

The Rural Economy and Industrialization in Transition from the TOKUGAWA to the MEIJI Era*

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1 Introduction

The modernization of the Japanese economy started as a result of the dramatic opening of Japan's trade with Europe and the Meiji Restoration (1867), successfully adopting the industrial technology of the Western Europe in a short period of time. Only sixteen years after the Meiji Restoration, mass production started in Japan with the use of machine operation in large-scale factories.

Why was Japan's industrial development so fast, and how was the advanced technology of the Western Europe learned and adopted so successfully compared with other Asian nations? This paper argues that the economic take-off in the early stage of Japan's industrialization during Meiji era was made possible by monetary economy widely prevalent and traditional industries already well developed in rural economies of the Tokugawa era.

For example, the traditional cotton industry began increasing the amount of production from the latter half of the 1880s to 1890s, and developed itself to become one of the principal industries to advance Japan's industrialization. Three factors can be pointed out why the traditional cotton industry could be quickly modernized²⁾:

- 1) Income levels of farmers were high, so that there was enough potential purchasing power to demand for cotton products if properly supplied nationwide.

* This paper presented in Economic History Workshop at National Taiwan University 22th Dec 1998. I deeply appreciate what Professor Jin-Tan Liu Dean of Department and Graduate Institute of Economics gave me the place of the argument to me. And I am grateful to all, particularly to our colleagues and old friend professor Nakajima Koichi (Tezukayama University), who devoted help was done heartily in the all side. It appreciate my colleagues Mrs. Honma Mariko, too.

1) Professor of Department of Economics, Soka University, Japan.

2) Tanimoto Masayuki, *Zairaiteki Keizai Hatten to Orimonogyo* (Nagoya, Nagoya University Press, 1998).

- 2) Imports of new cotton products from England lowered the domestic prices of cotton clothes, which in turn stimulated domestic demand for cotton products.
- 3) Feudal hindrance of segmenting markets was lifted, and the nationwide demand for cotton products was mobilized via new distribution networks.

The underlying point of the above three factors is that the actual conditions of the farm village economy of the Edo Period were not as "poor and miserable" as typically believed and presumed in the previous literature. The agricultural economy played an essential role that made Japan's industrialization take off. The previous researches of the Japanese economic history until now have exaggerated the Marxist ideology that farmers were poor and miserable, and lived under a subsistence level. They argued that farmers were heavily indebted with land tax and other payments, and, thus, they suffered from an extreme poverty of lacking even daily necessities of life. This way they tried to explain Japan's modernization with the Marxist theme of class struggles. However, it logically remains clear that Japan's industrialization could be only realized by the existence of farmers who, the majority of the population at that time, must have emerged as consumers and demanded all sorts of goods and services as the nationwide distribution network connected and expanded once segmented markets of Japan. Now, the crucial question to be investigated is the following: If the previous premise of "poor and miserable" farmers is wrong, how then did those farmers earn their high income, and what were their actual conditions?

This paper first describes the farm village economies of the Tokugawa era, and argues that the development of traditional rural economies supported Japan's economic take-off during the early Meiji period.

2 The Land Tax System and the Economy of the Edo Period

2-1 KOKUDAKA system and land tax

The KOKUDAKA (石高) system is a well-known system that prevailed during the Edo Period. KOKUDAKA was the standardized measurement system of expressing all the outputs of production in terms of rice output in arable land. The actual land size and productivity of each cultivated field was measured, and the output level was translated in terms of the standard measurement of rice output, "KOKU" (石). Thus, even if a given district may not produce rice, other products such as woods and fish were all converted into the measurement of the rice crop, "KOKU".

The total of KOKUDAKA of village was called MURA-DAKA (村高). Then, the sum of MURA-DAKA indicated the total production level of each feudal clan. Naturally,

KOKUDAKA was used as a salary level of each *samurai* (soldier class) member of the clan, as well as for the land tax levied on farmers. That is, KOKUDAKA became the standard of measurement that applied to everyone during the Edo Period.

This standard system was initiated by “KENCHI” (検地)—the investigation on the actual size and productivity of each land—and it was carried out nationwide in the latter half of the 17th century. Inspection on every piece of land was carried out and the production level and quality of land was accordingly determined. This decision was a serious matter for both *samurais* and farmers. Unless there was a serious reason, once KOKUDAKA of the land was decided it wasn't changed until the last days of the Tokugawa era. Since the land valuation for the tax purposes didn't change despite the subsequent increase of productivity of the same land, it implied a once-and-all upper limit of the land tax in MURA-DAKA. That is, it was a system that functioned favorably to the farmers.

