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Counteracting counterfeiting? False money as a multidimensional justice issue in 16th and 17th century monetary analysis ¹

FIRST DRAFT

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1. Introducing the problem

In the beginning of the fourteenth century, the Florentine poet Dante Alighieri penned a famous allusion to his contemporary, the French king Philip IV the Fair, in his *Divina Commedia*:

“There shall be seen the woe that on the Seine
He brings by falsifying of the coin,
Who by the blow of a wild boar shall die” (Dante Alighieri, 1867, canto
XIX, v.118-120) ².

Dante suggested that Philip’s death following an accident was only justice after the falsifications of his reign (1285-1314). In 1301, he had already been accused of falsifying coins by an enemy of his, the bishop Bernard Saisset, who contested his authority. The infamy of being a “falsificatore di moneta”, as this was often repeated in subsequent centuries, pursued the memory of the king and constituted a historical and moral

¹ This paper is related to the preparation of a collective work, forthcoming in French, on the history of monetary ideas, which will embrace the period 1500-1776 and a wide range of countries of Europe, from the countries that are generally studied (France, England) to countries that are generally neglected in such works (Sweden, Russia, the Ottoman Empire...). We owe much to the contributors to the book, whose works on specific areas, authors or topics allowed us to work on the transversal viewpoint that appears in this text: respectively, L. Baeck, N. Bond, J. Cartelier, J. L. Cardoso, L. Gillard, G. Jacoud, C. de Lozanne Jefferies, A. Murphy, A. Ögren, S. Pamuk, D. Raskov, L. Runefelt, J. T. Ravix, A. Tiran and C. Wennerlind. We claim of course entire responsibility for the ideas developed in this text. We would like to thank the Institut Caisse des Dépôts et Consignations pour la Recherche for supporting the project. And we thank Mary Bouley for her careful reading.

² “Lì si vedrà il duol che sovra Senna / induce, falseggiando la moneta, / quel che morrà di colpo di cotenna.”.

background for many authors dealing with money. Around 1600, for example, the French publicist Jean Bodin (1593, VI/3:118) and the Spanish Jesuit Juan de Mariana (1609, chapter 10) recalled the infamous history of this king by way of Dante's judgement. Mariana emphasised the momentary victory of morality when Philip,

“at his death, repented his deed and told his son, Louis Hutin, that he had to put up with his people's hatred because he had debased the coinage, and that Louis Hutin, therefore, was to correct his father's mistakes and hearken back to old reckonings” (Mariana, 1609, chapter 10).

Several decades after Bodin and Mariana, Samuel Pepys, who authored an important diary of the 1660s in England, related a case of counterfeit coins that seems strange to today's readers. Visiting the Tower (the Mint), he was told the story:

“of one that got a way of coining money as good and passable and large as the true money is, and yet saved 50 per cent to himself; which was by getting moulds made to stamp groats like old groats, which is done so well that there is no better in the world; and is as good, nay better, then those commonly go; which was the only thing that they could find out to doubt them by [...] and then coming to the Controller of the Mint, he could not, I say, find any other thing to raise any doubt upon, but only their being so truly round or near it.” (Pepys, May 19, 1663, T.IV, pp.143-144.)

Counterfeiters may thus issue better coins than the Mints, when the currency is of bad quality! ³ The Master of the Mint, recognising his inability to preserve a quality currency, avoided punishing the counterfeiter:

“He was neither hanged nor burned, the cheat was thought so ingenious and being the first time they could ever trap him in it, and so little hurt to any man in it, the money being as good as commonly goes”. (Pepys, May 19, 1663, T.IV, pp.143-144.)

Both the case of Philip the Fair and Pepys' forger spread confusion as to what should be considered false money. On one hand, the legitimate sovereign Philip IV The Fair was by no means a counterfeiter, as would have been an individual usurping the sovereign's right to mint coins. He simply used, and maybe abused, two of the basic monetary policy tools of his time: changing the official value of coins⁴ and issuing new coins of a lower metallic content. On the other hand, it is clear that Pepys' forger usurped the sovereign's mark, like any other counterfeiter, whether he forged coins of good or bad quality. While Philip IV seemed to have sovereign legitimacy in deciding the characteristics

³ Pamuk (2008) observes this paradox concerning the Ottoman Empire. We will not deal with the so-called Gresham's Law, first of all because it would deserve a lot of space, and it would exceed our time-frame, for it was re-invented in the 19th century. Macleod admitted in his *History of Economics* published in 1896: «[...] in 1864 my friend M. Wolowski published the treatises of Oresme and Copernicus, by which it appeared that these great men had fully explained the matter 160 and 32 years respectively previous to Gresham, so that this great law, which is as well and firmly established as the Law of Gravitation, should be called the law of Oresme, Copernicus and Gresham. », cited by De Roover, 1949, p.91.

⁴ For example, he cried up the silver groat from 13 to 39 deniers between 1290 and 1303.

of the currency, he was explicitly considered a counterfeiter by Saisset and Dante; Pepy's forger on the other hand should have been sentenced to death because he usurped the sovereign's mark, and yet he was almost considered virtuous!

The contrast with what appears today to be a very different situation raises a major question: beyond the two cases related above, how can we understand the diversity of the false money issues without restricting it to a counterfeiting problem, which obviously refers to crime? False money is more generally related to justice issues, in terms of criminality or not, and it is necessary to distinguish forms of unfairness induced by specific falsifications. False money is also related to legitimacy issues, so that one can consider the binary criteria true / false as depending on the legitimacy of the issuer's authority.

In this paper, we would like to clarify some issues about metallic currency falsifications before the 18th century. We will not deal with the many cases of notes' forging, that appeared mostly after that period. We will adopt a broad definition of false money, which seems to have originated with individuals as well as political powers in parts of Europe. In discourse aimed at fighting counterfeiting by individuals, the issue was also (and sometimes especially) to counteract royal falsification (that is, monetary manipulation). Then, a general claim to counteract counterfeiting may conceal a claim to suppress any possibility of debasing currency. Making monetary discourse clearer on this topic and establishing a hierarchy between the four dimensions of false money helps to understand why the false money issue is firstly a matter of monetary justice on the part of the prince himself.

This paper states that one cannot understand clearly the general topic of false money if old texts are read with today's general definition of false money. A conceptual framework embracing diverse forms of falsification appears to be the basis for a clear assessment of primary sources and debates of the time. After this introduction (section 1), we will, then, identify the multiple dimensions of false money: the concept refers to counterfeiting –strictly speaking- (by individuals), to degradation of coins (by individuals, moneyers and officers of the Mint), to debasement and enhancement (by princes) (section 2). In spite of former legal arsenals, condemnations of private forgers were, for a long time, very rare, and executing the punishment remained hypothetical. In the meantime, monetary manipulation by Princes were debated and often considered falsification. In section 3, we will try to explain why the diverse forms of false money (in our larger sense) may threaten the social significance of money (Wennerlind, 2004:131). Indeed, money is not only a collection of objects, but an institution based on the trust the members of a society invest in it. The symbolic and political dimensions of money are thus crucial for its acceptance. But what we could call the “public faith” (thus following for example Bodin and Locke) that makes money unanimously accepted within a community, can sometimes collapse, and, in this case, a crisis generally arises. We will present a few monetary crises in Europe

directly linked to the falsification problem (section 4), centring on three cases in which three major authors exercised their pens: the French Jean Bodin, writing in the context of a spiral of enhancement that did not manage to stop the rise in the voluntary price of the silver *ecu*, the Spanish Jesuit Juan de Mariana, writing against the new Castilian context of pure and debased copper coins, the *vellón*, and the English John Locke, writing in the context of the crisis in the quality of English coins and contributing to an intense controversy surrounding a major reform of the monetary system. In such moments of monetary change, theoretical and practical ideas emerged on the nature and the extent of the false money problem, and on the content of fair monetary policies. In section 5, we conclude on the ‘monetary revolution’ that took place progressively from the end of the 17th century toward a much greater stability of the metallic monetary system.

2. False money as a multidimensional issue

False money may take different forms that need to be distinguished when trying to take the complexity of this issue into account. Let us start with the three components of any coin, each one being open to possible manipulation: an official coin under the metallic monetary system of Modern times is made of a piece of metal, the mark of the sovereign, and an official value expressed in the official unit of account. What may be considered “false money” is an unfair manipulation of a combination of these three components, be it by individuals or princes themselves: raising the official value, lowering the metallic content, counterfeiting the sovereign’s mark. Divergent opinions on the borderline between fair and unfair manipulation can be readily found during the sixteenth and seventeenth centuries; this divergence is at the root of the ambiguity of the false money issue.

