

Chinese Coins in the Fitzwilliam Museum, Cambridge, with a Statistical Analysis of Weights of the Coins

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1. Introduction

In an earlier issue of this Review, a report (Sakuraki and Blackburn 2001) has already been made by the second and third authors on the Collection of Japanese Coins (issued before the establishment of Modern monetary system) at the Fitzwilliam Museum as held in April, 2001. Today, the result can be seen on the Fitzwilliam Museum website as a database of 271 Japanese Coins (cited 1st Dec, 2006; available from: <http://www.fitzmuseum.cam.ac.uk/dept/coins/>). The total number of coins in the Collection held by the Fitzwilliam Museum from all over the world today reaches cir. 192 000, and the collection is one of the world's richest. Because of the fact that the first Japanese coins were introduced in the late 7th century after the Chinese model, Chinese Coins also attract the interest of the Japanese monetary historians. The collection of cir. 3 100 Chinese coins is the largest portion in the Fitzwilliam's Far-Eastern Coin Collection.

The first author, who is currently staying at the Fitzwilliam Museum as a visiting scholar, conducted research on a large portion of the Chinese Coin Collection according to their type, script, metal, features and weight and prepared a catalogue of it. The coins that have been catalogued are those

most relevant to Japanese historians, namely on the Pre-Modern Chinese Coins of the 7th to the 17th centuries corresponding to the medieval period in Japan. Between the 10th and 16th centuries coins were not produced officially by the political authorities in Japan. Domestic monetary circulation relied mainly on the foreign coins imported from China. Those were coins mainly from the Tang (618-907), Song (960-1279), Yuan (1271-1368), and Ming (1368-1644) dynasties. Statistically, the number of Chinese Kai Yuan tong bao (issued by the Tang Dynasty) excavated in the medieval Japanese hoards is the fifth largest of all types, which means that the imported old Chinese coin still circulated in large quantity even in late medieval times. The Yong Le tong bao from the Ming Dynasty holds fifth position. However, generally speaking, the most common coins in medieval Japan were overwhelmingly those issued from the North Sung Dynasty, such as Huang Song tong bao and Yuan Feng tong bao. We describe the collection of Chinese coins and the process of compiling the catalogue in section 2.

Excavated coins are often badly preserved, having been corroded by the soil. Especially, iron coins normally do not keep their original form because of the decay. The Museum pieces, usually being better preserved and collected for that virtue, are seemingly better fitting for research into the original

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supposed standard weights of the coins than the archaeological finds. Statistical analysis was applied to the weight data of some representative coins to try to establish the formal standard weights of Pre-Modern cast-coins, which were less regulated than the modern coins made with mechanical devices. The results of the analysis are shown in section 3.

2. The Catalogue of Chinese coins

The coins that we cover in this article are from the Tang dynasty to Qing Rebels and the total number of them is 2 041 (see Table 2.1). The Museum also has cir.250 ancient Chinese coins and cir.800 of the Qing dynasty. We matched the coins to images in the catalogue by Hartill (2005) piece by piece. This catalogue is excellent, however, we have faced considerable difficulty with classifications. The variations of Chinese letters on the existing coins are far greater than variations indicated in the catalogue and there were still many Chinese letters that couldn't be categorized with any of the catalogued types. Therefore, the classifications of coin types in this catalogue are by no means perfect.

The catalogue is composed of the following eight tables: Table 1 The Tang Dynasty; Table 2 The Five Dynasties and Ten Kingdoms; Table 3 The Northern Song

Dynasty; Table 4 The Southern Song Dynasty; Table 5 The Tartar Dynasties; Table 6 The Yuan Dynasty; Table 7 The Ming Dynasty and Table 8 The Southern Ming and Qing Rebels (see Appendix Tables).

In each Table, first and foremost coins are classified by "Emperor", then by "Type" (type of obverse), lastly by "Features." For two coins, No.23 in Table 1 and No.18 in Table 6, which we could not find in Hartill (2005), we referred to Sun, Chung-hui *et al.* (1991).

The following conventions have been used in the Tables.

- 1) The numbers in "Reference" (rarely in "Features") in the Tables are the catalogue numbers used in Hartill (2005), but for No.23 in Table 1 and No.18 in Table 6 which are not on Hartill (2005) it is the catalogue number used in Sun, Chung-hui *et al.* (1991).
- 2) Chinese coin inscriptions are normally read top, bottom, right, left. Two character inscriptions are normally read from right to left. Inscriptions that are read clockwise, top, right, bottom, left, are indicated by "c/wise" in the tables.
- 3) A lot of coins were made of bronze or (after 1505) brass alloy (these alloys are referred as AE in the Tables). No.1 in Table 6 is the only coin made of silver (referred as AR).
- 4) Dates that can be established with reasonable certainty are in Roman type. Estimated dates are in italics.
- 5) Unless otherwise stated, the coin is a one cash denomination with a plain reverse.
- 6) The main calligraphic styles used on Chinese coins are Seal Script (篆書), Li Script (隸書), Running Script (行書), Grass Script (草書), Regular Script (楷書) and Slender Gold Style (瘦金書).

Table 2.1 No. of coins catalogued

Era	No. of Coins
Tang	48
Five Dynasties & Ten Kingdoms	46
Northern Song	989
Southern Song	484
Tartar	26
Yuan	32
Ming	303
Southern Ming & Qing Rebels	113
Total	2041

7) The weight of a coin is not only important information to distinguish identical coins, but also weight distributions can be studied as an indicator of the economy at the time. We consider the latter case in the next section.

3. Statistical analysis of the weight data of coins

Chinese governments of early times worked hard to control the weight of the coins they minted, since they understood how economic matters, such as inflation, were affected by this factor. As was stated by Barker (2004) on page 5, “the weight of standard cash coins have remained consistent over time, giving rise to the concept of a value-one coin. If one could calculate the average weight of all value-

one cash coins ever cast, it would probably be about 3 to 4 grams.”

Using the weight data of some representative one cash coins from the Tang to Ming dynasties, an examination of this statement will be undertaken. A diagram style useful for presenting sufficient information to see the centre, spread, skew, and length of tails in a dataset is the boxplot. Figure 3.1 is a boxplot of the weight data of the coins listed in Table 3.1.

In Figure 3.1, the horizontal line inside the black box marks the median. The height of the box is equal to the interquartile distance, which indicates the spread or width of the distribution for the data. 50% of the data lies within the limits of the box. What is immediately apparent is that every median and almost all of the boxes lie between 3 and 4

Table 3.1 One cash coins

Dynasty	Tang	Northern Song						
Obv.	Kai Yuan tong bao	Song Yuan tong bao	Huan Song tong bao	Zhi Ping yuan bao	Xi Ning yuan bao	Yuan Feng tong bao	Shao Sheng yuan bao	Zhen He tong bao
Sample size	35	39	58	40	65	47	64	30
Dynasty	Southern Song		Ming					
Obv.	Jia Ding tong bao	Chun You yuan bao	Hong Wu tong bao	Tian Qi tong bao				
Sample size	38	29	31	40				

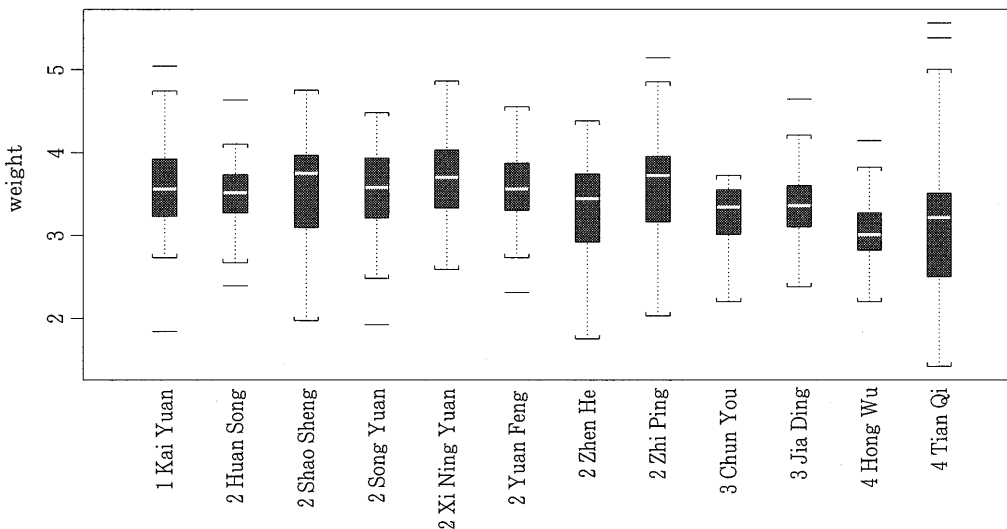


Figure 3.1 Boxplot of weights of one cash coins. Prefixed numbers in front of the coins' names indicate dynasty as follows: 1- Tang; 2 - Northern Song; 3 - Southern Song; 4 - Ming.

grams. Therefore, it is reasonable to say that this data supports the statement above.

The weights of the large two cash coins are often about twice the weight of one cash coins of the same reign. An examination of this will be undertaken. Figure 3.2 is a boxplot of the weight data of the coins listed in Table 3.2. Only coins whose sample size was greater than 25, based on statistical justification, were selected.

Table 3.2 Two cash coins

Dynasty	Northern Song		Southern Song	
Obv.	Xi Ning zhong bao	Yuan Feng tong bao	Chun Xi yuan bao	Jia Ding tong bao
Sample size	36	38	26	25

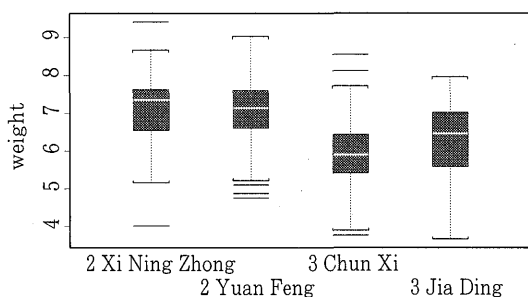


Figure 3.2 Boxplot of weights of two cash coins

In Figure 3.2, except for Chun Xi yuan bao, it is shown that the medians and boxes of Northern Song coins lie between 6 and 8 grams. In this sample, Southern Song coins are lighter than Northern Song coins.

We find the following information in Hartill (2005) and Xinxi (1994). Kai Yuan tong bao was the main coin issued by the Tang dynasty (618-907). It was minted for most of the dynasty. Its weight was set at 2.4 *zhu*, ten to the *liang*. 1000 coins weighed 6 *jin* 4 *liang*, meaning one weighed 1 *qian* (= 3.73 grams). The unit of weight came to be named after the coins. Records state that in 713, recently

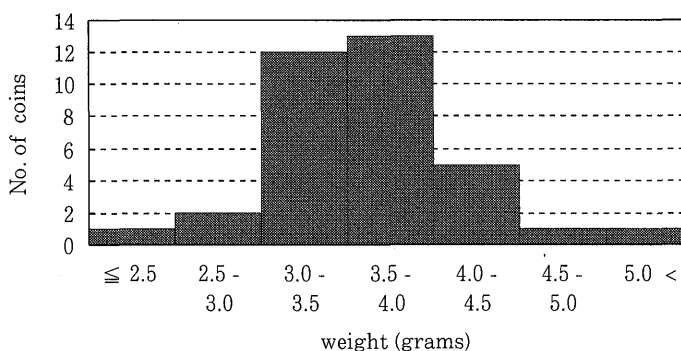


Figure 3.3 Histogram of weights of Kai Yuan tong bao

minted coins, when checked in sets of 1000, weighed 7 *jin*. Therefore, the weight of one coin was 1.1 *qian* (= 4.18 grams). Figure 3.3 is a histogram of weight data of Kai Yuan tong bao. The median and mean of the data are 3.56 and 3.61 respectively.

The measured data is only 3% - 4% lower than the theoretical standard, which can be accounted for by a degree of loss through wear and corrosion. This suggests that the weight of Kai Yuan tong bao coins was closely controlled, and that once in circulation heavier coins were not preferentially, culled distorting the weight distribution. Applying the Shapiro-Wilk test to this data, there was no evidence its distribution was not normal (p-value=0.4681). Therefore a 95% confidence interval for the mean weight can be constructed, under the assumption that the data is sampled from a normal population. The interval obtained (3.41, 3.83 grams) represents a 95% confidence interval for the mean weight of a population consisting of the total number of Kai Yuan coins now remaining. Xinxi (1994) presents an in-depth argument on the economic principles behind early currency systems.

