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THE GENERAL THEORY
AND AFTER
A SUPPLEMENT

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PREPARATION

Our first fundamental proposition, namely

\[ N \text{ and } Q \text{ have the same sign,} \]

can then be expressed:—the quantity of employment and the expectation of quasi-rent during the employment period increase and decrease together.

Third we have typed drafts of chapters 2 and 3 from the draft table of contents printed on pp. 421-2 of Volume xiii. The second of these chapters is a re-worked version of a draft intended for the previous draft table of contents (above p. 63).\(^{16}\)

A draft of chapter 2 from the last 1933 draft table of contents.

2 THE DISTINCTION BETWEEN A CO-OPERATIVE ECONOMY AND AN ENTREPRENEUR ECONOMY

It may help us to understand both the origins of the Classical Economics and the essence of the distinction between the classical theory and the more generalised theory which I shall here try to develop, if we consider in what conditions the postulates of the classical theory would be satisfied.

The Classical Economics presupposes that the factors of production desire and receive as the reward of their effort nothing but a predetermined share of the aggregate output of all kinds which they can produce, both the demand and the supply of each factor depending upon the expected amount of their reward in terms of output in general. It is not necessary that the factors should receive their share of the output in kind in the first instance;—the position is substantially the same if they are paid in money, provided

16 The re-working was fairly minor, except for the removal of a section 11 and rather extensive re-drafting of footnote * on page 90. As a result, we print the latest version of the chapter and provide only the excised section 11 as an addendum.

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they all of them accept the money merely as a temporary convenience, with a view to spending the whole of it forthwith on purchasing such part of current output as they choose. Nor is it necessary that current output should comprise the whole of wealth;—the position is still substantially the same if the factors of production swap their wage in respect of current output for other forms of wealth, provided that those with whom they swap intend to employ the whole sum forthwith to purchase some part of current output. It may even be the case that the supply function of a factor, in terms of what it can produce, varies according to the value of what it can produce in terms of something which it cannot produce. The essential point is that by whatever roundabout methods every factor of production ultimately accepts as its reward a predetermined share of the expected current output either in kind or in terms of something which has an exchange value equal to that of the predetermined share.

It is easy to conceive of a community in which the factors of production are rewarded by dividing up in agreed proportions the actual output of their co-operative efforts. This is the simplest case of a society in which the presuppositions of the classical theory are fulfilled. But they would also be fulfilled in a society of the type in which we actually live, where the starting up of productive processes largely depends on a class of entrepreneurs who hire the factors of production for money and look to their recoupment from selling the output for money, provided that the whole of the current incomes of the factors of production* are necessarily spent, directly or indirectly on purchasing their own current output from the entrepreneurs.

The first type of society we will call a real-wage or co-operative
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The second type, in which the factors are hired by entrepreneurs for money but where there is a mechanism of some kind to ensure that the exchange value of the money incomes of the factors is always equal in the aggregate to the proportion of current output which would have been the factor’s share in a co-operative economy, we will call a neutral entrepreneur economy, or a neutral economy for short. The third type, of which the second is a limiting case, in which the entrepreneurs hire the factors for money but without such a mechanism as the above, we will call a money-wage or entrepreneur economy.

It is obvious on these definitions that it is in an entrepreneur economy that we actually live to-day.

The law of production in an entrepreneur economy can be stated as follows. A process of production will not be started up, unless the money proceeds expected from the sale of the output are at least equal to the money costs which could be avoided by not starting up the process.

In a real-wage and co-operative economy there is no obstacle in the way of the employment of an additional unit of labour if this unit will add to the social product output expected to have an exchange value equal to 10 bushels of wheat, which is sufficient to balance the disutility of the additional employment. Thus the second postulate of the classical theory is satisfied. But in a money-wage or entrepreneur economy the criterion is different. Production will only take place if the expenditure of £100 in hiring factors of production will yield an output which is expected to sell for at least £100. In these conditions the second postulate will not be satisfied, except in the limiting case of a neutral economy.

