CURRENCY TYPES AND THEIR FACE VALUES 
DURING THE TỤ ĐỨC ERA

The traditional Vietnamese monetary system rests on the joint use of three monetary metals; zinc, brass and silver as money. The Chinese monetary system is monometallic and the authorities only emitted brass (or copper) currency. The Vietnamese law fixes the reciprocal value and the rate of exchange of the various currency types and various metals.

The One Sapèque of Zinc (during the TỤ ĐỨC era)

In the TỤ ĐỨC era, the one sapèque of zinc (vận) was the base of the Vietnamese monetary system and represented the currency type indicating the smallest value. Since the reign of Gia Long (1802-1819) it was legal tender in all the empire and was received in transactions in all the provinces. It was the currency of consumption for the Vietnamese population. "The Annamites had a brass currency formerly, it has almost completely disappeared. They have maintained for small money, of discs of zinc with a square hole in the middle...” (Bouillevaux 485).

The casting of the zinc currencies seems to have begun in the first year of the reign of TỤ ĐỨC (1848). The official type had the standard of the currency of 6 phân (approximately 2,28 Grams)14 instituted under Minh Mạng (1820-1839) and this remained the same during the entire TỤ ĐỨC era, in spite of the proposal made in 1869 by Nguyễn Bính to create and cast coins a 5 phân coin. "Nguyễn Bính who was the governor of Hanoi (and at the same time director of the monetary workshop of Hanoi) demanded the authorization to cast zinc money with a weight of 5 phân. In the Gia Long era, the zinc currencies weighed 7 phân but under Minh Mạng, Thiệu Trị and

14 The Vietnamese well balanced system was copied on the Chinese traditional system. The làng (or taël, or ounce) weighed 38 grams and is broken up into 10 tiến (3.8 grams) or 10 phân (0.38 G); 16 làng makes a cân (or livre) of 608 grams and 100 cân make one Tạ or picul.
The weight was fixed at 6 phàn. The Ministry of Finance considered that monies of 5 phàn would be too small and too thin, and would easily damage and this would be an obstacle for a good circulating coin. They demanded that the rule remain in force that only 6 phàn be cast. (DNTL: XL, 3).

According to Schroeder, the "manufacture of zinc coins was stopped after 1871 (in the Tự Đức era), because the cost of zinc was too expensive. The State did not have a source without a losses since the mines were blocked by Chinese piracy. Since that time, sapèques of zinc were not fabricated any more (Schroeder 300).

The currency carried on the front the inscription Tự Đức Thông Bảo (Current Money of Tự Đức). There are three types according to their reverses. The ordinary one sapèque with a blank reverse (see below), the one sapèque carrying on the reverse the characters Hà-nội, for the workshop of that city (Schroeder # 297 and 298) and finally the coin with the characters Sơn Tây, for the workshop of that province (see Schroeder # 299 as an example).

The zinc currency was essential to the population, but it was an economic headache for the authorities since it presented two major disadvantages. It had a heavier weight compared to the legal tender value and was very brittle. The weight of the cash constituted a real obstacle with the provisioning and the transport of the funds. It imposed upon the authorities serious questions of logistics. In 1868 for example, the
authorities gave the order to deliver to the capital 700,000 ligatures\(^{15}\) of zinc currencies and 10,000 ligatures of brass currencies of 6 phàn (DNTL: XXXIX. 40). The weight of only the zinc money rose to 957.6 tons, which posed a serious problem of routing. The court used the zinc currency for the acquisition of the daily goods (intendance, kitchen, offerings, etc.) and for the wages of the guards, the civil servant, the servants, the gardeners, the carriers, the informers, etc.

This zinc coinage was the source of gross difficulties for the French troops in Cochinchina before 1859 as noted in the following passage. "Another serious disadvantage consisted in the total absence of token coinages other than the inconvenient sapèque one of zinc: one needed an artillery van to go exchange 1,000 francs in ligatures for the one sapèques, since it had the weight of a barrel and half.... and at the market, the chicken weighed some times less than its price in currency" (Silvestre 1883:109).

Even transporting caused a great loss because of the significant number of coins, which broke during the time of various handling. "The Annamese government knew perfectly well the enormous losses which would result from the transport because of the brittleness of the zinc currencies. Due to the rising expenditures in Tonkin this currency was needed in the capital. It was also decided to manufacture sapèques of brass in Hanoi, for the rising amount of the contributions and expenditures of the government in Hue." (Schroeder 301).

Silvestre noted, "with sapèques of zinc and their great brittleness each day great quantities were lost. When the weak bond of the snap ring, which joins them together, has suddenly broken, it spreads them on the ground and a great number are broken. When the owner of considerable sum piles it up out of a package of ten ligatures they will find a great number broken. And metal is less resistant to oxidation which corrodes it with incredible power of destruction... under the pitiless climate of Indo-China" (Silvestre 1883: 74).

**The Sepèque of Brass**

\(^{15}\) A ligature (or binding of money) was equivalent had 300 to 600 zinc coins depending upon the era. (See Thierry AMM V79)
The one sapèque of brass for purchases a little more important made the use of the brass currency necessary. “It no longer circulates in any areas of the empire and one hardly finds it except in provinces close to the capital. According to Khâm định Đại nam hội diên, casting of sapèques began in the first year of the reign, and tests were carried out in Hanoi that year (Schroeder 225, 234, 249).” The real casting started apparently in December 1848 (debuting at the beginning of 1849). The text of the DNTL says indeed that in February 1848 the casting was started for coins Tự Đức Thông Báo (DNTL: II, 7). But they do not specify if it was zinc or brass currencies. However the same source says it was December same year.

“The new copper casting was to be uniform in composition. It was a mixture of 60% red copper of Trang-liê t, as much as 10,559 cân, 6 lạng and 4 tiền, and 40% of zinc in thin sections of 7,039 cân, 9 lạng and 6 tiền. With the 35 cân and 6 lạng of copper and zinc of the preceding casting recovered in the drainage canals, one had in all 17,634 cân and 6-alloy copper/zinc lạng. With 10,506 cân and 14 lạng used to cast of the currencies of 9 phân, according to current instructions, one obtains 2,536 ligatures and 8 mạch weighing 8,519 cân and 1 lạng. If one cuts off the alloy copper/zinc from the channels, waste, the defective currencies and the small residues, which in the final analysis weighs on the whole 261 cân, each hundred cân gives only 83 cân and 2 lạng of material, and the loss is 16 cân and 13 lạng. The work to produce 100 cân, matter and loss together requires 137 cân and 5 lạng of coal and 232 cân and 7 lạng of combustible wood (DNTL: 111, 41).”

Later, at a date not specified, but sometime between 1868 and 1872, the official quality is lowered to 50% for copper and using 50% zinc. Due to the emission of the currencies of 7 phân of 1872, it was necessary “to conform to the former payments which govern the casting of the coins of 9 phân with half copper and half zinc” (DNTL: XLVII, 16). It is probable that this modification of the quality was about 1870, because it is in line with the cynical policy of manipulation of the values intrinsic and face values that presided over the emission of the đồng sao of that year.

There existed, as under Minh Mạng and Thiệu Trị, two currencies of copper, the coin of 6 phân (see below and also CMV 1666) and the coin of

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16 The Vietnamese sources always use the term one Đồng, {that signifies copper}, but also all its alloys of copper such as bronze and brass. In utilizing systematically the one copper, the French texts make a misinterpretation. In fact, these monies are brass or eventually bronze.
9 phán (see below and CMV 1655). The official value of these currencies compared to the one sapèque of zinc changed during the first part of the Nguyễn dynasty and is marked by a progressive increase in their value. Under Gia Long, the copper coin was worth 1.2 zinc coins, and then under Minh Mạng the reported ratio was 3 to 1. In 1848 at the beginning of the reign of Tự Đức it was stipulated that 6 phán copper was worth 2 zinc sapèques and that the one sapèque of 9 phán was worth 3 zinc coins. Then in March 1858 “marks the beginning of the value of copper (large module) coin worth 4 zinc coins (against 3 in the beginning) and that of the small copper coin was worth 3 zinc coins (against 2 in the beginning” (DNTL XVIII, 18).

