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THEORIES OF INTEREST IN SECULAR ECONOMIC : A CRITICAL SURVEY

BY

HUSSAINI IBRAHIM ALIERO

ADVISOR
DR. ZUBAIR HASAN
DEPARTMENT OF ECONOMICS

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This is certify that Bro./~~Sis.~~ HUSSAIN IBRAHIM ALIERO has written the Master of Economics research paper entitled:

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under my supervision. The relevant comments made on the paper during its presentation have been incorporated in the present version of the paper to my full satisfaction.

I have pleasure in recommending that the graduate committee may approve the paper in partial fulfilment of the requirements for the degree of Master of Economics.

Name of Supervisor: DR. ZUBAIR HASAN

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Zubair Hasan
(Signature)

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INTRODUCTION

The secular theories of interest have been examined and evaluated by a number of economists; secular and Islamic. They generally maintain that the various theories of interest have not adequately answered the questions as to why should interest be paid. In particular, these theories rarely explain the origin of or the justification for interest. There is no agreement on the issues.[1]

Most of the theories of interest do not integrate well with various explanations of value and capital, thereby making interest controversial as a share of income or the price of capital.

The proponents of the various theories of interest endorsed the practice of charging interest even though their theories did not adequately explain the reasons for the same.

The broad objectives of this paper are:-

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[1] M.N. Siddiqi, Muslim Economic thinking, Leicester U;K. : The Islamic Foundation, 1981. p., 47-51. M.A.G Van Meergaeghe, Economic Theory, 2nd (ed), Dordrecht; martinus Nijhoff publisher, 1986 p. 42. Mahmud Ahmed, Economics of Islam, Mohammad Ahmed, 1947 p. 30-35. M.A. Afzal-Ur-Rahman, Economic Doctrines of Islam, 2nd (ed), vol III Lahore: Islamic publication 1980 p. 30. Muhammad Ariff, monetary and Fiscal Economics of Islam Jeddah: International centre for research in Islamic Economics 1982 p. 224-295. Anwar Iqbal Qureshi, Islam and The Theory of Interest, 2nd (ed). SH. Muhammad Asharaf 1967 p. 38: H.L. Ahuja, Advanced Economic Theory Microeconomics Analysis 5th revised ed. New Delhi Vikas 1991. p. 918. C.E. Ferguson and M. Kreps Juanita, Principles of Economics, 2nd (ed) New Delhi: Oxford and IBH, 1965 p. 668.

i) To explain briefly the major theories of interest in the area of secular economics in a historical perspective,

ii) To state and evaluate the criticisms of these theories, and

iii) To summarize the discussion and arrive at a conclusion.

As a preliminary, it is necessary to clarify that this paper is not concerned with views on interest which are purely religious but those views and theories alone that seek to rationalise interest as an income share and have a direct bearing on economic analysis. Procedures that seek to explain how interest rate is determined are discussed but are of secondary importance.

It is suprising that there is a noticeable dearth of literature on interest in the more recent economic writings. However, this is not a serious obstacle to the study as there are numerous books on the history of economic thought as well as text-books and other materials that one can draw upon for the study. Presumably one needs to resuscitate the discussion on theories of interest, and this study attempts to make a small contribution in that direction.

For this purpose we shall examine:[2]

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[2] There are different classifications of the theories of interest. Some economists classify them into monetary and real theories of interest. While other classify them according to the school of thought they belong to. Still other classify them according to the concepts and the original proponents of the theories. In this paper we decided to follow the classification according to the schools of thought but within each school of thought we try to emphasize on the concepts and the initial proponents of the different theories.

The Classical theories of interest.

The Marginalist/Neoclassical stance on interest.

The Keynesian theory of interest and

The current position on the subject.

1. THE CLASSICAL THEORIES OF INTEREST

In the classical era three major theories of interest may be identified.

i) The theory that equates interest with profit as envisaged by Adam Smith.

ii) The productivity theory of interest advanced by J.B. Say.

iii) The Abstinence theory of interest as formulated by Senior.

Adam Smith On Interest

Adam Smith believed that the main objective of business is to make profit. But profit is fluctuating and uncertain. Therefore, the most reliable measure of the level of profits is the level of interest. "It may be laid down as a maxim that whenever a great deal can be made by the use of money, a great deal will commonly be given for the use of it; and that whenever little can be made by it, less will commonly be given for it... The progress of interest, therefore may lead us to form some notion of the progress of profit"[3]

[3] Rima Op. cit., p. 91. Smith also wrote "All capital is the result of savings. Capital are increased by persimony and diminished by prodigality and misconduct, whatever a person saves from his revenue he adds to his capital and either employs it himself in maintaining an additional number of productive hands or enables some other person to do so, by lending it to him for an interest, that is for a share of profit". This means profit and interest are the same.

It is clear from the foregoing that Smith makes no distinction between interest and profit. Since to him interest or profit is just an yield on the capital of the investor, without any consideration to risk bearing, management and innovations by the investor. Ricardo essentially confirms the Smithian viewpoint and holds that interest on money is not regulated by the rate at which the bank will lend but by the rate of profit which can be made by the employment of capital, and is totally independent of the quantity or of the value of money.[4] Thus, both Smith and Ricardo considered interest as a payment made for the use of the borrowed funds. But none of them made a functional distinction between interest and profit.[5]

However, Mark Blaug (1985 pp. 94) is of the view that the classical scholars developed a theory of interest rather than theory of profit. This is because they never take into consideration such components of profit as the monopoly gains, rents to factors with inelastic supply and the return to uncertainty.[6]

[4] See Karl Pribram, A History of Economic Reasoning, The Johns Hopkins University Press, 1983 p. 159

[5] Rima, Op. cit., p. 91

[6] According to Blaug, "the classical theory of business profits refers to what we could now call the pure rate of interest, the rate on riskless perpetual bonds. In the modern sense profits consists partly of monopoly gains due to imperfect competition, partly of rents to factors in inelastic supply and partly of returns to uncertainty. The classicals theory of profit do not touch upon any of the three conditions being theorems about interest rather than profit...."

