Factor markets and their institutions in traditional Japan (II)
A note on capital markets

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In Tokugawa Japan there existed money markets in the sense that there were various lenders of money both in cities and in the countryside, some private and some specialised. For example, there emerged in Osaka a group of wealthy merchants who regularly advanced loans to samurai lords (daimyō). Also an elaborate credit system was established by those Osaka merchants between Osaka, the commercial capital of the day where the silver was the standard medium of transactions, and Edo (present-day Tokyo), the samurai-dominated, administrative capital where the gold was used. At the other end of the spectrum were numerous pawnbrokers for common people and rotating saving-credit associations organised by villagers and townsmen themselves (called *mujin-kō tanomoshi-kō*). There were also wealthy farmers and merchants who supplied private credit. Some of them are said to have borrowed to lend money to others, for whom Ronald Toby talks of the birth of modern banking in the countryside (Miyamoto 1954, Crawcour 1961, Toby 2004).

Yet it is difficult to talk about the existence of any *capital* market for Tokugawa Japan. There was no notion of joint stock or government bond, which could be bought and sold in a marketplace; nor was there any banking institution that specialised in financing mercantile businesses. Both were introduced from the West *after* the Meiji Restoration of 1868. However, if we accept the fact that there took place Smithian growth, however sluggish its pace was, during Tokugawa Japan, we ought to ask how capital was mobilised for such growth. Entrepreneurs who wanted to borrow must have been able to find sources of finance, and there must be suppliers of credit who met the demand. This preliminary paper looks at how such financial capital was supplied, and how the *quasi* capital markets worked in both the Osaka economy and in the countryside, with special reference to trends in interest rates over time, in a pre-modern setting of market segmentation.

The changing structure of the Tokugawa economy

After the consolidation of political power by the Tokugawa family in 1603, Japan was under control of the Tokugawa shogunate. However, much of the country was governed by samurai lords (daimyō). About four-fifth of the total land was controlled by nearly 300 daimyō*,* while the Tokugawa House took the cities of Edo, Osaka and Kyoto, major port towns, mines, and areas around the cities. In each daimyō territory called *han* (domain) taxes were paid in kind, i.e. rice. Tax rice collected was sent by the *han* governments to Osaka to earn cash. Thus the city of Osaka came to dominate the country's commerce in the latter half of the seventeenth century as the market for daimyō tax rice grew. With those wholesale merchants who traded in tax rice, the city grew extremely rich, and 'reputedly held 70 per cent of Japan's money in its hands' (Miyamoto 1954, p.15; see also Hauser 1974, ch.2).

The Osaka market received rice and other agricultural goods from local daimyō economies. In exchange, Osaka shipped out handicraft goods produced in the towns and villages surrounding Osaka and Kyoto (this region was called Kinai) to the peripheral, local economies. In most cases, the balance of payments was favourable to the local economies; indeed the domainal economies had to draw their supply of currency from the Osaka market. All these transactions were made through the channel of Osaka wholesale merchants (*ton'ya*), intermediary dealers (*nakagai*) and local merchants. Each stage of this transaction chain was never a spot transaction; the relationships between the wholesaler and the intermediary and between the intermediary and the local merchant tended to be *durable*, perhaps as durable as the relation between today's Toyota and its subsidiary parts makers.

The Osaka wholesalers were not a sort of merchants who earned profits by bridging two separate price regimes. They traded on a large scale by securing high rates of turnover of capital and merchandise 'with low margins'. They were in many cases specialised in trading one commodity or two with the volume of transactions becoming large. As the firm size grew, it was no longer a one-man business (Miyamoto et al. 1995, pp.18-19). Within this Osaka-centred regime, the wholesaler's money went *in advance* to the intermediary and the intermediary to the local merchant, so that the merchant did not need to find credit before shipment. It was an arrangement that emerged in a situation where no banking businesses developed. The system with the wholesale merchant acting as a creditor of the entire transactions was called the 'wholesaler system' (*ton'ya-sei*). The profit earned by those wholesale merchants, therefore, must have included a substantially large portion of interests to be paid by the senders of commodities (Miyamoto 1951, p.420).[1]

From the late eighteenth to the early nineteenth century this Osaka-dominated system of commerce underwent a series of drastic changes. The first change was the rise of Edo as a market for consumer goods, which extended stimulus to rural areas surrounding Edo and to other regions in the eastern half of the country.