On this basis, false money finds its expression in four operations whose definition and consequences call for further explanation: counterfeiting, degradation, debasement and enhancement. Starting with the idea of usurping a symbol, false money is extended toward situations of bad money, that is coins of inferior quality.

2.1. Counterfeiting

When speaking today about false money, forgery, or counterfeiting, is what first comes to mind. Under the metallic monetary system of Modern times, counterfeiting affected coins. Counterfeit coins were forged by individuals, organisations or princes not authorised by the sovereign Prince, whatever the quality of these coins. Consequently, the main distinctive feature of these coins was an usurpation of the sovereign’s issuing rights, leading to a counterfeit of the sovereign’s mark. Counterfeiters directly menaced issuing monopolies.

Counterfeiting was mostly operated by individuals seeking a profit by means of the gap between the current value of genuine coins and the output cost of counterfeits. Thus, beside the usurpation of the sovereign's mark, one can identify three other characteristics of forged currency: a disconnection between the official value of the coin and the value of its metallic content, a lowered metallic content (obtained either by a lesser fineness of precious metals because light coins would be too easily identified, or by resorting to cores made of copper or bronze and plated), and a disconnection between the official metallic content of the coin and its actual one⁵. Individuals rarely operated alone; organised networks were frequent, and they often operated from a foreign base. In Russia, for example, "the known techniques were numerous. Some produced stamps, others produced copper coins which were later coated with silver. Some even mixed, tin or copper with silver right at the mint. Coins imitating the Russian coins were produced abroad, as well in early 18th century such money was produced by the Danes, Swedes, and perhaps the English" (Raskov, 2007:13).

There were cases of counterfeiting by princes themselves, local or foreign. This must be distinguished from the tactics by which princes aimed at appropriating the quality and success of foreign coins by issuing their own coins featuring their own marks but replicating the metallic characteristics of an well-known and widely-used international coin: see the cases of local replications of the florin or the ducat in the later Middle Ages and the beginning of modern times (Nussbaum, 1950:317). The case of kings ordering the issue of counterfeit foreign coins, thus seeking to destabilise the foreign state, seem to be rare in history⁶. Late feudal lords seeking resources, in the context of a general lack of currency and sometimes of political unrest, came to issue coins directly imitating those of the king. Some produced coins inferior to royal ones, while others minted coins of good quality, but were nevertheless considered as forgers by the king (see Bodin 1593, vol. I: 332-3, featuring such a case). At the same time, local monetary workshops minted exact replications of royal coins without being authorised to do so, thus collecting an undue seigniorage to the detriment of the king's Mint.

⁵ "A third cost of Ottoman debasements was the spread of counterfeiting. When the government issued new coins with lower specie content, counterfeiters immediately began to mint the new coins with the same or even higher silver content in order to share the seigniorage revenues of the state. This opportunity declined, however, when precious metal prices adjusted upwards along with other prices. Price ceilings on the specie and government attempts to obtain the specie at those official prices also encouraged counterfeiting.", Pamuk, 2008.

⁶ As explained by Nussbaum (1950:493), this was facilitated "in the era of paper money as mass falsification became easier, less expensive and more remunerative".

2.2. Degradation

Degradation, or any kind of abrasion, leads to coins of lesser quality because of the resulting decrease in their weight. The main consequence of degradation, and, when voluntary, its main purpose, are a gap between the actual metallic content of the coin and its official content, as ordered by edicts. It thus contributes to the lowering of the metallic content, and to the disconnection between the official value of the coin and the value of its metallic content.

Degradation resulted from inevitable wear and tear of coins in their daily use, a situation which obviously did not involve fraudulent manipulation. But this involuntary and collective degradation produced a form of false money as well as voluntary degradation, that were clearly unfair.

Individuals degraded coins in order to collect the metal and, consequently, either bring it to the Mint (and get coins corresponding to the weight of the metal), or sell it, or mint counterfeit coins by themselves. With this borderline case, one can see that degradation may be oriented toward the first case of false money seen above, and this was obviously serious enough to consider voluntary degradation a major crime.

Voluntary degradation took different forms. Writers of the period often precisely detailed the modalities of degradation, including clipping, that appears today as the most prominent modality. Sargent and Velde feature sweating, clipping and shaving: “Sweating is an artificial form of abrasion in which the losses are collected, while clipping and shaving are outright removal of pieces of metal from the edges of the coin” (Sargent and Velde, 2002:346). Nussbaum talks about “clipping”, ‘washing’ and other ways of ‘lightening’ genuine coins”, as “more refined offenses” than “outright counterfeiting” (Nussbaum, 1950:40).

Whatever the modalities, and whatever their voluntary nature, degradation was sometimes so common that the currency was seriously deteriorated. Sargent and Velde cite an estimation of the consequences of wear and tear, showing something like 0.2 to 0.3% per year on English silver coinage, that is, between 10 to 20% loss of weight after 30 years (Sargent and Velde, 2002:346).

Counterfeiting was (in principle) heavily punished, as was voluntary degradation. Degradation had important repercussions: the bad state of coins frequently compelled users to specify in every transaction the currency in which the payment would be made. This fuelled confusion and stimulated endless disputes at fairs or markets.

2.3. Debasement

There were other forms of falsification, which depended largely on the perception of princes' manipulation: while the kings' arbitrage was recognised, allowing him to operate some manipulation of money, a subtle and changing borderline separated it from the purely arbitrary, a situation which generated debates and sometimes led the sovereign to be considered a falsifier.

The confusion around 'debasement'

The very general term employed in English to qualify such manipulation is 'debasement'. But it is an ambiguous term, since it takes on different meanings, even among current economic historians. Making the position clearer, as did for example Gould (1970), Sargent and Velde (2003) or Fantacci (2005) involves refusal of this large sense. Gould (1970) actually distinguishes three practices: a) reducing the weight of coins; b) reducing the degree of fineness of the gold (or silver)/alloy mix from which they were struck; c) tariffing the coins at a higher valuation in terms of money of account, while leaving their physical characteristics unchanged. According to him, 'debasement' strictly speaking corresponds to case (b), while (c) characterises 'enhancement'. The first method, (a), was simply called 'making the coins lighter'. It must be said that, in its widest sense, 'debasement' comes to refer to these three methods! In this paper, we will consider cases (a) and (b) as debasement processes, i.e. the act of decreasing the precious metal content of the coin, as ordered by the prince, by minting new coins, either of lower fineness of the precious metal that constitutes a coin (gold or silver being mixed with a base metal, generally copper) or of lower weight. A clear distinction must be made between enhancement (or cry-ups, *ie* a rise in the official value of unchanged coins⁷) and debasement (minting new coins of lower metallic content)⁸.

Debasement strictly speaking

Debasement was carried out by princes. The main purpose and consequence of debasement was the appearance, or more generally the development, of a gap between the official value and the value of the metallic content evaluated in units of account through official prices of metals. Whatever the gap, it had to be greater than the *brassage* (a fee charged by the mint operator to cover production costs, excluding the price of metal); it

⁷ Though this is of old use, Sargent and Velde (2003) prefer to use 'cry-ups' when referring to what we will call here 'enhancement'.

⁸ One can note that the definition is far from being neutral. For example, French terms referring to enhancements or cry-ups are frequently translated in English as debasements broadly speaking, thus inducing misunderstandings. Similarly, the English translation from Latin may produce some confusion (see discussion on Mariana, below).

depended mainly on the seigniorage decided with the coinage. Debasements were generally carried out officially, the characteristics of the new coins being published, especially when old coins were taken out of circulation in order to melt them down and issue new coins of lower precious metal content.

There were nonetheless borderline cases involving hidden debasement. Princes could indeed order a debasement without announcing that the newly issued coins were debased. This was the case of Swedish King Gustav Vasa during the 1540s (Ögren and Runefelt, 2008). But princes did not always control the process. For example, officers of the Mint sometimes committed mistakes in the appliance of edicts. But more disturbing were cases of officers of the Mint, or moneyers themselves, diverting edicts and voluntarily issuing coins of lesser metallic content. As well as clipping and other forms of degradation, hidden debasement generated a gap between the actual metallic content of coins and the official one, as ordered by the royal edicts, whatever the official quality of the coins.

