On Money.
A Brief Intellectual Interpretation

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ABSTRACT

The nature of money continues to perplex us. Over time anthropologists, economists, historians and sociologists have provided various answers to the question "what is money?" Ultimately these answers reflect different and often contradictory approaches to the dynamics of economic systems and especially the dynamics of market economies. But the answers to this question have determined both the reconstruction of certain crucial passages of European economic history, as well as the formulation of targeted economic policies. This paper investigates some of these aspects, juxtaposing the two prevalent orientations, metallists and chartalists. Here we analyse their different theoretical foundations and how each of them directly or indirectly influenced historical research. What emerges is the inadequacy of the position that asserts the neutrality of money. In reality, far from representing a veil, money is an ancient social technology, actually one of man's fundamental social technologies, along with writing and accounting.

Money's Puzzle

"What is money?" asked Alfred Mitchell Innes, a brilliant British diplomat and economist, at the beginning of the last century in a paper which appeared in *The Banking Law Journal* and was favourably reviewed by J.M. Keynes in the *Economic Journal*.[1] Like

[1] Innes's paper appeared in 1913; the following year Innes published another impor-

the author, the paper, which proposed a unique monetary theory, has recently been rediscovered and republished, contributing to revitalising a debate on the nature of money – a debate that actually never ceased.[2]

The timeliness of Innes's question has been substantiated in numerous monographs published before, during and after the great financial crisis of 2008. Of those writings the ones with the greatest impact, in this author's opinion, were written by Geoffrey Ingham, Niall Ferguson and William Goetzman.[3] The last two authors in particular, Ferguson and Goetzman, traced a significant parallel between the ascent of money and the ascent of the West, in terms of finance and civilization. The first emphasised that "despite our deeply rooted prejudices against 'filthy lucre'..... money is the root of most progress," listing off the innovations that from the 13th cen-

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tant paper, "The Credit Theory of Money", in the same journal. Both articles were republished nearly a century later in a volume edited by L. Randall Wray, *Credit and State Theories of Money: The Contributions of A. Mitchell Innes*, London, 2004. Keynes's review appeared in 1914 and while he defined as erroneous Innes's credit theory of money "and it will not be worthwhile to discuss it in this review", he had kinder words for Innes's historical research: "the main historical conclusions which he seeks to drive home have, I think, much foundation, and have often been unduly neglected by writers excessively influenced by the 'sound currency' dogmas of the mid-nineteenth century".

[2] The rediscovery of Innes was mainly thanks to the above-mentioned Randall Wray, author of *Credit and State Theories of Money*: "I believe the 1913 and 1914 articles by Innes stand as the best pair of articles on the nature of money written in the twentieth century", p. 223.

[3] G. Ingham, *The Nature of Money. New Directions in Political Economy*, Cambridge, 2004; N. Ferguson, *The Ascent of Money, A Financial History of the Word*, London, 2008, William N. Goetzmann, *Money Changes Everything. How Finance Made Civilization Possible*, Princeton, 2016. This ever present interest in money and its history has also been confirmed in the excellent, recently published book of S. Battilossi, Yossef Cassis and Kazuhiko Yago (eds.), *Handbook of the History of Money and Currency*, Singapore, 2020. The book's preface observes how "Interest in financial history has continued unabated but has taken a different turn in the wake of the Global Financial Crisis of 2008. No longer confined to academic circles, the search for the meaning of past experiences has extended to policy makers and even to banking practitioners trying to make sense of the enormity of the debacle that had shaken the financial world. Professional economic historians, including economists engaged with the past, have had to bear a new responsibility: to extend the depth and scope of their investigations, share their results with a broader audience, and maintain exacting academic standards".

tury up to the present have placed the West at the centre of the world.[4] The second author clarified how "financial solutions improved the capability of humankind to create cities, to explore new worlds, to expand and equalize economic opportunity, to control risk, and to provide for an uncertain future," while at the same time averting the multiple risks connected with their use.[5]

It would be tempting to answer the initial question in the same way St. Augustine answered when asked what time was: "if no one asks me, I know what it is. If I wish to explain it to him who asks, I do not know."[6] In reality, as Sir Gladstone ironically stated in the debate that took place in England before approval of the banking law of 1844, which modified the role and organisation of the Bank of England, "even love has not turned more men into fools than has meditation upon the nature of money."[7] Indirectly inspired by Gladstone's aphorism, Massimo Amato published a book a few years ago significantly entitled *L'enigma della moneta* (*The enigma of money*): "In our epoch, marked by a pervasive infatuation with economics, what is missing is the knowledge of money; but even worse is the fact that people don't bother to even ask themselves what money is."[8] More recently, G. Ingham mentioned *Money's Puzzle*, pointing out that "despite money's pivotal role in modern life, it is notoriously puzzling and the subject of unresolved – often rancorous – intellectual and political disputes that can be traced at least as far back as Aristotle and Plato in Classical Greece and the third century BCE in China."[9]

Thus we continue to ask ourselves what money is: what is its nature, its functions, what is the relationship between money and currency, whereby we can observe that up until now currency has

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[4] N. Ferguson, *The Ascent of Money*, cit., p. 3, who continues by clarifying how "the ascent of money has been essential to the ascent of man".
[5] W. Goetzman, *Money Changes Everything*, cit., p. 12: "But at times financial innovation has created serious disequlibria in and across societies".
[6] Agostino, *Le confessioni*, XI, 14 e 18, Bologna, 1968, p. 759.
[7] The famous aphorism was also mentioned by K. Marx, *A Contribution to the Critique of Political Economy*, New York, 1970, p. 64.
[8] M. Amato, *L'enigma della moneta e l'inizio dell'economia*, Milan, 2010, p. 1.
[9] G. Ingham, *Money*, Cambridge, 2020, p. 3.

actually been just one historically determined form of money. Those who claim the opposite are confusing the object (currency) with the concept (money).

