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A demand for money function, based on the analysis of individual choice is central to modern monetary economics. It was not always so. When 19th century exponents of the Quantity Theory of Money said that the determination of the general price level was a matter of supply and demand, they usually meant that the price level varied in order to equate the value of a flow of monetary expenditures - the "supply of money" - to the value of a flow of goods and services being offered for sale - the "demand for money". This is not to say that the idea of a demand on the part of agents for a stock of money to be held as an asset was entirely missing from Classical theory. John Stuart Mill, following up certain insights of J.B. Say, postulated the existence of such a stock demand as a temporary phenomenon at times of financial crisis. However this idea was never fully integrated by Mill or any of his contemporaries into the mainstream of English Classical monetary economics.¹

Modern notions of a demand for money function are generally thought of as being a product of the Keynesian Revolution. Thus Patinkin (1976) shows that the exposition of Liquidity Preference theory in the General Theory is an elaboration, albeit an extensive elaboration, of fundamental ideas previously expounded in the Treatise on Money. Now between the publication of these two works of Keynes there appeared Sir John Hicks's famous paper "A Suggestion for Simplifying the Theory of Money". This essay refers to the Treatise on Money as one source of ideas similar to that which it develops, and beyond any shadow of a doubt anticipates much of what is said about Liquidity Preference theory in the General Theory.² Keynes himself acknowledged as much upon
reading a proof of "A Suggestion...," writing to Hicks: "I agree with you that what I now call Liquidity Preference is the essential concept for Monetary Theory" (see Hicks 1982 p. 8, fn. 12).

For Hicks, in 1935 a self-styled newcomer to monetary theory from value theory, "What is wanted in the Theory of Money is a marginal revolution!" (p. 47) and the idea upon which such a revolution might be based

"...emerges when Mr. Keynes begins to talk [in the Treatise] about the price level of investment goods; when he shows that this price-level depends upon the relative preference of the investor – to hold bank-deposits or to hold securities. Here at last we have something which to a value theorist looks sensible and interesting! Here at last we have a choice at the margin!" (p. 49).

It is an apparently universal truth that innovators in economics (and presumably in other disciplines as well) overemphasize what is new in their work, and underestimate the common threads which link it to the work of their predecessors. In this paper I shall argue that Hicks was no exception and that original though "A Suggestion..." undoubtedly was, its analysis is not quite so far removed from at least one branch of the Quantity Theory tradition as, in 1935, he believed. 3 The branch in question is, of course, Cambridge Monetary Theory as developed by Marshall, and among others, Pigou and Keynes. Hicks's comment on this earlier literature, as it appears in a footnote in "A Suggestion..." is worth quoting virtually in full.

"Marshall and his followers... were aware that money ought to be subjected to marginal utility analysis; but they were so dominated by the classical conception of money as a "veil" (which is valid enough at a certain level of approximation) that they persisted in regarding the demand for money as a demand for the things which money can buy – "real balances". As a result of this, their invocation of marginal utility remained little more than a pious hope. For they were unable to distinguish, on marginal utility lines, between the desire to save and the desire to hoard; and they necessarily overlooked the indeterminateness in the "real balance" (so important in some
applications of monetary theory), which occurs when the prices of consumption goods are expected to change. On the other hand, I must admit that some versions of the Marshallian theory come very close to what I am driving at. cf. Lavington English Capital Market ch. vi" (fn. 1, p. 48).

In this paper I shall first argue that Hicks's characterization of Cambridge monetary theory as quoted above is deficient. I shall show (for the sake of completeness, since the point is surely now uncontroversial) that the idea of money per se, as opposed to the goods it can buy, as an object of choice is clearly present in works that are universally acknowledged as authoritative expositions of Cambridge Theory. I shall further show that choice on the margin is not altogether absent from these works either, any more than is a clear analysis of the effects of expected price level changes. However, and contrary to Eshag (1963) who also documents many of the above-mentioned characteristics of Pre-Keynesian Cambridge Monetary theory, I shall nevertheless argue that Liquidity Preference theory, in the hands of Hicks (and Keynes) was, after all, a new doctrine in certain vital respects. The fact of their originality as contributors to monetary theory is thus not in question but only its nature.

Specifically, I shall argue that the main distinguishing feature of Liquidity Preference theory lay in the way that its exponents applied a well articulated capital theoretic approach, not only to modelling the demand for money, but also to investigating the role played by monetary mechanisms in undermining the smooth coordination of inter-temporal choices about resource allocation. This latter issue was of central concern to monetary economics in the 1920s and 1930s, just as the secular relationship between money and prices had dominated monetary economics before the First World War. Thus Liquidity Preference theory refined and extended an old approach to monetary theory to deal with a new problem.
II

It is a well known anomaly of the history of monetary economics that Alfred Marshall, one of its great innovators, published no systematic treatment of the area. *Money Credit and Commerce* (1923) is a fragmentary work completed in old age, and some of its most lucid and provocative passages are in fact reprinted from evidence given to various official bodies twenty, thirty, or more years before its publication. Moreover, Marshall's well known habit of hiding his theoretical apparatus when attempting to communicate about practical matters to non-economists is at least as apparent in this evidence as anywhere else in his writings. Nevertheless, it is possible to extract from the published record support aplenty for the view that Marshall's theoretical approach to the demand for money was a great deal more systematic and sophisticated than Hicks suggests; while his unpublished (until 1975) manuscript on "Money", written (according to a note, apparently in his own hand, on the manuscript) around 1871 also supports this conclusion. Though unpublished, this manuscript was not unknown and Keynes lavished high praise on it in his obituary of Marshall (1924). In short, there is no need to rely on any unverified "oral tradition" to establish Marshall's views on Monetary Theory, or to show that those views were well known to his colleagues and pupils. That oral tradition exists but is amply corroborated by the written evidence.

To begin at the beginning, Marshall (1871) had ambitions for the reform of monetary theory which bear a striking resemblance to those expressed by Hicks more than 60 years later.

"But, when we come to the theory of money we are told that its value depends upon its amount together with its rapidity of circulation, and although from this account we should naturally be led to infer the presence of some other regulating conditions... we do not find a clear statement of the balancing of advantages..."
which in the ultimate analysis must be found to determine the magnitude of every quantity which rests upon the will of man" (p. 165).

For Marshall in 1871, as much as for Hicks in 1935, monetary theory had thus to be grounded on individual choice, and the choice to hold money involved a choice to retain what Marshall in 1871 termed "ready command over commodities in general" (p. 166), and in 1923, in *Money Credit and Commerce*, "an amount of currency which has a certain purchasing power" (p. 38), what we would now call, using Keynes' (1923) phrase, a stock of "real balances". Marshall, writing in 1871, understood that holding real balances had an opportunity cost:

"But from that portion of his wealth which each person retains in the form of money he is unable to derive any other advantage; thus if instead of keeping on hand a large stock of money he diminishes the stock which he so keeps by fifty pounds and invests this amount in a horse, he derives from it the benefit of the excess of the value of the horse's work over the cost of his keep. Thus the greater the portion of a man's wealth which he keeps in the form of ready command over commodities in general, the less the portion which can be employed either to supply his wants or to increase his wealth. This then is the balancing of advantages which each individual has to adjust for himself. If he retains but a very small ready command over commodities he is likely to be put occasionally to a considerable inconvenience; if he retains a very large one he receives no adequate compensation for the inaction to which so much of his wealth is doomed. He has then to settle what is the exact amount which on the average it will answer his purpose to keep in this ready form" (p. 167).