4. History of the Collection

The Chinese coins in the Fitzwilliam Museum have come from many different sources and

until recently there has been no attempt to build the collection systematically. The composition is therefore partly chance, but also reflects the types of coins easily available to collectors in the later 19th and early 20th centuries. Before 1908 the origins of coins added to the Fitzwilliam's collection were not recorded, but some Chinese coins will have been among the 12 000 coins donated by the Rev. W.G. Searle in 1899. The large collection of C.T. Gardner, a 19th-century sinologist, was divided between the British Museum, the Ashmolean Museum in Oxford and the Fitzwilliam Museum in 1947. In 1992 the Museum selected 148 Chinese coins from the collection of Mr B. Russell Brown. An interesting addition in 1989 was a parcel of 120 coins from the large hoard of cir. 32 000 Chinese coins from the 7th to late 19th centuries found at the Palmer River Goldfields, Northern Queensland in Australia in 1978.

By the 1990s the Museum had a general representative collection of Chinese coins of all periods, but it was not at all distinguished. In 1999, generously financed by Mr Christopher Jeeps, the Museum bought the collection of a Singapore businessman, Mr Vickam Chand. Although comprising only 556 coins, this collection contained many rarities. It was especially strong in early spade and knife coins, early medieval coins. Its coins of the Yuan dynasty are particularly fine, including one of the rare silver cash coins reading Da Chao tong bao, attributed to Ghengis or Kublai Khan (no. 1, Table 6). With the continuing support of Mr Jeeps, the Museum has made a number of further purchases, and it will continue to build on its Chinese collection.

5. Future Prospects

The Fitzwilliam Museum is actively building its collection of Far Eastern coins and library.

As well as the Chinese collection, it has been expanding its collection of Japanese, Korean and Vietnamese coins, and acquiring books and periodicals on them. Collaboration between the three authors has resulted in joint research projects into coin finds and coin circulation, and has led to exchange visits between the Universities of Cambridge and Shimonoseki City since 2001. The first and second authors have each spent sabbatical years at Cambridge University (2006-7 and 2001-2), and the third author studied in Shimonoseki City University as a Visiting Fellow in 2005, supported by the Japan Society for the Promotion of Science. We hope that this collaboration will continue, and lead other scholars to come to Cambridge to use the resources of the numismatic collection and library for their research.

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Appendix Tables

Table 1 The Tang dynasty (618-907)

No.	Emperor Date	Type	Script	Metal	Features	Reference	Weights (No. of coins)	
1	Obv: 開元通寶 Kai Yuan tong bao (The Inaugural currency) 621-846		Li	AE	Early Type 621-718	Normal size. The jing 井 compo- nent of Kai does not touch the hole.	14.1	3.82, 3.33, 3.05, 3.92, 3.88, 3.71, 4.36, 4.00, 2.73 (9)
2							14.1b	3.46
3					Middle Type 718-32	No shoulder on yuan.	14.3	1.84
4							14.3g	4.74
5							14.3h	3.31
6							14.3u	4.12
7							14.3v	4.28, 4.34 (2)
8					Middle Type 718-32	Left shoulder on yuan.	14.4	3.47, 3.56, 3.21, 5.04 (4)
9							14.4h	3.58
10							14.4u	3.40
11							14.4y	3.16
12					Late Type 732-907	No shoulder on yuan.	14.6	3.19
13							14.6aa	3.58
14						Degenerate specimen.	14.7ac	3.92, 4.29 (2)
15						Left shoulder on yuan.	14.8c	3.07
16							14.8u	2.78
17						Dot below tong.	14.12z	3.72
18					Huichang Kai Yuans 845-46	Rev: 福 Fu bottom. Mint: Fuzhou	14.56	3.50
19						Rev: 廣 Guan right. Mint: Guangzhou	14.58	3.23
20						Rev: 洛 Luo Mint: Luoyang	14.77	3.76
21						Rev: 潤 Run. Mint: Run	14.81	3.54
22						Rev: 越 Yue.	14.95	3.52
23					10 cash size coin.			
24	Su Zong 756-62	Obv: 乾元重寶 Qian Yuan zhong bao 758-62	Li	AE	Value Ten. Rev: Plain.		14.101	6.12, 8.16 (2)
25					Value Fifty. Rev: Plain.		14.105	12.19
26					Value One, ordinary size.	Rev: Plain.	14.114	2.58, 2.92, 1.83, 3.61 (4)
27						Rev: Crescent below.	14.116	2.00, 2.49, 4.69, 3.23, 4.19 (5)

Table 2 The Five Dynasties and Ten Kingdoms (907-960)

No.	Dynasty or kingdom	Emperor Date	Type	Script	Metal	Features	Reference	Weights (No. of coins)
1	Later Jin Dynasty 936-47	Gao Zong 938-	Obv: 天福元寶 Tian Cheng yuan bao	Li	AE	c/wise, left shoulder yuan.	15.3	2.26
2	Later Han Dynasty 948-51	Gao Zu 947-48	Obv: 漢元通寶 Han Yuan tong bao	Li	AE	Rev: Crescent below.	15.7	3.00
3	Later Zhou Dynasty 951-60	Shi Zong 955-	Obv: 周元通寶 Zhou Yuan tong bao	Li	AE	Rev: Plain.	15.12	3.54, 3.23, 3.33 (3)
4						Rev: Crescent above.	15.13	3.04
5						Rev: Crescent right.	15.15	3.75
6						Rev: Crescent lower right.	15.16	3.73
7						Rev: Crescent below.	15.17	3.14
8						Rev: Crescent lower left.	15.18	3.36
9						Rev: Crescent upper left.	15.20	3.48
10						Rev: Dot above.	15.23	4.09
11						Rev: Dot below.	15.24	3.50
12						Rev: Dot right.	15.25	3.38
13	Former Shu Kingdom 907-25	Wang Jian 907-18	Obv: 永平元寶 Yong Ping yuan bao	Li	AE	c/wise.	15.30	4.81
14			Obv: 通正元寶 Tong Zheng yuan bao			c/wise. Rev: Plain.	15.31	2.92
15			Obv: 天漢元寶 Tian Han yuan bao			c/wise. Rev: Plain.	15.36	2.82
16			Obv: 光天元寶 Guang Tian yuan bao			c/wise. Rev: Plain.	15.38	3.43
17		Wang Yan 919-25	Obv: 乾德元寶 Qian De yuan bao			c/wise. Rev: Plain.	15.42	4.44, 3.49 (2)
18			Obv: 咸康元寶 Xian Kang yuan bao			c/wise. Rev: Plain.	15.46	3.09
19	Kingdom of Min 909-45	Wang Shenzhi	Obv: 開元通寶 Kai Yuan tong bao	Li	Fe	Large coin, iron. Rev: Large dot above.	15.49	25.28, 26.70 (2)
20					Pb	Large coin, lead. Rev: 閩 Min above, crescent below.	15.51	17.27
21					Pb		15.53	4.59, 4.90 (2)
22	Later Shu Kingdom 926-65		Obv: 廣政通寶 Guang Zheng tong bao		AE		15.75	3.33
23	Southern Tang Kingdom 937-75	Yuan Zu 943-61	Obv: 永通泉貨 Yong Tong Quan Huo	Regular	AE		15.78	14.73

24	Southern Tang Kingdom 937-75	Yuan Zu 943-61	Obv: 唐國通寶 Tang Guo tong bao.	Seal	AE	Rev: Plain.	15.80	3.00, 3.81, 3.19 (3)	
25						Larger characters.	15.83	2.32	
26						A large coin, worth ten.	15.86	6.33	
27			Regular	Li		Small coin. Rev: Plain.	15.90	2.21	
28						One dot tong. Rev: Plain.	15.93	3.78, 4.32 (2)	
29			Seal	Li		Obv: 大唐通寶 Da Tang tong bao.	Regular size.	15.95	2.22
30						Rev: Plain.	15.99	3.53	
31	Rev: Large dot above.	15.100			3.09				
32	Southern Han Kingdom 905-71	Lie Zu 917-42	Obv: 乾亨通寶 Qian Heng tong bao	Li	AE		15.106	2.20	
33							15.107	2.74	
34							15.108	3.25	
35			AE	Obv: 乾亨重寶 Qian Heng zhong bao			15.109	4.28	
36						Inscription reversed.	15.110	4.89	
37						Rev: 邕 yong. Mint: Yongzhou, Guangxi, the others in Guangzhou.	15.112	4.28, 5.15 (2)	

Table 3 The Northern Song Dynasty (960-1127)

No.	Emperor Date	Type	Script	Metal	Features	Reference	Weights (No. of coins)	
1	Tai Zu 960-76	Obv: 宋元通寶 Song Yuan tong bao 960-76	Li	AE	Small characters.	Rev: Plain.	16.1	2.90, 4.21, 4.32, 2.93 (4)
2						Rev: Crescent above.	16.1a	3.90
3						Rev: Crescent left.	16.1b	3.21, 3.53 (2)
4						Rev: Dot above.	16.1d	3.92, 3.98, 3.98 (3)
5						Rev: Dot right.	16.1e	3.35, 3.80 (2)
6						Rev: Dot below.	16.1f	3.82, 3.44 (2)
7						Rev: Dot left.	16.1g	3.18
8					Large characters.	Rev: Dot above.	16.2a	2.92, 3.26 (2)
9						Rev: Dot below.	16.2c	3.91
10						Rev: Dot left.	16.2d	3.40
11						Rev: Crescent above.	16.2e	4.48, 4.04 (2)
12						Rev: Crescent below.	16.2g	3.59, 3.17, 3.26, 3.33 (4)

13	Tai Zu 960-76	Obv: 宋元通寶 Song Yuan tong bao 960-76	Li	AE	Large characters.	Rev: Nail mark above.	16.2i	3.58, 4.30 (2)		
14						Rev: Nail mark above right corner.	16.2j	4.13, 4.08 (2)		
15						Rev: Nail mark right.	16.2k	3.15, 3.86 (2)		
16						Rev: Nail mark below.	16.2m	3.01		
17						Long tong and bao, rounded bei.	16.3	3.58, 3.23, 3.84, 1.92, 2.48, 3.61, 3.93 (7)		
18	Tai Ping tong bao 976-89	Obv: 太平通寶	Li	AE	Smaller size.	Rev: Plain.	16.17	3.95, 3.80, 3.30, 3.30, 3.27, 3.32, 3.59, 3.59, 3.87, 3.16, 3.04 (11)		
19						Rev Dot left.	16.17a	2.91		
20	Tai Zong 976-97	Obv: 淳化元寶 Chun Hua yuan bao 990-94	Regular	AE	Regular Script, c/wise.	Slight differences in calligraphy between 16.25 and 26.	16.25	3.61, 2.59, 3.65, 3.80, 3.81, 3.70, 3.60, 3.30 (8)		
21							16.26	3.40, 3.74, 4.49, 3.42 (4)		
22			Running		Running Script, c/wise and bronze.	16.29	3.54, 3.48, 3.67, 3.48, 4.27, 3.60, 3.58 (7)			
23			Grass		AE	Grass Script, c/wise. Rev: Plain.	16.32	3.00, 2.65, 3.69, 3.37 (4)		
24							16.33	2.51		
25			Regular		Obv: 至道元寶 Zhi Dao yuan bao 995-97	AE	Regular Script, c/wise.	Normal size.	16.35	3.09, 3.94, 3.10, 3.43, 3.88, 4.26, 3.85 (7)
26								Characters crowded round the hole.	16.36	3.52
27	Running	Running Script, c/wise. Rev: Plain.		16.37			3.18, 3.56, 3.59, 3.95, 3.07, 2.25, 3.34, 3.52, 3.60, 3.75 (10)			
28	Grass	AE	Grass Script, c/wise.	Characters away from the hole. Grass script.			16.41	3.95, 3.59 (2)		
29				Characters crowded round the hole.			16.42	4.12		
30	Zhen Zong 988-1022	Obv: 咸平元寶 Xian Ping yuan bao 998-1003	Regular	AE			c/wise, ordinary coin.	16.43	3.44, 3.83, 3.65, 4.10, 3.41, 3.34, 2.95, 4.06, 3.56, 2.66, 3.48 (11)	
31		Obv: 景德元寶 Jing De yuan bao 1004-07	Regular	AE			c/wise.	16.49	3.44, 3.57, 4.15, 3.92, 3.03, 3.91, 3.62, 3.35, 3.26, 2.85, 3.74, 3.84, 4.06, 3.49, 3.74, 4.02, 2.93, 3.51, 2.74, 3.99, 3.19 (21)	

