

[441]

5.2 Money's Purchasing Power

1. The Value of Early Northern Song's Money

The three centuries of the Song witnessed few days of pure peace. Because its rulers emphasized literature and the arts, and disparaged military preparations, it was a weak period militarily, and Song regularly suffered oppression at the hands of the peoples of the north and west:

First there was the threat from the Western Xia [Tanguts] and the [Liao Dynasty] Khitan, followed by the attacks of the Jurchid [Jin Dynasty], and finally the dynasty's extinction by the Mongol conquest.

Though there were always some literati engaged in chanting about flowers and singing of the moon, and so giving the impression of an age of profound peace, particularly during Northern Song this was a false picture. In actual fact society was not stable, and this instability was reflected in the circulation of money, in the oscillations in money's purchasing power.

In studying the value of Song money, there is one point that ought to be emphasized, and that is the localized character of changes, particularly during Northern Song. Because China's territory was broad and communications were not convenient, basically every dynasty's monetary system and changes in the value of its money were all localized, and conditions in various localities were not necessarily the same.

Such divergences became more severe after the Five Dynasties period. Though a unified nation in political terms, monetarily China remained divided into a great many independent units, almost like the situation during Spring-Autumn and Warring States times. A number of regions had their own currencies, particularly the Lianghuai and Sichuan, whose coins were not permitted to leave their frontiers, and which did not permit external coins to enter their frontiers.¹ Under these circumstances, a particular

¹*Investigation of Literary Remains*, "Investigation of Coins, 2": "From the time of their pacification, the Guangnan and Jiangnan were allowed to use old coins, which were not to cross the borders of these circuits." "The iron coin areas, Sichuan, Shaanxi and Fuzhou, retained their old system. In kaibao 3 [970] it was ordered that an inspectorate of [i.e. mint for] iron coins be set up in Baizhangxian, Yazhou, and entrance of copper coins into Sichuan was forbidden. Later, joint circulation

[446]

of copper coins was ordered, with one copper equal to ten iron coins."

locality's monetary inflation might not have any influence on other places.

For example, because during the time of Emperor Taizong too many iron coins had been issued in Sichuan, a bolt of silk gauze cost 20,000 cash there. Under Emperor Zhenzong, in xianping 5 [997], 7th month, official salaries in cash were especially increased in Sichuan and Shaanxi.² From the perspective of the entire nation, however, the value of money remained stable.

During the reign of Zhenzong [998-1023], Sichuan circulated both large and small iron coins.³ Zhang Yong sold rice for 350 small iron cash per *dou*, and a century later there were still people praising his virtuous government.⁴ Between the Huai and Cai Rivers wheat was 10 cash per *dou*, and a *hu* of non-glutinous rice was 200 per *hu*.⁵

During the first few decades of Northern Song, there were simultaneous attempts to achieve political unity and to regularize the chaotic monetary systems inherited from the Five Dynasties, as for example, by banning small coins adulterated with iron and tin, abolishing the iron coins of Southern Tang, banning the south's

[442]

small coins and getting rid of the privately minted light coins adulterated with lead and tin in Henan.

However, Liu Jiyuan of Ten Kingdoms' Northern Han did not accept a bribe to surrender until taiping/xingguo 4 [979], 5th month, and within three months of that, war with the Khitan began. Hence these attempts enjoyed no great success. This

²*Song History*, 6, "Annals of Emperor Zhenzong, 1."

³*Song History*, 7, "Annals of Emperor Zhenzong, 2": "In jingde 2 [1005], 2nd month, Jiazhou and Qiongzhou minted large iron coins." *Song History*, "Treatise on Food and Money," latter part, 2: "The [iron] coins minted in Jiazhou and Qiongzhou weighed 25 catties 8 ounces per string. Copper cash were used at a value of one equal to ten small iron cash. Later, because iron was heavily demanded, many were illicitly melted down to make utensils, and 25 catties had a value melted down of 2,000." Shi Wenying, *Pure Words from the Jade Jar*, 6: "Secretary Zhang Yong was again made magistrate of Yizhou. . . . At that time the bandit vanguard of Fang Qian and Ji Gang was crossing Gansu, and the people of Shu still worried about being attacked, and so large Jingde iron coins were newly minted in Jiazhou and Qiongzhou. Their benefit or harm had yet to be determined. Advice came from all sides, and the court pondered it."

⁴Dong [Wei?], *Relief of the People Book*, 3, "Zhang Yong's Charitable Sales."

⁵*Song History*, 7, "Annals of Emperor Zhenzong, 2," jingde 4, 12th month: "Abundant harvests in the various circuits. Between the Huai and Cai, wheat was 10 cash per *dou*, and non-glutinous rice was 200 per *hu*."

was particularly true of the iron coins of Sichuan and Shaanxi, which circulated as of old.

The main problem involving the value of money at the beginning of Northern Song involved iron coins, and that was mainly a question in Sichuan.

Sichuan had a long history of using iron coins. Not to speak of too remote events, Meng Chang of Latter Shu's Guangzheng Circulating Treasure represented the beginning of formal use of iron coins in Sichuan. From then on, Sichuan continued to use iron coins. Their use in Shaanxi and Hedong was the result of influence from Sichuan.

Latter Shu did not, however, produce very many iron coins, and so depreciation in their value did not occur. It was only when the number produced suddenly increased at the beginning of Song that the iron coins could no longer retain parity with bronze cash, and as a consequence the bronze cash were all driven out of circulation, and Sichuan became a region using only iron coins.

We do not know the annual production of iron coins by Latter Shu, but by the beginning of Song, in Yizhou, Qiongzhou, Jiazhou and Meizhou (perhaps an error in my source for Yazhou) over 500,000 strings of iron coins were produced annually.⁶ This quantity would be considered significant even for bronze cash. Iron coins were symbols of value, and the authorities originally wanted to have them circulate at parity with copper coins, as a kind of fiduciary currency. Since, however, limits on their quantity were not maintained, the exchange rate could not be maintained, and neither could their value.

The exchange ratio of iron with copper cash was originally one for one.⁷ By qiande 4 it had fallen from 1.1:1 to 5:1.⁸ During the taiping/xingguo per-

iod, it fell to 10:1,⁹ and even as low as 14:1.¹⁰ Probably the price of 20,000 cash per bolt of gauze silk belongs to this period. It is said that in chunhua 5 the authorities fixed a ratio of 10:1.¹¹

Li Shun's uprising halted production at all the mints.¹² That was in chunhua 4 and 5 [993-4]. Although minting resumed after Li Shun's defeat, the quantity made steadily declined until, after dazhong/xiangfu 7 [1014], annual production was only 210,000 strings.¹³ During the huangyou period production went back up to 270,000 strings,¹⁴ but in jiayou 1 [1056] it was back down to a little over 100,000 strings.¹⁵ In jiayou 4, minting was halted for ten years in Jiazhou and Qiongzhou, leaving only Xingzhou with its annual production of 30,000 strings.¹⁶

The value of iron coins probably did not fall further. During xining and yuanfeng [1068-86], minting of iron coins rose once more, but at the end of xining the quantity minted annually in Sichuan's Jiazhou, Qiongzhou and Xingzhou was only something over 236,000 strings, and during yuanfeng it was only some 139,000 strings, figures far short of the early Song level.

Hence, in yuanfeng 2 [1079] the copper-iron coin exchange ratio in Lizhou Circuit was from 1.5:1 to 2:1.¹⁷ Because by that time Exchange Notes had become the main basis for making up for deficits in expenditures, iron coins were no longer an important instrument.

reaching an exchange ratio of 5,000 iron for 1,000 copper coins."

⁹Searches into a Multitude of Books, latter collection, 61.

¹⁰Shu Broad Record, 67: "Taiping/xingguo 4 . . . At this time, the old coins had been exhausted, and there was trouble among the people. At times the northern guests were dealing bronze cash into Shu, with one of them exchanging for 14 iron coins. It even reached the point that several ancient tombs were being broken into for the few bronze cash they contained, and religious images were being illegally eliminated. The court investigated, and an edict ordered that, as of old, only iron coins need be used to make payments. Then people's hearts were set at rest."

¹¹Shu Broad Record.

¹²Cf. note 6.

¹³Song History, "Treatise on Food and Money," latter part, 2, "Coins."

¹⁴Song History, "Treatise on Food and Money," latter part, 2, "Coins."

¹⁵Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued, 183.

¹⁶Song History, "Treatise on Food and Money," latter part, 2, "Coins."

¹⁷Song Collected Statutes Compiled Draft, "Punishments:

⁶Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued, 59, jingde 2, 2nd month, day gengshen: "Previous to this, Yizhou, Qiongzhou, Jiazhou and Meizhou annually produced over 500,000 strings of cash. From the time of Li Shun's rebellion, minting was abolished."

⁷Cao Xuequan, Shu Broad Record, 67, notes the entrance of Latter Shu iron coins into Chengdu. "The Daying Treasury often had iron coins mixed in at random with copper coins. Their workmanship was fine." The Chengdu Record contains a similar account. Cf. note 24 in chapter 4.2.2 above.

⁸Shu Broad Record, 67: "In qiande 4, the Prefect, Lord Lü Yuqing, and the Transport Commissioner, Lord Shen Yilun, memorialized on the selection of a plan for issuing copper coins in Shu territory. Iron coins were exchanging with copper ones at a rate of 1,100 for 1,000. Copper utensils would be sought out for minting into additional coins so as to increase the supply of copper coins in the market. But this plan failed in the execution. Prices increased, and iron coins became excessively cheap,

[443]

At the beginning of Song, the iron coins of Jianzhou in Fujian also underwent depreciation. Actually, Fujian only produced a total of 100,000 strings of iron coins.¹⁸ This was during the taiping/xingguo period [976-984]. It was probably because the people of that area were not accustomed to the use of iron coins that their value could not be maintained. Prior to taiping/xingguo 8 [983], their price ratio to copper coins was 3:1,¹⁹ and in jingde 2 [1005] the ratio had fallen to 10:1.²⁰

Nevertheless the circulation of iron coins during Northern Song remained chaotic. Studies by earlier scholars were relatively limited, merely recording the exchange ratio between the various copper and iron coins, without organizing the material further, so that a reader could not tell if iron coins were becoming ever more expensive or ever cheaper.²¹

It is necessary to take the exchange ratios in a single area as the standard for making comparisons over time, since the ratios of different places were not necessarily the same. For example, during the zhidaoyuan [995-998] period, the ratio in Lizhou Circuit was 5:1, but it was 6:1 in Mianzhou Circuit, 8:1 in Yizhou, and 10:1 in Shaanxi.²²

Even in the same region, different uses would have different ratios. For example, in Sichuan and Shaanxi at the beginning of xianping [993], for paying the land tax one iron coin was as good as one copper coin, but for the firewood-salary of clerks and soldiers, 5 iron cash had to replace 1 copper cash, and in trade 10 iron cash exchanged for 1 copper cash.²³

Nevertheless, compared to the whole course of Song, the purchasing power of money during the first seven or eight decades of Northern Song was high. Particularly in the copper coin regions, everyone said that "prices were cheap" then.²⁴ Though

these statements are only relative, since at the beginning of the dynasty society was at peace and the population was not yet large, nevertheless goods must really have been cheap.

During Emperor Taizu's kaibao 4 (971), because the price of rice had risen, it was fixed officially at 70 cash per *dou*.²⁵ In years of good harvest, rice was still cheap. Sima Guang once said that when Emperor Taizong was pacifying Hedong, rice was a little over 10 cash per *dou*.²⁶ That probably happened in taiping/xingguo 4 [979]. In duangong 2 [989], millet and wheat were 10 cash per *dou*.²⁷ In chunhua 2 [991], the Lingnan price of rice was only 4-5 cash per *dou*.²⁸ During the xianping years [993-1004] even in iron coin using Sichuan it only cost 36 cash per *dou*.²⁹ At the end of jingde 4 (1007-1008), in the Huai-Cai region, non-glutinous rice

²⁴*Song Collected Statutes Compiled Draft*, "Food and Money, 41": "During the jianlong era [960-963] of Emperor Taizu, grain was cheap in Hebei. Prices were raised through purchase of grain so as to benefit the poor." *Ibid.*, "Food and Money," 53: "An edict of Emperor Taizong's chunhua 3 [992], 6th month stated that there was a large harvest in the Capital Districts, making prices cheap." *Ibid.*, "Food and Money," 39, Emperor Zhenzong's dazhong/xianfu 5 [1012], 6th month, 20th day: "The Emperor said to Wang Dan, 'The various circuits all memorialize abundant harvests. Prices are especially low in the districts of Jingdong.'" *Memorials on Government of Wenzheng Duke Fan*, first, "Reply to a Hand-Delivered Edict Discussing Ten Matters": "At the beginning of our August Dynasty, after distancing ourselves from the chaos of the Five Dynasties, the masses were weak, and for a time goods were cheap." Wang Yong, *Swallow Wing Bequeathed Plans Record*, 2: "At the state's beginning . . . goods prices were terribly cheap."

²⁵*Song History*, 276, "Biography of Chen Congxin": "Now rice is expensive in the market. The official price is 70 cash per *dou*. The merchants are losing their profit. No one dares to go to the capital. Although the resident merchants have an abundance, they will not sell any. This makes rice still more expensive."

²⁶*Song Collected Statutes Compiled Draft*, "Food and Money, 4." *Song History*, 336, "Biography of Sima Guang," makes it 10 cash per *dou*.

²⁷*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 30, duangong 2 [989], Summer, 4th month, Li Jue sent up the statement: "In recent years, millet and wheat have become cheap below the capital . . . with a *dou* worth 10 cash."

²⁸*Song Collected Statutes Compiled Draft*, "Food and Money," 57, chunhua 2, 4th month, edict: "Granary rice under official management in the prefectures of Lingnan was previously sold every year for 4-5 cash per *dou*, which amounted to nothing at all."

²⁹Fan Zhen, *Eastern Studio Record of Events*, 3: "When Secretary Zhang Yong was in Shu, a *dou* of rice was 36 cash."

Penalties for Banditry," 3.3.

¹⁸*Song History*, "Treatise on Food and Money."

¹⁹*Song Collected Statutes Compiled Draft*, "Punishments: Penalties for Banditry," 3.2.

²⁰*Searches into a Multitude of Books*, latter collection, 61.

²¹Hino Kaisaburo has written a rather deep study of the minting of iron and copper coins during Song. Cf. his "On the Development of Exchange Notes," *Shigakku* No. 45.3, and "The Quantity of Copper and Iron Coins Minted During Northern Song," *Shigakku*, No. 46.1. The section on Sichuan iron coin inscriptions in *Medieval Oriental History*, volume 3, chapter 3 provides only a general table of copper-iron coin exchange prices, from which it is difficult to derive a clue.

[447]

²²*Song History*, 293, "Biography of Zhang Yong."

²³*Song History*, 309, "Biography of Zhang Zhi."

was 200 cash per *hu*.³⁰ The following year, a *dou* of rice ranged from 7-8 to 30 cash.³¹ At the end of dazhong/xiangfu 5 [1012], in Hedong a *hu* of rice sold for 100 cash.³²

Even in qianxing 1 (1022), when Exchange Notes were already being issued, the price of grain in Jingxi fell to as low as 10 cash per *dou*.³³ There is a similar report for tiansheng 6 [1028].³⁴

The most important episode of inflation during Northern Song was caused by the war with Western Xia's Yuan Hao. In Emperor Renzong's bao-[444]

yuan 2 [1039], 1st month, Yuan Hao requested the title of emperor, and in the 12th month, rose in rebellion along with the Northern Capital.

Northern Song had never really enjoyed any genuine peace, particularly along its frontiers, which were generally in a very tense state. In qianxing 1 [1022], 12th month, there were already reports saying that "merchant travelers report frequent difficulties involving provisions on the frontiers. Prices are shooting up, with bolts of cloth, gold and silver double their old prices, and food and fodder expensive everywhere."³⁵ In tiensheng 5 [1027], the price of gold rose to 1 string per ounce.³⁶ Many peasants

were then being conscripted as soldiers, and not only was production thereby reduced, but natural disasters may also have increased in frequency.

As soon as the war with Western Xia broke out, the fiscal situation became even more difficult. Therefore, at the end of the following year (the beginning of 1041), a 10-cash coin was minted to aid in meeting frontier expenses.³⁷

In qingli 1 [1041], 9th month, Yuan Hao conquered Fengzhou and Zhizhou, and as a consequence Hedong was ordered to mint large iron coins. In the 11th month, Jiangzhou, Raozhou and Chizhou were ordered to mint 3 million strings of iron cash to meet military needs in Shaanxi.³⁸

In qingli 5 [1045], the Qingli Heavy Treasure 10-cash bronze and iron coins were minted.³⁹ The

"Mines and Smelters": "In tiansheng 5, to buy an ounce of gold required 1 string of cash."

³⁷*Song History*, 10, "Annals of Emperor Renzong," kangding 1, 12th month, day wushen: "A 10-cash coin was minted to temporarily aid with frontier expenses." *Song Collected Statutes Compiled Draft*, "Food and Money," 11.6: "In kangding 1, because an insufficient amount could be moved to Shaanxi, the Garrison Fields Assistant Division Chief, Pi Zhongrong, advised increasing the output of the mints. Because of the edict to Jiangnan to mint large coins, Jiangzhou, Chizhou, Guozhou and Raozhou also minted small iron coins, all transported to the northwest region inside the passes." As only small iron coins which bear the kangding year period label exist, I do not know what coin the 10-cash coin referred to here might be.

³⁸*Song History*, 11, "Annals of Emperor Renzong."

³⁹*Song History*, 180, "Treatise on Food and Money." *Song Collected Statutes Compiled Draft*, "Food and Money," 11.6: "In qingli 1, 11th month, there was an edict to Jiangzhou, Raozhou and Chizhou to mint 3 million strings of iron coins to meet Shaanxi military expenses." *Comprehensive Mirror for the Illumination of the Prince, Long Draft, Continued*, 164, qingli 8, 6th [448]

month: "When military activities in Shaanxi first began, the amount moved there was insufficient. The magistrate of Shangzhou, Pi Zhongrong, at first recommended smelting copper at Qingshui, Guozhou, and at Red Cliff Mountain in Luonanxian, and to set up two inspectorates, the Fouxin and Zhuyang, to mint coins. Then, the Chief Transport Commissioner of Shaanxi, Zhang Kui, and the magistrate of Yongxingjun, Fan Yong, asked that large coins be minted and circulated alongside the small coins. A large coin would be equal to ten of the small ones. They also asked that the iron coins amassed in Jinzhou be used to mint small coins.

"When Zhang Kui reached Hedong, he minted large iron coins in Jinzhou and Yizhou, which were also each equal to ten small ones. These were used to aid in meeting military expenses in the northwest. Unexpectedly, the Finance Office memorialized to request abolition of the minting of iron coins in Hedong, and

³⁰Cf. note 5.

³¹*Song History*, 7, "Annals of Emperor Zhenzong," dazhong/xiangfu 1 [1008]: "The circuits say that at harvest time a *dou* of rice was 7-8 cash." *Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 69, dazhong/xiangfu 1, 7th month: "This month in Xiangzhou, Xuzhou, and in several prefectures in Jingnan Circuit, a *hu* of rice was 300 and a *dou* of wheat was 12 cash."

³²*Song Collected Statutes Compiled Draft*, "Food and Money," 39, dazhong/xiangfu 5, 12th month, 12th day: "At this time, Hedong had an abundant harvest. A *hu* of rice was 100 cash."

³³*Song Collected Statutes Compiled Draft*, "Food and Money," 39, qianxing 1, 11th month: "The Jingxi Transport Office says 'the price of grain is 10 cash per *dou*. It is feared that this is too cheap, and there will be injury done to agriculture. It is requested that the Finance Office at an early time buy grain in the market.'"

³⁴*Song History*, 9, "Annals of Emperor Renzong," tiansheng 6, 11th month, day wuwu: "In Jingxi it is said that 'a *dou* of grain is 10 cash.'" Lu Shiyi, *Discussion of Reasons for Wealth*: "In the time of Emperor Renzong of Song, 10,000 households of navy households were established in the Jiangnan circuits. . . . As the years multiplied, a *dou* of rice reached 5 cash." Cf. *Mystical Observation Hall Collectanea*, "Record of the Events of Jiashen."

³⁵*Song Collected Statutes Compiled Draft*, "Food and Money," 1.20.

³⁶*Searches into a Multitude of Books*, latter collection, 62,

10-cash copper coin weighed less than 2 *qian*, which amounted to a weight reduction to one-fifth. Extra profit from minting the iron coin was still larger, particularly for the 10-cash iron coin. The cost of minting this coin was less than 10 percent of its face value.

The Song Dynasty made iron coins throughout its history, but not in large numbers, except for during the kangding and qingli periods [1040-49].⁴⁰ Because the value of iron coins then was very low, copper coins were hoarded,⁴¹ or were melted down

that Shaanxi go back to getting the yellow copper of Yizhou's Zhujianling mountain range, and set up the Boji Inspectorate to mint large coins. As a consequence, the court ordered the minting of large copper coins in Jiangnan, and that Jiangzhou, Chizhou, Raozhou and Guozhou mint small iron coins, all to be forwarded to the northwest. The coins from these several prefectures were circulated intermixed.

"The large coin was about equal to three small bronze coins, and it was possible to mint a 10-cash large bronze coin, causing illicit coining to flourish among the people. Coin inscriptions were in great disorder. Prices leaped up. Both public and private interests suffered. Thereupon Zhang Kui again memorialized that Jinzhou, Yizhou and Shizhou and Weishengjun were daily minting small iron coins and keeping them solely for the use of Hedong. Since Hedong's iron cash were circulating, illicit coiners were obtaining profits of 60 percent. Money was lightly demanded and goods heavily demanded, and the troubles were as great as in Shaanxi."

⁴⁰For the iron coins made during qingli in Jinzhou and Yizhou, cf. Ouyang Xiu, *Complete Works of Wenzhong Duke Ouyang*, 115, "Correspondence Requesting Abolition of Iron Coins." Based on the figures contained in this work, Hino Kaisaburo put together the following table. Cf. *Medieval Oriental History*, vol. 3, chapter 3:

Type	Place of Mfg	Quantity (1,000str)	Face Value	Mfg Cost	Profit	Profit Rate
10-csh	Jinzhou	28.8	288	17.8	270.2	15-fold
	Yizhou	16.0	160	6.4	153.6	24- "
1-cash	Jinzhou	114.5		46.0	68.5	1.5- "
	Yizhou	4.0		0.99	3.01	3- "

⁴¹Wang Gong, *Convenient Miscellaneous Record*: "In Shaanxi, each string of copper cash could be exchanged for 1 string 30 cash. Later, because the Ever Normal Granary officers of the prefectures did not issue copper coins, the other offices subsequently imitated them. The people spread the word that iron coins were no longer to be used, and every household hoarded copper coins, and used iron coins because they were lightly demanded. This caused the coins to be cheap and goods to become more expensive.

to be recast into inferior coins.⁴² Naturally, prices increased.⁴³ Even small iron coins could be melted down and reminted, since the histories all mention Qingli small iron cash, and a large number of them seem to have been minted. Yet none of them have survived, while large iron coins are not hard to come by. If the histories are not in error, these small coins must have been melted down and recast into large coins. Minting of iron coins was halted in qingli 8 [1048].⁴⁴ The large copper coin was revalued to be worth 3-cash.⁴⁵

The fall in the value of money then was not solely due to the depreciation of copper and iron coins. It was also a consequence of the use of paper notes. It was during the reign of Renzong that issue of Exchange Notes was nationalized. Though the amount of the issue was limited to about 1.25 million strings, because their sphere of circulation was

⁴²Li Gou, "Strategies for Enriching the State," number 8: "This spring flows, spreads and is dispersed, linking those above with those below. If there is not enough for the state, then there is a surplus among the people. This is a necessary tendency. Now among the people there are families newly hoarding strings of coins. Without old coins being destroyed, new ones are minted daily in large numbers. The total must increase and cause harm. What is the reason for this? . . . It is because there are licentious people who are melting them down. These licentious people melt them down to make bad coins to spread through the markets. Bronze images and bronze utensils are spread through the temples and monasteries. . . . If one legal coin is melted down, perhaps four or five can be minted. Brought to market and exchanged, each can fetch what two or three coins would, thus yielding interest of several fold. Since the people hoard bad coins, they cannot be kept from using them. Where there is profit, no matter what rules and orders be set, there is no way for them to succeed. The state loses lawful coins, and the people obtain bad coins. Bad coins cannot in the end be employed by the state. That is why these [good] coins grow increasingly few." Cf. *Collected Works of Li Zhijiang*, 16.

⁴³*Song History*, 320, "Biography of Wang Su": "Iron coins spread all through Shu, and their manufacture did not cease. The coins became increasingly light. Merchants did not go forth. Minting was ordered halted for ten years so as to control prices." Su Che, *Luan City Three Collections*, 6, "On Plans and Problems": "The Large Spring Value Ten circulated for only a decade. Goods were heavily demanded, and coins were lightly demanded. Private coining was as of old. Goods in general jumped in price. People suffered from this for a long time."

⁴⁴*Song History*, 11, "Annals of Emperor Renzong," qingli 8, 7th month, day xinchou: "Minting of iron coins was halted."

⁴⁵*Sea of Jade*, records an edict of qingli 8 making a large copper coin equal to three small ones.

[449]

narrow, and because some people made them privately, the tendency toward monetary depreciation was exacerbated.

Since there were very many counterfeit Exchange Notes, in qingli 7 [1047] the Transport Commissioner was thinking of abolishing them. The man then in charge of Exchange Notes, Sun Fu, said that both Exchange Notes and iron coins could be counterfeited, but that no one seriously proposed abolishing iron coins.⁴⁶

When Wen Yanbo was magistrate of Yizhou in qingli 8 and 9 [1048-1049], he sent up a memorial in which he discussed how the Chengdu Exchange Note Authority obtained a very generous profit each year for its issues of Exchange Notes, because by then it no longer kept a reserve of ready cash.⁴⁷

Therefore, not only were Exchange Notes not abolished, thought was given to using them more broadly. For example, in xining 2 [1069], the Regulations Office advocated circulating Exchange Notes in Hedong, though the Transport Office opposed this. Because of an insufficiency of ready cash in Shaanxi, Shen Qi asked that Exchange Notes be circulated there, but because there was opposition to doing so, this was not done.⁴⁸

⁴⁶*Searches into a Multitude of Books*, latter collection, 62, "Fiscal Applications: Mulberry Paper Money," quoting a funerary inscription.

⁴⁷*Duke Wen Lu Collected Works*, 14: "The Exchange Notes employed by the Yizhou Exchange Note Authority yield a very generous annual profit for the public. The people have come to rely upon them, for they are easier to exchange in the market than iron cash. Now, because Qinzhou had brought in provisions and fodder, and on two occasions 600,000 strings had been paid out, there are no reserves of ready cash accumulated for backing the Exchange Notes. If one considers this deeply, during the next year or two, when the terms of the notes have expired, the customers will bring in Exchange Notes to the officials, and when there is no cash to redeem them, and requests to do so are blocked, the Exchange Note system will be spoiled, and both public and private interests will be defrauded. I humbly request that the court direct the Transport Office of this circuit to collect from its various offices the profits of some 30-50,000 strings per month, and pay them over to the Yizhou Exchange Note Authority, to serve as reserves for payment of holders of Exchange Notes. This would avoid corruption of the old system, and stop the defrauding of both the public and private interest."

⁴⁸*Searches into a Multitude of Books*, latter collection, 62, "Mulberry Paper Money": "In xining 2, the Regulations Office said, 'Gao Zunyu has requested the establishment of an Exchange Note Authority. . . . Now, to transport iron coins in Hedong is laborious and wasteful. Exchange Notes ought to be circulated.' Later, the Transport Commissioner said, 'If Exchange Notes are circulated, merchants will be unwilling to bring

[445]

To what degree did prices rise during this period? During tiansheng 4 [1026], rice cost from 70 to 100 full cash per *dou*.⁴⁹ As stated above, in tiansheng 6, the price of grain fell to 10 cash per *dou*. At the beginning of mingdao [1032], drought and grasshoppers between the Yangtze and Huai drove a *dou* of rice up to several hundred cash.⁵⁰ During qingli 3 [1043], in rice producing regions of the lower Yangtze, a *dou* of rice ranged from 60-70 full to 100 cash reduced.⁵¹ It was probably still more expensive in the north. After qingli 8, a *dou* cost 700 in the localities of Hebei, and at times was as high as 1,000.⁵² These prices may have been calculated in terms of iron coins.

in provisions and fodder. Not only will purchases on the frontiers be harmed, we also fear that salt and alum will not be sold.' Subsequently this was not done. Because the coins of Shaanxi were insufficient in number, Shen Qi asked that Exchange Notes be circulated. Later, Zhang Jingning went out as commissioner, and said that Exchange Notes could be circulated in Shu, but not in Shaanxi. He feared that people would lose their businesses, and would have nothing on which to depend for their livelihoods. This practice was abolished. Later, there was another plan for using notes, which harmed procurement on the frontier. Exchange Notes were circulated for two years, but again could not be kept up for lack of cash backing. With no profit from such a note scheme, it was once again given up."

⁴⁹*Song Collected Statutes Compiled Draft*, "Food and Money," 39, tiansheng 4, intercalated 5th month, 2nd day: "The Financial Office said that in the four circuits of Jingnan, Hunan, Jiangnan and Huainan, rice was 70 to 100 full cash per *dou*."

⁵⁰Liu Shang, *Gongshi Collection*, 51, "Reports on Previous Investigations of Yizhou Prefecture By His Lordship": "In mingdao 1, there was a great drought between the Yangtze and Huai, grasshoppers appeared, and were especially severe between Yangzhou and Chuzhou. . . . This year a *dou* of rice was several hundred cash."

⁵¹*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 143, qingli 3, 9th month, day dingmao: "Now the rice of Jiang and Zhe is not less than 600-700 full cash per picul to 1 string reduced."

⁵²*Eastern Studio Record of Events*: "For provisions and fodder imported into Hebei, ready cash was formerly used. After qingli 8, tea, salt, incense and medicine ready cash certificates were used on the frontiers. These certificates entered the towns at a discount, but when merchants did not get cash for them in a timely fashion, they traded in the market cheaply, and caused provisions to be sold at a high price per *hu*, and this raised prices in general. A *dou* of rice was 700, and even reached 1,000." *Song History*, 184, "Treatise on Food and Money: Tea," latter part: "In qingli 7 . . . the tea system had been spoiled for some years. The value of certificates in fodder and grain was probably to be reckoned at 80 percent. A *dou* of rice was 700, and even

During huangyou 2 [1050], there was a famine in Liangzhe, and grain was fetching 120 cash per *dou*.⁵³ In Mengzhou, which was not suffering from famine, the price of wheat at harvest time was 60 cash per *dou*. Later, when bought by the authorities, a *dou* ranged from 90 to 120 cash.⁵⁴ In general during the huangyou years, the price of rice in the southeast during times of abundant harvest was 50-60 or 80-90 cash per *dou*. In times of famine, it was 120-130 or 220-230 cash per *dou*.⁵⁵ There are also records of price increases in other goods.⁵⁶

as much as 1,000 cash."

⁵³Wu Ceng, *Loose Record of the Ability to Change Studio*, 2, "Record of Fan, the Duke of Shu": "When Fan Wenzheng governed Hangzhou, there was famine in Liangzhe. [This was in huangyou 2. Cf. Shen Gua, *Mountain Stream Dream Jottings*, 11.] Grain prices spurted, with a *dou* fetching 120 cash."

⁵⁴*Collected Works of Chen Xiang, Mister Guling*, 16, "Report of Magistrate of Heyangxian Requesting Abandonment of Harmonious Purchase of Wheat" [*Ibid.*, 26, "Reports of Yeh Zuxia, Mister Guling," states that in huangyou 3 he was magistrate of Heyangxian in Mengzhou.]: "I have observed that this prefecture each year abandons tens of thousands in harmonious purchase of wheat. Most is bought up after the deadline. For each *dou* the officials pay out no less than from 90 to 120 cash. This is 30 or 40 cash higher than the market price among the people at the time of the harvest. . . . A *dou* of wheat's normal market price at harvest time is only 60 cash."

⁵⁵Li Gou, *Collected Works of Li Zhijiang*, 28, "Letter Sent to Pacificator Sun": "In huangyou 4, 11th month, 13th day . . . for the most part in the fertile areas of the southeast, though it was a famine year, there were places with good harvests. Recently, the various districts have made their own plans, and have retained surplus grain, not allowing it to go beyond their own borders. Yesterday I made some ten observations. One *dou* of rice was being sold for 50-60, or 80-90, or 120-130, or 220-230 in different places. Even though the sounds of dogs and cocks could be heard from one place to the other, a boat was not permitted to go up or down stream. This kept peasants in places where the price was cheap from gaining money, and people in places where it was expensive from obtaining food. This is no proper plan."

