The question of the ‘proper use’ of money seems to have no right of citizenship in economic science. We could perhaps even say that this right has been implicitly but authoritatively denied to it when constructing a corpus of scientific knowledge on money, as if there were a certain degree of incompatibility between the political issue embodied in that question and the technical issue supported by this knowledge.

Whatever theoretical considerations we may draw, the historical affirmation of Political Economy has gone hand in hand with the dismantling of traditional western forms of complementary monetary architectures. Similarly, we can see that western monetary history of the past two decades (from the Gold standard to Bretton Woods and hence to today) has been marked by a progressive reduction of local monies in the name of the construction of a global monetary system. In particular, after the fall of the Bretton Woods system, we could say that the dogmatic ‘misacknowledgement’ of the question of the proper use of money not only puts local monetary systems into permanent danger but is even an obstacle for the creation of an international monetary system.

The present judgement criterion of monetary systems seems to be that of efficiency of their functioning and certainly not that of propriety of the use of money as an instrument.

Efficiency as a criterion does not recognise differences in, but only degrees of efficiency and inefficiency. This is so, to the point of not easily recognising the peculiarity of the monetary question within economics. The question of the proper use of money on the contrary, implies differences, and assumes above all that the distinction between proper and improper use is clearly posed.
Efficiency needs only a \textit{quantitative} optimum\textsuperscript{1}, whereas propriety needs \textit{qualification}, i.e. distinction, i.e. in the last instance a sense of limit. While the former produces uniformity, already at a theoretical level, the latter implies the acknowledgement of a monetary multiplicity which cannot be reduced to the level of substitutability by means of the market.

We still need, however to ask which of these two positions (implicit demand for uniformity or explicit acknowledgement of multiplicity) is better for the universal nature of money.

In this paper, we have tried to underline the importance of the question of the proper use of money, starting with Western reflections on money, from Aristotle to Keynes. As we can gather from the sub-title, this is a tradition that is ‘openly hidden’. All the texts that we will quote are indeed well known, but not always recognised for their weight. They are usually used to give support to a type of doxology of pre- and para-scientific reflections on economic science\textsuperscript{2}. However, here the classification of knowledge will not play any role. The question of the proper use of money will be taken from where it has been posed.

There is indeed another question which to our eyes is fundamental. This involves asking ourselves if the proper use of money can really remain outside the field of economic thought without damaging it. Keynesian reflections on money on this point would lead us to answer no. But this is what we aim to show.

2. An open tradition from Aristotle to Keynes and vice-versa.

Towards the end of \textit{General Theory} by J. M. Keynes, chapter 23, there is an apparently surprising passage.

I was brought up to believe that the attitude of the Medieval Church to the rate of interest was inherently absurd, and that the subtle discussions aimed at distinguishing the return on money-loans from the return to active investment were merely Jesuitical attempts to find a practical escape from a foolish theory. But I now read these discussions as an honest intellectual effort to keep separate what the classical theory has inextricably confused.

\textsuperscript{1} Here we are obviously referring to M. Friedman, \textit{The Optimum Quantity of Money}. However, this decision was taken in effect, at the very moment of establishing the science of economics, i.e. with Ricardo. It needs to be noted that this decision was taken dogmatically rather than scientifically. Indeed, the incipient chapter of Money and Banking principles states, “So much has already been written on currency, that of those who give their attention to such subjects, \textit{none but the prejudiced are ignorant of its true principles}. I shall, therefore, take only a brief survey of some of the general laws which regulate its quantity and value.” This indicates that money has to be reduced to simple quantity – as no one can from then on \textit{dare} to deny.

\textsuperscript{2} J. A. Schumpeter is the champion of this type of attitude. See the chapters of his \textit{History of Economic Analysis} dedicated to economic thought that precedes the birth of economics.
together, namely, the rate of interest and the marginal efficiency of capital. For it now seems clear that the disquisitions of the schoolmen were directed towards the elucidation of a formula which should allow the schedule of the marginal efficiency of capital to be high, whilst using rule and custom and the moral law to keep down the rate of interest.

This text is indeed surprising, and for many it must have been and still is extremely irritating. There are indeed few questions capable of irritating an economics scholar more than that of the legitimacy of the interest rate. This point was apparently regulated at the beginning of Enlightenment, and therefore quite rightly put aside among the scraps of the ‘dark ages’, when deductive theories of contemporary social sciences were still obscured by subtle distinctions made by comments and glosses, i.e., interpretations. However, the question remains: nummus parit nummos? Or in other words, are the offspring of money legitimate or simply ‘natural’ not to say ‘bastards’, i.e. incapable of bearing an honourable name? Where does exactly lie the generative power of money? Is it in the simple fact of being saved, or is it elsewhere? Is this generative power properly measurable with a ‘price’? What links present and future money together and how, according to which nomos, can we convert one into the other? Moreover, how can we not recognise that the question of loans at an interest rate is a problem that is more universal than western universality? How can we not bear in mind that other great civilisations have posed and resolved the legitimacy of interest on loans very differently from the contemporary western economic doxa, yet in great accord with all previous tradition of western thought?

A profound historian of western juridical tradition, whose interpretations show us the deadlocks and enigmas of western dogmatic construction – recently wrote in close consonance with Keynes:

History flees from control, and ‘Euro-American-centrism’ is no longer what it used to be. We can no longer hold to the analysis of Max Weber about the contribution of Protestantism to the conception of saving and capital, nor to the appreciation of the attempts by the Catholic Counter-Reformation to avoid forbidding interest on loans by means of refined jurisprudence. We are in a ‘meanwhile’ (entredeux) in which we do not yet dare to raise the anthropological question that emerges from the ancient layers of the European past: is money father and mother, and does it hence make children? (Western tradition evokes this by means of negation: nummus non parit nummos, money does not generate money). What are we to do with this primitive question concerning the genealogy of money, rediscovered by wayward ethnology, and constantly ignored by economic value theories, as well as by psychoanalysis, which instead ought to be interested in studying the subjective sources of exchange? What we have here is an important issue in the discussions opened by the globalisation of credit and debt relations: can we really bear to apprehend, what we had already banished from western memory, from other cultures and in
particular from those threatened to be totally wiped out? At the same time, is it not possible for an inquiry into the dogmatic foundations of western thought to question the unfolding of economic theory, that, having been coupled for over two centuries to the concept of nature of physical sciences, acts as a judge of civilisation and as “the study of rational politics and morals”, according to Jacques Rueff’s formula, which anticipates the contemporary doxa?

Keynes’ text is certainly surprising and irritating, but we should add that it is only so for one who does not admit that Keynes had a certain ability in penetrating monetary phenomena that was irreducible to the accepted wisdom of professional economists, above all for those who did not recognise the logical legitimacy of the question that he posed. Indeed, there could be an ‘openly hidden’, yet constantly accessible tradition of western thought on money, that does not clash with Keynes’ affirmations. On the contrary, in the light of that tradition, these affirmations could be seen as an attempt, within political economy, to take up a question, the cancellation (we should say the repression) of which coincides with the very beginning of economic science. A beginning which therefore remains not at all clear, least of all to itself.

In *General Theory*, but indeed in all his theoretical work, Keynes places the apparent relation between interest and money at the centre of his research. He does this by questioning the relation that should occur between savings and investment and the factors that affect them. This includes the problem of the interest rate, as well as the logical difficulty of considering it as a clearing price between the supply of savings and the demand for investment. Many of the observations that both precede and follow this passage continue in this vein. However, as we well know, it is Keynes himself who reminds us in this very chapter by talking about Gesell’s monetary conceptions, that his concept of interest rate is closely linked to the his interpretation of contemporary western money and in particular to the problem of liquidity and liquidity preference.

