

CHAPTER 4

THE UTILITY THEORY OF VALUE AND MONEY (ARISTOTLE)

Economic Justice:
Inversely Weighted Equality in Quantity
according to Merit.

μετρεῖται γὰρ πάντα νομίσματι

[«For all things are measured by money»]

Aristotle, Nichomachean Ethics, E, 5, 1133b22

Voluntary transactions between men, being of the nature of contracts, are inviolable before the ancient Law, on whatever terms they may be concluded, provided no violence or fraud are involved, in which case the transactions become involuntary and therefore subjected to the equalising operations of Remedial, Legal Justice. The legal validity of such deals rests on mutual consent alone. One is legally bound to accept what he himself, out of his free will, has agreed upon.

Such a strict adherence to the individual, absolute right of free disposition of what is one's own testifies to the strong individualism of the ancient mentality, and presupposes on the one hand the full endorsement of private ownership, on the other the existence and stable operation of an open and transparent market with unhindered flow of all relevant information and easy access to it. One is naturally held responsible to the slightest detail and ultimate consequences of his agreements, in societal and economic environments where there is little possibility of significant distorting interference or enshrined rigidities or opaque processes or closed departments. In such contexts one both cannot be easily coerced into deals he would not otherwise choose to undertake, and also is constantly in a position to get adequate information relevant to any agreement he may want to make. In the contrary case, one is likely to seek exoneration from miscarriages in his decision-making on the ground of defective access to closed circuits of power and information. As always, freedom goes with absolute responsibility, but requires open access to all information and an undistorted field of operation. Freedom and

market conditions are part and parcel of the same reality existing in its natural state.

The classical societal and economic system was one based on the free market. This fact explains why the validity of a deal was held practically sacrosanct. One had the legal right to dispose of his own at his virtually absolute discretion [1]. But there was nonetheless a sense in which transactions, deals and contracts were more or less *fair*, despite being all *legally* right. Thus one recognised justice beyond the confines of legal (and social) justice. This was the justice of transactions, of economic activity, and is clearly defined as the object of theoretical analysis for the first time by Aristotle.

Voluntary transactions (deals, contractual agreements of all sorts) consist fundamentally in various forms of *exchange*: there is some *return* to some *advance* involved, some *countermove* in answer to some *move*, a *counteraction* to balance an *action*. *Utilities (goods and services) are interchanged*. But more generally, the commutation is of things given and taken, of actions exerted and sustained, of obligations imposed and undertaken. If a disutility is conferred upon someone, its requital is a question of legal justice. If a utility is granted, any utility can be returned as recompense if agreed upon, so far as legal justice is concerned. But now the question of a *fair return* emerges where the law has no jurisdiction.

Reciprocation in exchange is of the essence of societal integration. Some considered unqualified retaliation as the very principle of universal justice: one should receive exactly what one does to another. But as we have seen above, the equality involved in the idea of justice stands in need of further determination. A general *Lex Talionis* will not do. Distributive Justice requires weighted equality of receipts according to a standard of individual worth. Corrective Justice on the other hand dispenses with the weight of personal merit, but takes into due account factors of status and circumstances of intentionality, both, that is, external and internal conditions of the agents. Unqualified *requital* (τὸ ἀντιπεπονθός), repaying with precisely the same coin, will not do, either, as a definition of justice in the commutation of utilities [2].

And yet some form of requital is necessary for the establishment, cohesion and maintenance of society and the State. For man seeks to retaliate wrong done and to recompense good received. Omitting the former is unworthy of free individuals and would pervert political society into an (impossible) association of slaves. Omitting the latter would cancel mutual interchange of utilities and thereby dispel human congregation: for it is by reason and means of that interchange that people enter into the societal integrals forming the State [3]. And it is symbolic of this fact that people worship and consecrate sanctuaries to the *Graces* (*Χάριτες*): the finality of this is to promote the habit of rendering back. For the essence of «grace» (*χάρις*) extended consists exactly in obligating by favour shown for reciprocal favour to be received. Which reciprocation once established is self-perpetuating: one gives in the safe conviction that he will take in return [4]. *Δός τι καὶ λάβοις τι* [“give something and you will receive something”]: thus succinctly generalised the point Prodicus, the great Sophist [4a].

Just reciprocation constitutes the bond of union in political society. This applies primarily to the fair exchange of utilities. (For the retribution of disutilities is remedial measure and not constitutive). But the reciprocation involved in just exchange is not unqualified, it is relative; the equality required is weighted and proportionate [5].

Commutative (Economic) Justice consists once more in the *proportional equality* of utilities exchanged. Again, the standard according to which the equality is weighted is, we shall see, human perfection (i.e. optimal self-realisation of individual power-capabilities, excellence of human nature). But a common measure is also discovered to gauge excellencies (capabilities and expertises) of various sorts - and this is *need* or *want* and the corresponding *demand*. Herein lies the core of the profound Aristotelian theory of value and money.

The theory may be developed along the following steps:

(1) In order for political association to exist and function there must be mutual interchange of utilities among its individual members [6].

(2) Although in a free, transparent and open society voluntary dealings (i.e. forms of exchange of utilities) between individuals are generally per se valid, immune to administrative interference and beyond the confines of legal justice, the stability of political society requires that there be an independent and intrinsic standard of fairness constitutively applicable to them: this is economic justice [7].

(3) In the (elementary form of) transaction individuals A and B exchange their respective works (products or services) Γ and Δ , so that upon completion of the transaction A has Δ and B has Γ [8].

(4) Economic Justice is satisfied if equals are exchanged in a transaction. This is imposed by the parties' own self-interest. No party would enter willingly into a transaction from which it is going to lose. Assuming perfect knowledge of the obtaining circumstances on the part of both contractors, the transaction cannot go ahead unless there is, in a certain sense, an exchange of equals, with no gain and no loss to the parties involved. In a transparent market two individuals with equal expertise will tend to exchange according to the norm of economic justice. Without this, the very reason for the existence of political society is suspended [9].

(5) If the work of each contractor is homogeneous, it can be measured, whether it is continuous or discrete, by an appropriate unit. One has therefore, in order to arrive at an economically fair exchange, to equalise in some sense Γ to Δ , the work of A to the work of B [9].

(6) This equalization, however, has to be defined with reference to a multitude of vastly different utilities, which in essence and *prima facie* have no common unit of measure. Γ and Δ are necessarily unhomogenous. For one cannot exchange utilities of the same kind, tables for tables, say, or cleaning for cleaning, unless we reimport qualitative *differences*, and hence unhomogeneity of sorts, into the kinds themselves [10].

(7) In Distributive (Social) Justice, individual worth is assumed to be measurable against the standard of human nature and the correlative norm of human perfection [11]. Capabilities and expertises in men can thus in principle be rendered comparable to each other. Of course, what is feasible to presuppose in relation to the distribution of

public goods according to individual excellence is not on a par with a corresponding assumption with regard to Commutative Justice, if applied onto the practical ground. In the former case, a comprehensive division into states or degrees of excellence and a similarly rough approximation in the appropriate worth-levels, are sufficient instruments in operating and applying the distributive law of proportionality. On the contrary, it is of the utmost importance to determine the *precise* worth of individuals in the constitutive particular manifestations of their proper natures, if the application of the principle of proportionality is to have any functional meaning in human detailed interactions. But however difficult it is to find definite content in the similar requirement of weighted equality in the latter case also, the principle is the same.

(8) This provides the standard for the equalization of different (kinds of) works as well. In Distributive Justice the shares delivered to the individuals were homogeneous as being portions of a given thing, a certain public good. So the question of object-valuation did not enter explicitly into the picture. The ratio of the *quantities* of the good in question allocated to the individuals equals the ratio of their respective individual worth. But in Commutative Justice the utilities exchanged are unhomogeneous. *Their equalization presupposes an attribute common to both, and this is value.* Their relative valuation, the one to the other, can be determined with reference to the ratio of individual worth of the individuals producing them. For if A and B represent individual worth, and Γ and Δ respective valuations of work effected (produced or constituted as service), of utilities, that is, created over a certain period of time, then

$$\frac{A}{B} = \frac{\Gamma}{\Delta}$$

Once the relative value of the utilities produced in a given period of time is determined, the equalization in value of different quantities of the utilities involved can be settled.

(9) If A and B represent individual worth, and Γ , Δ respective valuations of (utilities or) work exchanged, the *exchange is just* if $\Gamma = \Delta$. This is, also, the condition of realisation of the transaction in an open and transparent system with equal access to information and equal expertise on the part of both contractors. Just is always the naturally real [12].

Let Q_Γ , Q_Δ be quantities of utilities (with corresponding valuations) Γ , Δ . Let \overline{Q}_Γ , \overline{Q}_Δ be the quantities of utilities (valued at) $\overline{\Gamma}$ and $\overline{\Delta}$ exchanged in *just* exchange, and v_{Γ} , v_{Δ} the value of one unit of the same utilities. In general, $\Gamma = v_{\Gamma} Q_\Gamma$ and $\Delta = v_{\Delta} Q_\Delta$. For a just exchange

$$v_{\Gamma} \overline{Q}_\Gamma = v_{\Delta} \overline{Q}_\Delta,$$

or

$$\frac{\overline{Q}_\Delta}{\overline{Q}_\Gamma} = \frac{v_{\Gamma}}{v_{\Delta}},$$

From the principle of proportionality between value of work produced and individual worth, we deduce

$$\frac{A}{B} = \frac{v_{\Gamma} Q_\Gamma}{v_{\Delta} Q_\Delta},$$

Hence,

$$\frac{v_{\Gamma}}{v_{\Delta}} = \frac{A}{B} \frac{Q_\Delta}{Q_\Gamma},$$

and, therefore

$$\frac{\overline{Q}_\Delta}{\overline{Q}_\Gamma} = \frac{A}{B} \frac{Q_\Delta}{Q_\Gamma}.$$

The ratio of the quantities of utilities produced by A and B over the same period of time is a certain *constant* expressing the relationship between the natures and functionalities of the individuals involved: let it be called $c_{\Delta\Gamma}$. It follows that

$$\frac{\overline{Q}_\Delta}{\overline{Q}_\Gamma} = C_{\Delta\Gamma} \cdot \frac{A}{B}.$$

Which means that the quantities of utilities exchanged in a just exchange are *inversely proportional* to the individual worth of the agents producing them. The principle of Commutative (*Economic*) Justice is *inverse proportionality* [13].

The refinement of Aristotle's theory of economic value can be appreciated by the fact of his explicit insistence that the law of fair exchange must not be determined with regard to the situation obtaining *after* the satisfaction of the respective wants of two parties through exchange, but to the state of affairs existing before, when both parties have only their own work and each one stands in need of the other party's work to satisfy some need of his [14]. Aristotle, in fact, makes the cryptic statement that, in the contrary case, the party of superior individual worth would get away possessing «both superiorities». The point appears, upon analysis, thus.

The conditions of fair exchange of the mutual work of A and B must be determined when both parties are in need of one another's work, and not when their respective wants are satisfied. In the latter case, A's (let us assume) superiority over B would make him emphasise that his need for B's work is of lesser significance than B's need for his work, and that therefore the standard of the exchange must be set by the principle of direct proportionality of work-values to their respective individual worths. In other words A, will put such a claim on B's work that the value of Δ should be proportional to A's work, and, correspondingly, the value of Γ should be proportional to B's worth. *The equality of values exchanged is thus destroyed.* Now, in fact, we have in «fair» exchange

$$\frac{A}{B} = \frac{\overline{\Delta}}{\overline{\Gamma}} = \frac{v_{1\Delta} \overline{Q}_\Delta}{v_{1\Gamma} \overline{Q}_\Gamma}.$$

Hence

$$\frac{v_{1\Gamma}}{v_{1\Delta}} = \frac{B}{A} \cdot \frac{\overline{Q}_\Delta}{\overline{Q}_\Gamma}.$$

It has been also found to be the case that:

$$\frac{v_{1\Gamma}}{v_{1\Delta}} = \frac{A}{B} \cdot \frac{Q_{\Delta}}{Q_{\Gamma}}.$$

Therefore:

$$\frac{\overline{Q_{\Delta}}}{Q_{\Gamma}} = \left(\frac{A}{B}\right)^2 \frac{Q_{\Delta}}{Q_{\Gamma}} = c_{\Delta\Gamma} \left(\frac{A}{B}\right)^2.$$

Thus, according to this principle of «just» exchange, the quantities of utilities exchanged in a fair exchange are inversely proportional to the *square* of the individual worth of the agents producing them. The superior party gains an advantage over the inferior one equal to its superiority against it. In other words, the superiority of the former is reckoned *twice* over [15].

This excessive reward to the superior party represents *justice according to the superior interest*. In the opposite direction moves *justice according to the inferior interest*. The formula for such a construal of fairness can be deduced in a similar way. Now in a «fair» exchange, each party exchanges utility-values in *direct proportion* to its individual worth. Hence,

$$\frac{A}{B} = \frac{\overline{\Gamma}}{\overline{\Delta}} = \frac{v_{1\Gamma} \overline{Q_{\Gamma}}}{v_{1\Delta} \overline{Q_{\Delta}}},$$

and so

$$\frac{v_{1\Gamma}}{v_{1\Delta}} = \frac{A}{B} \cdot \frac{\overline{Q_{\Delta}}}{Q_{\Gamma}} = \frac{A}{B} \cdot \frac{Q_{\Delta}}{Q_{\Gamma}},$$

which means that

$$\frac{\overline{Q_{\Delta}}}{Q_{\Gamma}} = \frac{Q_{\Delta}}{Q_{\Gamma}} = c_{\Delta\Gamma}.$$

According therefore to this principle of «just» exchange, the quantities of utilities exchanged in a fair exchange are as the rates of production of work by each party in the exchange. Taking a period of time in which the individual of superior worth produces the unit of his work,

the quantity of work of the inferior party exchanged is the quantity of work of the superior party exchanged times the number of units produced by the inferior party during the time interval required for the production of one unit of work by the superior party. Here the proportionality to the individual worth of the producers is cancelled altogether, and so we obtain the justice of *inferiority*. At the limit, all work is homogenised at the ground level, and the only relevant factor is *time* spent in production. *We thus arrive at the Marxist analysis of value as abstract, qualityless labour, and of quantity of value as productive time.*

Between the two extremes of justice of the superior and of justice of the inferior, there lies economic justice simpliciter as the standard of fairness in mutual exchange and as the real bond of civil society. At one end, the exchange is *independent of the individual worth* of the parties involved and, thus, of the quality of their work (as embodied in the exchanged utilities). This represents justice from the point of view of labour, of the unqualified work and of lower individual worth. At the other end, the exchange is *proportional to the individual worth* of the parties *in the second power*. This expounds the justice from the point of view of eminence, of expertise and of high individual worth. Simple *proportionality* of the exchange to the individual worth of the parties and to the quality of their work constitutes economic justice as stabilizing and cohesive factor in political society [16].

(10) Utilities incommensurate in themselves have been reduced to a common measure, and a standard of economic justice has been defined. The value of goods and services are determined with reference, and in *direct proportionality*, to the individual worth of their producers and doers.

But it has been noticed already (*supra*, §7) that individual worth cannot be ascertained with the required nicety and precision in order to provide the means to equalise every minute utility demanded and supplied in the everyday course of life. Thus the theory, though sound, is impracticable, being unable to determine in reality value in exchange. We need another criterion for exchange value.

(11) The higher the worth of an individual is, the more exceptional his proper work must be, the greater is the *scarcity* of the utility created by the exercise of his capacities and expertises. The difficulty of the operation and work, necessarily presupposes that they are rare. The *rarity* involved is of a functional type, for the utilities provided by producers of higher individual worth are the more useful, besides being in short supply. The utilities of higher excellencies in individuals, are higher utilities, addressing the higher wants of human nature, that is wants for perfection of human nature, which, in a cosmic set-up governed absolutely by finality (like the Aristotelian Universe), are the more intense objectively, as they relate directly to the most powerful innate drive in every being, namely the one to its own optimal self-realisation and perfection of nature.

(12) *Rarity*, as degree of high utility in short supply, can be estimated and measured by need (want), *χρεία*. The term covers all the semantic field, from *necessity, need, want, to use, using, utility, advantage, service* passing through *business, function, employment*. The *need*, as the empirical manifestation of intrinsic *lack of fulfilment*, of an inner depletion and void, of something uncompleted, can equalise disparate utilities, for it supplies an accurate measure of their usefulness in replenishing the underlying, felt vacuum. This measure is a common *objective criterion of subjective deficiency* in individuals with reference to human nature (general, specific and individual) and its well-being and perfect state. The intensity of need, and the corresponding degree of utility in a good satisfying it, render commensurate all various kinds of need and goods: *need and utility provide the common measure* according to which the diverse *deficit* of individual human nature, and the corresponding unhomogeneous field of *satisfying* utilities, are objectively *weighted*. *We thus discover an accurate empirical measure of value*. This renders all things commensurate.

The general form of the required universal comparability has been discovered to be the law of inverse proportionality: for instance, as the builder is to the shoemaker so many must be the shoes compared to a house. For if this definite numerical relationship cannot be

determined, there can be no stable *exchange-pattern*, and, thus, no civil society. Presumably there could exist, in the opposite case, a haphazard way of carrying on mutual transference of utilities, but this would depend on chance configurations of circumstances, and will not revolve round a system of normal equivalences - it will not be true exchange, a *determinately weighted return, on a regular basis, for a voluntary alienation of utilities*, a norm of fairness in economic activity towards which it gravitates naturally, and which represents the standard observed regularly, whose deviations are accidental and temporary anomalies in a system endowed with in-built mechanisms of self-correction. To have true exchange and real societal integral in State, inverse proportionality must be possible; for this to obtain, things, as utilities, objects and subjects, goods and services, must be equalised in some sense; this again presupposes the commensurability of all things; and for such an aspectual homogenisation (homogeneity in some appropriate, significant dimension), it is necessary that a common standard exist which can measure everything: this unit of measurement is need. And thus we arrive at the point from which we started the Aristotelian analysis: *self-interest, need and utility as the reason and end of the societal integral*. What are being valued, and weighted in value, are individual human needs and utilities. More precisely, *in all human action under conditions of stable equilibrium, there is constant valuation of individual needs and utilities according to the standard of human nature* [17]. Something common in all things belonging to the system of human action in the societal integral is the common standard measuring them all: *and this is utility and, ultimately, need* [18].

(13) Value in objects (goods or services) is the capacity to satisfy human want. Value is an objective property of things, just as any other. The problem relating to the high or low valuation of things crucially needed but in abundant and free supply, can be easily resolved in the context of such objectivism. Air or water, for example, are substances of extreme utility to the very preservation of life. Their value, correspondingly, is immense, answering to the crucial significance of the need that they satisfy. This is, however, an *abstract*

formulation of the objective relationship between human nature and certain things, whose essence is such as to satisfy fundamental requirements of human nature. Taken in the concrete, the relationship assumes a very different aspect, due again to an objective fact, namely the natural plenteousness of these substances. The value of a *particular quantity* of air or water is practically nil because the *specific utility* of this *particular quantity* is negligible. When the utility of an object is calibrated against the satisfaction of a given need, we reckon the utility of this *particular object* in satisfying a *particular need* in *particular circumstances*. An individual has normally all the air or water required for his subsistence and good functioning at his immediate disposal: therefore, he has *no need* of any particular quantity of them offered in exchange. The free supply of these substances exceeds by far the *satiation level* of individual human nature, severally and collectively. The need for, and the utility of, any particular quantity of them, is therefore nonexistent [18a].

(14) Value consists in utility and is measured by need. Scarcity does not really, and theoretically, complicate things, because superabundant supply minimises the *utility*, and not only the value, of any particular piece of the commodity concerned. Since all things have to be rendered commensurable and reduced to a certain homogeneity for a stable exchange pattern to be possible, and since this required dimension of homogeneity is the value, that is, the utility of things, a common measure of value (utility) is required for the existence of political society. And this is the first and most fundamental significance of money, *a measure of value (and unit of account)* [19].

Upon this follows the second essential function of money, its use as a *means of exchange*. This has to do with the genesis of *currency*. A commodity is specified as an *official or customary substitute* for all goods and services, which can be used in any transaction in return for the transference of any concrete utility. The privileged commodity, according to Aristotle, assumes thereby an additional utility, and thus value, beyond the utility that it possesses in itself as satisfying a particular (or a particular field of) human need. And this is so,

whether the money-commodity is of considerable intrinsic value or not - be it, for example, gold or iron or paper or information electronically stored. The surplus value, so to speak, that a commodity acquires through its being chosen, by human *fiat*, as an abstract substitute of all concrete utilities (and, correspondingly, of all particular needs), is automatically cancelled when the commodity is, equally by human *fiat*, demonetized. To this extent the commodity then becomes useless; it reverts to its intrinsic non-monetary utility and value.

Money as means of exchange, money as currency, is thus a universal substitute of all utilities, realised in a particular utility. *A concrete commodity (utility) is made the bearer of abstract exchange power, of abstract value, and thus becomes a suitable means of exchange. To be endowed with abstract value (and, thus, to be exchangeable for all concrete utilities at will) entails and presupposes to substantiate (incorporate) the measure of value.* Thus the two basic monetary functions are inseparable in the concept of money as realised in currency.

It is indeed in principle possible to keep separate the two distinct functions. Money, as measure of wealth represents a stable system of value-relationships among all possible utilities reduced to a single coordinate, a common, so to speak denominator. The selection of the unit in this coordinate is theoretically a matter of stipulation, although reasons of convenience will always practically restrict the range of possible choices. For instance, given the units of all commodities (discrete or continuous), the unit of value should lie near the bottom end of the values of commodity units and be such as to render the value-equations of commodities as simple as possible. In fact, one may define in a stable, equilibrated system, a natural reference unit which is objectively determined and, therefore, renders (whether it is actually adopted or not) the measure of value not conventional in any radical sense [20]. On the contrary, when a certain utility is specified as means of exchange (in which case it also, normally, carries with it the function of measure of wealth), then a conventionality is introduced of a far more significant, indeed

material, kind. For, according to Aristotle, the value of the utility is then necessarily increased with regard to its level when it was not the means of exchange. The utility of the thing involved itself increases. In case that the means of exchange is switched to a different thing, the value of the initial thing is thereby reduced to the level of its utility when considered in itself without the superaddition of its utility as means of exchange. That level can be very low indeed, in appropriate circumstances; which is why Aristotle speaks as if one renders a thing useless by canceling its means-of-exchange money-function.

Whereas the measure of value can be said to be conventional, if properly at all, in a weak sense, the means of exchange is conventional not only in connection with the specification of an appropriate unit of account, but also (and this is the main point) with regard to the commodity stipulated to carry the burden of this further monetary function, to become, that is, currency. By changing the unit of account nothing happens in the system of value-equivalencies among the utilities concerned, nor in the value of any one of them. On the contrary, and characteristically, changing the currency demonetises one commodity and monetises another - which means that the monetary surplus of utility is transferred from the one to the other introducing changes in the value system and in the valuations of the commodities involved [21]. The commodity going to serve as means of exchange can indeed be stipulated independently of such determination of the unit of account. The conditions of selection may be very different: durability, easy divisibility, great and eminently stable independent value are primary requirements here. But once currency is introduced, it assumes the original attribute of money as well, it becomes measure of value; it will tend to displace any separately determined embodiment of a valuation-principle. It will naturally also become store of value.

Money as currency is a general substitute for all particular utilities. A commodity can, of course, be this by virtue of a general system of value-equivalencies among all commodities and services involved. That is, the monetary function of exchange-means *presupposes* the monetary function of valuation (measure of value). The principle of

substitution in exchange of an abstract for all concrete utilities depends on the substitutiveness of equivalencies, and, thus, presupposes the homogenisation (or, as Aristotle puts it, the equalization) of commodities in the dimension of utility and value. (The abstract utility is then a concrete utility embodying the principle of valuation).

