

7.3 Monetary Studies

1. Monetary Theory

With respect to monetary theory, the Ming Dynasty may be divided into two periods. Prior to the jiajing period of the mid sixteenth century, the question of paper money was central. From jiajing on, the question of the copper coinage moved to the fore. Various theories revolving around these two important questions were raised.

When Emperor Chengzu, the Emperor of the yongle period, ascended the throne, the Treasure Certificates were not circulating, and the Emperor asked Xia Yuanji (1366-1430) why this was so. Xia replied:

When the Certificates are numerous, they are lightly demanded; when few, they are heavily demanded. The notes are not circulating among the people because many of them have been issued and few have been withdrawn. Regulations ought to be made to gather them in. I request that the heaviness of the rates of the various taxes on shops and stands and gates of the marketplaces be measured, and that these rates be increased. When the Certificates are taken in by the officials, they should destroy all those which are worn out. From now on official Certificates should be issued in smaller numbers. When the people find it harder to obtain Certificates, the Certificates will spontaneously become more heavily demanded.¹

He thought that gathering them in and constricting their circulation would raise their purchasing power.

Chen Ying, who advocated a salt consumption tax, held similar views. In yongle 2 (1404), he said:

In recent years, the Certificates have not circulated simply because the court has issued too many of them. There has been no way to bring them in, and as a consequence goods have become heavily demanded and Certificates lightly demanded. There is no better method than to temporarily have a household salt consumption tax . . .²

His salt consumption tax and Xia Yuanji's increased excise taxes had the same goal.

During the xuande period [1426-1436], tax rates were sharply raised, and the money supply constricted. This was to stabilize the value of money at the expense of lowering the people's standard of living.

Liu Dingzhi opposed this method. He believed that in withdrawing paper notes from circulation, it would do no harm to

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tax them away from merchants or to have offenders use them to pay fines, or to use gold, silver and copper coins to redeem them, but taxes should not be increased.

Liu Dingzhi (1410-1469), devotes two chapters³ of his *Outline of Strategies* solely to a discussion of monetary problems. The *Outline of Strategies* was completed in xuande 9 [1434]. At that time he was still pursuing a career in education, and had not yet entered office. As a consequence, he spoke from the perspective of the people. He said: "Laws have not differed from ancient to modern times. Those which convenience the people are good laws. There are no inherently correct doctrines. Those which convenience the people are the best doctrines." His own doctrines were not, however, necessarily all correct.

For example, with regard to the origins of money, he believed that it originated as a way to use the monarch's sovereign power to relieve emergencies:

In my stupid fashion, I have investigated the stories about the Nine Offices Round System. This originated with Duke Tai. He made it of a square inch of gold weighing 1 jin. The coin was round, had a square hole, and its weight was measured by the grain. The Treasure from gold, the profit from knives, the flow from the springs of round money, the spade from the market, these were indeed the sources of coins. But in the times of Yu, because of nine years of floods, the gold of Li Mountain was minted, and because of seven years of drought, the gold of Zhuang Mountain was minted. Thus it was solely to meet the needs of the people that they made these special plans to relieve emergencies. Duke Tai followed this precedent.

This way of looking at things was evidently influenced by men like Lü Zuqian of the Song Dynasty, and goes beyond mere belief in antiquity.

Liu Dingzhi stressed money's function as an instrument for making purchases. He believed that paper money was a substitute for coins:

Those things which the people depend upon for their livelihoods are grain and cloth. Of what use is a round coin? Nevertheless, coins may be used to obtain grain and cloth, and so their use is permissible. That which the people depend upon for use is coin money. Of what use is a foot of mulberry paper? Nevertheless, mulberry paper may be used to substitute for coin money, and hence its use is permissible.

¹Ming History, "Treatise on Food and Money."

²Ming History, "Treatise on Food and Money."

³Outline of Strategies of Duke Liu Wen'an, 6, "Household Levies," and 10, "Labor Levies," each in one section. Cf. Complete Works of Duke Liu Wen'an of Yongxin.

He goes on to say:

Pearls, jade, gold and other precious things may be put to use, but not much of them can be obtained. Grain and cloth may be put to use, but they cannot reach far. Girdled with 10,000 strings of cash, with a square inch of mulberry paper in one's hand, one may be clothed against the cold, and fed when hungry. Without pearls or jade, one may make one's self wealthy. Lacking gold or precious objects, one may make one's self a sufficiency. This too is an excellent pattern conferred upon posterity by the ancients to convenience the people.

He not only did not oppose money, he did not even oppose paper money. In fact he stressed paper money's convenience.

