

## ABSTRACT

Valuation is inherent in human nature given the greater or lesser scarcity of things satisfying man's needs and the hierarchisation of human wants. Exchange is also inherent to a larger or smaller extent given the inability to satisfy adequately and efficiently all one's desires. Free and natural valuational exchange, i.e. a market, is constitutive of human society (Plato, Aristotle). In a market, however elementary, subjective valuations result in an objective system of value equivalences among goods and services. Sustained by strong political and military power markets developed enormously in the Middle East empires, yet they remained fundamentally cases of a barter economy with substantial credit structures to counterbalance the deficiencies of barter. (Much of the pronounced archival recording activity characteristic of those cultures may have to do more with necessary fiduciary book-keeping than with a centralized control of (a large part of) the economy). The existence of widespread practices of weighed bullion transactions does not bridge the conceptual and factual gap between barter and monetized sale. There is a categorical discontinuity here to be crossed by a revolution in human thought and organization, by a revolution of rationality. And this was what the introduction of coinage amounted to.

For a fully monetized economy there is required a universal means of exchange in real and financial transactions, a monetary function that binds together all functions of money. This was achieved by a double move. First, one gets upwards from the system of value equivalences (including those involving weighed bullion) to abstract value, that is utility not bound by its specific nature to the satisfaction of a particular (kind of) want, but characterless utility capable of being transformed, in theory instantaneously with perfect liquidity, to any specific utility. Second, in a downward reversal, abstract value-utility is embodied in a concrete physical substance, whose use now considerably exceeds that which flowed from its particular physical constitution. This binary conceptual movement generated coinage.

The conceptual breakthrough represented by the introduction of coinage was complemented by momentous changes in economic activity. (It surely was the exact opposite of a "banal step"). The potentially universal means of exchange not only facilitated transactions by simplification of the procedure, but more than that it rendered precise the valuations that in the nature of a barter economy were bound to be practically more or less indefinite. The novel monetary function thus fixed the entire valuational system, while keeping it elastic to market pressures in the natural determination of prices. It focused the measure-of-value, standard-of-wealth function of money. It also increased the liquidity of wealth and so affected the store-of-value monetary function as well. It applied to internal trade and external commerce according to the obtaining circumstances initially, and then completely. It effected a total restructuring of economic activity. The integration of all monetary functions in full and real money was a cardinal step forward in human progress.

Barter exchange even by weighed bullion is to a significant degree an impediment, only partially compensated by the growth of an articulate credit system, itself compromised by the absence of a universally acceptable tender. Metals, esp. noble ones, are not normally easy to tear or break

in smaller or larger pieces, nor can they be carried in a variety of weight denominations adequate for all transaction needs in retail trade or wholesale commerce. Piece standardization rather follows than precedes the introduction of coinage; for before there is missing the conceptual tool to push in that direction. Standards of weight by themselves and as such cannot operate determinately and definitively in this way. The ancient tradition about iron rendered brittle for monetary uses (and hence useless as an implement material) takes both account of the requirement for easily subdivisible means of exchange and establishes the contemporary awareness of the conceptual divide between material and monetary functions of the same physical substance. This awareness was finally articulated in Plato's state token money, behind which there may lie Peloponnesian – Spartan iron money customs. (It is also expressed in Aristotle's insistence that (even) a commodity money is fundamentally conventional, and has the value it has not by its nature, but by the convention of its adoption and acceptance).

The introduction of coinage was not a gradual, long-term process. Like the introduction of the alphabet and the consequent rise of literacy it must have been a more or less immediate, spectacular success. It was accomplished in theory instantly and rapidly propagated everywhere, transforming the entire field of economic activity. This does not mean that coinage soon penetrated the remotest corners of the then known oikoumene or that agrarian house-economic behaviours were immediately opened-up to individualistic capitalism in all places. (Although, one may note the fiercely competitive work-ethics proclaimed by Hesiod so early in mountainous Boeotia). We should distinguish (a) production of money, (b) thorough use of money in an economy and (c) non-monetary conditions that can continue to exist for long in various marginal places parasitically upon the body of a fully monetized national and international system. In particular, the absence at an early stage of national coinage in highly commercial states (like Megara or Byzantium), simply indicates that use was made of foreign, international currencies, not that they persisted to some weighed-bullion economy in the midst and the aftermath of the coinage revolution. (Byzantium was reported to have also made use later of iron-money, evidently in the internal market, according to the Platonic model). The spread of coinage to all actively industrial and commercial states would have been quick, irrespective of evidence as to their own proper emissions.

Coinage, as establishment of a universal means of exchange and as embodiment of the integral of money, provided even at the very start, through standardization of values and expedition of transactions, a considerable novel use and increased utility for the money-commodity chosen to carry the concretization of abstract value. This enhancement of its utility must have resulted in a marked appreciation of its value as monetary material. "Overvaluation was inherent in coinage from the beginning". But this appreciation had not principally to do with seigniorage, costs of production or state determination of prices; it simply mainly reflected the operation of market forces, then as now.

This explains the well known facts about early electrum emissions on an altogether different principle than current explanations. The staged reduction in the gold-silver composition of Phocaeen-Mytilenaeen electrum coins, coupled to stringent decrees against any "watering down" of the mixture, may have to do more with a secular appreciation of the value of this currency as a result of increased circulation and demand than with state frauds and revenues. The same market operations can also account for the distinction of a weight standard heavier

than the corresponding monetary one, once a pure physical element (silver or gold) had been adopted as monetary material. In a system where monetary denominations correspond to ponderal standards, an appreciation in value of the money commodity is likely to be expressed by a lighter weight standard applying to it relative to the normal commercial units. Such consideration, confirmed by later testimonies in Athens, sheds a revealing light on the reputed Solonian reforms of weights, standards and currency.

This raises anew tantalizing chronological questions. The money revolution (the introduction of coinage as concretization of abstract value) has to be correlated to other major corresponding phenomena such as the introduction of the alphabet and the rise of high culture literacy and esp. of lyric poetry, the Orientalizing period, the development, after the Daedalic phase, of high archaic sculpture (with the ideal-real norm and its immediacy of transcendental formal beauty), the emergence of philosophic discourse, the Ionian thought revolution (where cosmic principles are divine and concrete realities simultaneously as well as determinative factors in the organization of human systems), and, more directly, to the early spectacular colonization, economic growth and accompanying intense commercial activity of Greek city-states. These correlations tend cumulatively to push backwards the probable time of the introduction and widespread acceptance of coinage. Thus a reexamination of the testimonies regarding Pheidonian standards and Aeginetan currency is called for, as well as of the Athenian early monetary history, by the side of further investigation of early Lydo-Ionian currency (the problematic Clazomenean hoard is an issue at stake). Noteworthy is that some incipient momentum towards an earlier chronology is detectable in other fields as well, occasionally prompted by astounding recent archaeological finds (as the Kore from Thera).

The account in this paper of the origin of full money has also implications regarding the overworn “primitivism – modernism” controversy. The important point here is to recognize the constant and essential factors in human nature and activity, upon which varying configurations of accidents are being anchored and around which they crystallize.

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