

## The relationship between money and commodities in the theories and reform proposals of J. M. Keynes

‘It is natural to enquire wherein the peculiarity of money lies as distinct from other assets, whether it is only money which has a rate of interest, and what would happen in a non-monetary economy. Until we have answered these questions, the full significance of our theory will not be clear.’

J. M. Keynes, *The General Theory of Employment, Interest and Money*, Chapter 17, incipit

Our host has summoned us to discuss money. He has invited us to communicate the state of the art of our respective disciplines. I believe that the state of an art is most clearly reflected not in its methodological assumptions or in its cumulative results, but rather at the frontier, where it is forced to question those assumptions and those results by a most immediate and burning exposure to the peculiar phenomenon it intends to address. I also believe that it is this exposure to a common phenomenon, albeit from different perspectives, that opens the possibility of a communication between different disciplines, rather than the fact of sharing common principles or assumptions. The possibility of a dialogue, even between disciplines, comes from sharing a question that provokes each of the interlocutors individually, rather than from sharing a minimum set of common notions and hypotheses.

Today the object of our common concern – as economists, social scientists or historians concerned with money – is compellingly related to the present state of the economy, a state in which all the money issued by the central banks in the attempt to sustain demand and output is in fact withheld from circulation and hoarded, rather than spent or lent, with the result that businesses continue to lack financing and revenues, and unemployment continues to surge. The looming recession, and the attempt to avert it by monetary and fiscal expansion, has led many to speak of a ‘return to Keynes’. I am convinced that the alleged ‘Keynesian policies’ of today are the result of a gross misapprehension of Keynes’s theoretical stance, and I am equally convinced that the problems of today (and the possibly even more serious problems of tomorrow) are the result of overlooking or misunderstanding his true recommendations. My intention is, therefore, to revisit Keynes’s theories and reform proposals, particularly concerning the relationship between money and commodities, in view of highlighting the peculiarity of his account of the role of money in the functioning of the economy.

Keynes shares with classical and neoclassical economists the idea that in equilibrium money should not exist. Just as he shares with them the idea that in equilibrium unemployment should not exist. The difference is that the inexistence of money and unemployment are not for him a state which is assumed from the beginning by hypothesis, but a state which may eventually arise as one of the possible outcomes of the interplay of economic forces. ‘Moreover’, as he observes, ‘the characteristics of the

special case assumed by the classical theory happen not to be those of the economic society in which we actually live' (CWK VII: 3). The statement applies both to full employment and to the disappearance of money – and it may be referred equally well to the economic society in which we actually live today.

The two characteristics of economic equilibrium that Keynes considers desirable, but not at all certain, are associated not simply by chance. They stand and fall together. More precisely, one is the condition for the other: unemployment arises because money is held as an asset, in preference to other forms of wealth. 'Unemployment develops, that is to say, because people want the moon' (CWK VII: 235).

This is how Keynes condenses the *General Theory* in a formula. The argument is developed more broadly in the whole chapter 17, from which the previous quote is taken. That chapter is dedicated to illustrate, as the title suggests 'the essential properties of interest and money' and is intended to show how the theory of employment (or rather of unemployment) presented by Keynes in the previous chapters crucially depends upon those properties. The intention is explicit from the very first lines of the chapter:

It seems, then, that the *rate of interest on money* plays a peculiar part in setting a limit to the level of employment, since it sets a standard to which the marginal efficiency of a capital-asset must attain if it is to be newly produced. That this should be so, is, at first sight, most perplexing. It is natural to enquire wherein the peculiarity of money lies as distinct from other assets, whether it is only money which has a rate of interest, and what would happen in a non-monetary economy. Until we have answered these questions, the full significance of our theory will not be clear (VII: 222).

The question is: what does money provide to its owner? what are the peculiar merits of money as an asset? why is money demanded at all as an asset, in preference to other assets? what makes money a desirable store of value, given that, contrary to most other assets, it yields apparently nothing to its owner, it is completely 'barren' (XIV: 115)? why is money preferred to other assets, such as to demand a compensation for parting with it? and hence 'what makes money make money'? what peculiar service of money is remunerated by the rate of interest?