Nevertheless the greater part of the classical analysis has been usually applied without compunction or qualification to an entrepreneur economy, with the tacit assumption that the criterion, as stated above, for starting up production in an entrepreneur economy is substantially equivalent to the criterion, as stated above, for starting up production in a co-operative economy. Now it is not impossible, as we shall see subsequently, for an entrepreneur economy to be made to behave in the same manner as a co-operative economy:—this is simply the peculiar and limiting case of the ways in which an entrepreneur economy can behave, which we have termed a neutral economy. The classical theory, however, as exemplified in the tradition from Ricardo to Marshall and Professor Pigou, appears to me to presume that the conditions for a Neutral Economy are substantially fulfilled in general;—though it has been a source of great confusion that its assumptions have been tacit, so that you will search in vain for any express statement of the simplifications which have been introduced or for the relationship of conclusions demonstrated for a Neutral Economy to the facts of the real world.*

Yet it is easy to show that the conditions for a Neutral Economy are not satisfied in practice; with the result that there is a difference of the most fundamental importance between a co-operative economy and the type of entrepreneur economy in which we actually live. For in an entrepreneur economy, as we shall see, the volume of employment, the marginal disutility of which is equal to the utility of its marginal product, may be ‘unprofitable’ in terms of money.

* One can infer what the implicit beliefs of the classical economists must have been, but it is extraordinarily difficult to find any passage to quote expressed in black and white. The following from Marshall’s Pure Theory of Domestic Values, p. 94—found for me by Mrs Robinson, is an unusually categorical statement:—‘The whole of a man’s income is expended in the purchase of services and of commodities. It is indeed commonly said that a man spends some portion of his income and saves another. But it is a familiar economic axiom that a man purchases labour and commodities with that portion of his income which he saves just as much as he does with that which he is said to spend. He is said to spend when he seeks to obtain present enjoyment from the services and the commodities which he purchases. He is said to save when he causes the labour and the commodities which he purchases to be devoted to the production of wealth from which he expects to derive the means of enjoyment in the future.’ (This quotation appeared on p. 19 of the final version of The General Theory (JMR, vol. viii).)
The explanation of how output which would be produced in a co-operative economy may be 'unprofitable' in an entrepreneur economy, is to be found in what we may call, for short, the fluctuations of effective demand.

Effective Demand may be defined by reference to the expected excess of sale proceeds over variable cost (what is included in variable cost depending on the length of the period in view). Effective demand fluctuates if this excess fluctuates, being deficient if it falls short of some normal figure (not yet defined) and excessive if it exceeds it. In a co-operative or in a neutral economy, in which sale proceeds exceed variable cost by a determinate amount, effective demand cannot fluctuate; and it can be neglected in considering the factors which determine the volume of employment. But in an entrepreneur economy the fluctuations of effective demand may be the dominating factor in determining the volume of employment; and in this book, therefore, we shall be mainly concerned with analysing the causes and consequences of fluctuations in effective demand interpreted in the above sense.

From the time of Ricardo the classical economists have taught that supply creates its own demand;—which is taken to mean that the rewards of the factors of production, must, directly or indirectly, create in the aggregate an effective demand exactly equal to the costs of the current supply, i.e. that aggregate effective demand is constant; though a want of balance due to temporary miscalculation as to the strength of relative demands may bring losses in certain directions balanced by equal gains in other directions, which losses and gains will tend in the long run to guide the distribution of productive resources in such a way that the profitability of different kinds of production tends to be equalised.

For the proposition that supply creates its own demand, let

shall substitute the proposition that expenditure creates its own income, i.e. an income just sufficient to meet the expenditure. This, we shall find, is a more general proposition than the former. For whilst the former must be taken to mean that a change in the aggregate cost of production will be balanced by an equal change in aggregate expenditure, the latter is consistent with inequality between changes in the cost of production and changes in expenditure.

The doctrine that supply creates its own demand has dominated classical theory during the century since Ricardo established it. Malthus's powerful arguments against this theory were completely forgotten, partly—

...[A page of manuscript is missing at this point]...

The distinction between a co-operative economy and an entrepreneur economy bears some relation to a pregnant observation made by Karl Marx,—though the subsequent use to which he put this observation was highly illogical. He pointed out that the nature of production in the actual world is not, as economists seem often to suppose, a case of $C-M-C'$, i.e. of exchanging commodity (or effort) for money in order to obtain another commodity (or effort). That may be the standpoint of the private consumer. But it is not the attitude of business, which is a case of $M-C-M'$, i.e. of parting with money for commodity (or effort) in order to obtain more money.* This is important for the following reason.

