

SILVER, STATE, AND SOCIETY: A MONETARY  
PERSPECTIVE ON CHINA'S SEVENTEENTH  
CENTURY CRISIS

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Brian Moloughney

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ABSTRACT

This thesis is an investigation of the extent and importance of China's dependence upon imported silver in the years leading up to the fall of the Ming dynasty in 1644. The commercial expansion and fiscal reforms of the late Ming years had resulted in an increased demand for silver, yet very little of the metal was mined domestically and China relied on foreign sources to supply the increasing demand. It is this dependence upon foreign sources of supply, at a time when the demand for monetary media was continually increasing, which has led to the suggestion that the collapse of the Ming dynasty may have been a consequence, at least in part, of a decline in the volume of imported silver. The thesis gives a detailed consideration of this hypothesis. It also examines the suggestion that the changing pattern of money-use within the empire, the increasing use of silver, was associated with the rise of new social tensions, and that together these undermined the stability of the Ming administration. The evidence accumulated from the perusal of this monetary perspective will be balanced against what is known of the turmoil of these late Ming years so as to broaden an understanding of the crisis of state and society in the seventeenth century China.

PREFACE

On 25 April 1644 the last Ming emperor committed suicide, bringing to an end a dynasty which had ruled over the Chinese empire for 277 years. The Chongzhen emperor's reign (r. 1627-1644) had been a very turbulent one. Domestic rebellions had wrought havoc through most of northwest and central China, while to the northeast foreign Manchu forces had constantly threatened to invade. Most serious of all was the fact that the administrators of the realm were bitterly divided along factional lines. The Chongzhen emperor had had the misfortune to preside over a dynasty in decline and his suicide was perhaps indicative of an eventual resignation to the fact that he could do little to avert the Ming collapse. Within a few months of his death the Manchu forces had established themselves in Beijing and were gradually able to extend their control out over the Chinese empire. Their dynasty, the Qing, ruled China until the end of the imperial epoch in 1911. The political crisis of the seventeenth century was thus of great importance to China, as it saw the establishment of an administrative regime that would carry the Chinese people through pre-modern times and into the twentieth century.

But this process of dynastic transition was not confined simply to the politically active administrative elite of society. Along with the rebellions which plagued northwest and central China there were a series of peasant and tenant uprisings in the southeast, and these combined with ecological disasters, famines and diseases to cause devastation throughout much of the empire. The Chinese population is estimated to have fallen from around 160 million in 1600 to 123 million in the 1650s.<sup>1</sup>

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<sup>1</sup>The most important work on China's population during the Ming and Qing periods remains that of Ho Ping-ti, Studies in the Population of China, 1368-1953 (Cambridge, Mass. 1959); but the data used here is from the more recent study of Paul K.C. Liu and Kuo-shu Hwang, "Population

Recovery was slow in the second half of the seventeenth century and it was not until the 1720s that China's population again reached the 160 million mark. Obviously, then, the turmoil associated with the Ming-Qing transition was of much longer duration than the few months immediately surrounding the Chongzhen emperor's death and its effects were widely felt throughout society.

Some of the complexities of this process of dynastic change have been elucidated by the studies recently published in the book edited by J.D. Spence and John E. Wills Jnr.: From Ming to Ch'ing: Conquest, Region, and Continuity in Seventeenth Century China (New Haven, 1979). While also concerned with the transition from Ming to Ch'ing, this thesis distinguishes itself by focusing upon the extent to which monetary factors were of importance in the process of dynastic change. A monetary perspective may well contribute to our knowledge of this period, especially as it enables an analysis of the Ming decline to extend beyond purely political concerns. As Fernand Braudel has noted:

money everywhere contrives to insert itself into all economic and social relationships. This makes it an excellent indicator: by observing how fast it circulates or when it runs out, how complicated its channels are or how scarce the supply, a fairly accurate assessment can be made of all human activity, even the most humble.<sup>2</sup>

The following discussion cannot do full justice to the explanatory potential implicit in Braudel's comments, yet the perusal of a monetary perspective may help broaden our understanding of China's seventeenth century crisis; to what extent should it be considered more of a 'general' rather than simply a political crisis, involving wider social and economic aspects?

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Change and Economic Development in Mainland China Since 1400", in Hou Chi-ming and Yu Tzong-shian (eds.), Modern Chinese Economic History (Taipei, 1979), pp. 81-82 Table A.1.

<sup>2</sup> Fernand Braudel, The Structures of Everyday Life (London, 1981), p. 436.

The concept of a general crisis in seventeenth century Europe is by now a familiar if much disputed one.<sup>3</sup> Arguments arising from the vigorous discussion regarding the applicability of this concept and the trend towards a more integrated 'world-economy' approach in historiography have led to the suggestion that China also experienced a general crisis in the seventeenth century. And it is a monetary connection which has encouraged this transference of an analytical approach from Europe to East Asia. This was first hinted at by Braudel in his early work when he described how "precious metals once absorbed into Mediterranean life were fed into the stream that continually flowed eastward."<sup>4</sup> Monetary metal, in particular silver, was found to be the rope linking east to west. A trans-Pacific component was added when the Chaunus extended their study of the carrera da Indias to include the famous Manila galleons.<sup>5</sup> This consolidated the impression that the East Asian world was as dependent upon the silver of the Americas as was Europe.

Arguing from this Seville-centred perspective, it was suggested that East Asia also suffered a restricted flow of silver from the Americas in the early seventeenth century. This suggestion was made with particular reference to China by S.A.M. Adshead when he proposed that the Ming 'silver rush' of the late sixteenth and early seventeenth centuries, the dispatch of eunuch tax commissioners throughout the empire in search of new sources of the metal, was a direct consequence of a decline in imports of silver. This decline was seen to coincide with

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<sup>3</sup>For some recent syntheses of this controversy see Trevor Ashton (ed.), Crisis in Europe, 1560-1600 (London, 1965); Geoffrey Parker and Lesley M. Smith (eds.), The General Crisis of the Seventeenth Century (London, 1978); a particularly stimulating article by Emmanuel Le Roy Ladurie, "The Crisis and the Historian," in his The Mind and Method of the Historian (Chicago, 1981), pp. 270-305; and, most recently, Emmanuel Le Roy Ladurie and Joseph Goy, Tithe and Agrarian History from the Fourteenth to the Nineteenth Century (Cambridge, 1982).

<sup>4</sup>Fernand Braudel, The Mediterranean and the Mediterranean World in the Age of Philip II, (London, 1972), Vol. I, p. 464.

<sup>5</sup>Pierre Chaunu, Les Philippines et le Pacifique des Ibériques XVIe, XVIIe, XVIIIe siècles (Paris, 1960).

the first major contraction of the Seville-system. "Unknown to itself," wrote Adshead, "China was responding to the rhythms of Mexico and Peru."<sup>6</sup> Here we have Earl J. Hamilton's argument that the vicissitudes of international movements of bullion reflected directly upon the economic, social and political conditions in sixteenth and seventeenth century Europe finding a parallel in seventeenth century China.<sup>7</sup> It is acknowledged by Adshead that Japan was also a source of silver for China, but emphasis is given to the Spanish-American mines and the Seville-centred system. It will be a principal concern of this thesis to investigate the extent and nature of China's dependence upon foreign silver and to determine whether this dependence was as closely related to the social and political turmoil which led to the fall of the Ming dynasty as is implied by Adshead.

A monetary perspective also leads to a consideration of the viewpoint espoused by Jacques Gernet, who is less concerned with China's dependence on foreign silver than he is with the domestic consequences of widespread silver use. In his general history of China, Gernet writes of the Ming decline:

The generalization of the monetary economy with silver ingots seems to have wrecked the institutional framework erected by the founder of the Ming dynasty, insofar as it caused general mobility in society.<sup>8</sup>

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<sup>6</sup>S.A.M. Adshead, "The Seventeenth Century General Crisis in China," Asian Profile, 1,2(October, 1973), p.276. More recent work on this has been done by William S. Atwell in his two articles: "Notes on Silver, Foreign Trade, and the Late Ming Economy," Ch'ing-shih Wen't'i, 3, 8(1977), pp.1-33; and "International Bullion Flows and the Chinese Economy," Past and Present, 95 (May, 1982), pp. 68-90.

<sup>7</sup>Earl J. Hamilton, American Treasure and the Price Revolution in Spain (Cambridge, Mass., 1947). Hamilton's work stimulated the Chinese scholar Quan Hansheng (Ch'uàn Han-sheng) to investigate the relationship of imported silver to prices in eighteenth century China; see "Mei-chou pai-yin yu shih-pa shih-chi Chung-kuo wu-chia ke-ming ti kuan-shi" (American Treasure and the Price Revolution in Eighteenth Century China), Bulletin of the Institute of History and Philology, Academia Sinica, 28 (1957), pp. 517-550. But this article does not countenance the possible role which China's dependence upon foreign silver may have played in the Ming-Qing transition.

<sup>8</sup>Jacques Gernet, A History of Chinese Civilization (Cambridge, 1982)

In a sentence, Gernet links the threads of silver, state and society. He sees the increased silver usage as resulting in a shift in investment patterns, with capital moving away from land and into commercial and craft enterprises. This, he suggests, threatened the property-owning Ming elite. Rather than viewing the Ming collapse as a breakdown of political authority in the centre which allowed anarchy to intensify throughout the realm, Gernet feels that monetary changes underlay a growing social turmoil which eventually destroyed the stability of the empire. But is it possible to trace China's seventeenth century crisis to changing patterns of money use, or should explanatory emphasis be given to other more political factors? These are the questions which provide the central focus to this thesis.

While consideration will be given to events throughout the seventeenth century, the focus of the thesis will be upon the onset of the mid-century crisis, upon the events which led to the fall of the Ming dynasty in 1644. The first two chapters will look beyond China's walls, to the production and distribution of silver in the seventeenth century world; their aim will be to see whether China was in fact "responding to the rhythms of Mexico and Peru", to see whether a cut-off in the supply of silver did undermine the financial stability of the late Ming administration. The third chapter will bring the discussion into China itself, concentrating on how the influx of foreign silver affected late Ming society. Then, in the fourth chapter, the focus will shift to the state and its ability to obtain and utilize silver so as to offset the need for an ever increasing annual expenditure during the late Ming years. This chapter will balance monetary factors against the existing body of knowledge regarding the political events associated with the fall of the Ming dynasty. Finally, the epilogue will consider briefly the longer term consequences of China's dependence upon imported silver.



For the romanization of Chinese names and terms I have used the pinyin method, as this, rather than the older Wades-Giles system, is the form of transliteration increasingly in use throughout the world. In much of the source material, however, the Wades-Giles system is used, so I have retained this form where it has been used for the names of authors and titles of books and articles which are cited in the notes and bibliography. And when referring to Ming and Qing rulers I have used the names given to their reign periods rather than the less commonly known personal or temple names (for example, 'the Wanli emperor', and not 'Emperor Shenzong').

Finally, a brief note of thanks must be given to the people who have been most helpful to me with this thesis. To Frank Perlin I am grateful for his prompt and kind response to the enquiries of a student half the world away. And at the University of Canterbury three people have been most generous with their time. Dr. S.A.M. Adshead, as my supervisor, provided much initial direction and encouragement, while Drs. Neville Bennett and Ian Catanach have been kind enough to read draft chapters and offer valuable advice. To all three I am grateful, as they have helped make my time at university a pleasure.

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Provinces of late Ming China



ABBREVIATIONS USED IN THE FOOTNOTES

- DMB L. Carrington Goodrich and Chaoying Fang  
(eds.), Dictionary of Ming Biography,  
1368-1644 (N.Y., 1976).
- ECCP Arthur W. Hummel (ed.), Eminent Chinese of  
the Ch'ing Period (Washington, 1943).
- PMLMEMW J.F. Richards (ed.), Precious Metals in the  
Later Medieval and Early Modern Worlds  
(Durham M.C., 1983).

INTRODUCTION

"The Chinese were very skilful in judging at Sight of the finest silver, and are scarcely ever deceived." So wrote the Jesuit Father Du Halde, a visitor to China in the late seventeenth and early eighteenth centuries.<sup>1</sup> Silver had been used both as a monetary medium and as a store of wealth in China at least since the beginning of the imperial epoch (221 B.C.), so it was perhaps not surprising that Father Du Halde should have remarked on the ability of the Chinese to assess quickly the value of a particular quantity of the metal. But silver had not always been as highly valued as it was in the seventeenth century. Prior to the fifteenth century silver use was restricted and at times the metal was considered to be worth much less than were other forms of monetary media. As well as silver, gold, grain, silk, hemp cloth, and paper notes all had at times functioned as money.<sup>2</sup> It was only during the Ming dynasty that silver emerged to be, along with copper cash, one of the two main currencies of the realm. Indeed, the evolution of a bimetallic currency system was one of the most important features of the Ming period.

But this bimetallic system did not develop immediately under the Ming dynasty. On the contrary, on coming to power in 1368 the new administration found that it had inherited an economy suffering from an extreme paucity of monetary metal and it was forced to adopt a similar form of paper currency to that which had been in use during the preceding Song and Yuan periods (A.D. 960-1367). The Chinese were the first people to use a paper currency, the practice having begun in Sichuan province in the early eleventh century,

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<sup>1</sup>Jean Baptiste Du Halde, The General History of China (London, 1736), II, pp. 286-287.

<sup>2</sup>For a general discussion of the different types of money which were used in Imperial China see Yang Lien-sheng, Money and Credit in China: A Short History (Cambridge, Mass., 1952).

and, perhaps inevitably, they were also the first to suffer from the misguided notion that administrative difficulties could be overcome simply by printing more notes.<sup>3</sup> Inflation was a problem that plagued the Ming dynasty from its outset and it was this problem which led directly to the acceptance of a bimetallic currency system.

During the Yuan dynasty notes had been the principal monetary media of the empire, and, for the most part, the sale of gold and silver was prohibited in order that the administration could concentrate these precious metals in its treasury, thereby ensuring a sound basis to the currency. 'Equitable Ratio Treasuries' were established throughout the empire so that people could exchange precious metal for paper notes. However, much gold, and particularly silver, was traded westward through the Mongol territories of Inner Asia into Persia and the Middle East.<sup>4</sup> In the late thirteenth century the Mongol Ilkhanate in Persia even attempted to introduce a form of paper currency similar to that in use in China, the notes being called chao in imitation of the Yuan currency, but the market refused to accept these notes and they were withdrawn from circulation.<sup>5</sup> This was a time when silver was again asserting its dominance in the Islamic Middle East, although it has recently been suggested that the 'silver crisis' in the region between A.D. 1000 and 1300 was not as severe as had been imagined.<sup>6</sup>

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<sup>3</sup>Notes, in the form of bills of exchange at least, can be traced back to the 'flying money', or feiqian, of the eighth century, but it was not until the eleventh century that a true paper currency came into use. On the origins of paper money in China see D.S. Twitchett, Financial Administration under the T'ang (Cambridge, 1970), pp.73-74; and Yang, Money and Credit in China, pp. 51-61.

<sup>4</sup>For the flow of silver out of China to the west in the Yuan period see Robert P. Blake, "The Circulation of Silver in the Moslem East down to the Mongol Period," Harvard Journal of Asiatic Studies, 2 (1973) pp. 291-328.

<sup>5</sup>Edward G. Browne, A Literary History of Persia (Cambridge, 1964), II, pp. 37-39, gives a brief mention of the attempt to introduce Yuan style notes to Persia in 1294.

<sup>6</sup>Claude Cahen, "Monetary Circulation in Egypt at the time of the Crusades and the Reform of Al-Kamil," in A.L. Udovitch (ed.), The Islamic

This flow of silver out of China to the west undermined the efforts of the Yuan administration to maintain a precious metal reserve for its currency, a problem which was compounded from 1276 onwards by an increase in the annual output of new notes. A "mild but continuous inflation" resulted.<sup>7</sup> Then, in the 1350s, the value of the currency plummeted, as the administration printed great quantities of notes in a futile attempt to finance its campaigns against widespread rebellion. These notes rapidly became worthless. It was said that even in the capital "paper money worth ten ingots [of silver] would not buy one tenth of a picul of grain."<sup>8</sup> People were forced to rely solely upon copper coins (cash) for their currency requirements. But copper coinage was in very limited supply, as the administration had prohibited its use in 1273 and reinstated it as legal tender only in 1350.<sup>9</sup> Such, then, were the monetary conditions inherited by the Ming administration when it came to power in 1368: both copper coins and silver bullion were in short supply and paper currency was thoroughly discredited.

The early Ming administration was well aware of the unpopularity of the late Yuan notes, yet it found that it had little choice but to revert to a paper standard (an attempt to establish a currency system based solely upon copper coins had to be abandoned due to the shortage of the metal). In 1375 notes in six denominations were released and the use of gold and silver as monetary media was prohibited, although both of these precious metals could be bought and sold as ordinary commodities.<sup>10</sup>

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Middle East: Studies in Economic and Social History (New Jersey, 1981), particularly pp. 327-330, criticizes the view that there was a dearth of silver in the Middle East between A.D. 1000 and 1300; a view that had been proposed previously by A.M. Watson, "Back to Gold - And Silver", Economic History Review, 2nd series 20 (1967), pp. 1-34.

<sup>7</sup> Yang, Money and Credit in China, p. 64.

<sup>8</sup> Mark Elvin, The Pattern of the Chinese Past (Stanford, 1974), p. 161.

<sup>9</sup> Yang, Money and Credit in China, pp. 63-65.

<sup>10</sup> Li Chien-nung, "Price Control and Paper Currency in Ming," in E-tu Zen Sun and John de Francis (eds.), Chinese Social History (Washington D.C., 1956), p.283.

In its attempt to enforce the use of notes the administration restricted the output of coinage and then, in 1394, prohibited the use of cash altogether.<sup>11</sup> Millions of inconvertible notes poured from the Baochao tiqu si, the government's 'Precious note control bureau', especially during the 1390s, yet these found little popular appeal and the Ming administration was soon facing the same inflationary difficulties as experienced during the late Yuan years. By 1450 the value of the Ming notes had depreciated 1,000 fold and it was said that they piled up in stores without attracting the slightest attention of passers-by.<sup>12</sup> The government was forced to give belated recognition to the fact that its paper currency was almost worthless and in 1450 abandoned the printing of any more notes. At the same time, the prohibitions on the use of copper and silver as currency were lifted.<sup>13</sup> The fifteenth century was therefore a period of monetary transition in China, with copper cash and then gradually silver bullion taking over as the currencies of the realm.

This transition meant that the Ming currency system became a bimetallic one, yet it was not truly bimetallic; rather, it evolved into what has been called a duometallism, or parallel bimetallicism - i.e., a bimetallic system with floating exchange rates.<sup>14</sup> The two currencies, copper and silver, functioned distinctively within the economy, with cash providing the basis to the system and being used in most retail transactions, while silver gradually dominated in the wholesale sector and later came to be used in the payment of higher salaries and taxes. And as the value of copper was much less than that of silver the two currencies could not be easily substituted for one another.

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<sup>11</sup> Ibid., p. 289.

<sup>12</sup> Ray Huang, Taxation and Government Finance in Sixteenth Century Ming China (Cambridge, 1974), p.73; and also his article, "Fiscal Administration During the Ming Dynasty," in C.O. Hucker (ed.), Chinese Government in Ming Times: Seven Studies (N.Y., 1969), p.106.

<sup>13</sup> Li, "Price Control," p.293; and Huang, Taxation, p.76. Notes were again issued in 1643, but these found little acceptance amongst the populace and did nothing to help forstall the collapse of the dynasty, as had been



The administration attempted to maintain a theoretical exchange rate between cash and silver of 1,000 qian per silver tael, but in practice the actual exchange rate constantly fluctuated and differed from locality to locality, from marketing area to marketing area. The reasons for this were varied. Firstly, the government was never able to secure enough metal to allow it to produce a sufficient quantity of good quality coins and counterfeiting was therefore widespread. The actual exchange rate in any particular region thus depended on the nature of the coin circulating within that area. Secondly, as the two currencies served different sectors of the economy, the product mix of a particular region tended to determine the balance of silver to copper found in that region. For instance, metropolitan areas would have naturally attracted more silver than did rural areas. The most pronounced of these regional differences, however, was that which developed between the north and the south of the empire, copper retaining an importance in the north which it gradually lost in the southeast. By the nineteenth century an observer noted that "The southerners use silver even in the small transactions of several fen (1 fen = 0.01 tael), while the northerners use copper cash even in the transactions of fifty or even [a] hundred taels."<sup>15</sup> But this degree of intrusion by silver into the lower level of transactions came only after a sustained period of silver imports and commercial growth during the eighteenth century. In the fifteenth and early sixteenth centuries, whether it be in the north or the southeast of the empire, silver played a more peripheral role in the economy. Its increased importance came in the late sixteenth and early seventeenth centuries, when changes to the state's fiscal policies and an expanding commercial sector intensified the demand for a money which could satisfy

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hoped when it was decided to issue them.

<sup>14</sup> For a discussion on the nature of the bimetallic system in use in late Imperial China see Chen Chau-nan "Flexible Bimetallic Exchange Rates in China, 1650-1850," Journal of Money, Credit and Banking, VII, 3 (August, 1975), pp. 359-367; and also Frank H.H. King, Money and Monetary Policy in China, 1845-1895 (Cambridge, Mass., 1965), pp. 39-40.

<sup>15</sup> Chen, "Flexible Bimetallic Exchange Rates," p.362, n.4.

a higher level of exchange than that easily served by copper. But the increased use of silver can be also be traced to problems within the cash sector itself.

Copper coinage had been in use in China since at least the fourth or third centuries B.C. and under differing administrations proved to be the most consistently used medium for the basic level of monetary transactions. There were times, such as during much of the Yuan dynasty, when the use of copper cash was prohibited, but these periods were the exception to the rule. Because of this central role which cash played, governments consistently sought to maintain a strict control over the mining of copper and its minting into coinage. During the Han dynasty, in 175 B.C., the monopoly on the minting of coinage was lifted in an attempt to stop the counterfeiting of coins, but the practice continued so the emperor Wudi reimposed the monopoly in 112 B.C.<sup>16</sup> Subsequent administrations retained this monopoly, although at times its lifting was reconsidered, as under the Tang dynasty in A.D. 734.<sup>17</sup> During the Ming administration, the monopoly over the minting of copper coins remained a constant feature of government policy.

Having abandoned a paper currency, however, the Ming administration found it once more had to confront the problem of securing sufficient copper metal to meet its currency requirements. This it was never able to do. Domestic resources of the metal were not fully exploited during the Ming (it was not until the eighteenth century that the Yunnanese mines began to realise their true potential), and it was late in the sixteenth century before any foreign sources proved fruitful to China. Writing in the early seventeenth century, Song Yingxing noted the existence of copper producing

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<sup>16</sup> Pan Ku, Food and Money in Ancient China (New Jersey, 1950), trans., Nancy Swann, pp.233 and 293.

<sup>17</sup> Penelope A. Herbet, "A debate in T'ang China on the state monopoly on casting coin," T'oung Pao, 62, 4-5 (1977), pp. 253-292.

mines in Sichuan and Guizhou provinces, as well as at Wuzhang (Huguang province) and Guangxin (Jiangxi province).<sup>18</sup> Song also mentions that Zhangzhou merchants were importing Japanese copper to Fujian by the seventeenth century. Prior to the development of the Japanese mines in the mid-sixteenth century, however, copper had flowed the other way, with Chinese coins being exported to Japan. In the Jiajing reign period (1522-1567), when the official exchange rate in China was 700 qian per silver tae, the current rate in Japan was 250 qian per tae, so it was extremely profitable for merchants to smuggle copper coins out of China.<sup>19</sup> And it was not only by smuggling that these coins left China; in 1453 a single Japanese tributary mission carried off over fifty million Ming coins.<sup>20</sup> This loss from circulation of coins overseas combined with the insufficient supplies of the metal to produce a serious 'copper coin famine'.

At first the Ming had issued high quality coins. The bronze coins contained 91 per cent copper and 9 per cent tin, while the brass coins contained 90 per cent copper and 10 per cent zinc.<sup>21</sup> But good quality coins were of little value if they could not be produced in sufficient quantity to meet the needs of a growing population and expanding economy. Inevitably, counterfeiters moved in to meet the demand which the administration itself could not supply, melting down the high quality government coinage and then circulating larger numbers of poorer quality cash. By the Jiajing reign period, when the administration began to step up the official output

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<sup>18</sup> Song Yingxing (Sung Ying-hsing), T'ien-kung K'ai-wu; Chinese Technology in the Seventeenth Century (Pennsylvania, 1966), eds. and trans., E-tu Zen Sun and Shiou-chuan Sun, pp. 242-247.

<sup>19</sup> Albert Chan, The Glory and Fall of the Ming Dynasty (Oklahoma, 1982) p. 280. The unit of account for silver, the tae, was tied to the unit of weight, the liang, 1 tae being approx. equivalent to 1 liang of silver, whereas the composition of copper in the coinage fluctuated and was particularly variable when counterfeiting was rife, as it was for much of the second half of the Ming dynasty. The official exchange rate in China was therefore often very different to the actual rate in various localities within the empire, but the distinction between China and Japan prior to the middle of the sixteenth century would still have been great enough to make it very profitable to ship coins to Japan.

of coins, the market had already been flooded with low quality counterfeit ones. Although the official copper/silver exchange rate at this time was considered as 700 qian per tael, it is said that in some markets the actual exchange rate was more like 6,000 qian per tael.<sup>22</sup> Counterfeiting had become so widespread that the administration could do little to prevent it and with private minters competing with the government for copper it became impossible for the administration both to increase its output and maintain high quality coins. By the end of the Jiajing reign the official standard of coinage had dropped, with a diverse mix of coins being produced, some of very poor quality.

This deterioration of the Ming coinage intensified during the 1590s when the Wanli emperor (r.1572-1620), in response to the need for increased military expenditure, approved an order to greatly increase the output of new coins. Then in the Tianqi and Chongzhen reigns (1620-1644) new mints were opened and more coinage produced, again in an attempt to meet the need for increased expenditure. But by this time many of the coins contained only twenty to thirty per cent copper. The Ming Shi describes how, in the Chongzhen reign, "a hundred coins piled up hardly measured an inch in thickness and when they were thrown on the floor they broke into pieces."<sup>23</sup> By 1638 the purchasing power of copper cash was said to be only one fourth what it had been in the Wanli reign and many of the government mints had to be closed as they could not compete with counterfeiters in obtaining supplies of copper.<sup>24</sup> Thus, the increased demand for silver, which was

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<sup>20</sup>Huang, Taxation, p.76.

<sup>21</sup>Yang, Money and Credit in China, p.37.

<sup>22</sup>Huang, Taxation, p.77.

<sup>23</sup>Cited and translated by Chan, The Glory and Fall, p.285.

<sup>24</sup>Ibid.

such a prominent feature of the late Ming economy, can be explained, in part at least, by this depreciation of copper cash, something which became a serious problem from the mid-sixteenth century onwards.

In contrast to the depreciating copper cash, silver was a much more stable form of currency, a currency less susceptible to inflationary pressure. This was because silver circulated as bullion and its value was determined by weight and fineness - the silver unit of account, the tael, being considered equivalent to the unit of weight, the liang. Silversmiths did mould the metal into ingots, or 'shoes of sycee', to make its use as currency easier, but the metal was still generally weighed and checked for fineness at the time of transaction. The Portuguese Father Gabriel de Magaillans, a visitor to China in the seventeenth century, wrote of how the ingots were "cut with steel scizors, which the people carry about them for that purpose, and divide them into pieces, bigger or lesser, according to the value of the purchas'd Commodity."<sup>25</sup> As well as scissors, merchants carried with them small sets of scales, upon which they could determine the amount of silver needed to satisfy each particular exchange. When Father Du Halde arrived in China later in the century he was to note that the Chinese

own it would be more convenient to have Money coined, and of a determinate value, but they are afraid it would be a Temptation to Clippers and Coiners, whereas now there is no Danger, because they cut the silver as they have occasion to pay for what they buy. .... It is easy to judge that there would be Debasers of Money in China, if the Silver was coined as well as Copper, since their small Pieces of Copper are so often counterfeited .....<sup>26</sup>

Just as the depreciation of paper notes had encouraged people to use the more stable copper coins, so too did the depreciation of cash in the late Ming years encourage the more widespread use of silver.

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<sup>25</sup> Gabriel de Magaillans, A New History of China (London 1688), p.137.

<sup>26</sup> Du Halde, The General History of China, II, pp. 287 and 289,

The importance of a stable currency such as silver bullion was reinforced by the fact that credit facilities were not well developed in the sixteenth and seventeenth centuries. Moneylending and pawnbroking were widespread - official records reveal there were 7,685 registered pawnshops in 1685 - with rates of interest around 3 to 5 per cent per month, but it seems that more sophisticated forms of deposit and remittance banking did not develop until the nineteenth century.<sup>27</sup> It is possible, however, that the interregional remittance of funds was not entirely unknown at the turn of the seventeenth century. For instance, we know that when Matteo Ricci was generously offered a house in Nanjing by Liu Guannan, Father Cattaneo arranged for some form of bill of exchange to be sent from Macao to enable Ricci to fulfil his promise to complete the payment on the house within a year.<sup>28</sup> This bill of exchange was possibly a yinpiao, or silver note, issued by one of the merchants in Macao who was involved in the moulding and assaying of silver and who had contacts in Nanjing. Yet when Ricci went to draw the money he required, he found it impossible to locate the merchant cited as assignee on the bill (back in Macao the Jesuit Fathers had no difficulty in recovering their investment). As foreigners the Jesuits may have found greater obstacles to conducting such transactions than did native Chinese, yet this incident does suggest that interregional credit remittance was not very common at this time. Travellers and traders thus had to carry their funds with them and silver would have been preferred over copper cash for this. Circulating as bullion, silver did not suffer

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<sup>27</sup>Yang, Money and Credit in China, pp. 73 and 98, discusses moneylending and pawnbroking. For the development of banking in the nineteenth century see Susan Mann Jones, "Finance in Ningpo: The 'Ch'ien Chuang', 1750-1880," in W.E. Willmott (ed.), Economic Organization in Chinese Society (Stanford, 1972), pp. 47-77; and for an account of the development of credit and finance in one city during the late Qing period see William T. Rowe, Hankow (Stanford, 1984), pp. 158-176. It has been suggested recently that credit played a more significant role earlier in the Qing dynasty than what had previously been supposed, but this view seems largely speculative and has been contested; see Wang Yeh-chien, "Evolution of the Chinese Monetary System, 1644-1850", in Hou Chi-ming and Yu Tzong-shian (eds.), Modern Chinese Economic History (Taipei, 1979), pp.425-452; and the response to this paper by Frank H. H. King, pp. 455-456.

<sup>28</sup>Nichola Trigault, China in the Sixteenth Century, the Journals of

from the regional differences in quality and value which copper coinage did, and, as a precious metal, silver was simply less burdensome to transport than were large numbers of copper coins.

Changes in the state's fiscal policy were also instrumental in creating an increasing demand for silver in the late Ming years. The core to the tax structure instituted during the founding years of the dynasty had been a land tax imposed on all landholders and payable in grain. But this tax had fallen heaviest on the productive southeast of the empire and in time this was to lead to much evasion and increasing inequities within the fiscal structure.

In 1393, for instance, the prefectures of Suzhou and Songjiang had contributed 13.68 per cent of the total tax paid, yet they encompassed only 1.76 per cent of the cultivated land.<sup>29</sup> Further exactions were imposed on landholders in the southeast when, in 1421, the Ming capital was shifted from Nanjing to Beijing and surcharges were added to the basic tax quota so as to pay the costs involved in transporting grain to the new administrative centre of the empire. These surcharges were often as much as two or three times the amount of the original land tax, even though landholders were responsible for much of the transportation themselves.<sup>30</sup> Inevitably, those who could afford to bribe local officials and those with influence inside the yamen office began to explore all avenues possible to avoid meeting their tax and corvée obligations. The means employed to this end were varied, but the consequences were the same.<sup>31</sup> The official Gu Dingzhen described in a memorial submitted in 1527 how

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Mathew Ricci 1583-1610 (Cambridge, Mass., 1959), pp. 343-360; and also George H. Dunne, Generation of Giants (London 1962), p.64.

<sup>29</sup> Mi Chu Wiens, "Changes in the Fiscal and Rural Control Systems in the Fourteenth and Fifteenth Centuries," Ming Studies, 3 (Fall, 1976), p.56.

<sup>30</sup> For a discussion of these various surcharges see Mark Elvin's abridged translation of Hoshi Ayao, The Ming Grain Tribute System (Ann Arbor, 1969), pp. 54-61; and also Mi Chu Wiens, "Socioeconomic Change During the Ming Dynasty in the Kiangnan Area" (unpublished Ph.D. dissertation, Harvard University, 1973), p.46.

The amount of tax loss can be counted by thousands and tens of thousands each year. The law-abiding households in counties and prefectures made up the losses year after year, and eventually fell into distress.<sup>32</sup>

Although such inequities were most pronounced in the southeastern region of the empire, they were sufficiently widespread by the early sixteenth century for there to have been a considerable impetus amongst officials to implement some form of restructuring to the state's fiscal machinery. This restructuring culminated in a body of policy which came to be known as the Single Whip Reform, or yitiao bianfa, a reform which was the most significant innovation in fiscal policy during the entire Ming and Qing periods.

In essence the Single Whip Reform saw a shift in the unit of assessment from the household to the landholding and the integration of the land tax and corvée obligation into a single commuted exaction to be paid in silver. Payments in silver had been introduced as part of the Ming fiscal structure as early as 1436, when it was stipulated that one of the surcharges imposed on landholders in the southeastern provinces, the 'gold-patterned-silver', was, as the name suggests, to be paid in money not grain.<sup>33</sup> Then, in the late fifteenth century, merchants operating under the auspices of the government's salt monopoly were granted permission to make payments for their salt receipts in silver. Previously these merchants had carried grain and goods to the frontier military posts and in return were issued the receipts which entitled them to trade in a quantity of salt proportionate to the volume of goods they had delivered to the frontier. But once the salt merchants could purchase their receipts

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<sup>31</sup> On tax evasion see Wiens, "Socioeconomic Change," pp. 57-58; Elvin, The Pattern of the Chinese Past, p. 236; and Jerry Dennerline, "Fiscal Reform and Local Gentry; The Gentry-Bureaucratic Alliance Survives the Conquest," in Frederic Wakeman Jnr. and Carolyn Grant (eds.), Conflict and Control in Late Imperial China (Berkeley, 1975), pp. 86-120.

<sup>32</sup> Wiens, "Changes in the Fiscal," p. 64. Lief Littrup's recently published study on Jinan prefecture in Shandong province has shown that such inequities were not confined to the Jiangnan region of the south-



with money it was inevitable that the demand for silver would increase; it is said that by the 1560s the merchants were trading around 2.8 million taels of silver annually, about four times as much as at the beginning of the century.<sup>34</sup>

Modifications to the land tax itself began early in the sixteenth century, but it was not until 1567 that the magistrate of Yuyao district in Zhejiang province, Deng Caiqiao, incorporated for the first time the corvée obligations imposed on all landholding households into the land tax assessment itself, so that each mu of cultivated land had a single exaction required of it and this was, for the most part, to be paid in silver.<sup>35</sup> Under the direction of the then regional inspector for Zhejiang province, Pang Shangpeng, and of the senior grand secretary Zhang Juzheng, the reform spread to other districts and other provinces. While it was not until the reign of the Yongzheng emperor (1723-1735) that the process of integration was completed, with the introduction of the land-poll-silver (didang yin), most provinces had implemented the reforms to some degree by the end of the Wanli reign in 1620. Ray Huang estimates that by the end of the sixteenth century between 65 and 100 per cent of the land tax and labour services in the rich heartland of the southeast, the Jiangnan region, had been incorporated, with approximately 60 per cent integration in the southeast outside of Jiangnan, and between 40 and 50 per cent integration in north China.<sup>36</sup>

The impetus for the Single Whip Reform was a general desire to make the Ming fiscal system more efficient and more equitable, and, to some

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east; see Subbureaucratic Government in China in Ming Times: A Study of Shandong Province in the Sixteenth Century (Oslo, 1981), pp. 66-98.

<sup>33</sup> Huang, Taxation, p. 72; and Wiens, "Socioeconomic Change," p.73.

<sup>34</sup> Wang Ch'ung-wu, "The Ming System of Merchant Colonization," in E-tu Zen sun and John de Francis (eds.), Chinese Social History (Washington D.C., 1956), pp. 299-308; and Huang, Taxation, pp. 189-214.

extent, this was achieved. But the greatest consequence of the reform was the tremendous stimulus given to the circulation of silver within the late Ming economy. Taxes continued to be assessed on the basis of productivity, but the taxpayer now had to sell that produce in order to meet the exactions of the state. Thus, by the turn of the seventeenth century, silver had become an integral part of both the monetary and fiscal machinery in Ming China. The consequent demand for the metal was intense and it was this demand which meant that China became increasingly dependent on the wider world economy. Silver drew China out beyond its walls and it is with China's links to that wider economic network that the early chapters of this thesis will be concerned.

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<sup>35</sup> For the precursors to the Single Whip see Liang Fang-chung, "The 'Ten-Parts' Tax System of Ming," in E-tu Zen Sun and John de Francis (eds.), Chinese Social History (Washington D.C., 1956), pp. 271-280. And for the Single Whip itself, Liang Fang-chung, The Single Whip Method of Taxation in China (Cambridge, Mass., 1956); Huang, Taxation pp. 112-133; Littrup, Subbureaucratic Government, pp. 78-98; and the entries in the DMB for Hai Rui, I, pp. 474-479; Pang Shangpeng, II, pp. 1113-1116; and Zhang Juzheng, I, pp. 53-61.

<sup>36</sup> Huang, Taxation, pp. 125-130.

CHAPTER ONE

Silver

Como os chinos sentiraõ prata, em montes trouxeraõ fazenda.

