

Jérôme Blanc / LEFI / Université de Lyon *

XVth World Economic History Congress, Utrecht University, Netherlands, August 3-7, 2009. Session P4 - "Revisiting Money As A Unified Unit Of Account From A Complementary Viewpoint"

Second draft – 2009, 10th of July

BEYOND THE COMPETITION APPROACH TO MONEY: A CONCEPTUAL FRAMEWORK APPLIED TO THE EARLY MODERN FRANCE

Abstract

As other European countries of that time, Early modern France was characterized by its monetary plurality. The purpose of the text is to present this plurality and analyse the ways it was articulated. After a presentation of the intention of the paper, Section 2 presents the problem of monetary articulations, referring to existing literature: competition is too often the only articulation mode referred to by economists; however, an other one is increasingly analyzed, complementarity. We state that complementarity is too vague to be relevant enough and build a conceptual framework identifying four distinct articulation modes : competition, simultaneousness, supplementarity and autonomy. Section 3 presents a short overview of monetary plurality in the French early modern period and it applies the theoretical framework to it in order to stress the various possible combinations of articulation modes of money. It emphasizes the case of royal coins as being close to supplementarity, the case of gold coins as being close to competition, and the case of méreaux as being between supplementarity and autonomy. Section 4 addresses briefly the question as to whether the monetary complexity of that period means chaos. The role of social stratification and intermediates in reducing the complexity of monetary plurality is emphasized. Section 5 concludes.

* Laboratoire d'économie de la firme et des institutions, Institut des sciences de l'homme, 14 avenue Berthelot, 69363 Lyon cedex 07 (France). Tél : 04 72 72 64 07, fax : 04 72 72 65 55. E-mail : Jerome.Blanc@univ-lyon2.fr

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1. Intention

The analysis of money has been considerably enhanced in social sciences over the last decades. By distinguishing between all purpose and special purpose money, Polanyi (1957) has successfully accounted for the existence of money in non-Western societies and helped discard the barter fable (Servet, 1988). Anthropological works published by Parry and Bloch (ed., 1989) have put Western conceptions of money into perspective by confronting them with the representations and the institution of money within non-Western societies. By working on the social earmarking of monies in the United States, Zelizer (1994) has broken away from the myth of money viewed as a mere quantitative, interchangeable and impersonal instrument. By rehabilitating the ethical and hierarchical dimensions of public faith in money that economics, as well as too many non-economic studies, neglect in favor of its mere inter-individual dimension, Aglietta and Orléan (dir., 1998) have helped show how the pure economic approach is ill-suited to apprehend this object in its essentiality. The book edited by Theret (ed., 2007) extends these works by showing how monetary crises cannot be comprehended with the help of mere economic conceptual tools. A certain convergence of economic, sociological, anthropological and historical works has enabled such developments.

In this type of research on money, an important line of enquiry triggered a reflection on the plurality of monetary forms. Recent collective works on monetary crises with a comprehensive view, including a wide series of historical and geographical cases, show the importance of monetary plurality as a driver of crises and

* Laboratoire d'économie de la firme et des institutions, Institut des sciences de l'homme, 14 avenue Berthelot, 69363 Lyon cedex 07 (France). Tél : 04 72 72 64 07, fax : 04 72 72 65 55. E-mail : Jerome.Blanc@univ-lyon2.fr

as a consequence of crises (Théret, ed., 2007). But, beyond crises, one result was to identify as possibly normal and sustainable the coexistence of such a plurality even within modern societies. An extensive research on money in the world on the period 1988-99 led to identify a great variety of units of account and means of payment, during crises as well as during economically and financially stable periods, in Northern as well as in Southern countries (Blanc, 2000). Eventually, beyond the very forms taken by money and various units of account, sociological and anthropological works show the great diversity of uses of money, so that this is today an important axis of reflection in social studies and sociology.

Acknowledging monetary plurality led us to investigate two founding categories of the economic approach to money: competition (between money) and fungibility (of money) (Blanc, 2009, 2010). Fungibility requires the ability to convert freely and easily one money into another. The competition approach to money states that all monetary forms are substitutes, so that rational agents exert rational choices in order to decide on the means of payment they use. Hence, a perfect fungibility is a necessity to let competition develop between money. Letting aside a first doubt over the permanence of monetary plurality through the selection process of competition, the competition approach is obviously not relevant enough to understand how distinct money are articulated. This viewpoint converges with approaches to money that put forward the complementarity dimension in order to explain the coexistence of various sorts of money (see especially Fantacci, 2005 and 2008; Kuroda, 2008a and 2008b). Yet this text develops the hypothesis that it is necessary to go *beyond* the idea of complementarity, trying to refine the ways money can be articulated. Complementarity may indeed refer to very different articulations. The present text aims at building a systematic view of those modes, starting with general categories of possible relations between distinct sorts of money, and thus deepening the institutionalist approach to money.

Under this respect, the purpose of this paper is to take a stylized view of monetary complexity of Early modern France, centring on the 16th and 17th centuries, and to apply a conceptual framework able to take into account a wide range of monetary articulations. It appears that this historical period of France, featuring a rich context of monetary schemes and practices, widely helps understand what is at stake with the problem of monetary competition. But, aside this major point that I want to emphasize, another point I would like to stress is the idea of complementarity split up into 3 distinct ideal types. The French case of Early modern period will lead to confront those ideal-types to a simplified view of the reality of that period.

Consequently, section 2 presents the basic framework able to discuss the articulations of this plurality. Four criteria are identified, whose combinations help define distinct articulation modes. This discussion puts in perspective the mainstream articulation mode, that is competition between currencies, as well as breaks up the complementarity hypothesis into a series of specific modes, which should be more relevant, for more precisely built. Section 3 presents a short overview of monetary plurality (or complexity) in the French early modern period (which shares its main features with other European places of that time), and it applies the theoretical framework to it in order to stress the various possible combinations of articulation modes of money. The articulation between royal coins is especially emphasized, ranging from large coins of high and fine metallic content to small coins of low metallic content; the case of gold coins from various origins; and the case of the *méreaux*, small local coins of no significant metallic content. Overall, competition appears to be a specific articulation mode, especially aside the case of “supplementarity”. Then, section 4 addresses briefly the question as to whether the monetary complexity of that period means chaos. The role of social stratification and intermediates in reducing the complexity of monetary plurality is emphasized. Section 5 concludes with a short series of remarks.

2. Defining basic articulation modes

The present section is intended to build a basic logical framework for understanding articulation modes, discussing a set of binary relation between money, leading to identify four major articulation modes. This discussion puts in perspective the mainstream articulation mode, that is *competition* between currencies, as well as break up the *complementarity* hypothesis into a series of specific modes that should be more relevant, for more precisely built.

2.1. Monetary qualities

The conceptual framework to be mobilized in order to answer to those questions is firstly based on the assumption that money does not only refer to quantity: it refers to qualities as well. Those qualities are generally known and even acknowledged, but are barely integrated as such in an economic theory of money. Four qualities can be distinguished. As a general scheme of solving debts with the use of a unit of account, and made concrete and useable in payments through a variety of ways, money (i) takes on specific monetary forms, (ii) is inserted in symbolic universes, (iii) conveys socio-

economic earmarking guiding its uses and (iv) is characterized by a certain authenticity¹.