⁵⁶*Song Collected Statutes Compiled Draft*, "Food and Money," 23, quoting Bao Cheng: "In places where military activity has begun, feathers, horns, lacquer, iron, pottery, wood, stone

[450] and lime are broadly exchanged. Grasping merchants take advantage of the times to take aim at profit, and connive in acts of fraud with the officials and clerks so as to drive prices up. A beam of wood for which the fixed price is 1,000, fetches a mat of salt. . . ."

Memorials on Government of Wenzheng Duke Fan, first part, "Memorial for the Establishment of an Official Monopoly

Some historians note that prior to xifeng [1068-1086], there were certain things assumed as a matter of course. For example, the classic price ratio of "a *dou* of rice for a catty of salt" probably goes back to this time. It was said that then a *dou* of rice and a catty of salt each cost 76 cash. Approximately the same rice-salt exchange rate held for high Tang as well. At that time salt cost 10 cash per *dou*, or 2 cash per catty. The cost of rice reached 20 cash per picul, so that 1 *dou* was also 2 cash. However, the Tang and Song *dou* were not identical. Therefore, the equation of a *dou* of rice and a catty of salt was not, in fact, the same for the two periods.

In zhihe 1 [1054], the Western Xia were overcome by the Khitan, with whom Song was then temporarily allied, and so the war came to an end. Minting of iron coins had already been temporarily halted, and the face value of the large copper coins had been changed. Minting of small copper coins was begun. Prices probably gradually leveled off. When the histories say that prior to xifeng a picul of rice was only 600-700,⁵⁷ they must be referring to this period.

Up to now, however, I have never seen a small Huangyou coin. The Zhihe coins were still rather light and small, and were crudely made. Moreover, there were still large coins. Even the Jiayou and Zhiping coins were not as fine as the prewar coins. Evidently all that was done then was to stop further

on the Annual Contribution of Miscellaneous Goods for Military Needs": "I observe that since military activity got under way, rates have been set for what is called harmonious purchase within the Empire of such goods as leather, horn, material for bows and arrows, spears, armor, lacquer and feathers, all of which come from the people. Most are not local products, and are hard to obtain. Since they are called military requirements, and their acquisition is backed by threats of punishment, prices have gone up ten fold, and the clerks commit abuses on a hundred fronts." *Song History*, 184, "Treatise on Food and Money," edict of huangyou 2: "Recently the food and money regulations have been spoiled, and fodder and grain prices have gone up several fold."

Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued, 158, qingli 6, 5th month, day wuzi: "[In Sichuan] at first the salt gabelle discounted silver and silk by 50 percent. One catty of salt was 20-30 in coin. One ounce of silver or one bolt of heavy silk were from 900 to 1200 cash. Later, an edict had the gabelle discounted to metal and cloth, price varying over time. Thereupon the Xinzhou Transport Office requested an increase in the price of silver and heavy silk. The Finance Office was advised that though the price in silver and heavy silk had reached 3,000, neither could the price of salt be compared to its original level, a catty now being sold for 140 cash."

⁵⁷*Song History*, 182, "Treatise on Food and Money: Salt," middle part.

increases in prices, which was nothing much to brag about.

turned out during Northern Song's yuanfeng period. Iron coins and paper money are not included.

2. Value of Money During the Xining and Yuanfeng Years

Northern Song gave rise to China's second high tide of monetary circulation. The peak of this high tide occurred during the xining and yuanfeng year periods [1068-1086].

Because of the dearth of coins from late Tang through Five Dynasties, the share of the barter sector of the economy greatly enlarged. Even during the first few decades of Northern Song, the barter economy continued to flourish. We can see this from the official salary system. During the jiayou period [1056-1064], the proportion of official salaries paid in goods ranged from 7 or 8 percent to over 50 percent.

The quantity of coins shot up during yuanfeng, and in parallel with this the proportion of official incomes paid in money diminished. Various ranks' payments in cash varied from something over 30 percent to something over 40 percent. The rest was paid in goods. Nevertheless, the quantity of coins minted grew ever larger.

Putting aside the qingli period [1041-49], during which there was an untoward superficial increase caused by the minting of 10-cash coins, the quantity minted annually steadily increased, reaching its highest point during the xining and yuanfeng years.

During xining, quite a few additional coin minting inspectorates were added. In xining 4 [1071], mints for copper coins were established in Jingzhaofu and Huazhou; in xining 7, Henanfu set up the Foucai Inspectorate, Weizhou set up the Liyang Inspectorate, Liangzhe's Jiandefu set up the Shenquan Inspectorate, and Jinghu's Ezhou set up the Baoquan Inspectorate. In xining 8, Jingzhaofu and Huazhou each established iron coin inspectorates and Huainan's Anqingfu set up the Tong'an Inspectorate. In xining 9, Shaanxi's Minzhou established the Taoshan iron coin Inspectorate.

During the tianbao period [742-756] of Tang, annual coin production was only 320,000 to 330,000 strings, amounting to only 6 or 7 coins per capita. By early Northern Song, a ten-fold increase had occurred. Some say that during the kaiyuan [451]

period [713-742] annual coin production was a full million, but this was only one-fifth the number

TABLE OF NORTHERN SONG COPPER COIN PRODUCTION

Year	Annual Quantity	Coins Per Cap.	Source
taiping/xingguo 6 (981)	500,000 strgs	---	Song History
Mid-zhidao (996)	800,000 "	40 cash	" "
xianping 3 (1000)	1,250,000 "	---	Song Coll. Stat.
Mid-jingde (1006)	1,830,000 "	90 cash	Song History
dazhong/xiangfu9(1016)	1,250,000 "	58 "	Sea of Jade
Late tianxi (1021)	1,050,000 "	53 "	Song History
During tian-sheng (1030)	1,000,000+ "	---	Searches Mult.Bks
Drng qingli (1045)	1,000,000 "	131 c	MtnStrm DrmJtgs
Drng huang-you (1050)	1,460,000 "	---	Sea of Jade
During zhi-ping (1066)	1,700,000 "	58 c	Song History
Late xi-ning (1077)	3,730,000 "	121 "	Song Coll.Stat.
During yuan-feng (1080)	5,060,000 "	203 "	Inves.Lit.Rem.
chongning 5 (1106)	2,894,000 "	---	Sea of Jade
daguan (1107-1111)	2,900,000 "	66 c	Song History
xuanhe 2 (1120)	c.3,000,000 "	---	Song History

The total quantity of money in circulation then is hard to calculate,¹ but if we reckon in terms of the

¹For the quantity produced during taiping/xingguo, cf. *Song History*, 265, "Biography of Zhang Qixian." For the zhidao, jingde and tianxi quantities, cf. *Song History*, "Treatise on Food and Money," latter part, 2. For xianping, cf. *Song Collected Statutes Compiled Draft*, "Food and Money: Coin Regulations," 11.1. These only give the quantity minted in Jiangzhou, Chizhou, Raozhou and Jianzhou; the quantity minted in the north is not included. For tiansheng cf. *Searches into a Multitude of Books*, latter collection, 60, "Types of Copper Coins," quoting *Lei Yuan*. For the qingli quantities cf. *Collectanea of Ancients and Modern Books and Illustrations*, quoting *Mountain Stream*

annual production of coins, then up to the end of yuanfeng times [1086], Northern Song had minted some 140 or 150 million strings of copper coins. Undoubtedly there were also private coins, and if we include them, the total would approach 200 million strings. There must also have been several tens of millions of strings of iron coins, and a small number of Exchange Notes. There were also undoubtedly a large number of old coins from previous dynasties still in circulation, particularly Inaugural coins, which probably constituted between one-fifth and one-fourth of all copper coins.²

Therefore, the total quantity of coins in circulation must have been 250 to 260 million strings.

The large quantity of money was in part the consequence of the development of production and commerce. It also in part probably reflected the policies of the authorities. The sharp increase in the quantity of coins minted during the xining and yuanfeng peri-

ods in particular could have been specifically intended. It could have been a result of Wang Anshi's policies, or have been influenced by his policies.

Wang Anshi sought to enrich the state and strengthen the armies, and was a politician in the mold of the Legalist Shang Yang. His [452]

policies did not make Northern Song into so strong an empire as Han or Tang because he faced very great obstructions. As early as the huangyou period [1049-1054] he had said that the fiscal difficulties of the age were results of bad management.

He advocated raising official salaries, and said this need not harm the budget.³ Naturally, this could only mean minting more coins and increasing taxes. His policies required increasing the power of the central government, and assuring that government personnel be loyal to their duties. After he took power, these things were all done: Coin minting, tax collecting and official salaries were all greatly increased.

By no means were all of the coins he minted issued. In fact, the majority of them were either kept in the treasury or collected in taxes and put back there. This was because most official salaries were still paid in kind. He undoubtedly believed that these coins were the nation's reserve force. Nevertheless, the goals he sought were not achieved.

The takeoff-like development of Northern Song's monetary economy had no great effect in military affairs, because money was not put into military preparations, but was instead used to maintain a luxurious way of life for the official class, and hence produced a large effect only on the cultural side.

This money virtually brought into being a literary and artistic renaissance. Historiography, literature, philosophy, fine arts and science and technology all displayed a rare vivacity, and made striking accomplishments. These accomplishments exceeded those of any other period in Chinese history except for those of the Warring States period.

These accomplishments also generally correspond in time to the years of greatest production of coins, and we cannot say this is entirely coincidental. In principle, it is only after the transformation of a natural economy to a monetary economy that cultural development can be promoted. To be sure, an increase in the quantity of money alone is insufficient to encourage cultural development, but if the authorities have the intelligence to make use of money to develop culture, to use it to encourage those engaged in cultural tasks, then culture can feel the encouraging effects of money's expansion.

Dream Jottings.

For the xining figures cf. *Song Collected Statutes Compiled Draft*, which does not give specific years. From the history of the establishment of the various mints, however, we can tell that these figures pertain to late xining. For the yuanfeng figures, cf. *Investigation of Literary Remains*. In addition there were 1,139,234 strings of iron coins. The *Secretariat Reference* gives the figure as 889,234 strings. *Searches into a Multitude of Books*, latter collection, 60, "Types of Copper Coins," quotes the *Lei Yuan* as saying that after Emperor Shenzong's xining, annual production of copper coins was more than 6 million strings. This figure probably includes iron coins as well.

For the chongning figures, cf. *Sea of Jade*, 180, "Coins." For the total daguan figures, cf. *Song History*, "Treatise on Food and Money." These two sets of figures could have been the same statistics entered into the records. *Song Collected Statutes Compiled Draft*, "Food and Money," 11.1 says that annual coin production during daguan was 2,890,400 strings from the ten mints of the four southern circuits, and does not include the north's contribution. The population figures are based on *Song Collected Statutes Compiled Draft*, *Song History*, *Universal Record*, *Investigation of Literary Remains* and *Universal Statutes Continued*. I have taken the figures for the years closest to those in the table.

²A hoard of old coins was dug up in April 1940 inside Dingxian, Hebei Province. The latest in date were tiansheng coins, so they must have been buried during the tiansheng period. They included 4 Five-grainers, 1 Monetary-spring, 1 Sui Five-grainer, 389 Inaugurals, 11 Qianyuan, 11 Huichang Inaugurals, 1 Tianhan, 4 Zhouyuan, 4 Tang State, 23 Southern Tang Inaugurals, 24 Song Originals, 81 Taipings, 58 Chunhua, 145 Zhidao, 138 Xianping, 153 Jingde, 247 Xiangfu Original Treasures, 87 Xiangfu Circulating Treasures, 58 Tianxi and 1 Tiansheng. There was a total of 1,441 coins. Cf. "Report on Excavation of Ancient Coins in Hebei Province," *Kahei*, No. 257, p. 1.

³Wang Jiefu, *Letters to Emperor Renzong Discussing*

In modern times, some economists suppose that the quantity of money is of no relevance at all, and that increases or decreases in the quantity of money are of no importance. They say that if the quantity of money increases ten fold, then all prices and wages will also increase ten fold, so that no one will be able to gain any extra advantage. The same sort of thing will happen if the quantity of money is reduced.⁴

This is a mechanistic view. First of all, neither prices nor wages can rise or fall exactly in parallel with rises or falls in the quantity of money. Second, these economists view the circumstances of society as static, supposing that change is the exception, and repose the norm. They do not realize that circumstances are eternally changing, and that things can never be at rest. Changes in the quantity of money cannot appear immediately or to the same degree in each sector or in the income of each individual. Each increase must be the occasion for society's

[453]

purchasing power to be reallocated once more.

Affairs.

⁴Lyman J. Gage, "The Sufficiency of Our Present Currency System," *Sound Currency*, vol. X (1903), pp. 61-63. The Frenchman Charles Gide also says that the quantity of money is irrelevant. If the quantity is large, then each unit's purchasing power is reduced. If the quantity is small, then each unit's purchasing power is increased. Cf. his *Principles of Political Economy*. Both of these are quoted by Norman Angell, *The Story of Money*, p. 128, who evidently agrees with them. They do not realize that

[459]

the importance of such increases or decreases in the quantity of money occurs during the course of the change, and not after the influence of the increase or decrease has been extinguished, just as the influence of throwing a rock into a pond occurs at the time the wave induced thereby is present, and not after the pond has returned to its peaceful state. Actually, even this is not an apt analogy, since there can be no time when an economy and society are absolutely at rest. Rocks are constantly being thrown into the water, and the weights of the rocks vary, as do their number, direction and angle of fall. [Peng here quite correctly uses Austrian School monetary doctrine to correct these classical economists. Two points might also be added: First, an increase in the quantity of money may be useful if it brings the total supply up to the threshold of adequacy for the number of exchanges society wishes to make. Second, as Peng notices a little further along, who gets hit by the rock —i.e. who gets the money first— also counts for a lot. If, as Peng argues, culture-building literati get the money first, you get the cultural glories of Song. If investment-making businessmen get the new money first, as is the case since fractional-reserve banks and central banks began playing large roles in economic life, you get the business cycle. EHK]

Just to take official salaries and wages as examples, whosoever's income increases most or earliest has the advantage and receives a stimulus. The Northern Song government threw most of the money into the hands of the meritocratic class. This amounted to stimulating this class and thus encouraging its culture.

Northern Song's monetary system had obvious localistic characteristics, and that these did not block this cultural high tide would appear to be hard to explain. Moreover, ancient Greece and Warring States era China operated under similar circumstances.

I have two explanations for this seeming paradox. The first is that during Northern Song the different individual monetary regions each had relatively stable monetary systems. This was especially so for the important copper coin region, where no extended period of weight reduction ever took place. This was the region which served as the foundation for Northern Song culture.

The same sort of argument holds for ancient Greece and Warring States era China. A stable monetary system is not in itself sufficient to bring forth a high tide of culture, but at least it does not constitute an obstacle to one.

The second explanation is that silver and heavy silk could pass between the otherwise separate monetary regions. These two commodities served as interregional media of payment. Silver in particular could be exchanged for the local coins anywhere. Warring States era gold also played this sort of role. Therefore, this period's localism was a kind of open door localism rather than a closed off localism. If it had been of the latter type, then the isolation of its regions could have blocked the flow of goods and the development of culture.

Did the great increase in the quantity of coins influence prices?

Prices were not greatly affected during xining and yuanfeng because, as was reported at the time, there were frequent abundant harvests.⁵ In xining 2

⁵*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 228, xining 4, 12th month, day xinyou, petition sent up: "The Hebei Convenient Purchase Office has greatly decreased expenditures for military provisions. In this year of abundance, the degree to which prices have fallen is really pitiable." *Ibid.*, 248, xining 6, 12th month, wuyin, Chen Shu said: "In xining 5, there were large harvests in Su-Hu. The price of rice was just half the level in Huainan." *Ibid.*, 278, xining 9, 10th month, wuzi, Pi Gongpi said: "Exceedingly abundant harvest enjoyed in this circuit this year, and the Ever Normal Granary is accumulating many coins." *Song Collected Statutes Compiled Draft*, "Food and Money," 39, xining 10, 11th month, 15th day, the Financial Office said: "This year in Shaanxi the autumn

(1069), though the cost of rice in the capital districts was 100 cash per *dou*, in the outer regions it was only 40.⁶ North of the Yellow River, it was 70 or 80 cash.⁷

In xining 3, there was a drought in Shaanxi, and the following year a *dou* ran to 100 cash full,⁸ though old rice was 75 cash per *dou*.⁹ In xining 5 it was 80 cash.¹⁰ In xining 6, the price in the capital, Bianjing, ranged from 75 to 105 cash.¹¹ In xining 7,

harvest was abundant, and goods became cheap."

Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued, 292, yuanfeng 1, 9th month, bingxu, Xu Xi said: "In Shaanxi Circuit, to the very edge of its frontiers there have been extraordinarily abundant harvests. Goods have become cheap." *Ibid.*, 300, yuanfeng 2, 10th month, xinchou, Wu Yong said: "There have been abundant harvests in successive years in the Huai and Zhe circuits. Grain is cheap." *Ibid.*, 307, yuanfeng 3, 8th month, yimao, the Court of Agricultural Supervision said: "Abundant harvest this year in the border circuits. Prices extremely cheap." *Ibid.*, 337, yuanfeng 5, 7th month, dingmao, the Haidong Transport Office said: "The harvest has been quite abundant; food and fodder are cheap." *Ibid.*, 338, yuanfeng 6, 8th month, dinghai, Li Liang said: "This year along the borders, the Autumn harvest was twice normal." *Ibid.*, 402, yuanfeng 2, 6th month, renchen, the Board of Revenue said: "Within the prefectures of the circuits of Huainan, Hebei, Jingdong and Jingxi, this year the summer wheat harvest was abundant, and grain prices were terribly low." *Ibid.*, 429, yuanfeng 4, 6th month, guihai, Fu Raoyu said: "In my humble view, the harvest of silkworms and dryfield grain this year is very great in most areas, and their prices will in consequence fall."

⁶*Song History*, 175, "Treatise on Food and Money: Harmonious Purchase," xining 2, Wang Gui memorialized: "In the outer commanderies it fetched 40 cash. To get a *dou* of rice in the capital districts, since there is now a cash shortage there, the granaries must pay out 100 cash. This is quite untoward."

⁷*Song History*, 176, "Treatise on Food and Money: Ever Normal and Righteous Granaries," xining 3: "Last year there were abundant harvests north of the Yellow River. A *dou* of rice was only 70 or 80 cash."

⁸*Collected Works of Guowenzheng Duke Wen*, 43, "Request to Not Add Garrison Fields Horses": "Last year [xining 3] Shaanxi endured a Summer drought. At the beginning of Autumn, there was abundant rain, and none of the five grains ripened. . . . Now, a *dou* of white rice costs 100 cash full."

⁹*Collected Works of Guowenzheng Duke Wen*, 44, "Memorial Petitioning a Request to Not Use Rice to Pay for Green Sprouts Cash": "Last Summer and Autumn, the five grains were abundant in some places, and meager in others. Grain prices are hard to predict. Now, old white rice is just 75 cash per *dou* in ready cash."

¹⁰Jōjin, *San Tendai gotai sanku*, 1, (Complete Works of Japanese Buddhism), xining 5, 5th month, 7th day, in Shaoxingfu: "it took 400 cash to buy 5 *dou* of rice."

it ranged from 85 to 150 cash.¹² In xining 8, it ranged from 80 to 100.¹³ In rice producing areas, a *dou* was only 50 cash.¹⁴ In yuanfeng 2, a *dou* of rice sold for 20 cash in rural areas.¹⁵ In yuanfeng 7, the price of dryfield grain was only 30 in Jingxi,¹⁶

¹¹*Collected Works of Mr. Xiang*, 1, "Opening the Granaries to Sale of Rice," xining 6: "Since the 10th of the 3rd month I had heard that the market authorities were buying rice. From the 11th on, I heard that the price was daily increasing, from 85 cash per *dou* to 105 on the 25th. In response to an order of the 27th of the 3rd month, the capital has sent officials to the various centers to sell rice. On that day, the price suddenly fell. By the 30th of the 3rd month, in the market rice cost 75 cash."

The Fan Clan's Rules for Righteousness Continued, xining 6, 6th month: "Five piculs of coarse rice to be provided per month for the various professors (if the price of rice reaches more than 1 string per picul, then only 1 string of cash is to be paid in lieu of each picul)."

¹²*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 251, xining 7, 3rd month, jiazi: "At this time a *dou* of rice was 150. An edict to the Court of Agricultural Supervision called for Ever Normal Granary rice to the amount of 320,000 *hu*, and Finance Office rice to the amount of 1.9 million *hu* to be used to level the price down to 100 cash. By this time it had gone down 10 cash due to the official sales." *Ibid.*, 252, xining 7, 4th month, yihai: "Another edict to the Finance Office was issued because a picul of high grade non-glutinous rice was

[460]

1,000 cash, . . . and middle grade was 85 cash per *dou*."

¹³*Ibid.*, 265, quoting *Lü Huiqing's Daily Record*, xining 8, 9th month, 16th day: "At first rice was only being sold for 80 in the capital. The Court of Agricultural Supervision sold rice for 100." *Song History*, 15, "Annals of Emperor Shenzong," xining 8, 8th month: "There was an edict to the Transport office to secure the price of rice in Huainan, Jiangdong and Liangzhe. No less than 1 million piculs of tax rice was provided to the people at a low price of not less than 80 cash per *dou*."

¹⁴*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 267, xining 8, 8th month, Lū Huiqing's reply to Emperor Shenzong's question: "In Suzhou we all have fields which have been acquired for 1 string pledged per *mu*. The annual income from these is 4 to 5 *dou* of rice, but there is often a deficiency, and there might be only one harvest in two years. Then better fields yield 3 *dou* of rice. With a *dou* selling for 50 cash, that is only 150 cash."

¹⁵Jing Jin, *Outline of the Collected Works of Dongpo*, 45, "Reply to Qin Taixiu": "In districts outside [Huangzhou], a *dou* of rice is 20. . . . Fish and crab fetch no price in cash." (In yuanfeng 2, Su Shi was dismissed to the sinecure of Deputy Militia Commandant of Huangzhou.)

¹⁶*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 348, yuanfeng 7, 8th month, wuchen, Sai Xuchen said: "I have heard that in Jingxi the price of dryfield

and 40 in Shaanxi.¹⁷

During the yuanyou period, prices continued very low. In yuanyou 1 (1086), a *dou* of rice was 40 to 50 cash, and at its lowest only 30 or 20 cash.¹⁸ In yuanyou 4, there was flood and drought in Zhexi, and in Hangzhou a *dou* jumped from 60 cash full to 95 cash full. Because the authorities generally reduced tax rates, the following year it fell back to 60 to 70 cash.¹⁹ In yuanyou 5, there was famine in the lake district between Suzhou and Hangzhou. In Suzhou the price jumped from 67 cash full per *dou* to 95 cash full. In Zhexi it jumped to 100 cash full.²⁰ In yuanyou 6, in Huainan's

[454]

Suzhou and Haozhou there was damage from natural disasters, and a *dou* jumped to 77 cash, 70 cash in Jiangdong.²¹ In Sichuan during the yuanyou period, rice cost 60 to 70 cash per *dou*²² or 70 to 80 cash.²³

grain is only 30 cash."

¹⁷*Collected Works of Guowenzheng Duke Wen*, 44, "Memorial Petitioning that Rice Not Be Discounted for Green Sprouts Cash."

¹⁸*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 365, yuanyou 1, 2nd month, yichou: "In normal times, a *dou* was worth only 40 or 50 cash, and at the extreme, was 30 or 20 cash." *Song Collected Statutes Compiled Draft*, "Food and Money: Labor Service Avoidance Cash," 13.4, records the same information for grain prices in general, but perhaps this is also what Sima Guang meant, and he just used rice as a specific example.

¹⁹*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 451, yuanyou 5, 11th month: "Last year in several commanderies of Zhexi, drought followed floods. . . . In Hangzhou, the price of rice rose to 80-90 per *dou*." Also, "this office held investigations during the 8th and 9th months. The market price of rice in Hangzhou was 60 cash full per *dou*. By the 11th month, it had risen to 95 cash full. Because of this jump in prices, the court ordered the Transport Office to reduce the amount of grain paid in by one-third, and at that point the cost of rice fell. . . . Now, rice coming into the market is 75 cash full."

²⁰*Ibid.*: "We see now that the price of rice is daily going up in Suzhou, Huzhou, Hangzhou and Xiuzhou. In Hangzhou . . . a *dou* is no less than 67 to 70 cash full." In day wuyin "according to reports from Suzhou, rice is already up to 95 cash full in the market." 11th month: "In the 7th month [in Zhexi], a *dou* had reached 100 cash with a full hundred."

²¹*Op. cit.*, 456, yuanyou 6, 3rd month, yiyou.

²²*Loyal and Severe Collection*, 5, "Memorial Requesting the Chengdu Provisions Office to Discount Tax Rice": "I have heard that in Chengdu Circuit . . . rice sells among the people for 60-70 cash."

²³*Purity and Virtue Collection*, 4, "Ten Memorials in Reply To Messengers Received": "In Shu in recent years grain has

Fundamentally, what do these prices signify? Were they low goods prices? Or were they high goods prices? They are lower than the qingli and huangyou prices, but higher than prices during the first few decades of Northern Song. Some contemporaries praised them, but some complained bitterly.

Those who praised them were those possessing an abundance of goods, the people whom Wang Anshi described with such phrases as "water fills their irrigation ponds, grain fills their baskets. Reckless they waste greens and fruits, but more fills their hands;" or "dew accumulates in mountains, of which a hundred kinds come in; fishing poles are rich with loaches;" or "every family's dew accumulates like mounds and hills; yellow hair sighs to see what is not."²⁴

Those who complained were those with things they could not sell, the so-called "eastern families with rice grains as white as silver; the western families with paddy rice as big as drums; three times over they bring it into the market, and then carry it back again; anxiously they reduce their prices, but there are no buyers."²⁵ Su Shi said there were even people who worshipped in the temples day and night, hoping for a famine.²⁶

been extremely cheap. . . . A picul of rice is worth 70-80 cash."

²⁴Wang Anshi's "Five Stanza Song of Yuanfeng":

Water fills their irrigation ponds, grain fills their baskets,
Reckless they waste greens and fruits, but more fills their hands;
Spirit groves everywhere sound with flutes and drums,
Together they compete in yuanfeng's first Autumn.
Dew accumulates in mountains, of which a hundred kinds come in,
Fishing poles are rich with loaches;
Healthy and pleased, they dream on, out of touch with reality,
They can't they see yuanfeng's second Autumn.
In lakes and seas the yuanfeng harvests ascend,
Weeds grow in the dark ditches;
Every family's dew accumulates like mounds and hills,
Yellow hair sighs to see what is not.
My song goes ahead to the grove,
It wavers with the fertile sounds of abundant harvests;
I await on the Jade Steps to learn the Imperial Power,
In my song at times there is the spirit of Yao.
In the midst of the sounds of the suckling pigs and chickens,
The evening grove shimmers and leaves fall on the southern hills;
In abundant years everywhere people are well,
They go and come as the please.

²⁵Lü Nangong, *Irrigated Garden Collection*, 4, "Sent From the Mountains Proclaiming Virtue to the District Magistrate."

[461]

These two attitudes represent differing points of view. Superficially, those who praise the low prices are holding the perspective of the consumer. Those who complain are taking the position of the producer. A fall in prices was a blow to artisans and peasants, who are producers.²⁷

And yet, abundant harvests must after all be praised. Those people who were praying for famine were mostly landlords. They hoped that other people would starve while they themselves continued to enjoy rich incomes by taking advantage of high prices to sell to the people who were starving. Theirs was a psychology of deriving joy from the misfortunes of others. We can only criticize the government of those times for not putting forth policies to profitably use the surplus of goods.

To sum up, no matter how antagonistic they were, these two positions show that people then realized that goods were cheap, even too cheap.

Given the repeated good harvests and low rice prices, why was the price even as high as it was? Why were there not prices as low as during Han and Tang? The answer to this must be sought on the monetary side. In other words, this was the result of a fall in the value of money because its quantity had greatly increased.

First of all, the rate of production of copper rose. As copper production increased, its price fell, and this influenced the purchasing power of copper cash. During the most flourishing period of Tang, annual coin production was at most something over 300,000 strings. During the xining and yuanfeng periods [1068-1086] of Northern Song, a rate

twenty times this was achieved. During the reign of Emperor Yuan of Western Han [48-32 B.C.], the wealth of imperial consort families rarely was as much as 10 million cash, but during Northern Song households of middle standing might have this much.²⁸

Second, there were regions which circulated large numbers of iron coins, and iron coins' purchasing power was still lower. In addition, the Exchange Notes of Sichuan were also depreciated. Beginning from xining 5 [1072], two terms' worth of notes were circulated simultaneously, which represented a doubling of their number to a total of 2.5 million strings' worth. Their normal value could no longer be retained, and each paper string was only worth something over 900 cash.²⁹ Because of the fall in the value of money, [455]

it was natural for prices to increase.

The quantity of coins minted by Northern Song was twenty times that turned out during high Tang, but the number and size of good harvests did not exceed the levels for high Tang.

Even by the time of Emperor Renzong, the area of land under cultivation was still far short of the level achieved by high Tang. During the kaiyuan period of Tang [713-742], the total number of households in the country was over 8 million, and the amount of land in cultivation was over 14.3 million *qing*. During the reign of the Song emperor Renzong, the total number of households was 7.3 million, and the land under cultivation totaled only 2.15 million *qing*.³⁰

Though the amount of land under cultivation greatly increased during xining and yuanfeng,³¹

²⁶*Investigation of Literary Remains*, 14, *yuanyou* 8, Su Shi send up word: "When I went to Huangzhou, I personally observed that when there were good harvests year after year, and the peasants' carts were lined up axle to axle bringing rice into the market, they did not even get salt or wine money, and families which held grain prayed day and night in the temples for a famine." Zheng Xia, *Collected Works of Mr. Xitang*, 6, "Public Letter Sent to Wang Jing": "As for the limits to what is collected, . . . if it is sold cheaply in the market, the profit was 100 percent, but now 50 or 60 percent remains unsold. It cannot even be used as security for loans. Some have even had to give up their clothing as security for loans."

²⁷Huang Shang, *Yan Mountain Collection*, 46, "Coins Heavily Demanded and Goods Lightly Demanded": "When coins are heavily demanded and goods are lightly demanded, in the realms of grain and cloth, harm is done to peasants; in the realm of utensils and mechanical contrivances, harm is done to artisans. . . . Only artisans and peasants alone endure the bad results." [This does not take into account the terms of trade factor. If the prices a group pays fall faster than the prices it receives, it is improving its situation. EHK]

²⁸*Investigation of Literary Remains*, "Investigation of Coins," quoting Mr. Ye of Shilin.

²⁹*Song History*, 181, "Treatise on Food and Money," latter part, 3, xining 5: "Having two terms of Exchange Notes now began. At this time the supply of Exchange Notes was great, and the number of coins was insufficient, which made prices too cheap." Lü Tao, *Purity and Virtue Collection*, 1, xining 10, memorial of petition: "In the prefecture [Pengzhou] the actual value now of one of the 27th term of Exchange Notes when sold is 960. The Tea Office redeems them for 1-string. Notes of the 26th term sell for 940. The Tea Office managers redeem them for 960." Su Che, *Luan City Collection*, 36, *yuanyou* 1, memorial: "In former days the people of Shu profited from the lightness and convenience of Exchange Notes. There were instances of a 1-string note trading for 1-string and 100 cash. In recent years they have only been selling for something over 900."

³⁰*Song History*, 317, "Biography of Qian Yanyuan."

³¹*Song Collected Statutes Compiled Draft*, "Food and Money," 70, zhenghe 3, 9th month, 28th day, Wang Shou said:

there is no way to prove that the total area exceeded that of high Tang. Why then were not prices during xining and yuanfeng several dozen times higher than those of High Tang? We may adduce a number of reasons for why this was not the case.

First, the quantities of coins reported minted by the histories cannot represent the actual supply of currency during these periods or the quantity in circulation. The figures in the texts are merely official figures, and do not include statistics for private coining. During high Tang, private coining was extraordinarily virulent, and indeed was a necessity, since there were too few official coins. That is why when the government withdrew bad coins, merchants and people felt inconvenienced.

During Northern Song, aside from the period of war with Western Xia, private coining was not a serious problem. Even during the war with Western Xia, it seems not to have been as rampant as during Tang. During the xining and yuanfeng years, the officials minted so many coins that not only was there no problem of private coining, private melting of coins flourished instead, with coins being transformed into utensils.³² Therefore, the difference in the quantity of money in circulation between Tang and Song was not so great as indicated by the figures in the histories.

Second, during the xining and yuanfeng years, Wang Anshi's Labor Service Avoidance Tax drew currency into the treasury, neutralizing a portion of the money supply. This tax included the Avoidance of Labor Service Cash, Aid for Labor Service Cash, and Avoidance of Labor Service Broad Surplus Cash.