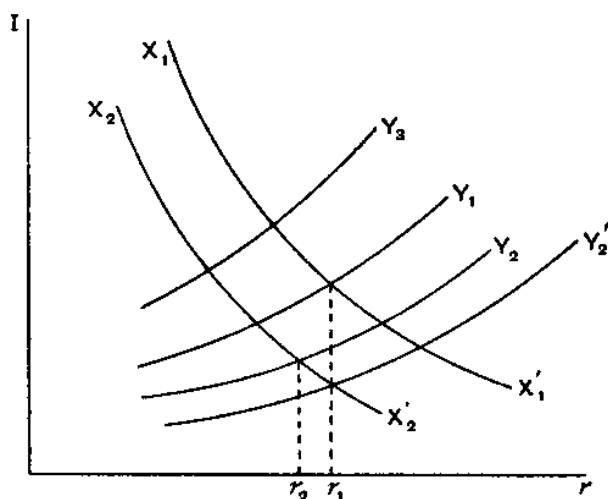
One does not have to wait until chapter 17 to find a first answer to this question. Already in chapter 13, entitled 'the general theory of interest', Keynes introduces the concept of liquidity-preference, defining it as the function that expresses the demand for money in relation to the rate of interest. After having underlined that 'this is where and how the quantity of money enters into the economic scheme', Keynes appropriately stops to consider the factors that concur to determine the existence of such a relation: 'At this point, however, let us turn back and consider *why such a thing as liquidity-preference exists*' (VII: 168, my emphasis). It is worth noting that, since the liquidity-preference is defined as 'a potentiality or functional tendency' (ibid.), the question concerns not the existence of a demand for money but the existence of a relation between the demand for money and the remuneration for its use. In other terms, the question is not why money is demanded, but why this demand has a price: *why such a thing as the rate of interest exists*.

Here is where Keynes, building on the traditional distinction between the use of money as a means of payment and the use of money as a store of value, introduces his notorious distinction between the three motives for the liquidity-preference:

- (i) the transactions-motive, i.e. the need of cash for the current transaction of personal and business exchanges;
- (ii) the precautionary-motive, i.e. the desire for security as to the future cash equivalent of a certain proportion of total resources;
- (iii) the speculative-motive, i.e. the object of securing profit from knowing better than the market what the future will bring forth (VII: 170).

However, if the intention is not simply to explain why money is demanded, but why the demand for money varies with the rate of interest (i.e. ‘why such a thing as liquidity-preference exists’), we cannot be satisfied with recognising that money is indeed capable of satisfying these three motives, but we must explain why, to satisfy them, it may be preferable to hold money rather than interest-bearing loans.

Before reviewing the determinants of the liquidity-preference, it is worth underlining and explaining what is, in fact, a major point of departure of the *General Theory* from the classical and neoclassical theories of the rate of interest: Keynes assumes that the market rate of interest is stabilised at the level that equates the demand and supply of money (XIV: 117) and not at the level that equates the demand and supply of loans. The latter would seem more appropriate given that the rate of interest is the price of loans and not of money – in Keynes’s words: ‘the reward for parting with liquidity for a specified period’ (VII: 167). However, this approach would require the schedule of the demand for loans in relation to the rate of interest to remain fixed, when the schedule of the supply of loans shifts – and, as Keynes argues, this is not the case. In fact, both schedules depend, inter alia, from the level of income; yet a shift in either schedule will cause a change in the rate of interest, and hence a change in the level of income, which will determine in turn a shift in the other schedule. It is impossible, therefore, to determine the positions of the demand and supply curves for loans unless the level of income or the level of the rate of interest are determined from outside of this scheme by the interaction of independent variables (VII: 179-84).



To illustrate this idea Keynes went so far as to use a graph, the only one in the whole *General Theory*, where it is shown that a shift of the demand curve (from  $X_1$  to  $X_2$ ) will cause the supply curve to shift (from  $Y_1$ ) to another position, which it is impossible to determine, unless the rate of interest ( $r_1$  or  $r_2$ ) is given from some other source.

In order to overcome the indeterminacy, and to have an alternative, independent source for the level of the rate of interest, Keynes looks at the rate of interest from a different perspective, as the factor which adjusts at the margin the demand for money and the supply of money, since the latter are in fact independent.