(When the Chinese smell silver, they will bring mountains of merchandise.)<sup>1</sup>

From the mid-sixteenth on through the seventeenth, eighteenth and early nineteenth centuries large amounts of foreign silver were taken by Chinese merchants in exchange for their silks and porcelain. The Chinese demand for silver seemed insatiable and once inside the Middle Kingdom there the silver stayed. A factor with the English East India Company in 1636 wrote of this Chinese lust for silver: "They will as soon part with their blood as it, having once possession."<sup>2</sup> Such a demand has lead one historian to describe China as a great suction pump, drawing in silver from the four corners of the world.<sup>3</sup>

In a study such as this, which attempts to relate international bullion movements to domestic events in seventeenth century China, some appreciation of the world-wide network whereby silver reached China's doors must first be sought. These first two chapters, then, will look at the production and distribution of silver in the seventeenth century world. Centres of production and agencies of distribution will be our concern. Subsequent chapters will explore the effects of these silver imports on the economic, social and political life of late Ming China.

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<sup>1</sup>From a letter written by Manuel de Câmara de Noronha, who served as Captain-General of Macao during the 1630s; see C.R. Boxer, The Great Ship From Amacon (Lisbon, 1959), p.11 n.6.

<sup>2</sup>Ibid. p.1.

<sup>3</sup>"Mais c'est la Chine est la plus puissante pompe aspirante de metal blanc venu des quatres coins du monde," Vitorino de Magalhães Godinho, L'économie de L'empire portugais aux XVe et XVIe siècles (Paris, 1969). p.531.

China's own silver resources were never seriously exploited during the Ming or early Qing periods, but domestic production, such as it was, will be considered before the more important foreign sources of supply. Silver mines in both Japan and Spanish-America were opened and developed during the sixteenth century and it was these regions which became the major suppliers of the metal to China throughout the seventeenth century. This first chapter will focus on the production and distribution of Asian silver, both Chinese and Japanese, while the next chapter will consider production from the Spanish-American mines and the various ways in which part of that production reached China's shores.

#### Chinese Domestic Silver Production: Ming and early Qing Periods

It is difficult to determine exactly how much silver was mined domestically during the Ming and early Qing periods. The only province in the empire with substantial reserves of silver ore was Yunnan. In his treatise on Chinese technology, published in 1637, Song Yingxing stated that the mines of Yunnan produced more than twice as much silver as did all the other mines of China combined.<sup>4</sup> Song noted the existence of mines in eight other provinces, but in all these the yields were limited and it was necessary for the government to restrict production. Even with such restrictions it was often the case that the local administration of an area in which a mine was situated was forced to make up quotas by drawing on silver already in circulation.<sup>5</sup> Only in Yunnan was it possible to mine and refine silver continuously.

Silver production rose in the early fifteenth century when the Yonglo emperor (r.1403-1424) increased mining quotas and extended

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<sup>4</sup>Sung, T'ien-kung K'ai-wu, p.238

<sup>5</sup>Ibid.

Chinese administration over two silver-rich areas to the south. The first of these came with the Ming occupation of Vietnam between 1406 and 1427. The mountains Viet-bac region, north of the Red river delta, contained a number of gold and silver mines, the production of which the Ming administration was able to monopolize during its period of occupation. It is said that between 1416 and 1423 1,100 taels and 500 taels worth of gold were extracted from the Vietnamese mines by the Chinese.<sup>6</sup> The production of these mines was lost to the Chinese, however, when they withdrew from Vietnam in 1427. From that point onwards it is most likely that the only Vietnamese silver acquired by the Chinese was that sent as gifts to the Middle Kingdom with tribute missions.

The other silver-rich area acquired during the Yonglo administration was to be of more lasting benefit to the Chinese empire. Early in the fifteenth century Chinese control was extended south of Yunnan fu (Kunming) and beyond Yongzhang fu, to an area known as the "Great Silver Mines", or 'Bawdingyi', an area which previously had been administered by the Maoshan states of Upper Burma. Prior to the Chinese occupation of this region, much of its silver output had been carried by Dai traders southwest into Bengal.<sup>7</sup> This flow of silver was reversed with the extension of Chinese administration to the area and from 1412 until 1858 it became a major domestic source of silver for the Chinese. It has been estimated that the annual average output from the mines of the Bawdin region during the 466 years of Chinese administration was 3,300 kilograms of silver.<sup>8</sup> Output from these mines was not continuous, however, and no accurate data is

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<sup>6</sup> John K. Whitmore, "Chiao-chih and Neo-Confucianism: The Ming Attempt to Transform Vietnam," Ming Studies, 3 (Spring, 1977), p. 71. Whitmore also considers the role of Vietnam in the circulation of precious metal in Asia in his article "Vietnam and the monetary flows of eastern Asia, thirteenth to eighteenth centuries," PMLMEMW, pp. 363-393.

<sup>7</sup> John S. Deyell, "The China Connection: Problems of Silver Supply in Medieval Bengal," PMLMEMW, p. 222

<sup>8</sup> Ibid. p. 223.

available regarding production for the Ming and early Qing periods. All the Yunnanese mines, including those of the Bawdin region, were closed in 1521 and production did not begin again until the late 1550s.<sup>9</sup>

The temporary closure of mines reflects the often contradictory attitude of the Ming administration towards domestic silver production. On the one hand the demand for silver in the economy was high, but on the other hand the administration saw difficulties in controlling large labour forces in inaccessible regions of the empire. A rebellion in the Zhejiang-Jiangxi border region between 1444 and 1449 was instigated by disaffected mining labour and, as a consequence, silver mines in the area were closed.<sup>10</sup>

After the brief period under the Yonglo administration when silver mining was encouraged quotas were once more reduced and production declined. From the 1430s until the mid sixteenth century the output of silver from China's mines was minimal. It was not until 1559, when strict government control of mining was relaxed and private entrepreneurs were encouraged to become involved in the exploitation of precious metal reserves, that output again increased. The administration also shifted its share of production at this time from a fixed quota to a percentage of actual output, apparently between 30 and 40 per cent.<sup>11</sup> This encouragement given to mining did not last, however, as once again the problems of controlling labour emerged. Another insurrection in the Zhejiang-Jiangxi border region (circa 1566) saw the prohibitions on mining in this area re-introduced and mining in general was not encouraged.<sup>12</sup>

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<sup>9</sup> Huang, Taxation p. 242.

<sup>10</sup> Ibid.

<sup>11</sup> Huang, Taxation, p.242, puts the figure at 40 per cent; whereas Etienne Balazs, Chinese Civilization and Bureaucracy (New Haven, 1964), p.45, puts the figure at 30 per cent; as does Quan Hansheng, cited by Atwell, "International Bullion Flows," p.76.

<sup>12</sup> Ray Huang, Taxation, p.242.

The last phase of officially sponsored exploitation of China's silver reserves under the Ming came with the so-called 'silver rush', from 1596 until 1605.<sup>13</sup> The demand for silver by this time was intense as the Single Whip Reform had been implemented in many parts of the empire and the development of a vigorous commercial economy necessitated that a greater volume of monetary metal be in circulation.<sup>14</sup> New mines were brought into production and output from existing ones was stepped up. Supervision of this phase of mining was given to eunuch-officials, however, and the result was a great deal of corruption. The percentage yields accruing to the administration were insufficient for it to continue to encourage the exploitation of silver reserves, especially with the continued fear of controlling large labour forces in remote regions. Also, the regular administrative officials resented the degree of monetary and fiscal control given to these eunuch tax commissioners and protested vigorously. By 1605 the Wanli emperor was forced to issue instructions to the effect that it was no longer permitted to work private mines without government authorization. The important thing, he declared, was "not to disturb the bowels of the earth."<sup>15</sup> In the remaining years of the dynasty it is possible that the government lost control of some of its silver reserves, but no information is available to indicate an increase in either public or private mining activity. Similarly, there may have been some private exploitation of silver reserves in the early Qing years, but the administration itself was preoccupied with establishing political control throughout the realm and did not concern itself with such things.

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<sup>13</sup> Balazs, Chinese Civilization, p. 46.

<sup>14</sup> See Introduction and Chapter Three for fuller discussions on this increased demand for silver.

<sup>15</sup> Balazs, Chinese Civilization, p.46.

It was not until the eighteenth century that the Qing administration could seriously attend to exploiting China's precious metal reserves. There is no indication that silver mining was undertaken on any significant scale throughout the seventeenth century.

The work of Quan Hansheng on the revenue which the Ming government derived from domestic silver mining in the fifteenth century confirms the trend that emerges from this information.<sup>16</sup> Quan's figures show the peak period of government revenue from silver mining to have been in the early years of the fifteenth century. From then onwards government revenue progressively declined. The period 1411-1420 saw an annual average income of approximately 10,900 kilograms of silver. This was down to an annual average of approximately 5,300 kilograms for the period 1431-1440; 2,700 kilograms for the period 1451-1460; 2,200 for the period 1471-1480; 1,900 kilograms for the period 1491-1500; and 1,200 kilograms for the period 1511-1520. If the administration was in fact collecting about 30 per cent of the total production in revenue these figures would indicate a decline in overall production from approximately 36,300 kilograms annually in the period 1411-1420 to approximately 4,000 kilograms annually by the period 1511-1520.

Ray Huang notes that in 1548 the reported income from silver mining was 62,030 taels (approx. 2,345 kgs.), which would indicate a total production for the year of around 7,800 kilograms. For the year 1601, Huang cites the reported income as being 110,210 taels (approx. 4,166 kgs) or a total production of around 13,880 kilograms.<sup>17</sup> With all the problems of under-reportage, corruption, etc., these figures remain highly speculative, but they do tend to indicate that domestic silver output remained limited throughout the entire Ming and early Qing periods.

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<sup>16</sup> Quan Hansheng's work is summarized by Atwell, "International Bullion Flows," pp. 76-77.

<sup>17</sup> Huang, Taxation, p. 243. One Tael is considered approximately equal to 0.0378 kgs. (see appendix).



### Japanese Silver Production

China's nearest foreign source of silver was Japan. The exploitation of Japan's precious metal reserves did not begin on any significant scale until the sixteenth century. Previous to this Japan had relied on imported Chinese copper coinage for its currency. The first important silver mine opened at this time was in Iwami province, western Japan. Here a Hakata merchant, Kamiya Jutei, revolutionized Japanese mining technology. He moved from simple surface mining to the sinking of deep shafts and also began to employ a new process of extracting and refining silver.<sup>18</sup> This was the process of cupellation, the smelting of metaliferous ore with lead to refine out lead monoxide and the oxides of other base metals, leaving behind pure silver. It was a process that had been known in China probably since late Zhou times (the fourth and third centuries B.C.), and was certainly in use by the Tang period (A.D. 618-902).<sup>19</sup> Song Yingxing included descriptions of the process in his seventeenth century treatise on technology.<sup>20</sup> It seems likely, therefore, that Kamiya Jutei learned of this extraction and refining process, known in Japan as haibukihō, or ashblowing extraction, from a Chinese or Korean source. From Iwami the process spread to all mining centres and the resultant increase in production leads Delmer Brown to conclude that by 1540 silver had become Japan's principal export.<sup>21</sup> Chinese merchants must soon have learned of this increased production, as it was about this time that they began arriving in Kyushu ports seeking to purchase silver.<sup>22</sup>

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<sup>18</sup> Delmer M. Brown, Money Economy in Medieval Japan: A Study in the Use of Coins. (New Haven, 1951), p. 56.

<sup>19</sup> Joseph Needham and Lu Gwei-djen, Spagyric Discovery and Invention: Magistrates of Gold and Immortality: Science and Civilization in China, 4, 2 (Cambridge, 1974), pp. 54-60.

<sup>20</sup> Sung, T'ien-kung K'ai-wu, p. 241

<sup>21</sup> Brown, Money Economy, p. 33 and 56.

<sup>22</sup> Atsushi Kobata, "The Production and Uses of Gold and Silver in



The cupellation process as practised in Japan. From Masuda Tsuna, Kodō Zuroku (1801); reproduced in Needham and Lu, Spagyrical Discovery and Invention: Magistrates of Gold and Immortality, p. 37.

Another important innovation in mining technology occurred in the 1590s when the Japanese acquired a process they called Nanbanbuki, or 'Southern Barbarian Smelting'.<sup>23</sup> This process, named after the Portuguese who introduced it to Japan, appears to have involved a more

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Sixteenth and Seventeenth Century Japan," The Economic History Review 2nd. Series, 18, 2(1965), pp. 245-266.

<sup>23</sup> Brown, Money Economy, p.57.

sophisticated method of refining than that used in the haibukihō process, possibly the use of a better liquation furnace. While the Portuguese knew of the mercury amalgam process which had caused such a dramatic increase in output from the Spanish-American mines, it was probably not this process which they introduced to Japan. Portuguese ships sailing annually from Macao to Nagasaki around 1600 are known to have carried between 150 and 200 piculs (9,000 to 12,000 kilograms) of Chinese quicksilver, but there are no references to an increased consumption of Chinese mercury in the early seventeenth century, the period when Japanese silver output rose considerably.<sup>24</sup> Also to be noted is that at the same time as the Portuguese were carrying this mercury to Japan they were carrying over 200,000 kilograms of lead. Such quantities of lead consumption are probably attributable to the widespread use of the lead extraction process, although some of it may well have been used for armaments. While we cannot be absolutely certain that the mercury amalgam process was not in use in Japan in the early seventeenth century, it seems most unlikely that it was.

Political conditions in sixteenth century Japan underlay the increased production of precious metals. The third Ashikaga Shogun, Yoshimitsu (1358-1408), succeeded in reunifying the country in the final years of the fourteenth century, but by the middle of the fifteenth century the central authority of the shogunate had weakened and Japan again was divided by a number of competing family networks, all of whom encouraged the exploitation of precious metal reserves to help finance their military endeavours.<sup>25</sup> From the rise of Nobunaga (1534-1582)

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<sup>24</sup> A list of goods carried in the 'Great Ships' from Macao to Nagasaki is found in Boxer, The Great Ship, Appendix B, pp. 179-181.

<sup>25</sup> Kobata, "The Production and Uses," p.57; and Brown, Money Economy, p. 57.

in the 1570s Japan was gradually forged into a new centralized political unit. The culmination of this process was the success achieved by Tokugawa Ieyasu (1542-1616) in that decisive battle at Sekigahara Pass in 1600. The victory gave Ieyasu control of the most important central portion of Japan from Edo to Kyoto from which he was able to dominate the rest of the country. Production of Japan's silver mines was then monopolized by the Tokugawa Bakufu and in 1601 Ieyasu introduced the first standardized currency system to Japan. This new system of copper, silver, and gold coins gradually became established in the country throughout the seventeenth century.<sup>26</sup>

The principal silver mining regions of Japan were those of Kaurisawa, Sado Island, and the provinces of Iwami, Ikuno and Tajima.<sup>27</sup> It is not possible to determine what the total output of these silver mines was during the sixteenth and seventeenth centuries, but some data is available which helps indicate the general scale of production. For instance, we know that Hideyoshi (1536-1598) received 79,414 ma of silver in tax or tribute in 1598. This amounts to 12,827 kilograms, over 10,000 kilograms of which came from the one province of Tajima.<sup>28</sup> One of the most productive silver mining regions, Sado Island, did not contribute to Hideyoshi's finances in this year and it is certain that from the mines which did contribute payments were not equivalent to total output. The overall output of silver in 1598 is therefore likely to have been well in excess of the 12,000 to 13,000 kilograms

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<sup>26</sup> Brown, Money Economy, p.65; and Y. Takekoshi, The Economic Aspects of the History of the Civilization of Japan (N.Y., 1930), II, p. 30-34.

<sup>27</sup> Takekoshi, The Economic Aspects, I, p.545; and Iwao Seiichi, "Japanese Foreign Trade in the Sixteenth and Seventeenth Centuries," Acta Asiatica, 30 (1976), pp. 1-18. Iwao states, p.5, that there were over 30 silver mines and 50 gold mines operating in Japan by the end of the sixteenth century.

<sup>28</sup> Brown, Money Economy, pp. 59-60.

paid in tribute.

Silver production in early seventeenth century Japan increased considerably. No doubt this was due to the spread of the more efficient refining technology of 'Southern Barbarian Smelting' during the 1590s. In the 1602 Iwami mines are said to have contributed 3,600 kan (13,536 kilograms) of silver to the Bakufu.<sup>29</sup> In the same year one mine alone on Sado Island produced 10,000 kan (37,600 kilograms) of silver.<sup>30</sup> Atsushi Kobata estimates that the annual average output from the Sado mines in the early seventeenth century was between 60,000 and 90,000 kilograms. Kobata also estimates that the total annual output of Japanese silver mines in this period was around 200,000 kilograms.<sup>31</sup> There is no way of verifying this estimate but if the mines of Iwami and Ikuno provinces produced even half as much as those of Sado then the overall annual production must have been well in excess of 100,000 kilograms, and was probably as high as Kobata's estimate.

The only data that is available for the second half of the seventeenth century is for the silver mines of Iwami province.<sup>32</sup> Here the annual average output for the period 1683-1706 was 1,348 kilograms of silver, declining to 692 kilograms annually for the period 1707-1732. As we know the Bakufu received in excess of 30,000 kilograms of silver from the Iwami mines in 1602, it is obvious that there had been a considerable decline in production. This is, of course, for only one silver mining region; we know nothing of production trends for other Japanese mines in the second half of the seventeenth century. But from what we do know

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<sup>29</sup> Ibid., p.58.

<sup>30</sup> Ibid., p.60.

<sup>31</sup> Kobata, "The Production and Uses," p.248.

<sup>32</sup> Kozo Yamamura and Tetsuo Kamiki, "Silver Mines and Sung Coins - A monetary History of Medieval and Modern Japan in International Perspective," PMLMEMW, p.343.

it seems the years of peak output were those of the early part of the century and it is possible that the annual production of silver in this period was as much as 200,000 kilograms.

Merchants operating in the trading world of Asia in the late sixteenth and early seventeenth centuries were well aware of the great reserves of silver that were being mined in Japan. In part it was this silver that attracted both Asian and European merchants to Japanese ports. The Englishman Will Adams wrote in 1611 of the advantages the Dutch enjoyed by trading in Japan:

You shall understand that the Hollanders have here an Indies of money; for out of Holland there is no need of silver to come into the East Indies. For in Japan, there is much silver and gold to serve for the Hollanders to handle where they will in the East Indies.<sup>33</sup>

Dutch, English, Portuguese, Chinese, and Southeast Asian ships all sailed to Japan seeking the silver which would enable them to profit by their trade in other Asian ports, and particularly Chinese ports, for that is where the demand for silver was greatest. Not only was it profitable to carry silver to Chinese ports, for European traders it was vital. Without silver they lacked the key which gave access to the Chinese silks and porcelains which were in such demand in other parts of Asia, the Americas, and Europe. Japan was the only significant Asian source of silver in the sixteenth and seventeenth centuries and its product was therefore at a premium. To the Chinese it was their nearest foreign source of the metal. To the Europeans it meant silver did not have to be carried all the way to China from Europe or the Americas.

A comparison of the relative values of silver to gold in China and Japan reveals how profitable it was to ship the metal southwest across

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<sup>33</sup> Thomas Rundall (ed.), Memorials of the Empire of Japan in the XVI and XVII Centuries (N.Y. 1966), p.31.

the East China Sea to the Chinese ports. The parity of silver to gold was always lower in China than Japan during the seventeenth century, although, as Table One indicates, it did approach the Japanese level in the 1640s. This may have only been the case in the ports of Fujian and Guangdong, however, as there also existed a degree of regional variation in the relative value of silver to gold within China. Atsushi Kobata notes that according to Gu Yanwu, the parity of silver to gold in the years from 1629 to 1644 was 10:1 in most parts of China but reached 13:1 south of the Changjiang (Yangtze) River.<sup>34</sup> Silver accumulated in the port regions of Fujian and Guangdong was gradually drawn into the hinterland of China, thus undermining the tendency for the relative value of silver to gold in China and Japan to reach an equilibrium.<sup>35</sup> Considerable amounts of Japanese silver reached China by the 1640s and in return much Chinese gold was carried to Japan. The slow process by which silver was filtered into the Chinese hinterland and the considerable demand that existed in the empire for the metal ensured, however, that it continued to be profitable to ship Japanese silver to China throughout the seventeenth century.

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<sup>34</sup>Kobata, "The Production and Uses," p.254

<sup>35</sup>Kobata (Ibid.) and others feel that the relative value of silver to gold in China and Japan did reach an equilibrium about 1640. To me, this view seems to fail to take into account the fact that a regional disparity existed within China itself and that silver was continually being drawn from the coastal regions into the hinterland of the empire.

TABLE ONE

The Parity of Silver to Gold in China and Japan, 1570 - 1700. (silver per unit of gold)			
Date	Source	China	Japan
1571	A	-	7.3
1572	B	8	-
1589	A	-	11.06
1590s.	D	7	-
1594	A	-	10.34
1600	C	8	-
1604	A	-	10.99
1610	A	-	11.84
1620	A/B	8	13.05
1622	A	-	14.00
1635	B	10	-
1637-1640	B	13	-
1662	C	10	-
1700	C	10	-

Sources: A - Yamamura and Kamiki "Silver Mines and Sung Coins," p. 346, Table 10.

B - Ibid., p. 345, Table 9.

C - L.S. Yang, Money and Credit in China, p. 48.

D - A. Kobata "The Production and Uses of Gold and Silver," p. 254.

#### The Traffic of Japanese Silver to China

The mechanisms by which Japanese silver reached China were varied. Direct Sino-Japanese trade was prohibited by the Ming administration in 1557 and it was not until the lifting of the maritime prohibitions (haijin) by the Kangxi emperor (r. 1661-1722) in 1684 that the Chinese again officially sanctioned trade with Japan. A Spanish merchant visiting Canton in the late sixteenth century, Bernardino de Avila Giron, noted that a monument in the city bore the inscription:



As long as the sun and moon give light, the Chinese and Japanese cannot live under the same sky or drink the same water.<sup>36</sup>

This edict, however, reflected official policy more than it did actual practice. In fact, it was only during the period from 1661 to 1684, with the drastic coastal evacuation policy and the closure of Chinese ports, implemented by the Qing administration in its efforts to eradicate the resisting Zheng maritime network from Taiwan, that there was any serious disruption to Chinese overseas trade. The prohibition on Sino-Japanese trade did inhibit the free flow of silver from Japan to China but it did not put an end to it. As Frank Perlin has noted, money and monetary metal is "a medium particularly subversive of conventional boundaries, both material (political and geographical) and intellectual ....."<sup>37</sup> This is certainly true in regard to Japanese silver entering China during this period.

#### Sino-Japanese Trade

It was in response to a violent confrontation between competing Japanese tribute missions in 1523 that the Ming government closed the Office of Trading Ships in Ningbo and prohibited foreign trade through the port.<sup>38</sup> Ningbo was the officially designated port through which all Sino-Japanese diplomatic and commercial relations were to occur. The result of the 1523 closure was that although Japanese tribute missions continued to be received up until 1549, what had previously been considered legal trade then became illicit. Piracy and smuggling mushroomed and, as a consequence, all relations with Japan, both diplomatic and commercial, were officially severed in 1557.<sup>39</sup> Exactly

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<sup>36</sup> Michael J. Cooper, "The Mechanics of the Macao-Nagasaki Silk Trade," *Monumenta Nipponica*, 27, 4 (1972), p. 424.

<sup>37</sup> Frank Perlin, "Precolonial South Asia and Western Penetration in the Seventeenth to Nineteenth Centuries," *Review*, IV, 2 (Fall, 1980) p.289.

<sup>38</sup> Iwao, "Japanese Foreign Trade," p. 1.

how much silver was carried to China by Japanese and Chinese junks in this period of intense piracy is unknown. In her study of agricultural change in south China, Evelyn Sakakida Rawski notes that in 1542 three large ships en route to Zhangzhou from Japan were captured and found to be carrying approximately 3,000 kilograms of silver.<sup>40</sup> Obviously a great many more ships would have been carrying silver at this time, but because of the illegal nature of the trade it is impossible even to venture estimates for the total volume of silver imported to China from Japan in these years. By 1567 the Ming administration had brought the problem of piracy under control and Chinese merchants were again permitted to trade overseas, although the prohibitions on trade with Japan remained in force.

To circumvent the Ming restrictions on direct Sino-Japanese trade a flourishing entrepot trade developed in Southeast Asia from 1567 onwards, whereby Chinese merchants exchanged their silks and sugar for the silver carried by Japanese merchants. The Chinese merchants were mostly Fujianese traders from Zhangzhou and Chuanzhou prefectures who had established trading networks in the Southeast Asian ports of Patani, Siam, Cambodia and Cochin China.<sup>41</sup> John K. Whitmore describes well the situation in Hoian (Faifo), Cochin China, a situation that must have been similar to that of

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<sup>39</sup> So Kwan-wai, Japanese Piracy in Ming China During the Sixteenth Century (East Lansing, 1975), pp. 4-5 and 44. For other discussions on the piracy which plagued the Chinese coast during the mid-sixteenth century see John E. Wills Jr., "Maritime China from Wang Chih to Shih Lang," in J.D. Spence and John E. Wills, Jr., (eds.), From Ming to Ch'ing (New Haven, 1979), pp. 203-237; Charles O. Hucker, "Hu Tsung-hsien's Campaign Against Hsü Hai, 1556," in his Two Studies on Ming China (Ann Arbor, 1971), pp. 1-31; and Merrilyn Fitzpatrick, "Local interests and anti-pirate administration in China's southeast, 1555-1565," Ch'ing-shih Wen-t'i, 4, 2 (December, 1980), pp. 1-50.

<sup>40</sup> Evelyn Sakakida Rawski, Agricultural Change and the Peasant Economy of South China (Cambridge, Mass., 1972), p. 76.

<sup>41</sup> Iwao, "Japanese Foreign Trade," p.3; also Boxer, The Great Ship, p. 31. In these works there are also references to the fact that Chinese merchants were sailing direct to Japanese ports prior to 1567, ignoring the prohibitions on such trade.

other entrepot centres:

In the port of Hoi-an, the Chinese and Japanese each had their own enclaves, adjacent to each other. Coming with the northeast monsoon at the end of the (lunar) year, ships from Japan brought large amounts of silver and copper cash which went mainly for silk, sugar, aloeswood, deerskins, rayskins and ceramics. Japanese traders controlled the local silk and sugar markets by prepayment with the imported cash. The Chinese merchants gathered during this four month 'fair' and traded their silks, copper cash, and tutenag for the Japanese silver and the goods of Southeast Asia, pepper in particular, sandalwood, camphor, and other aromatics.<sup>42</sup>

This entrepot trade did not reach its peak until the early years of the seventeenth century and Kozo Yamamura and Tetsuo Kamiki estimate that in the earlier period from 1560 until 1600 only some 11,250 kilograms of Japanese silver was exchanged via this trade.<sup>43</sup>

From 1600 on to the imposition of the ban on Japanese merchants trading in foreign ports in 1635 the Sino-Japanese entrepot trade in Southeast Asian ports flourished. Tokugawa Ieyasu was eager to establish Japan as a thriving commercial centre and although his efforts to re-establish direct relations with China were doomed to failure, as the memory of Hideyoshi's invasion of Korea was still uppermost in Chinese minds, he did give much impetus to Sino-Japanese trade. In 1600 Ieyasu instituted a system of officially licensed ships, known as Red Seal Ships, or shuinsen, which had shogunal approval to engage in trade. Under this system 350 ships are said to have left Japan between 1600 and 1635, carrying off between 30,000 and 40,000 kilograms of silver, virtually all of which would have been traded with Chinese merchants.<sup>44</sup> In 1633 unlicensed ships were forbidden to trade in foreign ports, but up until

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<sup>42</sup>John K. Whitmore, "Vietnam and the monetary flows," p. 380. For other descriptions of this entrepot trade see Boxer, The Great Ship, p. 76; and Sarasin Viraphol, Tribute and Profit: Sino-Siamese Trade, 1652-1853 (Cambridge, Mass., 1977), *passim*.

<sup>43</sup>Yamamura and Kamiki, "Silver Mines and Sung Coins," p. 531.

<sup>44</sup>Iwao, "Japanese Foreign Trade," pp. 9-10. For Japanese attempts to re-establish direct relations with China at this time see Ronald P. Toby, "Reopening the Question of Sakoku: Diplomacy in the Legitimation of the Tokugawa Bakufu," Journal of Japanese Studies, 3, 2 (Summer, 1977), pp. 323-363.

then they also must have carried off a considerable amount of Japanese silver. Finally, in 1635, Japanese anger at the intrusion of the Christian West provoked a withdrawal from the outside world, with the Bakufu beginning what is now referred to as the Tokugawa seclusion. All Japanese ships, licensed or unlicensed, were forbidden to trade in foreign ports.<sup>45</sup> Foreigners, including Chinese, who wished to avail themselves of the much desired Japanese silver now found they had to make the trip to Japan.

Despite the prohibitions on trade with the Japanese, Chinese junks became regular visitors to Japan in the seventeenth century. Prior to 1634 the Chinese had visited several of the Japanese ports, but after that time they were restricted to trade through Nagasaki. The number of Chinese in Nagasaki is said to have increased from about twenty in 1608 to several thousand by 1620 and the number of junk visits increased to between 30 and 60 per year by the 1620s.<sup>46</sup> With the ban on Japanese overseas trade in 1635 and the subsequent expulsion of the Portuguese from Japan in 1639, the number of Chinese junks visiting Nagasaki increased dramatically. In 1639 ninety-three junks sailed to Japan from China and in 1641 the number increased to ninety-seven. The amount of silver traded with Chinese merchants increased from 7,500 kan (33,720 kgs.) in 1635 to 17,000 kan (63,920 kgs.) in 1646.<sup>47</sup> By the end of the 1650s, however, the number of Chinese junks visiting Nagasaki had dropped to an annual average of between 50 and 60 and the volume of silver traded was down to approximately 7,200 kan (27,000 kgs.) annually.<sup>48</sup> This decline was no

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<sup>45</sup> For translations of the seclusion edicts put in place by the Tokugawa Bakufu in the 1630s see David Lu, Sources of Japanese History (N.Y. 1974), I, pp. 216-217.

<sup>46</sup> Iwao, "Japanese Foreign Trade," p. 11.

<sup>47</sup> Ibid.

<sup>48</sup> Ibid. Y. Takekoshi, The Economic Aspects, II, pp. 378-386 confirms the picture given by Iwao although he gives no source for his data. See also L. Dermigny, La Chine et l'Occident: Le commerce à Canton au XVIIIe siècle, 1716-1833 (Paris, 1964), Vol. I, p. 100.

doubt a consequence of the civil conflict which spread down the China coast as the Qing administration attempted to establish political control of the empire following its capture of Beijing in 1644.

On the basis of data presented by Iwao and Takekoshi, Table Two presents an estimate of the total amount of silver carried from Japan by Chinese merchants from 1610 until 1660.<sup>49</sup>

TABLE TWO

Estimated Volume of Silver Leaving Japan in Chinese Junks, 1610-1660	
Period	Estimated Volume
1611-1620	annual average of 2,000 <u>kan</u> = 20,000 <u>kan</u> = 75,200 kgs
1621-1630	annual average of 5,000 <u>kan</u> = 50,000 <u>kan</u> = 188,000 kgs
1631-1640	annual average of 10,000 <u>kan</u> = 100,000 <u>kan</u> = 376,000 kgs
1641-1650	annual average of 15,000 <u>kan</u> = 150,000 <u>kan</u> = 564,000 kgs
1651-1660	annual average of 7,000 <u>kan</u> = 70,000 <u>kan</u> = 263,000 kgs
	Total = 390,000 <u>kan</u> = 1,466,400 kgs

This gives an estimated total of 1.5 million kilograms of silver being carried from Japan in Chinese junks between 1610 and 1660.

By the middle of the seventeenth century 'Chinese' junks visiting Nagasaki included both junks from the Chinese mainland and those of the Zheng maritime network. Centred around the Zheng family, this maritime network resisted the consolidation of Qing control along the Chinese coast, holding out eventually until 1683. When the Qing administration stepped up its efforts to eradicate the Zheng network in the 1660s, by

<sup>49</sup> Ibid.

closing ports and withdrawing the coastal population many miles inland, the number of junks from the Chinese mainland that were able to visit Nagasaki was considerably reduced; perhaps no junks from the mainland reached Nagasaki at this time.<sup>50</sup> The 'Chinese' junks which did visit Nagasaki in the 1660s and 1670s were principally those of the Zheng network and those of Chinese merchants based in the ports of Southeast Asia. The Qing policy of isolating the Zheng resisters on Taiwan ensured that the amount of trade the Zheng merchants could conduct in Nagasaki were severely reduced. Without their previously extensive connections along the Chinese coast the Zheng merchants had difficulty in obtaining silks and sugar etc., which in turn meant they were restricted in the amount of business they could engage in at Nagasaki. Hence, by 1681, the only 'Chinese' ships trading at Nagasaki were those of Southeast Asian origin. The volume of this 'Chinese' trade at Nagasaki in 1681 was only 15 per cent of what it had been prior to 1661.<sup>51</sup> Also of note is that the Bakufu prohibited the export of silver from Japan in 1668, although this was lifted with respect to Chinese ships in 1672.<sup>52</sup> It seems likely, therefore, that very little Japanese silver reached the Chinese mainland between 1661 and 1684.

After the Qing invasion of Taiwan and the eradication of the Zheng maritime network in 1683 the prohibitions on overseas trade were lifted.

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<sup>50</sup> On the coastal evacuation policy see Hsieh Kuo-ching, "Removal of the Coastal population in the early Tsing Period," Chinese Social and Political Science Review, XV (1930-1), pp. 559-596. Also of note here is that records on the volume of Chinese shipping through the port of Manila show that for the period 1661-1684 there was only an occasional year when ships from the mainland of China reached the Philippines; see Pierre Chaunu, Les Philippines, pp. 164-169,

<sup>51</sup> Iwao, "Japanese Foreign Trade," p. 12.

<sup>52</sup> Atsushi Kobata, "The Circulation of Silver in the Far East During the Sixteenth and Seventeenth Centuries," Kobata Atsushi kyoju taikan kinen kokushi ronshu (Kyoto, 1970), p. 10.

In 1685 the Kangxi emperor ordered thirteen ships to load with silks and sugar for Japan and by 1686 over 100 Chinese junks were trading in Nagasaki.<sup>53</sup> One hundred and ninety-four Chinese junks visited Nagasaki in 1688 and their cargo fetched a price in excess of 19,000 kan of silver.<sup>54</sup> The return cargoes consisted mainly of Japanese silver and copper. This sudden increase in the export of precious metals alarmed the Japanese and regulations were introduced to control Sino-Japanese trade. It was decreed that the volume of trade should not exceed 600,000 taels, but pressure from both Chinese and Japanese merchants saw this limit gradually increased so that by 1698 the volume of trade permitted was up to 1,300,000 taels.<sup>55</sup> These last fifteen years of the seventeenth century saw a great deal of copper and silver exported from Japan by Chinese merchants and it was not until the second decade of the eighteenth century that the Japanese became more vigorous in their efforts to stem the outflow of precious metals. A conservative estimate of the amount of silver exported through Nagasaki by Chinese merchants between 1685 and 1700 would be 180,000 kilograms.<sup>56</sup>

We are now in a position to estimate the total volume of silver exported from Japan by Chinese and Japanese merchants in the late sixteenth and seventeenth centuries. While some of the 'Chinese' ships involved in this trade were actually junks sailed by Southeast Asian merchants, it seems likely that they also were landing silver in Chinese ports and profiting by the purchase of Chinese merchandise which was in demand in

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<sup>53</sup> John Hall, "Notes on the Early Ch'ing Copper Trade with Japan," Harvard Journal of Asiatic Studies, 12 (1949), p. 452.

<sup>54</sup> Iwao, "Japanese Foreign Trade," p. 13

<sup>55</sup> Hall, "Notes," p. 454

<sup>56</sup> This estimate is based on an average of 60 ships per year for 15 years, each carrying away 200 kgs. of silver. Iwao, "Japanese Foreign Trade," p. 13, notes that 194 ships carried a total cargo valued at 19,000 kan (over 70,000 kgs) of silver. If half of this value was taken in silver metal then each ship would be carrying around 180 kgs. of silver.

their own ports. Similarly, we know that Japanese silver was exported to Korea as early as 1538 and some of this may well have filtered through to China by way of trade and tribute missions.<sup>57</sup> Japanese silver also reached China via the tributary trade of Liuqiu (Ryukyu) Islands.<sup>58</sup> Yet all these routes were subsidiary to the main network of Sino-Japanese trade and it seems reasonable to assume that virtually all the silver exported from Japan in Asian ships travelled via this main trade network to China. The data we have suggests that between 1560 and 1700 an estimated 1.7 million kilograms of silver reached China through this trade (see Table Three).

TABLE THREE

Estimated Quantity of Japanese Silver Reaching China Between 1560 and 1700 via Sino-Japanese Trade		
Period	Carrier	Quantity (kilograms)
1560-1600	Chinese and Japanese junks	11,250
1600-1635	Japanese Red Seal ships	40,000
1610-1660	Chinese junks	1,500,000
1661-1684*	-	-
1685-1700	Chinese junks	180,000
Total		1,731,250

\*No estimate has been ventured for the period 1661-1684 as it is not possible to determine how much Japanese silver left Japan in 'Chinese' ships during these years, or how much of this, if any, may have penetrated the depopulated Chinese coast. Similarly, no estimate has been ventured for the period of intense piracy prior to 1560.

<sup>57</sup> Kobata, "The Production and Uses," p. 252.

<sup>58</sup> Robert K. Sakai, "The Satsuma-Ryukyu Trade and the Tokugawa Seclusion Policy," *Journal of Asian Studies*, 23, 3 (May, 1964), pp. 391-403; Sydney Crawcour, "Notes on Shipping and Trade in Japan and the Ryukyus," *Journal of Asian Studies*, 23, 3 (May, 1964), pp. 377-382. Crawcour feels the volume of trade going via the Ryukyus was insignificant when compared to the Nagasaki trade.



