

Loanable Funds and Liquidity Preference Theories:  
An Attempted Dynamic Reconciliation

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by  
Frederick J. Anderson Jr.  
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Abstract:

The thesis of this study is that the Keynesian liquidity preference theory of interest determination can be reconciled with the loanable funds view by distinguishing the former as technically static economics and the latter as implicitly dynamic in nature. No value judgement is involved in distinguishing static economics from dynamic economics: static systems frequently require a supplementary description of their out-of-equilibrium states whereas dynamic systems may sometimes be observed to tend toward a position capable of static description.

In the first chapter of this study, an attempt is made to set out for inspection the two theories which constitute the raw material of succeeding chapters. At this stage, some of the differences in emphasis and approach of the important loanable funds theorists (Ohlin, Haberler, Robertson) are set down and discussed to clear the way for a statement of loanable funds doctrine comparable in simplicity to the standard versions of Keynes' interest theory.

Introductory to the main synthesis of the two theories, Chapter Two presents what the writer calls a semi-classical model of interest determination similar to a theory that did, in fact, appear after publication of Keynes' General Theory of Employment, Interest and Money. This model leads into the discussion of reconciliation central to the second chapter in which the Keynesian model is integrated with a dynamic loanable funds (or neo-classical) version of interest rate determination.

Auxiliary problems of interpretation of the 'multiplier' and stock-flow distinctions occupy the remainder of Chapter Two; the longest chapter of the study.

Chapter Three sets down various past attempts to draw together liquidity preference and loanable funds theories. In a number of respects, the approaches employed by the various writers differ from the method used in Chapter Two in significant respects. It can be said however that since the early 1938 syntheses of Lerner and Hicks, the treatment of the theories has evolved toward the view that the theories are complementary; this is particularly evident in the work of S. C. Tsiang and Warren Smith. It is difficult to give these last two writers enough credit for the synthesis attempted in the present study.

The concluding chapter presents two additional aspects of interest theory which raise wider questions. The first section discusses extant definitions of dynamic economics and relates the model of Chapter Two to these definitions. The second section indicates that the rate of interest may be interpreted as equating saving and investment in longer run systems exploring the problems of growth economics.

## Prefatory Note

The study following grew out of a term paper and additional reading in connection with an advanced course in Money and Banking given by Professor C. L. Barber during the University of Manitoba's 1965-66 session. The writer owes particular thanks to Professor K. J. Charles for inspiration and advice unstintingly given during preparation of this thesis. Professor R. Simkin read and discussed sections of Chapter Two as well.

## Note

Abbreviations have been avoided in most cases; those which are employed include:

General Theory for Lord Keynes' General Theory of Employment, Interest and Money (London: MacMillan, 1936) pp. 403,

L<sub>2</sub>-curve for Lord Keynes' liquidity preference demand curve for idle balances developed in the General Theory,

LM-IS analysis to refer to Professor John R. Hicks' diagrammatic construction of the complete Keynesian system in his "Mr. Keynes and the Classics, A Suggested Interpretation" Econometrica vol. 5, 1937, pp. 147-159, and,

's' to denote the average propensity to save out of income, that is saving/income.

Other notations are identified in the text or by footnotes when they are employed.

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I.

Introduction: Two Theories of the Rate of Interest

This study concentrates attention on one market in the complex of all interdependent economic markets. The analysis is aggregative however in the sense that problems of debt segmentation and the term structure of interest rates are ignored. Economists seeking to explain the dynamic of capitalism have been drawn toward aggregative examination of 'the' market for financial debt because of its key role in carrying forward investment activities which are the cause, in large measure, of the wealth of nations. Two important characteristics of modern capitalist production tending to give securities markets a fundamental place in economic analysis ought to be recorded; first, activities of wealth accumulation are frequently undertaken by those who have not the means to finance such investment and, second, expenditures on commodities for the purpose of producing commodities are not self-liquidating in the immediate sense that production for day-to-day consumption is self-liquidating. These characteristics of the economy in turn determine the characteristics of securities markets. The inability of those directly responsible for the engines of production to finance their increase means reliance on the unconsumed income of other individuals and involves flows of securities in exchange for purchasing power. The inability of producers to liquidate their debts promptly, gives rise to the existence of old securities representing past flows of purchasing power into investment and which await amortization. Thus, the securities market as a whole has two aspects - the flow aspect relating to current investment finance, and the stock aspect, re-