32	Zhen Zong 988-1022	Obv: 祥符元寶 Xiang Fu yuan bao 1008-16	Regular	AE	c/wise, dot at top of yuan.	16.52	3.38, 3.65, 4.28, 3.58, 3.16, 3.20, 4.10, 3.00, 4.21, 3.16, 3.30, 4.06, 4.37, 3.75, 2.68, 3.05, 2.98 (17)	
33		Obv: 祥符通寶 Xiang Fu tong bao 1008-16	Regular	AE	c/wise.	Two dot tong. Rev: Plain.	16.59	3.55
34						Small coin.	16.63	4.16, 2.86, 3.70, 2.31, 2.64 (5)
35						One dot tong.	16.64	3.01, 3.91, 2.70, 3.60, 4.37, 4.25 (6)
36						Tong in Li style. Rev: Plain.	16.65	3.62, 3.59, 3.89, 3.98, 3.18, 3.74 (6)
37						Obv: 天禧通寶 Tian Xi tong bao 1017-22	Regular	AE
38	Feet of bao straight.	16.70	3.64, 3.86, 3.06, 3.00, 3.71 (5)					
39	Smaller characters, two dot tong.	16.71	3.88, 3.83 (2)					
40	Ren Zong 1022-63	Obv: 天聖元寶 Tian Sheng yuan bao 1023-31	Seal	AE	c/wise.	Differences in sheng between 16.73 and 16.74.	16.73	3.84, 2.86, 3.63, 4.39, 2.79, 4.25, 2.18, 3.80, 3.88, 3.76, 4.43, 4.43 (12)
41						16.74	4.19	
42			Regular		c/wise.	Feet of bao spread.	16.76	3.84, 3.07, 3.75, 3.57, 4.19, 3.57, 3.82, 3.93 (8)
43						Feet of bao straight.	16.77	3.18, 3.40, 4.14 (3)
44		Feet of bao curving.		16.79		3.23		
45		Obv: 明道元寶 Ming Dao yuan bao 1032-33	Seal	AE	c/wise.	Non significant varieties.	16.82	3.28, 3.73, 3.62, 4.54, 3.55, 3.62, 3.15, 3.39, 4.36, 3.53, 3.15 (11)
46						Regular	c/wise.	Feet of bao spread.
47			Smaller characters.		16.84			3.72, 3.90, 3.33, 3.90, 4.16, 3.94 (6)
48	Feet of bao straight.		16.85		3.65			
49	Obv: 景祐元寶 Jing You yuan bao 1034-38	Seal	AE	c/wise.	Feet of bao join in middle.	16.87	3.49, 3.44, 3.29, 5.10, 3.13, 3.30, 3.65, 3.13, 4.35, 3.35, 3.66, 3.13, 2.80, 3.67, 4.49 (15)	
50					Regular	c/wise	Regular coin.	16.89
51		Long feet of bao.		16.90			2.06	
52		Small size.		16.91			6.48	
53	Obv: 皇宋通寶 Huan Song tong bao 1039-54	Seal	AE	Top of Huang curved, bao a rounded square.	16.93	2.87, 2.75, 3.58, 3.11, 3.16, 3.36, 3.95, 3.50, 4.07 (9)		
54				Bao round.	16.94	3.49, 3.24, 3.19, 3.30 (4)		

55	Ren Zong 1022-63	Obv: 皇宋通寶 Huan Song tong bao 1039-54	Seal	AE	Bao square.	16.95	3.59, 3.06, 3.48 (3)		
56					Smaller characters.	16.96	3.12, 3.57, 4.00 (3)		
57					Distinct dot in 白 of Huang, bao a rounded square.	16.98	3.27, 3.63, 3.49, 3.98, 3.62 (5)		
58					Top of Huang square.	16.99	4.10, 4.01, 3.95, 3.73 (4)		
59			Tong in Li script, others various		Top of Huang square.	16.103	3.62 3.54, 3.89, 4.63, 2.67, 3.62, 3.75, 4.04, 3.86, 3.54, 3.76, 3.07 (12)		
60			Regular		Top of Huang curved.	16.104	2.39, 3.63 (2)		
61					Top of Huang round.	16.106	3.35, 3.53 (2)		
62					Distinct dot in tong.	16.111	3.30, 3.65, 3.96, 3.30, 3.62, 3.35, 3.51 (7)		
63					Small size.	16.112	2.94		
64					Small characters, broad rim.	16.113	3.47, 3.34, 2.84, 3.52 (4)		
65					Dot in tong not distinct.	16.114	3.24		
66					Small characters.	16.116	3.50		
67					Obv: 康定元寶 Kang Ding yuan bao 1040	Li	Fe	c/wise, small size and iron.	16.122
68			Obv: 慶曆重寶 Qing Li zhong bao 1041-48		Regular	AE	c/wise, regular coin.	16.124	4.97
69							Broad rims.	16.127	7.93, 8.27 (2)
70							Narrow rims.	16.128	4.51
71	Obv: 至和元寶 Zhi He yuan bao 1054-55	Seal	AE	c/wise.	Medium characters, bao square.	16.130	3.91, 3.50, 4.69, 3.76, 4.10, 3.58 (6)		
72					Small characters.	16.132	3.64		
73		Li		c/wise, Normal yuan (short top stroke).	16.133	3.19			
74		Regular		c/wise.	Medium characters.	16.135	3.59, 4.27, 3.73, 3.48, 3.33, 2.79, 3.81 (7)		
75					Small characters.	16.136	3.78, 3.79, 3.77, 3.75(4)		
76		Obv: 至和通寶 Zhi He tong bao 1054-55		Seal	AE	Regular writing.		16.138	2.92, 3.28, 3.33, 3.33(4)
77	Regular		16.141	3.42, 3.34, 3.29, 4.23, 3.79 (5)					
78	Obv: 嘉祐元寶 Jia You yuan bao 1056-63	Seal	AE	c/wise.	Bey round.	16.146	2.73, 3.54, 3.49 (3)		
79					Bey square.	16.147	4.01, 2.67, 2.89 (3)		
80					Bey squat.	16.147A	3.64, 4.81 (2)		
81		Li		c/wise.	Large yuan.	16.148	3.99, 3.67, 2.25, 3.48, 4.08 (5)		
81					Left shoulder yuan.	16.149	3.10, 2.91, 3.42 (3)		
82	Regular	c/wise.	16.150	3.37, 3.00, 3.08, 3.10, 3.55, 2.55, 2.95, 3.23, 3.59 (9)					
83	Obv: 嘉祐通寶 Jia You tong bao 1056-63	Seal	AE	Top horizontal line of Jia straight.		16.151	4.33, 2.78, 3.90, 3.15, 3.15, 3.61, 3.26, 3.04 (8)		
84	Top horizontal line of Jia curved.			16.152	3.19, 3.20 (2)				

85	Ren Zong 1022-63	Obv: 嘉祐通寶 Jia You tong bao 1056-63	Li	AE		16.153	3.11, 3.69, 3.41, 3.49, 3.35 (5)		
86			Regular		Small Jia.	16.154	3.51, 3.61, 3.40, 3.93, 4.07, 3.36 (6)		
87					Large Jia.	16.155	3.73, 3.59, 3.43, 3.44(4)		
88	Ying Zong 1064-67	Obv: 治平元寶 Zhi Ping yuan bao 1064-67	Seal	AE	c/wise.	Large characters.	16.156	3.36	
89							Small characters.	16.157	3.60, 3.88, 2.91, 4.38, 2.74, 4.24, 3.57, 3.04, 3.71, 3.89, 2.78, 3.90, 3.22 (13)
90							Feet of bao spread, generally different calligraphy.	16.158	2.57, 3.58, 3.97 (3)
91			Regular			Large characters.	16.160	4.00, 4.14, 3.85, 4.14, 3.58, 2.03, 3.00, 5.14, 3.88, 2.53, 4.04, 3.90, 3.93, 2.87, 3.85 (15)	
92						Small characters.	16.161	3.73, 3.39, 3.19, 4.50, 3.13, 3.86 (6)	
93			Running			Plain reverse.	16.162	4.85, 3.41 (2)	
94								Semicircular bao, ping 3 strokes at the top.	16.164
95	Zhi Ping tong bao 1064-67	Obv: 治平通寶	Seal	AE	Round bao, ping 2 strokes at the top.	16.165	2.90		
96						Ping with three strokes at the bottom.	16.166	3.24, 4.22, 3.40 (3)	
97			Li		AE		16.167	3.94, 3.28, 2.33, 4.14 (4)	
98			Regular				16.169	4.37	
99	Shen Zong 1068-85	Obv: 熙寧元寶 Xi Ning yuan bao 1068-77	Seal	AE	c/wise.	Ning written with a curved stroke at the bottom.	16.170	3.43, 3.37, 4.23, 3.77, 3.51, 3.82, 2.60, 3.56 (8)	
100							Ning with a horizontal troke at the bottom, bao with long side strokes.	16.171	2.93, 3.54, 3.84, 3.20, 4.01, 3.33 (6)
101							Small Ning, Ⅲ at bot- tom.	16.173	2.99, 3.32, 4.20 (3)
102							Left stroke of yuan sloping.	16.174	4.86, 3.38, 3.53 (3)
103							Smaller size.	16.175	3.40, 3.71 (2)
104							Semicircular bao.	16.176	3.73, 3.54 (2)
105							Different writing.	16.177	4.08, 4.15, 3.77, 3.19, 3.13, 3.23, 4.11 (7)
106							Seal script. Rev: Plain.	16.178	3.37
107						Li	Li script. Rev: Plain.	16.180	2.71
108						Regular	Left hand stroke of Xi separate.	16.182	3.36, 3.66, 3.84, 3.94, 4.11, 3.70 (6)
109							Coarser characters.	16.182a	3.71
110							Left hand stroke of Xi touchng the 臣 at the bottom.	16.183	2.98, 3.79, 2.89, 3.94, 3.11, 4.13 (6)

111	Shen Zong 1068-85	Obv: 熙寧元寶 Xi Ning yuan bao 1068-77	Regular	AE	c/wise.	Left hand stroke of Xi incorporated with the 臣.	16.184	3.79, 2.95, 4.64, 3.29, 4.03, 4.15, 3.75 (7)	
112						Radiating lines on reverse.	16.185	4.19, 2.59 (2)	
113						Left hand stroke of Xi curved.	16.188	3.42, 4.26, 3.34, 2.98, 4.30 (5)	
114			Yuan in running script, others regular			Left hand stroke of Xi touching the 臣 at the bottom, small characters.	16.190	4.59, 3.78, 4.20, 3.62 (4)	
115						Left hand stroke of Xi incorporated with the 臣.	16.191	4.34	
116		Obv: 熙寧重寶 Xi Ning zhong bao 1071-77	Seal	AE	Large coin, c/wise.	Squarish bao.	16.194	6.91, 7.41, 5.16, 6.80 (4)	
117							Bao with long side strokes.	16.195	7.90
118							Broad rims. Rev: Plain.	16.196	6.66, 7.45, 7.34, 5.39, 6.60 (5)
119			Li				16.198	8.35, 5.84 (2)	
120			Regular				No left hand stroke on Xi, large square characters.	16.199	4.02, 8.11, 7.41, 6.95, 7.30, 5.66, 8.64, 6.10, 8.67 (9)
121							Left hand stroke on Xi, normal characters. Rev: Plain.	16.200	6.22, 6.55 (2)
122							Hook-like dits on Xi.	16.202	7.41
123				"Joined Flying" dots on Xi.	16.203	7.66, 8.21, 7.50, 7.37, 7.59, 6.54, 9.41, 6.23, 7.52, 7.33, 7.96, 7.43 (12)			
124		Obv: 元豐通寶 Yuan Feng tong bao 1078-85	Seal	AE	Small coin, c/wise.	Regular characters.	16.210	3.56, 2.81, 2.31, 3.43, 4.55, 3.03, 3.30, 3.41, 3.17, 3.45, 3.80, 3.25, 3.90, 4.15, 3.87, 3.54 (16)	
125							Large characters.	16.211	3.50, 3.44 (2)
126						Small characters.	16.212	3.72, 4.03, 3.39, 3.87, 3.65, 3.81 (6)	
127	Seal		Large coin, c/wise.		Round bao.	16.224	6.65, 7.33, 7.96, 7.59, 5.22, 6.97, 7.90 (7)		
128						Squarish bao.	16.225	6.70, 8.44, 7.60, 6.43, 7.15, 6.61, 6.95, 7.28, 7.83, 4.88, 6.66 (11)	
129						Rev: Large dot above.	16.226	6.14, 7.42 (2)	
130						Rev Crescent above.	16.227	6.00, 6.88 (2)	
131	Li		Small coin, c/wise.		Small tong.	16.233	4.33		
132	Running		c/wise.		Large characters.	16.235	3.29, 3.63, 4.52, 3.49 (4)		
133						Small characters.	16.236	3.86, 4.04, 2.89, 2.91 (4)	
134				Bao with claw feet.	16.237	2.73, 3.54, 3.81, 3.39, 4.12, 3.84, 3.59, 3.58, 3.95, 4.53, 3.17, 4.01, 3.31, 3.12 (14)			

