

BOOK REVIEWS

THEODOR W. SCHULTZ, *Economic Crises in World Agriculture*, Ann Arbor, University of Michigan Press, 1965, iv+114 pp.

The contents of this book were given by Professor Schultz as the W. Cook Lectures on American Institutions at the University of Michigan, and are based on material contained in his recent work, *Transforming Traditional Agriculture*, and in a number of papers. The author believes that a juncture takes place in economic development when a static and depressed agriculture causes an economic crisis, and he considers agriculture in the Soviet Union, Communist China, the Argentine, India, and other countries, all of which are faced by the question, "What is to be done about agriculture?" On the other hand he takes up U. S. agriculture as representative of modern agriculture, and maintains that, while it is of a different type it also is provoking an economic crisis and stands at a turning-point.

Thus, world food production is at present confronted by the dilemma of surpluses in the advanced countries and scarcities in the underdeveloped countries. In the underdeveloped countries the returns on investments of capital and labour in land are too low, and agricultural production has long remained in a static condition. In contrast, huge investments are being made in America in such objects as research institutions, extension work, and schooling, which do not aim directly at a monetary return, but the fact is that production is expanding at the rate of 10 units of additional output per unit of additional input.

Professor Schultz has put forth searching questions in regard to this division which has appeared in world agriculture. Calling the former 'traditional agriculture' and the latter 'modern agriculture,' he proposes to infer possibilities for economic growth which arise from these two types of agriculture.

First, Professor Schultz criticizes several views on the contribution of agriculture to economic growth. A high income level is very little dependent on agricultural productivity, and the income elasticity of demand for agricultural products is determined by the flow of income from the economy as a whole, and is not necessarily based on agricultural productivity alone. The agricultural and non-agricultural sectors are closely related. Again, it is difficult to discover great differences between the two types of agriculture in regard to rates of increase or decrease of land or capital. Furthermore, Professor Schultz compares the area of the individual holding in India and in Japan, showing that while in India the average holding is 5.4 acres in area, in Japan it is only 2.1 acres. However, he notes that Japan's rice production is increasing with great rapidity in contrast to that of India.

In Professor Schultz's analysis, traditional agriculture was formed under economic equilibrium extending over several generations and the conditions under which it was formed have remained unchanged, while modern agriculture is in a state of 'chronic moving disequilibrium.' He analyses the possibilities for economic growth in these two types using the concepts of long-term economic equilibrium and disequilibrium. When traditional agriculture evolves into modern agriculture, this state of long-term economic equilibrium is disrupted, and agriculture seeks out avenues of development which create disequilibrium.

The marginal returns from labour, land, and capital goods are low in traditional agriculture. Consequently there is no incentive to invest, since the rate of returns from increased production resulting from investment is small. Consequently, theories for locating relatively cheap resources for defraying expenses involved in additional agricultural production, theories which attach importance to new investment goods with a high rate of earning capacity, and theories of investment concerned with material and human investment for technical innovation all assume importance, while plans which aim only at raising the economic efficiency of farmers and plans which provide for increasing investment in the traditional production elements frequently fail because of the low rate of returns.

Thus Professor Schultz's conclusion is clear. The basis for the juncture in agriculture consists of, first, the existence of a high rate of returns on investment in agriculture; second, the utilization of supplies of investment goods by the peasants; and third, the efficient utilization of these by the peasants.

Professor Schultz next takes up U. S. agriculture as representing modern agriculture, and raises the following questions :

1. What are the sources of the gain in agricultural productivity in the United States ?
2. Is there a basis for redistributing the "losses" borne by farm people as a consequence of these gains in productivity ?
3. Why do farm people fail to share in many of the social services of our welfare state ?

In spite of advances in knowledge, supplies of new material inputs, advances in farmers' know-how, and the rise in the agricultural productivity which these produce, it has proved impossible to correct the economic disequilibrium in agriculture. At the same time, the higher the technical productivity of agriculture the more producers must meet losses out of their own pockets, and this leads to overproduction. Furthermore, on the subject of these surpluses of agricultural produce, Professor Schultz levels sharp criticism at American policies on agricultural prices, considering them to be without effect.