lating to the accumulation of past wealth. Taking extremes, it is possible to say that the rate of interest, as an average of all securities and abstracting from segmentation and speculation among maturities, seeks a level such as to equate the demand and supply of securities as a flow or as a stock. Neither emphasis is wholly correct - the flow emphasis is associated with what Keynes called the classical doctrine whereas the stock view constitutes a rather bald statement of the Keynesian position itself except that the holding of previously issued securities was envisaged by Keynes specifically as an alternative to holding cash. At the time of Keynes' culminating work, the classical doctrine was changing into what he himself has called the neo-classical approach wherein, without abandoning the basic flow characteristics of the rate of interest determination, economists like Robertson and Haberler took account of effects on the rate of interest emanating from the existence of stocks of money and securities. In the middle of this gentle modification of old ideas stepped the revolutionary prophet of the New Economics disparaging the old ideas as, collectively, a "nonsense theory", declaring that the neo-classical progression has "led to the worst muddles of all", and, above all, erecting for all to consider, a new theory of the rate of interest apparently free and clear of all the baggage of past wrong thinking on the subject. One of his most professed disciples has remarked that the Keynesian theory of the rate of interest stands as the first acceptable attempt to explain the phenomenon. "I deny the existence of the alleged orthodox theory," he says, "and claim that the Keynes theory ought properly to be re-



garded as an attempt to fill a void."<sup>1</sup>.

While the present writer grants incompleteness as inherent in classical and neo-classical interest theory, the thesis of this paper is rather that both Keynesian and neo-classical interest theory complement each other in filling any interest theory "void": viewed synthetically, they are not alternatives but different and supporting expressions potentially leading to a unified explanation. It is the purpose of the second chapter to describe this unified explanation as the writer conceives it. Past writings, since 1936, have contributed immeasurably to this reconciliation and they will be given what is hoped is their proper due in the third chapter. The present chapter and the final fourth chapter are shorter accounts. The latter picks up some loose ends and problems associated with the middle two chapters and presents conclusions. The chapter on which we are now engaged is partly by way of introduction but must be mainly concerned with setting out the interest theories as a prelude to their manipulation in the following sections. Without further comment then, we can go into the task of describing the independent interest theory contributions which serve as data for the ensuing discussion.

i.

Because of its presumed familiarity, the Keynesian theory will be summarized first. Following his division of the money supply in the Treatise on Money, between the industrial and financial circulation, Keynes distinguished between active or transactions balances employed in the

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1. Sir Roy Harrod, Towards a Dynamic Economics (London: MacMillan, 1948) p. 67

exchange and production of goods and services and passive, idle, or speculative balances hoarded by the public. Precautionary balances held to meet quite unexpected contingencies constitute a third division in the stock of money but one which received less emphasis in discussion of the General Theory. Of prime importance are the motives behind the holding of speculative balances - these being held for the purpose of taking advantage of future changes in the price of securities. Holders of speculative balances have come to terms with the securities trade as a market characterized by shifts due to mass psychology over which the individual participant has no appreciable amount of control. And the individual has learned to attempt to protect himself and take advantage of shifts in the market price of securities by adjusting his stock of money and securities to minimize the chance that future price changes will involve him in realized or book losses. The possibility of price changes is related to the aggregate opinion about what level the rate of interest ought to stand at - the demand for money as an alternative to income-yielding securities increases as the rate of interest declines below 'normal' or expected levels because individuals taking a bear position increase at the expense of individuals taking a bull position. The former, expecting that rising security prices must shortly be followed by falling security prices to restore the 'normal' interest rate level, are determined to take a position in securities in the future when it will be more profitable to do so while maintaining a present position in cash in anticipation of the projected switch to securities. Conversely, bears are turned into bulls as the rate of interest rises. Based on this speculative motive for liquidity, Keynes envisaged a "smooth curve" relating the demand for idle money to the level of the rate

of interest (General Theory of Employment, Interest and Money, p. 171). This demand function together with the volume of money remaining after the satisfaction of transactions (and precautionary) demand determines the market rate of interest: "...the liquidity preference theory of the rate of interest which I have set forth in my General Theory of Employment, Interest, and Money makes the rate of interest depend on the present supply of money and the demand schedule for a present claim on money in terms of a deferred claim on money."<sup>1</sup> In his writings, Keynes wished to make it quite clear that savings and investment do not affect the rate of interest directly through the capital market but rather the rate of interest is affected by these factors via the transactions demand for balances associated with the level of income attendant on a given level of saving and investment. Keynes conceded in the journal discussion<sup>2</sup>, however, that planned investment could exert an influence on the rate of interest if investors demanded funds in advance of actual requirements thus increasing the demand for money currently. This was the only direct effect of saving-investment flows on the rate of interest he was prepared to admit: "saving does not come into the

