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SOME QUESTIONS ON MR. KEYNES' GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY

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I. INTRODUCTION

Mr. Keynes' distinguished work "THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY" has already called forth so many comments and criticisms that it may seem superfluous at this stage to write anything further on it. But as there appear to me to be certain questions still remaining untouched, and as these questions concern fundamental problems, I think it is still worth while to do so.

Though I am treating it only after dealing with another problem, I should like to stress the importance of the relation of Mr. Keynes' theory of unemployment to the classical unemployment problem, such as has been discussed by most economists, especially by Marx. I might, indeed, not have essayed to write this paper had it not been for the fact that so many brilliant economists of the younger generation, whom I happened to meet while travelling in England and United States of America, seemed to have been so dazzled by Mr. Keynes' convincing argument as to forget entirely the more fundamental unemployment problem inherent in the capitalist system of production.

Though I shall express myself only as a critic of his theory, this does not mean at all that I do not admire Mr. Keynes' genius and originality. On the contrary, I have to thank him for the enlightenment that I have received from his new book, as well as from his former works, and this paper is rather intended as a token of gratitude for the scholastic obligation which I owe him.

(References, except where otherwise indicated, are to THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY.)

II. MR. KEYNES' NON-EUCLIDEAN DEVELOPMENT

Mr. Keynes' allegedly non-Euclidean development consists of a special concept according to which the attitude of the labourers in regard to the supply of labour has nothing to do with the determination of the volume of employment and of real wages. Thus he says:

"Given the propensity to consume and the rate of new investment, there will be only one level of employment consistent with equilibrium......But there is no reason in general for expecting......(this level) to be *equal* to full employment." (p. 28)

"Thus the volume of employment is not determined by the marginal disutility of labour measured in terms of real wages." (p. 30)

"Euclidean geometers in a non-Euclidean world rebuke the lines for not keeping straight—as the only remedy for the unfortunate collisions which are occurring. Yet, in truth, there is no remedy except to throw over the axiom of parallels and to work out a non-Euclidean geometry. Something similar is required today in economics. We need to throw over the second postulate of the classical doctrine (which asserts that the utility of the wage when a given volume of labour is employed is equal to the marginal disutility of that amount of employment.)" (pp. 16–17)

"In assuming that the wage bargain determines the real wage the classical school have slipt in an illicit assumption. For there may be *no* method available to labour as a whole whereby it can bring the wage-goods equivalent of the general level of money-wages into conformity with the marginal disutility of the current volume of employment." (p. 13)

Let us, therefore, examine this point more closely.

Mr. Keynes has summed up his proposition as follows:

"In a given situation of technique, resources and costs (therefore, money-wage, W), (money) income......(which is composed of D_1, the amount which the community is expected to spend on consumption, and D_2, the amont which it is expected to devote to new investment) depends on the volume of employment N......(namely:)

$$D_1+D_2=\phi\,(N) \quad \cdots\cdots (1)$$

"The relationship between the community's income and what it can be expected to spend on consumption......will depend on the......*propensity to consume*. That is to say, (given the propensity to consume) consumption will depend on the level of aggregate income and, therefore, on the level of employment N......(namely:)

$$D_1=\psi\,(N) \quad \cdots\cdots (2)$$

"For every value of N there is a corresponding marginal productivity of labour......; and it is this which determines the real wage, w, (namely:)

$$w = \frac{1}{P} \cdot \frac{d\phi}{dN} \quad \cdots\cdots (3)$$

$$wP = W \quad \cdots\cdots (4)$$

(P being symbol of price-levels 1) and W being that of money-wage.) (pp. 28–30)

" The amount of current investment will depend......on what we shall call the inducement to invest; and the inducement to invest will be found to depend on the relation between the schedule of the marginal efficiency of capital......(say E, which will be treated as a given factor, and the complex of interest rates (say r)." (pp. 27–29) (namely:)

$$D_2 = F\ (E,\ r) \quad \cdots\cdots (5)$$

" (Now) the rate of interest......is the " price " which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash;......(Therefore,) the quantity of money is the other factor, which, in conjunction with liquidity-preference, determines the actual rate of interest in given circumstances. Liquidity-preference is a functional tendency, which fixes the quantity of money which the public will hold when the rate of interest is given; so that if......M the quantity of money and L the function of liquidity-preference, we have (the following equation)." (pp. 167–168)

$$M = L\ (r) \quad \cdots\cdots (6)$$

(There are in these six equations six unknowns, D_1, D_2, N, P, r and w. Therefore, these unknowns are determined by the conditions represented by these six equations.) " Thus the volume of employment is not determined by the marginal disutility of labour measured in terms of real wages." (p. 30)