The Avoidance of Labor Service Cash was a monetization of labor service. Its intent must have differed little from that of Yang Yan's Double Tax of mid-Tang times. The other two resembled the Reckoned-contribution tax of Western Han. All of

these caused money to flow into the state treasury.³³

To merely speak of the Avoidance of Labor Service Broad Surplus Cash, in xining 10, Lü Tao reported that in four districts of Sichuan's Pengzhou, during four years, over 48,700 strings had accumulated, and he estimated that for the entire country there must have been 6 or 7 million strings in the official treasuries.³⁴ In yuanyou 1 [1098], Su Che said that since the adoption of that tax some 16-17 years previously, more than 30 million strings of income from it had accumulated, but had not been used.³⁵

Therefore, though a great many coins had been minted during xining and yuanfeng, the number actually in circulation was not that large. Some coins did not circulate at all after they were minted. For example, during xining, many of the 2-cash coins were kept on deposit in various districts, and it was not until the chongning period

[456]

that they were reminted into 10-cash coins.

Hence, not only did the phenomenon of an excessive issue of currency not appear, its opposite, the phenomenon of monetary contraction, was produced. This is what contemporaries called a coin famine. Some people blamed this coin famine on collection of the labor service taxes.³⁶ Others blamed it on an outflow of coins from China.

³³Collected Works of Guowenzheng Duke Wen, 47, "Petition Requesting Abolition of Avoidance of Labor Service," yuanfeng 4: "In recent years, prices have become ever cheaper, and life in the villages increasingly difficult. As a consequence, coins have all been concentrated in official hands. . . ." *Comprehensive Mirror Long Draft Continued*, 393, yuanyou 1, 12th month, wushen, quoting Wang Yansou: "From the time when the state established the law to collect taxes to pay clerks, the coins of the Empire have been constricted. Nine out of ten coins have left private households and returned to the public offices. . . . When a string of cash enters public hands, it does not return to circulation outside. . . ."

Su Che, *Luan City Collection*, 37, "Petition Requesting that Ever Normal Cash be Borrowed for Army Provisions in Various Districts": "Ever since xining, the people have been putting out cash to avoid labor service, and have also been putting out cash to pay interest on Ever Normal Granary loans. Coins in the official treasuries are so abundant that the strings have rotted and they cannot be counted. Official coins have disappeared among the people. Those used in the markets are mostly privately coined small cash. . . ."

³⁴*Song History*, 177, "Treatise on Food and Money: Labor Service Regulations," first part.

³⁵*Song History*, 177, "Treatise on Food and Money: Labor Service Regulations," first part.

³⁶*Comprehensive Mirror Long Draft Continued*, 294, xining

"In Tangzhou, Dengzhou, Xiangzhou and Ruzhou of this circuit, before zhiping [1064-1068], the land was mostly forested hills, and there were few people engaged in agriculture. Since the middle of xining [early 1070s], people have crowded in from all sides, and have opened land within a range of a thousand li, making good fields."

³²*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued*, 269, xining 8, 10th month, renchen: "And since the ban on copper was removed, melting down among the people has become unmanageable. If ten coins are melted down, 1 ounce of pure copper is obtained. If made into utensils, a five-fold profit is obtained. Thus, in one prefecture after another, furnaces have been set up. Each increases the toll. This is like increasing the number of ditches in the field, and then providing another pond for them to drain."

Third, the quantity of copper coins exported to foreign countries during the xining and yuanfeng years far exceeded the amount exported during Tang. The outflow of copper coins during Tang had only cultural significance, and was without economic importance, since the quantity involved was not large. Things had changed by Song times. The court frequently gave copper coins to foreign envoys,³⁷ though most of these were used to buy commodities or precious metals in China,³⁸ and few were carried home by them.

Some countries, however, employed Chinese copper cash as their money. Their ambassadors not only brought home with them these gifts of Chinese

8, 10th month, renchen, quoting Zhang Fangping, "On the Banning of Copper Because of Coins," giving Su Che's statement of yuanyou 2, 1st month, gengwu: "The harm from the Avoidance of Labor Service is that it confiscates the wealth of the people. Of every ten households, nine are empty. Coins are collected above, and below there is suffering from a cash famine." I find that of all those who discussed the cash famine from xining 8 into the shaosheng period, only Su Che insisted that it was caused by the Avoidance of Labor Service Cash. The others either did not propose a cause, or said that it was caused by an outflow of coins.

³⁷*Searches into a Multitude of Books*, latter collection, 64, "Tribute From the Barbarians of the Four Directions: Zhunian State": "In tianxi 4, 2nd month, yiyu, Guangzhou said . . . Feast and reward their subordinates, give them utensils and money in strings of cash to send off with them." *Ibid.*, "Yudian State": "In Emperor Shenzong's yuanfeng 6, 5th month, bingzi, tribute goods were exhibited in the Yanhe Palace. In yuanfeng 8, 11th month, renyin, horses were brought in, and 1.2 million in coins was allocated." *Correspondence from Beyond the Southern Mountains*, 2, "Zhancheng State": "Its vassals included Bintonglong State and Binshilong State. . . . In Emperor Zhezong's yuanyou 1, 12th month, they again brought tribute, and there was an edict to award them 2,600 strings of cash. Their longing to become civilized was admirable."

[462]

³⁸*Song Collected Statutes Compiled Draft*, "Border Barbarians," 4.95, jingde 1, 1st month, edict: "The chief envoy, Puduan, was granted an evening feast by lamplight, and was also given strings of cash. In the 5th month, they sent Ambassador Li Shihan to offer tribute. In the 9th month, the office in charge said that Puduan had bought Chinese goods and gold and silver in the markets to bring back to his country." *Song Collected Statutes Compiled Draft*, 7.31, zhiping 1, 3rd month, 1st day: "The visitor from Yudian advanced to be registered, and Luo Chewen left court with a gift of 5,000 strings of cash. Now that they have been given ready cash, they are pretending to consider using it to buy goods, but are unwilling to actually part with any. They desire to fill their coffers with heavy and fine silk. This was permitted."

coins, they also made arrangements to export coins privately. In principle, China did not permit the export of copper coins. To illegally transport even one string of them was to be subject to the death penalty. In xining 7, this ban was removed. Thereupon "heavy carts exited from the frontier passes; fully loaded ships returned home by sea." It was said that border districts merely collected taxes on copper coins being exported, and that this was an important reason for the cash famine of those times.³⁹

The most important source of demand for Chinese copper coins then was Japan. The Imperial Dynasty 12-cash [*Kocho junisen*] which they minted themselves, was not very successful. In 958, after issuing their last *Kengan daihō* coin, they lost the people's confidence, no longer minted coins, and depended on importing Chinese coins.

It was during Northern Song times that Vietnam began to mint coins. It probably also imported Chinese coins. Use of Chinese coins in the South Seas probably also began during this time, since of several dozen Chinese coins dug up in Java in recent years, all except a few Inaugurals were Northern Song coins, and of these the yuanfeng coins were the most numerous.⁴⁰

³⁹*Comprehensive Mirror Long Draft Continued*, 269, xining 8, 10th month, renchen: "Since coins are hard to obtain, grain and cloth become increasingly cheap. People are hard-pressed, and speak of it as a coin famine. Prefectural treasuries are all empty, and households have no savings. I do not know in what year coins were last minted. Now how are we to manage? . . . Since xining 7, when the new regulation was issued, and the old one forbidding removal of coins was abrogated, heavy carts have exited from the frontier passes; fully loaded ships have returned home by sea. I have heard that when coins are being exported, the border districts merely collect a tax on each string. . . . Now, from Guangnan and Fujian to Liangzhe and Shandong, cash leaves with abandon, and the officials everywhere aid and abet secret departures. Various forbidden goods are bought and sold privately. None leave without carrying coins. Coins are China's treasures, and now they are being given to the Four Barbarians to use."

Liu Zhi, *Loyal and Severe Collection*, 5, "Communication Requesting Restoration of the Coin Prohibition": "Of the coins minted in the inspectorates of the various circuits of the Empire, the amount entering into the royal offices and lost annually is several tens of millions of strings. . . . Now, however, we do not hear of the strings of these coins rotting after they enter the treasuries, and yet when they are lacking among the people at the shop counters, some call this a coin famine. Why do they say this? The main reason for it is leakage to the Four Barbarians. . . and also because of melting down of legal coins."

⁴⁰For the Chinese coins excavated in Java, cf. note 21 of

Fourth, Song's monetary economy was far better developed than was high Tang's. A barter economy bulked very large during Tang before the Double Tax reform was carried out. A number of localities used cloth rather than coins. During Song, most payments were made in coin.

Moreover, Song's domestic and foreign trade were better developed, and demanded still more currency. Of the above-mentioned export of coins, a large proportion was a consequence of foreign trade, and it was for just that reason that a great many people opposed foreign trade.

Domestic commerce was also very well developed, especially the trade in the cities, as compared with Tang times. Tang urban trade was mostly concentrated in several marketplaces, like Chang'an's Eastern and Western Markets. By the Song Dynasty, one could open a shop anywhere in a city. Except for a few places in the south, like Yangzhou, night markets were banned during Tang. Markets opened in the morning, and closed before sunset.⁴¹ Song cities like Bianjing had night markets.⁴²

[457]

Fifth, Song employed the Short-hundred system for its currency. They called it the Reduced-hundred. A string nominally was 1,000 cash, but actually only 770 or less cash would be paid.⁴³

chapter 5.2.5, below.

⁴¹Song Minqiu, *Chang'an Record*, 8, 10. Xu Songtang, *Investigation of the Two Capitals' Neighborhoods*, 3, 4, 5. *Tang Collected Statutes*, kaiyuan 5, order: "The capital night markets are ordered to be halted." Ma Gao, *Notes on Ancient and Modern China*: "Under the old system of Tang, within the walls of the capital the curfew was from dusk to dawn, so as to prevent movement." *Biography of Li Gui*: "... for a long time, when the sun set, there were four rolls of the drum. The matron said, 'The drum has sounded. We must hurry back lest we violate the prohibition.'"

⁴²*Flowery Dreams of the Eastern Capital*, 2, "The District Bridge Night Market."

⁴³The Reduced-hundred system arose during Eastern Han. High Tang employed a Full-hundred, but during Emperor Xianzong's yuanhe period, a string was diminished by 20 cash per hundred in the capital districts. At the end of Zhaozong's reign, 850 cash constituted 1 string in the capital, which was 85 per 100. During the military disorders at the end of Tang, 85 was used in place of 100. During the tiancheng era of Latter Tang there was a diminution of 5-cash. At the beginning of qianyou of Latter Han, there was a diminution of 3-cash. At the beginning of Song, taxes were paid with 80 or 85 cash to the hundred, but private practice locally was not uniform, and there are instances of 48 cash being used in place of 100. It was not until taiping/xingguo 2 that an edict was handed down imposing a uniform discount to 77 in place of 100 (*Song History*, 180).

Hence, before we can draw comparisons of prices with those of high Tang, we must allow for this difference, since high Tang used a full string. The Song Reduced-hundred system differed from those of Jin, Northern and Southern Dynasties, Tang and Five Dynasties. It was not used because of a coin shortage, but because popular custom had become systematized.

Sixth, the Song picul was one-tenth bigger than the Tang picul,⁴⁴ so Song food prices must be discounted further even after allowing for the Reduced-hundred, before they can be compared with Tang prices.

To determine the cost of rice during Song, in addition to noting the use of the Full-hundred where relevant, we use the 77 for a 100 everywhere else, and convert such prices to the Full-hundred equivalent.

That done, we can say that during the first 130 years of Northern Song, that is from the '70s of the tenth century to the end of the eleventh century, the average price of a picul was 346 cash. Converted to hectoliters, that comes to 520 cash.

During the 60-70 years prior to the Western Xia war, a hectoliter of rice was only 253 cash, compared to the high Tang (first half of the eighth century) price of 336 cash. The high Tang figure is not, however, actually a recorded average, but rather is an estimate of the normal cost of rice based on the figures in the records. If we were to strike an average from the rice prices recorded during kaiyuan

Luo Dajing, *Crane Grove Jade Dew*, 4: "According to the *Five Dynasties History*, when Zhang, the Prince of Han, was Finance Office Commissioner, he extorted profits. Transactions were originally made at 80 to the 100, but whenever Zhang made a payment he insisted on reducing it by 30 percent. The present practice of officially reducing the string to 77 began with Zhang. Now, however, the officials take off an additional 5 or so in the hundred along with the 77, and so they are even more exploitative than was Zhang."

Ouyang Xiu, *Record of a Return to the Fields*, 2: "The rules for use of coins, have taken 77 for 100 since Five Dynasties times. This is called the Reduced-hundred. Now, in market exchanges, another 5 are taken off, and this is called a dependent subtraction."

Flowery Dreams of the Eastern Capital, 3, "Market Cash Hundreds": "The market cash hundred was 77 for official use, 75 for general trade in the markets, 72 for fish, meat and vegetables, 74 for gold and silver, 68 for gems, fans, slave girls and crickets, and 56 for writings. In the market, each activity had its own degree of diminishment of the hundred."

⁴⁴According to Wu Chengluo, *History of Chinese Weight Measures*, the Tang picul was 0.5944 hectoliters, and the Song picul was 0.6641 hectoliters.

and tianbao 713-756], then a hectoliter was only 136 cash.

The figure for Northern Song is an average of the recorded prices, and these are mostly from years of good harvests. Normal rice prices must have been 50 to 100 percent higher. In any event, the Song figure must be higher than the high Tang rice price. Records of rice prices after the war with Western Xia are relatively more representative of the normal price level. During the latter half of the eleventh century, a hectoliter was 875 cash.

Therefore, during the period of more than a century occupied by Northern Song, the cost of rice doubled.

Such a tendency is not discernible in the price of heavy silk. A portion of the Northern Song annual land tax was paid in heavy silk, and so silk was frequently given an official price. Naturally, changes in official prices were not as sharp as changes in market prices. Though there were frequent increases and decreases, over the long run of more than a century, these were not large.

At the beginning of Northern Song, a bolt was probably 900 or 1,000 cash.⁴⁵ In taiping/xingguo 2 [978], the officials of Jiangxi raised it from 1,000 per bolt to 1,300.⁴⁶ During xianping [993-1004], a bolt was commuted to 1,000 cash,⁴⁷ but in the four circuits of Sichuan and Shaanxi, a bolt of heavy silk was only discounted into 300 cash.⁴⁸ In dazhong/xiangfu 9 [1016], 1 bolt was worth 800 in Shandong.⁴⁹ In qingli 6 [1046], the price of heavy

silk in Xinzhou, Sichuan rose from 900-1,200 to over 3,000.⁵⁰

This was its highest price during Northern Song, and this was undoubtedly

[458]

the consequence of the depreciation of the coins.

During jiayou [1056-1064], a bolt cost 1,300 in Yizhou.⁵¹ During xining 2 and 3 [1068-1069], a bolt was commuted to 1,000, and this was later increased to 1,500.⁵² At the end of xining [1078] the Sichuan market price of a bolt was 1,400-1,500 cash.⁵³ In yuanfeng 2 [1079], it was 1,300 in Chengdu.⁵⁴ During yuanyou [1086-1094], a bolt was 1,700-1,800 in Chengdu.⁵⁵ In yuanfeng 4

⁵⁰*Comprehensive Mirror Long Draft Continued*, 158, qingli 6, 5th month, wuzi: "... later there was an edict to commute the levy into metal and cloth, the discount to be calculated at the times of payment. Thereupon the Xinzhou Circuit Transport Office requested an increase in the silver, fine silk and heavy silk price. This was sent down to the Finance Office for advice. Though based on the old price, these goods were increased by more than 3,000, but there was no old price to serve as the basis for comparison for salt. Sold in the market, a catty fetched 140 cash." This passage somewhat obscures the price of heavy silk. Judging from the tenor of this statement, it was increased by 3,000 over the old price, and so we cannot tell what the new price actually was.

⁵¹*Song History*, 340, "Biography of Liu Zhi": "In Yizhou . . . from then on heavy silk was 1,300, cotton was 76. The people cried out in joy until tears came."

⁵²*Song History*, 175, "Treatise on Food and Money": "When Emperor Shenzong ascended the throne . . . it was ordered in successive years that when paying in heavy silk, a bolt be commuted to 1,000 cash." *Ibid.*, "In xining 3, the Censor Cheng Ying said that when the Jingdong Transport Office bought light and heavy silk under Harmonious Purchase, it increased the rate to 1,000 cash for a bolt of heavy silk. Later, for both Harmonious Purchase and tax purposes, a bolt of heavy silk was always rated at 1,500 cash."

⁵³Lü Tao (in xining 10 the magistrate of Pengzhou), *Purity and Virtue Collection*, 4, "Memorial on Ten Matters in Reply to Receiving a Messenger": "In Shu in recent years . . . heavy silk has remained at 1,400 to 1,500 cash per bolt."

⁵⁴*Song History*, 199, "Treatise on Punishments": "In yuanfeng 2, the Controller of the Seal of Chengdu Circuit said that in past times, the Sichuan and Shaanxi price of a bolt of heavy silk was 2,600 cash. Using this as a basis for calculation, 2 iron coins are equivalent to 1 copper coin. Recently, a bolt of heavy silk has only been 1,300."

⁵⁵*Loyal and Severe Collection*, 5, "Memorial Requesting that Chengdu Provisions Tax be Commuted": "I have heard that in Chengdu . . . the price of a bolt of heavy silk is 1 string plus 700 or 800 cash." *Searches into a Multitude of Books*, latter collection, 64, "Tribute from the Barbarians of the Four Quarters":

⁴⁵*Comprehensive Mirror Long Draft Continued*, 158, qingli 6, 5th month, wuzi: "At first, the salt gabelle was allowed to be half commuted to silver and cloth. One catty of salt was reckoned at 20 to 30 cash. One ounce of silver was equal to 1 bolt of heavy silk, or 900 to 1,200 cash."

⁴⁶*Song History*, 174, "Treatise on Food and Money," first part, 2, "Taxation": "In taiping/xingguo 2, the Jiangxi Transport Commissioner said . . . for heavy silk of the superior kind, the old rate was 1,000 per bolt. Now it is requested that it be calculated at 1,300."

[463]

⁴⁷*Song History*, 175, "Treatise on Food and Money," first part, 3: "When Emperor Shenzong ascended the throne . . . when paying in heavy silk, 1 bolt was equal to 1,000 cash."

⁴⁸*Miscellaneous Record In and Outside Court Since Jianyan*, 14, "Fiscal Affairs and Taxes, 1: Discounting of Cloth for Cash in the Southeast": "In xianping 3 . . . in the four circuits of Sichuan and Shaanxi, generally when discounting heavy silk into cash, 1 bolt was discounted into 300 cash. This was the actual value during xianping."

⁴⁹*Ibid.*: "In dazhong/xiangfu 9 . . . between Qing and Qi, heavy silk was worth 800 and fine textured silk 600. The official rate was increased by 200, which greatly aided the people."

[1081], however, the price in Zhejiang was only 1 string per bolt.⁵⁶

The relative stability of the price of heavy silk during Northern Song must be ascribed to the increase in its production and a rise in productivity, but even so, the price of heavy silk was higher during Northern Song than during high Tang.

"In Emperor Zhezong's yuanyou 1, 4th month, jiawu, the censors and high officials all said . . . yesterday there came into the inner treasury the proceeds from sale of the cloth from those dismissed over many years. Each bolt only fetched 200-300 cash, only 10 or 20 percent of the price."

⁵⁶*Comprehensive Mirror Long Draft Continued*, 432, yuanyou 4, 8th month, yichou, Su Shi said: "As Zhang requested Harmonious Purchase official cash, 1 bolt was 1 string. A lower price could not be taken. The coarse, short, heavy silk of Changhuaxian was bought and delivered to the officials."

3. The Fall in Money's Value During Chongning and Daguan

Many things were happening to Northern Song from the time Huizong ascended the throne (1101). Domestically, Cai Jing assumed power, and widespread poverty provoked uprisings by Fang La and Song Jiang. Externally, the eunuch Tong Guan's foreign adventures initiated a chain of disasters, with the ensuing loss of credibility inviting the subsequent Jin invasion. Increased expenditures gave rise to monetary inflation.

Output of mines reached a peak during xining and yuanfeng [1068-1086]. In copper, for example, annual production was 5 million catties during huangyou [1049-1054]. During tianxi [1017-1022], it was 7 million. By yuanfeng 1 [1078] it had increased to 14.6 million catties. Lead and tin enjoyed similar increases.

[464]

That is what allowed so many coins to be produced during xining and yuanfeng.

After yuanfeng, production gradually decreased. At the beginning of shaosheng [1094], the Secretary of the Board of Revenue, Cai Jing, tried many things to develop the mining and smelting trades, but nothing came of them, and so attention was

focused on the copper-immersion technique.¹ This involved soaking iron in what was called gall water to turn it into copper, a Chinese-invented metal smelting technique. The copper-immersion technique was said to have been invented by Xu Shen. During shaosheng, Zhang Qian wrote *Essentials of Immersion Copper*. Probably the results were not significant.

In xuanhe 6 [1124], the authorities formally acknowledged that the profits from minting and smelting were "less than 10 percent of those of the xining and yuanfeng periods."² Therefore, from yuanyou on, the quantity of coins minted diminished.³

A reduction in the quantity minted should not, however, be equated with a reduction of the quantity in circulation. With the death of Wang Anshi during yuanyou, the Avoidance of Labor Service Tax was abolished, and export of copper cash was again banned. These moves must have increased the number of coins on the market.

Probably 2-cash coins were more numerous than small 1-cash coins, which is a characteristic of depreciation, and prices had begun to rise. This was particularly true of prices reckoned in terms of iron coins.⁴ During yuanfu, rice ranged from 300 to 500 and 600, to as much as 1,000.⁵ In yuanfu 3 [1100],

¹*Song History*, 180, "Treatise on Food and Money," latter part, 2, "Coins." Note: "An ingot of pig iron is forged into plates, and then immersed in a trough of gall water. It is left there to soak for several days. The iron plate is made thin by the gall water. Red coal is then applied and the combination is placed in a furnace and smelted three times to produce copper. On the average 3 catties 4 ounces of iron are required to make 1 catty of copper. A certain amount is produced annually from the lead mines of Raozhou, Xingzhou. Lizhou, Changzhou and Xinzhou. This is what is called gall copper."

²*Song History*, 185, "Treatise on Food and Money: Mining and Smelting."

³Cai Tiao, *State History Supplement*: "State minting of coins was an old tradition by Five Dynasties and Southern Tang times. The quantity annually minted steadily increased. It reached its apogee during the period from qingli to yuanfeng [1041-1086], with over 3 million strings of copper and iron cash without doubt being produced. By yuanyou and shaosheng times [1086-1098], things slackened off. By the beginning of chongning [1102], the quantity was no longer as great as during the times of the founding ancestors."

⁴*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continues*, 512, yuanfu 2, 7th month, guimao, Lü Huiqing said: "Since yuanyou and shaosheng, iron coins have been steadily lightened, and so the price of rice has steadily increased."

⁵*Ibid.*: "Now, moreover, Weizhou is saying 'In former

both the Summer and Autumn harvests were excellent, but prices did not fall back.⁶ At the end of the year, floods caused the price of a *dou* of rice to go to 340 in several districts of Hebei.⁷ Prices that low were not to be seen again during the twelfth century. In the Spring of jianzhong/jingguo 1, the year Hui-zong ascended the throne, in rather distant frontier locations like Luyan Circuit's Xincheng Fortress, a *dou* of rice brought as much as 1 string 400 cash in Reduced-hundreds.⁸

Cai Jing came to power in chongning 1 (1102). In that same year, there was an uprising by the Yao in Chenyuan (Hunan), and in its 12th month, a 5-cash coin was minted. The following year, the Man of Anhua rose as well, and the 10-cash Chongning Heavy Treasure was minted, and was ordered circulated everywhere except for the iron coin areas of Shaanxi, Hedong and Sichuan.

In chongning 3 [1104], the 1-cash and 5-cash coins were abolished, and sole reliance placed on the 10-cash coin. Even the 2-cash coins which had been kept in reserve since xining were reminted into 10-cash coins.

Once this large coin had been issued, much confusion arose among the people, so that there were some who were unable even to use coins to purchase goods.⁹ This was because whether in terms of

weight or in copper content, one large coin was not even the equivalent of three Tianxi small coins. Each of them only weighed 3 *qian*, and contained less than 60 percent copper, a depreciation to less than one-third of the former value.

As a consequence, coins were divided into two types, and there were two prices in the market, which gave rise to illicit coining. Zhang Yan of Suzhou illicitly coined as many as several tens of millions of strings of *cāsh*, and received a heavy sentence for doing so. Naturally, privately minted coins did not reach 3 *qian* in weight. Most small coins were melted down and reminted. Later, because prices had shot up, the southeast was ordered to change to a 5-cash coin, but this did not put an end to private coining, and so there was a further revaluation to 3-cash. This probably happened during chongning 4.¹⁰

[465]

Cai Jing became chief minister again in daguan 1 (1107), and again advocated use of a 10-cash coin. Therefore, a 10-cash large coin was minted along with a small coin, 2-cash and 3-cash denominations. All bore the inscription Daguan Circulating Treasure.

Though the Daguan 10-cash was much heavier than the Chongning 10-cash,¹¹ this still represented a weight reduction compared to the small 1-cash coin, and so there was still profit to be made from private coining.

days, a *dou* of rice or wheat was only 100 cash. Nowadays a *dou* is more than 300 cash. When bought along the new frontiers, it comes as high as 500 or 600 cash." *Ibid.*: "Recently, Yan'anfu officials bought rice for 520 cash full. On the market, new rice is 780 cash full. Old rice is 720 cash full." Li Xin, *Jumping Turtle Collection*, 19, "Message of Ten-thousand Words Sent Up to the Emperor": In yuanfu 3, 5th month, 11th day . . . Recently a flood in Hebei covered 1,000 *li*. . . From Yong west, a *dou* of rice was 1,000 cash, and goods in Jingdong and Jingxi shot up in price."

⁶Fan Chunren, *Posthumous Writings of the Shilang, Duke Fan*, "Advice Advanced on Things Inconvenient," jianzhong/jingguo 1, 5th month: "After the major military movements, there were bad crop years. Although last year the Summer and Autumn harvests were both abundant, prices were not much reduced."

⁷*Song Collected Statutes Compiled Draft*, "Food and Money," 59, yuanfu 3, 12th month, 3rd day, the officials said: "Several frontier districts in Hebei suffered breaches of the river dikes, with a thousand *li* being emptied. . . . This has brought the price of rice now to no less than 300 to 400 cash per *dou*."

⁸Fan Chunren, "Advice Advanced on Things Inconvenient."

⁹*Song History*, 328, "Biography of Zhang [Ci?]" : "At this time, the Chongning large coins had just been minted. When the order came down, the markets remained closed during the day, and when people brought coins to buy goods, by sunset they had become agitated because no one was willing to sell. Those in

charge of the market, and whose authority extended to goods in general, would accept small coins for them, and pressed the granary clerks to sell rice for large coins. It was a full ten days before the people could be calmed down." Zeng Minxing, *Lone Awakening Miscellaneous Record*, 9: "In chongning 2, a large coin was minted. Cai Yuanzhang advised making it equal to 10 cash."

[470]

The people did not find it convenient. Some good fellow was holding a feast, and gave a large coin for a glass, when he asked for his change, the seller would have no coins with which to give it, and he would have take his change in drink instead. After drinking as many as five or six, he would belch and say, "What would you have done if it had been a 100-cash coin?" This story impressed the Ruler, and because of it the rule was changed."

¹⁰*Events of Great Song Handed Down from Xuanhe* says that minting of the Chongning 10-cash coin was halted in chongning 4.

¹¹Some historians suppose that the Daguan and Chongning 10-cash coins were the same. (Cf. Cai Tiao, *State History Supplement*, and *Imperial Song Comprehensive Mirror Long Draft Digest*, 136, zhenghe 6, 5th month, dingmao section.) Actually the Daguan 10-cash weighs more than 5 treasury *qian* [over 0.5 ounces], and it is generally believed that the 5-cash Daguan

Cai Jing again fell from power in daguan 3, and since people had been suffering from the large coins for some nine years, attacks were launched against them from all sides. The new chief minister, Zhang Shangying, advocated calling them in at a price of an ounce of silver or a bolt of heavy silk for each 10 strings. Once recalled, the heaviest of them were to be selected and revalued to 3-cash. This recommendation was carried out in zhenghe 1 (1111). Naturally, some people were harmed by it.¹²

After minting the Chongning 10-cash coin, Cai Jing also minted the so-called tin-alloy coin, which was indeed made of an alloy of copper and tin. Each string used 8 catties of copper, 4 catties of black tin and 2 catties of white tin. Each coin weighed less than 3 *qian*, and was equated to 2 copper coins. This was done in chongning 4 (1105).

These coins were originally restricted to use in Shaanxi, but some advocated circulating them throughout the country. Cai Jing was one of these, but just then he left office, and so in the end this was not done.

After he was restored to the chief ministership in daguan 1 (1107), he had a 5-cash tin and iron alloy coin minted. Shaanxi had hitherto only used iron coins, and so when first exposed to these tin alloy coins, it viewed them favorably.¹³ It was only because their fineness became ever lower, at times requiring 7 or 8 of the alloy coins to equal 1 copper coin, that they eventually became virtually identical to iron coins. This forced prices up several fold.¹⁴

weighed over 3 *qian*.

¹²*Song History*, 351, "Biography of Hou Meng": "When the large coin system came to ruin, the court was advised to change them from 10-cash to 3-cash. The clerks in charge of the treasuries all came to report, saying that in all the prefectures the large coins were being carried to market to exchange for goods, and that everyone suspected the regulations were to be changed. Meng asked, 'How many have accumulated in our prefecture?' The reply was, '8,000 strings.' Meng sighed and said, 'How could things change still more and I not know about it?' The next day the regulations were sent down."

¹³*Song History*, 285, "Biography of Jia Yan": "During zhenghe . . . since Shaanxi had first circulated iron coins, they had long suffered from the coins being increasingly lightened. Cai Jing established measures to collect all of them and mint coins alloyed with tin which were somewhat heavier." *Song History*, 348, "Biography of Shen Qi": "Of old, Shaanxi lacked copper coins. Therefore it treated tin alloy coins as valuable."

¹⁴*Floating Island Collection*, 1, "Letters to the Emperor": "Moreover, the tin alloy coins do not even yield a profit of 10 percent, and goods have become three times more expensive. This has occurred during recent years. As prices become ever heavier, state requirements become ever more humbled."

Cai Jing left office again in daguan 3, and the tin alloy coins minted in the southeast were withdrawn. The following year, this was also done in Hebei, Hedong and Jingdong Circuits, but Shaanxi continued to use both the tin alloy and large iron coins, both at a face value of 2-cash. The tin alloy coins of the southeast promptly all flowed into Shaanxi, with the result that their value fell to the point that it took 20 of them to equal 1 ordinary coin.¹⁵

Cai Jing returned to power in zhenghe 2 [1112], and again requested use of tin alloy coins. Thereupon the copper coin inspectorates of the various circuits set to work minting tin alloy Zhenghe Circulating Treasure coins. There was a degree of fineness of metal content displayed by these tin alloy coins, and their inscriptions still bore the current year period, but because they had been abolished and reinstituted twice, most people avoided using them, and so their use had to be enforced. After several disorderly years, however, even Emperor Huizong himself said that the suffering caused by the tin alloy coins was even greater than that caused by the 10-cash coins. They were still being minted and used in the northwest up into the zhonghe period.

Actually, not just copper coins were being depreciated during this period. There was also a paper money inflation going on in the Sichuan-Shaanxi region. Ever since xining 5 (1072), two terms of Exchange Notes had been circulating simultaneously, and a local inflation had already broken out in Sichuan. From shaosheng (1094-1097) on, the quantity issued was frequently increased for use in the Shaanxi frontier areas to recruit soldiers and supply the armies. It is estimated that in shaosheng 1, there was an increase of 150,000 strings, and in yuanfu 1 [1098]

[466]

an increase of 480,000 strings.¹⁶

As a consequence, their value fell sharply. When redeemed, 1 string of new Exchange Notes was exchanged for 4 strings of old ones. Jingxi Circuit (the present Henan) began to use Exchange Notes in chongning 3 (1104). The next year they were changed to Coin Vouchers, and their sphere of circulation broadened. They could be used virtually everywhere except Min,¹⁷ Zhe, Hu and Guang.

¹⁵Li Gang, *Liangqi Complete Works*, 144, "On Resisting Barbarians": "Since the removal of the tin alloy coins from circulation in the southeast, they have all been transported to Shaanxi, and prices have jumped there, with coins being increasingly lightly demanded. Twenty have become equivalent to one."

¹⁶*Shu Broad Record*.

