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Comment on Flaschel

Michio Morishima

In this conference, entitled "Convergence to Long-period Positions" I hastily presumed that papers on classical growth theory would be discussed. Of course there is no justification for this rash conclusion; the long-run convergence is not a subject that the classical school monopolizes.

Let me, however, begin by reviewing the approaches of our predecessors including both classical and neoclassical economists. First, Ricardo, Marx and Walras have been concerned with how the population and capital adapt themselves to the area of land which is given to the economy. On the other hand, neoclassicists such as Solow, Uzawa and many others disregard the adaptation of the population and confine themselves to the problem of how capital adjusts itself to the ever-growing population, assuming implicitly that there is no limitation to land. This may be taken as a modern extension of the Marshallian approach, which names economic analysis "short-run" or "long-run" according to whether capital is taken as fixed or variable, respectively. Secondly a number of economists such as Marx, Schumpeter, Tinbergen and others are concerned with the historical motion of the economy or the historical transformation of the economic society. They have posed a thesis claiming either that capitalist societies will be socialized sooner or later, or eventually, or that both capitalist and socialist economies now existing will converge to a third long-period regime.

Notwithstanding this convention, Professor Flaschel is concerned with none of them. He constructs a model where one product is produced by one factor (labour), so that there is no room for capital and land. Hence, in using his model, it is impossible to discuss the growth theory either in the Ricardo-Marx-Walras sense or in the Solow-Uzawa one. Also he assumes that there is no revolution and no social or economic reform ocurring in his model, hence no historical transformation. Furthermore, on the assumption that production is instantaneous, he treats the phase of output expansion and that of reduction symmetrically.

Undoubtedly the activity of production is irreversible. Once factors of production are put in the process, we cannot obtain them again from their products by turning the production wheel back in the opposite direction. To avoid this irreversibility, Walras has devised an adjustment process in terms of 'tickets', during which no actual production activity is carried out until such a process settles in a position of equilibrium. Obviously, this is admissible as long as it is used as a formula for explaining tatonnement processes. It is, therefore, a supershort-run dynamic model; otherwise Professor Flaschel would have to show how he deals with the irreversibility of production.

Interpreting his adjustment equations (3) and (4) in this way, that is, interpreting, in particular, (4) as an adjustment equation of output in terms of 'tickets', the process establishes at the end, if it is stable, and equilibrium which is only temporarily stationary. After having found an equilibrium, production, exchange and consumtpion are carried out and the stock of resources and commodities are redistributed among individuals and the firms. Then a new tatonnement has to be initiated, in order to find out a new equilibrium. Thus tatonnement is repeated again and again. We obtain a sequence of temporary equilibria.

We must then ask whether this sequence will lead to a long-run equilibrium position. This is a problem which is much nearer to the one that classical and some neoclassical economists have been concerned with; though the model does not contain capital and land, Professor Flaschel might have at least discussed the adjustment of output to the autonomously changing labour. We would then find that the neglect of production lag is a serious defect of the model because it is known to be a cause of overproduction.

Finally, it is added that this sort of question, the stability of a long-run equilibrium, does not make a sensible economic problem unless a number of conditions are fulfilled. Firstly no long-run equilibrium may exist; secondly no economic regime is sound enough to last forever; and so forth. Only when it is affirmed that there are no possibilities for these, we can discuss the problem of the stability of long-run equilibrium.

The London School of Economics