

THEORY OF VALUE AND MONEY BASED ON THOMAS AQUINAS

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The market pulsates in the teleological dynamism of the economy. The price formations of the market focus on the problem of value. The various goods obtain a common denominator in value judgements through the three stages of evaluation.

At the first stage in the ontological base constituted by the analogia proportionis of utility, reason, the mind, can recognise the teleological relationship. At the second stage in this light of aims, reason can appreciate the value relationships in the items' rarity compared with the goals proposed. At the third stage, reason compares the possibilities of means with the aims which count to the person's will, and the various disparate items become of equal value by the decision of the will, in which the standard is the virtue of prudence.

Economic value is measured by money, which is the product of the human society's will following our reason, as the society of monkeys lacks money. Money is such a tool of measuring economic value by which we might acquire anything according to its measure, as it is a draft on the national product constituting its real matter in the Aristotelian sense.

Justice is the steady and perpetual will to give his (or her) right to everyone according to Ulpianus: "Iusticia est constans et perpetua voluntas ius suum cuique tribuendi."¹ Ulpianus' definition was put into the following form by Thomas Aquinas: "habitus secundum quem aliquis

¹ "Iustitia est perpetua et constans voluntas ius suum cuique tribuens." With this definition starts the very beginning of Justinian's *Institutiones*, and therefore, the *Corpus Iuris Civilis. Iustiniani Institutiones, Liber I., titulus 1., principium*. See: *Corpus Iuris Civilis* (12. editio stereotypa), Volumen I, Institutiones, recognovit Paulus Krueger, Berolini 1911:1. See also: Ch. M. Galliset (opera et cura): *Corpus Iuris Civilis Academicum*

constanti et perpetua voluntate ius suum cuique tribuit” (II^a II^{ae}, qu. 58, art. 1).

Justice has been traditionally divided into three species, namely general (or so-called legal) justice, distributive justice and commutative justice.

Justice renders man in comparison to the other, but [this] other could be considered in two ways, either as a single person; [...] or the other is considered in the community with his social relations. [...] [t]o the other as a single person refers the particular justice, and to the other in community refers general justice. General justice has a special object, which is the community’s common good (*bonum commune*).²

The private person relates to the community as a part to the whole. Two relationships are attached to any (such) part, namely the relationship of a part to another part, and the relationship of the whole to a part. The first is governed by commutative justice, the other by distributive justice, which distributes the common (property) according to a ratio.³

The encyclicals *Quadragesimo anno* issued on 11th May 1931⁴ and *Divini Redemptoris* issued on 19th March 1937⁵ also mention social justice.

Parisiense, in quo *Iustiniani Institutiones, Digesta sive Pandectae*, Codex, Authenticae seu Novellae, 11th edition: Paris 1881, 12th edition: Paris 1888, p. 119. It is the *Digesta* or *Pandectae* that shows that this is Ulpianus’ definition: “Ulpianus libro primo regularum(;) iustitia est perpetua et constans voluntas ius suum cuique tribuendi”, *Digesta Liber I., titulus 1., principium 10*. See: *Corpus Iuris Civilis* (12. editio stereotypa), Volumen I., *Digesta*, recognovit Theodorus Mommsen, retractavit Paulus Krueger, Berolini 1911: 29 (after the first 56 pages).

² “Iustitia ordinat hominem in comparatione ad aliud. Sed alius dupliciter potest considerari: uno modo tamquam persona singularis; [...] alio modo alius consideratur in communi una cum suis relationibus socialibus. [...] [a]d aliud prout est persona singularis habetur iustitia particularis; ad aliud vero prout continetur sub communitate habetur iustitia generalis. Iustitia dicitur generalis in quantum habet obiectum speciale, quod est bonum commune communitatis” (II^a II^{ae}, qu. 58, art. 5).

³ “Privata enim persona comparatur ad communitatem sicut pars ad totum. Ad aliquem partem vero duplex ordo attenditur: partis ad partem et totius ad partem. Ad aliquem partem vero duplex ordo attenditur: partis ad partem et totius ad partem: primam dirigit et ordinat commutativa, alteram distributiva, quae est distributiva communium secundum proportionem” (II^a II^{ae}, qu. 61).

⁴ “Alienum est igitur a iustitia sociali, ut proprii emolumenti gratia et posthabita boni communis ratione opificum salaria nimis deprimantur aut extollantur” (*Encyclica Quadragesimo anno, Acta Apostolicae Sedis*, Annus XXIII, Volumen XXIII, Roma, 1 junii 1931, Numero 6., p. 202).

⁵ “Ac praeterea in comperto posuimus, tum solummodo hominum consortione posse e teterrima ruina servari sospitem, ad quam per Liberalismi placita compellitur, iniquis recta morum disciplina silet, cum scilicet socialis iustitiae christianaeque caritatis

This, according to Benedict Merkelbach, is in fact legal justice.⁶ According to Georgius Zemplén, however, “iustitia socialis ordinat relationes singularum partium, quae distributione laboris oriuntur: ordinat igitur iustas relationes inter eos qui laborem dant et inter eos, qui laborem assumunt.”⁷ Professor Zemplén therefore agreed with Johannes Messner as regards this concept, who wrote that the social groups were the subjects of social justice.⁸

Inasmuch as we consider society not as a mechanical, but as an organic body, we must realise that there are relations not only between the community as a whole and its single members and the single members among themselves, but also between the various organs of society, and social justice should regulate the relationships between the various organs of society.

Commutative justice requires that goods and/or services must be exchanged according to strict equality and according to equal value.

The right measure in exchange justice is taken according to mathematical proportion. Namely in exchanges something is given back to the single person for his item, which was accepted from him, as is evident in sales and purchases. Therefore it is necessary to equalise item to item, so that when one has more from what belongs to the other, the corresponding amount has to be given back to that person to whom it belongs.⁹

Justice consists in giving back to the other person what is due to him according to equality.¹⁰

praecepta oeconomicam civilemque temperationem imbuant atque pervadant [...]” (*Encyclica Divini Redemptoris, Acta Apostolicae Sedis*, Annus XXIX, Series II, Volumen IV, Roma 31 martii 1937, Numero 4., p. 80).

⁶ Benedictus Henricus Merkelbach: *Summa theologiae moralis ad mentem Divi Thomae*, vol. 2, Brugis (Bruges): Desclée de Brouwer, 1962: 258f.

⁷ Georgius Zemplén: *Tractatus de iustitia* (lectures given at the Faculty of Theology in Budapest 1953–1954), p. 23.

⁸ “Die Träger der Rechtsverpflichtungen der sozialen Gerechtigkeit sind in erster Linie die gesellschaftlichen Gruppen: in den Verhandlungen und Übereinkommen der verschiedenen Gruppen müssen diese einander den ihnen zukommenden Teil an den Früchten ihrer sozialwirtschaftlichen Kooperation gewähren. Die soziale Gerechtigkeit muss daher von allem die Arbeitgeber und Arbeitnehmer im Verlaufe der Verhandlungen des kollektiven Arbeitsvertrages leiten [...]” (J. Messner: *Das Naturrecht*, Innsbruck: Tyrolia Verlag, 1950: 218).

