

A History of Industry in Japan (2): Managed Trade During the Edo Period

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As a result of settlement from more industrialized countries and import trade, new consumer goods, technology, and religious thought are added to the national economy.

From the fourth to the sixth centuries many Koreans came to Japan, bringing with them Confucian thought, Chinese writing, Buddhism, and figured twill and brocade weaving techniques. Japan's weaving techniques therefore progressed, and a wider range of consumer goods became available.

From the seventh to the ninth centuries the Japanese government sent diplomatic envoys and student priests across to China (the Sui and T'ang dynasties), and they brought back Chinese culture, religion, technology, and a variety of Chinese goods. However, this interchange did not develop into frequent visits by ships or any permanent large-scale transactions of goods.

Chinese and Korean vessels began to make regular visits to Japan in the latter half of the Heian period (866–1160), and then the Taira government (1160–85) and the Kamakura shogunate (1192–1333), which was Japan's first warrior government, encouraged trade with the Sung (960–1279) and Yuan (1230–1368) dynasties in China. Japan imported Chinese items such as Sung dynasty coins, ceramics, spices, medicine, high-quality textile goods, and tea, and exported such items as gold, sulfur, swords, lacquer ware, pearls, fans and timber.

After the fall of the Kamakura shogunate, Japanese pirates became active, and although licensed trade did take place between Japan and the Ming dynasty in China, the scope of transactions was limited to Japan, China, and Korea.

In the 16th century, trade with Portugal (the so-called *namban*, or "south barbarian," trade) and contact with Western Europe expanded the geographical scope of Japan's trade,

widened the range of traded goods, and added a new angle to the consumer lives of the Japanese. In the Edo period (1603–1867), however, this expanded trade with foreign countries was limited again to such an extent that the era came to be called one of national seclusion. This policy of isolationism was the cause of Japan's technological delay behind Western Europe, where the industrial revolution was making progress.

Namban trade: 1549–1639

In Europe during the middle ages, such eastern products as spices, silk goods, and gems were considered to be precious items available only to royal and aristocratic families. Muslim merchants would carry these eastern products to Alexandria, Tyre and Constantinople, where they would be purchased by Italian merchants, who then resold them in Western Europe. After the opening of the sea route to India via the Cape of Good Hope by Vasco da Gama in 1498, Portuguese merchants began to purchase spices in the east and take them directly to Western Europe, thus avoiding the Mediterranean route that was in the hands of Muslim and Italian brokers. As a result, the price of pepper in Lisbon fell to half that of pepper in Venice. With the cooperation of the Fugger family in Germany, Portuguese merchants put together a fleet of vessels and launched the East India spice trade.

In 1510 a Portuguese expeditionary force occupied Goa and established the first European colony in Asia. In 1511 the Portuguese overthrew the Muslim kingdom in Malacca and built a stronghold there, and in 1522 they finally arrived at and gained control of the spice isles of the Moluccas.

The arrival of the Jesuit missionary Saint Francis Xavier in Japan in 1549 was the first contact between Japan and Europe, and the development of trade between Japan and Portugal (*namban* trade) provided Portugal with a natural

extension of entry into Asia.

Portugal leased Macao in 1553, acquired residential rights there in 1557, and set about building Macao into its third colonial city after Goa and Malacca, using trade with China and Japan as a base for spreading Christianity.

In the process of penetrating Japan, Portuguese merchant ships first docked at Kagoshima, Funai (now Oita), Hirado, and Nagasaki, finally reaching Sakai and Hakata, which then became the main ports of *namban* trade.

Oda Nobunaga and the other daimyo (feudal lords) and merchants welcomed the Portuguese ships and expanded Japan's import of raw silk, firearms, and saltpeter. At the time Japan imported about 150,000–180,000 *kin* (90,000–110,000 kilograms) of Chinese raw silk a year, as well as firearms, gunpowder, silk goods, leather, spices, medicine, lead and woolen goods. In addition, Japan also came into contact with the advanced technologies of Europe, applied in such items as glass mirrors, telescopes, clocks, organs, astronomical equipment, and globes.