(i) Money is made concrete and useable in payments through specific forms that can be of a large variety. “Monetary forms” refer to the different monetary instruments that can be used as means of payment by non-financial agents. The monetary forms of the Early modern period presented below were mostly metallic coins: gold, silver, billon or pure copper coins, plus a variety of *méreaux* made of lead, tin or copper. Paper currencies started to circulate in local areas outside France (especially in Sweden around the middle of the 17th century, with the short experience of Palmstruch’s bank), while the use of accounts existed already on a wide scale. Talking of monetary forms, it is to be considered not only the material (e.g. gold of a precise fineness and weight) but the way it is shaped and the symbols and information it conveys (e.g. a gold *louis* with the effigy of Louis XIII, a cross made of “L” and other features), since all those elements make this form a particular one, differentiated with others — should this make a difference in its value or not. Thus, the monetary form taken by money may produce a first orientation of uses. For example, gold coins were so costly that they could not be used by everyone. Or, degraded coins because of the action of clippers were not considered as good as the non-degraded ones.

(ii) Another quality is the symbolic universe in which money is inserted and in which it make sense. It refers to a homogeneous area of representations characterized by a hierarchy of values and moral norms. A kind of sovereignty is attached to each symbolic universe, and one can consider the area of monetary practices organized around a national currency as a particular symbolic universe. The introduction of an outside currency inside a given community provides a good illustration of the meaning of a symbolic universe. This was the case of Amerindian *wampums* introduced in the local monetary practices of the New Amsterdam (before becoming New York) in the 17th century (Desmedt, 2008, pp. 278-280). Something that could have been used both in Indian communities and in New Amsterdam community changed radically its meanings when entering the New Amsterdam signification. For example, it would not be used as a ceremonial means of payment as this was the case in India communities!

(iii) (iv) The two other qualities will not be considered in this text, because they are not directly related to the core of our argument: first, earmarking, which produces an informal orientation of monetary uses – especially because of moralities associated to specific origins of incomes (Zelizer, 1994); second, the way users perceive the authenticity of what they use as money – especially regarding the issuer: the quality of a

¹ A deepened view on the qualities of money is developed in Blanc (2009).

currency that seems to be counterfeited is obviously worse than a true one. Suspicion, fear or even recognition of counterfeiting does not prevent in every case the use of the currency, especially when counterfeiting develops in periods of monetary shortage (Blanc and Desmedt, 2010, on 16th to 18th centuries).

The qualitative differentiation of currencies leads us to consider them in principle as different monies whose fungibility is not guaranteed. The analysis of the conditions of monetary articulation, which requires operations of conversion, comes in the matter precisely because of such uncertainty over monetary fungibility. The major point is that money is not considered as a mere quantity (in units of accounts). Yet, qualitative differences help take into account distinct ways of using money, as well as distinct concrete monetary forms. In this renewed framework, understanding how money are articulated requires an analysis of binary relations between two given qualities of money. Those relations cannot be understood as purely instrumental (that is, horizontal, between equivalences), since hierarchical criteria play their role through the symbolic universe as well as symbols conveyed by monetary forms.

2.2. Binary relations

Four relations may be identified, whose combinations seem to provide useful criteria for building basic articulation modes: commensurability, convertibility, co-use, coincidence. It is worth noting that the economic postulate of fungibility of money stems from the combination of the two first relations: a common evaluation of holdings, followed by conversion.

2.2.1. Commensurability

Commensurability is the very first fundamental criterion to be considered as to an analysis of monetary articulations. No contact between two different money is possible without their commensurability, *ie* an ability to obtain a common evaluation of them through a given rate. Let us consider a holding under a monetary form H_i . Quantitatively, H_i is defined by a given quantity (x_i) of a currency C_i , so that $H_i = x_i \cdot C_i$. Qualitatively, it is characterized by the monetary form F_i it takes and the symbolic universe U_i in which it is inserted – not considering here the two other qualities of earmarking and authenticity, so that $H_i = (F_i, U_i)$. The commensurability of this monetary holding H_i implies that it can be expressed in quantitative terms in relation to another holding H_j , characterized by the same set of criteria, with the help of an equivalence rate (r) so that $r = x_i / x_j$.

While it is the very basis of any monetary articulation, commensurability cannot be viewed as obvious. The qualitative characteristics of money to be converted, the

general conversion rules that prevail in the symbolic universe under scrutiny, or technical constraints, may preclude all comparison. The lack of a rate (r) or the multiplicity thereof, help avoid or limit comparisons and conversions.

2.2.2. Convertibility

Conversion of one money into another obviously requires their commensurability. However, this condition is not sufficient. From an anthropological point of view, conversion means the transformation of the money's characteristics so that all its qualities (or part of them) are transformed: the symbolic universe in which it is inserted or / and the monetary form it takes – not considering other qualities as earmarking and authenticity (Blanc, 2010).

Foreign exchange, both in economic terms and in its common acceptance, consists of a conversion operated on the symbolic universe and the monetary form: for instance, the conversion of a sum of Euros in Canadian Dollars. But the withdrawal of cash from a bank account is also a conversion operation in the broader sense. A conversion can also be performed by the transition from a symbolic universe to another without the transformation of the monetary form: Colonial history offers examples of different uses of colonial cash by indigenous populations (Servet, 1998) or, conversely, different uses of indigenous money by the colonists (Servet, 1998; Desmedt, 2008).

2.2.3. Co-use

Different sorts of means of payment can be used simultaneously, which can be summed up by the relation of “co-use”: for example, adding today a coin and a banknote in order to complete a payment means that there is a co-use, or simultaneous use, of those two sorts of money. This binary relation requires the first relation seen above, *ie* commensurability, so that the distinct money being used simultaneously are expressed in a unified unit of account. It requires too the mathematical property of reflexivity: a given money (more precisely, a given money holding characterized by a specific set of qualities) can be used with other identical money (other money holdings characterized by the same specific set of qualities). It is worth noting that co-use does not require the convertibility of the money holdings.

2.2.4. Coincidence of sphere of uses

A last relation can be identified, that will be useful for the forthcoming reflection: the coincidence of spheres of uses of distinct money holdings. The coincidence relation means that various money holdings are useable in the same socio-

economic spheres: for the same set of operations or goods and services, with the same partners, by the same set of users, within the same territory, etc.

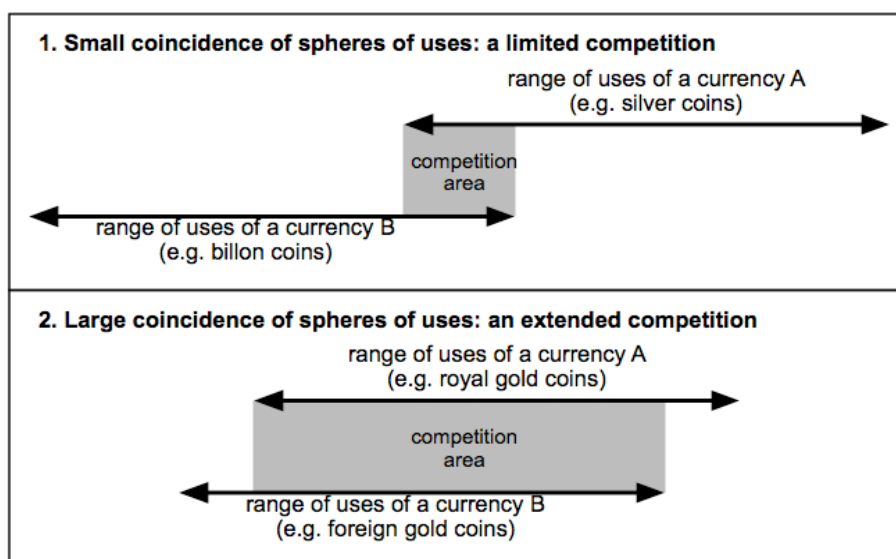
2.3. Articulation modes

Once briefly identified, it appears that each one of those pure binary relations can be considered as the key criterion (however combined with others) allowing to characterize an ideal type of articulation: respectively (given the order of the binary relations presented above), *autonomy*, *competition*, *simultaneousness*, *supplementarity*. As competition is the main articulation mode considered in monetary economics (if not the only one), we will start with this case.