But he was not a nominalist. He seems to have been the first man in a thousand years to have said that pearls, jade, gold and other precious objects were useful, to have said that if one had money, one could be clothed against the cold, and fed when hungry. At least on the face of the text, this was in contradiction to the position of the Legalists. Although Lü Zuqian had acknowledged that "in the business of the trades, they all accumulate (coins) to make their livings," he also said, "coins are a commodity that cannot feed you when you are hungry, [730]

or cloth you against the cold." Hence Liu Dingzhi did not stand on the same side as Lü Zuqian on this important question.

This was a time when the government was promoting paper money with great energy. Therefore Liu Dingzhi for the most part centered his comments on the question of paper money. The Great Ming Treasure Certificates continued to depreciate in value through the yongle and xuande periods: During the yongle period, the market price of a 1-string note was only 0.012 ounce of silver, and in xuande 1 [1426] it was only 0.0015 ounce. Of course he knew that this was because too many of them had been issued:

Mulberry paper money has been in general use since Song. The flaw in mulberry paper money is that it does not maintain a mean between being too expensive or too cheap.

During the tiansheng period [1023-1031], one term's worth involved printing 1.25 million. During shaosheng [1094-1098], one term's worth involved printing 1.4 million. During yuanfu [1098-1101], the amount was increased to 1.8 million. During jianyan [1127-1131], it was further increased to 3.7 million. Under Emperor Xiaozong [1163-1190], one term's worth involved several tens of millions. Under Emperor Ningzong [1195-1225], one term's worth came to several hundred million.

Certificates were issued during the [Yuan Dynasty] zhongtong period [1260-64], but 1 string's worth of Zhiyuan [1264-95] Certificates was worth 5 strings of Zhongtong Certificates. This meant that a square foot of mulberry paper was equated with 50 [should be 5,000] coins. Though there were Zhiyuan Certificates, 1 string in Zhida [1308-12] Certificates was equated with 5 strings of Zhiyuan Certificates. This meant that a square foot of mulberry paper was equated with 50,000 actual coins.

When manufactured in small numbers, Certificates are expensive, and if in too small a number, then there are not enough of them to be used. When manufactured in large numbers, Certificates are cheap, and if in too large a number, then they cannot be circulated. It is necessary to act as in Song's tiansheng period, or Yuan's zhongtong period. Then a mean between being too expensive or too cheap may be approximated.

His figures for the cash equivalents of Yuan Dynasty paper moneys are casual estimates, and his statement that Certificates should be manufactured as during Song's tiansheng and Yuan's zhongtong period is too loose, and provides no clear standard.

Though Liu Dingzhi did not oppose the use of paper money, he was dissatisfied with the government policies of the day. He believed that the Certificates would circulate if the government collected old Certificates and put out new ones, paid rewards and salaries in Certificates, and let the people pay all taxes in Certificates. If the government intended to call back the old Certificates, then it ought to take them from the merchants. It should "be generous to the fundamental activity and repress the secondary activity," "or take them from those sentenced to penal servitude by showing mercy to them by allowing them to redeem their sentences," or by using the silver in the national treasury to redeem them.

If they are all taken from the people, and a policy is adopted of feeding the head by squeezing those below, then the commodity which the ancients used to profit the people will instead become the basis for harming them in the present day. How dare even a rustic gentleman cease speaking of this?

He continued:

Now things are different. Manufacture of Certificates is from on high. They are issued, but not taken in. Certificates circulate below. They are dispersed, but not redeemed.

When Certificates are to be levied from among the people, the rich and great merchants accumulate Certificates in their households, and they are not levied. Crafty officials and cunning functionaries, under the pretext that there are counterfeit Certificates, fish and hunt by the left side of the village gates. The impoverished people sell the produce of

their fields, pawn their wives and children, and only then gain enough Certificates to deliver to the officials.

The great ministers scheme for the state by harrassing the provinces and districts, and tyrannizing over the villages and hamlets, and only then succeed in collectinng Certificates to deposit in the treasury. Alas! They unwittingly take what the ancients used to profit the people, and nowadays use it as the basis for harming them.

Moreover, if the nation

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does not circulate old Certificates, they merely issue an order saying they are not circulating. If it is desired to circulate new Certificates, they simply issue an order saying manufacture them.

If Certificates are cheap, then use taxes to collect them. If Certificates are expensive, then manufacture one term's worth to increase their number. That is all that needs to be done. Even a three foot tall boy knows that.

His anger was greater than his words could express. Later, when he became a high official, he no longer addressed monetary problems. It is ironic that when he was near death, Emperor Xianzong gave him a reward in paper money. At that point a 1-string Great Ming Treasure Certificate was not even worth 0.001 ounce of silver.