⁹ “Medium in iustitia commutativa accipitur secundum mediatatem arithmetricam. In commutationibus enim redditur aliquid singulari personae propter rem eius, quae accepta est, sicut patet in emptionibus et venditionibus. Et ideo oportet adaequare rem rei, ut quando iste plus habet eo quod est alterius, tantumdem restituit ei, cuius est” (*AST*, II^a II^{ae}, qu. 61, art. 2).

¹⁰ “Ratio vero iustitiae consistit in hoc quod alteri reddatur quod ei debetur secundum aequalitatem” (*AST* II^a II^{ae}, qu. 80, *corpus articuli*). Cf. Merkelbach (*op.cit.*: 260).

The market is the meeting of the supply and the demand and it is realized in the exchange of goods and/ or services with the transfer of property. In the meantime we have to notice that in barter trade completely different and disparate things are exchanged, which are not connected even by equivocation. The introduction of money on the market only increases the items and species exchanged there.

This raises the question of how equality could be established between disparate goods and services which are not connected even by a common name (ὁμώνυμον)? How could we bring so many different and disparate things and services under a common denominator? This brings us to one of most intricate and quite disputed questions of economics, the theory of value.

THE ESSENTIAL COMPONENT OF ECONOMIC VALUE

Investigating this problem we have to make three observations.

1. Firstly, Thomas Aquinas himself observes:

outside things could be considered [...] other way, that is to say according to the use of the very thing, and in this relation man has natural control over outside things, because of his reason and will *he can put outside things to his own use*, as they were made for him, namely the imperfect (things) are always for the more perfect, as was explained above. And from this reasoning the Philosopher [=Aristotle] proves in chapter V of the first book of *Politics* that the possession of outside things is natural for man.¹¹

In this text, Thomas Aquinas refers to the following statements of Aristotle's *Politics*:

Property of this sort then seems to be bestowed by nature herself upon all, as immediately upon their first coming into existence, so also when they have reached maturity [...] plants exist for the sake of animals and other animals for the good of man, the domestic species both for his service and his food [...] If therefore nature makes nothing without purpose or in vain, it follows that nature has made all animals for the sake of men [...] One kind of acquisition therefore in the order of nature is a part of the

¹¹ “[...] res exterior [...] potest considerari [...] alio modo quantum ad usum ipsius rei; et sic habet homo naturale dominium exteriorum rerum, quia per rationem et voluntatem potest uti rebus exterioribus ad suam utilitatem, quasi propter se factis; semper enim imperfectiora sunt propter perfectiora, ut supra habitum est. Et ex hac ratione Philosophus probat in I. *Polit.*, cap. V, quod possessio rerum exteriorum est homini naturalis.” (*AST*, II^a II^{ae}, qu. 66, art. 1)

household art [...] (Aristotle: *Politics*, Book I, chapter III, 1256 b 7–9, cf. 16–27).¹²

In relation to the same question, Thomas Aquinas also cites the first chapter of Genesis, where we find:

[...] God created man in his own image, in the image of God he created him male and female he created them. And God blessed them, and God said to them: “Be fruitful and multiply, and fill the earth and subdue it and have dominion over the fish of the sea, and over the birds of the air, and over every living thing that moves upon the earth.”¹³

[...] God said: “Behold, I have given you every plant yielding seed which is upon the face of all the earth, and every tree with seed in its fruit you shall have them for food. And every beast of the earth, and every bird of the air, and everything that creeps on earth everything that has breath of life, I have given, I have given every green plant for food.”¹⁴

This fact that outside things were made for the use of man, who can put them to his own use, in the words of Thomas Aquinas implies that they are useful: “richness in itself is useful, namely it is desired for that reason, because (and inasmuch as) *it could be used by man*.”¹⁵

2. Secondly, we have to observe that according to Thomas Aquinas,

to use implies the application of something for some purpose. However the thing which is applied for something else is related to this as its end; and therefore to use always implies destination to an end. Therefore those are said to be useful which can be applied for an end, and utility itself is sometimes called (the) use.¹⁶

¹² Translation by H. Rackham, Loeb Classical Library, Cambridge Mass., 1932, 1990: 34–37. “ἡ μὲν οὖν τοιαύτη κτήσις ὑπ’ αὐτῆς φαίνεται τῆς φύσεως διδομένη πᾶσιν, ὥσπερ κατὰ τὴν πρώτην γένεσιν εὐθύς, οὕτω καὶ τελειωθεῖσιν. τὰ τε φυτὰ τῶν ζώων ἔνεκεν εἶναι καὶ τᾶλλα ζῶα τῶν ἀνθρώπων χάριν, τὰ μὲν ἡμερᾶ καὶ διὰ τὴν χρῆσιν καὶ διὰ τὴν τροφήν, [...] εἰ οὖν ἡ φύσις μηθὲν μήτε ἀτελὲς ποιεῖ μήτε μάτην, ἀναγκαῖον τῶν ἀνθρώπων ἔνεκεν αὐτὰ πάντα πεποιημένα τὴν φύσιν. [...] Ἐν μὲν οὖν εἶδος κτητικῆς κατὰ φύσιν τῆς οἰκονομικῆς μέρος ἐστίν [...]” (Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin 1831); editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960, page 1256, column b, lines 7–9, 16–19, 20–22, 26–27).

¹³ *Gen.* 1, 27f.

¹⁴ *Gen.* 1, 29f.

¹⁵ “Divitiae habent secundum se rationem utilis: ea enim ratione appetantur, in quantum in usum hominis caedunt” (*AST*, II^a II^{ae}, quaestio 118, art. 2 *corpus articuli*).

¹⁶ “Respondeo dicendum, quod uti, sicut dictum est, importat applicationem alicuius ad aliquid. Quod autem applicatur ad aliud, se habet in ratione eius, quod est ad finem; et ideo uti semper est eius, quod est ad finem. Propter quod et ea quae sunt ad finem accomoda utilia dicuntur, et ipsa utilitas interdum usus nominatur” (*AST*, I^a II^{ae}, quaestio 17 art. 3, *corpus articuli*).

These quotations from Thomas Aquinas justify the statement of the philosopher Alexander Horváth O.P.: “According to Thomas [Aquinas], use is the application of something for an aim” (“Benützung ist nach Thomas Verwendung einer Sache zu einem Zweck”).¹⁷ It follows that the usefulness of goods implies a causal relationship, namely a teleological causal relationship.