Later by decree in January 1868 "the value of the large module copper coin passed to 6 (zinc) and the small copper coin to 4 zinc" (DNTL XXXVIII, 2). In 1872, "one gives the order to the monetary workshop of Hanoi to cast coins of 7 phán (it is necessary to conform to the payments which govern the cast coin of 9 phán with half copper and half zinc and to register with the reverse the two the characters Lục Văn (6 pieces)” (DNTL XLVII, 16). This new currency symbol (fig. 5, AMM V197) marks the change in relationship between coins of copper and coins of zinc (ratio copper/zinc) from 1/4 to 1/5 and by de facto it increases the value of the brass currency (see table 1). Then in November 1879 the official value of 6 copper phán was equal to 6 sapèques of zinc. However the presence of foreign coins and imitation Vietnamese coins (counterfeits) of bad metal were exchanged at only for 3 of zinc (DNTL: LXII, 25-26).

Table 1. Evolution of the Value of Sapèques of Copper
<table>
<thead>
<tr>
<th>Date</th>
<th>Type</th>
<th>Official Ratio Cu/Zinc</th>
<th>Value in Zinc Sapèques</th>
<th>Official Weight In Zinc</th>
<th>Ratio Brass To Zinc</th>
<th>Ratio Copper To Zinc</th>
</tr>
</thead>
<tbody>
<tr>
<td>1848</td>
<td>9 ph</td>
<td>60/40</td>
<td>3</td>
<td>18 ph</td>
<td>1/2</td>
<td>1/2.67</td>
</tr>
<tr>
<td>1848</td>
<td>6 ph</td>
<td>60/40</td>
<td>2</td>
<td>12 ph</td>
<td>1/2</td>
<td>1/2.67</td>
</tr>
<tr>
<td>1858</td>
<td>9 ph</td>
<td>60/40</td>
<td>4</td>
<td>24 ph</td>
<td>1/2.67</td>
<td>1/3.77</td>
</tr>
<tr>
<td>1858</td>
<td>6 ph</td>
<td>60/40</td>
<td>3</td>
<td>18 ph</td>
<td>1/3</td>
<td>1/4.33</td>
</tr>
<tr>
<td>1868</td>
<td>9 ph</td>
<td>60/40</td>
<td>6</td>
<td>36 ph</td>
<td>1/4</td>
<td>1/6</td>
</tr>
<tr>
<td>1868</td>
<td>6 ph</td>
<td>60/40</td>
<td>4</td>
<td>24 ph</td>
<td>1/4</td>
<td>1/6</td>
</tr>
<tr>
<td>Ca1870</td>
<td>9 ph</td>
<td>50/50</td>
<td>6</td>
<td>36 ph</td>
<td>1/4</td>
<td>1/7</td>
</tr>
<tr>
<td>Ca1870</td>
<td>6 ph</td>
<td>50/50</td>
<td>4</td>
<td>24 ph</td>
<td>1/4</td>
<td>1/7</td>
</tr>
<tr>
<td>1872</td>
<td>7 ph</td>
<td>50/50</td>
<td>6</td>
<td>36 ph</td>
<td>1/5.14</td>
<td>1/9.28</td>
</tr>
<tr>
<td>1879</td>
<td>6 ph</td>
<td>50/50</td>
<td>6</td>
<td>36 ph</td>
<td>1/6</td>
<td>1/11</td>
</tr>
</tbody>
</table>

One notes that between 1848 and 1879, the official value of brass sapèques of 6 phàn passed from 2 to 6 vân (see table 1), that is to say it tripled in value compared to the one sapèque of zinc. At times during this same period the exchange rate was 1 per 10. In 1876 "the current currency is the sapèque one of copper or zinc and 60 of copper or 600 of zinc make 10 taian or 1 ligature (Dutreuil of the Rhines 86)\(^\text{19}\). This appreciation of the copper sapèque caused difficulties for the authorities to ensure an abundant production. This was also related to the lack of copper mines.

**The Coins of One Mach**

In an edict of 1837 (during the era of Minh Mạng), "it is ruled under the terms of the law that the large monies of brass bearing moral inscriptions will have the value of a Mạch. One will make use of it in transactions and their value is thus fixed for all (Schroeder 268).” Under Tự Đức one sees again the same types of Minh Mạng whose certain inscriptions appear completely paradoxical when compared to the situation of the country, like “Quốc Phú, Bình Cường, Nội An, Ngoại Tỉnh”, “to enrich the country, to strengthen the army, interior exterior at peace and calm”, and some of the others are as contrary to practice, “Thọ Lộc Vũ Thiện, Bảo Hựu Mạng Chí”, "filled with honors by Heaven, it preserves the Mandate" (fig 6, MVC: 1827). The money value of these coins was not modified and their circulation is attested to by a change box preserved at Musée Monetaire de L’Administration des Monnaies et Médailles which contains 5 bindings of 10 of these coins which corresponds to a value of 5 quan (AMM: 74-75).

*Added by Craig Greenbaum:*

\(^{19}\) See also Toda: 24
The one Mạch coins were issued under the reigns of Minh Mạng Thيو Trị and Tự Đức. There are many legends on these coins some of which are poetic in nature, derived from Confucian ideals or from other Chinese literature (Barker 274). The collector should note that there are many fakes of these coins on the market. Some of these fakes date back to the time of French Colonial rule. The following in my collection are two examples of a type issued by Minh Mang with the inscription Quốc Thái Dân An Phong Điều Vư Thuấn. Country Prospers, People Content, Wind and Rain Plentiful.

(Note: shown smaller than actual size)

The Đống Sao or “Billet of Copper”

For the important transactions, for expense accounts, taxes and grants, on behalf of the stores of the State, the old units of accounting, the binding, the quan, and the hundred cent, tiên or mạch were redefined. The mạch was worth 60 zinc coins, and 10 mạch made a quan, which was worth 600 zinc coins. The disadvantages of it being heavy in quantity and weak in value in terms of one sapaques of zinc, lead the authorities to find a palliative solution in the development of currency symbols carrying the indication of their face value, independently or not of their intrinsic value. This inspiration might have come from (with some probability) the contemporary coining of the Chinese emperor Muzong of Qing (era Xian Feng, 1851-1861). It was during this reign that fiduciary currencies were emitted with fourteen denominations being marked in value into sapaques of copper (or
bronzes or brass), 4, 5, 8, 10, 20, 30, 40, 50, 80, 100, 200, 300, 500 and the 1000. All the currencies of the Chinese system were cast in same the metal, and the face value was not fixed according to the intrinsic value of each currency symbol. In the Vietnamese system, the face vale was given either in basic number currency symbols (văn), or in Unit of Account (quan and mạch).

The initiative to create the Đồng Sao, literally "billets of copper" came from the Ministry for Finances. In spring of the 14th year of Tự Đức, the Ministry of Finances elaborated a new project concerning six types of billets of copper with pieces with a value of 10 that equaled 1 tiền et 5 phân, the pieces with a value 20 equaled 2 tiền, then for each of the following, one would add 5 phân, down to coins worth 60 which would weigh 4 tiền. The report required that they be manufactured and utilized at the same time with both copper and zinc currencies. This time, the mandarins of the Court made known their opinion: “In the rules that one proposes to us, the calculation of (value or) worth is not in conformity to the everyday usage of the two types, large and small, of sapèques of brass (each sapèques of the large type 9 phân weight is worth 4 sapèques in zinc and each coin of the small type weighs 6 phân and is worth 3 sapèques in zinc, according to the initial position, the copper billet of 10 weighs tiền and 5 phân for one that has been worth of 10 sapèques of zinc and the billet of 20 weighs 2 tiền for what has been worth of 20 sapèques of zinc, so that one sees that heavy brass sapèques are worth little in sapèques of zinc, whereas the brass billets are light and are worth many sapèques in zinc. For this reason, it is decided to just return to the system of the brass billets by increasing their weight (DNTl: XLIII, 11).”