In his analysis of the agriculture of India and other countries representing traditional agriculture, Professor Schultz's treatment of the subject as a question of expenses and returns, as opposed to that of economists who

approach the subject through such factors as the small holdings resulting from population pressure, or the absence of any propensity to use labour outside the holding, is truly a unique method of dealing with the subject, and the reviewer has been enlightened by it on many points. If we examine the increase in rice production which has occurred in Japan in recent times, we find that, in spite of a sharp fall in the agricultural labour force without being accompanied by a change in the area of irrigated rice, there has been a rapid increase in yields per unit area as a result of increased investment in fertilizers and new agricultural chemicals, the adoption of early or adjusted systems of cultivation, and the development of improved rice varieties. In spite of this, however, the size of holding per person has not increased, and no change has occurred in the structure of the small-scale agriculture of Japan since the Land Reform. The incentives for increased investment in production goods seem to have depended on new forms of investment property in producing increases in production, demand created by the Government's direct purchase control system for rice, long-term stability in prices, and the sharp fall in rents occasioned by the Land Reform. This sudden rise in rice yields in so short a time has been truly astonishing, and has even been of such proportions as to cause Professor Schultz to say that at length Japan may become a rice-exporting country. The increase in rice production in Japan has exhibited a quite different development from that of rice production in India and the other countries of Southern Asia. The abject poverty of the Japanese peasantry was made famous by the famous Japanese poet, Takuboku Ishikawa, in his elegy:

*Though I work / and work
My life become no easier. / I stare at my hands.*

However, the Japanese peasant of former times, who was obliged to cultivate rice with all the labour available in his family and to sell it under circumstances of urgency, has now become as a figure in mythology. The high economic growth in Japan in the last ten years has given farmers opportunities of employment outside agriculture. Because of the government system of purchasing all rice produced and of government price-fixing, farmers have not faced the problem of the elasticity of the demand for rice.

However, in recent times this Japanese rice economy has been confronted by problems which differ from those pointed out by Professor Schultz.

The first of these is the static condition of rice production in recent times. Up to the present the development of rice production has undoubtedly depended in large measure on increases in yields per unit area through investment in fertilizers, agricultural chemicals, land improvement works, etc., and on the stability of earnings brought about by the stabilization of the price of rice. However, there is a relatively large number of young people from peasant families in Japan today who want to carry on enterprises in which land rent is of relatively little significance, such as commercial poultry-farming or pig-rearing, or, mandarin orange growing, the last of which

provides a particularly high rate of earnings. There are comparatively few who wish to devote themselves exclusively to irrigated rice cultivation, a form of production which is subject to restrictions in respect to both water and land. What are the reasons for this? The system of cultivation embodied in the small-scale agriculture of Japan has two peak periods in which hand labour is required: rice transplanting and harvesting. This fact imposes limits on the size of holding which is devoted to the cultivation of irrigated rice. Three hectares is generally regarded as the maximum area for a holding devoted exclusively to irrigated rice cultivation, the reason being that with a larger holding it becomes impossible to work the holding with family labour, and temporary hired workers must be employed. Since, however, it is difficult to hire workers during the busy seasons in agriculture, this results in agricultural operations not being carried out at the proper time of year. Thus, a holding of over three hectares actually causes a reduction in yields per unit area, leading to a decline in the earning-power of the holding. It is said that the prospect of this happening explains in large measure why young people do not find rice cultivation attractive. The fact that young, high-quality labour is being withdrawn from rice cultivation must inevitably check the development of rice production.

Second, there is the fact that Japan's high economic growth has given farmers opportunities for occupational selection. This has also given farmers who run their holdings with family labour an opportunity to appraise the value of their labour. It has caused a switch from labour-intensive agriculture to forms of agriculture which economize in labour. The mechanization of Japanese agriculture began from the mechanization of crop processing—threshing, hulling, etc.—and developed towards a rapid increase in the number of hand-operated tractors. However, when we examine these hand-tractors as a form of the investment of capital, we find them to be a truly inefficient form of investment. The smallness of the Japanese rice-producing holding makes mechanization, even with hand-tractors, extremely inefficient for the individual agriculturalist. What have been the incentives which have caused the rapid increase in individually-owned hand-tractors, despite this fact? One has been greater opportunities for obtaining employment outside agriculture when peasants economize on labour invested in rice cultivation and other agricultural work. A second is the fact that the use of hand-tractors is not thought of by the peasants as investment in production goods, but is similar to investment in such consumer goods as television sets and refrigerators, constituting a rise in the level of living. However, it has at last become apparent that the technical system of small-scale farming has gone as far as it can, and there must be a sharp rise in the number of agriculturalists with part-time occupations. Investment in capital goods has also reached its limits, and rice production itself has recently shown signs of becoming static.

