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Book Reviews

Food Margins Analysis: Aims, Methods and Uses. Organization for Economic Co-operation and Development. Agricultural Products and Markets Series, Paris, 1981, pp. vi + 89. No price quoted.

Historically high inflation rates, changes in market structures and problems of agricultural policy over the past decade have stimulated interest in food marketing margins, or price spreads. In particular, the concept of “food policy” has gained currency, where an inter-related approach is taken to the whole range of activities involved in the production, marketing and consumption of food. Margins or spreads calculated for different functions assist in indicating the economic importance of these activities within the food system, and so contribute to more soundly based food policy proposals.

This volume summarizes an O.E.C.D. seminar on the topic of food margins analysis held in 1979. The main purpose of the seminar (as defined by the group) was to “. . . bring together the varied experience of participating countries in the estimation, analysis and use of food margin data” (p. 63).

The report is fairly short and contains only four chapters. Chapter 1 defines food margins, and outlines the general aims of food margin studies, the relevance of food margin data and analysis to policy issues and economic decisions, and some of the limitations of these types of studies. While considerable time is spent discussing the various ways in which margin data and analyses can be employed, the authors also stress the need for care in interpreting such data. In particular, they caution “. . . in itself, food margin information very rarely provides sufficient justification for making economic judgements, although it can be a valuable or necessary aid in doing so.”, and “. . . there is certainly no single ‘correct’ way of defining, measuring or presenting food margins.” (p. 6) — the appropriate method depends on the specific objectives of the project.

Chapter 2 discusses methods of estimating and analysing food margins, problems of data collection, and the presentation of margin data. The three main estimation methods are considered in detail: the *sectoral* approach (the study of food margins as part of the estimation and analysis of the social accounts of the national economy); the *functional* approach (the study of the various factors which influence the performance and development of firms involved in the different forms of economic activity); and the *product* approach (the study of factors determining the difference between the prices of equivalent quantities of a commodity at different levels of the marketing system). The particular problems of data collection and conversion are emphasised.

Chapter 3 illustrates how the guidelines developed in the previous chapters are reflected in empirical margin studies by presenting examples of such studies carried out in O.E.C.D. countries and international organizations. These studies provide a wealth of general information on the diversity of approaches employed and the ways the data are presented and interpreted. On-going data generation efforts are covered as well as specific, problem-oriented projects, and their advantages and disadvantages are indicated. U.K. and U.S. studies dominate, with Australian and New Zealand studies compressed into a couple of pages.

Chapter 4 summarizes the main conclusions. The principal theme seems to be that food prices are being increasingly regarded as specially important in regard to inflation, but that this view is based on subjective judgements rather than objective analysis. Thus, there is a need for research to concentrate on food price formation, particularly on explaining how and why changes in food prices and margins occur. Four possible future developments in food margin studies are then suggested (pp. 68–69):

- to provide regular margin data for the important food products, using reliable sources of prices and conversion ratios.
- to conduct *ad hoc* studies of certain marketing functions, as required, with the emphasis on explaining price formation and the nature of the competitive structure.
- to ensure that margin estimation and analysis are conducted in a way that is relevant to policy issues and decision-making, including quantitative analysis of margin data.
- to make margin information widely available while explaining carefully its relevance to issues of public concern.

As with most volumes in the O.E.C.D.'s *Agricultural Products and Markets* series, this report is very informative, up-to-date, with a broad coverage of the topic. The specific country examples provide an interesting cross-section of the reasons margin studies are concerned, the methods used, and the various ways of presenting margin data. There is a useful glossary of terms, appendices containing comparative margin data, and a bibliography of seventy-nine items by country including the twenty-four papers presented at the seminar.

My major concern is the lack of economic content. In spite of the emphasis on the need for margin studies to be relevant for decision-making and for recommendations to be based on objective, quantitative evaluation, there is nothing in the report on theoretical frameworks for generating hypotheses to be tested nor on the quantitative methods required for such testing. Even in the extensive bibliography, few of the articles cited emphasise theoretical and/or empirical models of food margin determination. Thus, the report would be very useful for market and commodity analysts engaged in the derivation and interpretation of food margins, but of only marginal relevance for economists interested in explaining the processes of food price formation.

Department of Agriculture, Sydney.