Though it is the clearest of his expositions of the nature of the demand for money, this striking passage (extraordinary might be a better word, given that it was written in 1871) is not isolated in Marshall's writing. A similar one occurs in his evidence to the Committee on Indian Currency of 1898–9 where the cost of holding money is said to be "an income of gratification" if resources are "invested, say, in extra furniture: or a money income, if
invested in extra machinery or cattle" (Official Papers p. 267); while in Money Credit and Commerce we are told that

"... everyone balances (more or less automatically and instinctively) the benefits, which he would get by enlarging his stock of currency in the hand, against those which he would get by investing some of it either in a commodity - say a coat or a piano - from which he would derive a direct benefit; or in some business plant or stock exchange security, which would yield him a money income" (p. 38).

There can be no denying the choice theoretic nature of Marshall's analysis here. Real balances yield a return of convenience and the quantity of them held is the result of balancing off this convenience against the income in kind or in cash to be had from holding wealth in some other form. Whether in Marshall's analysis the choice in question is truly one that is made at the margin, is another matter. Horses, cattle, pianos, furniture, coats, (though perhaps not securities which turn up in this context for the first and only time in 1923) are rather indivisible, and given that Marshall thought in such terms when dealing with the alternatives to holding money, it is perhaps not surprising that he never formulated the demand for real balances as a continuous function of any rate of return variable. 6

Nevertheless, if Marshall did not formulate the choice to hold money or some other asset in truly marginal terms, using continuous functional relationships, his pupil and successor Pigou certainly did on at least one occasion. Pigou's well known (1917) paper on "The Value of Money", is widely regarded as the best systematic exposition of what has come to be called the Cambridge version of the Quantity Theory of Money, and there the proportion (k) of its "resources" a community will choose to hold in the form of money is said to be determined by
"... the convenience obtained or the risk avoided through the possession of such titles, [i.e. cash balances] by the loss of real income involved through the diversion to this use of resources that might have been devoted to the production of future commodities, and by the satisfaction that might be obtained by consuming resources immediately and not investing them at all." (p. 166).

The choice between devoting "resources" to real balances or investment is further described in the following terms

"Thus the curves that represent the desire for resources to be used in production and in money respectively both slope downwards; and resources will be devoted to the two uses up to the point at which the last unit of resources devoted to each of them yields the same quantity of satisfaction. It follows that other things equal, the variable k will be larger the less attractive is the production use and the more attractive is the rival money use of resources." (p. 168).

There can be no denying that the choice described here is made at the margin, in the usual Marshallian sense of that term.

Pigou refined Marshall's treatment of the choice between real balances and other assets, and he also improved upon Marshall's, correct as far as it goes, treatment of the influence of expected inflation on the demand for money. Thus, Marshall told the Indian Currency Commission that "... The lower is the credit of the currency, the lower will be the share of their resources which people care to keep in the form of currency:" (Official Papers p. 269) while in Money Credit and Commerce he noted that "... an increase in [the] quantity [of an inconvertible paper currency] which seems likely to be repeated, will lower the value of each unit more than in proportion to the increase" (p. 47) (Marshall's italics). Pigou's (1917) treatment of the same issue was a good deal more thorough.
"Clearly, if it is expected that the quantity of commodities for which, say, a note for one pound can be exchanged will be greater a year hence than it is now, the inducement to hold pound notes now is increased; and conversely, if it is to be expected that a pound will buy fewer commodities a year hence, it is diminished. Thus any expectation that general prices are going to fall increases people's desire to hold titles to legal tender; and any expectation that they are going to rise has the contrary effect. For this reason the suspicion that a nation will fail to maintain or restore the full convertibility of paper currency, immediately lowers the demand for that currency in terms of things, and so raise prices in terms of that currency." (p. 169).

Even Pigou did not have the last (or best) word on the influence of expected inflation on the demand for money in the literature of Cambridge monetary economics. In the Tract... (1923, Ch. 2) Keynes provided a thorough analysis, including numerical examples, of inflation as a tax upon money holding, and argued that the public has "... only one remedy -- to change its habits in the use of money" if it wishes to protect itself against" ... these ingenious depredations..." (p. 40). He even approached the idea of a revenue maximizing inflation rate in the following passage:

"... a government can get resources by a continuous practice of inflation, even when this is foreseen by the public generally, unless the sums they seek to raise in this way are very grossly excessive ... A government has to remember... that even if a tax is not prohibitive it may be unprofitable, and that a medium, rather than an extreme, imposition will yield the greatest gain" (p. 43).

Reading this passage today, it is tempting to interpret it with the aid of a clear idea of the demand for real balances as a continuous function of expected inflation, a function whose elasticity rises with the inflation rate. That is not, however, quite how Keynes wrote it. The analysis is not articulated in terms of the parameters of a well defined demand function, and
would not be until the work of Friedman (1956), Cagan (1956) and Bailey (1956). Nevertheless, Keynes's treatment of the effect of expected price changes on the demand for real balances displays much more clarity than Hicks led his readers to believe could be found in Cambridge analyses of such matters.

In short, a large number of the ingredients of modern theories of the demand for money are to be found in Cambridge monetary economics. The Cambridge economists did understand the difference between the utility of the things money could buy and the utility of money, even if their ideas about the latter were rather hazily defined; they also understood the demand for money to be the outcome of a balancing of this utility on the margin against that to be had from devoting resources to other uses; and they knew that anticipated inflation would affect the outcome of this decision. It was also a well established Marshallian proposition that the nominal rate of interest would vary with the real rate of return on capital and the expected inflation rate.  

Nevertheless, as Patinkin (1974) has shown, Cambridge economics did not systematically combine these insights in order to arrive at the simple implied proposition that the demand for money would vary with an opportunity cost measured by the nominal interest rate. Furthermore though Cambridge analysis of the choice between holding real balances and other assets can usually be read as describing a wealth allocation decision, and is in fact explicitly and unambiguously treated in just this way by Marshall (1871), the Cambridge economists did not consistently recognise the importance of distinguishing between wealth and income.  

Pigou wrote of the economy's "resources" rather than its wealth or its income, and set out his analysis of the demand for
money in the context of a Classical wheat producing period of production economy in which the distinction between the two is not sharp. One could recast his analysis in terms of a system with continuous production in which the distinction between a stock of wealth as a constraint on money holding, and flow of income as a measure of the amount of "work" that money had to do was clear, but Pigou himself did not do things this way. Rather his use of the word "resources" permitted his readers to interpret it as referring either to income or wealth, depending upon the context. 9

Marshall was less clear about these matters in his published writings than he had been in his unpublished manuscript of 1871. In Money Credit and Commerce he did distinguish between wealth and income in a way that Pigou did not, but only to set out a numerical example in which

"... the inhabitants of a country ... find it just worth their while to keep by them on the average ready purchasing power to the extent of a tenth part of their annual income, together with a fiftieth part of their property ... "(p. 44).