2.4. Enhancement

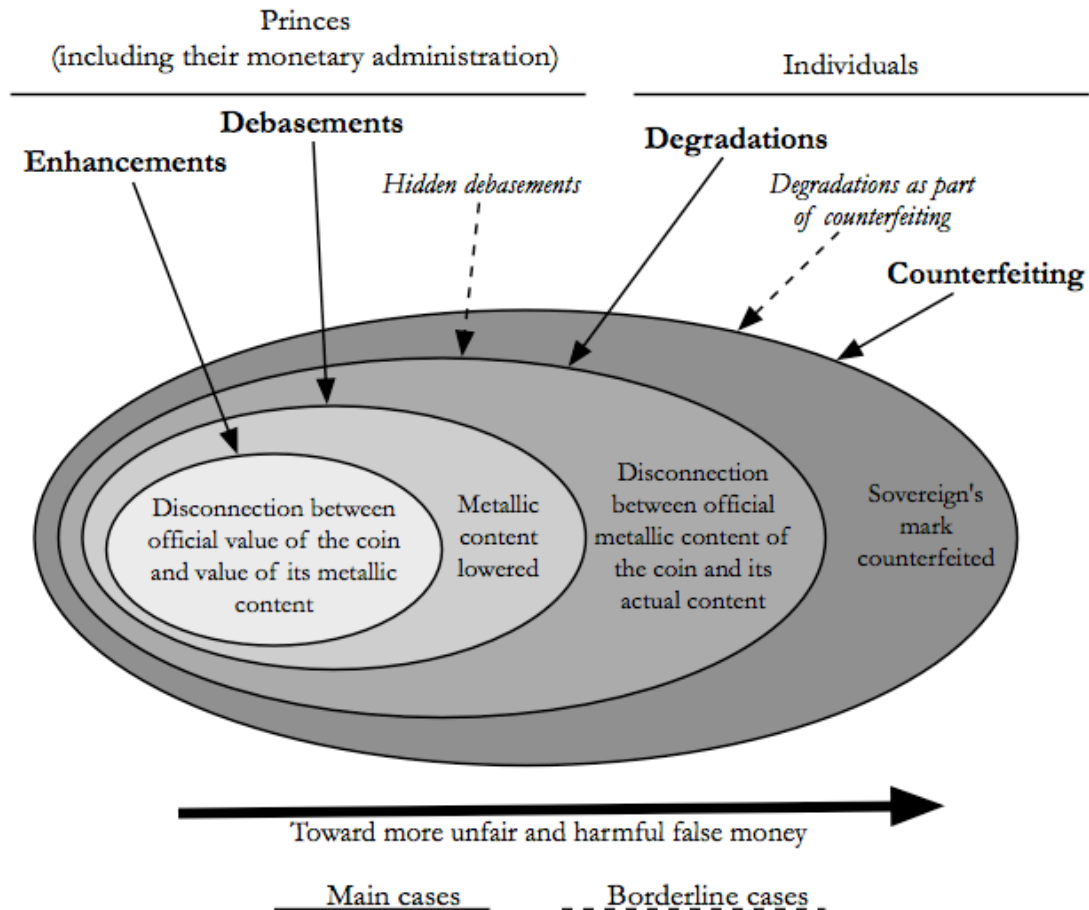
Enhancement was the most widely used tool of monetary policy, since, in the metallic monetary system of medieval and Modern times, where coins did not bear any mention of their official value, it was very easy to edict them. Like debasement strictly speaking, as well as degradation and counterfeiting, enhancement produced a gap between the official value and the metallic value of a coin; but it did by no means affect the metallic content. For this reason, the practice may appear less harmful and unfair than debasement, in which the intrinsic value of the coin may be heavily affected.

2.5. Summary

Figure 1 summarises these four categories of false money, ordering them from the least harmful and unfair on the left to the most harmful and unfair on the right. It completes the panorama with the two borderline cases discussed above. There is obviously a moral, as well as an economic, hierarchy among these forms. We will discuss the issue below, firstly by presenting moral views on these manipulations, and secondly by examining analyses from three European thinkers of the period. As presented in this figure, each false money category is associated with a main distinctive feature — although we have to keep in mind that all but the counterfeit of the sovereign's mark appear in at least two categories. The figure must then be read as follows: as we progress toward unfair and harmful, a category of false money cumulates features of former categories and includes a new one. For example, the metallic content is lowered as a result of all of these manipulations but enhancement. On the top appear the operators of each sort of false money: either princes, including their monetary administration (moneyers and officers of the Mint), or individuals.

False money appears as a transgression of moral values that are generally enforced by repressive legal rules. But, since it is not a homogenous phenomenon, one can identify different modalities for repressing it, as we will analyse below.

Figure 1 - False money categories



3. Public faith and the false money problem

In every society, legal punishment draws the line between legal and illegal practices, between what are to be considered “fair” and “unfair” acts. In the case of money, the situation was complex, because some illegal practices could be seen as bearable, during situations characterised the “scarcity of coins”. But money is not only an object managed by defined authorities; it is a social medium. Thus, “counterfeiting challenged the general confidence in the exchangeability of money and consequently damaged the capacity of money to mediate exchange relations.” (Wennerlind 2004). Money embodies public faith, a notion that must be examined.

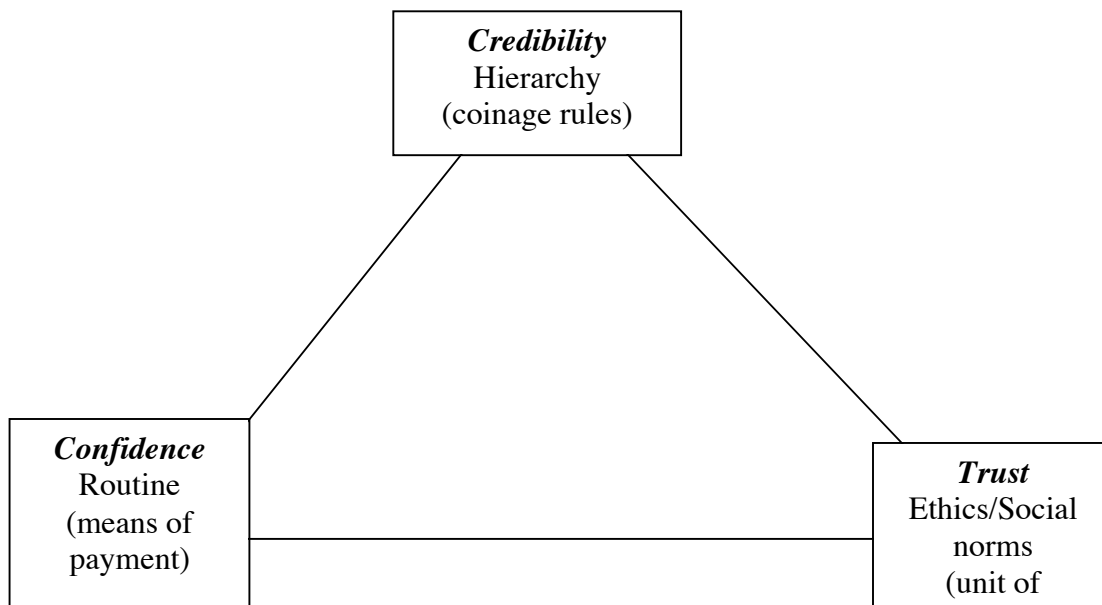
3.1. Trusting money: from a general framework to the case of the metallic system

The traditional functions of money (means of payment, unit of account and store of value) cannot be carried out without trust in it (Aglietta and Orléan eds, 1998; Théret ed., 2007). More precisely, this general faith in money can be split into three levels (Théret, 2007):

- *Confidence*, or routine faith, characterises the fact that money is routinely accepted as payment because everyone expects everyone else to accept it at face value; this is mimetic faith.
- *Credibility*, or hierarchical faith, means that money is accepted because the credibility of its issuers is certified by a legitimate representative of the payment community as a whole: today, central banks; in Modern times, Mints or sovereign monetary institutions (for example, the *Cour des monnaies* in France).
- *Trust*, or ethical faith, ensures that money is accepted because it is distributed in accordance with the ethical values and norms which provide the foundation of the community in which money is valuable.

Confidence, *credibility* and *trust* are thus three levels of public faith in money, whose combination ensures the stability of payment systems. The transcendent values of society are declined through the formulation of minting rules, and in the sphere of common payments.