The Macao-Nagasaki Trade

The other major trading mechanism whereby Japanese silver reached China was that of the Portuguese naos, or 'Great Ships', which sailed annually between Goa, Macao and Nagasaki from the 1560s until 1639. The Portuguese enjoyed an important advantage over their later European rivals in the Far East with their settlement on the China coast at Macao. Early frustrations in Sino-Portuguese relations were overcome when Leonel de Souza obtained an agreement from Guangdong officials in 1554 that allowed the Portuguese to trade in China and by 1557 they conducted this trade through a resident community at Macao.<sup>59</sup> In Japan the Portuguese focused their trading operation through Nagasaki, with their 'Great Ships' being regular annual visitors to the port by the 1570s.<sup>60</sup> In both instances, in China and Japan, Portuguese trade was conducted under the monopoly of the crown. With a trading base in Macao and another at Nagasaki the Portuguese were well placed to take advantage of the restrictions on Japanese trade in China and they had soon carved themselves an important niche as intermediaries between these two Asian powers.

From Macao the Portuguese traded at the big biannual Guangzhou (Canton) fairs. Each year one, and sometimes two, 'Great Ships' would sail from Goa in April. On arrival in Macao they would load with Chinese merchandise purchased at the mid-year fair (May-June) and then sail up the China coast and across the East China Sea to Nagasaki. Here the Chinese silks, sugar and porcelain would be sold for Japanese silver and the ships would return to Macao. This time they loaded with Chinese goods bought at the New Year fair (Dec.-Jan.) and then made the return voyage to Goa.<sup>61</sup>

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<sup>59</sup>Chang T'ien-tse, Sino-Portuguese Trade From 1514 to 1644: A Synthesis of Portuguese and Chinese Sources (Leiden, 1969), pp. 88-89.

<sup>60</sup>C.R. Boxer, Fidalgos in the Far East 1550-1770 (The Hague, 1958), pp. 1-5; and also his The Great Ship, pp. 1-3.

<sup>61</sup>For a contemporary description of this trade see the letter of the Jesuit Manoel Dias (dated 18 April 1610), translated by Cooper, "The Mechanics," pp. 423-433; and for a contemporary account of

While the Portuguese at first brought pepper and spices to trade at Guangzhou, by the 1580s they were trading predominantly in silver. For the most part it was Japanese silver which the Portuguese used, although they did supplement this with shipments brought each year from Goa, and between 1620 and 1642 with shipments from Manila. This silver brought via Goa and Manila was of Spanish-American origin.

Each year Portuguese ships brought 'pepper money' (cabedal da pimenta) from Lisbon to Goa and, as the name implies, most of this was used to purchase pepper and spices. Exactly how much of this money was shipped each year is difficult to determine as the records of the Estado da India were lost in the 1755 Lisbon earthquake.<sup>62</sup> Calculated estimates have been made, however, with Frédéric Mauro reckoning that by the end of the sixteenth century the total value of gold and silver exported annually to Goa was around 100,000 crusadoes.<sup>63</sup> Similarly, Vitorino de Magalhães Godinho has uncovered data regarding shipments of reales de a ocho and reales de a cuatro from Lisbon to Goa between 1605 and 1626 which indicates that the annual shipments averaged around 130,000 crusadoes.<sup>64</sup> As was the case with China, the demand for precious metal in South Asia was great by the early years of the seventeenth century, so the Portuguese were able to sell off much of this gold and silver at a considerable profit. In 1629,

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Portuguese trading at the Guangzhou fairs see Trigault, China in the Sixteenth Century, p. 132.

<sup>62</sup>The Portuguese organized their Indian Ocean trade under two umbrellas; the Estado de India was the politico-administrative hierarchy which controlled the trading posts and the naval forces in the Indian Ocean. It was Lisbon based but its effective centre of power was Goa. The other organizational umbrella was the Casa da India, which was Lisbon based and controlled all imports from Asia. For a recent discussion of the differences of the two see Philip Curtin, Cross-Cultural Trade in World History (Cambridge, 1984), pp. 141-142.

<sup>63</sup>Frédéric Mauro, Le Portugal et l'Atlantique au XVe siècle (1570-1670 étude économique (Paris, 1960), p. 424.

<sup>64</sup>Godinho, L'économie, pp. 330-334.

for instance, a profit of 70 per cent was made on silver brought from Lisbon and sold to merchants and moneylenders in Goa.<sup>65</sup> The Portuguese also profited through the sale of enforced protection, whereby Asian traders were pressured to purchase cartazes, or licences, which obliged them to pay customs duties in Portuguese-controlled ports in return for a guarantee of safe passage.<sup>66</sup> This profit made through the sale of protection and the sale of 'pepper money' enabled the Portuguese to send on to Macao almost twice as much bullion as was sent annually from Lisbon to Goa; that is if we are to believe what Ralph Fitch tells us. Fitch was an English merchant travelling in Asia between 1583 and 1591 and his is really the only clear indication of the volume of silver that was involved in the trade. He wrote of it:

When the Portugals go from Macao in China to Japan, they carry much white silke, golde, muske, and porcelanes: and they bring from thence nothing but silver. They have a great caracke which goeth thither every yere and she bringeth from thence every yere above six hundred thousand crusadoes: and all this silver of Japan, and two hundred thousand crusadoes more in silver which they bring yerely out of India, they employ to their great advantage in China: and they bring from thence golde, muske, copper, porcelanes, and many other things very costly and guilded.<sup>67</sup>

Profits made in their Indian Ocean enterprise enabled the Portuguese to invest considerable sums of silver in their trade with China. If Fitch is correct in stating that the Portuguese brought 200,000 crusadoes to China each year from Goa, then this would be equivalent to approximately 13,800,000 crusadoes (352,742 kgs.) of silver for the period 1570 to 1639.<sup>68</sup>

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<sup>65</sup> A.R. Disney, Twilight of the Pepper Empire: Portuguese Trade in Southwest India in the Early Seventeenth Century (Cambridge, Mass., 1978), pp. 103-104 and p. 164 Table 2.4.

<sup>66</sup> For a discussion of the Portuguese use of cartazes, see Bailey W. Diffie and George D. Winius, Foundations of the Portuguese Empire 1415-1580 (Minneapolis, 1977), pp. 320-321.

<sup>67</sup> Ralph Fitch, "The Voyage of Ralph Fitch," in Richard Hakluyt (ed.), The Principal Navigators (London, 1907) III, pp. 309-310.

<sup>68</sup> The term crusado signifies the Portuguese unit of account, taken to be equal to 400 reis. Officially 1 crusado equalled 10 Castillian reales,

Between 1620 and 1642 the Portuguese were also regular visitors to Manila, bringing Chinese goods purchased at the Guangzhou fairs and exchanging them for Mexican and Peruvian reales.<sup>69</sup> During the period of the 'Sixty Years of Captivity' (1580-1620), when the Spanish and the Portuguese crowns were aligned, Portuguese ships were permitted to harbour in Manila Bay if necessary, but they were forbidden to trade there. Local officials generally ignored the prohibition on trade, however, and the Portuguese became regular visitors to the city. This very regularity did eventually cause some concern in Manila, as it was felt that the contraband trade resulted in a fall in revenue for the city. Joseph de Navada Alvarado wrote to Seville from Manila in 1636 claiming that the Portuguese had supplanted some Chinese from the Manila trade and as the Portuguese did not pay the customs duties paid by the Chinese, Manila suffered an important loss in revenue.<sup>70</sup> As a consequence of Alvarado's letter the Spanish crown again reiterated the prohibition on Portuguese trade in Manila, but this did nothing to stop the practice. It was not until 1642, when the news of Portugal's break with Spain eventually reached the Far East, that this trade came to an end. Some years later, in 1668, with the Treaty of Lisbon, Spain finally recognised Portugal's independence and Portuguese traders were again permitted to visit Manila.<sup>71</sup>

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or 1.25 pesos de a ocho. In Asia, however, the term was widely used as a unit of account considered equal to 1 pesos de a ocho. It is considered as such here. Thus 13,800,000 crusadoes are approximately equal to 352,742 kgs. of silver, as one pesos de a ocho was equal to 0.025561 kgs. (see appendix). For discussions on the value of the CRUSADO see Boxer, The Great Ship, p. 335; and Niels Steensgaard, The Asian Trade Revolution of the Seventeenth Century (Chicago, 1974), pp. 417-418.

<sup>69</sup> Chaunu, Les Philippines, pp. 153-160, shows that an average of 3 ships visited Manila annually from Macao between 1620 and 1642.

<sup>70</sup> E.H. Blair and J.A. Robertson (eds.), The Philippine Islands (Cleveland, Ohio, 1903-9) XXV, pp. 111-144.

<sup>71</sup> C.R. Boxer, "Macao as a Religious and Commercial Entrypot in the 16th and 17th Centuries," Acta Asiatica, 26 (1974), pp. 73-81.

However, the Portuguese were infrequent visitors to the Spanish territory after this and it was only in the earlier period, between 1620 and 1642, that silver flowed regularly from Manila through Macao and into China. William Schurz suggests this trade reached its peak in the 1630s and that annual shipments were as high as 1.5 million pesos (38,355 kgs.) at this time.<sup>72</sup> Considering that this was a peak in the trade it is perhaps reasonable to estimate an annual average of 10,000 kgs., giving a total for the twenty-two year period therefore of 220,000 kilograms. As the Spanish reales were valued more in China than Japanese silver, the Portuguese imports of silver via Goa and Manila were important supplements to their main source of silver in Japan.<sup>73</sup>

By far the greatest portion of the silver imported into China by the Portuguese was of Japanese origin. As noted above, Ralph Fitch estimated that in the late sixteenth century in excess of 600,000 crusadoes (approx. 15,366 kgs.) worth of silver was shipped annually from Nagasaki to Macao in the Portuguese naos.<sup>74</sup> Father Valignano, a Jesuit resident in Nagasaki wrote in 1593 that the Portuguese took approximately 20,000 kgs. of silver from Japan each year.<sup>75</sup> We also know from the detailed study of this trade done by C.R. Boxer that the disappearance of the nao on its return from Nagasaki in 1598/9 meant the loss of 400,000 crusadoes worth of silver

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<sup>72</sup>William L. Schurz, The Manila Galleon 1565-1815 (N.Y., 1959), p. 132

<sup>73</sup>Peter Mundy, a contemporary observer, noted that Japanese silver was valued 15 per cent less by weight in China than were Spanish reales: see his The Travels of Peter Mundy in Europe and Asia 1608-1667 (London, 1919), I, p. 311. Between 1603 and 1695 Japanese silver was minted 80 per cent pure, being reduced to 64 per cent pure after 1695; see Matsyo Takizawa, The Penetration of Money Economy in Japan and its Effects on Social and Political Institutions (N.Y., 1927), p. 39. Spanish reales, by contrast, were, prior to 1728, supposedly issued 93.1 per cent pure; see Harry E. Cross, "South American bullion production and export," 1550-1750', PMLMEMW, p. 398.

<sup>74</sup>Fitch, "The Voyage of," pp. 309-310.

<sup>75</sup>Brown, Money Economy, p. 64.

(approx. 10,244 kgs.).<sup>76</sup> Occasionally a ship was lost, but even during the years of Dutch piracy the Portuguese usually managed to continue their trade with Japan. In response to the Dutch threat the Portuguese began sending smaller, faster and better armed galliots to Nagasaki. In 1635 they exported 1,500 chests of silver from the Japanese port (approx. 56,700 kgs.) In the following year, when Japanese ships were no longer permitted to trade in foreign ports the Portuguese exported 2,350 chests of silver (approx. 88,830 kgs.), which the Dutch estimated to be worth 6,697,500 florins (approx. 66,975 kgs.).<sup>77</sup> The year of maximum export was 1637, when 2,600 chests of silver (approx. 98,280 kgs.) left Japan in Portuguese ships. Exports for 1638 were down to 1,600 chests (approx. 60,480 kgs.) and in the following year Japan instituted the final phase of its seclusion policy by expelling all Portuguese from the country and putting an end to this trade.<sup>78</sup>

On the basis of the reports of Ralph Fitch and Father Valignano it can be estimated that between 15,000 and 20,000 kilograms of silver were exported annually from Japan in the period 1560-1600. Total exports for this period would therefore have been between 600,000 and 800,000 kilograms. Iwao Seiichi has estimated that from the turn of the seventeenth century on until the peak years of the mid 1630s, the annual Portuguese exports averaged between 45,000 and 56,250 kilograms.<sup>79</sup> This seems rather high considering exports at the turn of the century

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<sup>76</sup>Boxer, The Great Ship, p. 61.

<sup>77</sup>Ibid., pp. 144-151. On p. 338 Boxer states that one chest of silver contained around 1,000 taels of silver.

<sup>78</sup>Ibid., pp. 155-157.

<sup>79</sup>This estimate of Iwao's is cited by Yamamura and Kamiki, "Silver Mines and Sung Coins," p. 351.

were only about 20,000 kilograms annually. A more conservative estimate for the period between 1600 and 1639 would be 40,000 kilograms annually, giving a total for the period of 1.56 million kilograms. In total, therefore, from 1560 through until 1639, the Portuguese would have brought 500,000 odd kilograms of Spanish-American silver and 2.36 million kilograms of Japanese silver to China.

#### Sveteenth Century Dutch Trade in Japan

The only other European power to profit from Japan's output of precious metals in the seventeenth century was the United Provinces. English merchants had arrived in Japan soon after the Dutch early in the century but were unable to break into either the Chinese or the Japanese markets and abandoned their efforts in 1623. The Spanish, with a rich supply of precious metals in the Americas, were interested in Japan more for religious than economic reasons and the Tokugawa moves against Christianity saw them expelled from the country in 1625. The Dutch gained a great advantage over their European competitors in being permitted to continue to trade in Japan after the imposition of the seclusion policy by the Bakufu in the 1630s. After originally being permitted to trade through Hirado in 1609, the Dutch factory was shifted to Deshima Island near Nagasaki in 1636 and from this port Dutch merchants exported considerable amounts of Japanese gold, silver and copper throughout the remainder of the seventeenth century.

In the very early years of their contact with Japan (1609-1620s) Dutch merchants exported only negligible amounts of silver, but from the 1630s through until 1668, when the Bakufu prohibited the export of silver, the volume of the metal exported by the Dutch was considerable. The peak years of Dutch export were those immediately following the prohibition on Japanese overseas trade. In 1635 Dutch merchants exported 14,034 kilograms of silver; in 1636 this rose to 30,124 kilograms; in

1637 to 40,242 kilograms; in 1638 to 47,538 kilograms; and in 1639 to a peak of 75,956 kilograms. The following year exports dropped to 20,805 kilograms of silver. Exports declined slightly in subsequent years until the ban on the export of silver was introduced in 1668. Table Four presents a compilation of the data available regarding this trade.<sup>80</sup>

TABLE FOUR

Dutch Exports of Silver from Japan, 1622-1668	
Period	Quantity (kilograms)
1622-1627	20,884
1632-1639	217,338
1640-1649	151,887
1650-1659	131,512
1660-1668	104,882
Total (1622-1668) 626,503	

While the Dutch were more fortunate than their European rivals in being permitted to trade with Japan beyond the 1630s, they were never able to establish a base on the Chinese coast as the Portuguese had done. Jan Pieterszoon Coen, Governor-General at Batavia from 1619 to 1623 and later from 1627 until his death in 1629, knew that if he was to realize his ambition of financing all of the Dutch Company's export trade to Europe from the profits of the inter-port trade of Asia, he would have

<sup>80</sup> This data and that in Table Four is derived from Kato Eiichi, "Unification and Adaptation, the early Shogunate and Dutch Trade Relations," in L. Blusée and F.S. Gaastra (eds.) Companies and Trade (Leiden, 1981), pp. 207-239); and Kristof Glamann, Dutch Asiatic Trade, 1620-1740 (The Hague, 1942), p. 58. Kato notes that the years 1628-1631 saw a temporary suspension of trade due to a conflict of Dutch and Japanese merchants on Taiwan. Both Kato and Glamann use the Koloniale Archieven Oost-Indie ende kaap as their source and cite all their data in florins,



to gain for the Dutch direct access to the Chinese market. To do this he dispatched an expedition from Batavia under the command of Cornelius Reyertsz in 1622. The expedition unsuccessfully attacked Macao and then sailed up the China coast to occupy Pehu in the Pescadores.<sup>81</sup> When the local Chinese refused to immediately allow the Dutch to trade on their soil Reyertsz launched an attack. With so few ships, however, the Dutch could not hope to defeat the Chinese and the only real success they had was in destroying 80 odd Chinese junks up and down the coast, something that would not have endeared them to the Chinese with whom they were hoping to trade.<sup>82</sup> Both Coen and Reyertsz were relieved of their posts in 1623 and the attempt to force the Chinese to accede was given up. Martinus Sonck, Reyertsz's successor at Pehu, persuaded the new Governor-General at Batavia (De Carpentier) to allow the Dutch post to be shifted to Taiwan. In 1624 the Dutch established themselves at Casteel Zeelandia on Taiwan and were to remain there until forced to flee by the naval bombardment from the fleet of Zheng Chenggong in 1661/2. Whether the Chinese administration approved of the Dutch presence on Taiwan is unknown, but no official attempt was made to remove them. Fujianese officials had persuaded the Dutch to withdraw from the Pescadores to Taiwan and in return agreed to allow Chinese merchants to go there to trade.<sup>83</sup> This gave the Dutch indirect access to the Chinese market between 1624 and 1661 and much of the silver they exported from Japan flowed into China by this route.

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which have been converted to kilograms at the rate of 1 florin (guilder) per 0.01 kg.

<sup>81</sup> For an eyewitness account of this expedition see William Ysbrantsz Bontekoe, Memorable Description of the East India Voyage 1618-1625 (London, 1929).

<sup>82</sup> M.A.P. Meilink-Roelofs, Asian Trade and European Influence in the Indonesian Archipelago between 1500 and about 1630 (The Hague, 1962) p. 267.

<sup>83</sup> John E. Wills Jr., Pepper, Guns, and Parleys: The Dutch East India Company and China (Cambridge, Mass., 1974), pp. 21-25.

In his analysis of Sino-Dutch relations in the seventeenth century John Wills had written: "Taiwan earned enormous profits for the Company (V.O.C.) as an entrepot for Sino-Japanese trade ....".<sup>84</sup> While we do not have a detailed analysis of this entrepot trade we do have some indications as to the quantities of silver involved. Peter Nuyts, Governor-General on Taiwan in the late 1620s, estimated that approximately 7,000 kilograms of Japanese silver were expended annually in trade with Chinese merchants.<sup>85</sup> In 1640, approximately 50,000 kilograms of Japanese silver were used to purchase Chinese goods, but by 1651 this was down to around 5,500 kilograms.<sup>86</sup> This decline in the amount spent on the purchase of Chinese goods is a reflection of the decline in the export of Japanese silver by the Dutch from the peak years of 1636-1639. Wills also notes that from 1653 onwards Zheng Chenggong tightened his grip around Taiwan and in some years was able to prevent Chinese merchants from trading with the Dutch.<sup>87</sup> Dutch ships were also attacked on their voyages between Taiwan and Nagasaki. It seems fair to assume, then, that in the decade preceding the Dutch expulsion from Taiwan in 1661 the amount of Japanese silver reaching China via the Dutch was minimal.

Even when the entrepot trade of the Dutch on Taiwan was at its peak, some of the silver they exported from Japan went to Batavia and was there trans-shipped for the east coast of India. Glamann's work on the flow of precious metals through Batavia in 1652-1653 shows that 134,943 florins worth of it was silver from Japan, nearly all of which was sent on to India. From Table Four we know that the annual average volume of silver exported from Japan in the 1650s was approximately 1.3 million florins, which suggests that shipments to Batavia were only around 10 per

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<sup>84</sup> Ibid., p. 23

<sup>85</sup> Takekoshi, The Economic Aspects, II, p. 123.

<sup>86</sup> Wills, Pepper, Guns and Parleys, p. 10 n. 22.

<sup>87</sup> Ibid., p. 24.

cent of the total exports of silver from Japan.<sup>88</sup> After 1661, of course, all Dutch exports of silver from Japan would have gone to Batavia as the Dutch no longer had access to the Chinese market. But these shipments would have lasted only a few years as the Japanese restricted the Dutch purchase of monetary metals to copper and gold after 1668.

After 1661 the Dutch sometimes sent ships to the China coast but these carried pepper and other Southeast Asian goods, not silver. The attempts to re-establish trade with the Chinese were frustrated by diplomatic difficulties and the concern of the Qing administration to control maritime activity so as to weaken the Taiwan-based Zheng network. Increasingly the Dutch turned their attention to the developing trade in Bengal and Persia, where silks could be obtained without the frustrations encountered on the China coast. With the lifting of the maritime prohibitions by the Kangxi emperor in 1684 Chinese merchants began to return to Southeast Asian ports and the Dutch seemed content to conduct their trade with China through Batavia.<sup>89</sup> The silver which Chinese merchants obtained from trade with the Dutch in Southeast Asian ports was of Spanish-American origin and will therefore be discussed in a following chapter.

While the Dutch established their base on Taiwan in 1624, it was not until after 1632 that their trade between Japan and China reached a significant volume. And, from the information set out above, it seems reasonable to assume that up until the mid 1650s less than 10 per cent of all Japanese silver exported by the Dutch went to Batavia. After that time remittances to Batavia would gradually have increased until 1661 when all silver exported from Japan went there. On the basis of the known

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<sup>88</sup> Glamann, Dutch Asiatic Trade, pp. 58-60. In 1667-1668 84 per cent of the silver imported into Bengal was of Japanese origin; see Om Prakash and J. Krishnamurty, "Mughal Silver Currency - A Critique," Indian Economic and Social History Review, 7, 1 (March, 1970), p. 143 Table I. Such a high proportion of Japanese silver imports to Bengal can only have occurred in the short period between 1661-1668.

<sup>89</sup> Wills Pepper, Guns, and Parleys, passim

quantities of silver exported from Japan by the Dutch we can therefore estimate the volume of that silver which may have entered China via the entrepot trade of Taiwan between 1632 and 1660. The data presented in Table Five suggests that Sino-Dutch trade in this period saw around 430,000 kilograms of silver enter China.

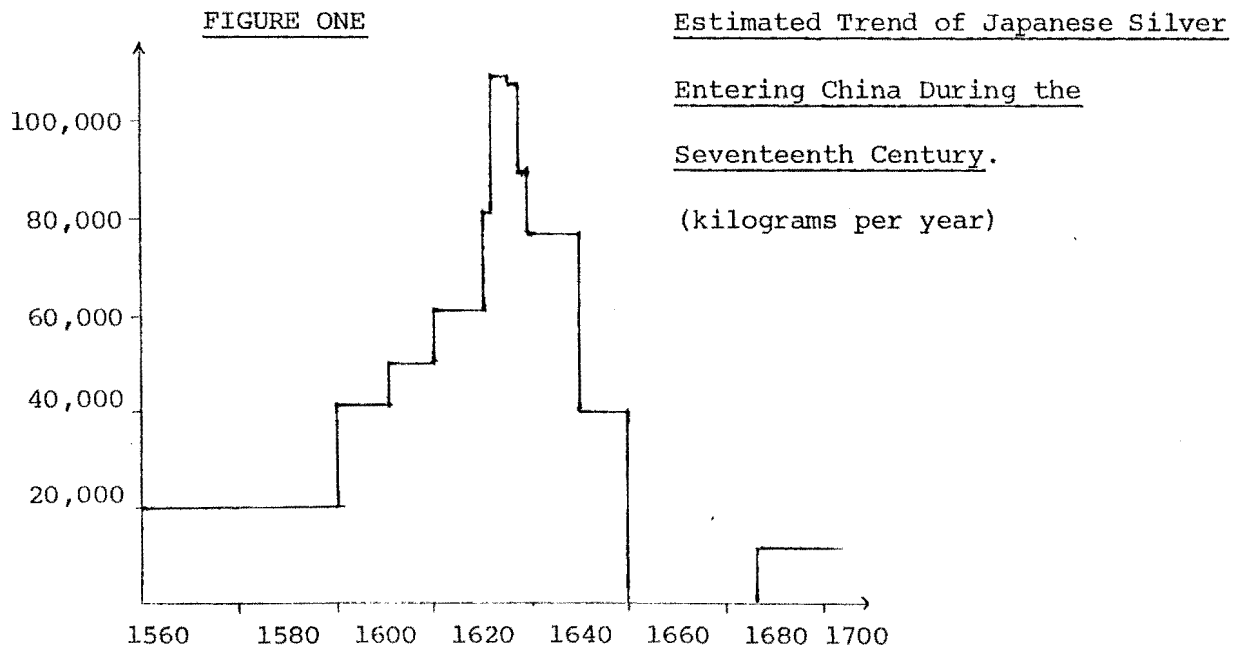
TABLE FIVE

Estimated Volume of Japanese Silver Reaching China via the Dutch Factory on Taiwan, 1632-1660.		
Period	Quantity Exported from Japan by the Dutch (kilograms)	Estimated Quantity Entering China (kilograms)
1632-1639	217,338	(x90%) approx. 200,000
1640-1649	151,887	(x90%) approx. 140,000
1650-1659	131,512	(x70%) approx. 90,000
	Total	430,000

Total Imports of Japanese Silver to China

By collating this information we have regarding the imports of Japanese silver to China it is possible to gain an idea of the changing volume of imports throughout the seventeenth century. The nature of the data is such that precise figures for the total volume imported at any particular point cannot be given, yet it is possible to describe an overall trend for the century.

Imports of Japanese silver reached a peak in the 1630s at which time over one hundred thousand kilograms were entering China each year (see Figure One). The Tokugawa seclusion, which culminated in the expulsion of the Portuguese in 1639, brought an end to such high levels of imports, yet it did not mean that Japanese silver no longer reached China. Dutch and Chinese merchants picked up much of the trade which the Portuguese and Japanese ships could no longer enjoy. It was not until the Qing administration moved with vigour against those along the Chinese coast who resisted its rule that the flow of Japanese silver to China was halted. By closing ports and withdrawing the coastal population inland many miles, the Qing administration forced the Zheng maritime network to abandon its Chinese bases and retreat to Taiwan.



This in turn, meant the Dutch were forced from their base at Casteel Zeelandia and had to withdraw to Southeast Asia. Thus, by the early 1660s, both Japanese and Chinese merchants were prevented from sailing to foreign ports and none of the European carriers were able to profit from a role as intermediaries in this trade. With the mechanisms that facilitated Sino-Japanese trade broken, Japanese silver could no longer reach China. This remained the case until 1684 when the Qing administration had consolidated its control of the Chinese coast and was once more willing to allow its merchants to travel to foreign ports. By this time, however, the Bakufu was more restrictive in its control of the export of precious metals and the quantity of Japanese silver imported to China was never again to reach the very high levels attained during the early years of the seventeenth century.

## CHAPTER TWO

Spanish-American Silver

The Chinese among all peoples of Asia, are wild about silver as everywhere else are men about gold.<sup>1</sup>

The king of China could build a palace with the silver bars from Peru which are carried to his country .....<sup>2</sup>

The Spanish-American mining regions of New Spain and Peru are considered to have contributed as much as 80 per cent of the silver produced in the world between 1550 and 1800.<sup>3</sup> Possibly one quarter or one third of this silver found its way to China, either directly across the Pacific in the Manila galleons or indirectly via Europe and its trading links with Asia.<sup>4</sup> It is the intention of this chapter to investigate China's import of Spanish-American silver during the seventeenth century. Before doing so, however, it will be necessary to consider briefly how our understanding of the output from the mines of New Spain and Peru has changed, as it was from the results of the earlier of these studies that the speculation arose that China may have suffered a dearth of silver in the early seventeenth century.

Early estimates on the output from the Spanish-American mines were based on the important work of Earl J. Hamilton.<sup>5</sup> From a study of the records of the Casa de Contratacion in Seville, Hamilton found that the

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<sup>1</sup>From a letter by the Florentine Filippo Sasseti (dated 20 January 1586), cited by Frank Spooner, The International Economy and Monetary Movements in France, 1493-1725 (Cambridge, Mass., 1972), p. 77.

<sup>2</sup>Admiral Don Hieronimo de Banuelos y Carillo, "Relation of the Filipinas Islands," translated and included in Blair and Robertson, The Philippine Islands, XXIV, p. 71.

<sup>3</sup>Cross, "South American bullion production," p. 397 and p. 403 Table 2.

<sup>4</sup>Chaunu, Les Philippines, pp. 268-269.

<sup>5</sup>Hamilton, American Treasure.

volume of precious metal entering Spain increased steadily throughout the sixteenth century, reaching a peak of 115 million pesos in the period 1591-1600. In the early years of the seventeenth century imports of treasure declined gradually, until the 1630s, thereafter there was a 'precipitous drop' in imports until 1660, when the compulsory registration of imported treasure was abolished and Hamilton's analysis ends. By the decade 1651-1660 less than 18 million pesos of silver was imported legally from the Americas.<sup>6</sup> As the Spanish crown controlled trade with the Americas, a decline in the volume of precious metals arriving in Europe was seen as indicative of a decline in output from the American silver mines.

The trend portrayed by Hamilton was corroborated by the extensive study of the Chaunus on the carrera de Indias.<sup>7</sup> Their work on this trans-Atlantic trade shows the years of maximum mercantile activity to have been from 1596 to 1620. From 1623 onwards, both the volume and the value of the American trade declined, so that by 1650, when the study ends, the whole nature of the Spanish-American relationship had changed; the sustained growth experienced throughout the sixteenth century had been replaced by a severe contraction in the seventeenth. Basing their interpretation on the work of Woodrow W. Borah, the Chaunus attribute this decline in trade to a contraction of the market in New Spain, a contraction caused by demographic decline.<sup>8</sup> While the white population of New Spain increased from 63,000 in 1570 to 125,000 in 1640, the Indian population declined from over 20 million in the early sixteenth century to less than three million in 1568, and just over one million by 1605.<sup>9</sup> The Chaunus

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<sup>6</sup> Ibid., p. 1-42.

<sup>7</sup> Pierre and Huguette Chaunu, Séville et l'Atlantique 1504-1650 (Paris, 1955-9), 8 Volumes.

<sup>8</sup> Ibid., VIII, 2:2, pp. 1557-1560.

<sup>9</sup> Woodrow W. Borah, New Spain's Century of Depression (Berkeley, 1951) pp. 2-5 and p. 18; and also Woodrow W. Borah and S.F. Cook, The Aboriginal Population of Central Mexico on the Eve of the Spanish Conquest



feel that once the Indian population had dropped below the 'critical' level of two million, the economy of New Spain became severely constrained, with trans-Atlantic trade suffering as a consequence.<sup>10</sup> As Spanish imports from the Americas were predominantly precious metals, a decline in trade in the early seventeenth century confirms the conclusions of Hamilton's research; that imports of silver from the Americas declined sharply in the seventeenth century. Again, this was seen to imply a decline in output from the Spanish-American mines. And as China was a destination for Spanish-American silver from the mid sixteenth century onwards, any decline in output from these mines would have affected it, just as it had Spain.

The problem with this perspective, however, is that it was based on analyses of the Spanish end of the trade network. More recent studies on the American end of this network reveal that a decline in imports to Seville does not necessarily imply a decline in output in the Americas. Brading and Cross suggest that "The seventeenth century crisis was first and foremost a Spanish crisis .... Throughout the seventeenth century the mines of Mexico and Peru continued to produce great quantities of silver."<sup>11</sup> If this is true then perhaps China did not suffer a reduced supply of silver from the Americas during the seventeenth century; a Spanish Crisis does not necessarily imply a Chinese crisis. What, then, do we know of Spanish-American silver production in the sixteenth and seventeenth centuries?

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(Berkeley, 1963), p. 4 and p. 88.

<sup>10</sup> Peter John Bakwell, Silver Mining and Society in Colonial Mexico: Zacatecas 1546-1700 (Cambridge, 1971), pp. 226-236, contests the Chaunus' claim that two million was a critical level and points out that the most drastic population decline, from 20 million to 2.5 million Indians, occurred in the sixteenth, not the early seventeenth century. Bakwell also contests the view that the mines of New Spain were dependent on a large labour force. On p. 128 he notes that the total Indian labour force at Zacatecas was never more than 5,000 and that these were mostly free labourers. He relates output of silver to supplies of mercury, not to the level of available labour.

<sup>11</sup> D.A. Brading and H.E. Cross, "Colonial Silver Mining: Mexico and Peru," Hispanic American Historical Review, 52 (1972). p. 576.

The discovery and development of the silver reserves of Spanish-America occurred at the same time as the silver mines of Japan were being brought into production. Between 1545 and 1556 silver reserves were discovered throughout the cordilleras of the western Sierra Monte of New Spain. The most notable mining centres to develop from these discoveries were Zacatecas, Guanajuato, Pachiuca, Real del Monte, and Sombrerete. Another important mining site situated near Zacatecas, San Luis Potosí, was not developed until later in the sixteenth century. In the Viceroyalty of Peru the most important discovery proved to be that made at Potosí in 1545. Other important Andean mines such as Porco and Oruru came into production in the same period.<sup>12</sup> There were also silver deposits in the Tegucigalpa region of Central America that were developed at this time, but their output was insufficient to meet local demand, let alone sustain the massive level of exports that came from the mines of New Spain and Peru.<sup>13</sup>

Production from the Spanish-American mines increased dramatically with the spread of the mercury amalgam process. It was a process whereby crushed ore was mixed with salt, water and mercury to give an easily refinable and separable substance.<sup>14</sup> It was also a much cheaper way of producing silver than the older cupellation method and therefore allowed miners to profit from the working of lower grade ores. Mercury use spread rapidly through New Spain in the 1550s but did not reach Potosí until 1573. Production at Potosí immediately prior to the introduction of the mercury amalgam process had declined, from 2,599,720 pesos (66,449 kgs.) in 1565 to 1,082,585 pesos (27,671 kgs.) in 1572, as the rich surface ore which had initially sustained high output began to

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<sup>12</sup> Pierre Vilar, A History of Gold and Money, 1450-1920 (London 1976) pp. 117-121.

<sup>13</sup> Murdo J. Macleod, Spanish Central America: A socioeconomic History, 1520-1720 (Berkeley, 1973), pp. 58-60.

<sup>14</sup> Brading and Cross, "Colonial Silver Mining," p. 552, claim that

diminish.<sup>15</sup> With the introduction of mercury and the conscription of a large and regular labour supply production at Potosí soared. By 1585 output had increased to 7,632,275 pesos (195,081 kgs.).

Throughout the sixteenth and seventeenth centuries the Viceroyalty in Peru demanded a constant 20 per cent of silver production as tax (quinto). Some silver would have inevitably escaped government account, yet it is doubtful whether this was of such a significant volume as to invalidate the long-term production trend that is revealed by the cartas cuentas, or treasury records, of the administration. Harry E. Cross has studied these records and thereby has been able to determine total output from the Potosí mines, as well as venturing estimates for the overall production from all silver mines within the Viceroyalty of Peru. His estimates are based on the known output from Potosí and some other mines, as well as on the amount of mercury consumed by the whole Peruvian mining industry during these years. Figure Two presents his results graphically.

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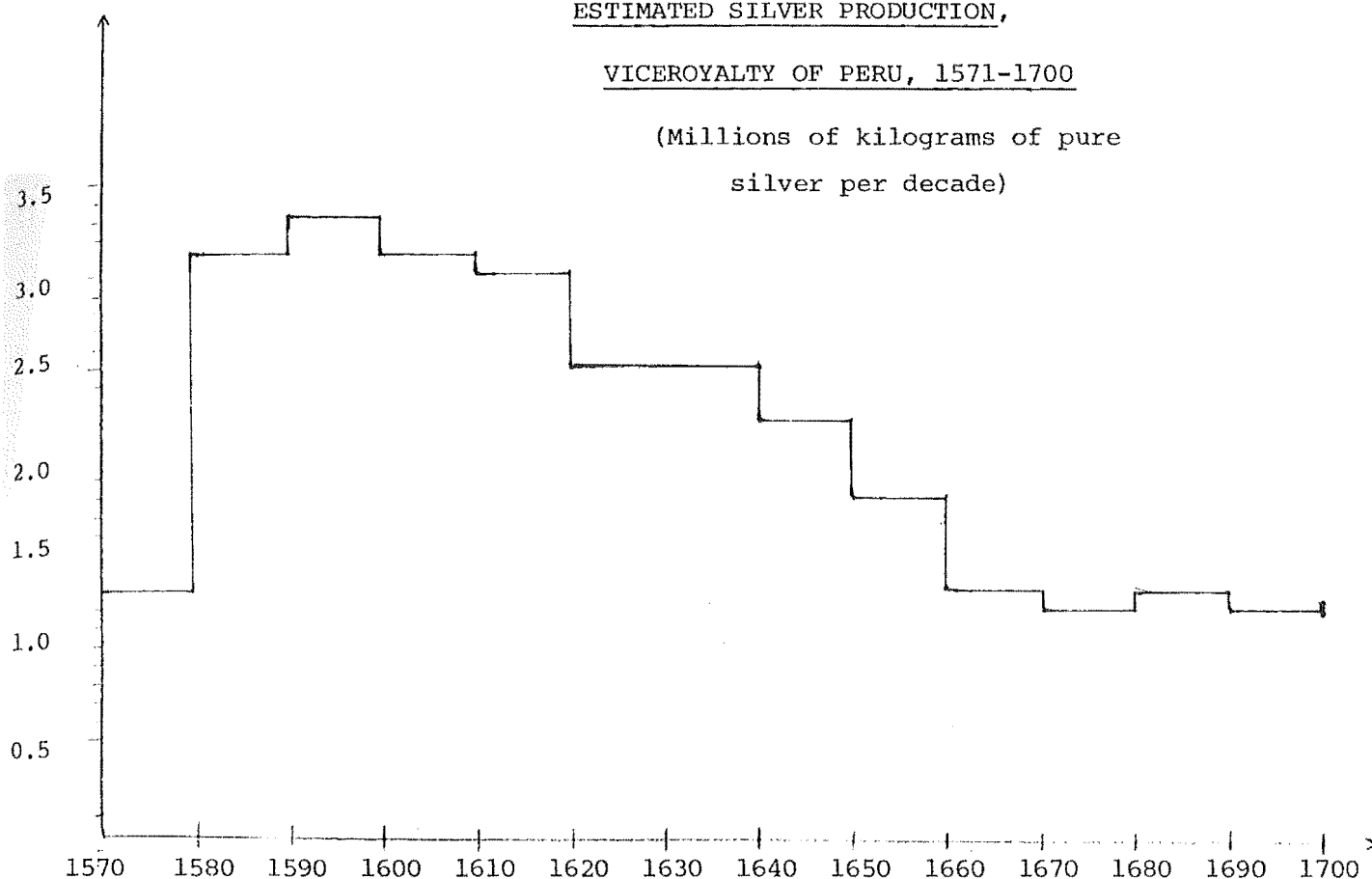
mercury amalgam process was discovered in New Spain by a merchant from Seville in 1554; whereas Vilar, A History, pp. 117-118, claims the process was introduced to the Americas from Europe in 1556-7.