Secondly, daimyō governments in rural regions, both east and west, came to behave more like independent 'mini-states'. For example, many domainal governments started issuing notes (*hansatsu*) in place of shogunate-issued hard currency. Their attempts often failed. Yet there are cases in which domainal governments succeeded in keeping the note price from falling, which were those coupled with 'export' promotion programmes. One of the aims of the domainal reforms was often to by-pass the control of Osaka merchants on the marketing of the domain's speciality goods (Nishikawa and Amano 2004). As a result, thirdly, trade between these 'mini-states' grew, so did their trade with Edo. All this resulted in a substantial decline in the volume of commodities arriving at Osaka. Trade statistics for three separate periods show that while the overall volume of trade increased from 1736 to 1804-29, there occurred a substantial contraction in the total value of trade from the 1804-29 period to 1840 (Shimbo and Saito 2004, p.362).

Trends in interest rates in the Osaka market

The decline of the Osaka market is revealed in falling profit rates of Osaka or Osaka-related merchants. According to a detailed account of one such wholesale merchant who had a cotton shop in Edo, for example, the rate of profit over assets

[1] The word *ton'ya* system was often extended to an institutional arrangement that emerged between merchant-manufacturers and sub-contractor producers, then was adopted later as the translation of the English term 'putting-out system' when economic history writings were brought in from the West. However, as far as textiles are concerned, recent studies of rural industrialisation have revealed that putting-out spread in a much later phase of development: in late Tokugawa times an arrangement termed *Kaufsystem* seems to have been more widespread than genuine putting-out arrangements, and it was in the early Meiji period when putting-out took root in local industrial districts, especially in growing textile districts. It is not unlikely, therefore, that the local merchants at the other end of the Osaka-centred system bought up their goods solely on a *Kaufsystem* basis.

net of liabilities in the period around 1700 were well over 10 per cent, but the level started to fall towards the 1770s, then remained below 3 per cent until the end of the Tokugawa period (Kitajima 1962, pp.200, 387). Similar evidence is available for six urban merchant houses, showing a secular fall in profit rates from eighteenth-century levels of a little lower than 10 per cent (Ishikawa and Yasuoka 1995). Since a large portion of the profit earned by the wholesale merchant corresponded to interest to be paid by the shipping merchant for advance payments, the declining trend in the profit level must have reflected a similarly declining trend in interest rates in the Osaka market.

[Tables 1 and 2]

There is some direct evidence confirming this statement. Interest rates charged by Osaka's Kōnoike for loans to daimyō reveal an unmistakable downward tendency over the period from the beginning of the eighteenth to the late nineteenth century (Table 1). In the early eighteenth century the average rate of interest was a little over 12 per cent, which was probably a little lower than market rates since the latter must have been a little higher than 15 per cent, the statutory rate of interest set as the upper limit by the shogunate government in 1724 (quoted in Miyamoto 1963, p.47). By the end of the Tokugawa period, however, the level declined to 7 per cent. Among the cases there were transactions with very low interest rates, which may be suspect. But even if such suspect cases are excluded, the trend is clearly a downward one: starting with 2.5-3 per cent and ending with 8.7 per cent (second column of Table 1). Other pieces of evidence are for rates of received interest to loans to non-daimyō borrowers. Table 2 show Mitsui's as well as Kōnoike's average rates from 1721 to 1860. The measure cannot be regarded as a contract rate of interest since some may have been defaulted, but the direction of movements such data reveal may well have reflected market trends.