3. Thirdly, we have to observe that there are very many things and there might be just as many, if not more uses of them. Usefulness therefore is by no means a univocal¹⁸ (συνώνυμος) expression and concept. Namely, a term might refer to various items of the same name (*inferiora*) in the same sense, in which case the term refers to the items involved in a univocal (συνώνυμος)¹⁹ sense.²⁰ The same name might refer to completely disparate items as the name *cancer* refers to both the constellation and to the illness; in which case the term is equivocal (ὁμώνυμος).²¹ Finally, the same term might refer to various items partly in the same sense, but partly in a different sense, in which case it applies to the various items in an analogous (ἀνάλογος) meaning,²² in which there remains a certain correspondence between the various items.²³

In the Latin terminology, we distinguish *analogia proportionis* from *analogia proportionalitatis*;²⁴ and *analogia proportionalitatis* itself is further

¹⁷ A. Horváth, O.P.: *Eigentumsrecht nach dem dem hl. Thomas von Aquin*, Graz: Ulrich Moser's Verlag, 1929: 61.

¹⁸ “*univocal*: ‘having only one proper meaning,’” in: D. Thompson (ed.): *Oxford Concise Dictionary*, Oxford: Oxford University Press, 1995: 1531.

¹⁹ “Terminus universalis stricte univocus est, qui significat rationem simpliciter unam convenientem multis distributive (unum in multis).” J. Gredt, OSB: *Elementa Philosophiae Aristotelico-Thomisticae*, Friburgi Brisg: Barcinone, 1956: 131.

²⁰ G. Zemplén: *Metaphysica* (lectures given at the Faculty of Theology in Budapest 1949), p. 25.

²¹ “Aequivocus est aequivocus simpliciter, si ratio significata nullo modo est una, sed solummodo nomen, id est terminus oralis est unus [. . .] Gredt, loco citato.” Cf. Zemplén (*op.cit.*: 25f).

²² “*analogous*: ‘partially similar or parallel; showing analogy;’” “*analogy*: (usually followed by *to, with, between*) ‘correspondence or partial similarity;’” in: *Oxford Concise Dictionary*, p. 44.

²³ “Quamvis igitur nomen desumitur a rebus quantitativis, loquendo de analogia non sumus amplius in ordine quantitativo, sed ascendimus ad tertium gradum abstractiōnis ad realitates metaphysicas. In hoc ordine proportio non amplius habitudinem quantitativam, sed habitudinem rerum significat, et nihil aliud est, nisi convenientia in aliquo ordine” (Zemplén *op.cit.*: 26).

²⁴ “*Proportio* proprie loquendo nihil aliud est, nisi habitudo unius quantitatis ad alteram, sicut unum dicitur alteri aequale vel duplum vel triplum” (Zemplén *ibid.*). “Cum proportio est habitudo duarum quantitatum, *proportionalitas* est habitudo duarum pro-

subdivided into two. *Analogia proportionalitatis impropriae* is in fact nothing else, but a metaphor, as in the expression *the meadow smiles*.²⁵ *Analogia proportionalitatis propriae* is maintained through the equality of two ratios, which is called *proportionalitas* in Latin. In this case, the term applies mainly in one sense only in the main *analogatum*, but it applies in a proportional sense to the other *inferiora*.²⁶

In the case of *analogia proportionis*—to use the Latin terminology—the concept could be applied properly in the original sense again just to the main item(s) alone, which is (are) called *analogatum princeps*; while the other items (the so called *inferiora*) are named similarly only because they have a causal relationship with the main item's condition in question.²⁷ For example, living things alone could be properly called healthy, but we also name healthy for example a medicine and the air, as they bring health to those who live, and even the colour of the person, because health can give a healthy colour to someone.

We have seen that according to Thomas Aquinas, the usefulness of goods means a causal relationship, namely, a teleological causal relationship. The chief aim of this teleological relationship was explained by him in article 1 of the 66th question in II^a II^{ae}. As we have similarly seen, there the Angelic Doctor made it clear that man has natural control over outside things, because of his reason and will, *he can put outside*

portionum. Sic agitur de proportione, quando dicitur sex esse duplum numeri trinarii, agitur vero de proportionalitate quando dicitur proportio 'duo ad quattuor' esse eadem proportioni 'quinque ad decem'" (Zemplén *op.cit.* : 30). In Latin, *proportio* is the ratio of two numbers. Therefore, the name of *analogia proportionis* in English should be analogy of ratio. In English, the ratio of two ratios is called proportion, which relationship is called *proportionalitas* in Latin.

²⁵ Gredt (*op.cit.* : 132); Zemplén (*op.cit.* : 29).

²⁶ "Nam rationem significatam esse unam secundum quid intrinsecus contingere nequit, nisi quatenus est una proportionaliter, i.e., secundum aequalitatem duarum proportionum inter se, ita tamen ut proprie in unoquoque analogato, i.e., in unoquoque de quibus praedicatur terminus analogus, salvetur" (Gredt *op.cit.* : 131). "Proprietates analogiae proportionalitatis propriae. 1) Perfectio significata per nomen in omnibus analogatis proprie et formaliter verificatur. [...] 5) Perfectio significata, licet proprie sit in omnibus, magis perfecte invenire potest in uno, quam in altero secundum gradus essentialiter inaequales" (Zemplén *op.cit.* : 32f).

²⁷ "In analogia autem attributionis analogata minus principalia principale analogatum causaliter respiciunt tamquam terminum secundum diversas habitudines causales" (Gredt *op.cit.* : 132). "In casu analogiae attributionis nomen tribuitur pluribus propter diversas habitudines causales, quam habent ad aliquid unum idemque, in quo perfectio significata proprie et formaliter inest" (Zemplén *op.cit.* : 27). "Analogia attributionis dupliciter dividitur: a) formaliter secundum diversas habitudines causales qua inferiora referuntur ad princeps analogatum, sic habitudo talis potest esse in ordine causae efficientis, exemplaris, finalis" (Zemplén *op.cit.* : 28).

things to his own use, as they were made for him, namely the imperfect (things) are always for the more perfect.

Therefore, according to Thomas Aquinas, man's use is the main aim (*analogatum princeps*), which is served by the various useful goods (*inferiora*) which are connected by a teleological causal relationship. This means that the concept of usefulness belongs to the *analogia proportionis seu attributionis* in the Latin terminology.

This analogy gives the base on which the various goods and services might be brought under a common denominator. Meanwhile, as Thomas Aquinas places utility into the teleological hierarchy or system of aims, and as the aim is a formal cause, we can call utility the essential component of economic value.

Therefore, the usefulness of the various goods constitutes the base on which we can bring the various goods and services under a common denominator inasmuch as they are useful.

THE EXISTENTIAL COMPONENT OF ECONOMIC VALUE

Economic value also has an existential component. Thomas Aquinas observed that the price of goods might change according to place or time: “[...] quamvis carius vendat. Potest hoc licite facere [...] quia pretium rei est mutatum, secundum diversitatem loci vel temporis [...]” (*AST*, II^a II^{ae}, quaestio 77 art. 4, *ad secundum*).

These changes in the prices of the goods in fact originate from the changes in their rarity. “The value depends [...] on the abundance or lack of something, the number of buyers and sellers, the rarity [...]”²⁸ In reality, economics is a teleological process: “The ultimate principle in distribution, as in every phase of the economic process, can be no other than the principle ruling and regulating the whole economic process: the goal of the economy, the providing for the needs of people corresponding to the then attained cultural standards.”²⁹ In a teleological process, it cannot be irrelevant in what number and proportion the various means are available to reach the various goals here and now.

