

# liquidity preference

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## Abstract

Keynes's notion of liquidity preference stems from the fact that he made some specific sources of demand for monetary instruments depend upon the expected variations of the interest rate, and consequently on the expected variations in the capital value of financial assets. This source of demand was considered to be *the* cause of variations in the rate of interest. Economists close to Keynes realized that in the *General Theory* he had turned the analysis of liquidity preference into a new theory of the interest rate. Robertson defended the marginalist theory, while Hicks paved the way for the 'neoclassical synthesis'.

## Keywords

Cambridge equation; central bank money; finance motive; Hicks, J. R.; IS–LM models; Keynes, J. M.; liquidity preference; loanable funds; marginalist theory of the rate of interest; monetary instruments; natural rate and average rate of interest; neoclassical synthesis; precautionary motive; reserves–loans ratio; Robertson, D.; saving and investment; simultaneous equilibrium; speculation; speculative motive; subjective probability; temporary equilibrium; Tobin, J.; transaction motive; uncertainty; Walras's Law

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## Article

The notion of 'liquidity preference' has become generally used in the literature on monetary issues (particularly that concerned with the interest rate) following Keynes's contributions in the 1930s. It concerns the motives for demanding monetary instruments or other close substitutes. Earlier, the analysis of the demand for monetary instruments was based on other motives and concepts and led to different conclusions.

The analysis of the motives for demanding monetary instruments plays a specific role within monetary theory. The literature dealing with the interest rate, for instance, has always distinguished two different analytical steps. The first deals with the *variations* in the 'market interest rate', that is, that actually observed everyday: it *describes* how a change in this rate (or in the structure of the interest rates) comes about. To do that, it provides an analytical scheme which describes the behaviour of the money markets, by considering one after the other all different sources of demand for and supply of monetary instruments, pointing out the main causes of their variations. The second step deals with the *level* of the interest rate. It *explains*

why this rate tends to remain, over a specific period of time, at a certain level, pointing out the factors determining it. The way in which these factors operate is then described by using the scheme provided in the first step of analysis. This clarifies the market mechanisms (that is, changes in the different components of demand and supply in the money markets) through which the prevailing level of the interest rate asserts itself.

The analysis of the motives for demanding monetary instruments thus properly belongs to the first step: it cooperates to describe the working of the money markets and the way in which variations in the interest rate (or in the structure of interest rates) occur.

This approach was followed by Smith, Ricardo, Tooke, J.S. Mill, Marx, Marshall, Wicksell, J.M. Keynes, Robertson, and so on, independently of the particular theory they proposed, that is whether the level of the 'average interest rate' (that prevailing over a specific period of time) was determined by the 'forces of productivity and thrift' or by other factors.

Prior to Keynes's contributions in the 1930s, it was assumed that monetary instruments (in most cases, central bank money) are demanded for two reasons. First, they are demanded by the household sector for the 'circulation of income'. Households, that is, hold in the form of currency a certain fraction of their income to carry out their daily consumption expenditure.

The second source of demand for central bank money, it was assumed, comes from the banking sector which requires liquid reserves to make payments to depositors and to meet the demand for bank loans of different maturity. Banks' decisions, it was argued, are concerned with protecting themselves against the risk of running out of liquid means while minimizing cost. In such analyses, which did not use modern portfolio choice tools, the amount of reserves banks demand depends upon the composition of their portfolio (particularly the maturity of their loans) and upon the degree of uncertainty they feel as to the smooth operation of the credit payment system. On the basis of these two elements, banks fix the desired ratio between their reserves in central bank money and the amount of loans they can supply.

As some authors noticed, the presence of uncertainty among the elements affecting the decisions of financial operators makes the credit payment system unstable. The desired ratio of reserves to loans changes continuously and sometimes sharply. Financial markets become tighter precisely when more liquid means are required. A higher degree of uncertainty as to the smooth operation of the system, for instance, leads the business and the banking sectors to desire to 'become more liquid'. The former tend to discount a larger amount of bills of exchange (that is, demand more short-term bank loans), while the latter set at a higher level the desired reserves-loans ratio, so supplying a smaller amount of bank loans.

