inauguration of the inspection system tax rates fell 10-35 percentage points. Assessed tax rates for 1595-1604 were generally about 50 per cent or less of assessed value, substantially below the common earlier assessed tax rates. For several decades tax rates commonly ranged between 10 and 40 per cent.

The three exceptions to this trend (Satoyama had an assessed rate of 60 per cent, Tochiage just over 70 per cent, and Fujibashi a rate of almost 88 per cent) occur in 1597 and in villages located close to each other. They were extreme cases, even within their own district. The authors of *Tonami shi shi* note that these rates were exceptionally high for the region.³⁰ While it is not possible to identify the source of these high rates, Figure 1 shows few later rates of 60-70 per cent and none as high as 80 per cent.

The decline in assessed tax rates is also evident when pre- and post-transition data are available for individual villages. Table 3 presents data for the eight villages which permit this comparison. Data for 1592 and earlier, and those for later years, are comparable as presented. Both sets of figures represent taxes assessed as a proportion of assessed value.³¹ These data also indicate a sharp decline in assessed tax rates. A matched pairs test further indicates that the differences in the tax rates for these villages in the

30. Tonami Shishi Hensan Inkaikai, ed., *Tonami shishi* (Tonami-shi, Toyama-ken: Tonami Shiyakusho, 1965), p. 301.

31. Exemptions such as those for wasteland were subtracted by officials in computing the final amount of tax due rather than as adjustments to assessed value.

Table 3
Pre- and Post-1595 Assessed Tax Rates for Villages

Village	Tax Rate		Years Compared	
	"Pre"	"Post"		
Konpōji	70%	45%	1585	1620
Saihōji	70	33	1586	1620
Shibuta	60	36.8	1586	1627
Noda	60	36	1586	1627
Tokikuni	75	28	1586	1604
Yawatashimo	80	35	1587	1604
Wakayamagumi	65	31	1587	1620
Kawanishi	70	30	1587	1620 (daimyo's part only)

Sources: Konpōji: Suzu Shishi Hensan Iinkai, ed., *Suzu shishi* (Kanazawa: Suzu-shi Yakusho, 1978), *Shiryō hen*, Vol. III, pp. 739–40, and Heki Ken, *Ishikawa ken shi* (Kanazawa: Ishikawa Ken, 1927–1933), Vol. III, pp. 784–85; Saihōji: Suzu Shishi Hensan Iinkai, ed., *Suzu shishi*, *Shiryō hen*, Vol. III, pp. 105–6; Shibuta: Wajima Shishi Hensan Iinkai, ed., *Wajima shishi* (Kanazawa: Wajima-shi Yakusho, 1971–76), *Shiryō-hen*, Vol. II, pp. 443–44, and *Shiryō hen*, Vol. I, pp. 5–6, 451–52; Noda: Wajima Shishi Hensan Iinkai, ed., *Wajima shishi*, *Shiryō hen*, Vol. I, pp. 3–4, 452; Tokikuni: Nihon Jomin Bunka Kenkyūjo, *Oku Noto Tokikuni ke monjo* (Tokyo: no publisher, 1954), Vol. I, pp. 4, 12; Yawatashimo: Nanao Shishi Hensan Iinkai, *Nanao shishi* (Kanazawa: Nanao-shi Yakusho, 1968–74), *Shiryō hen*, Vol. III, p. 145, *Shiryō hen*, Vol. II, pp. 439–41; Wakayama: Wakabayashi Kisaburō, *Kaga han nōsei shi kenkyū* (Tokyo: Yoshikawa Kobunkan, 1970–72), Vol. I, pp. 555–56, and Suzu Shishi Hensan Iinkai, ed., *Suzu shishi*, *Shiryō hen*, Vol. III, pp. 205–6; Kawanishi: Wajima Shishi Hensan Iinkai, ed., *Wajima shishi*, *Shiryō hen*, Vol. II, p. 284.

first period, prior to 1595, and the second period, after 1594, are statistically significant at the 1 per cent level of confidence.³²

The conclusion that tax rates fell after the implementation of the inspection system is further borne out by comparing the mean assessed tax rate for the pre-*kemi* period (between 1582 and 1594, Period I), and the early *kemi* period (1595–1636, Period II). The mean assessed tax rates for the first period were quite high, 64.7 per cent. The mean assessed tax rates for Period II were substantially lower than Period I, 41 per cent. An analysis of variance test indicates that the difference between Period I and Period II is statistically significant at better than a 1 per cent level of confidence.³³

Thus, there is very little chance that the decline in tax rates between the two periods is a sampling artifact. Furthermore, when changes in tax rates can be traced in individual villages, there is no indication that falling rates are associated with increases in assessed values that offset the impact of these declines. The declines were real.

32. The test statistic of 13.9574 is much larger than the critical value of 3.499 ($t_{(n-1)}=7$).

33. $F_{(1,137)}=6.63$; the test statistic was 229. Several nonparametric tests (Wilcoxon two sample test, the T-test approximation, and the Kruskal-Wallis test) all produced similarly significant results.

Contrary to current interpretations, assessed tax rate data indicate that implementation of the inspection system was accompanied by a decline in the lord's ability to tax peasants, not an increase. Does an examination of the tax rates actually collected also lead to this conclusion?