Hence they became still more important. This occurred during the war with Western Xia.

Proliferating military expenditures caused an uninterrupted increase in the quantity issued.¹⁸ In chongning 1 [1102], there was an increase of 2 million. The following year, the amount went up by 12,435,000. In chongning 4, there was an increase of 5.075 million. In daguan 1 [1107], the increase was 5,545,666 strings.¹⁹ This was twenty times more than the issue of the tiansheng era.

Later (1108), a reserve of ready cash was no longer maintained, and a 1-string Cash Voucher was only worth a dozen or several dozen cash.²⁰

Sichuan's monetary system was reformed during daguan. Coin Vouchers were issued, with a limit set based on the 1.25 million strings issued during tiansheng, but the old Exchange Notes of the 41st through the 43rd terms were not redeemed for cash.²¹ This amounted to their repudiation, and some merchants were brought to suicide.

¹⁷*Song History*, 181, "Treatise on Food and Money: Account Notes": "Zhao Yanzhi supposed that because Min [Fujian] was Cai Jing's native place, it got to avoid using them."

¹⁸There are no exact records of the quantity of Exchange Notes and Coin Vouchers circulated over the years. Though some have made estimates, these are unreliable. For example, not even Li Xinchuan of Southern Song times gives complete figures for the quantity in circulation during daguan 1 [1107]. In *Essential Record of the Years Since Jianyan*, 16, under jianyan 2, 6th month, Li says they "increased to over 26 million strings." Later, in *Miscellaneous Record In and Outside Court Since Jianyan*, Collection A, 16, "Sichuan Coin Vouchers," it is stated that "the increased amount printed reached 24.3 million strings."

¹⁹*Shu Broad Record*.

²⁰*Investigation of Literary Remains*, "Investigation of Coins, 2": "As a general rule in earlier years, the term of an issue was one year, there was a reserve of 360,000 strings, and the new issue was the same size as the old. During daguan, a cash reserve was no longer kept, and no limits were put on issue. It reached the point that a 1-string Voucher was equal to several dozen coins." (*Song History*, "Treatise on Food and Money," makes it "equivalent to a dozen or so coins.")

²¹*Searches into a Multitude of Books*, latter collection, 62, "Mulberry Paper Money," quoting the *Comprehensive Mirror Long Draft Continued*. *Song History*, 328, "Biography of Zhang [Ci?]:" After the issue of Chongning large coins, "before long, the new notes were circulated, and the old notes entirely abolished. For a time, the merchants wrung their hands or committed suicide. Those who held the old notes could only exchange 300,000 for 1,000 in coin. He sent up a communication saying that the paper money rules were cheating the people, and requested that the contracts be lived up to so as to display the government's great faithfulness. The Ruler was angry and dismissed him." *Miscellaneous Record In and Outside Court Since*

In brief, after chongning and daguan [1111], prices increased still more.²² At the beginning of chongning [1102], under special circumstances, a *dou* of rice reached 3-4 strings full in Shanlang.²³ In jianzhong/jingguo 1 [1101], a bolt of heavy silk cost 1 string 400-500 cash full.²⁴

In daguan 2 [1108], Emperor Huizong himself criticized "the recent doubling of the price of heavy silk."²⁵ Even in the capital, house rents doubled.²⁶ At the beginning of zhenghe (1111), "in the various circuits, the exchange prices of fine and heavy silk and plain cloth rose several fold."²⁷ In zhenghe 2, the market price of rice was 120 cash per *dou*.²⁸ In xuanhe 4 [1122], Jiao Huowu said that the price of rice was four times higher than prior to xining and yuanfeng.²⁹

Jianyan, Collection A, 16, "Sichuan Coin Vouchers": "During chongning and daguan, soldiers were employed in Shaanxi, and the amount printed increased to 24.3 million strings. . . . This caused great harm to the system. . . . Cai Jing was anxious about this, and in daguan 1 changed the Exchange Notes into Coin Vouchers. None of the old Exchange Notes could be redeemed for cash."

²²*Song Collected Statutes Compiled Draft*, "Food and Money," 59, chongning 2, 10th month, 14th day, edict: "There was no Autumn harvest in Liangzhe's Hangzhou, Yuezhou, Wenzhou and Wuzhou. . . . It has reached the point where households are fleeing, and bandits are multiplying. Prices have risen so high that there is no exchange going on among the people." *Ibid.*, daguan 3, 9th month, 6th day, edict: "The circuits of the southeast have suffered from unprecedented disasters, and prices have leaped up."

[471]

²³*Comprehensive Mirror Long Draft Continued*, 23, chongning 3, 4th month, xinyou: "But at that time [the beginning of chongning], food was brought in without regard to the expense. In Shanlang, a *dou* of rice did not fall below 3 or 4 strings full."

²⁴*Comprehensive Mirror Long Draft Continued*, 18, jianzhong/jingguo 1, 8th month, renzi: "And to speak of Wuweijun, when a bolt of heavy silk was bought among the people, it required 1 string 400-500 cash full."

²⁵*Song Collected Statutes Compiled Draft*, "Food and Money," 38, daguan 2, 3rd month, 4th day.

²⁶*Song Collected Statutes Compiled Draft*, "Punishments," 2, daguan 1, 8th month, 12th day, edict: "In the capital, there are families in the house and room trade. Recently, using renovations as their excuse, they have been increasing rents, frequently by more than double. Daily, the problem is becoming more severe."

²⁷*Song History*, 175, "Treatise on Food and Money," first part, 3, "Plain Cloth."

²⁸*Song Collected Statutes Compiled Draft*, "Equitable Purchase."

The xining 2 [1069] price was 400 per picul in the outer districts, and 1,000 in the capital. In xining 8, the government set a price of 800 per picul for its sales to the people. In xuanhe 4, each picul was 2,500 to 3,000, and by the end of xuanhe 7, a picul fetched 10,000.³⁰

These were still prices in coin. I do not know how many times higher they would have been if expressed in terms of paper money, since in daguan 1 [1107], the cash equivalent of a 1-string voucher in Shaanxi and Hedong was only from 50 to 70 cash, and in Chengdu it was still only 200 to 300 cash. In trading in the markets, for exchanges involving 10 strings of a thousand or more, people paid half in cash and half in Coin Vouchers.³¹

In the view of the great majority of people, the price of cotton would have been much more important than the price of heavy silk, but material on cotton prices is extraordinarily scanty. In ancient times, the price of cotton was very high, often being reckoned by the ounce, since the cotton plant entered China relatively late.

In yongming [*sic*] 2 [457?] of Southern Dynasties' Liu-Song, it was 4,800 cash per catty. During the Southern Tang of Five Dynasties times, it ran from 240 to 640 cash per catty.

The situation was nearly the same during Northern Song. The highest price was the jiayou [1056-64] era's 932 cash full per catty. The lowest [467]

was the xining 7 [1074] price of 123 cash full per catty. During yuanfeng [1078-86], it was 431 cash full per catty. Obviously the difference between the high and low price was not great, and no trend can be discerned.

By this time, even though Northern Song was not yet suffering from the Jin invasions, its economic foundations had been shaken. Waste inside the palace had become boundless, and the government was handing out wealth to the officials recklessly. During the reign of Emperor Taizong, a courtier only received 5 strings of cash per month, and some got as little as 700 cash. One of the sec-

ondary wives of Emperor Shenzong would get 800 strings of cash per month. The marriage of a princess might cost 700,000 strings. During the jingde era [1004-8] there were around 10,000 government officials. By huangyou [1049-54] times, the figure had increased to over 20,000, and in yeping [1064-68] to 24,000.

During the reign of Huizong, the situation was further aggravated, and official ranks were sold. There was a nursery rhyme in the capital that went:

Three-hundred strings makes you Prefectural Vice Administrator in a day;

Five-hundred is worth a cabinet member's pay.

There were more than 80 Regional Commandants, several thousand prefects, and there were individuals who were receiving a dozen or more salaries.³² So there were people then who said, "goods have all become expensive, except for men of the official class, who are cheap."³³ These men of the official class were not actually cheap, since it cost the people a great deal of money to maintain them.

Perhaps this phenomenon was a consequence of monetary inflation, but since people at court did not know how to cut back on senseless expenditures, they could only respond by minting more coins and collecting more taxes, thereby increasing the people's burdens until they had no choice but to flee. This is what accounts for the uprisings of Fang La, Song Jiang and Zhang Wanxian. These peasant rebellions had only just been repressed when the Jin invasions began.

Because the purchasing power of Northern Song's money was reduced, the quantity of money demanded increased, and naturally this influenced the state's annual income and the income of the people. At the beginning of Song, annual government income was something over 16 million strings, some 20 or 30 times more than that at the beginning of the reign of Tang Emperor Suzong, and one-third more than the annual income at the end of dali [780]. By the end of tianxi [1022], it had increased to more than 26.5 million strings, and during jiayou [1056-64] to over 36.8 million strings. During xining and yuanfeng [1068-86] it rose to more than 60 million strings.³⁴

²⁹*Song History*, 182, "Treatise on Food and Money: Salt," middle section: "In [xuanhe] 4, Jiao Huowu advised that there was of old a tradition that a *dou* of rice should equal a catty of salt. Prior to xining and yuanfeng, a picul of rice was only 600-700 cash. Now a picul of rice had reached 2,500 to 3,000, but salt was still at the old price of 60."

³⁰*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued, Addendum*, 51, xuanhe 7, 12th month, jiazi.

³¹*Searches into a Multitude of Books*, latter collection, 62,

"Mulberry Paper Money," quoting *Collected Statutes*.

³²*Song History*, 179, "Treatise on Food and Money: Accounts."

³³*Things Worth Talking About on Ping Island*, 1: "Duke Jia Xingguo returned from the capital, and I asked him about prices there. Jia replied that goods have all become expensive, except for men of the official class, who are cheap."

Distribution of income among the populace was very unequal. Upper class official salaries were treated with unprecedented generosity, but what lower class officials received was clearly meager. The incomes of laborers were, naturally, still lower.

The incomes of upper class officials, both in nominal monetary and real terms, far exceeded the levels of earlier dynasties, and moreover won the approval and envy of a number of spokesmen for the official class.³⁵

The incomes of lower officials, however, fell far short of this. Not only were they not up to the levels of the higher officials, they did not even reach the levels enjoyed by lower officials during the high point of Tang rule.

[468]

COMPARISON OF HIGH OFFICIALS'
MONTHLY SALARIES BY DYNASTY

Dynasty	Rank	Money Income (strings)	Real Income (hctltrs rice)
Han jianwu	10,000 piculs		41.6
Tang kaiyuan	1st rank	c. 54	161.0
Song yuanfeng	Three Tai Three Shao	c.324	386.0

COMPARISON OF LOWER OFFICIALS'
MONTHLY SALARIES BY DYNASTY

Dynasty	Rank	Money Income (strings)	Real Income (hctltrs rice)
Han jianwu	100 picul		1.9
Tang kaiyuan	9th rank	3,817	11.3
Song yuanfeng	Chengwulang	7,000	10.3

I should point out that the Song official incomes

³⁴Miscellaneous Record In and Outside Court Since Jianyan, Collection A, 14, "Fiscal and Tax Affairs."

³⁵Notes on the Twenty-two Histories, "The Generosity of Song Salary Schedules": "Gifts were generous. Hence those who entered the ranks of the officials no longer needed to be concerned for their entire families. Each encouraged the practice of good government. During the reigns of Zhenzong, Renzong and Yingzong, notable officials became prominent, and the administration of the clerks was virtuous. When business was

figures³⁶ are only a very rough estimate. They are not as reliable as those for Han and Tang, because there were great swings in the nominal prices of goods, particularly of rice. In any event, the real incomes of Song high officials exceeded those of their Han and Tang equivalents. Of that there is no question. It is worth studying whether it is appropriate to match the Chengwulang rank of the yuanfeng era with the Han 100 picul and Tang 9th rank as equivalent lower officials.

Of course laborers' incomes were still lower. Materials, however, are scarce, and calculations are difficult to make, because frequently both ready cash and goods were used simultaneously in making payments.

For example, in kaibao 4 [971], a household-head (worker?) in a brocade establishment got 700 cash, 3 piculs 5 *dou* in provisions and 6 *dou* of rice and beans in meals per month. Each of these people employed 3 or 4 female workers, each of whom re-

afoot, many were vigorous in requiting the state."

³⁶In addition to monthly salaries, Song official incomes included various goods, such as fine silk, gauze, heavy silk, cotton, salary grain, clothing and food for subordinates and meal cash. Moreover, monthly salaries were rarely issued in actual goods. They were mostly discounted into cash. The histories state that they were paid one-third in ready cash and two-thirds discounted. By "discount" was meant the cash equivalent amounts of goods.

The face values assigned to these goods are an important problem. At the beginning of Song, it is said, the goods so discounted were only worth 10 to 20 percent or 20 to 30 percent of the prices assigned them. This makes it extraordinarily difficult to incorporate them into the calculations. The discount was also two-thirds during yuanfeng.

If we set out the nominal salary figures, the 400 strings of the Three Tai and Three Shao would still be set down as 400 strings, with a heavy silk price set at 1,300 cash per bolt, 1 bolt of gauze put at 3 of heavy silk, 1 of fine silk at 2 of heavy silk, an ounce of cotton bolls at 35 cash, and such other items as salary grain not taken into account. All of these prices, however, are in Reduced-hundreds, with every 100 cash only represented by 77 actual cash. The resulting calculation yields only a rough figure.

If we then convert this quantity of coin into pearl rice, there are still other things to be considered. Here we have used the average rice price during the last half of the eleventh century, which was 839 full cash per hectoliter. In fact, however, at that time there were very great differences in the price of rice between different places at various times. If we use the price of 20 cash per *dou* mentioned by Su Dongpo for Guangdong during the yuanfeng period, then the real monthly income of the Three Tai and Three Shao was not 400 hectoliters, but over 1,000 hec-

ceived 2 piculs of provisions and 6 *dou* of rice and beans.³⁷ At that time rice cost 700 cash per picul. If the monthly provisions allowance was in rice,

NORTHERN SONG WORKERS INCOMES COMPARED OVER TIME

Year	Type of Work	Amt of White Rice Purchasable by Monthly Wage (in hectoliters)	Source
kaibao 4 (971)	weaver	2.32-3.39	Song Coll. Stat.
" " "	female labor	1.06-1.36	" " "
zhiping 1 (1064)	guard	0.7	Song History
yuanfeng 5 (1082)	stevedore	3.25	Song Coll. Stat.
zhenghe 6 (1116)	sluicgate worker	1.60	" " "
" " "	sluicgate carpenter	2.26	" " "

[469]

then the household-head could have gotten 3.39 hectoliters of white rice per month, and one of his female workers 1.36 hectoliters. If the monthly provisions were in ordinary grain, then the household-head had a monthly real income of 2.32 hectoliters, and the female worker 1.06.

During zhiping [1064-1068], a local guard or bravo could only draw 0.7 hectoliters of rice.

Wages were relatively high during yuanfeng [1078-1086]. A stevedore might draw 3.25 hectoliters of rice. A sluice-gate worker during zhenghe [1111-1118] could only get 1.6 to 2.26 hectoliters.

The first notable characteristic of Song personal incomes is the high salaries of high ranking officials. The second characteristic is the great discrepancy between the incomes of high ranking and low ranking officials, and the comparatively low level of working people's incomes. Hence on the one hand, the culture of the official class reached a high level of development during Northern Song, but on the other hand social contradictions deepened, causing a number of popular uprisings. [Increasing income inequality is also, however, often a sign of accelerating economic development. EHK]

toliters.

³⁷Song Collected Statutes Compiled Draft, "Food and Money," 64.16.

[472]

4. The Monetary Inflation Set Off By The Jin Invasions

The Jin invasion, which began in xuanhe 7 (1125), 12th month, carried all before it. As soon as they set eyes on the Jin soldiers, the Song troops turned and fled. As late as xuanhe 6 [1124], in the Eastern Capital "lanterns lit the sky there as though there was no night, and the songs of flutes sounded everywhere as though the Spring had become eternal."¹ Before long, however, the city had fallen into the hands of the enemy.

Rice jumped to 3,000 cash per *dou*, pork to 6,000 cash per catty, mutton to 8,000, donkey meat to 2,000, and even rats sold for several hundred cash apiece.² By jianyan 3 [1129], a *dou* of rice had risen to 40-50,000 cash.³

Because the Jin had been confiscating gold and silver, these metals were hidden away, and their prices shot up still more rapidly. In jingkang 1 [1126], 1st month, 27th day, the Jin laid siege to the city. The authorities wanted to hold peace talks with the Jin, and so required gold, silver and cloth to pay them off. This made the demand for gold and silver still more pressing.

Orders were sent down for the people to deliver gold and silver to the government at an official price of 20 strings per ounce of gold and 1 string 500 cash per ounce of silver.⁴ On the 19th of the 12th month,

¹Things Handed Down from Xuanhe Times, former collection, xuanhe 6.

²Crossing to the South Record, 1, jingkang 1, 12th month 19th day: "There was heavy snow in the capital. It was several feet deep. Rice became terribly expensive, a *dou* reaching 3,000 cash." Essential Record of the Years Since Jianyan, 4, records that in jianyan 1, 4th month, xinyou, when the Jin pulled out of Kaifeng "prices leaped up, with a *sheng* of rice reaching 300, a catty of pork 6,000, of mutton 8,000, of donkey 2,000, and even a rat several hundred."

³Essential Record of the Years Since Jianyan, 25, jianyan 3, 7th month: "At this time in the Eastern Capital a *sheng* of rice was 4-5,000."

⁴Xu Mengxin, Three Reigns' Northern Compact Compendium, 32, jingkang 1, 1st month, 27th day, imperial edict: "The Court has recently been besieged by Great Jin, and the capital government is now discussing making peace. A certain amount of gold, silver and cloth is required as a bounty. Gold and silver are most urgently needed. . . . Beginning on the 27th of this month, families which have stored gold in the capital, or have buried it, or have had it sent off, must within two days turn in the entire amount to the Yuanfeng Treasury, the Daguan Treasury, the Left Treasury, the Bridge Goods Market Exchange Authority, or the Capital Tea Market. For an ounce of gold the

the authorities used tea and salt vouchers to exchange for gold and silver at the rate of 30 strings per ounce of gold and 2 strings 300 cash per ounce of silver.⁵ On the 13th of jingkang 2, 1st month, the officials raised their prices once more to 35 strings per ounce for gold and 2 strings 500 cash reduced for silver.⁶

After the crossing to the south, not only was the Central Plain and Shanyou occupied by the Jin, even Jiangxi, Zhejiang and Hunan, all below the Yangtze, were also devastated. Large numbers of refugees fled south, and a great many copper coins remained behind in the capital, Bianjing [Kaifeng].

The mints of the south were closed down by warfare. As a consequence, the purchasing power of small 1-cash coins was very high, and prices expressed in them very low.⁷ During jianyan (1127) in Yuezhou a *dou* of glutinous rice was 800, and non-glutinous rice was 400.⁸ Though these were much higher than Northern Song prices, they must be considered low by Southern Song standards.

price in coin will be 20 strings; for an ounce of silver, 1 string 500 cash. On the first occasion, payment will be made with *gongju* exchange certificates, which can be redeemed for cash later."

[478]

⁵*Record of Things Seen and Heard During the Two Reigns of Jingkan and Jianyan*, first part, jingkang 1, 12th month, 19th day: "There was another edict for the calling in of gold and silver in exchange for tea and salt vouchers. An ounce of gold was equated with 30 Thousands, and an ounce of silver with 2 strings 300 cash."

⁶Ding Teqi, *Annals of Things Heard During Jingkan*, jingkang 2, 1st month, 13th day, poster: "Gold, per ounce, 35 Thousands. Silver, per ounce, 2 Thousands 500 reduced." *Record of Things Seen and Heard During the Two Reigns of Jingkan and Jianyan*, first part, jingkang 2, 2nd month, 21st day: "The official bureaus still feared they would be unable to gather it in, and so established ten markets in the four quarters, where heaps of official coins were piled up to effect their purchase. The price was 35 strings per ounce for gold, and 2 Thousands and 500 per ounce of silver. Much escaped their hands." *Three Reigns' Northern Compact Compendium*, 83, jingkang 2, 2nd month, 24th day: "Official coins were again used to buy it up at a high price, and more than ten markets set up to do so. Gold fetched 35 strings per ounce, and silver 2 strings 500 cash per ounce."

⁷*Comprehensive Mirror for Illumination of the Prince Continued*, jianyan 1: "When the 3-cash large coin was first circulated in the various circuits, it was at the request of Zhang Jue. Under the old zhenghe period regulations, the 3-cash large coin only circulated in the capital, in the southeast, and in Hedong and Hepei. For this reason, the small coins of the southeast were terribly heavily demanded, and goods were lightly demanded."

⁸*Song Collected Statutes Compiled Draft*, "Food and

The first step of the Southern Song government was to consider restoring the minting of coins, but because supplies of copper, iron, lead and tin had been reduced, it was only possible to mint 100,000 strings annually at the beginning of shaoxing [1131], at a cost of 200,000, and as a consequence minting was frequently interrupted. Copper utensils were confiscated in shaoxing 6 (1136), but only 400,000 strings could be minted from the confiscated metal. Probably most of these were large coins. In shaoxing 13, 100,000 strings were made; in shaoxing 27, 150,000 strings.

How could so small a quantity support so many soldiers in defending that semi-fortress of rivers and mountains? Even after the war, taxes in kind were not sent in on time, and though various taxes in cash were put in place, under the circumstances, they could not be collected either. There was no alternative to paper money.

[473]

At the beginning of shaoxing (1131), Communicating Medium was issued in the southeast only.

Basically, this was a kind of money order certificate. Because it was inconvenient to transport coins to the garrison at Wuzhou, merchants were called upon to provide coins in Wuzhou in exchange for Communicating Medium issued there. When brought to Hangzhou, these certificates could be redeemed for cash.

Within a few years, however, the government no longer had enough cash with which to redeem them, and sometimes could only redeem 60 or 70 percent of the face value of the certificates in cash. At this point, merchants no longer wanted to handle Communicating Medium, and local governments finally had to force the issue. In shaoxing 6 [1136] 1.5 million in Exchange Notes was issued, but because there was no hard money backing for them, the people put no faith in them.⁹ Later these were changed into Communicating Medium.

It is necessary to observe that during the early years of Southern Song the southeast still did not rely mainly on paper money. The center for circulation of paper money remained Sichuan. The southeast still mainly used metal coins.

During the jianyan and shaoxing periods [1127-1163], the coinage remained rather chaotic. Among jianyan coins, there were small 1-cash, 2-cash, 3-

Money: Miscellaneous Records on Taxes," 9.19.

⁹*Searches into a Multitude of Books*, latter collection, 62, "Mulberry Paper Money," says that in shaoxing 6 what Zhang Deng memorialized to request was the issue of Account Notes, but *Sagely Government of the Two Reigns of the Dynastic Revival of Imperial Song* says they were Exchange Notes. Cf. section 5.1.3, note 25.

cash and 10-cash denominations, with many variant forms among the 1-cash. The shaoxing coins also came in 1-cash, 2-cash and 3-cash denominations, in both Circulating Treasure and Original Treasure forms.

There were also privately minted coins, and it is even said that most of the coins used in the localities of Jiangxi were private ones. People everywhere were melting down official coins for reminting.¹⁰ Most of these reminted coins were probably of 2-cash denomination, since there are some Shaoxing Original Treasure 2-cash coins which are coarse, thin and of poor quality metal. They are virtually the same size as 1-cash coins.

Men like Han Shizhong and Yue Fei were fighting the Jin then, and large numbers of soldiers were stationed in many places. Although support for most of these garrisons was a local responsibility, the expenses of the actual fighting were the burden of the central government. Therefore, the government's fiscal situation was generally one of outgo exceeding income. The annual deficit ranged from several hundred thousand strings to several tens of millions of strings. Naturally, this red ink had to be made up by issue of paper money.¹¹

We can discern the value of money during the shaoxing era from rice and heavy silk prices. During xining 2 [1069] of Northern Song, the government bought rice at a price of 100 cash per *dou*, and this caused Wang Gui and Sima Guang to excoriate Lü Huiqing. In zhenghe 2 [1112], the market price was 120 cash per *dou*. In jianyan 1 [1127], a *dou* of non-glutinous rice was 400. In jianyan 4, 10th month, in Yuezhou, a *dou* of non-glutinous rice was 800 cash, and glutinous rice was 400.¹²

¹⁰*Comprehensive Mirror for Illumination of the Prince Continued*, quoting Li Shenqi.

¹¹*Essential Record of the Years Since Jianyan*, 111, shaoxing 7, Li Dai said: "The coins and goods collected during shaoxing 4 came to over 33.42 million strings. This fell short of expenditures by 510,000 strings. In shaoxing 5, income was over 36 million strings, with a deficit of over 10 million strings. All of this used up the surplus cash in the Proclamation Office and all funds collected for the following year. I have not seen the income figures for shaoxing 6, but expenditures are estimated at over 32.76 million strings. Income for this year is reckoned at 36.67 million strings, with a deficit of 1.61 million strings. . . . There have been deficits in recent years which have been met through issue of Coin Vouchers to make up the remaining expenditures. In shaoxing 4, 5.76 million were printed. In shaoxing 5, over 2 million were printed. In shaoxing 6, over 6 million were printed. At this point, there is too great a shortage of goods, and the price of the vouchers has fallen. This office advises that no more be printed."

In shaoxing 1 (1131), when Emperor Gaozong was told by local authorities that the price of rice in Zhexi had declined from 1,200 cash per *dou* to 600, he was greatly pleased, and said this could stave off starvation.¹³ The following Spring, however, it again rose in Liangzhe to 1,000 cash per *dou*.¹⁴

In shaoxing 3 [1133], Emperor Gaozong said, "The prices of food, drink and clothing, are at least three times what they were during xuanhe."¹⁵ In shaoxing 5, the market price ranged from 700 cash per *dou*¹⁶ to 1,000 cash.¹⁷ At the time of the Autumn harvest, when rice is at its cheapest, rice was often trading among the people for only 300 cash full per *dou*.¹⁸ Prices of 1,000 or 2,000 cash per

¹²*Song Collected Statutes Compiled Draft*, "Food and Money," 70.31.

¹³*Song Collected Statutes Compiled Draft*, "Food and Money," 40, shaoxing 1, 7th month, 3rd day: "The Ruler asked whether the new rice bought last night had gone down in price. Zhang Shou memorialized that according to people who had come from Zhexi, prior to this a *dou* was 1,200, but now had gone down to 600. The Ruler was greatly pleased, and said, 'Not only will the army not lack for food, but this may allow starvation to be avoided. This is no trivial aid to the people.'"

¹⁴*Song History*, 67, "Treatise on the Five Agents," shaoxing 2, Spring: "There was hunger in Liangzhe and Fujian. A *dou* of rice was 1,000 cash."

¹⁵*Essential Record of the Years Since Jianyan*, 67.

¹⁶*Essential Record of the Years Since Jianyan*, 88, shaoxing 5, 4th month, gengxu, Li Guang said: "Recently, the price of rice in Liangzhe has gone up. It is going for 700 cash per *dou* in the market."

¹⁷Dong [?], *Relief of the People Book*, 2, "Unrestrained Prices," says: "In shaoxing 5, a *dou* of rice was 1,000 cash at the Travelling Capital. At this time, neither the Defender and Assistant Executive of the Secretariat Chancellery, Meng Geng, nor the Secretary of the Board of Revenue, Zhang Yi, restrained the price. I sent up a petition saying that if a *sheng* was sold for 25 cash, it would only be one-fourth of the current price, and would be a great aid to the lower classes. If next year rice became cheaper, orders could be issued to the circuits to buy it so as to restore reserves. Furthermore, the price in the villages will only jump up for two or three months. Once people have eaten the new rice, then the price will stabilize itself."

¹⁸*Song Collected Statutes Compiled Draft*, "Food and Money," 40, shaoxing 8, 9th month, 4th day, Xiao Zhen said: "I have made an investigation in Zhexi. When the harvest is complete, and rice is cheapest, its price using the official *dou* is 300 cash full among the people. Sometimes it is less than 300. Recently, official purchases have had to be made at a higher price. Though the price goes up and down over time, as supplies wax and wane, the officials often pay a premium of 10 or 20 percent over the price among the people."

dou likely were famine prices.¹⁹ In shaoxing 11 [1141], the price fell to something over 100 cash per *dou* in Hunan, and the officials said that "the price of grain has never been as low as this."²⁰ In shaoxing 12, it was only 100 cash per *dou*.²¹ Fan [474]

Chengda's couplet "Wheat and millet per *dou* both fetch a hundred coins, Each farm family's called and a decent harvest joins," is probably alluding to this sort of situation.

There was a good harvest in Jinghu during shaoxing 13 [1143], and it is said that prices fell to 6 or 7 cash per *dou*.²² This could be an error for 60 or 70. By shaoxing 26 [1156], the cheapest price was 130 cash per *dou*.²³ There was a good harvest in Fujian in shaoxing 27, and a *dou* of coarse rice approached 300 cash. The year after that, for people transporting sprouted rice for taxes, each *dou* was reckoned at 800 cash.²⁴ In shaoxing 29 [1159], government rice purchases for relief preparations were at

¹⁹*Song History*, 67, "Treatise on the Five Agents," shaoxing 5, Summer: "There was famine in the Tong-Chuan Circuits, with a *dou* of rice at 2,000, and people eating hay and husks." In the Spring of the following year, "there was also a famine in Shu, with a *dou* of rice at 2,000, and double that price in Li Circuit. People were starving to death on the roads." *Essential Record of the Years Since Jianyan*, 109, shaoxing 7: "In the Spring there was a great famine in Guangxi, and a *dou* of rice was 1,000 cash. Many people starved to death." *Ibid.* "There was starvation in Sichuan. A *dou* of rice was 3,000 cash." *Song History*, 65, "Treatise on the Five Agents," shaoxing 9: "There was famine in Jiangdong, Jiangxi and Zhedong. A *dou* of rice was 1,000. Things were especially bad in Raozhou and Xinzhou."

²⁰*Song Collected Statutes Compiled Draft*, "Food and Money," 40.14, shaoxing 11, 8th month, 13th day, the officials said: "In the southern part of Jinghu, the current price of a *dou* of rice is something over 100 cash. The price of grain has never been as low as this. Today the coin famine is worse in Hunan than any place else. Families are hoarding grain in anticipation of bad harvests."

²¹*Song Collected Statutes Compiled Draft*, "Food and Money," 40.14, shaoxing 12, 11th month, 16th day, edict: "Now the price of rice is only 100 cash per *dou*."

²²*Song History*, 175, "Treatise on Food and Money: Harmonious Purchase," shaoxing 13: "There was a good harvest in Jinghu. A *dou* of rice was 6 or 7 cash, and it was bought to aid the people of Jiang and Zhe."

²³Xiong Ke, *Small Calendar of the Dynastic Revival*, shaoxing 26, 7th month: "Word has arrived from all offices in Huainan. In the places where it is cheapest, rice is 130 cash per *dou*."

²⁴*Song Collected Statutes Compiled Draft*, "Food and

a price of 2,000 per picul, and a portion of this price was paid in Communications Medium and tea vouchers.²⁵ The price was several dozen cash per *dou* in the Hu-Guang region in shaoxing 30.²⁶

Because the price of rice was much influenced by natural phenomena, the degree to which it rose and fell was also great. Generally speaking, the price of rice during the shaoxing period, or during the first half of the twelfth century, was something over 3,000 cash per picul. This was seven or eight times higher than the price during early Northern Song, and three or four times higher than during the xining and yuanfeng eras.

There were great changes in the price of heavy silk during this period. Up to the xining and yuanfeng eras [1068-86] of Northern Song, a bolt of heavy silk ranged from 1,000 to 1,300 cash, and this rose slightly during chongning and daguan [1102-11] times.²⁷ Later, the abolition of large coins and tin alloy coins, and the putting in order of paper money²⁸ may have pushed prices down some-

Money," 70.47.

²⁵*Song History*, 175, "Treatise on Food and Money: Harmonious Purchase": "In [shaoxing] 29, 2.3 million piculs were purchased to prepare for relief loans. A picul's price had fallen to 2,000. Communications Medium and tea vouchers were used along with silver to make up the payment."

²⁶*Essential Record of the Years Since Jianyan*, 187: "In recent years in Jiangxi and Huguang, a *dou* of rice has only been several dozen cash, and those in charge of field rice have ordered that it be discounted to 3-4,000." (The words of Chen Junqing in shaoxing 31, 11th month.)

