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SOME IDEAS SUGGESTED BY L. R. KLEIN'S PAPER "THEORIES OF EFFECTIVE DEMAND AND EMPLOYMENT" (J.P.E. April, 1947)

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In economic literature, several methods have been proposed for expressing the idea that national income may differ from its full employment level. One of them belongs to Keynes; another was developed by Hobson and Marx. These two methods are presented here in a simplified manner.

Notations: Y = national income

Ye = national income at a full employment level

C = consumption

S = saving

I = investment

K = stock of capital

The first five terms are understood in net sense per unit of time.

A Modified Keynes System

(1.1) $Y = C + S$

(1.2) $S = S(Y)$

(1.3) $I = I(Y)$

(1.4) $I(Y) = S(Y)$

(1.5) $Y = Ye$

The system has four variables and is therefore overdetermined. The essence of Keynesian system is the contradiction between equations (1.4) and (1.5), the result of which is the destruction of (1.5).

Hobson-Marx System

There are really two systems here: The first holds true for $K < K_0$, and the second for $K \geqslant K_0$. The nature of K_0, however, is very vague.

The first system for $K < K_0$

(2.1) $Y = C + S$

(2.2) $S = S(Y)$

(2.3) $I = S(Y)$

(2.4) $Y = Ye$

This is merely a re-statement of Say's Law.

The second system for $K \geq K_0$

(3.1) $Y = C + S$

(3.2) $S = S(Y)$

(3.3) $I = a$

(3.4) $I = S(Y)$

(3.5) $Y = Ye$

where $\underline{a}$ is some small constant. The system is obviously overdetermined and leads to the same contradiction as that of Keynes.

The essence of the Marx-Hobson system lies (a) in the assumption that Say's Law holds for a period of time, and (b) in the demonstration that the resulting accumulation of capital leads to a crisis.

I have on some occasions used a system which, in a sense, combines the Keynes and Marx-Hobson ones. Its simplified version can be expressed as follows:

(4.1) $Y = C + S$

(4.2) $S = S(Y)$

(4.3) $I = I(Y, K, E)$

(4.4) $P = P(K, \lambda)$

(4.5) $\Delta K = I$

(4.6) $S(Y) = I(Y, K, E)$

(4.7) $Y = P(K, \lambda)$

(3.8) $\lambda = \lambda_0$

(3.9) $\frac{\Delta Y}{Y} \lesssim r$

Here E means exogenous factors; P is productive capacity (same as Ye above); λ is the ratio of income to capital, and r, a constant, is a given maximum rate of growth the economy can achieve.

We have here nine equations with seven unknowns. The emphasis is placed on two breakdown possibilities: (a) investment may fall short of saving; (b) the rate of growth of income required for sustaining the profitability of capital may be greater than the maximum rate the economy can achieve.