As is seen from the passages quoted above, the volume of employment and the real wages are determined, according to Mr. Keynes' equation system, independently of the attitude of labourers towards their supply of labour. But, how is this made possible? Evidently by presupposing a certain given level of money-wages. He asserts that " this simplification......is introduced solely to facilitate the exposition " and that " the essential character of the argument is precisely the same whether or not money-wages, etc., are liable to change." (p. 27) But is it really so? Doesn't the very fact that some assumption as to money-wages is indispensable for the determination of the volume of employment and of real wages necessarily mean that the attitude of the labourers concerning money-wages influences the volume of employment and real wages?

How can Mr. Keynes assert that "the assumption that the general level of real wages depends on the money-wage bargains between the employers and the workers is not obviously true", when he himself admits the following facts? (This point has already been pointed out by Mr. Hawtrey: Capital and Employment, pp. 223–225)

"......if the quantity of money is virtually fixed, (and there is no reason to expect the quantity of money to be necessarily reduced as the money-wages are reduced,) it is evident that its quantity in terms of wage-units can be indefinitely increased by a......reduction in money-wages; and that its quantity in proportion to income generally can be largely increased......" (p. 266) "Cet. par. this will reduce the rate of interest and thus prove favourable to investment." (p. 263)

"We can, therefore,......produce precisely the same effect on the rate of interest (and through it, on investment, and therefore, on the general level of real wages and the volume of employment) by reducing (money) wages, whilst leaving the quantity of money unchanged, that we can produce by increasing the quantity of money whilst leaving the level of wages unchanged." (p. 266)

One may say that if more reduction is foreseen mere reduction in wages will be unfavourable to investment and consumption, and therefore unfavourable to employment. If this is the point he has in his mind, though I can not think it is, I must ask him the following questions. Does not this already presuppose the possibility of influence which the attitude of labourers concerning money-wages may have on the volume of employment and real wages? Does the reduction in money-wages usually, or even necessarily, entail the expectation of further reduction?

In replying to Prof. Viner, Mr. Keynes has summed up the "main grounds" of his departure from the classical school as follows:

"......the marginal efficiency of capital is not determined, unless the level of money-income is given. In a system in which the level of money-income is capable of fluctuation the orthodox theory is one equation short of what is required to give a solution." (Quarterly Journal of Economics, February, 1937, p. 222).

But what does he mean by "given" when he says that the classical school has assumed the level of money-income as "given", when it is not proper to do so? Doesn't the difference between Mr. Keynes and the so-called classical school lie precisely in the point that, while the latter assumes the amount of money held for speculative motive to be a negligible quantity, Mr. Keynes greatly stresses its importance? If this is really the case, as I believe it to be, then, what he can assert is a mere modification of the form of the monetary equation of the classical school and, therefore, it can be asserted to have nothing to do either with the problem of the sufficiency of the number of equations or with the problem whether or not the volume of employment and real wages will be determined independently of the attitude of the labourers in relation to money wages.

Of course, the above reasoning of the writer's has nothing to do with the fact of the existence of involuntary unemployment. To admit that fact is one thing, to take it as meaning that the attitude of labourers concerning money-wages has nothing to do with the determination of real wages and of the volume of employment, is another thing. The fact of the existence of involuntary unemployment, if any exists, can and must be explained by referring to the special form of the supply function of labour.

III. NEW INVESTMENT AND VOLUME OF EMPLOYMENT

Mr. Keynes considers the demand for investment goods to be, so to speak, a safety-valve for an increase in the volume of employment. Thus, for instance:

> " When employment increases, aggregate real income is increased. The psychology of the community is such that when aggregate real income is increased aggregate consumption is increased, but not by so much as income. Hence employers would make a loss if the whole of the increased employment were to be devoted to satisfing the increased demand for immediate consumption. Thus, to justify any given amount of employment there must be an amount of current investment sufficient to absorb the excess of total output over what the community chooses to consume when employment is at the given level." (p. 27)

The peculiarity of Mr. Keynes' theory on this point consists neither in his assertion of the need of an effective demand for social economy to be kept alive, nor in his stressing the special empirical law as to the propensity to consume,[2] but in his assertion that it is only the demand for investment goods that can make up the deficiency in the volume of employment under a certain propensity to consume.