The instability of the system and the variability of the interest rates were therefore recognized by some economists (a minority) and ascribed to the uncertainty felt by banks and business as to their ability to solve cash-flow problems.

This analysis of the demand for monetary instruments was dominant from Adam Smith onwards. Its basic points were still reflected in the famous 'Cambridge equation' presented by Pigou in his article 'The value of money' (1917) and in Keynes's *A Tract on Monetary Reform* (1923).

## Keynes's analysis of liquidity preference

The analysis of the motives for demanding monetary instruments was considerably refined by J.M. Keynes in the 1930s. Developing the analysis inherited from Marshall and Pigou, Keynes distinguished three motives for demanding monetary instruments (by which was now meant member banks' money, that is, bank deposits).

First, monetary instruments are demanded for transaction purposes. The amount demanded due to this motive is a stable function of the level of income.

The second source of demand for monetary instruments is for precautionary purposes, defined as the demand coming from different sectors as a protection against the possibility that some unexpected payment has to be made, or that some expected receipts cannot be realized. This definition has been differently interpreted. Some authors (and the majority of textbooks) have interpreted it in a restrictive way, by identifying it with the households' holding of bank deposits as a precaution against extraordinary events (for example, payment of hospital bills). The precautionary demand for monetary instruments was typically lumped together with the transaction demand, both being an increasing function of the level of income. Other authors have instead given more extensive interpretation of this motive by including in it the demand coming from all financial operators feeling highly uncertain as to the future level of the interest rate. R. Kahn (1954) explained that people prefer holding part of their wealth in liquid means when their knowledge as to how the rate of interest is going to behave in the near future is so limited as to make it impossible to consider some future levels of this rate more probable than others.

This way of interpreting the precautionary motive makes it close to the third motive for demanding monetary instruments identified by Keynes: the speculative motive. Speculation in financial assets occurs because some agents expect with sufficient conviction that the rate of interest will move in a certain direction. The existence of uncertainty (that is, that lack of 'complete knowledge') is not denied. Yet the 'limited knowledge' available allows some agents to consider some future levels of the rate of interest more probable than others. Monetary instruments are so demanded (to avoid a loss in the capital value of financial assets) because a rise in the rate of interest is expected, and not because of the lack of any conviction as to the future of the rate of interest (as in the case of precautionary motive).

The novelty introduced by Keynes (some authors claim that it had been anticipated by Lavington, 1921) lies not in the fact that he recognized that money is also a 'store of value' (an element already present in previous literature), but in the fact that he made some specific sources of demand for monetary instruments depend upon the expected variations of the interest rate, and consequently on the expected variations in the capital value of financial assets.

On account of its magnitude, but principally on account of its high variability, which is due to the uncertain character of expectations about future events, this latter source of demand played a central role in Keynes's writing. It was considered to be *the* cause of variations in the rate of interest. Indeed, in subsequent years, some authors even identified the notion of liquidity preference with speculative motive, while many others put it at the centre of the intense debates on interest rate after the publication of the *General Theory of Employment, Interest and Money* (1936).

Keynes's innovations stimulated many controversies dealing with different aspects of the theory of interest and money. A central point in these debates was the evaluation of Keynes's own contribution: had he really presented a new theory of the rate of interest, alternative to the dominant marginalist one?

In the preparatory works and in the *General Theory* itself, Keynes had so characterized his contribution. He had tried to show the existence of logical inconsistency in the dominant real theory and, in opposition to it, had argued in favour of a *monetary* theory of the rate of interest based on historical and conventional factors.

The essential elements of the analysis of liquidity preference had already been introduced in *A Treatise of Money*, where the marginalist theory determining the 'natural' level of the interest rate on the basis of functions of demand for investment and supply of saving was still accepted. Here liquidity preference was integrated within the marginalist theory. In the *General Theory*, instead, the notion of a 'natural' interest rate was rejected. The 'average' level of the interest rate over a specific period of time was now determined by those factors able to affect the 'common opinion' as to the prevailing value of this rate in the future, and among these factors some importance was given to the policy of the monetary authority.