Metallism vs Cartalism

According to the standard definition money has certain main functions.[10] It is a means of exchange and a means of payment; it is a measurement of value, and thus expresses the value of goods by referring to monetary quantities (what is price if not a monetary expression?). And finally, money functions as a store of wealth, a circumstance – claimed Keynes – that functions to calm our anxieties about the future.[11]

Which of these functions appeared first? According to the conventional theory of money its first function was in the form of currency as a means of exchange. In other words, it was an object or

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[10] The standard definition of money's function was set out by S. Jevons in *Money and the Mechanism of Exchange*, New York, 1875, and was later taken up again by Francis Amasa Walker, the first President of the American Economic Association, who on that basis stated that "money is what money does", *Money*, New York, 1883, p. 407.

[11] J.M. Keynes, "The General Theory of Employment", in *The Quarterly Journal of Economics*, 51 (2), Feb 1937, who observed how "Money, it is well known, serves two principal purposes. By acting as a money of account it facilitates exchanges without its being necessary that it should ever itself come into the picture as a substantive object. In this respect it is a convenience which is devoid of significance or real influence. In the second place, it is a store of wealth. So, we are told, without a smile on the face. But in the world of the classical economy, what an insane use to which to put it! For it is a recognized characteristic of money as a store of wealth that it is barren, whereas practically every other form of storing wealth yields some interest or profit. Why should anyone outside a lunatic asylum wish to use money as a store of wealth? Because, partly on reasonable and partly on instinctive grounds, our desire to hold money as a store of wealth is a barometer of the degree of our distrust of our own calculations and conventions concerning the future. Even though this feeling about money is itself conventional or instinctive, it operates, so to speak, at a deeper level of our motivation. It takes charge at the moments when the higher, more precarious conventions have weakened. The possession of actual money lulls our disquietude; and the premium which we require to make us part with money is the measure of the degree of our disquietude". On these aspects, see among others G. Lunghini, *Conflitto, crisi, incertezza. La teoria economica dominante e le teorie alternative*, Torino, 2012).

instrument that enabled exchange on the market. Once barter, in an indeterminate era, had become unworkable, currency began to facilitate commercial transactions. This started with the development of the division of labour and the expansion of the sphere of exchange, i.e. when society transformed into a commercial society. Thus, currency came into being to resolve the problem that economists call "the double coincidence of wants."

This evolving narrative became a *topos*. Adam Smith in *The Wealth of Nations*, published in 1776, took up the topic with great clarity, albeit without questioning it. In the paragraph *On the Origin and Use of Money* Smith wrote the following, cited below in its entirety for succinctness:

> "When the division of labour has been once thoroughly established, it is but a very small part of a man's wants which the produce of his own labour can supply. He supplies the far greater part of them by exchanging that surplus part of the produce of his own labour, which is over and above his own consumption, for such parts of the produce of other men's labour as he has occasion for. Every man thus lives by exchanging, or becomes in some measure a merchant, and the society itself grows to be what is properly a commercial society.
> But when the division of labour first began to take place, this power of exchanging must frequently have been very much clogged and embarrassed in its operations (…) In order to avoid the inconveniency of such situations, every prudent man in every period of society, after the first establishment of the division of labour, must naturally have endeavoured to manage his affairs in such a manner, as to have at all times by him, besides the peculiar produce of his own industry, a certain quantity of some one commodity or other, such as he imagined few people would be likely to refuse in exchange for the produce of their industry. Many different commodities, it is probable, were successively both thought of and employed for this purpose. But – concluded Smith –, in all countries, however, men seem at last to have been determined by irre-

> sistible reasons to give the preference, for this employment, to metals above every other commodity."[12]

Smith enunciated a particular theory of money, that of commodity money.

Smith's narration, which actually had illustrious precedents,[13] was systematized by Carl Menger in an apparently unassailable manner from a logical point of view. Menger was one of the protagonists, along with Leon Walras and Stanley Jevons, of the so-called marginalist revolution which at the end of the 19th century broke with the paradigm of classical political economy and reformulated the way of thinking about economic science, moving the focus from the macro, dynamic dimension to a micro, static perspective.[14]

In 1892 Menger wrote a paper that was decisive for asserting the conventional theory of money: entitled *Geld*, it was a work that would also influence subsequent historical research on money.[15] In Menger's interpretation money emerged spontaneously as a means of exchange through attempts by entrepreneurial individuals to reduce to a minimum the costs of barter transactions. Thus money was first a means of exchange which lubricated the gears of the market and derived its value from the intrinsic properties of the precious

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[12] A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Oxford University Press, 1976, pp. 37-38.

[13] Without going back too far in time we refer to Bernardo Davanzati, who in his *Notitia de' Cambi*, Torino, 1988, observed that "things that are marketable are either goods or money; one can bargain over these things in three ways: Barter, Sale or Exchange"; specifically "the second mode was discovered to facilitate the first" from the time that man realized that "things cannot easily be brought close or far away": to avoid "a lot of bother it made sense to choose some things that had a common measurement of value for everyone (…). These being gold, silver and copper; the noblest and most portable metals, containing a lot of value in a small mass", pp. 67-68.

[14] J. Wasserman, *The Marginal Revolutionaries: How Austrian Economists Fought the War of Ideas*, New Haven, CT, 2019.