In addition to the system of tax evaluation as described above, a feudal lord did not control and levy a tax on each individual farmer. Instead, the feudal lord made the village as a basic unit of tax collection, and let the village as a whole be responsible for administering the tax payment. This system is called “MURAUKE-SEI” (村請制). Generally, a feudal lord left the responsibility of collecting all land taxes to a village head “NANUSHI” (名主) who was a village official. A village head must meet each individual farmer of the village, and tell him of his amount of burden, and make sure all the taxes were collected. While it was a joint responsibility of the village, the feudal lord could no longer closely control the actual economic condition of the village.

2-2 The rate of land tax burden

Now, how was the burden of the tax rates levied on farmers? It is often pointed out that the burden rate was recorded as “5 KOU-5 MIN” (50 % tax of the land products) or even “6 KOU-4 MIN” (60 % tax). These rates were, however, not levied toward all incomes. They were applied only to the crop output such as rice and wheat, which were farmers' main produce.

It has to be reminded that the average annual working days of the farmers during the Edo Period was about 250-260 days. Remaining days of the year were spent to celebrate the New Year and other seasonal festivals, holidays such as HI MACHI, TUKI MACHI and extra work in other industries. A typical case of nonagricultural work was “delivery service of goods” by cows and horses. And sometimes they were hired for public works such as construction of bridges and roads. For these works, daily wages were also paid. In other words, these farmers had various sources of making cash incomes, but such income

receipts were not taxed as part of the land tax.

These were sources of income for farmers, though temporary in nature. These incomes were not considered to be products of cultivated field. Thus, if one includes these extra incomes, the economic burden of the land tax was reduced. In fact, it is estimated that the land tax rate as a percentage of total income amounted only up to approximately 5-12 % of one farm village in *Musashi* country in *Tama-gun* at the end of the Tokugawa era, according to the calculation of Junya SEKI³⁾. More cases should be investigated on this issue, but the tax rate to be 50 % or 60 % of total income is most likely to be too high.

3 Economic Growth and Farmer's Life of the Edo Period

3-1 Condition of farmer's life

It has been pointed out in the previous literature that farmers were deprived of freedom and faced with all kinds of restrictions imposed on their lives. To prove such a premise, historical documents such as "Keian no Ofuregaki" have been often mentioned as a typical case⁴⁾. It describes detailed rules and directions of daily life that need to be followed by farmers. For example, it orders that farmers are allowed only to wear clothing made in cotton, and eat wheat and potatoes more often than rice. Farmers were also told to economize in everything. These historical materials are widely known as of today in Japan. They are taught in schools as a representative example of how the farmers during the Tokugawa period were controlled and dominated.

However, upon reading these historical records, one notices the following points. They write, "don't buy liquor and tea to drink it. The wife who is always drinking tea and visiting temples or going trips without taking care of a husband should be divorced even if she is beautiful".

Such a line indicates the fact that a farmer often purchased liquor and tea in cash for drinking. Moreover, wives drank tea a great deal, and visited Buddhist temples or went sightseeing frequently. In other words, these records suggest the real levels of the farmer's disposal income or consumption habits. Furthermore, in the final part of documents, they state that "if the obligation of the land tax is fulfilled, the farmers are free to choose the kind of clothes and meals they want", and that "enlarging one's house is allowed". By

3) Seki Junya, "Tama no Chisokaisei", *Sōka Keizai Ronshu*, Vol. 6, No. 1 (1976).

4) As for these historical materials, various argument is done. One of the big problems is a written generation. For example refer to Yamamoto Eiji, *Keian no Ofuregaki Seiritu Siron* (Tokyo, Nihon Editor School Press, 1999) for the familiar contents of the argument.

pointing out the following line that "As long as one pays his land tax, there is no other occupation as easy as being a farmer", it has been previously understood that these words were simply accommodating measures granted for the farmers.

However, one can show many examples that the economic conditions of farmers during the Tokugawa era were better than the previously understood⁵⁾. For example, there were village laws created by the members of villages. There is a law that called for "restraint clause" to curtail alcoholic consumption of rice wine. Rice prices often soared due to the damages caused by natural disasters during the 18th and 19th centuries. As a result, a law was passed for reducing the drinking rice wine, and villagers who broke the rule were punished severely. But the document that records this incidence illustrates the income levels and purchasing power of farmers well.

It states that about 180 members belonged to this village. When the village passed this mandate, the sum of 400-500 RYO was saved for one year. 1 RYO is about 100,000 yen when it is converted into present value of Japanese yen. Therefore, this village alone was consuming rice wine about the value of 40-50 million yen annually. This village was not a special village, and it was just an ordinary village. It didn't have any special industry, either.

Examples like above are abundant. That is to say, it is obvious that money economy was already prevalent in rural villages, and the potential of farmers' purchasing power should not be ignored. This is why one observes that a wide range of special products specific to each area began to appear in the market, and spread nationwide during the Edo period.