While Blaug is of the view that classical economics produced interest theory rather than that of profit, Landreth and Colender (1989 pp. 257) and Rima (1978 pp. 91) hold that profit as used by classical economists, includes what today constitutes profit plus interest. The foregoing conflicting views showed the difficulty in interpreting the classical theory of interest.[7]

The cause of confusion on the issue of interest in the classical writings is that they could not provide a comprehensive explanation of value and capital. Adam Smith and Ricardo attributed all values to labour.[8] They also give different meanings to capital. This made it difficult to justify interest as a share of income to any other factor of production other than

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[7] For a detailed discussion of the confusion of classical on the theory of profit and interest see Mahmud Ahmed, "The Sementics of the Theory of Interest" Islamic Studies vol. VI No. 2 (June), 1967 p. 171-196.

[8] According to Adam Smith as quoted by Rima (1978, pp. 79-80) "The value of any commodity, therefore to the person who possesses it, and who means not to use or consume it himself but to exchange it for other commodities is equal the quantity of labour which it entitles him to purchase or commond. Labour, therefore, is the real measure of the exchangeable value of all commodities".

"Its value to those who possess it, and who want exchange it for some new production is precisely equal to the quantity of labour which it can entitle them to purchase or commond"

"The real prices of every thing, what everything really costs to the man who wants to acquire it, is the toil and trouble of acquiring it" And according to Ricardo labour is realy the foundation of the exchangeable value of all things, excepting those which cannot be increased by human industry, is a doctrine of the utmost importance in political economy". Dobb p. 77.

labour, since all values are created by labour. Capital to the classicals means many things, it is "That part of the whole stock that a man posses which he expects to afford him a revenue". It is physical means of production created by labour, it is money accumulated for lending or investment process or stocks yielding interest on capital. It also means wage goods made availabe by employers for productive consumption.[9]

The classicals included profit and interest on capital in the cost of production, but also characterised profit as increments above the exchange values created by labour. Accepting interest and profit as part of cost of production, according to Pribram (1983 p. 130-3) will impose upon the advocates of the labour cost theory the task of indicating the forces which enabled capital to "create" exchange values in excess of the values produced by labour in the past and present productive process. While accepting profit as increments over and above the exchange values created by labour will eliminate interest as an income, and this will lead to the question as to why the owners of capital could claim a portion of exchange values created by the productive power of labour. The classicals never solved this problem.[10]

[9] See Karl Pribram, Op. Cit., p. 131.
[10] Ibid; p. 130-131

In spite of the failure of Adam Smith to justify interest on the basis of his theory of value and capital, he opposed the prohibition of interest maintaining that it increases, rather than diminishes, the evils of usury, for nobody will lend without such a consideration for the use of his money as is suitable not only to the use that money be made of it but to the difficulty and danger of evading the law.[11]

The difficulty with classical theory of interest is that the classical belief that all value is the creation of labour and therefore the cost of production is determined by the cost of labour. This ruled out creation of value by any other factor such as capital. Therefore, we can conclude that the classical economists do not answer the question why should interest be paid?

The Productivity Theory of Interest

J.B. Say, Malthus and Lauderdale are some of the adherent of the productivity theory of interest. According to J.B. Say, capital has a "productive power" that is productivity is an inherent property of capital and therefore, he justifies interest as a reward for this productivity.

[11] Rima Development of Economic Analysis, 4th ed. Illiniois: Richard D. Irwin 19 , p. 91.

The productivity theory of interest is doubted on the ground that no attempt is made by its advocates to show that the addition to the value of the goods produced with the aid of capital was greater than the value of the capital goods used up in the productive process, nor did they deal with the question whether the value of large volumes of goods produced with the aid of capital was greater than the value of smaller quantities produced without such assistence.[12] Hasan (1983 p.9) recognises the productive attribute of capital. But he is not conviced that interest is commensurate with productivity nor does he believe that productivity has any relation with the interest rate. He also argued that both borrowed and equity funds are exposed to the same risk and uncertainty within a firms's operations. It cannot be claimed that borrowed capital is more or less productive than equity capital. So there is no reason for different payments to portions of capital borrowed and owned for an identical function.[13] Another view is that productivity theory of interest fails to explain why interest should be paid for consumption loans. The theory fails to give an adequate explanation as to how the rate of interest is determined and why interest is paid when the borrower suffers losses by the employment of the borrowed capital.[14]

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[12] Karl Pribram, Op. Cit., p. 160

[13] See Zubair Hasan, "Theory of Profit: The Islamic view-Point' Journal of Research in Islamic Economics, vol. 1, No. 1, 1983 p. 9

[14] See Anwar Iqbal Qureshi, Op. Cit., p. 19-20 and Suranyi Unger , The Economic Philosophy of the Twentieth Century, Illinois: Illinois University Press, 1972. p. 147.

Another view is that the claim that productivity is the inherent quality of capital is fallacious because capital becomes productive only when it is employed in some profitable business by someone. If it is used for consumption purpose, it possesses no such quality. Also during economic slumps employment of more capital not only diminishes profits but turns profit into losses.