A similar declining trend emerges when the percentage of assessed value actually collected as taxes is examined. Temporary compensations for land lost from cultivation resulted in collected tax rates substantially below assessed rates during the 1580s and early 1590s; nonetheless, taxes collected represented a comparatively high proportion of assessed value. To compute the collected tax rates in Table 4, the taxes paid by the date of the tax receipts were converted to a percentage of the assessed value of the village. The resulting estimate of taxes paid is conservative. Analysis of extant documents indicates that much of the tax unpaid by the date of the document was undoubtedly paid eventually.³⁴ Therefore, the data in these documents understate the amount of tax finally paid.³⁵ The average percentage of assessed value collected as taxes for all cases from 1583 to 1592 was 45.95 per cent. Fluctuations in tax collections generally came from changes in area cultivated, usually reductions in the amount of wasteland. They did not come from tracking increases in per *tan* yield by crop sampling. Collected tax rates increased over the period from the 20–30 per cent range to the 50–60 per cent range.

Comparison of the proportion of assessed tax rates actually collected in Period I (pre-1595) and Period II (post-1595) is complicated by the fact that Period II tax bills do not provide information on tax collections; nonetheless, 1634 domain-wide data can be compared with earlier tax collection rates. Comparison of provincial aggregate data for 1634 with tax rates collected in Period I reflect the same general trend seen in assessed tax rates. Two comparisons indicate this.

First, when Period I tax data are compared to 1634 tax data for Noto province, average collected tax rates declined by approximately one-third. In 1634, the average tax collection rate in Noto villages was only 30.4 per cent of assessed value.³⁶ In contrast, the average tax collection rate for the 73 tax receipts of 1583–1592 was 45.95 per cent. This difference is statistically significant at the 1 per cent level of confidence.³⁷

Second, since the pre-*kemi* data include some villages outside Noto, it

34. Only 5–10 per cent of taxes assessed generally went unpaid.

35. Instances in which documents did not clearly distinguish taxes paid from taxes assessed and cases for which payment to only one of several overlords was available were not included in the calculations.

36. Toyama Ken, ed., *Etchu shiryō* (Tokyo: Meichō Shuppan, 1972), Vol. II, pp. 257–58.

37. Using a one-tailed t test at the 1 per cent level of significance, the critical value of T at a conservative 60 degrees of freedom is 2.660; the test statistic was 7.4129.

Table 4
Average Taxes Collected as a Percentage of Village Assessed Value
(70 Noto and 3 Etchu Villages)

Year(s)	% Collected as Tax	Number of Cases
1583	37.67%	7
1584	26.52	4
1585	34.95	14
1586	46.45	17
1587	49.86	12
1588	55.69	10
1589	59.65	6
1590-92	64.21	3
TOTAL	45.95	73

Sources: See Table 1.

is reasonable to compare them with the 1634 domain-wide collected tax rate. This comparison shows a significant decline of just over 13 points. The mean collected tax rate fell from 45.95 per cent to only 32.5 per cent of the domain's assessed value of 1,192,670 *koku* (one *koku* is slightly less than 5 bushels).³⁸ This decline, too, is significant at the 1 per cent level of confidence.³⁹

Thus, four different comparisons all support the same conclusion: tax rates, both assessed and collected, suffered a decline with the introduction of the inspection system. The decrease can be seen in a comparison of 1) assessed tax rates in Noto villages for which there are data for both the late sixteenth and the early seventeenth centuries; 2) average assessed tax rates before and after the implementation of the inspection system; 3) tax collection rates between the *sonmen* sample and the Noto data of 1634; and 4) tax collection rates between the *sonmen*-era sample and the domain-wide data of 1634.

Three considerations increase confidence in the validity of this trend toward less effective taxation. First, although the *sonmen*-era Noto sample is not large, it is large enough to provide a reasonable basis for statistical comparison with later data. Further, the standard applied in the statistical tests was very rigorous. Second, the geographic distribution of the early data creates no apparent bias in the results. The closeness of the average collected tax rates for Noto (30.4 per cent) and the domain (32.5 per cent) in 1634 suggests that Noto tax rates were in line with the domain average. Noto tax assessment rates and rates of tax collection can be taken as being close to those of other parts of the domain. Finally, the estimated tax col-

38. Toyama-ken, ed., *Etchu shiryō*, Vol. II, pp. 257-58.

39. The same test and critical value was employed as above. The test statistic was 6.5348, far greater than the critical value.

lection rates for the Noto sample are based on data that underreport the total amount of land tax ultimately paid, giving a slight downward bias to this sample.

Not only did land tax rates decline from Period I to Period II, they also became less uniform under the *kemi* system of tax assessment. Tax assessment rates for Period I are clustered within a range of 40 percentage points. Tax rates from Period II have a much wider range of 77.7 points. Removing the one extreme case in Period II still leaves a range of 60 points. The Period I standard deviation of 7.8 is less than half the standard deviation for Period II, 16.2. The difference between the two standard deviations is statistically significant at better than a 2 per cent level of confidence.⁴⁰

The greater dispersion of Period II tax rates indicates that *daikan* implemented tax assessment standards much less consistently under the inspection system than the earlier *sonmen* assessments. No explanation for this change is to be found in the principles of annual crop inspection. Officials computed assessed taxes per *tan* at 40 per cent of the sample yield and converted it to a percentage of the assessed value of the village. Since the tax rate applied to the crop samples was constant, variation in tax rates should be attributable only to variations in crop yields. Under these circumstances, the variation in tax rates in each period should be fairly small. Yet the increased dispersion of tax rates from Period I to Period II was very large, too large to be the result of natural variation in crop yields. Along with the 1627 and 1631 ordinances, the increased dispersion of tax rates hints that difficulties in implementing annual inspections led to declining tax rates and widely varying estimates of crop yields from village to village. It underscores the impression that inspections were associated with a loss of the rulers' grip on land tax resources.

Clearly, official dissatisfaction with early seventeenth-century *kemi* assessments had a factual basis. Examination of both assessed and collected taxes indicates a long-term downward trend in tax rates. This trend is a mirror image of what standard interpretations lead us to predict. Yet one important question remains. Were domain efforts to reverse the decline successful?

