The Monetary History of the East Mediterranean in the Middle Ages as Judged from Imitated Coins

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Introduction

The Arab–Islamic powers emerged in the 7th century. After that, the East Mediterranean was divided into three civilizational–political circles, Greek–Orthodoxy (Byzantine Empire), Latin–Catholic (Frankish Empire and its successors), and Arab–Islam (Islamic dynasties). These three circles developed their own distinctive monetary systems, but they were both opposed to and interconnected with each other.

This paper aims to explain some features of these opposing but interconnected monetary systems in the East Mediterranean during the Middle Ages, which we define as the period between the emergence of the Arab–Islamic powers in the 7th century and the rise of Italian city-states in the 15th century.

1. Conceptual framework

The conceptual framework of our research is shown by the triangle comprising the state, and international and local markets in Figure 1.

Monetary affairs are complicated phenomena in which economic activities in apparently separate international and local markets are in reality closely linked with each other. However, monetary affairs in the international and local markets could be distinguished and be dealt with separately, at least in theory.

The key concept of our research is the imitated coin. In history, coinages have been imitated in two respects: imitation of design and manipulation of intrinsic value (fineness and/or weight).

Based on the dichotomic theory of monetary origin, the state vs. the market, the imitated coins reflect the delicate relationship between the supplier of coin, the state or local community, and its user, the market.

In conventional theory, the intrinsic value of coins guarantees their circulation. In this theory, the value of coins is almost synonymous with the intrinsic value of the metals used in a

coinage.

In the contrary theory, in which the state guarantees the reputation of its coins, it is the political power or authority of the state that ensures the circulation of its coins in the market.

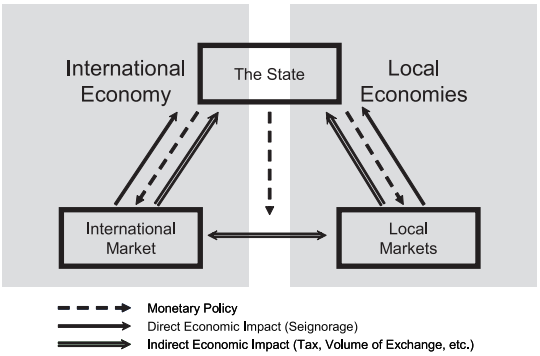
In the former theory, the market automatically generates the value of coins. On the other hand, in the latter theory, the value of coins depends on the monetary policy of the state.

The imitation of other coinage is a phenomenon that we mostly observe in the circulation of coins guaranteed by the state, as there is necessarily a time lag between the emergence of a new state and the acceptance of the coin it issues, even if it is politically very powerful.

In this context, the imitated coin is a phenomenon that is observed in the monetary market in the transitional period between the emergence of a political newcomer and its acceptance in the market.

Therefore, the imitated coin is a subject suitable for research on the coexistence of many monies and the complementarity among them in the international context of the transition from one monetary power to others.

Figure 1 Relationship of the state and international and local markets



2. Four phenomena of imitated coins in the monetary history of the East Mediterranean in the Middle Ages

Based on the numismatic evidence, we observe four major instances of coin imitation in the East Mediterranean in the Middle Ages, as shown in Figure 2. These four phenomena show the transition of monetary power during that period.

The first is the Islamic coinage of the reign of ‘Abd al-Malik (Umayyad Caliph 685–705).

The second is the Sicilian and South Italian coinage together with that of the Crusaders in the Levant from the 10th to 12th centuries.

The third is the coinages of the Italian city-states and the Crusaders in Romania (which means “the territory of the Byzantine Empire”) in the 13th century.

The fourth is the coinage of the Byzantine Empire and the Mamluk Sultanate from the 14th

to 15th centuries.

The patterns of imitation in these four phenomena are conceptually shown in Figures 3 to 6, referring to some imitated coins that typically represent the patterns of imitation in each phenomenon.

The yellow circles represent imitators and the blue lines are the imitated coins examined in this paper. The single dotted line indicates imitation of design, the single solid line shows imitation of intrinsic value (fineness, weight, and combination of them), and the double solid line shows imitation of both design and intrinsic value.

2.1. Phenomenon 1: Islamic coinage in the reign of 'Abd al-Malik (Umayyad Caliph 685–705)

As mentioned above, the biggest event in the East Mediterranean in the Middle Ages was the emergence of the Arab–Islamic power in the 7th century. At that time, the monetary affairs in Byzantine and European regions were as follows.

In the Byzantine Empire, its traditional monetary system of gold, silver, and copper coins went back to the monetary system of the Later Roman Empire. The Byzantine coinage is not far different from the Roman one before 491, except in minor details of the system.[1] The remarkable characteristic of the Byzantine coin design is the standing figures of Jesus Christ or Saints or Emperors (Figure 7-1).