* Cf. H. L. McCracken, *Value Theory and Business Cycles*, [New York, 1933] p. 46, where this part of Marx's theory is cited in relation to modern theory. The excess of $M'$ over $M$ is the source of Marx's surplus value. It is a curiosity in the history of economic theory that the heretics of the past hundred years who have, in one shape or another, opposed the formula $M-C-M'$ to the classical formula $C-M'-C'$, have tended to believe either that $M'$ must always and necessarily exceed $M$ or that $M$ must always and necessarily exceed $M'$; according as they were living
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The classical theory supposes that the readiness of the entrepreneur to start a productive process depends on the amount of value in terms of product which he expects to fall to his share; i.e. that only an expectation of more product for himself will induce him to offer more employment. But in an entrepreneur economy this is a wrong analysis of the nature of business calculation. An entrepreneur is interested, not in the amount of product, but in the amount of money which will fall to his share. He will increase his output if by so doing he expects to increase his money profit, even though this profit represents a smaller quantity of product than before.

The explanation of this is evident. The employment of factors of production to increase output involves the entrepreneur in the disbursement, not of product, but of money. The choice before him in deciding whether or not to offer employment is a choice between using money in this way or in some other way or not using it at all. He has the command of £100 (in hand or by borrowing), and he will use it if by so doing he expects, after deducting his variable costs including interest on the £100, to turn it into more than £100. The only question before him is to choose, out of the various ways of employing £100, that way which will yield the largest profit in terms of money. It must be remembered that future prices, in so far as they are anticipated, are already reflected in current prices, after allowing for the various considerations of carrying costs and of opportunities of production in the meantime which relate the spot and forward prices of a given commodity.* Thus we must suppose that the spot and forward price structure has already brought into equilibrium the relative advantages, as estimated by the holder, of holding money and other existing forms of wealth. Thus if the advantage in terms of money of using money to start up a productive process is increased, this will stimulate entrepreneurs to offer more employment. It may be true that employment will be greater in one situation than in another, although the larger money profit in the first case corresponds to a smaller quantity of product than does the smaller money profit in the second case. For the entrepreneur is guided, not by the amount of product he will gain, but by the alternative opportunities for using money having regard to the spot and forward price structure taken as a whole.

Thus the classical theory fails us at both ends, so to speak, if we try to apply it to an entrepreneur economy. For it is not true that the entrepreneur's demand for labour depends on the share of the product which will fall to the entrepreneur; and it is not true that the supply of labour depends on the share of the product which will fall to labour. It is these fundamental divergencies at the outset which make it impracticable to start with the classical theory and then, at an advanced stage of the argument, to adapt its conclusions to the vagaries of an Entrepreneur Economy.

IV

The theory of 'appreciation and interest', as it is usually called, chiefly associated with the name of Professor Irving Fisher but first originated by Marshall, is, I think, vitiated by the same considerations. Suppose that £100 rises in value by 5 per cent over a year and is lent out at 5 per cent for the same period, then it is said that the 'real' rate of interest is

* For an examination of this vide my Treatise on Money, Vol. ii [JMK, vol. vi], Chapter 29.
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15 per cent; whilst if it falls in value by 10 per cent, the 'real'
rate of interest is negative by 5 per cent. No wonder, it has
been usual to conclude, that entrepreneurs are eager to
borrow for productive purposes when prices are rising and
reluctant when they are falling; and the plausibility of this
reasoning has been reinforced by its apparent* conformity
with the facts of experience.

Nevertheless the reasoning is not sound. If the change in
the value of the £100 is not expected and takes the market
by surprise, obviously an event which was not foreseen cannot
have affected the volume of employment. In this case the
'real' rate of interest merely expresses a statistical fact ex post
fatto, and it cannot be one of the influences which determined
the business expectations which decided the volume of
employment.

If, on the other hand, we suppose that the change in the
value of money is foreseen, then it must be already exerting
its influence on present prices as well as on future prices; and
an anticipation of such a price change can only exist if the
technical market conditions are present which permit a
spread of 10 per cent between spot and forward prices in one
direction or the other. But in this event there is no reason
why either the borrower or the lender need take account of
the 'appreciation' as distinct from the 'interest'. The bor-
rower is only interested in the prospect of an excess of his
money receipts over his money outgoings; whilst the lender
has no means whatever open to him whereby he can avoid
the prospective gain or loss arising through the expected
change in the value of money, since the prices of all the things
which he could buy already reflect it. An individual can only
speculate to his own supposed advantage on a forthcoming
event if there is sufficient doubt about it for different people
to take different views.