<sup>15</sup> Cross, "South American bullion production," pp. 404-405. Cross uses pesos de a ocho of 272 maravedis and converts to kgs. at a rate of 0.02875 kgs. of 0.981 fineness. I have converted from pesos at a rate of 0.025561 kgs. of pure silver (see appendix).

FIGURE TWO

ESTIMATED SILVER PRODUCTION,  
VICEROYALTY OF PERU, 1571-1700

(Millions of kilograms of pure  
silver per decade)



Source: Cross, "South American bullion production and export 1550-1750," p. 409 Table 5.

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This trend of a decline in output from the Peruvian silver mines during the seventeenth century tends to support the impression gained from the Seville-based studies of Earl J. Hamilton and the Chaunus, although the decline is much less dramatic than what had been implied from their research. When we move from Peru to New Spain the situation is quite different, with production increasing, if only slightly, throughout the seventeenth century.

Whereas silver production at Potosí was intense and shortlived, production in New Spain was less dramatic but more sustained.<sup>16</sup>

<sup>16</sup>Silver production at Potosí declined gradually after its late

Administratively, the mines of New Spain were subordinated to those at Potosí. This is shown by the fact that a decline in the supply of mercury from the Peruvian mines at Huancavelicia resulted in supplies of European mercury being redirected from New Spain to meet Potosí's needs. As a consequence, officials in New Spain showed a renewed interest in obtaining supplies of mercury from China. In 1612 two hundred quintals (approximately 10,000 kgs.) of Chinese mercury had been sent across the Pacific in the Manila galleons, but the Spanish administrators in Manila were not able to obtain regular supplies of mercury from China and New Spain found it could not make up its deficit in this way.<sup>17</sup> With mercury in short supply many miners in New Spain were forced to revert to the smelting of ore. Some relief came after 1645 when mercury from the Almaden mines of southern Spain was once more sent to New Spain, yet these mines were past their peak and the supply was insufficient to meet demand. The consequence of this for the mines of New Spain was that they failed to meet their true potential, something that did not come until the eighteenth century when regular supplies of mercury were obtained from Europe and Peru.

A study similar to that done by Harry E. Cross on the treasury records of the Viceroyalty of Peru has been undertaken by John J. TePaske and Herbert S. Klein for New Spain.<sup>18</sup> Their work was frustrated, however, by the fact that the level of government taxation in New Spain did not

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sixteenth century peak and although there was a modest rise again in the 1730s output never really climbed again. By contrast, production in New Spain rose slightly in the seventeenth century and only began to reach peak levels in the eighteenth century.

<sup>17</sup> Blair and Robertson, The Philippine Islands, VII, p. 237, contains the translation of a letter from Philip III thanking the Governor and Captain-General of the Philippines for obtaining this Chinese mercury.

<sup>18</sup> John J. TePaske and Herbert S. Klein, "The Seventeenth Century Crisis in New Spain: Myth or Reality?" Past and Present, 90 (February, 1981), pp. 116-135.

remain constant throughout the seventeenth century, as it had in Peru. Originally the tax was set at 20 per cent of production, yet as early as 1548 some miners were obtaining reductions that brought the level of taxation down as low as 10 per cent. Brading and Cross have noted how "In Zacatecas, the proportion of silver taxed at the old 20 per cent rate fell slowly in an uneven curve between 1559 and 1626, from about a quarter to a seventh of the total."<sup>19</sup> This variation in the level of tax imposed means that calculations as to the overall level of production which are based on the treasury records can only yield a range of estimates, somewhere within which the actual level of production would lie.

The average annual revenue accruing to the administration in New Spain through its treasuries increased from 303,890 pesos in the decade 1580-1589 to 469,150 pesos in the decade 1690-1699.<sup>20</sup> Throughout the century revenue increased slowly, with a peak of 623,810 pesos achieved in the decade 1670-1679. If the government taxed production at a rate of 20 per cent, this would indicate an increase in total production from 0.38 million kilograms in the period 1580-1589, to 0.60 million kilograms in the period 1690-1699; whereas, if the government taxed production at a rate of only 10 per cent this would indicate an increase in total production from 0.77 million kilograms to 1.2 million kilograms over the same period. Actual production may have been anywhere between these two estimates. But the important thing to note is that production increased slightly throughout the seventeenth century.

Silver production remained high in both New Spain and Peru during

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<sup>19</sup> Brading and Cross, "Colonial Silver Mining", p. 561.

<sup>20</sup> TePaske and Klein, "The Seventeenth Century Crisis in New Spain," pp. 124-127 Table One.

the seventeenth century, with the slight increase in output in New Spain being insufficient to offset the decline in output from the South American mines. Total Spanish-American production by 1700 was possibly only a little more than half what it had been at the beginning of the century. But this fall-off in output was not as great as was the decline of silver imported to Seville. The discrepancy is explained by a number of factors. Firstly, the income and expenditure accounts of the various treasuries (Cajas) confirm the suggestion made by John Lynch, that the proportion of precious metal retained in the Spanish colonies for the purposes of administration and defense increased throughout the seventeenth century.<sup>21</sup> Secondly, contraband trade in the Indies increased during the century. From a study of Dutch sources and the reports of foreign ambassadors in Madrid, Michel Morineau has shown that while official imports of silver to Seville declined toward the middle of the seventeenth century, contraband shipments increased from the 1660s onwards.<sup>22</sup> Thirdly, and most importantly for our discussion, evidence suggests that at the same time as Seville was suffering a reduced flow of silver from Spanish-America, the amount of Mexican silver shipped to the Philippines increased considerably. From a comparison of the quantity of public revenue remitted from New Spain to Seville with that remitted to the Philippines, John J. TePaske has found that between 1581 and 1800, 83 per cent went to Seville while only 17 per cent (1,123,000 kgs.) went to the Philippines.<sup>23</sup> During the early years of the seventeenth century, however, remissions to Seville declined, while those to the Philippines increased to around 25 per cent of the total. Then in the 1640s over

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<sup>21</sup> John Lynch, Spain and the Habsburgs: Spain and America 1598-1700, II, (Oxford, 1969), pp. 168 and 212-226. For a discussion of how Lynch's views concur with the evidence of the treasury records see TePaske and Klein, "The Seventeenth Century Crisis in New Spain," pp. 131-135.

<sup>22</sup> Morineau's data and conclusions are summarized by Fernand Braudel, The Wheels of Commerce (London, 1982), p.174.

<sup>23</sup> John J. TePaske, "New World Silver, Castile and the Philippines, 1590-1800," PMLMEMW, pp. 425-445, particularly p. 434.

40 per cent of the public revenue exported from New Spain went to the Philippines. Administrators in Manila had been requesting an increase in funding for many years and this redirecting of revenue away from Seville may well have been a belated response to such requests.

Commenting on this TePaske and Klein write:

This shift in the flow of Mexican crown revenues may suggest a re-ordered colonial economy in which locally produced and Far Eastern goods came to replace European products.<sup>24</sup>

What was Spain's loss was, at least in part, China's gain.

### The Traffic of Spanish-American Silver to China

#### The Philippines Connection

The most important and most direct way in which silver from Spain's American colonies reached China was via the Spanish trade network across the Pacific. The foundation to this network was laid in 1564/5 when a Spanish fleet under the command of Miguel Lopez de Legaspi sailed across the central Pacific from New Spain, eventually reaching Cebu in the Philippines. After considerable difficulties a return route across the northern Pacific was discovered and the annual sailings of what became known as the 'Manila Galleons' began.<sup>25</sup> Sailing west from Acapulco and then returning via the northerly route, these galleons facilitated a trade that was the lifeblood of the Spanish in the Philippines and the source of a great deal of silver for the Chinese.

The Spanish shifted their settlement from Cebu to Manila Bay in 1571 and the following year Chinese junks arrived in the harbour laden with merchandise. The Chinese brought raw and woven silks, brocades, damasks, satins, some cotton cloth, musk, benzoin, and ceramics. In return, they took only silver. When describing this trade in his Sucesos de las Islas Filipinas, Antonio de Morga wrote:

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<sup>24</sup> TePaske and Klein, "The Seventeenth Century Crisis in New Spain," p. 135.



The purchase price is paid in silver and reals, for the Sangleys [Chinese merchants] do not want gold, or any other articles, and will not take other things to China.<sup>26</sup>

A profit of 400 per cent was reported for the shipment of raw Chinese silk from Manila to Acapulco in the late sixteenth century and the Viceroy of Peru claimed in 1594 that he could clothe his wife in Chinese silks for half the price it would cost to do so in Spanish garments.<sup>27</sup>

Such a profitable trade is explained by the cheapness of Chinese goods in Manila as compared to the value of silver. In Spain and the New World, the relative value of silver to gold fell steadily from 12.12:1 in the period 1566-1608, to 13.13:1 in the period 1609-1642, to 15.45:1 in the period 1643-1686, and finally to 16.48:1 in the period 1686-1700.<sup>28</sup> From Table One we know that the relative value of silver to gold was only 8:1 in China up until the 1630s. It fell to 10:1 and then to 13:1 at its lowest point in the period 1637-1640, thereafter rising again to 10:1 in the second half of the century. Thus, not only could Peruvian and New Spanish merchants get better value for money by investing in Chinese rather than European merchandise, they could also realize considerable profits simply by shipping silver to Manila where the Chinese demand for it was great.

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<sup>25</sup> Schurz, The Manila Galleon.

<sup>26</sup> A full translation of Antonio de Morga, "Sucesos de las Islas Filipinas," is found in Blair and Robertson, The Philippine Islands, Volumes XV and XVI; see in particular Volume XVI, pp. 178-182.

<sup>27</sup> Ibid., XI, p. 111, contains a letter from the Royal Fiscal in Manila to the King of Spain in which the 400 per cent profit was reported. And the comment of the Viceroy in Peru is found in Woodrow W. Borah, Early Colonial Trade and Navigation Between Mexico and Peru (Berkeley, 1954), p. 122.

<sup>28</sup> Earl J. Hamilton, American Treasure, p. 71; and also Hamilton's, War and Prices in Spain, 1651-1800 (Cambridge, Mass., 1947), pp. 24-25.

In the early years of this trans-Pacific trade the volume of exchange increased rapidly, so much so that merchants from New Spain and Peru were competing to invest in the cargoes of the galleons. In the Philippines, the Chinese population grew from about 40 in 1570 to more than 15,000 by 1600 and each year large numbers of merchants sailed from the ports of Fujian and Guangdong to trade in Manila.<sup>29</sup> This sudden and dramatic increase in the volume of trade provoked an angry response from merchants in Seville, who realized they now had to face competition in the Spanish-American markets. Intense pressure from these Sevillian merchants resulted in the Spanish crown imposing restrictions on the galleon trade of the Pacific. In 1582 direct trade between the Philippines and Peru was prohibited and in 1587 Peruvian merchants were forbidden from investing in the galleon trade at Acapulco. Six years later the galleon trade was restricted to two ships annually, each to be no more than 300 tons. A limit, or permiso, of 500,000 pesos was set on the amount of silver to be sent annually to Manila and in return only 250,000 pesos worth of merchandise was to be brought back to Acapulco.<sup>30</sup>

These restrictions remained in force throughout the seventeenth century and were not amended until early in the eighteenth century. Yet, in practice, the volume of trade far exceeded that legally permitted. Peruleros (ships from Peru) were regular visitors to Acapulco and Borah estimates that

.... the silver involved in the Mexican-Peru trade must have been upwards of two million and perhaps three million silver pesos [by the 1590s]. Most of this total represented payment for Chinese merchandise bought in Acapulco, the silver being sent on to the Philippines, where a large part of it was

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<sup>29</sup> These figures on the Chinese population in Manila are given by Atwell, "International Bullion Flows," p. 73.

<sup>30</sup> Translations of the edicts restricting trade are found in Blair and Robertson, The Philippine Islands, VIII, p. 316 and XII, pp. 46-47.

delivered to the Chinese.<sup>31</sup>

In its efforts to stop Peruvian silver being diverted into the Acapulco trade, the Spanish crown eventually prohibited all trade and shipping between Mexico and Peru (in 1634). Yet Peruvian silver continued to flow north, and it remained the case that it was more profitable to invest in Chinese goods at Acapulco than to invest in Spanish and European merchandise at Portobello on the isthmus of Panama. Mexican merchants also invested heavily in this profitable trade, despite the constant complaints of the merchants in Seville.<sup>32</sup>

When it comes to calculating the actual volume of American silver that left Acapulco for Manila we are faced with the same problem as encountered in other areas of this study, the lack of precise data, and this is particularly so in this case because of the illegal nature of the trade. Yet we do get some indication of the volume of silver involved from the reports of contemporary observers of the trade and from the recent work of John TePaske. For instance, the Archbishop of Manila, Fray Ygnacio de Santibanez, wrote in 1598 that "There comes each year from Nueva Espana a million in money, contrary to the mandate of your Majesty, all of which passes to the heathen of China."<sup>33</sup> In 1602, Fray Martin Ygnacio de Loyala estimated that the volume of silver arriving annually from Acapulco was approximately 2 million pesos.<sup>34</sup> Writing thirty-one years later, Don Juan Cerezo de Salamanca estimated that about 2 million pesos continued to flow yearly from Acapulco.<sup>35</sup>

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<sup>31</sup>Borah, Early Colonial Trade, p. 123.

<sup>32</sup>Such complaints by the merchants of Seville are found in Blair and Robertson, The Philippine Islands, XIV, p. 214 and XXII, p. 279.

<sup>33</sup>Ibid., X, p. 145.

<sup>34</sup>Ibid., XXII, p. 59.

<sup>35</sup>Ibid., XXIV, p. 292.

And in his admirable defence of the galleon trade, Juan Grau y Monfalcon noted that it was foolish to claim, as some of the critics of the trade did, that up to 10 or 12 million pesos flowed annually from Acapulco to Manila. How could two ships, he claimed, possibly carry all the merchandise which such quantities of silver would buy.<sup>36</sup>

Thanks to the work of John TePaske we do know something of the quantity of public revenue sent from New Spain to the Philippines and he has also found that the Acapulco records reveal some data regarding the quantity of private silver leaving the port for the China trade.<sup>37</sup> As has already been mentioned, this was an illegal trade and considerably more silver would have been shipped off than that which was recorded. But TePaske's data is useful, especially when combined with what we know of the tax collected on silver exported through Acapulco from the work of Pierre Chaunu, for giving an indication of the changing nature of silver shipments throughout the century. This data has been collated in Table Seven and suggests that the peak years of silver export from the Americas to Manila, and thence to China, were those between 1600 and 1640.

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<sup>36</sup>Ibid., XXVII, p. 174

<sup>37</sup>TePaske, "New World Silver," p.445 Table 5.

TABLE SIX

Silver Remitted from Acapulco to Manila, 1581-1700						
Period	Public Sector		Private Sector		<u>Almojarifazgo</u>	Total
	Pesos	Kilograms	Pesos	Kilograms	Tax (pesos)	(Kilograms)
1581-1590	1,259,651	32,198	-	-	-	32,198+
1591-1600	466,016	11,912	578,170	14,779	1,715.37	26,691
1601-1610	1,174,782	30,030	3,516,513	89,886	7,467.00	119,916
1611-1620	2,541,652	64,967	5,048,118	129,035	7,015.00	194,002
1621-1630	3,620,573	92,545	5,423,822	138,638	8,245.20	231,183
1631-1640	3,672,874	93,882	3,509,871	89,716	5,723.40	183,598
1641-1650	2,206,810	56,408	1,759,706	44,980	3,980.20	101,388
1651-1660	1,508,388	38,556	2,015,681	51,523	5,700.13	90,079
1661-1670	1,379,509	35,262	-	-	2,991.97	35,262+
1671-1680	1,628,439	41,625	-	-	3,792.70	41,625+
1681-1690	1,952,190	49,900	-	-	-	49,900+
1691-1700	1,661,385	42,467	-	-	-	42,467+
					Total	1,148,309

Sources: TePaske, "New World Silver," Table 4 p.444 and Table 5 p.445.

Chaunu, Les Philippines, pp. 135-143. The Almojarifazgo tax was a levy of 5/6th of 2% (1.67%) imposed on all silver passing through Acapulco on the galleons.

If this data was subdivided into five rather than ten year periods it would reveal that the fall-off in the export of silver from Acapulco occurred after 1635, not after 1640. This was a result of the arrival in Acapulco in 1635 of a new customs inspector, who immediately began a more vigorous check on all commerce through the port. Discovering that far more cargo arrived on the galleons than was declared, the inspector, Don Pedro de Quiroga, placed an embargo on all goods and refused to allow them to be sold until taxes and fines had been paid.<sup>38</sup> Trade was disrupted for the next few years and little silver reached the Philippines. The situation was not helped when two galleons sent out in 1639 were wrecked before reaching Manila.<sup>39</sup> As a consequence, many Spanish merchants in Manila were unable to meet the debts they had accumulated in their trade with the Chinese and the resultant tension erupted in a violent conflict, with many Chinese being killed.<sup>40</sup> The junk trade through Manila fell-off in 1640 and 1641, but then increased once more in 1642.<sup>41</sup> The Chinese merchants seemed willing to forget the conflict and return to a stable trading relationship, yet the recovery was to be only temporary. This time it was events on the Chinese mainland which upset the trade. Following the Qing conquest of Beijing in 1644 the new administration found that resistance to its rule was strongest along the Chinese coast and the ensuing civil conflict in this region over the next forty years meant Chinese overseas trade was severely inhibited. The nadir in the Chinese-Manila trade, as with the Sino-Japanese trade, was the period from 1661-1684, when China's ports were closed and the coastal population was drawn many miles inland. Figure Three shows how the volume of silver

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<sup>38</sup> Blair and Robertson, The Philippine Islands, XXX, pp. 50-52; and also Atwell, "Notes on Silver," p. 11.

<sup>39</sup> Blair and Robertson, The Philippine Islands, XXIX, p. 194

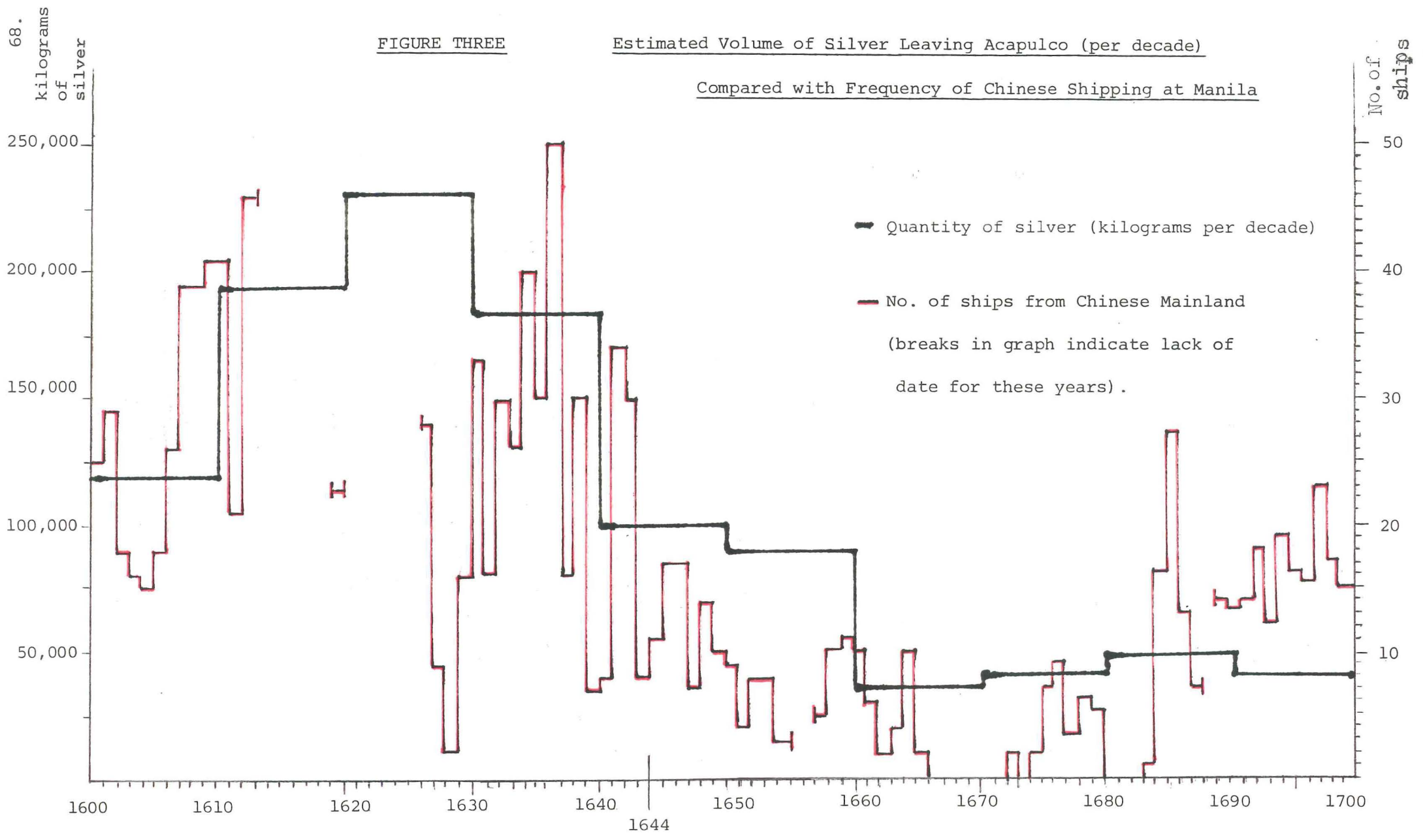
<sup>40</sup> Ibid., pp. 208-258. More than 20,000 Chinese were said to have been killed in the Philippines during this conflict.

<sup>41</sup> Chaunu, Les Philippines, pp. 157-160.

arriving in the Philippines changed in relation to the frequency of visits by Chinese junks to Manila, thereby revealing a possible trend in the volume of Spanish-American silver reaching China via the Philippines throughout the seventeenth century.<sup>42</sup>

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<sup>42</sup>The data used to compile this graph comes from Table Seven and from Chaunu, Les Philippines, pp. 148-173. Chaunu himself gives a good diagramatic description of the volume of silver flowing through Manila into the Asian world in his article, "Manila at Macao, face à la conjoncture des XVIIe et XVIIIe siècles," Annales E.S.C., 17, 3 (Mai-juin, 1962), pp. 555-580.





As this graph shows, it was the sealing off of China's coast in the 1660s and 1670s which caused the most disruption to the Chinese-Manila trade. Earlier in the century, from around 1610 until 1625, there had been some disturbance to the regularity of the trade due to an outburst of Dutch piracy. Frustrated by their inability to establish for themselves a niche in the Far East, the Dutch took by force what they could get from others. Undoubtedly some Chinese junks were lost to the Dutch and many others would have been dissuaded from making the voyage to Manila, but the Spanish were concerned that the trade continue and sent out fleets to ensure safe passage for the Chinese.<sup>43</sup> Spanish-American silver continued to reach China, despite the piracy, and once the Dutch obtained their base on Taiwan in 1625 they settled down to play a more pacific role in the East. From the perspective of the whole seventeenth century, the Dutch efforts to prevent silver reaching China were never as effective as was the policy of maritime prohibitions implemented by the Qing administration from 1661 until 1683.

The China-Manila trade moved back into a regular rhythm after 1684, but it was a slow recovery and the peak years of the late 1620s and early 1630s were not to be relived during the remainder of the century.

#### The European Connection

The longest and most convoluted silver routes to China were those via Europe. In his detailed description of the sixteenth century Mediterranean world, Fernand Braudel emphasized the existence of an east-west axis linking the Spanish-American silver mines through the Mediterranean to the markets of Asia. He described this axis as a

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<sup>43</sup>Blair and Robertson, The Philippine Islands, XIX, pp. 68-69 contains a translation of an anonymous report on events in 1619-1620. It describes Spanish concern over this trade and how fleets were dispatched to ensure the Chinese junks reached Manila in safety.

"structure, a permanent and outstanding feature of the world economy which remained undisturbed until the twentieth century."<sup>44</sup> Despite strong mercantilist resistance, this eastward flow of silver remained a permanent feature of Europe's relationship with Asia.

The reasons for this constant loss of silver to Asia are twofold. Firstly, as noted elsewhere, it was profitable to carry silver to Asia, and in particular to China. Secondly, Asia benefited directly from Europe's sixteenth century 'silver revolution'.<sup>45</sup> The consistent population growth during the century combined with the massive influx of silver from the Americas to produce an increased aggregate demand in Europe, part of which was expressed in a demand for more Asian products. Generally the Europeans would have preferred to have been able to pay for these Asian goods with their own produce. They found, however, that Asians wanted little else but silver and thus to redress trade deficits with Asian markets silver was exported to the East.

Europe's own silver production declined in the second half of the sixteenth century. From a peak output of more than 90,000 kilograms annually in the 1520s and 1530s production from the central European mines had declined to about 28,000 kilograms annually in the first two decades of the seventeenth century.<sup>46</sup> This decline in production is largely attributable to the massive influx of Spanish-American silver to Europe during the sixteenth and early seventeenth centuries. Each year from the ports of Vera Cruz and Portobello the flota de plata carried silver to Cadiz in Spain. In the early seventeenth century silver also escaped from Potosí down the River Plate to Buenos Aires

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<sup>44</sup>Braudel, The Mediterranean, I, p. 500. Another description of this 'leakage' of silver from Europe to Asia is found in John Day, "The Great Bullion Famine," Past and Present, 79 (May, 1978), pp. 3-54.

<sup>45</sup>Spooker, The International Economy, p. 26.

<sup>46</sup>John U. Nef, "Silver Production in Central Europe, 1450-1618," Journal of Political Economy, 49 (1941), p. 590.

and from there it was shipped by the Portuguese to Lisbon. The volume of 'contraband' silver travelling this route probably declined throughout the seventeenth century as the Spanish became more rigorous in their efforts to prevent such losses.<sup>47</sup> As the seventeenth century progressed, however, more 'contraband' silver was lost to Spain as English, Dutch, and French ships increased their presence in the Caribbean ports. While official imports of silver declined from 1600 to 1650, contraband imports to Amsterdam and other north European ports steadily increased, reaching their peak at the end of the century.<sup>48</sup> But the principal mechanism of this Atlantic trade was the flota de plata, delivering silver annually to Cadiz.

From Spain most of the silver was drawn out into the economies of Europe. Whether to finance the armies of the Spanish crown or simply to pay for the European merchandise which Spain transshipped to its American colonies, silver flowed out of Seville as fast as it flowed in. Fernand Braudel and Frank Spooner give a good description of this:

The moment a silver fleet arrived from America, one money market after another in Europe experienced successively 'largesses' or easy money conditions: that is to say, abundance of coin, of 'ready' cash and bills of exchange, the one usually accompanying the other ... money cascaded from person to person and from money market to money market. However, symmetry and regularity were lacking in these movements: the circle did not always complete itself. Bullion was constantly drained off by way of the Baltic, the Levant and the Cape of Good Hope to the Near and Far East.<sup>49</sup>

The oldest mechanism whereby silver was 'drained off' to the East was that of the Levant trade. This trade received a great boost with

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<sup>47</sup> Lewis Hanke, "The Portuguese in Spanish America, with special reference to the villa Imperial de Potosí," Revista de Historia de America, 15 (June, 1961), pp. 1-48.

<sup>48</sup> Braudel, The Wheels of Commerce, p. 174.

<sup>49</sup> Fernand Braudel and Frank C. Spooner, "Prices in Europe from 1450 to 1750," in E.E. Rich and C.H. Wilson (eds.), The Cambridge Economic History of Europe, IV (Cambridge, 1967), pp. 374-480.

with the increased flow of silver into Spain and especially from the 1570s onwards as Genoese bankers gained control over the flow of coin and bullion in and out of Seville. The Genoese, in turn, sold much of this silver to the merchants of Venice and Florence, who then profited from investing it in the Levant trade. The parity of silver to gold fell steadily in the Spanish empire from 12.12:1 at the end of the sixteenth century to 16.48:1 at the end of the seventeenth century, whereas, in Ottoman lands, silver was more highly valued, rising from 11.01:1 in 1600 to 10.47:1 in 1618.<sup>50</sup> Asian products flowed into the Mediterranean either via the Red Sea, Cairo and Alexandria, or via the Gulf, Basra and Aleppo. Frank Spooner notes that in the period 1610-1614 official exports of silver from Venice alone to the Dalmatian coast and the Levant amounted to almost 6 per cent of the silver which at that time was imported into Seville from the Americas. "Could more precise and extensive details," he writes, "have left a less impressive picture."<sup>51</sup>

English and Dutch merchants, who had been trading in the Mediterranean world since the late sixteenth century, also purchased silver in the ports of Genoa, Leghorn and Venice for their transactions in the Levant.<sup>52</sup> The Genoese lost some control over the silver of Spain, however, with the increasing involvement of Portuguese bankers in Seville and then with the signing of the Cottington Treaty in 1630. As a result of this treaty, English ships began to carry much of Spain's silver north to Flanders in return for bills drawn at Antwerp. Later in the century Dutch ships took over the shipments of silver from Spain.<sup>53</sup>

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<sup>50</sup>For sources to the Spanish data see Note 28. The Ottoman figures come from Halil Sahillioğlu, "The role of international monetary and metal movements in Ottoman monetary history," PMLMEMW, p. 283.

<sup>51</sup>Spooner, The International Economy, p. 76

<sup>52</sup>Braudel, The Mediterranean, I, pp. 462-517, gives a vivid picture of this trade.

<sup>53</sup>B.E. Supple, Commercial Crisis and Change in England 1600-1642:

As a consequence of these shifts in the flow of bullion not as much silver flowed into the Mediterranean world. But silver did continue to flow this way, and in sizeable quantities. In 1694, for instance, a Gujarati ship, the Canj-i Sawai, reportedly returned from Jeddha with 5 million rupees worth of silver (approx. 56,650 kgs.).<sup>54</sup> Similarly, Dutch records reveal that in the latter years of the seventeenth century, Asian merchants alone returned annually from the Red Sea port of Mocha with around 6 million rupees worth of silver (approx. 67,980 kgs).<sup>55</sup>

These reports of large amounts of silver flowing through the Levant in the late seventeenth century tend to contradict the thesis of Niels Steensgaard, that a 'structural revolution' had occurred in Asian trade earlier in the century.<sup>56</sup> Steensgaard feels that the new corporate organizations, the English and Dutch East India Companies, did what the Portuguese had been unable to do; they caused a dramatic shift in the Asian-European axis, away from the Levant routes and to the sea route around the Cape. There is no doubting the fact that the Companies were well aware of the importance of the Levant trade. Sir Thomas Roe wrote to the English East India Company in London in 1616 that he felt gaining control of the traffic into the Red Sea was "more important than all other projects." He suggested that Company merchants should go with "the Gujaratis and trade for themselves for money, which is taken in abundance.... The profit exceeds all the trade of India."<sup>57</sup>

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A Study of the Instability of a Mercantile Economy (Cambridge, 1959), p. 164 n.1; and for a more general discussion of this shift in bullion flows see Fernand Braudel, The Perspective of the World (London, 1984), p.170.

<sup>54</sup> Aziza Hasan, "Mughal Silver Currency - A Reply," Indian Economic and Social History Review, 7, 1 (March, 1970), p. 155.

<sup>55</sup> Joseph J. Brenning, "Silver in seventeenth century Surat: Monetary circulation and the price revolution in Mughal, India," PMLMEMW; p. 481.

<sup>56</sup> Niels Steensgaard, The Asian Trade Revolution of the Seventeenth Century.

<sup>57</sup> Balkrishna Govind Gokhale, Surat in Seventeenth Century: A Study in Urban History of pre-modern India, (London, 1979), p. 97.

Steensgaard feels that the joint Anglo-Dutch-Persian effort against the Portuguese at Hormuz in 1622 was a symbolic turning point, the focus of structural change, after which the English and Dutch ships diverted increasing quantities of Asian merchandise to the southern sea lanes.

There is no doubt that during the seventeenth century the two companies developed their trade in Asia and that some of this was diverted around the Cape of Good Hope. But it should be remembered that both companies were involved in the inter-port trade of Asia, what the English called the 'country trade', and that this was an existing trade network that was centuries old. Dutch records of precious metal imports to Surat in 1643-44 show that there had not been a 'structural revolution' in Asian trade by this date. Only 28 per cent of the silver shipments to Surat in these years came via the Cape route. Another 19 per cent was silver brought by the Dutch from Japan, while 53 per cent came via the Levant trade of the Red Sea and the Gulf.<sup>58</sup> These Dutch records show that 26,795 kilograms of silver was imported to Surat in these years, while by the end of the century Indian ships alone were bringing over 67,000 kilograms annually to Surat from Mocha in the Red Sea.<sup>59</sup> Ashin Das Gupta has estimated that the total turnover of Surat at the end of the seventeenth century was well over 16 million rupees, of which only 1.5 million would have been handled by European merchants.<sup>60</sup> Rather than a structural crisis and subsequent decline in the Levant trade, it seems to have been the case that increasing amounts of silver were reaching Surat from the Mediterranean world by the second half of the seventeenth century.

Surat was the great commercial centre of northwest India in the

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<sup>58</sup> Brenning, "Silver in seventeenth century Surat," p. 479.

<sup>59</sup> Ibid., pp. 479 and 481.

<sup>60</sup> Ashin Das Gupta, Gujarati Merchants and the Red Sea Trade 1700-1725," in Blair B. Kling and M.N. Pearson, The Age of Partnership

seventeenth century. Nearly 25 per cent of all Mughal silver rupees up until 1685 came from the mints of this city.<sup>61</sup> All coin and bullion imported to Mughal India had to be cast into silver rupees and once part of the Mughal currency system very little of it re-emerged to be exported to other regions. The Dutch did carry some rupees from Surat to Batavia between 1699 and 1702 and Chinese merchants may have received these through their trade in Southeast Asia. However, there is no record of regular shipments of rupees from Surat to Batavia before this time.<sup>62</sup>

The alternative way for rupees to reach China in the seventeenth century was via the channels of trans-Himalayan trade. From Akbar's time (1556-1605) silver rupees were used to purchase Tibetan wool, salt and musk. The Malla dynasty in Kathmandu and the administration in Cooch Bahar had both established mints by the 1560s and were using their own silver coinage in trade with Tibet. Similarly, the Assamese traded silver for Tibetan goods and even cast one of their coins with the Chinese inscription 'Zang Bao', or Tibetan coin.<sup>63</sup> Up until the 1640s these kingdoms competed in the trade with Tibet and sizeable amounts of silver may have crossed the Himalayas northwards. Shortly before 1650, however, the Malla dynasty of Nepal invaded Tibet and as a consequence of the victory took over control of Tibetan coinage. From that time onwards Tibetans were required to provide silver for this coinage or pay

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(Honolulu, 1979), p. 124. Das Gupta's book, Indian Merchants and the Decline of Surat c. 1700-c.1750 (Weisbaden, 1979) is one of the best counters to the arguments put forward by Steensgaard.

<sup>61</sup> Surendra Gopal, Commerce and Crafts in Gujarat; Sixteenth and Seventeenth Centuries (New Delhi, 1975), p. 132 n. 76.

<sup>62</sup> Glamann, Dutch Asiatic Trade, p. 67. Between 1699 and 1702 the Dutch exported from Surat Indian rupees, Spanish reales, and 'Moorish ducats to the value of 0.5 million florins (i.e. approximately 5,000 kigs. of silver).

<sup>63</sup> N.G. Rhodes, "The Development of Currency in Tibet," in Michael Aris and Aung San Suu Kyi (eds.) Tibetan Studies in Honour of Hugh Richardson (Oxford, 1979), pp. 261-268.

for it with gold. No longer did silver disappear north across the Himalayas, much of it would have returned to be cast as Tibetan coins.

Private trade across the Himalayas was also restricted by the difficult geography of the region; this did not stop the trade but it did inhibit large quantities of merchandise being carried. The journal of the Armenian merchant Hovhannes reveals that in the 1680s merchants were carrying silver from India to Lhasa and then on to Xining in China. Hovhannes reported that the parity of silver to gold in Xining at this time was 7:1, showing that the trade was a profitable one for those who were willing to endure an arduous journey.<sup>64</sup> Yet the scale of this trade does not seem to have been great and it is difficult to imagine large amounts of silver reaching China in this way.

Very little silver arrived in China by other Central and Inner Asian routes in the seventeenth century as east-west trade along the famous silk routes had declined by this time. The more central of these routes ran north of the Black and Caspian seas, through Astrakan to Khiva, Tashkent, Hami and on to China, while the southerly route went from Istanbul to Erzurum, Tabriz, Meshed, Bukhara, Kashgar, Aksu, Turfan, and also Hami before reaching China. The increased traffic through the Levant to the Arabian Sea and that around the Cape of Good Hope from the mid-sixteenth century onwards led to a decline of these long and difficult land routes. The English merchant Anthony Jenkinson noted that trade in Bukhara was poor in 1558, and that no Chinese merchandise had been seen in the city for three years.<sup>65</sup> Similarly, tribute trade

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<sup>64</sup> Lyvon Khanchikian, "Le registre d'un marchand arménien en Perse, en Inde et au Tibet (1682-1693)," *Annales E.S.C.*, 22, 2(mai-avril, 1967), pp. 241-244. The parity of silver to gold fluctuated from around 17:1 to 14:1 in the Indian Subcontinent at this time.

