Big problems of petty coins in comparison: *quattrini & fulūs* in late 14th c. Florence and early 15th c. Cairo

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Introduction

The monetization of exchanges in the late medieval period occurred parallel to a rise in the demand for monetary units of exchange for daily transactions, the so-called small change or black money. Black money was minted and circulated in cities where there was an increasingly stronger demand for change to use in day-to-day purchases. Due to the low alloy of the metals they were made of, these petty coins were more susceptible to manipulation and speculation on the part of monetary agents, including intermediaries, traders and authorities, who profited from those currency circumstances and needs. Those monetary manipulations changed the balance of power once not only rents but also daily exchanges and popular wages were monetized in copper coins. Huge flows of petty coins entered into circulation during the so-called “bullion famine” of the late fourteenth century (1392 to 1412/25) that led to periods of billon inflation (or “small change inflation”) and, in some cases, generated political turbulences and popular revolts in both shores of the Mediterranean. Within that context, scholars and political actors started relating either practically or theoretically the increase in the amount of coins in circulation to the consequent general rise in prices and the fall in their acquisitive capacity.

This paper, elaborated from an extract of the author’s thesis, explores the impact that dramatic increases in the supply of copper had on money, prices and the way their

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relationship was understood. It analyzes in particular two cases of small change invasions that took place at the turn of the fifteenth-century in the Mediterranean: the case of the quattrini in Florence (1378-1380) and the case of fulūs in Cairo (1392-1405). Contemporary reactions to those problems created by the influx of petty coins are compared as well as the proposals and policies introduced in both cases to solve them.

**Hard money economies & the big problem of petty coins**

For centuries, while the monetary system was basically metallic or “hard money” based, the “central issue in the administration of money,” as Cipolla pointed out, was to determine and control the appropriate amounts between those precious metal used as currency, on the one hand, and those base metal coinages used as petty change, on the other, with the objective of maintaining a stable monetary system. The movement of metals across markets, cities and countries generated continuous distortions on the exchanges rates of coins of different denomination, gold, silver and copper, which, besides, circulated in different economic and social circuits. As a consequence, fluctuations in the exchange rates of coins were reflected as well on the prices of goods and rents defined in them.

Moreover, while metal flows altered the value of money and the level of prices, leading to the progressive depreciation of the currency, different interest groups intervened to maintaining the value of certain currencies, while debasing others. As a result, certain groups sometimes in concurrence even with monetary authorities gained from extra boosts of liquidity, seigniorage or price speculation.

In a context of expanding monetary exchanges, hard money economies had to rely on the existent supply of metal to cover their monetary needs – on metal coming from mines or being imported. The scarcity, or, in contrast, the abundance, of certain metals or coins was a constant problem. However, in some countries these “famines” turned out to be relative famines, where the scarcity of one metal coin, usually gold or silver, coincided with the massive influx of coins made from another metal, usually

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4 “Hard money” refers to coins made out of precious metals and valued according to their metallic content, be it weighted or stamped. Day, “The Great Bullion Famine of the Fifteenth Century.”, p. 3.

5 See Cipolla, “The Big Problem of the Petty Coins”

silver mixed with or basically copper coin (billon, or *vellón* in Spanish). As a result of the invasion of *petty* debased coins, a series of inflationary periods followed, which could be termed as “small change inflation”.

The big problem of petty coins, as termed by Cipolla (1956) or the big problem of small change, as re-termed by Sargent & Velde (2000), refers to the problematic relation between the value of large denomination coins and the amount of petty coins in circulation, a relation which was almost impossible to control because of the already-mentioned problems the monetary systems faced in hard money economies. Although a monetary formula that guaranteed control over the monetary system and the equilibrium between petty and big coins in the economy was only to be progressively achieved from the seventeenth century on, the practical and theoretical speculations on monetary management that emerged during the so-called “bullion famine” of the late fourteenth century (1392 to 1412/25) and the resultant cases of billon inflation, result of particular interest for the history of monetary thinking.

**Silver famine and black money invasions at the turn of the 15th century**

Different factors led to the shortage of bullion, particularly silver, during those decades: changes and interruptions in mining and the supply of metals, metal outflows resulting from trade deficits with the East, the hoarding of metal for reasons of security, prestige or status, plus the scarcity of metal due to the normal processes of erosion and destruction of coins, all combined in contexts of increasing monetization of economic activities, particularly in urban settings. In one way or another, the bullion famine of the late 14th century affected most cities on the two shores of the Mediterranean, which reflects the interdependence of the economies of the region.

