AGRICULTURAL PRICING POLICIES IN
DEVELOPED AND DEVELOPING COUNTRIES:
THEIR EFFECTS ON EFFICIENCY, DISTRIBUTION, AND RURAL CHANGE

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Introduction

Agriculture is the main source of food for the world, and food is the basic input in the daily sustenance of humans. Yet, in many parts of the world there is insufficient food, which in turn implies inadequate agricultural output. The reasons for inadequate agricultural production are many and varied, ranging from poor distribution and poor production techniques to political intervention at various levels in the global agricultural complex. The most important reason for deficient agricultural output is difficult to ascertain, but Schultz (1977) left no doubt as to his ranking of the causes. He suggested that the level of agricultural production depends not so much on technical considerations, but in large measure "on what governments do to agriculture." Schultz has long been the most ardent and eloquent spokesman of this position. See, for example, Schultz, 1964, 1977, and 1978. Export taxes on agricultural products provide government revenue and keep domesite prices low, product price supports in developed countries maintain farm incomes and provide surpluses which in turn find their way to developing country markets to further depress domestic farm prices, and agricultural inputs are frequently either taxed or subsidized. Yet, the magnitude of these effects on agricultural output, income distribution between producers and consumers, efficiency, and on rural-urban migration is often not fully appreciated.

This paper discusses government intervention in agricultural price determination, drawing on welfare theory to quantify the economic impacts on the previously mentioned variables. In this study, we examine France, Federal Republic of Germany, United Kingdom, Japan, Yugoslavia, Argentina, Egypt, Pakistan, and Thailand. The general theme of the paper is that the agricultural policies pursued by developing countries produce effects which are diametrically opposite to those produced by the policies of many developed countries, and that the policies of both are costly in terms of global welfare. Peterson addresses the developing country side of this question in a somewhat different manner.

Method and Theoretical Basis

The results of the paper are derived using standard partial equilibrium analysis. The method is well known both for its usefulness and the limitations. Details are not presented here but the reader is referred to Currie and others for an excellent review of the concept, to Bale and Greenshields for an application of the method, and to Lutz and Scandizzo for a review of other studies and a more detailed mathematical description.

Data Sources

The data used in this analysis are displayed in Bale and Lutz, table 1. The FAO Production Yearbook was used as a source of production levels, and imports, exports, and border prices were derived from the FAO Trade Yearbook. Supply and demand elasticities were taken from Rojko and others. All nominal protection coefficients for the developing countries (including Yugoslavia) are based on coefficients from detailed country case studies by Bertrand (Thailand), Cuddihy (Egypt), Gotsch and Brown (Pakistan), Reca (Argentina), and ULG Consultants Limited (Yugoslavia). The nominal protection coefficients for developed countries are derived from publications of the Commission of the European Communities and from Bale and Greenshields, while rural employment

figures are derived from labour-output coefficients obtained from numerous sources described in Bale and Lutz.

Results and Conclusions

Agricultural pricing policies in developed and developing countries show significant differences. While agricultural commodity prices in developed countries generally have positive rates of protection, the agricultural sector in developing countries is being taxed through price intervention measures. As a result, the levels of agricultural production in industrialized nations are higher than without intervention, whereas agricultural output in developing countries is often significantly smaller than what it would be in the absence of distortion. With consumption, the picture is reversed: developing countries consume more and developed countries less than what they would without price intervention measures. The impacts on migration are substantial. In developing countries, agricultural pricing policies result in large numbers of displaced workers who add to urban unemployment, whereas in the industrialized nations a significant number of workers are kept in agriculture by price protection. (See Bale and Lutz, table 2.)

The analysis of monetary effects shows what important consequences result from government price intervention in agriculture. Total net social losses (the sum of net social losses in production and consumption) range from $26 million to $4.1 billion for the countries and the sample of commodities considered. (See Bale and Lutz, table 3.) As our results indicate, the most sizeable effects of the different agricultural policies are the welfare transfers between consumers and producers. While the farm sector of the developing economies studied was taxed by up to $2.2 billion per year, producers in developed countries receive large transfers due to protection. Government revenues are increased as a result of positive and negative protection in all but one country. The effects on foreign exchange earnings are clearly divided along different levels of development. While industrialized nations gain foreign exchange through protectionist policies, developing countries lose foreign exchange. This is particularly serious since foreign exchange availabilities represent a major bottleneck for developing nations. (See Bale and Lutz, table 5.)

What emerges from this paper is the vital role that farm product prices play in achieving optimum output and productivity growth. Because the wrong price signals are being given to farmers, allocative, production, and consumption potentials are not being realized. In many cases the estimated changes in production greatly alter trade patterns, in some cases causing importing countries to become self-sufficient. Another notable feature is the size of the rural employment effects of price distortions. As we explained, these numbers are conservative. The magnitude of the income transfers and efficiency losses (net social losses) is also impressive. (See Bale and Lutz, table 4.)

The ultimate question about agricultural pricing policies is their dynamic effects. Here we have seen the size of the static effects, but our model (and the state of technology of our profession) does not allow us to accurately estimate price distorting effects on income and industrial growth, adoption of technology, investment in agriculture, social consequences, and so forth. While decisions at the public level are made not by agricultural economists but by politicians, our profession plays a vital role in defining and quantifying the issues involved, and in extending these findings to appropriate officials. Our hope is that this paper is in that tradition.

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OPENER'S REMARKS--Alois Basler

The authors presume in their model that pricing policies are the main determinants of agricultural output. In the case of developed countries, this assumption is plausible and proved by observations and analyses. In developing countries, however, we find various constraints to the producers' abilities to adjust production programmes to changing market conditions. Increasing producer prices can only stimulate food production and induce income transfers from consumers to producers (as indicated in the model) under certain conditions. Therefore, pricing policies should form a part of a package of measures.

It is plausible to assume that rising producer prices reduce the labour migration from agriculture to other economic sectors in developed countries. In developing countries, however, intersectorial labour migration seems to depend more on real or supposed employment opportunities than on agricultural pricing policies.

For developing countries, the benefits resulting from export taxes largely depend on how these funds are utilized. Evaluation of benefits and costs should therefore include an overall analysis of policies pursued in the countries concerned.

We can draw two lessons for pricing policies from this analysis. First, taking into account that developed countries consume less than they would without protectionism, they should renounce price intervention measures and let price

levels fall. This would be desirable for many reasons. However, we are not sure that consumption of agricultural products would rise in a significant way. Here I have in mind that with an average daily consumption of more than 3,000 calories per person, the population of the majority of the developed countries is already overfed.

Second, developing countries, in contrast, consume more than they would without low price policies. Consequently, they should abandon negative protectionism in order to reduce consumption. This result is exactly the opposite of what the respective governments and international organizations concerned are trying to achieve.

I think these controversial findings show the limits of a partial analysis which neglects all problems of income levels and redistribution of both land resources and revenues.