Authorities altered inspections in 1627 to increase land tax revenues. Each village's tax levels were to be raised to the highest level in the surrounding area. To explore the impact of these modified inspections, Period II can be divided into two sub-periods, A and B, using this date as a boundary.

Analysis of tax bills suggests that efforts to raise tax rates were at least partially successful. While rates were not raised to Period I levels, there

40. Period II s^2 /Period I s^2 = 4.248; $F_{(94,144)} = 1.32$.

was a clear increase in mean tax assessments between sub-periods. In II-A assessed tax rates averaged 36.7 per cent. For Period II-B they averaged 46.2 per cent. This difference is significant at the 1 per cent level of confidence.⁴¹

The new procedure, based on comparison of village tax rates, was at least partly responsible for an increase in rates over the next decade. By 1646, assessed land taxes represented an average of 40 per cent of an assessed valuation of 1,340,000 *koku*.⁴² This constituted a substantial increase over the 1634 domain average of 32.5 per cent. While tax rates were recovering, they still were short of the average rates for 1583–1592.

In spite of this upward trend in assessed tax rates, the turn of the century decline clearly had a long-term and pervasive impact. Tax rates tended to stay well below early levels even during the late Period II rebound. Among all the villages in the sample, it was exceptional for assessed tax rates to match those of the *sonmen* era. They were commonly well below 50 per cent of assessed value. Consequently, collected tax rates also failed to match Period I levels of 46 per cent.

The standard deviation shrank between periods II-A and II-B, 14.4 versus 16.4 for II-A. This indicates that there was less dispersion of tax rates in the latter period. However, this difference is not statistically significant and it is not possible to conclude that the 1627 reforms substantially improved the consistency of land tax assessments. This suggests that even under the modified inspection system officials still had difficulty implementing uniformly higher taxation standards.

During the *Kaisaku hō* reforms, officials raised average domain tax assessments for 1656 to 48 per cent of assessed valuation. Assessed valuation itself was raised by about 14 per cent.⁴³ Available evidence indicates that these rates were collected with but minor variation throughout the years following the enactment of the *Kaisaku hō*.⁴⁴ First, the 1670 tax bills show relatively few villages with more than minor changes in tax rates since the

41. $F_{(1,92)} = 7$; test statistic = 8.8. Nonparametric tests (see note 33) yielded comparable results.

42. *Shiryō*, Vol. III, pp. 208–13.

43. I am indebted to Kigoshi Ryūzō, Nihonkai Bunka Kenkyūjo, Kanazawa, for the summary data of the 1646 *gochō* and the 1656 “San ka koku taka mononari chō” upon which these figures are based. Both manuscripts are located in the Early Modern Manuscript Collection of the Kanazawa City Library. Kigoshi presented part of this data in his “Kaga han gochō shindendaka ni tsuite,” *Nihonkai bunka*, No. 7 (March 1980), Chart 9, p. 58.

44. This does not mean that there were no peasant demands for tax rate reductions. They clearly occurred in 1660 and 1668 when there were fairly severe crop shortfalls. See “Kawai roku,” in Hanpō Kenkyūkai, ed. and comp., *Hanpōshū* (Tokyo: Sōbunsha, 1966), Vol. VI, pp. 937 and 939–40. In response to these pressures there were investigations for the purpose of temporarily lowering the tax rates on paddy only, but there were few long-term reductions that were incorporated in 1670 tax bills.

1656 tax bills. Had most villages been unable to pay these tax rates, more marked changes in both assessed value and rates would have been evident in these documents.⁴⁵ There is also no evidence of widespread peasant desertion, protest, or hardship during this period which might indicate that rates were quite high. Widespread successful petitions for tax adjustments do not appear until the late seventeenth century.⁴⁶ Thus, these figures can be used to reflect on collected tax rates without fear of substantial inaccuracy. All can be compared to the tax collection data of the 1580s and 1590s.

Domain tax rates now reached levels that had been collected in the late 1580s, prior to implementation of the inspection system. Implementation of the *jōmen* system capped the rising trends in assessed and collected tax rates that had begun in 1627. In so doing, the *jōmen* system achieved a 48 per cent increase in tax rates compared with 1634, and a 20 per cent increase over those of 1646.

From this perspective, the fixed tax assessment system was not the inefficient procedure that is often supposed. In Kaga domain fixed assessments halted erosion of tax revenues which accompanied the introduction of the inspection system and brought rates back to a level domain officials considered acceptable. The *jōmen* system was not just a means to raise taxes from a relatively stable base that had only recently eroded; it corrected a serious long-term lapse in revenue-raising capabilities.⁴⁷

Practical Constraints on the Inspections System

Tax data indicate that the switch from the *sonmen* assessment system to an inspection-based tax system resulted immediately in lower assessed and

45. This judgment is based on my transcriptions of about 3,500 *mura goin* (1670) which show changes made after 1656. Examples of *goin* are frequently reproduced in the local histories cited throughout this article. See also Kigoshi, "Kaga han gochō shindendaka ni suite," Chart 9, p. 58.

46. In 1737, 2,217 villages requested tax rate reductions and 1,015 villages received one. *Shiryō*, Vol. VII, p. 34. See also, Tanaka Yoshio, "Kaga han kaisaku shihō hōkai katei no ichi kōsatsu," *Hokuriku shigaku*, No. 6 (November 1957), pp. 33–52.