[Figure 1]

The final piece of evidence concerning late Tokugawa interest rates in Osaka is those charged by a pawnshop. This series is annual and covers the period from 1830 to 1879, which is shown in Figure 1. According to this graph, there was a slightly downward tendency up to the early 1860s, then occurred a sharp drop of the interest rate. What is really interesting with this interest rate series is that its movements were negatively correlated with an Osaka price index (price data from Saito 1975). Although the negative relationship is relatively weaker in the 1840s, the correlation coefficient for the entire period is -0.76, which means that when prices were high, interest rates tended to fall rather than to rise. If a rise in prices reflected a general prosperity, then we should expect a positive relationship between the two; but if the price rise was occasioned simply by a monetary factor, it is likely that interest rates in the money market would fall. It is documented that for the period after the Meiji Restoration, i.e. 1893-1940, the two were positively correlated (Fujino 1965, p.524). As for late Tokugawa Osaka, in contrast, the negative relationship seems to have been the case. Situations were very different from the industrialisation period in which low interest rates could stimulate investment in commercial and industrial activities. In early nineteenth-century Osaka the demand for money must have got weaker, which was a reflection of Osaka's declining position in the Tokugawa economy.

Rural development

It is believed that the decline of Osaka was a consequence of rural development. Most of commodities 'exported' from regional economies were labour-intensive goods such as textiles, dye stuff, paper and straw goods. Undoubtedly, wage differentials between the rural Kinai (areas surrounding Osaka and Kyoto) and remote districts played a part (Shimbo and Saito 2004). The question here, however, is how the development of such rural 'export' trade was financed.

One obvious source of finance came from local governments. As noted above, the local government authorities became increasingly concerned with their own economies, especially of their 'export' trade (the following draws on Nishikawa and Amano 2004). Their awareness of potential gains from 'export' of their speciality goods to Osaka and other metropolitan markets often led them to set up 'domainal monopolies' and 'trading bureaus'.[2] Such attempts were found as early as the seventeenth century. However, according to a database compiled from various sources, the number of daimyō governments who adopted such schemes increased in the last quarter of the eighteenth century: 26 in the 1601-87 period, 28 in 1688-1735, 39 in 1736-88, 80 in 1789-1829, 98 in 1830-59, and 106 in 1860-71. On the other hand, the daimyō governments often issued paper money (*hansatsu*). Initially, it was simply an attempt to make up for their budget deficits, but they increasingly came to realise its potential as a measure of macro-economic management. Although it is difficult to quantify how many of the total of the

[2] Although all these domainal schemes were customarily called 'monopolies' (*senbai-sei*), 'intra-domainal monopolies' were not many. Most of them were actually 'inter-domainal monopsonies'. Given the competitive nature of the metropolitan markets, this implies that in the case of 'inter-domainal monopsony', the domain's trade bureau could not exercise any monopolistic power in the interregional markets. See Nishikawa and Amano (2004), pp.249-250.

above-mentioned trade-bureau schemes were linked with such monetary policy, the following case studies strongly suggest that there were close connections between the two.

A case in point is found in Tokushima domain. In 1766 a reform proposal was made by a wealthy indigo merchant to the Tokushima government, which 'taking the eighteenth-century development of the [Tokushima] indigo industry as its basis, called for the establishment of an indigo-ball trading bureau which the domainal government would control in Tokushima and keep separate from the distribution and financial controls of Osaka wholesalers'. The proposal also 'called for the Tokushima government to function as a commercial credit provider in place of the Osaka merchant houses' (Nishikawa and Amano 2004, p.256). It seems that credit was provided in the form of notes rather than hard currency. Although this reform failed as the central shogunate government took the side of the Osaka merchants, this clearly shows how such a domainal scheme operated. In the 1790s, another reform effort was made. The aim of the reform programme was the same as in the 1760s. However, this time they turned their eye on to the Edo market, and the Tokushima merchants played a larger role in advancing funds to local consignors (Amano 1986, pp.28-46).

