Use of Money in the Byzantine Empire: Some Examples of Transactions

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Preface

The Byzantine Empire, which survived until 1453, was the continuation of the Roman Empire. With a history of over 1,000 years, the empire was not only a successor to classical antiquity but also a dynamic actor in several contemporary affairs of the Middle Ages, including monetary arrangements.[1]

This paper is inspired by work of Kuroda, (2008a) and (2008b), with his perception of the complementarity among monies, and of the factors concerning time and space (temporality, seasonality, and locality) in making transactions that cause this complementarity. However, the economic situation in this empire was quite different from that in our era.

For the present, two points must be mentioned. Firstly, there are few data for statistical analysis, which is not the case in modern fields of history. This paper employs qualitative analysis from textual evidence to examine the use of money in the empire. It is difficult to determine whether temporality, seasonality, and locality of money in the empire caused complementarity or not, but these keywords have been insufficiently examined and analyzed, as we show below.

Secondly, in Byzantine studies, until today the empire's economy has been the main focus. There is some controversy about the Byzantine economy, especially its market. Laiou explained this controversy using K. Polanyi's three types of economic integration: 'redistribution', 'reciprocity', 'exchange'.[2] Laiou suggested, "Polanyi's three integrative systems describe not economies but systems of exchange". She identified two types of exchange. One is the 'economic exchange' that is Polanyi's 'exchange'. Another is the 'noneconomic exchange' that includes 'redistribution' and 'reciprocity'.

Laiou described two categories of historians of the Byzantine economy. One category includes "those who stress the existence of markets". In this perspective, the Byzantine

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1 On general information of the Byzantine coins, see Hendy (1985), Grierson (1999), Morrisson (2002a).

2 Laiou (2002b). For Polanyi's original three types of the economic integration, see Polanyi (1957).

economy can be analyzed by the tools of modern macroeconomics and was different from modern commercial economies in degree of development. Historians in this category would think 'economic exchange' was the most important element of the empire's economy.[3]

The other category includes the scholars "who ascribe a preponderant role to nonmarket factors". For example, the empire's economy is often characterized by Polanyi's 'redistribution' model.[4] In this, the economy is "considered to be different *in kind* from modern economies" according to Laiou, and this 'noneconomic exchange' to be the most important element of the empire's economy.

Laiou seems to think these two viewpoints are not exclusive, and 'economic exchange' and 'noneconomic exchange' both existed in the empire. We agree with her suggestion.

This paper does not seek to provide exhaustive research on the use of money in the empire, but examines some examples of monetized transactions, using mainly examples up to the twelfth century. It must be noted the situation then was different from that after the thirteenth century.

The first section provides a short outline of the history of Byzantine money. In section 2, we outline the temporality, seasonality, and locality in making transactions in the empire. Section 3 describes the charagma practice, which shows that the state preferred gold coins rather than silver and copper coins in the collection of the basic land tax and its increments. In section 4, we examine the complementarity of monetary spheres or layers indicated by charagma practice.

1. An Outline of Byzantine Money and Its History

The Byzantine Empire's currency had continuity from that of the Roman era, as its origin goes back to the early fourth century, the era of Emperor Constantine the Great (306–337), with its recovery from the Roman Empire's monetary crisis of the third century. The Byzantine Empire used gold, silver, and copper as materials for coins, and after the late eleventh century it also used alloys of these metals.

Determining the starting point of Byzantine monetary history has been a difficult problem. The numismatists engaged in study of Byzantine coinage think it was launched in the final decade of the fifth century (491 AD), based on denominational features.[5] Some scholars think it began in the early fourth century, the age of Diocletian and Constantine the Great.[6] This

3 In this perspective, Laiou's main example is R. S. Lopez. The author thinks Lopez (1951) is typical of his work. Laiou includes herself in this category.

4 Patlagean (1977) was one of the first to examine this concept of 'redistribution'. In Japan, Kin-ichi Watanabe also argues for the redistribution basis of the empire's economy; see Watanabe (1985) in Japanese and Watanabe (1986) in German. Among other studies of Byzantine money, Hendy (1988) also seems to use Polanyi's ideas.

5 For example, see the influential outline of the Byzantine coins by Grierson (1999).

6 For instance, see Hendy (1985) whose title includes "c.300-1450".

paper adopts the latter interpretation.

