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Introduction

Tokugawa Japan was a land of peasants. They were family-farm cultivators, accounting for 80 per cent of the population. This percentage may suggest that land was hardly a commodity while the size of the workforce in industry and trade was small, and also that occupational differentiation did not go much further beyond the division of the so-called 'four statuses', i.e. of warriors (samurai), peasants, artisans and merchants. Under Tokugawa rule (1603-1868) institutional frameworks for land and labour markets were never favourable for the flexible use of land and people as factors of production. Indeed, it was only after the Meiji Restoration of 1868 that in an effort to institute 'westernisation' reforms, property rights were granted to peasant farmers and the restrictions on land sales and individual liberty lifted.¹ Hence, one may argue, market forces must have hardly operated in the allocation of land and labour, thereby a functional division of labour limited, during the Tokugawa period. However, given a recent consensus that Tokugawa Japan achieved Smithian growth, a gradual process of market-led output growth, with rural industrialisation and agricultural improvements as major engines of progress (Smith 1988, chs.1-3; Saito 2005a, 2005b), how could such a picture of factor markets be consistent with the rural-centred growth scenario?

In order to answer this question, the present chapter will go over land and labour markets in traditional Japan. In the Japanese historiography, the modern era is

¹ In 1869, soon after the Meiji Restoration, the new government demolished local check points and other physical barriers to communications. In 1872 the four-status system was abolished and the ban on the permanent sale of land lifted, while from 1873 on a full-scale reform of the land tax was carried out, thereby granting formally private ownership to the peasant farmers.

said to have begun with the Meiji Restoration. In this chapter too, I focus my attention on the pre-1868 period, although paucity of Tokugawa evidence compels me to turn sometimes to the post-1868 period for statistical information, which I hope can be justified for the countryside where much continuity was found even after the Meiji reforms. The first section looks at land and tenancy issues, and the subsequent sections on labour will cover both rural and urban markets, examining how large the markets were, how they operated, and how skills were formed in different sectors of the economy. The findings and interpretations are summarised in the final section.

1. Land and lease markets

In ancient and medieval times, there was no coherent concept of land ownership. From the eleventh century on, the land area outside the state sector was expanding, and those private estates (*shōen*) were held by aristocrat-bureaucrats in Kyoto and, to a lesser extent, by Buddhist temples and monasteries. But between the proprietor of a landed estate and the actual cultivator of the land, there were many claimants of a share in the total revenue the land yielded. Their rights to receive revenue were divisible and alienable. One development from such a layered structure was tax contracting, which in fact led to the rise of tax-farming moneylenders in the fourteenth and early fifteenth centuries. However, the longer-term trend was in a different direction. During the subsequent period of warring states (1467-1568), samurai stewards, who had been managing tax collection and other estate affairs at the regional level, increasingly saw contiguous estate lands as their own power bases. They as regional overlords began to extend direct control over peasant-cultivators, leading to the fall of the Kyoto aristocracy and intermediate rights-holders in the hierarchy of the age-old estate system (Nagahara 1990).

Policies and measures taken in the process of unification of the country (1467-1603), such as the Taiko's cadastral surveys in the late sixteenth century, furthered this trend, and the final product of the two-century long process was a regime built by the Tokugawa shogunate. Under Tokugawa rule, the samurai overlord held an exclusive right to administer the whole territorial land, while the peasant-cultivators' right to possess farm and residence land was much strengthened. In the Tokugawa system, legally speaking, it is still difficult to determine who actually 'owned' the land. The shogunate and overlords could exercise their leverage over the peasantry by, for example, declaring in 1643

against the 'sale of land *in perpetuity*'.² Yet, samurai demesnes never grew in the countryside since the removal of rural samurai-landholders to castle towns made them unable to keep claims to landed property. Without landed gentries, therefore, the peasants gained a substantial degree of influence within their village communities and a greater degree of control over the political and economic spheres of local life in general. All this meant that the peasants in the Tokugawa era collectively gained a greater security for their landholding than in the medieval period. And the holders' 'rights' were guaranteed to a large extent by village authorities. Indeed, a cursory look at the collections of materials concerning customary law and justice in the Tokugawa period reveals that registers listing all plots of cultivated land, as well as the names of holders of the fields concerned and the titles thus certified, were kept by village officials, not by samurai administrators (Wakita 1991; Watanabe 2002; Wigmore 1971, ch. 1).

As noted above, Tokugawa peasants were not allowed to sell land if the sale were made 'in perpetuity'. This ban on the *permanent* sale was interpreted by the contemporaries that peasants were allowed to sell a parcel of land for a *limited* period of time, which in practice meant pawning. It appears that this peasant manoeuvre was tacitly sanctioned by the Tokugawa authorities. Thus small parcels of cultivated land in the village moved frequently from family to family by this method or by mortgage. Across the country, the total area of land pawned increased as the century wore on, so did that of land left unredeemed by the original landholder. During the Tokugawa regime, it appears that about 10 per cent of peasant cultivators in agriculturally backward provinces (chiefly in north-eastern Japan) and 30 per cent in the most advanced areas (the region around Osaka and Kyoto) lost their landholding and all in all nearly 30 per cent of the total land area came under tenancy (Ouchi 1957). Despite government restrictions, therefore, there were land transactions in the countryside. This resulted eventually in a differentiation of the peasantry and the rise of landlordism, the tendency that featured in the agrarian history of subsequent periods.