Air itself is a very useful item because we would die without air, but it has no value on the surface of the earth, because it stays ready for everyone virtually in unlimited quantity at sea level. However, above

²⁸ “Pendet valor [...] ex copia et inopia rerum et emptorum aut venditorum frequentia vel raritate” (Merkelbach *op.cit.*: 541).

²⁹ R. E. Mulcahy, SJ.: *The Economics of Heinrich Pesch*, New York: Holt, 1952: 123.

10,000 metres it becomes rare, and one has to transport it there, which might be a costly business. It is also decisive that the air must be there in time, because it is not enough to supply oxygen in the stratosphere in three days' time if someone needs it now. *Rarity therefore means presence in all the four dimensions*, and this is the reason why it is an existential value. Price differences on the various markets originate to a large extent from this factor. Perhaps we may add a fifth, a social dimension, because it is not enough that a commodity is present wholesale if it is not available at the retail level.

This rarity is expressed in the relationship of demand and supply. Meanwhile supply and demand constitute the market, where useful and rare goods obtain trade value, and become merchandise.

Nonetheless, the trade value of merchandise cannot be realised unless there is a real demand for it. Ultimately real demand is always man choosing his consumption. It is decisive therefore which needs demand supply from the economy. The needs demanding supply from the economy are the selective decisions of human persons. It is true that there are certain needs whose satisfaction cannot constitute a choice for the human person, because otherwise he would die. Nevertheless, the two most needed such goods, air and water, usually do not constitute economic value.

Among the other goods, however, there is in general a great deal of exchangeability: one can choose between various kinds of calorie supplies, and there is a wide range of various proteins of both animal and vegetable origin, from which we can select. In addition, man might abstain for a very considerable time from consumption because of his free will, as in fasting. Therefore, it is difficult to find a concrete item for which a person would have an unconditional concrete need and which could not be substituted for by something else. Because of this reason Thomas Aquinas already mentioned estimation in price formation: "This I say, because sometimes just price is not defined exactly, but comes from a certain estimation."³⁰

Obviously, in the Middle Ages, the volume of trade was much more restrained than in our times, and the role of estimation was much more limited. The significance of estimation has become a fundamental consideration in the school of marginal utility since the 19th century.

³⁰ "Quod ideo dico quia iustum pretium rerum quandoque non est punctualiter determinatum, sed magis in quadam estimatione consistit" (*AST*, II^a II^{ae}, quaestio 77 art. 1, ad 1)

The choice is in fact limited according to the income of the consumers, therefore, effective demand is fixed to the cash available to the public, as Aristotle said: “money is the first element and limit of commerce” (Aristotle: *Politics*, Book I, chapter III, 1257 b 22f).³¹

It should also be stressed that the selection of the consumers retains influence even if the prices are fixed officially, because even if prices are fixed, it cannot be decided by the authorities, how much and what will be consumed, and which shops’ merchandise will sell better, and, as a consequence, whose income will increase more.

Meanwhile, as the relationship of goods to each other does not follow necessarily from their nature, and because the overwhelming proportion of goods can be consumed only by individuals, and therefore the goal of the economy is the service of individual persons, who alone have immortal soul and human dignity, it seems to be more proper if price formation is not the result of a central decision, but its fluctuation gives room to the aim/designating role of the individuals’ demands.

As the rarity of goods changes, the alteration in their prices corresponds to the virtue of prudence, which requires the consideration of all circumstances.

Thomas Aquinas defines prudence as the “right arrangement of those which could be done”: *recta ratio agibilium* (II^a II^{ae}, quaestio 47, articulus 2, *sed contra*).³² Making this definition, the Angelic Doctor quotes Book VI of Aristotle’s *Nicomachean Ethics*, where in the Stagira’s second definition we read: “therefore it is necessary that prudence is a custom to act according to right reckoning concerning the human good” (1140 b 20–21).³³ The fact that by good Aristotle means moral good seems to be apparent from his first definition of the same concept given two paragraphs earlier: “it remains therefore that it is a custom to act according to right reckoning what is good or bad for human beings [literally: for men].”³⁴

³¹ Aristotle: *Politics*, translation of H. Rackham, Loeb Classical Library, Cambridge Mass., 1932, 1990: 44f. “τὸ γὰρ νόμισμα στοιχεῖον καὶ πέρασ τῆς ἀλλαγῆς ἐστίν” (Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1257, column b, lines 22–23).

³² The same definition is used by Thomas Aquinas in I^a II^{ae}, quaestio 57, articulus 4, *corpus articuli*. In Hungarian: *a cselekedetöknek helyes elrendezése*.

³³ Aristotle: *The Nicomachean Ethics*, with an English translation by H. Rackham, Cambridge Mass., 1926, 1999: 338f. “ὥστ’ ἀνάγκη τὴν φρόνησιν ἕξιν εἶναι μετὰ λόγου ἀληθῆ, περὶ τὰ ἀνθρώπινα ἀγαθὰ πρακτικῶν” (*Nicomachean Ethics*, Book VI, chapter 5 number 6; Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1257, column b, lines 20–21).

³⁴ Aristotle: *The Nicomachean Ethics*, with an English translation by H. Rackham, Cambridge Mass., 1926, 1999: 336f. “λείπεται ἄρα αὐτὴν εἶναι ἕξιν ἀληθῆ μετὰ λόγου

Concerning the operation of prudence it was pointed out by Thomas Aquinas that:

As prudence deals with concrete actions in which various aspects might convene, it might happen that something, that in itself might correspond to the aim, nevertheless—because of the circumstances—becomes wrong and inopportune to reach the aim [...] and therefore circumspection is required for prudence, so that man can compare those things, which he makes for the goal, with the circumstances.³⁵

This aspect, as explained by Thomas Aquinas, was included in the definition given by Merkelbach in his *Moral Theology according to The Divine Thomas' Mind*: “Prudence is divinely infused virtue, by which the practical mind dictates what should be done here and now considering all circumstances as corresponding to our final supernatural end.”³⁶

The virtue of prudence plays a decisive role in the realisation of exchanges and barter. Namely, it is prudence that compares the means with the aims: “It is not the business of the virtue of prudence to fix aims for moral virtues, but only to decide about those (means) which conduct to the aims.”³⁷ “Prudence arranges the means for the goal.”³⁸

Estimation itself consists of nothing else but establishing that—compared with our aims—among the goods to be exchanged my goods

πρακτικὴν περὶ τὰ ἀνθρώπων ἀγαθὰ καὶ κακά” (*Nicomachean Ethics*, Book VI, chapter 5 number 6; Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1257, column b, lines 4–6).

³⁵ “Quia prudentia est circa singularia operabilia in quibus multa concurrunt, contingit aliquid secundum se consideratum esse conveniens fini, quod tamen ex aliquibus concurrentibus redditur malum vel non opportunum ad finem [...] Et ideo necessaria est circumspectio ad prudentiam, ut scilicet homo id quod ordinatur ad finem, comparet cum iis quae circumstant” (*AST*, II^a II^{ae}, quaestio 48 art. 7, ad 3).