Two other examples come from Himeji, a cotton area, and Kaga, a silk area. Both domains exhibited successful operations of 'export'-promotion development policies in the early nineteenth century. Both tried to by-pass the Osaka market and instead turned their attention to Edo. Their direct shipment of 'export' goods to Edo was one major factor for their success. Also noteworthy was their 'conscious use of domainal notes [paper money] as regional currency', with which credit was provided to e shipping merchants (Nishikawa and Amano 2004, pp.257-259).

The final case study is concerned with inter-domainal trade between Takamatsu and Wakayama domains. The initiative began in the 1830s on the Takamatsu side, which was a major supplier of sugar. From the beginning it involved the use of paper money. The Takamatsu government discontinued the circulation of old notes and issued new ones, 'by taking a specie reserve into account'. The new notes were used via a 'sugar exchange fund' to provide loans to shipping merchants. Initially shipment was bound for Osaka, but with a petition from a rural merchant a new bureau was set up in order to by-pass the Osaka market and came to include Wakayama domain as a partner in 1845. Again, it is worth noting that the whole operation was made possible by the issuing of paper money as regional currency (Nishikawa and Amano 2004, pp.260-264).

Interest rates in the countryside

The above account of regional trade promotion policies seems to suggest that money was in short supply in those local economies, and also that there existed no ways in which excess stock of funds in Osaka was invested into commercial and industrial opportunities in the regional economies. Without formal institutions, the capital markets tended to be segmented.

In such circumstances, it is difficult to assume that interest rates in the regional economies moved in accordance with those in the Osaka market. Unfortunately, there is no evidence available with respect to how credit markets in Tokushima, Himeji, Kaga, Takamatsu and Wakayama were working. There are only scattered pieces of evidence for rural credit and interest rates in other areas.

Ronald Toby in his paper on a wealthy farmer-banker in a province of central Japan made analysis of money-lending ledgers for the 1829-37 period, and argued that there were local networks of money lenders who borrowed to do money lending businesses. In so doing, he suggests that the rural level of interest rates on retail loans seems to have been in the range of 12-15 per cent per annum, unmistakably higher than the Osaka market rates, although other local studies he quotes include loans at single-digit rates, on the one hand, and those at 20-30 per cent, on the other (Toby 2004).

[Table 3]

In another case study of a farmer of similar status in Izumi province in the Kinai, Satoru Nakamura shows us how rural interest rates changed over time. In the period in question there were two types of lending. One is called *shichiire*, in which the ownership of a property taken as security for a loan shifted to the lender, and the other *kakiire*, in which case the ownership remained with the borrower. His data (set out in Table 3) reveal that while most of yearly averages of interest rates charged by the farmer-creditor fell in the range that Toby suggested for the countryside, i.e. 12-15 per cent, there occurred two changes in the level of interest rates during the period of one and a half centuries. The interest rate declined in the eighteenth century: in the *shichiire* series the average declined from 18 per cent to the level of 10-11 per cent during the eighteenth century while in the *kakiire* series the decline took place a little later in the second quarter of the nineteenth century. The timing of this decline was more or less in line with the trend in the Osaka money market, and is confirmed by another study of rural credit. Based on a number of contract documents in Harima, a province adjacent to the Kinai, Shoji Uemura has shown a steadily declining trend in the average interest rate from the level of 15-20 per cent to that of single-digits (Uemura 1986, pp.235-238). On the other hand, the Izumi-province data (Table 3) reveal an upturn in the level of rural interest rates in the period from the 1860s to the 1880s. This was generally a period of inflation. Especially the first half of the period saw a hyper inflation during which Osaka's pawnshop interest rates fell sharply (see Figure 1 above). In other words, the response of market interest rates to price change differed between Osaka and the countryside in the inflationary period that followed immediately after the opening of the country into world trade: in the 1860s and after demand for money went down in the urban market while it increased in the countryside.

However interesting these findings concerning trends in interest rates in rural districts in the latter half of the Tokugawa period, it is, unfortunately, not quite clear how these phenomena were related to the ways in which interregional trade was promoted in the economies of domains we saw in the previous section. Did the schemes instituted in those domains to promote 'export' trade bring interest rates down, just as the Osaka-centred system of commerce had achieved in the eighteenth century? Or did the 'export' merchants behave differently from what the Osaka wholesalers did?