In Keynes’ theoretical work, on the problem as well as the fact of liquidity there are indeed some fundamental implications to understand the monetary phenomenon as an institutional one. They are very important and rare indications. Indeed, that a theory of money must also consider institutional aspects is a fact that very few can refute. But that money as such is an institution is very rarely seen. But as well as this we can go beyond Keynes and address another even more decisive problem: how to consider monetary institutions. Are they simply matters of convention? Or are they something that cannot self-generate but at the same time are a primary and universal necessity for civilisation or should we say more simply yet more problematically –justification of social relations? In what way is money a fundamental and universal institution? And, how does this fundamental
nature, even if universal, have anything to do with exchange as a uniform mechanism?
This last question seems to be in particular the one that a rigorous inquiry on complementarity between monies cannot avoid answering. However, before dealing with the relation between proper use and complementarity, we need to pose a wider preliminary question. In what way does the supposed infinite substitutability of money (that is the basis of monetary doctrine) come from a ‘dis-interpretation’ of the proper use of money?
Let us return then to Keynes and his apparently eccentric interpretation. The simplest thing to note is that the Keynesian re-interpretation of Scholastic theory does not come (as in many other authors) from Catholic inspiration as a counter-position to Political Economy. Neither is it an attempt to ‘integrate’ considerations of efficiency with ‘moral’ considerations of an older way of thinking (another Catholic virtuosity), or put another way, as if economics and morality should look for … a complementary existence.
What Keynes explicitly and willingly recognises is that the Schoolmen are intellectually honest and their theoretical work is well founded – a recognition that in its turn is based on the Keynesian discovery of a present urgency to recovery their work. Keynes considers the Schoolmen’s theoretical work is well grounded as it is critical. It is an attempt to separate and distinguish that which tends to be confused. This confusion is not due to human negligence (even if this were ‘classical theory’) but rather because of the essence of the thing itself.
The first area of confusion, which in a certain sense generates the others, is that between money and wealth, or rather to put it into standard economic terms, between money as a means of exchange and money as an asset. We could redefine this as the difference between money as flow and money as stock, ‘fluid’ and ‘solid’. However, the question can be condensed even more simply: can money, in as much as it makes exchange possible, be considered as a good in itself?
It is here, in an attempt to define what tends to be confused, that western thought posed the question of the proper use of money – thus evoking the possibility, which is inherent to the very use of money, of an improper use of money.
From the very beginning of western money-thinking, the name of this improper use has been, ‘usury’. The problem of usury, however is not a quantitative one connected to legal limits of the maximum interest rate. This is a late and rather watered down, not to say senseless approach to the

3 As if artificial de-composition (the autonomy of economics from morality passes for a triumphal inauguration of economics) could be resolved with a similarly artificial re-composition. We should remember that this moral slight of hand was ironically revealed immediately by Hegel and in more apocalyptical tones by Carlyle, in a passage as famous as it is misquoted.
4 Henry Miller (Money and How It Gets That Way), lightly quoting an imaginary schoolman managed to say what is essential: ‘that which represents either symbolically or concretely an act of exchange can never be exchanged’.

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problem that only from Bentham could be considered adequate (In Defense of Usury, 1787).
In the beginning, the problem was linked to the very use of money. This is what we find in Aristotle (Politics, I, 1258b):

…usury is most reasonably judged intolerable (miseitai), 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 the purpose of exchange, but interest increases the amount of the money itself (and this is the actual origin of the Greek word for interest: tokos, “offspring”, resembles teknos, “son”, and interest is money born of money); consequently this form of wealth-getting is of all forms the most contrary to nature.

‘The sake for which money was invented’ was not other than its use as a measure, and secondly as a means of exchange. Aristotle’s objection or even opposition to usury is therefore logical rather than moral, if we can accept that these distinctions had a meaning for Aristotle. In particular, we should not read the term “most contrary to nature” as an attempt to give nature an unchangeable and sacred order of which Aristotle would be a reactionary supporter. The filósofos Aristotle is not at all misárguros: and he certainly does not hate anything, money least of all.

In more Aristotelian terms, we can say however that his objections were political, as far as that improper use of a means, which consists in transforming it into an end, undermines, i.e. degenerates its proper use. What then is the proper use of money? Very simply, that use of money according to which exchanges can orderly occur according to a common measure, whose meaning is shared by the whole political community. The interesting point for our discussion is that this emphasis, which is very clear in Aristotle, is more or less identical in Keynes. In reference to wealth-getting:

As the inflation proceeds and the real value of the currency fluctuates wildly from month to month, all permanent relations between debtors and creditors, which form the ultimate foundation of capitalism, become so

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5 We can easily show that couple morality/economics and therefore the problem of the subordination or autonomy of economics to morality is more relevant to scholastic interpretation of Aristotle than to Aristotle himself. The origin of this question is the net difference posed by Schoolmen between distributive justice and commutative justice (see. e.g. Thomas Aquinas Summa theologica, Ila Ile, q. 61). This distinction continued until J. S. Mill. For Aristotle, on the contrary, economy is a part of politics in that the polis includes oikos as one of its parts. Polis is distinguished from oikos not simply on a quantitative level but in as much as it is the telos of economic communities. Polis is telos: i.e. what makes possible the completion of those communities that are not self-sufficient in themselves, i.e. “economic” communities. And ‘ethics’? For Aristotle ethics was simply another word for politics. This is what he confirms in the opening passage of his first book of Nicomachean Ethics: “Our investigation of Ethics is in a sense the study of Politics.”
utterly disordered as to be almost meaningless; and the process of wealth-getting degenerates into a gamble and a lottery.

Keynes talks of inflation while Aristotle is talking about interest on loans, but for both the central element that risks degeneration or loss is the stability of money as a measure. Again this is not quantitative stability, nor even complete inflexibility but the capacity of money to remain equal to itself. What money are we talking about? Of that peculiar thing which, not being itself wealth or even precisely because it is not wealth, allows wealth-getting to be coherent with itself, i.e., to be true and not deceiving. In modern terms, money is that which allows wealth to be real wealth and not just … monetary wealth!

Aristotle is very clear about this point. Money cannot itself become the object of commerce, exchange or even more so of usury as it is “stoichèion kài pèras”, the first element and limit of exchange:

natural wealth-getting belongs to house-holding (oikonomìa), whereas the other kind belongs to trade, producing goods not in every way but only by the method of exchanging goods. It is this art of wealth-getting that seems to be concerned with money, for money is the first element and limit of exchange. And these riches that are derived from this art of wealth-getting are truly unlimited.

Money is only apparently the object of wealth-getting, that is of something that is truly unlimited. Indeed, what makes wealth grow is precisely the ‘limitedness’ of money, i.e. the impossibility for it to grow unlimitedly by means of an exchange in which it no longer plays the role of mediator, but is rather itself the object of exchange. Money is the means of wealth-getting, and symmetrically wealth-getting is the end of money as a means. Exactly for this reason, wealth as an end, in as much as it can be ‘infinitely’ acquirable in a process of wealth-getting, limits money as a means:

just as the art of medicine is without limit in respect of health, and each of the arts is without limit in respect of its end (for they desire to produce that in the highest degree possible), whereas they are not without limit as regards the means to their end (for with all of them the end is a limit to the means), so also this wealth-getting has no limit in respect of its end, and its end is riches and the acquisition of goods in the commercial sense.

These are the logical roots of Aristotle’s condemnation of usury – a condemnation that should be read as a judgement made in the name of

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7 Indeed for Keynes, the stability of money as a measure comes before the stability of its purchasing power. The latter can be deliberately changed in order to maintain measure. See the passage of Tract on Monetary Reform, in which Keynes shows that inflation, in its perturbation of purchasing power, can be seen as an accidental response to a structural need that ought instead be deliberately pre-established. See also below the Aristotelian passage on money as an institution, or better on monetary institution as the faculty not only of making money but also of undoing it and of making it undesirable, i.e. unusable.
exchange rather than against it. It is this rather than the scholastic argument made in his name that marks Aristotle’s position and is closest to Keynes’ argument.