In Europe, the Frankish Empire and its successors established its own monetary system using only silver coins.[2] Their silver coin was known as *denarius* in Latin, *denaro* in Italy, *denier* in French, and so on. The most notable feature of the Frankish coin design is the Holy Cross in the middle of one side, as in the silver *denarius* of Charlemagne (Figure 7-4).[3]

The emerging Arab–Islamic powers in the East Mediterranean initially adopted the existing financial systems of the lands they conquered, including their coinage traditions, and then issued their own coins imitated from the Byzantine coins in the East Mediterranean and from the Sassanian coins in Mesopotamia and Iran.[4]

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1 Georganteli (2008:161) says, "The history of the Byzantine coinage starts conventionally with the reign of Anastasios, who in 491 introduced a currency reform". Hendy (1985) dates Byzantine monetary history as beginning from about 300, that is, the age of Diocletian. For more detail on the Byzantine monetary system, see Morrisson (2002:909–966 and especially 918–936).

2 For the numismatic history of Western Europe in the early Middle Ages, refer to Grierson and Blackburn (1986). Spufford (1988:378) divides the history of money in the Middle Ages of Western Europe into two distinct periods, "an era of silver coins" without gold coins before 12th century, and the "much more complex era of large silver coins" with gold coins from the 13th century.

3 In regions where the three civilizational–political circles mentioned above confronted each other, we also observe imitated coinages. One of the good examples in the Western Mediterranean is the coinage of the Christian monarchs in the Iberian Peninsula. On the gold *morabetino* whose original is the Almoravid dinar and the gold *dobla* whose original is the Almohad double-dinar imitated by the Christians in Iberian Peninsula, see Eagleton and Williams (2007:98). Further good examples in the East Mediterranean are the phenomena outlined in this paper.

4 Schultz (1998:325). In Syria, Palestine, and Egypt, it seems that only Arab–Byzantine coins

Eagleton and Williams (2007:88) stated, "the Arab gold dinar and bronze *fals* were named after Byzantine coins, respectively the *denarius aureus* (that is *solidus*) and the *follis*, and the silver *dirham* from the Sassanian *drachm*. Reflecting their origins, these early coins are described as Arab–Byzantine or Arab–Sassanian" and they note that Arab–Byzantine and Arab–Sassanian coins "show the modifications that took place, such as the removal of Christian imagery and the addition of Arabic inscriptions".[5]

Figure 7-1 is the Byzantine gold coin, *solidus* in Latin or *νόμισμα* in Greek, issued by Heraclius (Byzantine Emperor 610–641). Figure 7-2 is the imitation of the solidus struck in the Umayyad Caliph 'Abd al-Malik's reign. The designs of the Arab–Byzantine coins were apparently modeled on the originals. As gold is a precious metal, the gold imitative coins might have had the same intrinsic value of the Byzantine coinage. However, it might not be important whether the intrinsic value of the copper coins was equal to their originals or not, as copper coins had a token value.[6]

The original Islamic monetary system with gold, silver, and copper started from the monetary reform by Umayyad Caliph 'Abd al-Malik, who ruled from 685 to 705, in the last decade of the 7th century.[7] After the period of imitated coins mentioned above, he abandoned the Arab–Byzantine and Arab–Sassanian coinages. The conspicuous feature of the Islamic coins is the use of Arabic script in place of images like the gold *dinar* of 'Abd al-Malik (Figure 7-3).

However, the attempt to adopt the original Islamic monetary system could go back to the founder of the Umayyad dynasty, Mu'āwiya (661–680). On the coronation of Mu'āwiya at Jerusalem, a contemporary Syrian chronicler describes:

> In 971 [of Seleucid era, counting from 312 BC], Constans's 18th year, many Arabs gathered at Jerusalem and made Mu'āwiya king…. In July of the same year, the emirs and many Arabs gathered and proffered their right hand to Mu'āwiya…. He also minted gold and silver, but it was not accepted, because it had no cross on it.[8]

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were issued. Shortly before the rise of Islam, the Sassanian Empire took these areas from the Byzantine Empire between 611 and 628. It is possible that the Sassanian Empire issued coins in the Byzantine style in the captured area, which would mean the Byzantine monetary tradition remained active in these areas throughout the 7th century. See Oddy (2004:121–152) and Foss (2008:9–12, 92–93).

5 "Arab–Sassanian coins" and "Arab–Byzantine coins", are the terms used by J. Walker's *Catalogue of the Muhammadan coins in the British Museum* (2 vols.), Walker (1941) and Walker (1954). But there have been various nomenclatures used by several scholars as the development of studies. For example, the "Arab–Byzantine coins" struck in Greater Syria in the 7th century AD are described by Oddy (2004:122–126).

6 Heidemann (2010:656) points out the token value of the copper coins in the Islamic currency system after the reform of 'Abd al-Malik. Before the reform, the situation might have been the same.