Qiu Jun (1420-1495) of the chenghua period had a number of opinions not much different from those of Liu Dingzhi, but his were rather more penetrating. In chenghua 23 [1487], he was serving as Superintendent of the National Academy and Right Expectant Executive of the Board of Rites, when he wrote the work *The Great Learning Expounded, Addendum*. In it there were two chapters on "Copper and Mulberry Paper Money," which deal solely with monetary questions. He chose an historical form of argument. He would first quote a section of his- torical narrative, then quote some previous writer's commentary, and finally add his own comments.

To begin with, he opposed the objectivists, and opposed the theory of the first century B.C. scholar official Gong Yu, which called for use of cloth and grain in place of coins, saying "this plan simply cannot be used."

Second, like Liu Dingzhi, he believed that money originated to relieve the famines caused by floods and droughts, and not solely so as to circulate wealth. This was because he too believed in the notion that Yu had cast metal coins.

Third, he emphasized money's function as a medium of circulation, and especially its role as an instrument for making purchases. In other words, he did not believe that money's circulation was merely a reflection of the circulation of commodities. Rather, he believed that the circulation of commodities was stimulated by the circulation of money. He sup-

posed that the circulation of money was primary, and that the circulation of goods followed as a consequence. He stated:

That which circulates the many goods so that they flow to the four quarters is money.

He added:

The goods of the Empire all depend on money to circulate. Those too heavy to lift could not go very far but for coins. Those which are obstructed and cannot be brought in touch, but for coins would not get to support each other. Those which are large, and cannot be divided, but for coins would not get to be used on a small scale. Thus goods are heavy and coins light; that is why goods are obstructed, and there is no place that coins do not reach.

He goes on to say:

In ancient times, that the Spring round and Spade coins circulated the goods of the Empire was for no other reason than the convenience of the people. The Spring and Spade coins proceeded from above, commodities proceeded from the people.

None of the people could be fully self-sufficient in commodities. If they wished to bring together that which they had with that which they lacked, they had to use coins to exchange for goods. After that, those who had been without a good came into possession of it.

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He even wanted to employ this function of money to regulate the circulation of goods. He referred to this as using "coins to control the multitude of goods." This phrase can be explained in two ways: In the passive sense as meaning using coins to measure the value of the multitude of goods, and positively to mean using coins to regulate the multitude of goods:

But the gathering in of goods is such that of some there are many, and of others few. For goods used at specific times, there are accelerations and delays. When goods are few and there is an urgency to use them, then they circulate. When they are many and not speedily used, then they are obstructed. The Ruler above, when they are obstructed, uses Springs and Spades to collect them, to make them become fewer and to circulate them. As a consequence he makes the people's lives prosperous. Once the Ruler above has collected them, the people below may be urgently in need of them, and so he will freely sell them at their original price, and thereby aid in supplying people's needs.⁴

⁴*The Great Learning Expounded, Addendum*, 25, "Orders for Market Purchases."

He added:

There are good and bad harvests of grain, and this cannot be remedied by human efforts, but there are no good or bad harvests of gold and copper. They can be produced by human efforts. Therefore we use them to cast coins, and cause them to broaden the availability of food to relieve hunger.

He everywhere stresses the positive uses of money, and comes close to making money into a fetish:

The profit from coins is such that the cheap may be made expensive, and the impoverished wealthy.

He hardly mentions the other functions of money beyond the two phrases quoted previously: "coins are used to control the multitude of goods," and "Those which are large, and cannot be divided, but for coins would not get to be used on a small scale," which are linked to its function as a measure of value or as a standard for setting prices [and to permit large goods to be marketed at all, and hence to be produced in larger quantities. EHK].

Nevertheless, when he encounters the question of the source or foundation for the price of commodities, he connects the value of commodities with labor:

The things of the world, though born of Heaven and Earth, must all nevertheless depend upon human labor before they are capable of becoming useful. In form they are large and small, fine and coarse; the labor power in them may be shallow or deep; their prices may be much or little. When a good's price approaches 1,000 cash, if it is not large, then it is fine, and must have taken more than a day's work to complete. Is it possible to take a square foot of mulberry paper worth 3 to 5 cash and sell it for that?

The terms *gongli* or *gong*, which in modern Chinese normally mean "utility" and "achievement" respectively, must in this context be referring to labor. That is to say, the amount of the value of a commodity is related to the quantity of labor or the amount of labor time expended on it. The greater the amount of the labor expended, the greater the value; the less labor expended, the smaller its value.

This is very close to the position of the thirteenth century Italian scholar, Thomas Aquinas (1225?-1274). Aquinas believed that an object's value must be determined by the labor required to fabricate it. Like Qiu Jun, he deduced this theoretically. For these two men, one of them a theologian who has been thought highly of by his church, the other [733]

a high official under a feudal government, to have been able to put forth such a theory of value and price is very unusual.