Nagl recounts that, after the middle of the 14th century, good silver *grossi* were rare in Florence, whose currency came to consist of gold and black (copper) money; the

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7 Term used by Spufford to describe the inflation that followed, in Flanders, the other “bullion famine” of the third quarter of the 15th century [the “third “Great Bullion Famine” according to Blanchard’s classification], which resulted in the massive appearance of small change. See Spufford, *Monetary Policies and Problems in the Burgundian Netherlands, 1433-1496.*, p. 220. Usher speaks of “vellon inflation.” Usher, *Early History of Deposit Banking in Mediterranean Europe.*, p. 232.


minting of Florentine silver coinage ceased completely from 1392 to 1402. The famine was reflected as well in the Near East during approximately the same decades. In a way similar to what was happening in Italian cities, the trade deficit with the Far East led to continuous flows of silver towards the East. As a result, when silver stopped coming from the francs (Europe) it necessarily led to the shortages of bullion in Egypt and Syria. Contemporary chronicles, like those of al-Qalqashandī or al-Maqırīzī, mention as well that in 1398 the importation of silver from Europe ceased, and blame as well thesaurisation for the lack of metal. Hence, as in European cities, the combination of both thesaurisation and trade deficits led to bullion famine in Alexandria and Cairo.

Although small change was usually rare because it gave not much profit to the mint master, being relatively more costly in terms of labour, the lack of bullion made it a necessary or suitable alternative. Hence, at the end of the 14th century small coins invaded numerous areas and markets. Those small coins were made out of alloys of copper and silver and usually were a result of successive debasements of former silver coins. They were called “black money,” monnaie noire, moneta nera, or dirham fulūs, as a result of the darker colour of the poorer alloy, in contrast to white coins (silver dirhams or quattrini bianci) that had a higher percentage of silver.

Therefore, parallel to the so-called silver famine, in Florence, from the mid-14th century, the quattrini, silver coins, were progressively debased till becoming almost copper while the basic coin for setting local prices. In Cairo, al-Maqırīzī complained that not only daily goods but also wages were set in “black dirhams,” which were taken

12 Day links both silver famines in Europe and Egypt since it was by way of Venice that Mamlūk sultans received an important part of their bullion supply. Qualquachandi and M. Guadefroy-Demembynes (1923), Day, "The Great Bullion Famine of the Fifteenth Century.," p. 32. Following those sources, Spufford defends that Venice’s restrictions to the export of silver in 1396 “immediately ensued” a silver famine in Egypt. Spufford, Money and Its Use in Medieval Europe., p. 354.
14 “Per Moneta Nera, o Erosa intendo tutte quelle specie, che contenevano minor quantità d’argento, e maggior dose di rame, o d’altro basso metallo.” Pagnini, Della Decima E Di Varie Altre Gravezze Imposte Dal Comune Di Firenze: Della Moneta Della Mercatura De’ Fiorentini Fino Al Secolo Xvi., p. 162.
15 Cipolla, El Gobierno De La Moneda: Ensayos En Historia Monetaria., p. 201.
as legal tender, in contrast to the Islamic tradition that considers only gold and silver as such, dominating the Egyptian markets from the second half of the 14th century.  

In Florence, the invasion of small change coming from neighbouring cities began in the second half of the 14th century, first with *piccioli*, and then, when local Florentine *piccioli* were debased, with *quattrini*. The *quattrini*, made of silver and some copper, had started being used in Florence and Pisa during the 14th century, coming to substitute the old *denari*, the former coins used for small change, which were made worthless as result of their progressive debasement. Given the lack of silver, when *grossi*, silver coins, were not available, even wages started being paid in *quattrini*, including those of textile-workers.

In spite of the progressive debasements it suffered, partly due to the monetary policy of the Florentine government that prized the value of the gold coin over others, the Florentine *quattrino* was still of higher standards than the Pisan one. Hence, as happened before with the *piccioli*, so with the *quattrini*, and, as a result of the concurrence of Gresham’s law, Pisan *quattrini* invaded the markets of Florence. The invasion was further accentuated by the increase of commercial relations with Pisa after the trade agreement signed between the two cities in 1370. During the two years that followed the agreement, there was an “actual” invasion of foreign *quattrini* and *piccioli* of lower quality.