Still another criticism is that productivity theory of interest assumed expectations and realizations to be identical which is never the case. Also all productivity based ideas of interest lack a time dimension. They treat the economic system as something static and disregard changes in tastes, population, standards of living, values and quantities of currencies, savings, investment and inventions.[15]

The Abstinence Theory of Interest

The theory of interest developed by Nassau senior is called the abstinence theory of interest. Senior contended that for production to take place there must be a third factor in addition to labour and land, which he termed abstinence. Abstinence is necessary for the existence of capital and earns profit as labour earns wages. The reason for the payment of interest being the pain cost for abstaining from consuming current goods in favour of future

[15] Mahmud Ahmed Op. Cit., p. 41

consumption.[16] John Stuart Mill also endorsed the view of Senior when he wrote. "As the wages of the labourer are the remuneration of labour, so the profits of the capitalists are properly, according to Mr. Seniors, well-chosen expression, the remuneration of abstinence. They are what he gains by forebearing to consume his capital for his own uses, and allowing it to be consumed by productive labourers for their uses. For this forebearance he requires a recompense".[17] But Mill seems to be inconsistent by endorsing Ricardo's theory of value.[18]

From the foregoing discussion one can draw the following inferences.

i) Abstinence itself is regarded as a factor of production like land and labour.

ii) The major contribution of abstinence to production process is efficiency.

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[16] According to Senior "But although Human labour and the Agency of Nature independently of that of man, are the primary productive powers, they require the concurrence of a third productive principle to give them complete efficiency ..... to the third principle or instrument others are inefficient, we shall give the name of Abstinence; a term of a person who either abstains from the unproductive use of what he can command, or designedly prefers the production of remote for that of immediate results .... By the ward Abstinence, we wish to express that agents, distinct from labour and the agency of nature, the concurrence of which is necessary to the existence of capital, and which stands in the same relation to profit as labour does to wages" - Oser and Brue, Evolution of Economic Thought, 4th (ed)., p. 131

[17] E.K. Hunt, History of Economic Theory, WadSworth, 1979. p. 168

[18] According to Mill 'The cause of pofit is that labour produces more than is required for its support.....

iii) Abstinence results from avoiding less productive use of resources or positive time preference.

iv) Abstinence is a necessary condition for the formation of capital and

v) The reward for abstinence is profit.

The Abstinence theory of interest has no significant difference from the other classical theories of interest as it equates the reward of abstinence to profit. The belief that abstinence contributes to the efficiency in production could not stand the test of time as the present day situation has shown.[19] Also savings and capital formation do not necessarily depend on abstinence as the rich need not abstain in order to save and the bulk of modern savings come, at least in advanced economies, are from the business corperations rather than from the individual household. Thus, a weakness of Senior's abstinence theory is the implication that savings are always associated with disutility. Savings by persons in higher income groups may involve little, sacrifice; nor are business savings amenable to explanations in terms of personal sacrifice. As such, the abstinence theory does not provide a satisfactory explanation for the scarcity of capital. Neither does it provide a satisfactory explanation of the interest rate.[20]

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[19] E.g. both American and Japanese industries borrow capital for production, but it has been proved that Japanese industries are more efficient than American industries. See Dale W. Jargenson, J.J.I.E Vol. 1, 1987.

[20] Ingrid Hahne Rima, Developemnt of Economic Analysis 3rd (ed), Richard D. Irwin, 1980 p. 153

Landreth argued that since Senior deals with interest exclusively as a payment for the pain costs or disutility of foregoing consumption, neither social nor economic justification is provided for the receipt of interest on capital that is acquired by inheritance or by gift. Thus Senior's theory of interest raised more questions concerning the social justification for interest than it answered.[21]

The abstinence theory as put forward by Senior has failed to give any reasonable explanation of the existence of interest. But Senior has endorsed the practice of charging a fixed rate of interest, just as it existed during his time. This can be proved even from his own writing. According to him "It is still more difficult to draw the line between profit and wages ...... And, as a general rule, it may be laid down that capital is an instrument which to be productive of profit, must be employed, and that the person who directs its employment must labour, that is, must to a certain degree conquer his indolence sacrifice his favour pursuits, and often incur other inconveniences.[22] This shows that Senior recognised the necessity of complementary nature of labour and capital in order to produce. Yet he legitimized interest as a reward for abstinence, which by its nature must be realised regardless of the outcome of the business.

[21]Harry Landreth and David C. Colender <u>History of Economic Theory</u>, 2nd (ed), Boston: Houghton Mifflin; 1989, p. 137
[22]E.K. Hunt , Op. Cit., p. 326

3. THE MARGINALIST/NEOCLASSICAL THEORIES

The main contributions to the marginalist/neoclassical school were made by economists such as William Stanly Jevons, J.B. Clarks, Carl Menger, Friedrich van Wieser, Eugen Van Bohm - Bawerk, Alfred Marshall and Irving Fisher. The essential principles of this school lay in the belief that value is the product of utility rather than of cost of production and this value is determined at the margin.[23]

On the issue of interest, three different theories are identified within the framework of marginalism. The marginal productivity theory which is said to reflect the scholastic substance concept of capital. The "waiting" (as substinence is renamed by Marshall), the theory conceived interest as a reward for deferred consumption. And the agio theory which is based on the idea of time preference in favour of present, as opposed to future goods.[24] We have already discussed the abstinence theory as advanced by Senior. In this section we are going to discuss the marginal productivity, the time preference theory and the Marshallian "waiting" theory of interest.