47. Future research is needed to investigate the long-term impact of fixed tax rates. Data analyzed by Thomas C. Smith provide a preliminary estimate of later land tax trends in Kaga domain ("The Land Tax in the Tokugawa Period," in John W. Hall and Marius B. Jansen, eds., *Studies in the Institutional History of Early Modern Japan* (Princeton: Princeton University Press, 1968), pp. 283–99). Based on his nineteenth-century data for Fugeshi, Kahoku, and Haku counties in Noto (p. 287), there was an average tax rate decline of 4 per cent. If further research were to show that average rates fell no more than this, the *jōmen* system, regardless of its sacrifice of any ability to keep up with increased yields, would at least have served to solve the more immediate problem of how to restore and maintain revenues better than the *kemi* system had.

collected land tax rates in Kaga domain. In marked contrast to standard interpretations, declining tax rates coincided with the *introduction* of the *kemi* system of tax assessment, not with its old age.

What explains this decline? I believe that it was primarily the result of an interaction between structural constraints inherent in the inspection system and the urbanization of the samurai. Perhaps an inspection system would have worked with rusticated samurai, but its effectiveness was greatly reduced when the samurai who oversaw inspections were urbanized. Urban life left them bereft of critical knowledge of both agriculture and land essential to effective inspections. No other administrative or natural factor explains this severe and pervasive decline in tax rates. Before examining structural constraints and the impact of samurai urbanization, I shall briefly consider some of the possible alternative explanations for declining land tax rates.

Although there is evidence of very poor weather in one or two years after the introduction of the inspection system, natural afflictions were neither very frequent nor generally very severe. Furthermore, there is no indication of a prolonged period of troublesome though not disastrous weather or pestilence. The worst crop shortfall came in 1641–1642, but 1646 tax rates were still much higher than 1631 or any other time since the introduction of the inspection system. This shortfall had only a temporary impact, suggesting that in the absence of prolonged difficulties, changes in climate offer inadequate explanation for the origin and persistence of low tax collection and assessment rates through 1636.⁴⁸

Domain financial burdens remained substantial throughout the period when the inspection system was used; relaxation of demands on the treasury due to lower expenditures was unlikely. While it is natural to expect some relaxation of the financial pressure on the domain with the stabilization of the Pax Tokugawa, the inspection system was implemented a half dozen years *prior* to the penultimate battle between the Toyotomi and Tokugawa forces at Sekigahara. Furthermore, beginning in 1591, Hideyoshi's two massive attempts to conquer Korea and China drew on the support of all daimyo. He also demanded daimyo contributions to large-scale domestic construction projects. Ieyasu continued these demands. Like Hideyoshi, he called on daimyo to contribute to major public works and castle-building projects. In addition, many daimyo felt obligated to prove their loyalty by spending much time in residence in Edo or keeping family members there (in high style) well before the standardization of *sankin kōtai* in 1635.

Like other daimyo, the Maeda labored under each of these substantial

48. Ishikawa-ken Kanazawa Chihō Kishōdai, ed., *Ishikawa-ken sai shi* (Kanazawa: Ishikawa-ken Kanazawa Chihō Kishōdai, 1971), pp. 90–93.

financial demands. Although the pacification of Japan meant that they no longer constantly defended their borders and no longer had to replace destroyed fortifications, their financial commitments to Hideyoshi and the Tokugawa took up much of the slack in direct domain military expenditures. The Maeda were the first to volunteer a hostage in 1599, when the second daimyo, Maeda Toshinaga, sent his mother to Edo as proof of his loyalty to the Tokugawa. The Maeda contributed to a variety of public works projects, either in conjunction with other daimyo or alone. In addition, major fires destroyed the domain castle and much of Kanazawa in the 1630s, resulting in extensive rebuilding expenses.⁴⁹ While peace may have permitted daimyo and retainers to slacken expenditures somewhat, it is highly unlikely that new, peacetime expenditures shrank sufficiently to allow for the nearly 45 per cent reduction in assessed tax rates or the one-third decrease in collected tax rates suggested above. It is also worth reiterating that this decline began *prior* to the commencement of the Tokugawa peace.

Although the growing inefficiency of inspections is often attributed to the rise of corruption, there is no evidence of extensive improbity in late sixteenth- or early seventeenth-century Kaga domain. The first evidence of widespread problems appears four decades after the transition to assessments based on annual inspections, in 1636. What is particularly noteworthy about domain efforts to resolve irregularities between peasants and tax collectors is that they focused on restricting private lending by these officials to the peasants, not on complaints that corruption led to lower tax rates. While domain ordinances first reveal concern with this issue in 1615, it was only in 1636 that authorities felt the problem common enough to insist that payment of land taxes be completed before repayment of such private debts. Even then, the implication of this order is that these loans interfered with the *payment* of taxes due, not with *setting* tax rates.⁵⁰ Other than the

49. On the expenses of *sankin kōtai*, see Toshio G. Tsukahira, *Feudal Control in Tokugawa Japan: The Sankin Kōtai System* (Cambridge, MA: Harvard University Press, 1966), pp. 81–103. For a detailed description of one major Tokugawa construction project financed by daimyo, see William B. Hauser, “Osaka Castle and Tokugawa Authority in Western Japan,” in Jeffrey P. Mass and William B. Hauser, eds., *The Bakufu in Japanese History* (Stanford: Stanford University Press, 1985), pp. 153–72, which analyzes the reconstruction of Osaka castle between 1620 and 1629. For a brief summary of major domain expenditures, see Mise Kazuo, “Inaba Sakon to Kan’ei-ki no Kaga hansei—kanjo kikō no kakuritsu o megutte,” *Kokugakuin zasshi*, Vol. 86, No. 10 (October 1985), pp. 39–40. In addition to the expenditures the Maeda bore for Osaka castle along with other daimyo, they also undertook major public expenditures by themselves. When Maeda Toshitsune’s daughter was married into the Imperial household in mid-century, the domain treasury financed the extension of the Katsura Imperial Villa.