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135	Shen Zong 1068-85	Obv: 元豐通寶 Yuan Feng tong bao 1078-85	Running	AE	Large coin, c/wise.	Variations in characters.	16.248	6.46, 7.52, 8.28, 6.62, 9.03, 7.33, 7.24, 7.21, 5.11, 7.07, 7.89, 5.32, 4.76 (13)	
136							16.250	7.79, 7.13, 6.69 (3)	
137	Zhe Zong 1086-1100	Obv: 元祐通寶 Yuan You tong bao 1086-93	Seal	AE	Small coin, c/wise.	Square bao, long feet.	16.260	3.69, 4.03, 3.24 (3)	
138						Square bao, short feet.	16.261	3.12, 3.57, 3.77, 3.91, 2.83, 4.25, 3.28, 3.46, 3.34, 3.19, 2.49, 3.67, 3.38, 4.06, 3.10, 4.08, 4.32 (17)	
139						Square bao, small bei.	16.262	2.73, 4.19, 2.19 (3)	
140						Oval bao.	16.263	4.70	
141						Rev: Dot above.	16.264	3.55	
142						Large coin, c/wise.	Semicircular bao.	16.269	8.96, 6.34 (2)
143			Running	Small coin, c/wise.	AE	Spread feet bao.	16.274	4.27, 4.11, 4.01, 4.27, 3.69 (5)	
144						Small bei.	16.275	3.42, 3.73, 2.99, 3.41, 4.20 (5)	
145						Law feet, bao.	16.276	3.10, 2.93, 3.05, 3.85, 3.51, 3.73, 4.21 (7)	
146						Rev: Dot above.	16.277	3.66	
147						Larger size.	16.284	6.45, 6.81, 6.93 (3)	
148			Large coin, c/wise.	Larger size, claw feet bao.	AE	Larger size.	16.285	7.11	
149						Smaller size.	16.286	4.90, 6.22, 7.52 (3)	
150	Large bao.	16.290				3.75, 3.75 (2)			
151	Seal	Small coin, c/wise.	AE	Small bao.	16.291	3.60, 3.78, 4.26, 4.32, 3.77, 2.99, 3.83, 2.86, 2.64, 2.80, 3.78, 3.52, 4.08, 4.62, 3.49 (15)			
152				Round bao.	16.292	3.76, 3.33, 2.72, 3.09, 2.79, 3.83, 3.94, 3.48, 4.11, 4.03 (10)			
153				Feet of bao deficient.	16.293	3.89			
154				Small characters. Rev: Crescent above.	16.294	3.43, 3.39 (2)			
155				Small characters. Rev: nverted crescent below.	16.295	2.86, 4.42, 2.78 (3)			
156				Small characters. Rev: Dot above.	16.296	3.51			
157				Small characters. Rev: Dot below.	16.297	3.93, 4.30 (2)			
158				Large coin, c/wise.	Small size.	16.303	5.95, 9.71, 7.44 (3)		
159				Running	Small coin, c/wise.	AE	Spread feet bao.	16.307	4.24, 3.20, 3.38, 3.96, 3.94, 3.24, 3.88, 1.97, 4.02, 2.35, 3.97 (11)
160							Claw feet bao.	16.308	3.44, 4.05, 2.94, 3.49, 2.10, 3.14, 3.10 (7)

161	Zhe Zong 1086-1100	Obv: 紹聖元寶 Shao Sheng yuan bao 1094-97	Running	AE	Small coin, c/wise.	Long bao.	16.309	4.67, 2.54 (2)				
162						Large characters, 刀 of 紹 shao distinct.	16.310	3.79				
163					Small coin, c/wise and small characters.	Rev: Plain.	16.311	4.75				
164						Rev: Crescent above.	16.312	3.85				
165						Rev: Inverted Crescent below.	16.313	2.36, 4.08 (2)				
166						Rev: Dot above.	16.314	4.39				
167						Rev: Dot below.	16.315	3.75, 3.09 (2)				
168					Large coin, c/wise.	c/wise, large coin.	16.319	4.65, 6.77, 6.89, 6.48 (4)				
169	Zhe Zong 1086-1100	Obv: 紹聖通寶 Shao Sheng tong bao 1094-97	Regular	AE	Small coin.	16.321	3.54, 3.12, 3.04 (3)					
170		Obv: 元符通寶 Yuan Fu tong bao 1098-1100	Seal	AE	Small coin, c/wise.	Large bao.	16.328	3.09, 4.30, 3.32, 3.17, 3.23, 3.87 (6)				
171						Small bao.	16.329	3.43, 3.39, 3.72, 3.47, 2.56, 3.78, 4.26, 4.37, 4.03, 3.93, 2.71, 3.22, 4.09 (13)				
172						Long feet bao.	16.330	3.59, 4.21 (2)				
173					Large coin, c/wise.	16.335	6.74, 7.22, 5.99 (3)					
174					Running	Small coin, c/wise.	Spread feet bao.	16.342	4.27, 4.03, 2.99, 4.57, 3.98, 3.33, 3.54 (7)			
175							Claw feet bao.	16.343	4.20, 3.70, 3.77, 3.72, 3.65, 3.26 (6)			
176							Large coin, c/wise.	16.349	7.39, 8.11, 7.40, 6.85 (4)			
177					Hui Zong 1101-25	Obv: 聖宋元寶 Sheng Song yuan bao 1094-97	Seal	AE	Small coin, c/wise.	Selected varieties arranged by shape of the yuan.	16.354	3.54, 3.89, 2.73 (3)
178											16.356	3.64, 4.30, 3.53, 3.23, 2.26 (5)
179	16.357										3.03, 2.84, 3.62, 3.34, 4.36, 2.79, 3.42 (7)	
180	16.357a	2.81										
181	16.358	3.05										
182	16.359	3.39										
183	16.360	2.68, 3.16 (2)										
184	16.361	3.39										
185	Large coin, c/wise.	16.369	6.81, 8.00, 8.05 (3)									
186	Running	Small coin, c/wise.	Spread feet bao.	16.377							3.48, 2.69, 3.47 (3)	
187			Jaunty style.	16.378							2.97, 2.73, 3.49, 3.55, 4.20, 3.70, 4.27, 2.74, 3.20, 3.55 (10)	
188			Claw feet bao.	16.379	3.63, 2.74, 4.06, 3.44, 3.91, 3.94, 3.85, 3.01 (8)							

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189	Hui Zong 1101-25	Obv: 聖宋元寶 Sheng Song yuan bao 1094-97	Running	AE	Small coin, c/wise.	"Knotted" style Song.	16.381	3.47
190						Regular script, spread feet bao.	16.382	3.21, 3.69, 3.96 (3)
191					Large coin, c/wise.	Feet of bao dots.	16.393	5.10, 7.36, 6.63, 6.50 (4)
192		Obv: 崇寧通寶 Chong Ning tong bao 1102-06	Slender Gold	AE	Small coin (1 cash), c/wise. Slender Gold Style.		16.398	3.88, 3.48 (2)
193						Bottom of Chong like 禾(he).	16.400	9.53, 12.13, 8.57, 10.51 (4)
194		Obv: 崇寧重寶 Chong Ning zhong bao 1102-06	Li	AE	Large coin (10 cash).	Smaller size? 5 cash.	16.406	9.12
195						Large characters.	16.407	7.73, 12.23, 10.57, 10.50, 11.11, 9.17, 9.38, 7.89 (8)
196						Thin chracters.	16.408	7.92, 9.49, 10.54, 9.26 (4)
197		Obv: 大觀通寶 Da Guan tong bao 1107-10	Slender Gold	AE	Small coin. Slender Gold Style.	Common variety.	16.418	3.15, 3.75, 3.76, 3.63, 3.07, 3.51, 3.88, 3.85, 3.98, 4.09, 3.59, 3.71, 3.19, 3.16 (14)
198								Fe
199				AE	10 cash (diam. 42mm).	16.422	7.80	
200								16.426
201		Obv: 政和通寶 Zheng He tong bao 1111-17	Seal	AE	Small coin.	Large characters.	16.428	2.03, 1.96, 3.28, 3.72, 2.64, 2.23, 2.95, 3.43 (8)
202						Small characters, square bao.	16.429	2.92, 1.75, 3.17 (3)
203						Small characters, round bao.	16.430	3.17, 3.32, 3.51, 3.97 (4)
204					Large coin.	Narrow rims.	16.436	8.04, 4.61, 4.98, 6.14, 4.69, 8.26, 6.00, 7.00 (8)
205	Round bao.					16.437	6.89, 6.38, 5.66 (3)	
206	Li				AE	Small coin.	Head of tong merged with the body, large characters.	16.441
207			Head of tong separate from body.	16.442			3.46, 3.46, 2.90, 3.74, 3.21, 4.19, 3.90, 3.71, 4.38 (9)	
208			政 Zeng written with 攵, not 支.	16.444		3.68		
209			Large coin.	Square bao		16.448	4.64, 6.41, 7.39, 4.30 (4)	
210	Round bao.			16.449	7.71, 4.05, 5.71, 7.22 (4)			
211		Regular script tong.	16.450	5.51				
212	Regular	Small coin.	政 Zeng written with 支.	16.458	2.80			
213	Obv: 宣和元寶 Xuan He yuan bao 1119-25	Seal	AE	c/wise.	Large characters.	16.467	3.91	
214	Obv: 宣和通寶 Xuan He tong bao 1119-25	Seal	AE	Small coin.	Large characters.	16.470	3.44, 3.49, 3.82 (3)	
215					Round bao.	16.471	3.39, 3.18, 3.29 (3)	
216					Large coin.	Large size.	16.475	8.22

217	Hui Zong 1101-25	Obv: 宣和通寶 Xuan He tong bao 1119-25	Seal	AE	Large coin.	Normal size.	16.476	6.60, 6.87, 6.44, 6.33, 5.43 (5)		
218						Small size, square bao.	16.477	6.20, 5.53, 6.25, 5.88, 4.04, 6.72, 6.49, 4.85 (8)		
219						Narrow rim, small characters.	16.478	6.12, 8.32 (2)		
220			Small coin.		Semicircular bao.	16.482	4.00, 2.89, 3.66, 3.70 (4)			
221					Head of Xuan square, square bao.	16.482a	3.84			
222			Li		Large coin, Li script bao.	Regular size.	16.492	5.98, 6.49, 6.76, 6.63, 5.70 (5)		
223						Small size.	16.493	6.89		
224						Long feet bao.	16.494	5.67		
225						Tong in regular script with 通.	16.495	6.32, 5.32 (2)		
226						Large coin, regular script bao.	Small characters, narrow rim.	16.497	5.63	
227					Small characters, broad rim.	16.498	6.64, 6.79 (2)			
228					Slender Gold	AE	Slender Gold Style. Rev: 陝 Shan. Shaanxi Region.	16.500	3.55, 3.82 (2)	
229			Qin Zong 1126-27		Obv: 靖康元寶 Jing Kong yuan bao 1126-27	Seal	AE	Large coin, c/wise.	16.507	5.31
230					Obv: 靖康通寶 Jing Kong tong bao 1126-27	Li	Fe	Small coin, iron.	16.518	4.80