He did not here utilise the distinction in anything that remotely resembles an attempt to model the demand for money in capital theoretic terms; but as Keynes (1924) pointed out, Marshall's treatment of the demand for money in Money, Credit and Commerce is the work of a very old man, and is distinctly inferior to his 1871 manuscript on this topic. 10

III

It is always dangerous to speculate about why any group of economists did not carry a particular line of thought further than they did. The next important step in the development of an idea is always much more apparent
after it has been taken than before. Thus, the most likely reason why someone did not take it, namely that he did not see what it might be, is frequently the correct one. Nevertheless, when it comes to the Cambridge Economists and the theory of the demand for money one might venture a little beyond the obvious. Perhaps they did not develop their theory of the demand for real balances into a complete capital-theoretic analysis of portfolio choice, because they were not interested in the nature of the demand for real balances for its own sake. We nowadays classify their model as a version of the Quantity Theory of Money (though they did not), because their central (though not their only) concern in monetary economics was the old one of the relationship between the quantity of nominal money and the general price level. At the same time, their most powerful analytic tool was Marshall's supply and demand apparatus.

The very title of Pigou's classic paper of (1917) "The Value of Money" defines its central problem. In it, Pigou devotes nearly as much space to discussing factors affecting the supply of money as its demand, and he presents his readers with a systematic deployment of the above-mentioned Marshallian supply and demand apparatus to the problem of determining the price of nominal money. Moreover, and crucial to the current discussion, the relevant Marshallian demand curve for this problem is not any functional relationship with real balances on the left hand side, but a curve relating the demand for nominal money to its value, the inverse of the general price level. Once it has been established that the demand for money is indeed fundamentally a demand for real balances, the unit elasticity of the curve relating the demand for nominal balances to their value immediately follows, and implies proportionality, "other things equal", between the supply of nominal money and the price level. Hence, in Pigou's hands Marshallian supply and demand analysis is made to yield the old Quantity Theory result.
Factors affecting the demand for real balances are of course the "other things" held equal in the above experiment. Changes in them will cause shifts of the demand curve for nominal balances. However, in keeping with usual Marshallian procedures, it is sufficient to outline what these other things are that will shift the demand curve, and to indicate the direction of their effects on its location. It is not necessary to formulate such effects in terms of explicitly defined smooth functional relationships. In short, I am suggesting that the problems with which they wished to deal, and the methods they used to tackle them, did not require the Cambridge economists to carry their analysis further than they in fact did.

Though Cambridge Monetary Theory as expounded by Marshall and even by Pigou looks incomplete to our modern eyes, to contemporaries seeking an account of the determination of the price level cast in terms of Marshallian supply and demand analysis, it must have appeared to be a finished product. We shall see below that Hicks's treatment of the demand for money derives quite explicitly from his work with Allen on value theory, but the latter work was not in the Marshallian tradition. Hicks and Allen dealt with a generalised theory of constrained choice, and the theory of Liquidity Preference is as much the natural analogue in monetary theory to this approach to value theory as is the Cambridge version of the Quantity Theory of Money to its Marshallian supply and demand counterpart. The Cambridge Quantity Theory surely looks no less complete to someone brought up on modern portfolio choice theory than does supply and demand analysis to someone trained in the use of indifference curves and budget constraints. More in economics than monetary theory changed in the 1930s, that is to say, and changes in monetary theory were part and parcel of a much wider ranging development of the tools of economic analysis.
Even so, the shift from the Quantity Theory to the theory of Liquidity Preference involved more than a change in the logical tools employed by economic theorists. The central empirical problems facing monetary economists also changed, as the business cycle replaced secular price level variations as the major macroeconomic policy issue. John Stuart Mill had developed the idea of a temporary asset demand for money, mentioned at the beginning of this paper, in the context of his analysis of the "credit cycle", so called, and in his (1887) article on "Remedies for Fluctuations in General Prices" Marshall had elaborated upon Mill's analysis of the role played by the demand for money in the cycle (without citing its source). However, cyclical fluctuations were not a significant policy issue in the three decades preceding the First World War, and it is not surprising that Marshall did not follow up his early discussion of the role of money in cyclical fluctuations. Hicks's remark to the effect that Marshallian monetary economics was "... dominated by... the... conception of money as a veil..." is accurate enough, but perhaps it was so dominated because the policy problems with which Marshall and his associated were mainly concerned were adequately treated in long run equilibrium terms.

The transition from a concern with slow secular price movements to analysis of the cycle was not immediate. The First World War and the early 1920s saw rapid inflation become the main monetary problem for a while, and Keynes's Tract showed that Cambridge Monetary Theory could be extended to deal with this problem. Inasmuch as Keynes's treatment of the demand for money under conditions of rapid inflation involved the analysis of a forward looking choice based upon expectations, it was an important step towards the theory of
Liquidity Preference, but the monetary theory of the Tract was, nevertheless, not completely suited to dealing with the real cyclical instabilities which became so important from the mid-1920s onwards.\textsuperscript{14} There is not space in this paper to describe the nature of the business cycle literature of the 1920s and early 30s, but one of its themes is worth stressing at this point. The economy's failure to operate systematically at full employment was widely thought to arise from an inability on the part of market mechanisms to co-ordinate intertemporal choices; and the inability in question was often attributed to the functioning of capital markets in general and the monetary system in particular.\textsuperscript{15}

In the analysis of short run economic instability, the marginal choices involving money whose existence, though recognised, had not been dealt with in detail by Marshall, Pigou, and the earlier Keynes, became of central importance. The theory of Liquidity Preference is, on this reading, a theory of the demand for money created to address problems of short run economic instability. Notwithstanding occasional references to risk in their writing, for Marshall and Pigou the current income to be had from other assets was the crucial foregone alternative when money was held. On the other hand, the choices to which Liquidity Preference theory directs our attention are essentially forward looking. For Hicks and Keynes of the General Theory, the foregone alternative when money is chosen is an expected future income of uncertain amount, to be had over a holding period, the very length of which was also uncertain.

Also important in differentiating Liquidity Preference theory, as developed by Hicks and Keynes, from the Cambridge theory which preceded it, is a difference in assumptions about the institutional background to choices concerning money. For Marshall and Pigou analysing the demand for money,
financial markets per se hardly exist, but for Hicks and Keynes, their existence is of the very essence. In this respect, it is perhaps significant that the passage in Cambridge Monetary Economics which comes closest to the ideas of Liquidity Preference theory, that written by Lavington (1921) and referred to by Hicks (cf. p. 2 above), occurs in a book that deals not with the theory of the price level, but with the English Capital Market. Lavington's recognition that

"...part of the demand for money arises from the need to make provision against contingent payments, and that this part of the demand fluctuates in response to changes in the general condition of confidence in some measure independent of the volume of payments." (p. 33)

is, as Patinkin (1974) suggests, unique in the Cambridge literature before the Treatise on Money. So is Lavington's recognition of the "...essential similarity between the distribution of resources by a business man and the distribution effected by a bank..." (p. 30). Both of these insights, however, are central to Hicks's analysis, as we shall see in due course.