A large number of Portuguese words entered the Japanese language without much change, such as *raxa* (woolen cloth), *veludo* (velvet), *sabão* (soap), *pão* (bread), *tempero* (deep-fried fish and vegetables), *capa* (raincoat), and *tabaco* (tobacco). Other foreign words that were adopted by the Japanese included *jacatra* (potato) and *camboja* (pumpkin). Moreover, Xavier arrived in Japan in a junk, which comes from the Portuguese rendering (*junco*) of the original Javanese word *jon*.

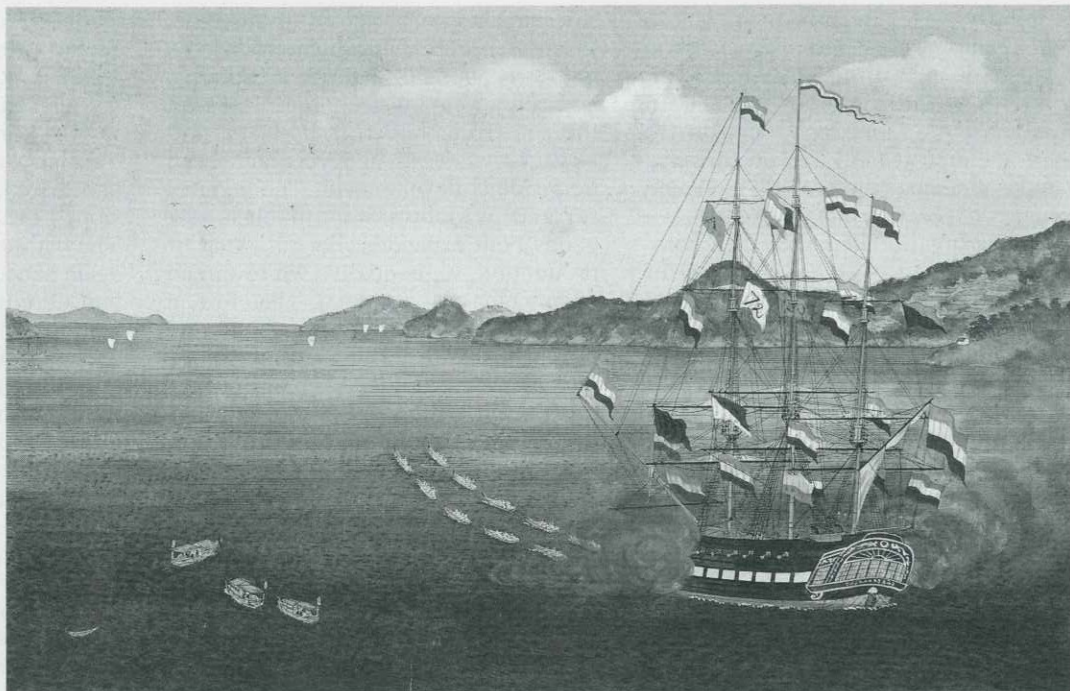
Portuguese ships brought silver coins and oil from Goa and spices from the Moluccas, exchanged them in Macao for Chinese raw silk, silk goods, medicine, gunpowder, and so on, and sailed on to export these products to Japan. In exchange, they sailed away from Japan with silver, swords, marine products and lacquer ware and craft-

work. From the end of the 16th century to the beginning of the 17th century, Japan was a major silver-producing country, yielding one-third of the world's silver at that time. Around 1580 Portugal was acquiring 5,000–6,000 *kan* (18,750–22,500 kilograms) of silver a year from Japan.

In Japan, the Jesuit missionaries (*crisao padre*) carried out their proselytizing activities in the Kitakyushu and Kinki regions, with the result that some daimyo in these areas went over to Christianity: Arima Harunobu, lord of the Arima region in Hizen Province (now Nagasaki Prefecture); Omura Sumitada, lord of the Omura region of Hizen Province; Otomo Sorin, lord of Bungo; and Takayama Ukon, lord of Takatsuki, southwest of Kyoto.

Criticizing the fact that the Portuguese were purchasing Japanese as slaves—the Christian daimyo Omura Sumitada (who went by the Christian name of Dom Bartolomeu) had donated Nagasaki to the Jesuit Society—and destroying temples and shrines, the government of Toyotomi Hideyoshi, who followed Oda Nobunaga, issued a decree banishing the Jesuit missionaries. However, Hideyoshi did not prohibit *namban* trade. Rather, he set about managing trade by issuing so-called red-seal trading permits to certain wealthy merchants and daimyo. As a result, in order to strengthen their local clan governments, daimyo such as Shimazu, Arima, and Nabeshima in Kyushu took the initiative themselves in becoming ship owners and participating in red-seal trade.