3-2 The expansion of production capacity and tax incentives for farmers

Japan in the 17th century shows an expansionary tendency in various aspects. Above all, the economy kept growing. Table 1 shows such a pattern of its economic growth, and how population increased 2.3 times in the 17th century, and the cultivated acreage expanded by 1.4 times. The net income in terms of KOKUDAKA, which indicates Japan's overall production capacity, increased about 1.5 times. Saitō Osamu calls this period as "A big age of cultivation".⁶⁾ This economic growth was characterized as the dramatic increase in the cultivated areas due to the new irrigation and cultivation of additional land. As a result,

5) Yasuzawa Shuichi, *Kinsei Sonraku Keisei no Kisokouzou*, (Tokyo, Yoshikawa Kōbunkan, 1972). The case taken up here is the thing of *Kamiongata-mura* at *Tama-Gun Musasi-Kuni*. (223 pages).

6) Saitō Osamu, "Daikaikon, Jinko, Shōnou keizai", Hayami Akira & Miyamoto Matao eds., *Keizai shakai no seiritu*, (Tokyo, Iwanami shoten, 1988).

Tabla. 1 Quantitatively Change in the Tokugawa Period

(the actual number)

age	Population N (million)	Cultivated areage R (thousand-cho <町歩>)	Net rice produc- tion facilities Y (thousand-koku <石>)	R/N	Y/N	Y/R
1600	12.00	2,065	19,731	1.721	1.644	0.955
1650	17.18	2,354	23,133	1.370	1.346	0.983
1700	27.69	2,841	30,630	1.026	1.106	1.078
1720	31.28	2,927	32,034	0.936	1.024	1.094
1730	32.08	2,971	32,736	0.926	1.020	1.102
1750	31.10	2,991	34,140	0.962	1.098	1.141
1800	30.65	3,032	37,650	0.989	1.228	1.242
1850	32.28	3,170	41,160	0.982	1.275	1.298
1872	33.11	3,234	46,812	0.977	1.414	1.447

(The rate of growth par year %)

1600-1650	0.72	0.26	0.32	-0.46	-0.40	0.06
1651-1700	0.96	0.38	0.56	-0.58	-0.40	0.18
1701-1720	0.61	0.15	0.22	-0.46	-0.39	0.07
1721-1730	0.25	0.15	0.22	-0.10	-0.03	0.07
1731-1750	-0.16	0.03	0.22	0.19	0.38	0.19
1751-1800	-0.03	0.03	0.22	0.06	0.25	0.19
1801-1850	0.10	0.09	0.18	-0.01	0.08	0.09
1851-1872	0.11	0.09	0.59	-0.02	0.47	0.49

Source: Hayami Akira & Miyamoto Matao eds., *Keizaisyakai no seiritu*, (Tokyo, Iwanami shoten, 1988) pp. 44.

the population rapidly increased, while the size of the family, the basic production unit of agriculture, gradually became smaller. This growth is thought to have reached the equilibrium in the 18th century. While the growth pattern appears to have stagnated in the 18th century, a new period of expansion started in the 19th century again. From the beginning of the Edo Period to its end, the population increased by around 2.8 times, the area of the cultivated fields expanded by 1.6 times, and the agricultural production increased by 2.4 times.

One should ask a question like how this rapid increase in agricultural production was allocated among people during the Edo era. The KOKUDAKA and MURAUKE system as mentioned earlier provides the answer. It is recalled that the land tax was not assigned to each individual farmer. The KOKUDAKA of the cultivated field of the village is summed up, and MURA-DAKA is decided based on the evaluation. That is, unless MURA-DAKA changes, the amount of land tax never exceeds it. Thus, there is a strong tax incentive for each village to increase rice and other agricultural production to take advantage of this tax system. Extra profits after payment of the fixed tax all accrued to farmers, so that these

farmers were strongly motivated to increase productivity and expand production by applying new agricultural technology and tools as well as using manure and developing new hybrid of rice varieties.

Therefore, in the early Tokugawa period, farmers were eager to expand the cultivated fields. While the expansion of the agricultural field lasted until the 17th century, the relative living condition of the *samurai* class deteriorated and started experiencing financial crisis and extreme poverty. In order to salvage the *samurai* class, the eighth shogunate of Tokugawa Yoshimune launched a new policy to encourage farmers to further develop arable land. However, it didn't work successfully. This was because farmers had changed the strategy of the land management in such a way that they now tried to maximize the productivity of the already existing land instead of further acquiring new plot of land. In particular, they took advantage of the loophole of the tax system as mentioned earlier and they concentrated on improving the productivity of the poorest land. Since the land tax levied on such plots of land was low at the time the rate was decided on their poor harvest, and remained unchanged, every increase of rice production from the improved plot was left at the hands of farmers. As a result, if one observes the trend of real state prices on agricultural land, the plot of land designated as "poor land" on the contract in effect often charged a higher price than the plot "good land" as time passed.