During the late 14th century, the situation of monetary markets in Egypt was quite similar to that in Italian cities. The shortage of silver had two direct consequences: first, the successive debasements of the silver coin, whose silver content was progressively decreasing until it became basically made of copper; and second, the monetization of copper. Copper coins, *fulūs*, which had been reintroduced in Egypt during the Ayyūbids (564-648/1169-1250) solved the tension between silver and gold rates. Silver disappeared as a money of account, with the value of the gold coin, dinar,

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being registered instead in terms of a new copper money of account, the *dirham fulūs*. And again, a copper coin, being a light coin, but more importantly, being unregulated by Islamic jurisprudence or tradition, made manipulation of the currencies, their weights and exchange rates easier.\(^{22}\)

The use of copper developed, in particular, during the second half of the 14\(^{th}\) century with the Mamlūk dynasties. The first Mamlūk dynasty, the Baḥrī (1250-1382), increased the minting of small copper coins, a policy that multiplied during the second Mamlūk dynasty, the Circassian or Burji (1382-1517), opening a period that has been called “the age of copper.”\(^{23}\) Indeed, from 1403 to 1429 prices, wages, and all kind of transactions were officially set in the copper dirham of account (*dirham fulūs*).

For its copper supply, Egypt depended basically on external markets in the Maghreb but particularly in Europe and European exports of copper to the Middle East, both to Egypt and Syria, are recorded since the time of the Crusades.\(^{24}\) Hence, while silver flows from Europe to the Middle East decreased because of the bullion famine, the trade of copper increased as a result of the comparative advantage Europe had in copper, given the difference of copper prices between the two shores; copper becoming, from the mid-14\(^{th}\) century, a major European export to Egypt.\(^{25}\)

At the end of the century, with the silver famine, the need for new sources of revenue and liquidity became more extreme. Zahir Barqūq (1382-89; 1390-99) the first sultan of the second Mamlūk dynasty, the Circassian, who came into power in 1382, made an attempt to introduce lead coins in 1385.\(^{26}\) However, that experiment did not work and by the end of Barqūq’s reign, silver had almost disappeared from circulation. Given that the population seemed to prefer copper to lead coins, copper became definitively the alternative to compensate for the lack of silver at the turn of the century.


\(^{23}\) Michel de Bouard’s numismatic studies in 1939 defined the period as an “age of copper,” term supported by the research of Ashtor, Udovitch and Balog, among others. Bacharach attempted to diminish it and Shoshan later qualified some of Bacharach’s faults to proof finally that the actual shortage of copper refers to a later period, 1420-30 years (beginning in 1418). Shoshan, "From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.", pp. 104-106, 108-109; Bacharach, "Circassian Monetary Policy: Copper.", pp. 38, 40-1, 48.


\(^{26}\) It was an attempt to create an intermediary coin between the silver coin, the *dirham*, and the copper coin, the *fals*. Bacharach based on Balog. See Bacharach, "Circassian Monetary Policy: Copper.", p. 36.
Imports of copper from Europe, or “the land of the Franks,” registered a peak between 1392 and 1395. The record of numismatic evidence for copper in Mamlûk Egypt is not complete for certain periods, however, for the last two decades of the fourteenth century, the second reign of Barqūq, that numismatic record of copper coins is huge. According to that evidence, in contrast with previous periods, during Barqūq’s reign copper coins may have been issued in the hundreds of thousands.” In addition to the existing mints in Cairo and Alexandria, another mint opened in 1391 in the latter, during Barqūq’s second reign, where copper coins were also minted.

Measures to solve the problem of small change: copper from Florence to Cairo

In some of these cities, different monetary measures were proposed or introduced in order to control the inflows of small change that disturbed the distribution of rents. Authorities in Florence (1380-82) and Cairo (1405-15) introduced or suggested measures decrease the amount of copper coins in circulation.

The salaries of the wool-workers in Florence were being paid in the copper coin, which meant that the purchasing power of their wages was decreasing proportionally to that of the coin. The wool industry was the dominant manufacturer in Florence at that time and employed one-third of the population. During the second half of the 14th century, the wool and cloth manufacturers, the lanauoli, part of the major arts or guilds of the city, played an important role in the government. Since they paid labour with quattrini and sold the manufactured woolen products in fiorini, the gold coin, they received increasing returns thanks to the progressive relative loss in value of the copper coin in terms of the gold coin. Cipolla already explained that the divide between the two, gold and copper, paralleled circuits reflected in social divisions and parties in

27 Eustache, using Mayer and Heyd’s studies, explains how the copper was arriving from Chiprus by the intermediate of Genoa, hence “the country of the Franks” that al-Maqrīzī speaks about. Ibid., p. 183.
government, with major arts on the side of the gold coin, and minor arts on that of copper.\textsuperscript{31}