The Marginal Productivity Theory of Interest

While the productivity theory of interest discussed earlier under the classical school seeks to justify interest on the basis of productive power of capital the marginal

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[23] See Alexander Gray, The Development of Economic Doctrine, 2nd (ed), Longman Group, 1980 p. 314
[24] Karl Pribram, Op. Cit., p. 326

productivity theory of interest put forward by Jevons and Clarks seeks to determine the rate of interest to be paid to capital to reward it for participation in production by using marginal analysis. According to Jevons "Capital is concerned with time". The essential characteristic of capital is to make the prodution process roundabout which increases considerably the prductivity of labour though the time taken is lengthened. For this service something can be paid for the used of capital. The price for this is, however, not regulated by the total increase of productivity, but that increase which is caused by the extension margin of the production process.[25] This means that, for a given market rate of interest, the production period gets extended to the point where the marginal product of waiting just pays for the interest on current output. In other words, with a given period of production, the market rate of interest must corrrespond to the rate of growth of output resulting from waiting.[26] Another version of the marginal productivity theory as conceived by Clark is that each factor of production receives an income that is equal to the value of its marginal product. This means that under the conditions of equilibrium in a perfectly competitive market all factors of production receive the value of their marginal product, which is also equal to their opportunity cost.

[25] Afzal-ur-Rahman <u>Economic Doctrines of Islam</u> p. 20
[26] See Niehans Jürg, <u>A History of Economic Theory</u>, London: John Hopkins Press, 1990, p. 204

Marginal productivity theory continues to be a topic of importance in all the microeconomic textbooks. But a closer analysis of the theory reveals serious weakness in the argument. The basic flaw in the marginal productivity theory is the circular reasoning it implies.[27] This is because in marginal productivity theory the value of capital is determined by its productivity and its value cannot be assumed in order to assertain its productivity. This means there must be some method completely independent of prices to quantify the capital used in production.[28] The "Capitalization" method of estimating the value of capital cannot solve the problem since it assumes pre-existence of interest. Hasan (1992 p. 246) argued that it is not the contribution of a factor to output but its scarcity relative to other factors that would determine both its marginal product and reward. Also in a dynamic situation there is no single unequivocal price system at which the various contributions and rewards are valued and the marginal revenue product does not unambiguously determine either the contribution or the reward of the productive factors.[29]

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[27]See Zubair Hasan, "Profit Maximization, secular versus Islamic" in Sayyid Tahir and etal (eds) <u>Readings in Microeconomic An Islamic Perspective</u>, Malaysia : Longman, 1992, p. 246. E.K. Hunt Op. Cit., p. 293 Qureshi, Op. Cit., p. 20.
[28]E.K. Hunt Op. Cit., p. 400
[29]Zubair Hasan, "Profit Maximization Secular Versus Islamic" Op. Cit., p. 246

Another difficulty with marginal productivity theory is the assumption that all capital is homogenous, which is highly unrealistic. The heterogeneity of capital means different returns for different types of capital. But the marginalist ignored those important differences.[30] Furthermore, it is known that the final output of a firm, industry or the economy is the result of a joint effort of labour, land and capital and it is impossible to separate out the marginal products of the contributing factors.

From the above it follows that the marginal productivity theory did not provide a satisfactory explanation of the institution of interest. It rather degrades labour by putting it on equal ground with other factors of production, despite the superiority of labour in the production process.

<u>Bohm-Bawerk Time Preference Theory</u>

Bohm-Bawerk says, "present goods are, as a rule, worth more than future goods of a like kind and number. This proposition is the kernal and centre of the interest theory

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[30] According to Robinson "..... the production function has been a powerful instrument of miseducation. The student of economic theory is taught to write O = f(L,C) where L is a quantity of labour, C is a quantity of capital and O a rate of output of commodities. He is instructed to assume all workers alike and to measure L in man-hours of labour; He is told something about the index number problem involved in choosing a unit of output; and he is then hurried on to the next question in the hope that he will forget to ask in what units C is measured. Before he ever does ask, he has become a Professor, and so slopply habits of thought are handed on from one generation to the next." See Backhouse<u>A History of Modern Economics Analysis</u>. p. 325

which I have to present".[31] For developing his argument he gave three reasons for the higher value of the present goods;[32]

i) different circumstances of want and provision in the present and in the future.

ii) underestimation of the future.

iii) technical superiority of present over future goods.

Bohm-Bawerk explains the first of these reasons by using the concept of marginal utility. Since the value of goods depends upon marginal utility and because marginal utility decreases as the quantity of goods increases present goods are worth more than future goods for individuals who expects a larger flow of income and goods in the future. If every-body is in such a situation, a positive rate of interest is necessary, since otherwise, everybody wishes to borrow in order to consume more in the present and nobody will lend to consume more in the future.[33] He attributed the second reason to a deficiency of imagination, limited will power, and the uncertainty of life. By deficiency of imagination and limited will power is meant the inability of an individual to resist the temptation of the present. While uncertainty of life implies inability to forcast what

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[31] Landreth and Colander, Op. Cit., p. 246
Mark Blaug, <u>Economic Theory in Retrospect, 4th ed.</u>
[32] Cambridge University Press 1987, p. 500. Antal Matyas, <u>History of Modern Non-Marxian</u> Economics, London: MacMillan Education 1985 p. 92. Maurice Dobb, <u>Theories of Value and Distribution since Adam Smith</u> Cambridge University Process 1973 p. 77. Qureshi Op. Cit., p. 23
[33] See Landreth and Colender, Op. Cit., p. 263-264

will happen in the future. This second reason implies that the marginal utility of future consumption is lower than that of the present consumption, even if one is provided equally in the future as in the present. In other words, the rate of interest is positive, because people are myopic and consume more in the present, unless the rate of interest is positive.[34]