2.3.1. Competition (focusing on convertibility)

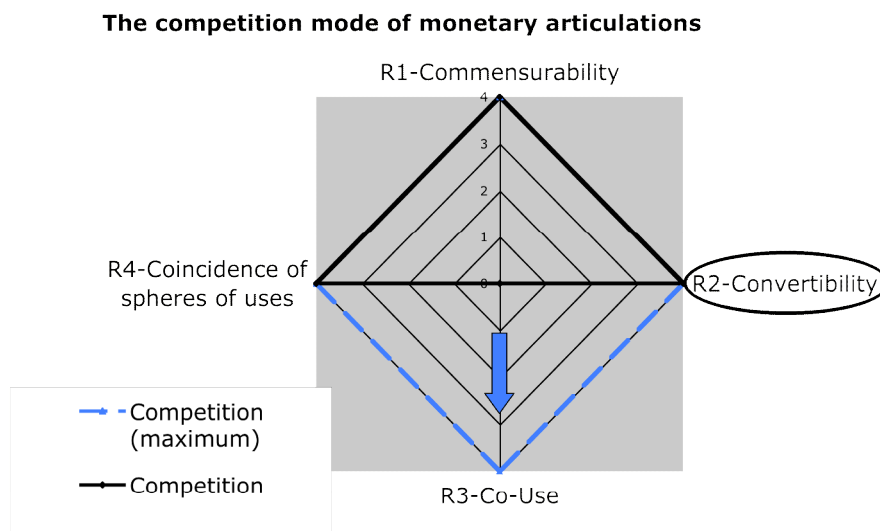
Focusing on the binary relation of *convertibility* leads to identify *competition* as a first basic articulation mode between money. Actually, competition requires a combination of commensurability, convertibility and at least a degree of coincidence of spheres of uses. These are minimum requirements, that let substitutability emerge. Substitutability means that currencies are interchangeable, regarding their potential uses: either their qualities are identical, or those qualities are treated so as to become not relevant or meaningful, so that a comparison may be operated through the mere quantitative criterion. One can observe competition even when substitutability is incomplete – but anyway exists (Figure 1). In the largest view of it, competition can come from the combination of the four criteria.

Figure 1 – Competition and the requirement of a coincidence of spheres of uses



Through commensurability, currencies can be compared through a single rate (r). Moreover, substitutability requires a minimal degree of convertibility (and, thus, of commensurability) between currencies: there is a capacity to change a currency C_1 for a currency C_2 , through the single rate (r). This capacity is all the more immediate and unrestrained than convertibility is fully implemented. Money is thus fully fungible, as postulated by mainstream approaches to money. Figure 2 summarizes the case of competition regarding the four binary relations previously identified. Each binary relation is figured by an axis of a square graph, each axis featuring different degrees (from 0 to 4) of a given binary relation².

Figure 2 – Competition



Competition can emerge with a minimal combination of convertibility, commensurability and coincidence, but is all the more powerful than all three binary relations are fully implemented (black triangle). Eventually, competition can gather all the four criteria (arrow downwards).

2.3.2. What about non-competitive articulation modes?

Having identified four potential binary relations between money, it becomes possible to formalize other articulations than the competition model. Historically, theoretically and even doctrinally, in a quite small set of works and sometimes remote, what appears clearly besides competition is the idea of complementarity (on a historical and theoretical viewpoint, Fantacci 2005 and 2008, Kuroda 2008a and 2008b; on a theoretical and doctrinal viewpoint, applied to the contemporary situation and

² 0 – absolutely not, 1- difficult, 2-medium, 3-easy, not generalized anyway, 4-total.

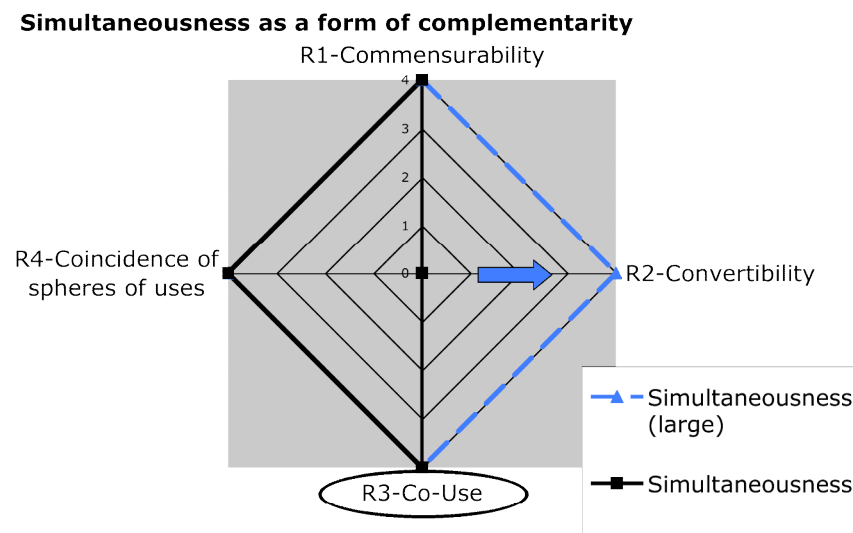
promoting complementary currencies beside national currencies, Greco, 1994 and Lietaer 2001). However, complementarity is highly ambiguous, since one can identify distinct meanings behind the various cases studied by scholars. This is why it seems more relevant to split complementarity into three distinct articulation modes: simultaneousness, supplementarity and autonomy.

Simultaneousness (focusing on co-use)

Simultaneousness means the ability to use simultaneously, *i.e.* to combine, different sorts of money in order to achieve a given payment operation. Today, for example, it is possible to achieve a payment by combining various coins and notes, but a payment cannot be operated, generally, by the combination of, say, bank money and coins. Under Early modern monetary system, it would have been possible to use simultaneously various billon coins, but probably not gold coins with the smallest of billon.

If the main binary relation here is co-use, it also requires a coincidence of spheres of uses (so as to let money be used simultaneously for one purpose), as well as the basic principle of commensurability; but nothing is required regarding convertibility. Of course, the latter can be present, as shows the possible extent of the model toward the right (Figure 3). In this case, simultaneousness may be associated with a degree of competition.

Figure 3 – Simultaneousness



Supplementarity (focusing on partial coincidence)

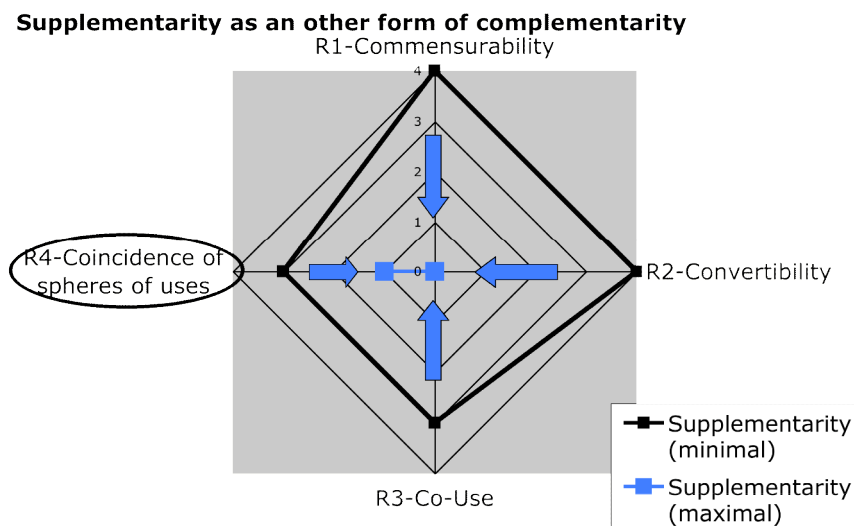
Supplementarity is built on the basic idea of partial coincidence of spheres of uses of a given money, so that another one adds up something new. For example, today

coins and even notes are generally legal tenders up to a certain amount, above which only bank money can be legally used. Such ceilings were implemented in France by the 1577 reform, a part of which was aimed at limiting the use of small coins (pure copper as well as billon) (Boyer-Xambeu, Deleplace and Gillard, 1994).