There are two results that we can draw from Aristotle. Firstly, the energy that money itself has, i.e. its specific work, is limitation. Money is what makes exchange possible and also limits it. It is the measuring property that characterises money. Secondly, this limiting capability is in its turn limited (even quantitatively) by the end that it serves. It is for these two reasons that money in itself is not and can in any way be considered part of the wealth of a community or an individual. Once more the affinity between Aristotle’s political argument and Keynes’ economic one is very clear. Keynes in 1923 stated in *Tract on Monetary Reform*:

> It is not easy, it seems, for men to apprehend that their money is a mere intermediary, without significance in itself, which flows from one hand to another, is received and is dispensed, and disappears when its work is done from the sum of a nation’s wealth.

Writing so, Keynes simply takes up a point that Aristotle underlined even more profoundly – in the sense that Aristotle explicitly says why, “it is not easy for men to apprehend,” that money is not really wealth:

Indeed riches are most of the time assumed to consist of a quantity of money, because money is the thing with which the art of business and of trade deals. But there’s a time in which, more profoundly, money itself appears to be a very peculiar “nonsense”, i.e. something whose nature is to be wholly a rule, i.e. nothing “natural” in itself, because when those who use it have exchanged the currency it has no worth at all, and because it is of no use for any of the necessary needs of life, and a man well supplied with money may often be destitute of the bare necessities of subsistence; yet it would be really absurd that wealth should be of such a kind that a man may be well supplied with it and yet die of hunger, like the famous Midas in the myth, when owing to the insatiable covetousness of his prayer all the viands served up to him turned into gold.

The text is full of hints. For our purposes, we only need to note that a purely quantitative concept of money proves to be absolutely insufficient, simply because money is something *that can not be reduced* to a mere quantity. This is so because it is the ‘cautioner’ of the meaning of economic quantities. Commerce deals with, -’has to do’, with money – it makes use of determined quantities of money -, but it doesn’t deal in it, *it hasn’t money as such*. When it tries ‘to have money’, commerce would discover that money is ‘nonsense’ or, to be more precise that it doesn’t have the same sense as that which it allows to exchange. This is why Aristotle quotes Midas at the end of this passage, and not for literature’s sake, but to make us understand the roots of the difficulty to conceive money as a necessary

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‘nonsense’ for the exchange of sense. This difficulty, to use a rather complicated formula, is inherent in the use that man makes of money, i.e. in the possibility that the sense of that which regulates the exchange of sense becomes in its turn the object of a misunderstanding, in which money loses its own sense by way of deception. This deception is above all a way of deceiving ourselves, and is due to the fact that an image of wealth is taken for wealth itself. Almost as if we find ourselves, without realising it, on the wrong side of the mirror, where the world is back to front, ‘turned into nonsense’, an absurd world, death to sense, in which goods become money and become thus unusable as goods in themselves.

In Aristotelian thought and in ancient mythology, Midas is the ‘speculator’ by antonomasia, i.e., he who believes he has understood the nature of money and therefore believes that if he can have it all for himself, he can have everything that money can buy. Midas believes he knows what wealth is but has forgotten that gold only allows us to gain things by being ceded, i.e. staying in circulation or better being sunk into circulation. As we know, Midas is freed from his unsupportable gift by entering against the current of the river Patulous. His gift that he believed to be wealth is ceded to the river which will lead it back as a flow of liquidity…

Let us leave Aristotle and Keynes for a while and take a look at the other theme of our considerations on the proper use of money: complementarity. A fundamental feature of complementarity among monies has come to light, although not in an immediately apparent way. Indeed, as quite rightly observed, if complementarity has to be considered a relevant issue, it is because it casts the fundamental view of standard monetary theory into doubt, i.e. the theoretically perfect substitutability between different monies. But this would mean that monies, whose fundamental relationship is complementarity and not simple substitutability, have a series of essential limitations, if only for the fact of being historically linked to areas of circulation of goods. To be complementary, monies must be linked with limited areas of circulation. Therefore, complementary monies must be the effect of an institution whose principal objective is by definition, to prevent…

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9 Indeed, Midas comes back, without the force of the myth, but rather in the form of a wit, in Keynes’ General Theory: “Unemployment develops … because people want the moon; — men cannot be employed when the object of desire (i.e. money) is something which cannot be produced and the demand for which cannot be readily choked off.” Money cannot really be an object of desire precisely because it is a means, an intermediary dimension, through which desire has to pass to be adequately satisfied by a real object. In psychoanalytical terms we could say, money is for desire an inadequate object-choice. In other words, the real relation with money should pass through a symbolic renunciation of the desire to possess it. According to Keynes’ wit, what we are really able to want is not the moon but rather maybe… cheese, of which the moon is simply an image. For Keynes it is this kind of illusion that has been nourishing for centuries the auri sacra fames. A terrible hunger, that is inadequate in that it cannot distinguish the thing itself from its image.
the indefinite accumulation of money or an indefinite possibility of pouring accumulated money from a circulation space to another. In other terms, complementarity between monies implies that they are usually \textit{expendable} currencies and not ‘hoardable’ ones. Thus, they should be seen as \textit{institutional constructions} in that they must be \textit{made in order to circulate}. In its turn, monetary circulation implies that money can no longer be part of any final sum of wealth\textsuperscript{10}. This is so up to the point that, as in the myth of Midas, money which stagnates, i.e. is incapable of properly disappearing, is a sign of destitution for both communities and individuals. Any hoarding is a risk for monetary function. It is a risk even if not necessarily an actual dysfunction. The risk becomes real however, when this hoarding is linked to the payment of an interest. Here we are again at the point were we began and that brought Keynes to re-value medieval reflections on usury. Now we have an additional element to understand in what sense they really were an honest intellectual effort and certainly not “Jesuitical attempts to find a practical escape from a foolish theory”. Keynes considers “classical theory” as being a decidedly more foolish theory, given that it considers money as a commodity rather than a measure and means of exchange. That is, a commodity that finds its own equilibrium price as determined by the supply and demand of \textit{unspent} money.

We should now try to understand the origins of this ‘foolishness’. Remember that Keynes explicitly talked of “inextricable confusion”, introduced by classical economic theory, between that which regulates savings and that which regulates investment. Now, the root of this confusion is the idea that money leaving \textit{exchange} circulation \textit{implies} that it necessarily enters the \textit{financial} circuit of savings and investment, of debt and credit: in other words, the idea that money can be completely substituted in time, even more so than in space.

We should now try to look carefully at the concept of substitutability, in order to understand its central role in political economy. This science is not only typically western but also typically modern as Hegel reminds us. In the apparent universal application of the concept of substitution lies the difficulty for economic science to face the \textit{singular} \textsuperscript{11} economic nature of money.

\textsuperscript{10} Marx sees this need to disappear in a way that is both worrying and decisive. For Marx, circulation is constructed as a quantitative complication of the bilateral relation seller/buyer. As such it can not generate ‘valorisation of value’, i.e. any true form of capitalism. The particular problems of this representation, but also the problem of the relation between money and circulation on one side and capital/valorisation on the other, and finally the problem of ‘capitalist money’ should be the object of a close interpretation of IV of \textit{Capital}. This however, is out with the scope of this work.