In the legal context, the Byzantine monetary system seems to have had the character of a primitive gold standard, as the weight unit (*exagium* in Latin / *ἐξάγιον* in Greek) and the real gold coin (*solidus* in Latin / *νόμισμα* in Greek) or gold bullion were only linked until the middle of the fourteenth century.[7] While the weight and fineness of Byzantine gold coins were kept at a uniform standard (weight until the middle of the tenth century and between 1092 and the 1350s, fineness until the middle of the eleventh century and between 1092 and 1204)[8], the intrinsic values (weight or fineness) of the empire's other coins (silver, copper, et cetera) were often manipulated.

Topography of the Byzantine mints from the sixth to fifteenth centuries shows a gradual process of centralization. There were only a few Byzantine mints that issued copper coins from the middle of the seventh century to the end of the empire except during the thirteenth century, and this is a feature of Byzantine money.

Temporal debasement of coinage occurred between the middle of the tenth and the end of the eleventh century. This situation began with the double standard of the weight of the *nomisma* from the middle of the tenth century, and extended to all denominations (gold *nomisma*, silver *miliaresion,* and copper *follis*), manipulating their fineness and / or weight from the middle of the eleventh century.

The monetary system became more stable with the reforms made by the emperor Alexios I Komnenos (1081–1118) in 1092. The most significant feature of this reform was the materials used for coinage. Before the reform, pure metals were used for coin. However, after the reform, materials for coins became pure metals and their alloys (for instance, in the monetary system between 1092 and 1204, gold *nomisma hyperpyron*, electrum *aspron trachy*, billon *aspron trachy*, copper *tetarteron* and copper half *tetarteron*).[9] This reform was not familiar to scholars before Hendy discovered it in 1969. The period between 1092 and 1204 is now considered to be when the Byzantine monetary economy was in its most flourishing phase

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7 For example, Codex Theodosianus 12.7.1. For an English translation, see Morrisson (2002a), p.918: "If anyone wants to pay in solidi, let him pay for one ounce, seven (6) solidi of fine gold (auri cocti), each of five scruples (scripula), printed with our effigies, and naturally fourteen (12) for two ounces, thus bringing the entire sum due. The same method (eadem ratione, meaning 1 solidus 4 scruples) must be observed if anyone brings some matter (metal), so that he may seem to have given solidi. Let the gold that is brought be received on scales balanced (aequa lance) by equal weights (libramentis paribus)". This might be the earliest evidence of determination of gold coinage values by edict. On this text, Hendy explains: "It seems clear ... that the text as it stands is an emended version of original which equated six solidi with an ounce and twelve with two ounces, rather than with seven and fourteen. The emendation is a sixth-century Visigothic or Merovingian one ..." and "This solution was first proposed by Mommsen". See, Hendy (1985), p.330.

8 Weight was used until the middle of the tenth century, ca 4.50 g, and from 1092 to 1350s, ca 4.30 g; fineness was used until the middle of the eleventh century as almost pure fine gold, and from 1092 to 1204 as 85% of fine gold. For an account of the Byzantine monetary system and the Constantinople mint, see Morrisson (2002a), pp.921–927, Table 4.

9 Morrisson (2002a), p.924.

after the rise of Islam.[10]

The temporary occupation of Constantinople by the Fourth Crusade from 1204 to 1261 proved to be the turning point for the Byzantine coinage. After that, the monetary system of the empire began to collapse, beginning with the gradual debasement of the gold *nomisma hyperpyron* and followed by imitation of the coinage of other states. After 1251 or 1252 when it was "back to gold" in western Europe, in the eastern empire those processes became worse in every aspect. The authenticity of Byzantine coinage gradually declined through this process.[11] Gold coins were not issued after the middle of the fourteenth century and the empire itself came to its end in 1453.

2. Temporality, Seasonality, and Locality: Annual Cycles of the Empire's Salary and Taxation Systems, and of Its Agriculture

In the reign of the emperor Constantine VII (913–959), Liudprand of Cremona came to Constantinople as the ambassador from the West. In his *Retribution* / *Antapodosis*, he described the payment of salaries in the court before Easter.