As a consequence of this approach, the schedule of the demand for money in relation to the rate of interest, i.e. of the liquidity-preference, acquires a crucial role in the *General Theory*, for it explains the existence and the actual level of the rate of interest, and hence the constraints imposed on the efficiency of every capital good, if it has to be newly produced. Let us then consider in succession the factors that Keynes mentions as possible determinants of the liquidity-preference.

(i) At first glance, it seems quite obvious that a certain quantity of money is required as ready cash to face the current expenses of individuals and businesses, i.e. for the purpose of transactions. However, at further consideration, the use of money as a medium of exchange is perhaps the function in which money may be more easily and expediently substituted by some form of credit. Indeed, if it were always possible to purchase goods by contracting a debt (e.g. by signing a bill of trade or by drawing on an overdraft facility from a clearing centre), there would be no need for money, other than as a convenient unit of account to denominate those debts. This is what Keynes implies when, discussing ‘the psychological and business incentives to liquidity’ in chapter 13, he states that ‘there is no necessity to hold idle cash to bridge over intervals if it can be obtained without difficulty at the moment when it is actually required’ (VII: 196).

This is also what Keynes aims at when he designs the Clearing Union, which in fact would have allowed for the settlement of international transactions without issuing an international medium of exchange, but simply by providing overdraft facilities denominated in a unit of account (bancor) for the centralized recording and multilateral compensation of all debts and credits arising from international trade. In other words, the Clearing Union would have been an international payments system without an international medium of exchange. In Keynes’s words: ‘The C.U., if it were fully successful, would deal with the quantity of international money by making any significant quantity unnecessary’ (XXVI: 31).

Therefore, insofar as alternative methods of payment are available, transactions are not a good reason to hold cash. In practice, the relevance of the transactions-motive in explaining the demand for money will depend on how widespread, cheap and reliable various forms of clearing may be. As long as we are considering the demand for money as a means of payment, and as long as a clearing system provides an alternative form of payment to money, the rate of interest cannot exceed the costs of running the clearing system: no one will be willing to borrow money, for the purpose of carrying out current transactions, if the same transactions can be performed by some form of draft or overdraft at a lower price.<sup>1</sup>

Let us ask, however, what would happen if no alternative payment system were available. In this case, the use of money as a means of exchange would certainly explain a large part of the demand for money. Yet would it also explain the liquidity-preference, i.e. a demand for money that declines as the rate of interest increases, and vice versa? In other terms, does the demand for money as a means of settlement for current

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<sup>1</sup> And it is evident that, although the failure of Keynes’s proposal at Bretton Woods has left international trade without a clearing system, national economies can certainly rely today on more widespread, dependable and affordable clearing systems than at the time when Keynes was writing.

transactions have any reason to respond to variations of the rate of interest? As Keynes observes, the rate of interest does affect the amount of money held for transactions, but the influence is very indirect and delayed. Only if and when a fall in the rate of interest encourages new investments, and hence increases overall income, will there also be an increased demand of money for transactions (VII: 171-2).

(ii) The precautionary-motive for liquidity is commonly described in terms of a demand for money in view of unexpected purchases, as opposed to the expected purchases that are supposed to drive the transactions-motive. Indeed, this is what Keynes seems to imply when he describes it as a further motive for holding cash 'to provide for contingencies requiring sudden expenditure and for unforeseen opportunities of advantageous purchases' (VII: 196).

However, it is easy to observe that the remarks of the previous section concerning the transactions-motive are quite independent from the fact that the transactions involved are actually expected or unexpected. In either case, the presence of a clearing system will make the holding of money superfluous. And where instead there are no similar facilities, variations of the rate of interest will affect the amount of money demanded for expected purchases (e.g. a fall in the rate of interest will induce expectations of higher purchases), but they will have no reason at all to affect the amount of money demanded for unexpected purchases. Therefore, if the precautionary-motive is intended in this sense, it can add nothing to the explanation of the existence of the liquidity-preference.