\textsuperscript{11} We say ‘singular’ nature in the precise sense that its singularity can not be understood by differentiating it from a more general case. This singularity can not be understood as an \textit{exception}. Money is not a ‘good’, and yet is essential for the \textit{economic meaning} of goods. This, together with the fact that economic goods maintain irreducible qualitative
3. Four limitations of the concept of substitution

In current micro-economic theory, goods can be distinguished from non-goods by their substitutability even more than their scarcity. A good, i.e. something that can be defined by a price should certainly be scarce. Indeed, one of the first results of modern economic thought is the so-called, ‘paradox of value’\(^{12}\). However, we need to say that this is a paradox without depth. It illustrates, if anything, a necessary condition. In the Garden of Eden there is certainly no need for economic exchanges. But it is not a sufficient condition. However outside Eden, i.e. ‘always’, what is important in order to build a community of exchange is not so much the scarcity of things but rather their exchangeability. For this purpose, individual need should come under the heading of ‘a collective system of need’, in which the utility of anything is, in principle in direct relation to the utility of everything else.

Such considerations can easily be found throughout the entire history of economic thought. What is specific to political economy, is that it makes these assumptions absolute. A commodity is a commodity only if a priori we can substitute it with any other commodity without referring to its use value. This is why any merceological distinction between primary and luxury goods has no real analytical meaning except under the most primitive exchange conditions. Economic theory prices, in both consumer equilibrium and general economic equilibrium must therefore be relative, i.e. quantifications of the marginal rate of substitution of commodities.

What then of money in this perspective? Simply, it too has to be considered a commodity or better, the universal commodity. Money is a kind of ‘general exchanger’. And it is as a universally substitutable commodity that it can be conceived as a means of exchange avoiding the inconvenience of the ‘double coincidence of wants’ that affects bartering. But even according to economic theory, it is this characteristic that makes it something that differences, means that its singularity is never the same as its uniqueness. From the perspective that we are aiming to build, this singularity implies an original manifoldness of monetary forms as well as the impossibility of their reductio ad unum. The theoretical and political issue of complementarity lies in recognizing both that necessity and this impossibility.

\(^{12}\) Water, even if abundant maintains its ‘use value’, i.e. its unsubstitutable usefulness. But it cannot have a price, i.e. an exchange value. When on the contrary it ceases to be abundant, a man who is dying of thirst could reasonably offer a diamond, i.e. a good that has enormous value, to have a drink of water... On the other hand, in the same years when Davanzati was first showing this paradox, there was still another Italian author, Gasparo Scaruffi, who in a treatise on money as a universal unit of account, did not hesitate to state that gold was scarce exactly because it was precious and not vice-versa. This is a very good example of the epistemic upset which occurs in a short space of time in western thought on money.
shouldn’t be properly considered a commodity like all others, if we truly want to draw all possible and sound consequences from its premises. In particular, in the general equilibrium model it does not structurally play any role in the univocal and optimal definition of the price system which leads to a clearing of commodity transactions. In this equilibrium, money cannot properly be spent and even less can it be ‘saved’. This then is the first consequence of what we have underlined: if substitutability is the condition of being a good, then money, in its peculiar, i.e. generalised substitutability can only be means to reach equilibrium. As a means for generalised exchange of commodities, money is certainly universal (as Pietro Verri states\textsuperscript{13}) but, for this very reason, nothing properly substitutable. Its very universal nature makes it properly ‘unsubstitutable’.

We have said that in classical theory equilibrium, money cannot really be spent or even saved. Problems arise in economic theory when we have to talk about saved money, i.e. ‘capital’. The transformation of money into capital is exactly what Marx considered an impenetrable mystery in ‘bourgeois economic theory’. Indeed, with the classical and neoclassical concept of capital the notion of substitution—and more precisely substitution in time\textsuperscript{14}—enters surreptitiously into play.

However, there is a point at which the question of substitutability comes into direct relation with money. This is not within a commodity exchange system; rather it is in the relation between circulation areas – i.e. economic systems. This is the monetary problem of exchange between currencies. Now, for standard economic theory, the exchange rate is a relative price between two currencies considered as commodities. But when the exchange relationship between currencies is considered exclusively as a price (the exchange rate) determined by supply and demand of homogenous quantities, we should learn to see what is lost in money and whether we can yet again speak of its proper use. This kind of questions has more analogies than we can imagine with the question of exchange over time (interest rate), i.e. with our original question. We must come back to this issue, but before we have to ask the question, ‘what happens to an economic system when money which limits its space can no longer be used as a means of exchange? That is, when the relationships between operators no longer occur inside an exchange circuit but occur between exchange circuits, each of which has its own monetary rule? Must money necessarily become an

\textsuperscript{13} ‘Il danaro è la merce universale, cioè a dire è quella merce la quale per la sua universale accettazione, per il poco volume che ne rende facile il trasporto, per la comoda divisibilità e per la incorruttibilità sua è universalmente ricevuta iniscambio di ogni merce particolare.’ (Money is the universal commodity, i.e. that commodity which, because of its universal acceptance, reduced volume, easiness of transportation, practical divisibility and incorruptibility, is universally received in exchange for any particular commodity). Pietro Verri, \textit{Della economia politica}, 1781.

\textsuperscript{14} This is clearly shown in the entire work of Piero Sraffa.
object of exchange? Or should we put the problem into different terms? This is the right context for the genesis of international money and for a discussion about the role gold as ‘international currency’. Aristotle makes some fundamental observations in his *Politics* about this. The problem arises precisely at the point where two systems of legal currencies meet, i.e. in the sphere of monetary relations regulating international commerce. Here, neither national currency can be considered as the exchange measure. Fantacci may give us some indications on how pre-modern Europe faced this problem. In synthesis, we can say this occurred by means of a system of complementary currencies – unsubstitutable internal and external money together with a clearing system of international credits and debts that allowed *no space at all* for interest on loans.

There are however other considerations from which we can gain new insight. Let us return to Keynes, i.e. to his reflections on substitutability and their close relation with some central points in western money-thinking. The passage in question is chapter 17 (*The Essential Properties of Interest and Money*), paragraph 3:

> In attributing, therefore, a peculiar significance to the money-rate of interest, we have been tacitly assuming that *the kind of money to which we are accustomed* has some special characteristics which lead to its own rate of interest in terms of itself as standard being more reluctant to fall as output increases than the own-rates of interest of any other assets in terms of themselves. Is this assumption justified? Reflection shows, I think, that the following peculiarities, which commonly characterise *money as we know it*, are capable of justifying it. *To the extent that the established standard of value has these peculiarities*, the summary statement, that it is the money-rate of interest which is the significant rate of interest, will hold good.

The first two peculiarities are as follows: zero (or near zero) production elasticity\(^\text{15}\), and zero (or near zero) substitutability\(^\text{16}\).

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\(^{15}\) “The first characteristic which tends towards the above conclusion is the fact that money has, both in the long and in the short period, a zero, or at any rate a very small, elasticity of production, so far as the power of private enterprise is concerned, as distinct from the monetary authority; — elasticity of production meaning, in this context, the response of the quantity of labour applied to producing it to a rise in the quantity of labour which a unit of it will command. Money, that is to say, cannot be readily produced; — labour cannot be turned on at will by entrepreneurs to produce money in increasing quantities as its price rises in terms of the wage-unit. In the case of an inconvertible managed currency this condition is strictly satisfied. But in the case of a gold-standard currency it is also approximately so, in the sense that the maximum proportional addition to the quantity of labour which can be thus employed is very small, except indeed in a country of which gold-mining is the major industry.”