Supplementarity requires nothing regarding convertibility, commensurability and co-use. But of course one can have supplementarity with a positive combination of them, since coincidence is never total (their spheres of uses are not identical), which means that co-use is never total too (Figure 4). In those cases, supplementarity may be associated with a degree of competition and a degree of simultaneousness.

Such form of complementarity is what is at stake in Kuroda's works (2008a, 2008b). This leads indeed to identify different "layers" or "currency circuits", where various sorts of currencies are complementary because they serve different spheres of uses.

Figure 4 – Supplementarity

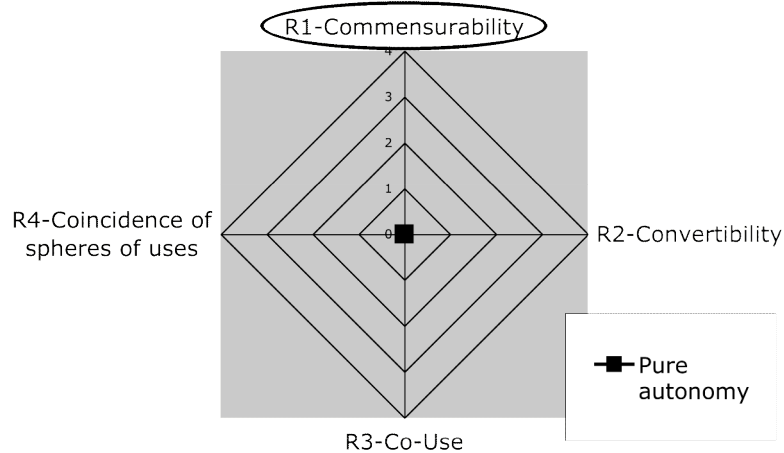


Autonomy (focusing on the absence of commensurability)

Autonomy as a pure concept denies any sort of substitutability between money holdings. It relies on the absence of any commensurability (no rate r may help compare one holding with the other), which implies that monetary qualities are absolutely not reducible to quantities. As a consequence, no convertibility is possible at all and, of course, no simultaneous use is possible (Figure 5). Autonomy refers to no relation; it is as such a particular, and radical, case of supplementarity. Fungibility is totally out of consideration. The French *méreaux* presented below fall in this category, when they only circulate in closed networks.

Figure 5 – Autonomy

Autonomy as a specific case of complementarity



3. Monetary plurality and articulations in the case of Early modern France (16th-17th Centuries)

This section will present the main features of the monetary system and monetary practices of Early modern France, centred on the 16th and 17th centuries. What will be under examination are the internal monetary relationships, excluding foreign flows and exchanges. The complexity people had to cope with mainly came from the variety of means of payment throughout the kingdom. This variety can be presented by distinguishing two main sets of means of payment (royal and non-royal) adding to this presentation the complementary circulation of the so-called *méreaux* in several cases.

The theoretical framework that has been built will be applied to those cases. This requires to think *articulations* between currencies, not currencies by themselves. Our observations lead to consider the following possible articulations: between the three metallic sorts of royal coins, between large royal coins and large foreign coins ; between small royal coins and *méreaux*.

3.1. Plurality inside the royal monetary system

3.1.1. Royal units of account and coins

Sixteenth century French monetary system was built on the basis of the *livre tournois* unit of account. The hierarchy *livre / sous / deniers* (identical to other hierarchies in European countries at that time, and coming from the Carolingian empire) had been established in 794, with the fixed equivalences as follow: 1 *livre* = 20 *sous* = 240 *deniers* (with 1 *sou* = 12 *deniers*). The *tournois* definition of the *livre*, meaning a certain weight of silver, referred to a province of the kingdom, and was embodied by the royalty from 1205, whereas other local units of account were progressively rejected. However, the main other unit, which was the *parisis* definition of the *livre*, and which was 25% higher than the *tournois* definition, remained in use in specific parts of the kingdom and was concretized by specific small coins that were struck in several parts of the kingdom, especially at the end of the 16th century. The use of the *parisis* was legally forbidden in 1667, but lasted several years more, since the *Dictionnaire universel de commerce*, written from the years 1690 by Jacques Savary des Bruslons, still testifies to its use as a unit of account³. Anyway, this one had become very marginal.

The royal system of means of payment had been reformed in 1266 by the king Saint Louis. He had established a three-parts system, which, in the 16th and 17th centuries, was composed of gold coins (centred on the *écu*, then the *louis*), silver coins (centred on the *teston*, then during a short period of time, the *franc*, and eventually the *écu*) and billon coins, made of an alloy of silver and base metal. From the reform of 1577, other coins were struck with pure copper⁴. Regarding their legal value, their maximum bracket was 1:720 in 1578 and rose to 1:2400 in 1640 with the creation the gold *louis*, 10 *livres* worth.

Enhancements and debasements⁵ made the system more complex. Enhancements rose the legal tender (extrinsic value) of unchanged existing coins. This required the proper information of all subjects of the kingdom, so as to enforce the royal decision. Debasements introduced new coins of a lower metallic content (intrinsic value, either through the lowering of the metallic weight, or through the lowering of the metallic fineness) into the circulation. Fantacci (2005) showed that those two possible

³ Savary des Bruslons, vol. I, column 1672-73 and II, col. 986.

⁴ See Spooner (1972, p. 330-332) for a synthetic view on French coins.

⁵ Though this is of old use, Sargent and Velde (2002) prefer to use 'cry-ups' when referring to what we will call here 'enhancement'.

monetary policies referred to the opposite nature of large and small coins. Enhancements were the most used manipulation regarding large coins, since, being used as a reserve of wealth and for big transactions, a stable metallic content was more important to the users than a stable legal value. For example, the gold *ecu*, which was the centre of the monetary system of France between 1488 and 1640, was debased three times (1519, 1552 and 1561) but was enhanced much more frequently. We should add to this analysis the fact that, during long periods of crises, voluntary prices, that is, prices at which coins were actually taken by merchants and the people, were higher than the legal tenders, sometimes bearing volatile movements⁶. On the contrary, debasements were operated mostly on small coins, since, being used in daily transactions, a stable legal value was more important to the users than a stable metallic content. For example, the French *sols* coins experienced 12 debasements between the beginning of the 16th and the end of the 17th century, whereas their legal tender only changed once, when it rose from 12 to 15 *deniers* in 1692 (Spooner, 1972, p. 331).

As a result, the number and the variety of royal coins multiplied as the decades went by. For example, three new sorts of gold coins were introduced during the 16th and 17th centuries: the *henri* in 1549, the *louis* in 1640 and the *lis* in 1655, not to mention the existing *écu*, whose legal circulation ended in 1691 after a multitude of distinct sub-types, metallic contents and cry-ups (from 12 *sous tournois* in 1266 to 114 *sous tournois* in 1691)... Demonetizations ordered by the king only smoothly reduced the diversity of coins, because the demonetized coins often remained in circulation several years, decades and sometimes centuries after. They had different metallic contents than the new ones. For example, coins from Charles VI (king from 1380 to 1422) still circulated under Louis XVI (1643-1715), while coins minted under Henri II (1547-1559) were still in use in the beginning of the 18th century. The last *deniers* to be minted were issued in 1649, but some still circulated in provinces eighty years after.

Overall, while Savary des Bruslons (1719, I, col. 1672 and II, col. 772 and 1080-81) stated that 31 authorized royal coins were in circulation, the actual number of coins in use was notably higher — without taking counterfeit coins into account.