Basically, both in ancient and modern times, in China and elsewhere, the remuneration of labor has generally been calculated according to the time expended. In principle it should have been very easy to link the value of commodities produced by labor with the amount of labor time expended upon them, but not many people have actually done so.

Aquinas put forward this doctrine in the course of discussing the problem of just price. He believed that each type of commodity possessed an objective real value. This value must be determined by its generally established cost of production. This cost of production was primarily a matter of the cost of labor that made it. If a commodity's price corresponds to its value, then it is just. Otherwise, it is unjust.

In his view, however, it is not just any laborer's labor time which was equal to value. Nor did he distinguish the kind or degree of complexity of the labor, but rather he made his distinctions on the basis of the social position and standard of living of the laborer. The just price would allow the producer of the commodity to be able to maintain his customary standard of living.

Moreover, Aquinas also permitted a gap between the selling price and seller's original purchase price, that is with the former higher than the latter. For example, additional labor might have been added to the commodity, or it might have been transported from one place to another. The movement of goods at the expense of their owners was also to be considered one of the costs of production.

Qiu Jun did not go into this question as deeply as did Aquinas. His terms *gong* or *gongli* vaguely referred to labor in general without making such distinctions.

Qiu Jun made a sharp criticism of currency inflation. He not only believed paper money's depreciation in value to be unprofitable for the people, but for the ruling class as well, and even as being capable of shaking the sovereign authority:

The men of Song made Exchange and Account Notes. Jin and Yuan replaced them with Certificates. The intrinsic worth of a Certificate is only 3 or 5 cash, but they are sold to people for 1,000 cash in goods. . . . The people at first accepted this cheating, and as things continued remained in awe of the Certificates' authority. They could not help but strive to remain obedient. Since they circulated for a long time, it was a matter of Heaven determining what would be victorious among men. In the end, however, they did not circulate. Not only did they not yield 1,000 cash, even their 3 or 5 cash cost of production was lost. And it was for this

reason that men's hearts were lost, the state lost its income, and the disaster of disorder and rebellion occurred. We can discern this from the example of the men of Yuan.

Nevertheless, he did not believe that paper money should not be used at all. What he opposed was a system which circulated nothing but paper money. He advocated parallel circulation of both coins and Certificates, and the use of a silver standard:

Our dynasty's standard copper coins and Treasure Certificates have circulated together for a century without change. But this having gone on for so long, unintended abuses have arisen. The abuse involving coins has been counterfeiting. The abuse involving Certificates has been their great number. . . . Therefore, I request that those in charge of the circulation of Certificates investigate the ancient system of three moneys, with silver as the superior money, Certificates as the middle money, and coins as the lower money. The middle and lower moneys would be used as instruments of circulation for public and private purposes, and only the superior money would be used to regulate them.

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He added:

After this system has been set up, then if coins are too numerous, then Certificates will be issued to redeem them. If Certificates are too numerous, then coins will be issued to redeem Certificates. As for the use of silver, its use will be prohibited for transactions of less than 10 ounces. In determining silver's fineness, the standard would be to use fire to test its whiteness. Treasure Certificates and copper cash will circulate above and below, but silver alone will be used to regulate them. This is quite adequate a method for ensuring a sufficiency for the state, and to make things convenient for the people.

During the jiajing period [1522-1567], paper money had become so much waste paper, and was no longer a problem. Silver had assumed a dominating position in the circulation of money, and in some places, not even copper cash were in use. At that point, some people came forth to advocate the use of copper coins. He Liangjun, for example, said that because all forms of natural wealth are limited, except for coins, offices to mint coins should be opened in the two capitals, the thirteen provinces and six salt transport offices, a total of 21 locations.

In longqing 3 (1569), Tan Lun said:

Those who now debate the coinage regulations all speak of the expense of minting coins, and say that since they are no more useful than silver as money, they are of no profit to the court. I believe that casting coins would annually cost 10,000 in metal, but as a consequence the state would in-

crease the coins in circulation within the country by 10,000 in metal. The more coins that are cast, the more the quantity of silver will increase. This is a technique for storing up wealth.⁵

This had a bullionist tone. He seems not to have been in opposition to silver.

Jin Xueyan went a step further. In longqing 4 [1570], he produced a "Discussion on the Search for Wealth for Use"⁶ to oppose the abolition of coins and the use of silver. In fact he strenuously advocated the circulation of coins. There is not much in this work on theoretical matters; it merely deals with questions of policy. Jin acknowledged that so far as serving as a money went, there was not much difference between coins and silver:

Silver is merely used to be traded for clothing and food. Coins and silver are different in substance, but similar in spirit. Why then solely use silver and abolish coins?