The first emissions of these monies carried the inscription, Tự Đức Bảo Sao in 6 denominations of 10 (fig. 7, CMV 1698), 20, 30, 40, 50 and 60 sapèques of zinc (fig. 8, CMV 1724), whose weight was revised higher and casting was started in February 1861. “One starts to manufacture them in 6 categories of brass billets (from a worth of 10 to a worth of 60), on each are four characters Tự Đức Bảo Sao. The coins worth 10 equals 1 tiền and 5 phân, the coins worth 20 equals 3 tiền the coins worth 30 equals 4 tiền and 5 phân, the coins worth 40 will equals 6 tiền, the coins worth 50 equals 7 tiền and 5 phân and the coins worth 60 equals 9 tiền (DNTL XXIV, 13).” The face value is expressed on the reverse in the number of sapèques of zinc preceded by the character chuẩn meaning [regarded as], [passing as] or
The 6 Types of Tự Đức Bảo Sao Issued in 1861  
(Schroeder # 304-309)  
Source: Annam Études Numismatique by Albert Schroeder

Top
Chuan nhat cap van
(Value of 10 sapêques)
Schroeder # 309 (6 gr)

Middle
Tự Đức Bảo Sao

Bottom
Chuan ngu cap van
(Value 60 sapêques)
Sch. # 309 (38 gr)

On the reverse of these monies, the reading of the four characters is done in a not very ordinary way, on top (12 o’clock) then on the right (3 o’clock), then on the left (9 o’clock) then at the bottom (6 o’clock), and not in a cross pattern as Lacroix advanced it, which was followed for the catalogue of the Currency of Paris. For the catalogue of Bibliothèque, we took again the reading of Schroeder proven by the text of the decree of 1861.

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In its project, the Ministry for Finances proposed to fix each type with the weights rather far away from the current ratio of copper to zinc. It is precisely because of this distortion, and of the complications which would result from this, that the Court decided to fix the weights in conformity to the reality of the values respective of zinc and copper and closer to the rate of exchange between the sapèque of copper and sapèque of zinc (see table 1 and 2). It is clear that the opinion of the Court was motivated by Confucian idealism in emitting species whose face value agrees approximately with the rate of exchange of sapèques of copper accepted by the population. The value of the coin of 10 being worth 1.5 tiền, one added 1.5 tiền for each additional ten, the coin of 20 equals 3 tiền, the coin of 30 was 4.5 tiền, etc. While instituting 1.5 tiền (equals 15 phân) of copper was equivalent to 10 coins of zinc (= 60 phân), the Court made official a ratio of 1 to 4 between brass and zinc. This ratio is largely higher to that which rose from the respective value between currency from brass and zinc currency officially fixed since 1858: 1/2.67 for the coin of 9 copper phân and 1/3 for the coin of 6 phân (see table 1). If one applies the ratio 1/4 đồng sao to the coin of 9 phân, it is worth 6 coins of zinc and the coin of 6 phân is worth 4 of them. It was noted that this reported ratio was that which the population applied and which one saw was ratified by a decree of January 1868. The đồng sao was relatively well accepted - even if their circulation was reduced because of their strong purchasing power - until the moment when the government decided, under pretext to make it more convenient and to conform to the new value of the brass coins, and to reduce the weight and adopt the pondered scale suggested by the ministry for Finances in 1861 and then refused by court (DNTL: XLIII, II).

In September 1870, the casting of the đồng sao was lighter than the precedents, but by keeping the standard same, except for the coin of 10 whose reverse carries the inscription chuẩn nhất thấp vần or either chuẩn nhất vần and of that of the coin of 60 whose graphics of the character sao was modified (fig. 8 and 9, MVC 1728, AMM V207).
With this emission of 1870, the ratio of copper/zinc was irregular, of 1/4 for the coins of 10, 1/6 for those of 20, 1/7.2 for those of 30, 1/8 for those of 40, 1/8.6 for those of 50 and 1/9 for those of 60. If one brings back the ratio of this last denomination, which represents 80% of the whole of this emission, with the coin of 6 copper phăn, one obtains for it a value of 9 zinc coins and correlative a value of 13 zinc coins for the coin of 9 phăn, whereas the use and the law fixed the value at 6 for it; there is thus an aggravation of the distortion of the rates of exchange in favor of copper, with that being the case, it wasn’t the copper currency which appreciated, but the currency (zinc coins) of consumption of the population which lost half of its value.

Table 2. The Đòng Sao Exchange Rate in Terms of Zinc Coins

<table>
<thead>
<tr>
<th>Emission</th>
<th>1861 Series</th>
<th>1870 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Legal Weight</td>
<td>In Grams</td>
</tr>
<tr>
<td>10 vạn</td>
<td>1.5 tiền</td>
<td>5.7</td>
</tr>
<tr>
<td>20 vạn</td>
<td>3 tiền</td>
<td>11.4</td>
</tr>
<tr>
<td>30 vạn</td>
<td>4.5 tiền</td>
<td>17.1</td>
</tr>
<tr>
<td>40 vạn</td>
<td>6 tiền</td>
<td>22.8</td>
</tr>
<tr>
<td>50 vạn</td>
<td>7.5 tiền</td>
<td>28.5</td>
</tr>
<tr>
<td>60 vạn</td>
<td>9 tiền</td>
<td>34.2</td>
</tr>
</tbody>
</table>

In reality, the text of the decree was precise in noting the profit which there was for the government by casting of the đòng sao, weak in weight, rather than of the coins of 6 or 9 phăn, because with the same quantity of metal one obtains a substantial benefit "... If one casts, while putting to work lawful alloy of half copper and half zinc of the currencies of 6 phăn and of 9 phăn, with the material and labor necessary to manufacture, one has 131 ligatures of 1 màch and 35 vạn (in it one counts 120 ligatures for price of 100 cân of copper/zinc and 11 ligatures of 1 màch and 35 vạn for labor and materials). While taking the model types from draft preliminary and if one casts coins being worth 10 vạn would present 1 tiền and 5 phăn, one obtains 8000 đòng sao being worth 133 ligatures 3 màch and 20 vạn, if the expenses are deducted, it remains 2 ligatures 1 màch and 50 vạn. If one melts coins being worth 20 vạn, which weighs 2 tiền, one obtains 6000 đòng sao worth 200 ligatures, if the expenses are deducted, it remains 68 ligatures of 2 màch and 35 vạn. If one melts of coins being worth 30 vạn which
weighs 2 tiệnn and 5 phẩn, one obtains 4800 đồng sao being worth 240 ligatures, if the expenses are deducted, there remain 108 ligatures of 8 mạch and 35 vần. If one melts coins with the value of 40 vần which weighs 3 tiệnn, one obtains 4000 đồng sao being worth 266 ligatures of 6 mạch and 40 vần; if one deducts the expenses, it remainder 135 ligatures of 5 mạch and 15 vần. If one melts coins being worth 50 vần that weighs 3 tiệnn and 5 phần, one obtains 3428 đồng sao being worth 285 ligatures of 6 mạch and 45 vần; if one deducts the expenses, there remain 154 ligatures of 1 mạch and 15 vần. If one melts coins being worth 60 vạn weighing 4 tiệnn, one obtains 3000 đồng sao being worth 300 ligatures, if one deducts expenses, there remain 168 ligatures of 8 mạch and 35 vần. Moreover, as the đồng sao being worth 60 corresponds exactly to a mạch and that circulation will be thus facilitate use by the population, the order was given to cast a plentiful amount. As regards the coins being worth 10 to a value of 50, one would cast them at a rate of 20 to 30 for each part hundred being worth 60, so that they can be used to make the change” (DNTL XLIII, 11-12). Taking into account and the respective weight and cost price of the đồng sao, the casting of the coins being worth 10 allows the State to carry out a negligible benefit of 0.90 %, benefit which passes to 52 % with the coins of 20, 82.9 % with the coins of 30, 103.2 % with the coins of 40, 117.4 % with coins of 50 and has 128.6 % with the coins of 60.

There was in this policy an ignorance by the politicians of the policies which would accentuate the defiance of the population towards these coins already little used. With 100 cân of metal, taking into account the resulting loss of the metal remaining in the channels of the moulds and of trimming, one has 75 cân of metal useful allowing the casting of 20 000 coins of 6 phận being worth 80 000 zinc coins (vần), which makes 133 ligatures 3 mạch and 20 vần, whereas one arrives at 240 ligatures while casting of the coins being worth 30 and at 300 ligatures with coins being worth for this reason, these new đồng sao was shunned by the population and these coins were re-melted soon and “did not have success because people never accepted them but only used them because they were forced to; these coins were abandoned a short time after their emission. One finds some however still in great number, not at the private individuals, but in the metal founders and the merchants of old objects that still sell them at handsome price to European amateurs. It is especially in Hanoi that one sees them in great quantity with the displays of the metal founders and at the markets and on the days of the large markets (Lacroix: 149). These currencies of Tự Đức were fundamentally different from the currencies of Muzong in
measurement but the face value of the currency symbols took into account, even imperfectly, the respective value of zinc and brass. Thus, in spite of their name (sao means "billet") these coins cannot be qualified as fiduciary.