²⁷*Comprehensive Mirror for Illumination of the Prince, Long Draft, Continued, Addendum*, 1, jianzhong/jingguo 1, 8th month, renzi, quoting *Complete Account of Nine Song Reigns Arranged Chronologically*: "And to speak of Wuweijun, when a bolt of heavy silk is bought among the people, it requires 1 string 400-500 cash full." *Song Collected Statutes Compiled Draft*, "Food and Money," 26, shaoxing 8, 2nd month, 28th day: "Only at that time [chongning 2] did the district magistrate begin. He wished to discount the lower level households' foot-recruit and salt cash to 9 *chi* of heavy silk for each 220 cash." At the beginning of daguan, in ten commanderies of Jiangxi, 900 cash per bolt was required for harmonious purchase of cloth. (*Song History*, 175, "Treatise on Food and Money," first part, 3.) Harmonious purchase equalled half the requisition.

²⁸After the Coin Vouchers were put in order during daguan, their purchasing power rose. *Song History*, 181, "Treatise on Food and Money: Account Notes," states: "When Zhang Shangying took office, there was received an edict restoring the old regulations. During xuanhe, Shangying recorded memorials on current practices, maintaining that since the adoption of the old regulations, the vouchers' price had been restored to a stable level." These old regulations were the limitations on the size of

what, but after the crossing to the south, they rose from a price of 2,000 per bolt.

SOUTHERN SONG CLOTH PRICES²⁹

Date	Price per Bolt	Source
jianyan 1 (1127)	2,000 cash	Song Coll.Stat., "Punishments,"3
3	2,000	Song His, "Food & Money,"first,3, "Plain Cloth"
4	3,000	Inv.Lit.Rem, "Market Purchases,"1
shaoxing 1 (1131)	2,000	Song Coll. Stat."F&M," 38
2	3,500	Inv.Lit.Rem, "Market-Purchases,"1
	4,500 reduced to 5,000 cash full	Song Coll.Stat., "F&M,"9
3	3,000 to 6,500	Song His, "F&M," first,3
4	4,000 to 10,000	Song Coll. Stat., "F&M,"38 & 64
	5,200 reduced	Inv.Lit.Rem., "Market Purchases," 1
5	5,500 full	Song Coll. Stat., "F&M," 64
	7,000 reduced	Inv.Lit.Rem., "Market Purchases," 1
6	6,500 to 7,000	Song His., "F&M," first,2,"Taxes"
7	8,000 reduced	Inv.Lit.Rem., "Market Purchases,"1
[475]		
shaoxing 8	8,400	Song Coll. Stat., "F&M,"26
17	6,000 to 10,000	Song His, "F&M," first,3. Song Coll. Stat., "Miscell. Rec.Taxes"
	6,000 to 7,000	Inv.Lit.Rem., "Market Purchases,"1
18	6,000	Song Coll. Stat., "F&M," 9

the issue and maintenance of a cash reserve.

²⁹The prices in the table include both market and official prices. Market prices were more complicated and changeable than official prices, but official prices followed the trends established by market prices. When the government collected heavy silk, it set a low face value on it, and when it put out silk, it set a

36	4,000 to 5,500	Ess.Rec.Years Since Jianyan,171. Song Coll. Stat.,
		"F&M," 9
jiading 13 (1220)	4,000	Song Coll. Stat., "Receipts," 68.24

The jump in the price of heavy silk was caused by a fall in production and an increase in demand, but it is hard to calculate what portion of the price should be considered a kind of tax, and what portion was caused by the depreciation of the currency.

Although the administrative center then was in the southeast, the center of military operations was in Sichuan and Shaanxi. The various new monetary measures, such as iron coins and paper money, all arose in Sichuan and Shaanxi.

Later, Shaanxi was occupied by the Jin, and Sichuan fell under the protection of Wu Jie and his sons, but because of his large garrisons, its burden remained especially heavy. When Li Dai discussed the fiscal situation of Sichuan in shaoxing 7 [1137], he said that during the Tang at the time of Liu Yan, the entire national income was 12 million, but that now the revenue just from that one corner of the nation constituting Sichuan, and from just the salt and wine tax was 10.91 million, and with the other sources of income included, the Sichuan total came to three times the level for the entire country in Liu Yan's time.

To maintain the large army of that time during Tang there was still a deficit of 1.61 million. In Liu Yan's time, 12 million strings sufficed to support the Six Armies' retaking of the Central Plain, and there was some left over. Now, 36 million strings was not even enough to support the lone army garrisoning Sichuan and Shaanxi.³⁰ Li Dai's words clearly state the nature and causes of the Sichuan monetary inflation.

The war with Western Xia during Northern Song had already increased the quantity of Sichuan's paper money from some 1.2 million to over 20 million strings, causing a large drop in its value. The situation was regularized during daguan [1107-11] by restoration of the tiensheng period [1123-32] limits on the size of the issue, but after the crossing to the south, the quantity again gradually increased.

In jianyan 2 (1128), Jin Bowen increased the amount printed by 620,000 strings worth to pay for an increase in the size of the garrisons in Lizhou Circuit.³¹ In jianyan 3, Zhang Jun printed another

high price for it.

³⁰Essential Record of the Years Since Jianyan, 111. Song

million strings worth for army provisions. During the next eight years, an additional 20.54 million strings were turned out.³²

By shaoxing 7, three terms of notes were circulating simultaneously, and the total quantity in circulation was 37.8 million strings worth.³³ Over the course of thirty years, there had been an increase of

History, 374, "Biography of Li Dai."

³¹*Essential Record of the Years Since Jianyan*, 16, jianyan 2, 6th month: "By now, Bowen had increased the size of the garrisons of western soldiers in Lizhou Circuit, and military provisions were cut off. . . . Later, because that was convenient, he printed 620,000 more strings worth of Coin Vouchers. Thereafter, when high officials took command of armies, they regularly increased the quantity printed."

³²*Essential Record of the Years Since Jianyan*, 29, jianyan 3, 11th month: "The Proclamation Establishing Commissioner, Zhang Jun, because of its convenience, printed 1 million strings of Coin Vouchers to aid with army provisions. During the remaining eight years, 20.54 million more strings worth were amassed. Jun set up a Coin Voucher Authority in Qinzhou for aid on the frontier." *Song History*, 374, "Biography of Li Dai": "Recently, there have been annual deficits, which have been met by the addition of Coin Vouchers. In shaoxing 4, another 5.76 million strings were printed, in shaoxing 5 another 2 million, and in shaoxing 6 another 6 million. By then their number had become excessive, and the price of the vouchers

[480]

fell. For this reason no more were printed." According to *Shu Broad Record*, from shaoxing 1 to 6, a total increase of 20.7 million occurred. In shaoxing 1, the increase was 600,000; in shaoxing 2 it was 1.4 million; in shaoxing 3 it was 5 million; in shaoxing 4 it was 5.7 million; in shaoxing 5 it was 2 million; and in shaoxing 6 it was 6 million more. In shaoxing 8, another 3 million were added; in shaoxing 9 another 2 million; in shaoxing 10, 5 million; in shaoxing 13, 4 million; in shaoxing 29, 1.7 million. *Song History*, 29, "Annals of Emperor Gaozong," shaoxing 10, 3rd month: "An additional 5 million strings worth of Coin Vouchers were printed and delivered to the Proclamation Office for buying army stores. The Sichuan-Shaanxi Deputy Proclamation Commissioner, Hu Shijiang, had frequently said that the Jin were certain to break the treaty, and that it was necessary to make preparations."

³³*Investigation of Literary Remains*, "Investigation of Coins," 2, shaoxing 7, 2nd month: "The Sichuan-Shaanxi Deputy Commander, Wu Jie, requested the setting up of silver Account Notes in Hechi. During the 5th month, the Secretariat said that the number of Vouchers was already large, and it feared harm to the established system. An edict halted the move. In the times of the founding rulers, two terms of paper notes circulated simultaneously in Shu, and each term's issue was only 1.2 million. Now, three terms circulate simultaneously, for a total of 37.8 million. By the end of the shaoxing era, the total reached 41.47 million strings of paper, when there were only 700,000

thirty fold, and the extent of the fall in their value can be imagined. This was probably why prices in Lizhou Circuit were often twice as high as levels in other places in Sichuan.

[476]

After the fall of most of Shaanxi, military pressure on Lizhou became heavier.

Since military expenses could not be reduced, the only way to alleviate the situation would have been to mint coins. It was because the Coin Vouchers of that time could not be redeemed for cash that their value fell still more, and everyone felt that if there were coins to redeem them, the tendency for a fall in their value might be mitigated.

It was for that reason that right through the shaoxing period, coins were minted in Lizhou, Qiongzhou and Shizhou. It was to support the Coin Vouchers. But they were only minted in very limited quantities.³⁴ This had very little effect in handling the several hundred fold increase in paper money. During the shaoxing period, 1 string's worth of Coin Vouchers was nominally valued at 800 iron

strings of iron coins in all."

³⁴*Miscellaneous Record In and Outside Court Since Jianyan*, 16, "Taxes, 3: Minting of Coins in Sichuan and Shaanxi": "Of old in Sichuan and Shaanxi iron coins were circulated. In the times of the ancestral rulers, there were iron smelters in Lizhou, Yizhou and Luanzhou. Hence, mountains of coins were minted. Of old in Qiongzhou, 12 [120,000?] strings of coins were minted. At the beginning of jianyan, the Transport Supervisor, Jin Bowen, estimated that production cost was 210,000 per annum, and since returns did not cover costs, minting was halted.

"In shaoxing 10 [1140], Deng Hengzhong became Proclamation Commissioner of Sichuan, and began to mint coins in Lizhou to the amount of 12 [120,000?] strings annually, so as to remedy abuses of the Coin Vouchers. It cost 2,000 cash to make 1,000 cash. . . . In shaoxing 23, . . . for the following year, Qiongzhou was ordered to mint 30,000 strings, Lizhou 90,000 strings, at a total cost of 175,000 strings in Coin Vouchers. The cost of each 1,000 strings was 1,400 strings. In shaoxing 25, there was another edict for Lizhou to mint 20,000 each of large and small coins.

"A thousand of the large coins weighed 12 catties. A thousand of the small coins weighed 7.5 catties. This reduced the annual cost of minting 30,000. In shaoxing 31, the Lizhou coinage was again reduced to 60,000 strings, half in large and half in small coins. Shizhou had also formerly minted 10,000 strings, and Nanpingjun several thousand strings. At the end of shaoxing, these were all reduced. Currently in Shu 107,000 are minted annually."

Essential Record of the Years Since Jianyan, 154: "In [shaoxing] 15, 7th month, day wushen, the Shaoxing Inspectorate was

coins or 400 copper coins.³⁵

Wu Jie no doubt issued silver Account Notes in Hechi so as to stabilize prices in that region. Silver Account Notes took 1 *qian* (0.1 ounces) as their unit. Annually 145,000 *quian*'s worth were issued, equal to 36,250 strings of Coin Vouchers. This was no great amount, but since they developed links to the Coin Vouchers, they were affected by the latter's fall in price, and this destroyed the significance of their being denominated in silver units. It was probably for just this reason that in shaoxing 17 [1147] a reform was carried out.

The total amount of Coin Vouchers that had been issued was over 41 million strings by shaoxing 31.³⁶ In reserve there were only 700,000 strings of iron coins, and such commodities as salt and stillbeer.

At that time Wang Zhiwang was in charge of the finances of Sichuan. Maintenance of the value of the vouchers was his responsibility. His policy was to spread the distribution of Coin Vouchers into Shaanxi. Shaanxi was then in Jin hands, but the requirements of its people for cloth, tea and medicine were all being met by Sichuan products. Wang Zhiwang asked the government to issue an order that if merchants took Coin Vouchers to Shaanxi, and they were subsequently brought back from Shaanxi, they could circulate them normally. In this way the sphere of circulation of Coin Vouchers might be broadened. He urged strict prudence in expanding the issue of Coin Vouchers, saying that if they were discredited, Sichuan was finished. If it was necessary to increase their issue, it had to be done secretly in stages, and outsiders must not be permitted to learn the size of the increase.³⁷

It was at this time that the Jin ruler, Liang, (King Hailing) launched his great attack aimed at keeping watch on Shu. Wang Zhiwang had cudged his brains making plans for Sichuan's fiscal policy. This was because, as the saying goes "to win battles requires big rewards; to accept the enemy's sur-

render requires big expenditures,"³⁸ and both victory and defeat cost money.

Emperor Gaozong also said that employment of soldiers in Sichuan and Shaanxi depended entirely on Wang Zhiwang: "A great army of over 100,000 has been confronting the Jin, and yet the people of Shu do not realize it. How could any one else have managed this? Zhiwang has been in Shu almost like Xiao He in the Guanzhong."³⁹

When we examine the three or four decades beginning with the jianyan era, we see that although production decayed and military expenditures were vast and numerous, and in addition to Sichuan, the southeast was now issuing paper money, high prices only occurred during the decade or two prior to shaoxing 10.

And yet even the price of rice during those years (1121-1140), seems

[477]

not to have exceed that during the two decades of the An-Shi disturbances during Tang (751-770). During the '50s and '60s of the eighth century, a hectoliter of rice averaged 17-18,000 cash, and during the '20s and '30s of the twelfth century, a hectoliter of rice only averaged something over 11,000 cash.

During both periods, a bolt of heavy silk was never higher than 10,000 cash. During mid-Tang, however, demand for silk, in addition to its international trade component, was mainly a domestic socio-economic phenomenon, since people used silk cloth to partially substitute for other moneys. That demand was not an urgent one. If cloth was available, it was used, but if not available, that was also fine. Both before and after the Song imperial house crossed south, demand for cloth, in addition to its international trade component, which exceeded the scale of Tang times, also involved an enormous annual payment of tribute to the northern peoples.⁴⁰

reestablished in Lizhou. It produced 100,000 strings per annum to help remedy the abuses in the Coin Vouchers."

³⁵*Song Collected Statutes Compiled Draft*, "Punishments for Bribery," 12.8, shaoxing 17, 3rd month, 7th day: "For counterfeiting 10 Coin Vouchers, there is to be a fine of 10 Strings, with a market value of 8 strings, or if of copper coins, only 4 strings."

³⁶Cf. note 33. *Song History*, 374, "Biography of Zhao Kai": "The Chengu prefectural regulations were again put into effect. A Coin Voucher Authority was set up in Qinzhou. . . . At first, two terms of cash vouchers of some 2.5 million circulated. Now the number which had been printed had increased to more than 41.9 million, and people did not consider that many, nor was their value diminished."

³⁸*Essential Record of the Years Since Jianyan*, 198, shaoxing 32, 3rd month: "Wang Zhiwang sent the chief minister a letter saying, 'Up to now, the three commanders have attacked separately, and the official army's men and those who have come over to our side total 120,000 men. Previous occasions for employing soldiers have not been like this current one. Gifts and rewards, and expenses for provisions and fodder have already consumed over 10 millions in vouchers. During the 20 years since the truce, the very small amount which has been accumulated, as well as the coins and goods which the court has time after time expended, have all been used up, and hardly anything remains.'"

³⁹*Essential Record of the Years Since Jianyan*, 199, shaoxing 32, 9th month.

⁴⁰Emperor Zhenzong's Danyuan Treaty called for an annual

Moreover, the price of heavy silk had been high since the beginning of Song. When it had jumped to 10,000 cash per bolt during Tang, that was a fifty-fold rise. The Song rise to 10,000 cash per bolt was only a rise of ten fold.

There must have been particular reasons for this more moderate rise happening to the densely populated Southern Song. One of these particular reasons was the gradual revival of production, since silk was a southern product. Another was that the quantity of coins gradually diminished, and even the paper money issued in the southeast was not very large in quantity.

A portion of the coins minted during xining and yuanfeng flowed abroad, and a portion was perhaps squirreled away in the ground. I suspect the latter was greater in quantity than the former. The troubles of the jingkang era sent many fleeing far from their homes. Since it would not have been convenient for them to carry copper coins away with them, they could only bury them in the earth to await the return of peace. That in modern times large numbers of Song coins have been excavated, illustrates this point.

Since new supplies of coins were extremely limited then, there appeared another coin famine, which kept prices from rising too high.⁴¹ After shaoxing 10, prices fell again.

payment to the Khitan of 200,000 bolts of heavy silk and 100,000 ounces of silver. In Renzong's time, the annual tribute was increased by 100,000 bolts of heavy silk and 100,000 ounces of silver. Emperor Huizong's treaty with the Jin aiming at the destruction of Liao awarded Jin 400,000 bolts annually. After the Jin attacked the capital in jingkang 1, their emissaries extorted 10 million bolts. Cf. *Comprehensive Mirror for Illumination of the Prince Continued*, 97.

⁴¹Cf. note 20. *Essential Record of the Years Since Jianyan*, 79, shaoxing 4, 8th month, guiji, Chen Jue said: "The bad thing today is that goods are expensive and coins are few."

[481]

5. Southern Song's Account Note Inflation

In the Summer of shaoxing 31 [1161], the Hailingwang of Jin led a large army in an attack on the south. Several months of hard fighting brought him to the lower course of the Yangtze, where he occupied Yangzhou. It was only when he was killed by his war-weary subordinates during the 11th month, that peace negotiations got underway, and the Jin

withdrew to the north. By then, the Jin had already set up the Hailingwang's cousin as the Emperor who is posthumously known as Shizong. The following year, Southern Song's Emperor Gaozong abdicated, and was succeeded by Emperor Xiaozong. Both sides, however, remained on the alert.

Before the Jin attack, Southern Song had already adopted a new paper money, Account Notes. The term Account Note was not a new one. In shaoxing 7 [1137], Wu Jie had issued silver Account Notes in Hechi, Shaanxi, but large scale use of paper money in the southeast began with this issue of Account Notes. The ability to fight the Jin war naturally depended in large part on Account Notes.

The Account Notes' sphere of circulation was at first limited to Liangzhe. Later it extended into Lianghuai, Hubei and Jingxi. Aside from salt, for which cash was employed, Account Notes could be used for all other purposes.

When first issued, there seems to have been no set limit on the quantity of Account Notes. In qiandao 3 (1167), 1st month, the Duzhilang Tang Yuan said that during the five years between shaoxing 31 and qiandao 2, 7th month, over 28 million Account Notes had been printed, with each note having a face-value of 1 string. Up to qiandao 2, 11th month, 14th day, a total of 15.6 million of them had been issued, but only 9.8 million were in actual circulation. As of qiandao 3, 1st month, 6th day, there were still over 8 million strings worth in circulation. Probably only 600-700,000 per month were being redeemed.¹

During qiandao 2, the government felt it had issued too many, and so used a million ounces of silver to redeem them. In longxing 2 [1164], the authorities were still selling rice for only 25 cash reduced per sheng,² but at the beginning of qiandao,

¹[493]

Investigation of Literary Remains, "Investigation of Coins, 2." *Sagely Government of the Two Reigns of the Dynastic Revival of Imperial Song*, 46, qiandao 3, 1st month: "This month the Duzhilang Tang Yuan said that since shaoxing 31, when Account Notes were created, to qiandao 2, 7th month, a total of 28 million notes had been printed. Before qiandao 3, 1st month, 6th day, aside from those brought in for redemption, there remained more than 8 million strings worth unredeemed among the people. Recently, the circuits have been transporting things according to official instructions, and have been demanding full payment in cash. As a consequence, the localities have not been permitting people and households to make payments to them in Account Notes, which has caused their circulation to be halted. Merchants buy them up at a low price, and cart them to the Travelling Capital. As a consequence, the six Authorities which cash them in have been besieged by disorderly crowds."

rice was being sold for 5-600 cash per *dou*.³ In qiandao 3, another 2 million ounces of silver from the treasury were exchanged for coins to redeem Account Notes, which were then burned.

In qiandao 4, the system for issuing Account Notes was reformed. Their term was fixed at three years, and a limit of 10 million strings was fixed for each issue, which was eight times more than the limit per issue observed during Northern Song for Exchange Notes. Rice then ran 2 strings 500 cash per picul.⁴ In qiandao 9, a 1-string Account Note was only worth 600 cash full of copper coins.⁵

[482]

Nevertheless, Account Note inflation was hard to avoid under wartime conditions.

At the beginning of chunxi [1174], the quantity of Account Notes in circulation exceeded 22 million.⁶ Their purchasing power fell, and the government had no choice but to use gold, silver and copper coins to redeem all of them.⁷

In chunxi 3 (1176), the 3rd and 4th terms of Account Notes were both extended for three years. This represented formal doubling of the quantity issued. However, the people accepted Account Notes, and used them to pay taxes, thereby returning them to the treasury. The annual intake of the Board of Revenue then of 12 million strings was half in Account Notes. Simultaneously, the authorities used gold and silver to redeem 4 million's worth, and so the actual quantity in circulation only exceeded the amount set for that term by 2 million. By chunxi 12, a 1 string Lin'an Account Note was

only worth 750 cash.

By Emperor Guangzong's shaoxi 1 (1190), the 7th and 8th terms of Account Notes were again extended by three years. In qingyuan 1 (1195), they simply increased the size of each issue by 30 million, three times the size of the qiandao 4 issue. Counterfeits proliferated. A 1-string note fell to 620 cash. Though the authorities wanted to maintain the price of 1 string at 770, they were not very successful.⁸ In jiading 3 (1210), a 1-string Account Note was only worth 300-400 cash.⁹ Since so many had been issued, the amount the government took in for payment of taxes also increased: By the end of chunxi, there were more than 65.3 million, six or seven times the number at the beginning of Southern Song. The historians sometimes flaunt their sympathy for the people by dwelling on this,¹⁰ but actually this is an inevitable phenomenon during a time of monetary inflation.

During Emperor Ninzong's kaixi period (1205-1207), Han Tochou was in power, and set off reckless military moves. The Jin soldiers took Jing and Xiang and Lianghuai, shaking the southeast. As a consequence, in jiading 2 (1209), the quantity of Account Notes in circulation increased to 115-116 million strings, eleven times more than the quantity in qiandao 4 (1168). This was in addition to the various copper and iron coins.

In Emperor Lizong's shaoding 3 (1230), Li Quan created disorder in Huaidong, and the next year Mongol soldiers attacked Sichuan and Shaanxi. In shaoding 5, the two terms of Account Notes totaled over 329 million.¹¹ During 65 years, their number had increased 33 fold.

²*Song Collected Statutes Compiled Draft*, "Food and Money: Relief Loans," 63.

³*Song History*, 178, "Treatise on Food and Money," first part, 6, quoting the words of the Investigatory Censor, Zhao Shunshun in xianchun 2.

⁴*Investigation of Literary Remains*, "Investigation of Market Purchases, 2, Social Granaries."

⁵*Song Collected Statutes Compiled Draft*, "Food and Money," 40.14, qiandao 9, intercalated 1st month, 7th day, Li Anguo said: "If one uses a 1-string Account Note and 400 cash diminished, one may obtain one picul of rice. Reckoned in ready cash, a *sheng* is 8.4 cash full. From of old, there has been no such example of a price, and I suspect such reports are mistaken."

⁶*Song History*, 181, "Treatise on Food and Money." *Searches into a Multitude of Books*, latter collection, 52, "Uses of Wealth: Mulberry Paper Money," says that in qiandao 4, two terms were in circulation together, amounting to 20 million strings. It also says that in chunxi jiawu (i.e. 1), a total of 41.2 million strings were in circulation. Evidently ever since qiandao two terms had been in circulation simultaneously.

⁷*Song History*, 181, "Treatise on Food and Money."

⁸*Three Pens of the Leisure Studio*, 14, "Exchange Price of Official Account Notes": "In chunxi 12, I was called back from Wu, and saw a Lin'an man holding a small placard saying he would exchange one piece of mulberry paper for 750 cash. . . . But after this, abuses arose, and there were counterfeiters everywhere. Until they were captured, there could not be good government. Hence the notes in circulation were increasingly lightly demanded. By qingyuan yimao [1], most of them exchanged for 620, and the court was grieved by this. An edict to the several circuits of Jiang and Zhe insisted that notes be bought for 770 cash. The intention here was certainly good, but had not been deeply pondered. If, when paper is exchanged for cash there is not even a small profit, who would be willing to do it?"

⁹*Song Collected Statutes Compiled Draft*, "Food and Money," 28.51, jiading 3, 8th month, 27th day, edict: "Families holding paper vouchers are buying Account Notes at a low price. For each string they use 300-400 cash."

¹⁰*Miscellaneous Record In and Outside Court Since Jianyan*, Collection A, 14, "Finances."

¹¹These figures are based on the *Song History*, "Treatise on

Though the rate of inflation could not be considered rapid, it was not small either. These figures are only for those the government issued. If we include counterfeit Account Notes,¹² the figures would be still larger. Originally, because the rate at which paper notes wore out was so large, the quantity presented for redemption was smaller than the amount originally issued. For example, in shaoxing 11, when Coin Vouchers were redeemed, some 200,000 strings worth were not presented for redemption for this reason. This was called fire-and-flood-not-presented-cash.¹³ Later, however, the quantity presented for redemption was often greater than the amount originally issued. This shows how much counterfeiting was going on.¹⁴

Food and Money." The figures in *Song History*, 423, "Biography of Wang Yu," are somewhat different. Wang Yu states: "The state is poor and mulberry paper numerous. The abuses began with soldiers. In qiandao and chunxi, when mulberry paper money began to be issued, there was only 20 million. At that time, south and north were at rest. When military operations began during kaixi, they increased to 140 million. During shaoding, things were happening in Shandong, and the amount increased to 290 million. The advisers could only grieve at the poverty caused by mulberry paper, and not reprove for the military disasters. They tolerate the present measures for handling things. During jiading, the amount increased to some 288,000 . . . Now there is no other plan except to resort to mulberry paper money at the first sign of a military or frontier crisis."

Ibid., 415, "Biography of Huang [Shou?]ruo": During kaixi "from the time military moves began, expenditures were broad, and the court issued a great quantity of Account Notes. Now they were being discounted ever more steeply, and the court spoke severely about raising their price, but the people increasingly would not accept this. The local governments tried to measure them out, but people all closed and locked their doors. A traveller might carry his certificates all day long and not get one coin or one thing in exchange for them."

¹²*Record of Barbarian Strength*, Collection E, first part, "The Huangchiniu": "The Huangchi town belongs to Taipingzhou. To its east is the border with Xuanchengxian. Within a space of 10 li are gathered the fallen, [494]

all those who have fallen into the hands of bad elements, and who have no ancestral temples. Howling, they gather to butcher oxen and kill dogs, brew illicit stillbeer, cast feather coins and manufacture mulberry paper money, all of which are forbidden as harmful activities, and none of which they do not practice."

¹³*Essential Record of the Years Since Jianyan*, 141.

¹⁴*Song History*, Treatise on Food and Money: Account Notes": "In the 3rd year, the officials said, though the quantity of officially printed notes has diminished, counterfeit notes are increasing. For example, of the 15th and 16th terms of Account

[483]

Account Notes were in no sense a nation-wide currency. Account Notes were not the only money used even in areas under Southern Song rule. The Coin Vouchers of Sichuan alone had grown in number by the end of shaoxing to over 40 million.

Later, the wars provoked frequent increases in the issue, and by the end of Emperor Ningzong's jiatai period (1204), two terms were issued together to the amount of over 53 million strings, and the total for three issues was around 80 million strings, 64 times more than during tiansheng. By the beginning of jiading a string was worth less than 400 cash, and later fell to 100 cash.¹⁵

Notes, the quantity brought in was less than that originally issued. Now, however, though the amount of the original issue has been exceeded, notes keep coming in. If there has not been counterfeiting going on, how could so many be coming in?"

There was also counterfeiting of Coin Vouchers. *Song History*, 374, "Biography of Zhao Kai," records that "the Proclamation Office obtained 300,000 counterfeit vouchers, and 50 law-breakers." *Song Collected Statutes Compiled Draft*, "Punishments," 2.145, jiading 16, 1st month 5th day, the officials said: "For years counterfeit mulberry paper has steadily grown in amount. When the old mulberry paper of dingmao was to be replaced with new, it was found to be present. It was found among Shu mulberry paper when it was exchanged. It is present in humble households, where it usurps the sovereignty of the Son of Heaven. Private coiners and printers also possess it. When the mulberry paper of a given issue circulates for several years, a certain unknown amount will be lost in fire or flood, or be lost in distant places and so miss the deadline for redemption. If, however, a surplus is presented at the time of expiration, then we can be sure that there are many counterfeits."

¹⁵*Song History*, 181, "Treatise on Food and Money: Account Notes": "In Emperor Xiaozong's longxing 2, the provisions official Zhao Qin printed 2 million additional [coin vouchers]. In chunxi 5, Shu vouchers were increased to 45 million. They were ordered to increase no further. In Emperor Guangzong's shaoxi 2, there was an edict extending the term of Sichuan vouchers. At the end of Emperor Ningzong's jiatai period, two terms worth were circulated simultaneously, to the amount in all of 53 million strings, and when three terms were circulated, the amount was still greater."

Miscellaneous Record In and Outside Court, 16, "Outline of the Redemption of the Ninety Terms of Sichuan Vouchers": "At the end of jiatai, two terms worth were circulated together, in all comprising 53 million strings, and three terms circulated at a quantity 64 times greater than those of tiansheng times. By the beginning of jiading, a string was only worth 400 or even less. . . . Discussions went on for several months, and then word was suddenly sent down to the prefectures to let the people turn in old vouchers to the officials, and to sell gold and silver in Lizhou. The end of the year was set as the deadline for receiving

Two terms of Hubei Account Notes were also circulated simultaneously in chunxi 11 [1200], to a total amount of 5.4 million strings. In addition, there were also Lianghuai Account Notes in no small quantity. There were also 2.04 million strings of Xingyuanfu iron cash Account Notes printed and issued every two years. This was the equivalent of 400,000 strings worth of Sichuan Vouchers. Silver Account Notes were again issued beginning in shaoxing 17, to be redeemed every two years. In qiandao 4 the size of the issue was increased to 30,000 *qian*. Later, the issue grew to 610,000 *qian*, which was equal to 150,000 strings of Sichuan Vouchers.¹⁶

Increased issue of paper money caused a reduction in the quantity of hard money, or its being hoarded, or melted down, or its being driven out of the country.

Northern Song's Exchange Notes and Southern Song's Communicating Medium of the shaoxing era were rarely used by common people for ordinary purposes. It was with the issue of Account Notes that a genuine generally circulated paper money came into being.¹⁷

Later, because prices expressed in paper money increased, people decided that it was better to melt down copper coins for other uses than to employ them as coins, since they could obtain a very large profit from doing so. Hence in chunyou 8 (1248), the Investigative Censor Chen Qiulu said that the Juxin copper utensils and the Liquan musical instruments were all made from copper coins. In Changsha alone there were 64 copper smelters on Wu Mountain, and there were several hundred copper households at Matan and Eyang Mountain.

Export of copper cash was a serious problem during Southern Song.¹⁸ It was even more severe

than during Northern Song's xining and yuanfeng periods. The outflow of coins during that earlier period only induced a slight contraction in the money supply. The reduction in the quantity of Southern Song's copper coins caused the purchasing power of the paper money to fall still more rapidly. The route out for these coins seems still to have been by way of foreign trade, and the destinations for the copper coins, as before, were those regions employing Chinese coins as money.

After the Song Dynasty crossed to the south, it was cut off from the land routes to the west which had been open since Han and Tang times. This would seem to have reduced by one the routes out for copper coins.¹⁹ In fact, however, this was not the case.

xing 4, 8th month, guisi, the Taichang Shaoqing, Chen Jiao, said, "The current abuse is that goods are expensive and coins are few. Since the days of the founding ancestors, the number of coins minted by the officials has been large, but they have leaked out at the frontiers. Prohibitions have been terribly severe. In Sichuan and Shaanxi, iron has been circulated in lieu of copper."

Song Collected Statutes Compiled Draft, "Punishments: Prohibitions," 2.142, jiading 10, 11th month, 29th day, the officials said: "We have heard that discounting of mulberry paper money originates in the melting down of copper coins. The melting down of copper coins originates in not stopping their leakage abroad. We request that orders be sent to Qingyuan, Quan and Guang that, in addition to dispatching officials to search all boats before they leave the dock, heavy punishments be decreed. If, after a boat has left, someone informs on it, then no matter what the quantity of cash involved, the entire ship's cargo is to be confiscated." In jiading 12, 6th month, 28th day, the Capital Inspector said: "Upon examination, we can see that coins are becoming scarce, and the price of Account Notes has fallen to a low level. I have heard that this is because day by day all the coins are being sent down the Yangtze, loaded aboard ships, and sold beyond the frontiers." *Ibid.*, 144, jiading 15, 10th month, 11th day, the ministers said: "In recent years, the officials in charge of Quanzhou have confiscated over a thousand catties of copper ingots, which gleam like gold, and all made of pure copper. If coins had not been melted down, how could these have been obtained?"

Song History, 180, "Treatise on Food and Money," latter part, 2: "In chunyou 4, the Right Policy Critic, Liu Jinzhi, said, 'If hoarding by great families is halted, then coins can still leak out. Melting down coins to make copper utensils can be halted, but if once the metal enters the sea in ships, it leaves and does not return.'"