Therefore, when the wool-workers revolted in July and August 1378, in the so-called “\textit{tumulto dei Ciompi},” the fall in the purchasing power of the \textit{quattrini} was one important factor in the revolt.\textsuperscript{32} And, indeed, after it and with the posterior rule by the minor arts, manufacturers and artisans (related to the sphere of copper circulation), between September 1378 and January 1382, monetary policy attempts focused in reevaluating the value of copper coins.\textsuperscript{33}

The series of monetary reforms taken after the \textit{tumulto dei Ciompi} reflect a certain learning process. The provision of July 1378 attempted to set by law the value of the florin in respect to the \textit{quattrini}. Since this measure seemed to fail, the following provision on monetary issues, that of January 1379, took into consideration that different measures should be taken in order to set that rate at a lower value, and included additional measures in case it still did not work (changing the nominal value of the \textit{quattrini}). Finally, in October 1380, a new measure was studied and presented to the Comune of Florence. This time the monetary proposal did not focus on altering the rates between coins, or the nominal value of any of them, but instead it recommended reducing directly the amount of small change in circulation: the \textit{Priori} of the guilds and the \textit{Gonfalonieri} of justice of the people and the city were responsible, under penalty of 1.000 florins of gold each, for bringing to the mint and melting down \textit{quattrini} worth 2.000 gold florins every two months [rotation time they were in office] for the following eight years, starting January 1381.\textsuperscript{34}

\textsuperscript{31} In the side of the gold defenders, there were the interest of wool producers and exporters, bankers, big merchants, usurers, doctors, jurisconsults and big landlords. Those included in the copper circuit were wool workers and mass of the population in general, shopkeepers and artisans. Cipolla, \textit{El Gobierno De La Moneda: Ensayos En Historia Monetaria.}, p. 166.

\textsuperscript{32} The so-called \textit{Ciompi} revolts were a series of uprisings of the wool-workers (\textit{Ciompi}) against their masters, joined by members of the minor guilds and other groups of discontent artisans, during the months of July and August 1378. A summary of its literature can be found in: Guidubaldo Guidi, \textit{Il Governo Della Città-Repubblica Di Firenze Del Primo Quattrocento} (Firenze: Leo S. Olschki Editore, 1981.), p. 181, n. 1. and in Alessandro Stella, \textit{La Revolte Des Ciompi : Les Hommes, Les Lieux, Le Travail}, ed. Christiane Klapisch-Zuber (Paris: Editions de l'Ecole des hautes Etudes en sciences sociales, 1993.), pp. 17-42. That the fall in the purchasing power of the copper coins played a role in the revolts is supported by Rodolico, Bernocchi, Cipolla and de la Roncière, de la Roncière, \textit{Prix Et Salaires a Florence Au Xive Siecle} (1280-1380)., n. 2, p. 772.


And this time, it worked out. Nevertheless, the melting was interrupted due to the abolishing of the provision as one of the first measures to be taken by the major guilds when back in power in January 1382.\textsuperscript{35} As to the outcome of the aborted measure, during the first months of 1381, the value of the \textit{fiorino}, the gold coin, experienced indeed a preliminary decline as a result of the melting down of copper coins.

Regarding the copper melted, in total more than two and a half million \textit{quattrini} were destroyed.\textsuperscript{36} There is no information about what happened with that copper or where it went. It is dubious that it would have been re-minted again, because there would have been traces of it or raised further concerns. It could have indeed been sold to merchants trading with copper. There is evidence of copper being traded from Europe to the Middle East at the end of the century.

As mentioned, Alexandria and Cairo suffered indeed an invasion of black money, made of copper, at the end of the 14\textsuperscript{th} century and beginning of the 15\textsuperscript{th} century. The biggest amount of copper arrived at the end of the 1390s and generated important periods of inflation. In this context, there were also calls to reduce the amount of small change circulating in the markets, which may be found in the chronicles and writings of an Egyptian jurist and historian, working for the administration of the markets, al-Maqrīzī (1364-1442).