There is one second series of đong sao whose face value was not expressed in a number of sapêques but with the Units of Account, the ligature, quan, and the mạ. On the reverse of these currencies, the formulation was different since it did not only have the character chuẩn, but the expression chuẩn dang, which have the same meaning. To date, we are aware of only four denominations: the coin of two mạ, the coin of three mạ, the coin of eight mạ and the coin of a quan for this particular set of fiduciary currencies (Thierry 1998)\(^\text{22}\). The Vietnamese Annals do not speak of this emission of coins and we do not think it took place at the time of the emission of 1861 because of the contradictory character of the rejection of the report of the Ministry for Finances to their initial proposition to mint coins of light weights because it was not advisable to emit species whose face value would be too different from the rate of exchange of sapêques of copper then accepted by the population. Whatever the case with the second series of đong sao, the weight of the đong sao of a quan in the Cabinet of the Medals is of 35.40 grams. This is about the same weight as the đong sao of 60 vân imposed by the Court into 1861\(^\text{23}\), whereas its face value (600 vân) is ten times higher; its weight and its face value at a ratio copper/zinc ten times superior than that of sapêque of 9 phàn. In the same way, the coin of 8 mạ in the collection of R. weighs 32.96 gram (i.e. about 8.5 tiền) and is worth 480 vân, which carries the value of 1.5 tiền or 84.7 sapêques zinc, whereas it was seen that the decision of the court fixed it at 10. In the first case, the ratio copper/zinc is at 1/33, and in the second with 1/4.

One can thus reject the assumption that these đong sao was emitted about 1861. On the other hand, one can bring them closer in the second emission, to that of 1870. The authorities were moved by the need for

\(^\text{22}\) For an example of a 2 mạ (AMM-V209) (47 mm-20,52 gr. Fig. 10); the 3 mạ in the collection of Mr. Nguyễn Bá Đạm, Hanoi; a coin of 8 mạ in the collection of "R" (52,6 mm-32,96 G); we know two coins of a quan, BnF- MMA 1997-339 (55,6 mm-35,40 grams. Fig. 11) and the example in the collection Nguyễn Bá Đạm.

\(^\text{23}\) The weight of the đong sao of 60 vân of the emission of 1861 is officially 9 tiền. The coins of this type in the collection of the Cabinet of the Medals weigh respectively 37,78 Gr, 35,59 Gr, 34,72 Gr, 32,53 Gr and 27,00 Gr (MVC # 1724a, 1725, 1726 and 1727); that of the Administration of the Currencies and Médailles (AMM V204) weighs 33,62 grams.
harmonizing the value of the đồng sao with the recent modification of the value of sapèques of copper in 1868. But it was seen that the decree described the financial advantages explicitly that the authorities could draw from this handling. This emission results in a general lowering of the weights. In this context of manipulation, the emission of the đồng sao of the second series is more plausible, the more so as the weight of the coin of 2 mạ (20.52 grams) is superior with the new weight of the coins of 60 vân (4 tiền, that is to say approximately 15 grams) and the đồng sao of a quan weighs more of the double of the new coin of 60 vân, which makes it possible to offer the fiction of a higher intrinsic value justifying the higher face value. We think this the emission of this series of đồng sao was about 1870 or a little later.

We do not have any textual data unfortunately on these emissions, if these were true emissions, perhaps it was only a test, as it suggested by their great scarcity and the fact that all these coins are rough cast copper and not trimmed. Although we do have (at this time) the proof of the existence of values 2 mạ, 3 mạ, 8 mạ and a quan, one can think however that there was a complete series from of 1 to 9 mạ, and the coin of a quan; however this is only speculation. See next page for examples of these coins. It must be noted that the coin of 2 mạ of the Currency of Paris comes from the payment box seized about 1884 in the province of Bình-Định, which seems to indicate that a certain number of these coins were indeed launched in circulation.

24 This box contained, in addition to this coin, a binding of 5 mạ of zinc currencies of Minh Mạng, 5 ligatures of 10 coins of a 1 mạ, two đồng sao of 60 vân, a ligature of 10 mạ of Chinese coins of Tong Zhi and Guang Xu; one found also 5 ligatures of mixed of currencies of Chinese and Vietnamese and more than 600 coins in bulk (AMM: 74-75). 25. It had six ingots as well there and not seven. An ingot of 5 mạ is shown as number 338 by Schroeder who gives neither weight of them nor illustration to indicates that this coin belongs to the treasure of Hue, but it is not mentioned in the inventory of the treasure and does not appear in the current collections of the Currency of Paris. The works that announce this ingot (Đo 246; World Corners; 1931) do it only while being based on only the writings of Schroeder.
Drawings by Craig Greenbaum
of Unique Examples of Tự Đức Bảo Sao Coins

Tự Đức Bảo Sao
Rev: Chuẩn dáng nhị mạch
47 mm, 20.52 grams
(value of 2 mạch)

Tự Đức Bảo Sao
Rev: Chuẩn dáng bát mạch
52.6 mm, 35.4 grams
(value of 8 mạch)
Tự Đức Bảo Sao
Rev: Chuẩn đằng cửu mạng
53.2 mm 28.3 grams
(value of 9 mạng)
(image courtesy of Charm.ru)

Tự Đức Bảo Sao
Rev: Chuẩn đằng nhất quan
55.6 mm 32.96 grams
(value of 1 quan)
(see picture # 11 in original article)
Comments by Craig Greenbaum:

The Tự Đức Bảo Sao with the value of 10 sapèques

The coin at the top in my collection is similar to the Schroeder #310. Both have the inscription Chuẩn thập văn on the reverse to denote these are 10 sapèques. This type coin is listed by François Thierry (see CMV 1698) with an emission date of 1861. There is another type 10 sapèque with four characters Chuẩn nhất thập văn which is shown at the top of page 283 and pictured again below (and is listed in Schroeder’s book).
Schroeder does not list the year issued but I assume it was in 1861. This type coin is not listed in any of Mr. Thierry’s books. We know that these Bảo Sao coins were issued in 1861 and later around 1870. The question is whether both types were issued in both years. This is not clear from the reference works.

Two Examples of Tự Đức Bảo Sao 60 Sapèque Coin Issued in 1870

![Image of coins](image1.png)

43.5 mm 16.3 grams

44 mm 15.2 grams

Tự Đức Bảo Sao (face)
Chuẩn lục thấp văn (reverse)
(Value 60 sapèques)
Issue of 1870

Note the difference in the style of the character Sao on these coins of 1870 and the central coin pictured on page 9 which were issued in 1861.

An Example of a Fake Tự Đức Bảo Sao 60 Sapèque Coin
Silver money coinage is traditional to Vietnam, and this is an important difference with China. There are many types of ingots, but we will study in this essay only those which were useful to current money circulation, and which carry a face value written on them for this purpose. It is one of the rare monetary innovations of the time that was an answer to the monetary crisis that can be analyzed. It is indeed the first time that a silver currency symbol is defined by a monetary unit and not by a same unit of weight. The weight of the ingots of Gia Long which carry also an indication of money value is defined by a unit weight given (lăng) of the proposed system, and the value which is reproduced on the side of these ingots (one quan and 8 mạch) correspondingly had the value of this weight of metal on the market; on the other hand, the weight of the new ingots of Tự Đức were determined by the number of monetary units (mạch and quan), and not by a unit of weight: it does not act any more as a money value, but of face value; in addition, their value is fixed in quan and mạch, i.e. into sapèques of zinc. These ingots were made explicitly with the intent to be real money for circulation.

Table 3. The Ingots of Silver Written With Units of Account

<table>
<thead>
<tr>
<th>Face Value [Schroeder]</th>
<th>Legal Weight</th>
<th>Weight in Grams</th>
<th>Actual Weight Grams</th>
<th>Value in Copper Coins</th>
<th>Value in Zinc Coins</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 março [339]</td>
<td>.9 tiền</td>
<td>3.42</td>
<td>3.50</td>
<td>70</td>
<td>420</td>
</tr>
<tr>
<td>1 quan [340]</td>
<td>1.3 tiền</td>
<td>4.94</td>
<td>5.30</td>
<td>100</td>
<td>600</td>
</tr>
</tbody>
</table>
Silver Ingots of the Tự Đức Era.