The importance of the institutional background here is further attested to by the fact that Keynes's Treatise was an attempt to deal "...systematically and thoroughly with the theory and facts of Representative Money as it exists in the modern world" (p. vii) and that careful analysis of a complex financial system played an important role in that attempt. Crucially, Keynes's discussion of the demand for "savings deposits" occurs in the course of his description of the "financial circulation". This discussion contains clear statements that the demand for money, to the extent that it involves a decision to hold bank deposits as a pure store of value, is constrained by wealth, and that the choice in question is inherently forward
looking, being dependent (ceteris paribus) on expectations about security prices. Hence it sets out important components of liquidity preference theory, as Patinkin (1976) has shown.

Certain things are missing here, though. There is no stress on uncertainty about future asset prices as a factor affecting the demand for money—though the possibility of disagreement between different agents does arise at one point (Vol. 1, p. 267). Nor are variations in the demand for savings deposits given any important role to play in the analysis of cyclical instability that forms the core of the book. Keynes does tell his readers that

"The sight of falling prices, and perhaps of a declining volume of output also, may change financial sentiment...with the result of augmenting the demand for money in the Financial Circulation and so reducing the supply of money for the Industrial Circulation..." (Vol. 1, p. 290).

but he presents this as a complicating factor in the downswing of the cycle rather than as a crucial mechanism. The analytic framework of the Treatise... is, after all, the Quantity Theory of Money, in the guise of the "fundamental equations", and the elements of Liquidity Preference theory that are to be found in that book are neither fully developed nor completely integrated into its theoretical structure. We must turn to Hicks's "...Simplification..." for a full development of the idea of Liquidity Preference per se, and to the General Theory for the integration of that idea into a model designed to explain macroeconomic instability.
IV

Hicks's treatment of the demand for money in "A Suggestion..." begins conventionally enough. He notes, first of all, that the decision to hold money rather than to spend it on consumption goods is "... obviously the ordinary case of a preference for future satisfactions over present..." (p. 50) and poses no interesting problem. However,

"The critical question arises when we look for an explanation of the preference for holding money rather than capital goods. For capital goods will ordinarily yield a positive rate of return, which money does not. What has to be explained is the decision to hold assets in the form of barren money, rather than of interest-or profit-yielding securities..." (pp. 50-51).

Superficially this reads like many passages in Cambridge monetary economics, for example that from Money, Credit and Commerce quoted above (p. 5).

However, the emphasis on securities in addition to capital goods as alternative stores of value to money is stronger here, and involves Hicks in analysing the demand for money in the context of a more general theory of portfolio choice than it had previously been usual to deploy for such a purpose; and indeed when he puts his analysis to work, he concentrates on financial markets, rather than goods markets, as we shall see.

The transactions cost involved in acquiring stores of value other than money is the first factor to which Hicks looks to explain why agents hold money. He argues that this cost will not only cause money to be held, but that, for some agents, it will also render money holding rather unresponsive to changes in such variables as the expected return on other assets.
"... since the quantity of available money must generally rise to some minimum before it is profitable to invest it at all, and further investment will then proceed by rather discontinuous jumps for a while, we shall expect to find the demand for money on the part of private individuals, excepting the very well-to-do fairly insensitive to changes of this sort"... (p. 52).

However transactions costs are only part of the story here, and not the most interesting part as far as Hicks is concerned.

"For we have also to take into account the fact which is in reality of such enormous importance, that peoples' expectations are never precise... Their expectations are always, in fact, surrounded by a certain penumbra of doubt; and the density of that penumbra is of immense importance for the problem we are considering.

The risk factor comes into our problem in two ways: first as affecting the expected period of investment: and second, as affecting the expected net yield of investment." (p. 52-53).

An increase in uncertainty in either dimension would increase the demand for money. Also, because portfolio diversification reduces the risks involved in holding non-money assets,

"We shall,... expect to find our representative individual distributing his assets among relatively safe and relative risky investments..." (p. 55)

Transactions costs will, of course, impose limits on the extent to which the typical agent can diversify his asset holding, but

"... those persons who have command of large quantities of capital and are able to spread their risks are not only able to reduce the risk on their own capital fairly low -- they are also able to offer very good security for the investment of an extra unit along with the rest. If, therefore, they choose to become borrowers ... they can ... provide the safe investments which their fellow-citizens need.... The appearance of such safe investments will act as a substitute for money in one of its uses, and therefore, diminish the demand for money." (p. 55).
Hicks summarises what all this meant for the demand for money in a footnote:

"The amount of money demanded depends upon three groups of factors: (1) the individual's subjective preference for holding money or other things, (2) his wealth; (3) his anticipations of future prices and risks." (p. 59, fn. 7).

The analogy here with the methods that Hicks (in collaboration with Allen) was then developing for value theory is obvious enough, and he is indeed quite explicit about this:

"In value theory we take a private individual's income and expenditure account; we ask which of the items in that account are under the individual's own control and then how he will adjust these items in order to reach a most preferred position... My suggestion is that monetary theory needs to be based again upon a similar analysis... not of an income account but of a capital account, a balance sheet... We ought to regard every individual in the community as being on a small scale, a bank. Monetary theory becomes a sort of generalisation of banking theory." (p. 57)

Now whatever else one might say about the Cambridge Theory of the demand for money, one would never characterise Marshall or Pigou's versions of it as "... a sort of generalisation of banking theory", and indeed Lavington's suggestion that the demand for money might be thought of in such terms is, as I have noted, unique in that literature. Cambridge theory did concern itself with choices at the margin when it dealt with the demand for money, but the clear distinction between income and wealth upon which Hicks's capital theoretic analysis is grounded is not consistently visible there. The manner in which Hicks takes for granted the existence of a rather complicated financial system, as well as his stress on the forward looking nature of the choice between money and other assets, and hence on the importance of risk as a factor conditioning choices about money holding, also distinguish his work from most of the Cambridge literature.
Hicks not only advances a new approach to monetary theory in "A Suggestion...", but also illustrates the usefulness of that approach. When he puts his model of the demand for money to work, however, it is in an analysis of economic instability which starts from a point that bears more than a passing resemblance to Marshall's (and Mill's) treatment of the role of money in generating cyclical instability referred to earlier. For Hicks "... the whole problem of applying monetary theory is largely one of deducing changes in anticipations from the changes in objective data which call them forth." (p. 58) and he considers "... unpleasant possibilities ... sufficiently plausible for their examination to be well worthwhile" (p. 61). Treating the case of a change in the value of assets brought about by a change in one agent's demand for money, he assumes that this change in the current value of assets will bring forth expectations of further change in the same direction. Hence he considers an extreme version of Marshall's process (and before Marshall it was Mill's) whereby "prices fall because prices have fallen", though the prices in question now include those of financial assets, rather than being simply those of inventories of goods. Hicks concludes that

"... if any single person tried to increase his money holdings, and the supply of money was not increased, prices would all fall to zero. If any person tried to diminish his money holdings, prices would all become infinite." (p. 61).