In the Egyptian, as in the Latin European context, coins of different denominations circulating in different, although permeable, circuits. Egyptian economy was divided between transactions with gold (ducat and dinar), used in overseas trade, for spices, textiles and luxuries, and transactions with copper (\textit{fulūs}), used in the domestic market, for salaries and some payments to the sultanate.\textsuperscript{37} In competition with the ducat, Mamlūk’s sultans attempted to protect the dinar and maintained its purity and weight, at the expense of the silver and copper coins.\textsuperscript{38} In terms of weight, Schultz states that copper coinage had been struck to weight standards until the end of the 14\textsuperscript{th}

\textsuperscript{36} Bernocchi and Cipolla estimate the amount and value of \textit{quattrini} melted from February to December 1381. The \textit{quattrini} destroyed in 6 months could have been 2.520.000 (420.000 per month)
\textsuperscript{37} Shoshan, “From Silver to Copper: Monetary Changes in Fifteenth-Century Egypt.”, 105.
\textsuperscript{38} See Blanchard, \textit{Mining, Metallurgy, and Minting in the Middle Ages: Continuing Afro-European Supremacy.}, pp. 1194-95; “the \textit{dirham}, for the first time in two centuries, became scarce and was debased to make the existing silver go further.” See Bacharach, "Circassian Monetary Policy: Copper.", p. 34.
century, but from then on the stability of the weight of the copper coin was completely altered.\(^{39}\)

In addition to popular revolts against the manipulation of the coin and taxes, different scholars, like Ibn Taimiyah and contemporary jurists, stood against the debasement of the coin made by the Mamlûks. Among these writers, Taqī ad-Dīn al-Maqrīzī (Cairo, 1364-1442), pointed also to copper and the excess of small copper coins in circulation, while the circulation of silver had basically disappeared, as the main source of the economic crisis of the country at the turn of the century. In a short treatise written in 1405 in Cairo, the *Ighāṭah al-‘Ummah bi kashf al-Ghummah* ("Helping the nation by investigating the depression"), al-Maqrīzī’s words are bitter and point to the corruption and mismanagement of both religious elites and administration, who were taking advantage of the problems and confusion stemming from the petty change. Al-Maqrīzī then goes to the times of the previous sultan, father of the one then in power, and makes Barqūq’s administration responsible for the widespread use of copper coins and the new period of inflation that desolated the Egyptian economy and eroded the purchasing power of rents by 1405. Inflation had indeed multiplied in Egypt at the turn of the century and it is a main focus of his dissertation. In constant gold terms the general price level of grain rose about 20%. Not only basic goods were affected, since the prices of cotton and other fabrics, a major form of wealth among middle-class merchants and ‘ulama, or experts in religious science, multiplied by 3 times.\(^{40}\) Shoshan has made the calculations, according to his data, between 1402 and 1404, there was an increase of about 200% in the prices of wheat, barley and broad beans, in terms of *dirham-fulūs*, and of 240% in terms of copper prices, although they dropped in 1405, to rise again in 1407.\(^{41}\)

Then, in the *Shudhūr al-‘uqūd fī dhikr al-nuqūd*, “Pearls of the divine commands regarding money,” written 10 years later, al-Maqrīzī restates some of the arguments already put forth in the *Ighāṭahah*.\(^{42}\) The *Shudhūr* is however a shorter treatise that al-Maqrīzī writes using basically section three and four of the *Ighāṭahah*, expanding as well the last part on the history of money in Egypt to include recent events and changes.\(^{43}\)


\(^{40}\) “Probably vastly more in terms of copper money available to most of the people.” Ibid., p.31.


\(^{42}\) al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudûr Al-‘Uqûd Fi Dhikr Al-Nuqûd],” p. 96.

\(^{43}\) Ibid., p. 121. al-Maqrīzī, *Ighāṭahah Al-Ummah Bi-Kashf Al-Ghummah*, p. 107.
This time, in relation to new developments, al-Maqrīzī, praises the reintroduction of a sound silver coin by Sultan Mu’ayyad Shaikh who, in 1414 returned from his victory in Syria over the emir Nuwarūz, laden with dirhams and silver Venetian coins (bunduqīa) and coining again silver coins, the dirham Mu’ayyidī in 1415.\(^{44}\)

However, al-Maqrīzī remains somehow uneasy that the value of the newly-introduced silver dirhams is still defined in terms of the copper coin.\(^{45}\) Thus, he speaks again about copper to attack its use by previous sultans and suggest that Sultan Mu’ayyad should order the chief judge and the muhtasib to decree that notaries, officials, shopkeepers and so on, should register every sum of money in every document and contract, in mu’ayyadī dirhams, the recently-introduced silver dirham, and in no other coin.\(^{46}\)

To conclude, al-Maqrīzī dedicates the last chapter of the Shudhūr to summarize his whole discourse on copper. The link with prices is then mentioned anew, since he comments how, compared to current prices then (as examined closely in the Ighāthah), in those days things were bought with a small number of petty coins.\(^{47}\)

**Florence and Cairo`s measures and proposals in comparison**

A series of parallelisms can be drawn indeed between the case of the *quattrini* in late 14\(^{th}\) century Florence and the case of the *fulūs* in Mamlūk Egypt at the beginning of the 15\(^{th}\) century, as well as between the measures and proposals that in every case were raised to solve the problems arising from an excess of petty coins.