G. R. GRIFFITH.

Seeds of Plenty, Seeds of Want: Social and Economic Implications of the Green Revolution. Andrew Pearse. Oxford University Press, Oxford, 1980, pp. xi + 262. \$23.00

This book concerns the social and economic implications of the introduction of high yielding rice and wheat varieties in a number of African and Asian LDC's some 10 to 15 years ago. The book is largely based on a set of general and country-specific studies carried out or commissioned by the United Nations

Research Institute for Social Development during 1970 to 1974. The main objectives are: to identify the factors facilitating or obstructing the acquisition and use of a 'genetic-chemical technology'; to identify the economic and social changes that follow the large-scale introduction of the technology to be observed in the agrarian structure, in the level and quality of livelihood of the participants, and in the social structure of the rural society; and to assess the measures and programmes proposed and carried out by governments in order to manage to modify the processes set off by technological change.

The book is divided into three parts. Part I (Chapters 1 and 2) sets the scene by defining the new technology involved in developing the high yielding varieties and describing the circumstances surrounding the earlier introductions of similar innovative agricultural technology in Japan and Mexico. With this background, Part II (Chapters 3 to 8) examines a constellation of complex and inter-dependent socio-economic aspects of the introduction of the high yielding varieties in several Asian and African countries. Particular attention is devoted to describing main structural features of the prevailing rural economies in terms of land tenure, farm size, farm mechanisation and government apparatuses for promoting the new technology. It describes how certain factors have affected the realisation and distribution of the benefits of the new technology among rural people. This line of inquiry is further pursued in Part III (Chapters 9 to 13) which also emphasises the useful lessons which may be learnt from the introduction of the new agricultural technology in LDC's. Additionally, the author indicates some key policy suggestions which might enable greater exploitation of the potential benefits of technological advance.

The study pays particular attention to social, political and institutional factors which promote or frustrate the utilization of the new technology. It shows that benefits tend to accrue disproportionately more to the larger farmers; those who have "connections in right places" (especially within government) which enables them a better access to scarce inputs, farm credit and technical information. The author has coined a new term — 'talents-effect' — to describe this phenomenon (pp. 172-3) which, he states, is particularly virulent among the underdeveloped countries. Consequently, the benefits of a basically scale-neutral technology are distributed highly unevenly which gives rise to distortions and tensions in the peasant economies. The author also convincingly argues that the realisation of the benefits of the new technology and the distribution of the benefits were better in countries where improved infrastructures and institutional arrangements existed and were readily accessible to all farmer classes.

In conclusion, the book has succeeded in achieving its aims. It is likely to be of particular interest to those concerned with agricultural development in underdeveloped countries. A social scientist, non-conversant with the other sciences will gain appreciation of how the social, political, economic and institutional factors are intertwined and how the neglect of this interrelationship by policymakers can lead to less than full utilization of opportunities for economic development offered by new technologies.

A noticeable shortcoming of the book is that it makes little use of data and analyses which have appeared on this subject since the mid-1970's. Even so, the book is a welcome addition to the literature, although its price seems to be on the high side to this reviewer.

Bureau of Agricultural Economics, Canberra.

U. N. BHATI.

Sydney—A Social and Political Atlas. Michael Poulsen and Peter Spearritt. George Allen & Unwin, Sydney, 1981. pp. 163 + two transparent overlays, 77 maps, soft cover \$29.95 (£27.50 in U.K.).

A Computer-Plotted Microfiche Atlas: Agricultural and Pastoral Land Use: Victoria, Australia. 1977–78. Jack Massey, John Poliness, Ian Wardrop and Peter Kottek. Department of Geography, University of Melbourne. pp. iv + 39, 14 figures, 1 coloured microfiche (63 maps), 2 b&w microfiche (540 maps), 1 map key microfiche. \$13.50 (\$15 other countries).

Modern society is complex. The diversity and speed of today's events demand that government decisions should be based on the best information possible. To this end, the Australia Bureau of Statistics (ABS) — on behalf of Federal and State governments — employs some 3 500 people to gather a range of statistics for decision making. Regrettably, two vital aspects prevent our governments making more than minimal use of the Bureau's data.

The first is that Federal budgetary constraints necessarily affect the ABS, so that the information most vital to government decision makers is less likely to be available just when it will do the most good. Such constraints also prevent the establishment of new data series to aid our understanding of the developing complexity and productivity of our economy and to pinpoint the major problems of our growing population. Despite these restrictions, the ABS has been able to make an expanding range of data available to government and public decision makers in recent years, largely through increased use of computers.

Herein lies the second aspect which prevents full use being made of available statistics by our governments; raw data are not the stuff from which decisions are made. They must be suitably analysed and suitably presented to be meaningful to men of affairs. The present users of ABS data, whether in government or commercial circles, are singularly ill-equipped to analyse or display the information latent in the increasingly voluminous printouts and data tapes made available by the Bureau.

