The Need for Precision

By DAVID CHESTER (Petach Tikva, Israel)

Difficulties in explaining our ideas arise as soon as we attempt to express economic theories in words. The shade of difference in meaning can easily throw a thought process that a trained economist or experienced writer would otherwise be able to bridge. It is equally possible for a skilled word-smith to subtly modify an otherwise logical argument so as to arrive at an incorrect construction or conclusion. As Georgists we spend a lot of time trying to sort out the real part of good sense in economics, from what passes as good sense.

Henry George's genius was in the precision, clarity and good style of his writing and argument, so that he could avoid the danger. But such high intellectual honesty is rare and many of us, myself included, don't possess the necessary skill. Fortunately there is an alternative method that deserves some attention.

One characteristic aspect of the study of sciences is that the ideas are made as simple as possible. When the subject matter appears to be complex, it can be broken down to smaller digestible parts, using analysis. In this process it is frequently found that the language is a burden and thus there is a tendency to introduce symbols and algebraic expressions to replace the words. I propose that econometric methods should be used to augment the essential reading and word-derived knowledge with which we are presently equipped.

Consider the simplified macro-economic system used by Professor Wassily Leontief in his "input/output" methods (see "The Choice of Technology," Scientific American,

June 1985). Taking aggregate values for all the quantities, Leontief's calculations of prices and products are:

June 1985). Taking aggregate values for all the quantities, Leontief's calculations of prices and products are:

(1) GNP = CON + DI (flow of goods)
where GNP is Gross National Product per annum
CON is annual consumption
DI is annual investment increment

(2) GNP x p = MH x w = CI x p x r (flow of money)
where p is price of the godds
MH is the total man-hours of labour given in the production of these goods
w is the rate of wages per man-hour
CI is the current investment of capital
r is the annual rate of return on investment ("interest")

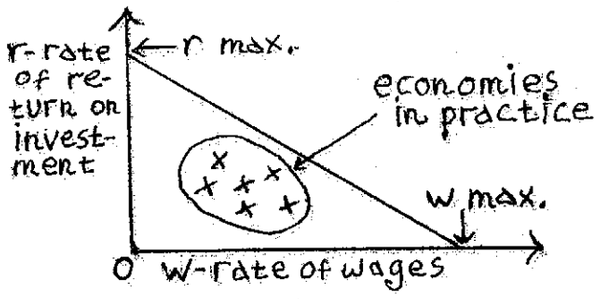
I will not discuss what is missing from these equations (which is a great deal), but instead let us see what can be done with what has been assumed or stated here. Dividing equation (2) by p and setting it equal to equation (1) gives:

$$(3) \quad CON + DI = MH \times \frac{w}{p} + CI \times r$$

It should be noted that for an inflating economy where both w and p increase at the same rate, the above identity (3) does not change. Let us find the relationship between rate of return on investment, r, and w, rate of wages, when the other quantities are taken as invariant with time. Rearranging equation (3) gives:

$$(4) \quad r = \frac{CON + DI - MH \times \frac{w}{p}}{CI}$$

This may be expressed graphically by the straight line:



Note that within this simplified macro-economy of a production process, a slavery system with w = 0 will provide the greatest rate of return on investment which cannot exceed:

$$r\ (max) = \frac{CON + DI}{CI}$$

and for the other extreme of the utopian economy having no return on investment (the religious ideal of no "usury" comes to mind):

$$w\ (max) = \frac{D}{MH} \times (CON + DI)$$

represents the greatest possible rate of earnings.

I will not discuss these ideas further here (Leontief describes in his paper how the lines can be modified and improved). The reader will, I hope, appreciate that by introducing a little high school algebra with symbolic notation, we can reorganize and streamline our thinking process in economics, and even discover truths that are not attainable solely by using word power. And it is by these methods that we can satisfy those who question or doubt the economic truths that Georgists have had to prove with words alone.