3.1.2. Articulations between royal coins : the role of supplementarity

When trying to understand how coins were used during that period, a first distinction arises between large coins (say, gold and silver coins) and small coins (billon and copper). This refers for example to the analytical distinction established by

⁶ Spooner (1972) especially reviews the movement in voluntary and legal prices of the *ecu* during the 16th and 17th centuries.

Sargent and Velde (2002), studying the conditions in which the issue of small coins can be operated by avoiding either the general want of that sort of coins, or inflationary effects due to their massive issue. The “dual currency system” analyzed by Fantacci (2005) refers to the same sort of distinction between coins with an intrinsic value (gold and silver) and coins that do not have any.

Actually, historians and numismatists, although recognizing the lack of knowledge on this point, rather stress that the system, according to monetary uses (and not policies), was more stratified. According to Belaubre (1987, p. 501), regarding the first half of the 13th century, “there is not unity in the composite society of money users”. Braudel (1979, I, p. 404) states, for the period of early modern Europe, that “each metal, with the coins which correspond to it, undertakes a series of transactions”: the use of silver, gold, and billon-copper were mainly separate circulation flows. Guerreau (1987, p. 529) acknowledges “the very weak permeability between the circulating networks of the three metals”. They do not refer to the same social groups, so that their transaction networks may appear separate : “It seems to me that, without proof to the contrary, we should make the hypothesis of a quasi-separation between the circulation of gold and that of silver, of very inconvenient crossings controlled by a tiny part of the people, and of obviously distinct characteristics of the circulation on both sides of this borderline” (Guerreau, 1987, p. 531). Moreover, we know little about the flows between gold and silver and between silver and billon : “studies on the concrete conditions of use of the various coins are still notoriously scarce”, and we do not have “any idea of the importance of exchange operations gold / silver and silver / gold with respect to the ordinary trade flows of those two metals”, with the same problem with the relations silver / billon (Guerreau, 1987, p. 531).

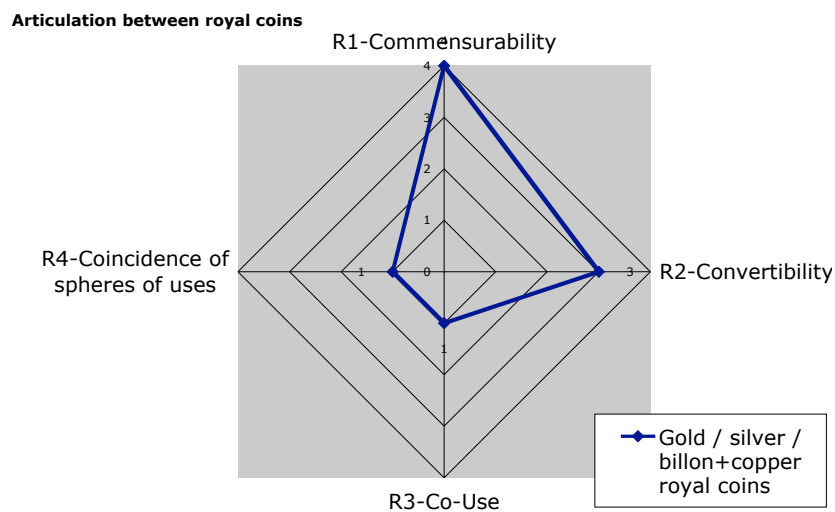
Thus, a major concern is about the ways contacts could be established between those coins and, thus, between the quite separate social spheres. Here appears the major role of moneychangers and different levels of merchants, ranging from the local level to the specific case of merchant-bankers of intra-European activity (those who managed fairs in Latin Christendom) and to the extra-European level⁷.

Eventually, coins, as regards the metal they were made of, were mostly not in a competition relationship. Commensurability was obviously assured, because all those coins were subordinated to the same unit of account (the *livre tournois*, see Figure 9). However, convertibility required all the more the mediation of various levels of merchants and moneychangers than the difference of value and of metal between coins

⁷ On categories of merchants, see Jeannin (1957); on the specific case of merchant-bankers during the 16th century and the central role of Lyon Fairs, see Boyer-Xambeu, Deleplace and Gillard (1994).

was large. This means that competition was all the more possible between coins than their legal value and metal was closer or identical. Given that distinct metals referred to specific uses, one can stress the major role of the *coincidence* binary relation. Consequently, co-use was scarce. Finally, it seems that royal coins of different metals were in a *supplementarity* relationship, because each sort of metal (under the form of coins) referred to specific spheres of uses (their coincidence was very partial) and led to specific sorts of transactions (Figure 6). This social stratification is a major factor reducing the actual monetary complexity experienced by the people.

Figure 6 – Royal coins



3.2. Other coins : foreign coins, local coins

As extra-territorial systems of accounting transactions and financial operations, it will not be dealt with the merchant-banker's money of change developed inside Lyonese fairs during several decades of the 16th century – called “*écu de marc*” (see especially Boyer-Xambeu, Deleplace and Gillard, 1994). These sorts of monetary schemes, intended to be autonomous from sovereign's debasements, were indeed in use between the only set of merchant banker's of the Latin Christendom, so that they served as network monetary schemes mostly autonomous from the other sorts of money of any kingdom. What will be under examination in this section are the case of foreign coins and local coins. Both induce specific articulation modes.

3.2.1. Foreign coins: the case of international competition between gold coins

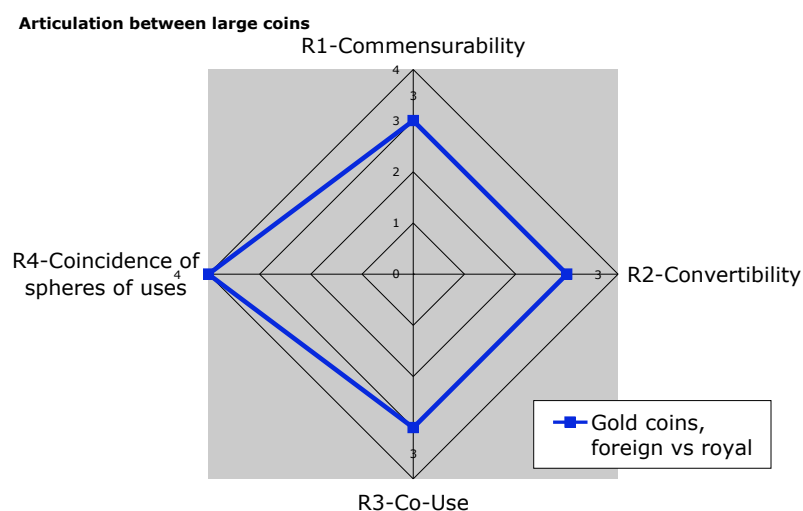
In spite of recurrent edicts forbidding their circulation or trying to mastering their price in unit of account, foreign coins circulated easily. Borders were indeed highly porous, and foreign coins penetrated in the kingdom through trade with neighbouring countries, as well as through fairs. Some of those foreign coins were

small ones (billon), and in several places a real flood of foreign billon entered the kingdom, as for example during the decades 1570-90. Others were silver or even gold coins, like the Spanish *pistole*. In 1577, Henri III published an edict demonetizing 180 sorts of foreign coins coming from nearly 20 spaces of sovereignty (Bayard and Guignet, 1991, p. 224). However, the edict did not forbid the use of the Spanish *pistole*, which had a major role in gold monetary circulation of the kingdom (for 10 *livres tournois*), and a few other Spanish and Portuguese coins (Boyer-Xambeu, Deleplace and Gillard, 1994). The *pistole* circulated at least up to the end of the 17th century. Overall, Braudel (1979, II, p. 167) states that, in 1614, 82 different sorts of metallic coins (including royal and foreign) were in use in the French kingdom.