[495]

¹⁹Because among the copper coins which Sir Aurel Stein discovered in Central Asia, the latest in date were only from the end of Northern Song (like the Zhenghe Circulating Treasure), it would seem that Southern Song copper coins did not flow in that

them. When the placards were posted, there was great alarm among the people. . . The most distant of the prefectures of Sichuan were well over a thousand *li* away. . . The vouchers' value was only 100 cash."

¹⁶*Miscellaneous Record In and Outside Court Since Jianyan*, Collection A, 16, "Finances," 3.

¹⁷The stories in *Record of Barbarian Strength* all date to after shaoxing times, and frequently mention use of mulberry paper money. For example, in Collection B, "The Teahouse Servant Cui Three": "The Huangzhou townsman Li Ten said he would open a tea shop below the Guanfeng Bridge. At the end of the Spring of chunxi 8, [a young woman knocked at his door and entered]. . . The woman said, 'The monthly rent you get is only a thousand cash, which is usually not enough to meet your needs.' She took out of her sleeve a government certificate for a thousand, and gave it to him. The rest she frequently brought to help out a bit."

¹⁸*Essential Record of the Years Since Jianyan*, 79: "In shao-

Not many coins flowed out along the land route during the period between Han and Tang. This was because the states of the west did not employ Chinese copper coins. What the merchant travelers carried away with them was probably limited to the few coins they had on their persons when they left China. What land route travellers most

[484]

worry about are heavy and bulky objects. If they had many copper coins left before their departures, they would certainly have exchanged them for gold, silver or silk.

Because the land route was closed after the regime crossed to the south, the sea route became especially well developed instead. The carrying capacity of seagoing ships far exceeded that of camels or horses.

Because the government issued paper money in exchange for copper coins, these coins fled even faster and in greater numbers. Places as near as Malaya²⁰ and Java,²¹ and as far as India²² and Africa²³ all absorbed a certain number of Chinese

direction. Cf. his *Ruins of Desert Cathay*. In fact, however, Northern Song coins did not necessarily flow out during Northern Song times. Because very few coins were minted during Southern Song, most coins used then were Northern Song or even pre-Northern Song old coins. Hence just because Stein only encountered Northern Song coins, this is not enough to prove that these coins were exported during Northern Song times.

²⁰In 1827, a great many Song coins were dug up in the vicinity of Singapore. Cf. Crawford's *A Descriptive Dictionary of the Indian Islands*, p. 94.

²¹Dr. Karl Ritter von Scherzen excavated 35 Chinese copper coins in Djakarta, Java. There were 18 different types. Except for 2 Inaugural Circulating Treasures, the rest were all Song coins. Inaugural coins were still in circulation during Song, and so they were probably also exported during Song times. The remaining coins were 1 Sagely Song Original Treasure, 1 Jingde Original Treasure, 1 Tianxi Circulating Treasure, 1 Tiansheng Original Treasure, 3 Huangyou Circulating Treasures, 2 Jiayou Circulating Treasures, 2 xining Original Treasures, 9 Yuanfeng Circulating Treasures (including 3 coins with manuscript style inscriptions), 5 Yuanyou Circulating Treasures (including 2 coins with seal script inscriptions), 3 Shaosheng Original Treasures (including 1 coin in manuscript style), 1 Zhenghe Circulating Treasure and 1 Xuanhe Circulating Treasure. C. Schlegel, "Geographical Notes," *T'oung Pao*, Series 1, Volume X, quoting Pfizmaier's *Bericht ueber einige von Hrn. Dr. Karl Ritter von Scherzen eingesandte chin. und jap. Muenzen*. (Wien: Karl Gerold's Sohn, 1861).

²²Chinese copper coins have been excavated on several occasions in Mabar, south India. Cf. Yule and Cordier's *Marco Polo*, Vol. II, p. 337.

²³Dr. S. W. Bushell says that Sir John Kirk excavated Song

copper coins. China then imported incense, ivory, rhinoceros horn, coral, jade, fine quality steel, leather, tortoise shell, cornelian, water crystal, foreign cloth and *su* wood. Aside from a portion paid for with silk or porcelain, the rest was paid for with gold, silver or copper coins.²⁴

Naturally, foreigners did not want Chinese paper money. For example, because Tupu (i.e. Java) "had clusters of pepper, for the carrying of which merchant ships obtained profit of 100 percent, they frequently violated the prohibition on transporting copper cash to pay for it."²⁵ Later on, they even used Chinese copper coins as a medium of circulation.²⁶ There were, however, some large countries, like Dashi (Arabia), which had their own independent monetary systems. When their merchants obtained Chinese copper coins, they normally exchanged them for gold, silver and bolts of cloth to take back with them.²⁷ Chinese silver ingots have been

coins in Zanzibar in Africa. F. Hirth and W. W. Rockhill in their translation, *Chau Ju-kua* [Zhao Rugua], p. 127, under the section on "Zanguebar," in a note quote the *North China Daily News* of May 9, 1888. Cf. also Hirth, in *Journal of the American Oriental Society*, XXX, pp. 55-57, and S. W. Bushell, "Description of Chinese Pottery and Porcelain," *Ibid.*, XVI. Also, in 1898, a German excavated Song coins at Mogadishu on the Somali coast of Africa. Cf. F. Hirth, "Early Chinese Notices of East African Territories," *Journal of the American Oriental Society* (1909), pp. 55, 57.

²⁴*Song History*, 186, "Treatise on Food and Money," latter part, 8: "All of the various 'frontier' states, including Dashi, Guluo, Tupu, Zhancheng, Boni, Mamie and Sanfuoqi, send goods for exchange. Gold, silver, strings of cash, lead and tin of varying degrees of purity, cloth and porcelain vessels are used to pay for their incense, rhinoceros, ivory, coral, jade, pearls, fine steel, leather, tortoise shell, cornelian, cart wheels, crystal, foreign cloth, ebony and *su* wood."

Essential Record of the Years Since Jianyan, 69, shaoxing 3, 10th month: "It was also heard that Yizhou, Yinzhou and Lianzhou were in touch with Jiaozhi by the sea route. Those who had made profit over the years going there had traded gold and incense, and had had to use small 1-cash coins to do so. Orders were issued to these states that if they permitted small coins to enter, and did not proclaim strict prohibitions on their entry, great harm would result."

²⁵Zhao Rugua, *Record of Various Barbarians*, first part, "The State of Tupu."

²⁶Ma Huan, *Overall Survey of the Ocean Shores*, "The State of Java."

²⁷*Song Collected Statutes Compiled Draft*, "Frontier Barbarians," 4.93, shaoxing 4, 7th month, 3rd day, the Punishment Office of Guangnan Eastern Circuit said: "The state of Dashi has sent an emissary, Puyali, to bring tribute and return with gifts. For cash, he got 600 ingots of large silver, as well as gold and

unearthed in the Middle East.²⁸

The biggest exit route for copper coins then led to the Jin in the north. The Jin seem to have deliberately absorbed copper coins from the south.²⁹ Though they minted coins themselves, they did not do so in great quantity, and for the most part depended on Song coins. Moreover, they took extreme measures to prevent the flow of copper coins to the south. That is why they issued paper money in Kaifeng to exchange for Song coins which had been transported north of the Yellow River.³⁰

Korea also absorbed some Chinese money. Aside from these other places, the country using the most Chinese copper coins was Japan. Chinese coins were already flowing into Japan during Northern Song times, but at that time Japan was under the control of the Fujiwara family, and limits were

silver utensils and objects, and bolts of cloth."

[496]

²⁸A Danish archeological team found two pieces of Song silver money in Bahrain. Cf. the Hongkong *South China Morning Post*, February 27, 1958. This silver money was probably silver ingots.

²⁹*Essential Record of the Years Since Jianyan*, 186, shaoxing 30, 9th month, renwu, Wang Huai said: "Lianghuai suffers many abuses from private trade . . . to a terrible extent in such things as treasure in coin. Short cash is used when approaching the borders. Southern guests find that when they cross the Huai, 1 string of cash has the efficacy of several strings. Moreover, several dozen people per day cross the Huai with official sanction by handing over strings of cash. The extent of the leakage is evident."

Song Collected Statutes Compiled Draft, "Food and Money," 38.42, qiandao 3, 7th month, 12th day, Tang Yuan said: "At the customs barrier in Xiangyangfu, whenever one guest crosses to the north to trade, the north first collects 1 string 300 cash from him before allowing him to cross the barrier. For the goods he carries, he must also pay tax in cash, and have enough more for his food and lodging, for which ready cash is required. Probably each person coming to trade requires 3 strings of ready cash. As the months and years go by, who can estimate the amount of cash lost thereby? And yet, not one northern merchant crosses the barrier to Xiangyang. I have heard that when private traders come to Guangzhou and Ceyang, much ready cash is desired, and the hundred continues to be reduced so as to attract them. Those who leak out cash in the search for profit are numerous. With the coin famine as severe as it now is, how can they be permitted to go out like this?"

³⁰*Outline of the Nine Encyclopedias by Topics*, quoting Fan Chengda, *Record of Grasping [Pei?]*. *Song History*, 373, "Biography of Hong Gua": "In qiandao 1 . . . 8th month . . . the Lin'an houses were bringing many copper coins across the border to the north, and it was requested to ban this. Iron coins were brought from Shu to circulate along the Huai."

placed on Sino-Japanese trade. I suspect more Chinese went to Japan than Japanese came to China, and there were limitations even on Chinese merchants going to Japan.

During Southern Song times, power in Japan fell successively into the hands of the Taira and Minamoto clans, and the shoguns of these two families all encouraged Sino-Japanese trade. In chunxi 6 and 7 [1179-80], the Japanese Fujiwara Motohiro spoke about the circulation of Song coins among the Japanese people. After Minamoto defeated Taira, they set up a military government at Kamakura in chunxi 12 (1185). During this Kamakura period, coins became still more widely circulated in Japan. There was a group of merchants who specialized in importing copper coins from China so as to supply the newly risen money-lenders with capital.³¹ Of ancient coins dug up in various places in modern Japan, the greatest number are Song coins.³²

Chinese coins also flowed into Vietnam during Southern Song times. An edict to the Guangxi Pacification Office in chunxi 1 ordered the ready cash of the Annam Commissioner and his deputy

[485]

to be converted into silver or heavy silk at the market prices³³ so as to stop their outflow.

Naturally, Song put great stress on this leakage of copper coins. During Northern Song there were stern prohibitions on export of copper coins. In shaoxing 13 [1133] of Southern Song, orders were issued to strictly examine the shipping from Guangdong and Fujian to make sure no copper coins were being carried. In Emperor Xiaozong's qiandao 7 (1171), 3rd month, regulations were set up concerning the private shipping of copper coins from the

³¹For Japanese sources on the circulation of Song coins in Japan during Southern Song times, cf. Honshō Eijirō and Kuroshō Inei, "Economic History of Japan" in *Modern Economic Studies Complete Collection*, 6, pp. 197 & 214. Kenzo Akiyama, *The History of Nippon*, p. 158. The outflow of Chinese copper coins is also discussed in Kuwabara Tozo, *Circumstances Surrounding the Shipping of Goods By the Western Frontier Person Pu Shougeng During Late Song*. Wang Jiwei, *History of Sino-Japanese Communications*, chapter 8, section 2, "Song Era Trade With Japan."

³²Of a hoard of coins dug up in 1712 at the Seisoji Temple in Mito City, Song coins constituted more than 83 percent. Of a coin hoard excavated in Meiji 35 (1902) in the Zenshoji Temple at Kobumura village, Song coins constituted 89.6 percent. Of ancient coins excavated in Hitachikuni, Yimura, Song coins constituted 84 percent. Cf. section 7.1.2, note 1, below.

³³*Song Collected Statutes Compiled Draft*, "Frontier Clerks: Annam," 4.49.

districts of the seacoast. In Emperor Ningzong's qingyuan 5 (1199), 7th month, Korean and Japanese merchants were specifically forbidden from dealing in copper cash.

There were also many schemes to hinder the Jin from sucking in copper cash. In qiandao 2 [1166], 8th month, Lianghuai was ordered to circulate iron cash. Copper cash were prohibited north of the Yangtze, so as to prevent their falling into Jin hands. In chunxi 7 [1180] Jingxi was also ordered to use iron coins and Account Notes. Copper coins held by the public had to be brought in to the officials and exchanged for iron coins and Account Notes within two months. In chunxi 9 [1182], 11th month, Account Notes were issued to draw in the copper cash of Lianghuai. By Emperor Guangzong's shaoxi 2 (1191), even the iron coins of that region were to be replaced by Account Notes.

It is, however, doubtful if any of these prohibitions had any great effect, since where there was a prospect of profit, not only would merchants flout the prohibition, but even officials in charge of the trade monopolies would send metal coins overseas to obtain goods, and the local government inspectors naturally would not dare to hinder them.³⁴

The high cost of production prevented the replacement of coins which had flowed abroad. For this reason, some localities had no choice but to

mint iron coins. The cost of production of iron coins was lower, and their producers could obtain a profit. Normally, 10 cash of iron coins only cost 4 cash to produce. Even when iron and coal were expensive, it only cost 6 cash to mint 10 cash of iron coins.³⁵ During the several decades between qiandao and kai-xi [1165-1208], the Tongan and Qichun Inspectorates annually minted from 200,000 to 400,000 or 450,000 strings of iron coins. The annual figures steadily decreased,³⁶ probably as a consequence of the Account Notes' continued inflation, and so minting of iron coins became less worthwhile.

Because of the inflated amounts of Account Notes, Southern Song prices were several times higher than during Northern Song.³⁷

³⁵Zhang Shinan, *Things Heard by a Travelling Eunuch*, 2: "The Qichun Iron Coin Inspectorate, from the 5th to the 7th month is called the iron freeze. The piston bellows boxes for the furnaces are ranged in rows. For a cost of 4 cash they can mint 10 cash. When iron and coal are more expensive, 6 can mint 10. This includes the wages of the laborers. There are three stages to the work: First, make a sand mold; second, press the coins into it; finally, polish them. In one inspectorate, 300 laborers per day can mint 10,000 strings in 10 days. In a year, work is carried on for 9 months, and this can yield 270,000 strings."

[497]

³⁶In his *Medieval Oriental History*, part 3, chapter 3, Hino Kaisaburo calculates the annual iron coin production of the Tong'an and Qichun Inspectorates as follows (in units of 10,000 strings):

Date(Ch.)	Date(W.)	Tongan Insp.	Qichun Insp.	Total
qiandao 6	1170	20	10	30
chunxi 5	1178	30	15	45
8	1181	25	15	40
9	1182	15	15	30
12	1185	20	20	40
shaoxi 2	1191	10	10	20
jiatai 3	1203	no minting	no minting	0
jaixi 3	1207	10	10	20

³⁷Yue Ke, *Kuiyan Record* (written in the jiading period), 15, "Value of Fields and Rice in the Ancestral Founder's Court Fields": "When we examine the period of only a little over a hundred years from taiping/xingguo [when rice was 10 cash per *dou*] and xining [8, when a *dou* was 50 cash], and from xining to the present, which is also about a century, the prices of agricultural land and of rice have gone up nearly a hundred fold." Zhou Mi, *Rustic Words from East of Qi*: "[In the time of Emperor Xiaozong] Lord Zhou Yi said . . . and to just mention

³⁴*Essential Record of the Years Since Jianyan*, 150, shaoxing 13: "At first, there was proclaimed a strict prohibition of copper coins between the Huai and the sea, but the localities of Min and Guang for the most part did not observe it. A merchant of Quanzhou promptly by night loaded 100,000 and more strings of copper cash onto a small boat, and went out to sea. The boat was heavily laden and the wind high, and so it sank into the sea. Though the officials knew about this, they made no inquiries."

Song History, 180, "Treatise on Food and Money": "Ever since markets for ships were set up in Zhe, Min and Guang, merchant ships have come and gone, and as a consequence Treasure coins have leaked out. It is for this reason that there have been prohibitions everywhere from Lin'an on down the river to the sea. In chunxi 9, an edict blamed the officials of Guang, Quan, Ming and Xiu for leakage of copper coins. In jiading 1, the Three Ministries said: 'Recently, in the ports private foreign vessels have not been allowed to depart.' At the end of shaoxing, the ministers said: 'At the two mercantile shipping offices in Quan and Guang, and the two coin offices of the southwest, ships have gone off to trade all loaded with metal coins. Since the four offices are themselves breaking the law, how could the local government inspectors interfere? As for the Huai and Chu garrisons, their monthly expenses of 500,000 are half met with strings of cash. We do not know the degree to which strings of coins are entering the enemy's borders in the course of north-south trade.' Thereupon the border regions all used iron coins."

For example, ordination certificates were the basis for Buddhist and Daoist clergy to legally hold their positions. In ancient times, monks and priests were tax exempt. Those who took holy orders were numerous, and so there was a very large demand for ordination certificates. During Song times, ordination certificates were bought and sold like government bonds or treasury certificates.

At the beginning of Northern Song, the fixed price per certificate was 130 strings. Because their issue was limited in yuanfeng 6 [1084], some local governments jacked up the price to 300 strings, but before long the price fell back to 190 strings. After the crossing to the south, they began to be issued again, and at first the price was 60 strings. Later it was increased to 100 strings, and at the beginning of chunxi to 300 strings. Later they oscillated in value, [486]

with a certificate ranging from 500 to 700 or 800 strings.³⁸

This inflation no doubt was related to the supply of ordination certificates, but there is no doubt that it was mostly influenced by the state of the money supply, since there were procedures then for exchanging ordination certificates for rice, and the quantity of rice specified in such exchanges had a tendency to decrease. In chunxi 9 [1182], one ordination certificate could be exchanged for 300 piculs of rice in Guangdong and Fujian. Later, one certificate only fetched 200 piculs in Shaoxingfu. Before long, the amount was again reduced to 50 piculs.³⁹

As no one was any longer willing to purchase ordination certificates, the authorities finally adopted the surtax method, and extorted funds for ordination certificates in proportion to the size of a household's land holdings.⁴⁰ They then based it on the cost of rice:

Prior to xining and yuanfeng [1068-1086] this was 600-700 cash per picul. During chongning and daguan [1102-1111], it rose to 7-8,000 per picul. During zhenghe to xuanhe [1111-1126] it fell back to 1-2,000 per picul, but shot up again during jingkang and jianyan [1126-1127]. At about the time of the crossing to the south, a picul of rice was

generally upwards of 10,000 cash, and it was still 8-9,000 cash per picul during the first decade of shaoxing. Later, because of the coin famine, it fell back to around 2,000. During the qiandao years [1165-74], it was 500-600 cash per *dou* in some places,⁴¹ but in other places it took more than 600 cash to buy 1 picul.⁴² In general, it remained around 2,000 cash per picul.⁴³ During chunxi [1174-90], it was about the same.⁴⁴

During shaoxi [1190-1195], the officials in Chenzhou fixed the discount of grain into cash for paying taxes at 1 picul to 2 strings 150 cash full.⁴⁵ Because there was a surcharge added to the cash equivalent in qingyuan 5 [1199], 7 strings had to be paid in lieu of each picul. Some said this was more than double the market price of rice then.⁴⁶ When

⁴¹*Song History*, 178, "Treatise on Food and Money," first part, 6: "During qiandao, there were some localities with a *dou* of rice valued at 500-600 cash." *Rustic Words from East of Qi*: "A picul of sprouted rice was worth 3,000. When prefectures collected it, they were ordered to add a surtax to it, increasing 3,000 to 5,000, and 5,000 to 7,000."

⁴²Lu You, *Entering Shu Record*: "In Gong'an . . . the urban areas are complex and rich. A *dou* of rice is 60-70 cash."

⁴³*Song History*, 175, "Treatise on Food and Money," first part, 3: "In qiandao 4, official purchases were made in Account Notes, coins and silver. A picul was 2 strings 500 in cash." *Song Collected Statutes Compiled Draft*, "Food and Money," 40.14, qiandao 8, 12th month, 13th day, the Secretariat-Chancellery said: "We have learned that the harvest this year is abundant in Jiangxi, Hunan, Guizhou and Hanyangjun. The price of rice is only 1 string 400 cash per picul when purchased for price management."

⁴⁴*Collected Works of Civil Duke Zhou*, 88, "Epitaph for Liu, Duke Shendao": "In chunxi 2 . . . cash amounting to 300 million was borrowed from various offices, and sent to the officials for purchase of rice to send up the Yangtze. In this fashion 149,000 *hu* were obtained." *Song History*, 386, "Biography of Liu Qi," contains the same account, but the quantity of cash borrowed from various offices is given as 30,000. This must be a misprint. *Song Collected Statutes Compiled Draft*, "Food and Money," 40.14, chunxi 12th year, 1st month, 28th day, edict: "During chunxi 5, a *sheng* of rice was 19 cash. In chunxi 9 it was 23 cash. This Autumn, upon the completion of the early and late rice harvests . . . the price of a picul of rice varied from 1 string 600 cash to 2 strings 50 cash."

⁴⁵*Song Collected Statutes Compiled Draft*, "Food and Money: Miscellaneous Record of Taxes," shaoxi 2, 4th month, 20th day, edict: "The Chenzhou annual discount of taxes into cash was permanently fixed at only 2 strings 150 cash full per picul."

⁴⁶*Song Collected Statutes Compiled Draft*, "Food and Money," 70, "Miscellaneous Records of Taxes," qingyuan 5, 4th month, 29th day, the ministers said: "Now, in addition to the

Pingjiangfu, prior to shaoxing times, the various officials might each use 50,000 strings per annum. Later they needed over 200,000 strings, and this year they have added three times that latter number."

³⁸*Swallow Wing Bequeathed Plans Record*.

³⁹Dong [?], *Relief of the People Book*, 2, "Ordination of Monks." Dong was a metropolitan graduate of shaoxi 5, and had served as magistrate of Ruianxian.

⁴⁰*Collected Works of Mr. Xishan, Duke Zhenwenzhong*, 17.

Dong [?] discussed official purchases for relief purposes, a market price of 30 cash per *sheng* involved an official purchase price of 15 or 16 so that official sale could be made at 20 cash per *sheng*.⁴⁷ Evidently there had been no great change in price.

From the time warfare began again during kaixi [1205-8], prices again rose. From jiading to duanping [1208-37], a picul of rice was probably around 3 or 4 strings.⁴⁸ In times of famine, it was 10 or 20 strings.⁴⁹ A picul reached 100,000 in Xiangyang at

cash equivalent of rice and wheat, there is a change when paying the price in cash. A picul of wheat is discounted into 5,000 cash, and a *dou* of rice into 700 cash. When we reckon the actual prices, how could these be less than double that amount?"

[498]

⁴⁷*Relief of the People Book*, 2, "Relief Purchases." This probably happened during the qingyuan period.

⁴⁸*Collected Works of Mr. Xishan, Duke Zhenwenzhong* contains several rice prices. Chapter 6, "Memorials Requesting Establishment of Famine Administrations at the Prefectural Level and Other Matters," says that during jiading 8, in 9 commanderies of Jiangdong: "market purchases jumped. A *dou* was several thousand cash. . . . The amount sufficient to provide for several days in normal times could not provide provisions for even one day." Evidently in normal times the price was 3 strings per picul at most. Chapter 12, "Memorial Requesting the Dismissal of the Magistrate of Ningguofu, Zhang Zhongshu, for Accepting Gifts," speaks of jiading 8, when "a picul of non-glutinous rice was 1 string of cash full." Chapter 7, "Third Petition to the Ministry," possibly of jiading 9, says: "A picul is 3 strings." "Fourth Petition to the Ministry," says that because of a natural disaster in Guangde "the price in the city of rice for a diminished *sheng* is more than 40 cash full." At first relief purchases by the government were at 24 cash full per *sheng*, and were later reduced to 18 cash. Chapter 17, "Several Petitions to the Secretariat-Chancellery on Complete Abolition of Harmonious Purchase," says that in jiading 17, "each picul reckoned in official Account Notes was 3 strings 750 cash." Chapter 15, "Request to the Secretariat-Chancellery to Stop Sales of Ordination Certificates to Aid Imperial Princes," contains a rice price which may date to duanping 3: "Reckoning by the median price, a picul was 3 strings of cash." The same document states that an ounce of silver was the equivalent of 3,460 cash. This would make a picul of rice equal to 0.869 ounces of silver.

⁴⁹*Song History*, 67, "Treatise on the Five Agents," jiading 1 [1208]: "There was great famine among the people of the Huai. People were eating grass and treebark. A million refugees flowed into Jiang and Zhe. Previously, the Huai localities suffered military alarms, and agriculture had long been disrupted. A *dou* of rice was 2,000. Thirteen or fourteen died. Human flesh was cooked and horse archers ate it. . . . This year there was also famine in the Travelling Capital. A *dou* of rice was 1,000 cash." In the Spring of the following year "there was great famine in Lianghuai, Jingxiang and Jiankangfu. A *dou* of rice was several

the end of shaoding [1234].⁵⁰ Between the capital and Ezhou, a picul cost 60 to 70 strings of Hu Account Notes.⁵¹ A drought on the left side of the Zhe in jiaxi 4 caused the price of rice to become very unstable. At first its price was 36 strings per picul, but it then steadily rose,⁵² until it reached 100 strings,⁵³ and eventually peaked out at over 340 strings.⁵⁴ Such increases, though partly the con-

thousand."

⁵⁰*Goose Grove Collection*, 19, "Letter on the Opportunity in the Central Plain Not Being Easy and Requesting that Government Policy First Be Revised," records the situation in shaoding 6, 8th month: "In Xiangzhou a picul of rice is as expensive as 100 Thousands."

⁵¹*Memorials of Advice of State Duke Xu*, 1, "Nine Matters on Which Imperial Edicts Ought to be Issued to Secure Good Government for the State": "Between the capital and Ezhou, the price of a picul of rice is 60 or 70 Hu Account Notes. The people are scattered, and in disarray on the roads."

⁵²Yu Wenbao, *Chuijian Record*, additional collection: "In jiading year gengzi, there was a drought. The Overseer of the Capital, Zhao Cungeng, laid a surtax on the great families to purchase rice. At first the official price given was 36 Thousands per picul. Before long, the price shot up four or five fold. Important people of distinguished lineage broke up their families and dispersed their property. Many died of frustration. Even now, the fathers and old are still suffering from its effects." The original note appended to this reads: "The case of a figure of 36 Thousands seems to be a mistake." This is because the annotator did not realize that monetary inflation was under way then. A price of 36 Thousands, if in terms of the 17th issue of Account Notes, would have only equalled something over 7 strings of the 18th issue.

⁵³*Works of Qingxian Duke Du*, 10, records a message already seen of jiading 4, 8th month: "Prices have jumped. Of course this had happened before, but for a *sheng* of rice to reach 1,000, has never happened before. Articles of daily use are ten times more than before. This has never before occurred." *Ibid.*, 11, first part, "Three Matters Already Seen": "I have observed that this year's drought is most severe in the capital region. . . . A *dou* of rice is 10 Thousands, and is increasing by the day."

Pure and Upright Existence Draft, 1, "Memorial Requesting Use of Surtax to Purchase Grain for Relief of Starving People": "Since entering the borders, . . . from Nankang, Chitang and Taiping right up to Jiankang, I have gone through four commanderies. . . . Under my very eyes, a *hu* of rice has sold for 60 or 70 Thousands, and even as high as 100 Thousands. People have fled and died to an alarming extent."

⁵⁴Jing Ting, "On There Being Nothing More Important Than Public and Private Purchases as a Policy for Saving Mulberry Paper Money" (jiaxi 4): "In neither ancient nor modern times has a picul of rice's price been 340 Thousands without the state not being impoverished, the people not being in difficulty, and the Empire not being in danger of disorder."

sequence of drought-induced shortages of rice, also were caused to a significant degree by monetary inflation.⁵⁵ Therefore, even during the chunyou period [1241-53], a picul still cost 100 strings.⁵⁶

These figures were probably all either calculated in terms of paper money, or in terms of paper and coins intermixed. If they had been calculated in coins, naturally they would not have been that high, since the price of coins rose in parallel with prices in general.⁵⁷

Nevertheless, even if we calculate these prices in terms of copper cash, I suspect they would turn out to be much steeper than those of Northern Song.⁵⁸

There are reports of abundant harvests in Jiangxi and Hunan during qiandao 9, and a picul of rice was 1 string 400 cash. For this reason, Li Anguo discounted it into copper cash for only 840 cash full, and said there had never been so low a price.

⁵⁵*Works of Qingxian Duke Du*, 10, "First Message Already Seen By the Executive of the Board of Personnel": "Last year, drought was extraordinarily severe on the left side of the Zhe. Though the right side of the Zhe enjoyed a fairly good harvest, and had food in sufficient quantity, rice jumped ten fold in price." *Goose Grove Collection*, 24, "Two Petitions to the Ministry": "Even at a reduction of 30 percent, grain is still expensive. Even if 5 certificates are exchanged for 1, mulberry paper money will not be raised in value."

⁵⁶Li Cengbo, *Ke Pavillion Miscellaneous Draft*, 17, "Removing the Huai Threshold," quotes a memorial written during the chunyou period: "In recent years, I have checked into and spoken of this. . . . In places near the capital, a picul of rice has been 100 Thousands. The dead are everywhere, and it has been cold and bleak both within and without. Natural vicissitudes have been extreme." In the Ningbo region of Zhejiang, however, [499]

during chunyou 1, a picul of rice was only 40 strings in official Account Notes. Wei Xian, *Beneficial Observation of Four Famous Landscapes*, first part, chunyou 1, 10th month, "I Visit the Government Managed Sand Panning," says that the daily wage of a sand-panner was 500 cash in official Account Notes and 2.5 *sheng* of rice, or 1 string of official Account Notes 500 cash, without rice.

⁵⁷*Song History*, 180, "Treatise on Food and Money," contains the words of Chen Qiulu uttered in chunyou 8: "When coins are expensive, then goods must be cheap. Now, goods and coins are both heavily demanded. This will bring grief to a whole generation."

⁵⁸Dai Zhi, *The Mouse Gem*: "Nowadays our illness lies in the great amount of mulberry paper money, and not in the scarcity of coin. If you wish to make both coins and paper money to be in large supply, then goods will be even more heavily demanded. And when there is no paper money, those things which are numerous will all be cheap. If paper money becomes more numerous, then goods will become that much more expensive."

[487]

I am afraid there is an error in this story. If reckoned in copper coins, it is evident that a picul must have been 1-2,000 cash. Southern Song coins were, however, mainly of 2-cash denomination, small 1-cash coins being very few, and virtually none of the small coins having been minted during qiandao. Therefore, prices expressed in copper coins were actually in terms of 2-cash coins.

When we examine Song rice prices at one decade intervals, though some irregular oscillations appear, we can still discern a secular tendency upward.⁵⁹

Even calculated in Treasure coins, prices have still doubled."

⁵⁹The table is based on 230 rice prices. Some excessively abnormal prices have been omitted from the calculations, as for example a price of 2,000 strings per picul of jianyan 4 and one of 65 cash per picul in shaoxing 13. Sometimes there are only figures for one or two years during a decade, or as for the '60s of the tenth century, the texts contain no actual prices, but merely say that during jianlong grain was cheap. Hence I was obliged to extrapolate from the records of low prices for the reigns of Emperors Taizu and Taizong, and use 190 cash full per hectoliter as an average price for the '60s.

I also did not succeed in finding rice prices for the '30s of the eleventh century (1031-1040), but *Song History*, 283, "Biography of Xia Shu," records that "at the beginning of baoyuan . . . people were permitted to pay fines in grain. A catty of copper was equal to 5 *dou* of grain." If we assume ten coins to the ounce of copper, then a picul of grain was equal in cash to 320 coins. But because the Song employed a Reduced-hundred, with 77 coins taken for 100, this would make the grain price more than 400 cash per picul. Since rice was more expensive than ordinary grain, I adjusted the price to 700 cash per picul.

As for figures for the last decade of the eleventh century, there was no way to strike a reasonable average, because the figures we have are 770 and 700 per picul for 1091. There are no figures for quite a few years thereafter. It is only when we get to 1099 and 1100 that records again become numerous, but unfortunately these are all in terms of iron coins, which probably then exchanged for copper ones at a rate of 10:1. The figure in the table assumes that the 1091 prices were expressed in copper coins, but that the 1099 and 1100 figures were expressed in iron cash which exchanged for copper coins at 10:1.

The figure for the first decade of the thirteenth century is not an average from contemporary prices, but assumes a price of 3,500 cash for the first five years and of 12,000 cash for the last five years, and averages the two. This is probably not too far from what the actual situation was, since in kaixi, before military moves began, there should not have been much of a difference from the situation during the last decade of the twelfth century. After the war with the Jin began, the cost of rice shot up several fold.