In the two cities, large quantities of small coins invaded the internal markets while silver coins almost disappeared from circulation. The increase of small change in Florence took the form of invasions of lower-value coins from neighboring cities, while in Cairo it was the actual arrival of copper, then minted in the form of local small change, *fulūs*, which flooded the markets. The circulation of small coins increased but at the same time the purchasing power of this petty change was decreasing. The

\(^{44}\) al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudûr Al-‘Uqûd Fi Dhikr Al-Nuqûd].”, p. 133; Mss. 1771, f. 18v.; Or. 560 (2), f. 21.

\(^{45}\) Ibid., p. 135. Al-Maqrīzī would state his discomfort with the fact of prices and labor still being recorded in copper dirhams of account and copper circulating, despite the sultan resuming the minting of silver, in the Sulūk, 20 years later. Sulūk, 3,394; as recorded by Meloy, “The Merits of Economic History: Re-Reading Al-Maqrīzī’s Ighāthah and Shudhūr”. p. 198.

\(^{46}\) al-Maqrīzī and (trans.), “Études De Numismatique Et De Métrologie Numismatique (Ii) [Shudûr Al-‘Uqûd Fi Dhikr Al-Nuqûd].”, pp. 135-37.

\(^{47}\) Ibid., p. 139.
monetary system became basically bimetallic, composed of gold and copper coins. In a political context that protected and guaranteed the value of the gold coin, given the commercial necessities of both cities, the copper coin absorbed the inflation and monetary fluctuations. Copper coins were debased and their value in terms of the gold coins decreased sharply. Given that the monetary division entailed as well a social divide, the progressive loss of value of the copper in respect to the gold coin, and the decreasing purchasing power of the small coin, generated social tensions and revolts in both cases. In the Florentine case, it led to the uprising of the minor classes in alliance with the majority of the population. In the Egyptian case, the circuit of copper expanded until it included most of the population and economic spheres of life – rents, debts and the revenues of liberal professions and juristconsults coming to depend also on copper, being denounced by scholars as a broader and more general crisis that affected the whole country.

With the new government that the Ciompi revolution brought to Florence, which gave the power to those closer to the social groups whose salaries were defined in copper, a monetary reform was voted to put copper coins out of circulation and restore in this way their value in relation to the gold coin. In Egypt, about twenty years later, certain Mamlûk administrations, protected the dinar in competition with the ducat, at the expense of the silver coin, which basically disappeared. Given the lack of silver and the minting policy of certain officials, the copper coin came to be used as the main means of exchange and suffered progressive devaluations. Factual struggles within the different sections of the Mamlûk administration, tried also to reverse this situation.

In Florence the reduction of the quantity of small coins was regarded as the key factor to recover their value. And later in Cairo at the beginning of the 15th century, the increase of the quantity of small coins in circulation was perceived also as the cause of the inflation, lost in the acquisitive capacity of rents, and consequent general depression that desolated the country.

In opposition to Bernocchi’s, I would support Cipolla’s point that the Florentine proposal of 1380 represents an innovative step in the management of monetary problems in pointing to the role that the quantity of money had in setting its value. However, Cipolla compared the defenders of this proposal with the 16th century writers who in Spain and France delineated the quantity theory of money. For doing that, they

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should have made the link with prices, or the value of rests of goods in the economy. Their objective was to re-establish the previous rates between coins. It was one of the earliest attempts to control the value of money by controlling its quantity but did not involve recognizing the relationship between the quantity of money and its value in respect to other commodities in the economy and, hence, the behaviour of prices. On the other hand, al-Maqrîzî indicteds that the huge amounts of copper coins in circulation had generated the inflation and crisis, and so his call to stop using them but form small transactions, may involve certain understanding of the relationship between quantity of money and prices. Al-Maqrîzî introduces the quantity dimension into the analysis and control of monetary inflation. This aspect had been pointed out by Oualalou, but was disregarded in later analyses, which highlighted al-Maqrîzî’s argument to be merely a critique to debasement or an appraisal of Gresham’s law.