

# THE BAKUMATSU CURRENCY CRISIS

By  
Peter Frost

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by  
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## FOREWORD

The demand for commerce was perhaps the chief factor which led to the "opening" of Japan in 1853. A commercial treaty was signed by the bakufu in 1858. Early trading relations, however, were immensely complicated by the problem of finding a monetary basis for commercial exchange. This was not just a problem of monetary units or of the value of gold and silver, but involved a whole range of cultural and economic presuppositions and assumptions. Until the present research by Peter Frost no one had made clear in English what the basis was and how it changed during the last phase of Tokugawa history.

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March 1970.

Albert Craig





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## Chapter I

### THE ROOT OF THE PROBLEM

“Great and good friend!” wrote President Fillmore to the emperor of Japan on November 13, 1852, “I am desirous that our two countries should trade with one another for the benefit both of Japan and of the United States.” President Fillmore realized that the Japanese only allowed a limited amount of foreign trade with the Chinese and the Dutch, but suggested that “as the state of the world changes and new governments are formed, it seems wise from time to time to make new laws.” He said that the “sixty million dollars of Gold” which the state of California produced each year, plus the skilled craftsmen of both countries, guaranteed that foreign trade was bound to benefit Japan. The United States would be sure to “abstain from every act which could possibly disturb the tranquility of His Majesty’s Dominions,” because “The Constitution and Laws of the United States forbid all interference with the religious or political concerns of other nations.” Indeed, President Fillmore was convinced that the Japanese would quickly see the error of their traditional isolation policy once they opened their doors to trade. “If foreign trade does not prove as beneficial as was hoped,” he triumphantly concluded, “the ancient laws can be restored.”<sup>1</sup>

The President’s personal envoy was somewhat less charitable. “The President desires to live in peace with your imperial majesty,” wrote Admiral Perry on July 7, 1853, “but no friendship can long exist, unless Japan ceases to act towards Americans as if they were her enemies.”<sup>2</sup> In a private dispatch to the Naval Department Perry added that “the Japanese can be brought to reason only through the influence of their fears, and when they find that their seacoast is entirely at the mercy of a strong naval force, they will be induced, I confidently hope, to concede all that will be asked for them.”<sup>3</sup> Admiral Perry’s belligerency forced the Naval Department to remind him that he should not start a war. Yet the key word in his message was undoubtedly “reason,” that is, the idea that there was a mutually profitable way of doing things to which any sensible Japanese should want to adhere.

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by the ruling Tokugawa bakufu<sup>4</sup> to treaty negotiations was assumed to be the result of a “feudal” or “antiforeign” attitude. Any attempt to restrict trade or give the government the power to regulate the activities of the merchants was considered an attempt to destroy the natural and mutually beneficial workings of the open market; every complaint of economic unrest or rising prices was attributed to a plot by a hostile despotism. Indeed, the first Western diplomats did not consider economic dislocations as a regrettable but inevitable part of the modernization process. Rather they refused to believe that free trade could bring any serious problems at all.

These attitudes were most clearly shown in the long dispute over the rate at which Japanese and Western money was to be exchanged. One might have thought that the problem of exchanging Western money for Japanese could have been easily solved, either by setting an arbitrary exchange rate by treaty, or by allowing the merchants of both countries to settle the issue through private discussions. Yet the coinage exchange question was so important to the future development of foreign trade, and the views of the Japanese and Americans were so different, that negotiations dragged on for four years before reaching a makeshift compromise that had to be abandoned within the first few months of foreign trade. In the end the diplomats fumed, speculators profited, and the Tokugawa bakufu was forced to adopt coinage policies that greatly contributed to the Meiji Restoration of 1868.

In order to understand what made exchange so difficult, it is necessary to remember that the Tokugawa bakufu had a near monopoly over Japan's bullion supplies. Ever since 1636, the bakufu had restricted foreign trade to small Dutch and Chinese colonies at Nagasaki, plus minor contacts in the North and South of Japan, and an unrecorded but probably insignificant amount of smuggling. The total value of the Nagasaki trade was limited to the equivalent of one hundred thousand *kin* (6,600 tons) of copper a year; even this small quota was rarely met since neither the Dutch nor the Chinese showed much interest in trading with the Japanese after 1800. Trade was carried on by barter, and almost no gold and silver was handled after the beginning of the eighteenth century. By 1853 the Japanese were effectively isolated from the world bullion market, and hence unaffected by the shifts in gold and silver bullion that had taken place in the West during the previous one hundred years.<sup>5</sup>

Domestic controls were almost as strict. Because many Tokugawa intellectuals were opposed to a money economy, stressing, as did Honda Masanobu (1538-1616) that “there is no treasure in the world that is as great as man,”<sup>6</sup> or agreeing with Ogyū Sorai’s (1666-1728) criticism of the “boardinghouse” life of the samurai in the cities,<sup>7</sup> many historians have assumed that the Tokugawa bakufu objected to the growth of a money economy. Quite probably the bakufu did agree with some of the contemporary criticisms of paper money.<sup>8</sup> Yet the bakufu also recognized the need to control the supply of bullion in order to maintain its financial and political power. More important, it quickly moved from the simple hoarding of bullion to the establishment of a national monetary system. Thanks to the efforts of the bakufu, Japan made more progress toward a modern money economy in the years between 1600 and 1853 than she had during all of her previous history.

Gold and silver mines were usually owned by the bakufu.<sup>9</sup> While these mines were sometimes leased outright for a set fee, they were more often run by mining experts (*yamashi*) who provided their own machinery and workers, and exercised complete political control over the area in which their mine was located. The bullion that they dug was sent by special bullion distribution monopolies (*fukiwake-za*) to the gold and silver mints, and any surplus was sold at prices especially set by the bakufu.<sup>10</sup> Copper mines were less closely regulated, but the bakufu tried to have the mines run by trustworthy merchant families, and occasionally loaned money to the mine owners to keep production high. Here again the produce of the mine was controlled by a special copper monopoly (*dōza*) under the supervision of the treasury commissioners (*kanjō bugyō*) and the Nagasaki city magistrates (*machi bugyō*).<sup>11</sup>

The various gold, silver, and copper mints had originally been semi-private monopolies awarded to favored merchant friends. In 1853 these merchants still ran the daily operations of the mints, but all policy decisions were now made by the Tokugawa government. The gold mint (*kinza*) minted as many gold coins as it could from bullion supplies provided by the bakufu. The silver mint (*ginza*) also minted as much money as it could from the limited private supplies as well as the bakufu mines, though the bakufu often melted down silver coins in order to use the bullion elsewhere. The copper mint (*zeniza*) was, by 1853, an appendage of the silver mint. The number of copper coins minted, while large, was regulated by bakufu decree, since it was felt that the

value of copper coins was determined by their number rather than by their inherent value as precious metal.<sup>12</sup>

Each mint produced its own kind of metallic coinage. As the table shows, gold coins were known as *ōban*, *koban*, *nibu* (lit. “two *bu*”) *ichibu* (one *bu*), and *nishu* (two *shu*). They circulated on the basis of *ryō*, *bu*, and *shu* denominational units, with one *koban* being equal to a *ryō* regardless of weight, and one *ryō* being equal to four *bu* or sixteen *shu*. Silver coins were known as *chōgin* (*chō* silver) and *mame-ita-gin* (bean-shaped silver). They circulated on the basis of *momme* (0.13 oz.) and *kan* (1,000 *momme* or 8.7 lbs.) units of weight at set standards of bullion purity. Copper coins were generally known as *zeni*, and circulated according to *momme* (or *mon*) and *kan* denominational units. These words had once been, as they still were for silver, units of weight. Since copper coins no longer weighed anything near their stated value in *momme*, however, these terms had taken on a special numerical meaning for use within the Tokugawa copper coinage system.<sup>13</sup>

Perhaps in deference to the intellectual attitudes noted earlier, paper money was not officially printed during the Tokugawa period. Yet the bakufu did work closely with the various exchange houses (*ryōgaeshō*) in order that two kinds of paper money could be put into circulation, as well as a host of private promissory notes and bills of credit. One kind of note (the *hansatsu*) was, by 1858, issued by over one hundred daimyo. It was supposed to circulate only within the daimyo's fief, and to be backed by an adequate reserve of specie. Actually most *hansatsu* were overissued and could not possibly have been redeemed. Although outlawed after 1837 in order to help the bakufu's copper *tempō tsūhō* circulate throughout Japan, many *hansatsu* were still illegally in circulation or else converted into semi-private merchant notes that also added to the nominal amount of money in circulation.<sup>14</sup>

Private merchant checks (*tegata*) formed the second type of paper currency. Some of these circulated among the great merchant firms of Edo and Kyoto, but most were found in the merchant center at Osaka. Here the bakufu set up a special court that settled disputes over *tegata* in half the time normally required for legal cases. The bakufu also gave certain prominent Edo and Osaka merchants the right to settle bakufu accounts between Edo and Osaka by means of official bills of exchange (*gokingin kawase*). Despite its aversion to printing paper money itself, the bakufu did not object to the growth of sophisticated



## TOKUGAWA COINAGE

(1854)

| <u>Gold Coins</u>                    | <u>Wt. (in momme)</u> | <u>Percentages of</u> |               |               | <u>Amount</u>        |
|--------------------------------------|-----------------------|-----------------------|---------------|---------------|----------------------|
|                                      |                       | <u>Gold</u>           | <u>Silver</u> | <u>Copper</u> |                      |
| <i>ōban</i>                          | 44.00                 | 68                    | 28            | 4             | 1,887 coins          |
| <i>koban</i>                         | 3.00                  | 57                    | 43            | --            | 8,120,450 <i>ryō</i> |
| <i>ichibu</i>                        | 0.75                  | 57                    | 43            | 4             | 8,120,450 "          |
| <i>ichibu</i>                        | 2.30                  | --                    | 97            | 3             | 19,729,139 "         |
| <i>nibu</i>                          | 1.50                  | 20                    | 80            | --            | 3,551,600 "          |
| <i>nishu</i>                         | 0.43                  | 27                    | 71            | 2             | 12,883,700 "         |
| <u>Silver Coins</u>                  |                       |                       |               |               |                      |
| <i>chōgin</i>                        | varied                | --                    | 26            | --            | 182,108 <i>kan</i>   |
| <i>mama-ita-gin</i>                  | varied                | --                    | 26            | --            | 182,108 "            |
| <u>Copper Coins</u>                  |                       |                       |               |               |                      |
| copper                               | 1.00                  | --                    | --            | 98            | rare                 |
| copper                               | 0.72                  | --                    | --            | 98            | 950,462 <i>kan</i>   |
| lead                                 | 0.80                  | --                    | --            | --            | 3,957,887 "          |
| 4 <i>mon</i> lead                    | 1.30                  | --                    | --            | --            | 127,358 "            |
| 4 <i>mon</i> brass                   | 1.30                  | --                    | --            | --            | 3,148,507 "          |
| 100 <i>mon tempō</i><br><i>tsuhō</i> | 5.50                  | --                    | --            | 97            | 38,784,324 "         |

NOTE: In the Tokugawa monetary system one *koban* equals a *ryō* regardless of weight. A *bu* is one fourth of a *ryō*, and a *shu* one fourth of a *bu*. *Momme* (0.13 oz.) and *kan* (1,000 *momme* or 8.7 lbs.) are units of weight for silver, but numerical counters for copper amounts. One *ryō* equals 60 *momme* of *chōgin* or four *kan* of copper.

kinds of credit facilities and paper money. Indeed, it often used paper money in order to facilitate monetary transactions and make up for temporary deficiencies in the supply of available money. Thanks to the bakufu's efforts, paper money and private credit facilities formed an integral part of the Tokugawa monetary system.<sup>15</sup>

The tight controls over bullion supplies allowed the bakufu to use its monetary system as a means of raising revenue. Originally the bakufu had decreed that all samurai should have their stipends paid in *roku* (c. 5 bushels) of rice rather than money in order to protect them from the viciousness of a money economy. Very quickly, however, the bakufu discovered that it was cheaper to sell its tax rice on the open market, and pay off the samurai in bullion. Twice a year a special notice (the *harigami nedan*) was posted on the door of the Tokugawa castle at Edo announcing the price at which a *roku* of rice would be converted to gold currency. Even if we assume that the bakufu converted rice stipends to cash at the normal market rate, it still saved money by eliminating some of the logistical and administrative expenses involved in shipping tax rice to Edo. The *harigami nedan* system also helped the bakufu make effective use of the produce of its mines.<sup>16</sup>

The bakufu also decided to raise revenue by a series of coinage debasements. By 1695, mine production had declined, and the bakufu had begun to face a serious budget deficit. The bakufu then decided to outlaw the existing coinage issues, and use the old coins as bullion to make debased coins of the same nominal buying power.<sup>17</sup> Particularly after 1800, these debasements became an essential means of raising government revenue, with debasement profits (*deme* in Japanese) averaging between twenty-five and fifty per cent of the yearly income of the Tokugawa bakufu.<sup>18</sup> The debasements greatly increased the amount of money in circulation, and also made the Tokugawa monetary system vastly different from the kinds of money used in the West.

Copper coins, for example, were never officially debased, and they still remained remarkably similar in appearance to the standard Chinese copper "cash" upon which they had originally been based. Yet good quality copper coins were gradually driven off the market and replaced by inherently less valuable lead issues. Lead and brass four *mon* pieces and the one hundred *mon tempō tsūhō* copper piece were minted at considerably lower standards than their nominal value would once have implied; the *tempō tsūhō* was

supposed to be worth one hundred *mon*, for example, but it only weighed between five and seven times as much as the regular *mon* copper coins. Thanks to this generous rate of debasement, the bakufu was able to make a substantial amount of profit from the *tempō tsūhō*. Heavy minting also increased the nominal value of the copper coinage in circulation, from 500,000 *kan* estimated for the 1600-1695 period to the 6,712,576 *kan* estimated for the period 1736-1868. Copper debasements, in short, probably increased the nominal value of the copper coinage in circulation at any one time by more than 1200 per cent.<sup>19</sup>

Silver debasements actually cut the amount of silver coinage in circulation. By 1854, the bakufu had cut the percentage of silver in the *chōgin* and *mame-ita-gin* from eighty to fifty-six per cent, and decreased the total mint issue from the 1,200,000 *kan* (5,220 tons) legally in circulation between 1600 and 1695, to a mere 182,108 *kan* (792 tons) minted between 1837 and 1858.<sup>20</sup> Although Professor Yamaguchi Kazuo has estimated that additional amounts of previously minted *chōgin* and *mame-ita-gin* may still have circulated illegally, even he admits that the amount of silver coinage was less than one-half what it had been one hundred years before.<sup>21</sup> Indeed, the *chōgin* and *mame-ita-gin* appeared to be used by 1854 as a kind of specie reserve for the paper note issues that originated in Osaka. Increased paper use permitted the amount of *chōgin* and *mame-ita-gin* to decrease at a time when the demand for money was rising.