<sup>65</sup> E.D. Morgan and C.H. Coote (eds.), *Early Voyages and Travels to Russia and Persia by Anthony Jenkinson and other Englishmen* (N.Y., 1966), I, pp. 87-92; also of value for Central Asian trade at this time is H.C. D'Encausse, "Les Routes commerciales de l'Asie Centrale et les tentatives de reconquête d'Astrakhan," *Cahiers du Monde Russe et Sovietique* 11, 3(juillet-septembre, 1970), pp. 391-420.



reaching China from Central Asian powers had declined by the seventeenth century, with only one mission arriving from Samarkand between 1600 and 1644, and then no more for the rest of the century.<sup>66</sup> It is unlikely, therefore, that the Chinese gained much silver from any of these Inner Asian sources.

Nor did China obtain silver from Russia in the seventeenth century. Trade between the two empires did increase during the century, and particularly following the signing of the Treaty of Nerchinsk in 1689, but the Russians saw China as a source of silver, their demand for it being as intense as was the Chinese.<sup>67</sup> Russian envoys to China were consistently advised to seek permission to export not only Chinese silks, but also Chinese silver. Sparfarii, who left Moscow in 1675, was instructed to negotiate for the right to purchase each year 4,000 poods (approx. 86,000 kgs.) of silver in return for Russian furs. Similar instructions were issued to both previous and subsequent envoys, a situation which had not changed by the early eighteenth century. The Russian Board of Commerce issued its envoy in 1719 with the following directive:

All potentates strive to bring silver, both in ingots and in the form of money, into their hands and to abstain from exporting it ... and we fully recognize that <sup>68</sup>this must be the main concern of all European nations.

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<sup>66</sup> J.K. Fairbank and S.Y. Teng, Ch'ing Administration: Three Studies (Cambridge, Mass., 1960), p. 157.

<sup>67</sup> M.L. Sladkovskii, History of Economic Relations Between Russia and China (Jerusalem, 1966), notes on p. 9 that "data on trade at Tomsk in 1640, 1652 and 1653 (when the town was the centre for Russian trade with the Kalmucks, Bukharans, Mongols, and Persians) shows that no Chinese goods penetrated into Russia at that time, either directly or through middlemen." As the Russian presence pushed further east into Siberia during the century the incidence of exchange with Chinese and Inner Asian merchants would have increased, but it was not until the treaties signed at Nerchinsk in 1689 and Kiakhta in 1729 that this trade obtained an organized framework.

<sup>68</sup> Ibid., p. 29.

The Russians did not have much success in getting silver from China, but they did fair better than other European powers in that they did manage to conduct a trade with China without drawing on their own meager reserves of the metal.

The Russian failure to obtain silver from China was a singular one; in their trade with other regions they were much more successful. The Ottoman chronicler, Na'ima, for instance, complained that the "Muscovites sell us expensive furs but purchase nothing in the Ottoman dominions and keep the money for themselves."<sup>69</sup> Similarly, Russian merchants sold furs and sables for silver at the markets in Briansk, Smolensk, Mogliev, Wilno, Novgorod, the Baltic ports of Reva and Narva, and, after 1553, with the English and Dutch who sailed north to Archangel.<sup>70</sup> Mark Mancall notes how "Fur was used as a medium of exchange because the Russian economy did not yet produce sufficient quantities of gold and silver to support a monetary system"<sup>71</sup> But the transition to a monetary economy was well under way and the demand for silver intense. Thus, although silver flowed into Russia from Europe and the Ottoman empire, the resistance to its flowing on further east was great. China may well have acted like a great 'suction pump', drawing in silver from around the world, but so too did Russia, and this meant that the trade which developed between these two empires in the seventeenth century was a trade in textile commodities, silks and furs, not a trade in silver.

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<sup>69</sup>Halil Inalcik, "The Ottoman Economic Mind and Aspects of the Ottoman Economy," in his book, The Ottoman Empire: Conquest, Organization and Economy (London, 1978), p. 215; also on this trade see A. Bennigsen and C. Lemerrier-Quelquejay, "Les marchands de la cour ottomane et le commerce des fourrures muscovites dans la seconde moitié du XVII<sup>e</sup> siècle," Cahiers du Monde Russe et Soviétique, 11, 3 (juillet-septembre, 1970), pp. 363-390.

<sup>70</sup>Paul Bushkovitch, The Merchants of Moscow, 1580-1650 (Cambridge 1980); and Raymond Henry Fisher, The Russian Fur Trade, 1580-1700 (Berkeley, 1943).

<sup>71</sup>Mark Mancall, Russia and China: Their Diplomatic Relations to 1728 (Cambridge, Mass., 1971), p.13.

Finally we must consider the trading mechanism of the two north European East India Companies. Founded at the beginning of the seventeenth century, the English and the Dutch Companies came to play an increasingly important role in the trading world of Asia and both exported considerable quantities of silver to the East.

Between 1600 and 1640 the English East India Company exported £ 1,390,436 worth of coin and bullion to the Asian world, and most of this in the form of Spanish reales.<sup>72</sup> The Company established a special 'Committee for Rials' to govern the finance of its trading operation and through this committee purchased silver from all over Europe, although, after the Cottington Treaty was signed in 1630 and a regular supply of the Spanish coin was obtained for England, the committee needed to spend less time in this task of hunting down cheap sources of silver. By 1613 the English East India Company had built two main factories in Asia, one at Surat and one at Bantam, and it was to these factories, in particular the one at Surat, that the silver was channelled. In the Far East itself the English had found it impossible to break into the existing trade networks and in 1623 Richard Cocks and his colleagues abandoned their efforts.<sup>73</sup> The English withdrew to Bantam, but concentrated most of their attention on the north Indian markets through their Surat factory. Consequently, very little of the silver exported by the English East India Company in the first half of the seventeenth century would have reached China. Some may have been

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<sup>72</sup>K.N. Chaudhuri, 'The East India Company and the Export of Treasure in the early Seventeenth Century,' Economic History Review, 2nd. Series, 16, 1 (August, 1963), pp. 23-38.

<sup>73</sup>Richard Cocks, The Diary of Richard Cocks: Cape-merchant in the English Factory in Japan, 1615-1622 (N.Y., 1966), gives a good description of East Asian trade at this time and the difficulties the English encountered.

purchased by Chinese merchants trading at Bantam, but the scale of the English operation there was dwarfed by that of the Dutch and it is unlikely this trade was of any great consequence.

The English East India Company's trading operation increased considerably in the second half of the seventeenth century, especially from the 1680s onwards, with gold and silver accounting for between 70 and 90 per cent of its exports in these years.<sup>74</sup> The Company shipped 702,852 kgs. of silver to Asian ports between 1660 and 1700, with most of it still going to the Indian subcontinent. Another attempt was made to break into the Chinese market in the 1670s when the English gained permission from the Zheng family to open a factory at Tainan on Taiwan, yet little success was achieved there and with the Qing conquest of Taiwan the English were again forced from the China coast.<sup>75</sup> In 1682 the factory at Bantam was closed and the Company concentrated all its enterprise on India. It was not until the eighteenth century that the trade of English private merchants at Canton drew the Company back to the China coast and significant volumes of silver carried by the English began to flow into China.<sup>76</sup> In the seventeenth century, however, silver carried by the English East India Company was used principally in Indian markets, with little, if any, of it reaching Chinese hands.

The shipment of precious metal from Europe to Asia by the Dutch East India Company, or Vereenigde Oost-Indische Compagnie (V.O.C.), has been the subject of a recent study by F.S. Gaastra.<sup>77</sup> Working from the

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<sup>74</sup> K.N. Chaudhuri, The Trading World of Asia and the English East India Company, 1660-1760 (Cambridge, 1978), pp. 153-189.

<sup>75</sup> M. Paske-Smith, Western Barbarians in Japan and Formosa in Tokugawa Days 1603-1868 (N.Y. 1968), pp. 83-106.

<sup>76</sup> Dermigny, La Chine et l'Occident.

<sup>77</sup> F.S. Gaastra, "The exports of precious metals from Europe to Asia by the Dutch East India Company, 1602-1795," PMLMEMW, pp. 447-475. For a general discussion of the activities of both the English and Dutch

records of the Company's directors, the Hereen XVII, Gaastra has shown how Dutch exports of silver to Asia remained fairly static throughout the century, rising only after 1668 when the Japanese prohibited the Company from purchasing silver in Nagasaki. Up until that time the Dutch had relied on Japanese silver and also the silver they purchased in other Asian ports to meet the requirements of their trade in Asia. But with the Japanese ban and the flourishing of the Company's trade in Bengal, shipments from Europe increased considerably: whereas 86,352 kgs. were shipped out of Holland in the decade 1650-1660, by the period 1690-1700 exports of silver were up to 259,518 kgs.<sup>78</sup> The V.O.C. began its trading operation in 1602 and from that time until the end of the seventeenth century it shipped to the East 1,177,732 kgs. of silver from Europe.

In Asia itself the Dutch Company channelled most of its trading operation through its bases on Java, first at Bantam and later Batavia. All of the silver exported from Europe would have passed through one of these bases before being redirected to where the Company's trade required it, some staying in Southeast Asia and some being shipped off to eastern India. As has been already mentioned, the V.O.C. had little direct contact with the Chinese, and during the time it did the silver traded was of Japanese origin. The only way that silver exported by the Dutch from Europe would have entered China was in the holds of Chinese junks which had sailed to Southeast Asian ports to trade.<sup>79</sup> The rhythm

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Company trade in Asia see Holden Furber, Rival Empires of Trade in the Orient, 1600-1800 (Minneapolis, 1976).

<sup>78</sup>Gaastra, "The exports," p. 475 Appendix 5.

<sup>79</sup>Both Glamann, Dutch Asiatic Trade, p. 54 and Meilink-Roelofs, Asian Trade, pp. 245-246, describe how Chinese merchants purchased Spanish reales and Dutch rixdallers in Southeast Asian ports.

of this trade would have shown much the same sort of pattern as did Chinese trade in Manila; the Philippines were a closer and more favoured source of Spanish-American silver than were the ports of Southeast Asia and if junks were not reaching Manila it is most unlikely that they would have been seen in Bantam or Batavia. Thus, the Chinese trade in Southeast Asia during the seventeenth century probably peaked during the first part of the century, falling off after the 1640s to be non-existent by the 1660s and 1670s. After 1684 recovery would have been slow, much as it was in Manila. Quantifying the volume of silver entering China in this way is impossible, and is perhaps not important. This silver was a very minor supplement to those major sources of supply for China, Japan and the Spanish-American Philippines trade network.

#### Overall Perspective on Silver Entering China

What sort of picture has emerged regarding the volume of silver available to the Chinese throughout the seventeenth century? We know that very little of the metal was mined domestically and that the volume in circulation in China around 1580 was less than the volume of silver in use in Europe at this time. But Europe's great 'silver rush' was coming to an end by the 1580s, whereas China's was just about to begin. From the 1580s on through to the 1640s a tremendous amount of foreign silver flooded into China. The peak years were those of the late 1620s and early 1630s and it is possible that as much as one and a half thousand kilograms of silver were entering China annually at this time. From the 1640s on imports declined, falling off to be virtually non-existent during the 1660s and 1670s, then recovering only slowly through the remaining years of the century. To be explicit about the exact amount of silver entering at any particular point in time is impossible, the data does not allow such precision, yet we do have enough information to observe this changing trend throughout the century.

It seems that domestic factors were of primary importance in determining the volume of silver that was able to reach China. Even though output from the mines of Japan and those at Potosí decreased gradually during the century, there was no drastic fall off in production which suddenly saw China deprived of silver. Disturbances to the trading mechanisms which facilitated the flow of silver to China were of much more importance, with the expulsion of the Portuguese from Japan being the most serious of these. Dutch and Chinese ships did pick up some of the trade which the Portuguese were forced to abandon, but after 1639 no group of foreign merchants had both a consistent supply of silver and a base on the Chinese mainland through which to channel that precious metal. This meant that the critical factor controlling the flow of silver into China became the ability of Chinese merchants to engage freely in trade; if junks were restricted from sailing to foreign ports to trade and purchase silver, then silver did not enter the empire. And this is precisely what happened in the 1660s and 1670s when the Qing administration closed China's ports and withdrew the coastal population many miles inland. This coastal evacuation policy was particularly drastic in the provinces of Guangdong and Fujian, the very provinces which had been most active in the silver trade.

Thus, China's seventeenth century crisis was not preceded by a contraction in the supply of precious metals, as was the case with the crisis in Spain. In fact, the opposite was true, with the contraction in imports following not preceding the crisis. The late Ming years saw an unprecedented volume of silver flood into China and although the peak years had passed by 1644, great quantities of the metal were still imported when the Chongzhen emperor committed suicide and the Qing administration took over in Beijing. This new Qing administration was even willing to restrict imports of silver in order to consolidate its control over the coastal regions of the Chinese

empire. Political factors were given priority over monetary ones. Perhaps that is also how our judgement of factors involved in China's seventeenth century crisis should be weighted. The vicissitudes of international movements of bullion seem to have played no part in precipitating the crisis.



CHAPTER THREE

Silver and Society

Silver cannot be worn when one is cold, nor eaten when hungry; it must be exchanged for things of use as food or clothing. Yet what alternative has there been but to employ silver and throw aside copper cash?<sup>1</sup>

The great influx of foreign silver to China from the mid-sixteenth century onwards facilitated an increased monetization of the Ming economy and this was a trend which was not welcomed by all. The quotation cited here, from an official memorial written around 1570, reveals a fear that the effect of the increased use of silver would be an undermining of the traditional basis to Chinese society. It was felt that agriculture would become subservient to commerce and peasants would suffer at the hands of a few profiteers. The official continues his memorial thus:

As copper cash increasingly has been thrown aside, silver increasingly has dominated in circulation, and as it increasingly has dominated in use it has increasingly been removed to storehouses, and so silver has become increasingly expensive. But as goods have become increasingly cheap (relative to silver), the transaction of converting their produce into silver to pay taxes has become increasingly difficult (for the commoners). Exploiters have taken advantage by buying cheaply (when the commoners all have to pay their taxes) and then selling when prices have become more expensive. The silver which has come to be hoarded by those exploiters continues to pile up, while what circulates in the empire diminishes. If this were to go on for a few decades more, we do not know where it will end.<sup>2</sup>

Implicit in this memorial is a criticism of the court for accumulating silver at the expense of the administration and the populace, while more explicit criticism is directed at the fiscal innovations of the

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<sup>1</sup>From the Ming Shi, 214, 5669-70; translated and quoted by Willard J. Peterson, Bitter Gourd: Fang I-chih and the Impetus for Intellectual Change (New Haven, 1979), p. 69

<sup>2</sup>Ibid.

Single Whip Reform, whereby landholders could no longer meet their tax obligations with grain but had to sell their produce in order to pay the state with silver. The spread of cash cropping and the intensification of rural marketing networks had been a feature of much of the Chinese countryside during the late fifteenth and sixteenth centuries, but it was the introduction of the Single Whip Reform and its requirement that taxes be paid in silver which did most to encourage the increasing monetization of the late Ming economy. As John R. Watt has so succinctly remarked, the introduction of the Single Whip Reform meant that the fiscal solvency of landholders depended not just on their ability to produce, but also on their ability to sell; and this

obviously favoured those more strongly placed to sell their produce, through proximity to the market, extent of land owned, type and quality of crops produced, size of net surplus, or influence within the market system.<sup>3</sup>

It was this greater dependence on the market which the memorialist feared would result in an increased tension within late Ming society. Concisely, then, this memorial directly relates changing patterns of money use to emerging social conflict. Such a relationship is the concern of this chapter.

#### Commercial Expansion:

The commercial expansion of the late fifteenth and sixteenth centuries had drawn many peasant households into closer contact with a marketing network and a monetary economy. The state itself had contributed to this through the demand it created for food and clothing to provision its armed forces and administrative services, but the simple fact of an increasing population and increasing production led to a more complex

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<sup>3</sup> John R. Watt, The District Magistrate in Late Imperial China (N.Y., 1972), p. 156.

and sophisticated commercial economy. The staple grains of wheat and rice continued to dominate Chinese agriculture, yet more and more peasants were moving from the exclusive cultivation of food crops to diverse range of products, many of which were intended for sale rather than consumption within the household. This transition to a more commercially orientated agriculture was most pronounced in the provinces of Nan Zhili, Zhejiang and Fujian, where such cash crops as cotton, tobacco, mulberry trees, sugar cane and indigo began to supplement and replace the cultivation of rice.

Of all the cash crops involved in this commercial expansion cotton was the most widespread. Craig Dietrich estimates that in the late Ming and early Qing periods between three-fifths and four-fifths of the districts in the empire manufactured some cotton cloth.<sup>4</sup> Cotton had first appeared in China during the late Song period and by the sixteenth century it had become the most important fibre plant in the empire. A late fifteenth century commentator, Qiu Jūn, wrote that "cotton has spread throughout the empire. It is used a hundred times more than silk or hemp."<sup>5</sup> While not as strong as silk or as warm as wool, cotton had the advantage of being cheaper than both to produce and also of being more comfortable than the cloth made from ramie or hemp.

Xu Guangqi, in his treatise on Chinese agriculture (Nongzheng chuanshu, 1628) wrote that over half the cultivated land in the Shanghai area was devoted to cotton, while in the districts of Jiading and Taicang in Suzhou prefecture as much as seventy per cent of the land

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<sup>4</sup>Craig Dietrich, "Cotton Culture and Manufacture in Early Ch'ing China," in W.E. Willmott (ed.), Economic Organization in Chinese Society (California, 1972), p. 111. Cong Hanxiang is a little more conservative in his estimate. For the Ming period as a whole Cong feels that between one quarter and one third of all Xian in the empire produced cotton; see a précis of "A Preliminary Study of the Development of Cotton Planting and Textile Industries During the Ming Dynasty," in Albert Feuerwerker (ed.), Chinese Social and Economic History From Song to 1900 (Ann Arbor, 1982) pp. 81-82.

<sup>5</sup>Mi Chu Wiens, "Cotton Textile Production and Rural Social

was taken up with the cultivation of cotton bolls.<sup>6</sup> These districts were part of the productive coastal region of Jiangnan, a densely populated area stretching from Nanjing east to the mouth of the Changjiang River and south to Hangzhou, and this was the great weaving centre of the empire. Raw cotton was transported to Jiangnan from the provinces of Huguang, Henan and Shandong, with the finished cloth being returned to the markets of these provinces for sale. Zhong Huamin described this process when he wrote in 1594, that "Half of the fertile land in Honan [Henan] is planted with cotton, which all goes into the hands of the merchants. Cotton cloth worn by the people here is provided through the market."<sup>7</sup> The cotton looms of Jiangnan also provided cloth to the northern provinces and to Fujian and Guangdong provinces in the south. Chu Hua wrote in his Cotton Manual of how "people from Fukien [Fujian] and Kwangtung [Guangdong] with boatloads of sugar come to Shanghai in the second and third lunar months and in the fall they purchased ginned cotton and loaded them [sic] in hundreds and thousands of boats to bring them back home."<sup>8</sup>

Jiangnan looms also supplied the government with cotton cloth. It has been estimated that as much as 15 million bolts of cloth were required by the government each year so that it could meet the clothing needs of soldiers and of officials, as well as of the imperial families.<sup>9</sup> In order to meet the demand for such a large quantity of cloth the

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Transformation in Early Modern China," Chung-kuo wen-hua yen-chiu-so hsüeh-pao, 7, 2 (December, 1974), p. 516.

<sup>6</sup> Ibid., p. 519.

<sup>7</sup> Ibid, p. 520.

<sup>8</sup> Ibid.

<sup>9</sup> Wiens, "Socioeconomic Change," p. 116.

government was often forced to convert some of the grain tax for the Jiangnan region to a specified quantity of cloth. The usual mechanism for obtaining cotton cloth, however, was to assign a number of wealthy households within a district the responsibility for forwarding a certain amount of cloth. These cloth-remitting households (jiehu) usually purchased the cloth for the government from the larger urban loom houses, as it was only they who could produce the high quality 'three-shuttles' cloth which the government required. The urban loom houses employed specialized workers in the various activities of ginning, bowing, carding, spinning, weaving, dyeing and calendering which enabled them to produce a high quality product. By comparison, most rural households had little capital to invest and produced a poorer quality cloth which was not wanted by the government. However, the cloth-remitting households passed on part of the government quota to the smaller rural producers, and, as they could not themselves supply 'three-shuttles' cloth, these smaller producers had to sell their own poorer quality product at the local market so that they could pay the cloth-remitting households in silver. This money was used to purchase the good quality cloth the government required.

From the growing of the raw product through to the spinning and weaving of cloth, the production of cotton provided an important supplement to the income of many households; and in the urban weaving centres of Jiangnan, such as Suzhou and Hangzhou, cotton became the principal source of income for many households. This reliance for income upon a cash crop drew these households into an increasing dependence on the market network and its bimetallic monetary economy; silver followed in the wake of cotton.

The other major textile product of the late Ming economy was silk. In the early years of the dynasty sericulture had been practised in most districts of the empire, but by the sixteenth century it was confined

largely to the Jiangnan region, and, in particular, to the land surrounding Lake Taihu.

Government demand determined the nature and structure of the silk industry even more than was the case with the cultivation and production of cotton. The Ming administration commissioned large government-owned factories to produce high quality satins and luxury silks which were used to supply the court and senior officials, as well as for gifts to visiting tribute missions. Early in the dynasty there had been twenty-five Imperial Silk Weaving Factories, but by the end of the fifteenth century most of these had closed down and production became concentrated in the three large factories in Hangzhou, Suzhou and Nanjing.<sup>10</sup> Raw silk to supply the imperial factories was procured through taxation and the administration also obtained a large amount of ordinary silk cloth through the fiscal system which was used to help pay government officials. That the government controlled a large amount of silk production outside of the imperial factories is shown by the fact that during the Wanli reign as much as 200,000 bolts of ordinary silk were collected as tax each year, while only about 47,000 bolts of satins and luxury silks were required of the imperial factories.<sup>11</sup> This government dominance of the silk industry declined during the Qing period as the growth of inter-regional and overseas trade saw the focus of the industry shift away from the imperial factories and increasingly towards the private production and distribution of silks. Also, with the continuing spread of a monetary economy, silk played a less important part in the administrative finances of the empire. These changes had their origin in the commercialization of the late Ming period yet they

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<sup>10</sup> Lillian Li, China's Silk Trade: Traditional Industry in the Modern World, 1842-1937 (Cambridge, Mass., 1981), p. 40.

<sup>11</sup> *Ibid.*, p. 42.

did not become of significance until the eighteenth century. Lillian Li feels that throughout the Ming and early Qing years the imperial factories continued to dominate the silk industry.<sup>12</sup>

In the early years of the Ming dynasty the imperial factories had obtained their workforce from a group of registered artisans whose right to employment in the silk industry was hereditary. In 1562, however, this system of registered artisanship was abolished and the government came to rely completely on hired labour. By the beginning of the seventeenth century it is possible that the three large imperial factories were employing several thousand workers each, all of whom were paid in money for their services.<sup>13</sup> Work was also contracted out to private loom houses and through them to independent weaving establishments, each of which generally contained only four or five looms.<sup>14</sup> The proliferation of these independent weaving establishments was such that when Cao Shipin was asked to report on the Suzhou weavers strike in 1601 he wrote telling the government of how nearly every household in the city contained either a loom or someone involved in the silk industry.<sup>15</sup> More people were involved in the silk industry in Suzhou than in either Hangzhou or Nanjing, but in all three cities the industry was large and through it thousands of people were drawn into a monetary economy.

Similarly, the handling of silver became an increasingly familiar phenomenon for those rural households involved in sericulture. Writing in the middle of the seventeenth century, Tang Zhen noted:

The silk produced in the lake T'ai [Taihu] area clothes the empire . . . . In lunar May merchants load piles and

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<sup>12</sup>Ibid., pp. 44-45.

<sup>13</sup>Yuan Tsing, "Urban Riots and Disturbances," in J.D. Spence and John E. Wills Jnr. (eds), From Ming to Ch'ing; Conquest, Region, and Continuity in Seventeenth Century China (New Haven, 1979), p. 288, notes how a skilled weaver in Suzhou at the turn of the seventeenth century was earning around 0.8 taels per month.

<sup>14</sup>Li, China's Silk Trade, p. 53.

<sup>15</sup>Elvin, The Pattern of the Chinese Past, p. 278.

piles of silver to Shuang-lin for trade and this region profits thousands and millions of silver every year. Therefore, though the tax quota is high, the people are spared from being empty-handed.<sup>16</sup>

Most peasants involved in the growing of mulberry trees and/or the rearing of silkworms and the reeling and spooling of raw silks operated on borrowed capital, so much of the income they derived from such industry was lost in the repayment of debts and through taxation. This meant that peasant households involved in sericulture were left with little capital for re-investment and the rural sector of the silk industry continued to be based on small-scale household-orientated enterprises, just as was the case with the rural sector of the cotton industry. Yet, small-scale as these enterprises were, the expansion of the textile industry from mid-Ming times onwards saw their number steadily increase, thereby ensuring that a monetary economy intruded more extensively into those areas of the Chinese countryside where people were involved in the production of cottons and silks.

While textiles predominated in Jiangnan, to the south, in Fujian and Guangdong provinces, sugar cane was the principal cash crop. Sugar was grown in Sichuan, Zhejiang and Jiangxi, but it was the two southeastern provinces which supplied most of the domestic market and also were able to export sugar to Japan, Luzon and Southeast Asia.<sup>17</sup> The growth of foreign trade during the sixteenth century had made it profitable for farmers to cultivate sugar cane rather than rice: Chu Dajun wrote that in the mid-seventeenth century between 40 and 60 per cent of the cultivated land in the Guangdong districts of Fanyu, Dongguan, Zengcheng and Yangjun was devoted to sugar; and sugar was grown extensively throughout the Fujianese districts of Zhangzhou, Chuanzhou, Xinghua and Fuzhou.<sup>18</sup>

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<sup>16</sup> Wiens, "Socioeconomic Change," p. 132.

<sup>17</sup> Rawski, Agricultural Change, p. 66.

<sup>18</sup> Wiens, "Socioeconomic Change," p. 102.



The bulk of this sugar was shipped to Jiangnan, although some was also carried on into northern China. In return, the Fujianese and Gunangdong merchants purchased silks, cottons and ceramics, many of which were subsequently exported, helping to procure the much needed foreign silver.

Fujianese traders also carried indigo and tobacco north to Jiangnan. Fujian was noted for its high quality indigo and this was a product that was in great demand due to its extensive use in the dyeing of textiles.<sup>19</sup> Wuhu, upstream from Nanjing on the Changjiang river, had become an important dyeing centre in the late Ming period, and as well as Fujianese indigo, safflowers from Sichuan and Shaanxi were brought to this centre for the dyeing of cotton and silks.<sup>20</sup>

Tobacco was one of the products that had reached China from Spanish-America; along with maize, the sweet potato, the peanut, and, of course, silver.<sup>21</sup> The food products amongst these were to cause a demographic revolution in eighteenth century China, but in the late sixteenth and early seventeenth centuries it was only tobacco that had made a significant impact on Chinese agriculture. The popularity of tobacco smoking spread rapidly through the Chinese population and a late Ming chronicler noted that "Nowadays everybody ranging from scholar-officials to commoners and women likes tobacco, so the peasant household greatly profits from cultivating this crop."<sup>22</sup> Jiangnan farmers increasingly turned to this new crop during the seventeenth century, but in late Ming times Fujian

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<sup>19</sup> Ng Chin-keong, "A study of the Peasant Society of South Fukien, 1506-1644," Nanyang University Journal, 6 (1972), pp. 189-212.

<sup>20</sup> Gernet, A History of Chinese Civilization, p. 426.

<sup>21</sup> For the impact of Spanish-American products on China see L. Carrington Goodrich, "The Columbian Discovery; China and the New World," Chinese Studies in History, 8, 4 (Summer, 1975), pp. 3-14; Ho Ping-ti, "The Introduction of American Food Plants into China," American Anthropologist, 57, 2 (April, 1955), pp. 191-201; and Dwight H. Perkins, Agricultural Development in China, 1368-1968 (Edinburgh, 1969), pp. 50-51.

<sup>22</sup> Wiens, "Socioeconomic Change," p. 101.

remained the principal source of tobacco, and to satisfy a growing demand it was continually shipped off to the markets of other provinces.

The agricultural sector dominated the late Ming economy, but there were isolated centres of significant industrial production. The most notable of these was the porcelain industry centred around Jingdezhen in northeastern Jiangxi.<sup>23</sup> As with the silk and cotton industries, it was the demand created through the patronage of the Ming administration that stimulated the ceramic industry and saw Jingdezhen rise to be an important industrial centre by the sixteenth century. The Ming administration never actually established an imperial kiln at Jingdezhen, similar in kind to the imperial silk factories; rather, it operated through a purchasing and transporting depot, contracting out orders to privately operated kilns. This system was known as guanda, minshao (government assisted, privately fired). Government orders for porcelain increased from 2,570 pieces in 1529 to 105,770 pieces in 1571.<sup>24</sup> Demand from the private sector for both basic and high quality wares also increased during the sixteenth and early seventeenth centuries, especially with the growth of a more conspicuously luxurious lifestyle amongst the urban elite of the Jiangnan region.<sup>25</sup> Ceramics were also in high demand with foreign traders and Michael Dillon estimates that between 1602 and 1657 nearly three million pieces of Ming Pottery were exported to Europe.<sup>26</sup>

Just as other sectors of the Ming economy saw a shift from registered

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<sup>23</sup> On porcelain production at Jingdezhen see Margaret Medley, "Ching-te-chen and the Porcelain of the Imperial Kilns," Bulletin of the School of Oriental and African Studies, 39, 2 (1966), pp. 326-338; Michael Dillon, "Jingdezhen as a Ming Industrial Centre," Ming Studies, 6 (Spring, 1978), pp. 37-44; and Yuan Tsing, "The Porcelain Industry of Ching-te-chen," Ming Studies, 6 (Spring, 1978), pp. 45-53.

<sup>24</sup> Dillon, "Jingdezhen," p. 38.

<sup>25</sup> On the elite culture of late Ming times see F.W. Mote, "The Transformation of Nanking," in G. William Skinner (ed.), The City in Late Imperial China (California, 1977), p. 151; and Trigault, China in the Sixteenth Century pp. 268-269.

<sup>26</sup> Dillon, "Jingdezhen," p. 42.

artisanship to wage labour during the sixteenth century, so too did the ceramics industry. Seasonal labour was drawn into Jingdezhen from the surrounding countryside, attracted by the opportunity to supplement rural incomes.<sup>27</sup> Most of the production from Jingdezhen kilns was sold through state licensed brokers resident in the area. Merchants would negotiate through these brokers for the purchase of porcelain from individual kilns and only in a small number of cases did merchants directly control production through investment in a kiln. The porcelain industry was characterized by small-scale units of production and distribution, just as was the case with most of the commercial sector in late Ming times.

Other centres of industrial production were the iron works at Cuxian in Huguang and at Fatshan in Guangdong. These works supplied agricultural and household implements to surrounding areas and urban centres. Also to be noted is that thirty paper mills in Jiangxi are estimated to have employed around 50,000 workers by the end of the sixteenth century.<sup>28</sup> Industrial production was limited, however, and it was the agricultural sector of the economy that was most affected by the commercialization of the late Ming years. A part of the production of high quality ceramics was responsible for drawing in foreign silver to the Chinese economy and the distribution of pots, iron ware and paper goods facilitated the circulation of a certain volume of silver, as did the payment of workers involved in these industries. But it was the agricultural sector with its extensive marketing network that did most to stimulate the circulation of silver through the late Ming economy.

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<sup>27</sup> Ibid., p. 41.

<sup>28</sup> Gernet, A History of Chinese Civilization, p. 426.

The bases to this marketing network were what G. William Skinner has called 'standard marketing towns'. These markets serviced the peasant households within a day's walking distance of them and they were the starting point for the "upward flow of agricultural products and craft items into higher reaches of the marketing system, and also the termination of the downward flow of imported items destined for peasant consumption."<sup>29</sup> Most standard marketing towns had only a few permanent buildings; a teashop or two, a wineshop, and several general stores. They also had what Skinner has called "a modest financial dimension."<sup>30</sup> By this he means that landlords, shopkeepers and merchants would offer credit to peasants for the larger purchases they made on market day (such things as a weaving loom were most likely to be bought on credit). Landlords also had rent collecting offices in these small market towns. By far the most frequent visitors to these markets were small-scale merchants who generally travelled between only a few towns within a particular marketing area. However, if a town was the centre of a productive region and had access to a good transportation network then merchants operating on a larger scale, with greater capital reserves, would also have been frequent visitors.

The number of standard marketing towns within a district depended not only on the size of the local population and the vigour of the local economy, but also on the availability of cheap transportation. Few merchants owned their own transport and they were therefore required to pay boatmen, pony-drovers and the like to get their goods from one marketing area to another. Transport was slow, especially if long distances were involved, and in south China, where most travel was done

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<sup>29</sup>G. William Skinner, "Marketing and Social Structure in Rural China, I," Journal of Asian Studies, 24, 1(1964), p. 6.

<sup>30</sup>Ibid., p. 20.

by water, the trans-shipment of goods was often necessary as boatmen tended to operate within restricted areas.<sup>31</sup> Thus, access to efficient transport was vital to a market, so much so that Evelyn Sakakida Rawski feels that the distribution of canals and waterways within an area provided to a large extent, an "index of its commercialization".<sup>32</sup>

It is this importance of access to waterways which helps to explain the geographical nature of the commercial expansion in late Ming times. Commercial growth was concentrated along and about three main arterial routes, each of them an important waterway, and each of them connected to the dynamic heartland of Jiangnan. And because silver was used principally in the wholesale sector of the economy, any attempt to describe the direction and frequency with which silver flowed throughout the empire would find itself also tracing a pattern which had as its main features these same three arterial routes.

The first of these waterways was the Grand Canal, connecting the capital Beijing with Jiangnan. Most boats travelling the Canal carried grain, but a whole range of products were shipped north to cater for the sophisticated tastes of the court and the empire's administrative elite. Zhang Han, an official who wrote several essays on merchant life during the sixteenth century, noted how "the possessions of the empire are amassed in the capital, yet half are produced in the southeast, which is where the people with craft skills come from."<sup>33</sup> The traffic up and down the Grand Canal was of considerable benefit to the countryside immediately surrounding it, as has been shown by Leif Littrup's recent

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<sup>31</sup>Ramon Myers, "Some Issues on Economic Organization During the Ming and Ch'ing Periods: A Review Article," Ch'ing-shih Wen-t'i, 3, 2 (December, 1974), pp. 81-83.

<sup>32</sup>Rawski, Agricultural Change, p. 5.

<sup>33</sup>Timothy Brook, "The Merchant Network in 16th Century China: A Discussion and Translation of Zhang Han's 'On Merchants', "Journal of the Economic and Social History of the Orient, 24, 2 (May, 1981), p. 191.

study of Jinan prefecture in Shandong province.<sup>34</sup> Yet outside of the capital and its lifeline to the south, north China felt little of the commercial dynamism which so characterized the southeast. Merchants from Shaanxi and Shanxi provinces did play a prominent role in commercial life, but this arose from their important work in provisioning the border garrisons, not from the vigorous nature of the agricultural economies of the provinces in which they lived.<sup>35</sup> Henan and Shandong were much better placed than either Shaanxi or Shanxi to benefit from the spread of cash-cropping, and both grew cotton to supply the looms of Jiangnan. Generally, however, the expansion of the marketing network was much less dramatic in north China than it was in the southeast, and it is probable that the expansion which did occur proceeded at a similar rate to the increase in population.

The second of the arterial routes was that of the Changjiang River, connecting what was the 'rice bowl' of China by late Ming times, Huguang province, with the more commercially orientated Jiangnan region. In the early eighteenth century it has been estimated that between 8 and 13 million shì of rice was shipped annually from Huguang down to Jiangnan, and, considering the time it took to recover from the turmoil of the Ming-Qing transition, it is possible that a similar quantity of rice was travelling the river at the beginning of the seventeenth century.<sup>36</sup> In return, the textile and craft products of Jiangnan were carried up the river to be distributed amongst the markets of Huguang. Sichuan province was partially connected to this trade route, with some of its rice production being shipped east through the Changjiang gorges, into Huguang, and then on down to Jiangnan.<sup>37</sup>

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<sup>34</sup> Littrup, Subbureaucratic Government, pp. 21-22.

<sup>35</sup> Myers, "Some Issues," discusses the important role played by Shanxi and Shaanxi merchants.

<sup>36</sup> Ch'üan Han-sheng and Richard A. Kraus, Mid-Ch'ing Rice Markets and Trade: An Essay in Price History (Cambridge, Mass., 1975), p. 77. This

In contrast to the two other arterial routes, the third was a coastal sea lane, connecting Jiangnan with the two southeastern provinces of Fujian and Guangdong (the mountains of northwest Fujian prevented the overland transportation of goods). The products traded along this sea lane were diverse, perhaps more so than any other trade within the empire, but the principal items involved were sugar cane, fruits and indigo, and, in return, grain, textiles and ceramics. Fujian was a rich province and cash-cropping is known to have been practised there since at least Song times. What distinguished Fujian by the turn of the seventeenth century, however, was that it was the focus for overseas trade. It was through Fujian that most foreign silver flowed into China and the profits from this trade were great: Evelyn Sakakida Rawski estimates that investment in overseas trade offered a return of as much as 900 per cent, compared with between 40 and 80 per cent for moneylending and 10 per cent from land.<sup>38</sup> The input to Fujian from foreign trade helped to make it as commercially dynamic a region as was Jiangnan in late Ming times, and this was reflected in an expansion of the marketing network which far exceeded the growth in population. In Zhangzhou prefecture, for instance, the population increased only 50 per cent between 1491 and 1573, while the growth in periodic markets was of the order of 245 per cent, and between 1573 and 1628 the population grew by 32 per cent, while the number and frequency of markets grew by 71 per cent.<sup>39</sup> Foreign silver did much to stimulate this existing commercial growth and once inside the empire silver flowed quickest to those areas which were most commercially dynamic; that is, to those areas which were serviced by the three main arterial waterways.

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study covers the period 1723-1735.

<sup>37</sup> Brook, "The Merchant Network," p. 195.

<sup>38</sup> Rawski, Agricultural Change, pp. 86-87.

<sup>39</sup> Ibid., p. 70.