7 For the reform of Abd al-Malik in 696–697 AD, see the pioneering work, Grierson (1960:241–264), and the more recent Foss (2008:109–111) and Heidemann (2010:656–658).

8 This is the extract from Foss (2008:39). The original English translation is by Palmer (1993:31f). But the author did not check original yet. On this subject, see also Ibn Khaldūn (1939:107–108) and

It seems to be accepted that Mu'āwiya issued imitation copper coin.[9] Foss recently proposed to identify the gold coin of this caliph with one bearing Greek script with a transformed cross.[10] However, what silver coins without crosses Mu'āwiya did issue is uncertain. Anyway, this impressive text on the early Islamic coinage is very informative on the monetary affairs of those days.

2.2. Phenomenon 2: Coinage of the Sicily, South Italy, and Crusaders in Levant from the 10th to 12th centuries

From the 10th to the 12th century, the East Mediterranean saw political newcomers in its Western and Eastern regions: the Norman Kingdom and the Crusaders in Levant.

From the second half of the 10th century, Amalfi (in about 960) and the Duke of Salerno (in about 1000) issued gold coin *tari*. The issue of *tari* continued under the Norman Kingdom.

According to Grierson and Travaini (1998:473), *tari* is "from an Arabic word meaning 'fresh', 'newly struck', used by Italians for the Muslim quarter-dinar of Sicily and for its mainland imitations struck at Amalfi and Salerno." and "The Sicilian *tari* originally weighed 1.06 g, its continental counterparts somewhat less. In Norman Sicily its fineness was reduced to 16 1/3 carats (681/1000), and in the reign of William II the coin ceased to be struck as a definite weight unit, so that all transactions required the coins to be weighed".

Figure 7-6 shows the imitated coin, *tari* struck by Roger II of Sicily. Figure 7-5 shows the coin with original design and weight, the *quarter dinar,* struck by al-Mustansir (Fatimid Caliph 1036–1094).

In 1140, Roger II (King of Sicily 1130–1154) issued a new silver coin, generally called the *ducale* or *ducat*. According to Grierson and Travaini (1998:460), *ducale* is "the name of the concave coin of poor-quality silver (c.60%) of c. 2.7g … created by Roger II in 1140. It took its name from the 'duchy' of Apulia."

Figure 7-8 is the imitative coin, the silver *ducale* struck by Roger II of Sicily. There is no old or contemporary Byzantine coinage that has the intrinsic value of the *ducale*, so this silver coin imitated design only. Figure 7-7 shows the coin with the original design, *nomisma hyperpyron / νόμισμα ὑπέρπυρον* (which is the reformed Byzantine coinage in 1092)[11] struck by Manuel I Komnenos (Byzantine Emperor 1143–1180).

Another new power was the Crusaders, who came to the Levant around 1100. They established the Crusader states, the Kingdom of Jerusalem, and its vassals. They were

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Rosenthal (1958:58–59).

9 See recent catalogue; for instance, on Syria, Foss (2008:38–55) and on Egypt, Foss (2008:99–105). For a review of the last 50 years of research on Arab-Byzantine coins, see Oddy (2004).

10 Foss (2002). Foss (2008:41–42).

11 On the monetary reform by Alexius I Komnenos (Byzantine Emperor 1081–1118), see brilliant study, Hendy (1969) and (1999). The main features after the reform were these of the materials for coins (pure metal to alloy), and of their shape (flat to concave).

also imitators of coinage. Their coins are so rich in variety that researching them is very complicated and still in progress.[12]

Here we examine one example, *bezant*, an imitation gold coin. The gold *bezant* was called *bizancios saracenatos* / *bisancios saracenatos* in contemporary commercial documents. Despite the name, the gold *bezant* did not have a Byzantine style but used the Islamic style, specifically dinars of al-'Āmir (Fatimid Caliph 1101–1130). This would be the reason that this denomination was called *bizancios saracenatos*. The gold *bezant* had lower weight and lower fineness than its prototype and with faulty epigraphy.[13]

2.3. Phenomenon 3: Coinage of the Italian city-states and the Crusaders in Romania in the 13th century

The 13th century is the period when Italian city-states became powerful in the East Mediterranean. The symbolical event for this period was the issue of a new silver coin, *grosso* by the Republic of Venice in 1202. Before 1202, Venice had issued a Frankish style silver coin, *denaro* (*denarius* in Latin).[14]

Stahl (2000:18–19) indicates, "the clear source for it (that is, *grosso*) is Byzantine coins, specifically the electrum *aspron trachy* of the twelfth century. The most significant differences between the Venetian *grosso* and the Byzantine *aspron* are that the *grosso* was of pure silver rather than a gold–silver alloy and that the Venetian coin was flat, unlike the Byzantine one, which was cup-shaped". However, "the *grosso* also resembles a Norman coin of 1140, also called a ducat, but there is no reason to believe that it was derived from the coin rather than from the more common Byzantine prototype of both". Byzantine electrum *aspron trachy* / *ἄσπρον τραχύ* (*aspron*) has almost the same design of the *nomisma hyperpyron*.