\(^{16}\) “The second *differentia* of money is that it has an elasticity of substitution equal, or nearly equal, to zero; which means that as the exchange value of money rises there is no
For Keynes these two characteristics can easily explain the “prima facie presumption for the view that [money’s] own-rate of interest will be relatively reluctant to fall”. However their implications are even wider. Keynes emphasizes two characteristics that are essential to money as such and not simply as money ‘as we know it’. They make money something which is not reducible to a commodity and therefore to something whose value can not be regulated by a market price. Furthermore they refer to some fundamental characteristics that western thought on the proper use of money has always emphasized. Money’s zero production elasticity indicates that money, if not natural is also not a technical entity, in the sense that it cannot be cultivated or manufactured. This is the fundamental difference between money and any other type of good, in that for the very conditions of its production it cannot be conceived as an endowment in the same sense as commodities. Money is certainly given –even more than commodities– but not in the same way as commodities. It is not given throughout a production process, even if production were reduced to a simple combination of productive factors.\textsuperscript{17} It is not a product, an output of any input but rather nomos pantàpasi, “wholly a rule” according to Aristotle. It is a law that exists only by means of an institutional establishment. Aristotle calls this establishment genesis katà synthéke, that can be translated as ‘generation according to convention’. However, a passage from Nicomachean Ethics clearly shows that this translation is not sufficient:

\begin{quote}
\textldots money arises in the mode of an institution. It is for this reason that it is called nòmisma, as it is not something that arises by itself but always thanks to a deliberate institution – from which it can be drawn that the act of creating it implies also the onus of a deliberation which transforms it or undoes it making it undesirable.
\end{quote}

It is not therefore simple social conventions or agreements that were made on the base of parity, but rather something that must be ‘produced’ in a way that is radically different to any other usage good. It is made into something whose stability is not derived from laws of production, but rather the production of law. This is why it is something ‘abysmal’ not only in the literal sense of the word that it cannot be founded on anything natural, should it be the most ‘precious’ good, but also in the sense that it properly comes from nothing, as it is a law.

Keynes comes to the same conclusion in other ways and for other reasons when he confirms that “money is a bottomless sink for purchasing power”. The sense of this sentence in all its ambiguity will become apparent once we have looked at the second characteristic of money, its substitutability.

However, if we return to its inability to be produced, we can note the following: if money is not technically producible, i.e. it cannot “be grown like a crop or manufactured like a motor-car”, then for Keynes the institutional feature that responds better to this essential characteristic is that of an inconvertible and regulated money. And, as far as it includes strong if implicit elements of regulation, this definition is applicable even to the Gold Standard:

Money […] cannot be readily produced; — labour cannot be turned on at will by entrepreneurs to produce money in increasing quantities as its price rises in terms of the wage-unit. In the case of an inconvertible managed currency this condition is strictly satisfied. But in the case of a gold-standard currency it is also approximately so, in the sense that the maximum proportional addition to the quantity of labour which can be thus employed is very small, except indeed in a country of which gold-mining is the major industry

Money must not only be scarce, in that this is not only a quantitative but also a structural characteristic (money must be made so that it has zero production elasticity) but above all it is unsubstitutable, in analytical terms with substitution elasticity equal to zero:

This follows from the peculiarity of money that its utility is solely derived from its exchange-value, so that the two rise and fall pari passu, with the result that as the exchange value of money rises there is no motive or tendency, as in the case of rent-factors, to substitute some other factor for it.

Here however, we come up against Aristotle’s argument against usury, i.e. about the impossibility to treat money as a usage good. This is not because money were not useful but because its very utility, i.e. its proper use, does not consist in use but in cession. Here another contribution to the question of the proper use of money, coming from an openly hidden tradition, is Kant’s reflection on money. In paragraph 31 of the Metaphysics of Moral entitled What is money? Kant gives a nominal definition of money that will guide all his subsequent considerations:

Money is a thing the use of which is only possible through its cession. This is a good nominal definition, as given by Achenwall; and it is sufficient to distinguish objects of the freewill of this kind from all other objects; but it gives us no clue as to the feasibility of such a thing.

Here Kant fixes a limit in the sense of a frontier, between money and non-money. This is both in the sense of a distinction between money and usage goods and between money and other objects of freewill. Money is not a usage good and at the same time it is a very particular institution, a very peculiar law. The sense of monetary law is cession – i.e. money’s tendency to disappear into circulation. If and only if it is made in this way, money regulates the circulation of goods and imposing a seal of legitimacy over it.
Here we need to make an observation. When Kant talks of the *feasibility* of money as he defines it, he expressly nominates something that is essential. The cession of money, exactly because it is not an object of production but of *freewill*, is not something that we may take for granted. It is something that must literally be *established*. The nominal definition of money gives us the criterion to distinguish money from what it is not, but it does not say anything about the possibility about how to achieve this. It says nothing about the *feasibility* of money.

This condition of establishing the ability of money to be ceded is however explicitly treated by Keynes, who deliberately starts from the observation of a kind of money that *does not* fulfil this condition: or according to Keynes’ expression, ‘*money as we know it*’. Keynes is saying that this kind of money, i.e. contemporary western money, is simply ‘non-money’. He apparently draws the analytically opposite conclusion to this peculiar characteristic of money that Kant came to. This is so however, only because he has to consider interest rate as something that is ‘obviously’ referable to money: in other words, only because he has to *consider* money ‘*as we know it*’. For this kind of money, its non-substitutability allows it to generate an *infinite demand*. In this sense it is a ‘bottomless sink’:

*Thus…. money is a bottomless sink for purchasing power, when the demand for it increases, since there is no value for it at which demand is diverted — as in the case of other rent-factors — so as to slop over into a demand for other things.*

The non-substitutability of money ‘*as we know it*’ appears to Keynes as sufficient reason for its potentially infinite accumulability. However, in as much as its non-substitutability does not refer to money ‘*as we know it*’, but to money ‘*as such*’ (i.e. with money that could and should be made according to Kant’s nominal definition), we could read this differently – i.e. as ‘abyssmal’. Money is a bottomless sink in that it can *absorb* any amount of purchasing power. However this means that when money is seen in its cedable structure, its purchasing power is no longer its main characteristic. Here is the ambiguity of monetary phenomenon as we have already seen in the Aristotelian ‘nonsense’ and Midas’ misunderstanding of this ‘nonsense’.

On one hand, money *seems* to be reducible to a quantity which in its turn is able to increase without limits, on the other it is precisely the *limit* for quantity. The non-substitutability of money is at the same time the demonstration of the need that it is at any given time a certain quantity but also the proof of the impossibility to define money in terms of the *quantity of money*.

According to Keynes, the ambiguity of these two characteristics together with the need to choose between them, is resolved by simply removing a third characteristic of ‘*money as we know it*’. This characteristic, which we have not yet mentioned, is indeed peculiar only to this type of money. It is
liquidity, i.e. the capability of Western contemporary money to maintain its exchange value, whether used or not. This is clearly the ‘store of value’ function. It is this peculiar characteristic of modern money that actually suspends the need to distinguish between proper and improper use. It is to restore the proper use of money, i.e. to maintain the first two characteristics of money that Keynes favours monetary projects that take this third characteristic away, attributing it a carrying-cost by legal means:

Thirdly, we come to what is the most fundamental consideration in this context, namely, the characteristics of money which satisfy liquidity-preference. For, in certain circumstances such as will often occur, these will cause the rate of interest to be insensitive, particularly below a certain figure, even to a substantial increase in the quantity of money in proportion to other forms of wealth. In other words, beyond a certain point money’s yield from liquidity does not fall in response to an increase in its quantity to anything approaching the extent to which the yield from other types of assets falls when their quantity is comparably increased.

In this connection the low (or negligible) carrying-costs of money play an essential part. For if its carrying-costs were material, they would offset the effect of expectations as to the prospective value of money at future dates. The readiness of the public to increase their stock of money in response to a comparatively small stimulus is due to the advantages of liquidity (real or supposed) having no offset to contend with in the shape of carrying-costs mounting steeply with the lapse of time. In the case of a commodity other than money a modest stock of it may offer some convenience to users of the commodity. But even though a larger stock might have some attractions as representing a store of wealth of stable value, this would be offset by its carrying-costs in the shape of storage, wastage, etc. Hence, after a certain point is reached, there is necessarily a loss in holding a greater stock.