For the '40s of the thirteenth century, there is only one figure, 100 strings per picul, and I had no choice but to take that to

SONG DYNASTY RICE PRICES (1)

Period	Price/Hctltr (in cash)	Period	Price/Hctltr (in cash)
961-970	190	1111-1120	1,391
971-980	311	1121-1130	12,209
981-990	192	1131-1140	11,421
991-1000	241	1141-1150	1,420
1001-1010	419	1151-1160	2,626
1011-1020	386	1161-1170	2,881
1021-1030	399	1171-1180	2,484
1031-1040	804	1181-1190	3,001
1041-1050	2,902	1191-1200	4,260
1051-1060	1,034	1201-1210	6,481
1061-1070	525	1211-1220	3,989
1071-1080	1,125	1221-1230	4,348
1081-1090	791	1231-1240	3,480
1091-1100	859	1241-1250	11,594
1101-1110	1,827		

If we take units of fifty years, this secular tendency to increase becomes even clearer.

During the two centuries from the end of the tenth through the first half of the twelfth century, the trend upward in the cost of rice is very clear.

During the last half of the twelfth century, however, the price fell back. This fall was partly a reflection of the end of the many wars of the first half of the twelfth century, which had pushed up prices during some years. It was also partly a consequence of the large scale outflow of copper coins after the middle years of shaoxing, which created a coin famine.

Though prices from qiandao [1165] on are expressed in a mixture of coin and Account Notes, the rise in the purchasing power of copper coins would naturally have influenced prices.

Records of prices are extremely scarce for the first half of the thirteenth century, and all of them are abnormal prices, but reckless issue of paper money must have caused a fall in purchasing power.

Copper

[488]

stand for the price during that decade, since I suspect that prices were actually that high during the '40s.

My method of calculation was to work out simple annual averages, and for time periods of from one year to a decade, a half-century or a century, I struck a median figure. I reckoned cash in terms of a full hundred.

SONG DYNASTY RICE PRICE TABLE (2)

Period	Avg Price/Hectoliter (in cash)
Last 1/2 10th century	229
First 1/2 11th c.	705
Last 1/2 11th c.	839
First 1/2 12th c.	3,506
Last 1/2 12th c.	2,993
First 1/2 13th c.	5,905

cash were reduced in number, and this induced a still more rapid fall in price of paper money in terms of copper cash. In order to limit this fall in paper money's value, the government wanted to mint more coins, but production of copper during Song times reached its nadir during that period.

SONG DYNASTY COPPER PRODUCTION TABLE

Year	Annual Production (in catties)
During huangyou (1051)	5,100,834
During zhiping (1066)	6,970,834
yuanfeng 1 (1078)	14,605,969
qiandao 2 (1166)	263,160

Because copper was scarce, there was no alternative to seeking out old copper utensils from the public. During shaoxing 28, in addition to taking 1,500 copper objects from the imperial precincts to be handed over to the minting authorities, more than 20,000 catties of copper utensils were taken from the public, and the temples and monasteries were forbidden to manufacture additional bells or cymbals. The following year, officials were limited to cash balances of 20,000 strings, and commoners to 10,000 strings. Those holding cash in excess of these amounts were given two years to purchase gold, silver, or tea, salt, incense or alum vouchers with the money. During qiandao 7 [1171], the officials in charge of Shu and Qi were promoted for having minted coins.⁶⁰ Probably they took another look at the copper immersion technique.⁶¹

⁶⁰*Song History*, "Treatise on Food and Money," latter part, 2.

⁶¹*Sagely Government of the Two Reigns of the Dynastic Revival of Imperial Song*, 12, shaoxing 2, 10th month: "In xin-

The price of cotton also rose during Southern Song. In shaoxing 1 [1131] it was 2,400-2,500 cash per catty. The next year it went up to 9,600, and by shaoxing 18 it was 4,300. In longxing 2 [1164] it was back to 2,400-2,500. All of these prices are in full hundreds. If we say that the average price for cotton during Northern Song was 500 cash per catty, then the Southern Song price was from four to five times higher.

During the chunxi period, though its convenience and lightness was still opening increasing uses to paper money as an instrument for making purchases and paying taxes,⁶² generally speaking, people who accepted paper money usually exchanged it for copper coins as soon as possible⁶³ so as to not lose purchasing power,

mao the court advised . . . that the copper authorities of Raozhou and Xinzhou . . . both produce copper by immersion of iron in gallwater. During yuanyou, there was first established the Xingli mint in Raozhou, which annually turned out over 50,000 catties. In shaosheng 3, the Qianshan [Lead Mountain] mint was established in Xinzhou, with an annual production of 380,000 catties. The method used was to place plates of iron into troughs of gallwater, take them out after several days, and smelt them three times to turn them into copper."

⁶²*Record of Barbarian Strength*, Collection J, first part, "Record of Things Heard from People": "I have heard of a man named Bofeng, who was a Yao from Jiaying. In chunxi 6, he hurried to Chuzhou to be registered. . . . In the course of three months, he accumulated 100 Thousands of cash. He bought mulberry paper certificates with it to send with a servant back to his mother."

⁶³*Record of Barbarian Strength*, Collection D, latter part, "Wang Seven-six": "A merchant of Lishui, Wang Seven-six, normally took cotton to sell between Qu and Wu. In shaoxi 4, when he arrived in Quzhou, he went to the establishment of the market horse broker Zhao Ten-three. What he brought was worth 300 Thousands. Zhao . . . killed him. He put the corpse into a bamboo basket. . . . He waited until the middle of the night,

[500]

and was going to throw it into a deep ravine. . . . A butcher who lived nearby, Qiang Yiya, was roused by the disturbance, grabbed Zhao by the hand, and wanted to be shown what had happened. Having no other choice, Zhao told him the facts, and offered him five mulberry certificates. Qiang would not listen to him, and said, 'I ought to inform on you to the officials.' . . . Then Zhao increased his offer to ten certificates. Qiang was satisfied, and went off with them. That day he did not buy a pig, but carried the notes back to exchange for cash."

Song History, 395, "Biography of Li Daxing": In the time of Emperor Guangzong, "Jiangling of old used copper money, but coins were heavy and mulberry paper light. When people brought their capital into the market, by the end of the day, not a

[489]

because the purchasing power of copper coins was rather higher.⁶⁴ To increase the velocity of circulation of paper money in this way is to cause its value to fall still more rapidly.

By the beginning of jiading [1208], Account Notes had been discounted to the point that they could no longer circulate.⁶⁵ Although the government continued to issue them for a time, people were mostly unwilling to accept them, and those already held by them could only be used to pay taxes.

Various other local paper currencies, like Sichuan Vouchers, Hu Account Notes and Huai Exchange Notes, were still being issued in increased amounts up to jiading times [1208-25], and their values were falling by the day. Sichuan's Coin Vouchers, for example, were worth less than 400 iron cash by the beginning of jiading (1208), and some advocated using 13 million in gold and silver ordination certificates to redeem half the issue, but a time limit was placed on the redemption. Some places were over a thousand *li* away from the central

single coins was to be had. Daxing memorialized to ask that iron coins be circulated as in Xiang and Cheng. Thereupon coins circulated and the people began to return to their trades."

⁶⁴*Record of Barbarian Strength*, Collection J, first part, "Xue Xiangtan": During chunxi, "an old woman said, 'In this village, wine is 24 cash a *sheng*. There is none in my house.' Xue took out 100 cash and sought to buy two *sheng*. The old woman, having won a profit, carried a jar off, and after a while brought some wine she had obtained. He drank together with the old woman, who was greatly pleased, and gave him a plate of beef."

Correspondence from Beyond the Southern Mountains (preface date chunxi 5), 4, "Ever Normal Granaries": "Moreover, in Guangzhou a *dou* of rice was 50 cash, and ordinary grain was never before so cheap. The reason it is cheap is not because there is so much grain, but because new teeth are not flourishing, and food is no longer plentiful. . . . Even when we encounter bad harvests, a *dou* of rice only reaches 200 cash. If as a consequence the people have to flee, the local helpers have no plans for finding room for them."

⁶⁵*Song History*, 39, "Annals of Emperor Ningzong, 3": "In jiading 4, 12th month, guiwei. Because Account Notes had been discounted to the point where they no longer circulated, officials were dispatched to make inquiries in the prefectures of Jiang and Zhe." In his *Collected Works of Mr. Xishan*, Duke Zhenwenzhong, Zhen Xishan frequently mentions this as occurring at the beginning of jiading, as in chapter 2, guiyou (jiading 6), 5th month, 22nd day, "Second Memorial on Prices," chapter 3, "Reply to Memorial by Yue Jiaye" (drafted during 12th month, 11th day) and chapter 5, "Old Matters" (submitted in jiading 7, 7th month, 11th day).

authority, and their vouchers could not make the deadline. There were also abuses by the officials, which caused the value of a voucher to fall to 100 cash.

The government later announced that unredeemed vouchers could continue to circulate. Only then did their value recover to 500 iron cash.⁶⁶ In places using copper coins outside the passes in the northwest, a voucher was only worth 170 cash.⁶⁷ Even this must be reckoned the consequence of good management. The Jin invasion of jiading 11 (1218) provoked an increased printing of 5 million to meet military expenses.

Silver Account Notes were issued in baoyou 2 (1254), with 1 equal to 100 of the old notes. This caused a sharp drop in the value of Coin Vouchers, so that a picul of rice cost 2,000 in vouchers. The price later increased to 5,000 vouchers.⁶⁸ In Emperor Duzong's [xian?]chun 5 [1269], a limit of 5 million strings per annum was set.

Hu-Guang Account Notes were redeemed with capital Account Notes at the beginning of chunxi, but seem to have been issued again later. By the jiading period [1208-25], their value had again fallen.⁶⁹ An increased printing of 3 million strings worth of Lianghuai Exchange Notes in jiading 15 could not maintain their original purchasing

power.⁷⁰

The efforts of the authorities to support Account Notes did not enjoy much success during the reign of Emperor Lizong [1225-65] either.⁷¹ An inspection official was placed in the Hangzhou Account Note Treasury in shaoding 3 (1230). Seaborne export of copper cash was again banned in duanping 1 (1234), and strings of coins were brought out of the inner treasury to exchange for mulberry paper money.⁷² By then Jin had already

⁷⁰*Song Collected Statutes Compiled Draft*, "Food and Money," 28.48, jiatai 2, 12th month, 18th day, edict: "In paying salt cash to the Huaidong Salt Intendancy, 20 percent need not be paid in Exchange Notes. . . . The old regulation was to pay 40 percent each in coin and Account Notes, and 20 percent in Exchange Notes. This has been changed because of complaints as to its inconvenience by visiting merchants." *Investigation of Literary Remains*, "Investigation of Coins, 2": "In jiading 15 increased printing [of Huai Exchange] reached 3 million. Their amount was increasing daily, and their value was also being harmed by the day. Proper technique was not being applied."

⁷¹*Collectanea of Ancient and Modern Books and Illustrations*, quoting *Miscellaneous Knowledge of the Year Guixin*: "Zhen Wenzhong [i.e. Zhen Xishan] was virtuous, and for a time had some hopes, but the duanping era changed people still more. How could he come like an old man from the yuanyou flood? At this time, mulberry paper was lightly demanded and goods heavily demanded. The lives of the people were difficult. It was said that once a true scholar like Zhen was employed, things were sure to be strengthened. In the midst of the move, good government could be established. Thereupon it was said among the people that if it was desired to have low prices for goods in general, it was only necessary to await Zhen's arrival in office."

"When he arrived at court with a single retainer, he first applied himself to expounding studies of the Dao, rectification of the heart and making sincere his intent to act righteously. He then presented his *The Great Learning Explicated*. If stupid people are without knowledge, take what they say as not corresponding to the responsibilities of the times. He repeatedly used rustic sayings, such as 'drawing up the water of West Lake to cook a bowl of noodles.' Little children on the streets chanted these aphorisms without understanding them. A scholar once sent a letter to the authorities which said, 'The master's methods penetrate the Way, are addenda to the Sages' classics, set up the mind for Heaven and Earth, and set up their destiny for the working people.' Stupid people without knowledge nevertheless desired

[501]

to bring petty clerks' affairs for his judgment. Nevertheless, those who accept the name of rulers of the Empire, must undertake responsibility for it. At a time when mulberry paper money was extremely debilitated, how could a single scholar change the situation? Is not such a hope excessive?"

⁶⁶*Universal Statutes Continued. Song History*, 412, "Biography of Chen Xian": "Shu Coin Vouchers of old circulated in two terms simultaneously, totaling 50 million, half kept by the officials. From the beginning of military operations, all the vouchers were scattered among the public, and the General Finance Office kept three issues in simultaneous circulation to the amount of 80 million. Their price fell lower by the day. Xian used 12 million strings to redeem half of the 19th term [should be 90th term], and advised the Tea and Horse Offices to redeem the 91st issue with the ongoing 93rd issue. Thereupon the price of vouchers rose again, and the cost of official grain purchases declined."

⁶⁷*Investigation of Literary Remains*, 9.

⁶⁸Li Cengbo, *Ke Pavillion Miscellaneous Draft*, 3, "Secret Memorial on Saving Shu's Mulberry Paper Money." *Essentials of the Administrations of Three Song Reigns*, 2, "Lizong," says that in baoyou 4, new Sichuan Vouchers were issued. This probably refers to the silver Account Notes.

⁶⁹*Investigation of Literary Remains*: "An edict of jiading 14 had 200,000 of Hu-Guang Account Notes made to redeem damaged Account Notes. Thereafter they continued in circulation." *Song Collected Statutes Compiled Draft*, "Food and Money: Water Transport of Grain, 4," jiading 15, 3rd month, 25th day: "In terms of their present market value, 2 strings 700 of Hu-Guang Account Notes can only be exchanged for 1 string of copper denominated Exchange Notes." I do not know what is meant by the term copper Exchange Notes used here.

been destroyed by the Mongols, and it would have been reasonable for there to have been a turn for the better. In fact, however, this was not the case.

With the fall of Jin, the Mongols had to be faced, and so the 16th and 17th terms of Account Notes were issued. During the year before that, a 1 string old Account Note was still worth 500 cash in some localities. After the new Account Notes had been issued, a string of the old was only worth 330 cash, and at the same time 1 string 300 of the old notes could be exchanged for a 1 string new Account Note, which means that a 1 string new Account Note was only worth 429 cash. That was less than the price of an old note before the new ones had been issued.⁷³

Preparations were made during duanping 2 and 3 [1235-1236] for the manufacture of 18th term Account Notes. In the Spring of jiaxi 4 (1240), there was a regulation that 5 strings of the 17th term of Account Notes would be the equivalent of 1 string of the 18th term, and that the 16th term was also to be redeemed. At that time the 16th and 17th terms of Account Notes alone contained 500 million strings,

[490]

and so how could their price not have fallen?⁷⁴

⁷²*Essentials of the Administrations of Three Song Reigns*, 1.

⁷³In duanping 1, Wu Qianying, discussed nine matters necessary for establishing good government in an addendum to an edict. *Investigation of Literary Remains Continued*, 7, jiaxi 4, 9th month: "Arrangements were made to put out the 18th term of Account Notes to redeem the 16th term. Five of the 17th term notes could be exchanged for one of the 18th term. If any among the people circulate them at a lower price, or if any offenses are committed in the official bureaus, they will be subject to prosecution."

⁷⁴Yuan Fu, "Communication on the Account Notes": "At present [jiaxi 4] the 16th and 17th terms of Account Notes total 500 million. Their quantity increases daily, and their price falls daily. A strategem for rescuing us from this abuse fortunately lies in the 18th term of new Account Notes. If we do not employ it well, then abuses surely will be abundant. Now an open directive calls for the 18th term of Account Notes to be printed and issued. It says that the value of 1 new note may be equated with 5 or 6 of the old ones. Hence it is desired to halt the old and make the new. Nevertheless . . . once the 18th term has come out, then new and old, three terms' worth, will circulate intermixed, and the regions will have expended still more effort. Though according to the directive, the new Account Notes will be used to buy up the old as their term expires, and they will then be secretly destroyed, this will, however, pose us a predicament. If we say it is not necessary to make new Account Notes, then how will we be able to buy up a third of the old Account Notes each month? There would have to be three terms in cir-

That year there was a drought within the country. Prices shot up, and the government bought rice from the great families, paying 36 Thousands per picul. Originally that was high enough, but before long the market price had increased four or five fold, causing well-off people and great families to break up their families and disperse their property to avoid selling at the old price. A great many suicides occurred.⁷⁵

The authorities sent down orders that, as was formerly the case, taxes could be paid half in Account Notes and half in cash. Of the Account Notes, half could be the notes of the 18th term, accepted at par, and half the notes of the 17th term, accepted at a discount. In chunyou 5 (1245), a million strings of Account Notes were used to reward the naval and land forces. The next year, the total for all terms extant of Account Notes was 650 million strings.⁷⁶ Regulations issued during chunyou 8 [1248] removed the expiration date from the 17th and 18th issues of Account Notes.⁷⁷

Rewards were mostly made in cash and in gold and silver during the period after chunyou 4 and 5. During two decades, more than 190 million strings of cash were paid out, as well as 50 million ounces of silver and 1,000 ounces of gold.⁷⁸ Southern Song reduced the number of coins minted, but during the kaiqing and jingding periods, minting occurred, and Account Notes were used in various places to exchange for copper coins, and so the quantity involved could be impressive.

During this same period, heroic efforts were made to try to bring the Account Notes under control. Ordination certificates or copper cash were exchanged for worn or damaged Account Notes on several occasions. In jingding 1 [1260] alone, the government ordered Lin'an Prefecture to use

ulation simultaneously. The more numerous they are, the cheaper they will be."

⁷⁵Yu Wenbao, *Chuijian Record*, additional collection. For the text of the note, cf. note 52 above. *Song History*, 419, "Biography of Xu Rongchou": "In jiaxi 4 . . . entered for audience, and said that since mulberry paper money had not been circulating, prices had doubled, and the people were becoming resentful. Since the transport of rice has mostly become obstructed, food has become scarce, and the people have been made even more resentful. This has even become evident in the capital district."

⁷⁶Sun Mengguan, *Snowy Window Collection*, 1, "Audiences of Year Bingwu," second directive.

⁷⁷*Essentials of the Administrations of Three Song Reigns*, 2, "Lizong."

⁷⁸According to the *Song History*, "Annals of Emperor Lizong," for the last twenty years of that reign.

3,047,859 strings of copper coins and 10,952,100 strings worth of 17th term Account Notes, for a total equivalent to 14 million strings of 17th term Account Notes, to buy 400,000 piculs of pearl rice.⁷⁹ That was a price of 35 strings per picul, or 40 strings full per hectoliter.

By this time the Song empire was virtually in eclipse. Though there were still no small number of "loyal and righteous" scholars ready to yield up their lives and fortunes,⁸⁰ to retrieve the situation, most surrendered as soon as they saw the enemy, without offering any resistance.

In jingding 4 (1263), Chen Yaodao proposed to limit the size of land holdings. He estimated that of the official and private land exceeding the limit in Liangzhe, Jiangdong and Jiangxi, one third could be taken and bought to serve as public fields. Ten million *mu* of such land could be obtained, providing an annual income of 6 or 7 million *hu*, which could be used to provision the army, defer the purchase of grain, increase the value of paper money, make the distribution of wealth more equitable and pacify the rich. One act would yield five benefits. He did not, however, realize that to buy land in excess of the limits set would require daily increases in the number of Account Notes printed of 150,000 strings.

The next year, Jia Sidao issued gold and silver and ready cash Communicating Medium. With 77 cash to the 100, 1 string of this was equated with 3 strings worth of 18th term Account Notes. He also completely abolished the 17th issue. The value of money continued to fall. Though the government made every effort to carry out countercyclical sales so as to raise prices, most rich people hoarded grain and would not sell it.

Only paper money, and not rice, was to be seen on the market, and so food shot up in price.⁸¹ The

price of silkworms of "300 turned into 3,000."⁸² Two hundred strings worth of the 18th term of Account Notes was not enough to buy a pair of grass [491] shoes.⁸³

Someone then wrote an antithetical couplet depicting the severity of social life, saying that "people are like ruined temples; Of ten rooms, nine are empty. Grand Protectors are like mendicant monks, Begging two of congee and one of rice."

In xianchun 10 (1274), 11th month, Bayan led the main Mongol army to Fuzhou. The Song house issued another 10 million strings of Communicating Medium, and called on Jia Sidao to bring out the army to resist, but he could not get there in time.

Because Song's paper money used fixed periods of issue, they could not discern the truth about the effect of monetary inflation on prices. We can illustrate this with the late issues of Account Notes. In jiading 3 [1210], because the old 16th term Account Notes had fallen in price, they were exchanged for the new ones at a rate of two for one. Later, the 17th term credit notes fell further in price. When redeemed, 1 string's worth of the 18th term Account Notes was equated with 5 strings of the 17th term.

If we calculate prices in terms of the 18th term notes, we can approach the normal level of prices then, but their value later fell further, and 1 string of copper cash denominated Communicating Medium was equated with 3 strings of the 18th term Account Notes.

If we assume a rice price of 1 string of copper cash Communicating Medium per picul, prices do not appear high. Actually, though, this was the same as 3 strings of 18th term Account Notes, 15 strings of 17th term Account Notes, and 30 strings of jiading period Account Notes. The further back we extend our calculations, the more fully we understand the severity of the rise in prices.

If we talk in terms of the coin price of paper money, then 1 string of copper cash denominated

⁷⁹*Song History*, 178, "Treatise on Food and Money."

⁸⁰*Song History*, 44, "Annals of Emperor Lizong, 4," baoyou 6, 12th month: "Xiang Shibi, without waiting for the court's orders, advanced his army to Guizhou, and took along a million in money to supply the army. Ma Guanxu did not wait to memorialize a request, but recruited 10,000 soldiers, and expended 10,000 ounces of silver to recruit able-bodied men." In kaiqing 1, 4th month: "The magistrate of Shizhou, Xie Changyuan, personally provided a million strings of cash and 1,000 piculs of grain to complete building the commandery walls, and for this he was raised one step in rank."

⁸¹Zhang Peiren, *Magic Incense Dwelling Collected Words*, 1, "Note of Thanks for the Canon of the Huai Commanderies" quotes the original Song text of "Note of Thanks to Jia Sidao." Zhou Mi, *Rustic Words from East of Qi*: In jingding 5 . . . 10th month, yichou, we suddenly heard that the Sagely Person was indisposed, and an edict was sent down seeking medical assis-

stance. On day dingmao, a posthumous edict was sent abroad, and the order for gold and silver Communicating Medium was for the time being promulgated. Mulberry certificates of the 17th term were to be exchanged. From then on, prices jumped up, and the people's livelihood was thrown into distress."

⁸²Gao Qide, *Extant Drafts of the Humiliation Hall*, 6, "Feelings on the High Price of Silkworms."

⁸³*Tong River Collection*, 6, "Complete Collection of Letters Sent Up Before Year Yihai," contains a letter condemning Jia Sidao: "Since even more of the Communicating Medium has been exchanged, 200 of the 18th issue is insufficient to trade for a pair of grass shoes, or to meet the requirements of a soldier for one day."

Communicating Medium was equal to 770 cash, an 18th term Account Note was equal to 257 cash and a 17th term Account Note was worth 51 cash.

Thus, a jiading period 1 string Account Note was only equal to 25 copper cash. If we extrapolate back to the 1st term, I suspect a 1 string Account Note could not even be worth a single cash coin.

Therefore, the fixed term issue method had the effect of disguising the rise in prices, and for that reason even though Southern Song inflated its currency for nearly a century, there were no price figures which would have alarmed people. Only those who were themselves affected at the time understood the suffering of the people.

By just what percentage did Song's paper money undergo inflation? There is no way to tell, because we lack detailed records of the redemption ratios for all the terms of issue. Even from those incomplete materials which we do possess, we can tell that it was no small number.

When the Mongols occupied the south in 1276, they used their zhongtong era notes to redeem the old vouchers. The old notes are described in the history texts as Account Notes, but in fact they must have been Jia Sidao's ready cash Communicating Medium. The exchange price then was 1 string of zhongtong notes for 50 strings of the old vouchers. That is to say, 100 strings of ready cash Communicating Medium was only worth 1 ounce of silver.

If we extrapolate our calculation backward, then 2,250 strings of 16th term Account Notes were only worth 1 string of zhongtong notes, and it took 4,500 strings worth of them to equal 1 ounce of silver. [492]

If we go back to the 1st term of Account Notes, there is no telling by how many multiples of ten-thousand a depreciation had occurred.

The salaries of Southern Song officials must have been lower than those of Northern Song because the price level had risen.

If a single tenant farmer cultivated a field of 30 *mu*, and the average yield per *mu* in the south was 2 piculs of rice, and at least one picul was required as rent to the landowner, the tenant's annual real income was 30 piculs, or 20 hectoliters. For a family of five, that would be 4 hectoliters per capita. Sixty percent of this was consumed inside the family itself. The rest was exchanged for oil, salt, incense and candles, medicine and cakes.⁸⁴ This is for a rice

producing region at a time of peace, but in fact the landlords' coffers were large, and sometimes 70 or 80 percent of the crop reverted to them.

Wages of laborers could not have been much better.

The Northern Song wage could purchase 1 hectoliter of rice per month. During kaibao [968-976], a chief weaver could buy 2 or 3 hectoliters of white rice per month, and an ordinary female worker could buy more than 1 hectoliter. During yuanfeng [1078-1086], a teamster could lay hands on more than 3 hectoliters a month.

The best wage during Southern Song, however, could only buy a little more than 1 hectoliter of rice, and in general, a month's wage could only buy a small fraction of that. For example, in qiandao 7 [1171], in the several districts near Shaoxingfu, a driller was only given 2 *sheng* per day.⁸⁵ That would make a monthly wage of only 0.4 hectoliters. In chunyou 1 [1241], sand panners in Ningbo, Zhejiang got a daily wage of 500 cash in 17th term Account Notes and 2.5 *sheng* of rice, or 1 string 500 cash in Account Notes, and no rice.⁸⁶ At that time the cost of rice was 40 strings of 17th term

wealth. All are tenant households. One peasant can now cultivate 30 *mu* of land. If each *mu* yields 3 or 2 piculs, and we take 2 as the median, 1 picul returns to the landlord's household. The manor rotation rate is 5 or more piculs. In addition, 30 piculs are paid in to the landlord, the tenant retaining 30 piculs. In a 5 person family, a person daily consumes 1 *sheng*, which comes to 18 piculs annually, leaving a surplus of 12 piculs. I have often seen tenant farmers carrying a picul of rice, or 5, 7, 3 or 4 *sheng* to market to exchange for more than one of the following: incense, candles, paper, horses, oil, vinegar, flour, sauces, bran, wheat flour, pepper, ginger, medicine and cakes. Several dozen piculs of rice are obtained in the course of a day. A boat can transport 100 piculs to Hangzhou, Xiuzhou, Nanxunzhou, Guzhu or Suzhou to be sold for cash, which is then used to buy goods to bring back for sale. The situation of the tenant households in the water townships is like this, but the situation in the hill townships is different. If we wish to learn a tenant household's [502]

annual food consumption, that which is planted in the hill fields, outside of the 30 paid to the landlords, there is an unknown amount of military and labor service which can make bitter a whole generation's life."

⁸⁵Song *Collected Statutes Compiled Draft*, "Food and Money," 8.11, qiandao 7, 12th month, 8th day, a minister said:

"In the districts near Shaoxingfu . . . some 681,500 was used for drillers. Each was given 2 *sheng* of rice per day. Some 13,630 piculs of rice were used."

⁸⁶Wei Xian, *Beneficial Observation of Four Famous Landscapes*, first part, chunyou 1, 10th month, "I Observe the Government Managed Sand Panning."

⁸⁴Fang Hui (a Southern Song figure), *Ancient and Modern Investigations Continued*: "I have often been in the household of Wang Wenzheng of Weitang in Xiu, and have observed the countryside of Wunong, the smoke rising from kitchen fires in thatched houses, without poverty, and without extremes of

Account Notes. Therefore, such a worker could only lay hands on 0.75 hectoliters of white rice per month.

Moreover, the practice of raking off payment of wages and materials flourished during Southern Song.⁸⁷ This reduced the amount working people actually got to put into their own hands.⁸⁸

SOUTHERN SONG WORKERS INCOMES

Year	Type of Work	Monthly Equiv. Hcrltrs Wh.Rice	Source
1127	diver	1.00	Song Coll. Stat.
1132	lower workman	0.81	" " "
	misc. labor	0.95	" " "
	service mil- itary worker		
1135	soldier provi- sions	0.78-0.97	Song History
1171	driller	0.4	Song Coll. Stat.
1190-	soldier-worker	1.16	Attacking Shame Collec- tion
-1195	in army weap- ons factory		" " "
1196	sea-wall worker	0.73	Beneficial Observa- tion of Four Famous Landsc.
1241	sand panner	0	

⁸⁷*Song Collected Statutes Compiled Draft*, "Official Ranks," 29.3, shaoxing 26, 12th month, 3rd day, and 29.5-6, chunxi 13, 3rd month, 10th day, both mention skimming of wages.

⁸⁸The original figure for 1132 in the following table is 2 piculs per month for lower workers, with 800 cash added, 120 cash per day for meals, and loans for Spring and Winter clothing. Miscellaneous labor service soldier workmen got 2 piculs 5 *dou* per month, plus 120 cash per day for meals, and loans for Spring and Winter clothing. Cf. *Song Collected Statutes Compiled Draft*, "Official Ranks," 16.5, shaoxing 2, 12th month, 7th day.

6. Silver's Purchasing Power

Prices were expressed in terms of copper and iron coins during Song. Southern Song also expressed them in terms of paper money.¹ Silver was only used for large denomination payments, and was not used to denominate prices.

The regions which, during Southern Song, circulated silver denominated Account Notes could have been exceptions to this rule. There is an example during qiandao 9 [1173] of using silver to make a payment corresponding to a price in copper. Four catties of copper were paid for 1 ounce of silver.²

Over the whole country, however, silver was not used among the people for making everyday monetary exchanges. As a consequence, it cannot be said to have been a full money. It was only for payment of taxes that silver was frequently used.³

Still, records of silver prices are more numerous than for any earlier epoch.

Because the purchasing power of copper and iron coins fell steadily during Song, and inflation of paper money was even more severe, there was also a tendency for the coin and note prices of silver to rise as well. At the beginning of Song, an ounce of sil-

¹*Song Collected Statutes Compiled Draft*, "Food and Money: Payment of Taxes": "In shaoxi 2, 3rd month, 22nd day, an edict to the prefectures of Tong and Chuan's . . . districts. Tax rice being sent to the three granaries in Longqingfu may be converted to the equivalent in coin for transmittal. For each picul, taking wastage into account, there may be paid 8 Coin Vouchers."

²*Song Collected Statutes Compiled Draft*, "Food and Money," 43.40: "In qiandao 9, 1st month, 6th day, Jiang Liao said . . . to stabilize copper, it should be sold officially, and used to set wages. I request that one ounce of official silver be commuted from 4 catties of copper in paying taxes."

³*Song Collected Statutes Compiled Draft*, "Food and Money," 40.14, shaoxing 3, 4th month: "The Board of Revenue was ordered that in receiving in payment of up to 15,000 bolts of Korean heavy silk, each bolt should be priced at 6 strings. The price for 20,000 bolts should be 5 strings apiece. Amounts of less than 3,000 strings may be commuted to silver, with each ounce of silver priced at 2 strings 200." Under "Miscellaneous Records on Taxes," qiandao 5, 1st month, 20th day, edict: "Henceforth commutation of cloth tax into silver should be in accordance with the Left Treasury price. When commoner households make such commuted payment, there should not be sudden reductions in price. . . . Prior to this, over the course of the years, commoners who paid taxes to the officials in silver did so at the rate of 3,200 cash per ounce, but when paying to the Left Treasury, did so at the rate of 3,300, each ounce yielding to them a silent profit of 100 cash. The ministers spoke of this, and so this order was issued."

ver was probably around 1,000 cash. Later, it rose to over 3,000. Though official and market prices diverged, and prices also differed between copper and iron cash using regions, a long term trend toward a higher price may be discerned.