Furthermore, the substitutive principle reveals upon analysis other important elements in the means-of-exchange monetary function. For money as currency is but a *pledge of utility*, or, in an alternative, equivalent formulation, a *security against need*. Instead of receiving back a different concrete utility in exchange for one supplied and offered, one accepts an abstract form of utility which can be realised at will in any given point of time under any equivalent specific form. A distinct need is not fulfilled thereby, but a security received for the satisfaction of any equivalent future want. This pledge and security is a matter of agreement, not of nature. There is no *natural currency*: money is essentially a compactual entity, one existing by *fiat*. In exchanging commodities and services for money (i.e. in exchanging concrete for abstract utilities or the specific power to satisfy a particular need for the generic power to satisfy a given quality and quantity of want in general), one accepts a *token of credit* guaranteed by the State, or rather by the Market secured though State-power, against insolvency of any sort. Money as currency is the abstract essence of utility defined by convention, or rather *embodied* conventionally. The credit involved is ultimately based on the creditworthiness of the State [22]. *There can be no currency without a state integral, without political power.*

Money starts essentially and primarily as an abstract *measure of value*. Being concretised in a particular commodity it functions as a concrete but general *substitute* for all utilities - a *means*, therefore, of *exchange* [23]. It does this by virtue of its essential character as *pledge* and *security* standing atemporally for any equivalent specific utility and guaranteed by the State as part and parcel of the very bond of civil society.

The Aristotelian analysis thus in effect coincides at its core with the Platonic theory of money as token of credit in exchange [24]. The difference being that while Plato explicitly envisages a totally fiat money, Aristotle assumes (in conformity with the normal practice in ancient Greek economies) a particular commodity of some considerable intrinsic value as concrete vehicle of the abstract monetary function. However, he, too, emphasises that this monetary function confers upon the commodity chosen by stipulation to carry it, an extra utility and value - monetary utility and financial value, independent, in principle, from the intrinsic commodity - value of the particular utility employed for the purpose. Monetary utility and financial value are for Aristotle as much as for Plato a question of credit represented by the commodity used (and its amount) as by a token, itself specified by fiat.

The (quantity of) abstract value incorporated in (the unit of) a commodity by virtue of its use as means of exchange depends, on the other hand, on the existing need for the monetary function in the exchange pattern and rhythm of a given political society enjoying a certain intensity of economic activity. In other words, the demand for money as currency settles its value, given the volume of its supply. That is, its monetary value is independent, in principle, from its value as a particular commodity, but is determined by its specific utility as (stipulatively) representative of abstract utility. In a typically Aristotelian fashion, Aristotle distinguishes sharply between the real and monetary (financial) utility of a money-commodity, although he considers the two functions inseparable and the latter realisable through its stipulative and obligatory association to a particular one among the former. As I emphasised above, one can indeed always differentiate according to the Aristotelian analysis, between the (real) carrier-utility and the (financial) utility-carried - even in the case of paper and electronic money [25].

In fact, Aristotle generalises the point in the first book of his *Politics*, by distinguishing two uses possible for every item, both consisting in the employment of the thing taken in itself (such as it particularly is), but in a different way. The one is proper to the thing,

(directly) natural (i.e. spontaneous) and necessary - the other the opposite. The former consists in the satisfaction of a corresponding, definite need of individual human nature. The latter in realising (conventionally, while facilitating and augmenting naturally) exchange. When one sells a commodity, he uses it, indeed, such as it is (in its specificity of nature), but not so that this specificity of nature performs its proper task of satisfying a corresponding human need. *For Aristotle the proper use of a commodity is its consumption* [26].

Now in barter, one may be said to use the thing sold not indeed to satisfy the need which the thing, by virtue of its natural constitution and properties, is apt to fulfil, but, nevertheless, a different need, a need all the same, namely that corresponding to the thing acquired in exchange for the commodity alienated. And so the origin of exchange is natural and necessary: individual man is not self-sufficient on his own, especially with a view to higher order wants, but even in connection with basic needs. For, as a general rule, people (individually or collectively) have in their disposal differing quantities of commodities with regard to their respective satisfaction levels. The nature of the land which they occupy, the climatic conditions, their own degree of development are principal causes of that variation. *To equalise their satisfaction in respect of all their needs men have necessarily recourse to exchange*, by means of which they give away what they possess in surplus in order to get that which they are deficiently supplied with. In barter, in fact, utilities are exchanged as such, without any ulterior purpose than direct satisfaction of needs (consumption). This commutative business or trade in barter is, therefore, according to nature and following the natural use of goods, and no part of money-making or wealth-accumulation as such: *it restores conditions of human self-sufficiency, that cannot be met by the production of commodities alone* [27].

But although pure barter for the end of an equalised satisfaction of human demand is thoroughly natural (as restoring natural self-sufficiency), it also gave rise to the art of money-making as such, as the business of an indefinitely increasing accumulation of money with no discernible connection to the satisfaction of human wants. And

this progression happened in accordance with reason and with what one would naturally expect in the natural order of things (*κατὰ λόγον*) [28]. *First*, foreign trade had to be embarked upon, then, as a result chiefly of this, the introduction of money became necessary [29]. Money, *in turn*, made possible the business of exchange with a view not to consumption, but to the accumulation of wealth. Strictly, this improper (in the elementary sense and level of propriety) use of commodities can be undertaken in a currency-less market as well. But accumulation of commodities as such is, without money, ultimately, self-destructive. Many of them do not last. Those that last, if kept merely as sources of continuous or future satisfaction for their owner (if they function, that is, alone, as consumptive articles *in reserve*), deprive the on-going economic activity from necessary liquidity and thus cause stagnation. They are also bound to suffer from depreciation of stock. The necessary cumbrousness of the relevant operations will further be prohibitive. Accumulation of non-financial wealth, tends inherently to be unproductive, a matter normally of hoarding, of saving without investment. The form that such sterile increase of riches takes is standardly either vast reserves of, say, gold, or enormous land-owning. The former is met in less developed societies; it appears in the ostentatious and useless display of golden articles; it results in the devaluation of gold: the value of a thing is nothing but its utility. On the contrary the latter form of noxious wealth-accumulation occurs in developed (non-monetary) economies and societies and is an unmistakable sign in history of their imminent collapse. Wealth-amassing without money is, therefore, inherently unstable and self-destructive. Aristotle is right in emphasising that the genuine *ζώγλαυσις*? is the business of money-making, when it acquires the status of an art founded in experience, skill and, above all, knowledge [30].

Economics (*Οικονομική*) is the art and science of acquisition of goods (utilities) for the satisfaction of individual human needs up to the level of sufficiency (between want and satiation) - whether by their production or their necessary exchange in equalization of unavoidable productive imbalances. But trade (beyond the confines of necessary exchange for the purpose of satisfying unfulfilled wants) procures

wealth exclusively through appropriate exchange and with the end of capital accumulation in itself. Two essential consequences follow upon this understanding of trade. *First*, it has to do fundamentally with money and only secondarily with the commodities exchanged. For money (as currency and in particular, for an ancient economy, coinage) is the element and finality of exchange (other than what amounts to the necessary barter), beyond being its means. It is the element, because money provides the (unit of) measure of everything that is involved in exchange, it represents the common determinate dimension into which all utilities are reducible. It is the goal of exchange, because in such trading exchange the end is the increase of accumulated value in possession. *Secondly*, it follows that this being the end of trade, and since the end of any art and natural agency is pursued *ad infinitum*, money-making is inherently an endless pursuit. The increase of accumulated value must go on interminably, as an endeavour if not in effect [31].

The Aristotelian view is that if one considers individual human existence and excellence as the ultimate end of economic activity (which latter is the fundamental bond of civil society), then there is a limit in wealth acquisition, as there is a limit in the amount of instruments required for the realisation of any given purpose: too many means available impede, instead of promoting, the attainment of the proper end. If, on the other hand, capital accumulation is taken as the end of economic activity, then the pursuit of wealth-creation as increasing accumulation of monetary value is illimitable. In the former case, the finality of economic activity coincides with the finality of individual man and human nature. While in the latter, the end of economic activity is not identical with the overall end of human life; in fact, it is a means to the latter: the amassement of capital can be further used (or misused) in achieving the ulterior ends of human existence. *In effect, therefore, Aristotle denies the peculiarity of economic activity as against human activity in general.*

If there is no distinct character of economic activity as such, to which a distinctive end of its own may be ascribed, then how can man conceive at all of accumulated value as an end in itself of human

activity? This is the question put to Aristotle by the force of his logic, and this is what he in fact explicitly faces.

To begin with, every concrete utility provides for the satisfaction of a definite need. Now, there is a natural limit in the satisfaction of any need (and of the corresponding desire [32]), that namely involved in the respective satiation level. Consequently, the accumulation of any concrete utility by itself has a certain limit set by the nature and intensity of the corresponding need. The aggregate of concrete utilities, therefore, possessed by an individual has a natural limit at every moment of the time, depending on the individual nature concerned, the degree of its fulfilment and the obtaining circumstances. We can arrive at a (different) limit as well, if one takes into account future needs. One may even envisage an absolute limit with reference to the achievement of the utmost perfection of an individual human nature. In all these latter cases, normal limitations can be worked out, at least in theory, assuming a given, relatively stable, environment physical and societal, as well as a sufficient amount of security against risks corresponding to some reasonable degree of unexpectedness in the future turn of events.

Needs are intrinsically limited by their nature [33]. Their instruments of satisfaction (i.e. possessions of all kinds) are similarly limited. Concrete utilities, therefore, and their aggregates, are finite in this respect. But abstract utility is not so limited: it is infinite by nature. It is not aimed at the satisfaction of a given, particular need. Nothing can limit it intrinsically. Money is by itself, therefore, unlimited; and the thirst for it, *auri sacra fames* as Virgilius declared - is, thus, intrinsically insatiable.

But how can this be so? *How can a means (utility), even a condensed power of utility (abstract utility), become an end?* This is the crux of the problem that the Aristotelian position engenders. What is involved in such radical inflation of the status and function of the means amounts really to a radical deflation of the status and function of the end. Whereas the real finality of human life concerns well-living; the purpose of human existence is often degraded to mere living. Well-living consists in the realisation (to the degree possible in

the individual case) of the full human potentiality for perfection, with normative state the state of highest human excellence. With this as the (natural) end of life, the instruments necessary for its achievement become the means which they really are, and thus automatically delimited: there is a *rational* distribution of effort for the acquisition (or control) of those instruments which *minimises* the total effort required to be expended on their behalf. These instruments, then, as utilities, cause the satisfaction of the corresponding concrete needs and thus restore to the individual its proper state of normalcy, which allows for the realisation of its ultimate end and supreme perfection: knowledge. With the mind fixed on the true end of man, all the rest falls automatically in place as *means* to that end. For the perfection of human nature consists in a hierarchical articulation in best functioning order, form and condition of all physical, psychical and mental elements and faculties within human being focused on the highest perfection of its highest part (intellect), i.e. with a view to the realisation of its supreme excellence.

If this converging structure fails, all elements resume their putative autonomy of purpose, by becoming ends in themselves, instead of subordinate ends, and, fundamentally, means for the realization of superior ends in the ladder of finality. (An end in itself is an aim whose attainment is *not* considered essentially as a means for the attainment of some other ulterior purpose). This fact endows them with the (above defined) infinite character of an absolute purpose, which in the field of human activity taken in its entirety belongs in reality only to the supreme end of human perfection and of its highest attainment, i.e. perfect knowledge. Thus the satisfaction of even the most inferior needs turns into an end in itself: all kinds of concrete utilities, as a result, assume an aspect of *infinite «aimability»*. This aspect is appropriately expressed and summarised into the *infinite craving after abstract utility*, as effective substitute, and capital pool, for all concrete ones. And in this way we have derived the *auri sacra fames* from a *transposition of ultimate finality from well-living to mere living*. For the aim at living as such is not intrinsically limited either in point of time or of the potentialities available; whereas that at

well-being is necessarily so - for example the latter is not consistent with a long and decrepit life, or with the realisation of lower grade potentialities, however intense or protracted, at the expense of higher order ones [34]. But, furthermore, and more fundamentally, living requires the fulfilment of all wants of human nature, especially the more basic ones, and in particular those pertaining to the recurrent elementary needs. And the satisfaction of these wants has been elevated (as a result of the transference of absolute finality from the really ultimate end to the subordinate ends-means), to the final end of human activity. But this implants the infinity of insatiety into what is by its own nature finite and realisable.

How can this prodigious and fundamental «*error in finality*» ever lay hold of man? At bottom, there works a misapprehension of the specific character of man's ultimate end. Instead of the real perfection of human nature, which for Aristotle consists preeminently in intellectual excellence, one may mistakenly assume that the ultimate goal of all human endeavour is bodily enjoyment, in effect the pleasure characterising the replenishment of basic human wants. Now, although such satisfaction is always limited in reality in the case of every concrete need of the kind (as has been made evident above) because of the definiteness of the limiting level of satiety; yet, if such pleasure in general is upgraded to the status of an ultimate end, the desire for it becomes infinite. One wants more and more of it insatiably, even though one can actually enjoy only a finite amount of it. The desire in excess of real satisfaction is caused by, and directed to, the false idea of pleasure as absolute end of life. The false idea creates a *real* desire (i.e. *genuinely felt*) which is, nonetheless, *imaginary* (i.e. *impossible to be satisfied*). Such aiming is therefore in transgression of the natural state of things (it is *παρὰ φύσιν*). It is, of course, also, and consequently, ineffective. Its inherent «fault» makes itself manifest in that, if the misplaced ultimate finality cannot be adequately served by the art and business of money-making proper, then any other art and science can be turned to the same purpose, namely accumulation of money. This use of the various faculties stands patently in violation of the nature of things: the medicinal science, for instance, has as end the

maintenance and restoration of health, not amassment of money; and so for other virtues, skills and professions, like valour or the military art. But in the context of the false finality that we are here analysing, all these abilities and expertises are reduced to so many money-making functions. What does this mean in effect is that we encounter in this case a repetition of what happened with the use of commodities not as means of direct satisfaction of needs (consumption), but as means of money-getting (through exchange redirected towards indefinitely increasing gain): here services, and superior services, for that matter, aiming at the fulfilment of higher order subordinate ends of human life, are treated in an exactly analogous way. Which for Aristotle renders the unnaturalness of the process more palpable [35].

It is indeed not according to the natural state of things, Aristotle holds, to buy in order to sell [36]. But from the natural barter (embarked upon in order to replenish what is missing or sparse in exchange of what is in excess supply) there is a *natural transition* to monetary exchange: one acquires abstract utility (i.e. monetary assets) in order to be able to cater for future needs as they naturally emerge in the course of time (something that Aristotle himself emphasises, as we shall see). The accumulation of abstract utility may then fund higher order wants and aspirations of human nature: that is, excellencies productive of cultural utilities. Hence, there is a further reason why accumulation of monetary capital is *natural to man* (and his needs and demands), even though unnatural with regard to the use of things in a way which does not answer directly to *their* particular nature. For the natural use of a concrete utility (good or service) is to directly satisfy a corresponding specific need; meaning by natural use that according to the nature of a thing *qua utility*. The use of a utility for the purpose of money-accumulation (and the corresponding business of wealth-getting as money-making) does *not* answer to the *specific* nature of the utility in question. Still, it is based on the character of the particular utility as a concrete equivalent of a certain amount of abstract utility. And this character is natural not indeed to the thing itself, but to the human development. For the non-self-sufficiency of man makes imperative barter in the first place, and then, by a natural

extension of man-developed structures, money as representative (and store) of abstract utility (value); the introduction of money, moreover, renders possible the art of accumulating it through exchange (in trade) - which, being useful for man in the way above explained, is natural to human development. There is thus a continuous line that joins (a) the use of a utility natural to itself (namely, direct satisfaction of a specific need), to (b) its use in satisfying *indirectly* a specific need different from the one which it naturally satisfies (barter in order to consume the utility bought), to (c) its use in exchange for the purpose of acquiring and amassing abstract utility, i.e. the power to satisfy various needs at will as they occur. Now while (a) is natural to the utility, (b) is a natural application of exchange, that is, an application according to the nature of exchange as such (giving from one's surplus in order to obtain what one lacks). Given the purposes subserved by monetary capital accumulation, (c) is also natural to man, i.e. according to his nature, and especially functional in the supreme realisation of his nature (his utmost perfection). In fact, there is a further ring in the above chain: now money is not used according to its own nature (for the purposes of exchange present and future, i.e. as means of exchange and store of value or abstract utility), but as self-multiplier. Through financial transactions and operations on money itself alone, it grows as if enjoying organic life: it generates offspring in its own likeness - interest. This employment of money is, strictly, *unnatural* to its own primary nature. But still, again, this is a natural extension of its functions, if considered with reference to human wants and demands, and the structures of finality necessary to fulfill *all* of them in their entirety, even the highest perfections among them, in at least some individuals [37].

It should be, thus, kept firmly in mind that what Aristotle is strongly emphasising in all this analysis is not that goods and services *cannot* be used in exchange with the purpose of increasing the accumulation of monetary capital; nor is it that such a use is *ipso facto unnatural*; nor, consequently, that they *should* not be so used; but instead that they should not be used in exchange with the *ultimate* purpose of increasing the money-accumulation. For this involves a

dramatic error in the apprehension of the finality-structure in man, preeminently, but in the World at large, as well. The absolute end of life cannot be other for Aristotle, than individual human perfection. Misplacing it upon some subordinate end (which thus is also in reality a means for some superior purpose), causes series of errors spreading in all directions.

On the other hand, *accumulation of, esp. monetary wealth, makes possible the spending of human energy on causes higher than the satisfaction of the necessities of life.* And this, as we saw, is the purpose of political association and the State. Culture and spiritual production can take place only in such context - as in fact the Greek word for it (*πολιτισμός*, cf. *civilisation*) makes clear: it can be borne, grow and flourish where systematic and stable exchange relationships have been instituted, namely in the context of the city and the ancient city-State (*πόλις*). The urbanisation of the originally village communities means the institution of a pervasive system of exchange: the market, as has been analysed above, is the bond of *political society*. *Consequently, the market is the foundation of civilisational development.* The test of experience teaches as much: the cultural achievement of fifth century Athens was promoted by the city's imperial might and her economic miracle [37]. Just as the intellectual and artistic attainments of the archaic period followed upon either hegemonial power or economic advances (esp. of the big, trading City-States) or, normally, both.

The same pattern holds good in every field of human activity. For instance it is not that an art or faculty (say, the physician's art) *cannot* be employed with a view to earning money; naturally the practice of providing all kinds of services for pay was all too common in, even, archaic, antiquity. Nor is it that such an employment is *not natural* in itself and as such. Nor, further, that one *should* abstain from such employment. Again the crux lies in that such an employment should not represent the *ulterior finality* in exercising the art and conducting the relevant business.

Unnatural is, according to Aristotle, the elevation of an inferior end in the ladder of human finality to the supreme position of the structured hierarchy of purposes - in particular fields of activity or

within the entire spectrum of human manifestation. And this happens crucially when the (finite) satisfaction of elementary needs and necessities, and the (infinite) capability to satisfy such wants, takes precedence as the declared or unavowed sovereign aim of man's endeavour. Barring this radical distortion of the natural structure of finality, subordinate ends have to be pursued with absolute commitment - otherwise their realisation will be defective, and the attainment of the supreme end thereby can only be severely compromised. In general, it is not the pursuance of an inferior and that is defective, but its absolute finality. An end, qua end, has to be pursued with the utmost determination, whether it is the ultimate or a secondary one: for its realisation (in the latter case) is a necessary *condition* for the attainment of the ultimate one.

What is at stake, in effect, is the fitting distribution of ends to men. Each man is by nature endowed to perform optimally with a view to a particular end, hence he is best adapted to follow a particular vocation, i.e. business: this he must follow to the best of his endeavour and the utmost of his ability. For to achieve that particular end, in the fullest sense and the most efficient way possible, is to partake of human perfection in the aspect and degree he is capable of. That end, therefore, has to be pursued *unconditionally*, in so far as the particular occupation and the individual in question are concerned. The supremacy of the ultimate end does not impinge on the «infinity» belonging to all subordinate purposes of human endeavour, as they are classified in natural kinds - that infinity expressing not any indeterminacy in the definition of the specific end, but its boundless tendency of realisation, a characteristic of finality as such, and not of *ultimate* finality alone.

The attribute of sovereignty in supreme finality does not reside in any increased infinity of the end in the sense explained, but in the fact that there is no ulterior purpose, in the nature of things, which is served by the attainment of the end in question. This endows ultimate finality with an absoluteness missing from subordinate purposes. In the unlimited pursuit of such inferior goals there is always a further, external beneficiary beyond the one immediately involved in their

realisation. This is the subject in which the ulterior finality is realised [39]. Thus, for example, farmers engage in the infinite occupation of agricultural concerns to their own advantage no doubt, but also to the benefit of all other classes of economic agents, and, ultimately, to the profit of those who realise in themselves supreme excellence, i.e. wisdom. This transference of advantage along the lines of structured finality takes place automatically, since the respective arrangements are naturally instituted. There is no need of devising special conduits of transmission to channel surplus utility from agricultural accumulation to the ulterior end-realisation and its beneficiaries. In fact, such human planning interferes with the natural processes which secure the appropriate volume and velocity of utility transmissions, the imposition causing thereby serious distortion in the overall pattern of effective allocation of resources. *The market, on its own and alone, safeguards the most efficient mobility of utilities, and their optimal distribution with a view ultimately to the fullest realisation of the supreme finality of human nature.*

One must simply pursue unreservedly the intrinsic end of his proper vocation, without undue solicitude about the relationship between the realisation of this end and that of the ultimate purpose of human nature. The architect, for instance, should endeavour to design the best and most functional buildings, and should do this wholeheartedly and with the utmost commitment, unperturbed by worries whether such devotion compromises the craving for human perfection inherent in all. By conducting his business in the best possible way, he achieves the proper form of excellence to which he is adapted, and simultaneously helps promote (without intention and deliberation) the realisation of the complete integral of perfection *in some other appropriately endowed individual* - or, rather, of its highest peak. And so, for all other arts and businesses.

What is true of all professions, applies also to the art and business of wealth-getting (*χρηματιστική*). Its proper end is to be pursued unreservedly, yet in subjugation to the ulterior finality, to which it provides the means of attainment. The proper end of the wealth-getting faculty is accumulation of wealth. But as wealth is an aggregate

of utilities, and since the purpose of such accumulation is the satisfaction of human needs and wants, it follows that the art and business of wealth-getting is subservient to the attainment of man's fulfillment, and, hence, to the art and business of the economic management of resources (*οικονομική*), bearing especially to its optimal distribution and employment. The former occupation aims at acquiring the utilities which the latter knows how to use effectively. Wealth is thus instrumental to the satisfaction of needs, and wealth-getting, consequently, ancillary to wealth-using (or ultimately, consuming) [40].

Economic management with a view to its proper end takes precedence over financing it. The understanding of wealth as an aggregate of ways and means, of instruments, to be adapted to the attainment of higher order ends, solves the problem concerning *the optimal size (volume and value) of wealth*. There is no definite quantitative limit to wealth-accumulation. Instrumentalism simply requires that the amount of utilities amassed be functional. A hoard differs from a store of accumulated capital in that it consists, or, at least, contains, substantial quantities of inactive utilities. *But inert wealth is no real wealth.* Therefore, multiplication of means without knowledge and ability how to put them into efficient use, is no true wealth-accumulation, as they are then no working *instruments* - it is *hoarding* and the desire to effect it is mere *avarice* [40a].