Such silver as was available was used to make gold denominational coinage. Between 1695 and 1854, the weight of a gold *koban* was cut from 4.7 *momme* (.61 oz.) to 3.0 *momme* (.39 oz.), and the percentage of gold was cut from 84 to 57 per cent. During this same period the amount of *koban* and *ichibu* legally in circulation dropped from the 14,727,055 *ryō* minted between 1600 and 1695 to the 8,120,450 *ryō* minted between 1837 and 1858. Fortunately some older *koban* and *ichibu* issues still circulated illegally, while over thirteen million *nishu* and twenty million silver bullion *ichibu* were put into circulation for the first time.<sup>22</sup> By 1853, almost all of the silver bullion that was available was being used to make gold denominational coins that contained little or no actual gold bullion. This heavy use of silver permitted the bakufu to increase the nominal value of its gold coinage in circulation between 1695 and 1853 by 250 per cent, and the total value of all its metallic coins in circulation by more than 400 per cent.<sup>23</sup>

Curiously enough, these shifts in the quality and quantity of Japanese money were not accompanied by any violent shifts in the exchange rates for the various coins. Between 1695 and 1842 the official exchange rate for Tokugawa coinage had been one gold *ryō* (i.e. one *koban* or its equivalent) to 60 *momme* (.65 oz.) of silver *chōgin* and 4 *kan* (4000 *mon*) of copper *zeni*; in 1843 the exchange rate for *zeni* was increased to 6.5 *kan* (6500 *mon*) per *ryō*.<sup>24</sup> The bakufu made all official payments and received taxes at this rate, but did not object to the fact that open market prices were always quoted for gold, silver, and copper coins. Despite this fact, the gold *ryō* traded on the open market for 65-67 *momme* (8.5-8.7 oz.) of *chōgin*, or just about what the bakufu wished. The market price had remained quite stable for a number of years, despite the fact that the amounts of precious metal in the various gold and silver coins had shifted several times in accordance with the gold and silver debasements.<sup>25</sup>

Possibly copper coinage helped to keep the exchange rate in line by serving as a kind of common denominator that permitted speculators to buy whichever of the two metals appeared to be underpriced at the moment. The bakufu may also, despite its decision not to outlaw open market quotations for Tokugawa coins, have used its mine and mint controls to make sure that the quoted prices did not get out of hand; certainly there are recorded instances of times when the bakufu melted down *chōgin* to make *ichibu*, and reversed the process when the silver price of the *koban* got too low.<sup>26</sup> The most important fact keeping the gold-silver ratio steady, however, was undoubtedly that silver currency was so unimportant. By 1854, most cash payments were made in some form of gold denominational currency; silver currency was mostly in the form of paper, and was mainly used as a unit of account by the merchants of Osaka. Being almost totally dependent on the gold currency system, silver did not seriously fluctuate.

Since it was not so intimately connected with the gold coinage system, the ratio of gold to copper was less steady. Between 1800 and 1854, the copper exchange rate moved from the old four *kan* (4,000 *mon*) per *ryō* official rate past the new rate of 6.5 *kan* (6,500 *mon*) per *ryō* to highs as great as 6.8 *kan* (6,800 *mon*) per *ryō*.<sup>27</sup> Paper currency and the growing number of small denominational gold coins may have forced up the exchange rate by eliminating the need for bulky copper cash. More important, the rise in price reflected

the fact that the bakufu had debased its copper coins even more drastically than gold and silver, and that the bakufu had minted too many *tempō tsūhō* in a frantic search for profits. Whatever the reasons, gold and silver coinage bought considerably more copper in Japan in 1854 than was the case a hundred years earlier. Yet the increase cannot be said to have made monetary transactions more difficult, nor did it cause any serious social dislocation.

Nominal prices also remained steady during most of the Tokugawa period. Rice prices naturally fluctuated when rice harvests were particularly good or bad, yet only increased in price from 80.6 *momme* (10.5 oz.) of *chōgin* per *oku* in 1710 to 103.0 *momme* (18.5 oz.) in 1854. During this same period the price of *shōyu* (soy sauce) actually decreased from 106 *momme* (19.1 oz.) per *oku* in 1710 to 103.3 *momme* (18.6 oz.) in 1854, and the price of one *shō* (c.5 gallons) of oil went from 3.4 *momme* (.44 oz.) in 1710 to 4.6 *momme* (.60 oz.) in 1854. Despite extensive debasements and a 400 per cent increase in the volume of money in circulation, then, nominal prices do not appear to have risen by much more than twenty-five per cent between 1700 and 1854.<sup>28</sup>

In an attempt to keep prices from getting too high for the samurai to be able to live comfortably off their stipends, the bakufu first organized merchant monopolies (*kabunakama*) to control the flow of goods, and then, after 1839, dissolved them in hopes of lowering prices through free competition. It also regularly attempted to send city dwellers back to their native villages, and cut the production of *sake* and other rice products when rice prices were high.<sup>29</sup> Yet bakufu exhortations against luxury and extravagance were less effective in keeping nominal prices steady than was the general relationship between the supply and demand for money. Of more importance was the fact that the expanding Tokugawa economy needed all the money that the bakufu could procure through mining and debasement operations. This demand was more than enough to keep prices steady even though the amount of money in circulation was rising, and the inherent bullion value of individual coins was sharply declining.

The relative stability of exchange rates and prices suggests that the Tokugawa coinage system, for all its superficial chaos, successfully met the needs of society. To be sure, there was a wide variety of gold, silver, and copper coins in circulation, each of which used its own denominational system

and had its own patterns of circulation. Previous coinage issues sometimes circulated illegally, while some of the best quality *koban*, gold *ichibu*, and *chōgin* were driven off the market by cheaper issues, and a tremendous number of paper notes circulated despite bakufu edicts. Yet the Tokugawa monetary system marks the first widespread use of gold, silver, and copper notes in Japan, as well as the establishment of the first really effective credit system. By debasing its coinage system, the bakufu was able to meet the growing demand for money, and make an enormous amount of revenue. Above all, stable relationships had been established between buyer and seller. Denominational units bought about as much as they always had, and no one gave more than a minimal amount of thought to the amount of precious metal in any given coin.

Unfortunately this stability was dependent upon Japan's isolation from the world monetary markets. The tight bakufu control over bullion was only possible because the average Japanese did not have access to private sources of bullion from overseas. Similarly, the relative shortage of money would not have occurred had foreign capital been permitted to enter Japan, and the Tokugawa debasements were only possible because the monetary system did not have to compete with other kinds of money. Isolation undoubtedly helped the Japanese monetary system by forcing it to rely on its own resources for the development of a sophisticated credit system. Yet isolation also made the Tokugawa monetary system markedly different from that used by the various Western nations.

Most Westerners in Asia used the Mexican silver dollar for all their monetary transactions. Although several different types of Mexican silver dollars circulated, most contained about eighty per cent pure silver, and weighed about 0.8 ounces (7.2 *momme*); they were thus as much as twenty per cent less pure than the silver *ichibu*, yet they weighed over three times as much. In keeping with contemporary Western monetary ideas, the Mexican silver dollar was not minted for a profit, nor did it circulate for more than its inherent value as silver bullion. Indeed, several million dollars circulated in China as bullion, where they were weighed and often assayed each time they were used in a monetary payment. In this case the Mexican silver dollar differed from Japanese gold and silver currency, which almost always bought more than its own weight in precious metal.<sup>30</sup>

The bullion ratio of the Mexican silver dollar was also quite different from that of Japanese money. In keeping with the 1:15 gold-silver ratio that existed in the West, the Mexican silver dollar contained fifteen times as much silver as an equivalent value in gold. By contrast, the weight ratio of a *koban* to its legal value of *chōgin* was 1:10, while the weight ratio of a *koban* to its legal value of silver *ichibu* was only 1:5.<sup>31</sup> The particularly debased nature of the silver *ichibu* also permitted that coin to buy roughly twice as much copper in Japan as an equivalent amount of silver bullion could buy in the West. The Tokugawa monetary system thus gave the silver *ichibu* a higher buying power relative to gold and copper than did a similar weight of precious metal in the West.

The commodity buying power of the Mexican silver dollar was quite different from that of the average Japanese metallic coin. While few economists still believe in the “price revolution theory” of the rise of capitalism, it is true that the massive importation of treasure from the New World in the sixteenth century helped to create a situation where bullion was relatively plentiful and prices were steadily rising. In Japan, on the other hand, the growing shortage of bullion meant that an ounce of gold and silver bought at least as much, and perhaps more, goods than it had one hundred years previously. Here again, Japan’s isolation from world markets and the bakufu’s decision to debase its coinage in order to raise revenue made its monetary system remarkably different from that used for international transactions in the West.

The real difference between the Western and Japanese monetary systems, however, lay not so much in the differences in bullion content and bullion ratios of Western and Japanese coins, or even in the relative supply and demand for precious metals in Japan and the West, but in the way in which the monetary system was organized. Put simply, the money that Westerners used in Asia was bullion value coinage, while Japanese money was fiat or token coinage. By this I mean that the Mexican silver dollar bought little more than its inherent value as silver, while Japanese money circulated at prices and relative exchange rates largely unrelated to its inherent value as precious metal. In the Western case, the Mexican silver dollar could circulate anywhere in the world on the basis of its universally accepted value as a piece of silver bullion. Japanese money, on the other hand, could only circulate at its stated value in Japan as long as the people were willing to obey the official government decrees.

Negotiating the official exchange rate for Western and Japanese money was thus no easy task. Should the exchange rate be decided by treaty or left to the market to decide? Should the dollar be compared to the *chōgin* and *mame-ita-gin* which were the only true silver currency, or to the silver *ichibu* which was the most common silver coin? Should the dollar be valued on the basis of its silver bullion content, its copper or gold exchange ratio, or its commodity buying power? The proper answers to these questions could only be decided upon after careful and sympathetic investigation of the problem by competent and unbiased negotiators. The answers they picked would greatly influence the future development of trade.



## Chapter II

### NEGOTIATING THE EXCHANGE RATE

Admiral Perry first encountered the coinage exchange problem when he returned to Japan for the second time in 1854. Knowing little about the Tokugawa monetary system except that the Japanese one-*mon zeni* piece resembled the Chinese copper cash, Admiral Perry offered to exchange the Mexican silver dollar for the same 1,200-*mon* per dollar rate that the dollar traded for in Shanghai.<sup>1</sup> Since copper *zeni* were overissued and had only a limited buying power in Japan, Admiral Perry's offer tended to make Japanese goods rather expensive. Furthermore, the 1,200-*zeni* per dollar rate made the Mexican silver dollar equal to only one-fourth of a gold *ryō*, or one silver *ichibu* one-third of the weight of the dollar. As the China missionary and chief interpreter Samuel Wells Williams put it, "The Commodore has agreed upon 1200 cash as the worth of the dollar, while the people pay nearly 3000 as their equivalent of the same weight of silver . . . The complaints of the men who buy with silver are loud."<sup>2</sup>

Admiral Perry immediately appointed ship's pursers William Speiden and J. C. Eldredge to confer on the money question with their Japanese counterparts, with the Reverend Mr. Williams serving as interpreter. At the conference the Americans proposed the "weight for weight" exchange which would be the basic American position on the coinage exchange question for the next four years. By this they meant that an ounce of Western gold bullion coinage should be traded for an ounce of Japanese gold bullion coinage, an ounce of silver bullion coinage for silver, and an ounce of copper for copper. Under this scheme the Mexican silver dollar would be exchanged for three times as much Japanese money as it was currently getting, that is, for three silver *ichibu* or 3600 copper cash.<sup>3</sup>

The bakufu envoys only offered to increase the value of the dollar from 1200 to 1600 *zeni*. They argued that the Mexican silver dollar should be valued as bullion rather than money, for, as Speiden and Eldredge put it, "It is at the bullion value that the Japanese have decided to receive our dollar, the same at which they take their silver from the mines, asserting that as its present die and assay give it no additional value, it is worth no more to them."<sup>4</sup>

Under this valuation, an ounce of pure silver bullion was worth 2.60 ounces of *chōgin*, while an ounce of bullion in the Mexican silver dollar, being less pure, was worth 2.25 ounces of *chōgin*. This made the dollar worth sixteen ounces of *chōgin* or one-fourth of the market price of a gold *ryō*. To illustrate:<sup>5</sup>

7.12 *momme* (the weight of the dollar) x 2.25

= 16 *momme* of *chōgin*.

16 *momme* of *chōgin* at 64 *momme* per *ryō*

= ¼ of a *ryō*.

¼ of a *ryō* = one silver *ichibu* weighing 2.3

*momme* or 1600 copper *zeni*.

Speiden and Eldredge knew that the amount of silver in the Mexican silver dollar was potentially far more valuable than that. "We are told," they reported, "that a tael weight of silver has now come to be reckoned, when it is bullion, as equal to 225 candeens, or 2 tael, 2 mace, 5 candeens; but when it is coined, the same amount in weight is held to be worth 6 taels 4 mace."<sup>6</sup> In the first half of this sentence, Speiden and Eldredge recognized that an ounce of bullion was considered to be worth 2.25 times its weight in silver units of account; in the second half they noted that a tael weight of silver (10 *momme* or 1.3 oz.) could be used to make four silver *ichibu* worth 64 *momme* of *chōgin*. The two Americans clearly saw that under the special provisions of the Tokugawa monetary system, the Japanese silver *ichibu* could buy a great deal more than its own weight in silver bullion.