[15] C. Menger, "Geld," in *Handwörterbuch der Staatswissenschaften*, 1892. The English version, "On the Origin of Money", was published in *The Economic Journal*, Vol. 2, No. 6. (Jun., 1892), pp. 239-255 In 1909 Menger expanded the paper in *Money*, translation of *Geld* (1909) in Latzer M. & Schmitz S. (eds.), *Carl Menger and the Evolution of Payments Systems*, Cheltenham, 2002. On *Geld* G. Conti, L. Fanti, *Sovranità, credito e mercato. Verso l'arte del governo economico totale*, Pisa, 2020, p. 180.

metals of which it was made. In Menger's works the *metallist* current reached its theoretical apex; it was revisited in the 20th century by monetarists, contributing to the creation of the myth of the neutrality of money, linked to the conviction that the state should renounce its prerogative of monetary control and cede it to private operators.[16]

This is a key point in the debate about the nature of money. Indeed, between the 18th and 19th centuries, in contrast to the conventional theory of money, another theory emerged called *chartalism*: like its precedent, this theory had a major impact on historical and economic thought as well as on the application of monetary policy. Like the metallist theory, chartalism had significant precedents. Without going back to classical antiquity, these precedents refer to the main exponent of *Scolastica*, Thomas Aquinas. According to Aquinas "money is not a measurement founded upon nature, but on nomos, or the law."[17] In contrast to other goods, currency has no intrinsic value but has conventional value imposed by principle, a *valor impositus*. It was a symbol invented by man to facilitate exchange, and since it was destined to wear out with use, it was considered a non-durable good, and not a durable capital good, in contrast to land or a house: thus it could not give rise to usage rights. Money does not breed money, as Aristotle claimed.

According to this line of thought money is above all an institutional object.[18] An example of this were the clay tokens used for accounting in Mesopotamic civilization, the spread of which has been connected to the origin of writing. Found by archaeologists in the first half of the 1800s at Uruk, the ancient Sumerian city (4000-3000 BC), these tokens were the accounting tool used by the priestly cast to realize the complex redistribution of agricultural surpluses. From a graphic point of view they represented "single elements of agricultural production (wheat, barley, oil, etc.)" and were used to count

[16] G. Conti, L. Fanti, *Sovranità, credito e mercato*, cit., pp. 181-182.
[17] Cit. in P. Evangelisti, *Il pensiero economico nel Medioevo. Ricchezza, povertà, mercato e moneta*, Rome, 2016, p. 140.
[18] L. Fantacci, *La moneta. Storia di una istituzione mancata*, Venice, 2005.

them: "profit and rents were initially calculated in accounting units, but paid to the state in kind (typically with barley). Subsequently the state began to accept tokens for the payment of taxes: thus the monetary accounting object became a means of payment."[19]

Or there were *fei*, huge circular limestone disks with a hole in the centre, still used at the beginning of the 19th century by the inhabitants of the island of Yap, a tiny piece of land in Micronesia, east of the Philippines. The young Keynes wrote about them, almost surprised, in an article published in 1915 in the *Economic Journal*, describing them as the first example of *earmarking*, or transferring bonds without moving money. He returned to the topic in 1930 in his *Treatise on Money*.[20] Used to socially sanction a transaction that has taken place, *fei* were not a means of exchange or payment, but expressed the balance of exchanges between the island's inhabitants in accounting terms. As it was nearly impossible to physically transfer property, these objects exchanged hands as a public acknowledgement of a transaction.

But there were many other types of currencies; alternative, parallel or primitive money, as some economists and historians defined them: cowry shells, used across vast regions of Africa[21] and in China; *wampum*, necklaces of shell beads used by Native Americans; and even axes, pots, pepper and livestock.[22] In China for example, even before paper money was introduced by the Celestial Empire in the

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[19] E. Longobardi, "Visione antropologica degli economisti e antropologia economica", in E. Longobardi, D. Natali (eds.), *L'essere umano e l'economia: ricerche per una nuova antropologia*, Rome, 2019, pp. 91-92).

[20] J.M. Keynes, "The Island of Stone Money", in *Economic Journal*, 1915, 25 (98), pp. 281-283. "The recent establishment of British authority in these islands – wrote Keynes – has brought us in contact with a people whose ideas on currency are probably more truly philosophical than those of any other country".

[21] K. Pallaver, "Dal baratto al mobile money: limiti e pregiudizi di un'interpretazione evoluzionistica dei sistemi monetari africani", in *Cheiron*, numero monografico "Moneta. Storia non lineare di un oggetto istituzionale", 2019, n. 1-2, pp. 225-248, exemplary above all for its heterodox approach. In this article Pallaver refers specifically to the kingdom of the Buganda which under the British protectorate was to assume the name Uganda, where cowry shells were used as a means of exchange in markets as well as to pay taxes.

7th-8th century BC, the cowry shells that had been used as money began to be cast in bronze. Significantly, the Chinese ideogram indicating "coin" derives from the stylization of a cowry shell. In a subsequent epoch in China, special bronze monetary instruments began to appear, initially in the shape of knife blades with a ring at the bottom: the handles were inscribed with the wording "Construct the Nation."[23]

Another example that is chronologically closer to our era were the English tally sticks used by Henry I, son of William the Conqueror, up until 1832 when the English Parliament decided to ban their use. Tallies were sticks of hazel wood that were carved with notches representing – according to the different sizes – the initial amount of a debt (or credit) a subject owed the sovereign, and subsequently of purchases made between private parties. These sticks were a few dozen centimetres long and transversally divided into two parts, each of which was marked with the details of the transaction: date, name of debtor and sum owed. The notches were divided exactly in half so that the two parts matched perfectly, to avoid fraud or tampering to the detriment of the debtor. One part – the stock – was delivered to the creditor, and the other, the stub or counter stock, to the debtor. With time these became negotiable and transferable instruments exactly like bank notes or metal coins.[24]

What did these different forms of money have in common? They shared the fact that their value did not depend on the intrinsic value of the material they were made of; their value was assigned by the state, which guaranteed their use in order to fulfil an obligation. On

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[22] F. Braudel, *Civilization and Capitalism. 15th-18th century, The Structures of Everyday Life, The Limits of the Possible*, Vol. 1, Berkley and Los Angeles, 1992, pp. 436, which perhaps defines them too hastily as "imperfect and primitive currencies", but then specifies in the following text how "the dialogue between 'perfect' money (if such a thing exists) and 'imperfect' currencies can shed light on the very roots of the problem".

[23] W.N. Goetzman, *Money changes everything*, cit., p. 158.