³⁶ Merkelbach (*op.cit.*: 12): “virtus divinitus infusa qua ratio practica dictat quid, omnibus consideratis, hic et nunc sit agendum ut vere conveniens fini ultimo supernaturali.”

³⁷ “Ad prudentiam non pertinet praestare finem virtutibus moralibus, sed solum disponere de his quae sunt ad finem” (*AST*, II^a II^{ae}, quaestio 47 art. 6); “[...] prudentia disponit de mediis ad finem [...]” (*AST*, II^a II^{ae}, quaestio 47 art. 7).

³⁸ “Prudentia disponit de mediis ad finem” (*AST*, II^a II^{ae}, quaestio 47 art. 7). “[...] our choice of actions will not be right without Prudence any more than without Moral Virtue, since, while Moral Virtue enables us to achieve the end, Prudence makes us adopt the right means to the end” (Aristotle: *The Nicomachean Ethics*, with an English translation by H. Rackham, Cambridge Mass., 1926, 1999: 372f). “οὐκ ἔσται ἡ προαίρεσις ὀρθὴ ἄνευ ἀρετῆς· ἡ μὲν γὰρ τὸ τέλος ἡ δὲ τὰ πρὸς τὸ τέλος ποιεῖ πράττειν” (*Nicomachean Ethics*, Book VI, chapter 13 number 7; Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1145, column a).

or the other contracting party's goods are more suitable and more useful here and now. As we have already seen, utility is the suitability of the item to an end, according to Thomas Aquinas (*AST*, I^a II^{ae}, quaestio 17, art. 3). Namely, if I consider my own item more suitable for my aim, believing that it will conduct me to my aim more easily and in a better way, I shall never exchange it for something else. Therefore, that will be the more valuable one which will conduct me to my aims in the easiest and best way, or something, that is unconditionally needed to reach it.

It is possible that without the present circumstances, or considering the item in itself in an abstract manner, we would judge and estimate differently. In the practice of real life, however, I shall judge the means, the existing outside objects in the light of the aims which count to me. "The goal has the same function in actions as axioms have in deductions."³⁹ This conclusion applies to both parties, to the sellers and to the buyers as well, and even to the private economic evaluation of the money, that is to say to the value of money. I shall sell something only in that case, if I need money more; if I value the money given for it more than the item to be sold, because with the money in question I shall reach the aims which count to me, more easily than if I do not sell it. This conclusion applies to both parties engaged in the exchange also in the sense that they appreciate the offer of the opposite party more than what these themselves offer, because if only one side reaches this opinion, the other side would not be ready for the agreement and the contract could not be reached.

Concerning this issue, Thomas Aquinas wrote:

[I]t seems that buying and selling was introduced for the common utility of both: namely when one needs the other's good, and vice versa (the other needs the item in the first person's possession), as is clear from the first book of Aristotle's *Politics*:⁴⁰ "[...] with every property there is a double way of using it; both uses are related to the article itself, but not related to it in the same manner—one is peculiar to the thing and the other is not peculiar to it. Take for example a shoe—there is its wear as a shoe and there is its use as an article of exchange [...]"⁴¹

³⁹ "Finis sic se habet in operabilibus, sicut principium in speculativis" (*AST*, II^a II^{ae}, quaestio 47, art. 6; cf. II^a II^{ae}, quaestio 23, art. 7 ad 2 and II^a II^{ae}, quaestio 26, art. 1 ad 1 and ad 2).

⁴⁰ "Emptio and venditio videtur esse introducta pro communi utilitate utriusque: dum scilicet unus indiget re alterius et e converso, sicut patet per Philosophum, in I. *Polit'*" (*AST*, II^a II^{ae}, quaestio 77, art. 1, *corpus articuli*).

⁴¹ Translation by H. Rackham, Loeb Classical Library, Cambridge Mass., 1932, 1990: 6–9. "ἑκάστου γὰρ κτήματος διττὴ ἡ χρῆσις ἐστίν, ἀμφοτέραι δὲ καθ' αὐτὸ μὲν ἄλλ'

We should realise that when Thomas Aquinas speaks about common utility here, by utility he means something applicable for a purpose as he explained it in I^a II^{ae}, quaestio 17 art. 3, *corpus articuli*.⁴²

It has to be pointed out that the virtue of prudence, even the virtue of economic prudence, presupposes a certain intellectual ability as well as the possession of the cardinal virtues to at least some extent, which may be lacking in various persons.

To choose is an act of man, who acting for a goal considers and approves those which are useful and necessary for the goal, rejecting those which are in opposition to this goal. To choose rightly, two things are necessary. Firstly, right disposition to the human aims: to the final end of human life, and to each particular aim or value, which is subjected to the final end. Secondly, a certain disposition to judge and distinguish those things which are suitable for the aims. The first disposition is obtained by charity and by the other moral virtues, the second by the custom of the mind to consider and to judge those issues which conduct to the end. But this custom is called prudence. Therefore prudence is most needed by man.⁴³

Thomas Aquinas explained that “[...] from natural inclination most men follow their passions, only the wise [persons] resist [...]”.⁴⁴ “The human laws are given to people among whom there are many who are

οὐχ ὁμοίως καθ’ αὐτὸ, ἀλλ’ ἡ μὲν οἰκεία ἡ δ’ οὐκ οἰκεία τοῦ πράγματος ὑποδήματος ἢ τε ὑπόδεσις καὶ ἡ μεταβλητική.” (Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1257, column a, lines 6–9).

⁴² Cf. the quote from A. Horváth, O.P. above (Horváth 1929: 61).

⁴³ “Electio est actus quo homo tendens ad aliquem finem discernit et approbat ea, quae sunt ad finem utilia vel necessaria, rejiciendo ea, quae intentioni finis opponitur. Ad rectam electionem duo requiruntur: primo bona dispositio in ordine ad fines humanos: ad finem ultimam vitae humanae et ad singulas fines seu valores particulares, qui ultimo fini subordinantur; secundo quaedam dispositio ad dijudicanda et secernenda ea, quae sunt ad finem. Prima dispositio fit per habitum charitatis et virtutum moralium, secunda vero per habitum rationis, quo homo consiliatur et iudicat circa ea quae sunt ad finem. Sed talis habitus vocatur prudentia. Ergo prudentia est virtus maxime homini necessaria” (*AST*, I^a II^{ae}, quaestio 57, art. 5, *corpus articuli*). Cf. “Conclusio. Prudentia est virtus intellectualis, quia subiectum habet in intellectu practico, non tamen versatur circa veritates universales, sed circa applicationem universalium ad particulare opus. Participat tamen dignitatem verae virtutis moralis, quae supponit connexionem cum voluntate. Prudentia perficitur sub motione appetitus recti. Inde supponit virtutes morales, quibus finem non constituit, sed invenit veritatem particularem et constituit medium in operibus aliarum virtutum” (G. Zemplén: *De virtutibus moralibus infusis*. Commentarium in II^a II^{ae}, *S. Theol.*, qq. 47–171. Anno Academiae 1954–1955 primo semestro, p. 27).