The psychological reasons for the existence of interest has been severely criticized. It is argued that many individuals might equally prefer future to present goods because of differences in circumstances of want and provision in the present and the future. This is because people save for the future for they consider that their needs in future will be greater than those that are at present. For example, saving for the education and marriage of children and provision for old age.[35] According to Antal (1985, p. 93) shortness and uncertainty of human life cannot be a general rule as it is exactly the shortness and uncertainty of life which induce some people to save, to provide for their families. Cassel remarks with reference to underestimation of the future that "naturally these grounds for the underestimation of future needs are strongest among those classes who are able to provide only very scantly even for the present ... But in the classes of

[34] See Takashi Negishi, History of Economic Theory, Amsterdam; Elsevier Science Publisher, 1989 p. 298.
[35] See Qureshi, Op. Cit., p. 23.

wage eaners more importance is attached to future needs. And in the middle and upper classes there is evidently a strong tendency to put future needs on the same level as present ones."[36]

The underestimation of the future as a cause for the existence of interest has been further criticized for its implied assumption of irrationality of behaviour of the economic agent. This is because it contradict the rational consumer behaviour of calculation assumed by the theory of the optimum allocation of resources.[37] (Anas Zarqa 1983 p. 209) argued that time preference is only one of the three patterns of intertemporal choice, the others being zero and negative time preference. And each of them is regarded rational under its own condition. For example, individuals who expect a future decrease in income or increase in their needs are likely to have negative time preference and will be ready to save even in the absence of positive rate of interest. While those who expect constant income will have zero time preference and are likely to be indifferent. Again the argument is not supported by marginal utility theory which regards value as a sensation of satisfaction. Thus discounting the future due to deficiency of will power and lack of imagination does not mean at all that a given good gives less pleasure in the future than in the present.[38] Also difficiency of imagination and limited will

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[36] Quoted by Antal Ma'tyas, Op. Cit., p. 93
[37] Ibid p. 93 and Landreth, Op. Cit., p. 266
[38] Antal Ma'tyas, Op. Cit., p. 93

power are offset by the desire to bequeath fortunes to heirs and by the widespread social approval of 'rainy' day saving.[39] Furthermore it is asserted that all human efforts of today are directed to make future better, so that future life may be happy and prosperous and one hardly find any man willing to make his present happier and prosperous at the cost of his future.[40] This view is recognised by Bohm-Bawerk "As a matter of fact, the future has a great place in our economical provision; a greater, indeed, than people usually think, it is a truth seldom seen in all its bearings, that our economical conduct has exceedingly little reference to the present, but is almost entirely taken up with the future".[41] Despite the obvious contradiction between present and future, Bohm-Bawerk advanced future time preference as the cause of the existence of interest.

The third reason claimed for the existence of interest is the technical superiority of present goods over future goods. The technical superiority of present over future goods has been regarded by Bohm-Bawerk as an independent reason for a positive rate of interest. To explain the technical superiority of present goods over future goods, he identified two methods of production-direct and roundabout. The direct method is simple and takes less time but is inefficient. The example of this method is catching of fish

[39] 1Mark Blaug. Op. Cit., p. 503
[40] Afzal-ur-Rahman, Op. Cit., p. 55
[41] Quoted by Mahmud Ahmed, Towards Interest-free banking, Lahore: Institute of Islamic culture, 1989 p. 25.

by hand. The roundabout method is complex and takes more time but is more efficient. The example of the roundabout method is when a fishermen has to prepare a net and a boat in order to catch fish. It is to this time consuming roundabout method that cause capital to earn interest. According to Bohm-Bawerk "It is that a greater result is obtained by producing goods in roundabout ways than by producing them directly. Where a good can be produced in either way, we have the fact that, by the indirect way, a greater product can be got with equal labour, or the same product with less labour....

That roundabout methods lead to greater result than direct methods is one of the most important and fundamental propositions in the whole theory of production".[42]

The technical superiority of present over future goods can be explained in this way; present goods applied today to roundabout production yeild a larger physical output in future than an equal quantity of goods applied at a future date to either direct or roundabout production. This is the reason why people prefer present goods to future ones and why they are willing to pay a premium on present goods and discount on future goods.[43]

The agio theory of interest has been much criticised. It is described as a valueless abstraction. This is

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[42] E.K. Hunt, Op. Cit., p. 295
[43] See Blaug, Op. Cit., p. 531. D.N. Dwividi, Microeconomic Thoery, Vikas, 1987 p. 493

because it assumed that capital and its product consisted of physically homogenous units differing only in quantity. It is also questioned whether interest on capital, being a monetary phenomenon, could be accounted for in terms of a real exchange economy. Further criticism against the theory is with regard to the attempt at separating the psychological reasons for the existence of interest from the technical superiority reason. According to Blaug (1985 p. 504) Without some other supportive reasons, the greater physical productivity of roundabout methods of production will not by itself create a premium on present goods. If society, for example is indifferent with respect to the time at which it consumes final goods, the technical superiority of present goods would not result in individuals being willing to pay interest to consume goods today rather than in the future. Knight argued that Bohm-Bawerk's distinction (taken from the classics) between primary and secondary factors was misconceived, the relation between capital and labour being "strictly mutual, co-ordinate and simultaneous" and that there is no period of production with any determinate length or meaning.[44]

Thus, it is pertinent to conclude that the Bohm-Bawerk theory of interest neither answers the question as to why interest is paid nor is it accepted as a valid theory of interest. This is because it attributes interest to time

[44] Roger Backhouse, A History of Modern Economic Analysis, Oxford: Basil Blackwell, 1985, p. 158.

preference on one hand and technical superiority of capital on the other.