In the case of money, however, this, as we have seen, is not so, — and for a variety of reasons, namely, those which constitute money as being, in the estimation of the public, par excellence “liquid.” Thus those reformers, who look for a remedy by creating artificial carrying-costs for money through the device of requiring legal-tender currency to be periodically stamped at a prescribed cost in order to retain its quality as money, or in analogous ways, have been on the right track; and the practical value of their proposals deserves consideration.

But there is a fourth and final way to consider the relevance of substitutability to the proper use of money. This is once more considering the notion of usury as treated by scholastics and in particular by Thomas Aquinas. The most well known passage is in Summa Theologica, Ila Ile, quaestio 78. Thomas questions the legitimacy of loans at an interest and the

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18 The scholastic tradition is far richer in tinges than Thomas’ very sober and essential text. In particular we should remember how this question is treated by the Franciscan school and the Second Scholastics (the school of Salamanca).
relations that may or may not occur between those who give and those who ask for a loan. There are four questions:

Is it a sin to take money as a price for money lent, which is to receive usury?
Is it lawful to lend money for any other kind of consideration, by way of payment for the loan?
Is a man bound to restore just gains derived from money taken in usury?
Is it lawful to borrow money under a condition of usury?¹⁹

Unlike a gift, a loan is the passage of money that implies its restoration. The question is, according to which measure should it be restored? What is the correct measure of restoration of money when it is lent as money? This specification is not an idle one as it focuses on the singularity of money compared to capital goods rather than goods in general. In effect we are discussing is precisely the possibility or not of considering money as capital or something that can generate a surplus. Thomas’ reply to whether money is capital or not is the same as Marx’s answer– No. The reasons however are, as we could imagine, very different even if not quite as different as we may think.

The reply to the first question is clear:

I answer that, to take usury for money lent is unjust in itself, because this is to sell what does not exist, and this evidently leads to inequality which is contrary to justice. In order to make this evident, we must observe that there are certain things the use of which consists in their consumption: thus we consume wine when we use it for drink and we consume wheat when we use it for food. Wherefore in such like things the use of the thing must not be reckoned apart from the thing itself, and whoever is granted the use of the thing, is granted the thing itself and for this reason, to lend things of this kin is to transfer the ownership. Accordingly if a man wanted to sell wine separately from the use of the wine, he would be selling the same thing twice, or he would be selling what does not exist, wherefore he would evidently commit a sin of injustice. On like manner he commits an injustice that lends wine or wheat, and asks for double payment, viz. one, the return of the thing in equal measure, the other, the price of the use, which is called usury. On the other hand, there are things the use of which does not consist in their consumption: thus to use a house is to dwell in it, not to destroy it. Wherefore in such things both may be granted: for instance, one man may hand over to another the ownership of his house while reserving to himself the use of it for a time, or vice versa, he may grant the use of the house, while retaining the ownership. For this reason a man may lawfully make a charge for the use of his house, and, besides this, ask for the house back from the person to whom he has granted its use, as

¹⁹ Primo, utrum sit peccatum accipere pecuniam in pretium pro pecunia mutuata, quod est accipere usuram. Secundo, utrum liceat pro eodem quacumque utilitatem accipere quasi in recompensationem mutui. Tertio, utrum aliquis restitueret teneatur id quo de pecunia usuraria iusto lucro lucratus est. Quarto, utrum liceat accipere mutuo pecuniam sub usura.
happens in renting and letting a house. Now money, according to the Philosopher (Ethic. v, 5; Polit. i, 3) was invented chiefly for the purpose of exchange: and consequently the proper and principal use of money is its consumption, i.e. more precisely, the act of sinking it (distractio) whereby it is spent in exchange. Hence it is by its very nature unlawful to take payment for the use of money lent, which payment is known as usury: and just as a man is bound to restore other ill-gotten goods, so is he bound to restore the money which he has taken in usury.

Improper use, i.e. usury thus appears as a voluntary confusion between proper use and non-use: a “usuration” of use itself. Usury is a distortion of the relation between the user and what is used precisely because it wants to fix in advance a price for the use of money. Like consumer goods that are exchanged by the intermediation on money, and unlike capital goods, money itself is indispensable from its own use. In the case of money, as with usage goods, we cannot say that there is capital and amortisation, or even a maintenance cost. In other words, there is no way to keep separate a usage cost from a selling price. Furthermore, for money, all this is even more closely linked, for it is the price of itself. From a measuring point of view, whereas a kilogram of bread is equivalent to one lira, a lira is equal to one lira. Another way to look at this is to remember, as Thomas does referring specifically to Aristotle saying that money is made for exchange so therefore its specific consummation coincides with its sinking (distractio) in the exchange. The proper use of money, even as a loan, is to be spent and therefore we cannot think of paying for something twice in order to have it and spend it, given that money is properly possessed only when it is ‘lost’.

The non-substitutability of money appears again sufficient grounds for Thomas for the impossibility of substituting its use with its ‘non’ use by looking for an equilibrium price between them. The typically Keynesian question also arises, according to which if interest is a premium and a price (in the double sense of the French word prix), it certainly is not so for the fact of not having used money but rather for accepting to lose it differently to being spent. Finally, there is the point that it is not the fact of lending or the concept of an usage price that is neither conceivable or right, but the fact that money can be separated from its own use.

That this holds true can be demonstrated by the fact that a price for money use is admissible even for Thomas but only when money is not ceded as money. This is the sixth objection of the first article:

**Objection 6.** Further, silver made into coins does not differ specifically from silver made into a vessel. But it is lawful to accept a price for the loan of a silver vessel. Therefore it is also lawful to accept a price for the loan of a silver coin. Therefore usury is not in itself a sin.

**Reply to Objection 6.** The principal use of a silver vessel is not its consumption, and so one may lawfully sell its use while retaining one’s ownership of it. On the other hand the principal use of silver money is sinking it in exchange, so that it is not lawful to sell its use and at the same
time expect the restitution of the amount lent. It must be observed, however, that the secondary use of silver vessels may be an exchange, and such use may not be lawfully sold. On like manner there may be some secondary use of silver money; for instance, a man might lend coins for show, or to be used as security.

If we look at the reply to this objection we can understand many things. Firstly, money as that thing the use of which is impossible to sell never coincides with the material that is made of. There is a difference between silver coin and a silver vase – a difference of kind, of form, i.e. of purpose. Hence, while the property of a silver vase can be maintained and its use can be sold, we cannot make this distinction of a silver (or any other material) coin. The fact that it is sunk in exchange annuls its material quality. The prevalence of ‘distractio’, (of ‘sinking’) compared to the material is central to annul even the material nature of the vase when it is used secondarily – or we may say in parallel – as currency. Symmetrically, a non-monetary use of money e.g. ostentatiousness, would allow to attribute a price to its use.

Now we can begin to understand why this capacity to distinguish appeared to Keynes as an honest intellectual effort! We can, on the contrary, justifiably suspect the rationalistic pretences that have tried to sweep away this ability to distinguish... Above all, if we realise how the mindless and disordered regurgitation of these thoughts appear when we least expect them to, i.e. when economic theory rejoices at being subtle.