Figure 7-9 shows the silver *grosso* struck by Renier Zen (Doge of Venice 1253–1268). Figure 7-7 shows its model, the *nomisma hyperpyron* of Manuel I of Byzantium. Figure 7-8 shows the silver *ducale* struck by Roger II of Sicily, which Stahl suggests may or may not have been one of the prototypes of *grosso* coins.

In 1251 or 1252, the republic of Florence issued the epoch-making gold coin, *florin* / *fiorino*. In the same year, Genoa also issued gold coinage, generally called *genoin* / *genovino*. Lopez (1956) called this monetary event "Back to gold" in the Western Europe, and Watson (1967) moderated this to "Back to gold and silver". The *florin* was becoming the most influential gold coin in the West Mediterranean.

The *florin* was almost a pure gold coin. Newly issued gold coins disappeared in the West from the early 9th century to the middle of the 13th century. In contrast, gold coins survived in the East Mediterranean, like Byzantine *nomisma* and Islamic *dinar*, as we have seen above. In

12 A recent catalogue with the most exhaustive commentaries is Metcalf (1995).
13 Metcalf (1995:43–51).
14 Stahl (2000:3–15).

the 13th century, it is believed the supplies of *nomisma* and *dinar* diminished.

This would be the one reason for the appearance of the *florin*, and the high fineness of the former *nomisma* and *dinar* might be the model for the fineness of *florin*. The original *florin* has a standing figure of San Giovanni Battista, the patron saint of Florence. The standing figures of Jesus Christ, Saints or Rulers were in the tradition of Byzantine coinage. The *florin* would have imitated the design of the Byzantine coinage.

In 1284, the Republic of Venice issued a gold coin, *ducat* or *ducato d'oro*. Stahl (2000:31) explains, "On 31 October 1284, the Council of Forty approved the issue of Venice's gold coin, the ducat. As the records of the Forty are lacking for this period, the act is known only from its inclusion in the registers of the Great Council", and the act decided the ducat would adopt Florentine standard.

Stahl (2000:31) also suggests, "In iconography it appears to be derived entirely from the *grosso*". This would indicate that the prototype of *ducat* is the Byzantine coinage via silver *grosso*. It is evident the *ducat* was becoming the most influential gold coin in the East Mediterranean between the 14th and 15th centuries instead of the *florin*, and the silver *grosso* also circulated widely.

Figure 7-10 shows the *florin / fiorino d'oro* of the Republic of Florence issued by an unknown mint master. Figure 7-11 shows the *ducat* of the Republic of Venice issued by Giovanni Dandolo (Doge of Venice 1280–1289). Figure 7-1 shows one of the prototypes for its fineness and design, the *nomisma* of the Byzantine Empire. Figure 7-3 shows one of the prototypes of the fineness, the *dinar* of the Islamic dynasties.

The Byzantine region also saw the circulation of imitated coins. Romania, then the territory of the Byzantine Empire, was gradually occupied by the Third Crusade and especially the Fourth Crusade, which captured the capital of the Byzantine Empire, Constantinople. Although there are many examples of the Crusaders' imitated coins, we will show one example of the Kingdom of Cyprus in the 13th century.[15]

In 1191, the time of the Third Crusade, Richard I (King of England 1189–1199) captured Cyprus, the former Byzantine territory and then under the control of the rebel Isaakios Komnenos. In the next year, 1192, Richard sold the island to Guy de Lusignan, the former King of Jerusalem. Guy created the Kingdom of Cyprus in the same year, and his descendants ruled the island until 1489.

In Cyprus, the kingdom issued imitative coinage of several styles including the electrum white *bezant*. Metcalf explains that white *bezant* was "entirely Byzantine in iconography" as the name precisely suggests, and "stood in the tradition of the Comnenian electrum third hyperpyra, which had contained originally about 8 carats of fine gold, and had weighed about

15 On the imitated coinage after the Fourth Crusade, these of the Latin Empire and the Kingdom of Thessaloniki, see Hendy (1999:652–669).

4.4 g."[16] On this point, white *bezant* was quite different from the gold *bezant* with Islamic design.

White *bezant* apparently imitates the Byzantine coins' design and intrinsic value. This example also resembles the silver *ducale* of the Kingdom of Sicily in the 12th century and the silver *grosso* of Venice in the 13th century. However, this white *bezant* is a more genuine imitation than the *grosso*.

2.4. Phenomenon 4: Coinage of the Byzantine Empire and the Mamluk Sultanate from the 14th to 15th centuries

In the 14th and 15th centuries, the Byzantine and Islamic states were obliged to make their monetary reforms in the background of the penetration of Italian monetary powers into the East Mediterranean.