Speiden and Eldredge did not see how the United States could do business with the Japanese at the one-*ichibu* per dollar rate. They pointed out that if the United States exchanged a dollar for a silver coin one-third its weight, "the Japanese government will make a profit of 66 2/3 per cent on every dollar paid, with only the trifling expense of recoining it."<sup>7</sup> Mr. Williams was particularly bothered by the fact that this profit was taken by the government officials in the exchange houses rather than by the common people in their shops. "If the government officials only took a moderate percentage . . ." he said, "I would let the shopmen have the profit of the exchange for a little while, until a juster evaluation was worked out."<sup>8</sup> Here as elsewhere, Mr. Williams reflected a common American distinction between the friendly commoners and the supposedly haughty, antiforeign officials.

Worse yet, the one *ichibu* per dollar rate threatened to give the Mexican silver dollar too little buying power in Japan. Not only would this make it difficult for Westerners to trade with the Japanese, but it would also defeat the Americans' hopes of establishing coaling stations free from British control. Speiden and Eldredge reported that the price of a ton of coal was currently \$27.91, or three times the cost of a ton of coal at the three-*ichibu* per dollar rate. They noted certain Japanese remarks that they already sold goods to foreigners at a discount and that the price of coal would get lower as the demand increased and the mining facilities improved. Yet Speiden and Eldredge did not appear convinced that Japan could provide an adequate naval base unless the one-*ichibu* per dollar exchange rate was ended.<sup>9</sup>

What really bothered Speiden and Eldridge, however, was the bakufu's insistence that it could value its money as it liked. When the Japanese proudly announced, in Mr. Williams's words, that "their valuation of gold and silver was so arbitrary that no reference could justly be made to it in trade,"<sup>10</sup> they meant that through their sovereign power they had succeeded in establishing a modern fiat money system where denominational value rather than bullion content determined the value of any given coin. To the Americans this seemed to be but another instance of the ways in which the Oriental government interfered in the daily lives of its citizens to the detriment of normal economic growth. "The government has inflated its whole monetary system in order to benefit itself,"<sup>11</sup> Speiden and Eldridge reported. Mr. Williams added that "this most extraordinary valuation was acknowledged as forced upon the people by their rulers."<sup>12</sup>

If the Japanese proposal of a one-*ichibu* per dollar exchange rate was rather unfair, the American demand for a three-*ichibu* per dollar "weight for weight" exchange was completely illogical. Speiden and Eldridge did not take note of the fact that if the dollar traded for its own weight in silver *ichibu*, it could then legally buy three times as much copper *zeni* in Japan as a dollar did in China. Nor did they discuss whether or not it would be fair to have the price of a ton of coal drop from twenty-seven to nine dollars a ton. Pressed for time and obviously bothered by the language problem, the two men contented themselves with the simple statement that the present exchange rate did not give Western money its true value in Japan.

Since neither side was ready to give in, the Treaty of Shimoda (June 28, 1854) said simply that: "It is agreed that ships of the United States resorting

to the ports open to them, shall be permitted to exchange gold and silver coin and articles of goods for other articles of goods under such regulations as may be temporarily established by the Japanese government for that purpose.”<sup>13</sup> The treaty neither permitted Westerners to have Japanese money, nor set any exchange rate for the dollar. The Japanese text even left out the word “temporarily,” thereby implying that the bakufu could deal with the Americans as it did with the Dutch and Chinese at Nagasaki.<sup>14</sup>

The United States was quite unhappy with the “temporary” state of affairs, and there were numerous complaints from naval personnel in Japanese waters that trade was not proceeding smoothly. In 1856, therefore, Townsend Harris was sent to Japan to negotiate a new commercial treaty and obtain a better coinage exchange system. Harris was not given precise instructions on the coinage exchange question, but was to negotiate according to his “experience in business and general knowledge of Eastern character.” Implicit in this remark was the traditional Western feeling that the bakufu was an unreliable and antforeign despotism determined to twist any coinage exchange system to its own selfish ends.<sup>15</sup>

Harris immediately sided with Admiral Perry. Within a month of his arrival he wrote to the local Nagasaki officials to “insist on our money being taken at its proper value,” and called for the exchange of five hundred dollars on a weight for weight basis.<sup>16</sup> When the officials turned down his request, Harris personally protested to two men named Inoue Kiyonao and Okada Tadahiku. He said that the bakufu could not lose money by the three-*ichibu* per dollar rate since it could always melt down the Western silver received and make it into the same number of *ichibu*. He offered to let the bakufu deduct five per cent of the total for recoinage expenses, to make sure that it would not suffer any loss.<sup>17</sup>

Inoue and Okada were struck by Harris’s logic. In a memorandum to the bakufu dated October 12, 1856, they said that they did not see how the bakufu could lose money if it always ended up with the same number of *ichibu* as it started with. One might argue that the bakufu seals and the use of the gold denominational unit gave the *ichibu* a special advantage within Japan, yet this advantage vanished once the foreign trader took his *ichibu* overseas. In view of the many demands that the foreigners were making for greater diplomatic privileges, better trade facilities, and permanent residence rights, it might be

well to concede the coinage question without any further fight. Inoue and Okada said that they would welcome such a concession, for Townsend Harris had exhausted so many of their coinage arguments that they no longer knew what to say.<sup>18</sup>

Meanwhile Harris kept pressuring the bakufu. On December 9, 1856, he persuaded the Russian Commander Poissiet to pay all bills at the three-*ichibu* per dollar rate, depositing the additional money that would have been required at the one-*ichibu* rate in his safe pending a final settlement of the currency question. "I am much pleased with this," wrote Harris of Poissiet's cooperation, "as it will greatly strengthen my demands for an adjustment of the question."<sup>19</sup> Sure enough, on January 25, 1857, Inoue and Okada were told that they might agree in principle to a weight for weight exchange, providing only that the two men were sure that the bakufu did not suffer any "loss." Inoue and Okada were also given permission to manufacture paper notes for coinage exchange if they wished.<sup>20</sup>

While the bakufu did not specify what it meant by a "loss" in a weight for weight exchange, it clearly referred to the fact that the *ichibu* contained twenty per cent more silver per ounce than the Mexican silver dollar. On February 25, 1857, therefore, Inoue and Okada agreed to exchange dollars for an equal weight of *ichibu* provided that the Japanese could deduct twenty-five per cent of each transaction for recoinage expenses. The twenty-five per cent figure was not an unreasonable request, representing as it did the twenty per cent difference in bullion quality plus the five per cent recoinage charge that Harris had already offered. Yet Inoue and Okada never appear to have explained their position to Harris very clearly, and their refusal to allow Harris to import foreign technicians to remind the coinage made their case seem all the weaker.<sup>21</sup> Even Harris's "good friend" Moriyama Yenosuke only succeeded in convincing Harris that the silver mint "appeared to be a pension plan for the whole Empire."<sup>22</sup>

Since he could not understand why the Japanese demanded such a high discount rate, Harris once again felt that he could use force to make his point. On March 3, 1857, he dramatically cleared the room of all but the most important officials and read a section from his original letter of instructions which said that "we will be sure to demand, in a way which they cannot resist, privileges which we are entitled to." "The fluttering," Harris noted

in his journal, "was fearful, the effect strong," and within three days the bakufu had cut its demand from twenty-five to six per cent. Harris agreed to six rather than five per cent in return for concessions in other areas, and on June 17, 1857, a preliminary Treaty of Amity and Commerce was signed providing for a weight for weight exchange less six per cent for recoinage expenses.<sup>23</sup>

*Since it had been so thoroughly defeated in its first attempts to negotiate a fair coinage exchange rate, the bakufu quickly moved to a new approach.* By October 17, 1857, a bakufu official named Mizuno Tadanori signed a new treaty with the small Dutch colony in Nagasaki. Under the terms of this treaty, the Mexican silver dollar was still to be traded for one silver *ichibu*. Instead of actually handing over the coins, however, the bakufu planned to give a special kind of paper note to both Japanese and Western merchants; this note could be passed back and forth in trade, but could only be redeemed in the currency of the merchant presenting the note for redemption. Since the Dutch treaty was never ratified, it is not particularly important. Yet it marks the first time that the bakufu agreed to sponsor a paper note, and shows that the bakufu would still demand the one-dollar per *ichibu* rate whenever it dared to do so.<sup>24</sup>

While the bakufu did not attempt to suggest a one-*ichibu* per dollar exchange rate during the second round of negotiations with Townsend Harris, it did try to keep the Western and Japanese monetary systems separate. Under the bakufu's new plan, Western merchants would pay for their purchases with Western money and Japanese with Japanese gold and silver currency; there would be no coinage exchange, no recoinage fee, and no restrictions on exporting Japanese gold and silver coinage overseas. In this way the bakufu hoped that it could transfer whatever loss was involved in coinage exchange on to the merchants engaged in foreign trade. Sure that the Japanese would not want to buy many things from the West, the bakufu did not believe that the Western merchants would receive much Japanese money, or that much gold and silver would be exported overseas.<sup>25</sup>

While Townsend Harris professed to be "delighted" with the proposals which "represented all that I have ever asked for,"<sup>26</sup> he was actually afraid that Japanese merchants would not be used to Western money, particularly if the Tokugawa bakufu did not publicly commit itself to the three-*ichibu*

per dollar rate. He therefore forced the Japanese to agree that American and Japanese merchants could use whatever currency they wished, instead of just their own money, and made the bakufu agree to exchange the Mexican silver dollar for its equal weight in *ichibu* during the first year of trade in any new treaty port.<sup>27</sup>

In reply to the bakufu query as to whether or not the amended exchange *system would lead to coinage speculation*, Harris said: “No foreigner will come to Japan for the purpose of buying gold and silver, because gold and silver do not benefit a country, but a foreigner could make large profits by buying camphor, tea, lacquerware, copper and textiles and exporting them to foreign countries.”<sup>28</sup> Here Harris may have been echoing President Fillmore’s statement that the United States produced more gold per year than it could use. More likely he simply had a naive view of trade that made it impossible for him to see that foreigners would buy gold and silver whenever they could profitably do so.

Harris’s mention of copper profits helps explain why he consented to a ban on the export of Japanese copper coinage. Ever since Tokugawa Nariaki had been made chief of the bakufu defenses in 1853, the bakufu had been worried lest it lack the copper necessary to manufacture Western cannon. Buddhist pressure forced the bakufu to abandon the idea of melting down copper religious articles, but additional controls were put on the sale of copper manufactured goods, and the copper monopoly (*dōza*) was given more power. In the treaty negotiations, the bakufu indicated that it wished to extend these controls to Western trade, and require all copper sales to be cleared through bakufu officials.<sup>29</sup>

While willing to limit the sale of raw copper, Townsend Harris would not brook any bakufu interference in the free exchange of manufactured goods. He thus consented to a ban on copper coins and said that the bakufu need only offer raw copper for sale when there was a surplus, but insisted that the bakufu permit copper manufactured goods to be exported.<sup>30</sup> The bakufu agreed to these proposals because it did not believe that the Japanese would sell manufactured goods to the West,<sup>31</sup> and the final Treaty of Amity and Commerce (July 29, 1858) said:

All foreign coinage shall be current in Japan and pass for its corresponding weight of Japanese coin of the same description. Americans

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All foreign coinage shall be current in Japan and pass for its corresponding weight of Japanese coin of the same description. Americans

and Japanese may freely use Foreign or Japanese coin, in making payments to each other. As some time will elapse before the Japanese will be acquainted with the value of foreign coin, the Japanese Government will for the period of one year after the opening of each Harbor, furnish the Americans with Japanese coin in exchange for theirs, equal weights being given, and no discount taken for recoinage.<sup>32</sup>

Similar clauses were incorporated in the British, French, and other foreign treaties.

The final settlement represented a mishmash of Western and Japanese ideas on the coinage exchange problem. While the bakufu wished to have the Westerners use their own money wherever possible, it was unlikely that Westerners would do so when they knew that they could have Japanese money for the asking; the bakufu would thus be forced to exchange dollars for *ichibu* containing twenty per cent more silver bullion, and it would not be able to collect a coinage exchange fee. Worst of all, the Japanese willingness to allow the export of gold and silver coins, which was meant to make it possible for the Western and Japanese coinage systems to remain separated, was now grafted onto Townsend Harris's proposal that the Westerners use Japanese money. Whatever profits the Western merchants could make by speculating in the markedly different Tokugawa gold and silver currency systems could now be legally exported to the West.

Certain bakufu officials were quick to see the defects in the 1858 treaty. The treasury commissioners (*kanjō bugyō*), for example, pointed out that Western silver was not as pure as Japanese silver, and that a weight for weight exchange would therefore force the bakufu to hand over more silver than it got in return. The *kanjō bugyō* also noted that the bakufu had an annual deficit of 738,000 *ryō* of gold and 13,900 *koku* of rice between 1853 and 1858.<sup>33</sup> After predicting that future deficits would get even larger as expenses for treaty port construction and defense increased, the *kanjō bugyō* went on to suggest that the bakufu raise additional revenue by the traditional debasement method. Under their plan, the bakufu would cut the percentage of gold in the *koban* and gold bullion *ichibu* from fifty-six to thirty-nine per cent, and also mint a new *nishu* (two *shu*) coin containing the same percentage of silver as the Mexican silver dollar. The bakufu could thus balance its budget while avoiding a loss of bullion in foreign trade.<sup>34</sup>

Although fully aware of the fact that Japan's 1:5 gold-silver ratio made it possible for foreigners to buy Japanese gold cheaply and export it to the West, the *kanjō bugyō* did not see how the problem could be solved without serious social disruption. Changing the ratio from 1:5 to 1:15 by increasing the price of gold, they said, would make gold coins too expensive for the bakufu to mint them for profit. Changing the ratio by decreasing the price of silver, on the other hand, would encourage the *yamashi* to sell bullion illegally on the open market, and might lead to an inflation which would "greatly upset our subjects." All that could be done, the *kanjō bugyō* concluded, was to keep the present gold-silver ratio, and simply try to limit the sale of gold to the foreigners.<sup>35</sup>

Mizuno Tadanori and the foreign affairs commissioners (*gaikoku bugyō*) disagreed. Debasement of the coinage system once again, they said, would only increase the buying power of Western money in Japan, and bring on a serious inflation. Instead the bakufu should adopt a Western kind of currency system and lower the buying power of the Mexican silver dollar. To this end the *gaikoku bugyō* proposed that the bakufu increase the percentage of gold in the *koban* and gold bullion *ichibu* to the Western level of eighty-five per cent, but cut the total weight of these coins enough to make a twelve per cent profit. They also suggested that the percentage of bullion in the silver *ichibu* be reduced to the level of the dollar, and that its nominal value be changed from one *bu* to five *momme*. In this way the Mexican silver dollar would be traded for silver instead of gold, and the dollar's buying power would be cut to the fifteen-*momme* or one-*ichibu* rate that the bakufu had always considered proper.<sup>36</sup>