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1. John M. Keynes - "Alternative Theories of the Rate of Interest" Economic Journal 1937, vol. 47, p. 241
  2. By the journal discussion or controversy, the writer means in particular the articles by Keynes, Ohlin, Robertson and Hawtrey in the Economic Journal, vol. 47, 1937. Related articles appear in the Quarterly Journal of Economics, vols. 51, 52 for the same year.

picture at all".<sup>1</sup> When asked why savings and investment flows have no direct effect on the determination of the rate of interest in the capital market, Keynes would advance two separate replies. In the General Theory he argued from the proposition that the rate of interest does not equate saving-investment flows to the proposition that saving-investment flows do not affect the rate of interest directly. This first defence is clearly fallacious when stated this way (General Theory, pages 165 and 179). A second line of argument appeared in the journal discussion: "Obviously the rate of interest cannot - with the terminology used... - be determined by the condition that it equalizes the supply of and demand for savings or in other words equalizes savings and investment. For savings and investment are equal ex definitione whatever interest level exists in the market."<sup>2</sup> Keynes' argument in favour of such a definition was framed in static terms - the unconsumed fraction of the value of total output is investment while expenditure on consumption deducted from income gives saving, so that if income equals the value of output then saving and investment can never diverge. (General Theory, p. 63.) Looked at this way, the equality of saving and investment is a rather useless version of Say's Law; certainly, as a classical theorist might

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1. J. M. Keynes - "The Ex-ante Theory of the Rate of Interest" Economic Journal vol. 47, 1937, p. 668
  2. J. M. Keynes - "Alternative Theories of the Rate of Interest" Economic Journal vol. 47, 1937, p. 245. Keynes is quoting Ohlin in this passage, the original appearing in Ohlin's "Some Notes on the Stockholm Theory of Saving and Investment" Economic Journal vol. 47, 1937, part II, p. 221.

argue, the rate of interest could well be the price that ensures this equality so that the statement that equality of the two flows precludes the possibility of their affecting the rate of interest and the capital market mechanism becomes nonsense. Apparently what Keynes in fact envisaged was that the equilibrating variable for saving and investment would be income and made a distinct contrast between his own and "traditional analysis" which "has been aware that saving depends on income but...has overlooked the fact that income depends on investment, in such fashion that, when investment changes, income must necessarily change in just that degree which is necessary to make the change in saving equal to the change in investment."<sup>1</sup> It is then in the sense that income advances to equate savings with any level of investment that the Keynesian identity is intended to hold and it is the advance of income in this way, apparently, that exerts whatever effects are observed on the rate of interest due to diminution of the supply of idle balances. All this has been conveniently summarized by Professor Hicks in his now famous LM-IS diagram which demonstrates conditions of equilibrium in the money and goods markets and isolates a unique equilibrium common to both markets. The method is that of comparative statics. Keynes had largely confined his discussion of transition positions from one (Hicksian) equilibrium to another to the problem of 'finance' for an increase in planned investment. Although he states that the effect of the finance motive on the rate of interest "is the coping stone of the liq-

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1. J. M. Keynes - General Theory of Employment, Interest, and Money (London; MacMillan 1936) p. 184

uidity theory of the rate of interest"<sup>1</sup>, it remains problematical as to how this "coping stone" permits one to derive a full-fledged theory of transitional disequilibrium states...

ii.

If the Keynesian theory be interpreted as centring attention on equilibrium positions wherein income shifts have permitted the onlooker to speak of ex definitione equality between savings and investment, the observer might hope to interpret the neo-classical or loanable funds doctrine in the same manner. But this hoped-for point of agreement between loanable funds and liquidity preference formulations does not exist, in fact. The neo-classical explanation of the rate of interest determinants is, as the name suggests, a development from the classical system<sup>2</sup> in which the interaction of saving and investment curves set the interest rate. It should be admitted that at the time of writing the General Theory, the loanable funds position was unclear indeed. Keynes was aggravated in the journal controversy by the dearth of any precise statement of the neo-classical theory which he had apparently so offended. Robertson then, in reply, listed what he understood to be the sources of the loanable funds statement as "...the account which I had just attempted to give myself and in which Mr.

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1. J. M. Keynes - "The Ex-ante Theory of the Rate of Interest" Economic Journal vol. 47, 1937, p. 667
  2. from the statements by, among others, Ricardo, Marshall, and Pigou: see J. M. Keynes, General Theory of Employment, Interest, and Money (London: MacMillan, 1936), Appendix to Chapter 14, pp. 186-193