> During that week that comes before the *vaiophóron* — which we call "palm branches" — the emperor makes a payment of gold coins both to the soldiers and to those appointed to the various offices, according to what their rank deserves. Since he wanted me to be present at this pay day, he ordered me to come. It happened in this way. A table ten cubits in length and four in width had been set down, which supported the coins, bound in bags according to what each was owed, with numbers written on the outside of each bag. Thereupon, they entered before the emperor not in a jumble, but in an order, according to the summons of the herald who recited the written names of the men according to the dignity of their rank. … Having begun on the fifth day of the week at the first hour of the day, it was finished by the emperor at the fourth hour of the sixth and seventh days; for to those who receive less than a pound, the chief of the imperial bedchamber, not the emperor, makes payment throughout the whole week before Easter.[12]

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10 See Hendy (1969). The typical view before 1969 was presented by Lopez (1951). His view was that continual monetary instability led to the economic decline of the empire from the eleventh century until its end in 1453. The discovery of the Alexios reform has stimulated recent scholars, such as Laiou (2002d) who estimates the empire's monetized national product was then at its highest proportion (over 46%) of the total economy.

11 In this period, the imitated coinage (such as the silver *basilikon,* which imitated Venetian silver *grosso*, and billon *tournesion,* which imitated French *denier tournois*) was issued by the empire. On these coins, see Kato and Nishimura (2012).

12 Liudprand (2007), pp.200–202.

This suggests the seasonality of salary payments, but whether that also applied to tax payments is unclear in contemporary sources. It is seems to be considered that the payment of land tax in cash occurred twice a year, in September and March.[13] The temporality and seasonality in making transactions in the empire basically depended on the state's salary and taxation cycle as well as on the agricultural cycle.

On the relationship between the harvest and tax payments in the countryside, Laiou suggested that at harvest time in late summer and fall "the population is coin-rich" and "the payment of taxes, at approximately the same time, relieves the population of some or much of the coin" in general.[14]

There is a category of textual sources that is called monastic typikon / τυπικόν (foundation document). Concerning money, the monastic typikon shows many examples of the monastery's payments (such as allowances to monks and commemorations, et cetera). We see this in part of the typikon for the Bačkovo Monastery (in what is now Bulgaria) that was founded in 1083.[15] This document is dated before the monetary reform in 1092 and so is in the period of debasement, which means we need to take care assessing the denominations described in the texts.[16] However, the general temporality and locality of the transactions described in the texts are useful.

Chapter nine of the typikon shows that the monastery's revenues were gathered during September and that "The full amount of their allowance should be in standard trachy coinage". However, if monks needed to buy clothes and do business, they would neglect their duties because the location of the monastery was far distant from the nearest urban area. On every Easter Sunday, a fair was held beside the monastery, coinciding with when monks received their allowances.[17] Morrisson suggests this is "viscosity of monetary circulation" and "a perfect example of sluggish monetary circulation in the hinterland".[18] In this case, the temporality derives from the day of the fair probably at only once a year, and the locality derives from the siting of this monastery.

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13 See Hendy (1985), p.160. Hendy suggests, "tax-payments could be, or were made semi-annually, in September and March" However, the author does not check the original textual evidence, using only secondary works like Brand (1969), p.43 treating before the twelfth century which Hendy quoted, and Oikonomides (2002), p.1035 which treats after the twelfth century which Hendy did not quote.

14 Laiou (2001), pp.212–213.

15 The author made use of Morrisson (2002a), pp.948–949 and Morrisson (2002b), p.274. For the English translation of this typikon, see Thomas and Hero (2000), pp.507–563.

16 In chapter two of this typikon, "All that was in his keeping as a deposit and the revenues of my possessions were in the old coinage of Romanos [III Argyros], the trachy of [Constantine IX] Monomachos, the coins of [Constantine X] Doukas and the scepter coins; there were also coins minted by Michael [VII Doukas]". Thomas and Hero (2000), p.526. Fineness of these gold and silver coins and weight of copper coins were quite different because of temporal debasement from the tenth to eleventh centuries.

17 Thomas and Hero (2000), p.535.

18 Morrisson (2002a), pp.948–949. Morrisson (2002b), p.274.

3. The Charagma Practice in Land Taxation

The charagma / χάραγμα was the word that appeared in the part of the edict of the emperor Alexios I composed in the early twelfth century — *Palaia logarike* / *Παλαιὰ λογαρική* (which means "old accounting" of the land tax). This edict is one of the seven "treatises on taxation" categorized by Oikonomides.[19] *Palaia logarike* is the first part of the edict, which is the actual survey of land taxation carried out for this emperor. The charagma was the Byzantine technical term for land taxation and may be summarized as "how that basic land tax, with its traditional increments, was to be collected in gold coins or in coins of smaller value."[20] In this text, the charagma is described in this way.

