

much within the export sector. To examine whether a country's export-led strategy is successful or not, it is not enough to point out only the fast growth of its exports. One must also investigate the effect of exports on the growth of the domestic economy. To be sure, Wang does point out that exports stimulated the acquisition of advanced technology (p. 200) and the absorption of unemployed workers (p. 209), but he does not point out the fact that the rapid growth of exports in the 1980s accelerated the process of industrialization in China, especially in the coastal areas. In order to fully estimate the applicability of an export-led strategy, I would urge Wang in his future study to investigate the effect of exports.

In spite of these problems, I feel that Wang's book, through a thorough analysis of China's export trade, has succeeded in demonstrating the main conclusion that a developing country can expand its exports even within an unfavorable trade environment. (Tomoo Marukawa)

*Intersectoral Resource Flows and China's Economic Development* by Yuming Sheng, London, Macmillan Press, 1993, xiii+188 pp.

Intersectoral resource flows is an important issue in development economics, which gives rise to such important questions as at the initial stages of development (1) which sectors did (or should) contribute resources or capital towards industrialization and (2) what policy measures were (or should be) adopted by governments in the promotion of capital accumulation.

The pioneer in the study of intersectoral resource flows and a great influence in the later theoretical and applied work done in this area is Preobrazhensky,<sup>1</sup> who created the "socialist primitive accumulation" hypothesis for analyzing industrialization in the Soviet Union. Since the publication of Preobrazhensky's idea, the view that agriculture is the only sector in the developing countries capable of contributing resources towards industrialization has become very popular among economists in the countries of the West.

In contrast, the empirical work done by Ishikawa<sup>2</sup> on China during the 1950s has indicated that during the latter half of that decade, the agricultural sector was transformed into a 100 per cent recipient of resources generated in the nonagricultural sector, and led Ishikawa to the normative proposition that at the initial stage of development, it is necessary for resources to flow to the agricultural sector from the nonagricultural sector.

Later Ishikawa<sup>3</sup> extended his time period to support his conclusions about intersectoral resource flows in China, and Nakagane<sup>4</sup> carried out a detailed study simulating

<sup>1</sup> E. Preobrazhensky, *The New Economics* (London: Clarendon Press, 1965).

<sup>2</sup> Shigeru Ishikawa, "Resource Flow between Agriculture and Industry—The Chinese Experience," *Developing Economies*, Vol. 5, No. 1 (March 1967).

<sup>3</sup> Shigeru Ishikawa, "Patterns and Processes of Intersectoral Resource Flows: Comparison of Cases in Asia," in *The State of Development Economics: Progress and Perspective*, ed. G. Ranis and T. P. Schults (Oxford: Basil Blackwell, 1988).

a large number of cases in the concept of resource flows, sectoral demarcation, and quantitative methodology in support of Ishikawa's hypothesis. In contrast, the researches carried out by scholars in China<sup>5</sup> continue to focus generally upon net resource outflows from the agricultural to the industrial sector, and some Western scholars, e.g., Lardy,<sup>6</sup> have the same opinion.

The book under review here is by a younger scholar in the field offering a new and challenging view of this controversial issue.

In Part I, the author surveys the concept of intersectoral resource flows and the quantitative methods to be employed in the existing research. Then, in Part II he investigates the quantitative methodology for studying the case of intersectoral resource flows.

His assumptions about resource flows and sectoral demarcation contain nothing new for the reader. He defines intersectoral resource flows as intersectoral commodity flows (trade accounts) or as intersectoral money flows (financial accounts). His definition of agriculture is based on the concept of the "farm sector," which includes all economic activities carried on by farm households (and including the agricultural production of state farms), but excludes rural small-scale enterprises.

With respect to the often debated issue of basing resource flows on real prices instead of current prices, the author stresses the importance of the determination of real prices in his methodological approach. He refuses to accept either labor value or market equilibrium price as the basis of real prices in favor of what he calls "sub-equilibrium price"; that is, a newly conceptualized version of market clearance price determined by the demand curve at given supply quantities.

Part III contains estimates of intersectoral resource flows in China for the period 1952-83 and the following empirical conclusions.

(1) Trade and financial accounts in the agricultural sector in terms of current prices show surpluses for 1952-55, but fall into the red from that time on.

(2) The state purchasing prices of agricultural products during the whole period in question remained below their sub-equilibrium prices, which means that low agricultural prices were the cause of "invisible" resource flows from agriculture to the nonagricultural sector. (However, due to figures that could estimate sub-equilibrium prices only within a fixed range, absolute invisible resource flows could not be calculated.)

(3) The deficits experienced in trade accounts between 1956 and 1983 were offset by money flows with a compensatory character that returned an equivalent amount back into the agricultural sector by means of fiscal funds and financial assistance from the government and the transfer of private funds from city residents to the countryside.

(4) In spite of the previous conclusion, however, financial transfers from the nonagricultural sector back to agriculture was not capable of completely canceling out the invisible resource flows that had taken place in the opposite direction.