Not all merchants enjoyed the huge profits that were available from investment in overseas trade. In fact the scale of domestic merchant operations varied considerably. Most were simply itinerant traders (keshang), the smallest in scale of which were the street pedlars who carried their whole operation with them and generally travelled between only a few standard marketing towns.<sup>40</sup> From these street pedlars up, the scale of any merchant's operation would have depended on the amount of capital at their disposal and on the goods available in the domain within which they operated. For most, the accumulation of capital was a slow business and it was only a few who were well placed to profit from an involvement in the lucrative interregional trade. There were many factors frustrating mercantile activity. Transportation was slow and long-range credit facilities poorly developed. It was difficult to get current information on the price of goods in distant markets as the non-official postal network was slow and often non-existent. These were all factors which contributed to a poor market transparency and they were partially responsible for the generally atomized nature of late Ming trade. As with production, distribution was primarily based on a proliferation of small-scale enterprises, restricted in both capital investment and scope of operation, what Ray Huang has called "cash and carry" businesses.<sup>41</sup> The advantage with this atomized structure, however, was that those with limited finance were not inhibited from

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<sup>40</sup>Yang Lien-sheng, "Government Control of Urban Merchants in Traditional China," Tsing Hua Journal of Chinese Studies, 8, 1-2 (August, 1970), pp. 186-209.

<sup>41</sup>Ray Huang, "Zong 'sanyan' kanwan Ming shangren" (Merchants in the late Ming as presented in the sanyan stories), Journal - Institute of Chinese Studies - Chinese University of Hong Kong, 7, 1 (December, 1974), pp. 133-154. Huang gives a good description of the small-scale nature of most trade but overemphasizes the inhibiting role of the state. His views should be contrasted with those of Myers, "Some Issues," and Thomas Metzger, "The State and Commerce in Imperial China," Asian and African Studies, 6 (1970), pp. 21-46.



becoming involved in production and distribution. The commercial expansion of the late Ming was based on this very fact; it was a grass roots development, what Thomas A. Metzger has called "development from below", whereby part of the production of a large number of households was drawn into the commercial sphere through the proliferation of many small atomized rural marketing areas.<sup>42</sup> And it was this fact which ensured that silver filtered out from the main arterial routes and into the smaller markets of the empire.

For those few merchants who were involved in overseas and interregional trade the profits were great. Particular groups of merchants came to dominate these sectors: merchants from Zhangzhou and Chuanzhou in Fujian were most prominent in overseas trade, while in the domestic interregional trade the most important groups of merchants came from Pingyang, Zhezhou and Luan prefectures in southern Shanxi, from Shaanxi province, and from Huizhou prefecture in the southern Anhui region of Nan Zhili.<sup>43</sup> Yet wealth did not automatically guarantee prestige and power to these merchants. This is obvious from the fact that most merchants who were able to attempted to enter the scholar-official elite of society. Wang Daokun, the descendent of a Huizhou merchant family, who had gained the jinshi degree in 1547, noted how a merchant who accumulated considerable savings was able to "encourage his descendents, in planning for their future, to give up trade and take up studies."<sup>44</sup>

The early Ming administration had reinforced the traditional Confucian

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<sup>42</sup> Metzger, "The State and Commerce," *passim*.

<sup>43</sup> For a discussion of these merchant groups see n.(35); and Harriet T. Zurndorfer, "Local Lineages and Local Development: A case study of the Fan Lineage, Hsiu-ning hsien, Hui-chou 800-1500," T'oung Pao, 70, 1-3 (1984), pp. 18-59; as well as her article "The Hsin-an ta-tsu chin and the Development of Chinese Gentry Society," T'oung Pao, 67 (1981), pp. 154-215.

<sup>44</sup> Ho Ping-ti, The Ladder of Success in Late Imperial China (N.Y. 1962), p. 73.

disdain of commercial endeavour when it emphasized the fourfold categorization of Chinese society. This had been originally outlined in the eclectic classical text, the Guanzi, and placed merchants lowest in the hierarchy of hereditary occupations, behind scholar-officials, peasants and artisans. Actual attitudes towards merchants were probably never as rigid as this categorization implies. Nevertheless, education was seen as offering a way out of a social grouping which, to many at least, was still a source of considerable social opprobrium.

Aside from success in education, another way that wealthy merchant families could improve their prestige and acceptability amongst the elite of society was through the collection of art and the patronage of scholars and artists.<sup>45</sup> Commercially dynamic regions were also culturally dynamic. Zhang Han felt Fujian to be "first on the continent" as far as the vitality of cultural life was concerned, and the large and prosperous cities of Jiangnan were noted for their flourishing cultural activity. That the Single Whip Reform saw people taxed solely on their landholdings and not on their wealth meant it was no longer necessary to conceal fortunes, and this is considered to have been "conducive to ostentatious consumption in the cities."<sup>46</sup>

Commercial wealth also stimulated changes in the nature of artistic endeavour itself. Largely through the dominant influence of the most prestigious painter of the period, Dong Qichang, amateurism remained the ideal in art. In practice, however, James Cahill remarks on how

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<sup>45</sup> Nelson Wu, "Tung Ch'i-ch'ang (1555-1636): Apathy in Government and Fervour in Art," in A.F. Wright and D. Twitchett (eds.), Confucian Personalities (California, 1962), pp. 260-293; and for the eighteenth century Ho Ping-ti, "The Salt Merchants of Yangchow," Harvard Journal of Asiatic Studies, 17 (1954), pp. 130-168.

<sup>46</sup> Mote, "The Transformation of Nanking," p. 151; and for the comments of Zhang Han see Brook, "The Merchant Network", p. 201.

the theoretical insistence runs counter to reality: in this period when the superiority of the amateur ideal was being propounded over and over so forcefully as to nearly silence opposing voices, the major painters, excepting Tung Ch'i-ch'ang [Dong Qichang], were all professionals.<sup>47</sup>

The wealth derived from commercial success enabled urban sophisticates to buy into the elite culture and thereby encourage a greater professional orientation amongst the artistic community. Perhaps the very vociferous way in which the amateur ideal was propounded is evidence in itself of the undermining effects of commercialism. Dong Qichang himself was at one time employed as a tutor by Xiang Yuanbian, a wealthy merchant of Kashing.<sup>48</sup> Despite such patronage by wealthy merchants and the debate over the purity of artistic endeavour, urban culture remained very much an elite culture. Painting and literature were closely associated with scholarship and the artistic traditions of the empire. Furthermore, the values expressed in such traditions were "demonstrably concerns appropriate for only one social class, the educated elite, and among them the wealthy and leisured stratum of that class."<sup>49</sup> All of this suggests that while a mercantile background did not preclude people from entering the elite of society, commercial success, in itself, did not guarantee status and acceptability. Commercial endeavour remained a means to achieve the wealth which could then be used to improve a family's academic standing and social prestige; it enabled a few wealthy merchants to enter the elite of society, but it did not result in a popularizing of

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<sup>47</sup> James Cahill, The Distant Mountains: Chinese Painting in the Late Ming Dynasty, 1570-1644 (N.Y., 1982), p. 33.

<sup>48</sup> Wu, "Tung Ch'i-ch'ang," p. 270.

<sup>49</sup> Robert E. Hegel, The Novel in Seventeenth Century China (N.Y., 1981), pp. 2-3. In contrast to Hegel, Joanna F. Handlin, "Lü K'un's New Audience: The Influence of Women's Literacy on Sixteenth Century Thought," in Margery Wolf and Roxane Witke (eds.), Women in Chinese Society (Stanford 1975), argues the case for a spread of literacy in the late Ming years, particularly amongst women of the elite. She feels that the shift towards a more vernacular literature "created an unprecedented bond between the elite and commoners," (p.16). Of the two views, I find Hegel's the more persuasive. He notes the shift towards a more vernacular literature, but shows this was a form of artistic experimentation undertaken and appreciated only by those already familiar with conventional literary forms.

the high culture of that elite.

Similarly, the importance of land did not diminish as a consequence of the commercial expansion of late Ming times. While land did not offer the kind of short-term profits that could be gained from moneylending or commerce, it continued to be seen as a secure investment, and, more importantly, an investment which conferred prestige upon the owner. In seeking to explain the decline of the industrial spirit in late nineteenth and twentieth century England, Martin J. Weiner has noted how the forces of industrialization were continually adapted to suit the cultural orientation of English society, a process which he describes as the "gentrification" of the bourgeoisie. It was, he writes, a process of social absorption, whereby "the zeal of work, inventiveness, material production, and money making gave way within the capitalist class to the more aristocratic interests of cultivated style, the pursuit of leisure, and political service."<sup>50</sup> This type of process, the mechanism of 'gentrification', seems much the same as what was occurring in sixteenth and early seventeenth century China. Weiner quotes an excerpt from the Economist of 1870 which could easily have been a replica of something that may have been found in a Chinese periodical of 1670:

Social Consideration is a great and legitimate object of desire, and so great is the effect of this visibility of wealth upon social consideration that it would pay a millionaire in England to sink half his fortune in buying 10,000 acres of land to return a shilling per cent, and live upon the remainder, rather than to live upon the whole without land. He would be a greater person in the eyes of more people.<sup>51</sup>

In both cases, in England and in China, land retained a social value

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It was not a shift toward a more popular literature, not a popularizing of elite culture.

<sup>50</sup> Martin J. Wiener, English Culture and the Decline of the Industrial Spirit, 1850-1980 (Cambridge, 1981), p. 13.

<sup>51</sup> Ibid, p. 12.

which was just as important as any material benefit it may have offered to its owner.

But land also attracted mercantile wealth through the potential for profit which it held. Some perspectives on the period suggest that commercial expansion drew investment away from land. Jacques Gernet, for instance, writes:

From about 1520 capital, which until then had been attracted to the land, moved away from it towards commercial and craft enterprises. Land prices continued to fall and were to collapse quite suddenly in the last few years of the sixteenth century. The phenomenon was particularly noticeable in the maritime provinces of the south and in the area from Hangchow [Hangzhou] to north-eastern Kiangsi [Jiangxi] - everywhere in fact where the monetary economy based on ingots and imported silver coins was in the ascendent. In these regions the agrarian economy declined in proportion to the upsurge of mercantile and craft activities.<sup>52</sup>

Yet, from the evidence we have, exactly the opposite seems to have been the case.

In Zhangzhou prefecture, part of one of the 'maritime provinces of the south', the wealth accruing from domestic and foreign trade resulted in a greater competition for land, and this pushed up its purchase price. According to a report of 1572, land in Zhangzhou was selling for 8 taels of silver per mu, and further north in Haicheng prefecture it was selling for between 7 and 10 taels per mu. This contrasts with the inland prefectures of Fujian, which had not experienced the same intensity of commercial growth, where land was selling for between 2 and 4 taels of silver per mu.<sup>53</sup>

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<sup>52</sup> Gernet, A History of Chinese Civilization, p. 425.

<sup>53</sup> Rawski, Agricultural Change, p. 77.

Commercial expansion brought new investment to agriculture, and this was particularly so following the implementation of the Single Whip Reform. As the basis of the tax assessment shifted solely to land with the Single Whip, it could be assumed that commerce would seem a more attractive investment than agriculture. Yu Shenxing commented in the late sixteenth century; "The Single Whip tax is assessed on the basis of one's land irrespective of one's wealth, so (people in) agriculture are in distress whereas those in commerce are at ease."<sup>54</sup> Comparatively, however, many landholders paid less tax after the reform than they did before. To accompany the spread of the reform, the senior grand secretary, Zhang Juzheng, initiated what was intended to be a complete resurvey of all cultivated land within the empire. However, with Zhang's death in 1582, the survey was abandoned and its scope was never as extensive nor was it as efficient as Zhang had hoped. Yet despite this, a great deal of previously concealed or unregistered land was brought to the government's attention. For instance, the registered taxable land in Guizhou province increased 70 per cent as a result of the survey, and in Shandong the increase amounted to 50 per cent.<sup>55</sup>

Following the survey new land registers were compiled for each district. Known as Fuyi Quanshu, The Complete Books of Taxes and Labour Services, these registers recorded the total amount of cultivated land within a district and the amount of tax due each landholder could be determined from a standard value per MU for the whole district. This made it much more difficult for powerful landholders to shift part of their tax obligation to others. Large areas of imperial estate which had been previously ignored were also now included within the tax structure. And as assessment was based on land rather than on the number of adult males within a household, families were no longer penalized for

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<sup>54</sup>Wiens, "Socioeconomic Change," p. 92.

<sup>55</sup>Huang, "Fiscal Administration", p. 86.

having many sons. The local gazatteer for Shanyuan district in Jiangning prefecture, Nan Zhili, notes that after the implementation of the Single Whip labour services became much less of a burden and

people began to appreciate the benefit of cultivating land. Wealthy households in the city began to invest in land ... [and] because wealthy people invest in land, the land prices go up now.<sup>56</sup>

Local gazatteers for Suzhou and Songjiang prefectures (Nan Zhili), and also for Zhangqiu county in Shandong, all show that land prices rose following the Single Whip Reform of the late sixteenth century.<sup>57</sup>

In areas such as Huguang province and the Anhui region of Nan Zhili, where cash-cropping had made less impact than in Jiangnan and Fujian, agriculture continued to attract investment. Hilary J. Beattie's study of Tongcheng county, Anhui, has shown that local and long-distance trade in this area in the sixteenth and seventeenth centuries was still basically in food crops; grain, fish and salt.<sup>58</sup> And Tongcheng benefited from the increasing demand for grain in areas such as Jiangnan where land was increasingly being devoted to cash-crops. Thus, "the effect of greater commercialization was not to divert people away from traditional occupations but to increase interest in them."<sup>59</sup>

In areas of commercial expansion, as well as elsewhere, land and agriculture continued to attract capital, with land prices rising not falling; and rising most dramatically in coastal Fujian where overseas trade and imported silver had had their most direct impact. As Fransesca

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<sup>56</sup> Wiens, "Socioeconomic Change," p. 94.

<sup>57</sup> Ibid., p. 95; and also Hilary J. Beattie, Land and Lineage in China: A Study of T'ung-ch'eng, Anhwei, in the Ming and Ch'ing Dynasties (Cambridge, 1979), p. 13.

<sup>58</sup> Beattie, Land and Lineage, p. 36.

<sup>59</sup> Ibid. Beattie does not compare the rate of return of investment in land with other options available to Tongcheng residents. It seems fair to assume, however, that as there were few wealthy merchants in the area but many prosperous landowning families, agriculture continued to be more attractive than was commerce to local investors.

Bray has noted, "One did not make a fortune through being a landlord, one became a landlord through making a fortune."<sup>60</sup> The commercial expansion of the late Ming years was intimately associated with China's agrarian economy. Increased investment in commercial and food crops was a direct benefit to rural household producers, it was investment in agriculture, investment in land. Mercantile wealth derived from trade in agriculturally-based food and textile crops, which meant that commercial expansion resulted in a more dynamic and diverse agriculture, not a decline of the agrarian economy.

### Social Conflict

The diversification of the agrarian economy did give rise to new tensions in society, but these never became a direct threat to the Ming state. It was in northwest and north-central China, where silver had penetrated least, that rebellions erupted which developed into powerful forces intent on capturing the Mandate of Heaven. Whereas, in southeastern and south-central China, the tenant and bondservant revolts that flared up during the seventeenth century were always limited campaigns, specific in intent, and supported because they aimed to improve the social status and economic position of the participants; their goal was not the Mandate of Heaven.

The first major tenant uprising in Ming times had been in Fujian province in 1448, when a revolt led by Deng Maoqui spread through at least twenty counties and provoked uprisings in neighbouring provinces.<sup>61</sup> This revolt left little permanent impact, however, and it was not until

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<sup>60</sup> Francesca Bray, Agriculture: Science and Civilization in China, 6, 2 (Cambridge, 1984), p. 608.

<sup>61</sup> Wiens, "Socioeconomic Change," pp. 321-322; and Elvin, The Pattern of the Chinese Past, p. 245.



the 1630s and 1640s that tenants again began to organize no-rent campaigns and attack the homes and granaries of landlords. This new outbreak of agitation had its roots in a number of factors. Such things as continued poor harvests and devastation caused by the spread of epidemics could precipitate revolt, although these were of more serious consequence in north and central China than they were in the southeast.<sup>62</sup> Tenant revolts were stimulated more by economic factors. The spread of cash-cropping had resulted in a greater incidence of debt-bondage amongst peasants and tenants, and the increase in the number and frequency of local markets drew tenants into closer and more regular contact with bondservants, agricultural labourers and poorer peasants which enabled them to forge a stronger sense of solidarity.<sup>63</sup> The timing of the revolts shows that they were also a consequence of the weakening political authority of the late Ming administration. Yet, underlying all of the tenant and bondservant revolts of the 1630s and 1640s was a general desire to capitalize on the new economic opportunities which accompanied the spread of cash-cropping and the intensification of the rural marketing network. Some peasants benefited from these developments and this encouraged others to try to do likewise.

Tenantry was widespread in late Ming times. In Jiangnan, for instance, landholdings had become more concentrated during the fifteenth and sixteenth centuries and by the Chongzhen reign (1627-1644) it has been estimated that of the wealthy families in the region, "60 to 70 per cent had several hundred MOU [mu] of land, 30 to 40 per cent had several thousand MOU [mu] of land, and 1 to 2 per cent had several ten thousand

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<sup>62</sup>Helen Dunstan, "The Late Ming Epidemics: A Preliminary Survey," Ch'ing-shih Wen-t'i, 3, 3 (November, 1975), pp. 1-59.

<sup>63</sup>Elvin, The Pattern of the Chinese Past, p. 245.

MOU [MU]." <sup>64</sup> As a landholding of 20 to 30 MU is considered to have been the maximum size that one family could operate itself, it is obvious that tenantry was widespread.

In some cases, particularly those holdings of less than a few hundred MU, a form of managerial landlordism developed which saw both landlords and tenants actively involved in the market economy of the area in which they lived. In contrast to absentee landlords, managerial landlords participated with their tenants in the day to day running of the estate lands. This very involvement in the farming process meant that managerial landlords were able to apportion their land and labour to various crops in a way which was most profitable to themselves and their tenants. Often they employed hired labour and they were willing to travel considerable distances in order to get the best sale and purchase price for commodities. <sup>65</sup> It was this type of efficient and pragmatic farming which maximized the opportunities offered by the increasingly currency-orientated market economy.

But not all landlords were of the managerial kind. As landholdings became more concentrated and the elite culture of urban centres began to flourish, the incidence of absentee landlordism increased. This trend was exacerbated with the greater investment in land by the mercantile community. In general, merchants did not purchase land to become farmers. Land, to them, was seen as a secure investment which conferred many non-economic benefits. Providing that rent was paid, absentee landlords interfered little in the day to day lives of their tenants, a situation which encouraged the spread of permanent tenancy.

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<sup>64</sup> Wiens, "Socioeconomic Change," p.208; and Fu I-ling, "A New Assessment of the Rural Social Relationship in Late Ming and Early Ch'ing China," Chinese Studies in History, 15, 1-2 (Fall-Winter, 1981-2) pp. 77-78.

<sup>65</sup> Wiens, "Socioeconomic Change" pp. 144-200; and Rawski, Agricultural Change, pp. 51-56. Both discuss in some detail the nature of managerial landlordism and both base their discussions on two agricultural manuals of the seventeenth

and multiple ownership.

Permanent tenancy and multiple ownership had spread through much of the rice-growing area of China during the sixteenth century; i.e., the provinces of Nan Zhili, Huguang, Zhejiang, Jiangxi, Fujian and Guangdong.<sup>66</sup> It is well known that when labour is in short supply the initiative rests with the employee (tenant) rather than the employer (landlord), and this may have been a reason why multiple ownership and permanent tenancy continued to spread during the seventeenth century: landlords may have been willing to accede to the demands of revolting tenants in the 1630s and 1640s simply because agricultural labour was in short supply. Yet it was during the sixteenth century, when the population had risen consistently, that these changes in landlord-tenant relations made their initial impact.<sup>67</sup> The reasons for this seem to have more to do with the nature of wet-rice agriculture than they do with the supply of agricultural labour.

The optimal size for an irrigated rice field is very small, less than one sixth of an acre, so, as Fransesca Bray remarks, landlords would have derived

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century. These manuals were both written by farmers with land in the lake Taihu region; i.e., Shen Qi, Shenshi Nongshu (1643); and Zhang Luxiang, Bu Nongshu (1658).

<sup>66</sup> Wiens, "Socioeconomic Change," pp. 228-236; Rawski, Agricultural Change, pp. 10-30; and Beattie, Land and Lineage, pp. 14-15.

<sup>67</sup> The Chinese population is estimated to have risen steadily from 103 million to 162 million during the sixteenth century, declining to 123 million in the 1650s; see Liu and Hwang, "population Change," Table A.1 pp. 81-82. Ho Ping-ti, Studies in the Population of China, p. 264, writes "the population of south China was increasing somewhat more rapidly than the population of north China."

little or no economic advantage (as is usually the case where dry crops are grown) in evicting their tenants to run large, centrally managed estates. Instead they generally preferred to leave their tenants to run their small farms themselves.<sup>68</sup>

Wet-rice agriculture is labour intensive and in most of the rice cultivating regions of Ming China rents were fixed, which encouraged tenants to produce more for their own benefit. And as landlords moved away from their holdings, into the more sophisticated urban world, they lost their socio-moral control over tenants; the landlord-tenant relationship became less personal and more contractual.

Tenants could obtain permanent security of tenure simply by paying a stipulated fee, called fentu yin (manured-field silver), or baodian yin (once-only payment). Payment of such a fee either granted the peasant an hereditary right of tenantry on the property, a right that could not be sold, or, as in most cases, it actually entitled the peasant to a 'top-soil right' (tianmian/tianpi) on the land, a right that was both hereditary and alienable. In some cases a third party right was sold on the land, perhaps to the estate manager, but the tenant still retained a negotiable and transferable right to cultivation of the property. Multiple ownership could also result from the sale of subsoil rights by previously free-holding peasants, usually because of a high tax burden and unpayable debts. In becoming tenants such peasants escaped the need to pay taxes, yet they underwent what was little more than a nominal change in status; they retained the right to cultivate and sell the top-soil as they wished.

The independence accruing to tenants from this security of tenure encouraged many of them to invest more into their properties, to increase their yields and supplement their incomes by moving into cash-crops and

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<sup>68</sup>Bray, Agriculture, p. 604.

handicraft production. Wet-rice agriculture actually encouraged such endeavour, as only at the time of ploughing, transplanting and harvesting was it necessary to devote full attention to the rice crop. This left peasants free at other times of the rice cycle to diversify their enterprise.

Commercial expansion brought such new economic and social opportunities, yet they did not come to all peasants at once. Some felt frustrated that they were not able to enjoy the benefits which were so obviously available to others. And in a time of increasing political chaos, when the military resources of the state were deployed elsewhere, revolt was seen as a viable means of hastening the process of change.

Revolting bondservants aimed to eradicate servile status, the most notable of whom took for themselves the title 'levelling kings' (chan-ping wan), declaring that they were levelling the distinctions between masters and servants. Whereas, with tenant revolts, Mi Chu Wiens writes of how

From extensive case studies, one finds that the rampant tenant uprisings systematically aimed at the refusal of rent payment, the demand for rent reduction, the abolition of extra labour services and customary donations to landlords, the standardization of measures and capacity for grain-rent payment, and the recognition of multiple ownership and permanent tenure.<sup>69</sup>

After a flurry of revolts in the 1630s and 1640s, tenant and bondservant agitation continued spordically throughout the seventeenth century. Both groups achieved degrees of success: In 1727-1728 the Yongzheng emperor abolished all forms of bondservitude, while the cumulative result of the tenant revolts was to consolidate the shift towards

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<sup>69</sup> Mi Chu Wiens, "Lord and Peasant: The Sixteenth to the Eighteenth Century," Modern China, 6, 1 (January, 1980), p. 28; see also her article "Masters and Bondservants; Peasant Rage in the Seventeenth Century." Ming Studies, 8 (Spring, 1979), pp. 57-64.

permanent tenancy and multiple ownership.

What is notable about the revolts of the late Ming years is that only one was distinctively anti-tax in nature. That one uprising was an isolated incident, when textile workers in Suzhou successfully opposed the imposition of a surcharge on all looms in the city in 1601.<sup>70</sup> Sun Long, the eunuch tax commissioner who introduced the Surcharge, was forced to flee the city and all attempts to levy the weavers were abandoned. Apart from this one incident, however, no revolt was directed specifically against the fiscal policy of the late Ming administration, and this was so despite the implementation of the Single Whip Reform. The requirement that taxes be paid in silver would not have been a burden to most landholders in the commercially dynamic south-eastern and south-central China, but for those some distance from the main arterial waterways of the empire, particularly those in Shaanxi and Shanxi provinces, where silver had made least impact, it would have been much more difficult to meet the new requirements of the land tax.

Ray Huang's study of the Ming fiscal structure leads him to conclude that the tax burden imposed on landholders was never onerous, even with the introduction of surcharges in the 1620s and 1630s to help meet the need for increased military expenditure.<sup>71</sup> Huang agrees with Bi Ziyuan, Minister of Revenue from 1624 to 1633, who commented that "The income derived from land taxes ..... is comparable to one hair taken off the body of a horse."<sup>72</sup> It is also true that the Single Whip Reform was first introduced to those regions where silver use was most common and it was only later that it spread to the more economically depressed regions of the empire. Yet, for all this, the monetization of the fiscal

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<sup>70</sup>Yuan, "Urban Riots," pp. 280-281. Yuan states that there are 25 known instances of urban riot between 1590 and 1626, but many of these were politically motivated conflicts involving only the elite of society.

<sup>71</sup>Huang, Taxation, passim.

<sup>72</sup>Huang, "Fiscal Administration," p. 121.

structure must have caused considerable difficulties to those landholders who had benefited least from the spread of cash-cropping and the intensification of the rural marketing network. On top of this, it was in the more economically depressed regions of the empire, such as Shaanxi and Shanxi, where silver had penetrated least, that the effects of the depreciation of copper cash would have been most severe.

The memorialist cited at the beginning of this chapter alluded to the problems of a rapidly depreciating coinage when he wrote: "what alternative has there been but to employ silver and throw aside copper cash?"<sup>73</sup> In response to the need for increased expenditure the late Ming administration stepped up its output of coinage. From the 1590s through to the early 1640s thousands of new coins were released and these rapidly lost any value they initially had. The copper price of goods must have skyrocketed and this would have been particularly harsh for those who did not have recourse to silver and who relied on cash for their currency.

There is no official price data available for the period, but Ye Mengzhu has left us some indication of how the depreciation of copper coinage affected the price of rice in the Shanghai area of Jiangnan. No doubt prices would have differed greatly throughout the empire, and it would be unwise to make empire-wide generalizations from such limited information, yet the data provided by Ye does show that silver was a far more stable currency than was copper cash.

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<sup>73</sup> See n. 1

TABLE SEVEN

Copper/Silver Exchange Rate and Rice Prices for the Shanghai district, Suzhou prefecture, 1632-1685. (1685 = 100)			
Year	Cash/Silver Index	Rice Price (taels)	Rice Price (cash)
1632	130	110	-
1638	185	205	110
1640	220	-	330
1642	266	555	1330
1643	365	270	930
1646	1000	270	1100
1651	231	430	920
1678	125	195	204
1685	100	100	100

Source: Ye Mengzhu, Yueshibian, juan 7, pp. 1-17b; translated and interpreted by Endymion Porter Wilkinson, Studies in Chinese Price History (N.Y., 1980), pp. 25-30.

Taking 1685 as the base year, Wilkinson has shown that the data provided by Ye indicates that the cash price of one dou of husked rice rose from 110 in 1638 to 1330 in 1642, an increase of some 1100 per cent, whereas the silver price of rice rose from 205 to 550 over the same period, an increase of only around 170 per cent. A series of poor harvests combined with the political and social turmoil of these years to push up the price of grain, but that the percentage increase in the cash price was so much more than that of silver shows that silver did not suffer the depreciation in value which copper did.

The difference in the increase in the copper and silver prices for rice in Shanghai is also partially explicable by the fact that in pre-modern agricultural economies a bad crop means "a decreased income for the public in general and hence would result in a decreased demand



for silver relative to copper".<sup>74</sup> Silver had a higher income elasticity of demand than did cash, and with the disruption to agricultural production in these late Ming years there would have been a much greater stress put on the cash sector of the currency system than on the silver sector. Such stress would have exacerbated the inflationary spiral which was making cash increasingly worthless. This is confirmed by Ye's data, which shows that copper coins were valued three and a half times less in terms of silver in 1643 than what they were in 1628. Even in a district such as Shanghai, where silver use was relatively widespread, this depreciation of copper cash must have caused considerable hardship. In provinces such as Shaanxi and Shanxi, where silver use was much less common, the hardship would have been all that much more severe.

These monetary factors give some insight into why it was that rebellions broke out in the provinces of Shaanxi and Shanxi, and why, in contrast to the revolts in southeastern and south-central China, these rebellions developed into powerful forces which threatened the very stability of the Ming state. Having arisen as a number of disparate rebel bands in the late 1620s, these forces eventually coalesced into two main groups, under the leadership of Li Zicheng and Zhang Xianzhong, which rampaged through most of north and central China causing widespread destruction.<sup>75</sup> It was Li Zicheng who led his forces into Beijing in 1644 upon the collapse of the Ming dynasty.

Yet too much should not be made of the fact that these rebellions had their origins in the silver-scarce provinces of the northwest. The rebels never actively encouraged peasant recruitment and although there were times, such as during the drought which affected northern Shaanxi

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<sup>74</sup>Chen, "Flexible Bimetallic Ratios," p. 362.

<sup>75</sup>For a study of the late Ming rebellions see James B. Parsons, The Peasant Rebellions of the Late Ming Dynasty (Tuscon, 1970).

in 1628, when peasants left their land and joined the rebel bands, within a few months most left to return to their villages. This was a pattern which was repeated throughout the course of the rebellions. In seeking to explain this, John Dardess has remarked that "As ex-soldiers and permanent outlaws, the late Ming rebels evolved a predatory and highly militarized ethos, one quite at variance with the private lifestyle of ordinary peasants."<sup>76</sup> Despite the hardship caused by drought, famine, disease and rising prices peasants found little satisfaction in joining the rebel cause. The rebels were a fast-moving, mounted, military threat, similar but less organized, to the Manchu forces which threatened the Ming empire from the northeast. They were not leaders of a mass peasant-based agitation aimed at alleviating the type of monetary and fiscal problems which undoubtedly underlay much of the hardship encountered in these regions of northwest and north-central China. And the reasons for the continued success of the rebellions lay not with monetary factors but the problems within the introverted and faction-ridden late Ming administration.

The fear expressed by the memorialist cited at the beginning of this chapter that the increased dominance of silver in the late Ming economy could lead to considerable social turmoil seems to have been largely unfounded. The influx of foreign silver from the mid-sixteenth century onwards did stimulate an existing diversification of the agrarian economy and this brought increased wealth and opportunities to some merchants. Yet, despite their wealth, these merchants did not develop an independent power base, they did not become a new political force capable of threatening the existing scholar-official elite. Instead, through a process of 'gentrification', wealthy merchants were absorbed

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<sup>76</sup> John W. Dardess, "Late Ming Rebellions: Peasants and Problems of Interpretation," Journal of Interdisciplinary History, 3 (1972), p. 109.

into the elite and any potential they held for altering significantly the structure of society, for creating a new productive base, was thereby nullified.

Similarly, the spread of silver through the more commercially orientated regions of the empire did much to stabilize the deteriorating monetary conditions which arose directly from the administration's inability to maintain a sound copper currency. Whereas in the more economically depressed regions of northwest and north-central China, where silver had penetrated least, the inflation caused by a depreciating copper coinage contributed to an increase in turmoil within society. It was in these regions that rebel bands arose and developed into powerful and mobile forces capable of threatening the very existence of the Ming state. However, while unstable monetary conditions undoubtedly exacerbated the difficulties encountered by those living in these more depressed regions of the empire, they do not account for the eventual success of the rebel bands. The reasons for that success lay more within the faction-ridden world of the Ming administration itself.

## CHAPTER FOUR

Silver and the Late Ming State

A strip of white silk brought despair  
to the nation.<sup>1</sup>

Monetary factors have shed some light on the complex of events which led to the fall of the Ming dynasty in 1644, yet to bring these events into sharpest focus attention must be turned to the political world of the late Ming state, as it was in that world of decision-making and the exercise of power that the seeds of decay were sown. With the gradual implementation of the Single Whip Reform the silver revenue available to the administration had increased considerably, but so too had the cost of running the empire. Each new year seemed to bring the need for increased expenditure, particularly military expenditure, so as to offset threats to the stability of the realm. Budgetary deficits continually plagued the late Ming administration. Yet financial difficulties do not seem to have been at the heart of the problems of these years. The evidence suggests that the real problems lay elsewhere.

Shen Shixing, senior grand secretary in the 1580s, identified the real cause for concern when he wrote of how the problems of the dynasty arose from a "cleavage between the top and the bottom", a "separation of the interior from the exterior". Never since ancient times, Shen wrote, had a state under such conditions managed to retain peace and order for long.<sup>2</sup> Shen feared that the intra-bureaucratic conflict which consumed administrative energy in the years immediately following

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<sup>1</sup>This is how the seventeenth century Chinese dramatist Kong Shangren describes the suicide of the Chongzhen emperor in his play "Taohuashan"; see K'ung Shang-jen, The Peach Blossom Fan (Berkeley, 1976), translated by Chen Shih-hsiang and Harold Acton, p. 100.

<sup>2</sup>Ray Huang, 1587: A Year of No Significance (New Haven, 1981) p. 48.

the death of the powerful Zhang Juzheng would result in a severe diminution of state power, possibly leading to the collapse of the dynasty. Such fears were to prove well founded, the late Ming bureaucracy was excessively introspective, with vital administrative energy wasted on nepotistic activity instead of being directed to the governing of the realm. As a consequence the power of the Ming state gradually dwindled. 1644 was not a year of sudden revolution; rather, it was the culmination of a long period of dynastic decline. When the rebel leader Li Zicheng arrived at the outskirts of Beijing he found he did not have to lay siege to the city or storm its walls, he simply marched his men through the gates that had been opened to them. And loyalist stands attempted over the following few years were all wrought by the same factional strife which underlay the Ming collapse; they were never a serious threat to the new rulers of China. How and why an administration lost control of the state it was empowered to govern will be the concern of this fourth chapter.

#### Solvency of the State

The cost of administering the Ming empire rose considerably from the 1590s onwards. This last decade of the sixteenth century had seen the outbreak of two serious revolts, one centred on the border fortress at Ningxia in 1592 and the other by Miao tribesmen in Guizhou province. The rebellion at Ningxia began when two Chinese soldiers, Liu Dongyang and Xu Zhao, rose up against their commanders and joined forces with Bubei, a local Mongol chieftan. Together these rebels caused considerable problems for the Chinese and it was some time before Ming forces were able to retake the Ningxia fortress and suppress the rebellion.<sup>3</sup> In the same year Ming authority in Guizhou province was challenged by Miao

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<sup>3</sup> DMB entries for Li Jusong, I, pp. 830-835; and Xiao Daheng, I, pp. 544-546.

tribesmen under the leadership of Yang Yonglun. This Miao rebellion continued on until the end of the decade and was a continual drain on the finances of surrounding provinces. The sting was taken out of the rebellion with the capture and subsequent suicide of Yang in 1600, yet the Ming administration continued to face difficulties in the southwest through until the end of the dynasty.<sup>4</sup>

The year of 1592 also saw Japanese forces under the leadership of Toyotomi Hideyoshi launch a full-scale invasion of the Korean peninsula. For Hideyoshi, Korea was to be a stepping stone to China. He had ambitions of establishing his rule and reputation far and wide, and wrote to his wife in the late 1580s: "Even China will enter my grip; I will command it during my lifetime."<sup>5</sup> The Japanese invasion force moved quickly north through Korea, taking Pusan, Seoul and Pyongyang. Within a few months, however, they were driven back to Pusan by the Chinese army and peace negotiations began. Hideyoshi wanted to be invested as a tributary prince of the Ming, with control of half of Korea. He also requested that trade between China and Japan be resumed. The Ming were willing to allow the first of these conditions, but not the occupation of Korea; their attitude regarding the resumption of trade was to wait and see how things developed. After protracted negotiations Hideyoshi finally decided he was not willing to withdraw all Japanese troops from Korea and ordered his daimyo to re-invade the peninsula. This time the Chinese and Koreans were prepared and the Japanese made little progress. When Hideyoshi died in September 1598 his successors quickly abandoned the invasion.<sup>6</sup>

Although successful, the cost of these three campaigns to the Ming

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<sup>4</sup> DMB, Yang Yonglun, II, pp. 1553-1556; Liu Ting, I, pp. 964-968; and Li Hualong, I pp. 822-826.

<sup>5</sup> Elizabeth Berry, Hideyoshi (Cambridge, Mass., 1982), p. 207

<sup>6</sup> DMB, Konishi Yukinaga, I, pp. 728-733; Chen Lin, I, pp. 167-174; and Li Hualong, I, pp. 822-826.

administration was high. One estimate claimed that the Korean campaign alone cost twenty six million taels.<sup>7</sup> More reasonable estimates put the combined cost of the three campaigns at between ten and twelve million taels.<sup>8</sup> Grain and financial reserves built up during times of constrained government expenditure were soon exhausted. Thus, in the early years of the seventeenth century, when the administration found itself facing a growing Manchu threat from the northeast and further revolt and rebellion within the empire itself, it had to rely solely upon its annual income to meet these new costs. The reserves built up during the 1570s were no longer there.

Between 1618 and 1639 seven surcharges were added to the land tax in order to meet the continually increasing costs of provisioning the armed forces. Ray Huang estimates that the administration would have been fortunate to collect 70 per cent of the imposed land tax in any one year, but that even if it had collected the full amount, including the seven surcharges, the burden of this land tax would have amounted to only approximately 10 to 15 per cent of the annual yield from land of modest fertility in central and south China. And as Huang comments, although high by seventeenth century standards, this was by no means an intolerable level of taxation.<sup>9</sup> Despite the fact that the government needed to raise its income considerably to offset increasing military expenditure, the fiscal burden at the turn of the century was sufficiently light for this to be done without provoking widespread opposition amongst the populace. Of course, the way in which this tax was collected may well have provoked antagonism, yet, as was noted in Chapter Three, the revolts and rebellions of the late Ming years were not specifically anti-

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<sup>7</sup> Gernet, A History of Chinese Civilization, p. 431.