The *gaikoku bugyō* were aware of the fact that it would cost a great deal of money to cut the denominational value of the *ichibu* by two-thirds, particularly when bullion was scarce and the bakufu was depending on coinage debasements to provide badly needed new revenue. Yet they felt that any other course of action would be fatal to the political fortunes of the bakufu. Switching to Western bullion levels and reducing the buying power of the dollar, they said, would eliminate disputes on coinage exchange, protect Japan's gold coinage by automatically changing Japan's gold-silver ratio from 1:5 to 1:15, and allow the bakufu to get badly needed revenue through a profitable foreign trade. Failure to improve the sadly debased *ichibu*, on the

other hand, would bring disputes with foreigners, heavy trade losses, and a very serious inflation.<sup>37</sup>

After extended debate, Ii Naosuke announced a compromise plan on June 28, 1859. In accord with the proposals of the *kanjō bugyō*, Ii cut the weight of the *koban* and gold bullion *ichibu* from three *momme* (.39 ounces) per *ryō* to 2.4 *momme* (.31 ounces) per *ryō*, and the percentage of silver in the *chōgin* from twenty-seven to thirteen per cent. Ii also minted a silver *nishu* coin of the same fineness as the Mexican dollar to exchange with the dollar. In keeping with the *gaikoku bugyō* proposals, however, Ii made the weight of this *nishu* coin so great that it dropped the nominal value of the Japanese money given in a weight for weight exchange with the dollar from three *ichibu* to one. Appropriately enough, Ii's compromise thus followed the *kanjō bugyō* recommendations for domestic affairs, and the *gaikoku bugyō* recommendations for foreign currency exchange.<sup>38</sup>

When the British Minister Sir Rutherford Alcock saw the new coin, he began to worry that the one-*ichibu* per dollar exchange rate would make foreign trade impossible. The new coin, Alcock reported, "seems a strange contrivance either for levying a tax of 200% on foreign trade, or for preserving their gold which has hitherto borne a relative value of 5 to 1 in Japan instead of, in round numbers, 15 to 1 as in Europe. Certainly if both these measures could be attained by the measures adopted it would be a triumph of financial skill. But its effect on our trade is too fatal, and the treaty thus interpreted would remain a dead letter."<sup>39</sup> In answer to bakufu assertions that the 1858 treaty did not prevent the Japanese from minting new coinage, Alcock said that the treaty outlawed all interference in free trade. The new coin, he said, obstructed foreign trade because it was only meant to be used by foreigners.

Domestic factors also worked against the *nishu*. The new coin was so expensive to mint that it rapidly exhausted the bakufu's silver reserves. Not enough coins were available to meet the large demand for foreign trade, with the result that the bakufu either had to give out paper notes, as it did in Nagasaki, or else cause absolute chaos by mixing debased *ichibu* and heavy *nishu* into the same weight for weight exchange.<sup>40</sup> Worst of all, the *nishu* contained so much silver bullion that it consistently traded on the open market for more than its stated denominational value.<sup>41</sup> Saddled with a coin that brought angry foreign protests, was expensive to mint, and did not bring down the value of

the dollar as expected, the bakufu quickly withdrew the heavy *nishu* on August 8, 1859, only one month after it first appeared on the market.

The bakufu then tried to avoid exchange by getting the dollar used in all foreign trade transactions. Edicts were issued ordering the dollar to be accepted at the three-*ichibu* rate, and the dollar was even stamped with seals saying that it was equal to three *ichibu*.<sup>42</sup> The supply of *ichibu* was limited, and only enough Western money was exchanged to meet the personal, as opposed to business, needs of the Western community. In marked contrast to the situation in China, however, the Mexican silver dollar was not very popular in Japan, where it was either accepted at a discount, or else failed to circulate at all. Touring the shops at Yokohama, one British diplomat discovered that: "As soon . . . as the Japanese merchant understood that he would be paid in dollars, he feared that the wind would be contrary to the junks coming from Yedo, and he did not know when delivery could take place. When, however, he was assured that he should be paid in itzeboos, he felt confident that the wind would not prevent the junks from coming in time for him to keep his word."<sup>43</sup>

Nor were the British sure that they wanted the dollar to circulate. As the same diplomat put it: "Among our merchants the conviction seems to be general, that by having the dollar as a current coin, all trade will be impossible; for although the Japanese are indeed obliged to accept it, they do so with reluctance, and the government will succeed in gaining its favorite point—of having one kind of coin current among the Japanese, and another for all transactions between Japanese and foreigners."<sup>44</sup> In order to hold the bakufu to its treaty obligations and permit trade to continue, then, both Alcock and Townsend Harris felt that they had to force the bakufu to resume formal coinage exchange.<sup>45</sup>

Townsend Harris accompanied his threats with a plan. If the bakufu was worried about a shortage or loss of bullion from coinage exchange, why not use Mexican silver dollars as bullion? In this way the bakufu could keep its own coinage separate from Western silver, neither using its limited bullion supplies nor having to hand over *ichibu* containing more silver than the dollars that it got in return. The Western merchant would be able to get the silver dollars that he needed to carry on business, while the value of the dollar would automatically return to the three-*ichibu* per dollar rate that the Western

diplomats thought was proper. Although the bakufu would have to pay the recoinage fees out of its own pocket, that seemed a small price to pay for settling the coinage exchange question and ending foreign protests.<sup>46</sup>

On September 12, 1859, the bakufu accepted Townsend Harris's proposal, and agreed to melt down twenty thousand dollars a day and make them into eighty thousand *ichibu*. Western merchants would apply in writing for permission to have their dollars converted into *ichibu*, each merchant agreeing to request no more than five thousand dollars a day. Individual amounts would be decided by exchange house officials in ways that were not clearly spelled out, and the new coins would contain exactly the same percentage of silver as the Mexican silver dollar.<sup>47</sup> Indeed the new *ichibu* were soon known popularly as *dorogin* or "*doro* silver," *doro* being a convenient homophone that implied both the Japanese pronunciation of the word dollar, and the native word for mud.<sup>48</sup>

The bakufu decision to melt dollars into *ichibu* appeared to settle the long argument over the proper value of the Mexican silver dollar in Japan. Now every gold and silver coin in the Tokugawa monetary system had been debased at rates which could not help but bring the bakufu a large amount of badly needed revenue. The bakufu had been forced to accept the Western contention that bullion weight alone should govern coinage exchange, and large amounts of debased *ichibu* were at last ready for equal exchange with the dollar. By a combination of threats, logic, and promises, the Western diplomats had at last succeeded in getting the kind of coinage exchange system that they had been seeking ever since Admiral Perry's second visit to Japan in 1854.

## Chapter III

### THE TREASURE TRADE

Just when the exchange problem appeared to be solved, a wave of coinage speculation forced the bakufu to reopen the entire question. Incredibly enough, neither the Western diplomats nor the bakufu appear to have anticipated the fact that unusually high-priced silver in Japan allowed Western merchants to buy gold and copper cheaply. Townsend Harris appeared to sincerely believe his 1858 statement to the bakufu that “No foreigner will come to Japan for the purpose of buying gold and silver, because gold and silver do not benefit a country,” while Rutherford Alcock, for reasons that are not clear, was sure that the conversion of dollars into *dorogin* or cheaper bullion *ichibu* would eliminate speculation in gold.<sup>1</sup> As for the bakufu, it got a clear warning from the treasury commissioners as early as 1858 that speculation could take place. Possibly it believed Harris’s words of advice. Probably it hoped that the short-lived good quality *nishu* would lower the buying power of the dollar to the point where speculation would not be possible. Certainly it was unprepared for the run on Japanese gold and silver that took place in the summer of 1859.<sup>2</sup>

Copper speculation was immensely profitable. Since the Mexican silver dollar bought 1200 cash in China while three silver *ichibu* traded for over 4,800 *mon* in Japan, it was obvious that the three-*ichibu* per dollar exchange rate gave the Mexican silver dollar a higher copper price in Japan than it normally had. Even the debased *tempō tsūhō* seemed cheap to the foreigners; the British consul at Hakodate, for example, reported that although gold and silver “were kept by the Lords,” the Mexican silver dollar could usually buy fifty-two *tempō tsūhō* in 1859 and forty-six in 1860, enough for a two to three hundred per cent profit.<sup>3</sup> These prices roughly corresponded to a market price of 6,600 *mon* of copper per *ryō*, or 1650 *mon* per *ichibu*. They reflected the fact that copper coins had been so overissued that even the *tempō tsūhō* could be profitably bought by Westerners.

Since the 1858 treaty banned the export of copper coins, many merchants had to sneak their purchases out past the Japanese customs officials. More law-abiding citizens took advantage of the fact that the 1858 treaty

allowed the free export of copper manufactured goods. Soon a wide variety of weirdly shaped copper vases, tools, and statues was being shipped overseas. In desperation, the bakufu ordered all copper to be sent through an Edo wholesaler (*tonya*) before being shipped to Yokohama. It cut the Dutch and Chinese quotas from 100,000 *kin* (6.6 tons) in 1859 to 93,000 *kin* (6.1 tons) in 1860, and 42,000 *kin* (2.8 tons) in 1865. After 1866 it eliminated all copper shipments to China, thus ending one of the longest and most important foreign trade contracts that had existed in Tokugawa Japan.<sup>4</sup>

Efforts to ban copper sales to Great Britain and the United States created a good deal of bad feeling. The bakufu first protested against the export of "manufactured goods" on August 12, 1859, only to be told that such trade was perfectly legal. When a great fire destroyed the bakufu castle in Edo, the bakufu announced on November 14, 1859 that it could not sell any more copper to the West since rebuilding the castle would require all of the available supplies. The bakufu also claimed the right to ban all sales of copper manufactured goods, on the grounds that manufactured goods were really only raw copper in a more sophisticated form.<sup>5</sup> The bakufu position was not without merit, since it had traditionally claimed the right to extend controls over manufactured goods and previous coinage issues when precious metal was scarce. Yet common sense and the 1858 treaty made a clear distinction between raw copper and copper manufactured goods, and soon the Western diplomats were protesting against what they regarded as an illegal trade restriction.

Since an equal weight of pre-1859 *ichibu* contained up to twenty per cent more silver than the dollar, speculation in silver was also possible. Some Japanese scholars have pointed to the export of silver from Japan in 1869 as proof that such speculation took place, but more likely the silver exports simply represented the fact that the Japanese had an unfavorable trade balance during that year.<sup>6</sup> As already noted, the bakufu was sufficiently aware of the problem to mint *dorogin* silver *ichibu* at the same fineness as the Mexican silver dollar, and use this coin in exchange. More important, few foreign merchants wanted to use the hard-to-get *ichibu* to make a profit of only twenty per cent. They preferred to make much greater profits by buying Japanese tea and silk, or by speculating in Japanese gold coinage.



Gold speculation took place because Japan's gold-silver ratio was only 1:5, or one-third the Western 1:15 rate. Western merchants could thus bring in fifteen ounces of Mexican silver dollars, use this to buy three ounces of Japanese gold, and sell that gold in the West for forty-five ounces or three times their original investment. To put it in figures:

15 ounces of silver at 1:5 = 3 ounces of gold

3 ounces of gold at 1:5 = 45 ounces of silver

Since the 1858 treaty required the bakufu to supply *ichibu* yet permitted the export of gold coins, such speculation was obviously easy, legal, and profitable.<sup>7</sup>

The bakufu first became aware of the dangers of foreign gold speculation when the Nagasaki town magistrates (*Nagasaki bugyō*) reported that foreigners were buying gold. By June 20, 1859, the bakufu had forbidden Edo exchange houses to sell gold to the foreigners,<sup>8</sup> and by July 8, 1859, only one week after the official opening of the treaty ports, it had given the following notice to village headmen: "Since the port of Kanagawa was open to foreign trade, the foreigners resident there have desired to get both old and new *koban*, so that the value of goods purchased with this coin has gone up especially high . . . If this continues, all the gold in the country will be sent overseas thereby hurting Japan. The headmen in each street should call the attention of the people in their streets to this matter."<sup>9</sup>

Unfortunately for the bakufu, few people were prepared to obey its edicts. Joseph Heco noted that many merchants used to sneak gold into Yokohama under their shirts so that the bakufu guards would not see them,<sup>10</sup> while Lieutenant James D. Johnston of the United States Navy reported that: "The sale of these coins to foreigners was prohibited by an Imperial decree, but this did not appear to have the slightest effect, except to produce an extensive illicit traffic in them, the Japanese merchants evincing the greatest anxiety to get rid of their gold on what they regarded as exceedingly favorable terms—receiving seven, eight, nine, and ultimately twelve silver itzibus for the cobang, a coin whose value to them, as fixed by the government, was only four."<sup>11</sup> Even Fukuzawa Yukichi, who at that time was employed by the bakufu, admitted that he advised his friends to speculate in gold, and was handsomely rewarded as a result.<sup>12</sup>

Since the Japanese merchants were willing to sell their gold, the Western merchant had only to worry about getting enough *ichibu* to trade. Some merchants began to threaten or bribe the Japanese officials in hopes of getting more than their share of the limited number of *ichibu* available. Others submitted elaborate petitions full of false names and enormous figures. In October 1859, Thomas Eskrigge applied for three hundred and fifteen million dollars on behalf of Messers Bang, Rake, Nelly, Smell-bad, and No-nose, and then, obviously in need of more funds, sent in a petition for sixty million dollars. Another petition simply said, "Please change for me today \$250,000,000 and much oblige." This note was signed by Benjamin Telge, one of the men whose earlier difficulties in procuring adequate supplies of *ichibu* had induced Alcock to protest to the bakufu on his behalf.<sup>13</sup>

Soon the situation was out of hand. A senior officer of the *Powhatan*, Admiral Perry's old flagship, resigned his commission on the spot in order to make his fortune, only to find himself accused of using the influence of the United States government to get more *ichibu* than the ordinary merchant could.<sup>14</sup> The British also accused the consuls of other countries of unfairly mixing business with official duties, and there were dark mutterings of bribery and intrigue.<sup>15</sup> Above all, there was a constant clamor of merchants waiting at the exchange house to get their dollars changed into *ichibu*. "It was quite as amusing to observe the imperturbable gravity and precision with which the unmoved officials weighed the coin," Lieutenant Johnson later recalled, "as to hear the absurd and ludicrous names invented by the excited applicants."<sup>16</sup>