Actually, however, this is not always the case. So long as the ratio between investment goods (new and old) and the volume of the complementary labour does not change, this may be true. But if that ratio changes, this cannot always be so. If this ratio changes in favour of investment goods, and the rate of change in this ratio is such as equals the rate of increase in capital, the increase in investment would not mean any increase in labour at all. If the ratio changes in favour of investment goods, and the rate of the change in this ratio is greater than the rate of increase in capital, then, increase in investment does not imply any increase in labour at all but rather a decrease.

Indeed it is one of the greatest faults of the capitalist system of production that such changes in the method of production as will increase the amount of investment in relation to complementary labour are introduced only for the reason that they are more profitable to the entrepreneurs, notwithstanding the fact that these changes diminish the volume of employment. Mr. Keynes' theory results in the hushing up of this very grave fault of the capitalist system of production.

Social income is composed of two parts, wage-income and interest-income, and there is no fixed relation between the change in social income and that in wage-income. And the interest-income can increase in relation to the wage-income, even though the interest-rate falls, if capital increases still more. And this is what usually happens when the above changes occur. Therefore, it is a mistake to treat the volume of employment as a simple function of social income, as Mr. Keynes does. It is quite possible that the increase in investment may have the effect of reducing wage-income in relation to interest-income, and therefore, of reducing the volume of employment in relation to social income, even under the assumption of a constant level of money-wages.

Now, Mr. Keynes bases his discussions on the problem of the effect of government investment on the volume of employment on the assumption that the investment-multiplier k is equal to the employment-multiplier k′, which " measures the ratio of the increment of total employment which is associated with a given increment of primary employment in the investment goods industries." (p. 115) But this part of his argument is open to criticism because there are not adequate grounds for assuming investment-multiplier k to be equal to employment-multiplier k′, it being improper even to assume a constant relation between k and k′, due to the reason explained just above. Though Mr. Keynes is of the opinion that:

> " (As) there is no reason to expect any material relevant difference in the shapes of the aggregate supply functions for industry as a whole and for the investment industries respectively......, it follows that......k=k′." (p. 116 footnote).

Mr. Keynes entirely neglects the fact that income is not a simple function of the volume of employment, but is at least a compound function of the volume of employment and the ratio between the volume of employment in general and that in investment goods industries. Therefore, there is a good reason to expect a materially relevant difference in the shape of the aggregate supply function for industries as a whole and for the investment industries respectively.

It may be argued that the above criticism misrepresents Mr. Keynes, because he has expressly confined himself to the study of the case where there is no change in the equipment, while the above criticism relates to the case where there are changes in the amount of equipment. Indeed, we find in Mr. Keynes' book several remarks concerning such limitation. But the general trend of the book clearly betrays the neglect of such limitation. Thus, for instance, he asserts that:

"The essential character of the argument is precisely the same whether or not money-wage, *etc.*, are liable to change." (p. 27)

and that:

"the outstanding faults of the economic society in which we live are its failure (to adjust the propensity to consume and the inducement to invest) to provide for full employment....... Thus, apart from the necessity of central controls to bring about an adjustment between the propensity to consume and the inducement to invest (so as to provide for full employment), there is no more reason to socialize economic life than there was before." (pp. 372, 379)

IV. AMOUNT OF MONEY AND VOLUME OF EMPLOYMENT

In a capitalist society, goods are produced mainly for the purpose of selling them for money, and means of production are also mainly procured by expending money. Therefore, the whole activity of social economy is carried on with the aid of money circulation.

Now, the circulation of money is governed not only by the real activity of social economy, viz., by conditions directly related to production and consumption, but also by conditions directly related to the circulation of money itself. In other words, the circulation of money is not only passively determined by the consideration of factors other than money, but is also governed by considerations of money itself, viz., to use Mr. Keynes' phraseology, by liquidity-preference. Therefore, the activity of social economy is also limited by the amount of money and liquidity-preference. Thus, this aspect has to be covered by economics, even though it may be left out of consideration in the elementary chapters. And the main aim of Mr. Keynes' work consists in emphasising the need of this consideration. In this sense, it contains many valuable suggestions.