Now use can be present or future. And, thus, we arrive at the final essential characteristic of money, which explains its rational tendency towards accumulation. A store of value (i.e. of utilities) may be still not an inactive hoard, even though it exceeds the *present* requirements of *investment* and *consumption* (i.e. of indirect and direct need-satisfaction). This happens if accumulated value in excess of currently obligated amounts is reserved for future use, *under conditions justifying an increased intensity of future application of funds*. The latter clause is essential: for, otherwise, ear-marking for future employment can become the pretext of actual unproductive hoarding. The reserves for future employment must correspond to the degree of future economic activity in excess of the level sustainable without

savings. At any given time, the actual level of deposits depends positively in direct sense on the expected degree of future economic activity. *Expected intensification of future economic activity accompanies higher level of saving - just as it is reflected in increased amounts of available credit* [41]. Therein lies a necessary link between saving and credit in the context of a natural economy. Of course, the expectation may be reasonable or unfounded, and will turn out to be correct or imaginary. The penalty of erroneous expectation lies, in the case of an underestimation of future performance, in the impediment posed by the dearth of liquidity, while in the case of the opposite overestimation, in the malfunctioning and final collapse of an economy glutted by liquidity.

The demand for wealth stored (deposited and on saving) is demand for money. Non-monetary utilities are more or less inappropriate as reserves of value for various reasons such as perishability, inconvenience, variability of exchange equivalence to the other utilities. Money is the ideal store of value (i.e. vehicle of saving) by virtue of its consisting in abstract utility: it represents the power of utility in general, without restriction to particular need-satisfactions. Thus it can be conveniently stored for future concrete use (spending in investment or consumption). Moreover, its essential functions as measure of value and means of exchange, confer upon it relative exemplary stability in exchange-equivalences to all other utilities. Given the constant demand for these two functions, any change in the exchange-relationship of money to other utilities (i.e. of the abstract utility to the concrete ones) must mean variation of *their* value, and not in *its* own, - unless there is a movement away from the *general level* of their valuations (prices). In an economic system endowed with a naturally stable general level of internal exchange rates in terms of the monetary measure of value (a system privileged with actually zero inflation), the purchasing power of money remains practically constant for significantly unrestricted periods of time, or, at least, more stable than that of any concrete utility [42].

In conclusion. Exchange is the foundation of political society and Statehood. For exchange to take place in a systematic and stable way,

there must be a common measure of all things. This common measure is provided by *need*. Things are weighted according to their capacity to satisfy wants, i.e. by their *utility*. In an isolated particular exchange, needs and utilities are determined according to the character of the individuals involved and to the conditions they are found in. The pattern of exchange will thus vary greatly even for the same commodities. But in a fixed and organised system of exchange where individuals enter into a complex web of relationships among each other on a permanent basis, the pattern of exchange is determined on the whole by aggregate want and inherent utility of things. This is the function of the *Market* to establish. Such averaging of need and utility is not due to the determinative influence of *costs of production* on the exchange-market; on the contrary, as the factors of production are themselves utilities of various sorts, their remuneration is one aspect of the general market-valuation of utilities [43]. In particular, that averaging is not to be explained with reference to some assumed and implicitly (even if partly) held Labour Theory of Value on the part of Aristotle [44]. Finally, the balancing of excesses and deficiencies in wants and satisfaction around a mediating and normative standard is by no means supposed to be the effect of administrative interventionist stipulation [45]. Prices simply stabilise automatically in a free and open market since there is multiple need (demand) and multiple offer (supply) for the same kind of utility. The valuations established through the «higgling of the market» reflect ultimately, and under normal conditions, standard need according to the structure of human nature, and standard utility according to the properties of objects or characters of functions [45a]. Normalised specific need represents deficiency relative to human nature; for instance, if (as is the case with Aristotle, and the ancient philosophical experience in general) thinking is the cardinal essentiality of man, then the lack of proper cognition is the highest human want, and, correspondingly, knowledge (true science) is of the highest utility; whereas for an animal bereft of reason, these need and satisfaction are practically of zero order. *Scarcity of satisfaction thus is proportional to the superiority of want.* The scarcity factor in the determination of

utility is, therefore, objectively reducible to the order of want (always under normal circumstances). In effect, we may determine the valuations of utilities by analysing human nature according to the structured hierarchy of its finality: *utilities satisfying needs of inferior finality tend to have proportionately less value*, irrespective of their costs of production or physical scarcity [46]. Aristotelian essentialism and teleology thus provide the final foundation in determining where «the higgling of the market» will eventually abut, if left to itself. Far from being inconsistent with its working, they explain the relative valuations which are achieved in the long run by its means, and towards which the temporarily stabilised value-relationships gravitate.

The Market (founded ultimately in the objectivity and finality of human nature) reigns supreme in human activity. It provides the very bond of human society. Any intervention in its operations is exceptional and justifiable alone in extreme situations for reasons of superior state-interest by virtue of the ulterior finality of the State [47]. The existence, essence and function of the Market can be deduced from the character and requirements of human nature, as can also the objective tendencies of (stable systems of) market-value relationships. Both in its continuous everyday adjustments and its long-term trends, the Market reduces the variegated needs of man, and the indefinite variety of means of their satisfaction, to commensurateness, and thus forms a coherent system of human activity by imposing order on the disorder of subjective desire and motivation. Human activity and interaction becomes an orderly system of communal cohabitation, the nexus of political society as State, by being judged according to a unique criterion, the common denominator of need and utility, whether on the apparent, external, immediate and subjective level, or on the essential, intrinsic, indirect and objective structure. This dimension of commensurateness is expressed in money under its first and foremost signification. As such, money represents abstract utility, which, embodied in actual existence as an asset constitutes the general power to satisfy needs and to fulfill wants of whatever level of existence and finality. The function of money as measure of desire and utility (and, thus, of need and wealth)

is primary: its functions as means of exchange and store of value follow upon that one [48].

The Aristotelian theory of the Market emerges as a highly articulate and eminently coherent system of economic thought embedded into a general analysis of human association. One may aptly describe it as neoclassical in its general tenor and specific structure, only grounded on the firm objectivism of a comprehensive understanding of human nature. The Aristotelian economic theory is an *objective neoclassicism* [49].

NOTES

- [1] Plato would *deregulate* completely all market transactions: every contractual dealing should be undertaken at one's own *risk*. The idea is to enhance *prudence* in creation, accumulation and management of wealth by heightening the risks involved, even to the extreme. Having in mind an ideal of human perfection which he deemed enforceable, not through violence, but by appropriate institutional structures and cultural achievements, Plato admittedly gave precedence to a State organised and integrated under such institutional and cultural (educational) principles and practices. But as that way was realisable only as a result of a divine stroke of fortune, he explicitly maintained that the second best method to cultivate excellence in society was not to try to contain through regulation as much of human economic activity as possible, but on the contrary to radically abolish all regulation from the markets. Thus in describing the transition from oligarchy (i.e. an organization of political society according to the principle of wealth) to democracy (that is, and on his understanding of the terms, an organization of political society according to the principle of unweighted equality), he focuses on the wholesale expropriation of fortunes which an unlimited squandering of property, in pursuit of an indolent and self-indulging way of life, stimulates. The result is the multiplication of an idle and destitute crowd, that is, high unemployment and poor buying power in society. This is an evil to dispel which Plato sees two, exactly opposite, ways. *Republic*, II, 556a-b: Οὔτε γ' ἐκείνη ἦν δ' ἐγώ, τὸ τοιοῦτον κακὸν ἐκκαόμενον ἐθέλουσιν ἀποσβεννύναι, εἴργοντες τὰ αὐτοῦ ὅπῃ τις βούλεται τρέπειν, οὔτε τῆδε, ἢ αὖ κατὰ ἕτερον νόμον τὰ τοιαῦτα λύεται. Κατὰ δὲ τίνα; Ὅς μετ' ἐκείνόν ἐστι δεύτερος καὶ ἀναγκάζων ἀρετῆς ἐπιμελεῖσθαι τοὺς πολίτας. ἐὰν γάρ

ἐπὶ τῷ αὐτοῦ κινδύνῳ τὰ πολλά τις τῶν ἐκουσίων ξυμβολαίων προ-
στάττη ξυμβάλλειν, χρηματίζονται μὲν ἂν ἦττον ἀναιδῶς ἐν τῇ πόλει,
ἐλάττω δ' ἐν αὐτῇ φύοιτο τῶν τοιούτων κακῶν, οἷων νῦν δὴ εἵπομεν
[«And such evil, I said (Socrates is speaking), being kindled, they do not
want to extinguish neither by way of prohibiting the disposition of one's
own at will, nor in another manner in which such untoward situations are
remedied. - Which one? - The one who is second after the former and
obliges the citizens to pay heed to excellence. For if the law ordains that
one should be engaged in most voluntary transactions at one's own peril,
then people will certainly conduct business less recklessly in the State, and
fewer evils of the sort we have just recounted will be born in it»].

One's own (τὰ αὐτοῦ) includes naturally, and in many cases primarily,
real property. In classical times, land and urban property were of course
free to be disposed at will by their owner. It is a different and vexed
question (and one which will be treated in the following volumes)
whether and in what sense at some earlier periods and in some particular
places there existed some system of really and effectively serious legal
inalienability of one's lot. But to pronounce for the era of the great
Athenian power and high economic development that «the fact is that
there was no real-estate market, properly speaking, in Athens at all, that
land was not a commodity in any significant sense», is an example of how
far preconceived notions can distort the facts and plausibilities of a case.
The quotation is from M.I. Finley's, *Land, Debt and the Man of Property
in Classical Athens*, in his *Economy and Society in Ancient Greece*, p. 71.
The idea is even a priori inconceivable as applied to a vibrant economy
with high demand for liquidity and a well-developed financial sector with
constant need of credit. Bonds with security on land were a matter of
course (Cf. e.g. Demosthenes, *To Apaturios, Special Suit of
Inadmissibility*, XXXIII, 3). To show the levity of Finley's view (which is
typical of his whole attitude towards the ancient Greek economy), it is
sufficient here to invoke the devastating testimony of Theophrastus', *On
Contracts*, an excerpt from which work is preserved by Stobaeus,
Florilegium, MΔ', 22. The passage relates precisely to various types of
regulations obtaining in real-estate market. In Athens, specifically, a
notice of sale (προγραφή) had to be placed at the appropriate magistracy
at least two months (sixty days) before the validation of the transaction,
while also the buyer should lay there one hundredth of the total price.
The notice was made public and anyone could contest the selling.
Theophrastus furthermore notices alternative ways of proleptically

opening all dealings in real property to the public scrutiny, and emphasises that all these precautionary regulations are needed in cases where there does not exist the simple and most effective system which he prefers and testifies that it operated in various Greek States: namely, that there should be a Register of Real Property and Contracts (*ἀναγραφή τῶν κτημάτων καὶ τῶν συμβολαίων*) in which the appropriate magistrate would reregister the new owner of a piece of real property. - Aristotle speaks of official Registers of Transactions (*Συναλλαγμάτων Ἀναγραφαί*), in various States, *Politica*, Z, 1322 b34. - Thus even though it appears that Finley is technically right in stating that «the city (i.e. Athens) itself kept no formal record of property holdings and no record of any kind of transactions on property» (*ibid.*), the existence of such records in other States is put beyond dispute by Theophrastus' testimony. But then the entire spirit of Finley's contention is wrong. Given the fact that Athens represented the mightier and most developed economy, the nonexistence of such a register there must rather be taken as sign of the strong spirit of *economic freedom* working in Athens and as proof of the unencumbered functioning of economic activity there: the Athenian economy, in particular, was exemplarily *unregulatory*. - On the index of economic freedom in Classical Athens, I shall treat analytically in Volume III of this work.

The formula expressing the unqualified precedence of the contract over laws and decrees and the absolute validity of freely adopted pacts was: *ὅσα ἂν τις ἐκὼν ἕτερος ἐτέρῳ ὁμολογήσῃ κύρια εἶναι* ["whatever one out of his free will agree with another, let it be valid"]. Cf. Demosthenes, 35, 10-13.

- [2] Aristotle ended his discussion of Remedial Justice by encapsulating its essential nature in the prohibition of any change of relative position between the parties involved in an involuntary transaction. A must be relative to B after the transaction just as he was before it. V. the concluding statement of *Nicomachean Ethics*, E, 4, quoted above in Chapter 3, n. [47]. Taking up this point, Aristotle starts his analysis of economic justice (in E, 5) as fairness in *voluntary* transactions (distinct from legal justice regarding them), by generalising the principle of arithmetical equality (which emerged as the formula of Corrective Justice) to the point of becoming the reputed general idea of justice, according especially to old Pythagorean traditions. In that acceptation justice universally consists in exact retaliation; just is to suffer something in

recompense of inflicting it on another. Aristotle criticises this general idea as it stands (in its pure eye-for-eye form) on two counts: *first*, this cannot hold in the case of Distributive (Social) Justice where the principle of proportionality reigns; *secondly*, it cannot, also, stand as the general formula of Legal Justice either, since conditions and circumstances, as well as questions of intentionality or otherwise, diversify the intensity of the harm received in each case, beyond its purely physical (and first-order) description (e.g. a blow). In the field of Remedial Justice we saw that one takes the relative difference between the two positions (i.e. the states in which the parties are found in) after the transaction compared to what it was before it, then divides it into two, and takes away from the gaining party one half adding it to the losing party. *In determining that difference, issues of status, circumstances and intentionality are taken into due account.* For instance (to use Aristotle's example in the Nicomachean Ethics): suppose (a) magistrate A strikes a blow on citizen B in the course and by virtue of his authoritative function; suppose (b) that private citizen A strikes intentionally private citizen B in cold blood; suppose (c) private citizen A strikes magistrate B in the discharge of his office; suppose, finally, that (d) private citizen A strikes involuntarily or in self-defense private citizen B in the course of a heated dispute. One may multiply various kinds of specification for the simple core-type where A strikes a blow on B. Now the simple form of the *Lex Talionis* would assimilate all these cases into a single formula: A should suffer what he inflicted on B, *namely a blow*. But this, Aristotle notices, obviously would not do; it manifestly contravenes the common sense of justice. What, according to the Aristotelian analysis, ought to be done is to examine the relative difference introduced by the blow to the two parties concerned *in the various cases*. It will then be obvious that difference varies after the commission of the same (physically described) act *depending on the circumstances of status and intentionality*. Employing the symbolism introduced in the previous chapter, we see that $\Gamma - \Delta$ is null in case (a), less in case (d) than in case (b), while it is greater in (c) than in (b). A magistrate A's striking a blow in the execution of his duties on private B gives A (as an individual) no gain over B. On the other hand, the same (physically) action in case (c) gives A a vastly superior gain over not only B, but over all other individuals in the State (by virtue of its attainment on the State's authority), than it would confer on A if B was also a private citizen. And correspondingly in the other circumstances. Hence simple retaliation cannot do as principle of Corrective Justice. The retribution has to take

into account the harm caused and the gain earned *in the circumstances*: these have to be equalised, in the sense that we should reach the mean between gain and loss which would restore the state of affairs relative to the two parties involved as it was before the transaction. So, *NE*, E, 5, 1132b21-31: δοκεῖ δέ τισι καὶ τὸ ἀντιπεπονθὸς εἶναι ἀπλῶς δίκαιον, ὥσπερ οἱ Πυθαγόρειοι ἔφασαν· ὠρίζοντο γὰρ ἀπλῶς τὸ δίκαιον τὸ ἀντιπεπονθὸς ἄλλῳ· τὸ δ' ἀντιπεπονθὸς οὐκ ἐφαρμόττει οὐτ' ἐπὶ τὸ νεμητικὸν δίκαιον οὐτ' ἐπὶ τὸ διορθωτικὸν - καίτοι βούλονταί γε τοῦτο λέγειν καὶ τὸ Ραδαμάνθυος δίκαιον·

εἴ κε πάθοι τὰ τ' ἔρεξε, δίκη κ' ἰθεία γένοιτο

- πολλαχοῦ γὰρ διαφωνεῖ· οἷον εἰ ἀρχὴν ἔχων ἐπάταξεν, οὐ δεῖ ἀντιπληγῆναι, καὶ εἰ ἄρχοντα ἐπάταξεν, οὐ πληγῆναι μόνον δεῖ ἀλλὰ καὶ κολασθῆναι. ἔτι τὸ ἐκούσιον καὶ τὸ ἀκούσιον διαφέρει πολὺ [«Now some think that retaliation without further qualification is justice, as the Pythagoreans maintained; for they defined justice unqualifiedly as retaliation on somebody else (for what he did to one). And yet simple retaliation does not square either with distributive or corrective justice - although people want to uphold in the latter form just this and the Radamanthyan justice:

if one will suffer what he did, straight justice

is surely delivered;

- for in many cases (such a principle) is in discord to the actual state of things; like if one delivered a blow in his capacity as a magistrate, he should not receive back a blow; and if somebody delivered a blow to a magistrate, he should not only receive in return an equal blow, but he ought rather to be punished; and similarly voluntary and involuntary actions differ much in the punishment to be meted out for them»). In the Aristotelian tract *Magna Moralia*, other examples are indicated of variation caused in the requital redressing injustice by variation in the circumstances of particular cases; 1194a37 sqq.: οὐ γὰρ δίκαιον, εἴ τις ὀφθαλμὸν ἐξέκοψεν τινος, ἀντεκκοπῆναι μόνον ἀλλὰ πλείονα παθεῖν ἀκολουθήσαντα τῇ ἀναλογίᾳ· καὶ γὰρ ἤρξε πρότερος καὶ ἠδίκησεν, ἀδικεῖ δὲ κατ' ἀμφότερα, ὥστε ἀνάλογον καὶ τὰ ἀδικήματα, καὶ τὸ ἀντιπαθεῖν πλείω ὧν ἐποίησεν δίκαιόν ἐστιν [«For it is not just, if someone put out the eye of another, to have only one of his own eyes put out, but rather to suffer more than that by following proportionality; for the offender not only acted unjustly but also started first in this course, which in itself is an injustice; and since he acts wrongly on both counts, the wrong done must be proportional (to the wrongdoing), and retribution

must in justice be more than what he (physically) did»). The proportionality here does not introduce the standard of the weighted equality characteristic of Distributive Justice, but simply correlates wrongdoing to wrongdoing.

The verse in the Aristotelian text above which encapsulates the *Lex talionis* («breach for breach, eye for eye, tooth for tooth; as he hath caused a blemish in a man so shall it be done to him again», *Leviticus*, XXIV, 20; cf. *Exodus*, 24; *Deuteronomion*, XIX, 21) is from Hesiod's *Great Works* (*Μεγάλα Ἔργα*), where it was ascribed to Rhadamanthys, the Cretan son of Zeus and brother of king Minos, who, in consequence of his exemplary justice throughout his life on earth, became after his death one of the judges in the Lower World, taking his abode in Elysium. The extant quote (Fr. 286 Merkelback et West, *Fragmenta Hesiodica*) runs thus:

εἰ κακά τις σπείραι, κακὰ κέρδεά <κ' > ἀμήσειεν·
 εἴ κε πάθοι, τὰ τ' ἔρεξε, δίκη κ' ἰθεῖα γένοιτο
 [«if one would sow evil, evil gains he will reap;
 if one would suffer what he did, straight justice would
 be delivered»].

The phrase became proverbial, occurring in a variety of sources. Talio is to be found in the *Twelve Tables*, the first written form of Roman Law, as punishment to be inflicted on account of the breaking of a limb (*propter membrum ruptum*), unless the plaintiff could be made to argue with the offender that sufficient pecuniary composition should be substituted for retaliation (v. Festus, s.v. *Talionis*; Aulus Gellius, XXI, 1; Gaius iii, 223). Josephus explains the Jewish Law on the same understanding, *Antiquitates Judaicae*, IV, 8, 35. The same retaliatory enactment was part of the Punic Law (Cato, as quoted by Priscian, VI, p. 710 Putsch). Demosthenes mentions a law of retaliation given by Zaleucus to the Locrians in Southern Italy; *Against Timocrates*, 139-141. It existed also in Thurii, being ascribed to the famous lawgiver (reputedly Pythagorean) Charondas; we learn this from a curious story narrated by Diodorus XII, 17 (the same to that related by Demosthenes in connexion with the Locrians): someone blinded an one-eyed man, upon which the latter argued that the culprit should be punished by being blinded in both eyes, and not according to the simple *Lex Talionis*; for otherwise the wronged and the wronging parties would not participate in an *equal mishap*.

The Pythagoreans formalised a primeval experience when they declared retaliation and equality as of the essence of justice. Thus

Alexander from Aphrodisias, the Aristotelian Commentator, remarks in his work on Aristotle's *Metaphysics*, ad 985b26 (p. 540.19 sqq. Brandis): τῆς μὲν γὰρ δικαιοσύνης ἴδιον ὑπολαμβάνοντες εἶναι τὸ ἀντιπεπονηθὸς τε καὶ ἴσον, ἐν τοῖς ἀριθμοῖς τοῦτο εὐρίσκοντες ὄν, διὰ τοῦτο καὶ τὸν ἰσάκις ἴσον ἀριθμὸν πρῶτον ἔλεγον εἶναι δικαιοσύνην· τὸ γὰρ πρῶτον ἐν ἐκάστῳ τῶν τὸν αὐτὸν λόγον ἔχόντων μάλιστα εἶναι τοῦτο ὃ λέγεται [«for thinking that the peculiar character of justice resides in retaliation and equality, and finding this attribute in numbers, on account of this they maintained the first square number (i.e. four) to be justice. For in general they held that the first thing among those to which the same essential description applies is preeminently such as it is said to be (according to that essential description)»]. In fact, a divergence is registered regarding the Pythagorean numerization of justice. Some thought it to be 4, according to Alexander's testimony as well. Others objected, and proferred 9 as the defining number. Still others thought it to be 5 as registering an equal division of the decad, the number complete. V. *Scholia in the cod. Reg.* 1853, quoted in p. 541.6-29, Brandis, *Scholia Aristotelica*.

[3] V. Chapter 2 above on the origin, nature and finality of political society in State.

[4] *NE*, E, 5, 1133a3-5: διὸ καὶ Χαρίτων ἱερὸν ἐμποδῶν ποιοῦνται, ἵν' ἀνταπόδοσις ᾗ· τοῦτο γὰρ ἴδιον χάριτος· ἀνθυπηρετῆσαι γὰρ δεῖ τῷ χαρισαμένῳ, καὶ πάλιν αὐτὸν ἄρξαι χαριζόμενον. [«Hence, too, it is that men consecrate conspicuously sanctuaries of Graces, that there may be reciprocity. For this is the peculiar property of grace, that one must serve in return one who has done a favour, and again be in turn the first to confer new favours»]. So Seneca allegorises features of the ancient worship of the Graces in this essential sense: they are three because one symbolises the granting of a favour, the other receiving it, while the third represents rendering back; they hold each other hand in hand so as to form an elementary circular chorus because the benefit of a favour must keep rolling till it comes back to the initial giver, otherwise the order is destroyed, and there is no grace left: unless the circle closes back, there is not even an initial step to start with. *De Beneficiis*, I, 3: Num dicam quare tres Gratiae...? Allii quidem videri volunt unam esse quae det beneficium; alteram quae accipiat; tertiam quae reddat... Quid ille consertis manibus in se redeuntium chorus? Ob hoc, quia ordo beneficium

per manus transeuntis, nihilominus ad dantem revertitur et totius speciem perdit, si usquam interruptus est; pulcherrimus, si cohaesit et vices servavit [«Should I now say why there are three Graces?... Some indeed want to see one who grants the favour, another who receives it, the third who returns it back... Why there appears that (well known image of a) chorus (circle) of entwined hands closing back to themselves? On account of this, because the order of a favour that passes over through the hands does in no way revert back to the bestower, and looses its full form, if it is however interrupted; it is most beautiful if it coheres and serves reciprocity»].

[4a] Stobaeus, *Florilegium*, 10, 34. Cf. for an analysis of the pregnant dictum, *infra*, Chapter 6 n. [27].