After Hideyoshi's death, the government of Tokugawa Ieyasu continued the policy of red-seal trade. And then in 1604 the Tokugawa shogunate introduced a semi-governmental monopoly



A Dutch ship leaving port. Photo courtesy of Nagasaki Municipal Museum.

of the raw silk trade, by which it granted the right to purchase all the raw silk brought by Chinese and Portuguese ships from Macao to a group of merchants in three cities: Sakai, Kyoto, and Nagasaki. In this way, the Tokugawa shogunate moved to strengthen its own economic power by controlling raw silk trade and restrain the clans from enhancing their position through trade.

In 1600 the Dutch ship *Liefde* drifted ashore in Usuki Bay in Bungo Province (now Oita Prefecture) and Tokugawa Ieyasu kept the Dutchman Jan Joosten and the Englishman William Adams (later known by his Japanese name of Miura Anjin), who had been on the ship, in Japan, giving them residences and having them serve as diplomatic advisors to the government. Thanks to the efforts of these two men, a Dutch trading post was established at Hirado in 1609 and an British trading post in 1613, as a result of which Japan began to receive vessels from Spain, the Netherlands, and Britain, as well as Portugal and China.

Even more than these foreign ships

visiting Japan, however, Japanese ships at this time left for Southeast Asia (Luzon, Cochin, Cambodia, Siam, and Java) in greater numbers. Until 1635, when the Tokugawa shogunate's national seclusion edict banned overseas voyages by Japanese ships, the number of voyages made by Japanese ships and the volume of trade transactions were much larger than those of Dutch ships, even larger than those of Chinese ships, and almost the same as those of Portuguese ships.

In 1610, however, the Dutch regent Maurits of Orange sent a message to Tokugawa Ieyasu stating that the Spanish and Portuguese, under the guise of religion, were aiming to turn Japan into a colony. And in 1620 staff of the Dutch and English trading posts in Hirado together sent a message to the shogunate stating that the Spanish had set up a colony in Luzon and that Japanese ships bound for Luzon and Macao were taking food and military supplies to the Spanish there and coming back with missionaries from Macao to Nagasaki, so the shogunate should

prohibit voyages to Luzon and Macao by Japanese ships. After the Ambon Incident of 1623, British merchants voluntarily withdrew from trade with Southeast Asia and Japan and turned their attention toward trade with India, but the shogunate did prohibit incoming voyages of Spanish ships in 1624.

The Tokugawa shogunate then completely banned overseas voyages of Japanese ships in 1635 and prohibited the arrival of Portuguese ships in 1639. Only Dutch and Chinese ships were permitted to visit Japan for the purpose of trade, and ships from these two countries could only enter the port of Nagasaki, which was under the direct control of the shogunate. Dutch residents could only stay on Dejima, an artificial island in Nagasaki Harbor. This so-called Nagasaki trade, over which the Tokugawa shogunate had monopoly control, was a passive kind of trade, centered on the import of goods brought by the foreign ships arriving in Japan.

In addition to this Nagasaki trade, the So daimyo family in Tsushima and the Shimazu daimyo family in Satsuma (now Kagoshima Prefecture) conducted trade with Korea and the Ryukyus (Okinawa), respectively. In these cases, Japanese ships went from Tsushima to Pusan or from the Ryukyus to China and came back with Chinese raw silk, which merchants then sold to the weavers in the Nishijin district of Kyoto or within the Satsuma clan itself.

Silk manufacturing and copper mining industries in the period of national seclusion

Silk Manufacturing Industry

In the Edo period, Japan's trading partners were China, the Netherlands and Korea. Japan's main exports were silver, copper, gold and marine products; its main imports were raw silk, silk goods, cotton goods, woolen goods, medicine, sugar, and ginseng. Raw silk accounted for the bulk of imports.