The tax system of the Tokugawa government greatly benefited farmers, and increased their income levels, while the *samurai* class suffered from the fixed salary and inflation of rice prices. Thus, contrary to the popular notion often observed in the literature, it was the *samurai* class that was in poverty, and not farmers. In order to make their living, *samurai* class became deeply indebted by borrowing loan from merchants and farmers, and reached to the point that even the interest payment could not be returned. Thus, the Meiji eruption occurred not because farmers were unhappy with the Tokugawa government but because those lower ranked *samurai* could not sustain their lives under the Tokugawa's tax system.

4 The accumulation of capital and financial system in the Edo Period

4-1 Characteristics of historical materials of the Edo Period

This section considers how pervasive money economy spread in rural areas, and whether agricultural savings described in the previous section functioned as a capital formation during the Edo era. The key to answer this question can be found in historical materials that still exist in villages.

Enormous amount of historical materials and documents for the period covering the 17th

and 19th centuries can be found throughout Japanese villages. These historical materials are traditionally kept in individual homes.

There are three types among these materials. First, there are many documents of villages that a NANUSHI left behind. These documents mainly show detailed information on land taxes and family structures of each village member. In the administrative function of the village, the NANUSHI was a central person. Thus, documents were recorded and kept for the purpose of administration of the village as NANUSHIs took turns. These documents were kept and were handed down to NANUSHIs one after another. This is the why these documents are still found even today.

In many cases, documents related to the land tax were kept especially carefully, because they influenced the consequences of various quarrels among members inside the village. Furthermore, these documents functioned as formal evidence to support the village's interests against the feudal lord.

Second, there were many documents related to the possession of the land, or "KENCHI-CHO" (検地帳). These documents provide information on the registration ledger of the land, and the movement of the ownership of each plot of land.

Third, many historical materials related to private finance, not including public finance, are available. There are three types of categories: "debt contract", "land mortgage contract", and "collateral contract".

A "debt contract" provides detailed information on the financial relations of money borrowing and lending between the creditor and the debtor.

A "land mortgage contract" documents the sales and purchases of farm land among farmers, and thus provide long-term information on how each farmer's actual land-ownership was evolved in a given village. There was a well-known statute called "TOCHI-EITAI BAIBAI KINSHI REI" (The law that the purchases and sales of the land are prohibited permanently 土地永代売買禁止令). However, it is often ignored that this statute was actually targeted against the class of feudal lords, and was not meant to control the class of farmers. This is why one can still find a large number of documents referring to the transaction of real state mortgage in rural villages. That is, farmers were free to sell or purchase plots of land according to their economic conditions.

A "collateral contract" is the contract to record cash borrowing with real estate as collateral, and specify the repayment periods as well. Furthermore, if the taxable plot of land was put in collateral, the responsibility for the payments of land tax was also clearly specified in the documents.

Some rules existed in these contracts. First, each contract must have been accompanied

by someone to guarantee the consequences of the deal. It was this backing that guaranteed the smooth implementation of the contract, and reduced the risk of a creditor in case of a debtor's insolvency. Second, the contract has to be sealed with the sign of the NANUSI to authorize it as a complete contract. No contract without the sign of a NANUSHI was considered valid and it was not accepted as an evidence in a case of law suits by official courts. Therefore, the acknowledgment of the village official was absolutely necessary for the above three kinds of contracts. This way one realizes that the function and responsibility of the village officials were to manage tax collection and authorize the business transactions of member farmers.

4-2 The financial system and capital accumulation of the Edo period

What kind of financial system existed in the Edo period? A case to take up here is about the "collateral contract" of *Kai* county (present *Yamanashi* Prefecture) Ochiai-mura in the period 1841-1857⁷⁾.

This Ochiai-mura was a just an average village with a population of 955 people. The

Tabla. 2 "The pawn ground bond" data in Ochiai-Mura

Age	The number of contracts	The amount of money in total (Ryo)	The average of contracts (Ryo)	The number of cultivated fields	The average of contracts	Borrowing period (Year)	Area total (Tanbu)	The average of contracts
1841	16	292.5	18.3	64	4.0	5.1	129.9	8.1
1842	19	1,174.0	61.8	161	8.5	3.3	396.0	20.8
1843	28	508.3	18.2	135	4.8	5.6	273.5	9.8
1844	24	353.5	14.7	67	2.8	3.9	159.3	6.6
1845	17	375.8	22.1	50	2.9	3.2	352.3	20.7
1846	26	434.5	16.7	96	3.7	3.4	192.7	7.4
1847	30	487.3	16.2	85	2.8	4.6	183.4	6.1
1848	20	445.5	22.3	64	3.2	4.3	320.9	16.0
1849	27	566.3	21.0	77	2.9	4.3	243.5	9.0
1850	26	477.5	18.4	85	3.3	4.8	229.4	8.8
1851	18	390.5	21.7	70	3.9	4.8	114.6	6.4
1852	18	390.0	21.7	52	2.9	5.3	94.2	5.2
1853	22	362.3	16.5	55	2.5	5.2	109.8	5.0
1854	10	325.6	32.6	15	1.5	4.8	246.8	24.7
1855	21	508.0	24.2	49	2.3	3.2	209.6	10.0
1856	16	453.6	28.4	53	3.3	3.1	114.7	7.2
1857	10	121.5	12.2	15	1.5	3.8	26.3	2.6
Total	348	7,666.7	386.7	1,193	56.8	72.7	3,396.9	174.6
An annual average	20.5	451.0	22.7	70.2	3.3	4.3	199.8	10.3