Figure 2 - Three levels of public faith in money



As a basic consequence of such an approach, even metallic currencies contain a strong degree of fiduciarity. In Modern times, coins bore symbolic representations of monarchs and monarchies (ethics); they had generally accepted physical characteristics so that monetary practices could develop routinely (routine); they came from an issuing

authority (hierarchy). In every system, the political, economic and legal levels needed to be coherent for each actor; hence money is a pluridimensional medium, and public faith must be preserved to ensure the functioning of the monetary system. Operations such as recoinage or the punishment of counterfeiters could be seen as symbolic acts, aimed at ensuring either the refoundation or the permanence of the monetary system and the background social order⁹. Indeed, counterfeiting, degradation, debasement and even enhancement could threaten the credibility of the issuing authorities, as well as the confidence in the daily routine of monetary practices, and trust in the overall values of the social order – three levels essential to every payment system. A comment on routine can be added: when the money system is so confused that counterfeiters are able to issue better coins than Mints (see Pepys' forger case), anyone might accept counterfeit coins. This situation can be analysed in terms of a conventional pattern: « A medium of exchange – say, coin of the realm – has its special status by a convention among tradesmen to take it without question in return for goods and services. [...] the inconvenience of accepting a bad medium of exchange is less than the inconvenience of refusing it when others take it, or of taking what one can neither use nor spend. » (Lewis, 1969:48) But this kind of convention can nevertheless imperil the system.

3.2. Counterfeiting and degradation: between repression and tolerance

First, one must stress the great danger induced by an uncontrolled spreading of counterfeiting and degradation of coins.

In principle, counterfeiting was heavily punished, as was voluntary degradation. Degradation had important repercussions: the bad state of coins frequently compelled users to specify in every transaction the currency in which the payment would be made. This fuelled confusion and stimulated endless disputes at fairs or markets. Armies of tamperers had one major effect: the trust in money was corroded, beginning with its first stage, the routine of daily uses. Clipping and forgery were thus morally reprehensible acts, which demanded the revision of the legislation and the punishment system. Here we will record some examples of penalties, and try to explain why fraudulent operations were (in fact) tolerated.

Arguments against counterfeiting and voluntary degradation: from morals to legislation

Religious authorities took part in the prosecution of counterfeiters, who introduce suspicion and confusion into the society. In 1123, by the council of Latran, counterfeiters

⁹ For example, the prosecution of counterfeiters at the end of the 17th century became performances in which “spectators, by their viewing of the scene, became adjuncts of the state in establishing – one can even say coercing – respect for and compliance with the rules of the monetary system.”, Wennerlind, 2004, p.149.

and « circulators of base coins » were declared oppressors of the poor, disturbers of the state and, therefore, excommunicated (in 1583, the council of Tours reiterated these sanctions) (Ruding, I:167). These questions were still discussed in churches at the end of the 17th century, as evidenced by the *Sermon against clipping* by William Fleetwood in 1694 in England. For the bishop of Ely, clipping was not only illegal, but also “sinful”, “as being a fraud upon every person” (Ruding, 1840, II:35). His *Sermon* addressed the case of false money in a precise and detailed manner. The bishop insisted on the fact that currency was founded on an act of faith: “For the Publick Faith engages, that every Man receiving a Piece of such a Mark and Denomination, shall receive in it so much Silver, and of such a Fineness” (Fleetwood, 1694:8). So, the moral code condemned private money-makers, who deserved to be punished by heavy penalties: “Clippers are as truly Thieves and Robbers, as those they find upon the High-ways, or breaking up their Houses, and do as well deserve their Chains and Halters.” (Fleetwood, 1604:17).

The question of false money was not confined to morals; above all, it was a legal problem: “The tradition of Roman law saw the right to mint as a royal prerogative and treated any infringement of this regalian privilege as a form of lese majesty or high treason.” (Sargent and Velde, 2003:65) “In the Germanic laws the original punishment for counterfeiting was the loss of the right hand, a penalty also inflicted in England” (Nussbaum, 1950:40). By the Anglo-Saxon laws, “to this punishment, already sufficiently severe, the cruel policy of the Anglo-Norman Kings added loss of sight and emasculation.” (Ruding, 1818, I:159) Punishments became more severe with the deepening monetarisation of European societies, “when the early economic system turned more monetary and the effects of counterfeiting were therefore more keenly felt” (Nussbaum, 1950:41); in France, as early as 1347 and for a long time afterward, counterfeiters could be boiled. In 1580, the *Contume de Bretagne* specified: “counterfeiters will be boiled, then hanged” (article 634, quoted by Ménard, 2003). In England, during the 17th century, counterfeiting the King’s coins was high treason, punishable by hanging (in the case of men) or burning (in the case of women). Punishments were slightly less barbarous from the Enlightenment onward, but death remained the major sanction (Nussbaum, 1950:42). In Russia, “Mint workers were made to kiss the cross, examined naked, tortured if suspected, prosecuted by means of pouring molten tin into their throats, punished with the severing of hands and ears, and with whippings. Some were even evicted from their houses and exiled to Siberia” (Kotoshikhin, 1859: 81, quoted by Raskov, 2007: 13).

Wennerlind (2004) showed that monetary policy not only included the issuing of money and the adjustment of its quantity, but also the execution of people guilty of tampering with the currency, and that this dimension was not marginal, but grew at the end of the 17th century and during the 18th. Nevertheless, despite punishments established by law, there generally existed a noteworthy tolerance.

Tolerance

While various punishments threatened “money criminals”, they were tolerated within the society. Counterfeiters were often persons of a high social rank, as Parsons (2003b) stresses: “Counterfeiting was something of an elite crime, requiring very considerable skills, capital and organization. Its practitioners tended to be goldsmiths (or locksmiths, who had the same engraving skills and were more often underpaid), merchants, members of the lesser nobility, or priests. (...) It was much less socially marginal than most criminality”. This does not mean that they were accepted, but only tolerated to a certain extent.

Tolerance was all the more evident with clipping. Whereas clippers were considered as criminals according to the law, often, in principle, to the same degree as counterfeiters, a lot of people in the lower ranks of society would clip coins that were already damaged (see Muldrew, 1996). Thus, traditionally, clipping was not seen as robbing other individuals, because everybody was involved in the degradation.

One important reason for such tolerance is that counterfeiting “lubricated” circulation by introducing species, certainly non-official and whose value was not guaranteed, but which did serve to increase the means of payment which were so lacking: “forgers proved themselves economic agents whose function was to supply the market, while official coinages were defaulting. (...) Despite efforts to repress them made by kings, the need for species was too big to examine closely their origin” (Feller, 1986). In cases of monetary tightening, degradation could avoid some major drawbacks: in England, for example, “a major depression and a collapse of credit, as happened in the 1590s, was averted because of the extent of clipping, as the clipped coins were, of necessity, increasingly accepted at face value.” (Muldrew, p.106) As a consequence of such needs, monetary uses were not confined to official coins (local and foreign).

Thus, in England these fraudulent operations were regarded as “unperceivable faults” until the years around 1690 and finally perceived rather positively by public opinion. “For the practice of clipping, pernicious as it was, did not excite in the common mind a detestation resembling that with which men regard murder, arson, robbery, nay, even theft. The injury done by the whole body of clippers to the whole society was indeed immense: but each particular act of clipping was a trifle.” (Macaulay, T.III, p.389)

Counterfeiting, degradation and public faith

Routine, hierarchy and ethics do interact: a “marginal” but continuously repeated act can undermine the whole society. As Caffentzis remarks, “theft is a one time affair, but the clipper’s work introduces a continuous deepening obscurity into our reality and into our ideas.” (Caffentzis, 1989:28). An act considered a “trifle”, because it only consisted in the removal of a very small amount of metal, had huge social consequences. In other

words, as Macaulay noted, “For great as the aggregate of the evil was, only an infinitesimal part of that evil was brought home by the individual malefactor.” (Macaulay, T.III, p.390). Addison, in his very interesting *History of a Shilling* of 1710, gave voice to a coin narrating its adventures, from the mines of Peru to the pockets of Londoners. The coin was eventually seized by a clipper who dismembered it : “I fell into the Hands of an Artist who conveyed me under Ground, and with an unmerciful Pair of Sheers cut off my Titles, clipped my Brims, retrenched my Shape, rubbed me to my inmost Ring, and, in short, so spoiled and pillaged me, that he did not leave me worth a Groat.”, (in Mackie, p.187). This image is very fruitful, and it was not only the petty coins that were dismembered, but the society as a whole. For example, if clippers exercised their craft on the English coin named *Crown*, to clip this coin was to erode the King’s representation, so “shaving, clipping, and filing the King’s head stamped on the coin became a highly symbolic decapitation.” (Wennerlind, 2004:140). Clipping, filing or shaving coins could be seen not only as a fraudulent practice, but also (and above all) as a political act.