[5] *NE*, E, 5, 1132b31-1133a2: ἀλλ' ἐν μὲν ταῖς κοινωνίαις ταῖς ἀλλακτικαῖς συνέχει τὸ τοιοῦτον δίκαιον, τὸ ἀντιπεπονηθὸς κατ' ἀναλογίαν καὶ μὴ κατ' ἰσότητα. τῷ ἀντιποιεῖν γὰρ ἀνάλογον συμμένει ἡ πόλις. ἢ γὰρ τὸ κακῶς ζητοῦσιν· εἰ δὲ μὴ, δουλεία δοκεῖ εἶναι, εἰ μὴ ἀντιποιήσῃ· ἢ τὸ εὖ· εἰ δὲ μὴ, μετάδοσις οὐ γίνεται, τῇ μεταδόσει δὲ συμμένουσιν [«But in all exchanging intercourse (in all exchange associations) indeed, this kind of justice is the bond of union, namely retaliation (requital) on principles however of proportionality and not of (mere, unweighted) equality. For by proportionate requital the State is held together. Men seek to requit either wrongdone - for if not, it appears as slavery if one will not retaliate -; or good; for if not, interchange does not come about, and it is by such mutual interchange that men are held together»]. Cf. *Politica*, 1261a30-31: διόπερ τὸ ἴσον τὸ ἀντιπεπονηθὸς σώζει τὰς πόλεις, ὥσπερ ἐν τοῖς ἠθικοῖς εἴρηται πρότερον [“and for this very reason (namely that the unity of the State is made of many and diverse components), equality in reciprocation and requital (retaliation) saves (preserves) the States, as has been said in the *Ethics* before”] - a clear Aristotelian reference back to the above quoted passage from the *Nicomachean Ethics*. The equality in retaliation (requital) is, of course, *weighted*.

Mutual need and consequent exchange of satisfying utilities is declared the basis for civil society. In this, too, Aristotle follows the footprints of Plato (v. Chapter 1, *supra*). We have here the foundation of (Political) Economics, especially as Aristotle goes further and explicitly deduces from such basis several inferences as to the nature of value, price and money. Economic Justice (τὸ δίκαιον ἐν ταῖς κοινωνίαις ταῖς ἀλλακτικαῖς)

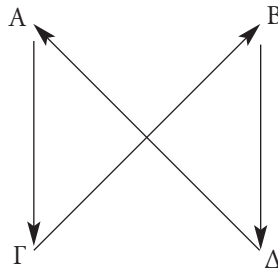
emerges as the law of value. The logic of exchange forms the foundation for all Economics. Consequently, Richard Whately (1787-1863), Chair of Economics in Oxford (and successor to W. Nassau Senior) proposed reducing Economics to “*Catallactics*”, the science of exchange (in his *Introductory Lectures on Political Economy*, 1831).

Commutative (Economic) Justice consists once more in the proportional equality of utilities exchanged. Again, the standard according to which the equality is weighted is, we shall see, human perfection (excellence of human nature). But a common measure is also discovered to gauge excellencies (capabilities, skills and expertises) of various sorts - and this is *need* or *want* (which determines demand) and the corresponding utility (goods and services, relating to supply). Herein lies the core of the profound Aristotelian theory of value and money.

[6] V. *supra*, Chapters 1 and 2.

[7] V. preceding chapter 3.

[8] NE, E, 5, 1133a5-10: ποιεί δὲ τὴν ἀντίδοσιν τὴν κατ’ ἀναλογίαν ἢ κατὰ διάμετρον σύζευξις. οἰκοδόμος ἐφ’ ᾧ α, σκυτοτόμος ἐφ’ ᾧ β, οἰκία ἐφ’ ᾧ γ, ὑπόδημα ἐφ’ ᾧ δ. δεῖ οὖν λαμβάνειν τὸν οἰκοδόμον παρὰ τοῦ σκυτοτόμου τὸ ἐκείνου ἔργον, καὶ αὐτὸν ἐκείνῳ μεταδιδόναι τὸ αὐτοῦ. [«Now diagonal conjunction (i.e. the joining of the diagonal in a square) gives us proportionate return. Let A stand for a builder, B for a leathercutter, Γ for a house, Δ for a shoe. Then the builder should receive from the leathercutter the latter’s work, and in return give to him his (i.e. the builder’s) own»]. The diagram Aristotle would have drawn appears to be the following:



A produces Γ, and exchanges it with B for Δ, produced by B.

[9] Immediately following the preceding quotation, Aristotle continues (1133a10-14): *ἐὰν οὖν πρῶτον ἢ τὸ κατὰ τὴν ἀναλογίαν ἴσον, εἶτα τὸ ἀντιπεπονθὸς γένηται, ἔσται τὸ λεγόμενον. εἰ δὲ μή, οὐκ ἴσον, οὐδὲ συμμένει· οὐθὲν γὰρ κωλύει κρείττον εἶναι τὸ θατέρου ἔργον ἢ τὸ θατέρου· δεῖ οὖν ταῦτα ἰσασθῆναι* [«And, hence, if first the works of the two producers are equalised proportionately, and then requital (mutual interchange) occurs, there will be what is being said (about fair exchange). But if not, there is no fairness (economic justice), nor political society will hold together. For nothing hinders that the work of the one commands more power than the work of the other. These then must be equalised»].

The requirement of a previous equalisation (homogenisation, commensurateness) of utilities as a prerequisite for fair exchange is emphasised repeatedly by Aristotle. V. also 1133a9; 25; 1133b10.

The process of the sequence equalisation - requital is explained in 1133b1-6: *εἰς σχῆμα δ' ἀναλογίας οὐ δεῖ ἄγειν ὅταν ἀλλάζωνται (εἰ δὲ μή, ἀμφοτέρας ἔξει τὰς ὑπεροχὰς τὸ ἕτερον ἄκρον), ἀλλ' ὅταν ἔχωσι τὰ αὐτῶν. Οὕτως ἴσοι καὶ κοινωνοί, ὅτι αὕτη ἡ ἰσότης δύναται ἐπ' αὐτῶν γίνεσθαι. γεωργὸς α, τροφή γ, σκυτοτόμος β, τὸ ἔργον αὐτοῦ τὸ ἰσασμένον δ. εἰ δ' οὕτω μὴ ἦν ἀντιπεπονθέναι, οὐκ ἂν ἦν κοινωνία* [«We must not, however, bring the parties to a diagram of proportionality after exchange has taken place (else the one extremity of the figure will have both superiorities assigned to it), but at a moment when the parties still retain their own products. It is in this way that they are equals and participants in political society, because the above kind of equality can be established between them. Farmer A, food Γ, leatherscutter B, his equalised work Δ. If it were not possible to have requital (interchange) in *this way*, there would be no political society»].

This is a vexed and obscure passage in its first part. The meaning will be clarified in the sequel (v. esp. pp. 237 sqq.). Here, the second part is to the point, that one first equalises (i.e. renders commensurate, measures by a common standard and unit) the work of the shoemaker to that of the farmer, and then proceeds with the exchange.

C. Menger has emphasised the essential role of economic equalization between human “economies” in the formation of the market price-system: “Die Preise, oder mit anderen Worten, die im Tausche zur Erscheinung gelangenden Güterquantitäten sind doch nichts weniger als das Wesentliche der ökonomischen Erscheinungen. Dieses liegt vielmehr in der durch den Tausch herbeigeführten besseren Vorsorge für die Befriedigung der Bedürfnisse der beiden Tauschenden... Die Preise sind

hierbei aber lediglich accidentielle Erscheinungen, *Symptome des ökonomischen Ausgleiches zwischen menschlichen Wirtschaften und für die wirtschaftenden Subjecte somit von sekundären Interesse*". (*Grundsätze der Volkswirtschaftslehre*, 1871, p. 172, 1923, p. 182, my italics). As G.L.S. Schaeckle put it (*Epistemics and Economics: A critique of Economic Doctrines*, 1972, p. 10): "Economics might almost be defined as the art of reducing incommensurables to common terms".

- [10] *NE*, E, 5, 1133a16-19 οὐ γὰρ ἐκ δύο ἰατρῶν γίνεται κοινωνία, ἀλλ' ἐξ ἰατροῦ καὶ γεωργοῦ, καὶ ὅλως ἐτέρων καὶ οὐκ ἴσων· ἀλλὰ τούτους δεῖ ἰσασθῆναι. διὸ πάντα συμβλητὰ δεῖ πως εἶναι, ὧν ἔστιν ἀλλαγὴ [«For out of two physicians no society is constituted (and no commerce arises), but out of a physician and a farmer it does, and, in short, out of persons who are different from one another and not equal; these, then, require to be equalised. For this reason, all must be commensurable somehow that are subject to exchange»].
- [11] *V. supra*, Chapter 3.
- [12] *Equality* in some essential respect (i.e. *value*) seems to be enunciated as a *general principle* holding good in all transactions, indeed in all actions and counteractions (interactions). *NE*, E, 5, 1133a14-16 (where see the context): ἔστι δὲ τοῦτο καὶ ἐπὶ τῶν ἄλλων τεχνῶν· ἀνηροῦντο γὰρ ἂν, εἰ μὴ ᾀδ' ἐποίει τὸ ποιῶν καὶ ὅσον καὶ οἶον, καὶ τὸ πάσχον ἔπασχε τοῦτο καὶ τοσοῦτον καὶ τοιοῦτον [«This, too, holds in all other businesses as well (besides the ones mentioned as examples just before). For they would have been destroyed if what and how much and of what quality one partner did (in a transaction) the other exactly underwent in kind, quantity and quality»]. - Notice that this abstract formulation does not amount to a statement of the law of equality between supply and demand in economic equilibrium. For Aristotle this law is derivative upon the more fundamental one on the value-equalization in exchange as the ultimate principle of economic activity in an open market. If the value of utilities exchanged are equal, then their quantities are determined (as is shown in the text immediately afterwards). Which means that each one party produces in equilibrium just that quantity which is sufficient to satisfy the corresponding need of the other party.
- [13] *NE*, E, 5, 1133a22-25: δεῖ τοίνυν ὅπερ οἰκοδόμος πρὸς σκυτοτόμον, τοσαυτὰ ὑποδήματα πρὸν οἰκίαν ἢ τροφήν. εἰ γὰρ μὴ τοῦτο, οὐκ ἔσται

ἀλλαγὴ οὐδὲ κοινωνία. [«Therefore there must obtain the proportionality as the builder to the leathercutter, so many pairs of shoes to a house - or (certain amount of) food. For if this is not so, there will be no exchange nor political society at all»]. And, again, 1133a31-33: ἔσται δὲ ἀντιπεπονθός, ὅταν ἰσασθῆ, ὥστε ὅπερ γεωργὸς πρὸς σκυτοτόμου, τὸ ἔργον τὸ τοῦ σκυτοτόμου πρὸς τὸ τοῦ γεωργοῦ [«Retaliation, then, will take place when the terms (i.e. utilities exchanged) have been equalised, in which case as the farmer is to the leathercutter, so the work of the leathercutter is to that of the farmer»].

It is clear that for Aristotle the *equality in value* of utilities fairly exchanged means the *inverse proportionality* of their *quantities* exchanged to the individual worth of the producers, as has been shown in the text above.

The factor $c_{\Delta T}$ in the formula signifies the ratio between the rates of issuance of their proper work on the part of B and A. Taking a time period sufficient for A to produce the unit of his work, $c_{\Delta T}$ becomes the number of units produced by B in the same period.

- [14] V. the relevant passage quoted *supra*, n. [9].
- [15] The superior upper extremity of the square figure illustrating exchange (v. n. [8]) will have both superiorities assigned to it, namely the superiority of individual worth and the superiority in exchange power of his work - which both are the same thing really in view of the law of direct proportionality between individual worth and value of corresponding work.

Thus the principle of exchange takes individuals producing their own proper work but standing in need of all other work to satisfy their diverse wants. Then a system of relative valuations can be determined for all utilities in a state of stable equilibrium.

Aristotle or Eudemus generalises the issue regarding which state, *the one before or after a transaction*, should be taken as reference in determining relevant questions of justice. In *Eudemian Ethics*, H, 10, 1243a16-31, it is examined whether the judgement of justice in disputed cases should primarily focus on how great was objectively a service offered, or, alternatively, on how much it meant to the party receiving it. Suppose, for instance, that there was some return expected for that service, but the terms of the return had not been contracted upon clearly. The core of the matter, it is noticed, has to do with whether one concentrates on the

situation before the service was offered (in which case naturally the need of the recipient is paramount) or in the state of things as they have been shaped afterwards, as a result of the acceptance of the service (when the objective weight of the good done is uppermost in one's estimation). The proposed solution stresses the importance in political society of, first, contractual agreements, and, missing them, of objective determinations - as against the precedence in ethics of intentions and mental attitudes in choices. The seeming contradiction between the emphasis on the situation antedating the transaction in the discussion of economic justice (*Nicomachean Ethics*, E, 5) and the apparent disregard in the passage here (*Eudemian Ethics*) of the particular circumstances calling forth the transaction, is easily resolved, once we notice that the present disregard has to do with abnormal situations. For instance, it is not normal that one should come to extreme danger for a small sum. One should keep to the general pattern of equilibrium, and not be led astray by extraordinary incidents. For in equilibrium there is absolute correspondence between what the one party does (and in what quantity and quality) and what the other party undergoes (similarly), according to the general principle of economic activity (of any societal activity in political society) enunciated by Aristotle (v. n. [12]).

The *Eudemian* passage runs thus: καὶ ἔχει δὴ ἀπορίαν ποτέρως δεῖ κρίνειν τὸ δίκαιον, πότερα πρὸς τὸ πρᾶγμα βλέποντα τὸ ὑπηρετηθέν, πόσον, ἢ ποῖον ἦν τῷ πεπονηθέντι. ἐνδέχεται γὰρ ὅπερ λέγει Θεόγνις:

σοὶ μὲν τοῦτο, θεά, σμικρόν, ἐμοὶ δὲ μέγα.

ἐνδέχεται δὲ καὶ τοῦναντίον γενέσθαι, ὥσπερ ἐν τῷ λόγῳ, σοὶ μὲν παιδιὰν τοῦτ' εἶναι, ἐμοὶ δὲ θάνατον. ἐντεῦθεν δ' εἴρηται τὰ ἐγκλήματα. ὁ μὲν γὰρ ἀξιοῖ ἀντιπαθεῖν ὡς μέγα ὑπηρετήσας, ὅτι δεομένῳ ἐποίησεν, ἢ τι ἄλλο τοιοῦτο, λέγων πρὸς τὴν ἐκείνου ὠφέλειαν πόσον ἡδύνατο, ἀλλ' οὐ τί ἦν αὐτῷ· ὁ δὲ τοῦναντίον ὅσον ἐκείνῳ, ἀλλ' οὐχ ὅσον αὐτῷ· ὅτε δὲ καὶ μεταλαμβάνων [καὶ] ἀμφιβάλλει. ὁ μὲν γὰρ ὅσον αὐτῷ μικρόν ἀπέβη, ὁ δ' ὅσον αὐτῷ μέγα ἐδύνατο, οἷον εἰ κινδυνεύσας δραχμῆς ἄξιον ὠφέλησεν, ὁ μὲν τὸ τοῦ κινδύνου μέγεθος ὁ δὲ τὸ τοῦ ἀργυρίου, ὥσπερ ἐν τῇ τῶν νομισμάτων ἀποδόσει. καὶ γὰρ ἐνταῦθα περὶ τούτων ἡ ἀμφισβήτησις· ὁ μὲν γὰρ ἀξιοῖ πῶς τότ' ἦν, ὁ δὲ πῶς νῦν, ἂν μὴ διείπωνται. ἢ μὲν οὖν πολιτικῇ βλέπει εἰς τὴν ὁμολογίαν καὶ εἰς τὸ πρᾶγμα, ἢ δ' ἠθικῇ εἰς τὴν προαίρεσιν.

[«And in fact, it is a puzzling question how should one judge concerning justice, whether with reference to the objective quantity of the service done or to its particular quality for him who received it. For it is

possible to say with Theognis (*Elegies*, v. 14):
 for you, Goddess, this (that I ask) is small, but for
 me great and decisive.

[Here there speaks the one who asks for a favour].

As it is also possible for the contrary to happen, as in the saying: «to you this is trifling, but for me a question of life and death». (Here the one who is asked to provide a service is meant). Indeed, it is from this source that matters of complaint (in human dealings) arise. For the one claims a recompense comparable to the magnitude of the service offered, (if, for instance, he extended it to someone begging for it and standing in great need, or found in some other distressing circumstance), weighting the service according to how much it had the power to benefit the other party, not according to what it meant for himself; while, on the contrary, the other party reckons the significance of the service relatively to the state of him who did it, and not of himself who received it. On the other hand, the puzzle may work in the opposite sense. For he who received the service may point out how little the net result was for him, while he who offered it may signal how great a thing was for him to render the service - as in the case where he benefited the other party at his own great peril but with a petty issue worth a drachma: here the giver focuses on the magnitude of the risk incurred, while the receiver on the magnitude of the money involved, as with the paying back of capital. For in this field, too, disputes arise concerning such matters: one's valuation reflects how things stood then, another's how things stand now - unless they have spelt out distinctly the terms of the deal. Now political (relating to political society) reasoning pays regard to the compact and the objective reality, while ethical discourse lays emphasis on intentions in choice»].

In fact, always, as has been observed (v. n. [12]), what the doer does, the receiver undergoes. The question concerns what is this metaphysically indissoluble bond between action and conjugate passion; and to what empirical reality does it correspond. To this issue the *Nicomachean* passage in E, 5 gives the authoritative solution, while the *Eudemian* one represents an aporetic treatment. In the passage of the *Nicomachean Ethics* corresponding to the *Eudemian* one, the rule is laid down that the service ought to be measured by the criterion of the objective benefit accruing to the receiver by its being done (*NE*, Θ, 12, 1163a9-23). For the common measure of value is need and (corresponding) *utility*. Hence the reference has to be to him who stands in need rather than to him who has (a surplus of) something which he does not (immediately) want. Even

with regard to the same individual, say the recipient of a good or service in some transaction, value is determined by his demand for the thing when he is wanting it, and not when he has got it. So, clearly, Aristotle *NE*, I, 1164b16-21: τὰ πολλὰ γὰρ οὐ τοῦ ἴσου τιμῶσιν οἱ ἔχοντες καὶ οἱ βουλόμενοι λαβεῖν· τὰ γὰρ οἰκεία καὶ ἃ διδῶσιν ἐκάστοις φαίνεται πολλοῦ ἄξια· ἀλλ' ὅμως ἡ ἀμοιβὴ γίνεται πρὸς τοσοῦτον ὅσον ἂν τάττωσιν οἱ λαμβάνοντες. δεῖ δ' ἴσως οὐ τοσοῦτον τιμᾶν ὅσον ἔχοντι φαίνεται ἄξιον, ἀλλ' ὅσον πρὶν ἔχειν ἐτίμα ["For most things are not valued equally by those who possess them and by those who want to get them. For to each, what are their own and what they give appear to be of great value. Nevertheless, payment (exchange) is determined by the estimate of the recipient. For prices must not be set at the valuation of one who possesses something, but rather at the valuation of him when he was wanting it, before he got it"]. The consumer (and borrower) sets the conditions in economic dealings; but only because need (and utility) measures value.

We may take this opportunity to clarify matters and dismiss another frivolous criticism addressed wholesale against ancient Greek economic thinking. Price (τιμῆ) and value (ἄξια) are distinguished in the above quoted passage from the *Nicomachean Ethics*, and yet considered as categorially equivalent. And indeed price is value expressed in a given unit of measurement. As much (or as little) "subjective" value can be, so is price - one prices things according to one's valuation of them. But of course in a market values and (their expressions:) prices of goods and services are unitary: there is one price, reflecting a certain measurement of value, for every single thing at any given moment of time. This is of the essence of a market. Aristotle not only takes account of this fact, but also supplies an ulterior explanation of its obtaining beyond mere generalised descriptions of the proximate processes through which it is established (the "higgling" of the market; "tâtonnement"). Ultimately, as we shall see, the unicity of price-value depends not on accidental aggregates and statistical averages, but on the stabilising necessary reference to human nature and its hierarchy of needs, wants and desires. But even without that, the Aristotelian analysis of exchange concentrates on the equivalence of quantities of unhomogeneous things. And what amount of which commodity enters into exchange is another way of speaking about its price (cf. Menger's concise formulation in n. [9]). Besides, what else is the universal measurement of all utilities in terms of money-currency (on which again Aristotle expatiates), but their price?

It is astounding in the face of all this to recklessly proclaim that “...the most fundamental question of substance in this material is the failure of the Ancient Greeks even to advance a theory of general market price. This is remarkable in view of the many urban centers we know existed in classical times which were completely dependent upon trade. One reason for the absence of a market theory was that it appears that either government regulation of prices or private monopoly was more characteristic of trade in uniform commodities like grain than was a free market... the individual bargain was more likely to characterise trade than general market price” (S. Todd Lowry, v. *infra* n. [45]).

This is monstrous. It is also contradictory. Either administrative regulation and private monopolies set the price, or accidental individual bargain - not both. (The distinction between standardised commodities and “unique goods” which Lowry institutes, breaks down in the context of classical economy and will not relieve the incompatibility noticed. Were vases standardised or unique? If the former, their prices would have had to be set “administratively”, which they were not; if the latter, what was standardised excepting corn?). In fact, neither of the two extremes normally existed, nor could it exist in a developed economy: prices were determined in an open and transparent market, more economically free than any contemporary one at the end of the second millennium of our era. (The facts will be detailed in volume III of the present work). On *administrative regulation*, v. *infra* n. [45].