Marshall's "Waiting" Theory of Interest

Marshall attributed the existence of interest to the productiveness or technical productivity of capital on the demand side and prospectiveness or waiting with the expectation of earning future goods on the supply side. According to Marshall ".... the chief demand for capital arises from its productiveness, from the services which it renders, ... on the other hand the supply of capital is controlled by the fact that in order to accumulate it, men must act prospectively: they must 'wait' and 'save' they must sacrifice the present to the future".[45]

Marshall substituted 'waiting for abstinence and regarded interest on the supply side, the reward for the postponement of consuming involved in saving; in other words for waiting. On the other hand, the demand for capital depends upon its marginal productivity. The rate of interest is determined at the point of the intersection of the demand and the supply curves for savings.[46]

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[45] Alfred Marshall, Princiles of Economics 8th (ed) London: The Macmillan press, 1947 p. 68-69, in another context Marshall said, "Everyone is aware that the accumulation of wealth is held in check, and the rate of interest so far sustained, by the preference which humanity have for present over defferred gratifications, or in other words, by their unwillingness to 'wait'.

[46] Qureshi, Op. Cit., p. 13

The theory of interest advanced by Marshall has been criticised on several grounds. According to Keynes interest is not a reward for savings, for one could save without lending at interest and one could get interest by lending money,—which he had not saved but which he has inherited. Also savings are not determined by the rate of interest alone, but other factors such as national income and desire for security and powers. Another criticism is that no sacrifice is involved in the postponement of consumption when the goods to be produced were likely to provide a greater advantage than those immediately available and no payment of interest on capital is necessary to elicit the savings needed to finance production of that type.[47]

The legacy of Senior's abstinence theory of interest is apparent in the Marshallian theory of interest as the assumption of time preference is maintained and the term 'abstinence' is merely substituted by 'waiting'. Therefore, the theory could be criticized on the same grounds.

Fisher on Interest

Fisher is of the view that both the productivity of capital and individual time preferences are necessary to explain the existence of interest. In other words the productivity of capital will result in a demand for income to be deferred from current consumption to future consumption, but unless individuals prefer present to future

[47]Karl Pribram, p. 328

goods, no positive rate of interest would prevail. However, he emphasized impatience to spend money in the present and time preference as the cause for the existence of interest.[48] He defined capital value as the discounted present value of a future income stream. While the rate of interest serves as a price linking the flow of income with the stock of capital. Consequently, Fisher sees interest not as a share of income received by capital but as a manner of examining the income flows of every kind.

Fisher's theory of interest stands to be doubted like Bohm-Bawerk's. This is because he accepted time preference as one of the basis for the existence of interest. Like the marginal productivity theory of interest, Fisher's theory also runs into circular reasoning by employing capitalization as a method of determining the value of capital, because capitalization itself presumes the existence of interest. In the absence of the interest rate, the value of capital is indeterminate.

Fisher's attempt to divorce interest from capital has not been endorsed by the contemporary economists, interest has always been attributed to capital to the present day.

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[48] According to Fisher, interest is a compensation for the time preference of the individual. The greater the impatience to spend money in the present, that, is the greater the preference of individuals for the present enjoyment of goods to future enjoyment of them, the higher will have to be the rate of interest to induce them to lend money - Ahuja p. 922. Blaug (p. 529) is of the view that Fisher sees no difference between explaining why there is interest and how interest is determined.

In addition interest on consumption loan could not be explained by the productivity of capital, since consumption loans are not meant for production. Thus, Fisher's theory of interest is at best expressive of half-truth only.

3. SOME MORE RECENT THEORIES

The Loanable funds Theory of Interest

The loanable funds theory of interest is the culminating point of the neoclassical theories of interest. This theory emphasizes the intergration of real and monetary factors in the analysis of interest rate determination. The real factors consist of savings, waiting, time-preference and productivity of capital. While monetary factors consists of hoarding and dishoarding of money, money created by banks and loans for consumption.

The rate of interest is determined by the demand for and supply of loanable funds. The demand is for investments, consumption and for hoarding money. The supply of loanable funds on the other hand, consists of savings out of disposable income, dishoarding, money created by banks and disinvestment. The intersection of the demand and supply curves of loanable funds determines the equilibrium rate of interest and the quantity of loanable funds borrowed and loaned.[49]

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[49]For detailed explanation see Ahuja - Advanced Economic Theory, p. 929-937 Dwivedi Microeconomic Theory, p. 498-500

The loanable funds theory is essentially concerned with determination of interest rate, rather than the justification of charging interest. However, the theory does not stand on nothing. The believe that interest should be paid due to 'waiting', time preference and productivity, which have been examined earlier, are some of its building blocks. Therefore, it does not provide satisfactory explanation for the existence of interest.

Keynesian Theory of Interest

The Keynesian theory of interest is called the liquidity preference theory of interest. It is also called monetary theory of interest in the sense that interest rate is regarded as a monetary phenomenon. Keynes objected to the neoclassical theory of interest which regarded the rate of interest as a return to saving or waiting. This is because according to him if a man hoards his saving in cash, he earns no interest, though he saves just as much as before. Rate of interest according to Keynes "is the reward for parting with liquidity for a specified period." And the rate of interest at any time, being the reward for parting with liquidity is a measure of the unwillingness of those who possess money to part with their liquidity control.[50]

The rate of interest is determined by the demand and - supply of money. The supply of money is fixed by the

[50] See John Maynard Keynes, The General Theory of Employment, Interest and Money, Paper back edition, London: The MacMillan Press 1936, pp. 166-167.

central bank and the demand for money or liquidity preference is determined by three motives: the transactive, pre cautionary and speculative motives.[51]

It is the speculative demand for money signifying liquidity preference which is relevant for the rate of interest. For the explanation of the determination of interest rate Keynes assumed that an individual can allocate his wealth between two assets; money and bonds. Holding money earns nothing while holding bonds earns interest and sometimes result in capital gain or loss. The decision to allocate the wealth between money and bonds depends on the market interest rate and the price of bonds. The interest rate is inversely related to the price of bonds. That is a rise in the market interest rate results in a capital loss on previously held bonds and a fall in interest results in a capital gain on bonds people already have.

