Book Reviews

Agricultural Price Analysis

Geoffrey Shepherd’s books on price analysis are well known. They are simple, down to earth, understandable, and practical. They show how to explain the changes that have occurred in agricultural prices in the past, how to predict changes in the future, and how to estimate the effects of new programs to support prices. The student who reads this book need not get lost in a maze of generalized, introspective abstractions. Rather, he should get a feel of how to analyze concrete statistics and to find out how the prices of hogs or potatoes actually do respond to changes in such things as supply and consumer income.

This is the fifth edition of Shepherd’s book. He says in the preface that it “includes a number of substantial changes and additions, to keep abreast of new concepts and techniques that are rapidly being developed in the field.” I find that much of the book is new, but it maintains its directness and simplicity, for which the previous editions are noted.

To my mind, some of the most interesting ideas and suggestions in this book are those dealing with deflation and with geographical price differentials. Among the fraternity of economists and statisticians, it has become customary to “deflate” prices and incomes by dividing them by some sort of index, commonly the CPI. Shepherd is right, I think, in criticizing such routine practices of deflation. In fact, I think there is a great deal too much routine in modern price analysis generally. Shepherd wisely keeps away from much of it by knowing the commodity markets he deals with, and by using graphic analysis, especially in the preliminary phases of the study. And he properly discusses in some detail how to make appropriate allowances for the effects of “the general price level.”

Economists and statisticians in this country have not paid much attention to geographical price differentials. They have typically worked with national aggregates and national averages. This covers up a multitude of interesting and important economic problems. Examples are the determination of milksheds, interregional competition, and the setting up of geographical differentials in loan rates by the Commodity Credit Corporation. Shepherd has done good work in this area. His chapter on geographical price surfaces is most interesting and suggests problems for further detailed analysis.

One can always find details to criticize in a book of this kind. I have never cared for the concept of “arc elasticity” to which Professor Shepherd devotes most of a chapter. If such a concept is used at all, I would think the statistician should take the smallest possible arc. Professor Shepherd takes the extreme opposite position. He indicates, for example, on page 54 that the arc elasticity should be measured between “two points at the ends of the line.” Further, he says, “It is the elasticity of the line as a whole that is to be measured.” If one has the whole line (that is, the whole demand curve) from the point where quantity is zero to the point where price is zero, the arc elasticity measured between the ends of the line will always be —1, regardless of the slope or shape of the line. Similarly, if the elasticity of a curve is —1/2 at every point, the arc elasticity will be between —1/2 and —1, and will approach —1 as the arc increases.

Chapter 10 is a good, well-balanced discussion of the relative merits of simultaneous equations vs. least squares. But I think that Shepherd’s defense of least-squares regressions in agricultural price analysis is unnecessarily weak. He, like many others, says that the so-called “least-squares bias” is small, and least-squares analysis is cheaper than simultaneous equations. I think too many statisticians have been taken in by the propaganda about “least-squares bias.” It is a well
established fact that a least-squares regression is an unbiased estimate of the dependent variable. For example, it gives unbiased estimates of expected prices associated with given, or assumed, values of marketings, consumer income, etc. Usually this is what the practical economist and statistician wants.

But these are minor differences of opinion. Shepherd’s fifth edition—like the previous four editions—is a good, well-written, interesting book on a difficult, but important, subject.

Frederick V. Waugh

Human Resources of Central America, Panama and Mexico, 1950–1980, in Relation to Some Aspects of Economic Development


The author states: “The major purpose of this study is to make a broad comparative survey of current and future trends in population, labor force and related socioeconomic conditions, as an aid to the programming of economic development in the countries of the region, and the implementation of Central American economic integration policy.”

The report consists of 6 chapters including text, 87 tables, 19 maps and figures plus a statistical appendix of 51 tables. The recent demographic situation is inventoried in terms of population density and composition and such items as social and cultural characteristics, education, and marital status. The distribution and growth rates of both rural and urban population are reviewed. The major determinants of future population trends, birth and death rates, are reviewed, and deficiencies in the basic data concerning these two factors are noted.

Low, medium, and high rates of population increase are assumed for projection purposes. For each rate, projections are made for each country by 5-year periods up to 1980, and are broken down by sex by age groups. Rural and urban projected populations are broken down by age groups but only for the medium rate.

Projections are made to give an indication of the probable labor force under certain conditions. Country projections (medium rate) by 5-year intervals to 1980 are made of the economically active labor force by agricultural and nonagricultural activities by sex. The projected labor force (medium and high rates) is also classified by sex by age groups. The 1950 labor force is broken down by sex within industry groups. Labor force participation rates are given by age and sex for 1950 and 1980. Replacement rates and ratios are presented by provinces and departments to show the excess male labor supply in the 1950–60 decade and to point out the urgency for creating job opportunities in the present and following decades.

Using the “medium” assumption of population increase as a base, rates of growth in real national product required to maintain levels of living by 1980 are projected.

Future school age population is projected and the attendant needs in the way of nutrition, recreation, housing, and health and educational facilities are mentioned.

The land requirements for a rapidly increasing farm labor supply are pointed out and attention is called to the fact that a large percentage of the present farmland is in relatively few hands. A brief reference to the land situation barely touches on one of the major problems of economic development, land reform. In addition to this problem many others related to economic development will come to the reader’s mind. The author has adhered closely to his stated objective and left related problems to the specialists and planners.

The author has accomplished a formidable task in bringing together demographic data for the area and presenting it in forms useful in economic planning. In common with many other types of data for underdeveloped countries, the basic demographic data have shortcomings, and these are acknowledged by the author. They detract from some of the analyses made, but the procedures demonstrated represent useful tools.

Granted that many of the projections are based on arbitrary assumptions, they do provide some valuable guidelines on future population trends. These may be used for points of departure by planners who may wish to refine and revise specific data for their own particular area of interest. They provide a valuable base which may be updated with 1960 census data and other material. Students and planners interested in Central America will find in this thought-provoking report both