Thus, while in *A Treatise on Money* the novelty of liquidity preference referred to the first step of the analysis of the interest rate (that describing how variations in this rate come about), in the *General Theory*, the novelty regarded the second step of analysis, that is the theory determining the level of this rate.

### **Robertson's critique after the *General Theory***

The group of economists close to Keynes in those years, with whom he discussed the proofs of the *General Theory*, fully realized that only in this book had he turned the analysis of liquidity preference, already present in the *Treatise*, into a new theory of the interest rate. Not all of them, however, agreed with him. Robertson, brought up in the same Marshallian tradition as Keynes, defended the marginalist theory, claiming that Keynes was in the *General Theory* overstating the role played by monetary factors (see Keynes, 1973a, pp. 499, and Robertson, 1936; 1940). He invited Keynes to attribute to monetary and real forces their proper place, as he had done in *A Treatise on Money*. The abandonment of the 'forces of productivity and thrift', when dealing with the determination of the 'average' interest rate over long periods of time, left the 'expected normal value' of this rate unexplained. Robertson could not accept that 'the common opinion' as to the future value of the interest rate should be explained in terms of factors changing from one historical period to the others, rather than by referring to one specific set of factors able to affect the course of events in different historical contexts. If we ask, Robertson stated, 'what ultimately governs the judgement of wealthowners as to why the rate of interest should be different in the future from what it is today, we are surely led straight back to the fundamental phenomena of productivity and thrift' (Robertson, 1940, p. 25).

To clarify his view, Robertson translated Keynes's arguments into a different analytical framework based on 'flow' concepts. The determination of the 'market interest rate' (that actually observed daily) and of the 'average interest rate' (the one prevailing over long periods of time) was analysed in terms of 'loanable funds', to show that in both cases (but especially in the long-period case) the influence of the demand function for investment and the supply of saving could not be ignored.

Within this discussion, Robertson also pointed out the need for extra funds to finance new investment.

The debate with Robertson was intense. Other economists also joined in to discuss the three issues raised: whether Keynes's theory left the determination of the average interest rate 'hanging in the air' (or 'hanging by its own bootstraps'); the role of speculative motive and saving and investment within a 'loanable-funds' approach; the 'finance' motive.

### **Hicks and the rise of the 'neoclassical synthesis'**

While the debate with Robertson moved on the common ground of the Marshallian tradition, those with other economists were characterized, from the beginning, by greater problems of understanding and communication.

A major figure in these debates was J.R. Hicks, whose reviews of the *General Theory* (Hicks, 1936; 1937) were discussed with Keynes in an exchange of correspondence (see Keynes, 1973b, pp. 71–83). This correspondence reveals Keynes's insistence on his inability to understand the meaning and the aim of Hicks's claim that the validity of Keynes's theory of interest did not prove other theories to be wrong.

Hicks's aim was to integrate Keynes's ideas within an approach, different from the Marshallian one, based on a new version of the neoclassical theory of value which used the notion of *temporary* general equilibria. The rate of interest was determined, with the other distributive variables, relative prices and the level of activity, within an analysis characterized by interdependence between different markets and the simultaneous attainment of equilibrium between supply and demand in all of them. Equilibrium between saving and investment decisions was reached simultaneously with equilibrium between supply of and demand for monetary instruments. The application of 'Walras's Law' then made it possible to argue that the claim that the rate of interest is determined in the money market and the claim that it is determined in the market for saving and investment are equivalent.

Hicks's writings had a great impact on the literature. They opened the way to the interpretation of Keynes's work known as the 'neoclassical synthesis' and to the wide use of the famous IS–LM apparatus. Indeed, orthodox 'Keynesian economics' was derived from this line of development, rather than from Keynes's own writings, as the debate on interest rate shows.