50. Sasaki Junnosuke, *Daimyō to hyakushō*, pp. 271–72; Mise, “Inaba Sakon,” pp. 39–40.

standard prohibitions against requesting special favors from the villagers under inspection, the 1627 and 1631 ordinances offer no hint of any serious official corruption that was directly linked to setting land tax rates.

Pressure from peasants was occasionally evidenced throughout the late sixteenth and early seventeenth centuries, but the threat of widespread or growing peasant protests does not appear to be the cause of the decline in tax rates. Peasant protests did have some impact. In the first decade of Maeda rule, entire villages sometimes deserted their fields and domain officials offered a variety of inducements to entice peasants back to their villages. Yet in spite of the desertion of entire villages, assessed and collected tax rates for the first 15 years of Maeda rule were much higher than after the introduction of the inspection system. The limited documentation of early seventeenth-century protests suggests that they were infrequent. Furthermore, there is no indication of an increase in protests or their severity prior to the introduction of the inspection system.

While introduction of the inspection system was designed to adjust tax rates more sensitively to crop shortfalls and to thereby relieve the extremes of peasant distress, there is no indication in any document that policy-makers intended to reduce tax rates as a means of stanching a hemorrhage of peasant protests. After the introduction of the *kemi* system, desertion appears to have been limited largely to individual peasants, not entire villages.⁵¹ This was no doubt the result of lower land tax rates, but in the absence of other documentation it can not be interpreted as evidence that increased peasant leverage forced lower tax rates from the domain.

In contrast to these considerations, domain authorities clearly created difficulties for tax assessors and relaxed their grip on villages by implementing the inspection system; these problems were aggravated by the almost simultaneous urbanization of samurai. Since reforms were designed to make taxation more sensitive to the impact of inclement weather and pestilence, authorities certainly anticipated some occasional, temporary declines in revenues; however, three structural constraints prevented effective implementation of the inspection system by newly urbanized samurai and caused an unanticipated, long-term decline in revenue-raising capabilities.

1. Effective inspections required knowledgeable inspectors. The urbanization of the warrior class reduced samurai knowledge of agriculture by removing them from frequent contact with villages. In the late sixteenth century most Maeda retainers resided in fortified rural sites that were gradu-

51. The 1631 regulations include provisions on runaways, too. See *Shiryō*, Vol. II, p. 630. Kozo Yamamura particularly stresses the increased bargaining position of peasants in explaining what he sees as their ability to forestall increases in the rate of taxation as a proportion of total peasant income in the seventeenth century. Yamamura, "Returns on Unification," p. 348.

ally reduced in number. By the dawn of the seventeenth century the main residence of most samurai was the castle town of Kanazawa.⁵² Close samurai contact with and knowledge of agricultural processes and village conditions were no longer possible. Tax officials' ability to identify appropriate fields for sample cutting was reduced by their inadequate knowledge of agriculture and local conditions. The 1631 orders to investigate low tax rates reinforce the impression that assessors were often unable to do their job effectively. Indeed, inspectors were encouraged to compare fields in one village to those of neighboring villages and to evaluate general economic conditions in considering changes in taxes.⁵³ These policies aimed to raise average tax rates and to reduce the increased range of variation in them that accompanied the introduction of the inspection system. Such measures clearly reveal that domain leaders lacked confidence in the ability of tax officials to set uniformly high tax rates.

2. Effective inspections required adequate time for implementation. In Kaga domain, the ordinary pressures of time were greatly increased by the dispersion of retainer fiefs, the domain's large size, and urbanization of the samurai. These pressures were exacerbated by the duplication of efforts required to tax villages under the jurisdiction of more than one overlord.

Daimyo and retainer fiefs were scattered throughout the three provinces that comprised the domain, increasing the time and effort required to complete inspections. Even travel between villages located within a province could be difficult and time-consuming. Travel between villages located in two different provinces often took as long as a day and might take up to two. The task of crop inspection and sampling was arduous by itself. Selecting fields to be sampled, measuring the areas to be cut, cutting samples, transporting them to a central location for threshing and measurement, etc. required at least half a day for each village.⁵⁴ Extended travel time between sites forced inspectors to choose fields quickly so that they could rapidly move on to the other villages in their jurisdiction. All assessments had to be finished before harvests were completed. Officials simply did not have much time in which to make assessments and were forced to carry them out

52. The Chō family were the only major retainers to hold a distinct, residential fief beyond the early decades of the seventeenth century. James L. McClain, *Kanazawa: A Seventeenth Century Castle Town* (New Haven: Yale University Press, 1982), pp. 35–37, discusses the urbanization of samurai in Kanazawa.

53. The domain continued the practice of comparing general economic conditions and tax rates with neighboring villages under the *jōmen* system. Comparisons were made whenever peasants requested inspections to lower tax rates. Kanazawa City Library, ed., *Gokōrikata kyūki*, Vol. 3 (part of *Kaga han nōsei-keizai shiryō*) (Kanazawa: Kanazawa City Library, 1963–1966) pp. 114–15.

54. For a detailed description of this process and examples of the documentation that assessors prepared, see Andō, ed., *Bakufu kenji*, pp. 212–62.

in a more hurried fashion than if each assessor inspected only contiguous villages.