<table>
<thead>
<tr>
<th>Quan Mạ Ch</th>
<th>Tiền</th>
<th>Giá</th>
<th>Số lượng</th>
<th>Tổng số lượng</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>7.60</td>
<td>8.00</td>
<td>150</td>
</tr>
<tr>
<td>2 quan 5 mạ ch [341]</td>
<td>2.7 tiền</td>
<td>10.20</td>
<td>10.60</td>
<td>200</td>
</tr>
<tr>
<td>3 quan 5 mạ ch [343]</td>
<td>3.4 tiền</td>
<td>12.92</td>
<td>13.30</td>
<td>250</td>
</tr>
<tr>
<td>3 quan [344/346]</td>
<td>4 tiền</td>
<td>15.20</td>
<td>16</td>
<td>300</td>
</tr>
</tbody>
</table>

Source: Annam Études Numismatique by Albert Schroeder

339 Tự Đức Niên Tạo  Rev: Thất Mạch (value of 7 Mạch or 7/10th of a ligature (or quan)) Ingot with festooned sides. 3.5 grams.
340 Tự Đức Niên Tạo  Rev: Giá Tiền Nhất Quan (value in coins one quan) Ingot with festooned sides. 5.5 grams.
341 Tự Đức Niên Tạo  Rev: Nhất Quan Ngũ Mạch (value of 1 quan 5 mạ ch) Ingot with festooned sides. 7.5 and 8 grams.

343 Tự Đức Niên Tạo  Rev: Nhĩ Quan Ngũ Mạch (value of 2 quan and 5 Mạch) Ingot with festooned sides. 13 gr. and 13.5 grams.
344 Tự Đức Niên Tạo  Rev: Giá Tiền Tam Quan (value of 3 quan) Ingot with festooned sides. 16 grams.
The series stopped at the ingot of 3 quan and that seems to be the maximum value for ordinary circulation. There existed heavier ingots, of a one lạng or 10 lạng, but these larger pieces exceeded the needs of everyday transactions. From one or twenty grams of weight, all these ingots had a value of 5.3 grams silver per quan and correspondingly one gram of silver was worth 113.2 sâpéques of zinc. We see that the evolution of lower value of the metal depended on the volition of the authorities. The international value of silver also amplified this lowering of metal values. The date of emission of these ingots is not known and is not mentioned in dynastic annals. They first appeared in April 1862 in the form of rewards as ingots of silver of one ligature (DNTL XXVI, 19). In August 1864 ingots of 7 mạch were issued (DNTL XXX, 9).

The National Piastre

One of the stipulations of the first Treaty of Saigon forced Vietnam to pay France a war indemnity of 4,000,000 Mexican piastres. The government was now in need of the necessary silver funds to make this payment. In the first years, the reserves of the State and the domestic money market provided the money to pay the indemnity. However the sources of these funds soon became limited. To pay this currency to the foreign governments, the authorities thought of striking a national piastre with the silver reserves of the imperial Treasury. In March 1865, the Emperor asked the ministers in secret Consul what sum was the payment due under the war indemnity. Phan Thanh Giản and Trần Tiền Thành answered that according to terms of the negotiations, the indemnity had been fixed at 4 million foreign silver piastres, which was 2,880,000 silver lạng, deliverable in ten years, with 2 payments of 200,000 silver coins per annum. In the 15th and 16th year of the era Tự Đức, a payment of 794,951 silver piastres was made, leaving a debt of another 5,049 piastres, or 3,635 silver money lạng, and later another share, for the 17th year of 200,000 silver coins on the first day of summer. An order was given to manufacture a model of the coin like the foreign silver coin of (7 tiền and 2 phân) of 80% silver, a coin with the
inscription “Money Current of the Tự Đức era” and on the reverse “7 tiên and 2 phân” An envoy from Gia-Định asked the French Commandant if this was acceptable and he refused to accept it and the idea was dropped (DNTL: XXXI, 21).”

The French refusal is partly explained by the difference of between a Mexican peso (90.3 % silver) and its Vietnamese copy (80 % silver) put an end to this attempt at a national striking of a European type coin (Thierry 1986:100). The coin on page 23 has a diameter of approximately 39 mm with the weight of the a peso, 27 Gr. (original article fig. 15, coll. Trần M.D.).

**Text of Treaty Between Vietnam and France June 1862**
TEXTE DU TRAITÉ DE PAIX ET D’AMITIÉ

conclu, le 5 juin 1862, entre la France et l’Espagne, d’une part,
et le royaume d’Annam d’autre part.

NAPOLÉON,

Par la grâce de Dieu et la volonté nationale, Empereur des Français,
A tous présents et à venir, salut :
Sur le rapport de notre ministre secrétaire d’État au départment des affaires étrangères,
Avons décrété et décrétons ce qui suit :

ARTICLE 1er.

Un Traité de paix et d’amitié ayant été conclu à Saïgon,
le 5 juin 1862, entre la France et l’Espagne, d’une part, et le royaume d’Annam, d’autre part, et les ratifications de cet acte ayant été échangées à Hué le 14 avril 1863, ledit Traité,
dont la teneur suit, recevra sa pleine et entière exécution :

Leurs Majestés :
NAPOLÉON III, Empereur des Français,
ISABELLE II, Reine d’Espagne,
Et Tu-Duc, Roi d’Annam.

Art. 7. La paix étant faite, l’inimitié disparaît entièrement ;
c’est pourquoi l’Empereur des Français accorde une amnistie générale aux sujets, soit militaires, soit civils, du Royaume d’Annam, compromis dans la guerre, et leurs propriétés séquestrées leur seront rendues.

Le Roi d’Annam accorde également une amnistie générale à ceux de ses sujets qui se sont soumis à l’autorité française, et son amnistie s’étend sur eux et sur leurs familles.

Art. 8. Le Roi d’Annam devra payer à titre d’indemnité,
dans un laps de dix ans, la somme de quatre millions de dollars. Quatre cent mille dollars seront, en conséquence, remis chaque année au représentant de l’Empereur des Français à Saïgon. Cette somme est destinée à indemniser la France et l’Espagne de leurs dépenses de guerre. Les cent mille ligatures déjà payées seront déduites de cette somme.
Le Royaume d’Annam n’ayant pas de dollars, le dollar sera représenté par une valeur de soixante et douze centièmes de taël.

source: Revue Maritime et Coloniale Oct-Dec 1863
This state currency certainly was to be made to pay the war indemnity but was not intended to circulate. If the French had accepted it, then it is obvious that they would have been introduced into the money circulation in Cochinchine initially then in entire empire later. It is well to conclude this was an attempt at create an alternative currency to foreign piastres.

**The test of striking of a unique one sapèque of copper**

There exists a sapèque of copper with a center square hole, carrying the inscription Tập Đức Thông Bảo and the reverse ECHANTILLON DE D. UHLHORN 1870 (original article fig. 16, BnF-MMA 1997-400. 23.8 mm,
3,30 Grams). We do not know who cast these coins. There was a monetary press company Uhlhorn that was probably at Grevenbroich. In 1817, the German engineer Dietrich Uhlhorn developed a mechanical press to strike the currencies for the Berlin and Düsseldorf mints, Royal Mint of London and the Mint of Paris before Thonnelier brought improvements to another machine. (Schloesser 224-225; Cooper 126-8).

At the death of Dietrich in 1837 his son Heinrich took management of the firm that keeps the name of its founder: D. Uhlhorn. The DNTL is silent on a contact between them and the Vietnamese government. We however found a passage dating to January 1871, which could perhaps have been related with our test coin. There was an affair in which Nguyễn Đức Hậu wanted to manufacture coins and sent a request to the authorities but before the court could clarify his request Nguyễn Đức Hậu took the liberty to carry out tests of manufacture (this individual was formerly a messenger of ninth degree which was implicated in an affaire of a private purchase of a steamship for trade with foreigners). His examination by the court left him destitute.

The installation of machines to manufacture coins, consequently, was not authorized (DNTL XLIII, 37). This passage presents an interesting development since it was a little before or probably during the year 1870 that this incident occurred. This is a subordinate civil servant interested closely in Western technology because his first offence was to be implicated in a private purchase of a steamer. In China at the same time there was the introduction of the monetary presses. (Zhang JB 7; Peng XW 771). The refusal of the authorities to look at this application of European technology, contrary to what occurred in China, corresponds completely to their bureaucratic viewpoints.