[24] W.N. Goetzmann and L. Williams, "From tallies and chirographs to Franklin's printing press at Passy: the evolution of the technology of financial claims", in William N. Goetzmann and K. Geert Rouwenhorst (eds.), *The origins of value: the financial innovations that created modern capital markets*, eds., Oxford, 2005, pp. 108-109.

the other hand, using these monetary forms *sui generis* was not linked to their function as a means of exchange, but to another function that the chartalists saw as a primary one.

Let us take the best known case of clay tokens used in Mesopotamian civilization. We have already observed, based on Longobard's considerations, that the tokens represented single elements of agricultural production and were used to count them. Initially profits and rents were calculated in accounting units, but were paid to the state in kind (typically with barley). Next, the state begins to accept tokens in payment of taxes; the monetary unit of account becomes a means of payment. On the basis of this genealogy it could be affirmed that "as the logical foundation of money is to be found in money of account it is here that we should attempt to locate its historical origins and not in the excavation and dating of money-stuff money."[25]

But there is a further point that derives from what was written above. The widespread diffusion of tokens in the Fertile Crescent ensured that they were increasingly used in private exchanges as well, exactly like other forms of money, initially functioning as an accounting unit and subsequently as a means of payment and exchange. These additional functions derived from the fact that the state acknowledged in them the ability to "extinguish tax obligations". From then on exchanges began to be mediated by currency; the latter "creating" the market, or the place where monetary exchange took place, and not vice versa. As Max Weber observed in his *General Economic History*, "From the evolutionary standpoint, money is the father of private property."[26]

Thus money absolves above all the function of an accounting unit, and then a means of exchange: The chartalists refuted the genealogical reconstruction proposed by Smith and systematized by Menger: barter-exchange-currency. The barter economy, apart from some exceptional circumstances, never existed as a system. David

[25] G. Ingham, *The Nature of Money*, cit., p. 89.
[26] M. Weber, *General Economic History*, New York, 1961, p. 179.

Graeber, author of Debt, observed that "the reason that economics textbooks now begin with imaginary villages is because it has been impossible to talk about real ones. Even some economists have been forced to admit that Smith's Land of Barter doesn't really exist."[27] Also from a logical point of view it has been demonstrated that "goods do not buy goods" since barter would assume an almost impossible double coincidence of wants between the exchangers and would require complicated equivalence calculations between goods.

Why then does the myth of barter continue to survive? It survives because it is part of the economic discourse as framed by classical political economists, for whom "this economy operated according to laws of much the same sort as Sir Isaac Newton had so recently identified as governing the physical world": the naturalistic assumption – that the market since the dawn of time – would have caused them to run into a serious error of perspective.[28]

In sum, the chartalist theoreticians consider:

a) that the original function of money is as a measure of value and an accounting unit;
b) that its value does not derive from the material it is made of;
c) and therefore, they assign the state a preeminent role in society in acknowledging money.

In 1905 Friedrich Knapp, a German economist who adhered to the German historical school, published a book that exhaustively defined the statalist theory of money; the 1924 English translation of this book was called *The State Theory of Money.* The opening lines of Knapp's book, which functioned as a counterbalance to Menger's, is striking: "Money is a creature of law." The corollary is equally surprising "A theory of money must therefore deal with legal history." It continues: "The favourite form of money is specie. As this implies coins, most writers have concluded that currency can be deduced from numismatics. This is a great mistake."[29]

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[27] D. Graeber, *Debt. The First 5,000 Years*, Brooklyn, London, 2014, p. 43.
[28] *Ibidem*, p. 44.
[29] F. Knapp, *The State Theory of Money*, London, 1924, p. 3.

On the one hand, the contrasting positions of the metallists and chartalists have influenced the historical reconstruction of the West's monetary events; on the other hand, they have oriented recent monetary policy. In regard to the first aspect, I will briefly examine three macro contexts – a constant theme for economic historians, from the Middle Ages through the modern era and up to contemporary times.

In reality, as Innes poignantly stated in 1913, historiography's sounding board appears to be essential for testing the solidity of theories, and especially those regarding money.[30] For this reason, it is useful to recall what Marina Romani and Cecilia D'Ercole recently wrote in their introduction to the monograph in the journal Cheiron dedicated to *Moneta. Storia non lineare di un oggetto istituzionale (Money. A non-linear history of an institutional object*): "If there is one topic of study – write the two editors – in which the ascetic and linear significance of economists' deductive methods conflicts with historians' and anthropologists' intricate inductive puzzle, giving rise to completely different interpretations, that topic is money."[31]

History and Theory

The first historical macro context regards the Carolingian monetary reform undertaken by Charlemagne's father, Pippin the Younger, in the second half of the 8th century. The Carolingian monetary reform assumed the aegis of political control over minting, annulling minters' or coiners' previous power. The reform introduced a new accounting system based on the livre, initially weighing 408 grams and divided into 20 sous, each worth 12 deniers. Thus it reorganised and rationalised the monetary system and in the end this coincided

[30] A. Mitchell Innes, "What is Money", cit., p. 15, who write: "So universal is the belief in these theories among economists that they have grown to be considered almost as axioms which hardly require proof, and nothing is more noticeable in economic works than the scant historical evidence on which they rest, and the absence of critical examination of their worth".
[31] M. Romani, C. D'Ercole, "Introduzione", in *Cheiron*, cit., p. 5.

with the establishment of silver mono-metallism. From this point on – initially the units of money and weight coincided – denier was exclusively minted in silver. And with this, minting in gold ceased.

This was such a profound change that it influenced the French language which uses argent to indicate the term *money*.[32] Since one livre corresponded to 240 deniers, the system was thus duodecimal, with each livre weighing approximately 1.7 grams. The money had neither multiples nor submultiples: livre and sous were «imaginary coins» or accounting units; they were used as units to measure the value of coins and goods in circulation, or real abstractions. This system was defined by Spufford as "dichotomic."[33] On the one hand it was an actual minted coin, which over time weakened in terms of weight and alloy; on the other hand, it was an accounting unit, the livre, with its submultiples, which nominally never changed.