This failure to come to terms with the electronic information revolution of the seventies appears to typify the worst stereotypes both of the false economies of bureaucracies and of self opinionated politicians whose watchword is "we know what we want, don't confuse us with the facts". The two atlases reviewed highlight the failure of government agencies to use the available data. Their authors have, with limited facilities, analysed and presented a far greater coverage of statistics than is available from government sources. That the atlases are each confined to narrow sectors of available statistics serves to emphasise the wealth of information as yet inert.

Poulsen and Spearritt's atlas contains seventy-one black and white maps illustrating individual aspects of the 1976 Population Census. Each 275 by 375 mm map (scale 1:26000) is printed on a right hand page, facing a detailed explanatory commentary and tabulation of the illustrated variable for Federal and State electorates and local government areas. The electorates are delineated by transparent overlays. Data are mainly drawn from the ill-fated 1976 "census", the analysis of which was deliberately delayed for a year by the Australian

government, and which was finally based on a sample of half the data collected. Seventeen of the maps indicate changes in the trends of certain major variables over time, primarily between the 1971 and 1976 censuses.

Data for 4 581 Census Collectors Districts in the Sydney region have been aggregated into 3 054 mapped centroids. The level of each mapped variable is shown by one of six different computer plotted symbols representing up to 1, 1 to 2, or over 2 standard deviations either side of the mean (a denser symbol indicating a greater deviation above the mean, and vice versa). However, the full range of six symbols is used on only a third of the maps.

Because the majority of maps show absolute numbers, the results give a visual pattern which generally provides a satisfactory indication of the actual density of the item depicted. The authors have chosen the display as being more easily understood than choropleth maps (annoyingly, choropleth is spelt several ways). The result is certainly more distinct than the lineprinter isoline maps of Davis and Spearrits' previous atlas "Sydney at the Census: 1971". Nevertheless, where the centroids are more scattered—due to less dense settlement, to nucleated settlement, or to interposition of large non-settled areas — the interpretation become less clear.

The maps are grouped in ten sets, 'Income and Unemployment', 'Age and Sex', 'Dwellings', 'Education and Qualification', 'Occupation', 'Birthplace', 'Religion', 'Transport', 'Mobility', and 'Change 1971–76'. Overall they confirm the well known dispositions of Sydney's population: youthful western suburbs, affluent northern suburbs, and recent migrants in the central districts. The subtleties of detail will, however, keep regional economists, geographers, sociologists, planners—and politicians—interested for many years to come. Maps are not the only feature of this atlas. The individual commentaries are supplemented by a detailed twelve page historical overview of the factors contributing to Sydney's past growth, a background to social mapping, the political implications of the results, and the methods of data analysis, and map construction used for the atlas. A bibliography of some 270 references completes this very substantial work.

The atlas produced by Massey *et al* is unique in several ways. Others have mapped agricultural statistics. Many have used computers to do so. None have produced so many maps for dissemination at so low a cost. The 540 maps in this atlas are presented in black and white on two microfiche. An additional 63 maps have been reproduced in colour as a third fiche, and an index fiche completes the set. The maps show the agricultural situation of Victoria based on the 1977–78 Agricultural census. The data for each of 192 parish groups provide ratios which have been used as intensity indices for the individual choropleth maps. For each variable mapped, the ratios for the individual parish groups have been ranked and divided into quartiles, resulting in more than 100 000 individual parish group statistics being accounted for. Such a surfeit of data would be daunting if presented in tabular form. Presented as easily assimilated maps, the differences in agricultural activity between respective districts and regions are clear.

The accompanying commentary first outlines the contents of the agricultural census, and describes how to interpret the index fiche. Obviously, the major shortcoming of a microfiche atlas is the need to have an appropriate

viewer. An important deficiency of this atlas is the lack of a legend with the maps themselves (the legends are all in the index). The commentary also details the basis of collection of the agricultural census, the methods used to produce the information shown in the maps, and the techniques of producing the maps themselves. This is valuable information, for the correct interpretation of the maps demands an understanding of the methods by which the census data are obtained, the way the questions are asked of individuals, and the manner in which the results are made available to the public as aggregates of many individual returns. Similarly, the methods of producing "instant" choropleth maps with computers is understood by few. Dr Massey's outline is a valuable summary of what will undoubtedly become a more commonplace routine amongst people dealing with spatially orientated data.

Dr Massey closes his commentary with sentiments expressed by Poulsen and Spearritt, and doubtless echoed by many others throughout industry and the public service; teachers, planners, policy makers and entrepreneurs alike. The collection of data is of itself only half the task.

The vast bulk of the information latent in our public statistics goes largely unused because Governments fail to tackle the necessary tasks of analysis and presentation. Until they do the job properly we will have to rely on these authors, and others like them, to give us a glimmer of the wealth of understanding that lies within our grasp.

Department of Agriculture, Maitland.

CYRIL CATT.