Now Hicks does not present this case as being an immediately relevant empirical story. "These exercises in the economics of an utterly unstable world give us something too mad to fit even our modern Spätkapitalismus..." (p. 62), because very low costs of transacting between money and other assets are clearly necessary to generate such extreme instability, and Hicks has already pointed out at the beginning of his paper that not all agents face
such low costs. Some do, though, and their demand for money is sensitive to changes in expectations. Thus:

"...where the sensitive trade together, price fluctuations may start on a very slight provocation; and once they are underway, the rather less sensitive would be enticed in. Stock-exchange booms will pass over into industrial booms, if industrial entrepreneurs are also fairly sensitive; and in exactly the same way stock exchange depressions will pass into industrial depressions. But the insensitive are always there to act as a flywheel, defeating by their insensitivity both the exaggerated optimism and the exaggerated pessimism of the sensitive class." (pp. 62-63).

However,

"If it is the insensitive people who preserve the stability of capitalism, people who are insensitive... largely because for them the costs of transferring assets are large relative to the amount of assets they control, then the development of capitalism by diminishing these costs is likely to be a direct cause of increasing fluctuations... In doing these things, capitalism is its own worst enemy, for it imperils that stability without which it breaks down." (p. 63).

In the light of this argument, we might fairly characterise Liquidity Preference theory, as developed by Hicks, as not only a new theory, but a new theory designed to deal with what he regarded as a newly emerging problem, namely a growing instability of capitalism arising from an increasing efficiency of financial markets. But his account of this new problem was sketchy. To say this is not to be critical. We are after all dealing with a single paper here, not with a treatise, and it is surely enough to ask of one brief essay that it transform the theory of the demand for money. It does not also have to contain a fully worked out theory of the role of money in generating the business cycle in particular, or economic instability in general, in order to be a masterpiece. Nevertheless, because it is in their treatment of the role of money in the generation of macroeconomic instability that the most striking differences emerge between Hicks's "...Suggestion..."
and Keynes's General Theory, and because no account of Liquidity Preference theory would be complete without some comment on Keynes's contribution, these issues will be discussed further in the next section of this paper.

V

Hicks's "Suggestion..." was published a good year before the appearance of the General Theory, and although it was Keynes's version of the doctrine, a parallel development of the same ideas in the Treatise cited by Hicks, which found its way into the textbooks as a result of the overwhelming success of the theoretical framework in which it was embedded, there can be no question of his priority over Keynes as a systematic exponent of Liquidity Preference theory. Even so, and at the risk of stating the obvious, the similarities between Hicks and Keynes on Liquidity Preference are far more important than the differences. Money appears in The General Theory, as it does in "A Suggestion...", as one of an array of assets among which agents may allocate their wealth; and financial assets are particularly important as alternatives to money. Moreover, Keynes is every bit as explicit as Hicks in treating the choice in question as inherently forward looking and subject to uncertainty. These characteristics of Liquidity Preference theory are, as I have already argued, among the critical ones which distinguish it from Cambridge demand for money theory, but certain differences between the details of Hicks's and Keynes's expositions of these ideas are worth commenting on.

To begin with, though both emphasised "sensitive" and "insensitive" components of the demand for money and their interaction, Hicks, as we have seen, founded the distinction in question on what amounts to a distributional effect arising from the behaviour of different agents. For him, only firms
and relatively rich individuals would display "sensitivity" in their money holding behaviour. In contrast, Keynes distinguished between different components of the demand for money, namely transactions and precautionary balances (M1) on the one hand, and speculative balances (M2) on the other. Defining V as the ratio of money income to M1, he argued that

"Its value will depend on the character of banking and industrial organisation, on social habits, on the distribution of income between different classes and on the effective cost of holding idle cash. Nevertheless, if we have a short period of time in view and can safely assume no material change in any of these factors, we can treat V as nearly enough constant." (p. 200).

This distinction between sensitive and insensitive components of the demand for money echoes that between income and savings deposits in the *Treatise*, and proved easier than Hicks's between sensitive and insensitive agents to incorporate in macroeconomic models, where distributional effects are notoriously hard to handle. Hence it became the received distinction as far as later literature was concerned.  

More important than this, however, is the difference between Hicks's and Keynes's treatments of expectations formation. Hicks, with very little argument, assumed for the sake of getting his analysis started that expectations about changes in asset prices were extrapolative, and explicitly drew his readers' attention to the arbitrary nature of this assumption: "...I must emphasise that it is only an assumption" (1935, p. 61). Keynes had treated expectations similarly in the *Treatise*, but in the *General Theory* he was much more careful and thorough in his discussion of this matter. In more than one place he referred explicitly to a smooth inverse functional relationship between the demand for M2 and r but he also pointed out to his readers that
"... a given M2 will not have a definite quantitative relation to a given rate of interest r; - what matters is not the absolute level of r but the degree of its divergence from what is considered a fairly safe level ..." (p. 201) (Keynes's italics.)

This safe level, in turn, was a product of "past experience and present expectations of future monetary policy..." (p. 203) so that, in fact "... the rate of interest is a highly conventional... phenomenon" (p. 203). Given the existence of a particular "safe" level for the rate of interest, however, although

"... The short term rate of interest is easily controlled by the monetary authority ... the long term rate may be more recalcitrant when once it has fallen to a level which, ... is considered "unsafe" by representative opinion" (p. 203).

The reason for this was, of course, that changes in bond prices, expected to occur as the interest rate returned to its safe level, were as much a component of the cost of holding money as interest itself and would be negative at low interest rates.

Whether Keynes ever took the fully fledged "liquidity trap" doctrine which used to play such a prominent role in textbook accounts of Keynesian economics to be any more than a theoretical curiosity is debatable, but there can be no question that he believed the sensitivity of the speculative demand for money to the rate of interest to be very high at low rates of interest. Quite contrary to Hicks, (and Mill and Marshall) he did not see speculative behaviour in financial markets as originating or, as with his own earlier arguments in the Treatise, perhaps amplifying economic instability. Rather he saw it as permitting fluctuations generated elsewhere, and particularly in the marginal efficiency of capital, to have cumulative effects on income and
employment by preventing them from being dampened down by interest rate changes. For Keynes, in the *General Theory*, the fact of Liquidity Preference being expressed in well developed financial markets prevented the rate of interest moving to equilibrate savings and investment in the manner allegedly postulated by the "Classical Economists".