In the twentieth century, landlordism was much blamed by contemporary economists and historians for recurring tenant disputes and other political and

² It should be noted that no such restriction was imposed on holders of city land. Excerpts from the 1643 decree are translated in Liu (1997), p.211, with some other restrictive measures issued by the Tokugawa shogunate, such as the proscription on 'parcelization of land' in 1672. Seventeenth-century domain lords were also concerned with the tendency towards the fragmentation of peasant land and issued similar restrictive decrees. However, it is widely agreed that those were much less effective compared with the proscription on the permanent sale of land.

economic difficulties that hovered over the country in the interwar period. At the core of the problem, they thought, was a very high level of rent—so high that a bare subsistence was left to tenant farmers. It is true that the overall rate in the Tokugawa period was well over 50 per cent in the case of rice fields, although, it should be realised, the percentage does not appear to have changed for much of the period until about 1900 (Tomobe 1996; Francks 2006, pp. 87-101, 236-245). Also, over the same period, landlord-tenant relations exhibited a surprisingly long spell of stability. Differentiation of the peasantry did not lead to proletarianisation: there emerged no class of landless agricultural workers in the Japanese rural past (see Section 2 below).

One reason for this stability was that the landlord-tenant relations were not built on single-stranded contractual ties between two free individual agents. Especially those in earlier centuries, it is often argued, resembled multi-stranded bilateral relations of benevolent masters and subordinate families. Indeed, it is documented that there were cases where landlord-tenant relations were disguised as main-branch family relationships between two *ie*, i.e. stem family organisations that were supposed to continue from generation to generation. Another reason which has been put forward is that, being members of the village elite, all landlords were expected to act to the benefit of villagers, giving, for example, soft loans to their tenants, providing capital for improving village infrastructures, taking leadership in experimenting new rice varieties on their own farm, and helping others introduce new methods of cultivation. Moreover, while the predominant form of rent contract was one in which the amount of rent was fixed, the landlord was expected to reduce rents when crops failed. In many regions, moreover, there were customary practices, according to which the family of the original landholder was entitled to buy the land back and in case of dispute village authorities would intervene. Custom varied from region to region. In some cases this applied only to land that had been registered in the beginning of the Tokugawa period, and in other cases to families whose ancestors were said to have cleared the land for cultivation. Whatever the customary practice, it appears that reciprocity between quasi-parental benevolence and quasi-filial piety, or priority of village harmony, or both, overrode all other ill effects of landlordism until the beginning of the twentieth century (Dore 1959; Waswo 1977; Oshima 1996; Sakane 1999).

However, economics must have also played a part in the landlord-tenant relationship. One suggestive fact is that tenants did not necessarily rent land from one single landowner: they usually rented parcels of land from several landlords. A magazine article published after World War I noted that while a majority of tenant

farmers had two to three landlords, there were cases where they rented land from eight or nine landowners (Arimoto 1921). According to a more systematic survey taken in the late 1930s (Miyamoto 1939), whose results are summarised in Table 1, a typical tenant cultivator rented land out from three, and only 7 per cent of all those surveyed was under single-owner tenancy. Tenancy in the interwar period was based, no longer on patron-client like relationships, but on multilateral, more or less businesslike relations. Such social space where tenancy contracts were made, therefore, must have had some resemblance to a market.

[Table 1]

Unfortunately no comparable evidence is available for earlier periods. But a regional pattern Table 1 indicates is suggestive in this respect. The number of landlords from whom a tenant farmer rented land out was fewer and the proportion of single-owner tenancy higher in agriculturally disadvantaged northern provinces while the opposite was the case for more advanced western regions. If this sort of regional pattern reflected a kind of change over time, then it would be probable that the long-term trend was a shift away from the vertical kind of multi-stranded bonds to a market-like multi-lateral relationship. Although this should not be taken to imply that community ethos was being eroded, it is likely that by the late Tokugawa period, tenancy came to function as if there had existed a genuine lease market for land. A poor peasant with large family, who wanted to increase their farm size in order to maintain his subsistence level, could probably do so by making a tenancy contract with another landowner. A small but enterprising farmer may have been able to find a lessor or two for his additional farm. It is not unlikely, therefore, that the workings of such *de facto* lease markets tended to keep the peasantry on the land. Indeed, a suggestion has already been made that 'An important reason for the non-emergence of a class landless agricultural workers in Japan in spite of the very high pressure of population on limited land appears to have been the high incidence of tenancy, which gave access to land to those not owning any, or only owning very small parcels' (Booth and Sundrum 1985, p.145; for a similar argument, see Tomobe 1996).

2. The rural workforce

Thus rural society at the end of the Tokugawa period featured a somewhat stratified but fairly solid agrarian workforce. Perhaps the best numerical evidence we have for the structure of this kind of agrarian population is a pilot census for Yamanashi prefecture taken in 1879 (Tōkei-in 1882. For the source material, see Saito 1986, 1998a; Umemura 1969, 1980).

The Yamanashi census was a comprehensive survey of population conducted by a group of Meiji-government statisticians in the hope that the exercise would be a preparation for the taking of a national census. Yamanashi (formerly Kai province) was chosen for the pilot study because the prefecture was relatively small with population of 397,000, geographically compact with no change made in administrative boundaries at the time of the Meiji Restoration, and retained much of the Tokugawa legacy. Caution must be made, however. First, two decades had already passed since the opening of the Treaty ports. One of its economic impacts was a spectacular increase in silk exports, which led to a rise of the silk trade in rural provinces. Yamanashi was one of such silk-producing provinces, specialised more and more in the supply of cocoons and in the making of fabrics than in the production of raw silk. Second, although Yamanashi remained rural, its workforce was not entirely unscathed by the Meiji government's westernisation programmes. By 1879 there were a small but sizeable number of firms and offices which may be classified as belonging to the 'modern' sector, a majority of which were found in silk reeling and in administration, banking and transport.