> … you should demand only dikeraton. You should demand half and one sixth, that is two thirds (of *nomisma*), by one charagma *nomisma* and hexafollon through charagma too; (you ought) to compute 12 *miliaresia* at 1 *nomisma*, and 1 *miliaresion* has the value of 24 *folleis* as is the old tradition of the former emperors, to return changes (original text: strofe) from the whole belonging to the state treasury.[21]

In this clause, the dikeraton and the hexafollon were the surtaxes (increments or secondary taxes) of basic land tax, and the basic land tax itself was treated in the same way. In the middle of the clause is the well-known denominational relationship (i.e., 1 gold *nomisma* = 12 silver *miliaresia* = 288 copper *folleis*) that operated from the eighth century to 1092 AD.[22] It is an extremely rare case where the official rate of denominations appears in textual evidence.

The charagma was the practice that assigned the relevant fraction of the basic land tax and surtaxes. The charagma practice can be described as in Figure 1. In this clause, *nomisma* has two meanings. One is the money of account as "two thirds (of *nomisma*)", and the other is the actual coin as "one charagma *nomisma*". If the fraction was 2/3 *nomisma* (money of account) or over, the taxpayer had to pay 1 gold *nomisma* coin (actual), which is called "one charagma *nomisma*" in documents, and receive change, called "strofe" (or "antistrofe" in the other part of the same text) in silver and / or copper coin (actual). For example, when the total sum amounted to 2 *nomismata* and 3/4 *nomisma*, the taxpayer had to pay 3 gold coins, and receive

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19 On the seven "treatises on taxation", see Oikonomides (2002). On *Palaia logarike*, see the original Greek edition of Zachariae von Lingenthal (1857), pp.385–392. For important secondary works, see Hendy (1969), Morrisson (1979).

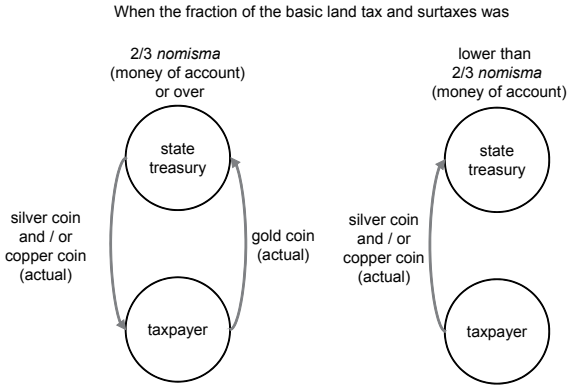
20 Oikonomides (2002), p.976.

21 This clause is translated from Zachariae von Lingenthal (1857), p.387. "Ἕως ὧδε ὀφείλεις ἀπαιτεῖν δικέρατον καὶ μόνον· ἀπὸ δὲ τοῦ ἥμισυ ἕκτου ἤτοι τοῦ ἑνὸς χαράγματος νομίσματος ὀφείλεις ἀπαιτεῖν καὶ ἑξάφολλον διὰ χαράγματος· λογαριάξειν δὲ ιβ΄ μιλλιαρήσια τῷ νομίσματι ἤτοι τὸ μιλλιαρήσιον ἔχειν φόλλεις κδ΄ κατὰ τὴν παλαιὰν παράδοσιν τοῦ αὐγούστου καίσαρος, ἀντιστρέφειν δὲ τὰς στροφὰς ἐξ ὁλοκλήρου κατὰ τὸ ἀνῆκον τῷ δημοσίῳ."

22 Morrisson (2002a), pp.922–923.

1/4 *nomisma* in silver and / or copper coins.

Figure 1. The Charagma Practice in Land Taxation



On the one hand, the state collected the highest possible denomination (gold *nomisma*), because, as described by Liudprand, gold coinage was the essential means of payment for the empire's rulers. On the other hand, the lower denominations (silver *miliaresion* and copper *follis*) were supplied to the local market.

This is an example of land taxation considered to have been in existence from the middle of the eighth century to the first decade of the twelfth century, and its partitioning was not made by the market but by the state. Therefore, it is insufficient to demonstrate Kuroda's conception of complementarity, which considers combination of the state and the market "can make sense of the behaviour of monies".[23] However, given limited primary information, the author thinks this can be the key to examining the complementarity of monies.

4. Complementarity: Monetary Layers / Spheres of Higher and Lower Denominations, and Money Changers

From the charagma as described in the *Palaia Logarike*, the state used two types of denominations, higher and lower. The higher denominations were gold and the lower denominations were silver and copper. It is not certain whether silver coins should be included in the higher or lower denominations. We could place silver coins in a middle denominations, but for the time being, this paper includes silver coin in the lower denominations following the charagma practice.