Frightened by the run on gold and copper, the bakufu quickly reopened the whole coinage exchange question. On November 14, 1859, the bakufu told the Western diplomats that their merchants had violated the September 12 exchange agreement by submitting requests for more than \$5,000 apiece, and added that the false names, threats, and fantastic sums were incompatible with dignified trade relations. Later the Japanese said that they could not meet with the Western diplomats because the problems caused by the fire in the shogun's castle at Edo made them terribly busy. When combined with the restrictions on copper which were announced at the same time, the bakufu in effect claimed the right to stop all coinage exchange. Very little money changed hands during the next month, and little or no foreign trade was carried on.<sup>17</sup>

Alcock greatly annoyed the foreign community by initially siding with the Japanese. Taking a most unusual view of Japanese history, he warned the British consul in Yokohama that: "Every effort must be made to allay the irritation and alarm of the Japanese government at the shipment of their gold currency. It was this, I believe, more than the religious quarrels and encroachments which led 200 years ago to the total expulsion of the Spanish and Portuguese, and to the long isolation of Japan from Western nations. We are threatened by the same dangers now, by persons wholly regardless of what might happen if they can only secure their own temporary advantage."<sup>18</sup> Later in the dispatch Alcock claimed that "an inquiry into these facts has only tended to prove how much Foreigners in a marked degree have themselves to blame."<sup>19</sup>

Alcock's dispatches and the offending petitions eventually became part of a special Parliamentary Paper which, although it was titled "The Stoppage of Trade by the Japanese Authorities," actually condemned the Western merchant community. Alcock was unsure whether public censure would have much effect on "twenty men of all classes and diverse nations who believe that in this distant corner of the world they are safe from exposure." Lord Russell's secretary, however, was more hopeful. In a letter to the London office of the East India and China Trading Association, the secretary, delicately choosing his words, hoped that "the whole weight of the commercial influence of this country can be brought to bear on a state of things which is at once discreditable to the British name, and incompatible with the successful prosecution of trade in Japan."<sup>20</sup>

Yet neither Alcock nor Harris could tolerate the total suspension of foreign trade for very long. For one thing, neither man seems to have realized that the Japanese faced a very serious shortage of bullion. No doubt they knew that copper exports had traditionally been one of the major items of export in the Dutch trade. Quite possibly they were influenced by the official narrative of Admiral Perry's expedition to Japan which, after describing rich mines and coal supplies, went on to report that "An old Spanish writer of the 17th century tells us that in his day, the palace of the Emperor at Jeddo, as well as many houses of the nobility, were literally covered with plates of gold."<sup>21</sup> By 1859, Alcock and Harris knew that the bakufu, not the emperor, controlled Japan from the palace at Edo. Yet they still seemed to believe that

Japan was a veritable El Dorado, rather than a country that had long been forced to debase its monetary system because of inadequate bullion supplies.

If bullion was not available, it was only because the bakufu was too weak to control the actions of the antforeign daimyo. By December 1859, Harris had come to feel that these daimyo were “the government *de facto* of Japan,”<sup>22</sup> while Alcock felt that: “They have but to will it, for instance, to prevent coal being either worked or dispatched to their ports. The coal mines are all their property, so far as I can learn. So of copper, lead, silver, and all the other sources of mineral wealth, in which there is good reason in believing that the country abounds. Although they may not all be in their possession, yet their influence will always suffice to prevent their being worked to advantage, or for the benefit of foreign trade.”<sup>23</sup> Alcock added that hostile daimyo also prevented the Mexican silver dollar from circulating outside of the treaty ports.

Finally, Alcock and Harris thought that the bakufu could easily solve the speculation problem by adjusting its bullion levels to Western standards. On August 8, 1859, Harris told the bakufu that:

The value of your gold coin is lower than that of America and Europe . . . If this valuation of gold is continued, your gold coin will be exported, in such quantities as to be inconvenient.

As I am disposed at all times to do justice and act fairly, I have no objection to your increasing the value of your gold coinage, so that the old gold Kobang shall pass for three Kobangs, and the old gold Itzebu for three Itzebus.<sup>24</sup>

Even Lord Russell commented that “You should point out to the Japanese authorities that, to a certain extent, they have a remedy in their own hands, if they choose to assimilate the value of gold and silver to the values that they should relatively bear.”<sup>25</sup>

Eventually Alcock and Harris began to wonder whether the bakufu wished to solve the coinage exchange problem at all. Given their rather simple analysis of the problem and their readily offered cures, the bakufu’s reluctance to modify its monetary system and reopen coinage exchange could only seem to be part of a plot whereby the bakufu, in Alcock’s words, “take care, under a flimsy veil of courtesy and good will, linked by a hundred acts of annoyance, moreover, to render the ratified treaties null and void.”<sup>26</sup> Similarly,

Townsend Harris wondered whether the bakufu's failure to solve foreign trade problems was not a reflection of its weakness in the face of opposition by the daimyo. "If war were once declared," he said, "the present government would no longer be acknowledged by the foreign powers, whose agents would then only deal with the Mikado or Spiritual Emperor."<sup>27</sup>

Alcock's protests to the bakufu were so blunt that Lord Russell was later to remark somewhat wistfully that "it were to be wished that you had not threatened war. We run the risk . . . of earning the reputation of quarreling with every nation in the East."<sup>28</sup> Yet Alcock's protests differed from those he wrote in early June. Whereas in June he had been worried about whether foreign trade could be carried at anything less than a three-*ichibu* per dollar rate, Alcock was now concerned with forcing the bakufu to meet its treaty obligation. Although aware that Western merchants could make profits at less than the official rate, he still wanted to hold the bakufu to the official rate until the 1858 treaty was revised.

Even after the first year of trade had passed, therefore, Alcock got the bakufu to agree to a special and supposedly voluntary agreement renewed every six months whereby the bakufu exchanged \$2,500 per month at the British Embassies at Yokohama and Edo, \$1,000 per month at Hakodate and Nagasaki, \$3 per day per naval officer, and \$1 per day per enlisted man.<sup>29</sup> Since this gave the British Embassy personnel more *ichibu* for their dollars than they could have obtained for them on the open market, the special exchange rate was occasionally criticized by government officials in England, only to be defended on the grounds that it was a voluntary agreement that helped the Embassy while keeping up the supply of *ichibu* in the treaty ports.<sup>30</sup> Even Sir Ernest Satow, who later regarded his participation in the special profits as "the most shameful thing I have ever done in my life," could not help but remark that "on a nominally small income it was consequently possible to keep a horse and drink champagne."<sup>31</sup>

Alcock's insistence that the three-*ichibu* per dollar exchange rate be maintained for all customs duties and official payments also permitted the Western merchants to make profits. A merchant who bought three hundred *ichibu* worth of tea, for example, might pay one hundred and fifty dollars for his tea at a two-*ichibu* per dollar market exchange rate, but only declare one hundred dollars worth of goods when paying export charges on his goods.

To illustrate:

300 *bu* at 2 *bu* per dollar = 150 dollars

300 *bu* at 3 *bu* per dollar = 100 dollars

The difference between the real and assessed value of Japanese goods affected Western imports in the same way. A man selling Western textiles for three hundred *ichibu* need only declare one hundred dollars worth of goods, even though his stock was worth one hundred and fifty. In this way Japan's tariffs were kept particularly low, and the bakufu was deprived of badly needed revenue.<sup>32</sup>

Alcock and Harris were not concerned with the price of the dollar in private merchant transactions, since these did not involve the government, and thus did not bring up the question of whether or not the bakufu was living up to its treaty obligations. On July 17, 1860, therefore, the bakufu was at last able to announce that the dollar should be traded on the open market for its "equivalent value in *chōgin*."<sup>33</sup> The use of the word *chōgin* is significant, for it shows that the bakufu still recognized that the *ichibu* was a gold coin that took its value from its gold denominational seals rather than its silver bullion content. The bakufu still believed in the position that it took in 1854, in other words, even though it had since been forced to sign many treaties to the contrary.

Japanese and Western merchants thereafter either decided exchange rates themselves, or else bought and sold currency through professional money changers. Between 1860 and 1862, some twenty-five to thirty such money changers operated in Yokohama, the most famous being the head of the Mitsui family's Yokohama dry goods store. After 1862 these men were formally organized by a merchant named Hizenya Kōnosuke into a Western silver exchange house (*yōgin soba kaishō*). Western banks such as the Oriental Bank Corporation, the Chartered Mercantile Bank of India, London, and China, the Commercial Bank of India, the Central Bank of Western India, and the Hongkong and Shanghai Banking Corporation also bought and sold dollars whenever they could profitably do so.<sup>34</sup>

Even the bakufu made profits on coinage exchange. In 1860 the Mitsui Yokohama store was appointed an official bakufu firm (*goyōshō*) to buy and sell Mexican silver dollars. In 1860 a separate Western silver purchasing office (*yōgin kōbai sho*) was set up, but it soon failed when the Japanese merchants

found that they could get a better price for their dollars by selling to private money changers.<sup>35</sup> The bakufu then resumed trading through the Mitsui family, buying dollars whenever it wanted bullion. Since the dollar could be bought for two to two and one-half *ichibu* and then used to make three *ichibu*, such purchases formed a profitable way of minting silver bullion coins. The bakufu therefore minted over twenty-eight million *ryō* of *dorogin ichibu* between 1859 and 1868. This was one and one-half times the amount of the previous *ichibu*, and represented one of the largest amounts of coinage to be minted after 1859.<sup>36</sup>

The charge that the bakufu deliberately manipulated the market value of the Mexican silver dollar for its own selfish purpose, however, is unfair. On August 6, 1862, a British merchant named J. H. Boyle answered Consul Vyse's inquiry as to why the Mexican silver dollar did not buy three silver *ichibu* by saying that: "The later heavy imports of specie in payment of silk purchases, coupled with the well-known fact that the Japanese merchants are compelled to get their dollars exchanged into itzeboos, at once induced the Treasury to depreciate the dollar a further 10% within a few days, making in all a difference in profit of 30% on the dollar as compared with itzeboos "weight for weight."<sup>37</sup> Implicit in Boyle's comment was the common Western conviction that the bakufu was an awesomely powerful despotism.

Actually the buying power of the dollar was more closely related to the ebb and flow of foreign trade than it was to any machinations of the bakufu. When Westerners bought Japanese goods, then Mexican dollars flowed into the treaty ports, eagerly sought *ichibu*, and created a surplus of Western money that drove down the exchange rate of the Mexican silver dollar. When Japanese merchants bought foreign goods, then demand for the dollar rose, and its exchange rate increased. Japan's favorable trade balance, then, initially prevented the dollar from trading for three *ichibu* even when, as in the summer of 1859, the bakufu desperately wanted it to do so. Similarly, when Japan developed an unfavorable balance of trade after 1865, the dollar, despite bakufu efforts, bought more than its own weight in *ichibu*.<sup>38</sup>

How, then, should we view the profits and losses involved in the "Treasure Trade"? According to Professor Yamaguchi Kazuo, 93,000 *kan* (400 tons) of copper *zeni* were exported between 1859 and 1868, or less than one-fiftieth of the *zeni* in circulation at the time.<sup>39</sup> Professor Ishii Takashi's figures are

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almost twice as high, but he quickly adds that copper exports never formed a very significant part of foreign trade as a whole.<sup>40</sup> A copper shortage prompted the bakufu to tighten its copper controls, and may have been one of the reasons why *zeni* were further debased in the 1860's. Yet the total number of *zeni* in circulation did not decrease, nor did the market exchange rate for *zeni* ever fall below 6,000 *zeni* per *ryō*. Superficially at least, copper speculation did not affect the copper monetary system.<sup>41</sup>

Gold losses were hardly more significant. The usual estimate of 100,000 *ryō* of gold exported in 1859 represents one-third of the legal mint issue of *koban* and gold bullion *ichibu*, and all but eliminated these two coins from common market transactions. Yet the gold loss was but a fraction of the nominal value of all the gold denominational coinage on the market.<sup>42</sup> Similarly, the bakufu lost a good deal of money on customs receipts, but was able to make up its losses by buying dollars cheaply and using them to make *ichibu*. Embassy personnel may have had their extra glasses of champagne and individual merchants may have made their fortune in coinage speculation. Yet the actions of a few individuals could not have singlehandedly destroyed the monetary system of Japan.<sup>43</sup>

Rather one must view the Treasure Trade as but part of a larger process whereby the bakufu's traditional bullion monopoly was destroyed by the start of foreign trade. Significantly, neither Townsend Harris nor Rutherford Alcock anticipated this breakdown, nor could they, for all their moral fervor, take steps to protect Japan's monetary system once foreign trade had started. The bakufu was also unable to outlaw profit taking or stop speculation short of waging war with the West. The short period of gold and copper speculation that took place in the fall of 1859, and the subsequent fluctuations in the buying power of the Mexican silver dollar may not have been very important when measured in dollars and cents. Yet they forced the bakufu to revise its entire coinage system, and thereby helped bring on one of the worst inflations in all of Japanese history.

## Chapter IV

### THE GREAT INFLATION

By December 1859, Alcock's and Harris's protests had made it clear to the bakufu that it could not stop coinage exchange for very long without risking war, while practical experience suggested that even at the two to two and one-half *ichibu* per dollar rate Western merchants could make profits on gold and silver speculation. Worst of all, coinage speculation had already raised the price of a gold *koban* from four silver *ichibu* to eight, and inflated copper prices accordingly. The bakufu thus realized that the start of foreign trade had destroyed its traditional monopoly of precious metals and its unique coinage ratios. Only by radically changing the bullion content of its coins could it satisfy the Western diplomatic community, end coinage speculation, and maintain the traditional denominational values of the various coins within its coinage system.

As had happened in the spring of 1859, there was a renewed debate between those factions of the bakufu who wished to switch from a 1:5 to a 1:15 gold-silver ratio by adding on to the bullion content of silver bullion coins, and those who wished to change the ratio by debasing the amount of gold. Once again Mizuno Tadanori and the *gaikoku bugyō* suggested a restoration, as they so cleverly put it, of Tokugawa silver bullion coins to their former levels, and the *kanjō bugyō* pointed out how impossible it was to follow Mizuno's plan. In the end bakufu finances and a shortage of available bullion dictated that Japan change her gold-silver ratio by debasing gold bullion coins for the second time within a year.<sup>1</sup> The debasement is known as the Man'en Currency Reform, and is one of the most significant in all of Japanese history.