Since Kaga was a large domain, travel times between the castle town, Kanazawa, and outlying villages in Noto and Etchu provinces were also as much as two days. This further aggravated the problem of extended travel times. Concentration of samurai in Kanazawa forced greater travel than if samurai had been scattered throughout the domain. The additional travel lessened the attention focused on outlying areas compared to those close to Kanazawa. The relatively greater demand made on peasants living close to Kanazawa is suggested by an ordinance issued in 1615. Domain authorities, seeking to clamp down on retainer and *daikan* abuses of peasants, directed their orders to those holding fiefs or operating in Ishikawa and Kahoku counties, those closest to Kanazawa.⁵⁵ Proximity to Kanazawa subjected peasants to greater samurai oversight or interference than villagers in more distant locations. Distance lessened samurai control.

Furthermore, when a village or district was divided among the tax agents of several overlords, there was substantial duplication of inspection efforts. Each peasant appeal initiated still another inspection. It is understandable that in 1627 administrators tried to limit this duplication by ordering *daikan* to rely on rates already set by landed retainers.⁵⁶

3. The basic character of the inspection system made it difficult for intermediate level officials such as the county magistrate (*kōri bugyō*), to check for inaccurate or falsified reports of tax rates. There was no historical or comparative standard by which superiors could gauge the effectiveness or honesty of individual assessors. Under a pure inspection system, each village, every year, was treated as unique. In general, claims of malfeasance had to come from peasants and they would most likely report just those instances in which they felt cheated, not those from which they benefited. Only when other officials took cuttings within the same village were timely opportunities available to check for low assessments.

The key variable in declining tax rates was the late sixteenth-century introduction of the inspection system of tax assessment. This system contained no presumption of an appropriate year-to-year tax level. It forced assessors to assess each year's taxes *de novo*, and they were often unable to justify high taxes. The early decline in assessed and collected tax rates was the result of inherent difficulties in carrying out inspections. Reduced knowledge of agriculture on the part of urban-based assessors, time pressures aggravated by the need to traverse substantial distances, and the in-

55. *Shiryō*, Vol. II, pp. 288–89. In addition to misuse of peasant labor, the abuses included charging excessive interest on loans and maltreatment of runaway peasants.

56. *Shiryō*, Vol. II, p. 551.

ability of supervisory officials to identify poor or dishonest assessors all contributed to the poor revenue-raising characteristics of the inspection system. Recognition of these weaknesses spurred domain adjustments in the inspection system after 1627 and ultimately encouraged the domain-wide implementation of the *jōmen* system in 1656.

Implications for Explaining Kaga's Economic Development

To this point, taxation has been discussed from the perspective of tax administrators. We now briefly consider the other side of the coin: how effective was land taxation in confiscating agricultural surpluses and what role might it have played in shaping the domain's seventeenth-century economic and population growth? As noted above, many Japanese scholars hold that the tax system of the late sixteenth and seventeenth centuries was effective enough to absorb virtually all of the agricultural surplus. Consequently, initiative and resources for investment to expand the seventeenth-century economy are seen to lie primarily in the hands of the ruling class: the Pax Tokugawa allowed domains to shift government resources from military expenditures to domain-sponsored efforts to expand arable land and improve irrigation, thereby expanding the land tax base.⁵⁷ Nishikawa's research and that of Thomas Smith suggest that agricultural taxes were not as determinant of peasant standards of living as standard interpretations have it, but the above analysis indicates that in Kaga domain, trends in land taxation added substantially to the profitability of purely agricultural endeavors.

Assessing the impact of land taxation on peasant income is a difficult task, especially in the absence of detailed data on average yields and operating costs. However, four considerations indicate that as a whole, Kaga villages benefited from the late sixteenth-century decline in land tax rates. There were differences in the extent to which individual families benefited from this decline, but as a group, villagers profited from it. Indeed, on average, they had a substantial cushion above and beyond the requirements of mere subsistence.

First, the impact of the decline in land tax rates was more pronounced than the above analysis suggests. Two other major rural taxes, *bugin* (labor taxes) and *kuchimai* (tax rice transport taxes), were assessed as a proportion of land taxes due. When land taxes declined, so did these taxes. Not only did these taxes fall, taxes on other rural economic activity (*komononari*) were not increased to make up for the decline in land tax rates. Even the rigorous mid-seventeenth-century tax bills show no *komononari* levied

57. Kozo Yamamura, "Returns on Unification," pp. 329–34, stresses the role of domain initiative and presents data from a number of Japanese studies which illustrate the extent of domain involvement in the expansion of agriculture.

on many villages and in many other cases the amounts were very small, only a few grams (*momme*) of silver.⁵⁸

Second, and more convincingly, the fact that land tax rates were raised almost 50 per cent in the two decades preceding the *Kaisaku hō*, from 32.5 per cent in 1634 to 48 per cent, without sparking extensive peasant protest or creating signs of widespread peasant hardship, suggests that there was a substantial cushion in peasant incomes. Villages' assessed values were not lowered to compensate for the increased land tax rates. On the contrary, when the *mura goin* were issued, they were raised, primarily by upgrading reclaimed land to fully taxable status. As indicated above, there is no evidence of declining yields from drought or other natural phenomenon in 1634 that make it an exceptionally low base. If the domain assessment procedures had been close to the effectiveness that Japanese historians claim, these increased rates and assessments would have hurt peasants badly.

Nor is there any indication that this cushion was created over the course of these two decades. Even in the modern world of scientific agriculture large yield increases without major agricultural innovations are unthinkable, yet Tokugawa agricultural history suggests that output only grew as the result of small evolutionary changes in technique beginning in the late seventeenth century. Yields and production costs on established fields (*honden*) remained constant during the early seventeenth century. Kaga agriculture followed a similar pattern. Basic tools, animals, and fertilizers were unchanged throughout the late sixteenth and early seventeenth centuries.⁵⁹ Seventeenth-century expansion of agricultural output came largely from the gradual extension of arable land and the improvement of irrigation.