7) Kandachi Koichi, "Kinsei kouki ni okeru Tochikinyu no itikousatu". *Yamanashi kensi kenkyu*, Vol. 3 (1995).

Fig. 1 The number of Contracts

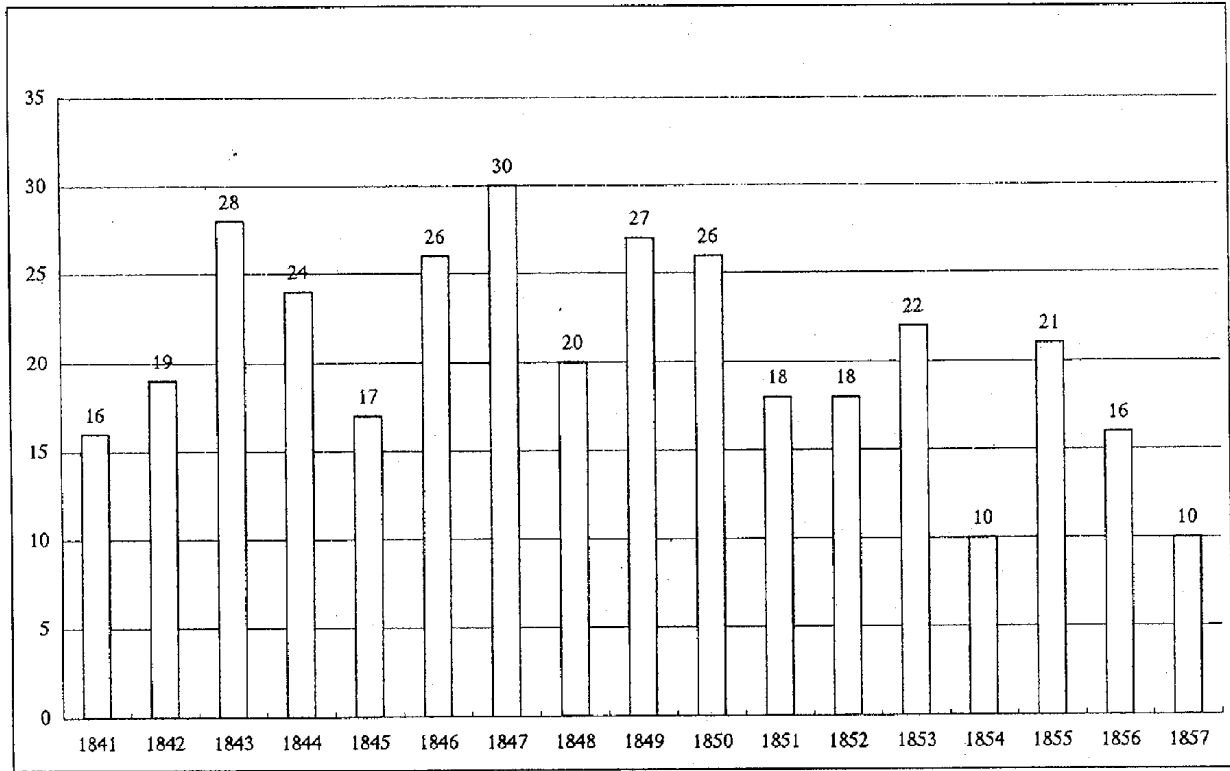


Fig. 2 The amount of Money in Total

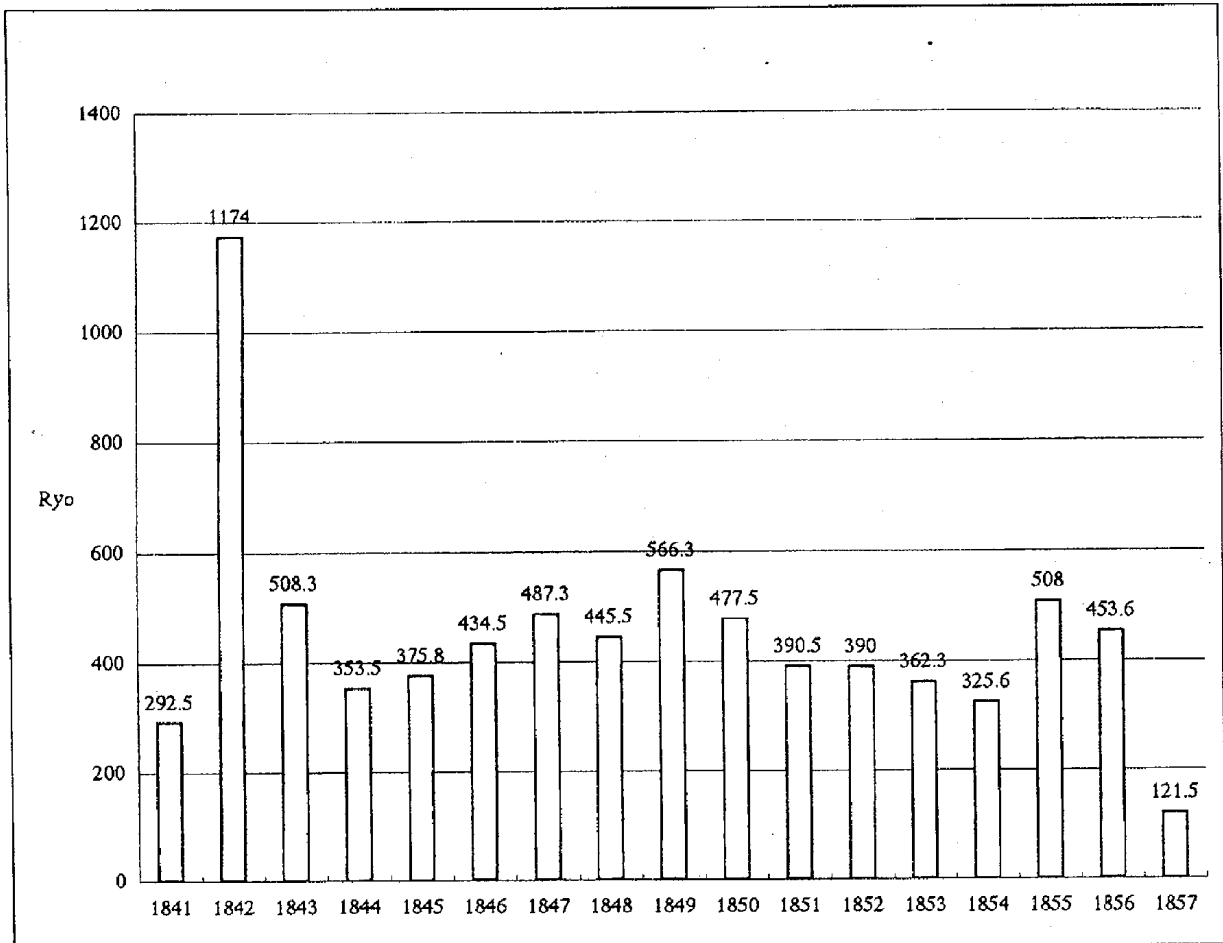
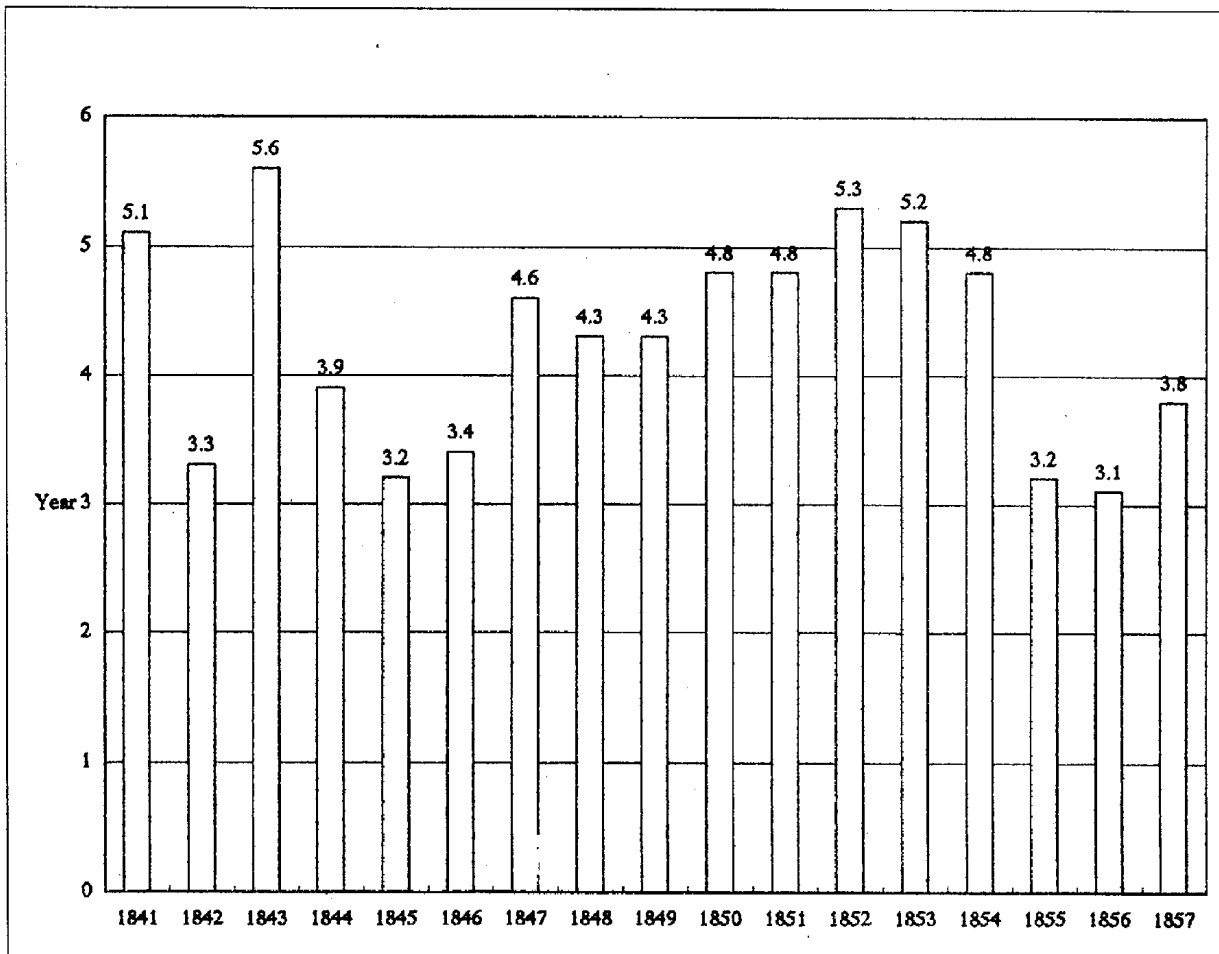