[Table 2]

The census report of 1879 allows us to have a glimpse into the structure of a traditional rural workforce. Table 2 shows the distributions of the gainfully occupied male and female populations between the three industrial sectors at the end of the 1870s, as well as the size and proportion of workers who worked for wages and salaries across the three sectors.

First, one may notice that the total number of working females (109,736) was not much different from that of males (129,757), implying that the rate of female workforce participation was high. With respect to the population aged 15 and over, the female proportion was 82 per cent while the male proportion was as high as 99 per cent. Both percentages may have been slightly overstated since it is likely that there were some under-15-year-olds who had already started working. However, there can be no doubt that the proportion of working women was unmistakably high, suggesting that a vast majority of married women were in the workforce.

Secondly, column (1) of the table indicates that the structure of the Yamanashi economy was very much agricultural. 86 per cent of the 129,757 males were found in agriculture and forestry. The percentage was somewhat lower for females (75 per cent of the 109,736) and comparatively more were found in manufacturing. The latter is associated with the fact that this was a silk region where both reeling

and weaving were carried out almost exclusively by females. Out of the 24,796 gainfully occupied females 16,763 were in textiles, of which silk reeling and weaving alone accounted for 15,694 (94 per cent). Altogether, however, about 80 per cent of the working population were in agriculture, which happens to fit with the aforementioned share of the peasantry in the Tokugawa population.

Thirdly, column (3) of the table shows that the overall proportion of the employed was as low as 4 per cent. In the case of the tertiary sector the level was rather exceptionally high, but it was due to the sizeable existence of male office workers, on the one hand, and of female domestic servants, on the other. Men in public administration and education amounted to 1,178, 43 per cent of the male wage/salary earners, while 660 domestic servants alone accounted for 65 per cent of the female figure. In agriculture and manufacturing, on the other hand, men and women working for wages were either exceptional or small in absolute numbers.

However, it should be noted that Table 2 is based solely on their *principal* occupation. In fact, many of the Yamanashi people were returned as *dually* occupied. As Thomas Smith, Shunsaku Nishikawa and others have already pointed out, by-employment was widespread in the late-Tokugawa countryside (Smith 1969/88; Nishikawa 1978, 1987), and it is likely that the phenomena became more pronounced in the silk-producing regions after the opening of the country into world trade.

[Table 3]

Table 3 looks at this aspect of Yamanashi's workforce of the late 1870s. According to column (1) of the table, 26 per cent of the working population were dually occupied, which reflected that about a quarter of both male and female agricultural population had a non-agricultural side occupation. Sericultural work was regarded by Meiji contemporaries as the farm family's by-employment, but in Table 3 the combination of farming and sericulture is not considered a dual occupation. If it were to be added in the side occupation category, the proportion dually occupied would become much higher. Such dual occupation was less frequent in the manufacturing and service sectors. Column (2) reveals that in the non-agricultural activities, generally, there were more part-time, by-employment workers than those whose principal occupation was in the said sectors. This is particularly marked for males. In manufacturing and mining, there were 72 per cent more part-time male workers than those whose principal pursuit was recorded in industry and mining. In the case of female by-employment the ratios

in the column do not exceed 100, which is because many of them returned their side occupation as in the agricultural sector. In fact, of the 16,763 female principal textile workers 9,752 (58 per cent) were engaged in the raising of silk worms as a side occupation. They were wives and daughters of the farm households. All this, therefore, indicates that the peasant family was the major supplier of by-employments to manufacturing, commerce and other service occupations, while much less wage labour was supplied from the farm household.

However, wage workers did exist. They were found not just in towns but in rural villages as well, and it is important to get to know what sort of people they were, and where they came from. Although it is not possible to obtain further break-downs from the published census report, four village census returns that survived in exceptional circumstances enable us to examine what sort of farm household supplied wage workers to the labour market (Saito 1998a, pp. 89-95; see also Saito 1986).

[Table 4]

Table 4 shows the profiles of those working for wages in the four villages. The villages were located in a sericultural area, with 94 per cent of the population belonging to the farm household. Many villagers combined rice cultivation with sericulture, as a result of which fewer-than-average industrial by-employments were found in the villages. A rather exceptionally high percentage for male landlord family members (59 per cent) was accounted for by their commercial orientation: many of them were merchants as well. The proportion of female farm family members having non-agricultural, domestic by-employment, such as reeling and weaving, was in the range of 13-22 per cent, and the wealthier the family the less likely to get engaged in non-agricultural by-employment. Yet those who worked for wages, either full-time or part-time, were even fewer. Only 64 males (7 per cent) and 39 females (4 per cent) worked for wages. The farm households supplied a less than half share of each number, and most of whom came from poorer families of tenant cultivators. Another source of wage labour was from day labourers' families, who represented only 2 per cent of the population and were, unlike farm households, all female- or child-headed households.