II MONETARY PRODUCTION

The main thing problem to which the Vietnamese authorities clashed was the incapacity to furnish the interior market with means of payments and this incapacity affected not only quantity of cash but also the needs in daily life of the population. The Vietnamese State did not obtain an effective structure of monetary production (exploitation and control of the mines, the workshops and the treasuries), nor of the political instruments,

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26 This money is mentioned in 1881 by A. Brichaut (Brichaut :113).
legislation or active opposition to the loss of money flowing out to China and to the casting of the currencies to make copper or brass objects, all of which had the effect of making coins scarcer. The authorities tried to alleviate this scarcity by hiring the services of private workshops and private enterprises to secretly introduce adulterated species by illicit casting.

Table 4. Concordance of Monies of 1872

<table>
<thead>
<tr>
<th>Brass Coin</th>
<th>Đồng Sao In Văn</th>
<th>Đồng Sao Mạch and Quan</th>
<th>Ingots of Silver</th>
<th>Value in Brass Coins</th>
<th>Value in Zinc Coins</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 phân</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>7 phân</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>9 phân</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>10 vần</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>20 vần</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>30 vần</td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>40 vần</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>50 vần</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>60 vần</td>
<td>1 mạch ?</td>
<td></td>
<td>10</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>2 mạch</td>
<td></td>
<td></td>
<td>20</td>
<td></td>
<td>120</td>
</tr>
<tr>
<td>3 mạch</td>
<td></td>
<td></td>
<td>30</td>
<td></td>
<td>180</td>
</tr>
<tr>
<td>4 mạch ?</td>
<td></td>
<td></td>
<td>40</td>
<td></td>
<td>240</td>
</tr>
<tr>
<td>5 mạch ?</td>
<td></td>
<td></td>
<td>50</td>
<td></td>
<td>300</td>
</tr>
<tr>
<td>6 mạch ?</td>
<td></td>
<td></td>
<td>60</td>
<td></td>
<td>360</td>
</tr>
<tr>
<td>7 mạch ?</td>
<td>7 mạch</td>
<td></td>
<td>70</td>
<td></td>
<td>420</td>
</tr>
<tr>
<td>8 mạch</td>
<td></td>
<td></td>
<td>80</td>
<td></td>
<td>480</td>
</tr>
<tr>
<td>9 mạch ?</td>
<td></td>
<td></td>
<td>90</td>
<td></td>
<td>540</td>
</tr>
<tr>
<td>10 mạch (or 1 quan)</td>
<td>1 quan</td>
<td>100</td>
<td>600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 quan &amp; 5 mạch</td>
<td></td>
<td></td>
<td>150</td>
<td></td>
<td>900</td>
</tr>
<tr>
<td>2 quan</td>
<td></td>
<td></td>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 quan &amp; 5 mách</td>
<td></td>
<td></td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 quan</td>
<td></td>
<td></td>
<td>1800</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Insufficient Production

Vietnam was always a country poor in copper resources. It had copper mines but they were not very productive. Most of these mines were exploited by Chinese companies. Under Tự Đức the most important mine was in Tự-long (province of Tuyên-quang) that for more than a century furnished copper for casting. In 1820, Phan Huy Chú wrote that “among the copper mines of our country, Tự-long is the most productive mine. This is
the source the government uses to produce copper coins (QDC: V, 169). The mine of Trang-liệt in the Bác-ninh province grew in its importance, mainly because of its very good quality of the metal that it produced. (KDHS cited by Schroeder 234). There were two other mining sites in exploitation, that of Lai-xuông in the province of Hưng-hóa whose production was very weak (more 40 times lower than that of Tụ-long). The other site was Phong-dụ, in the same province that had about the same low production and was closed in 1849. The zinc mines of Vietnam were relatively more important and located mainly in the provinces of Thái-nguyên, Quang-vinh and in that of Tuyên-quang (Schroeder: 339-356). A few years into the reign of Tự Đức, the authorities sought to increase production. In May 1853, "one sees much activity in all the zinc mines of Thái-nguyễn, Bác-ninh and Lạng-sơn to develop them for casting of money" (DNTL: IX, 22). To accelerate to their exploitation Chinese contractors were called upon, such as, the Chinese companies of Guan Heng Ji and Li Da Ji that directed the prospecting and the exploitation of the zinc mines in Thái-nguyễn (DNTL: XIX, 16). The authorities do not hesitate has to seek metal sources for money from the most negligible sources. In "the province of Hanoi they receive and buy copper and zinc for the fabrication of the sapèques. The price of the zinc of all qualities, which the State fixed at twenty-five ligatures per hundred pounds was increased by five ligatures and now carries the price of thirty ligatures. The price of the old pots and their red copper lids thus made into copper in ingots which was seventy ligatures will be increased by twenty ligatures and be ninety ligatures" (KDHS quotes by Schroeder: 225).

In August of 1874, "one grants the authorization to take from the military treasuries the tin and zinc, copper instruments and that each category be distributed. The copper and zinc will go to Hanoi for fabrication of currencies and the tin will go to Thurga-thiên phủ to be exchanged (DNTL: LI, 42). Despite these efforts, the political situation in Tonkin became so unstable that the mines escaped from the control of the authorities. By 1871 the disorders and provocations caused by various the bands of pirates and the troops of the {Black} Flags in the mineral provinces of the north resulted in a dramatic impact on the production of zinc. This caused a rise in the price of this metal and the halt to the manufacture of sapèques of zinc (Schroeder: 300). Lastly, to mitigate the losses of metal coming from these mines, the authorities proceeded with important purchases from foreigners. According to Schroeder, "precise information makes it possible to affirm that important purchases of copper, of more than 90 tons were used to
produce sapèques in Hanoi during the years 1867 to 1871, of Western or Chinese sources, purchases of several tons of zinc carried out during the same period which contributed to the fabrication of 127,000 ligatures of zinc. And this continued until 1883 (Schroeder; 336).”

The two principle official foundries (sèpequeries) were installed in Huê. One was under the direction of the Bảo Hòa Kinh Cực (Capital Office of Currency) and the other was under the direction of the Hà-Nội Thông Bảo Cực (Hanoi Office of Current Money) that replaced the old Bảo Tuyên Cực (Office of Currency). They produced currency of zinc and brass in several workshops. Others were then opened or developed to try to increase the national production at Hà-Nội, Bắc-ninh and Sơn- Tây. In March 1850, "one stimulates the construction of furnaces for casting currencies with furnaces in the province of Thọ-Xương, in the city of Hanoi and a furnace in the town of Bắc-ninh; each are directed to imitate the model of the official zinc coins of Tự Độc Thông Bảo and have the same thickness (DNTL V, 12)". In June of 1867, "there was a shortage of currency and it was ordered that three provinces of Hanoi, Bắc-ninh and Sơn- Tây fabricate large quantities of the brass currencies to help (alleviate the situation) (DNTL: XXXVI, 33).” The cost of the casting includes not only the monetary metal but also handling of copper and the materials, coal, wood has fire, the grips used in the crucibles, without counting the wire for bindings. In 1848 at the time of the fabrication of the zinc currency of 6 phân, the foundry of the province of Hanoi regulated the expenditure of trimming, counting, as well as the bits of threading, fasteners, and the wire for fastening in accordance with the regulations of the former years. As for the chiefs, assistant chiefs and furnace assistances as well as the working chiefs and the workmen, their wages were one ligature of sapèques, eight Mach and one hundred livres. In the same year, the wages were increased and the cost is then of 4 ligatures of two mạch and thirty sapèques (KDHS, cited by Schroeder 250-251). The rise in the price of copper makes that the casting of the brass currencies hardly profitable for the authorities, which at the end of the era becomes a losing proposition. There is one reference within the text of the DNTL, that in 1870, "while putting in lawful alloy half copper and half zinc for the brass currencies of 6 phân and 9 phân, with the hand work and the materials necessary for fabrication, one receives of them in all 131 ligatures of one mạch and 35 văn (this included 120 ligatures for price of 100 cân of copper-zinc with the hand work and the materials necessary for fabrication (DNTL XLIII, 11). If one used a higher alloy than permitted these 100 cân it would be possible to obtain 20,000 coins of 6
phan or 80,000 vân (zinc) that makes 113 ligatures of 3 màch and 20 vân. The operation for the State gains a profit of 2 ligatures of 1 màch and 55 vân, for profit margin of 1.65 % (DNTL XLIII, 11).