<sup>4</sup> Katsuji Nakagane, "Intersectoral Resource Flows in China Revisited: Who Provided Industrialization Funds?," *Developing Economies*, Vol. 27, No. 2 (June 1989).

<sup>5</sup> Yan Ruizhen et al., *Zhongguo gongnongye chanpin jiage jiantaocha* [China's price scissors in the exchange of industrial products for agricultural products] (Beijing: Zhongguorenmin-daxue-chubanshe, 1988).

<sup>6</sup> Nicholas R. Lardy, *Agriculture in China's Modern Economic Development* (Cambridge: Cambridge University Press, 1983).

The book's most characteristic feature is the author's adoption of "sub-equilibrium price" in his attempt to determine resource flows in terms of real prices. This point deserves comment here from the aspect of the applicability to the case of China rather than its suitability in terms of price theory.

First, the author realizes the impossibility of estimating sub-equilibrium prices within a planned economy, and thus sets about the task of finding an alternative in the form of "controlled" sub-equilibrium prices. It is in Section 3 of Chapter 4 that he presents his model for such a concept in an easy-to-understand explanation of the mathematics involved. The logic goes like this. Say no net resource flow is taking place between the agricultural and industrial sectors (i.e., there is a balance occurring in current price trade accounts between the two sectors), the current prices (planned prices in a planned economy) of commodities produced by both sectors will match "controlled" sub-equilibrium prices. But if there are net resource flows occurring from the nonagricultural sector into agriculture, current agricultural prices will be lower than "controlled" sub-equilibrium prices.

Implicit in the author's assumptions is that China's agricultural sector is not purchasing industrial products above what is necessary for maintaining agricultural production and farm family livelihood at minimum standards (meaning that agricultural-sector trade account deficits are resulting in agricultural prices too low to support the sector's production and livelihood at minimum standards). However, such an assumption is definitely untrue for the agricultural sector in China during the 1980s, and will not always stand for the previous decades.

Secondly, it is thought that China has suffered over a long period of time from shortages of not only agricultural products, but industrial products as well. What the author has not taken into account, therefore, is that sub-equilibrium prices for industrial commodities could also very well have been higher than their planned prices. The problem arises, therefore, as to which sector exhibits the largest discrepancy between its sub-equilibrium prices and planned prices. If by chance this discrepancy was larger in the agricultural sector than its industrial counterpart throughout the period in question, then the conclusions of the author concerning invisible flows of resources from agriculture would not change. However, what if the opposite were the case? The point here is that we have no easy way of finding out the dynamics of such an interrelationship between the two sectors.

A number of further points can be made following such logic, but all in all the model offered by the author pertaining to intersectoral resource flows assumes all too handily that resource flows from industry to agriculture during the period in question were in real terms zero or less than zero, no matter how large net resource inflows to agriculture may have been in terms of current prices.

Turning to the author's empirical conclusions, he agrees with Ishikawa and Nakagane that current price trade accounts of the agricultural sector between 1956 and 1983 were in the red, and the amount of these deficits steadily increased in size over time. This is only natural, because the statistical sources used and the analytical framework employed are basically the same. Where the present work diverges from the research of Ishikawa and Nakagane is in the former's conclusion that because state purchasing prices for agricultural commodities between 1952 and 1983 were lower than real prices, there occurred invisible resource flows from agriculture to industry. If we take into consideration the fact that China in the period prior to economic reform adopted a policy calling for low agricultural prices, it seems a foregone conclusion that employing the concept of "real prices" in analyzing intersectoral resource flows

would result in the discovery of invisible resource flows moving from the agricultural to the industrial sector.

We do agree with the conclusion that deficit trade accounts in the agricultural sector were offset by government fiscal and financial support, combined with monetary transfers from urban residents, at least for the period prior to rural reform.

From the above conclusions, the author argues that in China the attempt to extract resources from the agricultural sector by employing a low agricultural price policy was in the end a failure. In this reviewer's opinion, such an evaluation is by no means mistaken, but certainly exhibits an insufficient understanding of the policy in question.

In both the former Soviet Union and pre-reform China, the establishment of both low-price, compulsory procurement systems and collective farms was very important in the formation of agricultural policy aiming at the promotion of industrialization. Such an integration of agricultural policy in the socialist countries expresses an articulation between the "socialist primitive accumulation" hypothesis and Marxist-Leninist dogma concerning the superiority of large-scale over small-scale enterprise in agriculture. Therefore, agricultural collectivization was not carried out solely to make compulsory procurement programs easier to implement, but also at the same time to bring about large increases in agricultural productivity. (For example, given Mao's thinking that the productivity levels of people's communes would greatly exceed those of traditional family farms, China's agricultural sector should have been able to withstand the government's low-price measures and supply greater amounts of agricultural commodities.)

In pre-reform China, the reason why the agricultural sector was not able to contribute sufficient resources to the industrial sector does not stem from the government's low-price policy, but rather from the fact that the agricultural policy framework as a whole (including collectivization) was ineffective in increasing productivity within that sector.

(Akihide Ikegami)