Third, as against the lag in expanding rice production under the technical system of small-scale farming, we may mention an incentive tending to break up this system—the creation of a new system of mechanized agriculture which

will promote the expansion of the size of the individual holding. However, Japan's high economic growth, brought about by an over-loan, has caused an extraordinary rise in the price of land. This, in turn, has had its effect on the price of agricultural land, causing the capital value of agricultural land to become higher and higher, and the gap between the earning value of agricultural land and the capital value of agricultural land to become wider and wider. The transferability of agricultural land, which leads to enlarging individual holdings, has been impeded to an extreme degree.

Fourth, in many parts of Japan a beginning has been made in the communalization of agricultural operations with the aid of large-scale tractors as a means of lowering the production costs of rice. However, mechanized agriculture with large-scale machinery carried on under the small-holding system of landownership merely leads, on the one hand, to an outflow of surplus labour from farm families to employment in other industries, and on the other hand, to a rise in the capital value of land which causes farmers to cling all the more firmly to their minute holdings. Communalization by means of mechanization with large-scale machinery greatly contributes to economizing in labour in rice cultivation, but on the other hand it strengthens the established system of small-holding landownership. The result is that the greater part of the earnings from the rise in the price of rice is not distributed in the form of returns to the managers of holdings or to the labour employed, but as a matter of priority is first allocated to the payment of rents to the landowners who provided the land for the communal organization. Communalization by means of the Japanese system of mechanization with large-scale machinery creates a rise in money rents, and this, in turn, strengthens the system of small-holding landownership. Both the Japanese system of hand-tractor agriculture and that of large-scale tractor agriculture have the contrary effect of strengthening the system of minute land-holdings, and thus do not constitute an incentive to technological innovation.

Fifth, it will be apparent from the above that Japanese rice cultivation now stands at the parting of the ways. For individual agriculturalists who desire to transcend the system of technology in which the three-hectare-holding is the maximum unit of management and to set up an economically independent holding, a new avenue of progress will be opened up by the creation of a system of medium-scale mechanized cultivation which will provide an incentive for the mechanization of the hand-labour processes in transplanting and harvesting and for the enlargement of the area of the holding. Consequently, the central tasks will consist in the maturing of this form of technical innovation, and the firm establishment of policies for agricultural land and migration out of agriculture which will produce liquidity in land-holdings retained as capital assets and render them the objects of agricultural enterprise. Japanese rice cultivation has developed a system of intensive agricultural practices on small-scale holdings. Now, however, this system has reached the limits of returns from capital invested, and the quality of the labour employed in rice cultivation is declining. This trend is causing

Japanese rice production, which had grown rapidly, to return to a static level, thus leading back to the state of equilibrium of which Professor Schultz speaks. Government price policy has now shifted its main emphasis to the function of maintaining equilibriums in consumption and incomes, and its productive functions are withering away.

Japanese agriculture, based on small-area landownership, has exhibited a form of development which is of a different nature from that of other countries in Southeast Asia. However, the possibilities of the system of labour-intensive agricultural practices employing large applications of fertilizers are now exhausted. It would seem that a state of equilibrium has again appeared on the production side. I believe that the way for breaking through these conditions lies in comprehensive government policies which will promote the enlargement of the holdings of the rice-producing farmers and will provide for investment in them. (*Shirō Tōbata*)

GEORGE E. TAYLOR, *The Philippines and the United States: Problems of Partnership*, New York, Frederick A. Praeger, 1964, 325 pp.

Close relations of co-operation have existed between the Philippines and the United States since the Second World War, as before it, and the Philippines is both a basic member of America's regional security organization in Southeast Asia and an important base-point in her Asia strategy. From the economic point of view also, the Philippines continues to preserve its importance as a market in which America can purchase raw materials and sell its commercial goods, and as a field for American capital investment. At the present day, when the conflict between East and West has become much aggravated, the importance of the Philippines for America has increased to an absolute degree. Such an appreciation of the situation is becoming ever stronger on the American side. Thus the basic task which is set before this book is that of determining what policies America should adopt with a view to maintaining this close co-operation with the Philippines in the future, and of fixing the keynote for such policies.

According to the author, the potential sources of political and social dynamism in the Philippines, that is to say, the most important factor for the formation of modern society, is nationalism. Hitherto, manifestations of Filipino nationalism have assumed a comparatively lukewarm form, but of late they have exhibited fairly clearly apparent movements. As examples we may cite the comparatively recent moves for the revision of the agreement on military bases between America and the Philippines, the undertaking and dissemination of a revised history of the Philippines produced by historians of the University of the Philippines (a reappraisal of the War of Independence at the end of the nineteenth century), and the fact that of late the Philippines has been making its way towards a somewhat more independent and racialist