Table 4 The Southern Song Dynasty (1127-1279)

No.	Emperor Date	Type	Script	Metal	Features	Reference	Weights (No. of coins)			
1	Gao Zong 1127-62	Ovb: 建炎通寶 Jian Yan tong bao 1127-30	Seal	AE	Small coin.	Large character.	17.3	3.23, 3.02, 3.58 (3)		
2						Fine characters, broad rim.	17.4	2.85		
3					Large coin, 2 cash, large characters.	17.9	4.23, 5.58, 4.54, 5.78, 4.80, 4.18 (6)			
4			Regular		Ordinary small coin.	17.15	3.34, 2.92 (2)			
5					A variety of 17.15.	17.17	1.94			
6					Small coin, elegant characters. Rev: Plain.	17.22	5.14			
7					Large coin, 2 cash.	Long characters.	17.26	4.10, 4.45, 5.92 (3)		
8						Slanting tong.	17.27	5.05, 3.94 (2)		
9			Ovb: 紹興元寶 Shao Xing yuan bao 1131-62		Seal	AE	Large coin, 2 cash, Seal Script and c/wise.	Rev: Plain.	17.36	4.21
10									17.37	5.43, 3.95 (2)
11								Rev: Crescent above.	17.38	6.83, 4.38, 5.55, 5.73 (4)

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12	Gao Zong 1127-62	Obv: 紹興元寶 Shao Xing yuan bao 1131-62	Seal	AE		Rev: Crescent above, dot below.	17.39	6.17, 4.64, 6.98 (3)
13			Regular		Small coin, c/wise and made.	unofficially	17.43	2.37, 2.69, 2.17, 2.24, 2.42, 2.38 (6)
14			Large coin, 2 cash.		Rev: Plain.	17.45	5.39, 5.58, 2.96, 3.28 (4)	
15					Rev: Crescent above.	17.46	6.83, 7.54 (2)	
16					Rev: Crescent above, dot below.	17.47	4.86, 5.95, 7.10 (3)	
17					Kai dang yuan (Open crutch yuan). Rev: as above.	17.48	6.33	
18	Obv: 紹興通寶 Shao Xing tong bao 1131-62	Regular	AE	Large coin.	2 cash. Rev: Plain.	17.58	6.19, 5.42, 7.17, 7.99, 5.14, 5.68 (6)	
19					3 cash.	17.62	6.46, 5.94 (2)	
20	Obv: 隆興元寶 Long Xing yuan bao 1163-64	Seal	AE	Large coin, c/wise.	Normal coin, Seal Script.	17.65	4.90	
21		Regular	AE		Ordinary charac- ters.	17.76	6.39	
22	Obv: 乾道元寶 Qian Dao yuan bao 1163-73	Seal	AE	Large coin, c/wise and small charac- ters.	Rev: Plain.	17.89	4.48	
23					Rev: Crescent above, dot below.	17.91	4.75, 6.75 (2)	
24					Regular	Regular Script.	17.123	5.09
25	Xiao Zong 1163-90	Obv: 淳熙元寶 Chun Xi yuan bao 1174-89	Seal	AE	c/wise.	Small coin. Rev: Crescent above.	17.159	3.64
26			Regular		Small coin, c/wise.	Rev: Plain.	17.185	2.86, 2.21, 2.88 (3)
27			Small coin, c/wise. Rev: Crescent above, dot below.		6 stroke bao.	17.186	3.91, 3.64, 3.90, 2.48, 3.79 (5)	
28					7 stroke bao.	17.187	3.82	
29			Rev: 柒 qi (7- 1180).		17.189	3.25, 3.31, 3.78, 3.86 (4)		
30			Rev: 捌 ba (8- 1181).		17.190	2.13, 3.63, 3.80 (3)		
31			Rev: 九 jiu (9-1182).		17.191	2.99, 2.56, 3.01 (3)		
32			Rev: 十 shi (10-1183).		17.192	1.92, 2.64, 3.65 (3)		
33			Rev: 十一 shi yi (11-1184).		17.193	3.31, 3.21, 3.68 (3)		
34			Rev: 十二 shi er (12-1185).		17.194	2.35, 2.56, 3.66 (3)		
35			Rev: 十三 shi san (13-1186).		17.195	3.82, 2.74, 3.20 (3)		
36			Rev: 十四 shi si (14-1187).		17.196	2.42, 3.68, 3.72 (3)		
37			Rev: 十五 shi wu (15-1188).		17.197	2.88, 3.54, 3.68 (3)		

38			Regular		Rev: 十六 shi liu (16-1189).	17.198	3.31, 2.89, 3.62 (3)			
39					Rev: Plain.	17.225	7.72			
40				Large coin, c/wise.	Large characters. Rev: Crescent above, dot below.	17.226	6.83, 5.52, 8.55 (3)			
41					Small characters. Rev: Crescent above, dot below.	17.227	4.23			
42					Rev: 柒 qi (7- 1180).	17.228	5.53			
43					Rev: 捌 ba (8- 1181).	17.229	6.18, 6.09 (2)			
44	Xiao Zong 1163-90	Obv: 淳熙元寶 Chun Xi yuan bao 1174-89	Regular	AE	Rev: 九 jiu (9-1182).	17.230	5.85, 5.76 (2)			
45					Rev: 十 shi (10-1183).	17.231	6.30, 5.27 (2)			
46					Large coin, c/wise. Rev: Number for the year of casting below.	Rev: 十一 shi yi (11-1184).	17.232	4.47, 6.29 (2)		
47						Rev: 十二 shi er (12-1185).	17.233	5.54, 5.42 (2)		
48						Rev: 十三 shi san (13-1186).	17.234	6.44, 8.12 (2)		
49						Rev: 十四 shi si (14-1187).	17.235	6.88, 6.35 (2)		
50						Rev: 十五 shi wu (15-1188).	17.236	4.92, 7.08, 5.59 (3)		
51						Rev: 十六 shi liu (16-1189).	17.237	3.90, 3.84 (2)		
52						Large coin, c/wise.	Rev: 正 Zheng below.	17.238	5.95	
53			Guang Zong 1190-94		Obv: 紹熙元寶 Shao Xi yuan bao 1190-94	Regular	AE	Rev: 元 yuan (1st-1190).	17.315	2.84, 3.60, 3.71, 3.11 (4)
54									Small coin, c/wise. Rev: Number for the year of casting below.	Rev: 二 er (2-1191).
55				Rev: 三 san (3-1192).				17.317	2.98, 3.80, 3.00 (3)	
56				Rev: 四 si (4-1193).				17.318	2.88, 3.27, 3.66 (3)	
57				Rev: 五 wu (5-1194).				17.319	3.38, 3.50, 3.73 (3)	
58				Regular		Rev: 元 yuan (1st-1190).		17.335	5.66	
59						Large coin(2 cash), c/wise. Rev: Number for the year of casting below.		Rev: 二 er (2-1191).	17.336	5.32
60								Rev: 三 san (3-1192).	17.337	7.75, 6.70, 5.32, 7.40 (4)
61								Rev: 四 si (4-1193).	17.338	6.65, 6.51 (2)
62								Rev: 五 wu (5-1194).	17.339	7.71, 4.04, 6.41 (3)
63					Rev: 元 yuan (1st-1195).	17.385	4.23, 3.08, 3.52, 3.33(4)			

64	Ning Zong 1195-1224	Obv: 慶元通寶 Qing Yuan tong bao 1195-1200	Regular	AE	Small coin, c/wise. Rev: Number for the year of casting below.	Rev: 二 er (2-1196).	17.386	3.49, 3.44, 3.06 (3)				
65						Rev: 三 san (3-1197).	17.387	2.95, 3.42 (2)				
66						Rev: 四 si (4-1198).	17.388	3.98, 3.40, 3.59 (3)				
67						Rev: 五 wu (5-1199).	17.389	3.78, 3.57, 3.33 (3)				
68						Rev: 六 liu (5-1200).	17.390	2.62, 2.75, 2.95, 2.87 (4)				
69					Rev: 元 yuan (1st-1195).	17.414	5.60					
70					Rev: 二 er (2-1196).	17.415	7.93, 6.67 (2)					
71					Large coin (2 cash), c/wise. Rev: Number for the year of casting below.	Rev: 三 san (3-1197).	17.416	4.31, 5.04, 6.42 (3)				
72						Rev: 四 si (4-1198).	17.417	6.74				
73						Rev: 五 wu (5-1199).	17.418	6.04				
74						Rev: 六 liu (5-1200).	17.419	4.77, 5.37 (2)				
75						Large coin (3 cash). Rev: Number for the year of casting below.	Rev: 四 si (4-1198).	17.445	10.34, 10.62 (2)			
76					Rev: 五 wu (5-1199).		17.446	8.77				
77					Ning Zong 1195-1224	Obv: 嘉泰通寶 Jia Tai tong bao 1201-04	Regular	AE	Small coin. Rev: Number for the year of casting above.	Rev: 元 yuan (1st-1201).	17.482	3.17, 2.32, 3.40, 3.46 (4)
78										Rev: 二 er (2-1202).	17.483	3.58, 3.33 (2)
79	Rev: 三 san (3-1203).	17.484	3.26, 2.94, 2.65, 4.18 (4)									
80	Rev: 四 si (4-1204).	17.485	3.00, 3.35, 3.51 (3)									
81	Large coin (2 cash). Rev: Number for the year of casting above.	Rev: 元 yuan (1st-1201).	17.492	5.12, 5.84 (2)								
82		Rev: 二 er (2-1202).	17.493	4.91, 6.34 (2)								
83		Rev: 三 san (3-1203).	17.494	6.91, 7.06, 5.93 (3)								
84		Rev: 四 si (4-1204).	17.495	5.72, 6.77 (2)								
85	Ning Zong 1195-1224	Obv: 開禧通寶 Kai Xi tong bao 1205-07	Regular	AE	Small coin, c/wise. Rev: Number for the year of casting above.	Rev: 元 yuan (1st-1205).	17.508	2.67, 3.03, 3.25, 2.88 (4)				
86						Rev: 二 er (2-1206).	17.509	3.32, 4.00, 3.57 (3)				
87						Rev: 三 san (3-1207).	17.510	3.91, 3.74, 4.65 (3)				
88					Large coin (2 cash), c/wise. Rev: Number for the year of casting above.	Rev: 元 yuan (1st-1205).	17.517	6.12, 5.98 (2)				
89						Rev: 二 er (2-1206).	17.518	6.59				

90		Obv: 開禧通寶 Kai Xi tong bao 1205-07	Regular	AE		Rev: 三 san (3-1207).	17.519	3.74
91				Fe	Large coin (2 cash). Rev: Han above.	Rev: 二 er (2-1206) above. Mint: Hanyang.	17.525	4.88
92						Rev: 元 yuan (1st-1208).	17.539	3.20, 3.78, 3.60, 4.04 (4)
93						Rev: 二 er (2-1209).	17.540	2.58, 2.57, 4.64, 3.41 (4)
94						Rev: 三 san (3-1210).	17.541	3.23, 3.10, 3.55 (3)
95						Rev: 四 si (4-1211).	17.542	3.55
96					Small coin. Rev: Number for the year of casting above/below.	Rev: 五 wu (5-1212).	17.543	3.19, 3.89, 4.21 (3)
97						Rev: 六 liu (6-1213).	17.544	2.48, 4.06, 2.94 (3)
98						Rev: 七 qi (7-1214).	17.545	3.33, 3.50 (2)
99						Rev: 八 ba (8-1215).	17.546	3.27, 3.49, 3.50 (3)
100						Rev: 九 jiu (9-1216)	17.547	3.20, 3.65 (2)
101						Rev: 十 shi (10-1217).	17.548	3.15, 3.22, 3.43 (3)
102	Ning Zong 1195-1224	Obv: 嘉定通寶 Jia Ding tong bao 1208-24	Regular	AE		Rev: 十一 shi yi (11-1218).	17.549	3.39, 2.38, 3.71 (3)
103						Rev: 十二 shi er (12-1219).	17.550	2.88, 2.63, 2.63 (3)
104						Rev: 十三 shi san (13-1220).	17.551	2.71, 3.74, 3.40 (3)
105						Rev: 十四 shi si (14-1221).	17.552	3.20
106						Rev: 元 yuan (1st-1208).	17.554	4.62, 7.96 (2)
107						Rev: 三 san (3-1210).	17.556	7.47, 6.51 (2)
108						Rev: 四 si (4-1211).	17.557	6.92, 5.77 (2)
109						Rev: 五 wu (5-1212).	17.558	7.76, 6.80, 6.91 (3)
110					Large coin (2 cash). Rev: Number for the year of casting above/below.	Rev: 六 liu (6-1213).	17.559	7.25
111						Rev: 七 qi (7-1214).	17.560	7.11, 3.75 (2)
112						Rev: 八 ba (8-1215).	17.561	6.46, 6.11 (2)
113						Rev: 九 jiu (9-1216).	17.562	5.70, 7.02 (2)
114						Rev: 十 shi (10-1217).	17.563	5.51
115						Rev: 十一 shi yi (11-1218).	17.564	5.59, 5.98 (2)
116						Rev: 十二 shi er (12-1219).	17.565	7.80