The source of this critical difference, between Keynes's application of Liquidity Preference theory and that of Hicks, was twofold. First, Keynes's analysis is presented as part of a complete macroeconomic system where disturbances other than those arising in the monetary sector can be analysed. Second, and more specifically, Keynes adopted a recursive rather than extrapolative model to describe the relationship between current and expected future changes in asset prices. Extrapolative expectations about prices do play a role in the *General Theory*, notably in the discussion of the consequences of money wage flexibility in Ch. 19, but Keynes made no effort to relate this argument to his analysis of liquidity preference. In any event, the fact that Hicks adopted Keynesian recursive expectations in his famous "Mr. Keynes and the Classics" (1937) confirms the impression that one gets from the later sections of the "A Suggestion...", namely that he felt no strong commitment to the extrapolative modelling of expectations and had adopted it, *faute de mieux*, in order to construct an exercise showing why the dependence of the demand for money on expected future asset prices was an important idea. The idea itself, rather than its particular application, was his central concern in that earlier paper.  

**VI**

Wherein then lies the novelty of the theory of Liquidity Preference as developed by Hicks (and Keynes)? The first thing to be said here must be that
this novelty does not lie in formulating monetary economics in choice theoretic terms. The idea of a demand for money whose amount depends on a comparison of the advantages of holding money with those to be had from holding other assets was fundamental to the Cambridge Monetary Theory of Marshall and Pigou. Furthermore, though what we would now call the Cambridge version of the quantity theory did not explicitly and systematically treat the rate of interest as the opportunity cost of holding money (though Lavington did refer to this point on one occasion), nor did the pioneers of Liquidity Preference. Hicks's "...Suggestion..." refers only once to a relationship between the demand for money and "... the expected rate of interest..." (p. 52), and to draw attention to this relationship can hardly be considered the central message of that paper.23

Keynes did of course lay great stress on the dependence of the demand for speculative balances on the long term rate of interest, but the relationship here was not between the demand for an asset and the opportunity cost of holding it. As for Hicks, so for Keynes, expectations about capital gains and losses on financial assets are the critical variables determining the demand for money.24 It is the relationship between these expectations and the current value of the interest rate that underlies the dependence of the demand for Keynesian speculative balances on the long term interest rate. According to Keynes, as we have seen, what matters is "... not the absolute level of r, but the degree of its divergence from what is considered a fairly safe level..." (p. 201).

If Hicks (1935) and Keynes (1936) originated neither choice theoretic analysis of the demand for money nor stressed the notion that interest is the
opportunity cost of money holding, they nevertheless profoundly changed the
theory of the demand for money. To begin with, Hicks's clear distinction
between the income account and the capital account, along with his insistence
that the analysis of the demand for money be put firmly in the context of the
capital account, is surely the starting point for all subsequent capital
theoretic (as opposed to merely choice theoretic) analyses of the demand for
money. As we have seen, the Cambridge Quantity Theorists, like their
Classical predecessors, did not display the systematically firm grasp of the
stock-flow distinction that must underpin such an approach. Nor did they
approach any economic problem with the same tools for analysing constrained
choice as did Hicks.

Liquidity Preference theory did more than establish a capital theoretic
approach to modelling the demand for money, however. It also modelled the
demand for money as part of a forward looking portfolio choice in which
uncertainty about the prices of financial assets was of the very essence.
Just as Marshall and Pigou had developed those aspects of the theory of the
demand for money particularly relevant to understanding the central monetary
policy problems of their times, namely the secular relationship between money
and the general price level, so did Hicks and Keynes develop those aspects of
the theory that seemed most relevant to the policy concerns of the 1930s,
namely the role of the monetary system in the generation of short-run economic
instability. Each, in his own way, argued that the fact of Liquidity
Preference in the presence of uncertainty about future asset prices helped
undermine the smooth co-ordination of choices about the intertemporal
allocation of resources upon which macroeconomic equilibrium depended.
Liquidity Preference theory was thus the result of bringing to bear a new analytic approach to an already existing choice theoretic treatment of the demand for money and, more important, of refocussing it on a new set of issues. However, in one critical respect monetary economics lost in precision with the advent of Liquidity Preference theory. The reader of "A Suggestion..." and The General Theory, or indeed of "Mr. Keynes and the Classics", will look in vain for any discussion of the demand for money as a demand for real balances. In all of these works, the discussion is cast in terms of nominal magnitudes. Though there are many statements to the effect that increases in money income, whether they arise from real income or price level changes, will increase the demand for money, there is no emphasis on the idea of a unit elasticity of demand for nominal money with respect to the general price level. This idea, which had lain at the very heart of Cambridge Monetary Theory, was pushed far into the background by Hicks and Keynes.

With the advent of Liquidity Preference theory, then, though monetary economics gained enormously in its ability to come to grips with the role of monetary mechanisms in real economic fluctuations, it simultaneously began to lose its capacity to analyse the interaction of money and the general price level. The consequences of this for the conduct of economic policy and the resulting behaviour of economies in the post war world of full employment, and for economists' ability to understand that behaviour, are, however, matters which must be discussed at another time. So too are the processes whereby the older wisdom of the Quantity Theory was recovered and re-established as a vital component of monetary economics.
Footnotes

1 I have discussed these matters at greater length in Laidler (1986).

2 However, though Hicks had read the Treatise... before writing his "...Suggestion..." the passage quoted below in which Keynes's priority is acknowledged did not occur in the first draft of the paper. Like the reference to Lavington (1921) in the footnote dealing with Cambridge Monetary Theory (also quoted below), the reference to the Treatise... seems to have been added at the suggestion of Sir Dennis Robertson. I am grateful to Sir John Hicks and Dr. Anthony Courakis for help in clarifying this matter.

Hicks gives his own account of the antecedents of the "...Suggestion..." in (1982, pp. 6-10), telling us that the source of the insight that monetary theory should have its roots in the theory of intertemporal choice in conditions of uncertainty was Knight (1921), and pointing out that this idea underpins his "Equilibrium and the Cycle" first published in German in (1933) but not readily accessible to English speaking readers until (1982). This paper contains, in embryonic form, many of the key insights of "A Suggestion...". Hicks also acknowledges the influence of Myrdal (1933, English tr. 1939), and as Chick notes in her paper for this conference, this Swedish influence comes over to Value and Capital too. The general analytic approach taken in "A Suggestion..." is, of course, that applied by Hicks and Allen (1934) in their work on value theory.

3 Perhaps one should explicitly make the point that, in his later writings, Hicks has made more than ample amends for his earlier downgrading of the contributions of Classical and neo-Classical economists to monetary theory. See for example (1967) particularly Chs. 9 and 10.
This evidence is, nowadays, readily available in the *Official Papers*, but this is a posthumous publication of (1926) which gathered it together in a conveniently accessible form for the first time.

Part of the relevant passage reads

"It is a remarkable example of the continuity of his thought...that the whole of the substance of Book I, Ch. IV of his *Money Credit and Commerce* is to be found here, worked out with fair completeness and with much greater strength of exposition and illustration than he could manage fifty years later" Keynes (1924) p.28.

Even in the "Mathematical Note on the Value of Money," that accompanies the 1871 manuscript, where he writes out a formal version of his theory of the demand for money, Marshall omits a rate of interest term from the relationship, a fact to which his editor John Whitaker refers as "a slight disappointment" (p. 176). Interest is mentioned as a cost of holding money at one point in the manuscript of 1871, in the context, however, of a numerical example which Marshall himself stuck through (p. 174).