Costs of production were also fairly constant. This is in part the result of the lack of change in cultivation techniques, but in addition, the impact of inflation on early seventeenth-century farming was minimal. Farming methods were not heavily dependent on commercial markets for inputs. For example, peasants relied largely on natural fertilizers gathered from village common lands, rather than on commercial fertilizers. Consequently, the impact of inflation on inputs was limited.

Under these circumstances and given Kaga land tax trends, it is difficult to imagine that land taxes resulted in anything like the complete confiscation of agricultural surpluses. In spite of its reputation for administrative

58. This is evident in copies of the 1656 and 1670 *mura goin*. The latter notes changes in *komononari* as well as land taxes between the two dates.

59. On the development of agriculture in Kaga domain, see Takazawa Yuichi, "Tahi shūyakuka to shōnōmin keiei no jiritsu," *Shirin*, Vol. 5, Nos. 1, 2 (January, March 1967), pp. 1–36, and 32–65, respectively; and Shimizu Takahisa, *Kinsei Hokuriku nōgyō gijutsu shi* (Kanazawa: Ishikawa-ken Katayamazu Kyōiku Iinkai, 1957).

efficiency, Kaga domain's early seventeenth-century tax rates fell without the impetus of dramatic and prolonged crop shortfalls.

Third, declining land tax rates left an increased proportion of yields within domain villages; this income constituted an enlarged capital reservoir which at least some peasants could use to expand agricultural output. Lower taxes on crops should have encouraged villages as a whole and individual households to invest in expansion of agricultural resources. There is substantial evidence that they did so through small-scale land reclamation and conversion of dry field to paddy.

Domain-wide data on reclamation are not available for the early decades of the seventeenth century, but the 1646 domain registers listed just over 59,000 *koku* of reclaimed land (about 5 per cent of total domain value).⁶⁰ These data understate the extent of reclamation after the start of the century. As a rule, the increase came from projects completed after the general surveys of 1604–1606 (Etchu), and 1616 and 1620 (Kaga and Noto). Many early reclamation projects had already been reclassified in the tax registers as *honden* during these surveys.⁶¹

Most reclamation was very small-scale. Many projects were undertaken cooperatively by villages, groups of villagers, or by individual households.⁶² The revised tax bills (*mura goin*) of 1670 list hundreds of small scale projects of this sort which were completed between 1652 and 1670.⁶³ These developments were independent of domain investment in large-scale reclamation or irrigation projects. While domain support of irrigation played a role in the development of new paddies, villagers themselves often absorbed the costs of extending irrigation works or building canals to drain swamplands.⁶⁴

Mid-seventeenth-century changes in domain policy toward reclaimed

60. Wakabayashi Kisaburō, comp., *Ishikawa ken no rekishi* (Kanazawa: Hokkoku Shuppan, 1970), p. 126.

61. Kigoshi Ryūzō, "Kaga han seiritsuki no kokudaka to men," *Nihonkai bunka*, No. 5 (March 1978), pp. 4–5, discusses this process. Where Kigoshi has been able to compare the *kokudaka* of the general surveys with the 1646 data, most cases show no variation or variations less than five to six *koku* in *honden*. Most of the reclamation in the intervening years was recorded and taxed separately.

62. In addition to Kigoshi, "Kaga han seiritsuki no kokudaka to men," pp. 23–24 and 32, most local histories have sections describing reclamation projects throughout the Tokugawa era. For example, see *Tonami shi shi*, pp. 421–86, for one discussion involving reclamation of several Etchu river basins. Documents collections printed with these local histories also include extensive evidence of small-scale reclamation. See, for example, *Wajima Shishi Hensan Iinkai*, *Wajima shishi* (Kanazawa: Wajima Shiyakusho, 1971–76), *Shiryō hen*, Vol. II, pp. 451, 464, 470, 471–73.

63. 1670 *mura goin*.

64. See *Hakui Shishi Hensan Iinkai*, *Hakui shishi* (Kanazawa: Hakui Shiyakusho, 1975), *Kinsei hen*, p. 199, for one example of such a plan submitted to domain authorities.

lands reflect the peasants' sensitivity to shifts in the profitability of land reclamation. Prior to the *Kaisaku hō*, there was no consistent policy of tax incentives to promote reclamation, yet new land was constantly brought under cultivation. With the enactment of the *Kaisaku hō* a uniform set of policies provided tax breaks for the reclaimant during the first four years of development. Thereafter taxes would be raised to the level of ordinary village taxes. This initial exemption stemmed from official recognition that there were substantial start-up costs in land reclamation. Underlying this policy was the presumption that the higher tax rates just imposed were not so high as to act as a disincentive to further reclamation. Yet this was not the case. By 1663, provision was made to continue special tax treatment for reclaimed land until such time (if ever) yields rose to average village levels. Until then, taxes were to be based on annual inspections, not the *jōmen* rates.⁶⁵

These policy shifts suggest four conclusions. 1) Prior to the mid-century reforms, concerted, uniform efforts to encourage reclamation were not thought necessary. 2) When the tax rates were raised, authorities recognized a need to provide compensation for initial reclamation expenses or peasants would not undertake new projects. 3) When initial exemptions alone proved inadequate, officials extended exemptions from full taxation for an indefinite time. 4) These policy adjustments reflect official sensitivity to the fact that peasants contemplating reclamation carefully calculated the long-term profitability of projects.