I have, in the foregoing sections, tried to prove that new investment may not necessarily increase the volume of employment but may possibly decrease it. I do not, however, intend to assert that capital accumulation never does increase the volume of employment. On the contrary, I am quite ready to admit that, if the amount of capital accumlation is large enough to outweigh the tendency to a decrease in the amount of labour employed due to its decrease in relation to its complementary investment goods, new investment may coincide with an increase in the volume of employment, and that such was the case for some time in the prime of capitalism, and that money-increasing policy may possibly entail so much capital accumulation as would call forth such effect as is referred to above, which otherwise would not have occurred.

What Mr. Keynes is actually dealling with is just the case when the monetary condition is such as would allow such amount of accumulation of capital as is large enough to outweigh the tendency to a decrease in the volume of employment due to its decrease in relation to its complementary investment goods, and in this sense can we really follow his reasoning.

But if it is the influence of money mechanism on the activity of social economy that Mr. Keynes intends to elucidate,[3] it seems to me that he should have paid more attention to the conditions which force the monetary authority sometimes to restrict the circulation of money and then to expand it, the conditions which constitute the main cause of Trade Cycle. If he had paid enough attention to it, it would have led him to the understanding of the inter-determining relations between the movement of monetary affairs and that of real affairs.

Indeed, it may be said that he has touched this problem in his book. This he has done in the following way:

"Trade Cycle is best regarded,... as being occasioned by a cyclical change in the marginal efficiency of capital." (p. 313) "(And) it is chiefly this dependence (of the marginal efficiency of a given stock of capital on changes in expectation of the prospective yield of capital) which renders the marginal efficiency of capital subject to the somewhat violent fluctuations..." (pp. 143–144) "(Now, these changes in the expectations of prospective yield of capital occur cyclically, because, while they are mainly governed (?) by the existing amount of capital assets,) capital assets are of varying ages, wear out with time and are not all very long-lived; so that if the rate of investment falls below a certain minimum level, it is merely a question of time....before the marginal efficiency of capital rises sufficiently to bring about a recovery of investment above this minimum. And similarly, of course, if investment rises to a higher figure than formerly, it is only a question of time before the marginal efficiency of capital falls sufficiently to bring about a recession unless there are compensating changes in other factors." (pp. 253-254)

But, what factor is it that makes a certain amount of capital assets appear to be so large as to cause the fall of expectation concerning the prospective yield of capital, or so small as to cause the rise of that expectation? And, according to what law does that factor move? Is it not necessary for trade cycle theory to elucidate these points? Is it possible to elucidate the dynamic law concerning that factor without making us familiar with the inter-determining relation between monetary and real affairs referred to above?

Mr. Keynes suggests that:

"a more typical, and often the predominant, explanation of the crisis is, not primarily a rise in the rate of interest, but a sudden collapse in the marginal efficiency of capital." (p. 315),

and asserts that:

"the collapse in the marginal efficiency of capital may be so complete that no practicable reduction in the rate of interest will be enough. If a reduction in the rate of interest was capable of proving an effective remedy by itself, it might be possible to achieve a recovery without the elapse of any considerable interval of time and by means more or less directly under control of the monetary authority. But, in fact, this is not usually the case; and it is not so easy to revive the marginal efficiency of capital, determined ,....by the uncontrollable and disobedient psychology of the business world," (pp. 316-317)

But is not the very marginal efficiency of capital subject to the influence of rate of interest, though the reaction of the former to the change in the latter may not be so quick? Certainly we must not confuse slowness of effect with ineffectiveness. Doesn't the true cause of inability of monetary authority to control the trade cycle lie in its inability to change the rate of interest at will rather than in its inability to control business psychology? Precisely the understanding of these facts seems to me to be indispensable for the understanding of the inter-determining relations between monetary and real affairs referred to above.

Though Mr. Keynes, ignoring the inability of monetary authority to change the rate of interest at will, proposes "to reduce the rate of interest to that point relatively to the schedule of the marginal efficiency of capital at which there is full employment" (p. 375), is it possible to adopt such a policy under the existing conditions? Is the paper money system, which is presupposed by Mr. Keynes' proposal, compatible with the capitalist system of production, which cannot dispense with the international movement of capital?

V. PROPENSITY TO SAVE AND CAPITAL ACCUMULATION

Accumulation of capital is funded by saving, no matter whether the saving be voluntary or forced. Therefore, there arises a problem concerning the effect on investment of the change in the propensity to consume. His reasoning concerning this problem is also imbued with the idea of considering the volume of employment as being a simple function of social income. But, as I have already criticised this point in the preceding section, I shall here confine myself to the study of his theory which directly deals with the effect on the accumulation of capital of the change in the propensity to save.