- [16] The question of notions of justice associated to specific interests is broached in the *Eudemian Ethics* (H, 10, 1242b2-21) in connection with the subject of friendship. Political society rests, in a certain sense, on a form of friendship (since there exists a bond of cohesion in it) built upon *utility* (1242a1-2; 6-7) and thus possessing the norm of proper *justice* (1242a11-12): *μάλιστα δὲ δίκαιον τὸ ἐν τῇ τῶν χρησίμων φιλίᾳ, διὰ τὸ τοῦτ' εἶναι τὸ πολιτικὸν δίκαιον* [«justice par excellence exists in the friendship of usefulness, for this is civil justice»]. Again and again we meet the crucial point: *the bond of society is founded on (mutual) utility and interest.*

The basic division in human nature and, consequently, in political society is the one between superiority and inferiority, between excelling and being excelled (in some respect or in total human perfection). Correspondingly, one may envisage distinct understandings of justice. Thus, even despite agreement as to the essential proportionality (or

weighted equality) of justice, one may discern disagreement between the specific conceptions of justice from the point of view of the excelling party and of that surpassed. In the aforementioned Eudemian passage there is explicit mention of how the excelling and the excelled parties construe a fair exchange. The former is here declared to opt for what in the Nicomachean analysis is simple and genuine economic justice, namely the one based on the principle of inverse proportionality between exchanged utilities and individual worth. It is thus here disregarded the extreme case mentioned there, which would make effectively the exchange to proceed proportionately to the second power of individual worth, increasing thereby the distance of value between the possessions of the parties involved. Furthermore, it is observed that justice from the point of view of the party excelled consists in a *turning around of proportionality*. This must be taken to mean the change from *inverse* to *direct* proportionality as the appropriate principle of justice in exchange. We would then obtain the results arrived at in the text above. These are stated to constitute a diminution in the rights of the excelling party, which have to be balanced by the superaddition of another kind of benefit, namely honour or status (noninstitutional authority). The passage (which suffers from a number of confusions bespeaking the pupil's hand) runs thus (with the commission of a consideration of numerical and proportional equality): *ἐν μὲν τῇ καθ' ὑπεροχὴν (sc. φιλίᾳ) ἀξιοῦται τὸ ἀνάλογον, ἀλλ' οὐχ ὡσαύτως· ἀλλ' ὁ μὲν ὑπερέχων ἀνεστραμμένως τὸ ἀνάλογον, ὡς αὐτὸς πρὸς τὸν ἐλάττω, οὕτω τὸ παρὰ τοῦ ἐλάττονος γινόμενον πρὸς τὸ παρ' αὐτοῦ, διακείμενος ὡσπερ ἄρχων πρὸς ἀρχόμενον· ...ὁ δ' ὑπερεχόμενος τοῦναντίον στρέφει τὸ ἀνάλογον, καὶ κατὰ διάμετρον συζεύγνυσιν. δόξειε δ' ἂν οὕτως ἐλαττοῦσθαι ὁ ὑπερέχων καὶ λειτουργία ἢ φιλία καὶ ἡ κοινω- νία. δεῖ ἄρα τινὶ ἑτέρῳ ἀνισάσαι καὶ ποιῆσαι ἀνάλογον. τοῦτο δ' ἐστὶν ἡ τιμὴ, ὅπερ καὶ τῷ ἄρχοντι φύσει καὶ θεῷ πρὸς τὸ ἀρχόμενον. δεῖ δὲ ἰσασθῆναι τὸ κέρδος πρὸς τὴν τιμὴν.* [«For in friendship (bond) determined according to excellence, proportionality holds sway - but not in the same way. In fact, the excelling party upholds inverse proportionality (in exchange), i.e. as he is to the lesser one so is the produce of the lesser one to the produce of himself; in this way his attitude being like the ruler's towards the ruled one... On the other hand, the party excelled reverses the proportion, and joins the terms diagonally. Now it would appear that in this way the superior party suffers diminution, and that friendship and civil society become thus a public office and liability at one's own cost. In which case the imbalance must be

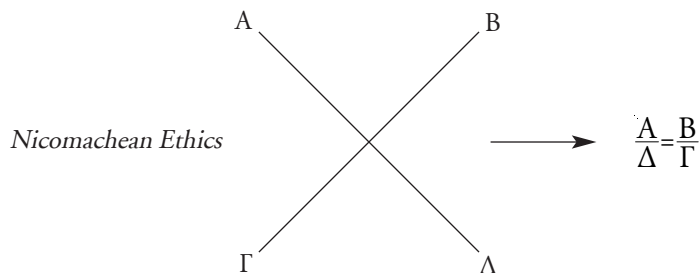
equalised by means of something else so that true proportionality may be restored. And this is honour (status), which is by nature due to the ruler and to God from the ruled one. Which means that gain (according to the lesser party as a result of such construal of fairness in exchange of utilities) must be equalised with regard to honour (bestowed on the surpassing party)]. The parallel passage in the *Nicomachean Ethics* (Θ, 14, 1163a24-b14) represents a smoother running of the same course, without, however, reference to the alternative principles of justice conceived from the point of view of the excelling and excelled parties. The more pregnant Eudemian treatment is, on the other hand, blurred by some confusions and opacities. One has been noticed already (concerning the misleading identification of justice according to the superior interest with genuine economic justice). Another is to be noticed regarding the «diagonal conjugation». This is in *Nicomachean Ethics* correctly taken to characterise true economic (commutative) justice, which is here ascribed to the justice of the superior. But the meaning here is literal and not technical. What is meant is that, whereas in the idea of justice described firstly (inverse proportionately) the formula is

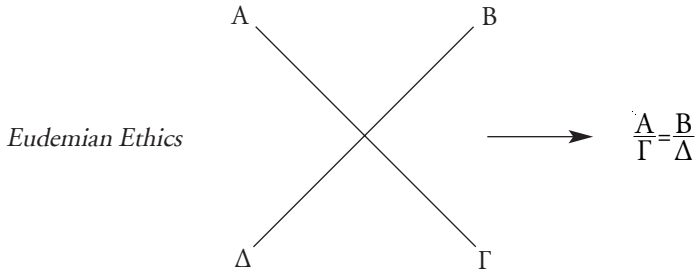
$$\frac{A}{\Delta} = \frac{B}{\Gamma}$$

in the type mentioned afterwards (direct proportionality) the formula becomes

$$\frac{A}{\Gamma} = \frac{B}{\Delta}$$

We have in other words an inversion of the inverse proportionality. Schematically the *Nicomachean* and *Eudemian* formulations may be represented thus:

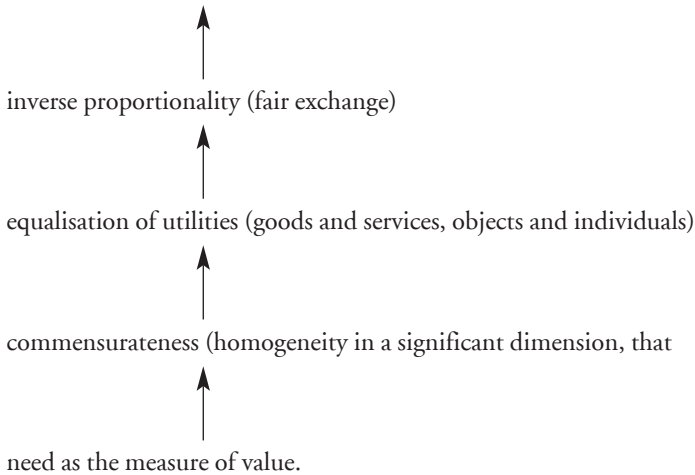




which latter proportion brings us back to the initial schema (of distributive justice).

- [17] Everything, all individual characters and skills of human nature and all kinds of their work, all goods and services, all utilities in general, have somehow to be equalised if there is going to be civil society. *The foundation of political association is economical.* Professions, artisanships, men and their work, must be equalised: *NE*, E, 5, 1133a18: ἀλλὰ τούτους δεῖ ἰσασθῆναι [«but all these (sc. e.g. physicians and farmers) should be equalised»]. In general (1133a19): διὸ πάντα συμβλητὰ δεῖ πως εἶναι, ὅν ἐστὶν ἀλλαγῆ [«Therefore, all things which can be exchanged need to be commensurate»]. The important sequence of presuppositions (or, taking them in the opposite sense, derivations) stated in the main text above can be schematically represented thus:

stable exchange as bond of cohesion in civil society



NE, E, 5, 1133a22-28: δεῖ τοίνυν ὅπερ οἰκοδόμος πρὸς σκυτοτόμον, τοσαυτὰ ὑποδήματα πρὸς οἰκίαν ἢ τροφήν. εἰ γὰρ μὴ τοῦτο, οὐκ ἔσται ἀλλαγὴ οὐδὲ κοινωνία. τοῦτο δ', εἰ μὴ ἴσα εἶη πως, οὐκ ἔσται. δεῖ ἄρα ἐνὶ τινὶ πάντα μετρεῖσθαι, ὥσπερ ἐλέχθη πρότερον. τοῦτο δ' ἐστὶ τῆ μὲν ἀλήθεια ἢ χρεία, ἢ πάντα συνέχει· εἰ γὰρ μὴθὲν δέοιντο ἢ μὴ ὁμοίως, ἢ οὐκ ἔσται ἀλλαγὴ ἢ οὐχ ἢ αὐτῇ [«and, thus, as is the builder to the shoemaker, so there must be so many shoes to a house or (the unit of) food. For if this is not so, there will be no exchange or civil association (society); and it will not be so, unless they are (all) equated in some way. So, as was said previously, everything must be measured by some one single standard. And this is in truth need, which holds everything together (in human society). For if people needed nothing, or their pattern of needs was different, then there would be no exchange (in the former case), or it would be of a different kind (in the latter one)»]. For real exchange to exist at all, need as the common denominator of all human action is required; for a particular exchange - equivalence to exist, the ratio of the respective needs must be of a certain definite determination.

Similarly in 1133b6-10: ὅτι δ' ἡ χρεία συνέχει ὥσπερ ἐν τι ὄν, δηλοῖ ὅτι ὅταν μὴ ἐν χρεία ὦσιν ἀλλήλων, ἢ ἀμφοτέροι ἢ ἄτερος, οὐκ ἀλλάττονται. ὥσπερ ὅταν οὐ ἔχει αὐτὸς δέηται τις, οἶον οἴνου, διδόντες σίτου ἐξαγωγῆν. δεῖ ἄρα τοῦτο ἴσασθῆναι [«And what makes it clear that it is need which holds political society together like being its principle of unity, is the fact that when one or both of the parties involved have no need of the other, there is no exchange taking place - contrary to what happens when someone has what someone else lacks, such as wine (this latter), granting, then, for it an export of grain. *Objects of need are, thus, what are equalized*»].

- [18] Aristotle, *De Generatione et Corruptione*, B, 6, 333a20-23: εἰ μὲν οὖν κατὰ τὸ ποσόν (sc. συμβλητά), ἀνάγκη ταυτὸ τι εἶναι ὑπάρχον ἅπασιν τοῖς συμβλητοῖς ᾧ μετροῦνται, οἶον εἰ ἐξ ὕδατος κοτύλης εἶεν ἀέρος δέκα· τὸ αὐτὸ τι ἦν ἄρα ἄμφω, εἰ μετρεῖται τῷ αὐτῷ. [«if things are commensurable in quantity, there must needs exist in all of them something identical by means of which they all get measured, like if to a certain measure of water there corresponds a tenfold measure of air. For then there was something identical in both, if they are both measured by one and the same standard»].

[18a] It is to put the cart before the horse if one were to maintain with Walras that the origin of value lies in scarcity (v. L. Walras, *Elements of Pure Economics or the Theory of Social Wealth*, tr. by W. Jaffé, 1984², p. 201; cf. the entire Lesson 16, pp. 201-207). Not even the scarcity of things useful will do as a foundation of value (Burlamaqui's formulation, quoted by Walras, pp. 203-4). Value is measured by utility; and utility is inseparably conjugated to human need, want or desire. Where there is no need, there is no utility. For human nature, air, for example, is absolutely indispensable, for its very existence. But for an individual human being, there is no need of *extra* air, as there is plenty of it immediately available. The marginal utility of air is, therefore, nil. And so is its value. The pure doctrine of utility suffices to account for value. Rarity affects utility and, thus, value.

Aristotle explicitly observes the ordinary distinction in value between the scarce and what is eminently useful in itself. Thus, *Ars Rhetorica*, A, 7, 1364a23-30: καὶ τὸ σπανιώτερον τοῦ ἀφθόνου (sc. μείζον ἀγαθόν ἐστι), οἷον χρυσὸς σιδήρου, ἀχρηστότερος ὢν· μείζον γὰρ ἢ κτήσις διὰ τὸ χαλεπωτέρα εἶναι· ἄλλον δὲ τρόπον τὸ ἀφθονον τοῦ σπανίου, ὅτι ἡ κρήσις ὑπερέχει· τὸ γὰρ πολλάκις τοῦ ὀλιγάκις ὑπερέχει, ὅθεν λέγεται ἄριστον μὲν ὕδωρ.

καὶ ὅλως τὸ χαλεπωτέρον τοῦ ῥάονος· σπανιώτερον γάρ· ἄλλον δὲ τρόπον τὸ ῥᾶον τοῦ χαλεπωτέρου· ἔχει γὰρ ὡς βουλόμεθα [“and the more scarce (is a greater good, i.e. has greater value) than what is abundant, as gold in relationship to iron, being all the same less useful; for its possession is (considered) a greater thing, as it is more difficult to be obtained. It is in another sense that what is plentiful (is a greater good, has greater value) than the rare thing, in that it surpasses this latter in use(fulness); for frequent use outstrips the sparse employment, whence it is said:

water is of supreme excellence (Pindar).

And more generally, (in one sense) what is more arduous (is a greater good, has greater value) than what is facile; for it is scarcer. But in another sense it is the handy (which is a greater good, has greater value) than the more difficult; for this is (more easily) amenable to our will”. And similarly (*op.cit.*, 1365a4-6): καὶ ὅτε μὲν οὐ πάντες μετέχουσι μείζον· ἀτιμία γὰρ τὸ μὴ μετέχειν· ὅτε δὲ οὐ ὀλίγοι· σπανιώτερον γάρ [“and in other cases a greater good is that in which all partake; for not to participate is then dishonourable; but in other cases that is greater in which noone or few partake; for it is more scarce”].

But although Aristotle is fully conscious of this interplay between utility and scarcity in ordinary terminology, he is far from projecting it into his scientific analysis of exchange in the manner, say, of Galliani (“Value then is a ratio; and this is compounded of two ratios, expressed by the names *utility* and *scarcity*”) or Walras. The reason being the aforementioned incorporation of scarcity into utility by the attachment of the latter to particular items of goods (and services). We shall see that, ultimately, value, for Aristotle, consists in human ability (as applied knowledge); so that what is more scarce is also more useful, i.e. a higher degree of knowledge. (And this is reflected in Galiani’s theory of *fatica* as constitutive of value. It generally appears that the older Italian School of Economics was often nearer to the Aristotelian positions, no doubt by reason of the impact of Renaissance).

- [19] *NE*, E, 5, 1133a19-22: διὸ πάντα συμβλητὰ δεῖ πως εἶναι, ὧν ἐστὶν ἀλλαγὴ, ἐφ’ ὃ τὸ νόμισμ’ ἐλήλυθε, καὶ γίνεται πως μέσον· πάντα γὰρ μετρεῖ, ὥστε καὶ τὴν ὑπεροχὴν καὶ τὴν ἔλλειψιν, πόσα ἅτα δὴ ὑποδήματ’ ἴσον οἰκία ἢ τροφῆ [«And, thus, all things of which there is exchange must be commensurable (comparable) in some way. For this precisely reason money came into being, and is somehow a mean. For it measures all things (everything), hence also their excess and deficiency (superiority and inferiority), such as how many shoes are equal to a house or to (a certain amount of) food»]. Money as a *measure of exchanging power* is a sort of mean between more and less in the quantity of exchanged utilities; it is a *standard of weighted equality in exchange* - a *measure of value*. And so clearly a little below, 1133b14-18: διὸ δεῖ πάντα τετιμηῆσθαι οὕτω γὰρ αἰεὶ ἔσται ἀλλαγὴ, εἰ δὲ τοῦτο, κοινωνία. τὸ δὴ νόμισμα ὡς περ μέτρον σύμμετρα ποιῆσαν ἰσάζει· οὔτε γὰρ ἂν μὴ οὔσης ἀλλαγῆς κοινωνία ἦν, οὔτ’ ἀλλαγῆ ἰσότητος μὴ οὔσης, οὔτ’ ἰσότης μὴ οὔσης σύμμετριάς [«So all things must be evaluated, for in this way exchange will always obtain, and if this happens, there will be civil association (society). Money is in fact a kind of measure which by making things commensurable, reduces them to (weighted) equality. For neither there would be political society without exchange, nor exchange without equalisation (of the unhomogeneous disparity of things, of goods and services), nor equalisation without commensurateness»].

Enblematically, Aristotle, and pithily expressed the basic function of money; *NE*, E, 5, 1133b22: μετρεῖται γὰρ πάντα νομίσματι [“for all things are measured by money”]. *Νόμισμα* is money as currency, a

definite standard of value, (entailing a universal unit of measurement for utilities, for things as objects of use), which is embodied in some object and thus also serves as means of exchange. So also *NE*, I, 1163b32-1164a2: Ἐν πάσαις δὲ ταῖς ἀνομοιοειδέσι φιλίαις τὸ ἀνάλογον ἰσάζει καὶ σῶζει τὴν φιλίαν, ..., οἷον καὶ ἐν τῇ πολιτικῇ τῷ σκυτοτόμῳ ἀντί τῶν ὑποδημάτων ἀμοιβὴ γίνεται κατ' ἄξιαν, καὶ τῷ ὑφάντῃ καὶ τοῖς λοιποῖς. ἐνταῦθα μὲν οὖν πεπόρισται κοινὸν μέτρον τὸ νόμισμα, καὶ πρὸς τοῦτο δὴ πάντα ἀναφέρεται καὶ τούτῳ μετρεῖται [“In all unhomogeneous bonds of affiliation (friendships), proportionality equalises (the diversity of the parties engaged in it) and preserves the bond (the friendship)... like in the political bond of association (in the friendship of the political society) to the leathercutter there is provided a return in exchange for (his) shoes according to worth (value), and so to the weaver and to all others. Now in this case common measure is available, the currency, and everything is referred to it, and is measured by it”].

Quite generally, *Politica*, A, 1257b22-3: τὸ γὰρ νόμισμα στοιχείον καὶ πέρασ τῆς ἀλλαγῆς ἔστιν [“for currency is both the element and the formative principle of exchange”]. It is an element because the exchange in a developed economy transpires by its means. It is the formative principle (Aristotle habitually contrasts an element, as material principle, to form) because money measures everything according to its value and thus constitutes exchange as a *definite* transference of utilities.

[20] To show this, take all equivalences of relative value in a stable system of exchange, a free and open market for all commodities and services. Suppose that utility u_i has a unit 1_i and utility u_j a unit 1_j . The equivalence of relative value between u_i and u_j will consist in an equilibration of definite quantities of the two utilities, which can be put in the form, say, n_{ji} of u_j for n_{ij} of u_i , i.e.

$$n_{ij} 1_i = n_{ji} 1_j \quad (a)$$

Such are peculiar equalities, as Aristotle himself explicitly observes. But taking all these putative equalities, for all utilities available in the system (i.e. for all things satisfying all human needs), we can find the utility of minimum unit-value (the one, say $\overline{1}_x$, with the greatest n in the complete set of equations (a)), and then all those equalities can be expressed in terms of $\overline{1}_x$ as:

$$1_i = n_{xi} \overline{1}_x \quad \text{for all } i.$$

The value of \bar{T}_x is a natural, and not conventional, measure of value for the entire system, given the units for all utilities involved. Of course, one can still adjust the unit of account higher or lower, but thereby an innocuous conventionality is created.

- [21] On the conventionality of money (as currency, i.e. as universal standard of value defining a unit of measurement and account and also serving as a means of exchange being embodied in some object), see *NE*, E, 5, 1133a30-b1: καὶ διὰ τοῦτο τοῦνομα ἔχει νόμισμα, ὅτι οὐ φύσει ἀλλὰ νόμῳ ἐστὶ, καὶ ἐφ' ἡμῖν μεταβαλεῖν καὶ ποιῆσαι ἄχρηστον [«And it is for this very reason (i.e. that it is by convention that it comes to be *ὑπάλλαγμα τῆς χρείας*, v. next note) that money bears the name *νόμισμα* (from *νομίζω*, deem, consider and *νόμος*, law, custom, regulation), because it does not exist by nature but by position (by positive enactment or law and custom), and because it is in our power to change it *and make it useless*»].

And more emphatically in *Politica*, A, 9, 1257b10-17: *ὅτε δὲ πάλιν λῆρος εἶναι δοκεῖ τὸ νόμισμα καὶ νόμος παντάπασι, φύσει δ' οὐθέν, ὅτι μεταθεμένων τε τῶν χρωμένων οὐθενὸς ἄξιον οὔτε χρήσιμον πρὸς οὐδὲν τῶν ἀναγκαίων ἐστὶ, καὶ νομίσματος πλουτῶν πολλάκις ἀπορήσει τῆς ἀναγκαίας τροφῆς· καίτοι ἄτοπον τοιοῦτον εἶναι πλούτον οὐ εὐπορῶν λιμῶ ἀπολείται, καθάπερ καὶ τὸν Μίδα ἐκείνον μυθολογοῦσι διὰ τὴν ἀπλησίαν τῆς εὐχῆς πάντων αὐτῷ γιγνομένων τῶν παρατιθεμένων χρυσῶν* [«again money appears in different contexts to be a mere trash and a convention through and through, nothing indeed existing by nature; and this because, should the people employing it give it up and adopt another (standard of value), it becomes worth nothing and nothing useful with a view to acquiring the necessities of life - in a way that one may lack the means of essential sustenance even in the midst of an abundance of currency (if the commodity used for means of exchange loses this function and is demonetised). Although it is absurd that wealth should consist in such a thing (sc. currency), whose plenty may not prevent one from perishing of starvation - as they say in myths about Midas, that because of his insatiate desire expressed in a wish, everything with which he was served up turned to gold»]. The point is, to repeat once more, that *the monetary function adds utility and value to monetised commodity, which is lost upon demonetization*. Then the former money-commodity can enter in exchange only on terms of barter, or against the new standard of value as a concrete commodity; upon conditions of great

need for staple food, the demonetised commodity may command extremely low corresponding purchasing power.

An extraordinary amount of confusing controversy has been waged concerning the Aristotelian thesis that currency (*νόμισμα*) is conventional, and that its value can be cancelled by demonetization. It has been thought that this directly contradicts the reality of a commodity-money which Aristotle (contrary to Plato, v. Chapter 1) clearly envisaged. And yet the simple solution to the nonexistent problem is of a conceptual order: the value of currency consists primarily in its use as means of exchange; and it is a matter of stipulation what shall serve as circulating medium. Thus, very clearly, R.G. Hawtrey, *Currency and Credit*, 1928³, p. 201: "In short, gold is a standard only a degree less artificial than paper money, and artificial for the same reason - that its value is in part a consequence of its legal or conventional characteristic of discharging debts. But it differs from paper in two respects, in that it has some value otherwise than as currency, and that its value as currency is recognised in the world market without regard to national frontiers". (The importance of this latter respect in the origination and development of ancient monetary economy will be shown in the subsequent volumes of this work).

For the antithesis between nature (*φύσις*) and positive law (*νόμος*) v. Plato, *Laws*, 889e-890a. For the Socratic obedience to the laws, despite their mutability cf. Xenophon, *Memorabilia*, IV, 4, 14, and, of course, his notorious apology in support of this thesis in the Platonic *Crito*.

- [22] Following the passage above quoted in n. [17] where Aristotle declares need to be the common measure of all things, of their value and utility, he goes on (*NE*, E, 5, 1133a28-9): *οἶον δ' ὑπάλλαγμα τῆς χρείας τὸ νόμισμα γέγονε κατὰ συνθήκην* [«and so in fact money came into existence as a result of a convention, like a pledge or security of utility (against want)»]. It may well be that *ὑπάλλαγμα* here does not bear the technical signification, but carries only its strict and common sense, meaning representative or substitute, as in Theophrastus apud Porphyry, *De Abstinence (On Abstinence from Eating Living Beings)*, II, 27. In this case, *ὑπάλλαγμα τῆς χρείας* could merely mean a substitute and representative of need in measuring all kinds of utilities. But then, we would be still staying with the notion of money defined primarily as a *measure of value*, since Aristotle could not then have introduced thereby the function of money as actual *means of exchange*. *For the measure of*

value (as has been explained already) is not conventional, or, at least not conventional in the same way that the means of exchange is. Whereas with regard to the definition of money in the passage above, Aristotle emphasises the fact that it has a clearly compactual nature (*κατὰ συνθήκην*), which he further specifies in the immediate sequel (1133a30-b1), a statement quoted above in n. [21].

As has been explained above, the measure of value is conventional in a weak sense, if at all, while the means of exchange is so in a significant and strong sense. Since in the passage Aristotle emphasises the conventionality (*κατὰ συνθήκην*) and the uselessness incurred by a demonetised commodity (*ποιῆσαι ἄχρηστον*), it is fair to conclude that here money is taken for currency, in the sense of the second monetary function. Therefore if *ὑπάλλαγμα* means simply substitute here, the sense must be strengthened to signify an actual substitute or *representative of demand for utilities* with a view to *satisfying needs*. The context is probably pointing in this direction, since the question there is of need as common measure of all disparate, unhomogeneous goods and services.