One index of the loss of confidence could be the intensification of clipping. When a crisis finally developed, the enduring tolerance stopped, as suggested especially by the case of England at the end of the 17th century (see below).

3.3. Debasement, enhancement and Public faith

Counterfeiting and degradation were thus morally and legally condemned, although tolerated to a certain extent. Debasement and enhancement could not be legally condemned, since they were ordered by princes themselves. They were nonetheless generally morally condemned, since they undermined public faith.

In a metallic monetary system, the pact between the prince (who can dictate the issuing rules, such as the relationships between the unit of account and the means of payment) and his subjects could easily be manipulated. It is widely known that princes were in the habit of devaluing the standard: in the long run, every European country experienced a steady depreciation of its currency. The following chart provides information about the situation in France and England.

Table: Long run depreciation of currencies

FRANCE			ENGLAND		
Kings /Dates	Fine gold (mgs) in one livre tournois	Residual value/livre tournois (%)	Kings and Queens /Dates	Fine gold (mgs) in one sterling pound	Residual value/sterling pound (%)
Louis IX (1266)	8270	100	Edouard I (1278)	20500	100
Philippe le Bel (1311)	4200	50,7	Edouard III (1350)	17400	84,8
Louis XI (1480)	2040	24,6	Henry VII (1489)	15470	75,5
Henri IV (1600)	1080	13,1	Henry VIII (1535)	9200	44,9
Louis XIII (1640)	621	7,5	Elizabeth I (1560)	7750	37,8
Louis XIV (1700)	400	4,8			
Louis XVI (1789)	300	3,6	George III (1793)	7320	35,7

From Cailleux, 1980, pp.253-254 and Aglietta, 2006.

The steady lowering of the metal content of the circulating medium endangered private contracts : creditors could be concerned about the means of payment used to redeem debts. If the prince ordered an enhancement between the loan and its repayment, the creditor could receive less metal than he had lent. The problem could be worse in the case of the withdrawal of existing coins and the issuing of new coins of a lesser metallic content, but this was less frequent. In response to the risks and the confusion induced by such practices, grew networks of bills of exchange in Europe from the 15th century, as well as autonomous and transnational systems of account, as ways to erect “parallel systems” preserving commercial contracts from enhancement and debasement (see Boyer-Xambeu, Deleplace, Gillard, 1986).

According to Robert Cotton, “The Regulating of Coin hath been left to the care of Princes, who are presumed to be ever the Fathers of the Common-Wealth.” (Cotton, 1626, p.127 in Mc Culloch). But when the sovereigns manipulated “their” currencies too frequently, public faith was endangered, in its three monetary dimensions featured in figure 2 above. Before developing this point below by means of the analyses of Bodin, Mariana and Locke, another quotation from Cotton can summarise a contemporary point of view on this subject: “The Measures in a Kingdom ought to be constant: It is the Justice and Honour of the King; for if they be altered, all Men at that instance are deceived in their precedent Contracts [...] for no Man knoweth then, either what he hath or what he oweth.” (Cotton, 1626, p.138)

When the tolerance of coins of inferior quality was no longer bearable, situations could lead to important crises, and the powers had to reaffirm their authority, by new

definitions or legal measures that tried to restore confidence, credibility and trust. Crises generally led to recoinages¹⁰: these operations were not only a necessity after generalised counterfeiting and clipping, but are to be understood in the framework of rethinking the quality of the official coinage. These moves towards coins of better quality were seen as huge operations aimed at restoring the integrity of damaged coins, by which the fire purified bad currencies. In his *History of a Shilling*, already cited, Addison recounted the recoinage operations from the point of view of the coins themselves : “[...] when every Body thought our Misfortune irretrievable, and our Case desperate, we were thrown into the Furnace together, and (as it often happens with Cities rising out of Fire) appeared with greater Beauty and Lustre than we could even boast of before.” (in Mackie, p.187)

4. Converging analyses from distinct maelstroms of falsification:

Bodin, Mariana, Locke

Since the monetarisation process of Modern times was carried out within the framework of a metallic monetary system, including full-bodied coins (mainly made of silver, but also gold and, for example in Sweden and Spain, copper) and types of billon (small change whose current and official prices could not be justified by their intrinsic metallic content which was very poor), and since the tools of monetary policies were mainly limited to manipulation of the official values of coins, of their metallic content, and of the quantity of coins to be issued, every part of Europe faced false money problems, whatever their nature. Actually, the false money problem was not only technical, but also - and maybe especially- political. Moreover, contrary to the position frequently held in historiography, most debates concerned not so much the quantity of coins as their quality. This is reflected in the numerous publications and controversies both directly on this problem and surrounding it.

In the Holy Roman Empire, an entire period was nicknamed the *Kipper- und Wipper Zeit*, that is “the time of clippers and counterfeiters”, in the context of rising unrest and the Thirty Years War, in the very beginning of 17th century (Bond, 2007). In a politically and economically fragmented territory, private money-makers tried to gain advantage from the weakness (or the variety) of power, and degraded and counterfeit coins of poor quality came into everyday circulation, while good coins were selected from bad ones to be hoarded or exported (Kindleberger, 1991). In the meantime, princes practised debasement in order to absorb their debts and finance their war effort. Eventually, the Thirty Years War (1618-1648) led to monetary discipline, and a reform took place in 1622 (see Bond).

¹⁰ Recoinages could also be implemented after a technical improvement : “the French had recoined their clipped coins in 1640 immediately after the invention of the mill (which could produce a fluted, unclippable edge)”, Appleby, 1978, p.228.

But this discipline disappeared as soon as peace was restored (and “monetary confusion” re-appeared in the 1650’s).

In some cases, the Crown itself could be seen as a counterfeiter, because trust in money was not certified. In the 17th and 18th centuries, Ireland’s special status had several consequences, among which the fact that it could not mint its own coins¹¹. In 1722, William Wood, an English manufacturer, obtained a patent from the English Crown, allowing him to coin (in Bristol) some copper halfpence and farthings for Irish trade circuits. Irish people considered London’s decision as an insult, first of all because the decision had been taken without any reference to the Irish Parliament. Moreover, Walpole’s government tried to implant in Irish circuits coins struck outside the island and of doubtful quality. Pamphlets were soon published criticising this decision, fearing the coins to be significantly underweight, undersized and made from inferior materials. In his *Drapiers’ letters*, Swift attacked Wood’s “filthy trash”. The eloquence displayed in these pamphlets attempted to unite a majority of Irish people behind the “drapier”, organising a “boycott of the coinage.” (Davis, 1966, pxi). In August, 1725, Wood’s patent was finally removed: as Swift indicated in his fourth letter, “Money, the great *Divider* of the world, hath by a strange Revolution, been the great *Uniter* of a most *Divided* people.”

Putting aside these cases, we will emphasise three other examples, linked with three major authors of their time whose writings were related to the falsification context (broadly speaking, as defined earlier in this paper): France, with Bodin’s writings; Spain, with Mariana’s, and England, with Locke’s. Our purpose is not to be exhaustive, neither on European cases, nor on debates and writings generated by specific situations experienced by a couple of countries; it is, rather, to assess to what extent such contexts were analysed by distinct authors on common grounds and establishing similar proposals. What is especially interesting is the relationships between false money forms, and the hierarchy established by these authors. We will see that the formerly distinct problems, namely, on one side, clipping and counterfeiting (mainly by individuals), and, on the other side, debasement and enhancement (by princes) were intimately related.

4.1. Bodin

In France, a series of enhancements occurred between 1560 and 1577 and the situation was that of rising prices. Successive cry-ups did not manage to stop the dynamics of rising voluntary prices for the main silver coin, the *ecu*. The deepening crisis was suddenly stopped by the reform of 1577, especially theorised by Turquam and

¹¹ As Jonathan Swift vividly noted: « We are denied the liberty of Coining Gold, Silver, or even Copper. In the Isle of *Man*, they coin their own Silver; every petty Prince, Vassal to the *Emperor*, can coin what Money he pleaseth. And in this [...] we are an Exception to all other States or Monarchies that were ever known in the World. », Swift, 1728, p.9.

implemented by the Cour des monnaies (Parsons, 2003a). But the dynamics of voluntary prices rising above the official value of the coin reappeared in the very beginning of the first decade of the century, and gave rise to another wave of public debate until 1614-1615.