The case of foreign coins leads to interesting remarks on the articulation of especially large coins, that is to say, gold coins. We have seen that the royal monetary system obviously included gold coins, but that, nevertheless, foreign gold coins would circulate easily and widely inside the kingdom.

There was a harsh competition especially between the French gold coins and the *pistole*. They were indeed highly interchangeable for the population, especially merchants and the nobility, who had an access to them. The *pistole* was so appreciated by the people (say, not all the people, since a few only could have them in hands and use them) that, in 1640, the first gold *Louis* imitated them. Moreover, it said that the marriage of Louis XIV with Maria-Theresa in 1660, a daughter of the Spanish king, contributed to the abundant circulation of those coins in the French kingdom (Sédillot, 1955, p. 416).

Figure 7 – Gold coins



In this case, the commensurability of coins was ensured by the common use of the unit of account, through legal tenders and, more accurately, voluntary prices that

reflected the relative abundance of those coins, their relative metallic content and trust embodied in them. This commensurability was completed by an easy convertibility, especially treated by moneychangers and high levels of merchants. Moreover, the substitutability of those coins was all the more important than their spheres of uses coincided (Figure 7).

3.2.2. The *méreaux*: an ambiguous case

Small local coins were to circulate in several places, issued by local authorities, by local merchants (tavern tenants for example), by secular religious groups, etc. Some were remaining feudal coins, in a few parts of the kingdom. Others were the *méreaux*. Their English equivalence, *tokens*, are briefly presented by Grierson (1975). The French case is extensively analyzed by Labrot (1989). It appears that the English tokens and the French *méreaux* were not identical, especially because of a distinct monetary context (a worse and more recurrent shortage of small coins in England) and a distinct legal framework (in England, the circulation of tokens were not forbidden before 1817). As presented by Labrot (1989), the French *méreaux* were mostly just coin-like objects, serving a series of non-monetary purposes as game tokens, tokens for accountancy calculus, medals, etc. They had the form of a coin and they bore the mention “*Moneta*”, and sometimes symbols like animals (e.g. squirrels). They were generally made of lead, copper or tin. Yet, those *méreaux* sometimes went to circulate, either in a small and closed area, or, less frequently, in a widened and opened area.

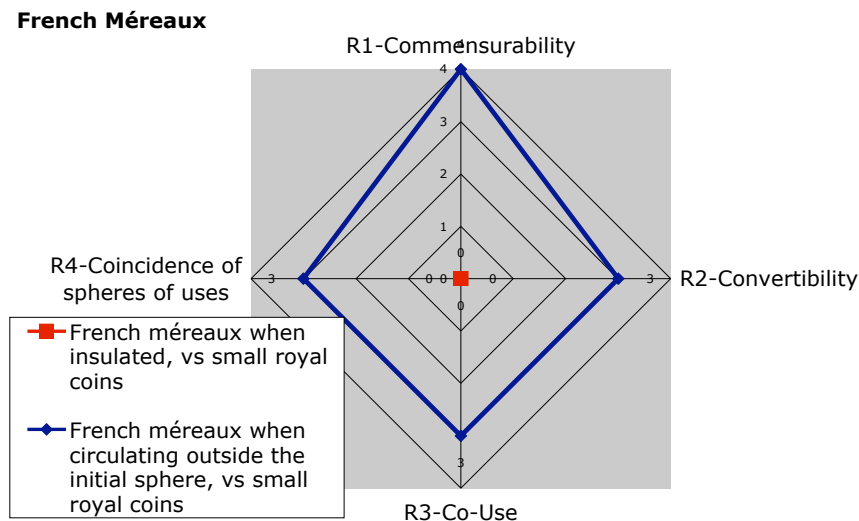
If coins made of distinct metals are mainly articulated through complementarity and gold coins through competition, what about the *méreaux* ? There can be two different cases when examining them.

Sometimes, the *méreaux* were used as a debt recognition and vouchers, issued especially by chapters toward the poor or toward people who came accomplish services. In this normal case, they were insulated in a very specific, and local social sphere, as the religious community of a chapter, a set of external professionals working for a chapter (like masons). People received a payment for their services under the form of *méreaux*, that were useable inside the chapter or toward external professionals also working with the chapter (like bakers or taverns). Thus, in this general case, they were insulated and autonomous schemes, not having any contact with the external (normal) monetary circulation. On this extreme situation of insulation, the major point is the absence of commensurability that prevents any external articulation. This is thus a case of quite pure autonomy.

However, in a series of cases, generally related to a harsh want of money in the local area as a city, be it during a severe monetary crisis or simply recurrent, the

méreaux circulated in a broader space than an insulated network of persons. Ecclesiastic *méreaux* were the most numerous to be used in such a manner. This was the case in Mâcon during 3 or 4 centuries until 1557, when the lead *méreaux*, issued by the chapter to the priests and choristers, circulated for the value of 1, 2 and 6 *deniers* (see Labrot, 1989, p. 40-41, quoting Constans, 1658) This was the case too in Autun until 1557, in Luçon in 1772, etc. Other cases came from municipalities themselves, providing small coins to the local circulation and involving sometimes huge quantities of issues (in Béthune until 1521, in Amiens around 1660, etc.). In Amiens, some of the *méreaux* were worth 1/3 of a *denier*, while the smallest royal coin, the *denier*, was not minted any more since a few years. The bad quality and the easiness of their counterfeiting (as in Béthune) could limit the tolerance of royal authorities. However, even in this case, they could hardly be considered as competing the small royal coins: indeed, either those royal coins were lacking, or anyway the hierarchy of monetary quality led to consider the *méreaux* as a worse currency than the royal one – which had the good consequence of making them circulate... Eventually, the general lack of small coins could lead taverns and innkeepers to issue their own *méreaux* to the use of their customers, especially in the 15th and 16th centuries. Those *méreaux* were, as the others, of a small value: some circulated for the equivalence of 1/2 *denier*, ie one *maille*, which were no more minted since 1411.

Figure 8 – Méreaux



As a consequence, the situation ranged between that of supplementarity (when the *méreaux* provided a means for paying in a sphere that did not coincide with existing monetized spheres) to competition (when coins of similar value existed – but this was rare), even through simultaneousness (when using the *méreaux* aside with other coins,

billon or copper). The major case seemed to be the supplemental one, because of the lack of small currencies under the value of a denier.

4. The role of social stratification and mediations in reducing the complexity of monetary plurality

Even shortly presented as done above, the monetary complexity of the period appears as obvious. At first glance, this complexity gives an impression of unintelligibility of the monetary system and appears close to chaos. However, it has been analysed recently as the result of a sort of voluntary construction (Fantacci, 2008). More largely, it has never been considered chaotic by historians, even if it generally seemed complex and far less suited to the people's and merchant's needs than our contemporary monetary system. But a deepened and precise examination of the way money was issued, managed and used help identify regularities and features that show an overall underlying order (Blanc, 1994). Money must be observed as embedded in a social context.

One basic, but major distinction that leads to understand the way complexity is dealt with by money users is the difference between money "viewed from the inside" and "money viewed from the outside" (an expression from Charles Rist). The first one provides a subjective view on monetary plurality, while the second one provides an objective view. From the inside, it appears that complexity is far lower than only observed from the outside. This difference comes from the fact that money instruments referred to specific uses, areas, social groups, etc. This idea can be summarized saying that money is socially bounded, so that everyone does not have an access to everything and does not use everything that is money. Social boundaries located socially the use of money, while operators like moneychangers made the link between the different social group. Thus, people from a given social group faced a much simpler set of currencies than could formerly appear when unravelling the overall monetary complexity. Moreover, people had techniques for treating and sidestepping (see Blanc, 1994). As a result, money was not the same for everybody.