On the other hand, *ὑπάλλαγμα* may carry its more technical legal sense, meaning pledge or security. Phrynichus, indeed, is condemning, on puristic reasons, such usage, but his testimony confirms its acceptance. In his extant grammatical remarks on *Attic Words*, he observes no. 274 (Fischer p. 89): *ὑπάλλαγμα ἀμαθῶς τινες ἀντὶ τοῦ ἐνέχυρον λέγουσι* [«some say *ὑπάλλαγμα* unlearnedly instead of pledge, security»]. And in *Anecdota Graeca*, Bekker 423.12, one notices the widespread usage of the word to signify a pledge received against the dowry given in matrimony. Similar uses are clearly testified from the inscriptions, in connection, for example, with mortgaged property.

All in all, however, I prefer to take the word in this passage to refer to a general substitute of need and utility as measure of value and calibrating parameter of all things. The reference to the future implicit in the notion of pledge and security is explicitly mentioned by Aristotle in connection with money in his third passage, on monetary issues, to be found in *NE*, E, 5 (see. n. [42]). Of course, on the other hand, the future may here be involved implicitly.

[23] The Peripatetic *Magna Moralia* recapitulates the nature of this monetary function in A, 33, 1194a18-25: *ἐπεὶ δὲ ὁ οἰκοδόμος πλείονος ἄξιον ποιεῖ τὸ αὐτοῦ ἔργον ἢ ὁ σκυτεὺς, καὶ ἦν ἔργον ἀντικαταλλάττεσθαι [καὶ] τῷ σκυτεῖ πρὸς τὸν οἰκοδόμον, ἀνθ' ὑποδημάτων δ' οὐκ ἦν οἰκίαν λα-*

βείν, ἐνταῦθα ἤδη ἐνόμισαν, οὐ ταῦτα πάντα ὠνητά ἐστιν, ἀργύριον προσαγορεύσαντες νόμισμα, τούτῳ χρῆσθαι, καὶ τὴν ἀξίαν ἐκάστου δίδοντας τὴν ἄλλαξιν ποιεῖσθαι παρ' ἀλλήλων, καὶ τούτῳ τὴν πολιτικὴν κοινωνίαν συνέχειν. [«And because on the one hand the builder's work has more value than the leatherscutter's, and on the other it was difficult for the leatherscutter to exchange work with the builder, as it was in fact not possible to buy a house with shoes, under such conditions people thought and stipulated to use (in exchange) that thing by which all these things can be bought, namely silver coinage calling it «nomisma» (an observance or custom or stipulation); and to transact the business of exchange with one another by giving the value of each thing - and by this means to keep together the political association (civil society)»].

The impracticability of exchanging all goods by barter (for instance in the case of large difference in value of the objects which the parties want to mutually transfer to each other), leads to the introduction of an appropriate commodity as universal means of exchange. It must be something by means of which all objects of human need can be conveniently bought. Characteristics of *durability*, *homogeneity*, and thus unhindered *divisibility*, and *valuability* are required, as well as relative *facility* of access to sources of it, or in general *availability* and *portability*. Silver, in the case of Greece, answered to these conditions pretty nicely. As Plutarch observed (*Phocion*, V, 3): ἡ τοῦ νομίσματος ἀξία πλείστην ἐν ὄγκῳ βραχυτάτῳ δύναμιν ἔχει [«the value of currency has the greatest (exchange) power (of worth) in the least weight»]. This makes it a suitable means of exchange for all available utilities.

The convenience and practicability of a suitable means of exchange in general and common use, becomes imperative necessity where foreign trade is concerned. For things differ greatly in *portability*, natural necessities included. Thus in his *Politics*, Aristotle ascribes the genesis of money to external commerce. In the house economy and the economy of small or undeveloped communities, monetary economy, he argues, is not required: for in the former case no exchange really happens as all produce lies in common use for the members of the household according to their diverse needs; while in the latter, barter can sufficiently supply what is missing from the household production. And then, with the increase and development of civil commonwealth, there comes the need for foreign trade; *Politica*, A, 9, 1257a31-35: ξενικωτέρας γὰρ γενομένης τῆς βοήθειας τῷ εἰσάγεσθαι ὧν ἐνδεεῖς ᾗσαν καὶ ἐκπέμπειν ὧν ἐπλεόναζον, ἐξ ἀνάγκης ἢ τοῦ νομίσματος ἐπορίσθη χρήσις. οὐ γὰρ εὐβάστακτον

ἕκαστον τῶν κατὰ φύσιν ἀναγκαίων [«when people began to help themselves more from foreign sources, by importing what they lacked and exporting what they had in plenty, then by necessity the use of money was provided. For not all natural necessities are easily portable»]. Similarly, the historian Ephorus held that the first coinage was struck in Aegina because the little island-State became an early trading-station; Strabo, VIII, 376C = Fr.Gr.H. 70F 176: "Ἐφορος δ' ἐν Αἰγίνῃ ἄργυρον πρῶτον κοπήναι φησιν ὑπὸ Φεΐδωνος· ἐμπόριον γὰρ γενέσθαι, διὰ τὴν λυπρότητα τῆς χώρας τῶν ἀνθρώπων θαλαττουργούντων [«In fact Ephorus maintains that silver coinage was first struck in Aegina by Pheidon (he locates this Argive leader at about 750 B.C., cf. Fr. 115 p. 72.20 Jacobi). For Aegina became a trading center, as the people turned to the sea-businesses on account of the poor quality of their land»]. But this is an explanation for the historical origin of money under conditions of distant transactions, and does not contradict the essential nature and purpose of money (currency) as a convenient, common means of exchange for all transactions in a developed market economy, whether within a State or interstitial. Currency came into being for the sake of exchange in general (*Politica*, A, 10, 1258b4: μεταβολῆς γὰρ ἐγένετο χάριν).

The historical genesis of currency in ancient economy will be the subject of the second volume of the present work.

[24] V. Chapter 1, *supra*.

[25] It is only apparently inconsistent with the view elaborated in the text what Aristotle writes in *Politica*, A, 9, 1257a35-41: διὸ πρὸς τὰς ἀλλαγὰς τοιοῦτον τι συνέθεντο πρὸς σφᾶς αὐτοὺς διδόναι καὶ λαμβάνειν, ὃ, τῶν χρησίμων αὐτὸ ὄν, εἶχε τὴν χρεῖαν εὐμεταχειρίστον πρὸς τὸ ζῆν, οἷον σίδηρος καὶ ἄργυρος κἂν εἴ τι τοιοῦτον ἕτερον, τὸ μὲν πρῶτον ἀπλῶς ὀρισθῆν μεγέθει καὶ σταθμῷ, τὸ δὲ τελευταῖον καὶ χαρακτηριστὴρα ἐπιβαλλόντων, ἵνα ἀπολύσῃ τῆς μετρήσεως αὐτοῦς· ὁ γὰρ χαρακτήρ ἐτέθη τοῦ ποσοῦ σημεῖον. [«Hence, people adopted by convention, with a view to all kinds of exchange, such a thing to give and take in their mutual transactions, which, being intrinsically useful, possessed utility of a kind easily manageable and turned to service for the end of life - like iron and silver or what else is similar; and this thing *originally* was simply delimited by size and weight, but in the end people placed upon it a stamp *in order to free themselves from the necessity of measuring. For the stamp was imposed as a sign of quantity*»].

Now iron is, indeed, directly and exceedingly useful per se for the requirements of life, while the usefulness of silver resides principally in the aesthetic satisfaction caused by objects shaped from it. It is certainly doubtful whether such aesthetic utility can be properly said to be something easily handled for the purpose of life, but Aristotle seems to concentrate on general *ease in use* as a chief condition in endowing a commodity with monetary function. Both, therefore, iron and silver carry in this respect great intrinsic value - which fact Aristotle here emphasises in accounting for the selection of these commodities as currencies. And this seems to contradict my analysis in the text above to the effect that the monetary utility of the currency is distinct from its utility as the particular commodity that it is. But in resolving this crux notice, *first*, that the physical qualities of a commodity which render it appropriate to play the role of currency (durability, homogeneity, malleability, divisibility) are also of significant utility in real non-monetary functions into which it can be put. Thus the distinction does not amount to segregation as it involves actual interfusion. But in particular notice, *secondly*, that Aristotle expresses the view regarding the real utility of the money-commodity in the direct usages of life, in connection with the introduction of a suitable means of exchange for purposes of *external trade*. (The present passage follows immediately the one quoted in n. [23]). Evidently, the commerce between people not integrated into the same political association, or not belonging to States with systematic and strong economic ties, and lying distantly apart (in the various senses of the word), requires as means of exchange something of great intrinsic value. For, otherwise, the credit that is involved in the monetary aspect of the commodity-currency goes unsecured and the corresponding pledge is unenforceable and void. Which means that the monetary function of the currency as *acceptable* means of exchange virtually collapses.

In the context of the societal integral, the financial value of the currency may be widely and wildly higher than its real utility as a particular commodity. This surplus of value is drawn proximately and institutionally upon the trustworthiness of the State; but ultimately and essentially upon the need (demand vis-à-vis a certain supply) for currency. And this need is, *in general*, independent from the specific need satisfied by the currency as a particular commodity. Although physical characteristics of the commodity that render it suitable as a vehicle of monetary functions, are necessarily involved in its real nonfinancial utility as a direct fulfiller of specific human wants.

The increase in value of a commodity upon its being stipulated as money-commodity has been observed by Walras (*op.cit.* p. 330): “The attribution of a monetary role to a commodity raises the price of the money commodity above what it would have been without the monetary attribute”. This is indeed as good as a natural law. The confusion in the minds of those who would (with understandable bias) separate sharply a developed classical economy (primarily the Athenian one) from modern economies by (among other things but principally) denying its full monetary character including an eminently grown financial sector (of “primitivists”, that is, of various hues), can be seen from Finley’s amazing statement (of self-declared importance): “It is not easy for anyone living in a western capitalist country today to grasp properly the functioning of a money-using society in which money was essentially coined metal and nothing else, in which in particular there was no fiduciary money (which is different from base metal circulating at conventional values, as tokens) and no negotiable paper”. M.I. Finley, *The Ancient Economy*, 1985², p. 196. Now by minting, say, silver, one creates much more than merely “coined metal and nothing else” - whatever this aphorism may mean. The difference does not lie in subjective intensions but in objective functions. Coinage supplied a common and uniform means of exchange and thereby naturally attributed the three monetary functions in combination to one money-commodity. Things could not be the same any more. The supply of currency created significantly additional demand for the money-commodity far beyond its previous level when it was only a concrete commodity. This in itself imports a fiduciary component into the commodity-money: the value of currency now involves over and above its value as mere commodity, the value answering to its utility as means of exchange, and this is a utility *created stipulatively*, by *fiat*, and not existing by reason of the natural constitution of the commodity itself alone, as a concrete commodity. This consideration assimilates the commodity-money of a developed classical economy (preeminently the Athenian) to paper money pegged effectively, e.g., to gold through an arrangement of strict convertibility. Cf. n. [21] *supra*, and Hawtrey quoted there. (Furthermore, there were cases in antiquity of virtually fully fiduciary money, of which more in the second volume of this work). What is extremely important is that both the Platonic (v. Chapter 1) and the Aristotelian (as presented in this Chapter) theory of money emphasise its stipulative, and hence fiduciary, nature; and this is inescapably deduced from the analysis of exchange. Finley’s dismissal of token money

consisting in debased metal circulating at conventional rates only highlights the point: this is a petty (even if exercised on grand scale) case of *fraud*, since the debased currency circulated *in lieu* of the genuine item. But the fraud would not matter considerably, and would thus remain in the eye of the beholder only, if the quantity of circulating money was not *thereby* disproportionately increased beyond the requirements of the actual, and rationally expected, intensity of economic activity (which was, however, the point of the infelicitous exercise).

Finally, a word about instruments of credit, although this will be treated extensively in the third volume of this work. Finley (*op.cit.*, pp. 196-7) stresses “the absence of devices, familiar from the late Middle Ages or from the early modern era, which permitted the creation of credit, that is to say, the extension of the society’s resources by techniques that permitted lenders or lending institutions to deal with tokens of one sort or another as if they were cash. I noted in particular the lack of negotiable paper, the corresponding absence of bourses or exchanges, and the absence of a public debt in the form of official banknotes or similar fiduciary money”. This typifies the confusion in much salient “primitivist” thinking in a characteristic way. *The primitivists are at bottom institutionalists*. They conceive modern capitalist economy as *necessarily* being burdened with regulatory institutions and other obstacles to the free enterprising spirit, even to the awkward (to say the least) requirement of the existence of public debt! The virtually total market unregulation in developed classical economies (*especially* in financial and monetary matters) is seen as underdevelopment, since people imbued by economic doctrines in vogue for decades in Europe, consider “the harnessing of market forces”, and intervention in place of spontaneous adjustment, as hallmark of superior “social” capitalism. - There was a highly developed banking sector in classical economy, all private, but no *Central Bank*. There was enormous amount of capital deposited in the Banks. The Banks invested heavily in various ventures, chiefly by lending it out. *Credit* was thereby created on a large scale. This elementary fact Finley incredibly confines to the realm of “curious aberration” (*op.cit.*, p. 198), under cover of dismissing an unfelicitous formulation of it by one of his opponents (*ibid.*). There were international moneys, like the Athenian, the dollar of the Classical Age. One could draw on checkable deposits, even at the other end of the then existing international system. There was a market for currencies. In the absence of State safeguards and institutional rescues from failure, supreme

principle in all transactions was *credit*, trust, *fides*, *πίστις* (as Demosthenes declared). Great risks, great gains, great order: the triptych of a natural system of economic activity. Issues of much, and renewed, interest today, at the dawn of the third millenium. Classical ideas and realities can once more be of great help.

For the question of an original iron currency in ancient Greece, see Volume II of the present study. Meanwhile cf. *infra* Chapter 6, n. [12], where the traditional Spartan currency is said to have been *iron rendered useless* (by treating it so as to become brittle).

- [26] Aristotle draws explicitly the clear distinction between the two uses, and with this he starts his crucial discussion of the relationship between the Art and Business of Money Making (*Χρηματιστική*) and the Art and Business of Economy, of the Economic Management of Assets (*Οικονομική*), in *Politica*, A, 9. So, 1257a6-24: *ἐκάστου γὰρ κτήματος διττὴ ἡ χρήσις ἐστίν, ἀμφοτέραι δὲ καθ' αὐτὸ μὲν ἀλλ' οὐχ ὁμοίως καθ' αὐτό, ἀλλ' ἢ μὲν οἰκεία ἢ δ' οὐκ οἰκεία τοῦ πράγματος, οἷον ὑποδήματος ἢ τε ὑπόδουςις καὶ ἢ μεταβλητικῇ. ἀμφοτέραι γὰρ ὑποδήματος χρήσεις· καὶ γὰρ ὁ ἀλλαττόμενος τῷ δεομένῳ ὑποδήματος ἀντὶ νομίσματος ἢ τροφῆς χρῆται τῷ ὑποδήματι ἢ ὑπόδημα, ἀλλ' οὐ τὴν οἰκείαν χρήσιν· οὐ γὰρ ἀλλαγῆς ἔνεκεν γέγονε. τὸν αὐτὸν δὲ τρόπον ἔχει καὶ περὶ τῶν ἄλλων κτημάτων.* [«Of every possession there are two uses: both belong to the thing as such, but not in the same manner, for one is the proper, and the other the improper or secondary use of it. For example, a shoe is used for wear and is used for exchange; both are uses of the shoe. For he, too, who gives a shoe in exchange for money or food to him who wants one, does indeed use the shoe as a shoe, but this is not its proper or primary purpose, for a shoe did not come to be in order to be an object of exchange. The same holds with regard to all other possessions»].

Aristotle uses the term *Χρηματιστική* also in a broader sense, to denote the Art and Business of Wealth-Acquisition, understanding *χρήματα* as wealth, commodities, utilities (things useful). In this sens, he expresses the difference between *Χρηματιστική* and *Οικονομική* as difference between two kinds of *Χρηματιστική*, one having as object the exchange and acquisition of commodities with the end of increasing the amount of money possessed; while the other is about the exchange and acquisition again of commodities, but with the end of satisfying particular human needs. Aristotle explains the confusion regarding the existence or otherwise of limits in the acquisition of wealth (some reasoning that there

is a necessary limitation inherent in all kinds of wealth, others pointing to the actual practice of an indefinite increase in the accumulation of money), having recourse precisely to the distinction between the two uses of possessions. 1257b35-38: αἴτιον δὲ τὸ σύνεγγυς αὐτῶν. ἐπαλλάττει γὰρ ἢ χρῆσις τοῦ αὐτοῦ οὐσα ἐκατέρας τῆς χρηματιστικῆς. τῆς γὰρ αὐτῆς ἐστὶ κτήσεως χρῆσις, ἀλλ' οὐ κατὰ ταυτόν, ἀλλὰ τῆς μὲν ἕτερον τέλος, τῆς δ' ἢ αὐξήσις. [«Indeed, the source of the confusion is the near proximity between the two kinds of wealth-getting; for in either kind the defining use is of the same thing, and so they overlap. For each consists in the use of the same possession, but not in the same respect: accumulation (increase) is the end in the one case, while there is a different end in the other»]. The different end in the οἰκονομικῇ proper is of course the satisfaction of individual human needs and the perfection of individual human nature.

(For the Aristotelian use of *χρηματιστική* in broader and stricter senses, and the consequent innocuous ambiguity cf. Newman, *The Politics of Aristotle*, Vol. II, p. 165).

For the “paradox of wealth” consisting in the apparent validity of both before mentioned tendencies (wealth limited by nature, unlimited in actual fact), v. *Appendix I*.

- [27] *Politica*, A, 9, 1257a14-30: ἔστι γὰρ ἢ μεταβλητικὴ πάντων, ἀρξά- μὲνη τὸ μὲν πρῶτον ἐκ τοῦ κατὰ φύσιν, τῷ τὰ μὲν πλείω τὰ δὲ ἐλάττω τῶν ἰκανῶν ἔχειν τοὺς ἀνθρώπους. ἢ καὶ δηλον, ὅτι οὐκ ἔστι φύσει τῆς χρηματιστικῆς ἢ καπηλικῆ· ὅσον γὰρ ἰκανὸν αὐτοῖς, ἀναγκαῖον ἦν ποι- εῖσθαι τὴν ἀλλαγὴν. ἐν μὲν οὖν τῇ πρώτῃ κοινωνίᾳ (τοῦτο δ' ἐστὶν οἰκία) φανερόν ὅτι οὐδὲν ἐστὶν ἔργον αὐτῆς, ἀλλ' ἤδη πλείονος τῆς κοι- νωνίας οὔσης. οἱ μὲν γὰρ τῶν αὐτῶν ἐκοινωνοῦν πάντων, οἱ δὲ κεχωρι- σμένοι πολλῶν πάλιν καὶ ἐτέρων· ὧν κατὰ τὰς δεήσεις ἀναγκαῖον ποι- εῖσθαι τὰς μεταδόσεις, καθάπερ ἔτι πολλὰ ποιεῖ καὶ τῶν βαρβαρικῶν ἔθνων, κατὰ τὴν ἀλλαγὴν. αὐτὰ γὰρ τὰ χρήσιμα πρὸς αὐτὰ καταλλάτ- τονται, ἐπὶ πλεόν δ' οὐθὲν, οἶον οἶνον πρὸς σίτον διδόντες καὶ λαμβά- νοντες, καὶ τῶν ἄλλων τῶν τοιούτων ἕκαστον. ἢ μὲν οὖν τοιαύτη με- ταβλητικὴ οὔτε παρὰ φύσιν οὔτε χρηματιστικῆς ἐστὶν εἶδος οὐδὲν (εἰς ἀναπλήρωσιν γὰρ τῆς κατὰ φύσιν ἀυταρκείας ἦν). [«For the business of universal exchange started originally from that which is according to the natural state of things, namely from the circumstance that men have some goods in excess, and others in deficiency of what constitutes the level of sufficiency. From which it is clear that retail trade (i.e. buying with a view

to sell again and not in order to satisfy one's own needs, to consume) does not belong by nature to the business of wealth-getting: for in that case men would be engaged in exchange only to the extent of creating sufficiency to themselves. In fact it is evident that there is no use for it in the first community, which is the household, but it only begins to be useful when the society grows. For the members of the household had all things in common, while in the case of a proper (political) society with separate membership, the constituent parts (households) shared again in many but different things, which they had to interchange in part according to their needs (demands) - a kind of barter which is still practiced among barbarous nations in their exchanges. For they interchange utilities (useful things) with utilities, and nothing more; giving and receiving wine, for example, in exchange for corn, and each one of the other commodities. This, then, commutative dealing is not deviating from the natural state of things, nor is it part of the wealth-getting business as such: for it existed for the purpose of making good (of fulfilment of) self-sufficiency according to nature». For the original universal *barter*, subsequently restricted to the little developed human societies, cf. Apollodorus *apud* Strabo, VII 300C.

- [28] *Politica*, 1257a30-1 (immediately following the passage quoted in n. [27]): ἐκ μέντοι ταύτης ἐγένετ' ἐκείνη κατὰ λόγον [«For from this natural form of commutative business came the other, strict money-making as such, *in accordance with reason*»].
- [29] V. *supra*, n. [23]. Cf. n. [25].
- [30] *Politica*, 1257a41-b10: πορισθέντος οὖν ἤδη νομίματος ἐκ τῆς ἀναγκαίας ἀλλαγῆς θάτερον εἶδος τῆς χρηματιστικῆς ἐγένετο, τὸ καπηλικόν, τὸ μὲν πρῶτον ἀπλῶς γινόμενον, εἶτα δι' ἐμπειρίας ἤδη τεχνικώτερον, πόθεν καὶ πῶς μεταβαλλόμενον πλείστον ποιήσει κέρδος. διὸ δοκεῖ τῆ χρηματιστικῆ μάλιστα περὶ τὸ νόμισμα εἶναι, καὶ ἔργον αὐτῆς τὸ δύνασθαι θεωρῆσαι πόθεν ἔσται πλήθος χρημάτων· ποιητικὴ γὰρ εἶναι τοῦ πλοῦτου καὶ χρημάτων. καὶ γὰρ τὸν πλοῦτον πολλακίς τιθέασι νομίματος πλήθος, διὰ τὸ περὶ τοῦτ' εἶναι τὴν χρηματιστικὴν καὶ τὴν καπηλικήν [«And when, then, currency has been procured, out of the barter of necessary exchange arose the other kind of wealth-getting, namely retail-trade - which in the first place, perhaps was something just simply happening, but afterwards, as a result of the experience thus gained

became more methodical: the art of whence and in what manner exchange of goods would result in maximal profit. (Originating in the use of currency), the art of getting wealth is generally thought to be chiefly concerned with it, and to have as proper object to consider whence wealth can be increased; for it is the art that produces riches and money. For indeed, riches are assumed to be a large quantity of currency, because the arts of getting wealth and retail trade are concerned with currency». *Χρήματα*, it should be noted, commands regularly an ambiguous sense often denoting money (currency), and always connoting it, over and above its core meaning of wealth (amount of goods, quantity of utilities). The characteristic connection is revealed by Aristotle in *NE*, Δ, 1, 1119b26: *χρήματα δὲ λέγομεν πάντα ὅσων ἡ ἀξία νομισματι μετρεῖται* [«and we call *χρήματα* (wealth, goods, utilities) everything whose value is measured by money»].

Foreign trade necessitates the creation and use of money (currency). This in its turn expands necessary barter first into the business of retail trade and then into the art of money-making. I noticed above in the main text that although accumulation of wealth as an end in itself can occur under conditions of barter, yet this tends on its own to cancel itself in the end. Correspondingly, money may theoretically exist without the practice of an art of unlimited money-making; but in reality capital by itself works towards its aggrandizement like any other power. See below in the main text.