This time the Japanese made sure that the Western diplomats agreed with their coinage policies. Various officials visited the American, British, French, Dutch, and Italian ministers and explained to them the new coinage plan. Samples of the new coinage were also made available to the ministers before the coins appeared on the market. The conversations were unofficial, since no Western diplomat presumed to tell the bakufu how to run its coinage system. Yet one and all wished to avoid the misunderstandings that had led to the failure of the good quality *nishu* in the spring of 1859, and the

bakufu also wanted advice on how to end a coinage problem caused largely by the start of foreign trade.<sup>2</sup>

The Westerners did not agree with the Japanese plans until a compromise had been reached. In calculating the gold-silver ratio, the Westerners wanted to compare the gold *koban* to the *ichibu* minted before 1859 on the grounds that this was the dominant type of silver bullion coinage on the market. The bakufu, on the other hand, wanted to compare the *koban* to the more debased *dorogin* silver *ichibu* since this coin would one day be the dominant type of *ichibu* in circulation; the bakufu, in other words, wished to debase its gold coinage slightly more than the Westerners suggested, since it compared its gold to an inferior kind of silver bullion coinage. Though obviously in the right, the bakufu split the difference with the Westerners and did not debase its gold coinage quite as much as it wished to, in order to be sure of getting the approval of the foreign diplomats.<sup>3</sup>

Debasement took two forms. On February 18, 1860, the bakufu announced that previous *koban* and gold *ichibu* would be revalued in order to bring their denominational value in line with their actual bullion content.

The revaluation was as follows:

$$\begin{array}{l}
 100 \text{ ryō of } 1600 \text{ } koban = 548 \text{ ryō} \\
 100 \text{ ryō of } 1695 \text{ } koban = 378 \text{ ryō} \\
 100 \text{ ryō of } 1736 \text{ } koban = 362 \text{ ryō} \\
 100 \text{ ryō of } 1817 \text{ } koban = 342 \text{ ryō} \\
 100 \text{ ryō of } 1837 \text{ } koban = 338 \text{ ryō} \\
 100 \text{ ryō of } 1859 \text{ } koban = 260 \text{ ryō}^4
 \end{array}$$

Some 625,000 *ryō* of new *koban* and gold bullion *ichibu* were also minted to define the new bullion content of the *ryō*. In keeping with the revised standards, the new coins weighed less than one-half as much as even the badly debased 1859 mint issue.<sup>5</sup>

Subsidiary gold coins were debased even more. Between 1860 and 1868, the bakufu minted over fifty million *ryō* of gold *nibu* ("two *bu*") and three million *ryō* of gold *nishu* ("two *shu*") or almost one hundred times the nominal value of the *koban* and gold *ichibu* mint issues.<sup>6</sup> These coins contained roughly ten per cent less gold per *ryō* than the *koban*, and further depreciated the value of the gold bullion coinage on the market. They actually made the ratio of the gold *nibu* to the silver *ichibu* 1:17, or slightly more than the

Western 1:15 ratio, but the difference was not great enough to encourage speculation in silver. Rather the decision to debase the gold coinage system, plus the growing shortage of *koban*, all but ended the possibility of speculating in Japanese gold.

Unlike previous coinage debasements, the bakufu did not try to make recoinage profits. Naturally the new coins cost a good deal less, and hence made it easier for the bakufu to meet its financial obligations cheaply. Yet the bakufu did not try to force older coinage issues off the market, nor did it set exchange rates for old and new coinage so low that people were forced to hand over more bullion than they got in return. The motivation for the gold coinage debasement seems to have been simply to adjust Japanese bullion standards to world markets, or rather, to put it more accurately, to adjust the bullion content of the various gold coinage denominations to the actual price that they now had on the open market. In this sense the Man'en Currency Reform of 1860 was unique in Tokugawa monetary history.

The Man'en Currency Reform also marks a fundamental redefinition of the *ryō*. Prior to 1860, the bakufu had argued that the value of a coin was determined more by an arbitrarily defined denominational value than by bullion content, and that all *koban* coins should buy the same regardless of weight; as already noted, the successful establishment of this kind of a fiat monetary system permitted the bakufu to make an enormous profit from coinage debasement. Now the bakufu not only forswore all profit, but even insisted that previous *koban* should buy much more than the latest mint issue. Once again the *ryō* had become a measure of bullion weight, as well as a simple denominational counter.

Silver coinage was not officially debased, but actually declined in quality. The twenty-eight million *ryō* of *dorogin* silver *ichibu* minted since Harris's plan was adopted in September 1859, allowed that coin, rather than the pre-1859 issue, to become the dominant type of *ichibu* in circulation, thus reducing the actual silver content of the *ichibu* by close to twenty per cent. The 102,907 *kan* (448 tons) of debased *chōgin* and *mame-ita-gin* first ordered by Ii Naosuke in the spring of 1859 also gradually came into circulation at this time. The *ichibu* minted represented over twenty-eight times the legal value of the *chōgin* and *mame-ita-gin* issues, clear evidence of the bakufu's primary concern with its gold coinage system. The mint figures also

foreshadowed a later decision by the Meiji government to eliminate the silver coinage system altogether.<sup>7</sup>

Copper coinage was debased somewhat more gradually. Brass and lead four-*mon* pieces were minted between 1860 and 1863, a debased copper four-*mon* piece was put out after this time, and many more *tempō tsūhō* were minted.<sup>8</sup> In 1864 the nominal value of the one-*mon* copper piece was increased to four *mon*, the debased copper four-*mon* piece to eight *mon*, and the brass four-*mon* piece to twelve *mon*.<sup>9</sup> The revaluations were the work of Oguri Tadamasa (1827-1868), an important bakufu official who advocated collaboration with the French. Oguri's changes were exactly parallel to those that took place in the gold coinage system.<sup>10</sup>

Oguri's motives are somewhat unclear. Lord Arbuthnot thought that the bakufu debased its copper coinage system so that the same number of *zeni* would be given for gold and silver bullion coins despite the debasements there, yet this is unlikely, since the *tempō tsūhō*, which formed a major part of the copper coinage system, was not debased or revalued.<sup>11</sup> Possibly Oguri simply wanted to make coinage profits for the bakufu. More likely copper speculation forced the bakufu first to mint more debased *zeni*, and then to adjust their denominational values to bring them into line with the actual market prices. As Japan began to enter the world bullion market, the *tempō tsūhō* proved unable to keep its denominational value relative to other coins in the copper coinage system. Changes therefore had to be made.<sup>12</sup>

Even paper notes were issued. We have already noted how the bakufu suggested to Inoue and Okada that they substitute paper notes for *ichibu* in order to avoid a loss in coinage exchange, and how a proposal to use paper notes was written into the Dutch treaty of 1858.<sup>13</sup> Paper currency actually appeared, with Alcock's blessing, in Nagasaki during the first few months of trade, but the notes became involved in the dispute over the good quality *nishu* and the whole question of the value of the dollar, and were very soon withdrawn.<sup>14</sup> By 1867 similar notes had been issued to relieve a shortage of *zeni* on the Tokaido, to secure a loan from six of the largest Edo exchange houses, to sponsor a speculative bakufu trading venture, and to compete with Western bank notes in hopes of reducing demand for the dollar.<sup>15</sup>

Although the fall of the bakufu in the following year prevented the notes from having any significant effect on the economy, the four note issues

nevertheless mark an extremely important milestone in Japanese monetary history. Prior to 1854, the bakufu did little more than provide a certain amount of legal aid and some indirect form of recognition to paper note issues. Then the extraordinary expenses caused by the arrival of the Westerners forced the bakufu to issue paper currency for the first time. The notes thus form an important link between the bakufu's traditional reluctance to issue paper money, and the decision of the new Meiji government to finance Japan's modernization through extensive paper note issues.

Other kinds of money entered the economy. Between 1860 and 1868, the bakufu allowed Mito, Adachi, Sendai, and Aizu to mint *tempō tsūhō*, and agreed to let Satsuma issue similar coins on condition that it stamp the coins with different characters and limit circulation to its own domains. Since Satsuma is estimated to have minted over three million of these coins at a fifty per cent profit, many of which circulated illegally outside of the daimyo's domains, the tremendous copper profits undoubtedly help explain why Satsuma could play such an important role in the subsequent Meiji Restoration. The fact that the bakufu allowed the daimyo to mint metallic coinage shows the extent to which the traditional bakufu monopoly over coinage minting had now been thoroughly destroyed.<sup>16</sup>

The daimyo also issued *hansatsu*. As bakufu authority declined and local expense increased, many daimyo found that they were forced to issue paper notes or sponsor the same kind of semi-official notes that had been used to avoid the bakufu's 1837 ban on *hansatsu*. Thanks in part to the stimulus of foreign trade on the Kanto area, one hundred and eight of the one hundred and twelve *hansatsu* issues were valued in gold or copper denominational units, as were all four of the bakufu note issues.<sup>17</sup> When considered in conjunction with the relative mint figures for silver *ichibu* and *chōgin*, the paper note issues clearly indicated the end of the separate silver coinage system.

Counterfeit coinage became a major problem in the last years of the Tokugawa. While every debasement had created possibilities for counterfeiters, the extraordinarily large cuts made in the coinage system after 1860 strongly tempted counterfeiters to make the same kind of profits from previous coinage issues that the bakufu was getting. The Chinese were also often accused by the British of taking advantage of the limited Tokugawa

control of the treaty ports and bringing in counterfeit coinage from abroad. By 1870, the British ambassador Sir Harry Parkes was complaining to the Japanese that over seventy per cent of the *nibu* received in payment for imported goods by British merchants were actually counterfeit. Although the seventy per cent figure seems quite fantastic, counterfeit coinage undoubtedly did increase the total amount of money in circulation.<sup>18</sup>

The nominal value of the money in circulation during the last years of the Tokugawa can only be roughly computed. A comparison of the mint figures for 1837-1859 and 1859-1868 shows that the value of *koban* and gold *ichibu* dropped from almost twenty million *ryō* in 1854 to less than one million *ryō*, while the number of *chogin* and *mame-ita-gin* minted decreased from 182,108 *kan* (792 tons) in 1854 to 102,907 *kan* (448 tons) in 1868. This decrease was more than compensated for by a ten million *ryō* increase in the amount of silver *ichibu* minted, and the addition of over sixty million *ryō* of subsidiary gold denominational issues such as the gold *nibu*. The nominal value of the copper coinage issues minted probably tripled, while vast amounts of new *hansatsu*, *tegata*, and counterfeit coinage were also put into circulation.<sup>19</sup>

Since many previous coinage issues were still used, the amount of money in circulation was greater than the actual mint figures. Professor Yamaguchi Kazuo has estimated the amount of gold and silver coinage in circulation as follows:

| <u>coins</u>                             | <u>1853</u>                 | <u>1868</u>                  |
|------------------------------------------|-----------------------------|------------------------------|
| gold                                     | 23,314,639 <i>ryō</i>       | 74,820,763 <i>ryō</i>        |
| silver                                   | 20,533,500 <i>ryō</i>       | 52,391,832 <i>ryō</i>        |
| <i>chōgin</i> and<br><i>mame-ita-gin</i> | 3,901,600 <i>ryō</i>        | 3,511,566 <i>ryō</i>         |
| <hr/> Total                              | <hr/> 52,749,738 <i>ryō</i> | <hr/> 130,724,161 <i>ryō</i> |

His figures suggest that the total amount of gold and silver coinage in circulation was ten times as great as the nominal value of gold and silver coinage in circulation in 1695, and two and one-half times as great as the nominal value of the money in circulation but fifteen years previously.<sup>20</sup>

During this same period the total volume of foreign trade grew from an estimated one million dollars in the last six months of 1859 to seventeen million dollars in 1863 and thirty million dollars in 1868.<sup>21</sup> Exports of raw silk,



tea, cotton, and silk egg cards were initially more important than imports of textiles, machinery, and armaments, giving Japan a favorable balance of trade at least through 1865.<sup>22</sup> The demand for Japanese goods was so great that most Japanese merchants could make profits of two to four hundred per cent on raw silk and tea, and five hundred per cent on the badly needed silk egg cards. Even the bakufu tried to cash in on the profits by sending shiploads of goods to Shanghai in 1862 and 1864, and by issuing paper notes to finance its own overseas trading corporation.<sup>23</sup>

As the demand for Japanese goods grew, tea production increased by an estimated seven to twenty per cent, and silk production by fifty to sixty per cent. In the process the Kanto area developed particularly rapidly, and many villages in that area entered a money economy for the first time.<sup>24</sup> Yet the production increases were never able to meet the foreign demand and supply domestic firms at prices which they could afford. Shortages of raw silk and the importation of cheap Western fabrics so hurt the famous Nishijin silk and textile area in Kyoto, for example, that the bakufu was forced to lend these firms over three thousand *ryō* in relief funds in 1860.<sup>25</sup>

The bakufu's fragile political position also hurt the circulation of goods. Admiral Perry's two visits to Japan had forced the bakufu to consult formally with the daimyo for the first time in its history, thereby dramatically exposing the fact that the bakufu was no longer able to claim that it alone protected the emperor from harm. During the 1860's a continuing series of incidents signaled the impending end of the bakufu and encouraged hoarding. Japan thus faced a situation where there was political unrest, a growing shortage of goods, badly debased money, and a great increase in the nominal amount of currency in circulation.

Prices therefore rose. While extensive debasements between 1695 and 1853 had brought only gradual increases in commodity prices, the period between 1854 and 1868 saw nominal prices increase by more than eight hundred per cent. Sample prices include (prices per *koku* in Edo in silver *momme*):<sup>26</sup>

| <u>Commodity</u> | <u>1853</u> | <u>1859</u> | <u>1869</u> |
|------------------|-------------|-------------|-------------|
| rice             | 114.0       | 135.0       | 586.0       |
| salt             | 34.0        | 35.0        | 114.0       |
| sake             | 255.0       | 254.0       | 905.0       |

These commodities have been chosen to show the increase in prices for goods not normally sent overseas in foreign trade. They show the extent to which the changes in the monetary system in the late Tokugawa period produced an unprecedentedly sharp inflation.