Figure 9 summarizes the elements of the complexity and the relationships that has been under examination. In the general space of accounts unified by the use of the *livre tournois*, means of payment were already highly plural: small currencies and larges coins composed the royal payment system, being a fiscal currency managed by the Mint, while external means of payment, like the *méreaux*, could develop according to local contexts. Aside those currencies, a wide range of large foreign coins circulated, coming from external spaces of account.

Figure 9 - Monetary plurality of the Early modern France summarized, 16-17th century

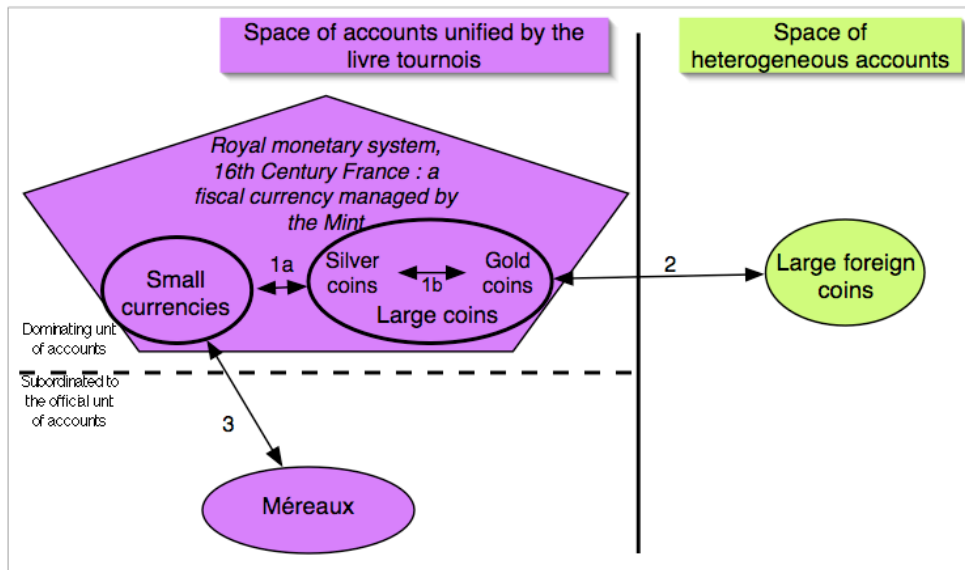


Figure 10 shows an (over)simplified stratification of money uses, gathering the people in two groupings only and the currency in four sorts. It shows at least that each social grouping faced a reduced variety of coins. Figure 11 shows the role of sorts of intermediaries in managing monetary complexity. Central to this management are moneychangers, also generally developing sorts of banking services. Of course, inside this grouping it should be distinguished sub-groups regarding the sorts of operations they developed and what customers they had. Moreover, a series of distinct merchants can be identified that, each one, had specific monetary practices. Figure 12 summarizes the various monetary practices of the various groups of intermediaries.

All this means that intermediaries served as operators reducing and managing monetary complexity for their customers. As a consequence, the extent of possible competition between currencies depended both 1) on the criterion of convertibility, and coincidence of spheres of uses. 2) and on the extent of the operations of those intermediaries, because they were those who actually implemented the convertibility.

Figure 10 – Social structure of money uses / 1

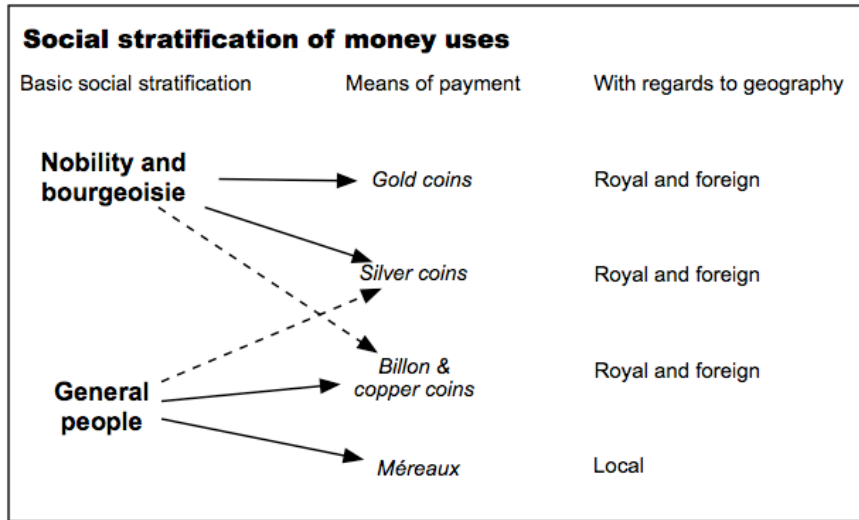


Figure 11 – Social structure of money uses / 2

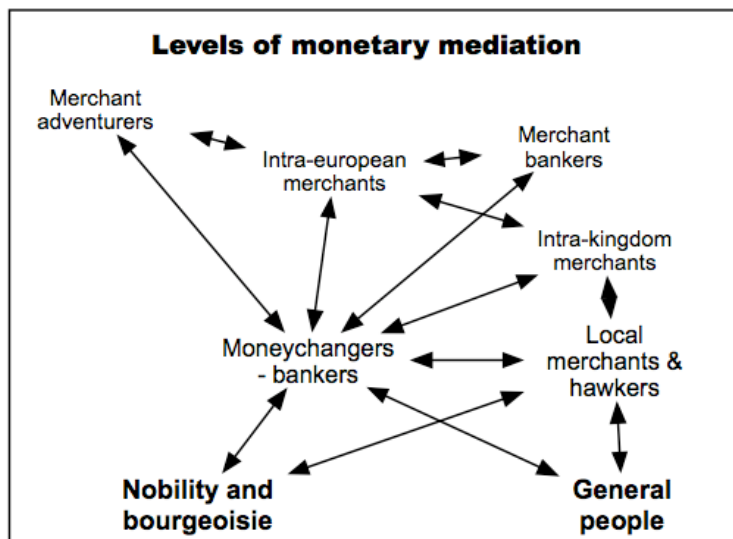
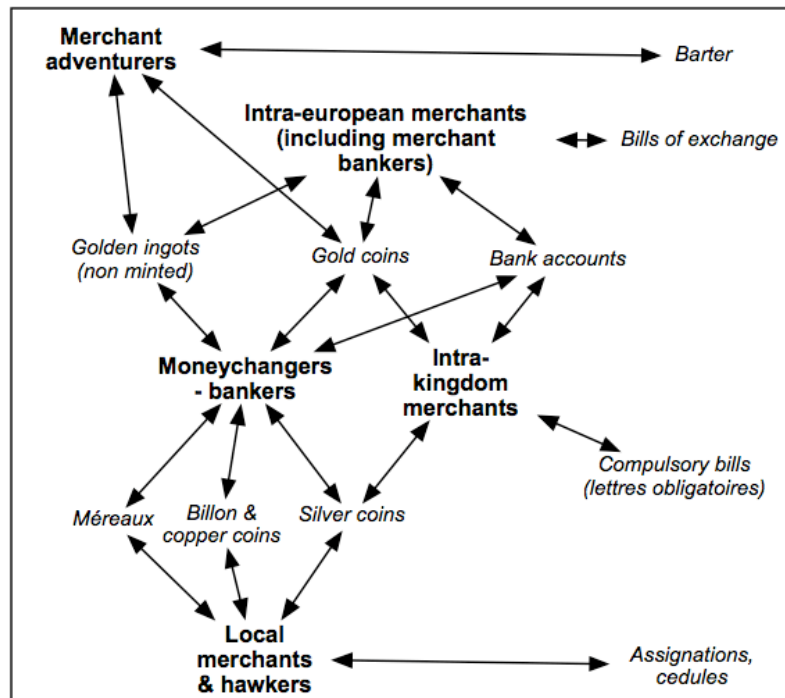


Figure 12 – Social structure of money uses / 3



5. Concluding remarks

A first set of remarks relates to the historical case presented in the paper. “From the outside”, early modern French monetary system was composed of a complex series of means of payment (royal coins, old and demonetized coins, foreign coins, *méreaux*...). Nevertheless, “from the inside”, an important social stratification and the mediation of specific operators reduced sharply this complexity. The latter combined different sorts of articulations, ranging from a high competition degree (gold coins) to autonomy (*méreaux* inside communities), through degrees of supplementarity (royal coins). As regards the four ideal types of monetary articulations built in the paper, simultaneousness is the only one that has not been analyzed, although it refers for example to the co-use of distinct billon or copper coins. The following table summarizes this research.