Aristotle mentions here only retail trade (*καπηλική*) as distinct from external commerce, thus disregarding internal wholesale trade. But this is of no consequence. One may even naturally assume that ordinarily the great importers were themselves the substantial wholesale dealers in the internal market. In any case retail trade is a common and characteristic form of gaining from exchange pure and clear; in external commerce and wholesale trade there enters a definite and sufficiently strong (depending on the business and political environment) element of non-exchange work involved (in, for example, finding and collecting goods, or outsourcing, or incurring considerable overhead costs, in organization and administration, or in securing adequate financial funding etc.).

The Aristotelian view of wealth makes it dependent on the satisfaction of human needs and dissociates it from a great mass of money. The point is elucidated in the *Politics* passage immediately following, which has been quoted *supra*, n. [21]. Cf. n. [26].

The money-making form of wealth-getting is concerned with how to *maximize profit* (*κέρδος*) *through exchange* (*trading*). This was practised haphazardly originally, but with the passage of time and the accumulated experience that goes with it, there emerged a more *methodical* way of such profit-making: it became an *art* (*τέχνη*), it was done in a more *skilled* and *knowledgeable* manner (*τεχνικώτερον*). On the significance of knowledge and “technological” expertise (of theoretical, that is, and applied science) in matters economical, esp. in the context of High Classicism, v. Chapter 6 *infra*.

How can one profit through the exchange of equivalents? Do not the two parties in an exchange draw equal advantages from it? Jevons (*The Theory of Political Economy*, French Translation, 1909, p. 217) emphasises that it is one of the most important consequences of the marginalist theory of exchange that the rate of exchange gives no indication as to the real profit derived from the action of exchange. The latter for him (*ibid.*, pp. 217-221) relates to total utility, whereas prices are determined by marginal utilities. Now this is to remain on the first-order exchange, where one transacts in order to immediately consume: Jevons is explicit on this (*ibid.* p. 218). In this original form of exchange, the total utility of what one gets is greater than the total utility of what he gives in exchange. But this merely explains the *fact* of exchange, why should exchange of things happen in the first place: one needs something that he has not got, and the question is at what rate of exchange will he get it.

Aristotle, on the other hand, explicitly refers to the gain that can be made from the *second-order exchange activity*, when one buys in order to sell (what Marx would name M-C-M) with a view to the increase of wealth, irrespective of the present, or rationally expected future, demand for direct satisfaction on the part of the individual concerned, or of his economically relevant partnership. The proximate end here is the *unceasing accumulation of capital* itself, and in this does the profit meant consist. *For this accumulation of capital beyond the immediate want-satisfaction of man is the motor of evolution*. In economic terms, it allows the widening of the absolute measure of the margin of profit. The accumulation of capital is gained by (a) increased production in absolute terms (extensive development), (b) heightened productivity of the factors, especially through improved organization of production (intensive development), and (c) augmented exchange-rhythms - that is, in general, by intensified economic activity. No doubt, (d) pure trading profit

(buying cheap and selling dear) is also included in this quest for capital accumulation, given external commerce between altogether different and unharmonised economies, or internal trade in not perfectly integrated markets. In the context of, particularly, pre-classical ancient Greek economy, therefore, (so-called) *commercial* capital played a major role in the developments.

The main point is that *ceaseless accumulation of capital* has been identified, defined and analysed by Aristotle as the crucial factor in a developed and integrated economy. (Aristotle's term for *ceaseless* is ἄπειρος, infinite, indefinite, v. next note). The philosophical articulation reflected evidently the realities of the classical era. Thus all "primitivist" talk about the categorial difference between ancient oriental or Greek and modern European economic systems, falls to the ground. For *ceaseless accumulation of capital* has been considered as the *differentia specifica* of modern Capitalism. (Cf. for a related, more primitive, dichotomy *infra*, n. [49]). Thus, from a world-historical perspective, Immanuel Wallerstein maintains: "It is my view that such a system (sc. one based on the principle of the ceaseless accumulation of capital) was created, initially in Europe in the sixteenth century, and then expanded to cover the entire world. It is my view also that no historical system that ever existed before can be plausibly seen as operating on the principle of structural priority to the ceaseless accumulation of capital". (I. Wallerstein, *World System versus World-Systems* in A.G. Frank and B.K. Gills (eds.), *The World System: Five Hundred Years or Five Thousand?* 1993, p. 293). Now Aristotle identified priority of ceaseless accumulation of capital as the ruling principle in a developed economy, i.e. in an integrated, monetised market. As to "structural", its sense is imprecise. If it means that the priority in question is in-built into the economic system, and not an accidental aberration on the part of isolated individuals, then surely Aristotle's point concerns structural priority of the driving principle. If structural priority on the other hand is taken to mean that the system of human existence and action as a whole is organised by the principle of the ceaseless accumulation of capital as by its *ultimate* structuring cause, then no system in history, not even the modern European one, exhibited (nor can it exhibit so long as human nature is as it is) the structural priority of that principle. *Capital is always a means, not (in any case) the ultimate end, in final reckonings.*

This leaves the question of the identifying characteristic of modern European economic systems. The existence and functionality of capital is

not it. But an overreaching in *homogenisation and simplification* of human organization points to the right direction. However, the world is now passing that phase of development (what has been called the *industrial revolution*), and moving into the next era of more *diversified harmonization* in human structures, under the aegis of the *Second Knowledge Revolution*.

[31] *Politica*, A, 9, 1257b17-34:

διὸ ζητοῦσιν ἕτερόν τι τὸν πλοῦτον καὶ τὴν χρηματιστικὴν, ὀρθῶς ζητοῦντες. ἔστι γὰρ ἑτέρα ἢ χρηματιστικὴ καὶ ὁ πλοῦτος ὁ κατὰ φύσιν, καὶ αὕτη μὲν οἰκονομική, ἣ δὲ καπηλικὴ ποιητικὴ χρημάτων οὐ πάντως, ἀλλ' ἢ διὰ χρημάτων μεταβολῆς. καὶ δοκεῖ περὶ τὸ νόμισμα αὕτη εἶναι· τὸ γὰρ νόμισμα στοιχεῖον καὶ πέρασ τῆς ἀλλαγῆς ἔστιν. καὶ ἄπειρος δὴ οὗτος ὁ πλοῦτος ὁ ἀπὸ ταύτης τῆς χρηματιστικῆς.

ὥσπερ γὰρ ἡ ἰατρικὴ τοῦ ὑγιαίνειν εἰς ἄπειρόν ἐστι καὶ ἐκάστη τῶν τεχνῶν τοῦ τέλους εἰς ἄπειρον (ὅτι μάλιστα γὰρ ἐκεῖνο βούλονται ποιεῖν), τῶν δὲ πρὸς τὸ τέλος οὐκ εἰς ἄπειρον (πέρασ γὰρ τὸ τέλος πάσαις), οὕτω καὶ ταύτης τῆς χρηματιστικῆς οὐκ

[«Hence men seek after a better notion of riches and of the art of getting wealth (than the mere acquisition of money) - and they are right. For riches and the art of getting wealth according to nature are other (than accumulated currency and the art of money-making); the art of getting wealth according to nature is true Economics (οἰκονομική), whereas (retail) trade is the art of producing wealth, not in every way, but only by exchange. And this business is thought to be concerned with currency; for money (currency) is the element and finality of exchange. And there is no bound to the riches which spring from this art of wealth-getting.

For as the art of medicine prusues health *ad infinitum*, and as the other arts pursue their several proper ends *ad infinitum* (for they aim at realising their ends to the uttermost), - while of the means the pursuit does not extend *ad infinitum*, for the end is always

ἔστι τοῦ τέλους πέρας, τέλος δὲ
ὁ τοιοῦτος πλοῦτος καὶ χρημά-
των κτῆσις.

τῆς δ' οἰκονομικῆς οὐ χρηματι-
στικῆς ἔστι πέρας· οὐ γὰρ τοῦτο
τῆς οἰκονομικῆς ἔργον. διὸ τῇ
μὲν φαίνεται ἀναγκαῖον εἶναι
παντὸς πλοῦτου πέρας, ἐπὶ δὲ
τῶν γινομένων ὀρώμεν συμ-
βαῖνον τούναντίον· πάντες γὰρ
εἰς ἄπειρον αὐξουσιν οἱ χρηματι-
ζόμενοι τὸ νόμισμα.

the limit -, so, too, in this art of
wealth-getting there is no limit to
the end, its end being such riches
and the acquisition of such wealth
(i.e. not utilities meant for the
satisfaction of human needs, but
abstract values to be increased
indefinitely).

But (proper) Economics which is
not money-making, has indeed a
limit; for that (i.e. the unlimited
acquisition of values) is not its
business. And this is why,
therefore, in one point of view, it
appears that of all riches there
must be a limit; while as a matter
of actual fact we find the opposite
to be the case: for all getters of
wealth increase their hoarding of
currency *ad infinitum*»].

Aristotle then goes on to account for the apparent confusion in the way
above explained, v. nn. [21], [26], [27], [30].

For this “paradox of wealth” (the antinomy of being both limited and
unlimited) v. analytically *Appendix I*.

[32] V. *Appendix I*.

[33] A need is borne out of a defective realisation of some state of normalcy
in the human constitution. Normalcy in this respect involves, ultimately,
perfection: for the normal state of being in a thing is its excellence, the
perfection and optimal realisation of its nature. The degree of unrealised
perfection is in each case finite and definite, *since the state of perfection
itself is not an infinite (i.e. indefinite) condition* - and this is a defining
element of the ancient Greek experience of world and life. The (relative)
end itself, the state of normalcy, is, on the other hand, the object of an
unlimited drive, in the sense that the tendency (and the aspiration of the

art and science of its realisation) is to optimise, expand and perpetuate its existence *ad infinitum*. Ends are definite in nature but infinite in the will-to-exist which is involved in them. Means are finite both in character and in the will for their acquisition. Thus in *Politica*, A, 9, 1257b25 sqq., a passage quoted *supra*, in n. [31]; cf. 1257b35-38 quoted in n. [26].

On the nature of needs and the calculus of wants, v. *Appendix I*.

- [34] There may appear to lurk an incompatibility between this Aristotelian position and the other one, above analysed, according to which every art is in infinite pursuit of its proper end, but in finite one of its instruments and means in realising that end. For here Aristotle maintains that living, and the necessities sustaining it, are illimitably desirable, although they are really means for realising the ultimately real end, well-living. But the point precisely is that living and its functions, if taken in isolation and in themselves (away, that is, from the hierarchical structure of finality which constitutes teleologically the human organism of soul and body), do indeed display the character of limitlessness which renders them suitable candidates for the role of absolute end. A real means as means has inherently limited desirability. A real end as end has inherently a really unlimited desirability. A real means (mis)taken as (superior) end has an *imaginary* unlimited desirability.

Besides, a real end is intrinsically definite and determinate, and, thus, in this sense, finite. In fact, its definition defines the essens of those things which can serve as means to it; and the proper end is the principle of limitation in every art, that with reference to which everything else is defined; as Aristotle explicitly observes; *Politica*, A, 9, 1257b25-28: ὡσπερ γὰρ ἡ ἰατρικὴ τοῦ ὑγιαίνειν εἰς ἄπειρον ἐστὶ καὶ ἐκάστη τῶν τεχνῶν τοῦ τέλους εἰς ἄπειρον (ὅτι μάλιστα γὰρ ἐκεῖνο βούλονται ποιεῖν), τῶν δὲ πρὸς τὸ τέλος οὐκ εἰς ἄπειρον (πέρας γὰρ τὸ τέλος πάσας) etc. [«and as the physician's art is of being healthy unlimitedly (*ad infinitum*), and as the other arts are of their (respective) ends unlimitedly (*ad infinitum*), for they aim at realising their ends to the uttermost - but (on the contrary) each art is of the things that have an essential reference to the end (i.e. of the means) not unlimitedly (not *ad infinitum*); for the end is a limit in every one -»]. Here I translate literally along the pattern e.g. «the medical art is of being healthy», in the sense that an art is art of its end (of realising its aim), and the end is not, for example, health, but to be (or being) healthy.

But though the end is thus finite, its pursuit is infinite, as Aristotle notices.

- [35] *Politica*, A, 9, 1257b38 - 1258a14: ὥστε δοκεῖ τισι τοῦτ' εἶναι τῆς οἰκονομικῆς ἔργον, καὶ διατελοῦσιν ἢ σώζειν οἰόμενοι δεῖν ἢ αὔξειν τὴν τοῦ νομίματος οὐσίαν εἰς ἄπειρον. αἴτιον δὲ ταύτης τῆς διαθέσεως τὸ σπουδάζειν περὶ τὸ ζῆν, ἀλλὰ μὴ τὸ εὖ ζῆν· εἰς ἄπειρον οὖν ἐκείνης τῆς ἐπιθυμίας οὔσης καὶ τῶν ποιητικῶν ἀπείρων ἐπιθυμοῦσιν. ὅσοι δὲ καὶ τοῦ εὖ ζῆν ἐπιβάλλονται, τὸ πρὸς τὰς ἀπολαύσεις τὰς σωματικὰς ζητοῦσιν, ὥστ' ἐπεὶ καὶ τοῦτο ἐν τῇ κτήσει φαίνεται ὑπάρχειν, πᾶσα ἡ διατριβὴ περὶ τὸν χρηματισμὸν ἐστὶ, καὶ τὸ ἕτερον εἶδος τῆς χρηματιστικῆς διὰ τοῦτ' ἐλήλυθεν. ἐν ὑπερβολῇ γὰρ οὔσης τῆς ἀπολαύσεως, τὴν τῆς ἀπολαυστικῆς ὑπερβολῆς ποιητικὴν ζητοῦσιν· κἂν μὴ διὰ τῆς χρηματιστικῆς δύνηται πορίζειν, δι' ἄλλης αἰτίας τοῦτο πειρῶνται, ἐκάστη χρώμενοι τῶν δυνάμεων οὐ κατὰ φύσιν. ἀνδρείας γὰρ οὐ χρήματα ποιεῖν ἐστὶν ἀλλὰ θάρσος, οὐδὲ στρατηγικῆς καὶ ἰατρικῆς, ἀλλὰ τῆς μὲν νίκης τῆς δ' ὑγίειαν. οἱ δὲ πάσας ποιοῦσι χρηματιστικὰς, ὡς τοῦτο τέλος ὄν, πρὸς δὲ τὸ τέλος ἅπαντα δέον ἀπαντᾶν [«hence some consider that this is the (proper) business of Economics (the art of wealth-getting), and persist in thinking that one must either preserve or increase the monetary capital ad infinitum. Now the cause of this disposition is that they are zealously occupied with living, but not with well-living. And since the desire for living is infinite, they desire an unlimited accumulation of provisions for life. Even those who get involved earnestly with well-living, seek regularly what is conducive to corporeal enjoyments; and since this character, too, seems to belong to possessions, their entire occupation is about wealth accumulation: and this is how the other kind of the business of wealth-making came into being (namely the art of money-making). For as enjoyment is (intrinsically constituted and heightened) in an excess, they seek what is productive of such pleasurable extremes (excesses). And if they cannot provide for it by means of the art of wealth-getting (of Economics), they endeavour to effect the same thing in a different way, namely by making use of the various faculties not according to the natural order of things. For it belongs to valour (as its proper end) not to make money but to be courageous; neither does it belong it (i.e. to make money) to the military or medicinal art (as their proper ends), but instead (what belongs to them is) victory and health respectively. But they (i.e. those who either forget everything else for mere existence or erroneously take well-living to consist in bodily enjoyment)

render all arts and businesses so many ways of money-making, as if this was the supreme end - since, indeed, everything must conspire to the end»].

Possessions are often taken as causal condition of living; cf. *NE*, Δ, 1, 1120a2-3: *δοκεῖ δ' ἀπώλειά τις αὐτοῦ εἶναι καὶ ἡ τῆς οὐσίας φθορά, ὡς τοῦ ζῆν διὰ τούτων ὄντος* [«it seems that the loss of one's property amounts to self-destruction, as in some view living depends upon external substance (wealth)»]. Cf. Dion Chrysostomus, *Oratio* VI, 209R (I, p. 113.18 sqq. de Budè): men spent all their life in tribulation and anxiety, doing and suffering incessantly all kinds of onerous actions *ὅπως ζῆν δυνήσονται καὶ μάλιστα δὴ δεδιότας μήποτε αὐτοὺς ἐπιλίπη τὰναγκαῖα δὴ λεγόμενα* etc. [«with the purpose to be able to live, and indeed being most afraid lest what are being called necessities of life fail them»].

As to the other factor in the overall drive towards an unlimited accumulation of monetary capital, namely the misapprehension of the end of life as pleasurable, corporeal enjoyment, cf. Plato, *Republic*, 329a: older people get together and they usually recollect the pleasures of youth, venereal enjoyments and feasts and convivial recreations, *καὶ ἀγανακτοῦσιν ὡς μεγάλων τινων ἀπεστερημένοι καὶ τότε μὲν εὖ ζῶντες, νῦν δὲ οὐδὲ ζῶντες* [«and express their indignation as being deprived of such great things, holding that well-living belonged to them then, while now they are barely living»]. Through a conceptual (and literary) hyperbole, life without bodily enjoyments is not even life, let alone good life: thus the two factors above noticed are virtually conflated. - For the sentiment that without pleasures man is an ensouled dead (*ἔμψυχος νεκρὸς*), v. Sophocles, *Antigone*, 1165-7. Cf. Mimnermus Fr. I, 1; Antiphanes (or Theophilus?) Fr. 318 (PCG).

[36] V. *supra*, n. [27]. Cf. nn. [26], [30].

[37] V. *Appendix D*.

[38] See for a full analysis of this crucial coordination volume III of this work.

[39] On internal and external teleology in Aristotle see my essay "*Ὅρος Πολιτείας and Τέλος Πόλεως: Political Constitution, Sosial Structure and End of Life in Aristotle's Politics, Appendix: Immanent and Transcendent Teleology*, in K. Boudouris (ed.), *Aristotelian Political Philosophy*, vol. I, 1995, pp. 127-142 (the Appendix in pp. 136-142).

[40] The question about the connection between the art of wealth-getting (*χρηματιστική*) and the art of economics or wealth-management (*οικονομική*) is broached at *Politica*, A, 8, 1254a4 sqq. It takes, to begin with, the form whether the former is part of, or auxiliary to the latter. The final resolution of the puzzle is offered in A, 10, 1258a19 sqq. In the sense in which the art of wealth-getting is confined to the acquirement of utilities for direct satisfaction of needs, it may be appropriately described as part of the art of economic management (of resources). But in the further sense in which the art of wealth-getting extends to the acquisition of abstract utility through exchange and its various types, this art is subservient to the art of economic management, just as in all cases the art which produces a thing is subsidiary to the art which uses it. A, 10: *δῆλον δὲ καὶ τὸ ἀπορούμενον ἐξ ἀρχῆς, πότερον τοῦ οἰκονομικοῦ καὶ πολιτικοῦ ἐστὶν ἢ χρηματιστικῆ ἢ οὐ, ἀλλὰ δεῖ τοῦτο μὲν ὑπάρχειν (ὥσπερ γὰρ καὶ ἀνθρώπους οὐ ποιεῖ ἢ πολιτικῆ, ἀλλὰ λαβοῦσα παρὰ τῆς φύσεως χρῆται αὐτοῖς, οὕτω καὶ τροφήν τὴν φύσιν δεῖ παραδοῦναι γῆν ἢ θάλατταν ἢ ἄλλο τι), ἐκ δὲ τούτων, ὡς δεῖ ταῦτα διαθεῖναι προσήκει τὸν οἰκονόμον. οὐ γὰρ τῆς ὑφαντικῆς ἔρια ποιῆσαι, ἀλλὰ χρῆσασθαι αὐτοῖς, καὶ γινῶναι δὲ τὸ ποῖον χρῆστὸν καὶ ἐπιτήδειον ἢ φαῦλον καὶ ἀνεπιτήδειον. καὶ γὰρ ἀπορήσειεν ἂν τις, διὰ τί ἢ μὲν χρηματιστικῆ μῦριον τῆς οἰκονομίας, ἢ δ' ἰατρικῆ οὐ μῦριον· καίτοι δεῖ ὑγιαίνειν τοὺς κατὰ τὴν οἰκίαν ὥσπερ ζῆν ἢ ἄλλο τι τῶν ἀναγκαίων. ἐπεὶ δὲ ἔστι μὲν ὡς τοῦ οἰκονόμου καὶ τοῦ ἀρχοντος καὶ περὶ ὑγείας ἰδεῖν, ἔστι δ' ὡς οὐ, ἀλλὰ τοῦ ἰατροῦ, οὕτω καὶ περὶ τῶν χρημάτων ἔστι μὲν ὡς τοῦ οἰκονόμου, ἔστι δ' ὡς οὐ, ἀλλὰ τῆς ὑπηρετικῆς* [«And it is now clear what was puzzling right at the beginning (of this inquiry), whether the art and business of wealth-getting belongs to the profession of the economist and the politician or not, in which latter case wealth must be assumed given - just as political science does not create men, but taking them from nature makes (sees to) a use of them, and so with sustenance, nature must make over land or sea or something else; and, starting with that provision, it befits the economist (the economic manager) to think out how wealth should be disposed and managed. For it does not belong to the weaving-art to make wool, but only to use it and to know which is good of its kind and adapted for its purpose, or, on the contrary, which is worthless and unfit. And in fact one might be puzzled following the opposite line of thought, why, the art of wealth-getting should be a portion of the art of economic management, but not medicine; although, after all, the members of the household (the economic unit) must be healthy (in order to perform efficiently their

several tasks), just as they must be alive or be provided with all other necessities (of life and action). Indeed, as in one sense it does belong to the business of the economic manager and of the ruler to take care of the health (of the task force and the citizens), but in another sense it does not - for it is the proper job of the physician - so with regard to wealth, in one sense (its acquisition) does concern the economic manager, but in another it does not, but forms the object of the ancillary art (of wealth-getting)]. - The sense in which the art of wealth-getting forms a part of the art of economic management is elucidated succinctly in the sequel to the passage above quoted, and elaborately in the *Politica*, Book A, chapter 8 (the conclusion in 1256b26 sqq.). The upshot of it all is that necessary provisions for the life of the economic agents must either be supplied abundantly by nature or be secured by human management, in which case, their acquisition forms, therefore, a natural part of the business of economic management. But even this formulation is more of a manner of speaking than an accurate representation of the state of things. For Aristotle seems definitively inclined to prefer the idea that the art of acquiring the necessities of life is the economic (in the strict sense) part of the art of wealth-getting (the *οικονομικὴ χρηματιστικὴ*), rather than the wealth-getting part of the art of economic management (a supposed *χρηματιστικὴ οἰκονομικὴ*); cf. e.g. 1257b17-22; and 1258a34 sqq.