<sup>8</sup> Huang, "Fiscal Administration," p. 116.

<sup>9</sup> *Ibid.*, pp. 118-121.

tax in nature.

The increase in the turnover of silver by the Ministry of Revenue in the early years of the seventeenth century is testimony to the fact that the late Ming administration was able to increase its revenue considerably. As early as 1442 the administration had established a silver vault in the Jiangnan region; in Taicang prefecture, Nan Zhili, and for the remainder of the dynasty this vault handled all the silver bullion under the jurisdiction of the Ministry of Revenue.<sup>10</sup> Some of the annual income of the administration went directly to the Ministry of Works and the Imperial Stud, but it was the Ministry of Revenue which controlled virtually all the income accruing to the state from the land tax (and with the Single Ship Reform the land/corvée exaction), the salt administration and the internal customs duties. The Ministry of Revenue also collected the rental from crown lands and the 'gold-patterned-silver' surcharge. In fact, it was the imposition of this new surcharge in 1436 which had made the establishment of a silver vault necessary, as approximately four million piculs of the grain tax from the Jiangnan region was henceforth commuted to payment in silver.<sup>11</sup>

From the detailed studies of Quan Hansheng and Li longwa we have a fairly comprehensive knowledge of the operation of the Taicang silver vault. Table Nine presents a compilation of their results.<sup>12</sup> What this data tells us is that up until the mid-sixteenth century the vault rarely handled any more than 2 million taels annually. But with the spread of the Single Whip and the increasing monetization of the fiscal

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<sup>10</sup> Huang, Taxation, p. 15

<sup>11</sup> Huang, "Fiscal Administration," p. 107

<sup>12</sup> Quan Hansheng (Ch'üan Han-sheng) and Li Longwa (Lee Lung-wah), "Ming-chung-yeh-hou t'ai-ts'ang sui-ju-yin-liang-te yen-chiu." (A Study of the Annual Revenue of Silver Taels of the Taicang Vault after the Mid-Ming Period), Journal - The Institute of Chinese Studies - Chinese University



TABLE EIGHT<sup>13</sup>

Income and Expenditure of the Taicang Vault, 1548-1645 (silver taels)

Year	Income	Expenditure	Difference
1548	2,000,000	3,470,000	- 1,470,000
1568	2,300,000 (+)	4,400,000 (+)	- 2,100,000
1578	3,559,800 (+)	3,888,400 (+)	- 328,600
1589	3,270,000 (+)	4,390,000 (+)	- 1,120,000
1592	4,512,000 (+)	5,465,000 (+)	- 953,000
1600	4,000,000 (+)	4,500,000 (+)	- 500,000
1602	4,770,000 (+)	4,500,000 (+)	+ 200,000
1604	4,582,000	4,582,000	-
1605	3,549,000	3,549,000 (+)	-
1612	4,000,000 (+)	4,000,000 (+)	-
1617	3,890,000	4,219,029 (+)	- 329,029
1620	5,830,246 (+)	6,086,692 (+)	- 256,446
1621	7,552,745 (+)	8,568,906 (+)	- 1,016,161
1622	4,968,795 (+)	5,927,721 (+)	- 958,926
1625	3,030,725 (+)	2,854,370 (+)	+ 176,355
1628	7,064,200 (+)	9,568,942 (+)	- 2,504,742
1630	9,136,357 (+)	9,500,628 (+)	- 364,271
1631	12,249,195 (+)	11,125,252 (+)	+ 1,123,943
1634	12,812,000 (+)	12,153,000 (+)	+ 659,000
1637	16,700,000	20,000,000	- 3,300,000
1639	20,000,000	no data	
1641	21,451,736 (+)	no data	
1642	23,000,000 (+)	23,000,000 (+)	-
1643	21,300,000 (+)	no data	

(+) indicates the actual figure was probably greater than that given

of Hong Kong, 5, 1(1972), pp.123-157; and "Ming-tai Chung-yeh-hou t'ai-ts'ang sui-ch'u-yin-liang-te yen-chiu" (The Annual Expenditure of Silver Taels of the Taicang Vault after the Mid-Ming Period), Journal - The Institute of Chinese Studies - Chinese University of Hong Kong, 5, 2(1973), pp. 169-244.

<sup>13</sup>The data for this Table comes from Quan and Li "Ming-chung," pp. 126-137 Table 1; and "Ming-tai" pp. 173-185, Table 2.

structure the annual turnover at the vault began to increase quite markedly. By the beginning of the seventeenth century the average turnover at the vault was well over 4 million taels annually, and by 1642 this figure had risen to a remarkable 23 million taels.

The magnitude of this increase in the silver income of the Taicang vault is evidence of the massive amount of foreign silver which flooded into China from the 1580s through to the 1640s. It is also testimony to the ability of the administration to acquire for itself an increasing share of the empire's silver. No doubt the addition of the seven surcharges to the land tax between 1618 and 1639 were partially responsible for the increase, yet even if all of the surcharges had been collected in silver, and most probably they were not, their imposition does not explain the dramatic nature of the increase. The reason for such a large increase must have been the fact that the Single Whip Reform was being implemented far more extensively throughout the Chinese countryside during the early decades of the seventeenth century. Even so, it was no small achievement for the administration to increase its silver income by some 400 per cent between 1600 and 1640, especially as the incentive to hoard specie would have been great in times of turmoil such as these late Ming years. At the end of the dynasty much of the land tax was still being collected in grain, but silver had come to play a vital role in the state's finances. The fate of the Ming may well have fallen sooner had it not been for the great influx of foreign silver to the empire in these early decades of the seventeenth century.

An inability to raise sufficient revenue was not at the heart of the problems of the late Ming state. Certainly there were difficulties in continuously increasing income. The last Ming minister of revenue, Ni Yuanlu, noted this when he wrote that "methods of increasing state income, since they involve long-term planning, may require several decades to materialize; even short-range projects may take years. Sometimes investment

is necessary."<sup>14</sup> The point Ni was making was not that it was impossible to raise more revenue, but that to do so would require the implementation of long-term policy initiatives, and this was an impossibility in a climate where factionalism and deep political malaise underlay the need for such continually high levels of expenditure. It was a political disease that was at the heart of the Ming decline. Incidental difficulties became major and costly problems through administrative inefficiency. Even with a 400 per cent increase in its silver revenue, an administration at war with itself could not retain control of the Chinese empire for long. The seventeenth century crisis in China was not monetary or fiscal in nature, it was fundamentally a political crisis. And the first signs of the administrative conflict that was to lead to the collapse of the dynasty came in the years immediately following the death in 1582 of the powerful senior grand secretary Zhang Juzheng.

#### The Legacy of Zhang Juzheng

The decade beginning 1572 had been an important one in Ming history. Under the administrative direction of the senior grand secretary Zhang Juzheng it was a time of peace, constrained government expenditure and significant reform. Zhang Juzheng came to the Grand Secretariat with a deep felt concern for the administrative operation of the state. He later described his aims as senior grand secretary to be to "devote attention to the strengthening of the dynasty and restricting private interests, reducing discussion and criticism, and checking names and realities in order to venerate the sovereign and shelter the people."<sup>15</sup>

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<sup>14</sup>Ray Huang, "Ni Yüan-lu: "Realism" in a Neo-Confucian Scholar-Statesman," in Wm. Theodore de Bary (ed.), Self and Society in Ming Thought (N.Y., 1970), p. 425.

<sup>15</sup>Robert Crawford, "Chang Chü-cheng's Confucian Legalism," in Wm Theodore de Bary (ed.), Self and Society in Ming Thought (N.Y., 1970), p. 371.

Zhang was a vigorous bureaucrat and favoured the employment of active administrators. He had little time for 'ornateness' in government, claiming that speculation and a preoccupation with ideological concerns occurred at the expense of efficient administration. In contrast to the Confucian principle of employing generalists in all posts, Zhang directed specialist knowledge to particular problems. In the fields of hydraulic engineering, defense and fiscal policy Zhang encouraged innovative improvements to be undertaken by administrators with particular skills in each of these fields.<sup>16</sup> These types of administrative initiative were of great benefit to the Ming, yet it was in the sphere in which reform was most needed, the administrative structure itself, that Zhang Juzheng was least successful, and it was in this area that his legacy to the Ming state was most fateful.

Like other bureaucrats of his time Zhang Juzheng was well aware of what Shen Shixing called a 'separation of the interior from the exterior'. When Zhang memorialized the throne in 1568 regarding the poor communication between the emperor and his senior ministers, he was identifying a problem which had its roots in the early years of the dynasty.<sup>17</sup> Although the emperor had always been regarded as the apex of the traditional Chinese state, the first Ming emperor had institutionally entrenched this imperial pre-eminence when he abolished the only administrative body with executive powers to act as a check on the absolutism of an emperor. This body was the Secretariat (Zhongshu sheng), and with its abolition in 1380 the outer court, or administration ('exterior'), lost both its coordinating body and its direct and personal access to the emperor ('interior').<sup>18</sup> No longer

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<sup>16</sup>For Zhang's patronage of specialist knowledge see the entry for him in the DMB, pp. 53-61; as well as the entries for Pan Jixun, II, pp. 1107-1111; and Qi Juguang, I, pp. 220-224. Also of note here is chapter five of Huang, 1587, pp. 156-188.

<sup>17</sup>This 'Memorial on Six Affairs' is discussed by Crawford, "Chang Chü-cheng's Confucian Legalism," p. 374.

<sup>18</sup>On the abolition of the Secretariat see Charles O. Hucker, "Government Organization on the Ming Dynasty," Harvard Journal of Asiatic Studies, 21 (December, 1958), pp. 27-31.

could a Secretariat's two chief councillors (prime ministers) petition the emperor directly on behalf of the administration. By the mid-sixteenth century the problems caused by this disjunction of inner court (neitang) and outer court (waitang) were blatantly obvious. Both the Zhengde (r. 1506-1522) and the Jiajing (r. 1522-1567) emperors withdrew from active participation in administration, relying on inner court personnel to mediate between themselves and the bureaucracy.<sup>19</sup> This increase in power accruing to eunuchs and grand secretaries, the inner court personnel, was a source of much antagonism amidst the regular bureaucracy of the outer court. It was, however, an inevitable consequence. With the increasing complexity of the Ming state, successive emperors could not possibly carry the administrative burden which the Hongwu emperor had taken upon himself, especially when they were of a more lackadaisical disposition, as was the Zhengde emperor.<sup>20</sup>

Because of this devolution of imperial responsibility to inner court personnel, it was natural for Zhang Juzheng to use his position as senior grand secretary to restore in a de facto sense what he felt to be lacking in the administration, and what could not be recreated de jure, the position of prime minister. Zhang firmly believed in autocracy, yet he felt that the principal governing unit should comprise both emperor and senior minister, not just emperor. His difficulty, therefore, was "how to become a prime minister under a system that did not permit a prime ministership."<sup>21</sup> The position of senior grand secretary seemed to offer that opportunity.

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<sup>19</sup>For the reign of these two emperors see DMB, I, pp. 307-315 and 315-321.

<sup>20</sup>Hucker, "Government Organization," p. 28 notes that in one ten day period toward the end of his reign the Hongwu emperor was presented with 1,660 memorials which discussed 3,391 issues, all of which required imperial decision.

<sup>21</sup>Charles O. Hucker, "The Tung-lin Movement of the late Ming Period," in J.K. Fairbank, (ed.), Chinese Thought and Institutions (Chicago, 1957), p. 139.

The Grand Secretariat began as an extension of the Hanlin Academy, providing the throne with bureaucratic assistants culled from the most successful candidates in the triennial metropolitan examinations. Initially the most important task that these secretarial assistants performed was the education of the imperial children, particularly the heir apparent. But as the dynasty progressed the grand secretaries became valued administrative mediators, processing the great volume of paperwork directed to the throne. By the sixteenth century grand secretaries played a vital role in policy formation, drafting rescripts and attaching proposals to the documents channelled through the inner court to the emperor.

For Zhang Juzheng promotion to senior grand secretary came at an opportune time. The Longqing emperor had died a few months earlier and his son, the future Wanli emperor, was only nine years old. Despite a precocious intelligence the new emperor was too young to impose his personality on the administration and thus constantly sought the advice of his senior grand secretary. And having won the favour of the emperor's mother, the empress dowager Cizheng, as well as the head palace eunuch, Feng Bao, Zhang moved quickly to remove from the administration all those he thought would oppose him.<sup>22</sup> Within a few months of becoming senior grand secretary Zhang Juzheng completely dominated the bureaucracy.

From this position of strength Zhang began to institute administrative reforms which had the affect of removing power from outer court officials and concentrating it in the hands of the Grand Secretariat. Zhang was quick also to criticize and punish censors whom he felt had exceeded their authority. Appointment to and advancement through the bureaucracy became more difficult as Zhang reduced the number of officials to a level

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<sup>22</sup>DMB, I, pp. 53-61 and 856-859.

he thought conducive to efficient administration. And moving beyond the bureaucracy itself, Zhang attempted to control the education of future officials by asserting that the focus of study should be the Classics and the laws and institutions of the dynasty. He felt it a waste of time to encourage 'idle' philosophical discussion and in 1579 was able to gain imperial approval for a decree banning all private academies. Such centres, Zhang felt, could become sources of political opposition and should therefore be outlawed. The extent to which Zhang was able to implement these policies varied, but in all cases he antagonized sections of the outer court and this antagonism found a focal point in Zhang's failure to retire from office and observe the customary filial duties following the death of his father in 1577.<sup>23</sup>

It was standard practice for all officials to retire for a period of twenty seven months upon the death of a parent. Zhang applied for such a withdrawal three times but was three times refused; it is said that the young emperor, his mother and Feng Bao all requested Zhang remain at his post. Zhang did retire from office for nine months following the marriage of the emperor early in 1578, but this did not placate those in the outer court who felt a great impropriety had occurred.

Confucian tradition maintained that the strength of a dynasty rested with its moral rectitude and it was felt to be not only a dangerous precedent but also a direct threat to the dynasty for a senior administrator such as Zhang Juzheng to ignore so flagrantly the correct course of behaviour. A campaign of protest began. The minister of personnel, Zhang Han, was forced to retire for privately requesting that Zhang Juzheng observe the customarily required retirement period. Two

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<sup>23</sup>This paragraph is based on the entry for Zhang in the DMB, I pp. 53-61.

junior Hanlin academicians were publicly beaten and dismissed for memorializing the throne advising Zhang's retirement. Then two more officials, occupying senior positions, were also beaten and sent as common soldiers to the frontier for reinforcing the views of the earlier memorials.<sup>24</sup> An imperial declaration was then published advising that any more comment on the matter would be treated as treasonous and those responsible severely punished. For the remainder of Zhang Juzheng's term as senior grand secretary opposition to his rule was contained through fear of punishment. But it was to burst forth in a flurry of recriminations and retribution upon Zhang's death in 1582.

Within two years of his death Zhang Juzheng and most of those who had been associated with him were denounced and/or dismissed. Initially the Wanli emperor had been reluctant to move against his former tutor and senior advisor, but the pressure for recrimination was such that he was forced to act, especially when the accusation was made that Zhang had been plotting to usurp the throne.<sup>25</sup> Underlying this outburst of intra-bureaucratic conflict, which was to become the hall mark of the dynasty over its remaining years, was the tension between inner and outer courts, between the 'interior' and the 'exterior'. Zhang Juzheng had used his position in the inner court to dominate the young emperor and through him the outer court. The reaction of the outer court to all this, and in particular of the censorial officials, was to try to limit the power of the Grand Secretariat. The various strands of outer court opposition to grand secretarial power were best synthesized in a memorial

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<sup>24</sup> Besides Zhang Han the four officials concerned were Wu Zhongxing, Zhao Yongxian, Zou Yuanbiao and Shen Sixia. See DMB, II, pp. 1312-1314.

<sup>25</sup> Huang, 1587, pp. 29-41 details the reaction against Zhang, including the accusation that he was conspiring to use the forces under Qi Jiguang to overthrow the throne.



submitted to the throne by the censor Zhang Wenxi. In this memorial it was suggested that: personnel reports and reports from the six ministries and the Censorate should not be sent to the Grand Secretariat for re-evaluation before presentation to the emperor; the important appointments of minister of personnel and minister of war should not be left to the sole discretion of the grand secretaries; supreme commanders, governors-general, governors and regional inspectors should not report directly and secretly to the Grand Secretariat; and that rescripts drafted by one grand secretary should be shown to the other grand secretaries before being sent to the emperor.<sup>26</sup>

Personnel management is a major concern of the central core of any bureaucracy and in late Ming times this was particularly so. Officials of the outer court resented the fact that Zhang Juzheng had undermined the authority of the Ministry of Personnel, which, in the absence of a Secretariat, had become the leading outer court body. By transferring many of the important decisions regarding personnel management to the Grand secretariat, Zhang had been able to undermine the administration, just as he had silenced criticism by purging the Censorate. All of the proposals suggested in the memorial cited above were rejected by the emperor, yet despite that, not one of the grand secretaries that succeeded Zhang Juzheng was able to dominate the inner and outer courts as he had done. The factionalism that consumed the administration from 1582 until the end of the dynasty is evidence of the fact that various groups of officials contested the concentration and exercise of power by others.

In his term as senior grand secretary Zhang Juzheng may well have resolved personally the dilemma of how to become a prime minister under

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<sup>26</sup>This memorial is cited in the DMB entry for Shen Shixing; II pp. 1187-1190.

a system that did not permit a prime ministership. Yet, in doing so, he revealed that the Grand Secretariat could never be a coordinating body for the outer court through which the officialdom could regulate and check, to some extent at least, the absolute emphasis which the Hongwu emperor had placed on the personage of the throne. This was because the Grand Secretariat "was never regularized, never officially institutionalized, never recognized openly as an executive organ ranking above the six ministries."<sup>27</sup> Zhang's term as senior grand secretary ensured that it never would be. The Grand Secretariat remained an inner court body and the disjunction of 'interior' and 'exterior' continued. This was, as Robert Crawford notes, the paradox of Zhang's efforts, efforts which led to a "revitalization of the centralism and authoritarianism which were, to a large extent, root causes of the very decline he fought to avert."<sup>28</sup> Theoretically, absolute power remained with the emperor. Yet in practice much of this power was subverted by the bureaucracy, although it was not centred in an institutionally recognized body. Its distribution was unclear and therefore contested, as was to be clearly demonstrated throughout the remaining years of the Wanli reign.

#### The Withdrawal of an Emperor

In his lengthy exposition of the theme that traditional Asian states were subject to 'oriental despotisms,' Karl Wittfogel claims that the rulers in such states combined in their person "supreme operational authority". It was only because of weakness, immaturity, or incompetence that a ruler ever shared this operational supremacy with an aide, a prime minister, and Wittfogel feels that this delegation of authority never lasted for long: "it vanishes as soon as the ruler is strong enough to realise the autocratic potential inherent in his position."<sup>29</sup> Yet this was not the case with the Wanli emperor. The furore following the death

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<sup>27</sup>Hucker, "The Tung-lin Movement," p. 139.

<sup>28</sup>Crawford, "Chang Chü-cheng's Confucian Legalism," p. 404.

of Zhang Juzheng seemed to drive any interest the Wanli emperor had in the governing process from him and he withdrew back into his own secluded world, refusing to take part in even the most ceremonial aspects of administration. After a visit to his recently completed mausoleum in 1588 the emperor never again set foot outside the palace grounds and within the next few years he had given up all audiences with his senior officials, a situation that was to continue for the next twenty five years.<sup>30</sup>

This withdrawal of the Wanli emperor saw a resurgence of eunuch influence within the Ming administrative structure. Since the early years of the fifteenth century eunuchs had ceased to be merely personal servants of the emperor and had developed an internal bureaucracy within the palace. By the Wanli reign they were organized into twelve Directorates (jian), four Offices (si) and eight Bureaus (zhu). Overall supervision came from a Directorate of Ceremonies (Silijian), which was in many ways a eunuch equivalent of the Grand Secretariat (Neige), and was headed by the senior palace eunuch, the director of ceremonies, or grand guardian of the seal (sili zhangyin taijian).<sup>31</sup> Estimates of eunuch numbers vary, with one account suggesting as many as 70,000 to 100,000 within the palace alone by 1644.<sup>32</sup> Another estimate, a more conservative one, reckons that eunuch numbers never rose above 13,000 throughout the dynasty.<sup>33</sup> Either way, it was certainly the case that by the late sixteenth century eunuchs had established a complex administrative

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<sup>29</sup> Karl Wittfogel, Oriental Despotism: A Comparative Study of Total Power (N.Y., 1957), p. 305.

<sup>30</sup> Huang, 1587, p. 123; and DMB, I, pp. 324-337.

<sup>31</sup> These details come from a work by Liu Ruoyu, "Zhuozhongzhi"; see the entry for Liu in DMB, I, pp. 950-953; and also Ulrich Hans-Richard Mammitzsch, "Wei Chung-hsien: A Reappraisal of the Eunuch and the Factional Strife at the Late Ming Court" (Unpublished Ph.D. dissertation, University of Hawaii, 1968), pp. 15-56.

<sup>32</sup> Hucker, "Government Organization," p. 11.

<sup>33</sup> Mammitzsch, "Wei Chung-hsien," p. 15.

heirarchy within the palace and with the patronage given them by the Wanli emperor they came to exert a considerable influence over the governing process.

When the Wanli emperor refused to see senior outer court officials and grand secretaries it was the palace eunuchs who mediated between them and the throne. Documents arriving at the palace from the outer court Office of Transmissions were screened by eunuchs of the clerical office, the Wenshufeng, most of which were then sent to the Grand Secretariat, although those considered of importance could be sent immediately to the director of ceremonies. From the Grand Secretariat memorials would be sent to the Directorate of Ceremonies and it was there that final decisions were taken on the response to be made to them. In the 1570s Zhang Juzheng had used his position as senior grand secretary to dominate the inner court bureaucracy, whereas, by the turn of the seventeenth century, the acquiescence of the emperor enabled the senior palace eunuch to exert such dominance. It was he who decided which memorials would go before the emperor and what course of action the emperor would be encouraged to support (usually only 4 or 5 out of every 100 memorials reached the emperor in these years).<sup>34</sup> To be a grand secretary in such times must have been frustrating. Without direct access to the emperor they could do little more than propose courses of action and hope they found favour with the emperor's eunuch advisors. Grand secretaries found themselves under pressure from the outer court to influence policy decisions but largely impotent within their own inner court sphere. The conflict of 'interior' and 'exterior' cannot have been helped by this importance which the Wanli emperor gave to the palace eunuchs.

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<sup>34</sup>Ibid., p. 49.

Of the eunuchs themselves little is known. Confucian commentators have laid much of the blame for what was wrong with the Ming dynasty at the feet of eunuchs and there is no doubt that there is some basis to this criticism. Having been trained as personal servants, eunuchs were not accustomed to viewing matters on an empire-wide scale. Their focus was the palace and its environs. Yet the emperor allowed them a responsibility far greater than what such training would merit, and between 1599 and 1606 even granted eunuch commissioners supervisory control over all provincial taxes. In carrying out their duties some of these eunuch commissioners were particularly harsh and aroused considerable antagonism, both with the civil officials, who naturally resented eunuch intrusion into what had been traditionally their own preserve, and amongst the general populace.<sup>35</sup> However, to claim that all eunuchs were rapacious and self-seeking would be erroneous. The fact that the Ming administration continued to function throughout the thirty odd years in which the Wanli emperor refused to partake of the governing process is testimony in itself to the administrative endeavour of a large number of palace eunuchs.

A more serious consequence of the refusal of the Wanli emperor to govern was the slow attrition of administrative personnel. From 1587 on until his death in 1620 the emperor simply ignored memorials that either annoyed or did not interest him. He did respond to important memorials regarding defense and fiscal matters, but more routine administrative concerns were shelved. And as imperial approval was required for the appointment or transferral of officials, such non-action by the emperor

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<sup>35</sup> See the DME entries for the Wanli emperor, I, pp. 324-337; and the eunuch tax commissioner Chen Feng, I, pp. 152-153. Yuan "Urban Riots", pp. 287-291, relates two uprisings which resulted from the exactions of eunuch tax commissioners. And Matteo Ricci is said to have stated that the eunuchs carried out their mission "with such cruelty that in a short time all China was in revolt and in a worse state than it had been during the Korean war"; see Dunne Generation of Giants, p. 63. This comment greatly exaggerates the true situation, but it probably reflects quite accurately the attitudes of the civil officialdom with whom Ricci was in contact.

meant that administrative posts which became vacant often stayed that way. Zhang Juzheng had reduced staffing levels to achieve what he believed to be an efficient administration; the Wanli emperor simply let the bureaucracy wither away. The effect this had on the administration is described by Charles Hucker:

In 1602 nine of the Censorate's thirteen regional inspectorships were unstaffed: the central government's six ministries were short three ministers and ten vice-ministers, the Censorate and the six offices of scrutiny were ninety-four men below normal staffing levels; three provinces had no governors; lesser provincial vacancies totalled sixty-six; and twenty-five prefectures lacked prefects. By 1612 administration was at a virtual standstill. There was only one grand secretary and he had been ill and secluded in his Peking residence for months; there was only one ministry head, charged with concurrent responsibility for the three ministries of Personnel, of War, and of Justice; the ministries of Revenue, of Rites, and of Works each had only one vice-minister on duty; the Censorate had no regular censor-in-chief for eight years ... provincial level vacancies abounded; and it is estimated that some fifty per cent of all prefectural and district posts were vacant.<sup>36</sup>

Thus, by the beginning of the seventeenth century, imperial inaction threatened the very day to day governing of the empire.

Moral Rejuvenation: 'A mission lacking the means to realize itself.'<sup>37</sup>

When an administrative tradition has as its ideological foundation texts of a richly ethical nature, as with the Chinese Classics, it is to be expected that political conflict would find its expression in moral terms. The most vociferous proponents of a strong moral stand in administrative matters were those who had been to the fore in criticizing Zhang Juzheng's concentration of power in the Grand Secretariat. Mostly censors, this group entitled itself the 'good elements' (shanlei) or 'upright men' (zhengren), and their concern was not so much with a separation of the 'interior' from the 'exterior', as with the moral character of individual officials. They felt that the administration was

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<sup>36</sup> Charles O. Hucker's entry for the Wanli emperor, DMB, I, p.327.

<sup>37</sup> Frederic Wakeman Jnr., "The Price of Autonomy: Intellectuals in Ming and Ch'ing Politics," Daedalus, 101 (Spring, 1972), p. 50.

beset by too much selfishness and sycophancy, as typified by Zhang Juzheng, and that officials like themselves, self-proclaimed upholders of Confucian tradition, should attain senior posts in the administrative hierarchy so as to purge 'bad elements' and restore good government to the empire. Naturally, then, the attention of these 'good elements', and that of their opponents, became personnel management.

Every three years provincial and district officials were subject to evaluation by the Ministry of Personnel. For the officials serving in the capital such evaluation came once in every six years. And with administrative power in contention, it was these merit evaluations which provided the means whereby differing factions could attempt to obtain for their supporters positions of influence. For instance, in the metropolitan evaluation of 1587, 'good elements' supported the censor-in-chief, Xin Zixiu, who wished to purge the administration of a number of officials he felt to be corrupt. However, the senior grand secretary, Shen Shixing, with the legacy of Zhang Juzheng prominent in his mind, wished to restore faith in the Grand Secretariat amongst the outer court officials and used his influence to ensure the evaluation was mild, with few officials losing their posts. In response to this Xin Zixiu retired, and those 'good elements' who had supported him, such as Gu Xiancheng, were demoted.<sup>38</sup>

'Good elements' again attempted to purge the administration of those they felt to be morally corrupt when the next metropolitan evaluation was held in 1593. Gu Xiancheng had by then returned to the capital and occupied an influential post in the Ministry of Personnel. Gu's associates amongst the 'good elements' held those leading positions in the administration

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<sup>38</sup> Heinrich Busch, "The Tung-lin Shü-yuan and its Political and Philosophical Significance," Monumenta Serica, 14 (1949), pp. 24-25.

which gave them control over the evaluation: Sun Long was minister of personnel, Zhao Nanxing a director in the Bureau of Evaluation (within the Ministry of Personnel), and Li Shida occupied a senior post in the Censorate.<sup>39</sup> Together these men engineered what was to be a 'thorough house-cleaning operation,' criticizing all those officials they felt did not conform to the standard of behaviour befitting a 'superior man'. In the process, however, they criticized a number of leading lights in the administration, including the grand secretary Wang Xijue. Wang retaliated and with the assistance of a number of censors sympathetic to his position he was able to have those responsible for the evaluation punished. Zhao Nanxing was stripped of all rank and made a commoner, Sun Long resigned, as did Li Shida, and although Gu Xiancheng was initially pardoned he also chose to resign a year later. Thus, by 1594, most of the influential 'good elements' had been removed from the administration. And with the Wanli emperor unconcerned about the appointment or re-appointment of officials, most of them were to stay out of office for the next sixteen years.

Without access to decision making these 'good elements' began to focus their efforts for moral reform through the Donglin Academy. This was a private academy, founded in Song times, and reopened by Gu Xiancheng and Gao Panlong in 1604.<sup>40</sup> Virtually all of its members at the re-founding were officials who had been dismissed or who had resigned in the wake of the metropolitan evaluation of 1593. At the academy much of

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<sup>39</sup> Ibid., pp. 25-27; DMB entries for Zhan Nanxing, I, pp. 128-132; Gu Xiancheng, I, pp. 736-744; and Wang Xijue, II, pp. 1376-1379,

<sup>40</sup> Busch, "The Tung-lin Shü-yuan"; Hucker, "The Tung-lin Movement"; and the DMB entries for Gao Panlong, I, pp. 701-710 and Gu Xiancheng, I, pp. 736-744. John Meskill gives a more general discussion of the importance of academies in Academies in Ming China: A Historical Essay (Tuscan, 1982).



the activity was passive, concerned to establish the philosophical basis to what was felt to be the current problems of the dynasty, but there was also an active political wing which wished to gain direct access to power.<sup>41</sup> Zhang Juzheng's contention that private academies could become centres of political agitation had proved correct.

This Donglin political faction constantly petitioned central government in order to place those it felt to be sympathetic to its cause higher in the administrative hierarchy. While those opposed to the Donglin faction sought to place their own sympathizers in senior positions. Up until his retirement in 1606, Shen Yiguan had been the principal obstacle to 'good element' ambitions, and as senior grand secretary and titular head of the Ministry of Personnel he had proved a very effective foil to them.<sup>42</sup> Following Shen's retirement, those opposed to the 'good elements' coalesced into two main provincially-based groups; the Chidang, or Shandong faction, and the Chudang, or Huguang faction.<sup>43</sup> Both were broad associations whose only real common interest was an opposition to the proposed purges of the 'good elements', and neither of them dominated in the administration.

James Parsons' study of the Ming bureaucracy details the effects of this constant competition for administrative influence:

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<sup>41</sup>The philosophical orientation of the Donglin Shuyuan is discussed by Busch, "The Tung-lin Shu-yuan," passim. See also the DMB entries for Li Zhi, I, pp. 807-817; and Wang Zhi, II, pp. 1351-1355.

<sup>42</sup>DMB, II, pp. 1179-1182.

<sup>43</sup>Hucker, "The Tung-lin Movement," p. 148. Previous to the retirement of Sen Yiguan opposition to the 'good elements' was aligned into three main factions; the Zhedang, or Zhejiang faction, the Xuandang and the Kundang.

the downfall of the dynasty in 1644 did not occur because its fortunes during the previous two decades were in the hands of a tightly knit clique dominated by motives of narrow self-advantage. Rather, the fall was attended by an intensified and general bureaucratic chaos with officials, especially in top positions, being replaced with bewildering rapidity.<sup>44</sup>

This factionalism was a disease which slowly ate its way into all aspects of the late Ming administration.

Donglin fortunes suffered a major setback prior to the metropolitan evaluation of 1611 when letters sent by Gu Xiancheng to the grand secretary and Donglin sympathizer, Ye Xianggao, were published in the Beijing Gazette, a magazine read widely in administrative circles.<sup>45</sup> These letters requested Ye use his influence to support the candidature of another Donglin sympathizer, Li Sancai, for the Grand Secretariat and their publication revealed that the Donglin faction was guilty of the very corruption that it accused its opponents of. Both Ye Xianggao and Li Sancai were forced to retire.

Administrative energy in these late Ming years was constantly consumed in these factional squabbles, squabbles which were personal rather than programme orientated. In fact, as Frederic Wakeman Jnr. has noted, these factions did not formulate unique policies; rather, "they defined themselves mainly in terms of their opponents."<sup>46</sup> Traditionally, factions had not been favourably considered in China. Wakeman puts this most succinctly when he writes of how "Scholars alone, acting as individuals, were respectably impotent," while "scholars together, constituting a faction, were dubiously partisan."<sup>47</sup> This dilemma was particularly acute for the Donglin faction. Having set themselves up as

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<sup>44</sup> James Parsons, "The Ming Dynasty Bureaucracy: Aspects of Background Forces," in Charles O. Hucker (ed.), Chinese Government in Ming Times: Seven Studies (N.Y., 1969), p. 224.

<sup>45</sup> DMB, I, pp. 847-850.

<sup>46</sup> Wakeman, "The Price of Autonomy," p. 42.

<sup>47</sup> Ibid., p. 41.

moral exemplars, 'good elements', they then had to re-enter the world of moral degeneracy, of politics and personnel conflicts, if they wished to realize their aims. And in re-entering that world they simply exacerbated the very problems they sought to resolve. The mission of the Donglin members was to implement a moral rejuvenation of the administration, but every attempt they made to achieve this simply undermined further the existing stability and moral standing of the dynasty. Factions produced factionalism, not stability and order.

Purge and Counter-purge: A disastrous decade.

The death of the Wanli emperor in 1620 unleashed a new and especially bitter wave of factional conflict as the differing groups all tried to assert themselves in the new power structure. The Wanli emperor's son died within a month of ascending the throne and this brought forward his grandson, the Tianqi emperor (r. 1620-1627).<sup>48</sup> Like his grandfather this new emperor was unwilling to attend to administrative matters and left the day to day business required of the palace to his eunuch assistants, and this again created antagonism amongst the 'good elements'.

At first Donglin faction appeared to benefit from the new alignment of power, with leading members such as Ye Xianggao, Zhao Nanxing, Li Sancai, Gao Panlong and Zou Yuanbiao all returning to senior administrative positions.<sup>49</sup> From these senior posts they were able to institute a purge of their opponents in the metropolitan evaluation of 1623. The anti-Donglin forces sought to counter Donglin dominance by gaining support from amongst the coterie of the emperor's eunuch advisors. Initially they had little success in this, but the very virulence of the Donglin campaign gave them the support they desired. In 1624 a junior official

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<sup>48</sup> For biographical details on the Tianqi emperor see ECCP, I, p. 190.

<sup>49</sup> DMB; Ye Xianggao, II, pp. 1567-1570; Zhao Nanxing, I, pp. 128-132; Gao Panlong, I, pp. 701-710; and Zou Yuanbiao, II, pp. 1312-1314.

and Donglin sympathizer, Yang Lian, submitted a memorial impeaching the emperor's closest eunuch advisor, Wei Zhongxian, accusing Wei of twenty-four crimes against the Ming state.<sup>50</sup> An angry Wei Zhongxian was provoked into taking the advice of the Donglin opponents and supported a purge of all Donglin members from the administration.

As a close associate of the young Tianqi emperor, Wei Zhongxian had risen quickly through the eunuch hierarchy. By the time Yang Lian submitted his impeachment in 1624, Wei was director of ceremonies and supervisor of the eunuch secret service, positions which gave him considerable control over the administration, both through the normal bureaucratic channels and through the use of terror. By 1626 all those in any way associated with the Donglin movement had been imprisoned, dismissed or forced to retire, and the academy itself was destroyed. Wei Zhongxian has been traditionally known as one of the four eunuch dictators of the Ming dynasty and he has been blamed for much of the conflict of the period. Wei certainly occupied an important intermediary position between the emperor and the bureaucracy and he was given wide discretionary powers by the emperor. But to claim that Wei sought to dominate the bureaucracy through a series of purges which he himself initiated is to ignore the intensely factional political environment in which he had risen to influence. Because of his position Wei Zhongxian was a target of the outer court conflict, both for those who resented his influence and for those who wished to use that influence to their own advantage.<sup>51</sup> By the 1620s factionalism affected all aspects of administration, from county to court. It was a time, according to Mao Shilong, when the critics

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<sup>50</sup> Charles O. Hucker, The Censorial System of Ming China (Stanford, 1966), pp. 200-205, gives a translation and discussion of this memorial submitted by Yang Lian.

<sup>51</sup> Hucker, The Censorial System, pp. 170-174, follows the traditional Confucian response to Wei Zhongxian, seeing him as a eunuch dictator, primarily responsible for the turmoil of the period. By contrast, Mammitzsch, "Wei Chung-hsien," *passim*, considers Wei to have been a weak man used by others, a victim of outer court factionalism.

in the administration outnumbered the actors. Censorial activity was almost three times what it had been two hundred years before and "it had come to be expected that censorial impeachments would have solely partisan motivations."<sup>52</sup> Wei Zhongxian was a product of this factionalism, not its cause.

The decade of the 1620s also revealed the extent to which this bureaucratic infighting was threatening the very security of the empire. The first signs of a Manchu threat from the northeast had come at the very end of the Wanli reign. By 1620 Nurhaci had proclaimed himself khan of the Chin dynasty, formally severed relations with the Ming, and marched his banner forces down from the Jurchen tribal regions around the Yalu river and into the Liaodong plain.<sup>53</sup> They took Fushan in 1618 and a year later defeated a combined Korean-Ming force at Sarhu; an estimated 45,890 Chinese soldiers died in this conflict.<sup>54</sup> By 1621 the Manchu forces had control of Shenyang, Liaoyang, Tieling and Kaiyuan. This rapid occupation of the Liaodong plain had demonstrated the potential of the Manchu military machine and it shocked Beijing into a panicked reaction.