In an attempt to hold prices down, the bakufu announced in 1860 that the five most important goods sent overseas would have to be sent to Edo first before going to the treaty ports. The 1860 edict was issued in response to pressure from the Edo exchange house firms, who found that they could not compete with the prices being offered for these goods in the treaty ports, and hence could not supply their regular customers. Unfortunately the bakufu no longer had the power to enforce its will upon the rural merchants who produced these goods, particularly now that the delicate balance between the Osaka merchant producer and the Edo samurai consumer had been destroyed by rural growth and the revival of foreign trade. The decline of the traditional merchant houses and the rise to power of new and vigorous merchants was thus directly related to the revival of foreign trade.<sup>27</sup>

Rutherford Alcock did not at first understand the seriousness of the situation. On September 20, 1859, he wrote Lord Russell that: "Japan has the credit of being a cheap country, and to the Japanese I can readily agree that it is; although were I to credit the asservations with which the Government officials back the most extortionate prices, I should say that in all, except rice and French beans, it is the dearest country that I have ever visited."<sup>28</sup> Even as late as 1861, Alcock wrote of his fears that the government might encourage a "simulated popular movement" against further foreign trade. "I say simulated," wrote Alcock, "for, although I know to my cost that the general dearness of every article of consumption, the alleged cause of popular discontent, exists, so far as we are concerned, I have strong doubts whether it exists for the Japanese, and if it does, I should be further inclined to believe that it was artificial in its source, and brought about by the direct action of the ruling classes with a view to making out their case."<sup>29</sup> Alcock's views here paralleled his earlier assumption that the Mexican silver dollar did not circulate in Japan because the "antiforeign daimyo" did not wish it to. In each case a despotic government was able to interfere with the healthy operation of a free economy.

By December 1862, however, Lord Arbuthnot of the British Treasury had come to understand to a remarkable degree the problems of the Tokugawa

monetary system. Arbuthnot was extremely critical of Admiral Perry and Townsend Harris for comparing the Mexican silver dollar to the *ichibu* on the basis of bullion weight alone. Because the *ichibu* were "token coins greatly overrated in reference to their contents in precious metals,"<sup>30</sup> the resulting weight for weight exchange had given the dollar an unnaturally high buying power, and forced the bakufu to debase its gold and copper coinage in order to stop speculation. Said Arbuthnot: "I know of no other example (unless we revert to barbarous times) of so sudden and violent a rendering of the monetary regulations of a country, and certainly of none which has been produced by the interference of foreigners."<sup>31</sup> In marked contrast to the Western diplomats in Japan, Arbuthnot realized that the bakufu objections to the treaty negotiations might have been founded on reason as much as prejudice.

Arbuthnot also recognized that the current inflation might be the result of genuine monetary problems rather than simply the whim of certain anti-foreign daimyo. As we have already noted, Arbuthnot believed that the bakufu had debased its copper coinage simply in order to allow its debased gold and silver issues to buy as much copper coinage as before. Such a revaluation, he said, "has had the effect of maintaing the nominal value of the itzebue in relation to cash, but has depreciated the purchasing power of the cash, equally with the depreciation of silver coins. The change is thus brought home to every poor man, and affects his dealings."<sup>32</sup> Arbuthnot probably misunderstood the causes of the copper debasement, yet he clearly understood its effects upon the common man.

Arbuthnot recognized the effects of the bakufu decision to debase its gold coinage system even more clearly. After noting the tremendous cuts in the gold content of the gold *koban* and *ichibu*, he said:

It is my duty to call the particular attention of your Lordships to one example of the disturbance of wages, which has a political bearing of great moment, and may seriously affect our future relations with the Japanese. The Daimyos have in their service large bodies of retainers, who, in addition to food and clothing, receive a very small allowance paid in itzeboes. The allowance may have been barely sufficient for the support of the families of these people before the depreciation of the currency. It will now buy in the market only one-third of the commodities which it formerly commanded. The discontent created in the mind of this class is intense.<sup>33</sup>

Arbuthnot was unsure just how to meet the coinage exchange problem, but concluded his report by recommending an end to the special exchange rate for embassy personnel, and by suggesting that the British government listen sympathetically to the opinions of the Japanese.

As a result of Arbuthnot's proposals, the British reopened negotiations on the coinage question with members of a Japanese mission visiting London in 1862. After a great many delays caused by friction between the bakufu and the West on other matters, a draft treaty signed in 1866 finally permitted the Japanese to mint a special coin for foreign trade, two of which were to be exactly equal to the dollar in weight. An Englishman named Major Kinder was hired to run a new mint, and sophisticated minting machinery was purchased in Hong Kong. Actual minting operations were delayed by a fire and other difficulties, however, until 1872 when the good quality trade dollar at last appeared on the market. By that time the bakufu had been swept from power by a host of economic and political forces, among the more important of which was the great inflation caused by the readjustment of the traditional monetary system.<sup>34</sup>

The Western diplomats in Japan were ill-prepared to meet the problems involved in negotiating a commercial treaty with Japan. Too often they had such a rosy view of the benefits of free trade that they failed to see the need to take even the most elementary precautions to protect an economy that had been isolated from world trade for more than two hundred years. When problems did occur, this same faith in the Western way of doing things convinced the diplomats that Japan could easily change to Western standards without any serious upheaval. Any refusal on the part of the bakufu to follow Western advice was interpreted by almost everyone except Arbuthnot as an example of the stubbornly antiforeign and conservative ways of an Oriental despotism. Only Arbuthnot appeared to believe that the Japanese could be taken at their word.

The bakufu was only slightly better informed. Although forewarned by its more astute ministers, it often failed to explain its case to the foreigners, and occasionally resorted to stop-gap measures that were bound to fail. Even its demand for a one-*ichibu* per dollar exchange rate, while logically correct, probably could not have survived the black market operations that would

have inevitably arisen once foreign trade began. Yet the bakufu's response to the coinage exchange problem was limited more by the pitiful state of its finances than by an inadequate perception of the problem. Furthermore, it succeeded in eliminating coinage speculation, changing Japan's official coinage ratios to Western levels, and anticipating several monetary policies of the Meiji government. The Western diplomats, in short, were somewhat less enlightened than has generally been assumed, while the officials of the Tokugawa bakufu were less "feudal" and ignorant of modern money matters than their detractors would have us believe.

Yet one can hardly blame the Western community for the economic upheavals caused by the start of foreign trade. The unique coinage ratios of the Tokugawa monetary system and the ability of the bakufu to keep debasing its coinage were ultimately dependent upon the fact that the bakufu had a tight monopoly over a very limited supply of bullion. When foreign trade began, the influx of Western capital automatically exposed the Japanese to Western coinage ratios and forced the bakufu to revise its entire coinage system. More important, the influx of Western capital helped encourage a severe inflation that all but destroyed the last vestiges of Tokugawa political power. The differing response of the Japanese and Western diplomats to a complex monetary problem made Japan's adjustment to international monetary standards more serious than it need otherwise have been. Yet even the most enlightened men could not have prevented the start of foreign trade from bringing on a serious monetary crisis.

## TOKUGAWA COINAGE CHANGES

1. Between 1853 and 1868, the amount of gold in one *ryō* of Tokugawa gold bullion coinage changed as follows (weights in *momme*):

| coin(s)                             | 1853 | 1859 | 1860 |
|-------------------------------------|------|------|------|
| <i>koban</i> and gold <i>ichibu</i> | 1.71 | 1.37 | .50  |
| <i>nibu</i>                         | xxxx | .60  | .35  |
| <i>nishu</i>                        | .93  | xxxx | .35  |

2. The gold-silver ratio changed as follows (compared to silver *ichibu*):

| coin(s)                             | 1853  | 1859  | 1860   |
|-------------------------------------|-------|-------|--------|
| <i>koban</i> and gold <i>ichibu</i> | 1:4.6 | 1:6.8 | 1.15.2 |
| <i>nibu</i>                         | xxxx  | 1:8.0 | 1:19.3 |
| <i>nishu</i>                        | 1:5.9 | xxxx  | 1:19.3 |

3. The amount of money in circulation increased as follows:

| coins                             | 1853       | 1868        |
|-----------------------------------|------------|-------------|
| gold coins                        | 23,314,639 | 74,820,763  |
| silver coins                      | 20,533,500 | 52,391,832  |
| <i>chogin</i> & <i>kotsubugin</i> | 3,901,600  | 3,511,566   |
| total (in <i>ryō</i> )            | 52,749,738 | 130,724,161 |

4. Prices increased as follows (prices for Edo in silver *momme*):

| commodity            | 1853  | 1859  | 1868  |
|----------------------|-------|-------|-------|
| rice ( <i>koku</i> ) | 114.0 | 135.0 | 586.0 |
| salt ( " )           | 34.0  | 35.0  | 114.0 |
| sake ( " )           | 255.0 | 254.0 | 905.0 |

Sources: *Dai Nihon kahei shi*, ed. Honjō Eijirō and Yoshida Kensuke (Tokyo, 1925-28) vol. 8, pp. 83-89; Yamaguchi Kazuo, "Edo jidai ni okeru kinginka no idaka," *Keizaigaku ronshu*, vol. 28, no. 4, p. 79; *Kinsei koki ni okeru shuyō buka no dōtai*, ed. Mitsui Bunko (Tokyo, 1952).

## NOTES

## I. The Root of the Problem

1. *Treaties and Other International Acts of the United States of America*, ed. David Hunter Miller (Washington, 1931-1948), VI, 527.

2. Ibid., p. 559. The lack of capitals for "Imperial Majesty" is perhaps significant.

3. Arthur Walworth, *Black Ships Off Japan* (Hamden, 1966), p. 112.

4. The bakufu was the name of the government of the Tokugawa shoguns who held political power from 1600 to 1868.

5. Numata Jirō, "Edo jidai no bōeki to taigai kankei," *Nihon rekishi*, Iwanami Kōza series (Tokyo, 1964), pp. 41-76 provides an excellent summary of trade relations in this period.

6. Honda Masanobu, as quoted in Sakudō Yōtarō, *Kinsei nihon kahei shi* (Tokyo, 1958), p. 233.

7. For a discussion in English of Ogyū Sorai, see J. R. McEwan, *The Political Thought of Ogyū Sorai* (Cambridge, England, 1962).

8. See, for example, Yamaga Sokō (1622-1685), as quoted in Nakumara Kōya, *Genroku oyobi kyōhō jidai ni okeru keizai shisō no kenkyū* (Tokyo, 1927), II, 598.

9. For a list of mines, see Sakudō Yōtarō, *Kinsei nihon kahei shi*, pp. 136-138.

10. Kobata Atsushi, *Kōzan no rekishi* (Tokyo, 1963), pp. 136ff. The *yamashi* were appointed *nobushi* or rural samurai, which indicated that their operations were of importance to the bakufu. Interestingly enough, *yamashi* now means speculator or investor. This meaning may be derived from the fact that more mines were leased outright to *yamashi* in the second half of the Tokugawa period; the *yamashi* then had to gamble on getting an adequate return on their investment.

11. Ibid., pp. 148, 188.

12. For a discussion of the Tokugawa coinage mints, see Taya Hirokichi, *Kinsei ginza no kenkyū* (Tokyo, 1963); and *Tokugawa jidai no kinza*, Tokyo Shiyakusho, ed. (Tokyo, 1931).

13. Sakudō Yōtarō, *Kinsei nihon kahei shi*, passim.

14. The most convenient compilation of *hansatsu* is found in the *Nihon keizai shi jeten* (Kyoto, 1930), I, 634ff.

15. Sakudō Yōtarō, *Nihon kahei kinyū shi no kenkyū* (Tokyo, 1961), passim.

16. Kokushō Iwao, "Tokugawa jidai no kahei seido," *Shakai kagaku*, II, 309.

17. Ibid. Details on the difficulties that the mines had with flooding can be found in *Meiji zen nihon kōgyō gijutsu hattatsu shi*, *Nihon gakushūin Nihon kagaku kankōkai*, ed. (Tokyo, 1958), pp. 194ff.

18. *Kahei kiroku* (Secret money records), as quoted in Honjō Eijirō, *Nihon keizai shi gaisetsu* (Tokyo, 1929), p. 421.

19. Kokushō Iwao, "Tokugawa jidai no kahei seido," *Shakai kagaku*, II, 308.

20. *Dai Nihon kahei shi*, Honjō Eijirō and Yoshida Kensuke, eds. (Tokyo, 1925-1926), VIII, 87.

21. Yamaguchi Kazuo, "Edo jidai ni okeru kinginka no aridaka" *Keizaigaku ronshū* (Economic forum), 28.4:79.

22. *Dai Nihon kahei shi*, VIII, 87.

23. Yamaguchi Kazuo, "Edo jidai no aridaka."

24. *Kinsei Ōsaka no bukka to rishi* (Ōsaka, 1963), ed. Ōsaka daigaku bukkashi kenkyūkai, p. 36; *Dai Nihon kahei shi*, I, 389.

25. *Kinsei kōki ni okeru shuyō bukka no dōtai*, ed. Nakai Nobuhiko (Tokyo, 1942), pp. 64ff. *Kinsei Ōsaka no bukka to rishi*, and *Ōsaka kingin bei narabi ni kawase hibi sōba hyō* (Tokyo, 1916) should also be consulted.

26. Taya Hirokichi, "Meiwa an'ei no heisei kaikaku," *Hō to keizai* no. 104, pp. 27ff. gives examples of this melting down process. Possibly I have underestimated the extent to which the bakufu could use its tremendous economic power to keep the money market stable; yet I still feel that the relative unimportance of gold-silver speculation in the general business context was a more important reason why the gold-silver ratio remained steady.

27. *Kinsei Ōsaka no bukka to rishi*, p. 117.

28. *Kinsei kōki ni okeru shuyō bukka no dōtai*, pp. 68ff. and the charts given in the appendix are my sources for this statement. More detailed information can be found in the sources listed in note 25. Hopefully more adequate studies of price movements in the Tokugawa period will soon become available.

29. John W. Hall, "The Tokugawa Bakufu and the Merchant Class," *Occasional Papers No. 1*, Center for Japanese Studies, Michigan University (Ann Arbor, 1962), passim.

30. For information on the Mexican dollar, see Ono Kazuichirō, "Nihon ni okeru mekishiko doru no ryūtsū to sono kōzai," *Keizai ronsō*, vol. 81, no. 3, and Ishii Takashi, "Bakumatsu kaikō go ni okeru kahei mondai no shuppatsuten," *Shakai keizai shi gaku*, vol. 18, no. 4.