<u>The case of the early Meiji silk trade</u>

Although it is not possible to examine how 'export' merchants in the domains of Tokushima, Himeji, Kaga, Takamatsu and Wakayama, it is not impossible to draw an inference from early Meiji case studies of local industrial district after the opening of the Treaty ports. Particularly interesting is the silk trade which grew strongly in the rural provinces of central and eastern Japan after the beginning of overseas trade in 1859 (for the development of silk export, see Sugiyama 1988, ch.4). The trading port was Yokohama, a Treaty port, and it was export merchants in Yokohama who played an important role in the growth of silk export. They were called 'wholesale merchants' (*ton'ya*) but most of them had rural origins, having no relations at that stage with the established wholesalers in Osaka and Edo (although Mitsui entered the business as early as 1876 by setting up Mitsui Bussan, a trading company). Of course, it should be remembered that in early Meiji period, unlike in late Tokugawa times, commercial banks in a modern sense came into existence, first as American-style 'national banks'. There also emerged a number of non-bank lending businesses in rural industrial districts, especially in export-oriented silk-producing areas in Shinshū and Jōshū. In 1880 the Yokohama Specie Bank was established as a quasi-government bank specialised in financing foreign trade, and two years later the Bank of Japan came to operate as a central bank, replacing the decentralised American system of 'national banking'. Nevertheless, even when credit from those 'modern' banking institutions became available, the role played by the export merchant-wholesalers in Yokohama was crucial in financing the development of silk export, the system of which came into being in the mid-1870s.

Before examining their activities since the mid-1870s in the trade between the silk district and Yokohama, however, it is worth having a look at the situations in the period from the beginning of foreign trade to the mid-1870s (the following account draw on Ishii 1972, ch.2, and Nakabayashi 2003, ch.7). Raw silk was the single most important of all export goods of Japan since the entry into world trade. A number of merchants came to Yokohama where lucrative trade opportunities were suddenly created since 1859. Initially, as price gaps between the rural districts and Yokohama were large, they went round to buy raw silk in the countryside, or bought goods from producers who brought their merchandise with them to Yokohama. With the development of communication methods, especially telegram, the price differences narrowed and the 1870s saw district producers forming their trade co-operatives, which acted as consignors to Yokohama. Correspondingly, similar trade associations were formed by Yokohama's export merchants. The moves were occasioned by government-introduced regulations which required the product stamped in the silk district and quality checked in Yokohama. Although the regulations were repealed several years later, this gave a further opportunity for export merchants to extend their influence onto local consignors. The former provided advances to the latter before the merchandise was handed to a Western merchant. Because of this financial role, their dandling share increased over time. Indeed, export of raw silk from Yokohama grew at the average annual rate of 8 per cent from 1873, when the regulations were announced, to 1887, while the amount the export merchants handled increased at 10 per cent over the same period (Yokohama-shi 1959-76, III, *jō*, p.584).

This kind of advance finance in the silk trade is said to have started by a branch shop of the Mitsui House in 1870. However, it was the emerging Yokohama export merchants who adopted it as a major medium of business strategy (Yamaguchi et al. 1966, p.61). According to this method (see Figure 2), raw silk produced in the rural district was delivered through a local consignor (or an agent from the co-operative) to the export merchant in Yokohama, who sold the products to Western merchants. The local consignor drew a documentary bill through a local bank on the export merchant in Yokohama and was financed for 70-80 per cent of the estimated selling value. The export merchant took the silk dispatched by the consignor to his warehouse on settling a bill of exchange with interest. The settlement was made *before* the agreement with a Western merchant was reached. The export merchant was financed by a commercial bank in Yokohama, most notably by the Yokohama Specie Bank, which in turn was financed by the Bank of Japan since its establishment in 1882.