Perhaps the clearest indication of the degree of the shock felt in Beijing is the fact that the Wanli emperor was roused from his lassitude. For the first time in over twenty years he acknowledged the need to recruit personnel to fill those posts that had become vacant and he also

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<sup>52</sup>Hucker, The Censorial System, pp. 175-182. Comparing censorial activity in the Xuande reign (1425-1435) with that of the Tianqi reign (1620-1627), Hucker notes the number of entries in the official chronicles of the earlier period amounted to less than 1,400, while those of the later period were in excess of 3,200.

<sup>53</sup>Robert B. Oxnam, Ruling From Horseback: Manchu Politics in the Oboi Regency (Chicago, 1975), pp. 15-37; and the entry for Nurhaci in ECCP, I, pp. 594-599.

<sup>54</sup>ECCP, Yang Hao, II, pp. 885-886.

permitted the transferral of approximately 500,000 taels from his personal treasury to the Ministry of Revenue to assist with financing the military build-up.<sup>55</sup> But it was here that the problems arose. The differing factions lobbied to have advocates of their interests appointed to the frontier and launched critiques of those aligned to opposing factions. As in the administrative sphere, it was impossible to formulate coherent policy initiatives when the bureaucracy was so much at odds with itself.

The policy issue upon which factional differences concentrated at this time was the conflict which surrounded Xiong Tingbi and Wang Huazhen.<sup>56</sup> Immediately following the loss of Shenyang and Liaoyang, Xiong had been appointed supreme commander of northeastern military affairs. Assisting him was the grand coordinator of the region beyond the wall, Wang Huazhen. Xiong Tingbi favoured a period of consolidation, developing a defensive line about the fortress at Guangning, just to the north of the wall. Wang, by contrast, was eager to launch an offensive against the Manchus. He felt sure a force of some 400,000 Mongol horsemen could be relied on to assist the Ming armies and that together it would be possible for them to drive off the Manchus before they became settled in Liaodong. Considering the decline in administrative and military personnel that had resulted from the introversion of the Wanli emperor, Xiong's was the more judicious policy. And it was the policy which was favoured most by the 'good elements'; so much so that Xiong became known as a protégé of the Donglin faction. In opposition to the 'good elements', most of those who attacked Xiong and supported Wang Huazhen were considered Weidangren, or Wei Zhongxian party men, opponents of the Donglin faction.<sup>57</sup>

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<sup>55</sup> Huang, "Fiscal Administration", p. 116.

<sup>56</sup> ECCP, Xiong Tingbi, I, p. 308; and Hucker, The Censorial System, pp. 155-157.

<sup>57</sup> Hucker, The Censorial System, pp. 155-157. There were exceptions to this alignment of Donglin members behind Xiong Tingbi and its

Wang Huazhen eventually ignored the counsel of Xiong Tingbi and launched his offensive. It was an unmitigated disaster. The Manchu force easily rebuffed Wang's army and forced it to retreat to Shanhaiguan, taking the fortress at Guangning en-route. Both Wang and Xiong were held to account for this disaster and both were eventually executed. To a large extent they were victims of factionalism. Instead of a reasoned debate regarding the differing policies proposed, the whole issue became just another focus for the already intense partisan conflict. Charles O. Hucker writes that the "greatest single concentration of censorial impeachments" during the Tianqi reign were focused on the conflict surrounding Xiong and Wang.<sup>58</sup> With an administration so disastrously divided it was impossible to implement a coherent and unified military strategy.

The Ming administration also faced a number of lesser threats to its stability in the 1620s. In the southwest an uprising of aboriginal tribespeople which began in Sichuan in 1621 soon spread into Guizhou and Yunnan. The rebellion continued throughout the Tianqi period and at times affected the major urban centres of the region. It was not until the reign of the Chongzhen emperor that the rebellion was eventually put down.<sup>59</sup> Western Shandong was in 1622 subject to temporary upheaval as Wang Haoxian and Xu Hongren led supporters of the White Lotus Sect in an uprising which took the government several months to contain.<sup>60</sup> And of lesser significance was the irritation the Dutch fleet commanded by

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opponents behind Wang Huazhen. For instance Ye Xianggao and Zhao Nanxing initially supported Wang.

<sup>58</sup> Ibid., p. 188.

<sup>59</sup> Ibid., p. 157; and the DMB entry for Mu Zeng, II, pp. 1076-1079.

<sup>60</sup> Susan Naquin, Millenarian Rebellion in China: The Eight Trigrams Uprising of 1813 (New Haven, 1976), p. 63, gives a brief account of the 1622 revolt. See also the DMB entry for Xu Hongru, I, pp. 587-589,

Cornelius Reyertsz caused as it attempted to establish a Dutch base somewhere along the south China coast. The Dutch were repulsed from Macao by the Portuguese in 1622 and were later driven by the Chinese from the Pescadores to Taiwan. Ming coastal officials were also able to co-opt the leading pirates of this period, Li Dan and Zhang Zhilong, and thus keep the coastal region relatively peaceful.<sup>61</sup> These three threats were of minor significance in comparison with the Manchu threat from the northeast, yet together they served to antagonize further an already disintegrating administrative structure.

Some consolidation of the Ming position came in the mid-1620s. Following the retreat to Shanhaiguan in 1622 two new appointments were made to the frontier. The more senior was that of Sun Chengcong as minister of war.<sup>62</sup> Sun took personal charge of the defences at Shanhaiguan and implemented a thorough reorganization of personnel serving at the frontier. With the assistance of Yuan Chonghuan he applied a defensive strategy based around the fortress just north of the wall at Ningyuan. Yuan had come to the frontier earlier than Sun and he soon established himself as an able administrator. Assisting Sun and Yuan were a number of competent generals, such as Man Gui and Zu Dashou.<sup>63</sup> When Nurhaci launched his next attack in 1626 he found the Ming defences considerably strengthened and his Manchu force was unable to take Ningyuan.<sup>64</sup>

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<sup>61</sup> John E. Wills Jnr., "Maritime China From Wang Chih to Shih Lang," in J.D. Spence and John E. Wills Jnr. (eds.), From Ming to Ch'ing: Conquest, Region, and Continuity in Seventeenth Century China (New Haven, 1979), pp. 203-237; and the DMB entry for Li Dan, I, pp. 871-874.

<sup>62</sup> ECCP, Sun Chengcong, II, pp. 670-671.

<sup>63</sup> ECCP; Yuan Chonghuan, II, pp. 954-955; Ma Gui, I, pp. 561-562; and Zu Dashou, II, pp. 769-770.

<sup>64</sup> Portuguese cannon were used to good effect by the Ming forces in these conflicts; see ECCP, Sun Yuanhua, II, p. 686; and C.R. Boxer, "Portuguese Military Expeditions in Aid of the Ming Against the Manchus, 1621-1647," T'ien Hsia Monthly, 7 (August, 1938), pp. 24-36.



Another Manchu attack in early 1627 was also repulsed. These were the first important Ming successes against the Manchus, but they did not mark a turning point. Factionalism continued to eat away at Ming strength and by 1627 both Sun Chengcong and Yuan Chonghuan had been forced into retirement through frustration with the Weidangren and their obsession with purifying the administrative ranks of their Donglin opponents. By the time the last Ming emperor ascended the throne in 1627 factionalism was too deeply entrenched in the bureaucratic process to eradicate. It was to plague the Chongzhen emperor right through until his suicide in 1644.

### The End of the Dynasty

Although only seventeen when he took the throne in 1627, the Chongzhen emperor immediately attempted to play an active part in administration, something that was no easy task after the more than fifty years of imperial negligence and disinterest which had preceeded him.<sup>65</sup> He had lived through the Tianqi reign and was well aware of the intensity of the purges and counter-purges of those years, and he was also aware that those ousted by the faction associated with Wei Zhongxian, those ousted by the Weidangren, would be the first to demand his attention, insisting on retribution and their own return to office. Wei Zhongxian's banishment from Beijing and subsequent suicide did not appease the remnants of the Donglin faction and they pressured the Chongzhen emperor to implement a thorough purge of all Weidangren. After some initial hesitancy the purge came, but squabbles continued for many years over who should or should not have been included on the purge lists. It is said that the issue intensely frustrated the emperor and that "the name Tung-lin [Donglin] seems to have been almost as distasteful to him as was that of Wei Chung-hsien [Wei Zhongxian] ."<sup>66</sup>

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<sup>65</sup> For biographical details on the Chongzhen emperor see ECCP, I, pp.191-192.

<sup>66</sup> Hucker, The Censorial System, p. 156.

With a more active emperor, power in the inner court shifted back from the eunuch-administrators to the Grand Secretariat. This office thus became the focus for the differing factions as they tried to dominate the bureaucracy. Han Kuang, the first senior grand secretary appointed in the Chongzhen reign, retired from the office through frustration at the intensity of this partisan conflict and this allowed Wei Tiren to emerge as the leading figure in the administration.<sup>67</sup> Wei Tiren created considerable antagonism in the offices of the outer court and in the outer reaches of the bureaucracy, particularly from a group called the Fu She. Originally formed in 1624, this body of disaffected scholars took over the Donglin mantle around 1630. Its members were young, however, and most of their energy was directed towards examination success. Those who did gain official status found their attempts to obtain influential administrative positions frustrated by Wei Tiren and his protégé and successor in the Grand Secretariat, Xue Guoguan. It was not until after Xue had been dismissed from office in 1640 that Fu She members began to emerge on the scene. But by this time the dynasty had entered its final and chaotic last years. As William S. Atwell notes, it is difficult to imagine the Fu She accomplishing much in such circumstances.<sup>68</sup>

Despite the fact that Wei Tiren exerted considerable influence over administrative affairs under the Chongzhen emperor, it continued to be the case that no one faction was able to dominate. Officials rose and fell with what can only be described as disastrous frequency. In the period from 1621 until 1644 there were 116 different ministers appointed to head the six ministries, and from 1641 until 1644 eighteen different men served in the Grand Secretariat.<sup>69</sup> Factionalism produced a climate

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<sup>67</sup> DMB; Han Kuang, I, pp. 483-485; and Wen Tiren, II, pp. 1474-1477.

<sup>68</sup> William S. Atwell, "From Education to Politics: The Fu She," in Wm. Theodore de Bary (ed.), The Unfolding of Neo-Confucianism (N.Y., 1975), pp. 333-367.

<sup>69</sup> Ibid., p. 356; and ECCP, I, p. 119.

in which just the slightest hint of failure or unethical behaviour was sufficient to see an official removed; and when the control administrators exerted over the empire was diminishing daily there was no shortage of problems with which officials could be accused. The clamour of this 'mouth and tongue disease' meant that it was impossible to implement policies of long-term significance.<sup>70</sup> In such circumstances it was inevitable that anarchy would intensify and Beijing would lose its grasp on the realm. While the Manchu forces continued to threaten from the northeast, rebellion and uprisings now erupted within the empire itself.

The rebellions which erupted in Shaanxi and Shanxi provinces were a direct result of the political anarchy which began to infect much of China during the Wanli and Tianqi reigns. Localized political leadership in areas away from the heartland of the empire was frustrated by the fact that so many of the provincial, prefectural, county and district offices remained vacant. This problem was particularly acute in northern Shaanxi, where the remoteness and difficulties of the region encouraged administrators to abandon their posts on the slightest pretext. Factionalism compounded these problems as the senior officials of the province in the 1620s were known to be Weidangren and were therefore opposed by their juniors who were mostly Donglin sympathizers. Officials were more interested in the political events of the capital than in the governing of the province and James Parsons has described how they were "extremely lax about maintaining an effective administration and a proper state of preparedness in the armed forces."<sup>71</sup> The military strength of the empire had been in decline throughout the sixteenth century as soldier's pay and conditions worsened. Desertions from the frontier

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<sup>70</sup>Hucker, The Censorial System, pp. 299-300.

<sup>71</sup>James Parsons, The Peasant Rebellions, p. 2.

military settlements were rife, with soldiers taking horses and weapons away to establish their own private raiding parties. The desertions were of such an extent that by the 1570s "the lands along the borders were turning into deserts".<sup>72</sup> Then, to make matters worse, the senior grand secretary Han Kuang advised the Chongzhen emperor to discontinue the postal service in the remote regions of the empire in order that finance could be redirected to help meet the cost of the anti-Manchu campaigns.<sup>73</sup> The immediate effect of this was to throw more men into unemployment, more men into a position where they saw little choice but to join the rebel bands that were springing up throughout the region, striking out and taking by force what they could no longer earn. By 1630 these rebel bands had spread their range of action through most of Shaanxi and into Shanxi. Government attempts to control them simply drove the rebels further east into southeastern Shanxi, southwestern Bei Zhili and Henan, from where they were to plague the Ming administration for the rest of the dynasty.

With the rebel bands almost constantly on the move it was difficult for the Ming armies to combat them. Yet the main difficulty the Ming faced in these anti-rebel campaigns was the inability to formulate and implement long-term policy initiatives, a consequence of the fracturing administrative structure. The one and only attempt to apply a grand plan for the eradication of all rebel forces came when Yang Sichang was appointed minister of war in 1636.<sup>74</sup> Yang planned for a defensive force to encircle the rebels and then envisaged a smaller attacking force, operating within the defensive ring, directly confronting the rebels. Xiong Wencai was appointed supreme commander of the anti-rebel armies

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<sup>72</sup>Chan, The Glory and Fall, p. 192.

<sup>73</sup>DMB, Han Kuang, I, p. 483-485.

<sup>74</sup>DMB, Yang Sichang, II, pp. 1538-1542; and Parsons, The Peasant Rebellions, pp. 54-58.

and was given extra troops and finance to implement Yang's plan. However, Xiong was of a different persuasion than Yang. He preferred negotiation to combat, a strategy which had proved successful in his operations against piracy along the south China coast.<sup>75</sup> Parson's study of these last Ming rebellions leads him to conclude that there is no evidence that Xiong ever attempted to put Yang's plan into effect. He also notes that Xiong's subordinates, Hong Chengzhou and Zuo Liangyu, "went on operating almost entirely independently".<sup>76</sup> The decline of military strength during the fifteenth and sixteenth centuries meant that the Ming had come to rely largely upon mercenary forces whose loyalty lay with individual commanders. These independent commanders had great difficulty in acting together. Parsons relates that Zuo Liangyu was on such bad terms with Xiong Wencai that he even encouraged his men to attack a regiment of Xiong's army. Coordinated action against the rebels, such as that envisaged by Yang Sichang, was impossible in such circumstances.

At the same time as policy initiatives against the rebels were disintergrating, Manchu campaigns of raid and plunder across the Wall into north China were stepped up. Abahai had succeeded Nurhaci as the Manchu leader in 1626 and a decade later proclaimed himself emperor of the Qing dynasty.<sup>77</sup> The Qing armies conquered Korea easily in 1638, and, buoyed up with success, launched raids into Bei Zhili and Shandong. The last Ming defenses beyond the Wall had fallen to the Qing by 1643 and a

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<sup>75</sup>DMB, Xiong Wencai, I, pp. 562-566.

<sup>76</sup>Parsons, The Peasant Rebellions, pp. 57-58; ECCP, Zuo Liangyu, II pp. 761-762; and ECCP, Hong Chengzhou, I, pp. 358-360.

<sup>77</sup>ECCP, Abahai, I, pp. 1-3.

full scale invasion of China seemed imminent. But then Abahai's death provoked a succession crisis and by the time Dorgon had established himself as regent to the future Shunzhi emperor (r. 1644-1661), Li Zicheng had already led his rebel forces into Beijing.<sup>78</sup>

For the rebels, dynastic ambitions had come late in the piece. It was only once the many disparate rebel bands had coalesced into two main groupings, under the leadership of Li Zicheng and Zhang Xianzhong, that the thoughts of these leaders turned towards the Mandate of Heaven. The transition from plunder to politics was not easy, however, and the force led by Zhang Xianzhong never seriously contemplated it.<sup>79</sup> Zhang led his forces back and forth through the southern Henan, Huguang, Nan Zhili and Sichuan, plundering to such an extent that they devastated most of the countryside through which they passed. Yet Zhang was never able to establish a base area for his rebels and by 1644 he had been forced to retreat back into Sichuan. Once there he did proclaim himself emperor of Daxiaguo, the Great Western State, but his rule of terror destroyed any change of consolidating control over the province. Zhang was constantly opposed by the remnants of the Ming armies that remained in Sichuan, but it was left to the conquering Qing armies to destroy Zhang and his retreating rebel force in January 1647.

The more direct threat to the political crown of the Ming came from the other rebel force led by Li Zicheng. These rebels had achieved a number of victories over the Ming armies in northern Huguang and Henan in the 1641-1642 period, and by 1643 had established themselves in Xi'an, the capital of Shaanxi province. Here Li Zicheng proclaimed himself the founding prince of the Shun dynasty and in February 1644 began his march on Beijing.<sup>80</sup> Ming defenses had collapsed by this time and there was

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<sup>78</sup> ECCP, Dorgon, I, pp. 215-219; and Oxnam, Ruling From Horseback, pp. 39-40.

<sup>79</sup> Parsons, The Peasant Rebellions, pp. 147-176; and ECCP, Zhang Xianzhong, I, pp. 37-38.

little to stop the rebel advance. In the capital, the Chongzhen emperor was receiving contradictory advice. Some advised fleeing to Nanjing, while others claimed that to leave Beijing and its nearby ancestral shrines would be tantamount to relinquishing the Mandate of Heaven.<sup>81</sup> The emperor felt duty bound to remain, but with the capital virtually undefended there was little he could do but await defeat.

When the rebels arrived at Beijing the eunuch commander of the capital garrison, Ca Huashan, realizing the futility in resistance, opened the city's gates to them. After years of hard campaigning Li Zicheng must have been amazed at how easy it was to take the political heart of the empire. Yet the Ming decline had its roots in Beijing. Political malaise underlay that decline and had spread out from the capital to infect the rest of the empire. By 1644 there was no vigour left in the Ming state. And the sense of guilt and frustration at seeing the dynasty reduced to such a state drove the last Ming emperor to suicide. His death on 25 April 1644 marked the end of the Ming dynasty.

For Li Zicheng victory proved illusory. Like his rebel compatriot, Zhang Xianzhong, Li found it impossible to make the transition from plunder to politics. A marketplace jibe well describes Li's dilemma:

Tzu-cheng (Zicheng) hacked his way to power -  
But he's not the son of heaven.  
He mounted the throne on horseback -  
But not for very long.<sup>82</sup>

Li was unable to reign in his troops and they soon began to plunder Beijing. And in government Li found he did not have the necessary administrative infrastructure to assert political control.<sup>83</sup> Defeat came quickly. Upon

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<sup>80</sup> Parsons, The Peasant Rebellions, pp. 121-127.

<sup>81</sup> Frederic Wakeman Jnr., "The Shun Interregnum of 1644," in J.D. Spence and John E. Wills Jnr. (eds.), From Ming to Ch'ing: Conquest, Region, and Continuity in Seventeenth Century China (New Haven, 1979), p. 48.

<sup>82</sup> Ibid., p. 72.

<sup>83</sup> Ibid., passim.

learning of the rebel capture of the capital, the Ming general in charge of forces along the northeastern frontier, Wu Sangui, led his troops back from the Wall to confront Li. This allowed the Qing armies through the pass at Shanhaiguan and into China. Wu Sangui accepted the inevitability of this and aligned himself with the superior force.<sup>84</sup> Faced with this combined force Li Zicheng fled the capital, finding little support left in the regions through which he had previously marched. How Li eventually died is unknown, but he soon became an insignificant figure once more.

After the terror and uncertainty of the Shun interregnum, officials were glad of the Qing arrival in Beijing. The source of their guilt over the failure of the Ming was now in flight from the capital and they could thus concentrate on establishing themselves in the new government. The Qing brought to Beijing a strong military and administrative infrastructure which enabled control to be quickly established over the city. The challenge they faced was to extend that control out over the Chinese empire.

In his article on the influential late Ming artist, Dong Qichang, Nelson Wu has presented us with a very useful way of envisaging the distinction of state and society in late Ming times.<sup>85</sup> Wu asks us to picture a dumbbell-shaped area superimposed on the map of China. The northern end of this was the political nerve centre of the empire, with its heart in Beijing. Connected to it by the narrow region encompassing the Grand Canal was the southern sphere of the dumbbell, the cultural and commercial world of Jiangnan. It was in this southern region that foreign silver made its impact, stimulating the spread of cash-cropping and petty

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<sup>84</sup>Angela Hsi, "Wu San-kuei in 1644: A reappraisal," Journal of Asian Studies, 34, 2 (February, 1975), pp. 443-453.

<sup>85</sup>Wu, "Tung Ch'i-ch'ang," pp. 262-263.



commodity production, both of which were at the core of the commercial expansion of the late Ming period. Had it not been for the wealth generated in this dynamic southern sphere, even though that wealth was not evenly spread through the empire, the combined effects of rebellion and Manchu invasion may well have brought the Ming dynasty to an end much sooner. Ni Yuanlu, the last Ming minister of revenue, noted that money continued to flow into the capital right up until the first month of 1644, and it was only in the last few years of the Chongzhen reign that the state was no longer able to support the army from its treasuries.<sup>86</sup> Lack of finance was not the basic problem of the late Ming state.

While the southern sphere of Wu's dumbbell was expanding, out along the coastal sea lanes and the inland waterways of the empire, the northern sphere, the political world of the state, was contracting. And in identifying the reasons for this contraction the analysis of the seventeenth century scholar Huang Zongxi remains most acute.<sup>87</sup> Huang felt it was the concentration of power by the first Ming emperor in the personage of the throne and the abolition of the supervisory head of the bureaucracy, the Secretariat, which was at the heart of the problems of the late Ming state. The Hongwu emperor created a precedent that lay heavily on his successors. Theoretically, the emperor's involvement was required in all aspects of day to day administration. No other person, whether a senior grand secretary such as Zhang Juzheng, or a senior eunuch such as Wei Zhongxian, could exercise legitimately the kind of authority which the Hongwu emperor had reserved for the throne. Attempts to do so provoked accusations of usurpation and led to factional disputes of intense bitterness. And when an emperor chose not to fulfil the role demanded of him, as did the Wanli and Tianqi emperors, then the distribution of

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<sup>86</sup> Wakeman, 'The Shun Interregnum, p. 44; and Chan, The Glory and Fall, p. 198.

<sup>87</sup> For a discussion of the historical perspective of Huang Zongxi see Wm. Theodore de Bary, "Chinese Despotism and the Confucian Ideal: A Seventeenth Century View," in J.F. Fairbank (ed.), Chinese Thought

power within the administrative structure was unclear. No administrative body or official could legitimately claim that power. Factions evolved to contest control of administrative decisions and vital energy was wasted in nepotistic squabbling, energy which should have been directed to the governing of the realm. With leadership so much at odds with itself dynastic decline was inevitable. This introverted political sphere gradually lost control of the state it was empowered to govern, allowing anarchy to intensify and eventually bring about the fall of Beijing itself.

This was the tragedy of late Ming times. The intra-bureaucratic conflict which consumed administrative energy in these years meant that administrators turned their backs on the empire at a time when it was undergoing the most concentrated socioeconomic change since the commercial expansion of the Song. The Single Whip Reform and the associated monetization of the economy of the late sixteenth and early seventeenth centuries underlay the commercial vigour of eighteenth century China, and that this commercial vigour was not experienced throughout the seventeenth century was not the consequence of a cut-off in supplies of monetary metal. It was due to a political crisis, a crisis that had its roots in the faction-ridden bureaucracy of Beijing. The seventeenth century crisis in China was first and foremost a political crisis.

EPILOGUE

This study suggests that monetary factors should always be balanced against what is known of the social and political climate of a particular period. But this does not mean that a monetary perspective is of no value. While China's dependence upon foreign silver was found to be of little consequence in the sequence of events leading up to the fall of the Ming dynasty in 1644, volatile monetary conditions did contribute to the turmoil of these years. This was something that was recognized by three of the most noted of seventeenth century Chinese scholars, all of whom wrote of the importance to the state of stable monetary conditions. These three scholars had all lived through the late Ming years and they were well aware of the hardship caused through the debasement of copper cash.

Huang Zongxi included in his critique of the Ming administrative structure advice on the need for sound and convenient media of exchange, suggesting, despite his experience of the late Ming years, that paper notes and copper cash would meet such a need.<sup>1</sup> Fang Yizhi, by contrast, emphasized, in his essay entitled 'Proposals Concerning Monetary Policy' (Qianchao yi, 1643), that it was vital to establish the credibility of any currency and advised against simply ordering people "to regard sheets of paper as valuable".<sup>2</sup> Huang recommended that the use of both gold and silver as monetary media be prohibited and Fang similarly warned of the increased use of silver in the late Ming years, particularly as it circulated as bullion and was therefore difficult for an administration to control. Yet Fang recognized that when confidence in the government's

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<sup>1</sup>de Bary, "Chinese Despotism," p. 192.

<sup>2</sup>Peterson, Bitter Gourd, pp. 74-76.

coinage was eroded it was inevitable that people would prefer to use the more stable silver bullion. He stressed the importance of an active mint policy in establishing sound monetary conditions. Similarly, Gu Yanwu, in his essay 'On the Coinage System' (Qianfu lun), was of the opinion that "as long as the government continued to mint coins without accepting them in payment of taxes, copper cash could not be accepted in the market at face value and consequently people suffered and the state was weakened."<sup>3</sup>

While none of these three reputable scholars served with the Qing administration, the concerns they expressed were reflected in the active monetary policy of the new regime. On coming to power the Qing adopted the same bimetallic currency system as was in use in the late Ming years, accepting silver as a currency but not attempting to cast it as coinage. Thus, the new administration had to manipulate the cash sector of its currency system if it was to achieve stable monetary conditions and bring prices down from the very high levels reached in the 1640s. This it did. Between 1644 and 1734 the weight of the copper coins was changed six times, the composition twice, and the quotas required of the mints three times. Besides this, provincial mints were opened and closed as the administration responded to the fluctuating supply of monetary metal and the changing demands of the regional economies. The principal objective underlying these adjustments was the desire to maintain a stable copper/silver exchange rate and in this the Qing were largely successful. By the 1680s the actual rate was close to the ideal of 1,000 cash per silver tael.<sup>4</sup> Prices fell fairly consistently until the 1680s, when, with order restored to the realm, the Chinese empire entered a new

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<sup>3</sup>Willard J. Peterson, "The Life of Ku Yen-wu (1613-1682), I," Harvard Journal of Asiatic Studies, 28 (1968), p. 137.

<sup>4</sup>King, Money and Monetary Policy, pp. 136.

phase of political stability, enabling economic growth to extend throughout the eighteenth century.<sup>5</sup>

What is most notable about the success of the monetary policy of the early Qing is that it was achieved at a time when supplies of monetary metal were at the lowest they had been for the entire seventeenth century. Domestic mining, always limited during the century, was at a standstill through the years of dynastic transition and foreign silver was becoming increasingly scarce. Yet the Qing administration was willing to give priority to political factors over monetary ones. Between 1661 and 1684 the 'maritime prohibitions' (haijin) which were implemented to bring pressure to bear on the Ming loyalist forces of the Zheng 'family' network based on Taiwan saw ports closed and ships forbidden to leave the Chinese shore. To ensure the policy was effective the coastal population was withdrawn many miles inland.<sup>6</sup> Chinese junks which had sailed to Manila and Nagasaki to procure supplies of silver and copper were no longer able to do so. Yet despite this, the Qing administration still managed to create far more stable monetary conditions than what had prevailed in the late Ming years when Japanese copper and an unprecedented volume of Japanese and Spanish-American silver had flowed into the Chinese empire. No doubt the Qing had learned from the mistakes of the late Ming, yet the major reason for this difference in success with monetary policy must lie with the general character of the administrations themselves. The seventeenth century Qing was a young and vigorous administration, whereas in late Ming times the administration had been riddled through with factionalism, beset with lassitude, and was incapable of taking the kind of policy initiatives which the Qing did.

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<sup>5</sup> Wang Yeh-chien, "The Secular Trend of Prices During the Ch'ing Period (1644-1911)," Journal - Institute of Chinese Studies - Chinese University of Hong Kong, 5, 2(1972), pp. 345-368; and Ch'uan, "Mei-chou pai-yin," for an investigation of the relationship of imported silver and prices in eighteenth century China.

<sup>6</sup> Hsieh, "Removal of the Coastal Population."

This does not mean, of course, that the Qing could have survived indefinitely without allowing monetary metal to be imported to the empire. Even with its active monetary policy the shortage of coin and bullion was beginning to produce considerable strain by the 1680s and pressure was building for a relaxation of the maritime prohibitions. Wang Yuyang was one of a number of officials who advised the throne of the urgent need to obtain supplies of Japanese copper and Mu Tianyuan warned in a memorial submitted in 1681 of the hardship caused by a dwindling amount of silver in circulation.<sup>7</sup> Mu felt that the foreign trade which brought in silver enriched the empire and was great stimulus to domestic production. Where was the logic, he asked, in erecting a dam in the river but still wanting the water to flow? Such advice was well received by the Kangxi administration (1661-1722), and with the conquest of Taiwan in 1683 the maritime prohibitions were lifted and foreign trade encouraged. By 1686 more than one hundred junks were bound for Nagasaki laden with silks and sugar, intent on profiting by obtaining the monetary metal which the empire so urgently required. Similarly, trade through Manila began to increase once more. And as Mu Tianyuan had remarked, the stimulus this trade was to give the Chinese economy was considerable.

However, this need to import monetary metal to supply its bimetallic currency system reveals a vulnerability in the pre-modern Chinese economy which was to be of long-term significance. By the 1740s production from the Yunnanese copper mines had increased to the extent that these mines were able to supply all the copper the Chinese economy required.<sup>8</sup> But this did not occur with silver. China remained dependent upon overseas sources for its silver requirements throughout the sixteenth, seventeenth, eighteenth and nineteenth centuries. It was

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<sup>7</sup>Ch'uan, "Mei-chou pai-yin," p. 541 gives details of this memorial submitted by Mu Tianyuan; and Hall, "Notes," p. 452 comments on the

this dependency which Fernand Braudel had in mind when he suggested that it was the 'bombarding' of Asia's gates with silver that enabled Europe to gain access to a world "which otherwise would have been firmly closed."<sup>9</sup>

Braudel's terminology is perhaps too Eurocentric in its bias. European traders did have the good sense to carry precious metals of Spanish-American origin to Asia, but they did not have to 'bombard' resisting Asian states with this metal. The expansion of the economies of the Indian Subcontinent, China and Japan demanded that an increasing volume of monetary metal circulate through them.<sup>10</sup> Delmer M. Brown has detailed the sixteenth century increase in output of monetary metal from Japanese mines and she, amongst others, has shown how an increase in economic activity in the late sixteenth and seventeenth centuries absorbed the "vast new supply of coins" in circulation.<sup>11</sup> In the Indian Subcontinent, silver use extended south from the Mughal territories, where the rupee dominated in a trimetallic currency system, into Golconda and Maharashtra during the seventeenth century, and Frank Perlin has given eloquent testimony to the increasing demand for the more 'humble' monetary media, copper and cauris, in the Subcontinent throughout the late seventeenth and eighteenth centuries.<sup>12</sup> While in China, we know

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concern expressed by Wang Yuyang.

<sup>8</sup> Hall, "Notes," p. 458.

<sup>9</sup> Braudel, The Wheels of Commerce, p. 200.

<sup>10</sup> The monetary and economic conditions in Southeast and Central Asia are not considered here.

<sup>11</sup> Brown, Money Economy, p. 97; see also Kobata, "The Production and Uses"; Sydney Crawcour, "The Development of Credit in Seventeenth-Century Japan," Journal of Economic History, 21, 3 (September, 1961), pp. 342-360; Kozo Yamamura, "Returns on Unification: Economic Growth in Japan, 1550-1650," in John Witney Hall, Nagahara Keiji and Kozo Yamamura (eds.), Japan Before Tokugawa: Political Consolidation and Economic Growth, 1500 to 1650 (New Jersey, 1981), pp. 327-372; and William B. Hauser, Economic Institutional Change in Tokugawa Japan: Ōsaka and the Kinai Cotton Trade (Cambridge, 1974), pp. 7-23.

of the commercial expansion of the late Ming years and the increased demand for monetary media which that had created.

But of these three regions, Japan was the only one with sufficient reserves of monetary metal to supply its own currency requirements. China continued to import silver, while the Indian Subcontinent imported copper, cauris, silver and gold. Japanese mines provided some of this monetary metal, at least for part of the seventeenth century, but over the long-term it was European traders who provided both India and China with the monetary metal they required, and with silver in particular. Thus Frank Perlin is on firm ground when he argues that "local regional growth facilitated the establishment of European commerce in Asia [excepting, of course, in Japan], and, seen more widely, formed part of the preconditions for the development of a system of international exchanges and dependencies in which Europe established an increasing hegemony."<sup>13</sup>

The uniqueness of Japan as compared with other Asian economies is a subject that demands considerable scholarly attention.<sup>14</sup> The question of why it was that Japan was able to modernize in a way which China and

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<sup>12</sup>Irfan Habib, "The Currency System of the Mughal Empire, (1556-1707)," Medieval India Quarterly (Aligarh), 4 (1961), pp. 1-21; and Habib's section, "The Monetary System and Prices," in Tapan Raychaudhuri and Irfan Habib (eds.), The Cambridge Economic History of India, I (Cambridge, 1982), pp. 360-381; as well as Frank Perlin, "Money Use in Late Pre-Colonial India and the International Trade in Currency Media," in J.F. Richards (eds). Imperial Monetary Systems in Early Modern India (Oxford, forthcoming).

<sup>13</sup>Frank Perlin, "Proto-Industrialization and Pre-Colonial South Asia," Past and Present, 98 (February, 1983), p. 89.

<sup>14</sup>For a comparison of development in China and Japan see Frances V. Moulder, Japan, China and the modern world economy (Cambridge, 1977); and for the contrast of India and Japan see the recent article by B.R. Tomlinson, "Writing History Sideways: Lessons for Indian Economic Historians from Meiji Japan," Modern Asian Studies, 19, 3 (1985), pp. 669-698.



India could not have led many scholars back from an initial concentration upon what was important about the Meiji period to a search for this uniqueness in Japan's pre-modern roots.<sup>15</sup> Yet what is often overlooked in these studies, and is something that arises from our monetary perspective, is the fact that Japan did not depend in pre-modern times upon European traders for its supply of monetary metal, whereas China and India did. Indeed, there would not have been such a 'secluded' and isolated Tokugawa Japan had it not been for the fact that its precious metal reserves were sufficient to supply an expanding domestic economy. Japan was independent of European traders in this sense, which explains, at least in part, why there was not the same degree of European intrusion into its economy and polity as subsequently occurred in both China and India.

The evidence presented in this thesis leads to the conclusion that we cannot agree with S.A.M. Adshead's suggestion that China's seventeenth century crisis was "related to disturbances in the world monetary system," yet the importance he placed on China's dependence upon foreign supplies of silver must not be ignored.<sup>16</sup> As long as the balance of trade remained in China's favour, as it did until the 1820s, this dependence gave little cause for concern. But when imports of opium increased to such an extent that the silver used to pay for the drug exceeded the volume of the metal entering the empire through legal trade, the precariousness of this dependence was immediately revealed. Wang Yejian has described how this sudden and increasing loss of silver created, by the mid-nineteenth century, "a severe monetary crisis that not only brought down prices sharply but also had the devastating effects of increasing the tax burden of the people and cutting down business

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<sup>15</sup> A good example of such research is J.I. Nakamura, "Human Capital Accumulation in Premodern Rural Japan," Journal of Economic History, 41, 2 (June 1981), pp. 263-281.

<sup>16</sup> Adshead, "The Seventeenth Century General Crisis in China," p.272.

activities of all kinds."<sup>17</sup>

The deflationary effects of this loss of silver were exacerbated by the fall in the value of silver as compared with gold throughout the nineteenth century, particularly once the European powers adopted a gold standard. Commercially this put China at a distinct disadvantage to the Europeans, who were intruding more extensively into its economy at this time. It also meant that the indemnities imposed with the unequal treaties became an even more onerous burden. China had for centuries profited from its foreign trade. Yet the dependence upon foreign silver which underlay this trade meant that China was exposed to aggressive and powerful European traders in a way which Japan, without the need for imported monetary metal, was not. While it is again necessary to emphasize that such monetary factors need to be balanced against the broader social and political events of the time, a much stronger case can be made for the importance of China's vulnerability to a wider world economy in the early decades of the nineteenth century than was so for the late Ming years.

Seville was not, for the East Asian sphere at least, the centre of a world monetary system in the early decades of the seventeenth century. Japan had its own reserves of monetary metal and China drew on these as well as the Spanish-American silver. Thus, the decline of imports of monetary metal to Seville did not automatically signify the decline of a world monetary system, or an ensuing crisis in China similar in nature to that of Spain. China's mid-seventeenth century crisis was essentially political in nature, unrelated to events in Europe at the time, and although China was becoming increasingly dependent upon the

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<sup>17</sup>Wang, "The Secular Trend of Prices," p. 366.

trade of European merchants, the consequences of this were not to be felt for another two hundred years.

APPENDIXCurrencies and Weights

- China: 1 tael = 1 liang = 0.0378 kgs. of silver.
- Japan: 1 kan = 1,000 monme (monme) = 3.76 kgs.  
 1 kin = 16 ryo, or approximately equal to 0.258 kgs.  
 1 mai = 10 ryo, approximately equal to 0.1615 kgs.
- Dutch: 1 florin (guilder) = 20 stuivers, approximately equal to  
 0.01 kgs of silver.
- Portuguese: 1 quintal, approximately equal to 50 kgs.  
 1 picul = 100 catties = 60.48 kgs.  
 1 cruzado, a unit of account, taken to be generally  
 equivalent to 1 pesos de a ocho in Asia.
- Spanish: 1 peso de a ocho (272 maravedis) = 0.025561 kgs. of pure  
 silver.
- Indian: 1 rupee = 0.01133 kgs. of silver.
- Russian: 1 poood , approximately equal to 21.5 kgs.

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