But despite Thomas’ ability to distinguish its nature, we have to look to Aristotle again to conclude this question. Whereas Thomas tends to become juridical, resting on undiscussed metaphysics, Aristotle remains in contact with the phenomenon. In fact, before distinguishing in a general and abstract way, between use and non-use, we have to distinguish in a general but concrete way, between proper and improper use. The latter distinction indeed is omnipresent. The famous passage is in Politics, I:

> with every article of property there is a double way of using it; both uses are proper, but not proper 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 and there is its exchange; for both are uses of a shoe, inasmuch as even he that exchanges a shoe for money or food with the customer that

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20 In an review article written in a perhaps unconscious imitation of the scholastic disputaciones, and referring himself to a recent monetary theory, and not certainly in order to distinguish between money and non-money but only to find a justification of the quantitative difference between interest rates, Milton Friedman states: “Liquid assets may also render non-pecuniary services in the form of pride of possession, a feeling of security, a reserve for the future. Such non-pecuniary services must obviously be introduced to explain differences in interest rates on assets that they and we alike would regard it as undesirable to call “money”. They must also be rendered by assets we do call money.” M. Friedman, A. Schwartz, “The Definition of Money: Net Wealth and Neutrality as Criteria”, in Journal of money, Credit and Banking, Vol 1. No 1 (Feb., 1969), p. 3. (the author’s italics)
wants a shoe uses it as a shoe, though not in the use peculiar to a shoe, since shoes have not come into existence for the purpose of exchange. And the same also holds good about the other articles of property.

This difference, which is even more subtle than Thomas’, is taken up again unwittingly if quite pertinently by Keynes in *General Theory*, when he introduces interest on money:

The psychological time-preferences of an individual require two distinct sets of decisions to carry them out completely. The first is concerned with that aspect of time-preference which I have called the propensity to consume, which, operating under the influence of the various motives set forth in Book III., determines for each individual how much of his income he will consume and how much he will reserve in some form of command over future consumption.

But this decision being made, there is a further decision which awaits him, namely, in what form he will hold the command over future consumption which he has reserved, whether out of his current income or from previous savings. Does he want to hold it in the form of immediate, liquid command (i.e. in money or its equivalent)? Or is he prepared to part with immediate command for a specified or indefinite period, leaving it to future market conditions to determine on what terms he can, if necessary, convert deferred command over specific goods into immediate command over goods in general? In other words, what is the degree of his liquidity-preference — where an individual’s liquidity-preference is given by a schedule of the amounts of his resources, valued in terms of money or of wage-units, which he will wish to retain in the form of money in different sets of circumstances?

We shall find that the mistake in the accepted theories of the rate of interest lies in their attempting to derive the rate of interest from the first of these two constituents of psychological time-preference to the neglect of the second; and it is this neglect which we must endeavour to repair.

Translating this into our terminology, we have: proper use (consumption), improper use (hoarding) and the abandonment of improper use of money. Interest doesn’t reward the second use but rather the third as the actual abandonment of the second. It is however the *legitimised* presence of improper use that determines how it is abandoned. Interest rate in this relation seems to be precisely a reward. It is indeed, 

*nothing more than* the inverse proportion between a sum of money and what can be obtained for parting with control over the money in exchange for a debt for a stated period of time.

Even in this particular case, when interest seems legitimate, *exactly because and only because money does not have any maintenance costs*, it is not in the strict sense of the word a price meant as the substitution rate between two different proper uses. It is not the price of a good, even in the particular
case of money ‘as we know it’ but rather the measure of the propensity to hold money in its improper form:

The rate of interest is not the “price” which brings into equilibrium the demand for resources to invest with the readiness to abstain from present consumption. It is the “price” which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash.

Keynes, as an economist, had to resolve a problem that he judged to be structurally absurd in that the improper use of money dictated its proper use. So he posed the question, how to connect (how to “marry”), the two proper uses of money so that improper use does not influence this relationship that is potentially generative? Precisely on such considerations Keynes grounded his argument for the institution of explicit money management (i.e. the institution of a manageable money in Aristotle’s synthèke sense, i.e. a money capable of being made or unmade and therefore made undesirable) and for a reform of the financial markets in order to establish a stable and significant relation between savings and investment. On the one hand, this would mean taking away the appearance of the fact that these markets were able to generate money in the form of liquidity (the monetary use of assets according to the general substitution principle between means and assets). To generate it so to say by ‘natural means’ rather than according to a law of filiation, as if there were no difference at all between financial investment and real investment. For Keynes, the ‘children of money’ are legitimate only within a marriage between the choice to abstain from consumption and the choice to invest in productive activity. These are legitimate only within a regulated relationship between money and work.

The spectacle of modern investment markets has sometimes moved me towards the conclusion that to make the purchase of an investment permanent and indissoluble, like marriage, except by reason of death or other grave cause, might be a useful remedy for our contemporary evils. For this would force the investor to direct his mind to the long-term prospects and to those only. But a little consideration of this expedient brings us up against a dilemma, and shows us how the liquidity of investment markets often facilitates, though it sometimes impedes, the course of new investment. For the fact that each individual investor flatters himself that his commitment is “liquid” (though this cannot be true for all investors collectively) calms his nerves and makes him much more willing to run a risk. If individual purchases of investments were rendered illiquid, this might seriously impede new investment, so long as alternative ways in which to hold his savings are available to the individual. This is the dilemma. So long as it is open to the individual to employ his wealth in hoarding or lending money, the alternative of purchasing actual capital assets cannot be rendered sufficiently attractive (especially to the man who does not manage the capital assets and knows very little about them), except by organising markets wherein these assets can be easily realised for money.
The only radical cure for the crises of confidence which afflict the economic life of the modern world would be to allow the individual no other choice between consuming his income and ordering the production of the specific capital-asset, which, even though it is on precarious evidence, impresses him as the most promising investment available to him. […] Those who have emphasised the social dangers of the hoarding of money have, of course, had something similar to the above in mind.

Just as crucially, we should note once more Keynes’ interest for monetary forms other than money ‘as we know it’, able to engender a maintenance cost for non-spent money, i.e., to establish a regulated distribution of its loss. This kind of money would re-introduce that legal limit, in which money properly consists, into monetary movement. By institutionally re-introducing into money, i.e. by nomos, a tendency to disappear when it is not properly being used, would allow it to contrast the tendency of monetary interest to remain positive, given that money without maintenance costs tends not to be used.

4. Political economy and the concealment of a tradition

What have we seen over this long discussion about the (un-) substitutability of money?

First and foremost, that money shows a fundamental asymmetry to the exchange of goods that it makes possible: being itself a limit, or rather a limiting element of exchanges and their balanced development, it must be established as such. This implies, in other words that its own limit cannot be quantitative, as quantitative theory would have it, but must be institutional.

Secondly we now have an additional element to understand what happens when this asymmetry is not seen. To be treated adequately, this question is far beyond the scope of this paper. However, here we can provisionally formulate this question as follows: when asymmetry is not present or is dogmatically devalued, money is seen and analysed as a system of communicating vessels, whose functioning rules are, positively convergence and uniformity, negatively the progressive loss of relevance of temporal and spatial delimitations. So, substitutability of money in time and space, i.e. money as liquidity, appears to be the cornerstone of a necessary process of integrating circuits which are only conventionally different but structurally already communicating.

But the question remains: can we really think that equilibrium can be obtained through overflows of liquidity? Can the disappearance of money, implied by its use, actually be substituted in such a way? Does this not lead to more and more intense monetary crises? We cannot discuss this at length here, but the intensification of these crises, starting from the opening of capital markets, from the legitimisation of an international liquidity which is...
not constitutively re-absorbable and so always in search of repayment, would incline us to say no. Unless we wish to see these crises, with their associated destruction of liquidity, as an *ex post* surrogate of that disappearance of money which the political issue of its proper use requires establishing *ex ante*. But in the end, the endemic instability of globalized monetary processes seems too high a price to pay to underestimate the structural importance of constitutional limits to money.

At this point, we should ask to what extent all these traditional considerations, belonging to a tradition that we have tried to interpret, are part of the history of political economy. The answer is: very little. Yet the question remains: why is this tradition so openly hidden? From the beginning, a fairly clear-cut hypothesis has been made: this openly shared tradition began to be concealed at the point when political economy was being founded as a science.