* It is not really in conformity with experience. For lenders and borrowers
are presumably equally well able to look after themselves; yet there is no observable
tendency for more stability in the real rate of interest than in the money rate.

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In short, it is not the prospect of rising prices as such which
stimulates employment, but the prospect of an increased
margin between sale proceeds and variable costs.

It is pertinent to ask the question whether the fluctuation of
effective demand can be properly described as a monetary
phenomenon. Obviously it is not a necessary result of using
money. For a co-operative economy and a neutral economy
can equally well use money. The question must be, therefore,
whether the fluctuations could occur in the absence of money.

The difficulty of answering this question is partly due to
the ambiguity or obscurity as to what exactly is meant by
'using money'. I should prefer to say, as I have said above,
that the fluctuation of effective demand is a characteristic
of an entrepreneur economy as distinguished from a
co-operative economy. Could then such an entrepreneur
economy exist without money?

It is of the essence of an entrepreneur economy that the
thing (or things) in terms of which the factors of production
are rewarded can be spent on something which is not current
output, to the production of which current output cannot be
diverted (except on a limited scale), and the exchange value
of which is not fixed in terms of an article of current output
to which production can be diverted without limit. It is not
necessary that the thing in which the factors of production
are rewarded should be the same for all, provided that the
above conditions are fulfilled. Nor is it necessary that the
means of remuneration should be no part of current output,
provided there are strict limits to the extent to which output
can be diverted to it. In actual fact under a gold standard gold
can be produced, and in a slump there will be some diversion
of employment towards gold mining. If, indeed, it were easily
practicable to divert output towards gold on a sufficient scale
for the value of the increased current output of gold to make

good the deficiency in expenditure in other forms of current
output, unemployment could not occur; except in the
transitional period before the turn-over to increased gold-
production could be completed.

What, then, in the light of this, is the answer to our original
question? Money is _par excellence_ the means of remuneration
in an entrepreneur economy which lends itself to fluctuations
in effective demand. But if employers were to remunerate
their workers in terms of plots of land or obsolete postage
stamps, the same difficulties could arise. Perhaps anything in
terms of which the factors of production contract to be
remunerated, which is not and cannot be a part of current
output and is capable of being used otherwise than to
purchase current output, is, in a sense, money. If so, but not
otherwise, the use of money is a necessary condition for
fluctuations in effective demand.

So far there is nothing in our criterion for money to
suggest that the fluctuations in effective demand are more
likely to be in excess or in deficit. I fancy, however, that there
is a further feature of our actual monetary system which
makes a deficiency of effective demand a more frequent
danger than the opposite; namely the fact that the money in
terms of which the factors of production are remunerated will
‘keep’ more readily than the output which they are being
remunerated to produce, so that the need of entrepreneurs
to sell, if they are to avoid a running loss, is more pressing
than the need of the recipients of income to spend. This is
the case because it is a characteristic of finished goods, which
are neither consumed nor used but carried in stock, that they
incure substantial carrying charges for storage, risk and
deterioration, so that they are yielding a negative return for
so long as they are held; whereas such expenses are reduced
to a minimum approaching zero in the case of money. If it
were not for this consideration, the effective demand at a
given moment would be governed by more permanent
considerations concerning the direction of popular expendi-
ture averaged over a considerable period of time, and would
be less subject to rapid fluctuations such as characterise boom
and depression.

By inverting this condition, we can conceive of an entre-
preneur system which would be as prone to excessive demand
and over-employment, as our actual system is to deficient
demand and under-employment; namely, if the means of
remuneration would ‘keep’ less readily than the output. In
this case there might be a tendency for workers to find
themselves, irrespective of what wage bargains they had been
able to make with their employers, working from time to time
for a real wage which was less than the marginal disutility of
the work by which they had earned it.

A draft of chapter 3 from the last 1933 draft table of contents (vol. xiii,
p. 421).

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3 THE CHARACTERISTICS OF AN
ENTREPRENEUR ECONOMY

I

So as to bring home the essential features to the reader's
intuition, let us construct a simplified model of an entre-
preneur economy.

Production, let us suppose, is organised by a number of
firms which do nothing but exercise entrepreneur functions.
I mean by this that they rent their fixed capital equipment
from capitalists, in return for an annual rent, payable over
the prospective life of the equipment, which the capitalists
expect to recoup them for the sum which they have laid out
in originally purchasing it from the firm which produced it;
and they hire labour, whenever they decide to use this capital