Fig. 3 Borrowing period



number of houses was 195 in 1840. The village was adjoined with the major road that travelers used to go to *Suruga* (present *Shizuoka* Prefecture). Therefore, a variety of goods and more information perhaps were circulated than other villages in more rural areas.

Logs recording to “collateral contract” are found in *Ochiai-mura* covering for 1841 to 1857. These are copies of “collateral contract” which the *NANUSI* used as proof of contracts. These were kept for times when problems occurred, so that they provide rich information as a good source of historical materials. Data derived from these historical materials are shown on Table 2. This data was then analyzed and organized as illustrated in Figures 1, 2, and 3.

The followings can be pointed out by these data. First, on average about 20 contracts were made annually. Considering that this village had a total of less than 200 households, the number of contracts was not small. This fact suggests that borrowing money by putting one’s land as collateral was a common practice.

Next, the annual average amount of money used through these contracts was about 450

Tabla. 3 The list of the person who has much contract participation number of times

Creditor				Debtor			
Japanese Name	English Reading	The Number of Times	Contract number rate	Japanese Name	English Reading	The Number of Times	Contract number rate
又 兵 衛	Matabei	47	13.5%	伝 之 丞	Dennojō	23	6.6%
富 右 衛 門	Tomiuemon	39	11.2%	利 左 衛 門	Rizaemon	19	5.5%
十 郎 右 衛 門	Jūrōuemon	26	7.5%	藤 兵 衛	Tōbei	18	5.2%
唯 右 衛 門	Tadauemon	19	5.5%	伝 左 衛 門	Denzaemon	13	3.7%
善 兵 衛	Zenbei	16	4.6%	惣 左 衛 門	Souzaemon	13	3.7%
治 右 衛 門	Jiuemon	13	3.7%	弥 兵 衛	Yahei	12	3.4%
清 右 衛 門	Seiuemon	11	3.2%	清 右 衛 門	Seiuemon	8	2.3%
藤 左 衛 門	Tōzaemon	9	2.6%	安 助	Yasusuke	7	2.0%
与 兵 衛	Yohei	9	2.6%	才 太 郎	Saitarō	6	1.7%
重 兵 衛	Jūbei	8	2.3%	七 郎 左 衛 門	Sitirō-zaemon	6	1.7%
				与 兵 衛	Yohei	6	1.7%

RYOU. In 1842 the amount of almost 1,200 RYOU is recorded for total of debts and credits. This is indeed a large sum of money for the size of the village. This amount is almost parallel to the size that large merchant houses were dealing with in conducting businesses in silk fabrics at the end of the Tokugawa era. It is clear that such a large sum of money was borrowed by farmers not because they were too poor even to pay their land tax.

Looking at the data from another perspective, it is found that a debtor sometimes became the creditor. When the names of the farmers who participated in contracts were collected, some names appeared as both the creditor and the debtor, as shown in tables 3 and 4. These farmers obviously served as a part of an agent of banking services.