Here we can assume two monetary layers / spheres of two types of denominations. This is the springboard of the discussion. On the layer / sphere of the higher denominations,

23 Kuroda (2008a), p.11.

according to the cited text evidence, gold coin used in the annual cycle of salary and taxation would form part of the system of 'redistribution', as in the charagma we described in previous sections, and would also be used for diplomatic payments and charity et cetera that are part of the system of 'reciprocity'. The higher denominations (especially gold) seem to appear in 'noneconomic exchange' before the eleventh century. However, after the twelfth century, higher denominations of Byzantine coinage are recorded, for example, in Italian notaries' documents concerning commerce.[24] We think this indicates the rise of 'economic exchange' in the empire in which previously 'noneconomic exchange' had been dominant.

The usage of money can be found in hagiographies (lives of the saints). Information from such sources is often said to be unreliable and caution is needed when quoting from these texts.[25] Some scholars made wide use of these resources when considering Byzantine coinage. For instance, Oikonomides examined 40 examples of monetary exchange in saints' lives of the eighth to eleventh centuries in order to prove a high degree of monetization of the empire in these periods.[26] It is difficult to judge whether his purpose (i.e., proving high monetization) is appropriate or not. However, his means (i.e., examining examples of monetary exchange in hagiographies) could be effective in considering use of money.

On the monetary layer / sphere of lower denominations, we will see the usage of copper in the sixth to the seventh century from the hagiographies. At first, we show an example in Constantinople. In 643/644[27], a deacon had happened to go to church at a late hour of the evening and bought candles from the artisan using copper coins.[28] It is not certain when the "late hour" was. However, artisans in the capital might well have been operating at night. Secondly, there was a money changer of Alexandria who was at a loss whether to make a donation or not. In his story, it would be obvious that 5 *folleis* could buy a bath ticket and / or vegetables for one family.[29]

Lower denominations were probably used in daily transactions in the biggest cities such as

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24 For trade that represents 'economic exchange' between the seventh and twelfth centuries, see Laiou (2002d). For the appearance of Byzantine coins in Italian notaries' documents, see, for example, Morozzo della Rocca e Lombardo (1940). The names of Byzantine coins seem to appear elsewhere in documents especially after the twelfth century.

25 Hendy (1985), p.15. "I have tended to utilise hagiographical sources only where their evidence can be shown to conform with that of other kinds of sources: in a basically passive and supportive rôle, rather than in an active and assertive one."

26 Oikonomides (1994). The degree of monetization of the Byzantine world between the end of the seventh and the beginning of the ninth century has been a point at issue from the 1950s. In this debate, extreme ideas such as *Geldwirtschaft* and *Naturwirtschaft* were also used. See Morrisson (2002a), pp.946–950.

27 In the Byzantine Empire, the system of the fiscal year called indiction / ἰνδικτιών was used. The system had a 15-year cycle and a year began on September 1 and ended on August 31. See Hendy (1985), p.160.

28 The author made use of Curta (2005), p.124. See the English and the original Greek editions, Crisafulli, Nesbitt, and Haldon (1997), pp.124–129.

29 The author also made use of Curta (2005), p.124. See the original Greek edition, Gelzer (1893), S.76–77.

Constantinople and Alexandria, which had two of the five patriarchates of the early Christian world.

Money changers were probably connecting between two spheres / layers. Before the rise of Islam, money changers can easily be found everywhere in the texts, such as the man of Alexandria in the aforesaid story. However, after the rise of Islam, it is difficult to find money changers. One major example was in *Book of the Prefect* / *Τὸ ἐπαρχικὸν βιβλίον* composed in the early tenth century.[30] This text is the regulations of the associations (often identified as being like the guilds in western Europe) proclaimed by the prefect of Constantinople.

In the capital, their existence was clear, but in other cities it was unclear, especially after the rise of Islam. There could be textual sources, but this author has no knowledge of them. Therefore, we will consider an example in the sixth century. Near Hadrianopolis of Paphlagonia (now Niksar in the Republic of Turkey), the mother of St. Alypios got *tremissis* (1/3 gold *nomisma*) and "went to the city, in order that making copper coin she would spend on the arrangement of their own nourishment".[31] As Hadrianopolis is far from Constantinople (about 670 km in a straight line), "the city" would not be the capital. There might have been money changers or similar who functioned in Hadrianopolis or a neighboring city. The situation would have been the same in other regions.