Thus the export merchants received interests as well as commissions. According to one large export merchant's account book in 1884, for example, interest earnings, net of interest payments, amounted 20,687 yen while commissions totalled 25,788 yen. Commission rates seem to have been fairly low. According to an agreement in 1883, the rate was 1.1 per cent of the total transaction value, which was reduced to 1 per cent in 1886. Interest rates charged by them to advances to local consignors were not so cheap (annual average rates, converted from daily rates, are set out in Table 4). In 1882 the average was 18.3 per cent per annum, which came down to the range of 9-12 per cent by 1890. These rates were said to be higher than market rates in Yokohama (Yokohama-shi 1959-76, III, *jō*, p.569). Twenty years later, however, export merchant rates declined further and became lower than market rates in the rural silk districts (Tokyo Kōtō Shōgyō Gakkō 1915, 47). It seems, therefore, that as the relationships between the Yokohama export merchant and silk-producing districts got closer and more durable, interest rates tended to fall.

Conclusion

In this early Meiji silk trade, there seems to have been continuity from the Tokugawa past at least in two areas. One is concerned with the role played by wholesale merchants in financing the export trade. In Yokohama there was a spontaneous formation of a system similar to the age-old 'wholesaler system'. In the core of the system was the supply of credit provided by the wholesale merchant, which eventually enabled to lower interest rates accrued in the transactions. The other is the way in which export trade was encouraged. In both domainal and early Meiji development policy regimes, the government saw money supply as a principal means of encouragement. Policy makers in the government of early Meiji too thought that money supply in the form of note-issuing local banks would result in supplying capital to merchants and producers in export business (Hashino and Saito 2004, pp.244-245). And those export merchants in Yokohama were ultimately financed by money from the central bank.

Probably, it is this mechanism that was operating in various development policy schemes of late Tokugawa daimyō economies. One thing that separates the Tokugawa systems from the early Meiji case is that they were all segmented.

Links between the local daimyō economies were weak, and the whole Osaka-centred system was virtually cut off from the growing local economies. This, however, does not necessarily imply that there was no competition. Even in the late Tokugawa period competition did exist—in the form of inter-regional, inter-domainal competition.

Table 1. Interest rates on loans to daimyō: House of Kōnoike, 1707-1880

Period	Average rate (% p.a.)	
	All cases	Excluding cases with below 6 % interest rate
1707-1740	12.5	12.5
1741-1760	12.1	13.0
1761-1780	11.3	11.3
1781-1800	6.5	9.3
1801-1820	7.3	9.3
1821-1840	7.1	8.3
1841-1860	6.8	8.7
1861-1870	7.4	8.7

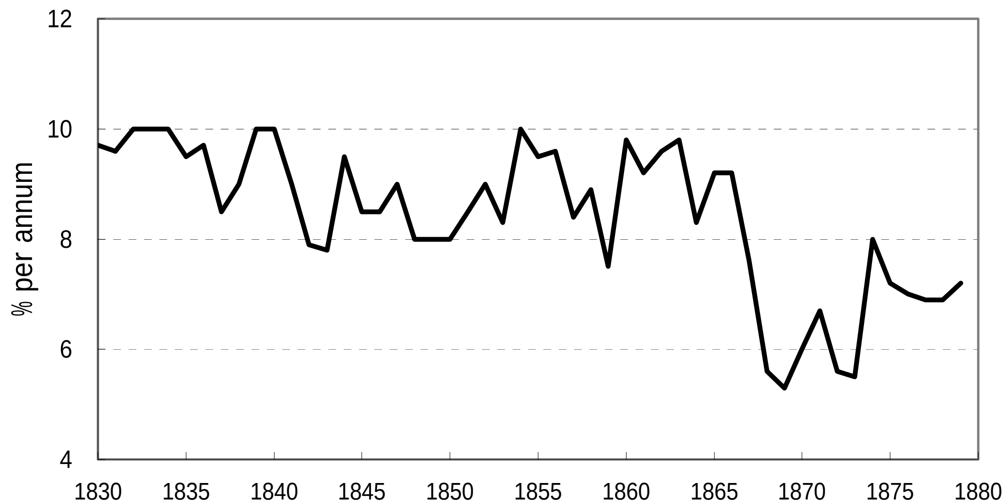
Source: Miyamoto (1963), pp.348-365.