At high rate of interest wealth holders will hold bonds rather than money since they may expect a subsequent fall in the rate of interest raising the depressed value of their bonds. On the other hand when interest rate is low, wealth-holders will hold money rather than bonds, since they anticipate a rise in interest rate which will bring high returns. Thus, the higher the market rate of interest, the smaller will be the amount of real balances that wealth holders choose to maintain for speculative purposes and vice versa.

[51]For details, see John Maynard Keynes, Ibid, p. 170.

However, the tendency to switch out of money into bonds or from bonds into money depends on the elasticity of liquidity preference function. When the liquidity preference is perfectly elastic it indicates that all wealth holders believe that the interest rate is so low that it can go no lower and that bond prices are so high that they can go no higher. This situation is called the "liquidity trap" in the Keynesian economics. It is a situation where no amount of increase in money supply will lower the rate of interest.[52]

The liquidity preference curve and hence the whole of Keynes theory depends upon peoples' expecting a change in the rate of interest and in the price of bonds. If people do not in fact expect the rate of interest to change, there is hardly anything left from the liquidity preference curve. And importantly, if people expect the rate of interest to rise further when it is high, and to fall when it is low, the whole theory would be reversed.[53]

Robertson argued that in the liquidity preference theory interest exists because it exists, and it is nothing more than a risk-premium against fluctuations about which we are not certain.[54] Also interest, which is basically

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[52] Edward Shapiro, Microeconomic Analysis 5th (ed) New York: Harcourt Bruce, 1982 p. 223 and Richard T. Froyen, Macroeconomic Theories and Policies, 3rd (ed) New York: MacMillan, 1990 p. 136-142

[53] Ferguson and Juanita, Principle of Economics, Op. Cit., p. 292.

[54] According to Robertson, in Keynesian theory of interest "The rate of interest is what it is because it is expected to be other than it is. But if it is not expected to be other than it is there is nothing to tell us why it is what it is - the organ that secretes it has been amputated,but some how it still survives, a grim without a cat".

related to the distribution problem, is treated as an exchange problem and the price or the value is determined by the forces of demand and supply. Haggin, Pantinkin and Robinson regarded the Keynesian theory of interest as inadequate. They argued that interest rate depends on the general system of assets preferences comprising four kinds of assets; cash, bonds, stocks and houses. But Robinson emphasized time preference, productivity, uncertainty and monetary factors. While Pantinkin emphasized the interrelationship between the prices of the different markets i.e. money, bond and commodity markets.[55] But they seem to be more concerned with the determination of interest rate rather than reasons for interest payments.

Another objection to Keynesian theory of interest is that financial institutions such as commercial banks demand interest not as a reward for parting with liquidity. Rather, they seek to reach an average rate of profit on their capital and to satisfy the demand for credit of individuals and institutions which can be relied upon to repay the loans granted to them. Furthermore, it is not only speculative motive that makes the bond holders to offer them for sale. There are many other factors. For example, fear of a fall in the prices of the assets, sale of bonds to fulfil an obligation such as payment for transactions, business undertakings, desire to hold wealth in more profitable securities, etc.

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[55] Afzal-Ur-Rahman, Op. Cit., p. 46

Banks may offer their long-term bonds for sale because they want to acquire notes issued by the central bank in order to extend loans.[56] Furthermore, the liquidity preference theory ignored real factors such as productivity of capital, thriftiveness, savings and the influence of the demand for investment funds in the determination of interest rate. Keynes also maintained that interest is a reward for parting with liquidity not reward for saving or waiting. But it is inconcievable to talk of parting with liquidity if one does not save in terms of money.[57]

Finally, it is observed that Keynes was well aware of the injustices caused by interest in contributing to unemployment or inflation. But he was not courageous enough to condemn charging interest, to which conclusion his theory indeed leads.[58]

4. SECULAR THEORIES OF INTEREST: CURRENT POSITION

Reading through the present day textbooks on economics one finds that the issue of the legitimacy of interest has been far from resolved. This is because every author has his own conception of what is interest and why it should be paid. But one thing seem to be common, almost all of them have referred to one or two of the earlier theories of interest to explain why interest should be paid.

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[56] See Antal, History of Modern Non-Marxian Economics, Op. Cit., p. 394-395

[57] H.L. Ahuja, Advanced Economic Theory, 5th (ed), New Delhi: Vikas 1991 p. 943-944.

[58] See Ahmed, Towards Interest-free Banking, Op. Cit., p. 27, and Anwar Iqbal Qureshi, Islam and the Theory of Interest, p. 39. Hasan, Theory of Profit: The Islamic viewpoint, Op. Cit p. 10

Hanson (1966 p. 326), Lipsey (1968 p. 422) and Friedman (1976 p. 285) regarded interest as a payment for the services rendered by the borrowed money. To them money can be hired the way a car, or a house is hired and since the owner of a car or a house is entitled to receive rent the owner of money capital is in the same vein entitled to receive interest as a payment for the services rendered by his money to the borrower. They seem to forget that money is not a commodity like a car or a house, it is just a means of exchange. Lipsey added that interest exists in the case of household because of the preference to have a certain quantity of goods now rather than to save presently and buy later. On the other hand, firms pay interest because of the productivity of capital. However, he fails to explain why government pay interest when it borrows.