31. These figures have been compiled by me from the coinage weights and precious metal content given in the *Dai Nihon kahei shi*, VIII, 87.



## II. Negotiating the Exchange Rate

1. Miller, *Treaties*, VI, 641.
2. Ibid., pp. 641-642.
3. Ibid., p. 642.
4. Ibid.; Taya Hirokichi, *Kinsei ginza no kenkyū*, p. 427.
5. The *chōgin* were probably silver units of account, rather than the actual metallic pieces themselves. That is, the bakufu simply decreed that pure silver was worth 2.60 times its weight in silver *kan*, without reference to the particular *chōgin* and *mame-ita-gin* being issued at that time.
6. Miller, *Treaties*, VI, 643.
7. Ibid.
8. Ibid., p. 642.
9. Ibid., p. 643; estimates for coal in Formosa ran as low as \$1.56 and \$2.21 a ton. See Francis L. Hawks, *Narrative of the Expedition of an American Squadron to the China Seas and Japan* (Washington, D. C., 1856), II, 153, 156.
10. S. Wells Williams, "A Journal of the Perry Expedition to Japan," *Transactions of the Asiatic Society of Japan*, vol. 37, pt. 2, p. 210.
11. Miller, *Treaties*, VI, 643.
12. Williams, "Journal," p. 210.
13. Miller, *Treaties*, VI, 441.
14. *Select Documents on Japanese Foreign Policy, 1853-1868*, William G. Beasley, ed. (London, 1960), p. 121.
15. Miller, *Treaties*, VII, 612.
16. Townsend Harris, *The Complete Journal of Townsend Harris*, Mario Cosenza, ed. (Tokyo, 1959), p. 234.
17. Ibid., p. 241. Ishii Takashi, "Bakumatsu kaikō go ni okeru kahei mon-dai no shuppatsu-ten," 18.4:310.
18. Ishii Takashi, "Shuppatsu-ten," p. 310.
19. Harris, *Journal*, p. 288.
20. "Bakumatsu gaikoku kankei monjo" in *Dai Nihon komonjo* (Tokyo, 1911- ), XV, 39-40.
21. Harris, *Journal*, p. 312.
22. Ibid., p. 313.
23. Miller, *Treaties*, VII, 615, 627, 595-599; Harris, *Journal*, p. 325.
24. Beasley, *Select Documents*, pp. 149ff.
25. Miller, *Treaties*, VII, 1050.
26. Harris, *Journal*, p. 529.
27. Miller, *Treaties*, VII, 1140.
28. Ibid. p. 1114.
29. Ishii Takashi, "Bakumatsu ni okeru bakufu no dō yushutsu kinshi seisaku," *Rekishigaku kenkyū*, no. 130:8 (1947).

30. Miller, *Treaties*, VII, 952.
31. Ishii Takashi, "Dō yushutsu kinshi," p. 11.
32. Miller, *Treaties*, VII, 1140.
33. "Bakumatsu gaikoku kankei monjo," in *Dai Nihon komonjo*, XXI, 827ff.  
See also Ishii Takashi, "Bakumatsu kaikō tōsho ni okeru shin nishu gin no chūzō to sono teishi no jijō," *Rekishigaku kenkyū*, 9.8:777-808.
34. "Bakumatsu gaikoku kankei monjo," in *Dai Nihon komonjo*, XXI, 827ff.
35. Ibid.
36. Ibid., XXII, 507ff.
37. Ibid.
38. *Dai nihon kahei shi*, I, 400-405.
39. "Correspondence with Her Majesty's Envoy Extraordinary and Minister Plenipotentiary in Japan," *Parliamentary Papers 1860*, 69:41.
40. Ishii Takashi, "Nishu gin," p. 42.
41. *Dai nihon kahei shi*, I, 400.
42. Ibid.; Ishii Takashi, "Bakumatsu kaikō to gaika tsūyō mondai," *Rekishigaku kenkyū*, 11.3:224.(1941).
43. "Envoy Extraordinary," *Parliamentary Papers 1860*, 69:37.
44. Ibid.
45. Ibid.
46. *Nichi-bei bunka kōshō shi*, Kaikoku hyakunen kinen bunka jigyō kai, ed. (Tokyo, 1954), II, 129.
47. Ibid.; *Dai nihon kahei shi*, I, 400.
48. *Nihon keizai shi jiten*, II, 1208.

### III. The Treasure Trade

1. Miller, *Treaties*, VII, 1114; "Envoy Extraordinary," *Parliamentary Papers 1860*, 69:53.
2. See the discussion in Chapter II for an analysis of bakufu preparations.
3. C. Pemberton Hodgson, *A Residence in Nagasaki and Hakodate in 1859-1860* (London, 1861), p. 299.
4. Ishii Takashi, "Dō yushutsu kinshi," pp. 13ff.
5. Ibid., p. 14.
6. Horie Yasuzō, "Meiji yonen no heisei kaikaku," *Meiji ishin keizai shi kenkyū*, Honjō Eijirō, ed. (Tokyo, 1938), p. 485, suggests that speculation was serious.
7. The exact rate of profit, of course, depended on the coinage being traded, and the price at which it could be bought. For a study of possible profits, see Yamaguchi Kazuo, *Bakumatsu bōeki shi* (Tokyo, 1947), p. 124.
8. Ishii Takashi, "Gaika tsūyō mondai," p. 329.
9. Takekoshi Yosaburō, *Nihon keizai shi* (Tokyo, 1937). I have used some of the wording but also made corrections in the translation given in

*The Economic Aspects of the History of the Civilization of Japan*  
(London, 1930), III, 336.

10. Joseph Heco, *The Narrative of a Japanese*, James Murdoch comp.  
(Yokohama n. d.), p. 234.

11. James D. Johnson, *China and Japan* (Baltimore, 1860), p. 330.

12. Fukuzawa Yukichi, *The Autobiography of Fukuzawa Yukichi*, tr.  
Kiyooka Eiichi (Tokyo, 1960), p. 211.

13. "Correspondence Respecting the Stoppage of Trade by the Japanese  
Authorities," *Parliamentary Papers 1860*, 69:3ff.

14. Johnson, *China and Japan*, pp. 331ff.

15. *North China Herald* (Jan. 21, 1860), p. 11.

16. Johnson, *China and Japan*, p. 330.

17. "Envoy Extraordinary," *Parliamentary Papers 1860*, 69:89.

18. "Stoppage of Trade," *Parliamentary Papers 1860*, 69:7.

19. *Ibid.*, p. 3.

20. *Ibid.*, p. 10. Alcock is supposed to have called the merchants the  
"scum of Europe," a remark which barred all British diplomats from the  
merchants' Yokohama Club for years afterwards. J. R. Black, *Young Japan,  
The Story of Yokohama and Yedo* (Yokohama, 1881), I, 36.

21. Hawks, *Narrative*, I, 60.

22. Townsend Harris Letter Book, on file in the Library of Congress,  
Washington, D. C. Entry for Dec. 13, 1859.

23. "Envoy Extraordinary," *Parliamentary Papers 1860*, 69:91, 98.

24. Miller, *Treaties*, VII, 1085.

25. "Envoy Extraordinary," *Parliamentary Papers 1860*, 69:53.

26. *Ibid.*, p. 89.

27. Townsend Harris Letter Book, entry for Dec. 13, 1859.

28. "Envoy Extraordinary," 69:92.

29. *Nichi-bei bunka kōshō shi*, II, 130.

30. "Reports made by the late Mr. Arbuthnot to the Lords of the Treasury  
on the subject of Japanese currency . . ." *Parliamentary Papers 1866*, 50:28.

31. Sir Ernest Satow, *A Diplomat in Japan* (London, 1921), p. 26.

32. M. Paske-Smith, *Western Barbarians in Japan and Formosa in Tokugawa  
Days, 1603-1868* (Kobe, 1930), p. 210.

33. *Dai nihon kahei shi*, I, 406.

34. Kamisaka Torikazu, "Kaikoku jidai ni okeru bōeki to yōgin to no kōryū  
kankei," *Okuma kenkyū*, no. 4:65ff. (1954) Okada Shunpei, *Meiji zenki no  
seika seisaku* (Tokyo, 1963), p. 27.

35. Ono Kazuichirō, "Mekishiko doru no ryūtsū," p. 304.

36. *Dai nihon kahei shi*, VIII, 88.

37. "Correspondence Respecting Affairs in Japan," *Parliamentary Papers  
1863*, 46:63.

38. Ono Kazuichirō, "Mekishiko doru no ryūtsū," p. 304.

39. Yamaguchi Kazuo, *Bakumatsu bōeki shi*, p. 44.
40. Ishii Takashi, "Dō yushutsu kinshi," p. 18.
41. See Chapter IV for an amplification of these remarks.
42. *Nichi-bei bunka kōshō shi*, II, 127; *Kinsei Ōsaka no bukka to rishi*, p. 40; *Dai nihon kahei shi*, VIII, 88.
43. John McMaster has argued this point; John McMaster, "The Japanese Gold Rush of 1859," *Journal of Asian Studies* 19:273-287.

#### IV. The Great Inflation

1. Ishii Takashi, "Bakumatsu kaikō to kinka yushutsu mondai," *Rekishi chiri* 76.6:399ff.
2. *Ibid.*, p. 406.
3. *Ibid.*, pp. 406ff.
4. *Dai nihon kahei shi*, I, 415.
5. *Ibid.*, p. 405.
6. *Ibid.*, VIII, 88.
7. *Kinsei Nihon kahei shi*, pp. 272ff.
8. *Ibid.*, VI, 439.
9. Tsuchiya Takao, *Kinsei Nihon hōken shakai no shiteki bunseki* (Tokyo, 1949), p. 106.
10. "Japanese Currency," *Parliamentary Papers* 1866, 50:6.
11. Tsuchiya Takao, *Kinsei Nihon bunseki*, p. 106.
12. Cf. Chapter 2.
13. *Parliamentary Papers* 1869, 3:36.
14. Honjō Eijirō, *Bakumatsu no shin seisaku* (Tokyo, 1958), pp. 261ff.
15. Seto Kōhei, *Kahei no bunka shi* (Tokyo, 1957), p. 203. Some daimyo had been allowed to mint money previously, but never to this degree.
16. Sakudō Yōtarō, *Kinsei kahei kinyū shi no kenkyū*, p. 294.
17. F. V. Dickens and S. Lane-Poole, *The Life of Sir Harry Parkes* (London, 1894), pp. 11, 35.
18. *Dai nihon kahei shi*, VIII, 88-89.
19. Yamaguchi Kazuo, "Edo jidai no aridaka."
20. Ishii Takashi, *Bakumatsu bōeki shi no kenkyū* (Tokyo, 1944), p. 50.
21. *Ibid.*, p. 65.
22. Yamaguchi Kazuo, *Bakumatsu bōeki shi*, pp. 153ff, 289ff, 339-340.
23. *Ibid.*, pp. 190ff.
24. *Ibid.*, p. 212.
25. *Kinsei kōki ni okeru shuyō bukka no dōtai*, pp. 68ff.
26. Yamaguchi Kazuo, *Bakumatsu bōeki shi*, pp. 245ff.; Sidney Crawcour, "Changes in Japanese Commerce in the Tokugawa Period," *Journal of Asian Studies*, 22:387-400.

28. "Envoy Extraordinary," *Parliamentary Papers 1860*, 69:61.
29. "Correspondence Respecting Affairs in Japan, March and April, 1861," *Parliamentary Papers 1870*, 70:557ff.
30. "Japanese Currency," *Parliamentary Papers 1866*, 50:3.
31. Ibid., p. 3.
32. Ibid., p. 6.
33. Ibid.
34. Ibid., p. 22.
35. "Japanese Currency," *Parliamentary Papers 1866*, 50:6; Sakudō Yōtarō and Mishima Shirō, *Kahei* (Osaka, 1963), p. 133.



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## GLOSSARY

|                  |       |                    |       |
|------------------|-------|--------------------|-------|
| Adachi           | 足立    | machi bugyō        | 町奉行   |
| bakufu           | 幕府    | mame-ita-gin       | 豆板銀   |
| bu               | 分     | man'en             |       |
| chōgin           | 丁銀    | Mito               | 水戸    |
| daimyō           | 大名    | Mitsui             | 三井    |
| deme             | 出目    | Mizuno Tadanori    | 水野忠徳  |
| dorogin          | ドロ銀   | momme              | 多目    |
| dōza             | 銅座    | mon                | 文     |
|                  |       | Moriyama Takichirō | 森山多吉郎 |
| fukiwake-za      | 吹分座   | Nagasaki bugyō     | 長崎奉行  |
| Fukuzawa Yukichi | 福沢諭吉  | nibu               | 二分    |
|                  |       | Nishigin           | 西銀    |
|                  |       | nishu              | 二朱    |
| gokingin kawase  | 御金銀為替 | ōban               | 大判    |
| goyōshō          | 御用商   | Oguri Tadamasa     | 小栗忠順  |
|                  |       | Ogyū Sorai         | 荻生徂徠  |
| hansatsu         | 藩札    | Okada Tadahiku     | 岡田    |
| harigami nedan   | 張紙直段  |                    |       |
| Hizenya Konosuke | 肥前屋小助 | ryō                | 兩     |
|                  |       | sake               | 酒     |
| Honda Masanobu   | 本多正信  | samurai            | 侍     |
|                  |       | Satsuma            | 薩摩    |
| ichibu           | 一分    | Sendai             | 仙台    |
| Ii Naosuke       | 井伊直弼  | shō                | 升     |
| Inoue Kiyonao    | 井上清直  | shōgun             | 將軍    |
|                  |       | shōyu              | 醬油    |
| kabunakama       | 株仲間   | shu                | 朱     |
| kan              | 貫     |                    |       |
| kanjō bugyō      | 勘定奉行  | tegata             | 手形    |
| kin              | 斤     | tempō tsūhō        | 天保通宝  |
| koban            | 小判    |                    |       |
| koku             | 石     |                    |       |

Tokugawa 徳川  
 Tokugawa Nariaki 徳川 齊昭  
 tonya 問屋

Yamaga Sokō 山鹿 素行  
 yōgin kōbai sho 洋銀購買所  
 yōgin sōba kaisho  
 洋銀相場会所

zeni 錢

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