During the Ming dynasty the silk manufacturing industry flourished in China, which became one of the leading

silk manufacturing nations at this time. In the Tensho era in Japan (1573-91), gold brocade, silk damask, silk crepe, and satin weaving techniques crossed the sea from the Ming dynasty, and Nishijin weaving in Kyoto achieved tremendous development. The demand for and production of top-class silk goods both expanded. For this kind of production, high-quality white thread from China was essential. Therefore, a trade relationship between Japan and China was formed, with China exporting its raw silk and Japan importing it.

China's export of raw silk increased to a peak of more than 200,000 kin (120,000 kilograms) a year in the Kambun era (1661-72), as a result of which the outflow of silver and copper from Japan also rose. To reduce this outflow of silver and copper, the Tokugawa shogunate in 1685 issued a decree limiting the annual value of trade with Chinese ships to 6,000 kan of silver and with Dutch ships to 3,000 kan of silver and reducing the annual value of raw silk imports to 3,000 kan of silver, or about 70,000 kin (42 tons), which was one-third of the volume of imports at the peak time.

As a substitute for Chinese imports, the shogunate encouraged the domestic production of raw silk and the wider use of Japanese thread. It ordered the thread wholesale merchants of Kyoto to give guidance to the various clans concerning raw silk production. Subsequently, sericulture and silk-thread manufacture spread around Japan. While cotton cultivation, with the growing of rapeseed as a secondary crop, had spread throughout western Japan, sericulture and silk-thread manufacture moved north up the Japanese archipelago to the mountainous districts of eastern Japan. Farmers would take raw silk to the regular thread markets, where intermediary merchants would buy it up and then sell it to the thread wholesale merchants of Nishijin in Kyoto.

Raw silk production became popular in Tohoku (Fukushima), Joshu (Kiryu and Ashikaga), and Shinshu (Iida and Ueda). The main centers of silkworm egg manufacture were Shimotsuke, Shimosa and Hitachi (present-day

Tochigi, Ibaraki and Fukushima Prefectures).

In the second half of the 18th century, the merchants who bought the raw silk in Kiryu and Ashikaga also began to purchase cocoons, which they then handed over to farmers and commissioned the process of reeling to them. They paid for this reeling and then again handed over the raw silk that they had obtained to farmers to carry out paid weaving.

The amount of raw silk production by the clans in Japan increased by two times in the century from the Keicho and Genna eras (1596-1623) to the Shotoku and Kyoho eras (1711-35) and then four times in the 100 years from the beginning of the 18th century to the beginning of the 19th century.

At first Japanese raw silk (an ivory-colored thread) had an inferior dyeing quality and so did not yield goods of as high a quality as Chinese raw silk, but by the end of the 18th century, thanks to improvements in sericulture techniques, especially the invention of a special thermometer and temperature control for cultivation, Japan succeeded in producing good-quality cocoons and raw silk.

In the 19th century, after Chinese raw silk had been expelled from the domestic market and then the shogunate opened Japan's ports to foreign trade, Japan began to export raw silk in large quantities. As sericulture and raw silk production expanded even further, Tohoku (Akita, Yonezawa, and Fukushima), Shinshu (Ueda), Echizen, Tango, and Kanto became silk-manufacturing centers.

The weaving techniques of Nishijin and the high loom reached Yonezawa via Tango at the beginning of the 18th century and Kiryu and Ashikaga by the end of the 18th century. Silk goods from these districts (the so-called *inaka ori*, or provincial weaving) were sent in large quantities to Kyoto for dyeing, so they became a threat to the wholesalers of Nishijin goods. In the 19th century the silk wholesale merchants of Kiryu and Ashikaga commissioned farmers to produce top-class silk goods, such as gold brocade, silk damask, and silk

crepe. Silk goods from Kiryu were sold around the country, but because of their good quality, the bulk of these products found their way to Edo (now Tokyo). In the Tempo era (1830–43) Edo accounted for about half, or 350,000 *ryo*, of the total annual turnover of 700,000 *ryo*.

Copper mining industry

On the basis of the daimyo warlords' policy of developing resources in their own domains, the development of gold and silver mines made headway in the 16th century. Toyotomi Hideyoshi and Tokugawa Ieyasu also encouraged the development of gold and silver mines, and the Tokugawa shogunate put gold and silver mines under its direct control.