Having established the basic distinction between the art of wealth-getting and the art of economic management, and the fact that the former is ancillary to the latter, the second crucial question regarding the connection between the two businesses consists in defining the nature of the subservience of the former to the latter. Does (the accumulation of) wealth provides the matter out of which, or the instruments by means of which, the end of the art of economic management (*οικονομικὴ*) is achieved? *Politica*, A, 8, 1256a1-10: ὅλως δὲ περὶ πάσης κτήσεως καὶ χρηματιστικῆς θεωρήσωμεν κατὰ τὸν ὑψηγμένον τρόπον, ... πρῶτον μὲν οὖν ἀπορίσειεν ἂν τις πότερον ἢ χρηματιστικὴ ἢ αὐτὴ τῆ οἰκονομικῆ ἔστιν ἢ μέρος τι ἢ ὑπηρετικὴ· καὶ εἰ ὑπηρετικὴ, πότερον ὡς ἢ κερκιδοποιικῆ τῆ ὑφαντικῆ ἢ ὡς ἢ χαλκουργικῆ τῆ ἀνδριαντοποιία (οὐ γὰρ ὡσαύτως ὑπηρετοῦσιν, ἀλλ' ἢ μὲν ὄργανα παρέχει, ἢ δὲ τὴν ὕλην· λέγω δὲ ὕλην τὸ ὑποκείμενον ἐξ οὗ τι ἀποτελεῖται ἔργον, οἷον ὑφάντη μὲν ἔρια ἀνδριαντοποιῶ δὲ χαλκόν). [«and in general, let us theorise concerning all possession and the art of wealth-getting according to the method laid down before (in connection with the treatment of similar questions about slavery). First, we may raise the problem whether the art

of wealth-getting is the same with the art of economic management, or a part of it, or ancillary to it; and if it is ancillary, (second, one may wonder) whether it is so in the manner that the art of the shuttle-maker is to the weaving-art, or in the manner that the coppersmith's art is to the statuary. For they do not subserve in the same way, but the one (i.e. the art of the shuttle-maker) provides instruments, while the other (i.e. the coppersmith's art) provides the matter; and I call matter the substrate out of which some work is formed, like wool to the weaver, or bronze to the sculptor». *Wealth is for Aristotle clearly an aggregate of instruments* (1256b35-7); and, thus, the answer to the above question is that the art of wealth-getting is *instrumental* to the art of economic management.

The subject matter of both the arts in question is wealth (*πλοῦτος*); of the art of economic management (*οἰκονομική*), too, the *end* has to do with wealth (cf. *NE*, A, 1, 1094a9). But Aristotle wishes to emphasise that this business has to do especially and fundamentally with the use of wealth, as distinct from and, even, against, the *acquisition* and *possession* of it; v. *Politica*, A, 8, 1256a10-13; A, 10, 1258a21 sqq.; cf. A, 7, 1255b31-33; Γ, 4, 1277a33-37. The distinction appears fully developed in Plato, *Republic*, I, 601c-602a, where also, the using-art is superior to the making-art, as possessing true knowledge of the object concerned, while the latter has only right belief about it, since the *reason* of the adaptation of the object's form and nature to its utility and finality is there missing. The essence of the distinction, and the concomitant stress on use, as the defining factor in knowledge and wealth, goes back to the Sophistic and Socratic tradition, as shall be seen in Chapter 6 (see also Chapter 5).

Aristotle's employment of *οἰκονομική* to signify the using-art with respect to wealth is, certainly, technical. Ordinarily, economics (economic management) covered both functions: it had to do both with the acquisition and the employment of utilities and with wealth as sum of utilities; it concerned management of assets in the full sense of the expression. Thus, for example, in the Peripatetic *Economics* which is preserved within the Aristotelian corpus, the common view is expressly and emphatically upheld in contrast to the Aristotelian terminology and, even, distinction; *Oeconomica*, A, 1343a4-9: ἔναι μὲν οὖν τῶν τεχνῶν διήρηνται, καὶ οὐ τῆς αὐτῆς ἐστὶ ποιῆσαι καὶ χρῆσασθαι τῷ ποιηθέντι, ὥσπερ λύρα καὶ αὐλοῖς· τῆς δὲ πολιτικῆς ἐστὶ καὶ πόλιν ἐξ ἀρχῆς συστήσασθαι καὶ ὑπαρχούση χρῆσασθαι καλῶς, ὥστε δῆλον ὅτι καὶ τῆς οἰκονομικῆς ἂν εἴη καὶ κτήσασθαι οἶκον καὶ χρῆσασθαι αὐτῷ [«Now some of the arts (concerning a certain object) are divided, and it does not

belong to the same art the making (of an object) and the using of the object made, say of the lyre or the flute. But to statemanship belongs both the institution *ab initio* of political society as State and the good use of an already existing societal order; whence it is clear that to economic management also belongs both the acquisition and the use of a household entity (as firm)». Cf. 1344b23-27. - Aristotle himself could occasionally let the common terminology carry him away: v. *Politica*, Γ, 4, 1277b24-25: ἐπεὶ καὶ οἰκονομία ἑτέρα ἀνδρὸς καὶ γυναικός· τοῦ μὲν γὰρ κτᾶσθαι τῆς δὲ φυλάττειν ἔργον ἐστίν [«because there is a different art of economic management in man from that in a woman; for the business of the man is to acquire (wealth), of the woman to preserve (it, obviously by using it correctly, prudently)»]. This is characteristically repeated in *Oeconomica*, A, 1344a2-3.

- [40a] For the full development of this idea of cognitive capital and of knowledge as the ultimate asset of wealth, v. Chapter 6. It will be seen that it amounted to a full-fledged *Knowledge Theory of Value* in the era of High Classicism.
- [41] See above, Chapter 1.
- [42] V. *Appendix E*.
- [43] Nowhere in Aristotelian Economic Theory does one find any reference at all to costs of production as a parameter defining utility - valuation. In fact, Burnet criticised Aristotle on his presumed insensitivity concerning the bearing of that parameter in stabilising demand, or, stricter, in narrowing the variation of need resulting from a substantial variation of relevant circumstances (J. Burnet, *The Ethics of Aristotle*, p. 228, n. on §11). But as Condillac epigrammatically said: *costs are not the cause of value, but the value is the cause of costs*.
- [44] We saw above that the *merit* of the individual (producer) does indeed directly correspond to the *utility* of his product. But this is a metaphysically significant statement on human nature of an economical virtual tautology. The important of the thesis lies in the enunciation of the doctrine that the more an individual has achieved excellence (the higher he has ascended the ladder of perfection, or, in other words, the

more capabilities of human nature he has realised and activated), the more utility his work (goods or service) possesses. *Individual merit and commodity value register the same degree of worth.* What this conception presupposes is, of course, not any recognisable Labour Theory of Value, but an essentialistic and hierarchical understanding of human nature, in which deeper and more pervasive needs require for their satisfaction superior abilities and excellencies. It is a different matter the fact that often (but by no means necessarily) the cultivation and maintenance of a higher degree of perfection (of heightened and fuller self-realisation) implicates considerable expenses of energy, time and resources. Value essentially consists in utility to satisfy needs, wants and desires, these however disembedded from their particularist and circumstantial context and geared to the requirements of human nature, regarding its existence and perfection.

It is, on this count, a total misunderstanding to impute to Aristotle some form of a Labour Theory of Value. And in fact those that are allured along this unfruitful path betray their frustration by qualifying in various uncomplimentary ways their forced ascription. Thus Schumpeter (*History of Economic Analysis*, ed. by E.B. Schumpeter, 1954, pp. 60-61, n. 1) commenting on *NE*, E, 5, 1133a22 sq. he interprets the passage by introducing the notion of labour, thus: «As the farmer's labor compares with the shoemaker's labor, so the product of the farmer compares with the product of the shoemaker». He then adds: «At least, I cannot get any other sense out of this passage. If I am right, then Aristotle was *groping* for some labor-cost theory of price which he was unable to state explicitly» (my italics). What is implicit groping for Schumpeter, is conscious dualism for Gordon (B.J. Gordon, *Aristotle and the Development of Value Theory*, *Quarterly Journal of Economics*, 78, February, pp. 115-28, reprinted in M. Blaug (ed.), *Aristotle (384-322 BC)*, pp. 113-26); v. esp. pp. 127-8 (125-6): «The import of the above passages makes it clear that Aristotle did not hold that the relative values of skills is appropriately measured by the differing want-satisfactions experienced by the consumers of the products of those skills. The relative worths of skills are ranked by means of other criteria (which criteria we might today characterise as «noneconomic»), and this prior ranking has an autonomous impact on the formation of market price. Exchange ratios are determined by the interaction of two, independent hierarchies of worth - the order of utility and the order of labor-skill. As was affirmed ... the Philosopher's position on exchange is essentially dualistic, and the

attribution of a unitary schema turning on utility alone, must be rejected». - This is totally alien to Aristotle. Skills (i.e. excellencies) are ranked according to the hierarchical structure of human nature and the finality-pattern of its perfection. But these are *qualitative* predicates and could not be *measured*, any more than things of widely differing natures could be measured at all, and reduced to a commensurate status, unless need (and corresponding utility) was brought into the picture and established the basis of *quantitative comparisons of more and less*. This basis provides a common denominator for everything implicated in human activity in general, skills and services and goods - all being utilities. For human activity is essentially purposeful; and this intrinsic teleology of it imposes the means-end categorisation on all its elements, aspects and parameters.

Furthermore, ancient Greek understanding of excellencies («virtues») was fundamentally functionalistic. An excellence that does not bear fruits, does not optimise the field on which it is exerted, does not lead to success - is no real excellence. The worth therefore of an excellence answers to the worth of its result (good or service), in terms of the result's utility. The equivalence is the more emphatically inescapable if we are considering human activity in economic perspective: for this consists in the effective management of all things considered as utilities with a view to human ends; and in such a context the worth of an excellence consists in its utility which again cannot diverge from the utility of its result.

Aristotle clearly held a Utility Theory of Value. And in the last analysis, as we shall more fully appreciate in Chapter 6 below, he subscribed to a *Knowledge Theory of Value* which presents the unifying explanatory key for high classical thinking in general.

- [45] Emphasis on «administrative rationality» as of the essence of ancient economic thought has been at the core of, preeminantly, Lowry's work. Cf. S. Todd Lowry, *The Archaeology of Economic Ideas, The Classical Greek Tradition*, 1987, p. 10: «...and I believe that one of the major contributions of this work is the separation of the administrative perspective from exchange and market analysis as a basis for studying ancient - as well as modern - decision-making and efficiency criteria». Administrative rationality as tantamount to efficient management is very much to the point, and it figures, of course, impressively in ancient Greek economic analysis (Xenophon's *Oeconomicus* and *Ways and Means* come immediately to the mind). But to proceed from this evident fact to the

amazing claim that no concept or even reality of market-price was at play in ancient Greek developed economies is patently unwarranted and demonstrably erroneous. Burnet's unfortunate and almost casual remark (*op.cit.* p. 229 n. ad *τετιμῆσθαι*) encapsulates the preposterous idea: «to have a price put on them», not, we may be sure, by the «higgling of the market». Aristotle no doubt is thinking of a tariff prescribed by the magistrates». *Quite the contrary*, of course. Polanyi however took over the ill-starred notion and centralised it in his *Aristotle Discovers the Economy*, G. Dalton (ed.), *Primitive, Archaic and Modern Economies*, 1968. His account comes to this: that Aristotle was concerned to find ways of determining at what level prices should be set by authority, legally promulgated and enforced, in order to preserve the social relations of which archaic reciprocal gift-giving on the basis of status was a part (*ibid.*, pp. 97, 106-7, 109). The imaginary view of an utopian archaic society based on friendship and gift-exchange, current in some quarters, will be exploded in the second volume of this book. Polanyi's version of it, and absurd expansion into late classical times, is indeed extreme, but characteristic (V. Polanyi's contribution in K. Polanyi, C.M. Arensberg and H.W. Pearson (eds.) *Trade and Market in the Early Empires* (Glencoe, Ill. 1957), and cf. G.E.M. de Sainte Croix, review of Polanyi et al., *Economic History Revue*, 2nd ser., 12 (1959-60), p. 511). He exhibits an unhealthy fixation to the idea that the market was a very new, embryonic institution even in Aristotle's day. Lowry expanded on the idea of administrative regulation versus market operations in classical times. Cf. S. Todd Lowry, *op.cit.*, p. 236: «In Aristotle's day *no concept of a natural market process seems to have been recognised*, and the common practice among city states, *especially Athens*, was to resort to public regulation to assure reasonable prices and profits while protecting flows of staples, such as corn (grain), upon which the people depended. Marketplaces in ancient times may even have been an outgrowth, not of private economic activity, but of municipal regulation designating specific locations for commercial activities to facilitate tax collection and the control of the quality and price of products» (Italics mine). Cf. also S. Todd Lowry, *Aristotle's Mathematical Analysis of Exchange*, *History of Political Economy*, 1 (1), Spring, p. 65 = M. Blaug (ed.), *Aristotle (384-322 BC)*, p. 148: «...the most fundamental question of substance in this material is the failure of the ancient Greeks even to *advance a theory of general market price*. This is remarkable in view of the many urban centers we know existed in classical times which were completely

dependent upon trade. One reason for the absence of a market theory was that it appears that either government regulation of prices or private monopoly was more characteristic of trade in uniform commodities like grain than was a free market». That the reputed «common practice» of administrative regulation in prices and profits was allegedly more pronounced in the most developed economy of the classical age should be warning enough that something is very fishy indeed here. What underlies that sweeping statement is simply and singly the well-known fact that Attica was chronically unable to feed its people with basic sustenance, and that considerable amount of corn has, as a result, to be annually imported. To secure the smoother operation of such necessary importation of staples, the State legislated certain obligatory quota for internal consumption upon the Athenian external corn-trade; even this provision was effected in the main indirectly, through corresponding prohibition of bottomry in the contrary case. In any case, there is nothing inconsistent or awkward in the specific State-provision for particular fundamental commodities (necessities) within the framework of a thoroughly open and unregulated internal and external market, especially in the case of a great power, such as Athens was at the time. Even so, the price of corn in Athens varied greatly depending on the prevailing circumstances - and varied around a standard value, which is exactly what one should expect on the hypothesis of a free and open market. (V. vol. III of this work for a detailed analysis of these issues).

One can observe Lowry's confusion in his proposed explanation for the astounding contention that the ancient Greeks lacked the reality and concept of a general market price. He postulates that exchange consisted in isolated, «unique transactions» involving «unique goods» (*op.cit.*, p. 66 = M. Blaug, p. 149). He affirms that «...individual bargain was more likely to characterise trade than general market place» (*ibid.*, p. 65 = M. Blaug, p. 148). And then he deduces that «a municipally administered price would eliminate the need for a concept of general market price for standardised products» (*op.cit.*, p. 66 = M. Blaug, p. 149). Lowry seems oblivious of the famous Walrasian tâtonnement. If Aristotle could not arrive even at the concept of a general market price simply because he explained exchange at its elementary two-party form as a permutation of utilities according to need, neither would any neo-classical theorist arrive at that conception. In fact Aristotle not only perfectly well presupposes the automatic averaging of needs and utilities in a market as a result of the free operation of exchange according to the aggregate specific want and

corresponding power of satisfaction; but even (as has been shown above), he anchors this averaging process on the standard specific need, under normal (i.e. urbanised, market) conditions, of human nature in general and on the utility of the object naturally adapted to fulfill it. Quite apart of the preceding analysis in the present chapter, a look on the passages quoted in n. [42] above is sufficient to dispel Lowry's confusion. If the price of commodities varied wildly according to individual circumstances, money would not be accepted as means of exchange even if used as measure of value. Indeed, if the price of commodities varied wildly according to individual circumstances, the purchasing power of money would also tend to vary wildly, contrary to the explicit Aristotelian statement on the matter. Nowhere does Aristotle affirm, implies or suggests that stabilization of prices is the effect of administrative stipulation. It is the effect of the spontaneous stabilization in a market of needs and utilities, as these are measured by money. *Money as measure of value ultimately stabilises prices; in the end it provides the foundation for the cohesion of political society (State).*

Lowry's deeper misunderstanding in this connection appears manifestly in his statement (*The Archaeology of Economic ideas*, p. 237) to the effect that «Aristotle certainly viewed the market as a creature of the State». In fact, the exact reverse points certainly in the right direction. As we saw in Chapter 2, the State exists for the sake of individual human excellence. As we see in the present chapter (and cf. Chapter 2), the market provides the foundation for the existence of political society and the State. Need and utility (equilibrated through money according to the structure of human nature and the properties of things and functions) render stable exchange (the market) possible and thus constitute the bond of societal nexus.

[45a] There is much talk about the *subjectivist* turn in Economic Neo-Classicism. Subjectivism in Economics rests on a misunderstanding. Individual needs, wants and desires revolve and oscillate around an average in each case which is being reflected in the common market valuation of the utility (goods and services) that can satisfy it. But this average is no mere accidental statistical mean. It represents the normal need, want or desire of human nature satisfied by a corresponding normal utility. And this is as objective as the facts of natural order. Furthermore, even with regard to individuals, there is an objective measure of their needs, wants and desires determined by their particular natural

constitutions. In discussing his theory of virtue as involving a mean between two opposites, Aristotle distinguishes two concepts of mean, one relating to the things themselves, the other relative to us. For instance the objective mean between 2 and 10 is 6, the same under all conditions and for all men. But suppose we want to determine a specific mean, e.g. the mean between excessive and deficient nutriment. Now this cannot be the same for all people, nor is it necessarily the arithmetical mean between the two extremes of too much food (at the limit) and too little (again at the limit), say A kg and B kg respectively. For a highly accomplished athlete, $A+B/2$ may be still too little, while for the novice in gymnastics the same quantity may be too much. This variation does not make the determination of the right mean any the less objective in the one, the other, or every third case. And it is the business of science (knowledge) to discover it in each particular case (Aristotle, *NE*, B, 6, 1106a26-b14). Moreover, with reference to human nature and its optimal state of fitness, there is a certain amount of food which provides optimal nourishment. This is the normal amount round which are necessarily dispersed as around their statistical average all individual correct quantities.

- [46] This helps explain the observed tendency of the price of commodities to fall while the value of services does not follow the downward path. In fact the more expertise and knowledge-content a service involves, the higher its significance. *Wisdom (i.e. in-depth integral of knowledge) in efficiently handling an ocean of information emerges as supreme value in the new era.* Cf. Chapter 6, *infra*.
- [47] V. Chapter 2.
- [48] Aristotle is explicit on the point: orderly exchange in a market self-regulated according to the commensurateness of need and utility for all goods and services can exist, and did exist, without currency (money as means of exchange). In *NE*, E, 5, immediately following the passages quoted in n. [42] above, he goes on (1133b21-28): (money renders everything commensurate;) *μετρεῖται γὰρ πάντα νομίσματι. οἰκία α, μυαῖ δέκα β, κλίνη γ. τὸ α τοῦ β ἥμισυ, εἰ πέντε μνῶν ἀξία ἢ οἰκία, ἢ ἴσον· ἢ δὲ κλίνη δέκατον μέρος, τὸ γ τοῦ β· δηλον τοίνυν πόσαι κλῖναι ἴσον οἰκία, ὅτι πέντε. ὅτι δ' οὕτως ἢ ἀλλαγῇ ἢ πρὶν τὸ νόμισμα εἶναι, δηλον· διαφέρει γὰρ οὐδὲν ἢ κλῖναι πέντε ἀντὶ οἰκίας, ἢ ὅσου αἰ πέντε κλῖναι* [«for all things are measured by money. Let A be a house, B ten

mnae, C a bed. A is half of B if the house is valued at five mnae, or (in other words) is equal to five mnae; (suppose further that) the bed is one tenth, namely the C a tenth of B; it is then evident how many beds equal one house, in fact five. It is thus clear in what way exchange was conducted before the introduction of currency; for there is no difference between the fact that five beds exchange for a house, and the fact that the equivalent value in money of five beds exchange for a house». A house is equal to five mnae and to five beds; this equality is in value, that is in respect to need and utility. A stable system of value-relationships between goods and services can exist without money as means of exchange; *but this is because need as common denominator and, consequently, money as measure of value is already there.*

The Roman juriconsults contested whether barter (*permutatio*) was or was not proper buying and selling. V. *Appendix F.*

[49] This is perhaps a place as appropriate as any to comment on, and dispose of, briefly, the «primitivist» position with regard to ancient philosophical economic analysis. The general question of the modernist - primitivist controversy as to the essential nature of ancient Greek economy will be discussed in detail in the third volume of the present work. Here a few words will suffice to dispel the primitivist fog regarding ancient theoretical perspectives.

A good example of primitive «primitivist» confusion in connection with Aristotelian economic analysis can be observed, with patience, in Scott Meikle, *Aristotle's Economic Thought*, 1995. Meikle, with Finley, thinks «that Aristotle did no economics of any kind, but only ethics» (*ibid.* p. 196); that «Aristotle's discussion is ethical, not economic. Economics itself does not consider ends, and indeed it makes a virtue of this. Aristotle's inquiries are therefore ethical and metaphysical, not economic» (*ibid.*, p. 198). Here we find a patent misunderstanding, *first*, of Aristotle's analysis of justice in its triple specific form (Chapters 3 and 4 above), as well as an overwhelming disregard to its complexity; then, *secondly*, a total failure to appreciate the nature of ancient, especially Aristotelian, Ethics. This is a subject vast in itself, but perhaps its salient feature can be put succinctly by saying that classical Ethics certainly committed the so-called «*naturalistic fallacy*». Ends and values are not contrasted to reality (means and facts), but are fundamental parts and aspects of the ontological realm; duties and obligations are not extraneous «moral» imperatives dissociated from the world of facts and the nature of

things, imposed from without, so to speak, as so many constraints on human nature; rather what ought to be done relates to the nature of man and his drive towards his perfection. Values emerge as essentialities of reality, as deeper realities focusing the activity of being toward its core, drawing from its foundation in existence (its inner form of identity) potential capable of achieving maximal self-realisation in perfection of its nature. *Value is the essence of factuality*. There is no «moral» colouration in ancient Ethics. In such a context, Ethics, as a discourse on human action and motivation, is the proper place to discuss (with no «moral» imperatives of the Kantian or similar types) economic questions, just as it is the right place to analyse legal issues in their fundamental aspects, or problems concerning psychological motivation or social structures and institutions of political integration of society.

Meikle takes superficial issue with hardline primitivists who straightforwardly «deny or minimize the importance of “economic activity” in Athens» (*ibid.* p. 157). He elaborates by conceding the importance of economic activity in the sense in which the term signifies «the making and distributing of useful things» (*ibid.*). He then adds: «But if it means productive and distributive activity systematically regulated by money, as in a market economy, any primitivist worth his or her salt would deny its importance» (*ibid.*). The statement is patently false, and indeed incredible to be made on the face even of the Aristotelian theory alone. Equally incomprehensible is Meikle’s primitivism vis-à-vis his distinction between pre-capitalist and capitalist societies: «Pre-capitalist societies are systems in which use value is predominant, and capitalist society is a system in which exchange value is predominant» (*ibid.*, p. 172). Meikle categorises ancient economy and the Aristotelian economic analysis as pre-capitalist. (Cf. *supra*, n. [30]). Aristotle centers all his theory on the analysis of exchange and exchange value: it is exchange value which is determined by need and utility, by demand and supply. You cannot legitimately foster upon Aristotle alien distinctions employed for alien ends. Meikle leads his argument to veritable *reductio ad absurdum*, when he pronounces that «Aristotle is inconsistent in his treatment of money» (*ibid.* p. 95) - and the more so for the naive reasons propounded -; or when he ponderously concludes: «There are only two possible bases on which to seek a solution to the problem of economic value, use and labour, since it is through the needs they satisfy and the efforts they embody that objects have human connections and become social objects. Since Aristotle rejects utility, and since he has no notion of

labour, he cannot have a theory of economic value at all» (*ibid.* p. 42). A staggering claim indeed. Perhaps Meikle does not understand Aristotle's further point in this connection: value is calibrated according to the common measure of need and utility, and is expressed in monetary price; but individual, subjective need and utility, and a *fortiori* aggregate demand and supply, are adjusted around a stable, objective valuation which is determined ultimately by reference to the structure and finality of human nature. The order of needs, furthermore, corresponds to the order of human faculties that can attend to the needs by supplying the services or products capable of fulfilling them. Thus in place of labour there is skill and knowledge graduated according to the hierarchy of human nature. *Utility and «labour» are thus both reduced ultimately to the essential structure of man. In this specific sense, Aristotle has both a utility and a «labour» theory of value, or rather, ultimately, a knowledge-and-skill theory of value* (V. the argument in Chapter 6). But it is indisputable that he considers need and utility as the active forces in the formation and constitution of a market, and in the calibration of value. Only the deeper and more essential factors are bound to regulate automatically the interplay of the more superficial and apparent.