117	Ning Zong 1195-1224	Obv: 嘉定通寶 Jia Ding tong bao 1208-24	Regular	AE		Rev: 十三 shi san (13-1220).	17.566	5.32, 4.30, 6.12, 6.60 (4)	
118						Rev: 十四 shi si (14-1221).	17.567	3.67	
119	Li Zong 1225-64	Obv: 大宋元寶 Da Song yuan bao 1225-27	Regular	AE	Small coin, c/wise. Rev: Number for the year of casting below.	Rev: 元 yuan (1st-1225).	17.679	3.46, 4.03, 3.97 (3)	
120						Rev: 二 er (2-1226).	17.680	3.50	
121						Rev: 三 san (3-1227).	17.681	3.32, 3.79 (2)	
122					Large coin, c/wise. Rev: Number for the year of casting below.	Rev: 元 yuan (1st-1225).	17.687	6.12	
123						Rev: 二 er (2-1226).	17.688	5.95	
124						Rev: 三 san (3-1227).	17.689	5.14, 4.43 (2)	
125				Regular	AE	Small coin. Rev: Number for the year of casting above.	Rev: 元 yuan (1st-1228).	17.696	3.57, 3.75 (2)
126							Rev: 二 er (2-1229).	17.697	3.52, 3.86, 3.13 (3)
127							Rev: 三 san (3-1230).	17.698	2.83, 3.64, 3.05, 2.44 (4)
128							Rev: 四 si (4-1231).	17.699	3.61, 4.16, 3.11 (3)
129							Rev: 五 wu (5-1232).	17.700	3.83, 3.35, 3.24 (3)
130							Rev: 六 liu (6-1233).	17.701	3.86, 1.84, 3.41 (3)
131	Large coin (2 cash). Rev: Number for the year of casting above.					Rev: 元 yuan (1st-1228).	17.713	6.50, 5.01, 7.42 (3)	
132						Rev: 二 er (2-1229).	17.714	4.91, 7.36 (2)	
133						Rev: 三 san (3-1230).	17.715	5.74, 5.69, 7.55 (3)	
134						Rev: 四 si (4-1231).	17.716	7.79, 5.14 (2)	
135	Rev: 五 wu (5-1232).	17.717	6.45, 6.54 (2)						
136	Rev: 六 liu (6-1233).	17.718	3.87						
137		Obv: 端平元寶 Duan Ping yuan bao 1234-36	Regular	AE	Small coin, c/wise. Rev: Number for the year of casting below.	Rev: 元 yuan (1st-1234).	17.721	3.87, 4.17, 4.48, 3.47 (4)	
138		Obv: 端平通寶 Duan Ping tong bao 1234-36	Regular	AE	5 cash. Rev: Plain.	Long bao.	17.741	12.17	
139	Regular bao.					71.742	10.70		
140		Obv: 嘉熙通寶 Jia Xi tong bao 1237-40	Regular	AE	Small coin. Rev: Number for the year of casting above.	Rev: 元 yuan (1st-1237).	17.751	3.21, 3.17, 3.43 (3)	
141	Rev: 二 er (2-1238).					17.752	3.93, 3.73, 2.66, 3.35 (4)		
142	Rev: 三 san (3-1239).					17.753	3.35, 2.80, 4.04 (3)		

143		Obv: 嘉熙通寶 Jia Xi tong bao 1237-40	Regular	AE		Rev: 四 si (4-1240).	17.754	3.40, 3.02 (2)
144					Large coin (2 cash).	Rev: 四 si (4-1240) above.	17.758	5.21
145					Small coin, c/wise. Rev: Number for the year of casting above/below.	Rev: 元 yuan (1st-1241).	17.778	2.96, 2.60, 3.35 (3)
146				Rev: 二 er (2-1242).		17.779	3.20, 3.39 (2)	
147				Rev: 三 san (3-1243).		17.780	3.05, 3.62, 2.80 (3)	
148				Rev: 四 si (4-1244).		17.781	2.78, 2.91, 3.07 (3)	
149				Rev: 五 wu (5-1245).		17.782	2.20, 3.01, 3.59 (3)	
150				Rev: 六 liu (6-1246).		17.783	2.97	
151				Rev: 七 qi (7-1247).		17.784	3.49	
152				Rev: 八 ba (8-1248).		17.785	3.72	
153				Rev: 九 jiu (9-1249).		17.786	3.42, 3.60 (2)	
154		Obv: 淳祐元寶 Chun You yuan bao 1241-52	Regular	AE		Rev: 十 shi (10-1250).	17.787	3.67, 3.20, 3.60, 3.23 (4)
155	Li Zong 1225-64					Rev: 十一 shi yi (11-1251).	17.788	3.34, 3.44, 3.24 (3)
156						Rev: 十二 shi er (12-1252).	17.789	3.39, 3.55, 3.61 (3)
157						Large coin (2 cash), c/wise. Rev: Number for the year of casting above/below.	Rev: 元 yuan (1st-1241).	17.790
158					Rev: 二 er (2-1242).		17.791	6.17
159					Rev: 四 si (4-1244).		17.793	4.73
160					Rev: 五 wu (5-1245).		17.794	4.23, 4.68 (2)
161					Rev: 六 liu (6-1246).		17.795	5.49
162					Rev: 七 qi (7-1247).		17.796	4.60
163					Rev: 八 ba (8-1248).		17.797	5.27
164					Rev: 九 jiu (9-1249).		17.798	7.44, 4.11 (2)
165					Rev: 十 shi (10-1250).		17.799	4.60
166					Coarse characters. ?17.790-801.		illegible	6.42
167			illegible	5.05				
168		Obv: 皇宋元寶 Huang Song yuan bao 1253-58	Regular	AE	Small coin, c/wise.	Rev: 元 yuan (1st-1253).	17.813	3.34, 4.20 (2)
169					Rev: Number for the year of casting above/below.	Rev: 二 er (2-1254).	17.814	2.40, 3.63 (2)
170					Rev: 三 san (3-1255).	17.815	2.23, 3.38, 3.04 (3)	

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171					Small coin, c/wise.	Rev: 四 si (4-1256).	17.816	3.22, 3.03, 3.49, 4.14 (4)
172					Rev: Number for the year of casting above/below.	Rev: 五 wu (5-1257).	17.817	2.28, 2.68, 3.39 (3)
173						Rev: 六 liu (6-1258).	17.818	3.58, 3.28, 3.41, 3.60 (4)
174					?17.812-818.		illegible	2.49
175		Obv: 皇宋元寶 Huang Song yuan bao 1253-58	Regular	AE	Large coin (2 cash), c/wise, narrow rim.	Rev: 元 yuan (1st-1253).	17.821	4.38
176	Rev: 二 er (2-1254).					17.822	5.31, 4.21 (2)	
177	Rev: 三 san (3-1255).					17.823	4.62, 5.06 (2)	
178	Rev: 四 si (4-1256).					17.824	6.66, 4.59 (2)	
179	Rev: 五 wu (5-1257).					17.825	5.54	
180	Rev: 六 liu (6-1258).					17.826	5.05, 5.42 (2)	
181	Obv: 開慶通寶 Kai Qing tong bao 1259					Regular	AE	Rev: 元 yuan (1st-1259).
182		Large (2 cash) coin.	17.828	3.97, 4.31 (2)				
183	Li Zong 1225-64	Regular	AE	Small coin. Rev: Number for the year of casting above/below.	Rev: 元 yuan (1st-1260).	17.830	2.91, 3.67, 3.41, 3.50 (4)	
184					Rev: 二 er (2-1261).	17.831	3.31, 4.30, 3.16 (3)	
185					Rev: 三 san (3-1262).	17.832	3.37, 2.91, 3.34 (3)	
186					Rev: 四 si (4-1263).	17.833	2.22, 3.11 (2)	
187					Rev: 五 wu (5-1264).	17.834	3.95	
188					Large coin (2 cash).	Rev: Plain.	17.835	4.02
189					Large coin (2 cash). Rev: Number for the year of casting above/below.	Rev: 元 yuan (1st-1260).	17.836	5.18
190						Rev: 二 er (2-1261).	17.837	4.52
191						Rev: 三 san (3-1262).	17.838	5.06, 4.96, 5.98, 5.09 (4)
192						Rev: 四 si (4-1263).	17.839	5.62, 5.72 (2)
193						Rev: 五 wu (5-1264).	17.840	4.75
194	Du Zong 1265-74	Regular	AE	Small coin. Rev: Number for the year of casting above.	Rev: 元 yuan (1st-1265).	17.841	3.41, 3.79, 2.82 (3)	
195					Rev: 二 er (2-1266).	17.842	2.79, 2.83, 3.45, 3.07, 1.76 (5)	
196					Rev: 三 san (3-1267).	17.843	3.10, 2.93, 3.20 (3)	
197					Rev: 四 si (4-1268).	17.844	2.80, 3.44 (2)	

198	Du Zong 1265-74	Obv: 咸淳元寶 Xian Chun yuan bao 1265-74	Regular	AE	Small coin. Rev: Number for the year of casting above.	Rev: 五 wu (5-1269).	17.845	2.28, 2.74 (2)	
199						Rev: 六 liu (6-1270).	17.846	3.08	
200						Rev: 七 qi (7-1271).	17.847	3.31, 3.19 (2)	
201						Rev: 八 ba (8-1272).	17.848	3.03, 2.75, 2.98 (3)	
202					Large coin (2 cash). Rev: Plain.		17.849	4.06	
203					Rev: 元 yuan (1st-1265).		17.850	5.50, 4.17 (2)	
204					Rev: 二 er (2-1266).		17.851	5.19, 5.91, 4.51 (3)	
205					Rev: 三 san (3-1267).		17.852	5.30	
206					Large coin (2 cash). Rev: Number for the year of casting above.		Rev: 四 si (4-1268).	17.853	6.42, 3.48, 4.63 (3)
207					Rev: 五 wu (5-1269).		17.854	4.20, 3.39, 3.88 (3)	
208					Rev: 六 liu (6-1270).		17.855	4.49, 4.43 (2)	
209					Rev: 七 qi (7-1271).		17.856	5.36, 4.52 (2)	
210					Rev: 八 ba (8-1272).		17.857	3.28	

Table 5 The Tartar Dynasties (1032-1227)

No.	Dynasty	Emperor Date	Type	Script	Metal	Features	Reference	Weights (No. of coins)		
1	Liao 907-1125	Dao Zong 1055-1101	Obv: 咸雍通寶 Xian Yong tong bao 1065-74	Regular	AE	c/wise, poor workmanship.	18.14	3.88		
2			Obv: 大安元寶 Xian Yong tong bao 1085-94		AE				Small 安 An.	18.17
3		Tian Zuo 1101-25	Obv: 乾統元寶 Qian Tong yuan bao 1101-1110		AE				18.21	2.48
4	Jin 1115-1234	Wan Yan Liang 1149-61	Obv: 正隆元寶 Zheng Long yuan bao 1158-61	Regular	AE	c/wise, the bottom horizontal stroke doesn't protude to the left.	18.40	3.25, 3.48, 2.46, 3.24, 3.78 (5)		
5		Shi Zong 1161-90	Obv: 大定通寶 Da Ding tong bao 1178-89	Regular	AE	1 cash.	Rev: Plain.	18.42	3.70, 3.51, 3.47, 2.75 (4)	
6							Rev: 申 Shen above.	18.43	3.55	
7							Rev: 申 Shen below.	18.44	3.03	
8							Rev: 酉 You above.	18.47	3.16, 3.55 (2)	
9							Rev: 酉 You below.	18.48	2.88, 2.98 (2)	
10		2 cash.			18.53	4.17				