Yet perhaps this is not what Keynes intends. Let us read again more carefully the previous quote, which is the only passage in the whole *General Theory* that might seem to legitimise the common interpretation of the precautionary-motive. There is no reason to believe that the 'unforeseen opportunities of advantageous purchases' must be understood as purchases of goods. In fact, the same passage continues describing, as a further element of the precautionary-motive, the desire 'to hold an asset of which the value is fixed in terms of money to meet a subsequent liability fixed in terms of money'. So Keynes could be referring to the purchase, not of goods, but of assets. This is even more consistent with the definition of precautionary-motive that I quoted at the beginning, and with the considerations that Keynes develops immediately thereafter, where indeed he assumes that there is a market for debts, and that, in deciding how much money to hold for future transactions, individuals and businesses have to weigh that decision against the alternative option of purchasing a long-term debt and subsequently turning it into cash. In other terms, what Keynes appears to be implicitly assuming here is that there are no clearing facilities and that hence the purchasing power to face future expenses, be they expected or unexpected, must be hoarded in advance either in the form of money or in the form of *debts purchased on the market* (i.e. of bonds).

Now, in this scenario, the expectation of expenses does make a difference. In the case of expected disbursements, it is always convenient to hold wealth in the form of bonds (expiring on the date of the expected disbursement) rather than cash, as long as the rate of interest on those bonds is positive, and regardless of its actual level. If instead, so to speak, unexpected disbursements are expected, i.e. if there is uncertainty as to the timing of the actual disbursements, the latter may come due before the maturity of the bond: in this case, the bond will have to be discounted at the rate of interest prevailing at that moment on the market, and it may occur that this discount exceeds the one at which the bond was originally bought, thus leaving the purchaser of the bond with a net

loss, which could have been avoided if the money had been simply held in form of cash. Therefore, there will be an incentive to hold money as a store of wealth in the face of future unpredictable contingencies if there is uncertainty as to the future rate of interest (VII: 168-9). Hence, even interpreting in this sense the precautionary-motive, it is easy to show that, as long as the rate at which debts are remunerated and discounted is not negative, there will be no incentive at all to hold cash, even as a precaution for unexpected disbursements, unless there is uncertainty concerning the future level of such rate.

It is worth noting, at the margin, that this incentive to hold money applies equally well to the case in which expenses are in fact predicted, but bonds are not available for the exact date of payment, which is in practice what will typically occur on organized bond markets. On such markets, bonds for fixed maturities are sold and bought: the set of maturities is discrete, whereas the exchange of bonds against money is continuous. For this reason, it is not relevant, even in this case, to distinguish between expected and unexpected contingencies that require ready cash: in both cases, the bonds held as a store of wealth will have to be liquidated on the market at an unknown discount. What is relevant is not the uncertainty of the actual moment of liquidation, but the uncertainty of the prevailing rate of interest on the market.

This leads us to the most important implication of these remarks for our enquiry into the reasons 'why such a thing as liquidity-preference exists'. Since the precautionary-motive for liquidity, however defined, has been shown to depend from the *uncertainty* as to the future rate of interest rather than from the *level* of the rate of interest, it may concur to explain why money is demanded (liquidity) but it contributes nothing to explaining why the demand for money should vary according to the *level* of the rate of interest (liquidity-preference). Hence, the precautionary-motive is even less relevant than the transactions-motive in giving account of the existence and variations of the rate of interest.

(iii) This leaves us with the speculative-motive. Our previous considerations about the precautionary-motive have led us to consider the holding of money as an alternative to the holding of bonds. One reason to hold money rather than bonds is to avoid unexpected depreciations of the bonds due to unexpected variations of the rate of interest: this is the precautionary-motive. However, there may be another reason for an individual or a business to hold money, namely the expectation of a rise in the rate of interest, and hence of a depreciation of the bonds: this is the speculative-motive.

It is quite obvious that the demand for money due to the speculative-motive will be very sensible to actual variations in the rate of interest, since every rise will induce more and more individuals and businesses (the 'bulls') to exchange money for bonds in the expectation that the future rate of interest will fall below the actual rate, and hence that the price of their bonds will rise. At the same time, the number of those who expect the rate of interest to rise still further and who therefore have an incentive to sell bonds (the 'bears') will decrease. The demand and supply of money against bonds due to the speculative motive will respond immediately and significantly to any variation of the rate of interest and the rate of interest will adjust in order to balance the sales of the 'bears' with the purchases of the 'bulls'.