In the first decade of the 14th century, shortly before 1304, Andronikos II Palaiologos (Byzantine Emperor 1282–1328) issued a new silver coin, *basilikon* / *βασιλικόν*. Its design was well-known to contemporaries.

Grierson (1991:266) said that the *basilikon* is a "small silver coin weighing 2.2 g … and modeled in weight, fineness, and general appearance on the Venetian *grosso* or silver *ducat*. Both coins have on one side a seated figure of Christ, and on the other two standing figures, but on the Byzantine coins, these are Andronikos II and Michael IX instead of St. Mark and the doge. By analogy with its prototype of the duchy (ducatus) of Venice, it was called a basilikon (from Basileus), but Byzantine sources of the early 14th C often made no distinction between the two and called both doukatoi."[17]

Figure 7-9 shows the original coin of the *basilikon*, in design and intrinsic value, the silver *grosso* of the Republic of Venice mentioned previously. Figure 7-12 shows the imitative silver *basilikon* struck by Andronikos II of Byzantium.

In the same period, the Byzantium Empire also issued the billon coin, generally called *tournesion* / *τουρνέσιον*. According to Grierson (1999:31), *tournesion* "is the word used by Pegolotti for a Byzantine coin that is implicitly of billon, for it is worth a quarter (or eighth) of a silver *grosso*". Pegolotti was a Florentine merchant of the first half of the 14th century and the author of *La pratica della mercatura* which is a handbook of trade including rich information on contemporary coinage.[18]

This coin is the imitation of the French *denier tournois*. Grierson (1999:31) writes "They reached the Levant in great quantities as a result of the crusading expeditions of the French baronage and of St. Louis, and in the second half of the thirteenth century began to be struck

16 On the white *bezant*, see Metcalf (1995:180–189).
17 For further information of *basilikon*, see Grierson (1999:25,50).
18 Pegolotti (1936).

on the spot by the barons of the Morea, the dukes of Athens, and many minor lords".[19]

In the middle of the 13th century, the Latin Empire and the Kingdom of Thessalonica established by the Fourth Crusade had already disappeared. However, relatively small states ruled by the lords of French origin, like the Principality of Achaia and the Duchy of Athens, still survived.

In short, the *denier tournois* spread from France to Byzantium via French states in Romania.[20] While the imitations that we have seen above occurred in the same or neighboring regions, the *tournesion* was struck at Romania far distant from France, the origin of the *denier tournois*.

Original *deniers tournois* "were of a nominal weight of 1.12 g, and were 29.9% fine silver."[21] However, the *tournesion* had a weight of 0.7 g or below, and was 22.5% fine silver or less.[22]

In the Islamic region, al-Ashraf Barsbāy (Mamlūk sultan 1422–1438) issued gold coins, called *ashrafī* in the beginning of the second quarter of the 15th century.[23] According to Schultz, "The new gold coins were called *ashrafīs* ... Coins of this type were struck during the reigns of all subsequent … Mamlūk sultans. They were of high fineness up until the very end of the sultanate. Most notably, however, they were minted to a new weight standard, one not based on the Muslim mithqāl, but apparently derived from (or at least influenced by) the weight of the Venetian ducat". He indicates that the principal reason for the creation of the coinage is the appearance of foreign coins, especially the Venetian *ducat,* mentions of which increased in the contemporary chronicles.[24] As in the case of *tournesion*, *ashrafī* were struck at a place far from the origin of *ducat*.

Figure 7-13 shows the gold *ashrafī* of Barsbāy. Figure 7-11 shows that the Venetian gold *ducat* was its prototype for weight and fineness standard, albeit only in intrinsic value. However, *ashrafī* were not at all modeled on the design of the Venetian *ducat.*

Concluding remarks

In conclusion, we can deduce the following three points from our description of the four phenomena of coinage imitations.

First, the monetary circulations in the Byzantine, Frankish, and Muslim regions were influenced by each other, as shown in the phenomena of their imitated coinages.

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19 For further information of *tournesion*, see Grierson (1999:51–53).
20 For *denier tournois* issued by the French lords in Romania, see Metcalf (1995:252–286).
21 Metcalf (1995:252).
22 Morrisson (2002:926).
23 On the monetary reform by al-Ashraf Barsbāy, see Popper (1955/1957:49–50). On *ashrafī*, see Gennep (1897:495).
24 Schultz (1998:335–336).

Secondly, the phenomena of imitated coins were well observed in the areas and times when different geopolitical powers confronted each other.

Thirdly, despite the commercial communications with each other, the three main different geopolitical entities kept their traditional customs and developed monetary systems peculiar to the policies of their monetary authorities and the needs of their local markets.