Here it is worth noting that there were two different kinds of workers of employee status: workers employed by the day and those on a longer-term contract. The latter were usually live-in servants and apprentices. As well will see in Section 3 below, apprentices were found mostly in urban merchant and artisan households

although there did exist a non-negligible number of carpenters and smiths employing live-in apprentices. In the case of servants, their historical precursors were hereditary family subordinates (called *nago* or *fudai*) and those who may be described as in 'pawn service', i.e. whose labour service was considered the interest of money that his or her parents borrowed. After the enactment by the shogunate in the late 1610s of successive laws prohibiting the *permanent* sale of people, just as for the case of land, so did many desperate families interpret this as a permission of a *temporary* sale of their children (Maki 1977, ch.2).³ The result was an increase in pawn service and a decline in hereditary subordinates. Over the long-run, however, both types of service declined in importance and developed into wage labour on a shorter contract during the course of the Tokugawa period (Nagata 2004; Nagata 2005, chs.4-5). The change was particularly pronounced in the case of farm servants: long term service gave way to short-term service, which in turn gave way to day labour (Smith 1959, pp. 118-123). By the Meiji period, therefore, wealthy farmers' demand for outside labour was met more by those employed by the day, who were in all likelihood their own tenant farmers and families, than by live-in farm servants on yearly contract.

[Table 5]

The Yamanashi census allows us to differentiate day labourers from the live-in type, although in the case of manufacturing and service occupations, some casual employees may have been included in the latter category. In agriculture, according to Table 5, the number of day labourers was not much different from that of live-in servants. There were comparatively more servants in the case of men and slightly more day labourers in the case of women, but the overall ratio was about fifty-fifty. In manufacturing, commerce and other service occupations, on the other hand, no day labourer existed. There is evidence that large urban merchants such as the House of Mitsui in Kyoto employed day labourers regularly, and it is not unlikely that in Yamanashi towns too, there were such labourers. In other words, those employed by the day are likely to have been included in the 'servant' group since 'apprentices' and 'employees (*yatoi*)' were category labels found in the census report. But '*yatoi*' is so general a word that it is difficult to know exactly how many workers were actually employed on a daily basis. We would probably have to assume that a majority of those in the 'servant' group were in fact apprentices and live-in clerks of traditional type, including even head clerks who may have lived

³ It is also noted that by issuing those successive laws, the Tokugawa administration tried to establish the notion that the contract period, whether it be pawn service or not, should not extend over more than ten years (Maki 1977, p. 100).

out of the master's household. In the case of men in the tertiary sector, there were a sizeable number of 'others'. Many of them were in fact in public administration, which was a new category in the Meiji period.

All in all, the Yamanashi evidence appears to support the view that the extent of the Tokugawa labour market was rather limited. If all the 'servants' were lumped together and, considering that a vast majority of them were unmarried, and were compared with Yamanashi's unmarried population in the 15-24 age group, the total, 4,383 and 2,322 respectively, would mean that 15 per cent of the male and 13 per cent of the female population experienced live-in service at least some point in their life course. These percentages are low—unmistakably lower than those for early modern English youths, whom Peter Laslett labelled as 'life-cycle servants' (Laslett 1972, p. 82; Kussmaul 1981)—but cannot be regarded as negligible. What separates rural Japanese youths from their English counterparts is not a difference in that percentage, but in that Japanese live-in service was not a step to another life-cycle stage in which marriage took place and a labourer's family household formed. Instead, Japanese servants became self-employed when married.

3. The urban workforce

Although there were no 'day labourers' recorded in Yamanashi's commercial and industrial sectors, cities and towns of the Tokugawa period were full of *casual* labour. Indeed, it appears that the urban workforce was being casualised during the latter half of the Tokugawa period. Elsewhere I demonstrated based on a sample of population registers in the 1860s that the proportion of servants to the town population hardly reached 10 per cent in provincial towns and all Edo boroughs (Saito 1990). It is true that many towns lost population over the same period (Smith 1973/88; Saito 2002, pp. 28-37), but the proportion of servants in the population did decline in those cases, suggesting that casual work increased in the urban labour market. According to a statistics compiled from household registers of Tokyo (formerly Edo) in 1873, which classified family heads into five occupational groups, the largest group was 'miscellaneous occupations' (collectively called *zatsugyō*) including, not just day labourers, but hawkers, petty stallholders, street entertainers and waste pickers as well. The latter kinds of people are likely to have been classified in the self-employed category in later Meiji statistics. At any rate, it is those people whose numbers increased in towns of the late Tokugawa period.

Casualisation took place in craft occupations too. In cities such as Edo, Kyoto and

Osaka there were craft guilds. The guild functioned much the same way as in the European past: it was an institution that controlled the trade within the town, as well as a system of training craft skills. Because of this training system Tokugawa Japan produced a good deal of fine arts and handicrafts such as lacquer ware and ceramics. As a body of exercising restrictive power over the trade, however, the Tokugawa craft guild was not much effective. Especially in the building and metal trades which were much larger than the artistic craft occupations, some Edo evidence suggests that the enforcement of apprenticeship became difficult and regulations of wages difficult as both journeymen and migrant, part-time craftsmen from the countryside increased over time (Inui 1996). For example, just after a devastating earthquake of 1855 in Edo, while guild-regulated wage rates for carpenters were kept fixed, the market rates reported to city authorities were five times as high as the regulated wage levels (Saito 1998a, pp.34-35). Also, as we will see in Section 5 below, many craftsmen in cities appear to have begun training their own sons at home.