Hence the relationship between the quantity of money and the rate of interest described by the liquidity-preference function appears to depend decisively upon the speculative-motive. This is stated quite explicitly by Keynes when he observes that 'the amount of

money required to satisfy the transactions-motive and the precautionary-motive is mainly a resultant of the general activity of the economic system and of the level of the money-income' – and not, it is implied, a resultant of the variations of the rate of interest. On the contrary, 'it is by playing on the speculative-motive that monetary management (or, in the absence of management, chance changes in the quantity of money) is brought to bear on the economic system' (VII: 196).

Therefore, the existence of the liquidity-preference – understood not generically as the demand of money, but strictly as the functional relationship between the demand of money and the rate of interest – seems to depend entirely on the speculative-motive, and not on the combination of three different motives. Moreover, if the liquidity-preference function depends on the speculative-motive, also the level of the market rate of interest and its variations depend on the speculative-motive – i.e. on expectations. This amounts to stating that the market rate of interest settles at a certain level only because it is expected to do so. Keynes is again quite explicit in this respect: 'Any level of interest which is accepted with sufficient conviction as *likely* to be durable *will* be durable' (VII: 203, his emphasis).

This may be rather disquieting, but it is not perhaps at odds with what actually occurs on money markets, given that monetary authorities are concerned about influencing expectations at least as much as they are concerned about managing the quantity of money. However, even assuming that it is an accurate description of the forces that concur to determine the level of the rate of interest, it is not yet an explanation of why such a thing as the rate of interest exists. We cannot be satisfied with a theory of the demand for money that tells us only that a good reason for people to hold on to their money (or to be compensated for parting with it) is that they expect a day, a moment, or an opportunity to come, in which they might be able to make more money out of lending it. Even assuming that the level of the rate of interest is determined by expectations, we must ask why any interest at all should indeed be expected.

Once again, the question is: why does the temporary cession of money require compensation? what conveniences does the actual possession of money afford? One could be tempted to reply that money is never demanded to be simply held; that those who borrow money do not borrow it to leave it idle, but to use it e.g. to finance new investments; that hence money is not barren, but may indeed bear fruit in terms of increased productivity and output; and that those who lend money, allowing those fruits to be brought forth, are legitimately entitled to their share. However, this is not a complete economic explanation of the existence of a positive rate of interest until account is given of the sacrifice that the loan imposes on the lender. For if no such sacrifice were involved in lending, the competition between the holders of money in search for a willing borrower would necessarily drive their compensation down to zero. Hence, a positive rate of interest may only be explained by providing evidence of the costs that a loan imposes on the lender, in terms of decreased yields or actual losses.

These remarks may serve perhaps to shed light on the reasons why Keynes rehabilitated 'the attitude of the Medieval Church to the rate of interest' (VII: 351). In fact, usury laws prohibited any rate of interest that was not justified by decreasing yields (*lucrum cessans*) or actual losses (*damnum mergens*). Following the line of Keynes's argument, it appears quite clearly that the ban was not inspired by merely moral intentions and that the concessions were not 'Jesuitical attempts to find a practical escape from a foolish theory' (*ibid.*). Rather, the scope and limits of the ban were based on the fact that the

rate of interest cannot find any logical explanation, let alone juridical legitimization, until account has been given not only of the good reasons why loans are demanded, but also of the good reasons why the demand should be rejected. In other terms, the rate of interest cannot convincingly be described as a market price, until account has been given both of the demand and of the supply curves.

And in order to explain what determines the supply of loans, as we have seen, we have to explain what determines the demand for money as an asset. This is why, in chapter 17 of the *General Theory*, Keynes turns – or rather must turn – to investigate the peculiar properties of money as an asset, as distinct from other assets. It is worth noting that here assets means real assets, i.e. commodities (both consumption and investment goods), as opposed to financial assets, i.e. debts. However remote and exoteric it might seem, this investigation is essential to his theory, and not merely incidental. The whole *General Theory* stands or falls with the possibility of explaining why money is demanded as an asset.

Keynes distinguishes three types of assets, according to the returns that they provide to their owners, merely by the passage of time.