In the light of recent controversies about the extent to which Milton Friedman's (1956) restatement of the "Quantity Theory" is really a restatement of Keynesian Liquidity Preference Theory, it is worth drawing attention to the frequency with which Marshall used consumer durable goods as examples of alternatives to money. The treatment of real balances "as if" a consumer durable is central to Friedman's work, and has no parallel in Liquidity Preference Theory, where nominal balances are treated "as if" a financial asset.

Keynes (1924) suggests that the concluding note to Book VI Ch. vi of the *Principles*...(1890) marks the first clear exposition of this idea in the literature. This is not quite the case, since the idea also occurs in one of
Henry Thornton's (1811) speeches on the Bullion Report, and in J. S. Mill's *Principles*. However, Marshall clearly anticipated Irving Fisher (1896) on this matter. Even so he made extensive references to this work of Fisher's in his 1899 evidence to the Indian Currency Committee. See *Official Papers*... pp. 270-276.

It is worth noting that the note to which Keynes refers occurs in Book VII Ch. vii of the first edition of the *Principles*... Keynes's reference is accurate with respect to the second 1891 edition, but by the final (eighth) edition, the note in question had been incorporated in the text of Book VI Ch. vi. I am grateful to Milton Friedman for pointing this out to me.

In (1974) Patinkin discusses the ambiguity of much Cambridge writing about whether what we would now call the "scale" variable in the demand for money function should be income or wealth. His discussion of Marshall's writings (pp. 21-23) leaves his readers with the impression that there is no essential difference between Marshall's treatment of this matter in *Money Credit and Commerce* (discussed below, p. 9) and that to be found in the manuscript of 1871. As the passage quoted above (p. 5) from this manuscript shows, Marshall was quite clear that the appropriate variable was wealth at this early stage in his work. Moreover, in the mathematical note referred to in fn. 6, prepared at about the same time, and printed immediately after the 1871 manuscript in (1975), Marshall explicitly wrote the equation \( y = \chi(u) \) with \( y \) defined as "the amount of wealth over which community cares to keep command in a ready form" and \( u \) defined as "general wealth of community" (p. 177). Perhaps the vagueness of his later treatments of the issue should be attributed to the fact that, in giving evidence to various committees, he was attempting to communicate to laymen about matters for which the
wealth-income distinction was not central, and to the fact that *Money, Credit and Commerce* was a work completed in extreme old age.

It is customary to interpret Pigou as meaning "income" when he used the word "resources". The source of this interpretation, which is given, for example, by Gilbert (1953), seems to be Keynes (1930) who, having blithely asserted (p. 231, fn. 2) that "the context implies that "resources" means income over a period of time" goes on (p. 232) to criticise Pigou for treating the demand for money as depending upon income rather than wealth! As Patinkin notes, Keynes was not criticised for this interpretation by Robertson. He treats this as strong evidence that Cambridge economists did not fully grasp the idea of the demand for money as the outcome of a wealth allocation decision. Given Marshall's explicit and unambiguous use of the word "wealth" in the passage quoted above (p. 5), given Robertson's lack of interest in the theory of the demand for a stock of money (the idea does not turn up in a clearly articulated way in his celebrated textbook on Money until its third (1928) edition), given Keynes's notorious carelessness in the interpretation of other people's ideas, and given the frequent use of the word "resources" by Cambridge economists in contexts where it is clearly synonymous with "wealth", I am inclined to think that Patinkin makes too much of this Keynes-Robertson exchange. The word "resources" in the passages quoted (on p. 6 above) from Pigou clearly means "wealth", and Lavington (1921) is another Cambridge economist who uses the word "resources" synonymously with "wealth". Consider:

"If we arrange a business man's investments in order of their marketability, we may regard his resources as distributed among a series of uses ranging from his stock of the supremely acceptable thing, money, up to his investments in the permanent plant from which he draws his main money income. This arrangement conveniently illustrates the essential similarity between the distribution of resources by a business man and the distribution effected by a bank..." (p. 28)
Patinkin in fact quotes this passage in (1974) but in another context, and does not comment on the use of the word "resources". Nevertheless, let it be explicitly said that it is Patinkin's use of a particular piece of evidence with which I am here quarrelling, rather than the central message of his paper. Though I place more emphasis on the continuity between Cambridge Monetary Theory and the theory of Liquidity Preference than does Patinkin, Hicks and Keynes were undoubtedly more clear and consistent in their treatment of the demand for money as the outcome of a wealth allocation decision than were their Cambridge predecessors.

I do not wish to be interpreted here as suggesting that those modern accounts of the demand for money, which treat it as purely the outcome of a wealth allocation decision are superior to those which leave room for analysis of choices made on both the money-goods and money-financial-assets margins. I would, nevertheless, insist that the two margins are different, that a clear appreciation of the stock-flow and wealth-income distinctions is essential to the perception of this difference, and that Cambridge monetary theorists before Keynes (1930) were ambiguous on this issue. Whatever may be the sins of certain modern approaches to modelling the demand for money in ignoring its role as a means of exchange, they are superior to earlier analysis in the well-defined sense of being analytically clear about the stock-flow distinction. I am indebted to Meir Kohn for discussion of this point.

Of course we now know that, among the "other things" that must be held equal to generate this rectangular hyperbola linking the demand for nominal money to the inverse of the price level is the value of real wealth, and that this will vary with changes in the nominal (outside) money supply at an initially given price level. The subtleties of the role of real balance
effect as an influence on the demand for money had to await the work of Patinkin (1956, 1965) and Archibald and Lipsey (1958) before they were fully understood.

12 I am grateful to Axel Leijonhufvud for the point made in this paragraph.

13 Marshall's discussion of the cycle is worth quoting at some length. "When... credit is shaken and prices begin to fall, everyone wants to get rid of commodities and get hold of money which is rapidly rising in value; this makes prices fall all the faster, and the further fall makes credit shrink even more, and thus for a long time prices fall because prices have fallen. At such a time employers cease their production because they fear that when they come to sell their finished products general prices will be even lower than when they buy their materials... and at such times it would be often well... that the employees should take rather less real wages than in times of prosperity. But, in fact, since wages and salaries are reckoned in money which is rising in value, the employer pays higher real wages than usual unless he can get money wages reduced. This is a difficult task... The employer finds a stoppage his easiest course... He may not happen to remember that every stoppage of work in any one trade diminishes the demand for the work of others; and that if all trades tried to improve the market by stopping their work together, the only result would be that everyone would have less of everything to consume..." (p. 191).

Two points are worth making about this passage. First, though its initial sentence could have been written by Mill, the rest of it, which begins to integrate the idea of an asset demand for money into a theory of fluctuations in real output could not. To the extent that this analysis has an antecedent in Classical Economics, it would be in certain passages of Thornton's (1802) Paper Credit... though this work was almost certainly unknown to Marshall. Second, Hicks's application of his demand for money analysis to the problem of economic instability in the concluding section of "A Suggestion..." bears more than a passing resemblance to Marshall's treatment of the issue.
I would defend this suggestion that Keynes's analysis of the demand for money in inflationary conditions represents a step towards the integration of monetary theory with business cycle analysis by noting that Dennis Robertson made considerable use of it in his analysis of "induced lacking" in Banking Policy and the Price Level (1926). On this matter, see Presley (1986).