On the other hand, the aforementioned samples of urban population registers indicate that there was a trend in an opposite direction. In Osaka and in one central Edo borough, where many Osaka and Kyoto merchants had branch shops, the proportion of live-in servants in population seems to have increased. The level reached was generally high but varied between 25 and 50 per cent. Higher percentages were found in wealthy areas. In circles of tradesmen the employment of servants expanded in the eighteenth and early nineteenth centuries as the size of their business operations grew. Mitsui's Echigoya, for example, owned nine shops in Kyoto, Osaka and Edo, employing a total of 1,020 servants. They were all male and lived in the master's household. Their number did not include kitchen and other household staff but covered business apprentices and clerks only. The merchants not only employed large numbers but also kept them longer. Indeed there was a clear tendency for the average length of their live-in service to get longer. Case studies show that successful servants who reached the status of head clerk (*bantō*) or who were allowed to establish his own business spent more than 20 years in the master's household. They entered the house as an apprentice (*detch*) at the age of 12 or 13, promoted to a shop assistant (*tedai*), and to various positions before joining the management. This did not mean that all apprentices were guaranteed life-long employment. On the contrary, according to Mitsui's records, internal competition was rather tough. Four in nine dropped out before the age of 18 and only one in ten reached the position of head clerk. This mercantile version of apprenticeship developed into a system of on-the-job training and internal promotion. In small- and medium-sized enterprises of, say, Kyoto, the development may have been less clear (Nagata 2005), yet, as far as big

businesses are concerned, eighteenth- and nineteenth-century Osaka witnessed the rise of an internal labour market in the merchant houses (Saito 2002, pp.107-122; see also Saito 1990).

Significant as the mercantile system of apprenticeship as a historic precursor of the present-day Japanese style of employment, however, it appears that the tendency towards casualisation outweighed that of the internal labour market during the latter half of the Tokugawa period. In quantitative terms, those involved in the former outnumbered those in the latter system and the gap must have widened over time.

4. The workings of the labour markets

The overwhelming significance of family labour in the workforce means that the extent of the labour market was rather limited in traditional Japan, implying that the market existed only for seasonal demands in agriculture and for the rural-urban allocation of labour. Just as for farm land, so did the samurai administrations issue regulations against the freedom of movement by peasant families, as indicated by a statement by one domain lord in 1632 that no one was allowed to 'work outside the domain, or to work in a mine elsewhere. Even if he wishes to work within the domain ... he must secure permission from the authorities ahead of time'.⁴ Strict as it may sound, however, both samurai and village authorities' concern was more to do with a reduced number of village households as tax units than with movements of individual villagers. Actual policies taken by domain lords varied from province to province and also from period to period, but the administrations' attitude became unmistakably permissive towards individual mobility. One of the reasons for their permissiveness was that those out-migrants, whether long- or short-distance, yearly or seasonal, were expected to come back to the native village eventually. Probably many actually came home while some did not. Whichever the dominant pattern, the incidence of out-migration increased over time, and as Akira Hayami has demonstrated in his case study of a village in central Japan, the rural-urban flow of people became substantial in the latter half of the Tokugawa period (Hayami 2001, ch.5).

Under a vertically-constructed stem family system, only one child stayed in the

⁴ The 1632 regulations were issued in relation to a neighbourhood group system called *gonin-gumi*, literally a 'group of five' (Liu 1997, p.210). The group of five households, formed within the village, was given joint responsibilities in mutual surveillance. Similar systems were commonly found in other domains too.

parental household. Other children should leave the household before or soon after their marriage (Saito 1998b). This implies that there were always those who left the native village for work and settled elsewhere. Most of them must have headed towards towns and cities. In other words, even in this kind of a peasant society rural-urban flows of migrants existed. As for such an inter-sectoral labour market, there was a widely held view among economists that pre-World War II Japan was in a regime of the Lewisian unlimited supply of labour (Lewis 1954; Ohkawa 1965; Minami 1973). According to this interpretation, when there was disguised unemployment in agriculture, the wage level for unskilled jobs in the non-agricultural sector was equal to average rather than marginal productivity of labour in the farm sector: in other words, wages did not function as signals for labour suppliers and employers. Whether or not this view would hold for the Tokugawa period, therefore, has direct bearing upon the question of the workings of the labour market in traditional Japan.

Recently Konosuke Odaka revisited the issue and confirmed that wage earnings of the farm servant employed on a yearly contract were roughly comparable to average, rather than marginal, productivity of agriculture in the period 1906-40 (Odaka 2004). It is noted, however, that while the finding is consistent with the previous interpretations, it is at odd with another finding with respect to the period before Meiji. Odaka cites the work by Shunsaku Nishikawa on a regional economy called Chōshū in the 1840s, which shows that the average wage rate for the unskilled working for salt farms was close to marginal labour productivity in farming derived from production function estimates based on other sources (Nishikawa 1978). Although no data on agricultural wage rates are available for the area in question, Nishikawa notes that salt workers were seasonal, and were supplied from nearby farm households. It is therefore likely that there was a mechanism by which agricultural and non-agricultural wages, on the one hand, and marginal productivity of agricultural production, on the other, were equilibrated with each other.

Seemingly, this is a puzzle. There are several points to be made, however. First, production elasticity of labour used to calculate the average and marginal productivity figures for the 1906-40 period is 0.34, perhaps too low compared with the Nishikawa estimates of 0.49-54 for Chōshū of the 1840s and even with an alternative estimate of 0.4 derived from data for the early 1930s (Hayami et al. 1975, pp. 89-102). Secondly, the choice of the live-in farm servant for comparison is questionable. As noted earlier, farm live-in service based on a yearly contract was declining in the long run, and it may be that the input of their labour was less sensible to changing circumstances than that of workers employed by the day. It is

not unlikely that the daily rate for day labour was determined by marginal productivity of a peak-season, intensive task they performed, although none would carry such a task through over the entire year. Thirdly, there are some other findings suggesting that equilibrating forces were at work in the late Tokugawa period. Wage data from a village in the Kobe-Osaka area, for example, reveal that by the end of the eighteenth century the recorded wage rate for agricultural workers employed in the village by the day came very close to the urban market-wage level for casual labourers in Kyoto, a city some fifty kilometres away from that village (Saito 1978). At the macro level, moreover, the long-term rate of increase in representative agricultural wage series was almost equal in real terms to that of estimated farm output over the entire 1700-1870 period (Saito 2005a).