It must be pointed out that mention of the official rate in textual evidence is extremely rare, as in section 3 of the *Palaia Logarike*. For instance, from the monetary reform in 1092 to the first fall of Constantinople in 1204, the denominational relationship was thought to be 1 gold *nomisma hyperpyron* = 48 billon *aspra trachea*.[32] The relationship between those coins is proved from the monastic typikon of Pantokrator monastery (dated in 1136), which describes "Two aspra trachea nomismata, or a twenty-fourth part of the preferred gold nomisma of the day".[33] As the document was made by the emperor John II Komennos (1118–1143), it could be the official exchange rate at the time, but it could also have been the market rate.

Analysis of official and market exchange rates is the key to examining the complementarity between monies in the empire. The tax collector even ignored the official rate in the description in the *Nea logarike* / *Νέα λογαρική* (which means "new accounting" of land tax) that is the latter part of the *Palaia Logarike*.[34] The text was composed in the early

30 The most recent Greek edition of the *Book of the Prefect* is Koder (1991). On money changers, see Koder (1991), S.88–91. For English translations, see Hendy (1985), p.253.

31 Delehaye (1923), p.160. "ἐπὶ τὴν πόλιν ἐξέδραμεν, ἵνα κέρμα ποιήσασα εἰς οἰκονομίαν τῆς ἑαυτῶν ἀποτροφῆς δαπανήσοιεν·". The author used Curta (2005), p.124 and Oikonomides (1994), p.368, note 35.

32 See Morrisson (2002a), p.924.

33 See Thomas and Hero (2000), pp.725–781 for the typikon of Pantokrator monastery, with their comments and English translation. This description is in chapter 51, Thomas and Hero (2000), p.762. On the interpretation of numismatics, see also Hendy (1969) and (1999), p.44.

34 The *Nea Logarike* shows the process of reform of land taxation by the emperor Alexios I and the officials. See Hendy (1969), pp.50-64 and Morrisson (1979) with the full French translation. On the Greek edition of the *Nea Logarike*, see Zachariae von Lingenthal (1857), pp.393–400. On the tax

twelfth century. There would have been several coins with different intrinsic values, because of the debasement in the former two centuries. If the market exchange rate was essential in the transactions in the empire after the debasement, relationship of those spheres / layers might have been asymmetric in the sense that the official and market exchange rates were different.

Figure 2. Hypothetical Figure: Monetary Layers / Spheres of Higher and Lower Denominations, and Money Changers

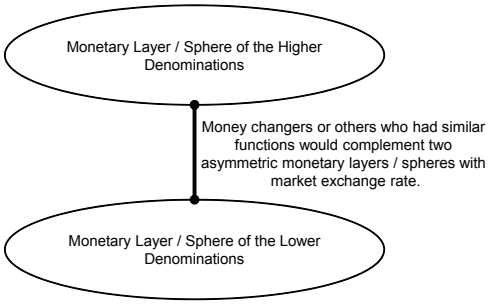

Figure 2 is a hypothetical figure showing the monetary layers / spheres of higher and lower denominations, and money changers. Money changers or others who had similar functions would complement these layers / spheres with official or market exchange rates.

Concluding Remarks

In the preface, we stated we did not intend to choose one specific feature with which to characterize the Byzantine monetary system. It would be a mistake to think the Byzantine economy was homogeneous. In section 1, we oversimplified our outline of Byzantine monetary history. However, the studies referenced here have comprehensive information on the diversity of monetary arrangements in the empire.

In section 2, we have seen that there were temporal, seasonal, and local factors in making transactions in the empire. In section 3, we saw how the state itself divided denominations from the aspect of its land taxation, whereas Kuroda suggests the market was more important than the state. It is because of the insufficiency of our information from the surviving textual evidence.

In section 4, we examined the complementarity of two monetary spheres / layers indicated by the charagma practice. These spheres / layers would be complemented by the money changers or others who had similar functions, including possibly all who dealt with monetary transactions.

This paper is short and the examples are limited, but we believe we have shown the

collector who ignored the official exchange rate, see Zachariae von Lingenthal (1857), p.393.

empire's economy was not homogeneous. In the Byzantine economy, we can assume that the monetary spheres / layers complemented each other, and that even in these spheres / layers, the various systems of exchanges could coexist.

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