Wannocott (1986 p. 719) still regard interest as a reward to savers for 'waiting' just as the wage rate is a reward to labour for its time and effort. Alchean and Allen (1972 p. 179) objected to calling interest rate the 'price of money' or 'price of time', they think such claims are careless and misleading. They hold the view that interest is the price of earlier availability, rather than later availability of right to use goods. Thus, they see interest rate in real rather than monetary terms, even though it is expressed in monetary terms. Atkinson (1982 p. 577) regarded interest as income return on debt capital. But he is not consistent with regard to the cause of interest. In one instance he regarded 'waiting' as the cause of interest and in another regarded productivity of capital as the cause of interest. While Waud (1986 p. 738) emphasizes productivity and roundaboutness as the reason why interest is paid. Samuelson seems to be uneasy with the legitimacy of interest. In his book 'Economics' (1980 p. 563) he justified interest on moral ground; that failure to pay interest amounts to cheating when a business makes a profit. But one may ask why interest should be paid even when business makes a loss? In another book co-authored with Nordhaus, he maintained that both impatience to spend, time preference and productivity of capital determines the time path of interest rates and what interest rate can be earned for any given level of capital stock.[59] Also like Fisher, they see the interaction of impatience and productivity as the determinant of the interest rate.

One may conclude that interest exist just because it exists as an institution, but there is no theory of interest that gives a convincing explanation of the existence of interest. The prevalent views on interest are mere echos

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[59] Samuelson moral justification of interest is in the following proposition; "let us make the realistic assumption that when I borrow money from you, my purpose not to hold onto the cash; instead I use the borrowed cash to buy capital goods; and as we have seen, those intermediate capital goods are so scarce as to create a net product over and above their replacement cost. Therefore, if I did not pay you interest, I should really be cheating you out of the return that you could get by putting your own money directly into such productive investment project".

and reflections of earlier theories and can be swept aside on the same ground as we have already discussed. What then is the alternative? Where do we go from here in search of a reward for capital?

5. THE PROPOSED ALTERNATIVE

The above discussion clearly shows that all the theories of interest have failed to give a satisfactory explanation as to why interest should be paid. It is also clear that there is no agreement on the issue. As we have stated earlier this was due to confusion and controversy on value and capital in economics.[60] While there are indications here and there regarding the value creating ability of labour and the need for labour to complement capital in the production process, the economists choose to endorse the existing practices of charging interest in their societies as a habit of thought and practice.[61]

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[60] For different views of capital see Karl Pribram. Op. Cit., p. 319-24 and p. 326-29

[61] For example Hodgskin regards all instruments and machines the product of labour; they are useless without the application of labour, they require the regular application of labour for their maintenance; and most fixed capital does not represent an accumulation in the hands of capitalists but in perpetually being used up and recreated by coexisting labour. See E.K. Hunt p. 151. Similarly Knight argued that 'in the historical view the creation of the productive system itself, including labourers as well as capital instruments, which inturn include "land" has been a cumulative - uninterrupted process of the hen-and-egg sort, going back as far as we care to trace it; in this process, more over, all productive instruments existing at any time, including labourers, have participated on a joint - cooperative basis. See Backhouse, p. 158. Also see note 30.

This state of affairs provide us with a point of departure to investigate if the abolition of interest and its replacement by profit-sharing scheme in business finance proposed by Islamic economists is based on rationality, and if adopted, what are to be the likely consequences. But this can be only the subject matter of another paper.

6. SUMMARY AND CONCLUSION

This paper attempted to explain briefly the major theories of interest in the area of secular economics, and evaluate the criticisms of these theories leading to the conclusion that the Islamic ban on interest is justified and suggest an alternative theory of rewarding capital. A theory of capital and profit from an Islamic viewpoint can alone settle the issue.

Four major streams of thought on interest have been identified and discussed: The classical theories of interest equated interest with profit and emphasized productivity and abstinence as the cause of interest. The Margnalists/Neoclassical theories of interest consisted of marginal productivity theory of interest, agio or time preference theory of interest , and the Marshallian 'waiting' theory of interest. The loanable fund theory of interest Which is the end culmination of the neoclassical theories of interest, and the Keynesian liquidity preference theory of interest, were explained and their criticisms evaluated. To complete the survey the views of the present day secular economists were also mentioned briefly and shown to be as unacceptable as those of their predecessors.

In sum, we discovered that all the secular theories of interest fail to give a satisfactory explanation of interest and leave it as a highly unsettled issue. Nicholson (1989 pp. 671) has recognised this problem but he finds the answer in the broader question of the nature and desirability of private property as a social institution. Indeed, an observation made by Haberber in the 1958 still remains valid. According to him "The theory of interest has for a long time been a weak spot in the science of economics, and the explanation and determination of the interest rate still gives rise to more disagreement among economists than any other branch of general economic theory".[62] While it is true that capital could earn a share of income in the distribution process, it should not be in the form of interest as capital is not productive on its own it needs labour to complement it. Therefore, the return should be shared according to some mutually agreed basis among the participants in the production process.

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[62] Quoted in Afzal-Ur-Rahman, Economic Doctrines of Islam, p. 9 and M.A.G. van Meergache, Op. Cit., p.42

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