The Malestroit-Bodin controversy over the reality and origins of the great rise in prices constituted a major monetary debate during the 1560s and 1570s, in which various secondary authors participated (at least the following: on an independent basis, La Tourrette, Colas, Turquam; supporting Bodin's position, Girard du Haillan; supporting Malestroit's position, Garrault). Today's economists generally acknowledge Bodin as one of the first authors clearly exposing what would become the quantity theory (Bodin, 1568, 1578, 1593). We have argued in other papers that Bodin's monetary ideas should not be reduced to such a theory, at least because the very core of Bodin's monetary analysis has to be found in his reflection on the conditions in which monetary sovereignty should be fulfilled and limited (Blanc, 2006, 2007). We argue, thus, that the controversy calls for other interpretations, giving false money issues a central role.

It is worth noting that Malestroit centred his analysis on enhancement, while Bodin not only included both enhancement and debasement, but degradation and counterfeiting as well. All these concerns finally relate to a dichotomy between good and bad currency.

For example, it may be puzzling that Bodin worried about the circulation of foreign coins only when their metallic content was of a lower fineness than that of the domestic coins. Indeed, those bad coins could flow in to be converted into good French ones, which would be melted and exported. This is surely an important argument, but two distinct analyses should complete it. First, an economic analysis, as developed by Turquam (1573), would show how high prices of foreign coins alter the prices of domestic coins. Second, a political analysis of the principle and exercise of sovereignty, as was developed by Bodin during the years 1560-1570 in his major work *Les Six Livres de la République*, led him to stress the symbolic denial of sovereignty induced by the recurrent circulation of foreign coins (of good and bad quality). The central point of Bodin's analysis remained the quality of the currency.

This is the reason why Bodin established a relationship between debasement and enhancement by the Prince, degradation operated by officers of the Mint, counterfeiting and clipping by individuals and foreign species of bad quality. The suspicion towards coins was entertained by the fine line between, on one hand, true and counterfeit coins and, on the other hand, good and degraded or debased coins.

This led Bodin to suggest reforms in minting rules and techniques, so that counterfeiting, degradation and debasement would become more difficult, or even impossible. This was particularly the final purpose of Jean Bodin, but other writers or officers of the Mint were also looking for such results (for example, Nicolas Briot, during

the first two decades of the seventeenth century, before crossing the Channel to offer his services in England).

Clarifying the common view on false money by showing its underlying logic allows one to better understand the debates of the time. For example, it allows one to understand that the controversial debate on the royal ability to debase the currency can be hidden by a general and unanimous denunciation of bad coins applied to the special cases of counterfeiting and bad foreign coins, thus formally lessening the sovereign's responsibility.¹² Moreover, some stress the necessity of battling against counterfeiting, arguing that it is an impediment to the supremacy of royal minting.

These general debates found expression in proposals. In most cases, however, they were related to the false money issue only partially, proposing a combination of some of the following: severe sanctions against forgers; a change in minting techniques, making counterfeiting more difficult; a change in the definition of the metallic content of the coins; or a strict prohibition of the use of foreign coins. Nevertheless, the issue of the royal ability to debase remained a very difficult one; Jean Bodin tried to resolve it. His proposals were intended to definitively avoid all forms of false money. We suggest that herein lies the real importance of Bodin in the history of monetary ideas.

The originality of Bodin's monetary analysis lies in its relationship with the core concept of his works, sovereignty. Given Bodin's interest in the construction of this concept, counterfeiting by individuals would be a much more serious issue than debasement by the Prince, since counterfeiting usurps the mark of the sovereign and constitutes what Bodin called a crime of *lese-majesty*. Arguably, bad currency makes it difficult to get stable references in prices, which undermines commercial activity. Nevertheless, it is by no means in contradiction with sovereignty, since sovereignty implies a right to debase. The hierarchy was reversed when Bodin dealt with the priorities in the fight against false money. Bodin focused his attention on the quality of metal, not on the mark of the sovereign. Indeed, the very existence of both counterfeit coins and debased coins proceeded from the same logic: profit, resulting from the difference between the legal value of the coins and the minting costs. Forgers certainly divert the mark of the sovereign, but their only purpose is to make a profit by falsifying the metallic content of the coins they mint. Fighting the falsification of the sovereign's mark (on the counterfeit coins) is thus subordinated to the fight against the falsification of metal (on debased and degraded coins).

The core issue was then, according to Bodin, the design of a sound and stable system that definitively prevented debasement by the Prince. Suppressing the features of

¹² See for example Bouteroue (1666: 7-9). He defined forgers as those who clip, wash and use other inventions in order to debase coins; but the main causes of debasement that he identifies later all proceed from the king's practices.

the official monetary system which made the use of metal of low fineness possible would be the ground on which it would be possible to completely overcome the crime of lese-majesty stemming from counterfeiting, as well as debasement by the Prince and all forms of degradation.

4.2. Mariana and the beginning of the *vellón* crisis

In 1609, the Spanish Jesuit Juan de Mariana (1536-1624) published a short “Treatise on the Alteration of Money”¹³, which may be assessed as an important milestone in the evolution of monetary ideas. It must be said that Mariana’s reputation, both contemporary and posthumous, came primarily from other books, the *Historiæ de Rebus Hispaniæ* (*History of Spain*, 1592) and *De Rege et Regis Institutione* (*On the King and the Institution of Kingship*, 1599). In the latter, which was to serve as a guide for the young Philip III, he developed his view of a constitutionalist monarchy. He came to argue that tyrannicide is fair when there is no other solution to put an end to the devastation of an unjust king. His description of the tyrant does not directly refer to possible misuses of money, but includes the idea of ruining his subjects and exhausting them so that he cannot enforce more taxation. In the same book, Mariana denounced adulterations of the currency as a form of taxation (Part III, chap. 8, “De Moneta”).

Ten years later, his short essay on money mainly dealt with debasement and, with less insistence, enhancement, considering however that they differ little (chapter 11)¹⁴. Mariana wrote this essay in reaction to the new monetary context of Castile, characterised by new issues of pure copper coins, known as *vellón*. Issue of vellóns with a very low silver content started in 1597, then two years later new vellóns could be made of copper only. This was the beginning of a long history of small change crises in Castile and recurrent debasement, ending only in the 1680s (Font de Villanueva, 2006; Jefferies, 2008). Mariana’s central point was then falsification by princes themselves. Counterfeiting was considered a sub-product of princes’ falsification, for the disconnection between the official value of the coin and the value of its metallic content made it possible for individuals to forge coins of a lesser quality and return a profit on them.

¹³ The original Latin text, entitled *De Moneta Mutatione Disputatio?*, is part of a much larger book that contains several parts, the *Tractatus Septem*. An English translation of the only “treatise” was published in 2002 in the *Journal of Markets and Morality*; we use this translation in the quotations of the present paper.

¹⁴ The original Latin title was more explicit than its English translation: dealing with *monetae mutatione*, it referred to general changes in the currency, *i.e.* both enhancements and debasements. The English translation is imperfect on this point, gathering under the word “debasement” both enhancements and debasements strictly speaking, and thus introducing confusion in the reader’s mind. The Latin original words, “mutatione” (a change, that is not necessarily bad), “vitio” (corrupt, alter) and “depravatio” (corruption, alteration) are not systematically rendered, and the English word “debasement” used in the translation may refer to any of them.

Mariana stated that a king, not owning his subjects' goods but protecting them unless he is a tyrant, could not create new taxes or raise existing taxes without their free consent through a consensus. Debasement of money without the consent of subjects, *ie* reducing its intrinsic value through its weight or its quality, as well as enhancing its value, is then robbery and an "evil". According to Mariana, only "pressing circumstances" such as war or siege may legitimise debasement without the people's consent; but should be reverted as soon as peace has been restored. Money, as well as weights and measures, is at the very foundation of commerce; "they cannot be changed without danger and harm to commerce". What is interesting is that Mariana's arguments against debasement and enhancement were less moral than economic – even though morals were an important part of his general reflection, as a theologian who referred to natural law.