Table 2. Rates of received interest to loans: Mitsui and Kōnoike Exchange Houses, 1721-186

Period	Average rate (% p.a.)	
	Mitsui	Kōnoike
1721-1740	4.9	6.3
1741-1760	4.1	5.5
1761-1780	3.4	4.9
1781-1800	1.7	3.8
1801-1820	1.8	2.2
1821-1840	1.9	3.4
1841-1860	—	3.3

Source: Shimbo and Saito (2004), p.358.

Figure 1. Interest rates charged by a pawnshop in Osaka, 1830-79



Source: Miyamoto (1963), p.344.

Table 3. Interest rates in Izumi province, 1728-1890

Period	*Shichiire* rate (% p.a.)	Period	*Kakiire* rate (% p.a.)
1728-1758	18.0		
1771-1788	10.6		
1789-1800	11.7	1781-1801	13.2
1801-1824	10.1	1818-1832	14.5
		1833-1845	11.8
1845-1859	10.9	1848-1859	10.2
1861	11.6	1860-1867	12.0
1871-1874	13.5	1868-1875	14.2
		1876-1881	18.7
		1882-1890	17.6

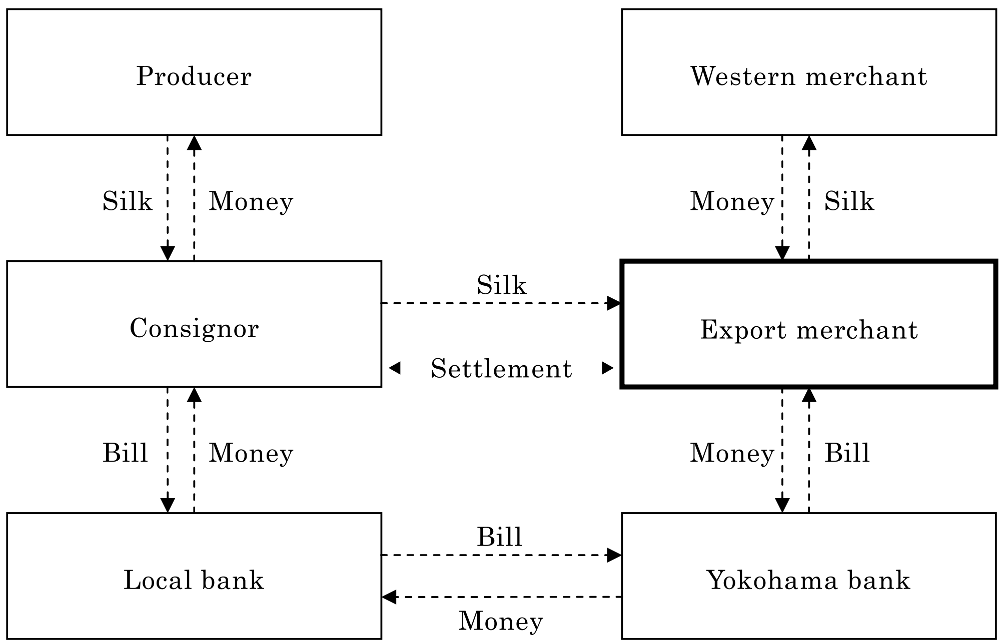
Source: Nakamura (1968), p.348.

Table 4. Interest rates charged by Yokohama export merchants, 1882-91

Year	Average rate (% p.a.)
1882	18.3
1883	15.3
1884	13.5
1885	12.8
1886	10.2
1887	8.8
1888	11.0
1889	11.0
1890	12.0
1891	12.0

Source: Yamaguchi et al. (1966), p.47.

Figure 2. The export merchant in the silk export trade, c.1880



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