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Supplementary Essay by Hiroshi Kato

Prof. Kuroda's Monetary View on Liquidity in Local Market

The above paper was written after being inspired by Akinobu Kuroda's view on money. This is a short essay to comment on his view, based on one of his earliest books on this subject, that is, Akinobu Kuroda, *World History of Monetary Systems* (in Japanese), Iwanami-shoten, Tokyo, 2003.

Prof. Kuroda starts his discussion by pointing out the paradoxical fact on money in history that many currencies simultaneously circulate side by side in a society, and have their own value standards that could not be converted into each other.

I used the term, "paradoxical". Why "paradoxical? Because, in conventional theories on money, the coinage is supposed to be a tool for giving symmetry to the economic transactions. The term "symmetry" means, in the opinion of Prof. Kuroda, the universal value system by which the values of goods and services are automatically convertible into each other.

However, in history, the opposite is true. Money, which is supposed to be the tool for a universal value system in conventional theories on money, has, in itself, an asymmetrical existence and assumes the co-existence of many other value systems of goods and services in a society. Thus, Prof. Kuroda criticizes, as a historian, the general view on money among economists, and proposes a new monetary theory, which does not assume any abstract or nonspecific currency, but is based on the historical fact that many kinds of currencies are able to circulate side by side.

Prof. Kuroda's discussion of money is far-reaching. His perspective is not only theoretical, but also historical, and it covers all regions of the world and all periods from the Middle Ages to the present time.

Prof. Kuroda expresses his standpoint by saying that if we wish to understand the complexity and asymmetry of money, it should not be related to concepts of trade or exchange. From this standpoint, he criticizes some corollaries of the conventional theory on money. The most important concept in his discussion is apparently "liquidity in the local market". By the concept of "liquidity in the local market" is meant the whole body of the intermediate functions for exchanges or transactions in a specific society and it comprises all kinds of liquidities including currencies, commodities substituting money, and credit, whose circulation is assured by the chain of the social relations in the closed society concerned.

In the case of currency, that means the hand-to-hand money circulated among people. The chain of the relations connected by "local currency" is called a "circuit" and the scope or space, in which the exchanges or transactions are done by the intermediate function of "local currency" through "circuits", is called the "currency circuit".

On the other hand, the opposite concept to "liquidity in local market" is "convertibility

between local markets" and in case of hand-to-hand money, it is called "currency convertible between local markets", which is the equivalent of the "local currency" in a "currency circuit".

I will summarize again Prof. Kuroda's discussion, using the key concept of "liquidity in local markets". In the conventional theory of money, "liquidity in the local market", and in the case of currency, the hand-to-hand money circulates with the assurance of the value of its material. On this supposition, the values of all the monies circulated in the market could be convertible with each other by the universal standard, which is the value of the material.

However, the facts are different. The fact is that historically, plural numbers of monies circulated side by side, each having their own value systems. In other terms, the monies are not the tools which give a symmetry to the transactions of goods and services as explained in the conventional theories, but they are, in themselves, the asymmetrical existences in which, each of them, has its own standards of estimation. This is because each of the currencies has its own "circuit" of circulation and how it circulates or withdraws from market is different according to the nature of its "circuit".

Especially, the scope of the circulation of a currency is dependent on the value of its unit. The currency whose unit has a smaller value could not widely circulate. How a small currency unit circulates in society is intimately related to the structure of political powers and markets in the society concerned. This asymmetry can be observed not only in the currency but also in another form of the "liquidity in local market", that is, credit.

Prof. Kuroda concludes from this fact that the creation of "liquidity in a local market", regardless of currency or credit, is needed not to adjust the quantity or speed of currencies, but because the hand-to-hand money cannot elastically correspond to the fluctuation of monetary demand due to its asymmetry. This is the historical background for the development of the regional credit system. As such, the plural numbers of monies are able to circulate side by side from the beginning, both historically and theoretically.

It is apparent that the consideration of "liquidity in local markets" is the most important theoretical contribution of Prof. Kuroda to the research on money. Using this concept, he explores a new horizon for research about the origin of money.

Conventional theories explain the origin of money in a dichotomic framework of "money as a commodity" vs. "money as a symbol". The market value of the credit issued by political authorities assures the circulation of the money they issue. Prof. Kuroda criticizes this dichotomic framework by insisting on the importance of the monetary order that is spontaneously formed in a regional society.

His discussion is a theoretical attempt to bridge between theory and history in the monetary research by introducing the concept of "regional society" into the controversies on the origin of the money within the dichotomic framework of "the market" vs. "the state". The introduction of the concept of "regional society" gives the concreteness of the space to the monetary analysis.

One of the reasons, and the most important reason, I think, why Prof. Kuroda came to hold the concept of "liquidity in local market" is that his specialty is the economic history of China. As is well known, the traditional economy of China was a typical agrarian society. However, being different from villages and cities in Medieval Europe, Chinese villages were not the closed societies where market exchanges including the transactions in land were actively done on a monetary basis, and the central political power intervened in everyday life through tax collection.