By and large, during the latter half of the tenth century, an ounce was equal to 700-800 cash. Exchange prices of over a thousand cash were probably reckoned in Sichuan iron coins. During the first half of the eleventh century, the price of silver began to rise. An ounce went from 700 or 800

SONG DYNASTY SILVER PRICES

Date	Price per Ounce	Notes
936-965	680	W. Shu official estimate
	1,700	W. Shu market price in iron cash. Cf. Chengdu Record
977 [503]	1,000	Jiannan bribe
982	1,700	Market price, perhaps iron coin
998-1003	800	Bianjing official price
1007	750	Official estimate
	1,000	Hedong Circuit market price
1027	11,300	Sichuan tax price using small iron coins. Cf. Song Coll. Stat.
	20,000	Yizhou market price using small iron coins. Cf. Song Coll. Stat.
1040	2,000	Bianjing official price (Song His. 183), iron or large cash price
1046	3,000	Qiangzhou official price in iron or large coins (Inv.Lit.Rem.)
	3,000+	Xinzhou Circuit market price, in iron coins
1075	1,600	Sichuan, Shuzhou, maybe iron coin
1076	1,400	" " " " "
1104	1,250	Official price (Song Coll.Stat., "F&M" 43.80)
1126	1,500	Bianjing official price
1127	2,300	" " " "
	2,500	" " " "
1127 (jk2/1)	2,500	" " " "
1127 (jk2/2)	2,500	" " " "

1128 (jk3)	2,500	" " " "
1133	2,200	Hangzhou official price (Song Coll.Stat., "F&M" 40.17)
1134	2,300	Hangzhou official price (Yue Ke, Jintuo Continued Compil., 5)
	c.3,000	Guangdong market price (Song Coll. Stat. "F&M" 26)
1156	less than 3,000	Hangzhou market price (Mis.Rec.In & Out. Court)
	3,300	" " " " " "
1160	3,000-4,000	Guangxi Circuit official price (Song Coll.Stat. "F&M" 27)
	2,000 ful	Ibid., market price
1164	3,300	Zhenjiang official price (Song Coll.Stat. "F&M" 27.9)
	3,000	Ibid., market price
1169	3,200-3,300	Hangzhou market price (Song Coll. Stat. "F&M" 9.11)
[504]		
1172	3,600	(Song Coll.Stat., "F&M" 51.48)
1175	2,363 full	Guiyang official & market price (Mister Zhi zhai's Coll.Works, 44)
1183	2,949 full	Guangzhou (Song Coll.Stat. "F&M" 28.23)
1195-1200	3,300	Hangzhou official price
	less than 3,000	Hangzhou market price
1226 ?	3,300	Hangzhou official price
1228	3,300 & less	Hangzhou official price (Song His. 179, "Tr.F&M"
1236	3,460	Quanzhou price (Coll Works Mr Xishan Duke Zhenwenzhong, 15)
1260-1264	3 million	Sichuan, in Coin Vouchers (Li Cengbo, KePavil MiscDraft)
next year	7.5 million	Ibid.

up to more than 1,000 cash. The figure for tian-sheng 5 [1031] is, however, calculated in small iron coins, 10 of which equalled 1 copper coin. The high prices for kangding and qingli [1040-1049] are also in terms of large coins and iron cash, and are not comparable to the other figures.

During the last half of the century, the figures from Sichuan are also only around 1,000 cash per

ounce. During the first half of the twelfth century, an ounce ranged from 1,200-1,300 to 2,500, and during the latter half from 3,000 to 3,300. An ounce was also around 3,300 during the first half of the thirteenth century. All of these were calculated in Reduced-hundreds, probably with 77 cash to the 100, but this could have varied by locality. Official prices were also generally higher than market prices.

If the Song had calculated its prices in terms of silver, it would certainly have had much more stable prices than was the case with coin denominated prices.

If we take rice as an example, and calculate its prices in silver, then during the several centuries of the Song dynasty, although there were constant oscillations, over the long run there was a three-fold rise. At the end of the tenth century, a picul was worth around 0.2 ounces of silver, making a hectoliter worth 16 grams of silver. By the last half of the twelfth century, a picul averaged around 0.8 ounces of silver, or 46 grams of silver per hectoliter. During the early years of the last half of the thirteenth century (during the baoyou era), in Sichuan, a picul was worth 0.666 ounces of silver, or 37-38 grams of silver per hectoliter.⁴ Even so, compared to the coin prices of rice, the situation was much more stable.⁵

⁴Li Cengbo, *Ke Pavillion Miscellaneous Draft*, 3, "Secret Memorial on Saving Shu's Mulberry Paper Money": "Since baoyou 2, still more silver Account Notes have been printed, with 1 equal to 100 of the old notes. This was temporarily effective in helping them to be used by making mulberry paper money more heavily demanded, but from now on, the mulberry money will become still more lightly demanded. . . . To give one or two illustrations: Last Spring, the price of silver was only 3,000 vouchers per ounce. Now an ounce fetches 7,500 vouchers. Last Spring the price for official grain purchases was only 2,000 vouchers per picul. Now, the price is 5,000. Other goods have jumped in price proportionately."

⁵These are calculated in terms of the Reduced-hundred. Hence the figures in the SONG RICE PRICE TABLE (1) must first be reduced by 77 per 100 before calculating the exchange price. However, the rice prices for the '20s and '30s of the twelfth century seem too high, since we do not know if they were denominated in copper or iron cash, or in 2-cash coins. A certain number of the silver prices in the table are arbitrary in that they are not nationwide average silver prices, but rather were determined after examining the sources of various rice price figures of the time and drawing up baseline prices. If a majority of the rice prices for a particular decade were from Sichuan, then the Sichuan silver:cash exchange rate was mainly employed. If the rice prices were expressed in iron cash, then the silver price could only be expressed in terms of iron coins as well.

[505]

SONG DYNASTY RICE PRICES (3)

Period	Avg Price per Hectoliter (in ounces of silver)	Silver:Cash Exchange Rate (copper cash/oz)
961-970	0.329	750
971-980	0.505	800
981-990	0.312	800
991-1000	0.391	800
1001-1010	0.604	900
1011-1020	0.313	1,600
1021-1030	0.324	1,600
1031-1040	0.522	2,000
1041-1050	1.256	3,000
1051-1060	0.446	3,000
1061-1070	0.682	1,000
1071-1080	1.461	1,000
1081-1090	0.856	1,200
1091-1100	0.930	1,200
1101-1110	1.582	1,500
1111-1120	1.204	1,500
1121-1130	7.044	2,250
1131-1140	6.449	2,300
1141-1150	0.801	2,300
1151-1160	1.137	3,000
1161-1170	1.169	3,200
1171-1180	0.977	3,300
1181-1190	1.181	3,300
1191-1200	1.677	3,300
1201-1210	2.550	3,300
1211-1220	1,209	3,300
1221-1230	1.318	3,300
1231-1240	1.006	3,460
1241-1250	1.006 ⁶	
1251-1260	1.004	

[506]

If we calculate the price of rice in terms of silver over the whole course of the Song period, a hectoliter had an average price of 0.8-0.9 ounces. The price was still low during the eleventh century, the

⁶If we calculate the price of rice for the '40s of the thirteenth century in terms of coin Account Notes, then though it was 100 strings per picul, the silver price must still have been higher than in the example. (Cf. note 4 above.) It is even possible that the price of silver was rising faster than the price of rice. The estimate here is that the price level of the previous decade was maintained.

most glorious time for the Song, when both production and the money supply increased. However, prices were especially high during the first half of the twelfth century, because men like Cai Jing were in charge of the administration then and minted large coins, causing the value of coins to fall. Disasters from abroad and domestic uprisings also began then, and these constrained and reduced production. Nevertheless, during the latter half of the twelfth century, the price of rice in the south cannot be considered too high.

SONG DYNASTY RICE PRICES (4)

Period	Avg Price/Hctltr (oz silver)
Last 1/2 10th century	0.377
First 1/2 11th cent.	0.526
Last 1/2 11th c.	0.815
First 1/2 12th c.	2.337
Last 1/2 12th c.	1.208
First 1/2 13th c.	1.327

The rise in the silver price of heavy silk was more moderate. The copper cash price of heavy silk rose from its early Song level of 1,000 cash per bolt to 2,000 during jianyan, and after the crossing to the south to 3,000, 4,000 and 5,000, and it finally peaked at 10,000 cash per bolt. If, however, we convert these to silver, then except for the oscillations of the shaoxing years, there are practically no large rises or falls. At the beginning of Song, a bolt was 1.2 or 1.3 ounces of silver, and at the end of the dynasty it was still only 1.2 ounces.

SONG DYNASTY HEAVY SILK PRICE TABLE (1)

Period	Avg Price per Bolt (oz of silver)	Silver:Cash Exchange Rate ⁷ (in cash)
961-970	1.20	-----
971-980	1.25	800
981-990	----	-----
991-1000	1.28	800
1001-1010	----	-----
1011-1020	0.65	1,600

⁷There are several places where the commuted prices given here do not correspond to those given in the table of rice prices. This is because the prices here are based on copper cash.

[514]

1021-1030	0.85	-----
1031-1040	----	-----
1041-1050	1.00	-----
1051-1060	1.30	1,000
[507]		
1061-1070	1.44	1,000
1071-1080	1.30	1,000
1081-1090	1.10	1,200
1091-1100	1.00	-----
1101-1110	----	-----
1111-1120	----	-----
1121-1130	0.81	2,250
1131-1140	2.35	2,300
1141-1150	3.20	2,300
1151-1160	1.71	3,000
1161-1170	1.48	3,200
1171-1180	1.51	3,300
1181-1190	1.51	3,300
1191-1200	1.56	3,300
1211-1220	1.21	3,300

The average silver price per bolt of heavy silk over the several centuries of the Song Dynasty was around 1.3 ounces. Except for the shaoxing era of Southern Song, the silver price of heavy silk remained about the same.

What was the reason for this? Was it because silk was an export item, for which Europeans and Central Asians paid in silver, thereby subjecting the silver price of heavy silk inside China to the stabilizing influence of the international market? It would seem not, since the price of silk does not appear to have been more stable during Song than during other dynasties.

The price of heavy silk was much lower during Tang. During both early and late Tang, a bolt of silk was only 0.5 to 0.6 ounces of silver. The only exception to this was during the aftermath of the An-Shi disorders, but we do not know the price in silver at that time. Later, during Ming, the price of silk was also lower than during Song. This cannot be explained on the basis of influences from abroad.

SONG DYNASTY HEAVY SILK PRICE TABLE (2)

Period	Avg Price per Bolt (oz silver)
Last 1/2 10th century	1.24
First 1/2 11th cent.	0.81
Last 1/2 11th c.	1.22
First 1/2 12th c.	1.83
Last 1/2 12th c.	1.55
First 1/2 13th c.	1.21

[508]

Though silver's purchasing power was more stable than that of coins, its tendency to decline is still very evident. This decline must have been caused by silver's fall in price.

The quantity of silver also increased: On the one hand, domestic production increased, and on the other, either foreign silver flowed in, or the outflow of domestic silver was diminished.

Tang Dynasty silver production was only 10,000 or 20,000 ounces per annum.⁸ The quantity produced during Northern Song greatly expanded: By the end of the zhida period [998], it was over 145,000 ounces, by the end of tianxi [1022] it was in excess of 883,000 ounces, during huangyou [1049-1054] it was 219,829 ounces, and in yuanfeng 1 [1078] it was 215,385 ounces.⁹ It is said that at its highest point it reached more than 18,600,000 ounces.¹⁰ After the crossing to the south, many silver mines were closed.¹¹ Production difficulties and the outflow of gold, silver and copper cash kept silver's purchasing power from falling further.

There were very many places producing silver during Northern Song. Nearly 30 prefectures were involved. Of these, Xinzhou (in Jiangxi) produced the most, its annual production coming to over 100,000 ounces. Production in other places, like Guozhou, Longzhou, Nanjianzhou and Danzhou, reached several dozen thousands of ounces per annum.¹²

The price of gold in terms of cash was especially high during Song. By late Tang, an ounce of gold

reached a price of 8,000 cash, and at the beginning of Song it shot up to 10,000, but then fell to some degree. During the xianping era [993-1004] it fell to 5,000. It was probably for this reason that some people transported gold across the borders.

In dazhong/xianfu 1 [1008], Emperor Zhenzong inquired as to why gold and silver had jumped in price in the capital city. Someone said it was because the Uighurs were buying specie up to transport to foreign countries.¹³ Others said it was because of domestic extravagance.¹⁴

From the time of Emperor Renzong, the price of gold probably rose faster than that of silver. In tiansheng 5 [1027], the price of an ounce of gold rose to 1 string, while that of silver apparently remained unchanged.¹⁵ The price of an ounce of gold in Guangnan was only 8,800 cash.¹⁶ That was the official purchase price in a gold mining area, and was cheaper than the general price, and so cannot be used as a benchmark.

In mingdao 2 [1033], the authorities issued an edict classifying precious objects. All things made of gold were now to be made of silver and plated with gold.¹⁷ In daguan 3 [1109], the 10-cash coin

Smelters."

¹³*Searches into a Multitude of Books*, latter collection, 62, "Mines and Smelters."

¹⁴*Song Collected Statutes Compiled Draft*, "Food and Money: Miscellaneous Prohibitions," 162: "In dazhong/xianfu 1, because the price of gold and silver had become high, the Emperor inquired about it of the Finance Commissioner, Ding Wei. Wei replied that much had been bought up by the Uighurs of the western frontiers, and taken across the borders by them. An edict set restrictions on this."

Swallow Wing Bequeathed Plans Record: "When the Ancestors first established the state, they venerated frugality, and those who wore garments with gold and silver were few. Rarely did the members of the official class compete in wasteful practices. Hence the high ranking officials placed purity and frugality in the highest position, and the price of gold and silver was extremely low. To the east and the west, the borders were marked and worshipped, Heaven's messages descended, Heaven's spirits were visible, but profligacy spread more broadly. The higher officials took this as their model, and as a consequence the prices of gold and silver increased. Therefore, in dazhong/xianfu 8, 11th month, day yisi, Emperor Zhenzong inspected the memorial of the Finance Office on wasteful expenditure of silver, and inquired of the officials at his side, 'During xianping, an ounce of silver was 800, and an ounce of gold 5,000. Why have they now shot up like this?'"

¹⁵*Searches into a Multitude of Books*, latter collection, 62, "Mines and Smelters."

¹⁶*Song Collected Statutes Compiled Draft*, "Food and Money: Miscellaneous Records on Mines and Smelters," 34.15.

⁸*Tang History*, 54, "Treatise on Food and Money": "At the beginning of yuanhe, smelting of silver in the Empire had halted for 40 years. Gathered were 12,000 ounces of silver. . . . By the time of Emperor Xuanzong [Ming Huang] . . . the Empire's annual rate of silver production was 15,000 ounces."

⁹Cf. *Song History*, 185, "Treatise on Food and Money," latter part, 7, "Mines and Smelters." *Song Collected Statutes Compiled Draft*, "Mines and Smelters." *Investigation of Literary Remains*, "Investigation of Taxes and Tolls, 5, Mines and Smelters." *Searches into a Multitude of Books*, latter collection, 62, "Mines and Smelters."

¹⁰*Miscellaneous Record In and Outside Court Since Jianyan*, 16, "Fiscal Policy, 3, Gold and Silver Mining and Smelting": "During the time of the founding ancestors, in addition to gold produced by panning sand and stones, the amount of silver annually offered in tribute reached 18.6 million and more ounces."

¹¹*Ibid.*: "After crossing the Yangtze, 142 gold mines and 84 silver mines were closed."

¹²*Song Collected Statutes Compiled Draft*, "Mines and

was changed to a 3-cash coin, and this evoked a wave of gold buying.¹⁸ The price of gold certainly rose. In jingkang 1 [1126], the prices of gold and silver skyrocketed, particularly gold.

SONG DYNASTY GOLD PRICES

Year	Price per Ounce (in cash)	Notes
977	10,000	Jiangnan W.Circuit official Estimate (Long Draft Continued)
977 rev.	8,000	Ibid.
998	5,000	Jingdong official price (SongCollStat, "F&M" 34.13
[509]		
998-1003	5,000	Bianjing market price (Long Draft Continued)
1015	10,000	Bianjing market price
1086-1125	10,000	Bianjing market price (New Discourses on Belt Ornaments)
1126	20,000	Bianjing official price (Three Reigns' Northern Compact Compensium)
1126	30,000	
1127	32,000	Bianjing official price (Annals of Things Heard During Jingkan)
1127	50,000	Bianjing official price
1127	35,000	Bianjing official price (Annals of Things Heard During Jingkan)
1127(jk2/2)	32,000	Bianjing official price
1127(jk2/2)	35,000	
1134	30,000	Hangzhou official price
1164	30,000	Hangzhou official price
1164	35,000	Market price (SongColl Stat, "Official Ranks")
1209	40,000	Hangzhou official price (SongHis, "TrF&M")

During the period from chongning to shaoxing [1102-31], the coin prices of gold and silver rose, especially gold. There were other reasons for this in addition to the fall in the price of coins: The first

was the fall in gold production. During huangyou [1049-54], production was only 15,095 ounces per annum; during yeping [1064-68], it fell to 5,439 ounces, and in yuanfeng 1 [1078], it was only 10,710 ounces.¹⁹

The second was that there was increased popular demand to hoard the metal, because the years from chongning to shaoxing was Song society's most unstable period. The demand for specie, and for gold in particular, increased both in regions affected by war and in those not involved in war. People in war-torn areas regarded gold as the form of wealth most convenient to carry with them as refugees. Since the situation was so volatile, people in areas not affected by war also demanded gold to hoard.

The third reason was that the Jin were attempting to engross nearly all of it. For example, when Bianjing was about to fall to them at the end of xuanhe [1126], the Jin made as one of their preconditions for negotiating peace a payment of 5 million ounces of gold and 50 million ounces of silver. The Song confiscation of these metals from the public only yielded something over 200,000 ounces of gold and 4 million ounces of silver.²⁰

¹⁹*Song History*, 185, "Treatise on Food and Money: Mines and Smelters."

²⁰*Events of Great Song Handed Down from Xuanhe*, former collection, xuanhe 6: "Just as the capital city was being crushed . . . Now to negotiate peace there was needed a reward of 5 million ounces of gold and 50 million ounces of silver. . . . At this time the amount the Jin were extorting to make peace was extravagant. Wang Xiaodi put up placards establishing the quantities being demanded. Gold and silver were sought out among the capital garrison, people, officials and clerks. Those who did not obey were to be beheaded. Some 200,000 ounces of gold was obtained, and over 4 million ounces of silver. The public's hoards of wealth were emptied out."

Li Gang, *Record of Transmission of Honesty During Jingkan*, first part: "In the Winter of xuanhe 7, the Jin broke the treaty, and sent their soldiers to intrude along two routes. . . . By the middle of the 12th month, the bandit cavalry was pressing us closely. . . . The ministers collected gold and silver, including the Imperial Temple ornaments and sacrificial vessels, and the utensils from the Six Palaces, and confiscated the possessions of officials' households, but the gold only came to 300,000 ounces, and the silver to only 8 million ounces. The next day, at audience in the Funing Palace, the ministers repeatedly bowed in fear and condemned themselves because the quantity of gold and silver was inadequate. I was the only one not to do so. Thereupon, Xiaodi recommended confiscating all the gold and silver held in the capital by officials, clerks, soldiers and commoners for the avowed purpose of rewarding the soldiers of the army of Great Jin. Long placards were posted in the streets ordering that all up to the established amounts be handed over to the officials."

¹⁸*Investigation of Literary Remains*, "Investigation of coins," quoting *State History Supplement*.

In jingkang 1 [1126], 12th month, the Jin again sent emissaries to demand 10 million ingots of gold and 20 million ingots of silver. The authorities once more made a great show of collecting gold and silver, and the price of gold thereupon shot up to 50,000 cash per ounce, and silver rose to 3,500 cash per ounce.²¹ Actually, there was still quite a lot of gold and silver in the palace, which they were unwilling to hand over,²² and yet

Those who did not reach these amounts were to be beheaded. Serving maids, relatives and dependents, as well as all classes of people, were allowed to inform on violators, and to be rewarded with half the sums thereby obtained. The capital city was greatly shaken, and the quotas of over 200,000 ounces of gold and 4 million ounces of silver were fulfilled, but as a consequence hoards of wealth among the people were emptied."

Record of Great Jin's Campaigns, 1, tianhui 4 (i.e. jiankang 1), 1st month, 9th day, letter of reply to Song: "In future the annual payment is to be increased to equal 7 million strings. Now it is reduced 5 million strings. In addition to the silver and heavy silk which have been agreed on to be delivered, only 2 million strings per annum are to be paid, along with the goods to reward the army enumerated in our letters, including the following five items: 5 million ounces of gold, 50 million ounces of silver, 1 million bolts of various colors of satin, 1 million bolts of heavy silk, 10,000 head each of horses, oxen and mules, and 1,000 camels." (*Historical Compendium of Chinese Domestic Disorders and Foreign Disasters*.)

Comprehensive Mirror for Illumination of the Prince Continued, 96: "Jingkang 1, 1st month. The army of the Jin Zongwang was northwest of the capital. Li Zhuo was appointed Reception Commissioner. . . . Zongwang agreed to see

[515]

him. . . . He demanded 5 million ounces of gold and 50 million ounces of silver. . . . There was an edict to confiscate the gold and silver of private families . . . and 200,000 ounces of gold and 4 million ounces of silver were obtained, leaving the people empty."

²¹*Comprehensive Mirror for Illumination of the Prince Continued*, 97: "In jingkang 1, 12th month, day guihai, the Jin sent emissaries to extort 10 million ingots of gold, 20 million ingots of silver and 10 million bolts of cloth. Thereupon there was a general levy of gold and silver. Gold's price reached 50 Thousands and silver's 3,500."

²²*Great Jin State Record*, 32: "When Jin inspected Great Song's Treasury, there were 3 million ingots of gold and 8 million ingots of silver." *Essential Record of the Years Since Jianyan*, 2, quoting *Xuanhe Record*: "When the Jin entered the Inner Palace, they went to empty the various treasuries. . . . There were 141 leaves of gold brick, Mr. Wang's burned gold, Chen Tuan burned gold, newly mined gold presented by Korea, 6 suits of gold armor with helmets, gold saddles, gold horse bridles, gold pestles and knives, 425 gold seeds . . . In the Retired Emperor's chambers were 40 strings of gold coins and

[510]

they were bent on taking away that small amount being hoarded by the common people.

The fall in silver's purchasing power produced a great change in the gold-silver exchange ratio. During the tenth and early eleventh centuries, the ratio was still 1:6.25, and there had probably been very few changes over the course of the preceding millennium. I daresay changes had already begun during the '20s of the twelfth century, since the price of gold had already risen by tiansheng 5 [1027], which alone could have changed the price ratio between the two metals, perhaps to 1:7.5. In chongning 3 [1104], silver was 1,250 cash per ounce, and during the reigns of Zhezong and Huizong [1086-1126], gold is said to have been 10,000 cash per ounce.²³ This comes to an exchange ratio of 1:8.

This sort of calculation is not altogether reliable, since the gold and silver prices are not from the same source. They could have been from different places, and could have been based on different standards, since at that time there were copper coins, iron coins, small and large coins, all with different values. In daguan 3 [1109], the 10-cash coin was revalued to 3-cash. Those who heard this was happening fought each other to purchase gold. Gold's price must have risen, and the exchange ratio of gold with silver would naturally also have changed.

In any event, however, this ratio changed greatly during the jingkang period from 1:12.8 to 1:14.25. By shaoxing 4 [1134], it was still 1:13. Later it seems to have subsided. In longxing 2

80 strings of silver coins. In the Emperor's chambers were 20 strings of gold coins and 40 strings of silver coins. In the Empress's chambers were 11 strings of gold coins and 22 strings of silver coins. There were 120 silver stoves, 4 gold stoves, 120 gold tables, 20 silver chased chairs, 40 large and small gold alloyed ones, 4 gold-washed buckets, 800 gold pans, 20 gold decorated bowls, countless gold and silver spoons and chopsticks, and 20 gold soup bowls."

Ibid., 3rd month: "The Protector's Office sent letters to the army to demand the original quantity of gold and silver. Subsequently quotas were distributed among the 23 wards, with each ward responsible for 445,000 ounces of gold and 2,814,150 ounces of silver. . . . The lower households were assigned quotas of not less than 100 of gold and 1,000 of silver."

²³Kong Pingzhong, *New Discourses on Belt Ornaments*, 2: "There are now instances of an ounce of gold being worth 10,000, and thus a catty of gold during Han was the same price as an ounce is now." Kong Pingzhong lived during the reigns of Emperors Zhezong and Huizong. During Huizong's reign, he commanded Qing, Yan, Qiong and Qing, and later was in charge of the Jingling Palace.

[1164], it could have been around 1:11, but at the beginning of jiading [1208], it seems to again have reached 1:12. These two ratios were, however, calculated indirectly, and are not necessarily reliable.

SONG DYNASTY GOLD-SILVER EXCHANGE PRICES

Period	Value in oz of silver of 1 oz of gold	Notes
998-1003	6.25	ComprMirrorLongDraftCont
1015	6.25	" " " " "
1126	13.33	Xu Mengxin, ThreeReigns NorthernCompactComp, 32
1127	13.04	Record of Things Seen and Heard During the Two Reigns of Jingkan and Jianning, first part
end 1127	12.8	
" "	14.25	ComprMirrorCont, 97
jk2/1/13 [1128]	14.0	Ding Teqi, AnnalsThings Heard DuringJingkan
jk2/2/21 [1128]	14.0	Record of Things Seen..During Two Reigns..first pt
jk2/2/24	14.0	ThreeReignsNorth..83
1134	13.04	

The fall in value of silver relative to gold can be explained solely in terms of the domestic production of gold and silver, and in terms of

[511]

the relative demand for the two metals.

As for the supply side, during the huangyou period [1049-54] of the first half of the eleventh century, the production ratio of gold to silver was 1:14.56. During yeping [1064-68] in the last half of the century, it was 1:57.95, and in yuanfeng 1 [1078] it was 1:20.11.

On the demand side, at the end of the xuanhe period [1126] during the first half of the twelfth century, the proportion between the two metals in the Jin demand for rewards was 1:10, in the demands made at the end of jingkan 1, it was 1:2, but the ratio between the metals extorted from the people to meet these demands was 1:20. The annual purchase made in longxing 2 [1164] by the mine and smelter inspecting officials to rise in rank was 4,000 ounces of gold and 100,000 ounces of silver.²⁴

Obviously, at that time gold was still scarce and silver plentiful. These circumstances were more than

sufficient to account for the appearance of changes in the gold-silver exchange ratio.

These changes were produced by circumstances peculiar to China, and were not influenced by changes in the ratio emanating from abroad. This is because, although there were then places in Europe where the ratio was from 1:11 to 1:12, China had no direct contact with these places, whereas in the Arab world, with which China maintained close contact, the ratio remained at around 1:6.²⁵

Nevertheless, there is a possibility that inflow of foreign silver could have influenced the price of silver in China. We cannot produce concrete figures for the international movement of gold and silver for these several centuries, but judging from the situation in Europe and Central Asia, it is possible that silver flowed into China.

During Tang and Song, East-West trade flourished to an extraordinary degree, with the Arabs as its intermediaries. Particularly from the ninth century on, relations between the Carolingian Emperors of the Frankish state and the Arab Empire had been very good, and Chinese silk was brought to Europe by the Arabs. European production then was backward, they had no goods in demand by the Orient, and so could only use specie to pay for this silk.

In the tenth century, the European gold-silver price ratio was 1:11 to 1:12, while China's was 1:6.25, and the Arabs' was 1:6. Hence it would have been profitable for both sides to employ silver to buy the other's goods. Though there were limitations on Europe's production of silver during the tenth century, Central Asia was a silver-producing region, and it is strange that this region felt a general shortage of silver at the end of the tenth century, even to the point of halting the minting of silver coins and substituting the baser metals for silver. Where had their silver gone?

Some people²⁶ say that it flowed into Russia in the north, and to the Arctic Sea region, but it is also

and Smelters."

²⁵Concerning the gold-silver exchange ratio in Europe from the sixth to the fifteenth century, J. L. Laughlin, *Money, Credit and Prices*, Vol. I, pp. 95-96, makes the general statement that it was 1:15. According to Alexander Del Mar, *Money and Civilization*, p. 199, the ratio in France in 864 was 1:11.5; in 1113 it was 1:11.25. During the thirteenth century, it was mostly at 1:12 or more. W.A. Shaw, *The History of Currency, 1252-1894*, p. 40, states that during the thirteenth century, Italy's gold-silver exchange ratio was 1:10.75 to 1:10.84, and England's was 1:9.25. Up until 1432, it was only 1:5.822 in Spain. Obviously, this was the ratio among the Arabs.

²⁶Robert P. Blake, "The Circulation of Silver in the Moslem

²⁴*Song History*, 185, "Treatise on Food and Money: Mines

possible that it flowed into China to buy silk cloth. Apparently the gold-silver exchange ratio in China remained unchanged right down to the beginning of the eleventh century. Silver production in Europe increased significantly during the twelfth and thirteenth centuries. Hence, if European silver was coming east, it should have done so to the greatest extent during this time. Coincidentally, Chinese silver's fall in price occurred during this period.

[512]

The ratio in Arab lands probably remained at 1:6.²⁷

Because the purchasing power of both coins and silver was tending to diminish, the coin and silver prices of gold rose, and gold's purchasing power was the most stable of the three. If we take the gold-silver exchange ratio as 1:6.25 for the last half of the tenth century and first half of the eleventh century, as 1:8 for the last half of the eleventh century, 1:13 for the first half of the twelfth century, and 1:12 for the last half of the twelfth and first half of the thirteenth centuries, then the rice purchasing power of gold had fallen by around 66 percent during these three centuries.

If we calculate the gold price of heavy silk, then not only was there no rise, there was actually a decline from 0.2 ounces of gold per bolt during the last half of the tenth century to 0.13 ounces per bolt by the latter half of the twelfth century. Material on heavy silk prices is, however, even more scarce than for rice, particularly for the latter half of the tenth century, for which we only have three prices which are mutually inconsistent, ranging from 600 to 1,800 per bolt. This data is not, therefore, suitable for making comparisons with the eleventh and twelfth centuries. Nor is the material on gold prices, rice prices and the gold-silver exchange price sufficient.

SONG DYNASTY RICE PRICE TABLE (5)

Period	Avg Price per Hcitr (in oz gold)
Last 1/2 10th century	0.060
First 1/2 11th cent.	0.084
Last 1/2 11th c.	0.102
First 1/2 12th c.	0.179
Last 1/2 12th c.	0.101
First 1/2 13th c.	0.098

East Down to the Mongol Epoch," *Harvard Journal of Asiatic Studies*, II (1937), 291.

²⁷Cf. note 25, above, third item.

After the Song crossed to the south, there was a tendency for gold to gradually fall again relative to silver. Aside from the fact that Song no longer had to respond to Jin extortion, the reason for this decline was that gold was still being imported from foreign countries. Japan, for example, was a gold exporting nation.

During the Song and Yuan Dynasties, the price of gold was lower in Japan than in China. In *yuan-you* 1 (1086, which was *otoku* 2 of the Japanese Tenno Shiroka), the Japanese gold-silver exchange price was 1:5.²⁸ In China, during both the *xianping* [993-1004] and *dazhong/xiangfu* [1008-17] periods, it was 1:6.25. There are no materials for the *yuan-you* [1086-94] period, but it is possible that the ratio increased then to 1:7 or 1:8, since it was 1:13 to 1:14 during *jingkang* [1126]. Therefore, it would have been profitable for the Japanese to have exported gold to China.

During the latter years of Japan's Heian

[513]

period, placer gold production flourished, with the producing regions under the control of the Fujiwara family, in whose hands Japanese political authority then rested. The Hikarito Hall in the Chusonji Temple founded by Fujiwara Kiyohira was clad in gold. The copies of the sutras in his Hall of Classics are said to have cost Kiyohira 150,000 ounces of gold dust when he purchased them from a Song Emperor. In fact, gold dust was nearly in the first position among Japanese exports to China, though it only reached at most 4,000-5,000 ounces per year.²⁹

²⁸Katō Shigashi, "Medieval Gold and Silver Prices in Sino-Japanese Trade," *Studies in Social and Economic History* (Shōwa 8), [1933].

²⁹Katō Shigashi, *Studies of Gold and Silver During the Tang and Song Periods. Record of Four Brilliant Things of Baoqing* mentions gold seeds and gold dust. Fujiwara Katakara, *Leaves of Jade*, 12: "In *chyao* 3 [qiandao 9], the Retired [Cloistered] Emperor acquired a painted box for 100 ounces of gold dust, and it was used as a gift for Song." *Record of Four Brilliant Things of Kaiqing Continued*, 8: "The Wa people braved the dangers of the ocean waves to form into a flotilla to bring their goods to sell. An office was set up to market the foreign goods, but the amount registered was broad, and to supplement the amount there was only sulphur and wooden beams. Gold was not profitable. Wa gold does not amount to much to carry. How much does a few grains or ounces come to? The extortions of the officials and clerks, the controls put on by the middlemen, are sufficient to dry it all up. It is not that the dynasty harbors long range ideas. The High Commissioner and Chief Minister, Lord Wu, energetically spoke to the Ruler to request loosening the prohibition, and to not tax the gold, so that it may be imported. The Ruler assented to his memorial."

In Emperor Lizong's shaoxing 5 (1232), the price of gold in Japan was 650 cash per ounce. The Chinese authorities adopted a policy of placing a low tariff on Japanese goods, which were broadly purchased. Beginning with Emperor Lizong's baoyou 6 (1258), Japanese gold was permitted to be freely traded to China.