1. Some produce a return, ‘by assisting some process of production or supplying services to a consumer’ (VII: 225). We could call them, for simplicity, investment goods, even though Keynes does not use this expression and includes in this category also durable consumption goods, using the house as an example.<sup>2</sup> The return to the ownership of this kind of asset may be called their *yield*.
2. Other assets ‘suffer some wastage or involve some cost through the mere passage of time’, in a material sense, i.e. without considering a change in their relative value, and whether they are or are not used to produce a yield. As an example of this category, Keynes mentions wheat. The return to the ownership of this kind of asset is negative and may be called *carrying cost*.
3. Money does not fit in either of the previous groups: it does not decay nor produce a yield merely by being held. Yet, it does offer to its holder a ‘potential convenience’ or a ‘security’, consisting in its ‘power of disposal’, i.e. in its capacity of being readily transformed in any other asset of any kind. This property, which money displays pre-eminently but which belongs in lesser degrees also to other assets, may be called *liquidity*.

The three types of assets thus characterized are ideal-types. Most assets will, in fact, share, in a certain degree, the characteristics of various types. Therefore, in general, we may say that ‘the total return expected from the ownership of an asset over a period is equal its yield *minus* its carrying cost *plus* its liquidity’ (VII: 226).

It is worth noting, incidentally, that in the passage just quoted Keynes writes ‘liquidity-premium’ and not ‘liquidity’. Yet it seems more appropriate to reserve ‘liquidity-premium’ to indicate not the return to the holding of the asset, but rather the compensation for parting with it. The confusion between liquidity and liquidity-premium may be explained by the fact that it is only through the latter that the former appears and is measured. In fact, as Keynes himself observes, ‘there is, so to speak, *nothing to show* for this [liquidity] at the end of the period in the shape of output; yet it is something for which people are ready to pay something’ (VII: 226, emphasis added).

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<sup>2</sup> Cfr. fixed capital in Smith.



And it is the amount which people are willing to pay that Keynes more strictly defines as the *liquidity-premium*.

Now, one peculiarity of money with respect to other assets is that it corresponds entirely to one of the ideal-types: the only form of return that money affords to its owner is liquidity, and it does this more than any other asset; money is characterized pre-eminently and exclusively by liquidity; liquidity is the only quality of money as an asset; money is liquidity. The compensation for parting with money, i.e. the rate of interest, is a liquidity-premium.

What makes money even more peculiar, is that its distinctive property, namely liquidity, happens to coincide with the only characteristic, with the only form of return, which appears only if it is made visible and measurable by a transaction. The yield of a grain of wheat used as seed appears in the fields, at the time of harvest, regardless of the fact that it is marketed. The negative return of wheat, stored in a deposit, appears through waste and decay, regardless of the existence of a market for wheat or even for storage facilities. On the contrary, the return of money appears only if there is someone willing to pay for it. This is still another way of stating what we have already observed, i.e. that the rate of interest depends entirely upon expectations and upon the possibility of expressing these expectations by negotiating on an organized market for money loans.

Until now, following Keynes, we have simply assumed the existence of such a market. Keynes himself expresses some doubts about its usefulness:

the question of the desirability of having a highly organised market for dealing with debts presents us with a dilemma. For, in the absence of an organised market, liquidity-preference due to the precautionary-motive would be greatly increased; whereas the existence of an organised market gives an opportunity for wide fluctuations in liquidity-preference due to the speculative-motive (VII: 170-1).

If it is true, as I have argued above, that the precautionary-motive is entirely due to the need to hedge against unexpected variations of the rate of interest, and that, in turn, all variations of the rate of interest depend on the operation of the speculative-motive, it is quite evident that, at least from the perspective of the economic system as a whole, no true dilemma exists: if there were no money market, there wouldn't even be any need for one.

This, in turn, implies that the only reason to hold money, the only motive for the demand for money, is the expectation that its temporary alienation may allow to obtain more money in return. Thus money, as an asset, is entirely identified by this possible use. In other terms, money is defined as that asset, the alienation of which is compensated by the payment of an interest. There would be no money 'as we know it' if there were no rate of interest and hence no money market. The rate of interest, the money market and 'money as we know it' are one and the same thing.

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