The Chinese village was a complicated society that cannot be analyzed by the simple theoretical framework of "the market" vs. "the state". The institution that most eloquently reflects the complexity of Chinese societies is the monetary system, based on the standard of a nonprecious metal, copper. The Chinese society is a good example for considering money in the connection of three factors: 'the state', 'the market', and 'the region'.

Prof. Kuroda's argument suggests the possibility of the comparative study of the monetary histories on the worldwide scale from the perspective beyond the dichotomic framework of "the market" vs. "the state", "the money of precious metal" vs. "the money of nonprecious metal" or "the local market" vs. "the international market".

It seems certain that the conventional framework is insufficient for the comparative analysis of monetary institutions in the world that are quite different from each other in their political structures, including administrative and fiscal institutions, the system of consensus among people for social order, the social structure including social classes, the degree of penetration of the market economy, and so on.

In this context, the conceptions proposed by Prof. Kuroda, especially the concepts of "liquidity in local market" and "regional society", seem to be essential for the analysis of historical coinage regimes.

Figure 2 The hypothetical monetary circulation (mainly the higher denominations) in the East Mediterranean and the four phenomena of coin imitation (7th-15th centuries)

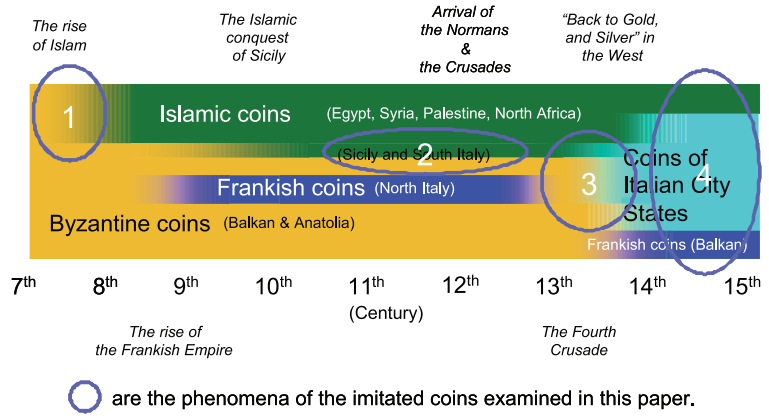

Figure 3 Phenomenon 1: Islamic coinage in the reign of Abd al-Malik (Umayyad Caliph 685-705)

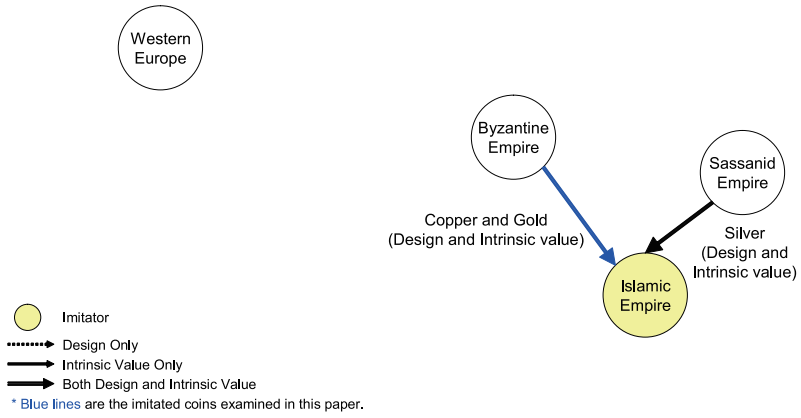

Figure 4 Phenomenon 2: Coinage of the Sicily, South Italy, and Crusaders in Levant from the 10th to 12th centuries

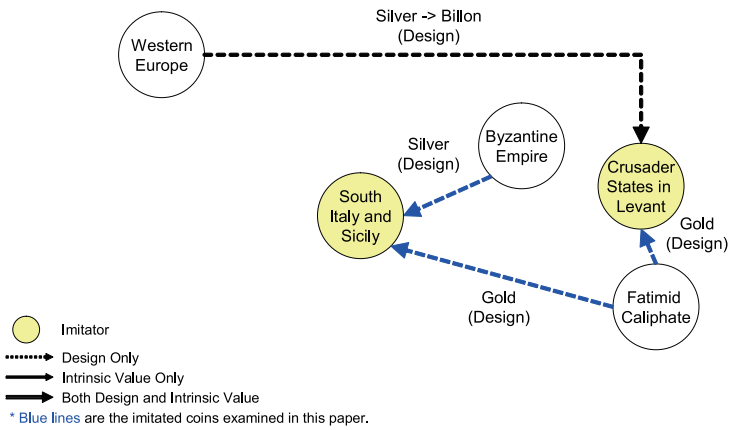

Figure 5 Phenomenon 3: Coinage the Italian city-states and Crusaders in Romania in the 13th century