In the second half of the 17th century the yield of Japan's gold and silver mines (Iwami, Sado, Ikuno, and Izu) declined, but in their place copper mines were discovered and developed at Ashio (1610), Ani and Osarizawa (1660s), and Besshi (1690), and Japan's copper production expanded. While the gold and silver mines were managed directly by the shogunate, the copper mines came under a variety of forms of management. Ashio Mine was directly run by the shogunate, Ani and Osarizawa mines by the Akita and Nambu clans, and Besshi Mine by the private sector.

The Izumiya merchant (Sumitomo family) in Osaka owned the Besshi Mine, from where it took copper ore to Osaka for smelting, separating the copper and silver, and then produced copper for export and copper for use in domestic craftwork.

During the Edo period, Japan's main export item in Nagasaki trade shifted from silver to copper. The Ching (Manchu) dynasty in China (1644–1912) used copper imported from Japan to make copper coins. Japan's export of copper soared from 2.5–3.0 million *kin* a year in the Kambun era (1661–72) to 5.63 million *kin* (the equivalent of 5,916 *kan* of silver) in 1685, accounting for about one-third of Japan's total exports. The figure climbed further to 8.5 million *kin* in 1697 and more than 9 million *kin* in 1698. Around this time Japan's total

production of copper in terms of value reached about 10 million *kin* of refined copper, which is thought to have been the highest in the world.

Expansion of domestic trade network

During the Edo period, the daimyo who collected the annual tribute rice took what they needed for their own consumption, stipends (salary rice) to retainers, and then sold the rest, using the income to purchase necessary supplies and other goods and to pay for their obligatory alternate-year residence in Edo.

Each clan sent annual tribute rice and special local products (indigo, silk goods, paper and wax) to Osaka or Edo. In order to transport and sell their annual tribute rice and special products, the clans established warehouses in Osaka, Edo, Tsuruga and Otsu.

Freight was transported by sea, land or river. Long-distance mass transportation was conducted coastal-wise. On the Pacific side of the country, transport vessels called circuit ships ferried goods between Osaka and Edo, while on the Sea of Japan side transport ships loaded up with the goods of Tohoku clans and carried them to Tsuruga.

In the middle of the Edo period many farmers in southern Japan began to cultivate cotton, with rapeseed, cocoons, or tobacco as their secondary crop. The cultivation of these crops required dried sardines and herring as fertilizer. Therefore, the increase of raw cotton production and expansion of the cotton cultivation belt meant that dried sardines and herring had to be gathered, sold, and distributed there in large quantities. Dried sardines and herring were taken by ship from Matsumae in Hokkaido to Tsuruga, then carried by horse over the mountainous inland country to Lake Biwa, where they were loaded onto boats again for shipment to Otsu on the other side of the lake. They were then carried by land again to Kyoto, from where they were again transported by water along the Yodogawa River.

This route meant that the freight had

to be loaded, unloaded, and reloaded many times. In the middle of the 17th century, therefore, a new route was established by which ships sailed around the western side of Japan and then round to Osaka via Shimonoseki without any unloading. Since it was impossible to grow rice in Hokkaido, the people of Japan's northern island had no alternative but to sell fish, seaweed, marine products, and timber and to purchase rice and other daily necessities in exchange. Therefore, the ships would depart from Osaka after stocking up with sake and cotton fabric, make stops on the way to purchase straw goods at Tsuruga and rice at Niigata and Sakata, and then sell these products in Matsumae and return with dried sardines and herring.

U.S. Navy Commodore Matthew Calbraith Perry said in his *Narrative of the Expedition of an American Squadron to China Seas and Japan* that "The mineral wealth of the country is very great, the manufactures numerous, and, under such circumstances, the internal trade among so many people is necessarily active. Of the facilities for carrying it on, we remark that goods are conveyed by land on pack-horses and pack-oxen, and that the roads are excellent, and kept in admirable order.

Indeed, the roads must be kept in order, otherwise they could not accomplish what they do by their postal arrangements. The post is pedestrian, and very expeditious. The men run at their utmost speed, and as they approach the end of their stage, find the relay waiting, to whom, as soon as they are near enough, they toss the package of letters. But beside their roads, they use their rivers and inland lakes for internal trade wherever it is possible."

In the late Edo period, the development of productive capacity boosted the domestic market and helped upgrade the infrastructure for freight transportation, communications and remittance. ■

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