A second set of remarks relates to the present theory of monetary articulations. Competition is not the only way money are articulated. Competition is limited by the coincidence criterion, but meantime it is made possible by the mediators like moneychangers that implement convertibility. In order to let competition develop between currencies, the less currencies have the same sphere of uses, the more moneychangers and other mediations are necessary (see Figure 1).

Complementarity appears to be a composite view of distinct articulation modes (simultaneousness / supplementarity / autonomy). The most important in the case of early modern France is that of supplementarity, but insights in other contexts could show the importance of the two others. Of course, empirical cases do not fit exactly with the ideal types – but must be analysed as combining various criteria and able to evolve through social changes.

Table 1 – Summary

<i>Relation between money of different qualities</i>	<i>Ideal type when this relation is considered central</i>	<i>Examples</i>
Convertibility	Competition	Gold coins
Commensurability	Autonomy (absence of commensurability)	Isolated <i>méreaux</i>
Co-use	Simultaneousness	Various billon and copper coins
Coincidence (of spheres of uses)	Supplementarity (partial coincidence)	Small coins and large coins around 1577

References

Aglietta, Michel and André Orléan eds. 1998. *La monnaie souveraine*. Paris: Odile Jacob.

Bayard, Françoise and Philippe Guignet. 1991. *L'économie française aux XVIe, XVIIe et XVIIIe siècles*. Paris: Ophrys.

Belaubre, Jean. 1987. "Fiduciarisation du denier au moyen-âge français (XI-XVe siècles)," in *Rythmes de la production monétaire de l'Antiquité à nos jours. Actes du colloque international de Paris, 10-12 janvier 1986*. Georges Dépeyrot, Tony Hackens and Ghislaine Moucharte eds. Louvain-la-Neuve: Marcel Hoc, pp. 499-510.

Blanc, Jérôme. 1994. "Les citoyens face à la complexité monétaire : le cas de la France sous l'Ancien Régime." *De Pecunia*, VI:3, pp. 81-111.

Blanc, Jérôme. 2000. *Les monnaies parallèles. Unité et diversité du fait monétaire*. Paris: L'Harmattan.

Blanc, Jérôme. 2009. "Usages de l'argent et pratiques monétaires," in *Traité de sociologie économique*. Philippe Steiner and François Vatin eds. Paris: PUF.

Blanc, Jérôme. 2010. "Converting Money. On the Articulation Modes of Money," in *What is the Nature of Money ? A Pluridisciplinary Approach*. Jean-François Ponsot and Louis-Philippe Rochon eds: Edward Elgar.

Blanc, Jérôme and Ludovic Desmedt. 2010. "Counteracting counterfeiting? Bodin, Mariana and Locke on false money as a multidimensional issue." *History of Political Economy*, 42:2.

Boyer-Xambeu, Marie-Thérèse, Ghislain Deleplace, and Lucien. Gillard. 1994. *Private Money and Public Currencies: The 16th Century Challenge*. New York: M.E. Sharpe.

Braudel, Fernand. 1979. *Civilisation matérielle, économie et capitalisme*. Vols 1 and 2. Paris: Armand Colin.

Constans, Germain. 1658. *Traité de la Cour des Monnoyes et de l'estendue de sa juridiction, divisé en cinq parties*. Paris: Sébastien Cramoisy.

Desmedt, Ludovic. 2008. "Généalogie d'une monnaie mondiale : aux origines du dollar," in *L'argent des anthropologues, la monnaie des économistes*. Eveline Baumann, Laurent Bazin, Pepita Ould-Ahmed, Pascale Phelinas, Monique Selim and Richard Sobel eds. Paris: L'Harmattan, pp. 269-90.

Fantacci, Luca. 2005. "Complementary Currencies: A Prospect on Money from a Retrospect on Premodern Practices." *Financial History Review*, 12:1, pp. 43-61.

Fantacci, Luca. 2008. "The dual currency system of Renaissance Europe." *Financial History Review*, 15:1, pp. 55-72.

Greco, Thomas H. 1994. *New Money for Healthy Community*. Tucson: Thomas H. Greco.

Grierson, Philip. 1975. *Numismatics*. London, New York: Oxford University Press.

Guerreau, Alain. 1987. "Réflexions sur les mutations monétaires en France, à la fin du moyen âge," in *Rythmes de la production monétaire de l'Antiquité à nos jours. Actes du colloque international de Paris, 10-12 janvier 1986*. Georges Dépeyrot, Tony Hackens and Ghislaine Moucharte eds. Louvain-la-Neuve: Marcel Hoc, pp. 521-35.

Jeannin, Pierre. 1957. *Les marchands au XVIe siècle*. Paris: Seuil.

Kuroda, Akinobu. 2008a. "What is the complementarity among monies? An introductory note." *Financial History Review*, 15:1, pp. 7-15.

Kuroda, Akinobu. 2008b. "Concurrent but non-integrable currency circuits: complementary relationships among monies in modern China and other regions." *Financial History Review*, 15:1, pp. 17-36.

Labrot, Jacques and Jacques Henckes. 1989. *Une histoire économique et populaire du Moyen Age : les jetons et méreaux*. Paris: Editions Errance.

Lietaer, Bernard. 2001. *The Future of Money. Creating New Wealth, Work and a Wiser World*. London: Century.

Parry, Jonathan and Maurice Bloch eds. 1989. *Money and the morality of exchange*. Cambridge: Cambridge University Press.

Polanyi, Karl. 1957. "The Economy as Instituted Process," in *Trade and Market in the Early Empires. Economies in History and Theory*. Conrad Arensberg, Karl Polanyi and Harry W. Pearson eds. New York: Free Press, pp. 243-70.

Sargent, Thomas and François Velde. 2002. *The Big Problem of Small Change*. Princeton: Princeton University Press.

Savary des Bruslons, Jacques. 1723-1730. *Dictionnaire universel du commerce... Editeur Louis Philémon Savary*. Paris: Jacques Etienne.

Sédillot, René. 1955. *Toutes les monnaies du monde. Dictionnaire des changes*. Paris: Sirey.

Servet, Jean-Michel. 1988. "La monnaie contre l'État ou la fable du troc," in *Droit et Monnaie. États et espace monétaire transnational*. Philippe Kahn ed. Paris: Litec, pp. 49-62.

Servet, Jean-Michel. 1998. "Démonétarisation et remonétarisation en Afrique. XIXe et XXe siècle," in *La monnaie souveraine*. Michel Aglietta and André Orléan eds. Paris: Odile Jacob, pp. 289-324.

Spooner, Frank C. 1972. *The International Economy and Monetary Movements in France, 1493-1725*. Cambridge (MA): Harvard University Press.

Théret, Bruno ed. 2007. *La monnaie dévoilée par ses crises. Crises monétaire d'hier et d'aujourd'hui*. Paris: Editions de l'EHESS.

Zelizer, Viviana. 1994. *The Social Meaning of Money*. New York: Basic Books.