The lack of brass currencies was due to the State being unable to produce enough for the market. Also other factors of hoarding and especially the evasion contributed to the scarcity. The good coins, made of good metals such as bronze and brass which had a strong content of copper, were hoarded either as they were, or melted down to make objects of them. From the 1849, this mode of utilization was denounced by the Minister for Finance, Nguyễn Khắc Tuấn, which stigmatized "the craftsmen who melt illegally currencies to make objects of brass (DNTL: IV, 11)".

Silvestre observed that the one sapèques of copper were absent from the markets of Cochinchina. "It is true that many people report that, there is a lack of copper ore in all this area, in the earth and imports, the casters have practically monopolized all these coins to transform them into domestic pots, braziers and other utensils (Silvestre 1883 p.74). This practice took such a rise, that in the 1868 it was strictly forbidden to utilize brass to manufacture the bells, the cymbals, the gongs, the trumpets and the instruments necessary to worship (DNTL XXXIX, 37).

Many Chinese who collected and dispatched coins to China in spite of controls and the severe punishments was the second cause of the disappearance of the brass currencies from circulation. The only authorized currencies that could be exported were sapèques of zinc, but in very small quantities only. In 1868, "one reiterates that the law is fixed on the prohibition of export of the currencies and silver money at the control stations. It is strict interdiction with the ships of commerce returning to Tạng or in the islands of the south to transport more than of 10 ligatures of zinc coins and more than 10 làng of silver money. And the traditional ships of the population having on board zinc coins for trade in the six provinces of Nam- kì27 to transport more than 30 ligatures and 20 silver làng. As for those who violate the law, and are arrested in the in or out of deep water, one will apply the penalty similar to the edicts in the decree of the a 3rd year of Tự Đức concerning fraudulent trade. For those arrested in ports, one will

27 The expression “the six provinces of Nam- kì” indicates French Cochinchina. It therefore affects ships going to foreign ports and the export of capital.
apply the penalty similar to the edicts in the decree of the 9th year of Tự Đức. The penalty was the confiscation of the goods, registry of the ship and the personal goods [of the trafficker], and half being used by the State and the other being used as recompense by the authorities. For those who will intentionally accept money bribes, for those which by negligence will have lack of vigilance in monitoring, one will conform to the decree of the 3rd year of Tự Đức which punishes those that intentionally break the law and to even punish the delinquent, those that accept money to distort the law, the chiefs of control posts of maritime will be demoted four echelons and transferred, the local civil servant will be demoted two echelons and blocked from promotion (DNTL XXXIX, 37).” Several times, the authorities reiterated the laws and decrees against the escape of good cash and the introduction of coins of various types, generally adulterated, into the empire.

The Vietnamese Annals reported in October 1876, "these days in Hanoi there are for a fee a Chinese boatman of Suzhou who will collect old copper coins and (bypass) the maritime station of control. As the authorities of the province made reports and promulgated consequently a decree that on the exit at the maritime stations of any currency, which are Vietnamese in origin and have its nian hao, is strictly prohibited for all merchant ships (without making distinction between national or Chinese and illicit transport, will on searching and in the event of attempt at exit, one will proceed with confiscation (DNTL: LVI, 28).” The repeated prohibitions did not seem to have great effectiveness. In 1878 the Mandarin of the imperial Council (Nội cắc), Bùi Ân Niên, wanted more severe punishments for the Chinese who come into the empire and collect the good coins then re-melt them in China with zinc and lead, to make fraudulent currencies which they then re-import into Dai Nam (DNTL: LXII, 25 et al). In his notes on the province of Bình Thuận, Aymonier wrote that in the province between 1872-1874, during the Tự Đức era, sapèques in true copper and zinc became very rare and disappeared (Schroeder: 281).

*Added by Craig Greenbaum*

The shortage of zinc coinage was still being felt by the population as evidenced by the 1907 Annual Report by missionary Mgr. Gendreau of the Groupe des Mission du Tonkin:

“Annamites are not content with the current state of affairs. They complain about the mode of the farms and monopolies, which obliges
them to pay fees, paralyses the small trade and is an obstacle to much of trades of which a great part of the population live. The embarrassment is still increased by the progressive disappearance of the zinc currency, adapted so well to the condition of the needy Annamites. It still remains the base of all the small transactions. With two or three sapèques, the poor one can buy a fruit, a cake and thus calm the pains of the hunger. But, as the Government does not manufacture them any more, those which were in circulation become increasingly rare, and the market feels it, with the great detriment of all.”

**Private Money, Contracting and Illicit Money**

The State was unable to ensure the provisioning of currency for the population. It tolerated the private casting of money or delegated a part of the production to private companies to which they only ask for conformity to the official type. The first curative for the lack of the national production of the brass currencies and the zinc currencies was raising the prohibition of private casting and thus removing the monopoly of State.

The DNTL shows that in the 2nd year of the reign of Tự Đức, several senior officials noted that the zinc currencies had started to disappear and proposed to lift the prohibition of private casting of money.

“Nguy Khắc Tuấn, Nguyên Đăng Giai and Tôn Thất Bạt in addressing the Emperor proposed to cast money that was convenient and harmonious. The mandarins of the court rendered their advice. Nguy Khắc Tuấn noted that the coins of zinc are too soft and deteriorate and that craftsmen of foundries illegally break them to make objects of brass with them. It was demanded that it be clearly explicit that these illegal foundries be stopped. Nguyên Đăng Giai demanded that zinc money be cast in great quantities and lift the prohibition on these illegal foundries in great quantity. Tôn Thất Bạt required that the opening of more foundries intensify and to give up the prohibition of illegal foundries. Let the people have and use copper and zinc. Name functionaries to control the casting and monitor the number of foundries for government to levy taxes on them.
The mandarins of the Court after deliberation, returned the opinion that in the metropolitan district of Thùa Thiên and in the provinces of direct administration it would let the people, which desire to cast (money) the ability to procure zinc and the necessary materials. They can recruit workmen and craftsmen. Those that are authorized must inform the civil servant of place of his residence and work with these authorities. They can choose where to build their monetary furnaces. It is possible to build many furnaces at the same time, one will have the liberty and it is not a question of limiting this obligation to one or two furnaces. They will conform to the law and the police authorities at the places in question will be entrusted to control by appointing someone to be in charge of the monitoring. The seniors in rank of this place will go each foundry and make known the law and to carefully ensure that the casting is in conformity with the letter of the law. It is required that they imitate exactly the currencies Tự Đức Thông Bảo out of zinc or brass, the foundry officials will make sure their models are the standard thickness and their methods result in the perfect circularity of the edge, has the correct and clear calligraphy. If there are coins obtained that are inferior or too thin they are to be cut up in front of the control person in charge of surveillance. The superiors in the hierarchy of that place will return to each foundry to make sure the law is followed. That the monies are good imitations of the Tự Đức Thông Bảo monies in zinc of the foundry and the officials will look at the modules, its thickness and the methods of the foundry, its roundness, correct calligraphy and clarity. The coins obtained are not soft and they will not deteriorate easily. Those in charge of the monitoring do not have, under pretext of search, to importune the people to the point that make things worse, since this is a private zinc reserve. If it is necessary to raise some prohibition, also inform the population by circular. One should not restrict their freedom of movement and that none of the existing currencies with old nianhao circulate, whether of brass or zinc, except those currencies with the a pseudo nianhao. With the imperial agreement, the Court gave its authorization (DNTL: IV, 11-12).

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28 The monies with the pseudo nianhao were part of the former emperors of the dynasty of Tây-sơn (1778-1802) that Nguyên always regarded as rebels accordingly, the nianhao of these sovereigns were not regarded as a basis for the calendar.
Together with conditions of control, the freedom of casting was solemnly renewed by an imperial decree in April 1856. “It considered that private foundries of currencies had as a goal to provide the goods necessary to satisfy the needs of the people, considering that one would owe in deciding the authorization under the circumstances, after having weighed for and against and considering that the State was unable to solve the problem of currency circulation of various species of different types and weights for many years. The emperor gave the order to the functionaries of all the places that install furnaces to inspect with all their energy and to attach with extreme care that they obtain currencies solid and thick, similar with the official model and only coins which are in exact conformity be allowed to circulate (DNTL: XIV 31).