11	Jin 1115-1234	Zhang Zong 1190-1209	Obv: 泰和重寶 Tai He zhong bao 1204-9	Seal	AE	10 cash, narrow rim.	18.63	18.49, 18.03, 19.62 (3)
12		Ren Zong 1139-93	Obv: 天盛元寶 Tian Sheng yuan bao 1149-69	Regular	AE		18.97	3.27, 3.07 (2)
13	The Western Xia 1032-1227	Huan Zong 1194-1206	Obv: 天慶元寶 Tian Qing yuan bao 1194-1206	Regular	AE	c/wise.	Rev: Crescent above.	18.107 3.39
14		Xiang Zong 1206-11	Obv: 皇建元寶 Huang Jian yuan bao 1210-11	Regular	AE		18.108	4.07

Table 6 The Yuan Dynasty (1280-1368)

No.	Emperor Date	Type	Script	Metal	Features	Reference	Weights (No. of coins)		
1	Mongol Khans	Obv: 大朝通寶 Da Chao tong bao ?1206-27	Regular	AR	This coin is alleged to have been cast by the legendary Ghengis Khan at his capital.	19.1	2.88		
2	Shi Zu 1260-94	Obv: (Mongol) 至元通寶寶 Zhi Yuan tong bao 1285-94	Mongol	AE	Regular coin 3 cash size.	19.15	9.83		
3	Cheng Zong 1294-1307	Obv: 大德通寶 Da De tong bao 1297-1307	Regular	AE	Regular coin, broad rims.	19.30	5.30		
4		Obv: 至大通寶 Zhi Da tong bao 1310-11	Regular	AE	Regular coin.	19.39	3.97, 3.82, 3.39, 3.37, 3.09, 4.55, 3.98 (7)		
5	Wu Zong 1308-11		Regular		Slender Gold calligraphic style.	19.42	3.33		
6		Obv: (Mongol) 大元通寶 Da Yuan tong bao 1310-11	Mongol	AE	10 cash, narrow rim.	19.46	23.63, 19.14, 18.03, 23.35, 20.32, 19.12 (6)		
7					1 cash size. Rev: Maw (1351)	19.94	3.20, 3.12 (2)		
8					Mongol word on re- verse above	1 cash size. Rev: Shin (1352)	19.95	3.89	
9					for the cycli- cal charac- ters for the	2 cash size. Rev: Maw (1351)	19.99	6.35	
10	Shun 1333-68	Obv: 至正通寶寶 Zhi Zheng tong bao from 1350	Regular, Slender Gold calli- graphic style.	AE	for the year of cast- ing.	2 cash size. Rev: U (1354)	19.102	5.24	
11						3 cash size. Rev: Shin (1352)	19.105	11.69	
12						Various Mongol inscriptions for date or denomination.	Rev: Rhi above, 二 below.	19.108	4.66, 5.53 (2)
13							Rev: Sam above, 三 below.	19.109	11.83

14	Shun 1333-68	Obv: 至正通寶 Zhi Zheng tong bao from 1350	Regular, Slender Gold calli- graphic style.	AE	10 cash. Obv: Coarse characters. Rev: Shi above.	19.115	26.50
15					10 cash. Rev: Seu above, dot and + below.	19.117	31.90, 31.50 (2)
16		Obv: 至正之寶 Zhi Zheng Zhi Bao from 1350		AE	Rev: 吉 Ji above, 權鈔 Quan Chao right and 伍錢 Wu qian left.	19.124	178.04
17	Han Lin'er	Obv: 龍鳳通寶 Long Feng tong bao 1355-66	Regular	AE	3 cash size.	19.132	12.19
18	?	Obv: 大元至治	Regular	AE	供養錢 Charm.	J310.2 上	4.74

Table 7 The Ming Dynasty (1368-1644)

No.	Emperor Date	Type	Script	Metal	Features	Reference	Weights (No. of coins)	
1	Zhu Yuanzhang as Prince of Wu	Obv: 大中通寶 Da Zhong tong bao 1361-68	Regular	AE	1 cash.	Seven stroke bei, one dot tong and fine calligraphy. Rev: Plain.	20.1	2.94, 3.09 (2)
2					Rev: 北平 Bei Ping above. Mint: Peking.	20.4	3.30	
3					2 cash.	Rev: Plain.	20.13	4.85, 5.41 (2)
4					5 cash.	Rev: Plain.	20.33	15.32
5					10 cash.	Rev: 十 shi above.	20.45	21.20
6						Rev: 十廣 Shi Guang above and right. Mint: Guandong.	20.52	18.65
7						Rev: 桂十 Gui shi above and below. Mint: Guilin.	20.53	19.92
8	Tai Zu 1368-98	Obv: 洪武通寶 Hong Wu tong bao	Regular	AE	1 cash.	Obv: One dot tong, regular Wu.	20.57	3.12, 3.66, 3.82, 3.27, 2.76, 3.03, 3.06, 2.97, 2.20, 3.01, 3.33, 3.64, 3.01, 3.25, 3.01, 3.74 (16)
9					? 20.61-63	illegible	2.83	
10					Rev: 一錢 Yi qian right.	20.60	2.91, 2.82 (2)	
11					Rev: 北平 Bei Ping above. Mint: Peking.	20.62	4.14, 2.70, 2.36, 3.27 (4)	
12					Rev: 鄂 E above. Mint: Hubei province.	20.63	3.00	
13					Obv: 尔 er bao. Rev: 福 Fu below. Mint: Fujian province.	20.64	3.26	

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14	Tai Zu 1368-98	Obv: 洪武通寶 Hong Wu tong bao	Regular	AE		Obv: 缶 fou bao. Rev: 福 Fu below. Mint: Fujian province.	20.65	3.10
15					1 cash.	Rev: 桂 Gui above. Mint: Guilin.	20.67	2.61, 2.26 (2)
16						Rev: 浙 Zhe above. Mint: Zhejiang province.	20.71	2.96, 3.51, 2.80 (3)
17					2 cash.	Rev: 二福 Er Fu above and below. Mint: Fujian province.	20.79	7.34
18					3 cash.	Rev: 三錢 San qian right.	20.87	10.62, 8.40 (2)
19					3 cash. Mint: Fujian province.	Rev: 三福 San Fu above and below.	20.91	9.84
20						Smaller than usuall.	20.91	9.66
21					5 cash. Mint: Fujian province.	Rev: 五福 Wu Fu above and below.	20.103	15.05
22								
23					10 cash. Mint: Fujian province.	Rev: 十福 Shi Fu above and below.	20.115	29.23
24								
25	Cheng Zu 1403-24	Obv: 永樂通寶 Yong Le tong bao	Regular	AE	Regular size.	20.121	2.78, 2.81, 4.49 (3)	
26					Large size.	20.122	3.08, 2.43, 2.81, 3.28, 3.57, 2.83, 3.35, 3.43 (8)	
27	Xuan Zong 1426-35	Obv: 宣德通寶 Xuan De tong bao	Regular	AE		20.123	3.54, 4.11, 3.96, 2.75, 4.04 (5)	
28	Xiao Zong 1488-1505	Obv: 弘治通寶 Hong Zhi tong bao	Regular	AE	彳 radical of 治 written with two strokes- the Ming coin.	20.124	3.31, 2.98, 5.32, 4.01, 3.76 (5)	
29					彳 radical of 治 written with three strokes- a Vietnamese product.	20.125	3.68, 2.44 (2)	
30	Shi Zong 1522-67	Obv: 嘉靖通寶 Jia Jing tong bao	Regular	AE	1 cash.	Regular type.	20.128	4.43, 4.80, 3.40, 4.41, 3.51, 3.01 (6)
31						Angular script.	20.129	3.11, 4.40, 4.36 (3)
32	Mu Zong 1567-72	Obv: 隆慶通寶 Long Qing tong bao	Regular	AE	Rev: Plain.	20.138	3.48, 4.01, 4.61 (3)	
33	Shen Zong 1573-1620	Obv: 萬曆通寶 Wan Li tong bao	Regular	AE	Rev: Plain.	Regular characters.	20.140	4.17, 3.71, 4.21, 4.23, 4.27, 3.57, 3.83 (7)
34						Large characters.	20.141	5.05, 3.19, 4.17 (3)
35					Rev: Large dot above.	20.142	4.73	
36					Rev: Small dot above.	20.143	3.31, 3.57 (2)	
37					Rev: Crescent above.	20.149	3.59	
38					Rev: 工 Gong above. Mint: The Board of Works.	20.152	3.66	
39					Small coin, 2 cash size coin.	20.167	4.06, 3.80 (2)	

40	Guang Zong 1620	Obv: 泰昌通寶 Tai Chang tong bao	Regular	AE	Rev: Plain, one dot tong.	20.168	4.03, 4.15 (2)	
41					Rev: Dot above, on rim of hole.	20.171	3.41	
42					Rev: Dot above.	20.172	3.49	
43	Xi Zong 1621-27	Obv: 天啓通寶 Tian Qi tong bao	Regular	AE	1 cash. Rev: Plain.	Regular characters.	20.180	3.43, 3.64, 2.49, 3.05, 3.52, 2.91, 3.26, 2.43, 2.51, 3.34, 3.10 (11)
44						Coarse characters. Smaller and thicker than usual.	20.180a	4.91, 3.20 (2)
45						Large characters.	20.181	3.40
46						Large size.	20.182	5.56, 5.00 (2)
47					Rev: Dot above.	20.183	3.61	
48					Rev: Dot below.	20.185	3.49, 3.64 (2)	
49					Rev: 戶 Hu above. Mint: The Board of Revenue.	20.193	2.46, 3.31 (2)	
50					Rev: 工 Gong above. Mint: The Board of Works.	20.195	3.25	
51					Rev: 工 Gong below. Mint: The Board of Works.	20.196	1.86, 2.08, 2.94, 3.07, 1.96 (5)	
52					Rev: Inverted 工 Gong above. Mint: The Board of Works.	20.197	1.74, 1.42 (2)	
53					Rev: Large 院 Yuan above.	20.202	2.70, 3.23 (2)	
54					Rev: 云 Yun above. Mint: Yunnan province.	20.203	3.02, 3.31, 3.35, 5.38 (4)	
55					Rev: 浙 Zhe above. Mint: Zhejiang province.	20.204	3.73	
56					Rev: 鎮 Zhen above. Mint: Attributed to various garrison mints in Zhili.	20.205	4.32	
57					Rev: 壹錢 Yi qian right and left.	20.206	2.98	
58					Rev: Yi qian above and below.	20.212	2.34	
59					Rev: 一錢一分 Yi qian yi fen right and left. Mint: New.	20.215	2.12	
60					2 cash.	Rev: Incuse circle right.	20.224	5.31
61	10 cash.	Rev: 十 Shi above.	20.226	27.00				