Thus the new monetary system established the separation between accounting units and a means of payment in metal coins, a separation that remained in force for the entire modern era, but which had the effect of restoring the abstract monetary calculation that had been practiced in ancient times.[34]

But what was the goal of the Carolingian reform? Orthodox economic historians of money sustain that Charlemagne intended to create a standard measurement of value as a "public good" with the aim of facilitating the exchange of goods. And therefore that the reform of the monetary system was aimed at expanding the market, which at that time was still in an embryonic phase. In reality the fiscal needs of the church and state were much more important, especially transfers of money within the areas where Christianity had taken hold.

The counter hypothesis was that "the Carolingian currency system had an essentially fiscal role, especially in Italy."[35] *Denier* was

[32] J. Le Goff, *Lo sterco del diavolo. Il denaro nel Medioevo*, Rome-Bari, 2010, the original title of which is *Le Moyen Age e l'argent*, Paris, 2010.
[33] P. Spufford, *Money and its Use in Medieval Europe*, Cambridge, 2008, p. 411.
[34] G. Ingham, *The Nature of Money*, cit. p. 110.
[35] A. Saccocci, "La monetazione del *Regnum Italiae* e l'evoluzione complessiva del si-

used mainly to pay taxes to the imperial administration and not to carry out small exchanges, as its value was too high. According to some historians and archaeologists this would explain the conspicuous recovery of *denari* minted on the Italian peninsula dating from the years between 793 and 900 A.D. and found in various parts of Europe. These *denari* found their way to the residential centres of Carolingian power but did not sustain the development of a monetary economy, as occurred instead in parts of Carolingian Europe.

The second situation to be analysed briefly here is the so-called Price Revolution of the 1500s, a term at once ambiguous but powerfully evocative, coined at the end of the 1800s by representatives of the school of German history. This term describes a century of inflation which began early in the 16th century, was consolidated mid-century, coinciding with the ever increasing arrival of American silver in Europe. American silver, coming mainly from the Spanish colonies of Zacatecas in current day Mexico, and Potosì, in present day Bolivia, reached Seville – the gate and port of the Indies – and despite the Spanish crown's ban, began to circulate abundantly all over Europe.[36] The long prevailing explanation of price inflation, which was also responsible for causing the dramatic polarization of monetary incomes with a growing phenomenon of social hardship, can be traced back to the quantity theory of money (QTM).

Its embryonic formulation can be found in the writing of some contemporaries: in Spain, by those Jesuit exponents of so-called Second Scholasticism; in France in the work of the social scientist Jean Bodin, and in England in William Stafford's (anonymous) pamphlet.[37] All of them established a cause-effect relationship be-

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stema monetario Europeo tra VIII e XII secolo", in C. Alfaro, C. Marcos, P. Otero (eds.), *XIII Congreso Internacional de Numismática*, Madrid 2003, Madrid, 2005, p. 1039.

[36] C.M. Cipolla, *Conquistadores, pirati, mercatanti. La saga dell'argento spagnolo*, Bologna, 1996.

[37] The authors cited in the text are mentioned in the pioneering work of A. De Maddalena, *Moneta e mercato nel '500, La rivoluzione dei prezzi*, Firenze, 1973. For a more recent analysis of the price revolution, see John H. Munro, "Precious Metals and the Origins of the Price Revolution Reconsidered: The Conjuncture of Monetary and Real Forces in the European Inflation of the Early to Mid-Sixteenth Century", in Clara Eugenia

tween wider monetary circulation, made possible by the import of precious metals from the New World, and rising prices. This relationship then formed the basis in the 19th century for the famous equation of exchange by the American economist Irving Fisher, on the basis of which MV = PT, where P is directly proportional to M and V is inversely proportional to T.[38]

For a long time, this equation of exchange oriented historical research on the causes of the price revolution, beginning with Earl J. Hamilton, who in the 1930s published a book that then became famous, *American Treasure and the Price Revolution in Spain*. The book's basic data had been obtained from the libros registros of the Casa de Contratacion di Siviglia, preserved in the General Archive of the Indies.[39] Actually the quantity theory of money appeared as a "simple truism". The QTM "responded to a static and mechanistic vision of the relationships between the purchasing power of money [*ergo* prices] and market variables," a vision that could be defined as functional.[40]

A different position was held by the historians who referred to Keynes. Here the accent was placed not on the money supply, and therefore on the consequences of its expansion, but on the greater demand for money resulting from the economic and demographic dynamics that at that time were in full swing. According to them, variations in the demand for money are what affect the quantity supplied and how it is used: "As Keynes observed, in opposing the Quantity Theory, such an increase in M would most probably lead, directly or indirectly, to an increase in investment, production, trade,

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Núñez, (ed.), *Monetary History in Global Perspective, 1500-1808*, Proceedings of the Twelfth International Economic History Congress at Madrid, August 1998, Seville, 1998. On the Salamanca School, authoritative site of the Second Scholasticism, see H. Ekstedt, *Money in Economic Theory*, London, 2014, pp. 27-30.

[38] Specifically, I. Fisher, *The Purchasing Power of Money: its Determination and Relation to Credit, Interest and Crises*, New York, 1911.

[39] Earl J. Hamilton, *American Treasure and the Price Revolution in Spain*, Cambridge, 1934, comprehensively and brilliantly reviewed in 2007 by John Munro at https://eh.net/book_reviews/american-treasure-and-the-price-revolution-in-spain-1501-1650, among others.

[40] A. De Maddalena, *Moneta e mercato nel '500*, cit., p. 5.

and thus in y [the real net national income in constant monetary units] but also to a reduction in V, which together, especially in an economy with drastically underemployed resources, might fully offset any effects on prices otherwise to be expected from M."[41]

In reality the most recent economic historiography emphasises how the main motivation for rejecting the monetarist theses is the fact that "such inflation had commenced about thirty or so years before Europe had received any large quantities of Spanish-American silver: as early as the 1510s in north-west Europe, and by the early 1520s in Spain itself," and thus well before the beginning of the silver cycle, midway through the 16th century.[42] The factor behind the original increasing trend in prices was demographic growth, which could be ascertained at the beginning of the 1500s in certain European regions, with consequent pressure on the largely inelastic supply of goods. Thus the focus shifted to the most important variable that came into play during the 1500s: the demand for consumer goods, stimulated by strong demographic dynamics. This was perceived by one of the above-cited authors, Jean Bodin, who stated "l'abondance d'or et d'argent c'est la *principale* er presque seule cause" for rising prices.[43] More than purely monetary factors, it was the revolution in consumption characterising the 16th century that turned out to be the key factor for understanding price dynamics during the 1500s.