⁴⁴ “[...] ex complexione naturali plures hominum sequuntur passiones, quibus soli sapientes resistunt” (*AST*, I^a II^{ae}, quaestio 9, art. 5, ad 3).

not up to the measure of virtue [who lack virtue].”⁴⁵ Therefore, it is far from certain that a given transaction has been the right choice either objectively or subjectively.

In everyday life, very few persons would decide as the *homo oeconomicus* would require it.⁴⁶ On the one hand, there might be a few who have higher considerations. On the other hand, actual expenditure surveys show that with the increase of income the expenditure on luxuries increases and saving starts to appear at a relatively high income level, and even there, only a small proportion of incomes is put into saving.⁴⁷ In fact, it is rather social aping and imitating that prevail, expressed by the saying: “keeping up with the Joneses.”

These considerations provide ample room for the influence of advertising with the aim of selling more of a product.

Summarising our investigations, we can say that the market pulsates in the teleological dynamism of the economy. The price formations of the market focus on the problem of value. The various goods obtain a common denominator in value judgements through the three stages of evaluation.

At the first stage in the ontological base constituted by the *analogia proportionis* of utility, reason, the mind, can recognise the teleological relationships.

At the second stage in this light of aims reason can appreciate the value relationships in the items’ rarity compared with the goals proposed.⁴⁸

At the third stage, reason compares the possibilities of means with the aims which count to the person’s will, and the various disparate items become of equal value by the decision of the will, in which the standard is the virtue of prudence.

It should be noticed, however, that merchandise bought at a price can be rarely sold at the same price, because of the economy’s stream of the teleological process in which we cannot step into the same water twice.

⁴⁵ “Lex humana populo datur, in quo multi sunt a virtute deficientes” (*AST*, II^a II^{ae}, quaestio 77, art. 1, ad 1).

⁴⁶ Alfred Marshall (1842–1924) “avait trop le sens de la multiplicité des mobiles qui déterminent l’action humaine pour consentir à utiliser exclusivement la psychologie rationnelle et hédonistique de l’*homo oeconomicus*” (E. James: *Histoire sommaire de la pensée économique*, Paris: Montchrestien, 1965 : 216).

⁴⁷ P. A. Samuelson: *Economics*, 8th ed., New York: McGraw-Hill Kōgakusha, 1970 : 97, Fig. 11-1 “Expenditure for consumption at different income levels, 1970”.

⁴⁸ At the second stage reason appreciates the value relationship of items’ rarity compared with the goals.

THE MEASURE OF ECONOMIC VALUE: MONEY

In economic evaluation it is money which brings various goods and services under a common denominator. In order to understand money, we ought to know it from its causes:

It is clear that knowledge must be taken from the origin's causes (namely it is said we know each thing when we think to understand the [their] primary cause). There are four kinds of causes. One of these is the essence, that is what it would be, (namely [the question] “why” is retraced to the final word [=in the final accounting], to cause and origin which is the first “why”); the second is the matter or substrate; the third is the source of motion; the fourth is the cause which is the opposite to this, namely the purpose or “good [aimed at]”, (this is the aim of every origin or motion).⁴⁹

The same four kinds of causes required for science were also explained by Thomas Aquinas in his *Commentary (In XII libros Metaphisicorum)*.⁵⁰ Therefore, money has to be investigated from these aspects.

THE ORIGIN OF MONEY

The goods exchanged on the markets are brought under a common denominator by money. Namely, it is noticed by society that certain products, which are much in demand might make exchanges easier in every respect. As traffic in transactions grows with the expansion of the population and with the increasing division of labour, it becomes

⁴⁹ Aristotle: *Metaphysics* I, 983 a 24–32; the translation above is based on H. Trendelenck: *Aristotle: The Metaphysics*, Books I–IX, Cambridge Mass. & London: Harvard University, 1961: 17, and J. Halasy-Nagy's translation in *Arisztotelész: Metafizika*, Szeged: Lectum, 2002: 43, 369–371, as well as a recent translation by G. Ferge: *Arisztotelés Metaphysica* (Απιστοτέλους τα μετά τὰ φυσικά), Budapest: Logos, 1992: 983a, 24–30. Aristotle's original text says: “Ἐπεὶ δὲ φανερόν ὅτι τῶν ἐξ ἀρχῆς αἰτίων δεῖ λαβεῖν ἐπιστήμην (τότε γὰρ εἰδέναι φαιμέν ἕκαστον, ὅταν τὴν πρώτην αἰτίαν οἰώμεθα γνωρίζειν), τὰ δ' αἰτία λέγεται τετρακτῆς, ὧν μίαν μὲν αἰτίαν φαιμέν εἶναι τὴν οὐσίαν καὶ τὸ τί ἦν εἶναι (ἀνάγεται γὰρ τὸ διὰ τί εἰς τὸν λόγον ἔσχατον, αἰτίον δὲ καὶ ἀρχὴ τὸ διὰ τί πρῶτον), ἑτέραν δὲ τὴν ὕλην καὶ ὑποκείμενον, τρίτην δὲ ὅθεν ἢ ἀρχὴ τῆς κινήσεως, τετάρτην δὲ τὴν ἀντικειμένην αἰτίαν ταύτην, τὸ οὐ ἔνεκα καὶ τὰ γατόν (τέλος γὰρ γενέσεως καὶ κινήσεως πάσης τοῦτ' ἐστίν)” (Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 983, column a, lines 24–32).

⁵⁰ Liber I, Lectio III, see: Doctoris Angelici divi Thomae Aquinatis opera omnia, Paris 1882–1924, volume 24, pp. 350, 352. Cf. Liber II, Lectio II, see *op.cit.*: 407, second column.

almost inevitable that society begins to abstract from the primary use of the just mentioned products. Eventually, as the result of this abstraction process, an artificial homogeneous mediating instrument comes into being, to which society can relate its value judgement and which frees the exchanges from the difficulties of finding matching supplies and demands in the barter trade. This homogeneous mediating instrument is money.

It is obvious that human will is needed to produce this mediating instrument: the society of monkeys lacks money. The will is reasonable desiring capacity *facultas appetitiva rationalis*. It is only the will which is able to follow the value judgements discussed in our earlier investigations. Meanwhile for the invention of money, apart from value judgements, abstraction is needed and recognition of relationships, especially recognition of teleological relationships. Therefore it is the will, the desiring faculty following the reason, which makes man able to produce money. Money is therefore the fruit of the human will, but obviously not of a single person's decision, as it has to be acceptable to each member of society. Society's will however is legislation, but the form of legislation must correspond to the development of the society in question. In less developed societies it is customary law which makes money acceptable. In French colonies in Africa the French authorities were unable to replace cowrie shells (*Cypreaea moneta*),⁵¹ which the natives used according to their customary law, by French money.⁵² Such cowrie shells were used as money not only in Africa, but also in South Asia⁵³ and apparently even in North China in very ancient times, as among the first Chinese money issues one finds some cast in the form of cowrie shells.⁵⁴ Its name *cowrie* comes from Hindi (and Urdu) *kauri*⁵⁵ indicating its use in India. Cowrie shells were reintroduced to the Carpathian basin by the Hungarian Conquerors in the 10th century⁵⁶ and István Gedai, the Chief Director of the Hungarian National Museum, thought that they were used as primitive money.⁵⁷ István Kovács's objection that

⁵¹ *Új Idők lexikona*, vol. XV, Budapest: Singer és Wolfner, 1939: 3708.

