5 A Two-Sector, Four-Class Model

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1 INTRODUCTION

This chapter investigates the properties of a two-sector model (industry and agriculture) with four classes, landlords, traders, workers and capitalist entrepreneurs. Particular attention is paid to changes in relative prices affecting the distribution of surplus between classes and sectors. This was a crucial aspect of the economics of authors like Quesnay, Smith and Ricardo. Marx named this approach Theories of Surplus Value (Marx, 1963, chs 2, 3). By the end of the last century the surplus approach lost its momentum and economics developed along the lines indicated by the marginalist school. Since the 1940s there has been renewed interest in the theories of surplus thanks to the works of Wassily Leontief (1951) and Piero Sraffa (1960, pp. 8–9, 93). In different ways both authors contributed to the reappraisal of the analysis of the economy by means of multisector models similar to Marx's reproduction schemes. Recent developments in the surplus approach have focused attention on the distribution of income between workers and capitalist entrepreneurs. The distinction between primary and industrial sectors often disappears. On the other hand, many economic development studies emphasise the relationships between industry and agriculture and the role of the terms of trade (Rao, 1986, p. 74; Taylor, 1988, pp. 9–12). In many of these analyses new interest is found in the notion of surplus and in Marxian economics (Chakravarty, 1987, pp. 3–4; Rao, 1986, pp. 42, 53–7).

This chapter analyses the problem of income distribution in a two-sector economy with more than two classes. It seeks to show that a two-sector model based on the surplus approach can successfully describe the features of some developing countries, where the conditions of production and circulation of agricultural products are quite different from those of manufactured goods. In many ways these systems are different from capitalist economies. There still persists in these coun-
tries a powerful class of landlords, whose existence must be considered part of the conditions of production in agriculture, and which causes a feudal relationship in production. Markets for primary commodities and industrial products do not function in the same way (Ghosh, 1986, pp. 122–4). Agricultural markets are often characterised by the existence of a class of merchants who enjoy a privileged trading position. The effects on income distribution of these peculiarities of agricultural markets can be described by means of a reproduction model which includes a class of professional traders. It has also been pointed out that in agriculture the credit system does not work according to competitive market mechanisms (Bhaduri, 1983, pp. 3–6). There is a class of money-lender who receives part of the surplus at the expense of peasants.

However, some analyses of the role of agriculture in developing countries do not give enough attention to the relationships between the primary and the industrial sector. The model presented here is designed to bring the economic relationships between the sectors to the fore, and attempts to examine the implications of agricultural backwardness for the entire economy.

Section 2 describes the model and the process of price formation in both industry and agriculture. We assume that wages are at a subsistence level and only three classes are explicitly considered: landowners, traders and capitalists. In section 3 it is shown that, by means of a simple diagram, it is possible to describe the way in which relative prices affect the distribution of income between the three classes. The types of price variation which lead to a distribution of income positively influencing the accumulation of capital are also examined. Section 4 explores how the conclusions of the previous section are modified when wages are explicitly introduced into the model. The final section brings together the main results and provides some indications about possible developments of this type of analysis.

2 THE MODEL

There is an economy with two sectors, industry and agriculture, producing iron and corn respectively. Both commodities are used as inputs in both sectors. Three main social classes appear in the model. Land and natural resources are directly used only in agricultural production, and there are also landowners who receive part of the surplus in the form of a rent per unit of agricultural output. In both