The third situation I will refer to regards the *gold standard* of the 1800s and its subsequent dissolution. The gold standard emerged *de facto* in England at the beginning of the 18th century; it was Isaac Newton, then master of the mint, who oriented England towards

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[41] John H. Munro, *Precious Metals and the Origins of the Price Revolution Reconsidered*, cit,. p. 43.
[42] *Ibidem*, p. 35.
[43] J. Bodin, *Reponse aus paradoxes de M. de Malestroit touchant l'enchérissement de toutes choses et des monnoies (1568)*, Paris, 1599, p. 46. The other causes identified by Bodin were "le monopoles"; "la disette qui est causée, tant par la traite (exportation de marchandise) qui per la dégât"; "la plaisir du roi et grands signeurs"; "le prix de monnaies, qui est ravalé de son ancienne estimation".

gold mono-metallism, demonetising silver, the value of which had declined vis-à-vis gold. During the second half of the 19th century the gold standard became *de jure* the principle international monetary system for industrialised or industrialising countries. This was a system of fixed exchange rates in which the value of money was expressed in terms of a certain quantity of precious metal, in accordance with Locke's monetary doctrine whereby real coins were made of gold.[44]

From 1816 until the outbreak of World War I the pound sterling was worth 7.32 grams of gold: on the surface the gold standard represented the triumph of commodity currency. The conventional theory of money described it as a system of automatic adjustment of trade balances according to the principle of monetary price-flow enunciated by David Hume in the mid-18th century. This was a principle that emphasised the mechanism of the invisible hand and on the other hand reduced government policy to the point of it being considered useless.[45] Because the gold standard was a system that was solidly anchored to gold, it was considered as immune to the instability of legal tender, lacking in intrinsic value. In reality the gold standard was much less stable than what one was led to believe. Its adoption was supposed to have a basically deflationary effect. In reality, once it became a global currency, gold tended to become scarcer than the volume of payments it was supposed to support. By virtue of the quantity theory of money, the structural consequence of the gold standard should have been price deflation. Especially if gold was actually used as a means of payment of last resort.

In reality, this purely quantitative effect could have been countered, according to Keynes, by the "habits of the public in the use of money and of banking facilities and the practices of the banks in respect of their reserves;"[46] in other words, more in general, by the

[44] D. Carey, *Money and political economy in the Enlightenment*, Oxford, 2014, pp. 57-81.
[45] Barry J. Eichengreen, *Golden Fetters. The Gold Standard and the Great Depression, 1919-1939*, Oxford, 1995, p. 32.
[46] Cited in M. Amato, L. Fantacci, *Fine della finanza. Da dove viene la crisi e come si può*

way money was or was not spent, which is the same as saying that it could be countered by the nature of credit, or by money issued by the commercial banking system in the form of credit.

Actually, in this period all commercial banks in countries adhering to the gold standard reduced their gold reserves, relying on the respective central banks for their financing. While the problem of the gold system was its deflationary effect, the function of the banking system, and especially the English one, was "to retard rather than enhance the functioning of the free gold market, to 'put sand in the wheels' of the international gold standard, to stabilize domestic interest rates and credit conditions" according to Marcello De Cecco, one of the most important scholars of the international monetary system in the 19th and 20th centuries.[47] In other words the global sustainability of trade balance deficits was made possible not by automatic movements of gold reserves but by their being financed with credit instruments, bypassing payments in gold, contrary to what would have been required by the rules of the gold standard.

Ironically Innes, who was writing on the eve of the Great War when the gold standard was still fully functioning, observed that "Future ages will laugh at their forefathers of the nineteenth and twentieth centuries, who gravely bought gold to imprison in dungeons in the belief that they were thereby obeying a high economic law and increasing the wealth and prosperity of the world."[48]

The Present (and Future) of Money

I conclude with a reference to the fallout from monetary policy deriving from the different meanings attributed to money by the two great currents of thought that I have attempted to delineate. In a re-

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pensare di uscirne, Roma, 2009, p. 202. Keynes's article is in *A Tract on Monetary Reform*, London, 1924, p. 79.

[47] M. De Cecco, "From Monopoly to Oligopoly: Lessons from the Pre-1914 Experience", in, Eric Helleiner and Jonathan Kirshner (eds.), *The Future of the Dollar*, London, 2009, p. 136.

[48] A. Mitchell Innes, "What is the money", cit. p. 49.

cent book by Felix Martin, *Money: The Unauthorized Biography*, the Italian translation of the title poses the problem of what capitalism has not understood. Martin's answer is: the nature of money.[49] In reality money counts... but some economists, the same ones who identify with the narration of commodity-money, deny the importance of money for the purposes of representing the functioning of a market economy. Frank Hahn, a German economist and naturalised British citizen who taught at Cambridge for many years, claimed that "the most serious challenge that the existence of money poses to theorists is this: the best model of the economy cannot find room for it."[50] Paradoxically, those economists with whom Hahn identified think of a market economy as a sort of barter economy barely lubricated with money, which one could easily do without.

As Schumpeter critically pointed out, for these economists "currency adds nothing new to economic phenomena; it merely represents the veil of economic events and nothing essential is overlooked in abstracting from it."[51] Money, and monetary and financial institutions and instruments, would therefore be neutral. It is the "invisible hand" of the market that ultimately decides the capacity and efficiency of the system, which would find its own equilibrium anyway. Monetary policy is thus inefficient from the point of view of stimulating economic growth: it only has an effect on the price level but not on production.