We can see from this that he emphasized money's function as a medium of circulation or instrument for making purchases. He did, however, make a distinction between silver and coins. He believed that coins are better than silver:

If only [silver] is circulated, then the hoards of the rich will grow deeper, and silver will grow more expensive. If silver is more expensive, then goods will grow cheaper, and it will become more difficult to handle the measurement of silver's fineness. . . .

I have heard that coins are a spring, which like water circulates amidst the land, and may not be halted for a single day. Use of coins thus enriches the people's livelihood, and provides abundantly for the state's needs.

His primary aim and concern remained the welfare of the rulers. The rulers had no way to control silver, but

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they held the power to mint coins:

I have heard that some of the rich houses of the south have accumulated as much as several hundred thousand ounces of silver. At present, the Imperial Household has only amassed something over a million ounces. If only silver is circulated, and coins are abolished, the holdings of just a few rich

⁵*Book of Ming*, 81, "Treatise on Food and Money."

⁶*Ming History*, 214, "Biography of Jin Xueyan," says that he responded to an edict to discuss the principles of wealth with a statement of over 10,000 characters. Wang Liu, *Simple Words on Coins*, "Earlier Discussion on the Rectification of Names," records 520 characters of it.

houses will together be comparable in size to the imperial holdings.

If coins were used, then:

this will become the business of the ministers, and only the Ruler will get to make them. Hence it is said that the great treasure of the Sage is his position. It is because of his position that he has the authority to regulate things. It is because of his authority to regulate things that he acquires his needs. Therefore it is said: Coins represent authority. The Ruler grasps authority over wealth and nobility. He has his servants hasten through the Empire. How can this be abolished and not be made use of?

Actually, paper money would have fit his ideas even better.

Guo Zizhang, who lived during the longqing and wanli periods [1567-1620], was a bullionist. He looked upon the coinage as a kind of *vade mecum*. In his *Coin Law Policy*⁷ he stated:

If a coin law is instituted, the state will be placed on foundations which will not collapse. The people will be kept inviolate in a valley where they cannot be reached. The masses of the Empire can be without hunger; the wealth of the state can be long preserved. Coin laws will not collect from the fields, will not reckon on the seas, will not take things out of the treasuries. Without great harm to the state's reserves, there will be broad profit conferred on the people's livelihood. It is truly an urgent duty to relieve current abuses.

His so-called coin law included six points: The first was to secure the authority to collect copper. The second was to secure the sources of copper. The third was to profit from mining copper. The fourth was a standard for purity of copper. The fifth was to broaden the distribution of coins. The sixth was to have officials who evoke wealth through coins. Of these the most important was the first, to secure a monopoly of copper for the state:

Once the copper has been taken in by the officials, all of the copper would be used for coins, and then the state will become richer by the day. That which the Sage King alone employs to uphold his great authority and give profit to the Empire does not depart from this. Hence the sovereign authority over copper cannot but be used to gather it in.

He added:

Copper is the substance of coins.

His attitude toward copper was similar to that of fifteenth century European gold bullionists, and may be deemed a kind of copper bullionism. There seems to have been no more extreme example of bullionism in all Chinese history.

Like Yang Cheng, he opposed the theory that minting coins was without profit. He said that if 5 cash were minted, the cost would be 0.01 ounce of silver, which was equal to 7 cash, an apparent loss of 2 cash. The 0.01 ounce of silver had not, however, been destroyed. It remained among men. When added to the 5 cash in newly minted copper coins, the equivalent of 0.008 ounce of silver, total value had actually been transformed into 0.018 ounce.

Therefore, he advocated allowing the people [736]

to mint coins, so long as they obtained licenses to do so from the government, and supplied their own copper, thereby acting as the government's agents in minting. The government would collect a 10 percent charge from them, and the coins they turned out could circulate as official coins.

By the tianqi and chongzhen periods [1621-1644], owing to government deficits, neither silver nor coins could be increased at will, and as a consequence there were once more people who called for the circulation of Certificates, as, for example, did Hui Shiyang during the tianqi period, He Kai in chongzhen 8 [1635], and Jiang Chen in chongzhen 16 [1643]. At court, Ni Yuanlu and Wang Aoyong supported Jiang Chen's plan for circulating Certificates.

Jiang Chen's method was basically close to what Qiu Jun had proposed. He advocated full backing, with 1 string of paper equated with 1 ounce (which would actually sell for 0.97 ounce) of silver, or 1,000 copper cash. There was, however, one unrealistic aspect to his plan. The backing for his paper money was entirely to be obtained by exchanging these paper notes with the public for silver. He calculated that there was then 250 million ounces of silver in public hands:

If this year 50 million are circulated, and 5 years is set as the limit, this would make a total of 250 million, and this would completely exhaust the silver in the hands of the people. Additional amounts could not continue to be issued. Therefore, after 5 years, old Certificates would merely be exchanged for new ones. A 5 year issue would link up with the Empire's coins, and the amount of money in circulation would become sufficient.⁸

⁷Abridged manuscript edition of wanli 10 [1582].