It is possible that the money obtained through this system functioned as capital. As a case in point, the raw material for *tatami* was being produced in Ochiai-village. It isn't clear, however, whether the borrowed money was actually used for this industry. It may have been spent for transporting goods and other delivery services to connect the village's economic activities with the major road running nearby the village.

It should be noted that credit transactions were made with due consideration of debtor's repayment ability. In other words, both contracting parties were aware of the economic ability and status of each other. In total, there were names of 168 people on the list of contracting parties. This list, however, includes names of people from other villages, and names of several generations from the same family. Nonetheless, if these names were removed from the list, it is still worthy of attention that about three-fourth of the total

Tabla. 4-a Large sum of annual lender

Village name	Japanese name	English Reading	A. D.	The amount of money	Pair annual rate	The number of contracts matters	Pair annual rate
Ochiai	善兵衛	Zenbei	1842	420	35.8%	2	10.5%
Ochiai	富右衛門	Tomiuemon	1856	259.625	57.2%	8	50.0%
Ochiai	又兵衛	Matabei	1851	212	54.3%	5	27.8%
Ochiai	利左衛門	Rizaemon	1843	200	17.0%	1	5.3%
Ochiai	富右衛門	Tomiuemon	1851	162	41.5%	5	27.8%
Ochiai	又兵衛	Matabei	1852	154	39.5%	5	27.8%
Ochiai	重右衛門	Jūemon	1842	150	12.8%	1	5.3%
Ochiai	唯右衛門	Tadauemon	1856	135	29.8%	3	18.8%
Ochiai	又兵衛	Matabei	1849	122.75	21.7%	4	14.8%
Barasawa	市川文蔵	Ichikawa Bunzō	1854	120	36.9%	1	10.0%
Ochiai	富右衛門	Tomiuemon	1850	120	25.1%	3	11.5%

Tabla. 4-b Large sum of annual borrower

Village name	Japanese name	English Reading	A. D.	The amount of money	Pair annual rate	The number of contracts matters	Pair annual rate
Barasawa	市右衛門	Ichiuemon	1842	642	54.7%	3	15.8%
Ochiai	利左衛門	Rizaemon	1849	251.5	44.4%	5	18.5%
Ochiai	藤兵衛	Tōbei	1842	248	21.1%	2	10.5%
Ochiai	与兵衛	Yohei	1856	232	51.1%	3	18.8%
Ochiai	伝之丞	Dennojō	1848	177.5	39.7%	4	20.0%
Ochiai	清右衛門	Seiuemon	1854	170	52.2%	2	10.0%
Ochiai	伝之丞	Dennojou	1852	120	30.8%	3	16.7%
Ochiai	才太郎	Saitarō	1855	112	22.0%	3	14.3%
Ochiai	惣左衛門	Souzaemon	1846	110	25.3%	5	19.2%
Ochiai	伝之丞	Dennojou	1844	109	30.8%	4	16.7%

village households participated in the “collateral contract”. In addition to these contracts, there were purchases and sales of lands and the issuance of debt contracts. All these facts indicate that the financial conditions of farm villages were developing already to serve as the foundation for which industries could be built upon.

5 Conclusion

This paper has described farm village economy of the Edo Period, and presents the following 4 points from the viewpoint of economic continuity to the modern ages:

- (1) It was the existence of traditional industries of cotton and silk that made Japan's industrialization possible after The Meiji Restoration. However, the developments of traditional industries were not only made by the capital that was invested directly to promote these industries, but also greatly assisted by the purchasing power of farmers in the rural villages.
- (2) Accumulation of money in the farm village was ironically made possible by the land tax system, which the feudal lords established. The MURADAKA, which was the system of standard measurement, was determined once for all in the KENCHI during the latter half of the 17th century. Since the tax rate determined by KENTI remained fixed, it gave a strong tax incentive to farmers to increase production and productivity of their agricultural products. As a result, the additional income was kept and accumulated by the farmers.
- (3) At the end of the Tokugawa era, the money accumulated by farm villages gradually came to function as capital. It was instrumental in making the rural economy active. The inflation after the Meiji Restoration period also increased farmer's incomes, which stimulated the demand for goods and assisted the economic growth. The new Meiji government realized this, and attempted to repossess these extra capital and funds from the rural villages by deflating the economy known as the "Matsukata Fiscal Policy"⁸⁾. Thus, it was these available funds that made Japan's industrialization possible in a short period of time.
- (4) It must be emphasized again that the farm village economy played a significant role in Japan's modernization. This point should be appraised more highly. At present, fewer researchers of Japanese economic history believe that the farmers of the Tokugawa Period were in poverty. The issue should be reconsidered more in the process of modernization that farmers' economic status and living conditions began to slide toward an unfavorable direction as Japan continued to develop.

8) Umemura Mataji and Nakamura Takafusa ed., *Matsukata-Zaisei to Shokusan-Kogyo*, (Tokyo, The United Nation University, 1983).