As long as the peasant farm household was an independent decision-making unit of production, therefore, the rural labour market, however limited its extent was, must have worked reasonably well. And this gave rise to the emergence of a well-integrated labour market between the peasant farm household and non-farm sectors within a regional setting. Indeed, as early as the late eighteenth century, such labour market workings in a pre-factory setting attracted Adam Smith's attention. In a chapter on wages in his *Wealth of Nations*, he examined the effects of harvest on wages for servants and journeymen:

‘In years of plenty, servants frequently leave their masters, and trust their subsistence to what they can make by their own industry. ...The price of labour, therefore, frequently rises in cheap years.

‘In years of scarcity, the difficulty and uncertainty of subsistence make all such people eager to return to service. ...[As a result] wages of both servants and journeymen frequently sink in dear years’ (Smith 1776/1976, I, p. 101).

His account tells us that their parental household's ability to produce ‘subsistence’ determined their asking price in the labour market, the reasoning which can easily be re-stated and generalised in marginal productivity terms. Furthermore, it is this reasoning that, unlike the Lewisian model of unlimited supply of labour, enabled the market wage rate for the non-farm unskilled to keep pace with output growth in agriculture.

As for big businesses in the urban mercantile economy, however, the workings of their employment system became very different. The rise of the internal labour market within the firm must have affected the ways in which shop apprentices were recruited. In Osaka, for example, as the institution of internal promotion took root, it became less and less likely for the apprentices to be in-migrants from the countryside. Instead, most of them were supplied from the families of urban merchants. In the case of a wealthy money changer, Kōnoike, documents covering

the 1801-48 period indicate that 43 per cent of the new recruits were sons of Kōnoike's branch families and former employees, 37 per cent from urban communities of Osaka and Kyoto, and only 18 per cent from rural areas. Another Osaka evidence reveals that most of those rural-born apprentices were likely to be sons of merchants, not of farmers. Even in Edo branch shops of Osaka merchants were found virtually no local-born apprentices. They were all employed at the headquarters in Osaka or Kyoto, and then sent to Edo (Saito 2002, ch.4).

During the latter half of the Tokugawa period, it is documented that there emerged numerous job agents (called *kuchiire*) in Edo and Osaka. According to a contemporary book on the two cities, however, it was rare for the Osaka merchant houses to rely on those outside labour market agents for their apprentices (quoted in Saito 2002, pp. 86-88). The agents were for seasonal and casual workers, for whom market forces operated openly, whereas the merchants' recruits were in all likelihood from former shop clerks and from personal acquaintances, who are likely to have been city merchants themselves. The urban market for mercantile white-collar workers, therefore, became increasingly closed.

5. Skill formation

Undoubtedly the rise of the internal labour market in the form of merchant apprenticeship was associated with the need for the formation of skills *within the firm*. Many of the merchant houses in Osaka and Kyoto were organisationally large, having a multiple departmental structure. Their apprentices and shop clerks were required to go round all the departments and, if successful, they were allowed to climb the ladder step by step before reaching the rank of head clerk. A head clerk required all-round and, perhaps, firm-specific training for him to be able to run a shop or a franchised business.

Apprenticeship as a model of institution for skill formation is a system which combines two separate elements. The core element is on-the-job training of apprentices that allows the guild to restrict entry into the trade, while the system assumes that once qualified, they set forth into the outside labour market. Set against this model, the type of merchant apprenticeship that developed in the Osaka-Kyoto world may be seen as a variant that *internalised* the latter element. However, this distinct system of skill formation gained significance in a much later period of twentieth-century industrialisation. More important in the Tokugawa period were traditional skills found in craft occupations, and also in the farm household, since it was their members who supplied a major workforce to expanding rural industries.

[Table 6]

The Yamanashi census of 1879 reveals that there were a sizeable group of rural craftsmen working either full-time or part-time. Since it is difficult to tell from the census occupational tables who were 'traditional' craftsmen and who were not, Table 6 gives a select list of such craft occupations. With the exception of two female smiths, they were all male, and a majority of them were rural craftsmen. Of those working full-time (i.e. as a main occupation), only 20 per cent were in the provincial capital of Kofu. If those working on the side are included in, the percentage drops down to 8 per cent. In the countryside (including, of course, small market towns), therefore, there were far more craftsmen than in the city and a vast majority of those rural craftsmen were part-timers with their main occupation in agriculture. Most specialised in terms of full-time working of the six craft occupations listed in the table were cabinet makers and smiths. The proportion full-time was 74 per cent for cabinet makers and 63 per cent for smiths, although in both trades there are a substantial number of craftsmen living in the countryside, who must have worked in agriculture part-time. In all the building trades and also in coopers' trade, on the other hand, there were on average twice as many as such part-timers than the principally occupied craftsmen. Those craft occupations were peasant family by-employments.