⁸Chongzhen Long Draft, 1.

All we know concerning Jiang Chen's plan is some of the measures proposed, and nothing of the theory behind them.

His near contemporary Chen Zilong (1608-1647) did discuss some theoretical questions. He wrote a book *On Coins*⁹ in which he distinguished between paper notes which could and those which could not be redeemed for ready cash. The former were notes for which coins were taken. The latter were notes which substituted for coins:

Mulberry paper is not coin, but it may be used as a note or ticket to take in coins. Labor which has not reached far yields a generous return. This is how Flying Cash and Certificate Vouchers were created and circulated by Tang, and how Song's Exchange Notes and Account Notes reached the whole Empire from their origins in an out of the way corner of Western Shu.

Beginning as temporary measures to regulate the coinage, over the long run they became substitutes for coins, until by Yuan times, only orphan Certificates were in circulation. During the last generation of Yuan, not a single person knew the use of coins. They clothed themselves with Certificates, ate with Certificates, became poor and rich via Certificates. How then could their prohibition be effected? For the convenience of the people they were specially exchanged for promissory notes, and for a time the constriction was eased.

His statement that during the Yuan Dynasty not a single person knew the use of coins is inaccurate, but his remark that "Certificates alone circulated" is factually correct for certain times. The Qing Dynasty numismatists' practice of calling pure paper money "orphan Certificates" arose from his use of the term. He believed that paper notes could be circulated:

At present among the people, coin houses mostly employ notes, and merchants employ account notes to lighten the burden of forwarding funds. This was the original intention of those who earlier used Certificates. How can such instruments be circulated privately, and yet it remain impermissible for them to be circulated by the public authorities?

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Why had circulation of Certificates failed previously?

The trouble lay in the fact that the officials having issued them to the people, they then ordered that a Certificate be valued at 1 string, but when the people carried them back to the officials, they were rejected as bad paper. This fault in their collection forced them out of use, because after issuing

them, the officials were unwilling to redeem them. Hence the reason why the Certificates did not circulate lay in the Ruler's own regulations.

Therefore he called for a system under which coins and Certificates would circulate together. All payments by the people to the government would be in Certificates. It would not be permitted to use silver or coins for that purpose, though the people could use them among themselves. Official salaries, provisions for the soldiers and wages would be paid in Certificates, and the people would be permitted to redeem Certificates for metal cash.

Qian Bingdeng (1612-1693) also distinguished between paper notes which could be exchanged for cash and those merely face-valued in terms of coin. In his *Discussion of Coins and Certificates* he assumed a nominalist point of view:

A Certificate is merely a few square inches of mulberry paper with some labor and ink applied to it. If it is ordered that they be worth one hundred, then they are worth one hundred. If it is ordered that they be worth a thousand, then they are worth a thousand., and the stupid masses treat them as treasures. Clothing and food are both obtained for them. Only the Ruler can circulate them. It is necessary that the official bureaus be willing to accept them so as to keep the people from becoming suspicious. Then they will spontaneously turn over and be circulated at an increased price.¹⁰

The doctrines of the national determinist theorists of later ages were very close to this view. Qian Bingdeng also believed that there was no reason why a ban on circulation of silver could not be carried out, but he did not emphasize this point. He stated that if silver was not banned, then silver, coins and Certificates could all be jointly used. He would legally fix a rate of 1,000 cash per ounce of silver, or per 1-string Certificate, as well as 50 ounces as the weight for a silver ingot.

Coins would be used for odd amounts. Certificates would be used for round sums. Silver would begin to be used for amounts greater than 50 ounces. If coins were too numerous, they would be commuted into Certificates; if Certificates were too numerous, they would be commuted into silver; but those who used broken pieces of silver as substitutes for coins or Certificates would be punished.

This requirement that whole and not broken silver be used was very peculiar, but his belief that the exchange price between silver and copper coins could be fixed by law was nevertheless a form of nominalism.

⁹Wang Liu, *Simple Words on Coins*, "Earlier Discussion on the Rectification of Names."

¹⁰Wang Liu, *Simple Words on Coins*, "Earlier Discussion

There was also Lu Shiyi, who in his *Discussion of Coins*¹¹ advocated the issue of silver certificates.

on the Rectification of Names."

¹¹Wang Liu, *Simple Words on Coins*, "Earlier Discussion on the Rectification of Names."