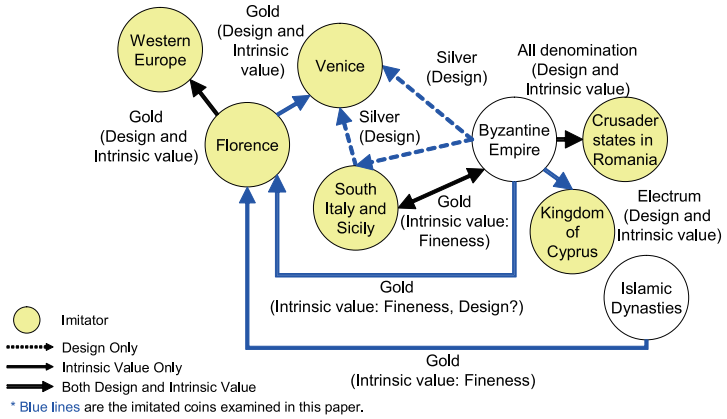

Figure 6 Phenomenon 4: Coinage of the Byzantine Empire and the Mamluk Sultanate from the 14th to 15th centuries

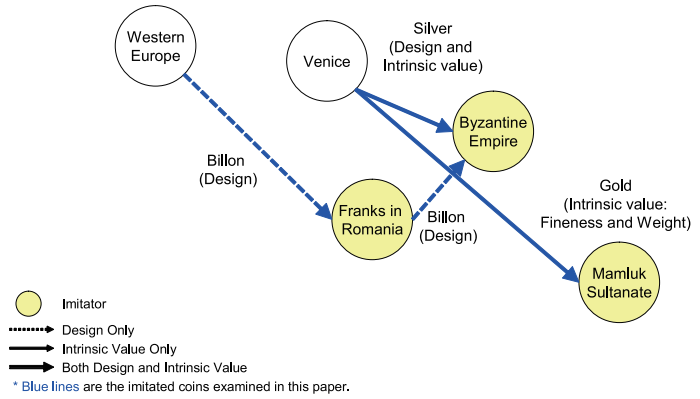

Figure 7 Plate of Coins*

7-1. Solidus (gold) of Heraclius (Byzantine Emperor 610-641) struck at Constantinople

Source: Registration number 1922,0523.4 of the British Museum, Department of Coins & Medals

7-2. Imitation of Solidus (gold) of Abd al-Malik (Umayyad Caliph 685-705)

Source: Registration number 1954,1011.1 of the British Museum, Department of Coins & Medals

7-3. Dinar (gold) of Abd al-Malik (Umayyad Caliph 685-705)

Source: Registration number 1849,1121.88 of the British Museum, Department of Coins & Medals

7-4. Denarius (silver) of Charlemagne (Frankish King 768-814, Western Roman Emperor 800-814)

Source: Registration number 1857,0901.3 of the British Museum, Department of Coins & Medals

7-5. Quarter Dinar (gold) of al-Mustansir (Fatimid Caliph 1036-1094)

Source: Registration number CM BMC OR IV no.158; CM 1860.7-3.23 of the British Museum, Department of Coins & Medals

7-6. Tari (gold) of Roger II (Count of Sicily 1105-1130, King of Sicily 1130-1154)

Source: Registration number 1860,0703.23 of the British Museum, Department of Coins & Medals

* All coins are not actual size. On all images of the figure 7, ©Trustees of the British Museum.

7-7. Nomisma Hyperpyron (gold) of Manuel I Komnenos (Byzantine Emperor 1143-1180)

Source: Registration number: 1918,0503.18 of the British Museum, Department of Coins & Medals

7-8. Ducale (silver) of Roger II (Count of Sicily 1105-1130, King of Sicily 1130-1154)

Source: Registration number 1856,0901.19 of the British Museum, Department of Coins & Medals

7-9. Grosso (silver) of Renier Zen (Doge of Venice 1253-1268)

Source: Registration number 1993,0302.44 of the British Museum, Department of Coins & Medals

7-10. Florin / Fiorino d'oro (gold) of Florence (Uncertain mint master 1252-1303)

Source: Registration number 1885,0405.37 of the British Museum, Department of Coins & Medals

7-11. Ducat / Ducato (gold) of Giovanni Dandolo (Doge of Venice 1280-1289)

Source: Registration number 1993,0302.53 of the British Museum, Department of Coins & Medals

7-12. Basilikon (silver) of Andronikos II Palaiologos (Byzantine Emperor 1282-1328)

Source: Registration number 1904,0403.30 of the British Museum, Department of Coins & Medals

7-13. Ashrafi (gold) of Barsbay (Burji Mamluk Sultan 1422-1438)

Source: Eagleton and Williams (2007), p.100.