Finally, the seventeenth-century growth of rural market towns is also consonant with an argument for expanded peasant income. Like other domains, images of seventeenth-century urban growth in Kaga are dominated by the expansion of the castle town, Kanazawa. But rural towns grew, too.⁶⁶ Rural market towns grew so rapidly in the seventeenth century that daimyo placed controls on them and tried to regulate their growth.⁶⁷ With samurai concentrated in the castle town, these rustic markets could only grow with the active participation of the surrounding agricultural populations. The growth of rural markets indicates that peasants increasingly had goods to sell and money to spend, that many peasants already had begun to move away from purely subsistence agriculture and had begun to participate in the domain's commercial economy.

All of these considerations suggest that villagers, as a group, benefited from the early seventeenth-century decline in land tax rates.

65. Kanazawa Shiritsu Tōshokan, ed. *Gokōrikata kyūki* (Kanazawa: Kanazawa Shiritsu Tōshokan, 1963–66), *jō*, p. 87.

66. McClain analyzes Kanazawa's development as a castle town.

67. Sasaki Junnosuke, "Kaga han sei seiritsu ni kansuru kōsatsu," *Shakai-keizai shigaku zasshi*, Vol. 24, No. 2 (May 1958), pp. 65–87, discusses these efforts in Kaga.

Conclusions

Kaga's early land tax history clearly indicates that the growth of assessor dishonesty was not the reason for the failure of the annual inspection (*kemi*) system. The root causes were far more pervasive and deep-seated. Tax assessors' ability to maintain or increase land tax revenues declined from the very first years of the annual inspections, in the late sixteenth century. While modification of the inspection process made it more effective by the 1640s, it never achieved the rigor of the pre-inspection era (*sonmen*) tax rates or the early fixed rate (*jōmen*) system which followed.

The link between each type of assessment system and tax rate trends in Kaga was the reverse of that suggested by current interpretations. The inspection system was inferior to those which preceded and followed it. Domain administrators first employed an assessment system based on flat tax rates for each village. Assessments were modified only when there were changes in the area of land cultivated. These sixteenth-century levies garnered the highest land tax rates in the period examined. In the mid-seventeenth century the fixed tax rate system employed inspections to set tax rates which were, in effect, permanent. It also used inspections to reduce rates to compensate for severe crop shortfalls. This approach boosted tax revenues and at least temporarily returned collected tax rates to their late sixteenth-century levels.

Land taxes based on annual inspections also took less out of agricultural income than the other two assessment systems. By any reasonable standard, it was not confiscatory. At least in Kaga domain, there was plenty of opportunity for peasants, as a class, to increase their agricultural income as tax rates dramatically declined with the introduction of the inspection system. These trends hint that peasant stimulus to economic growth was more important than historians have been willing to credit. Peasant participation in small-scale land reclamation and their support of growing local markets further reinforce this suggestion. Kaga peasants did not need to await the arrival of fixed tax rates to generate increased agricultural profits.

Kaga's experience illustrates the limitations of drawing *a priori* conclusions about the rigor of different assessment systems based solely on their theoretical virtues. The practical difficulties of implementation must also be considered. In Kaga, the inspection system, the assessment system that is commonly judged the most rational, was beset by such problems.

The annual inspection system required assessors who knew land and agriculture well. Only knowledgeable assessors could make sound judgments of field quality and select appropriate paddies for sample cuttings. Effective use of inspections also required adequate time for assessors to get a feel for the general condition of a village and to make inspections. To

maximize the time spent on inspections, assessors should have overseen contiguous villages, but in Kaga domain as in others, retainer fief and administrative jurisdictions were often scattered to keep samurai from building independent power bases. The inspection system also required a sensitive mechanism to identify errors and malfeasance, yet there was no such system that urban-based officials could routinely apply. Except for comparison with nearby villages' taxes, there was no means to identify low rates.

Kaga land tax patterns were not unique. Miyagawa's observation that early seventeenth-century tax rates were often lower than those of the late sixteenth century suggests that in many parts of Japan Kaga's experience was duplicated. Certainly many of the practical difficulties found in Kaga were applicable wherever the annual inspection system was used.

The practical constraints inherent in inspections extended beyond the abolition of annual inspections. Scholars acknowledge that the fixed rate system also failed to track yields effectively in spite of features that made this possible in principle. This failure was rooted in the continued use of inspections by urbanized samurai.

The change to fixed rates lessened the impact of the practical problems of inspections, but it did not eliminate them. Assessors still investigated requests for reductions of tax assessments due to poor harvests. They journeyed to petitioning villages and took yield samples, just as they had under the inspection system. In severe droughts or floods, these demands were numerous. Time pressures compounded the problems of samurai ignorance of agriculture. Once again, samurai assessors were in a poor position to evaluate yields accurately and levy taxes. If city-dwellers struggled with inspections to *maintain* fixed rates in these conditions of relatively limited demand, it was more difficult for them to employ them effectively to *raise* rates when policymakers called for wholesale reevaluations.

This discussion implies that the success of Japan's sixteenth-century revolution was purchased at a substantial cost. Daimyo and shogun established peace and firm control of samurai largely by removing retainers from their rural bases. To accomplish this, direct daily oversight of local administration was turned over to village headmen or district officials (such as *tomura* or *ojōya*) who were mostly peasants. Conveying local autonomy to villages did not compromise the maintenance of law and order, coordination of local public works, and similar administrative endeavors. These were activities in which the majority of villagers had a vested interest; they were willing to cooperate with local officials. However, taxation, especially land taxation, was a different matter. Village interests conflicted with those of the domain. To tax villages effectively daimyo needed a loyal,

knowledgeable, and independent core of officials who had frequent contact with agriculture and the villages under their control. Yet samurai urbanization sacrificed precisely this intimacy and cost daimyo the ability to capitalize on improved crop yields.

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