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2. Monetary History and Numismatics

Intellectual fashion during the Ming Dynasty made it unprofitable to develop the techniques of scholarship. Perhaps the intuitionist philosophy of the period was one reason for this, since it caused most intellectuals to nourish a loose and superficial attitude. Research was not linked to reality. Men did not seek to see things as they really were, but were content to rely on empty conjecture. This was the case for both monetary history and numismatics. Because numismatics must be primarily concerned with the coins themselves, its accomplishment was smaller. In fact, there were no genuine works of numismatics during the Ming Dynasty.

The *Yuan History*, put together at the beginning of Ming, is the worst of the official histories. Those responsible for it did not understand Mongolian, and did their work carelessly. As a consequence, the entire project only took a year to complete. How could it have been other than a hodgepodge of errors!

The *Yuan History* contains a 5 *juan* "Treatise on Food and Money." The first *juan* contains a subsection on the "Certificate System," which begins with the printing of the Zhongtong Certificates and ends with the abolition of the Zhida Silver Certificates. It does this in just 829 characters. Another few hundred characters deal with "The Number of Certificates Printed Annually." It is not until the fifth *juan* that one unexpectedly encounters another subsection on the "Certificate System," which tells the story of the zhizheng 10 [1350] issue of new Certificates in 964 characters. The material for the first of these is drawn from *Major Statutes Through the Generations*, and material for the second from *Six Political Categories*.

Comparable errors and disorder are to be seen only in the old histories. The *Yuan History*'s contents are also too abridged. Of the coins, it mentions only the Zhida Circulating Treasure, the Great Yuan Circulating Treasure and the Zhizheng Circulating Treasure. Nor is its narrative clear even on the Certificates. For example, it blurs together the terms for the silk certificates of the beginning of the zhongtong era and the Original Treasure Certificates, and

does the same for the Zhizheng Exchange Certificates issued later. Evidently none of the authors clearly understood these questions, leaving us mystified about these matters as well.

There was no general monetary history written during the Ming Dynasty comparable to the "Investigation of Coins" in *Investigation of Literary Remains*. Qiu Jun's *The Great Learning Expounded, Addendum*, written during the chenghua period [1465-88], contained a discussion of money, but only a very abridged one. Someone extracted a portion of it under the title, "A Compilation of the Coin Laws," but it was only a thousand characters long, forming 1 *juan*. This work mentions a certain number of ancient coins to eke out its narrative, but it cannot be said to be a true monetary history. Moreover, of the things it cites, almost half are mythical, such as the coins supposedly cast by Yu, Duke Tai's Nine Offices Round System, and the large coins allegedly minted by King Jing of Zhou.

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As for numismatics, during the yongle and hongxi periods [1403-1426] there was *Dong You's Coin Catalog* in one *juan*. It was extraordinarily sketchy and full of errors. For example it mistakes an early Han Pod-cash for a 100-cash coin, a Yong'an Five-grainer for a coin of Southern Tang, a Sagely Song Original Treasure for a coin minted by Emperor Taizu of Song, and even makes Zhu Yuanzhang's Dazhong Circulating Treasure a coin minted during the dazhong/xiangfu period of Northern Song. Some people suspect that this work was edited by someone else, but if so, this editor must have retained only the work's errors, and not its good points.

During the jiajing period [1522-67], there was Lu Shen's *Treasure Money Record and Coin Register*, both no longer extant, and their contents not specified. His *Yanshan Outer Collection, Leisurely Enjoyment Record* mentions a Mr. Yao's *Coin Catalog* (Mr. Yao is also given as Mr. Zhu), and says that it "collects all the coins of history into a catalog; strange forms and odd shapes, there is none that it does not have, and for each it specifies the time of its origin." Perhaps his own *Treasure Money Record and Coin Register* were better works, but unfortunately, they have not survived.

There were also Luo Rufang's *The Meaning of the Ming Circulating Treasure* and *The Meaning of the Broad [or Guang] Circulating Treasure*, each in 1 *juan*, and which are also both lost. It is said¹ that since Luo Rufang served as Viceroy of Yunnan, and Yunnan was a center of coin casting, he wrote these books to set forth the coins produced since anti-

¹Complete Works of the Four Treasuries General Contents.

quity, beginning with Fuxi and the Yellow Emperor, and coming down to the Tang and Song Dynasties.

Such books cannot be classified as numismatic works, and must be put within the category of histories of monetary systems.

Guo Zizhang's *History of the Springs*, in 13 *juan*, was written during the longqing and wanli years of the late sixteenth century, but it is no longer extant. Guo Zizhang was a metropolitan graduate of longqing 5 [1571] who served as Minister of War, and wrote a great deal.² Contents of *History of the Springs* are not known in detail.