According to Mr. Keynes, an increase in the propensity to save will result in a decrease in the accumulation of capital, that is, to use his terminology, a decrease in the propensity to consume will result in a decrease in investment.

"An act of individual saving means......(to reduce present consumption). But it does *not* necessitate decision to......(increase future consumption). Thus it depresses the business of preparing......(for present consumption) without stimulating the business of making ready for some future act of consumption...... Moreover, the expectation of future consumption is so largely based on current experience of present consumption that a reduction in the latter is likely to depress the former, with the result that the act of saving will not merely depress the price of consumption goods......but may actually tend to depress......(the investment goods industry) also." (p. 210) "Thus, since the expectation of consumption is the only *raison d'etre* of employment, there should be nothing paradoxical in the conclusion that a diminished propensity to consume has cet. par. a depressing effect on employment." (p. 211, See also pp. 104–106). Therefore, direct taxation, such as income tax, sur-tax and death duties, is preferable also for the reason that it will serve to increase the propensity to consume. (See pp. 372–374)

Mr. Keynes overlooks in the above discussion two important facts. To begin with, the demand for investment goods is, due to the complicated sub-division of labour, not sensitively affected by the demand for consumer's goods. Secondly, as saving itself does not increase the liquidity-preference for the speculative motive, while it reduces the amount of money held for the consumption-transaction motive, an increase in the propensity to save will tend to increase the reserve funds of banks, inducing banks to lower the rate of interest, and thus encouraging the inducement to capital accumulation.

Though Mr. Keynes says:

"If the reader still finds himself perplexed, let him ask himself why, the quantity of money being unchanged, a fresh act of saving should diminish the sum which it is desired to keep in liquid form at the existing rate of interest." (p. 213)

surely it must be clear enough that, assuming the quantity of money to be unchanged, (and there is no reason to expect the quantity of money to be necessarily reduced as the propensity to save is increased), the reduction of consumption due to saving must set free some of the money previously required for bridging the interval between the receipt of income and its disbursement for consumer's goods, thus increasing the amount of money available for the transaction of investment goods and labour, and thus making it possible for capital to increase without relying on the decrease in the liquidity-preference for the speculative motive.

I shall not, however, dwell on this problem any further; first, because it is of a rather different nature from what has been dealt with in the preceding sections, and would necessitate disproportionally long treatment; secondly, because I can leave it to Dr. Lange's article, which is soon to appear and which I had the honour to read in manuscript. This article, being mainly devoted precisely to this problem, treats it far more comprehensively than I could have done, though seemingly retaining a stronger tinge of the underconsumption theory than I myself like.

APPENDIX I. ON GENERAL GOODS

Mr. Keynes rejects the concepts of output as a whole (i.e. general goods) and its price level on the ground that "the two incommensurable collections of miscellaneous objects cannot in themselves provide the material for a quantitative analysis." (p. 39) Therefore, it may seem to be improper to use the concept P. If any one thinks so, let him take P as an abbreviation of P_1, P_2,......etc. Anyway, Mr. Keynes proposes in dealing with the theory of employment "to make use of only two fundamental units of quantity, namely, quantities of money-value and quantities of employment." (p. 41) But, can we conceive of a general level of real wages without presupposing some kind of general wage-goods?

APPENDIX II. ON THE PROPENSITY TO CONSUME

Though Mr. Keynes seemes to be firmly convinced that

> "the psychology of the community is such that when aggregate real income is increased aggregate consumption is increased, but not by so much as income." (p. 27),

it is rather a well-known fact that consumption will increase relatively to saving in the latter part of a boom, when the real income still continues to increase. A boom comes to an end not because consumption cannot keep pace with increase in income, but on the contrary, just in the midst of a relatively flourishing consumption market.

APPENDIX III. LIQUIDITY-PREFERENCE FOR SPECULATIVE MOTIVE

Mr. Keynes' treatment of monetary aspects has at least two peculiarities; namely, (i) it relates interest only to liquidity-preference for speculative motive, and (ii) it imputes to the liquidity-preference for speculative motive the major portion of the difficulties arising from monetary affairs. Evidently he lays too much stress on the liquidity-preference for speculative motive. Interest must be related to propensity to consume and to liquidity-preference for other than speculative motive, as well as to liquidity-preference for speculative motive. Not only that, it is problematic that the liquidity-preference for speculative motive has great importance actually. But as these points have already been exhaustively discussed by many persons, I shall refrain from dwelling on these points at any length.