This orientation has money coinciding with currency and the latter with a commodity, in particular precious metals. And even when money ceased to be coined in gold or silver, or any material with an intrinsic value, the supporters of that orientation still con-

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[49] F. Martin, *Money: The Unauthorized Biography - from Coinage to Cryptocurrencies*, New York, 2015.

[50] Frank H. Hahn, *Money and Inflation*, Oxford, 1982, p. 1. A short biography of Hahn (1925-2013) states that: "The perennial renegade, Frank H. Hahn spent most of his professional life at Cambridge as virtually the sole Neo-Walrasian member of an ardently Keynesian department": https://www.hetwebsite.net/het/profiles/hahn.htm.

[51] J. Schumpeter, *The Theory of Economic Development. An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*, New Brunswick, 2004, p. 51.

sider money to be a commodity in the sense that it can be explained like any other commodity with the microeconomic categories of supply and demand, marginal utility, and so on.

On the opposite side are those who assign money and financial institutions an active role in the processes of economic development, attributing to the first and the second the capacity to stimulate, directly and indirectly, the growth of incomes and effective demand. For these thinkers, money is not a veil. They clearly point out the political and social nature of money and feel that it does not coincide with a commodity but instead was founded by the state. For the first group money carries out above all the function of a means of exchange; for the second group it is a measure and reserve of value. As such it protects against future uncertainty. The Keynesian theory of preference for liquidity is based on this theoretical context; for those who share a broader vision of money, the market economy is in constant tension, characterised by inherent financial instability that compromises presumed long term harmony and equilibrium; an instability that gave and gives rise to real financial crises.[52]

In conclusion, returning to the initial question – What is Money? – we can sum up the answer in this way:

a) money is mainly a measure of value, an accounting unit, and not a commodity of exchange or a simple intermediary;
b) its value does not derive from the material it is made of but from its fiscal obligation, in that it is the only accepted means of paying off sovereign debt;

[52] H. Minsky, *Financial Instability Hypothesis (FIH)*, in Levy Economics Institute Working Paper No. 74 (1992), pointed out how "The Financial Instability Hypothesis (FIH) has both empirical and theoretical aspects that challenge the classic precepts of Smith and Walras, who implied that the economy can be best understood by assuming that it is constantly an equilibrium-seeking and sustaining system. The theoretical argument of the FIH emerges from the characterization of the economy as a capitalist economy with extensive capital assets and a sophisticated financial system" (p. 1). As suggested by M. Mazzucato and Randall Wray, "Unlike J.A. Schumpeter, Hyman Minsky did not see the banker merely as the ephor of capitalism, but as its key source of instability", *Financing the capital development of the economy: A Keynes-Schumpeter-Minsky synthesis*, in Levy Economics Institute Working Paper No. 837 (2015), p. 1. A recent reflection on Minsky's scientific works is by L. Randall Wray, *Why Minsky matters: an introduction to the work of a maverick economist*, Oxford, 2016.

c) historically the state has had a preeminent role in its recognition in society, which also eventually benefitted the system of private credit.

Thus money is an ancient social technology, actually one of man's fundamental social technologies, along with writing and accounting. It has allowed the transfer and payment of debts between people and the state and between individuals; essentially it is a social relation.[53] Therefore, to understand its nature, ironically, one must abandon economics, or at the very least, understand that money cannot be treated and understood from a purely economic perspective.[54] And thus there is not and never will be an end to money, as claimed by the theorists of the *New Monetary Economy*, who assume "that computerized bookkeeping could become the basis for a gigantic Walrasian sophisticated barter system."[55] This has also recently been asserted with the spread of so-called virtual money, with the aim of "removing money entirely from its social and political foundations."[56] Bitcoin, and the other dozens of similar but less famous virtual currencies will never replace money as legal tender.[57] Never? Only if the state should abdicate its historical role and accept bitcoin or other similar virtual currencies in payment of fiscal obligations.

Bibliography

Agostino (1968), *Le confessioni*, XI, 14 e 18, Bologna.

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[53] G. Ingham, "Money is a social relation", in *Review of Social Economy*, 1996, 54 (4), pp. 507-529.

[54] As, moreover, G. Simmel had already argued in the early 20th century in *Philosophie des Geldes*, trans. *The Philosophy of Money*, ed. by D. Frisby, London and New York, 2004.

[55] G. Ingham, *The Nature of Money*, cit. p. 32, "consequently, central banks could become redundant".

[56] G. Ingham, *Money*, cit. p. 111.

[57] M. Amato, L. Fantacci, *Per un pugno di bitcoin. Rischi e opportunità delle monete virtuali*, Milan, 2016), according to which if "the monetary and financial system in its current form is a problem, Bitcoin is not the solution. On the contrary it risks aggravating the distance between money and work, finance and the real economy".

Amato M. (2010), *L'enigma della moneta e l'inizio dell'economia*, Milan.
Amato M., Fantacci L. (2009), *Fine della finanza. Da dove viene la crisi e come si può pensare di uscirne*, Rome.
– (2016), *Per un pugno di bitcoin. Rischi e opportunità delle monete virtuali*, Milan.
Battilossi S., Cassis Y., Yago K. (eds.) (2020), *Handbook of the History of Money and Currency*, Singapore.
Bodin J. (1599), *Reponse aus paradoxes de M. de Malestroit touchant l'enchérissement de toutes choses et des monnoies (1568)*, Paris.
Braudel F. (1992), *Civilization and Capitalism. 15th-18th century, The Structures of Everyday Life, The Limits of the Possible*, Vol. 1, Berkley and Los Angeles.
Carey D. (2014), *Money and Political Economy in the Enlightenment*, Oxford.
Cipolla C.M. (1996), *Conquistadores, pirati, mercatanti. La saga dell'argento spagnolo*, Bologna.
Conti G., Fanti L. (2020), *Sovranità, credito e mercato. Verso l'arte del governo economico totale*, Pisa.
Davanzati B. (1988), *Notitia de' Cambi*, Turin.
De Cecco M. (2009), "From Monopoly to Oligopoly: Lessons from the Pre-1914 Experience", in E. Helleiner and J. Kirshner (eds.), *The Future of the Dollar*, London.
De Maddalena A. (1973), *Moneta e mercato nel '500, La rivoluzione dei prezzi*, Florence.
Eichengreen Barry J. (1995), *Golden Fetters. The Gold Standard and the Great Depression, 1919-1939*, Oxford.
Ekstedt H. (2014), *Money in Economic Theory*, London.
Evangelisti P. (2016), *Il pensiero economico nel Medioevo. Ricchezza, povertà, mercato e moneta*, Rome.
Fantacci L. (2005), *La moneta. Storia di una istituzione mancata*, Venice.
Ferguson N. (2008), *The Ascent of Money, A Financial History of the Word*, London.
Fisher I. (1911), *The Purchasing Power of Money: its Determination and Relation to Credit, Interest and Crises*, New York.
Goetzmann W.N., Williams L. (2005), "From Tallies and Chi-