During the wanli period, there were Hu Wokun's *Circulation of Coins*, Li Yuanzhong's *Record of the Spirit of Coins*, and Hou Xun's *Matters Concerning Minting*. These books were neither monetary histories, nor did they deal with numismatics. Rather they were compilations of material dealing with money.

The *Circulation of Coins*³ has a total of 32 *juan*, and contains a relatively large number of categories. Except for the first two *juan*, which give a unified summary of the Ming coin regulations right from the beginning, the remainder is divided into thirteen categories, according to the nature of the materials: origins, systems, forms, use, materials, circulation, management, control, divisions, unusual coins, abuses, writings, and interpolations.

Each category is in turn divided into a number of subheadings. The third category, "forms," fits within the scope of numismatics, and occupies three *juan*. It is divided into the subcategories of regular items, miscellaneous items and unusual items.

There are both illustrations and captions, but the work's contents are for the most part derived from Hong Zun's *Record of Coins*, and I suspect that its illustrations were copied from other coin catalogs. Most of the material in the book is copied from the various histories' "Treatises on Food and Money" and the various compendia of statutes, but it also collects a great deal of heterogeneous material, and some of it has value for reference purposes. For example, the twelfth category, "writings," is divided into subcategories on edicts, memorials, discussions of policy, and debates on measures. If he had collected more material of this kind, its value would have been greater.

The *Record of the Spirit of Coins* has 7 *juan*, and also contains a number of subdivisions, but its con-

tents cannot compare with those of the *Circulation of Coins*. It merely

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collects some anecdotes on coins from ancient records, including earlier books of anecdotes, tales about immortals, demons and spirits. *Circulation of Coins* also contains this sort of material, but not so large a proportion of its total is so formed.

Matters Concerning Minting is a book concerned with the monetary policies of the tianqi and chongzhen eras [1621-44]. Its author, Hou Xun, was a metropolitan graduate of the wanli period, and it is said that he worked for Li Zicheng.

The illustrations appended to Hong Zun's *Record of Coins* were drawn by Xu Xiangmei. Xu Xiangmei's alternate name was Zhonghe. He passed the lower level examinations in Hangzhou, and was a painter. It is said that he copied the paintings of Mi Fei and Wu Zhen as though they had been reincarnated in him,⁴ but the pictures of coins that he copied contain a great many inaccuracies.

For example, he drew the characters *yihua* as *baohuo*, he drew the White-cash of Sui with a black ground and the inscription in white, and he drew practically all the knife and spade coins of Wang Mang incorrectly. As a consequence, he has been criticized by later ages. Nevertheless, the majority of his coin illustrations were drawn from the objects themselves, and I suspect that the ones with errors were copied from other coin illustrations.

For example, for one type of unusual spade, the *Record of Coins* gives only the dimensions, and does not state explicitly what the inscription was. Xu Xiangmei drew the inscription [] *yijin*^a upside down. The Emperor Shaohao *huo* given in Luo Bi's *History of the Circuits* has the same dimensions, and Luo explains that it had this inscription.⁵

The illustrations in the nearly contemporaneous *Circulation of Coins* commit the same errors, and it is possible that these errors may have come from the same source. Hu Wokun's illustrations are, however, inferior to Xu Xiangmei's.

In any event, these are the earliest illustrations to have appeared in a modern numismatic work. For this reason alone, they have a certain historical sig-

²For the *History of the Springs*, cf. *Jiangxi Gazetteer*. Huang Zongxi's *Sea of Ming Literature* also contains Guo Zizhang's "Discussion of the Coin Laws" in one section.

³Based on the Yuange reprint edition.

⁴*Compendium of the History of Painting*, quoting *Original Explanation of the Substance of Painting*.

⁵The *Record of Coins*, 9, illustration of an unusual spade gives its inscription as [],^b while *History of the Circuits*, latter record, 7, under the entry Shaohao, quotes Li's coin catalog on an unusual spade with the same dimensions as having the three character inscription [],^c and is this not simply an upside down version of []^d? Probably Xu Xiangmei had seen Li Xiaomei's *Historical Coin Catalog*.

nificance. It is said that Xu Xiangmei also produced a coin catalog,⁶ but it has not come down to us.

In addition, there is also an *Ancient Coin Classic* which was quoted by Ming writers,⁷ but it is not certain that it was written during Ming times. It mentions the coins of Zhao during the Warring States Era, and says they were round both inside and outside. This point had not been made previously, but we do not know this book's authority for that statement.

⁶Cf. Li Zuoxian, *Ancient Money and Exchange*, edition not known.

⁷Dong Yue, *Investigation of the Seven States*, "The Coins of Zhao," latter part, cites it.

a 𠄎 = 𠄎 b 𠄎 𠄎 c 巳 𠄎 𠄎
d 𠄎