In the fact these private workshops were not checked or controlled. They were transformed into dispensaries of adulterated currencies. The incapacity to increase the production of State was to be solved by hiring private contractors to manufacture coins. These were generally Chinese (whom the texts call Qing) being the name of the reigning dynasty. In 1849, they encouraged the development of casting by these Chinese and financed their facilities by making them cash advances. If Chinese tradesmen were rich and had a guarantor they could request advances from the Treasury to install furnaces from the area-chief of the province of Sơn Tây and manufacture sapèques of zinc carrying the inscription Tự Đức Thông Bảo. The Tổng đốc was authorized to make these advances, according to their requests, but they could not never be higher has a thousand ligatures. Of the rich Chinese tradesmen, having asked advances of the Treasury with an aim of manufacturing currencies with the area-chief of the province of Sơn Tây, they were authorized to refund them half in currencies of brass and half in zinc. The value of zinc was officially fixed at thirty ligatures per the hundred livres (KDHS, cited by Schroeder: 220, 227). See picture pg. 36.

In 1854 to satisfy the needs of legal tender of the state, the methods of refunding of the advances was modified and the Chinese contractors will receive zinc currencies for 70% and zinc for 30% (DNTL XI, 1). Contrary to the generally held belief, the quality of these castings of zinc and brass coins was not always bad. The Vietnamese sources (in 1858) testify of the conditions laid down for the authorization granted to two Qing companies, Guan Heng Ji and Li Da Ji (originally they directed the prospecting and exploiting of the zinc mines in Thái-nguyễn) to cast zinc currencies. These companies had wished to cast the currencies but they
were not given the authorization by the Emperor because they owed the state for the tax on zinc in the amount of 188,700 cân. It was ordered that Nguyễn Đình Tân would study the affair and the situation of the zinc mines of Thái nguyên. Thus Nguyễn Đình Tân authorized Guan Heng Ji to exploit its mines and to purify the zinc. This incident ended well for the state as it addressed the demand for the old debt (on the zinc mines) and it fixed a due date for the recovery of the debt in the current year. And at the same time the debt was wiped out, the Qing were authorized to casting and refine zinc. And that the zinc obtained annually would be divided in ten parts, 4 parts for provisions of the stores of state and 6 parts to be transported to the provincial capital for the money foundries. This was authorized. (DNTL: XIX, 16-17).

In the same year of 1873, “Bình-Đính was granted authorization to open four private foundries of currencies. At that time (12th month of the 25th year), Hoàng Văn Tuyên, the governor of Bình-Đính addressed a report saying that in his province, there was a monetary famine and that circulation had completely ceased. He asked that the prohibition to cast currencies be lifted in all the important provinces of north and south. He called for assent to have any Chinese or Qing that has the resources and materials to cast currency be authorized to join together capital to cast brass currencies. We must act quickly as possible to install workshops outside the capital province and make coins by imitating the models of money of Hanoi. One will take extreme care to send civil servants to control the casting and to raise the taxes, which will increase the resources. The authorization was granted to this province to launch out in this operation as a test. After the moment of approval, this province appealed to a Qing, Huang Tingguang, to open a furnace. The person in charge sent civil servants to control the casting, which was started. The casting was stopped three times because the coins did not meet the standard model. After examining them the ministry addressed a report to the emperor stating that one could allow circulation and with more reflection it was decided to fix the taxes at 1 for each 30 ligatures produced” (DNTL LXVIII, 34).

But the authorities were still not satisfied, and asked the contractors to install furnaces only for the State. In theory it would be simpler and easier to control their activities. These contractors were foreigners who were casting the coins. In his notes on the province of Bình Thuận, Aymonier wrote that "towards 1872-1874, Tự Đức era, one sold the rights to a Chinese of Saigon and a Chinese of Chợ-lớn to fabricate sapèques of brass. At the
start the weight of sapèques was lowered, while keeping their same value. Soon the sapèques became much smaller and made of very cheap metals; all this slush was imported into Annam and this alleged copper was used since anything would fuse. One then saw the Mexican piastre, which exchanged against six to seven ligatures of zinc, now being exchanged against twenty to thirty ligatures of false copper sapèques "(Schroeder: 281-282). The difference between legal coining, private coining and illicit coining is purely legal but its weakness is that it does not provide reliable source of money or pure metal content. Legal coining constituted all workshops whose opening was authorized by the authorities: official metropolitan and provincial workshops, workshops not authorized and Chinese workshops that cast money. The coining produced in these various types of workshop were not forced to conform to the legal rules concerning the metal mixture and weight. To the authorized dispensaries producing an adulterated cash, were added the workshops of counterfeiters themselves.

The Vietnamese authorities knew many forgers were minting in the Chinese provinces of Guangxi and Guangdong and also in the Portuguese colony of Macao, Hong-Kong and in French Cochinchine. They asked the assistance of the local authorities to put an end to these activities (DNTL LXVI, 1). Workshops were installed within the frontiers of the country to avoid the repression of the Vietnamese authorities and also the Chinese authorities because they produced Chinese counterfeit money, counterfeit Vietnamese money, and often by utilizing nianhao of past eras which avoided them from running afoul of the law. In 1881, one manufacturer in Macao cast currencies of bad metal with the inscription Minh Mạng Thông Bảo. According to a report of the governor of this village there were six active workshops that produced 700,000 sapèques per day. (Schroeder: 280-281). These activities did not escape the attention of the French in Cochinchina. On January 16, 1879, Paul Philastre, Chargé d' affaires at Hue, sent a note to the Governor of Cochinchina that indicated "Of the Chinese traders fabricating currency which imitate the copper sapèques of the Annamites; they are importing considerable quantities into the country, using the money to buy merchandise they export and moreover to purchase silver” (quotes by Tsuboi: 245).

Those that introduced bad currency into Vietnam also collected the good metal coins to be exported. In April 1871 “one gives the order to all with jurisdiction at the land and naval customs posts to search diligently for false coins of these Qing tradesmen. At this time the dishonest merchants
were fabricating coins and replacing our coins of brass. These false coins have fooled many in the population and have been accepted in error. It is expressly ordered to those in jurisdiction of the population to seize these monies, and those that accept them in error to immediately give them to the authorities (DNTL XLIV, 21).” The introduction of counterfeit monies by the commercial Chinese has as a consequence the presumption of culpability for contractors whose production was not certified by the state authorities. A Chinese named Huang Tingguang had the authorization to open a monetary workshop Bình-dình and his production was deemed correct. Lê Tự Đản the chief of marine posts of Bình-dình discovered at that time in a police search of a Qing tradesman imported brass coins of a bizarre type (cast in a mould with a mix of copper and of iron). He submitted an official police report and asked that the authorities of the province examine the case and the regulations. For this reason Huang Tingguang became a victim of abuse of power by the provincial authorities. These authorities pressed to take possession of the coins and find the central felon but this individual was not able to give them information. Charges were brought against him accusing him of illegal consumption of opium. A complaint was carried to the Censorat and the emperor was informed. The emperor said “This commercial Qing was not the only one that profits in the future, it is the relatives of Tingguang, of the same family, that enter into a relationship for fraud and all bad things without end. Better that this person cast coins for the state as rapidly as possible. I order then that he cease casting the other coins seen today, charge the tax that conforms to the law, before which he was stopped (DNTL XLVIII, 34-35)”.

In many cases the higher Vietnamese authorities were in association with the false coiners. For example the powerful Minister of Finances, Nguyễn Văn Tưởng was suspected of being involved with the smugglers of false money. These suspicions were rather well founded so that in 1880 Tôn-thất Thuyết, then sub-manager of the ports of the capital, was allowed to require the dismissal of the minister who was also member of the secret Council and son-in-law of the emperor (DNTL LXIV, 15). Toda said “not long ago a considerable amount of false cash was discovered in the colony of Hong Kong, the makers of which were brought before the court. They were allowed to go free on their shewing that the cash were intended for Annam, and it was fortunate for the credit of the Annamese officials that the investigation were not pushed any further, as the very cash in question were taken to Annam by the “Bouranne”, one of King Tự Đức’s gunboats then in Hong Kong for the purpose of being repaired Toda 25).”
Excerpt from page 32

If Chinese tradesmen were rich and had a guarantor they could request advances from the Treasury to install furnaces from the area-chief of the province of Sơn tây and manufacture sapèques of zinc carrying the inscription Tử Đức Thông Bảo. The Tổng đốc was authorized to make these advances, according to their requests, but they could not never be higher has a thousand ligatures. (KDHS, cited by Schroeder: 220, 227).