In the history of political economy, the question of the “proper use of money” has not been considered enough as a question and subsequently has had largely inadequate answers. This is why the rare replies of prominent economists have not been followed through, leading to a progressive side-tracking of the problem. And so, if Adam Smith posed the problem of whether it is logically rather than morally legitimate to compare present money with future money on the basis of substitutability, i.e. through the mediation of a clearing price, Ricardo replies by concealing the problem of substitutability with that of scarcity:

Dr. Smith appears to have forgotten his own principles in his argument on colony currency. Instead of ascribing the depreciation of paper to its great abundance, he asks whether, if colony security is perfectly good, a hundred pounds, payable fifteen years hence, would be equal a hundred pounds to be paid immediately? I answer yes, if it is not too abundant.

Ricardo’s answer is convincing only if we avoid asking what ‘too abundant’ actually means and how this excess can be measured, i.e. *if and only if* the money and the quantity of money are conceived as identically equal from the outset. Still, if economic quantities are always relative quantities, implying substitutability as a condition for their existence and conception, then the Ricardian concealment is made at the price of a circular reference. From an historical view of economic thought, Keynes’s major contribution is the rediscovery of what was thus concealed. We have tried to show his Aristotelian ascendants— not in the sense of a Keynesian doctrinal revival of

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21 Ricardo himself uses this concealment as the quantitative determination of money. Once money is thought of as quantity i.e. as a good, its own price will be obviously an equilibrium price. “A circulation can never be so abundant as to overflow; for by diminishing its value, in the same proportion you will increase its quantity, and by increasing its value, diminish its quantity”. However it is to be shown whether money is in fact an exchangeable good, and not a limit for the exchangeability of good.
Aristotelian doctrines, but as the Keynesian rediscovery, at the heart of analytical economic praxis, of the question which guides Aristotelian reflection. In other words, if we look at money as no one has ever explicitly done before, the Keynesian disclosure coincides with his discovery of the question of liquidity, and of the necessity to ‘draw a line’ between money as a means of exchange and what is not properly money, but capital: in other words, between means and asset. It is easy to misunderstand the meaning of his aim, aided by the apparent nonchalance with which Keynes puts the problem in a note to chapter 13 of the *General Theory*, referring to the definition of interest rate as the rate of transformation between money and debt:

> Without disturbance of this definition, we can draw the line between “money” and “debts” at whatever point is most convenient to handle a particular problem. For example, we can treat any command over general purchasing power as money which the owner has not parted with for a period in excess of three months, and as debt whatever cannot be recovered for a longer period than this; or we can substitute for “three months” one month or three days or three hours or any other period; or we can exclude from money whatever is not legal tender on the spot.

Here, where it could seem that he limits himself to providing a practical principle with no structural relevance, Keynes in effect openly states that, if it is true that his definition does not depend *on the point* at which the line is drawn, it strongly depends *on the fact* that a line has actually been drawn. For Keynes a line has to be actually *and previously* drawn, in order to obtain what is in play in this definition. But what is in play here is a definition of the interest rate not based on the non-differentiation between money and debt!22

The non-substitutability between money and debt is analogous to another kind of non-substitutability, more immediately relevant to understand the phenomenon of complementarity, i.e. non-substitutability between the means of exchange and the store of value. With this non-substitutability, in fact, we are dealing with the peculiar inconvertibility which must be in force in the complementarity between monies, simply so that monies can fulfil their function completely within the exchange circuits for which they were conceived23. This is how I interpret the observations of Kuroda, Akinobu:

22 See the definition cited above: “the rate of interest is, in itself, nothing more than the inverse proportion between a sum of money and what can be obtained for losing control over money in exchange for a debt for a stated period of time”.

23 In general, the question of the drawing the line is even broader than it is posed by Keynes. It concerns the very nature of money: what implies a limit and therefore the drawing of a line is its proper use. And if Keynes’ distinction is connected to the possibility of not confusing money and capital, it is Marx who tells us very clearly how the capitalist regime is truly the regime in which such a distinction cannot properly be made. He also
The historical evidence of coexisting monies suggests that a currency or a denomination of a certain origin and description is not necessarily a substitute for another … Uncertain and unstable conditions for the conversion between various kinds of money indicate that the existence of multiple monies have a greater significance than what the notion of currency substitution embodies.”

5. A conclusion in view of a re-opening

We have seen how the institutional question of money as a law and a limit for economic action can always be posed from a tradition both within and external to economic knowledge. We will now try to draw some conclusions, allowing us to pose the institutional question which brings together complementarity, money and monetary interest.

The openly hidden tradition of western money-thinking indicates one of the fundamental features of money. Money is, properly speaking, a legal limit which has to be posed inside exchange and in favour of exchange. Being such a limit, it has not, nor can have a determination of the same order and provenance as that which it limits. That would raise the question of a limit to the limit, with a subsequent senseless regression on into infinity. The limitation is therefore of another order, and is part of its very being. But the being of money coincides with its disappearing. This is in some way also recognised in classical theory. J. S. Mill says it clearly:

> There cannot, in short, be intrinsically a more insignificant thing, in economy of society, than money; except in the character of a contrivance for sparing time and labour. It is a machine for doing quickly and commodiously, what would be done, though less quickly and commodiously, without it: and like many other kinds of machinery, it only exerts a distinct and independent influence of its own when it gets out of order.24

The general term for the insignificance of money is notoriously ‘neutrality’. The term for its being out of order is, on the other hand, ‘monetary crisis’. Monetary crisis is the necessary complement to money assumed as being neutral. What cannot be acknowledged within political economy is the root of this insignificance and neutrality, i.e. the structural role of monetary crises where money is constructed as being neutral. This kind of crisis, which is always at the brink of undermining the circulation order, has its

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roots in the *dogma of convertibility*, i.e. in the dogma of substitutability between money and capital, which is founded on the lack of separation between money and goods and between money and credit. Therefore Marx is right to speak of an “absolute contradiction”.

... contradiction comes to a head in those phases of industrial and commercial crises which are known as monetary crises. Such a crisis occurs only where the ever-lengthening chain of payments, and an artificial system of settling them, has been fully developed. Whenever there is a general and extensive disturbance of this mechanism, no matter what its cause, money becomes suddenly and immediately transformed, from its merely ideal shape of money of account, into hard cash. Profane commodities can no longer replace it. The use-value of commodities becomes valueless, and their value vanishes in the presence of its own independent form. On the eve of the crisis, the bourgeois, with the self-sufficiency that springs from intoxicating prosperity, declares money to be a vain imagination. Commodities alone are money. But now the cry is everywhere: money alone is a commodity! As the hart pants after fresh water, so pants his soul after money, the only wealth. In a crisis, the antithesis between commodities and their value-form, money, *becomes heightened into an absolute contradiction*.

And to speak in a footnote of “theoretical fright”:

The *sudden reversion* from a system of credit to a system of hard cash heaps theoretical fright on top of the practical panic; and the dealers by whose agency circulation is affected, shudder before the impenetrable mystery in which their own economic relations are involved.

The emergence of money as a limit, and of the related necessity of an institution of money which allows it to disappear, i.e. to appear as a measure, forces us to reconsider the notion of a supposed automatic substitutability between monies. That is, to reconsider the idea of a substitution which is unconditionally trusted to an allocation mechanism, the market, conceived in its turn not as a normative construction but as something which can be separate from any relationship with law, to the point at which it produces its own functioning laws simply by functioning. Substitutability is not a *fact*, neither undisputed nor indiscussable. It is a *dogmatic construction*, which must be reconsidered in view of the construction of institutional knowledge of money. It appears, from our considerations, as an effect of the concealment of the proper use of money. The complementarity question can thus be seen as the recognition of the need to reconsider more carefully the sense of conversion, i.e. articulation (and therefore difference) between monies in space and time. But this consideration implies the possibility of considering money and its proper use in the *institutional dimension of normativity*. 