⁵² F. Heller: *Közgazdaságtan*, vol. I, Budapest: Egyetemi Nyomda, 1945: 85.

⁵³ *Új Idők lexikona*, *ibid.*.

⁵⁴ R. G. Doty: *Coins of the World*, Toronto: Bantam, 1976: 106.

⁵⁵ *Oxford Concise Dictionary*, Oxford: Oxford University Press, 1995: 311.

⁵⁶ L. Kovács: 'Volt-e a honfoglaló magyaroknak kauricsigapénzük?', *Századok* 133, 1999: 69.

⁵⁷ I. Gedai: 'Pénzhelyettesítő eszközök a magyaroknál az önálló pénzverés előtt', *Archaeológiai Értesítő* 121–122, 1994–1995: 155–157; I. Gedai: 'A honfoglalók pénzei', *Valóság* 39, no. 3, 1996: 56–59; I. Gedai: "'Primitive money" of the Hungarians before

cowrie shells can be found only as female decorations in the Hungarian graves of women and of girls⁵⁸ is not valid, because only women wore and wear coined money as well, for example in the Balkans and in certain parts of the Carpathian Basin. The coins however do not cease to be money because women decorate themselves with them. In fact, they decorate themselves with coins precisely because the coins are money. In East Africa, especially in Ethiopia, Maria Theresa's *thaler* were in use, and the various armies fighting there had to obtain these coins from the mint in Vienna. Moreover, they had to stick to one particular old die, because the inhabitants would accept only this particular cast as money.⁵⁹ It was pointed out by Paul A. Samuelson that "Historically a great variety of commodities has served at one time or another as a medium of exchange: cattle (from which comes the Latin stem of 'pecuniary' and also the words 'capital' and 'chattel'), tobacco, leather and hides, furs, olive oil, beer or spirits, slaves or wives, copper, iron, gold, silver, rings, diamonds, wampum beads or shells, huge rocks and landmarks and cigarette butts."⁶⁰

At a higher stage of development customary law is replaced by written law. It should be noticed, however, that even in modern societies apart from the currency used, one can pay by cheques and sometimes by bank notes issued by private banks, as for example in Scotland. Nevertheless, the state tries to regulate these possibilities by law and by discount policy.

THE ESSENCE OF MONEY

Money, as we have just seen, is the product of human reason and will in the outside world, and as such, it is an artificial being (*ens artificiale*) by its nature. The essence and *form* (εἶδος) of an artificial being is its purpose (τέλος). "To say what is a table, to say what it does, what is its purpose."⁶¹ In any case, according to Aristotle, the form is the item's *purpose*, "ἐντελέχεια."⁶²

independent coinage', in: A. Kumar (ed.): *Exmoneta. Essays on numismatics in honour of David W. MacDowall*, New Delhi: Harman Publishing House, 1988: 457–462.

⁵⁸ Kovács (*op.cit.*: 68f).

⁵⁹ Dotty (*op.cit.*: 68); according to Dotty, it was the *thaler* issued in 1780 that was accepted in Ethiopia and in the Near East, and this continued to be minted even in the 1960s. See also, Heller (*op.cit.*: 85).

⁶⁰ Samuelson (*op.cit.*: 51).

⁶¹ J. L. Acrill: *Arisztotelész*, in: *Filozófiai kis enciklopédia*, (translated from J. O. Urmsom and J. Rée (eds.): *The Concise Encyclopedia of Western Philosophy*, London & New York: Routledge, 1991), Budapest: Kossuth Könyvkiadó, 1993: 31.

⁶² P. Kecskés: *A bölcelet története főbb vonásaiban*, Budapest, 1943: 13.

Thomas Aquinas stated that “pecunia ordinatur quidem ad aliud sicut ad finem”⁶³ (“money is related to other things as means to (an) end”); that is to say, money is a tool according to the Angelic Doctor. In question 78 of II^a II^{ae} he also specified what kind of tool: “pecunia principaliter inventa est ad commutationem faciendas,”⁶⁴ which means that money was invented to make exchanges. Therefore, according to him, money is a tool of exchange.

In the same article, Thomas Aquinas also explains that money was invented for measuring goods in exchanges as we can find in the fifth Book of Aristotle’s *Nicomachean Ethics*: “Quantitas autem rerum quae in usum hominis veniunt mensuratur secundum pretium datum ad quod est inventum nomisma ut datur in V *Ethic*.”⁶⁵ In that book, the Stagirita wrote: “Money then serves as a measure which makes things commensurable and so reduces them to equality⁶⁶ for such a standard makes all things commensurable, as all things can be measured by money.”⁶⁷

By the fact that money can measure various things, it makes them comparable, which in itself makes exchanges easier, and even if the value of the two things do not match each other, it makes sales possible and makes future sales and at various places possible.

However, measuring is only one of the main functions of money. In question 118, Thomas Aquinas explained that “Money is useful to acquire anything containing virtually someway everything.”⁶⁸ This statement shows another chief function of money, namely that it is a tool of transfer, it is in a sense *titulus acquirendi dominium*. The same statement makes it also clear that with money we can buy anything, which shows that it is a kind of draft on the national income. This is best demon-

⁶³ *AST*, II^a II^{ae}, quaestio 118, art. 7, ad 2.

⁶⁴ *AST*, II^a II^{ae}, quaestio 78 art. 1, *corpus articuli*.

⁶⁵ *AST*, II^a II^{ae}, quaestio 78 art. 1, *corpus articuli*.

⁶⁶ Aristotle: *The Nicomachean Ethics*, with an English translation by H. Rackham, Cambridge Mass., 1926, 1999: 287. “Τὸ δὲ νόμισμα ὡς περ μέτρον σύμμετρα ποιῆσαν ἰσάζει [...]” (*Nicomachean Ethics*, Book V, chapter 5 number 14; Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1133, column b, lines 16–17).

⁶⁷ Aristotle: *The Nicomachean Ethics*, with an English translation by H. Rackham, Cambridge Mass., 1926, 1999: 287. “τοῦτο γὰρ πάντα πειεῖ σύμμετρα μετρεῖται γὰρ πάντα νομάσματι” (*Nicomachean Ethics*, Book V, chapter 5 number 15; Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1133, column b, lines 21–23).

⁶⁸ “Pecunia utilis est ad omnia aquirenda, continet quodammodo virtute omnia, et ideo habet quandam similitudinem felicitatis ut dictum est” (*AST*, II^a II^{ae}, quaestio 118, art. 7 ad 2).

strated by the use of cheques and bank cards, by which the amount of payment can be easily varied.

