

In spite of these technical limitations, this study makes an important contribution to our understanding of FDI in India and is recommended to anyone studying international comparison of industrial organization, FDI, and the economy of India. Given the richness of the information contained in this book, we can expect a stream of collaboration between researchers of the sourcing countries and of the recipients of FDI.

(Haruo Horaguchi)

*Japanese Agriculture: A Comparative Economic Analysis* by Cornelis L.J. Van der Meer and Saburo Yamada, London and New York, Routledge, 1990, xvi+217 pp.

Of the many comparative studies of Japanese agriculture, this is certainly one of the most impressive. The principal emphasis of the book is on comparative analysis of agriculture in Japan and the Netherlands during the period 1960–85, but there are also comparisons with Taiwan and the United States, and many of the statistical tables include valuable comparative data on a number of other developed and less developed countries. Finally, in addition to the analysis of the poor performance of Japanese agriculture in recent decades, there is a short but illuminating comparative treatment of the long-term process of structural change in Japan and other countries.

One of the most interesting chapters examines agricultural development in Japan and the Netherlands over the extended period 1880 to 1985. The Netherlands was selected for an in-depth comparison with Japan because it is a technological leader in European agriculture. Between 1960 and 1980, the Netherlands registered an impressive increase in output per male worker from 43 to 109 wheat units that was associated with a modest increase from 6.0 to 7.7 hectares cultivated per worker. The increase in the United States over that twenty-year period was considerably greater—from 94 to 285 wheat units per male worker. But that increase was associated with a huge rise in the area cultivated per male worker from 117 to 247 hectares.<sup>1</sup> In Japan, a sharp decline in the agricultural labor force from 5.1 to 2.4 million male workers made possible a larger percentage increase in area cultivated per worker; but the increase was from only 1.3 to 2.3 hectares. The number of male workers in agriculture in the Netherlands was already down to 388 thousand in 1960; not surprisingly the decline to 263 thousand male workers in 1980 represented a considerably smaller percentage reduction. Japan's increase in output per hectare from 8.6 to 12.2 wheat units was less than the rise in the Netherlands from 7.2 to 14.1 wheat units. While the increase in output per male worker from 10.3 to 27.8 wheat units somewhat narrowed the gap between Japan and the Netherlands, its agricultural labor productivity in 1980 was still only slightly over a fourth as high as in the Netherlands.

Although Japan's total population is eight times larger than that of the Netherlands, both countries are densely populated and have had similar rates of population growth

<sup>1</sup> Yujiro Hayami and Vernon W. Ruttan, *Agricultural Development: An International Perspective*, rev. and enl. ed. (Baltimore and London: Johns Hopkins University Press, 1985), p. 120.

over the past century—1.1 per cent for Japan and 1.2 per cent for the Netherlands (compound growth rates). Both have achieved rapid agricultural growth associated with impressive technological progress by small-scale farm units. Although population density is somewhat greater in the Netherlands, that is more than offset by the much larger percentage of its land area that is suitable for agriculture. As late as 1960 the agricultural land area per agricultural worker was ten times as large in the Netherlands, a differential that was three times as large as the difference in agricultural land per capita because of earlier and greater decline in the Netherlands in agriculture's share in the total labor force. In 1850 the share of agriculture, forestry, and fisheries in employment in the Netherlands was only 36 per cent whereas the corresponding share in Japan was 75 per cent in 1885 (pp. 69, 134).

Long-term changes in productivity in the two countries are presented based on a number of different measures of productivity and using alternative prices, e.g., 1975 Japanese prices, 1975 Dutch prices, and figures expressed in "international dollars" as calculated by FAO. Agricultural labor productivity in the Netherlands has consistently been higher, but the differential roughly doubled between 1960 and 1985. Indeed, in their comparison of real output and productivity in Japan, the Netherlands, Taiwan, and the United States, the authors report that Japanese net value added at U.S. and Dutch prices was actually negative in 1980 and 1984.

One of the final chapters—"The Eclipse of Japanese Agriculture"—presents an exceptionally interesting analysis of the complex reasons for the dismal performance of Japanese agriculture since 1960. That period has coincided with rapid increase in the level of protection for Japan's agricultural sector. One of the theoretical contributions of the book is the proposition that the relationship between price incentives and changes over time in total factor productivity is best described by "an inverse U." Part of the argument is simply that extremely high output prices encourage overuse of variable inputs and overinvestment in capital. The analysis goes beyond that, however, in developing political economy arguments that explain how rents induced by protectionist policies have become a major obstacle to the structural and policy changes needed. In particular, Japan's cooperative system, which has been given the task of implementing the government's protectionist policies, "is favoured by the government with privileges, regulations, backing of marketing cartels, and in several cases even with monopoly rights" (p. 140). The growth in the size and power of Japan's cooperatives has meant that there has not been scope for the competition necessary "for boosting efficiency and squeezing margins in agribusiness and services related to agriculture" (p. 141).

In addition to summarizing the reasons why Japan's political system has given disproportionate power to agricultural interests, Van der Meer and Yamada emphasize that government policies and the dominant role of the cooperatives have had interesting adverse effects on agricultural productivity. The cooperative system has become a huge bureaucracy with vested interests of its own that seem to be increasingly in conflict with the interests of farmers, especially full-time farmers.

A striking feature of agriculture in postwar Japan has been the enormous increase in the importance of part-time farming. Between 1955 and 1975 the number of farm households in Japan declined by only 18 per cent to 4.95 million whereas the corresponding decline in the Netherlands was 38 per cent to 163 thousand farm households. But only 12 per cent of Japan's farm households were full-time farm units and farm income accounted for less than 30 per cent of total farm household income. By 1987 farm income represented only 13 per cent of the income of farm households; and in

1985 agriculture, forestry, and fisheries accounted for only 3 per cent of GDP but 9 per cent of total employment. In the Netherlands in that year agriculture, forestry, and fisheries accounted for 6 per cent of GDP but only 5 per cent of employment, and in the United States the share was 3 per cent for both (pp. 134-35). Japan's cooperative system has had an obvious vested interest in preserving as large a voting population as possible in agriculture and has therefore opposed the sort of policies to facilitate structural adjustment that have contributed to the continuing growth of agricultural productivity in the Netherlands.

(Bruce F. Johnston)