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62	Xi Zong 1621-27	Obv: 天啓通寶 Tian Qi tong bao	Regular	AE	10 cash.	Rev: 十 Shi above, 一兩 Yi liang right.	20.229	34.24, 32.39, 32.88 (3)
63						Rev: 密 Mi left. Mint: Miyun.	20.231	34.04
64	Si Zong 1628-44	Obv: 崇禎通寶 Chong Zhen tong bao	Regular	AE	ㄣ Zhen. Larger coin, closed head and one dot tong.	Rev: Plain.	20.235	3.04, 4.13, 3.00, 3.88, 3.62 (5)
65						Rev: 官 Guan above. Mint: Tongguanshan.	20.237	3.61, 3.77 (2)
66						Rev: 官 Guan above, crescent below.	20.238	2.81
67						Mint: Tongguanshan.	20.238	2.67
68						Rev: 榆 Yu above. Mint: Yulin prefecture.	20.239	3.07
69					ㄣ Zhen. 2 cash.	Rev: 二 Er right.	20.243	6.23, 5.76, 5.93, 6.02 (4)
70					ㄣ Zhen. Smaller coin, closed head and one dot tong. Obverse calligraphy as 20.235 or 20.248.	Rev: Plain.	20.248	2.68, 3.03, 2.82, 2.59, 3.25, 2.03 (6)
71						Rev: Circle above.	20.249	2.43, 2.96 (2)
72						Rev: 乙 Yi above. 乙 for the date 1635.	20.251	3.08, 3.35, 3.62, 3.32 (4)
73						Rev: 戊 Wu above. 戊 for the date 1638.	20.255	3.43, 3.09 (2)
74						Rev: 己 Ji above. 己 for the date 1639.	20.256	3.86, 3.33 (2)
75						Rev: Yi above, 錢 qian below.	20.261	2.71, 2.76, 2.42 (3)
76						Rev: Yi qian right. Qian abbreviated like 力.	20.263	3.26, 3.26, 3.47 (3)
77						A variety of 20.263. 示 Zhen.	20.263a	3.17, 3.58, 2.57 (3)
78						Rev: Yi above, qian below. Qian abbreviated like 力.	20.264	3.13, 3.17 (2)
79						Rev: 戶 Hu above. Mint: The Board of Revenue.	20.266	3.19, 2.92, 2.67 (3)
80						Rev: 新 Xin above. Mint: New.	20.267	2.08, 2.26, 2.30, 3.45, 3.71, 3.12 (6)
81						Rev: 工 Gong below. Mint: The Board of Works.	20.269	2.46, 2.30, 2.81, 2.98 (4)
82	Small character. Rev: 府 Fu above. Mint: Xuanfu.	20.273	3.60, 3.99 (2)					
83	Rev: 重 Chong above. Mint: Chongqing.	20.274	2.64, 3.16, 2.51, 2.31 (4)					
84	Rev: 重 Chong above, dot below. Mint: Chongqing.	20.276	3.10, 3.97 (2)					

85	Si Zong 1628-44	Obv: 崇禎通寶 Chong Zhen tong bao	Regular	AE		Rev: 廣 Guang above. Mint: Guangdong province.	20.278	2.02, 1.94 (2)	
86						Rev: 季 Ji below.	20.281	1.44, 2.45 (2)	
87						Rev: 加 Jia above. Mint: Jiazhou.	20.283	3.60, 2.98 (2)	
88						Rev: 瀘 Lu above. Mint: Luzhou.	20.285	2.89, 3.00, 3.78 (3)	
89						Rev: 瀘 Lu below, dot above. Mint: Luzhou.	20.288	3.26, 3.96 (2)	
90					ㄛ Zhen. Closed head, two dot tong.	Rev: Plain.	20.292	2.05, 1.84, 2.63, 1.48, 2.58, 1.74 (6)	
91						A variety of 20.292. Coarse characters. Smaller than usual.	20.292a	2.28	
92						Rev: Dot above.	20.293	3.28, 2.44, 3.61, 3.36, 3.52, 3.72, 3.46, 4.47, 3.86, 1.82 (10)	
93						Dot above, on the rim of hole.	20.293a	2.24	
94						A variety of 20.293. 示 Zhen.	20.293b	5.15	
95						Rev: 工 Gong above. Mint: The Board of Works.	20.295	3.28, 1.83, 2.18, 1.91, 2.24, 2.37, 2.04, 3.63 (8)	
96						Rev: 貴 Gui above. Mint: Guizhou province.	20.296	3.36, 3.79, 3.79, 3.29, 3.01, 2.91, 3.19 (7)	
97						Rev: 局 Ju above. Mint: ?Nanking.	20.298	2.14, 2.89 (2)	
98						ㄛ Zhen. Square head tong.	Rev: 應 Ying above. Mint: Yingtian.	20.301	2.88
99							Rev: Plain.	20.302	2.59, 2.36, 2.10 (3)
100					Rev: Inverted crescent above.		20.303	5.45	
101					Rev: Dot above.		20.305	5.88, 7.18, 6.62, 5.55 (4)	
102	Rev: Dot in circle below.	20.306	2.04						
103	Rev: Dot in circle above.	20.306a	1.84						
104	示 Zhen. Closed head, one dot tong.	Rev: 捌 Ba(fen) below.	20.308	2.48, 2.23, 2.47, 2.25, 2.26 (5)					
105		A variety of 20.308. ㄛ Zhen, thicker than 20.308.	20.308a	2.62					
106		A variety of 20.308. Rev: Dot above, 捌 Ba below.	20.308b	2.35, 2.65, 1.28 (3)					
107		Rev: 戶 Hu above. Mint: The Board of Revenue.	20.309	2.90					

108	Si Zong 1628-44	Obv: 崇禎通寶 Chong Zhen tong bao	Regular	AE	示 Zhen. Closed head, one dot tong.	Rev: 戶 Hu below. Mint: The Board of Revenue.	20.310	2.72, 2.86 (2)	
109						Rev: 戶舊 Hu Jiu above and below. Mint: Old.	20.311	2.23, 2.61 (2)	
110						Rev: 新 Xin above. Mint: New.	20.312	2.81, 3.79, 1.84 (3)	
111						Rev: 共 Gong below. Mint: Gongqing.	20.314	3.17	
112						Rev: 江二 Jiang er above and right. Mint: Chaojing.	20.315	2.30	
113						Rev: 清忠 Qing Zhong above and below.	20.317	2.39, 2.46 (2)	
114						Rev: 忠 Zhong above.	20.318	2.08	
115						示 Zhen.	A variate of 20.319. Protruding head tong.	20.319a	2.73
116						Coarse characters, smaller than usual size. ?Private casting.		illegible	1.71
117								illegible	1.24
118						示 Zhen. Closed head, two dot tong.	Rev: 青 Qing below.	20.324	2.58, 3.05 (2)
119						示 Zhen. Square head, two dot tong.	Rev: Dot above.	20.333	2.41, 2.88 (2)
120							Rev: 季 Ji above.	20.334	3.76, 2.51 (2)
121						Rev: Running horse below.		20.355	1.84

Table 8 The Southern Ming and Qing Rebels (1644-1681)

No.	Rebel leader	Type	Script	Metal	Features	Reference	Weights (No. of coins)	
1	Li Zicheng	Obv: 永昌通寶 Yong Chang tong bao 1644-45	Regular	AE	1 cash. Yong written two lines at the top.	21.3	2.51	
2	Zhang Xianzhong	Obv: 大順通寶 Da Shun tong bao 1644-47	Regular	AE	Rev: Plain.	21.5	4.58, 2.67, 3.75 (3)	
3					Rev: 工 Gong below. Mint: The Board of Works.	21.8	4.31, 5.09, 3.63, 4.46, 3.71 (5)	
4	Sun Kewang	Obv: 興朝通寶 Xing Chao tong bao 1648-57	Regular	AE	1 cash. Rev: 工 Gong below. Mint: The Board of Works.	Diam. 28mm.	21.9	3.59
5						Diam. 26mm.	21.10	4.76, 4.88, 4.52 (3)
6					5 cash. Rev: 五厘 Wu li above and below.	21.12	8.40	
7					10 cash. Rev: 壹分 Yi fen above and below.	21.13	24.85	

8	The Prince of Fu	Obv: 弘光通寶 Hong Guang tong bao 1644-45	Regular	AE	弓 component of 弘 orthodox. Two dot tong.	21.16	3.75, 3.48 (2)	
9					Second stroke of 弓 long. Rev: plain.	21.18	1.73	
10			Li		Obverse written in Li script. Rev: 鳳 Feng above.	21.23	2.38, 2.54 (2)	
11	The Prince of Lu	Obv: 大明通寶 Da Ming tong bao 1644-46	Regular	AE	Rev: Plain.	21.25	2.03, 4.38 (2)	
12					Rev: 戶 Hu above. Mint: The Board of Revenue.	21.26	3.75, 2.24 (2)	
13	The Prince of Tang	Obv: 隆武通寶 Long Wu tong bao 1645-46	Regular	AE	The bottom component of long written like 生 sheng. Square head tong. Rev: 工 Gong above. Mint: The Board of Works.	21.34	3.21, 3.49 (2)	
14					The bottom component of long written as 正 zheng.	One dot tong.	21.35	2.78
15						Two dot tong. Rev: Dot above.	21.36	3.80, 3.72 (2)
16						Square head tong. Rev: 戶 Hu above. Mint: The Board of Revenue.	21.37	2.75, 3.38 (2)
17						2 cash, one dot tong. Rev: Plain.	21.41	6.36, 6.37 (2)
18	Prince Yongming	Obv: 永曆通寶 Yong Li tong bao 1646-59	Regular	AE	Closed head, one dot tong.	Small coin. Rev: Plain.	21.46	2.63, 2.61 (2)
19						Rev: 戶 Hu above. Mint: The Board of Revenue.	21.47	3.83, 3.26 (2)
20						Rev: 工 Gong above. Mint: The Board of Works.	21.48	4.57, 4.89 (2)
21					Closed head, two dot tong.	Rev: 工 Gong below. Mint: The Board of Works.	21.51	2.50
22						A variety of 20.5. One dot tong.	21.51a	3.59
23						二水 yong.	21.53	4.18
24						珍 Zhen in bao.	21.54	4.10, 4.98 (2)
25					The Imperial Message coin.	Rev: 道 Dao above.	21.65	1.87
26						Rev: 明 Ming above.	21.69	2.96, 3.90 (2)
27						Rev: 定 Ding above.	21.71	5.89
28	Rev: 國 Gao above.	21.72	3.16, 2.15 (2)					
29	10 cash. Rev: 壹厘 Yi fen above and below.	Diam ~45mm.	21.77	25.04				
30		Diam ~35mm.	21.79	10.47				
31	Wu Sangui	Obv: 利用通寶 Li Yong tong bao 1674-78	Regular	AE	Rev: Plain.	21.85	3.87, 4.27, 3.73, 3.34, 3.15, 5.00, 3.72 (7)	
32					Closed head, two dot tong.	21.86	4.14	
33					Rev: 厘 Li right.	21.87	4.08, 2.73, 3.96 (3)	

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34	Wu Sanguì	Obv: 利用通寶 Li Yong tong bao 1674-78	Regular	AE	Closed head, two dot tong.	Rev: 厘 Li left.	21.88	3.61, 3.60 (2)
35					Rev: 雲 Yun right. Mint: Yunnan-fu.	21.89	5.00, 4.29, 4.29 (3)	
36					Closed head, one dot tong.	Rev: Plain.	21.90	3.95, 3.20, 3.52 (3)
37					Two dot tong. Rev: 厘 Li right.	21.91a	3.62, 3.60, 4.03 (3)	
38					Square head, two dot tong.	Rev: 厘 Li right.	21.93	4.62, 5.19 (2)
39					Rev: 貴 Gui above. Mint: Guizhou.	21.94	2.93, 3.62, 2.65 (3)	
40					Closed head, one dot tong.	Rev: 二厘 Er Li right and left.	21.95	3.73, 4.33, 4.27, 5.49, 3.85, 5.20 (6)
41					Square head tong.	Rev: 五厘 Wu Li above and below.	21.96a	6.57
42	Wu Zhao Wu tong bao 1678	Regular	AE	Closed head, two dot tong.	Rev: Plain.	21.105	4.05, 3.53, 3.49, 2.91 (4)	
43				Rev: 工 Gong below. Mint: The Board of Works.	21.106	3.00, 3.01 (2)		
44				Closed head, one dot tong.	Obv: Dot of wu above the line like 弋.	21.107	2.70, 2.59 (2)	
45				Obv: Dot of wu below the line.	21.108	4.15, 3.74, 2.35 (3)		
46	Wu Shifan	Obv: 洪化通寶 Hong Hua tong bao 1679-81	Regular	AE	Closed head, two dot tong.		21.112	3.10, 3.62 (2)
47						Rev: Plain.	21.113	4.47
48							21.114	3.69, 3.61, 1.82 (3)
49						Rev: 戶 Hu right. First stroke of Hu oblique.	21.117	4.37, 3.57 (2)
50						Rev: 工 Gong right. Mint: The Board of Works.	21.118	3.81
51	Geng Jingzhong	Obv: 裕民通寶 Yu Min tong bao 1674-76	Regular	AE	Mint: Fujian.	1 cash. Rev: Plain.	21.122	4.08, 4.23, 3.75 (3)
52						10 cash. Rev: 一分 Yi fen right.	21.123	4.91, 4.66 (2)
53						100 cash. Rev: 壹錢 Yi qian right and left.	21.124	15.44, 15.66 (2)