According to Mariana, Money has "a twofold value" (chapter 4). One is "intrinsic and natural"; it comes from its metallic content ("its type of metal and its weight", plus "the cost of labor and equipment in minting", *ie* a brassage including a provision for depreciation). The other is "the legal value", it is "extrinsic, inasmuch as it is established by the law of the prince, who has the right to prescribe the worth of money as well as of other goods". In Mariana's ideal system (corresponding to a "well-constituted republic"), these two values should be equal and not differ: "they must be mutually adjusted if we want things to be sound" (chapter 11). He included in this reflection the possibility of a small seigniorage raising the value of the coin slightly higher than its "intrinsic and natural value".

Mariana was primarily concerned by debasement of small change. He starts by detailing the advantages resulting from such debasement, beyond the ability to finance the king's expenses (chapter 7). The main advantage of debasement is its capacity to speed recovery of the economy when it is ordered in a situation of currency shortage. He then discusses, and refutes, several minor disadvantages derived from debasement (chapter 9), and states that a pure copper coinage could be good, since its legal value is adjusted to its intrinsic one. The major disadvantages are then explained (chapter 10): more issues were ordered than authorised by law; debasement and enhancement are "against right reason and the natural law herself – it is a sin to change them"; "this money change resulted in a general inflation" and "I am convinced that there is never an alteration in coinage without subsequent inflation", since the price of commodities "will increase to the degree that the coins have been debased or the value of the coins increased"; "there will be trade difficulties, and trade is the foundation for public and private wealth"; all this induces the "king's subsequent poverty", far from the initial purpose; and, ultimately, the greatest disadvantage is "the general hatred that will be stirred up for the prince".

It is clear, then, that debasement and enhancement of small change (copper vellóns) had to be avoided, for economic and moral reasons. Mariana then discusses the

case of silver and gold money. The disadvantages analysed previously are the same for these coins, but their overall effect depended on the extent of the use of these coins. Since “silver is the backbone of commerce”, the effects of silver debasement and enhancement would be far-reaching: “when it is altered, everything else resting upon it will necessarily collapse” (chapter 11). Mariana shows the turmoil that the mixed circulation of silver coins of distinct intrinsic values would produce. On the contrary, the falsification of gold coinage would produce little effect because gold was used far less often.

Mariana thus concludes that “If such is done, without consulting the people, it is unjust; if done with their consent, it is in many ways fatal” (chapter 13). Mariana’s treatise ends with a bitter attack against corruption. As a consequence of his strong positions, he was condemned for the charge of lese-majesté. He was sentenced to imprisonment and was finally confined for years to a Franciscan convent. The Spanish crown intended to destroy the entire edition of the book throughout Europe (Jefferies, 2008, quoting Beltrán, 1987). The essay, joined to another treatise published simultaneously in the same book, was placed on the Index Expurgatorius; some years before, his *De Rege* had been listed on the Inquisition’s Index – to which he had collaborated ten years earlier.

As Jefferies (2008) states, Mariana analysed the situation induced by the new vellón issues in a theoretical manner, anticipating crises, rather than reacting to situations of open crisis, given that such crisis developed progressively. Vellón crises occurred especially around 1628 and 1642 with a maelstrom of manipulation of the coin.

4.3. Locke

In England, the very poor state of the currency led to a severe crisis during the war against France at the end of the 18th century. The scale of the clipping exerted on hammered coins increased extremely quickly during the 1690s: the discrepancy between the legal weight of the coins received in payment for taxes and their real weight went from 12 % in 1686 to 24 % in 1693, then to 55 % in 1696 (Kelly, 1991)! The ordinary silver coin was found to contain one half the weight of silver it was supposed to contain. This increasing zeal of counterfeiters was a major indication of a deterioration of faith in the English payment system. A debate took place: a Treasury official, William Lowndes, wanted to “raise the coin”, i.e., to increase the extrinsic value of the silver coinage. Lowndes’ arguments did not convince the opponents of devaluation, notably those who sat in the government. These latter listened to different advice, and Somers (Lord keeper of the Seal) urged Locke to publish a work criticising each point of Lowndes’ proposals and pleading for a general recoinage. Locke thought that coins possessed a natural value, which legislators and kings had to respect. Locke denied the fact that money was a political creation and insisted « on the sacrosanctity of the monetary standard”¹⁵. Thus its value

¹⁵ See Appleby, 1978, p.64 ; Kelly, 1991., p.29.

cannot be modified in a mindless way, and the public authority had to protect its stability. In any case, the source of monetary disorders was to be found in the proliferation of misdeeds.

According to Locke, a devaluation would assimilate the State to a counterfeiter, because it would sell a lesser quantity of metal under the same name. “Raising the coin” would “rob all *Creditors* of One twentieth of their Debts, and all Landlords One twentieth of their quit Rents for ever”¹⁶. Stamping coins, one of the sovereign acts *par excellence*, guaranteed the smooth carrying out of payments, hence the King could not manipulate the standard at will. The strength of this position which “naturalised” money lay in its capacity to transcend the opposition between Whigs and Tories and to reconcile the point of view of the creditors and the land-owners. On the other hand, debtors and the lower classes were intended to pay the price of the reform, their debts being revalued. “[T]he use and end of the public stamp is only to be a guard and voucher of the quantity of silver which men contract for; and the injury done to the public faith, in this point, is that which in clipping and false coining heightens the robbery into treason”¹⁷. The counterfeiters’ search for profit not only constituted a theft¹⁸, but a case of high treason. “For what was at stake was not simply an economic proposition, but social subversion” (Caffentzis, 1989, p.35). The monetary crime exceeded widely the traffic of precious metals: it affected the foundations of civil society. “Clipping is the great Leak which for some time past has contributed more to Sink us than all the Force of our Enemies could do. ‘Tis like a Breach in the Sea-bank, which widens every moment till it be stop’d.”¹⁹

The philosopher reasoned both in terms of the ethical and routine levels of trust in money: clippers undermined the social contract because they attacked the representation of the State, while the King should avoid every alteration. As Locke asserted, monetary policy must strengthen faith because “Altering the Standard [...] will weaken, if not totally destroy the publick Faith”²⁰. So the authorities should insure that the circulating medium was perfectly fitted to the standard: it was thus wise to practise a general recoinage, even at the price of deflation. To assimilate even mere clipping to a crime of high treason towards the *Commonwealth* (« The clippers *were* more serious enemies of the state, in Locke’s view, than

¹⁶ Locke., *Some Considerations...*, p.309. « *Creditors and Landlords* : the classes to which Locke himself belonged, and whose interest, particularly that of the landlords, he tended to equate with that of the state. », P. H. Kelly, « General introduction », *op. cit.*, vol. II, p. 443 (note). See H. Layton, *Observations concerning Money and Coin*, 1697, p.13, cited par Appleby, *op. cit.*, p.58.

¹⁷ Locke, *Further Considerations...*, p.415

¹⁸ “Clipping by English Men is robbing the honest Man”, Locke, *Further Considerations...*, *op. cit.*, p.417.

¹⁹ Locke, *Further Considerations*, *op. cit.*, p.472.

²⁰ Locke, *Furber...*, *op. cit.*, p.417.

the French regiments at Namur.»²¹) ensured the monopoly of the state by effectively punishing such a crime by capital punishment.

Eventually, William III, concerned with the restoration of the honour and the prestige of the nation, supported Locke's conclusions. Under his impulse, *Recoinage Acts* were promulgated. Hammered, clipped and false silver coins were to be melted and recoined (milled)²². After May 4 1696, clipped coins were no longer legal means of payment. In 1696 and 1697, counterfeiters constituted the daily concern of the government. The pursuit of offenders had to be carried out effectively. This task fell to the Mint, the Director of which possessed judiciary powers. In 1696, Montague appointed Isaac Newton Director of the Mint. From the time of his arrival, he had to pilot the modalities of the recoinage, that is, the organisation in the entire English territory of the reception then the reintroduction of coins. Two Acts preventing counterfeiting were passed in 1696 and 1697 by which the prosecution of the cheater was expanded, so any proven appropriation of the privilege to mint coins really exposed perpetrators to capital punishment²³. Abandoning his scientific research, Newton set himself the task of fighting counterfeiters with unequalled zeal. He personally collected information concerning suspects and pursued them, which led to the execution of many offenders²⁴. "Newton became the detector, interrogator and prosecutor of the actual miscreants, helping fill Newgate and providing much employment for the hangman at Tyburn." (Caffentzis, 1989, p.19) Those who tampered with the symbols of sovereignty were sentenced to capital punishment²⁵ and publicly executed. The officers of the "monetary police"²⁶ displayed a lot of energy. In 1699, Newton became Warden of the Mint. The severity of the punishment indicates that the offences perceived before the crisis in an almost indulgent way were no longer tolerated.