Table 6 also lists the number of apprentices in each trade. The highest proportion of apprentices was found in smithy, i.e. 11 per cent in the case of the principally occupied. Even this percentage suggests that only one in nine masters took an apprentice. In the other five craft occupations, the percentages were far lower and the chance to find an apprentice among part-time craftsmen was virtually nil. Given a possibility that among 'apprentices and learners' there were some who did not enjoy apprentice status, and another possibility that the 'craftsmen' category here must have covered both masters and family helpers, the overall impression is that traditional urban guilds was not functioning well. Formal apprenticeship was no longer important at the beginning of the Meiji period. And it was probably the training of sons at home that was important as a medium of transmitting craft skills from generation to generation. Since it was in industries outside the craft sector that expanded in the period of rural industrialisation, and since each craftsman's occupation was to be handed to his son, it may be that in all these craft occupations the intra-family transmission of skills was more important than formal apprenticeship, irrespective of whether they were full-time or part-time craftsmen.

This, however, does not necessarily imply that the significance of markets for skills declined because the home- and informally-trained may have changed employers frequently before establishing themselves as skilled. Although very little is known for the Tokugawa period, there is a piece of Meiji evidence that there existed markets for workers trained as factory apprentices. Indeed a small sample of 'inventors' of humble origins and their personal histories reveals that there were two separate routes to the world of the workshop, as distinct from that of the modern factory, in the manufacturing industry of the Meiji period. One was home-trained sons of urban craftsmen, and the other those who came from the countryside through factory apprenticeship. Given the fact that the latter outnumbered the former in that sample, and given the probability that factories and workshops outside the modern sector were very much traditional, it is likely that both elements of on-the-job training and market forces were at work between the rural and urban sectors (Saito 2006 forthcoming).

Through this inter-sectoral channel, moreover, it is not unlikely that some kind of attitude towards work and skills was transmitted from the farm household. The Tokugawa farm household was a place in which skills were taught. As for agriculture, having compared with other rice growing societies, Koji Tanaka maintains that Japanese farming methods were not just more labour-intensive but also substantially more skill-intensive. Indeed, there is evidence that in many villages competition was held for ploughing, transplanting and other farming activities, suggesting that although there was no formal training institution, skills were highly appreciated socially (Tanaka 1987). Moreover, according to Thomas Smith, the farm household taught its individual members time discipline and co-ordination skills. Based on farm manuals published in Tokugawa times and a couple of farm diaries, he argued that since each crop entailed a number of 'narrowly timed tasks' and since double-cropping was virtually the norm, the cropping decisions 'set a work schedule for an entire growing season', and that the decision making became even more complicated when taking into the consideration the spread of by-employment. The farm household had to shift family labour 'back and forth from farming to by-employments, not only seasonally but from day to day and within the day, and also to use the off-farm earnings of individuals for the benefit of the farm and the family. This flexibility encouraged the spread of by-employments and thus put even tighter pressure on agriculture' (Smith 1986/88, pp. 206, 214).

In the farm sector too, therefore, much of labour was allocated *internally* and skills formed *internally*. But co-ordination skills and time discipline they learnt in the farm household may well have been transferable to a non-agricultural world,

and to an emerging industrial sector in a later period, through the inter-sectoral labour market.

6. Concluding remarks

In this chapter I have demonstrated that the market size for both land and labour was small in Tokugawa Japan. The land market existed only in the form of tenancy contracts while the labour market operated only for fluctuating seasonal demands and also for the rural-urban transfer of manpower. In the countryside, therefore, family land was passed on from generation to generation, and in each generation the land was cultivated almost exclusively by family labour. Even in the urban sector, craftsmen were family businesses where craft skills were also transmitted from generation to generation, while merchant apprentices and shop clerks were increasingly internalised within the firm although this tendency was confined to big businesses such as the House of Mitsui.

Such limited growth of the factor markets, however, was not necessarily a consequence of tight regulations from above. Neither state nor guild control appears to have played a particularly decisive role. It is true that measures taken by Tokugawa administrations were never market-friendly, but it is important to realise that guild organisations were much less prescriptive than their European counterparts. And the state tended to leave reasonably wide room for spontaneous growth of markets from below. Some arrangements such as lease contracts for land became quasi-markets while others, especially those for casual labour, functioned just as genuine markets. Also important is the flexibility the farm household exhibited in relation to adjustments to changes in market demands—both short- and long-term, and both intra- and inter-sectoral—for products and labour, and to a lesser extent for land as well. Since longer-term changes were likely to have been consequences of either rural industrialisation or a spread of commercial agriculture, or both, it is implied that the peasantry did respond to changing market forces with respect to commodity as well as land and labour transactions. However overwhelming the size of non-market, familial space in the economy, therefore, market forces in both product and factor markets must have played an indispensable part in the process of Tokugawa Japan's Smithian growth.

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Table 1. Number of landlords from whom a tenant farmer rented land:
survey results by region, 1939

	Region			Japan (excluding Hokkaido)
	West	Central	North	
Average:				
Mean	4.4	3.7	3.7	4.0
Mode	4	3	3	3
Proportion (%)				
of single-owner tenancy	3	6	12	7

Source: Miyamoto (1939), p.150.

Notes:

- 1) The total number of tenant farmers surveyed is 436 (excluding those in Hokkaido).
- 2) 'Single-owner tenancy' means the case in which a tenant rented land from one single landowner only.
- 3) The regions (excluding Hokkaido) are classified as follows.
'West': Kyushu, Shikoku, Chugoku and Kinki;
'Central': Tokai and Tozan; and
'North': Hokuriku, Kanto and Tohoku.