There is a certain myopia about many commentaries on Keynes's General Theory... with regard to this matter of the intertemporal co-ordination problem. Thus Chick (1983), Leijonhufvud (1968) and Howitt (1986) among others, all, correctly, stress Keynes's scepticism about the capacity of market mechanisms to solve these problems but do not, in my judgement, sufficiently emphasise that this aspect of Keynes's message is to be found in the work of the majority of his contemporaries. Thus Austrians such as Mises (1935), Hayek (1935) and Robbins (1934), Swedes such as Myrdal (1939), Lindahl (1939) and Lundberg (1937), not to mention Keynes's colleague Robertson (1926) all sought the key to economic instability in failures of the social mechanisms whereby inter-temporal choices were co-ordinated. Elsewhere, Chick (1986) and Leijonhufvud (1981) have ably demonstrated their awareness and understanding of this broader body of literature. Hence this comment is directed at specific works, rather than their authors' overall contribution. (The dates given in the above references are dates of publication in English. The works of Mises, Myrdal, and Lindahl appeared earlier in German and Swedish.)

The simple idea that unemployment was to be explained by "too high" a real wage, associated with excessively generous unemployment benefits,
which is nowadays looked upon as the "Classical" explanation of
unemployment, did exist in the 1920s and 30s — see eg. Cannan (1930) —
but was far from being the only alternative to the General Theory
available at the time.

16 Patinkin cites Lavington's assertion that his description of
the demand for money is "...rather different from (though not
inconsistent with) that laid down by the Quantity theory..." (p. 32) as
significant for his (Patinkin's) case that Lavington's work should be
regarded as lying outside the mainstream of Cambridge Monetary Theory.
However, the Quantity Theory description of the demand for money referred
to here is not one which relates a stock demand for money to a flow of
income. Rather it is one in which "...the demand for money during the
year is taken to be the aggregate of goods (and services) exchanged
against money during that period..." (p. 32), i.e. the flow demand for
money concept which, as I noted at the outset of this paper, underlay the
Classical version of the Quantity Theory. Thus Lavington's disclaimer
should probably be read as differentiating the Cambridge approach to
monetary theory based on the idea of a stock demand for money from the
Classical approach based on flow concept, and not as differentiating
Lavington's analysis from Cambridge Monetary Theory.

17 This emphasis on transactions costs gives Hicks's analysis at
this point a strong family resemblance to the later inventory theoretic
approaches to the demand for money of, for example, Baumol (1952) or
Miller and Orr (1966). Note though that Hicks is, at this point,
uncharacteristically vague in failing to specify precisely the nature of
the costs he has in mind. The later analysis referred to here shows that
they must be lump sum in nature, or, if variable, be characterised by falling marginal cost, to have the effects required of them.

It might be noted that, in a little known article, S. P. Chambers (1934) also dealt with the influence of transactions costs on the demand for money, and with the role of uncertainty, even going so far as to draw an indifference map between expected return, and risk, measured by its standard deviation. Chambers' contribution is discussed, and related to those of Hicks and Keynes, by Gilbert (1953). I know nothing about Chambers, other than this one article, which seems to have been his only publication.

18 Lavington (1921) as quoted above (p. 14) is of course an exception here.

19 The relevant passage from Marshall is quoted in fn 11 above.

20 Here we have an early example of a consistent theme in Hicks's work, namely that the evolution of social institutions requires a constant parallel evolution of economic theory if the latter is to retain its relevance. For Hicks it is usually the case that a theory which is to be discarded has ceased to be relevant rather than proven to be false. I have commented on Hicks's fundamentally historical vision of economics at greater length in Laidler (1983).

21 It is also worth noting that, in dealing with the speculative demand for money, Keynes had much less to say than did Hicks on issues of portfolio diversification and its capacity for reducing the risks to which individual asset holders might be exposed (though he did not entirely ignore the issue, cf. (1936) pp.170-171). In this respect Hicks, far more than Keynes, is the true forerunner of Tobin's (1958)
analysis of "Liquidity Preference as Behaviour towards Risk", though
Tobin does not cite Hicks in this paper. There is a certain irony in the
fact that, as Hicks's ideas about the demand for money formulated in the
early 1930s were coming to dominate monetary theory, he himself, under
the influence of Robertson as he has told us (Hicks (1967, pp ix-x)), was
moving away from them, and coming to place more emphasis on money's
primary role as a means of exchange. Nowhere is this more evident that
in "The Two Triads" of (1967).

22 And of course the concept of the "elasticity of expectations"
developed in Value and Capital is, as Chick (1986) argues, a powerful
device for analysing the role of expectations about prices in determining
current market behaviour. Hicks, that is to say, not only understood
perfectly well that the assumption he used in "A Suggestion..." was far
too special to be of more than illustrative usefulness, but soon went
beyond the Keynesian alternative as well.

23 And even this seems to be an abbreviation of "the expected rate
of interest + capital appreciation or depreciation" referred to earlier
(p. 51). Patinkin (1974, p. 16) makes much of propositions about the
dependence of the demand for money on the rate of interest as being
crucial characteristics of any fully developed portfolio choice theory of
the demand for money. The relative absence of such statements from the
pre-Keynesian Cambridge monetary literature is for him strong evidence
that the Cambridge economists did not conceive of the demand for money in
such terms. The absence of such statements from Hicks's
"...Suggestion..." which so obviously does treat the demand for money in
portfolio choice terms suggests to me that Patinkin should not have
relied as heavily as he did on this characteristic of earlier writings to make his case. Even so, as with the arguments in Fn. #9 above, this comment applies to Patinkin's use of a particular piece of evidence, and not to his overall conclusions.

24 In Hicks's "Mr Keynes and the Classics" (1937) we do get a clearcut statement to the effect that

"On grounds of pure value theory it is evident that the direct sacrifice made by a person who holds a stock of money is a sacrifice of interest, and it is hard to believe that the marginal principle does not hold at all in this field." (p. 106).

This statement however, comes in the context of a discussion of Cambridge Monetary Theory, is followed by a quotation from Lavington, and the remark that "The demand for money depends upon the rate of interest! The stage is set for Mr. Keynes." In the light of this judgement of Hicks, that such ideas "set the stage" for Keynes, it is hard to argue that a simple sharpening up of Cambridge notions about the relationship between the demand for money and the rate of interest as the opportunity cost of holding it was the main and novel characteristic of Liquidity Preference theory.

25 Patinkin's (1965, pp. 637-42) discussion of the role of "money illusion" in the monetary analysis of the General Theory provides an excellent summary of the evidence on this matter as far as Keynes's contribution is concerned, and shows that Keynes did not fully appreciate the necessity of treating the demand for money as a demand for real balances. Given that the very phrase "real balances" seems to have been coined by Keynes himself in the Tract... there is more than a little irony to the retrogression of his thought on this matter.
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