rographs to Franklin's Printing Press at Passy: The Evolution of the Technology of Financial Claims", in W. N. Goetzmann and K. Geert Rouwenhorst (eds.), *The Origins of Value: The Financial Innovations that Created Modern Capital Market*s, Oxford.

Goetzmann William N. (2016), *Money Changes Everything. How Finance Made Civilization Possible*, Princeton.

Graeber D. (2014), *Debt. The First 5,000 Years, Brooklyn*, London.

Hahn Frank H. (1982), *Money and Inflation*, Oxford.

Hamilton Earl J. (1934), A*merican Treasure and the Price Revolution in Spain*, Cambridge.

Ingham G. (1996), "Money is a social relation", in *Review of Social Economy*, 54 (4), pp. 507-529.

– (2004), *The Nature of Money. New Directions in Political Economy*, Cambridge.

– (2020), *Money*, Cambridge.

Jevons S. (1875), *Money and the Mechanism of Exchange*, New York.

Keynes J.M. (1915), "The Island of Stone Money", in *Economic Journal*, 25 (98), pp. 281-283.

– (1924), *A Tract on Monetary Reform*, London 1924.

– (1937), "The General Theory of Employment", in *The Quarterly Journal of Economics*, 51 (2), Feb.

Knapp F. (1924), *The State Theory of Money*, London.

Le Goff J. (2010), *Lo sterco del diavolo. Il denaro nel Medioevo*, Rome-Bari.

Longobardi E. (2019), "Visione antropologica degli economisti e antropologia economica", in E. Longobardi, D. Natali (eds.), *L'essere umano e l'economia: ricerche per una nuova antropologia*, Rome.

Lunghini G. (2012), *Conflitto, crisi, incertezza. La teoria economica dominante e le teorie alternative*, Turin.

Martin F. (2015), *Money: The Unauthorized Biography - From Coinage to Cryptocurrencies*, New York.

Marx K. (1970), *A Contribution to the Critique of Political Economy*, New York.

Mazzucato M., Wray Randall (2015), *Financing the Capital Develop-*

ment of the Economy: A Keynes-Schumpeter-Minsky Synthesis, Levy Economics Institute Working Paper, No. 837.

Menger C. (2002), "Money", in M. Latzer, S. Schmitz (eds.), *Carl Menger and the Evolution of Payments Systems*, Cheltenham.

Menger C. (1892), "On the Origin of Money", in *The Economic Journal*, Vol. 2, No. 6, Jun., pp. 239-255.

Minsky H. (1992), *Financial Instability Hypothesis (FIH)*, Levy Economics Institute Working Paper No. 74.

Mitchell Innes A. (1913), "What is Money", in *The Banking Law Journal*, Vol. 30, May, pp. 376-408.

– (1914), "The Credit Theory of Money", in *The Banking Law Journal*, Vol. 31, Dec.- Jan., pp. 151-168.

Munro John H. (1998), "Precious Metals and the Origins of the Price Revolution Reconsidered: The Conjuncture of Monetary and Real Forces in the European Inflation of the Early to Mid-Sixteenth Century", in C.E. Núñez (ed.), *Monetary History in Global Perspective, 1500-1808*, Proceedings of the Twelfth International Economic History Congress at Madrid, August, Seville.

Pallaver K. (2019), "Dal baratto al mobile money: limiti e pregiudizi di un'interpretazione evoluzionistica dei sistemi monetari africani", in *Cheiron*, numero monografico, "Moneta. Storia non lineare di un oggetto istituzionale", n. 1-2, pp. 225-248.

Randall Wray L. (2004), *Credit and State Theories of Money: The Contributions of A. Mitchell Innes*, London.

– (2016), *Why Minsky Matters: An Introduction to the Work of a Maverick Economist*, Oxford.

Romani M., D'Ercole C. (2019), "Introduzione", in *Cheiron*, numero monografico, "Moneta. Storia non lineare di un oggetto istituzionale", n. 1-2, pp. 5-18.

Saccocci A. (2005), "La monetazione del *Regnum Italiae* e l'evoluzione complessiva del sistema monetario Europeo tra VIII e XII secolo", in C. Alfaro, C. Marcos, P. Otero (eds.), *XIII Congreso Internacional de Numismática*, Madrid 2003, Madrid.

Schumpeter J. (2004), *The Theory of Economic Development. An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*, New Brunswick.

Simmel G. (2004), *The Philosophy of Money*, ed. by D. Frisby, London and New York.
Smith A. (1976), *An Inquiry into the Nature and Causes of the Wealth of Nations*, Oxford University Press.
Spufford P. (2008), *Money and its Use in Medieval Europe*, Cambridge.
Walker Francis Amasa (1883), *Money*, New York.
Wasserman J. (2019), *The Marginal Revolutionaries: How Austrian Economists Fought the War of Ideas*, New Haven CT.
Weber M. (1961), *General Economic History*, New York.