On the other hand, Thomas Aquinas' statement: *pecunia utilis est ad omnia aquirenda*, is also valid in the sense that not all money incomes originate from exchanges of goods. The salaries of admirals and cardinals also enable them to obtain food. This shows again well, that the money is in fact draft on the national income, because these officials do not give any merchandise in exchange. It is also obvious: the better a national income is, the more sought after is its currency. Meanwhile we know by now that the national income might increase. This implies that if I do not cash in my draft on the national income now, the corresponding share of the same national income might increase say in five years' time and this makes in fact interest payments possible and justified, which was not realised by Aristotle, who believed that interest taking was contrary to nature:

But as we said, this art [of economics] is twofold, one branch being of the nature of trade while the other belongs to the household art; and the latter branch is necessary and in good esteem, but the branch connected with exchange is justly discredited (for it is not in accordance with nature, but involves men's taking things from one another). As this is so, usury is most reasonably hated, because its gain comes from money itself and not from that for the sake of which money was invented. For money was brought into existence *for purpose of exchange*, but interest increases the amount of the money itself (and this is the actual origin of the Greek word: *offspring* (ὁ τόκος) resembles parent, and interest is money born of money); consequently this form of business of getting wealth is of all forms the most contrary to nature.⁶⁹

Here, Aristotle opposes the expressions *κατὰ φύσιν* 'in accordance to nature' and *παρὰ φύσιν* '(in this case) contrary to nature'. Thomas Aquinas bases the prohibition of interest on the concept of exchange

⁶⁹ Aristotle: *Politics*, translation of H. Rackham, Loeb Classical Library, Cambridge Mass., 1932, 1990: 51. “Διπλῆς δ' οὐσης αὐτῆς, ὡσπερ εἶπομεν, καὶ τῆς μὲν καπηλιτικῆς τῆς δ' οἰκονομικῆς, καὶ ταύτης μὲν ἀναγκαίας καὶ ἐπαινουμένης, τῆς δὲ μεταβλητικῆς ψευδομένης δικαίως (οὐ γὰρ κατὰ φύσιν ἀλλ' ἀπ' ἀλλήλων ἐστίν), εὐλογώτατα μισεῖται ἢ ὀβολοστατικῆ διὰ τὸ ἀπ' αὐτοῦ τοῦ νομίσματος εἶναι τὴν κτῆσιν καὶ οὐκ ἐφ' ὅπερ ἐπορίσθη μεταβολῆς γὰρ ἐγένετο χάριν, ὁ δὲ τόκος αὐτὸ ποιεῖ πλέον (ὅθεν καὶ τοῦνομα τοῦτ' εἴληφεν· ὅμοια γὰρ τὰ τικτόμενα τοῖς γεννώσιν αὐτὰ ἐστίν, ὁ δὲ τόκος γίνεται νόμισμα ἐκ νομίσματος)· ὥστε καὶ μάλιστα παρὰ φύσιν οὗτος τῶν χρηματισμῶν ἐστίν” (Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1258, column a, lines 38–40, column b, lines 1–8).

function of money according to Aristotle's teaching: "Money was invented to be tool of exchange according to Aristotle (in V. *Ethic*⁷⁰ and in I. *Polit.*⁷¹) and therefore the proper and main use of money is its consumption and destruction."⁷²

"It has to be known that there are things whose only use is their consumption."⁷³ These are the so-called *res primo usu consumptibiles* which are consumed by their first use. It follows, that their use cannot be distinguished from their consumption and their use cannot be separated from their consumption. Therefore their use and consumption cannot be sold separately either. Money is precisely such an item in Aquinas's text quoting Aristotle just above, and this is the reason that interest cannot be taken for the use of money according this argument.

Interestingly enough, Thomas Aquinas however went beyond Aristotle, as he recognised other functions of money as well:

[H]e who lends money transfers the ownership of this money to whom he lends. Therefore he, who borrows money, keeps it at his own risk, and he has to repay it entirely. Therefore the lender must not demand more. He however, who entrust a merchant or a tradesman with his money in a common venture, does not transfer the ownership of his money to the person in question, but it remains his. In this case the merchant or the tradesman deals with this money at the owner's risk. Therefore the owner can demand part of the gain, as his share.⁷⁴

⁷⁰ Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1133, column a, lines 20–21.

⁷¹ Aristotelis opera ex recensione Immanuelis Bekkeri (Berlin, 1831), editio altera ex cura O. Gigon, Volumen alterum, Berlin, 1960: 1257, column a, lines 35–41.

⁷² "Pecunia autem secundum Philosophum in V. *Ethic* et in I. *Polit.* principaliter inventa est ad commutationes faciendas: et ita proprius et principalis pecuniae usus est ipsius consumptio sive distractio" (*AST*, II^a II^{ae}, qu. 78, art. 1, *corpus articuli*).

⁷³ "Sciendum est, quod quaedam res sunt quarum usus est ipsarum consumptio" (*AST*, II^a II^{ae}, qu. 78, art. 1, *corpus articuli*).

⁷⁴ "[I]lle qui mutuatur pecuniam transfert dominium pecuniae in eum cui mutuatur. Unde ille cui pecunia mutuatur sub periculo tenet eam, et tenetur integre restituere. Unde non debet amplius exigere ille qui mutuavit. Sed ille qui committit pecuniam suam vel mercatori vel artifice per modum societatis cuiusdam, non tranfert dominium pecuniae suae ad illum, sed remanet eius, ita quod cum periculo ipsius mercator de ea negotiatur vel artifex operatur. Et ideo licite potest partem lucri inde provenientis expectere, tamquam re sua" (*AST*, II^a II^{ae}, qu. 78, art. 2, ad quintum).

THE MATTER OF MONEY

Professor Ferenc Ibrányi referred to the *material cause* of money.⁷⁵ Once upon a time they believed that the value of money came from its gold or silver content or at least from the gold or silver deposits in the Central Banks. Modern societies paying by bank cards have demonstrated that the material content of money is irrelevant. Today it must be clear that columns of numbers on computers can function just as well if not better than money made of gold. Nevertheless as far as money is a draft on the national income, the national income has to be considered as the remote material cause of money. Namely the amount of money must be kept within a certain proportion with the national income by various fiscal and monetary policies, otherwise we create deflation or inflation. Economics stresses the following equation:

$$M(\text{oney})^{76} \times V(\text{elocity of money}) = N(\text{et}) N(\text{ational}) P(\text{roduct})^{77}$$

This equation shows that the value of money depends on the net national product, but also that if the total amount of money increases above a certain level of the net national product the units of money will fall in their value. Beyond a certain amount in such cases the velocity of the circulation of money will increase as well, with the result of galloping inflation. In any case, the above equation shows that the material with which money deals is in fact the Net National Product.

⁷⁵ F. Ibrányi: 'A kamatkérdés erkölcsstudományi problématicája', *Theológia* 4, 1937: 321f.

⁷⁶ M = public's currency + demand deposits + time deposits.

⁷⁷ Samuelson (*op.cit.*: 266).