Table 2. Occupational structure and proportions employed: Yamanashi, 1879

	Number of persons occupied (1)	Of whom employed (2)	% employed (3)
<i>Total occupied</i>	239,493 (100)	8,876	4
Agriculture and forestry	194,338 (81)	4,057	2
Manufacturing and mining	31,188 (13)	1,067	3
Commerce, transport and other occupations	13,967 (6)	3,752	27
<i>Male</i>	129,757 (100)	6,014	5
Agriculture and forestry	112,065 (86)	2,838	3
Manufacturing and mining	6,392 (5)	433	7
Commerce, transport and other occupations	11,300 (9)	2,743	24
<i>Female</i>	109,736 (100)	2,862	3
Agriculture and forestry	82,273 (75)	1,219	1
Manufacturing and mining	24,796 (23)	634	3
Commerce, transport and other occupations	2,667 (2)	1,009	38

Source: Tōkei-in (1882).

Note: Figures in parentheses in column (1) are percentage distributions of those occupied for the total, male and female.

Table 3. The structure of dual occupation: Yamanashi, 1879

	% having side occupation (1)	Ratio of those working on the side to the principally occupied (2)
<i>Total</i>	<i>26</i>	<i>26</i>
Agriculture and forestry	25	8
Manufacturing and mining	39	105
Commerce, transport and other occupations	9	106
<i>Male</i>	<i>23</i>	<i>23</i>
Agriculture and forestry	26	4
Manufacturing and mining	5	172
Commerce, transport and other occupations	9	126
<i>Female</i>	<i>30</i>	<i>30</i>
Agriculture and forestry	25	12
Manufacturing and mining	48	88
Commerce, transport and other occupations	10	20

Source: Tōkei-in (1882).

Table 4. Social class of village populations working for wages: four Yamanashi villages, 1879

Social class of household	Number of Persons	% engaged in	
		non-wage, non-agricultural work	wage work
	(1)	(2)	(3)
<i>Male</i>			
Landlord	56	59	2
Farmer	815	11	3
Owner	214	11	0
Part owner	225	9	1
Tenant	376	12	6
Farm labourer	29	0	100
Non-agricultural	30	67	30
<i>Total</i>	<i>930</i>	<i>15</i>	<i>7</i>
<hr style="border-top: 1px dashed black;"/>			
<i>Female</i>			
Landlord	45	9	0
Farmer	867	19	2
Owner	223	13	0
Part owner	249	20	1
Tenant	395	22	4
Farm labourer	17	0	76
Non-agricultural	31	20	23
<i>Total</i>	<i>960</i>	<i>18</i>	<i>4</i>

Source: *Kai no kuni genzai ninbetsu shirabe* returns for four villages (Masuda, Kita Yatsushiro, Minami Yatsushiro, and Oka) in Higashi Yatsushiro-gun, Yamanashi prefecture, 1879. I thank Yatsushiro town officers for allowing me access to those documents.

Note: Those who were under 10 years of age, those whose age and occupation are unknown, and those whose social class of household was unknown, are excluded from the denominator.

Table 5. The structure of the wage-earning workforce: Yamanashi, 1879

	Principally occupied	As side occupation	Both combined
<i>Male</i>	<i>6,014</i>	<i>2,850</i>	<i>8,864</i>
Agriculture and forestry			
Servants (incl. apprentices, clerks and employees)	1,623	310	1,933
Day labourers	1,208	503	1,711
Others	7	2	9
Manufacturing and mining			
Servants (incl. apprentices, clerks and employees)	433	208	641
Day labourers	—	—	—
Others	—	1	1
Commerce, transport, etc.			
Servants (incl. apprentices, clerks and employees)	1,463	346	1,809
Day labourers	—	—	—
Others	1,280	1,282	2,562
<i>Female</i>	<i>2,862</i>	<i>201</i>	<i>3,063</i>
Agriculture and forestry			
Servants (incl. apprentices, clerks and employees)	591	31	622
Day labourers	628	87	715
Others	—	—	—
Manufacturing and mining			
Servants (incl. apprentices, clerks and employees)	634	38	672
Day labourers	—	—	—
Others	—	—	—
Commerce, transport, etc.			
Servants (incl. apprentices, clerks and employees)	985	43	1,028
Day labourers	—	—	—
Others	24	2	26

Source: Tōkei-in (1882).

Table 6. Traditional craftsmen: select examples, Yamanashi, 1879

	Craftsmen and family members (1)	Apprentices and learners (2)	% employed (2)/[(1)+(2)] (3)
<i>Building</i>			
Carpenter	1,245	19	1.5
Working on the side	2,337	4	0.2
Plasterer	135	3	2
Working on the side	357	1	0.3
Mason	88	0	0
Working on the side	237	0	0
<i>Total</i>	<i>4,399</i>	<i>27</i>	<i>0.6</i>
<i>Woodwork</i>			
Cabinetmaker	162	8	5
Working on the side	58	0	0
Cooper	264	8	3
Working on the side	478	1	0.2
<i>Total</i>	<i>962</i>	<i>17</i>	<i>2</i>
<i>Metal</i>			
Smith	331	40	11
Working on the side	198	5	2
<i>Total</i>	<i>529</i>	<i>45</i>	<i>8</i>

Source: Tōkei-in (1882).

Notes:

- 1) 330 smiths include 2 females.
- 2) The original wording for Column (1) is ‘craftsmen and *tetsudai*’. Literally *tetsudai* means helpers. Since apprentices (*totei*) and learners (*deshi*) were classified separately in column (2), those ‘helpers’ were presumably family members of the masters’. It is also likely that ‘craftsmen’ included the masters’ sons.

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