Under Locke's (and Newton's) ferule, rules promulgated in correspondence to these ethics were respected, which consequently conserved the integrity of the coins.

²¹ Caffentzis, 1989, p. 43.

²² "And so for the first time since the great recoinage of the pollards in the year 1299, a recoinage was effected which restored entirely the standard that had existed before the debasement", Feaveryear, 1931, p.135.

²³ "In criminology as in economics there is scarcely a more powerful word than 'capital'. In the former discipline it denotes death; in the latter it has designated the 'substance' or the 'stock' of life", P. Linebaugh, *The London Hanged*, op. cit., p. xv.

²⁴ « During Newton's first three years at the mint, he imprisoned more than one hundred suspected clippers and counterfeiters. In his first full year, there were at least fifteen executions at Tyburn for coinage crimes in London alone [...] », Wennerlind, 2004, p.147. See also Craig, 1963.

²⁵ " In the case of forgery, the more exemplary punishment called for in the statute was the gallows. [...] it represented the most solemn spectacle in the armoury of justice. It addressed the entire community.", Mc Gowen, 1999, p.135.

²⁶ See Linebaugh, 1991, p. 56.

Through the circulation of the new coins which had the inscription "*Decus and Tutamen*" (Glory and Defence) on their edge, the methodical or routine faith was restored. This reform prevented endless discussions about the quality of coins during transactions. The payment system appeared to be preserved. The expansion of English finance doubtless required such a supervision of the procedures of coinage necessary for a reliable delivery of the coins. Having said that, the repressive policy completed the new monetary system more than founded it. Succeeding the reform, pressure aimed at supporting trust and not at decreeing it arbitrarily. In France, for example, during the *assignats* experiment (banknotes used during the French Revolution), the threat of the guillotine in case of refusal of notes aimed at forcing the acceptance of that instrument, but unsuccessfully.

4.4. How to counteract falsification: a convergence between proposals

Jean Bodin, Juan de Mariana, and John Locke: three major political thinkers of their time, who devoted an impressive number of pages to the false money problem, in the specific context of distinct countries that, nonetheless, shared the same metallic monetary system that was current throughout Europe.

Beyond their divergences, which may be explained by distinct moral, social and political positions as well as distinct periods and countries, the three "Johns" featured several common ideas. An important part of their analytical work was centred on sovereignty and commonwealth. But, whereas Bodin legitimated the principle of absolute sovereignty, stating that the prince himself does not have to show obedience to his laws, Mariana and Locke developed a constitutionalist view in which such a principle was clearly refused, the prince having to show, like his subjects, obedience to the laws. This induced a distinct position on the moral consequences of debasement or enhancement: this was clearly robbery for Mariana and Locke (Mariana considering it an evil), while Bodin avoided such a term; but they unanimously saw, in these manipulations, princes turning into falsifiers, as Philippe IV the Fair had been. Beyond the clear difference in their theories of sovereignty, it is clear that Bodin sought practical limits to the principle of absolute sovereignty in the very field of money, thus proving to be not so far from Mariana and Locke's positions on monetary sovereignty. Therefore, a common concern about the ability to debase the currency led them to strongly affirm the necessity, for economic stability as well as for public faith and, therefore, civil peace, of a metallic system able to prevent any form of false money, be they operated by individuals or princes.

There is then clearly a subordination of falsification by individuals to falsification by princes and their administration, because suppressing the former requires first suppression of the latter. But, whereas it is politically very easy and common to denounce counterfeiters and clippers, it may be much more risky to denounce present monarchs, their courtiers and advisers as well as high officials of the Mint. Mariana learnt this to his cost, experiencing jail, then confinement; Bodin, who once gained the King's confidence,

finally lost it after having freely exposed courageous positions on money and finance; Locke, on the contrary, succeeded in gaining and keeping high official position in the *Glorious Revolution's* new regime.

Bodin, Mariana and Locke were practical metallists, whose priority was the necessity of building a stable and pure metallic monetary system which was falsification proof. But whereas Mariana and Locke thought of money as pure metal by essence, in a philosophical framework of natural law, Bodin was not a theoretical metallist, since he considered money as, first, the creature of the sovereign. But all three developed similar systems. Disregarding specific divergences, they aimed at establishing a system of coins of pure metal (gold, silver, and, quite debated, copper), whose official value would have to be adjusted to its intrinsic value (including brassage, but with debate on seigniorage). This would correspond to what Mariana called a “well-constituted republic”. Related to those pure monetary reflections, the three authors went on to analyse the ways the royal expenses could and should be covered, since the monetary expedient would disappear. They shared a similar position too: finding moral limits to expenses, and analysing, from both an economic and moral viewpoint, advantages and disadvantages of different means to levy funds.

5. Conclusion: toward a “monetary revolution”

In the Middle Ages, minting was the first manufacturing industry to be nationalised, but the scarcity of coins, poor technical devices, royal manipulation and the tolerance in society led to a steady degradation of coins. During Modern Times, the stabilisation of the currency with respect to the system of account, and the refusal of princes' debasement and enhancement appeared as major economic and political issues. Indeed, the growing use of private claims in the sphere of payments and the lengthening of credit terms required reassuring creditors as to the convertibility of their monetary and financial instruments. “With the growth of private credit, in which the rise of capitalism had its origins, mistrust of the money of account hindered the productive utilisation of savings. [...] The monetary revolution preceded the industrial revolution by a good half-century. [...] the most important factor was the institution of a system in which a (private) bank issued a currency, trust in which was maintained by convertibility into a high quality metal currency constituting a monetary base which was itself linked to the unit of account via a ratio decreed by the sovereign.” (Aglietta, 2002:41-42) Thus, the rejection of further monetary depreciation in England in 1695, the French stabilisation in 1726²⁷, the Spanish

²⁷ “Le cardinal Fleury, Premier ministre, fit sa *grande réforme monétaire en 1726*, et en juin le roi s'engagea à ne plus jamais faire de mutations”, Tabatoni, 1999, p.201.

“stability” at the same period²⁸, and other European cases²⁹, were not mere accidents, but required by the extension of credit. As long as a doubt subsisted on the means of payment someone received for his claim, lending processes were confined to a small part of society (involved principally in international exchanges) and estates were the best means to secure wealth. Only a solid degree of confidence in the money-object permitted financial developments, and eventually, industrialisation³⁰. Luddites, who offended the means of production in the 19th century, were combated in order to protect capital, in the same manner, monetary falsifiers (both private and public, according to our definition) were progressively rejected during the 17th and above all the 18th centuries.

The sequence of works by Bodin, Mariana and Locke, extended over almost a century and a half, shows such a “monetary Revolution” taking shape, firstly as pure ideas and proposals, then, with Locke, as performing theories. In their works, falsification by princes (enhancement and debasement) had to be definitively rejected, and the improvement of Minting processes was a way to eliminate individual falsification. Debased and enhanced currencies were opposed to an ideal currency whose legal tender depended only on the metallic content. The stabilisation of the currency and the standardisation of species were the two faces of the same coin, i.e. the setting of a stable monetary medium. This entire process articulated routine, hierarchical and ethical faith (confidence, credibility and trust). First, the royal arbitrary, allowing princes to abuse their privileges on money, had to be abolished; morals and the growing awareness of the need for economic stability contributed to this dramatic change. Thus, rejecting the secular habit of continual falsification (through debasement and enhancement), sovereigns would consolidate their legitimacy. In its ethical dimension, trust in money appears clearly as a corollary of hierarchical credibility of the State administrators of the political body. As regards credibility, the monopoly on coinage, usurped by the counterfeiters, had to be re-appropriated. In a parallel direction, sanctions against clippers and private money-makers strengthened the methodical faith.

²⁸ “Unification, stabilisation, distinction entre monnaie intérieure (“provinciale”) et monnaie internationale : à travers certains petits ajustements de détail qui durent jusqu’en 1737, on peut appeler, avec Earl J. Hamilton, le début du XVIII^e siècle espagnol le temps de la « stabilité » et du « redressement ». », Vilar, 1974, p.296.

²⁹ See Tucci, 1984.

³⁰ “If the English state were not even able to maintain the authenticity and solidity of its own currency, London’s status as the center of the world currency seemed infeasible.”, Wennerlind, 2004, p.139.

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