The distinction between the two steps of an analysis of the interest rate was now obscured. In spite of Keynes's explicit claim to the contrary (Keynes, 1937, p. 215), the analysis of liquidity preference, which was intended as a means of describing the market mechanisms through which changes in the interest rate occur, became a theory determining the level of the interest rate. This theory was counterposed to others – the 'loanable-funds theory' and the 'investment–saving theory' – in a long debate which in the end established what Hicks had hinted in his reviews of the *General Theory*, that is, that in a general equilibrium analysis to attribute the determination of a price or of a distributive variable to the attainment of equilibrium in one specific market makes no sense.

Now, none of the orthodox Keynesian literature mentioned any more what Keynes had emphasized: the instability of the speculative demand for money due to the uncertain character of the expectations about the future level of the interest rate. The integration of the market for monetary instruments within a general equilibrium

analysis requires that the data determining the functions of demand for and supply of money have to be as stable as those determining the demand and supply functions in other markets.

The abandonment of Keynes's view of an unstable speculative demand for money was achieved by moving along two lines. First, the notion of an expected normal value of the interest rate was gradually abandoned. Second, the issue of stability was moved from a theoretical to an empirical level.

Already in *Value and Capital* (1939), Hicks had moved along the first line. After him, Modigliani (1944) derived a stable function of demand for money by referring to the risk of future increases in the interest rate, taking this risk as independent of people's specific expectations. The risk is thus *in general* low when the interest rate is high and high when the interest rate is low. Reference to specific expectations of the future value of interest rate could, instead, make the risk high when the rate is high and low when the rate is low. Finally, Tobin (1958) with the explicit aim of making the theoretical treatment of uncertainty more precise in Keynesian analysis, proposed deriving the demand function for money by including, among the data, subjective probability distributions of the future level of the interest rate, not considering any particular variation in this rate more probable than others. (The similarity with Kahn's precautionary motive mentioned above is clear.) In this analysis, stability of the demand function for money can be achieved by adding one more assumption: any new piece of information acquired by agents does not change their subjective probability distribution. The meaning of this hypothesis is that agents have 'complete knowledge' of all relevant information, which amounts to assuming uncertainty away from the analysis. In his subsequent writings, Tobin did not return to this particular point, preferring to consider the issue of 'stability' an empirical, rather than a theoretical one. This line has been adopted by most followers of the orthodox Keynesian approach, thus avoiding complex theoretical problems. As a result, the possibility of reaching satisfactory conclusions on this issue appears more difficult.

Theories of the interest rate, which imply a departure from the dominant neoclassical tradition, whether Marshallian or modern general equilibrium versions, can also be found in the literature. They were held by authors close to Keynes during the preparation of the *General Theory*, like Joan Robinson and Kahn, and appear to reflect Keynes's original intentions more than other theories. Robinson and Kahn themselves, in subsequent years (see Robinson, 1937; 1951; Kahn, 1954) contributed to developing these analyses, which were also put forward by Kaldor (1939; 1970; 1982), and re-elaborated by a large group of economists, including Shackle (1967), Pasinetti (1974), Minsky (1975), Davidson (1978), Eatwell (1979), and Garegnani (1979).

Although there are some points of difference between these authors, they seem to agree on the instability of the speculative demand for money due to the uncertain character of the expectations about future level of the interest rate, and on the need to reject the neoclassical theory, for being either analytically inconsistent or for being based on the assumption of a simultaneous achievement of equilibrium in all markets, an assumption which neglects the different ways in which these markets are organized and operate.

The analyses of these authors have contributed to the development of a treatment of monetary issues which breaks with the traditional causal links between 'monetary' and 'real' variables, and where institutional elements, such as the way financial markets are organized over a certain period of time, play a central role.

These analyses make it possible to argue in favour of a ‘monetary’ determination of the interest rate, based on historical and conventional factors, thus supporting Robinson’s claim that *any* opinion ‘that is widely believed tends to verify itself, so that there is a large element of “thinking makes it so” in the determination of the interest rates’ (Robinson, 1951, p. 258).

The instability of the financial system and the variability of the interest rates are therefore recognized today, too, by some economists, who also allow for the influence of monetary factors on the level of activity and within the theory of value and distribution, in opposition to the dominant marginalist approach.

## See Also

- finance
- Keynes, John Maynard

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